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*Inaugural address at the Annual Conference of RBI Ombudsman**

Shaktikanta Das

We are holding this conference of the Reserve Bank of India Ombudsmen on a very important day, namely, the World Consumer Day. This event underscores our unwavering dedication to the well-being of the consumer in the financial sector. As custodians of the financial system – whether as a regulator or regulated entities such as banks, NBFCs or other financial institutions – our success hinges not only on promoting the resilience of the system, but also significantly on the value we bring to the lives of our citizens, who form the core of the financial ecosystem. Protection of consumer interest is one of the core guiding principles of the Reserve Bank's policies and actions. I take it that similar is the case with the regulated entities of the Reserve Bank also.

In this context, it has to be recognised that fair treatment of customers and effective grievance redress mechanism are the two important components of consumer protection. Fair treatment of customers would mean fair pricing of products and services, putting in place systems and procedures for transparency in dealing with customers and avoidance of mis-selling. Prioritising fair treatment and effective grievance redress mechanism would enhance public trust in the financial system as well as in individual entities. This in turn, would contribute to the long term success of individual entities and promote financial inclusion. Our endeavor in the Reserve Bank has been to include these principles in the various regulatory measures[1] being undertaken from time to time.

Let me now elaborate on the Reserve Bank's overall approach in dealing with issues related to consumer protection and its expectations from the regulated entities.

(i) Fostering a culture of Consumer Centricity and commitment to consumer protection

As part of the Reserve Bank's continuing engagement with regulated entities, it has been emphasised that the focus of the top management of regulated entities should be on nurturing a customer-centric approach and commitment to consumer protection. Regulations only provide a framework within which financial institutions operate, but the effectiveness of the regulations ultimately depends upon how they are actually implemented by the regulated entities. As the Indian economy is expanding, the customer base of the regulated entities is also widening. As stakeholders of the financial ecosystem, it is imperative that the growing customer base is offered fair and sustainable products and services. The increasing range and complexity of financial products and services can act as a barrier to comprehension and decision-making by consumers. Clear, transparent, and consistent communication regarding products, services, follow-ups, service charges, *etc.* are, therefore, very essential for establishing trust and fostering enduring customer relationships.

(ii) Effective Grievance Redress

The litmus test of the working of any institution or entity is the efficacy of its grievance redress mechanism. Fragmentation and inefficiency in grievance redress mechanisms can hinder timely

* Inaugural address by Shri Shaktikanta Das, Governor, RBI at the Annual Conference of RBI Ombudsman, March 15, 2024, Mumbai.

[1] These include the framework for Digital Lending; revised regulatory framework for Micro Finance Loans; the Reserve Bank - Integrated Ombudsman Scheme, 2021; Internal Ombudsman Framework in Regulated Entities, *etc.*

resolution of consumer complaints. Multiple layers and lengthy resolution processes should, therefore, be avoided.

As you would be aware, the Reserve Bank-Integrated Ombudsman Scheme (RB-IOS, 2021) brought in several structural changes[2] in the operations of the Ombudsman scheme. Under the RB-IOS scheme, 2.34 lakh grievances were received during the first full year of its operation (2022-23), followed by 2.68 lakh grievances in the current financial year (2023-24) so far. The disposal rate in both the years has been about 98%. The average turnaround time for closure across all categories of complaints has come down to 33 days for 2022-23 from 57 days prior to the introduction of the new scheme.

Our analysis of the grievances received at the offices of the RBI ombudsman reveal certain gaps in the systems and procedures in the regulated entities. We have brought such deficiencies to the notice of the individual banks and NBFCs. Our effort is to work with the regulated entities and rectify such deficiencies.

The Reserve Bank has also put in place an Internal Ombudsman (IO) Mechanism[3] in regulated entities to strengthen their internal grievance redress mechanism. The functioning of IO mechanism, however, needs considerable improvement. It has been observed that on a number of occasions, IOs tend to endorse the decision of the regulated entities mechanically. In several cases, rejected complaints are not being referred to IO. The very foundation of an internal dispute resolution system relies on its capacity to provide fair, impartial and judicious adjudication, and the observed trend raises concerns about the robustness of the existing framework. I would urge all of you to ensure the overall integrity and efficacy of the internal grievance redress mechanism.

Further, regulated entities must comprehend that they are the first touch points in the overall grievance redress framework. Re-directing the aggrieved to the alternate grievance machinery of the RBI ombudsman is not desirable. As I can see from some of the complaints that land at my desk, many of the cases are such that they should have been resolved at the level of the regulated entities.

(iii) Data Analysis for Improving quality of Services

Regulated Entities serve as repositories of data on financial transactions, customer interactions, and operational activities. Within this extensive repository lies a unique opportunity to enhance customer service through robust data analysis. By harnessing the power of data analytics, regulated entities can proactively anticipate customer needs, address issues promptly, and streamline processes. A data-driven approach would not only optimise operational efficiency but also reinforce the commitment to providing exemplary customer service.

With the rise in fraudulent transactions, it is critical to strengthen monitoring systems and use technology to detect potential frauds before they materialise. Maintaining a focus on root cause analysis of consumer grievances can result in preventing such complaints to come up repeatedly. With the advent of Artificial Intelligence (AI), cybersecurity challenges can rise manifold. They can expose consumers to identity theft, fraud, and unauthorised access to personal information which can affect consumer trust. Financial Institutions must dedicate substantial efforts to protect customer information and ensure

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[2] These changes include: one nation one ombudsman approach – this removed the territorial jurisdiction of the offices of the RBI Ombudsman; provided convenience to customers as well as improved efficiency. This, along with the integration of the erstwhile three schemes simplified the process for lodging of grievances by the customers. A centralised portal (CMS) was introduced for filing of complaints against regulated entities. Moreover, the grounds of filing complaints were done away and customers could file complaints in respect of any deficiency in service. Non-Scheduled Urban Cooperative Banks having deposits size of ₹50 crore and above; and Credit Information Companies were also brought under the RB-IOS scheme.

[3] Internal Ombudsman for Regulated Entities.

that vulnerabilities exposing customers to risk are promptly identified and addressed.

(iv) Consumer Education and Awareness

A financially aware and vigilant consumer is best placed to handle threats such as phishing, phone scams, deepfakes and more. Lack of proper understanding can impede consumers' ability to navigate the financial landscape effectively, leaving them vulnerable to exploitation or fraud. While we have made good progress in our objective of enhancing consumer awareness, there is considerable scope for further deepening consumer awareness and financial literacy activities, particularly among the marginalised, less savvy and rural communities. All the stakeholders need to refocus themselves in this direction.

Recognising that consumer education is essential for their protection, the Reserve Bank also undertakes various public awareness campaigns in the mainstream and social media. The 'RBI Kehta Hai' or 'RBI Says' campaigns featuring our mascots Money Kumar and Ms. Money, are efforts to take consumer awareness messages to the people. I wish to acknowledge the good work done by the RBI ombudsman team and the Consumer Education and Protection Department (CEPD) in preparing booklets such as 'Be(A)ware' (March 2022) and Raju and the forty thieves (Dec 2022) which have become immensely popular, particularly among schoolchildren and students. Continuing our endeavour in this direction, today we are releasing another booklet 'Alert Family' which depicts the increased level of awareness of the character 'Raju', his family and friends in a pictorial form. The booklet will provide guidance to the members of the public on financial frauds and dispel common misconceptions while availing various banking services and facilities.

(V) Capacity Building within Regulated Entities

I would like to emphasise that the effectiveness of customer service functions in regulated entities ultimately relies on the dedication and performance of each individual staff member. I appreciate the hard work and commitment displayed by the officers and staff of the regulated entities to improve the speed and quality of customer service. Nonetheless, it is essential that comprehensive training programmes are organised for employees at all levels from time to time. It has to be ensured that officers and staff are fully conversant with the products and services and the related rules and guidelines. Good practices within the organisation need to be encouraged and possibly rewarded. This can serve as a catalyst for a positive shift in overall approach to grievance redress mechanism.

(vi) Futuristic approach to consumer protection

Currently Artificial Intelligence (AI) capabilities are being utilised for complementing customer service through personalised interaction, chatbots and virtual assistants tailored to specific products. Its deployment in prevention of frauds, identity verification, vulnerability mitigation and data protection are, however, at nascent stages. Technology, combined with behavioural analysis, can go a long way in analysing exceptions to consumer behaviour like transactions during odd hours, transactions against usual patterns, unauthorised beneficiary additions, *etc.* Analysing such factors can help in understanding and preventing frauds.

On the flip side, utilisation of such technologies without appropriate safeguards may lead to compromise of customer data. The possible issues that may arise include invasion of privacy or subtle manipulations based on consumer profiling to nudge him into certain services that may not be the right fit. Appropriate safeguards need to be put in place in this regard.

Role of RBI Ombudsmen

I would now like to dwell upon the mechanism of the alternate grievance redress at the Reserve Bank and the role of the RBI Ombudsman.

Under the Integrated Ombudsman Scheme, the Ombudsman has been entrusted with the responsibility of upholding the trust of ordinary citizens. The RBI Ombudsman is expected to provide independent and impartial avenue to citizens for their unresolved grievances. They have the power to facilitate delivery of fair redress of customers' grievances.

There have been significant improvements in the implementation of the integrated Ombudsman framework of the Reserve Bank after the launch of RB-IOS, 2021. Recently, an ombudsman office was opened in Shimla (March, 2023) and two additional offices were set up in Chennai (April 2023) and Kolkata (June 2023). As part of our endeavour to further enhance customer convenience, the Contact Centre (with the phone number 14448)[4] has been upgraded recently and two new contact centres have started functioning in Bhubaneshwar and Kochi.

I appreciate the proactive role played by the RBI Ombudsmen in quick disposal of complaints as well as analysing the root causes of the complaints. The real challenge is to ensure both quantity and quality of disposal of complaints. The Ombudsman offices must continuously work towards further improvement in the processes to address growing volume of complaints and ensuring consistent decisions across complainants and entities. The system should further evolve to enhance quality of outcomes based on the cumulative experience gained. We have reiterated to the Ombudsmen to ensure that the principles of natural justice are followed meticulously, various all aspects of the issue at hand are examined comprehensively, and all sides involved in the dispute are provided an opportunity of being heard. Further, reasoned orders are fundamental to maintaining trust in the institution of the Ombudsman. The Ombudsman decision-making rationale must be effectively communicated to the complainant, ensuring transparency and understanding. Orders should be so drafted that once the decision is rendered and communicated, both parties should perceive the treatment as fair and equitable. I hasten to add that these principles should be adhered to by all authorities, be it in the Reserve Bank or the regulated entities.

Way forward

The Reserve Bank has set up a working group under the chairmanship of Shri Anil Kumar Misra, former Executive Director, RBI for reviewing the functioning of RB-IOS and suggest measures for further enhancing the efficacy of this mechanism. The Working Group is expected to submit its report by April 2024.

Let me conclude by stating that the Reserve Bank's Ombudsman mechanism is focussed on providing independent, fair and impartial redress of grievances of customers. As the system continues to evolve, it should draw on accumulated experience to enhance the quality of outcomes. Ombudsman offices should adapt and evolve their processes to handle the increasing volume of complaints, while ensuring consistency in their decisions. While the Offices of Ombudsman need to intensify data analytics and use of technology for streamlining the internal processes, adoption of similar approach by the regulated entities is crucial for upholding public trust. There is also a need for further strengthening the internal grievance redress systems including the internal ombudsman framework in the regulated entities.

I wish the conference all success.

Thank you.

*Address by Governor, Reserve Bank of India at the Digital Payments Awareness Week Celebrations**

Shaktikanta Das

It gives me immense pleasure to be here to celebrate the Digital Payments Awareness Week organised by the Reserve Bank of India. Over the years, we have not only navigated through the fast-evolving technological innovations but also played a pivotal role, as a catalyst, in developing one of the most modern payment systems in the world, be they large value, retail or fast payments. This has been made possible by nurturing diverse payment systems in the country, namely, the bill payments, merchant payments, vendor payments, transit payments, or recurring payments.

We have seen retail digital payments in India growing from 162 crore transactions in FY2012-13 to over 14,726 crore transactions in 2023-24 (till February 2024) *i.e.*, approximately 90-fold increase over 12 years. Today, India accounts for nearly 46% of the world's digital transactions (as per 2022 data)[1]. The extraordinary growth in digital payments is also evident in the Reserve Bank's Digital Payment Index, which has witnessed a four-fold rise in the last five years.

The flagship of our payment systems, the 'UPI', has become the most talked about fast payment system not only in India but across the world. It is the biggest contributor to the growth of digital payments in India. The share of UPI in digital payments has reached close to 80 per cent in 2023. At a macro level, the volume of UPI transactions increased from 43 crore in CY-2017 to 11,761 crore in CY-2023. Apart from being a user-friendly interface and facilitating QR code-based payments, the UPI has evolved to include advanced functionalities such as offline payments through near field communication (NFC) technology (UPI Lite X), payments through feature phones (UPI 123Pay), AI based conversational payments (hello! UPI), *etc.*

It is also worth noting that progressively it has taken less time for reaching tipping point of next 1000 crore transactions in UPI. While reaching the first 1000 crore UPI P2M transactions, it took 1668 days (~4.56 years), the latest 1000 crore transactions took just 45 days. Similarly, for UPI P2P transactions, while reaching the first 1000 crore UPI P2P transactions took 1329 days (~3.63 years), the latest 1000 crore transactions took 65 days or just over two months[2]. The recent progress of the UPI has thus been enormous. Currently, UPI is processing close to 42 crore transactions in a day.

There is, however, considerable scope for expanding the use of digital payments in India. Last year, we had embarked on a mission to make every person in India a user of digital payments - "Har Payment Digital". It was aimed at reinforcing the ease and convenience of digital payments and thereby facilitate onboarding of new consumers into the digital fold. Since the start of the mission in March 2023, the number of new UPI users added has been 6.65 crore between March 1, 2023 to January 31, 2024. The Reserve Bank's Payments Infrastructure Development Fund (PIDF) has also further aided this growth, with additional deployment of over 1.2 crore digital payment touch points.

Trust in digital payments is built on the pillars of transparency, ease of use and above all, security. Hence, reinforcing the notion of safety and security of the system is very important. With today's message of – "Digital Payment, Safe Payment" – "Digital Payment, Surakshit Payment", we are aiming to create awareness around safety and security of Digital Payments. The

* March 4, 2024, RBI, Mumbai

1 https://pib.gov.in/PressReleasePage.aspx?PRID=1973082

2 Data analysed till December 31, 2023

goal is to reach out and empower every individual with the knowledge and tools necessary to navigate this digital payments landscape with confidence and ease.

Currently, the Reserve Bank, through its regional offices, conducts Electronic Banking Awareness and Training (e-BAAT) programmes across the country. The main thrust of e-BAAT programme comprises of:

i. Awareness about Digital Payment Products;

ii. Awareness about Frauds and Risk Mitigation; and

iii. Awareness about redress of grievances.

In addition, the Reserve Bank conducts 360-degree, multimedia and platform based public awareness campaigns under the tag of 'RBI Says' or 'RBI Kehta Hai'. Going forward, all the regional offices of the Reserve Bank will start regional campaigns to develop marketplaces like vegetable markets / mandis and public transport infrastructure like auto/ taxi drivers as digitally enabled clusters in their chosen areas.

Historically, the Reserve Bank has been a trendsetter in ensuring security of digital payment transactions. We were one of the first countries to fully adopt additional factor of authentication (AFA). Since then a host of measures such as EMV[3] Chip and PIN based cards; transaction alerts; facility to switch on and off and set or modify transaction limits for all types of transactions; tokenisation of cards; restrictions on storage of actual card data; localisation of payments data *etc.*, have been implemented to enhance the security of digital payments.

All operators and participants of authorised payment systems are required to do time-bound resolution of failed transactions. Failure to do so may lead to payment of compensation to the users. Similarly, we have also implemented a web-based payment-related fraud reporting solution - Central Payments Fraud Information Registry (CPFIR) for reporting[4] of all payments related frauds.

Internet Banking is one of the oldest modes for online merchant payment transactions. It is a preferred channel for payments like income tax, insurance premium, mutual fund payments, e-commerce, *etc.* At present, such transactions processed through Payment Aggregators (PAs) are not interoperable, *i.e.*, a bank is required to separately integrate with each PA of different online merchants. As a result, if a customer wants to make payment from his bank account to a certain merchant, the merchant's PA and customer's bank must have an arrangement. Given the multiple number of payment aggregators, it is difficult for each bank to integrate with each PA. Further, due to lack of a payment system and a set of rules for these transactions, there are delays in actual receipt of payments by merchants and settlement risks.

Keeping in view these bottlenecks, in our Payments Vision 2025, we had envisaged an interoperable payment system for internet banking transactions. In pursuance of this objective, we have given approval for implementing such an interoperable system to NPCI Bharat BillPay Ltd (NBBL). We expect the launch of this interoperable payment system for internet banking during the current calendar year. The new system will facilitate quicker settlement of funds for merchants.

This measure will further boost the user confidence in Digital Payments. As a regulator, we are committed to play our part in India's journey in digital payments. I urge all stakeholders like industry, payment system operators, media, digital payment users, and others to take up the responsibility of fulfilling the mission of 'Har Payment Digital'. It is a mission not just for the Reserve Bank but for the entire country.

Thank You, Namaskar

[3] EMV is short for Europay, Mastercard and Visa: the three companies that created the EMV standard.

[4] All payment-related frauds either reported by the customer to the issuer banks / non-bank Prepaid Payment Instrument (PPI) issuers / non-bank Credit Card issuers [together termed as Regulated Entities (REs)] or detected by the REs themselves, are required to be reported to the CPFIR.

*The Relevance of SEACEN in a Turbulent World**

Michael Debabrata Patra

Honourable Governors, Deputy Governors, Managing Directors, delegations from SEACEN central banks, distinguished experts, and panellists, Dr. Mangal Goswami and the SEACEN team, and my colleagues from the Reserve Bank of India.

I join previous speakers in expressing my gratitude to you all for your participation in the rousing discussions that took place today. As this conference draws to a close, I note with great satisfaction the richness and depth of the insights provided in keynote and special addresses, and in the panel discussions about the global economic outlook; the lessons learnt from the fight against the recent worldwide surge in inflation; the financial stability implications of monetary policy actions; and financial inclusion and the role of digital public infrastructure. We live in challenging times, with divergent pathways characterising our jurisdictions, but our common commitment to macroeconomic and financial stability will shine light on the way ahead.

There is broad consensus that the centre of gravity of the global economic order is moving eastwards to Asia. The January 2024 update of the IMF's World Economic Outlook upgrades the outlook for Asia's growth relative to its October 2023 projections, rendering it the fastest growing region of the world[1]. This growth performance is expected to be underpinned by the resilience of domestic drivers. Overall, Asia will likely contribute about two-thirds of global growth in 2024, a carryover of its blockbuster performance in 2023. Another noteworthy development is that disinflation is expected to remain on track in Asia and convergence with central bank targets is being sighted. Thus, the outlook for Asia in a stormy and unsettled global environment is one of sustained growth with stability.

Within Asia, the group of nations served by SEACEN will likely be its main engine of progress. This presents exciting opportunities as well as trials and tribulations. According to a recent Suara SEACEN blog, the challenges that our central banking community has flagged are changing workforce demographics, the rise of financial products and services beyond the conventional definition of banking, digitalisation, climate change, talent shortages and persistent supply shocks, apart from the pandemic and the recent inflation experience[2]. It is in this context that SEACEN assumes importance as a supra-national public good committed to building capacity and fostering networking and collaboration in our region. Emboldened by its contributions, I would like to focus on the economic transformation of the economies that have constituted the SEACEN as the theme of my address.

Some Stylised Facts

The countries comprising the membership of SEACEN are home to 45 per cent of the world's population. The share of SEACEN economies in the world economy – measured by the ratio of their combined gross domestic product (GDP) to global output - has risen from 9 per cent at the turn of the century to 27 per cent in 2023. In terms of purchasing power parity (PPP), SEACEN members account for more than a third of global GDP. In terms of per capita GDP at current prices, member countries range from

* Closing remarks by Michael Debabrata Patra, Deputy Governor, Reserve Bank of India (RBI) at the 59th SEACEN Governors' Conference on February 15, 2024 at Mumbai. Valuable comments received from Samir Ranjan Behera, Suvendu Pati, Dhirendra Gajbhiye, Rajat Malik, Saurabh Gangwal and Gunjeet Kaur, and editorial help from Vineet Kumar Srivastava are gratefully acknowledged.

1 https://www.imf.org/en/Publications/WEO/Issues/2024/01/30/world-economic-outlook-update-january-2024

2 Future Proofing Central banks through Leadership Practices, posted on December 14, 2023 by Donna Lumbo.

lower-middle income to high income categories, but a common characteristic is that they are high saving economies barring a few outliers[3]. On a PPP-weighted basis, the average saving rate of SEACEN economies is estimated at 37 per cent of combined GDP, and the weighted average investment rate is estimated at 36 per cent. While bearing out the existence of the Feldstein–Horioka puzzle[4], this is also indicative of the predominant role of domestic resources in driving investment and growth in the region[5].

The SEACEN group of countries is also a power house of international trade. It accounted for 31 per cent of world exports of merchandise in 2022 according to the World Trade Organisation (WTO), attesting to its international competitiveness and its central position in global supply chains. The SEACEN group also absorbs 28 per cent of world imports of merchandise, thereby underscoring the vital role it plays in boosting net global demand.

According to the United Nations, the SEACEN group region is expanding its footprint in the frontline area of digital trade, estimated at US$ 3.9 trillion globally in 2022. Although information on digital trade for each of the member countries of the SEACEN is not uniformly available, it is noteworthy that the Asia-Pacific region exported digitally deliverable services valued at US$ 958 billion, representing 52 per cent of the region's total services exports[6]. In fact, the digital landscape in each of our economies has swelled in recent years, encompassing an array of innovations from manufacturing automation to e-commerce platforms, all the way to digital payments. Asia has led the installation of industrial robots in recent years, spearheaded by members of the SEACEN.

There are notable differences among the SEACEN member economies too. Illustratively, gross general government debt to GDP ratios range widely between 2 and 168 per cent, pointing to high variations in fiscal stances, although the median ratio at 58 per cent compares favourably with that of advanced (112.7 per cent) as well as emerging market and middle-income economies (68.6 per cent)[7]. Similarly, external current account balances range widely from deficits of above 10 per cent of GDP to surpluses of close to 17 per cent[8].

The region is also a preferred habitat for international financial flows to which I shall come back shortly. Positive growth differentials *vis-à-vis* the rest of the world, deep and vibrant financial markets and reasonable stability in financial asset prices contribute to the relative attractiveness of these economies in drawing capital flows. On the other hand, global spillovers from geopolitical developments, geoeconomic fragmentation and the tightening of financial conditions as a result of the aggressive and synchronised monetary policy tightening worldwide have imposed downward pressures on currencies in the region, resulting in widening of risk spreads and reversals of portfolio equity and debt flows.

These stylised aspects of economic performance reflect the growing economic heft of the SEACEN configuration and the locomotive of global growth it is shaping up to become in the medium-term. Against this backdrop, I will now turn to a few areas that have engaged policy attention among SEACEN central banks in the recent period as seen through the lens of valuable research undertaken at the SEACEN centre.

Managing Capital Flows

Right from the establishment of the centre, SEACEN member central banks have expressed an

3 Cambodia; Papua New Guinea.

4 Feldstein, Martin; Horioka, Charles (1980), "Domestic Saving and International Capital Flows", Economic Journal, 90 (358): 314–329.

5 Data are drawn from the IMF's World Economic Outlook Database, October 2023.

6 "Unleashing Digital Trade and Investment for Sustainable Development", Asia-Pacific Trade and Investment Report 2023/24, December 2023.

7 https://www.imf.org/external/datamapper/GGXWDG_NGDP@WEO/OEMDC/ADVEC/WEOWORLD

8 IMF's WEO Database, October 2023.

abiding interest in the management of volatile capital flows, especially in mitigating risks to price and financial stability. SEACEN central banks' successes in addressing these challenges are now helping to forge a new consensus on appropriate risk analyses, policy instruments and frameworks as well as proactive policy responses.

A recent book publication by the SEACEN Centre reveals interesting insights into this experience[9]. Capital inflows to SEACEN member economies have more than doubled from an average of around US$400 billion in 2000-2010 to over US$900 billion in 2011-2021. Multinational enterprises (MNEs) have been prime movers in the form of within-company credits reflected in FDI debt flows, trade credits and cross-border bank deposits. The banking sector, the second largest recipient of capital flows, is facing rising competition from non-bank financial institutions (NBFIs) in cross border financial intermediation. The period 2011 to 2021 also witnessed the significant rise of non-resident bond issuances mostly by the public sector, marking a move towards market-based finance. The volatility of capital inflows into SEACEN economies declined between 2000-2010 and 2011-2021; however, the variability of portfolio equity and trade credit and advances flows rose.

These evolving patterns highlight shifts in drivers and sectors and hence the need for varied responses. Generally, SEACEN economies have loosened capital flow measures (CFMs) while macroprudential measures (MPMs) were mostly tightened.

Monetary Policy and the Cost of Disinflation

The conduct of monetary policy has been a subject of animated interest in the SEACEN Centre and its membership, igniting a proliferation of work on the theme. In 2022, the interest rate cycle turned after several years of global accommodation and aggressive rate increases occurred in response to the sharp and persistent rise in headline inflation. The aim was also to prevent potential second round effects – most notably the wage-price spiral - and from a SEACEN members' perspective, to stem possible capital outflows due to the unparalleled increase in US interest rates. During 2022 and 2023, most Asian economies reported higher than envisaged inflation rates. A February 2023 Bangko Sentral ng Pilipinas survey indicated that private households expected inflation to edge up towards the upper limit of its inflation target[10]. In response, practically all central banks in the region raised main refinancing rates, leading to tighter financial conditions. Estimates at that time pointed to subdued GDP growth forecasts, down from 5.5 per cent in 2022 to 4. 7 per cent in 2023[11].

A working paper from the SEACEN centre provides estimates of the sacrifice ratio – the loss of output to achieve a reduction in inflation by one percentage point – for select SEACEN member countries[12]. For the region as a whole, it estimates with several caveats that the cost of a one percentage point reduction in headline inflation is between zero and 0.5 per cent of GDP. The extent of contraction in output was found to diverge widely across the membership. A factor potentially affecting monetary policies of member central banks was identified as the stance of US monetary policy.

Central Bank Digital Currencies

The growing interest in digital forms of payments worldwide has led SEACEN central banks to explore the possibilities of central bank digital currency (CBDC).

9 "Challenges and Options in Managing Capital Flows for Small, Open, and Financially Integrated Economies" (2023), The South East Asian Central Banks (SEACEN) Research and Training Centre.

10 Bangko Sentral ng Pilipinas. (2023). Business Expectations Survey. 2nd Quarter 2023.

11 Asian Development Bank. (2022). Asian Development Outlook Supplement. December.

12 Dierks., L. H. (2023): "Inflation, Monetary Policy and the Sacrifice Ratio: The Case of Southeast Asia", SEACEN Working Paper 01/2023.

Although still in various stages of experimentation in different member countries, the central tendency seems to be a CBDC design under a two-tier hierarchical structure implemented by using public-key cryptography, with the central bank as the root certificate authority for generating digital signatures, and other financial institutions as intermediate certificate authorities. An important design feature is the capability to create secure point-to-point online payments through the use of authorised hardware. The overarching goal for developing CBDC as digital cash among the SEACEN central banks appears to be to create a resilient payment system for consumers and businesses to transact in any situation.

SEACEN central banks are actively coordinating their efforts to develop CBDCs, with near real time exchanges of information on progress. Bank Indonesia is pushing ahead with trials of the digital Rupiah for wholesale interbank settlement. The BIS led Project Dunbar involving the Central Bank of Malaysia and the Monetary Authority of Singapore, has developed two prototypes for a shared platform that could enable international settlements using digital currencies issued by multiple central banks. Bangko Sentral ng Pilipinas (BSP) announced in September 2023 that it will use the Hyperledger Fabric blockchain for its first wholesale CBDC trials under Project Agila. Singapore has started Project Ubin which is aimed at solving challenges faced by the financial industry and the blockchain ecosystem. In Sri Lanka, the central bank is working on a proof of concept for its board before proceeding to a pilot. Thailand's Project Inthanon aims to explore the potential of CBDC for interbank settlements. South Korea will start a pilot for a CBDC involving 100,000 citizens in 2024. Cambodia launched Project Bakong, a blockchain-powered retail payments system that allows interoperability among the different players in the country's payments landscape by using a tokenized deposit system. Hong Kong's pilot, which involves 16 banks and payment companies, tested six potential uses of the e-HKD. India is conducting pilots in both retail and wholesale segments. Myanmar, Lao PDR, Nepal and Vietnam are in various stages of research.

Big Data Applications

To quote Dr. Mangal Goswami in his eloquent foreword to the survey on Big Data Applications in Monetary Policy and Financial Stability for SEACEN Member Economies: The Case of Indonesia[13] as part of the SEACEN centre's research project, the use of big data and the associated data analytical techniques is inexorably moving forward in central banking, including in many SEACEN member central banks and monetary authorities. Asian central banks, he pointed out, are some of the most enthusiastic adopters of big data and the associated analytical toolkit such as natural language processing, nowcasting/monitoring exercises and applications to extract economy insights as well as suptech/regtech solutions.

Machine learning has also been used extensively in Asia for research purposes to inform monetary policy decisions, facilitate data management and support regulatory supervision. Dr. Goswami does well to cite the challenges that come along with the analytical opportunities of big data, namely, data management and governance, high upfront costs, legal issues around privacy, the adequacy of the IT infrastructure and most importantly, the necessary human capital. Moreover, big data creation has migrated from the public sector to the private sector, bring in issues relating to data sharing and communication challenges.

According to the 2020 Irving Fisher Committee on Central Bank Statistics survey[14,15] to which most

13 Bank Indonesia. (2023): ''Big Data Applications in Monetary Policy and Financial Stability for SEACEN Member Economies: The Case of Bank Indonesia'', SEACEN, July.

14 Bank for International Settlement (2021). Irving Fischer Committee on Central Bank Statistics: 2020 IFC Annual Report. January.

15 Cornelli, G; Doerr, S; Gambacorta, L & Tissot, B (2022): ''Big Data in Asian Central Banks''. Bank for International Settlements. IFC Working Papers. No 21. February.

of SEACEN members contribute, the share of central banks and supervisory authorities adopting big data and machine learning has risen to 86 per cent in Asia, involving nowcasting exercises, applications to granular financial data, and suptech/regtech applications. The survey cites the computation of the economic policy uncertainty (EPU) indices in India. Other applications in Asian central banks include using text analysis to: i) evaluate monetary policy credibility; ii) ensure consistency in central banks' communication of supervisory issues to financial institutions; iii) improve efficiency in the compilation of statistics; iv) assess the state of the labor market or of trade conditions; v) extract information on tourism activities; and vi) capture firms' sentiment or evaluate employees' feedback. Another important area relates to fraud detection - one third of surveyed Asian central banks deploy big data algorithms for anti-money laundering/combating the financing of terrorism (AML/CFT) purposes.

Climate Change

Climate change poses a common and potentially overwhelming macro-financial risk for all SEACEN member countries. The alarming rise in the incidence and intensity of extreme weather events in our region in recent years relative to the historical record is causing large agricultural losses, threats to transport infrastructure, risks to manufacturing supply chains, tourism and exports and translating into credit risks for banks as well as tightening of financial conditions.

For instance, the results of a structural vector autoregression panel analysis conducted in 2022 at a SEACEN Centre-National Bank of Cambodia-IMF STI seminar[16] estimates that risk premium on account of climate vulnerability in sovereign bond yields in the south East Asian region is as much as 155 basis points as compared with 113 basis points for other EMEs (other than high risk ones). Impulse responses show that bond yields rise in response to a climate shock and the shock becomes permanent after 12 quarters.

Conclusion

56 years ago, Gunnar Myrdal, winner of the Nobel prize for economics in 1974, made a Malthusian prophecy of stunted economic growth in **Asia in his magnum opus Asian Drama: An Inquiry into the Poverty of Nations**. In his words: "…countries are in constant danger of not being able to lift themselves out of stagnation or even of losing ground as far as average income levels are concerned."[17]

The preface of the Asian drama starts with the words habent sua fata libelli - books have their own destiny; but as Asia has shown, economic development too has a life and rhythm of its own. Over the last three decades and looking ahead, the dramatic rise of Asia has proved Asian Drama wrong. Macroeconomic performance of the region is standing out in a world that is expected to experience its slowest growth in three decades, according to the World Bank. The membership of SEACEN is at the forefront of this transformation and their central banks are leading the way forward.

Thank you for your patience.

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[16] Details of the seminar are accessible at: https://www.imf.org/en/News/Seminars/Conferences/2022/12/01/120522-seacen-imf-sti-high-level-seminar-on-policy-challenges-and-peer-learning-event-on-climate

[17] Myrdal, Gunnar (1968). Asian Drama: An Inquiry into the Poverty of Nations''. New York: Twentieth Century Fund Study, Pantheon.

*Credible Communication – Perspective and Thoughts**

M. Rajeshwar Rao

Dr. P.G. Sankaran, Vice Chancellor, CUSAT; Dr. Jagathy Raj, Director, School of Management Studies; faculty members, students, ladies, and gentlemen,

At the outset, let me thank Dr. Jagathy Raj for inviting to deliver this memorial lecture in the memory of Dr. M.V. Pylee. I cherish this gesture from my *alma mater* to deliver this talk and it is indeed an honour and privilege to do so. Padma Bhushan Dr. M. V. Pylee was a distinguished figure in the field of management and administration who enriched the field of management education in not only Kerala but across the country with his scholarly work. He made significant contributions to the society through his thought leadership and academic endeavour and with his enduring legacy. Dr. Pylee's leadership as a Management Guru and as the Director of the School of Management Studies, CUSAT, contributed significantly to the development of management education in Kerala. His vision and guidance helped establish several institutions as centers of excellence in management studies. Unfortunately, I did not have an opportunity to directly interact with Dr. Pylee as he demitted office of Director before I joined SMS, but I have benefitted from his ideals and vision, having completed my MBA from SMS in the year 1982.

Having put in about four decades in the Central Bank, I can certainly testify to the fact that academic research and insights are extremely useful for enlightened public discourse and have potential to alter the path of policy actions. Embracing the philosophy of Dr. Pylee that investing in the skills and knowledge is the most important requirement for progress, during the course of my address today, I wish to share my perspectives on the transformational journey and progress witnessed in the Indian financial system and emphasise on the need for skill building to survive, sustain, and succeed during this transformation.

A changing banking landscape, digitalisation of financial services, new business models, emergence of FinTech and technological progress are transforming financial sector in fundamental ways. This trend has been pronounced over the last decade. The business of banking has transformed with the strategic focus of services shifting beyond traditional financial offerings of banking services to offering up a suite of products including wealth management and other financial products.

What this means is that that the financial institutions would need to continuously reinvent their business models and update their product offerings. For this to happen, a vital cog in the wheel, so to say, is having a set of skilled employees and a motivated workforce. The pace of change we encounter nowadays is swift, and by all indications this pace will only increase, riding on the crest of the digital transformation playing out in the financial services industry. Therefore, it is imperative that the financial institutions and their employees have the capacity to not only deliver on the expected service levels continuously, but also have the capacity to adapt to both foreseen and unforeseen challenges. In current times, building the capacity of employees and continuous upgradation of their skills is not an option but a necessity.

In any service industry, amongst the four factors of production, human capital is the most significant which fundamentally determines the growth trajectory of the institutions and organisations.

* Padma Bhushan Professor Emeritus Dr. M.V. Pylee Memorial Lecture - delivered by Shri M. Rajeshwar Rao, Deputy Governor, Reserve Bank of India on Monday, February 26, 2024, at the School of Management Studies; Cochin University of Science and Technology, Kochi

Inputs provided by Pradeep Kumar and Saurabh Pratap Singh are gratefully acknowledged.

Human capital is not just important in the areas of the organisational structures and functioning but is also critical in fostering innovation and increasing productivity which contributes substantially towards both individual and institutional growth. This is true in the case of banking industry as well.

The agility demonstrated by banks and financial services firms during the pandemic is a testament to their investment in human resources and technology. As their focus shifted towards digital mode of interface, they scaled up remote engagements and quickly reshaped overall working models. Employees were dynamically redeployed amongst verticals based on evolving business needs. This experiment served the institutions well in various aspects – in optimal utilisation of human resources, in timely on-boarding new customers and in ensuring business continuity. In my view, this exploratory experience would have given many of the banks a sense of comfort and confidence in agility-driven dynamic allocation of a future oriented workforce.

Here, let me emphasise that when I say skilled workforce, I do not mean the to say that the focus should be on the functional and technical knowledge of the employees alone. Soft skills are equally, or dare I say, more important in a service industry like banking. An effective customer engagement together with an empathetic approach acts as a major differentiator in a highly competitive market. Also, unlike technical skills which frequently get obsolete with changing business environment, soft skills fetch perpetual returns as they stay with the individual over his lifetime.

Now, let me now focus a bit more on one of the essential facets of soft skills required for an effective customer engagement – namely *'communication'*. The ability to communicate effectively, has, of late, become very important for the entire banking community. In my view, there are two reasons for this change, first – thanks to the sustained efforts of all the regulators and the Government, the customer awareness on financial matters has improved a lot. Members of public, with enhanced awareness, are demanding better services, which is a welcome move. Many customers, however, may still not be fully aware about the finer nuances of the financial offerings. Hence, determining suitability and appropriateness of a customer for a financial product and service becomes necessary for the financial service providers. Effective and clear communication on the risks and rewards of any product, thus becomes a vital pre-requisite while on-boarding a new customer or cross-selling a product to an existing customer.

Second, as the income levels improve, customers' demand for bespoke products and services is expected to increase. In tandem with this, from the supply side, enhanced bouquet of products and services offered by financial entities makes the market significantly dynamic, something which was difficult to imagine a decade back. More so, technology-led delivery mode has expanded the reach of traditional financial institutions to hitherto unexplored geographies and segments. Two decades ago, one could not have imagined transferring money from one account to another without visiting a bank branch. Fast forward to the present and, you don't even need to visit the branch as most of your banking needs can be met digitally.

Even as technology aids the financial institutions to expand their reach and enable round the clock access to financial services to the customers at their convenience, there are also challenges to be handled. These come in the form of high obsolescence rate, which means that financial institutions have no option but to continue investing in technology. However, one resource which no other competitor can replicate easily, is the human capital of an organisation. Therefore, how the banks train their workforce in both aspects – business as well as behaviour, would decide who will have the competitive edge going forward and here communication will be an important dimension of the behavioural training.

Communication in business setting has two important aspects – individual and institutional. Individual communication pertains to the front-line staff – how they communicate with the customer while institutional communication means how the policies and priorities are communicated by the institution to its external as well as internal stakeholders. Effective communication by individual employees can win customers, and the appropriate corporate communication by the institution can enhance its public image and brand value. Therefore, it is imperative that the top echelon of the entity focuses on both – by undertaking appropriate training and sensitisation of front-line staff and by putting in place an appropriate enterprise-wide communication strategy which conforms to its core values and ideology.

The importance of communication pervades the financial system, including the central banks. Communication has gained greater importance for central banks following the global financial crisis (GFC), when evolving mandates and new tools required more explanation to both experts as well as non-expert audiences. Unconventional policies adopted by central banks have also been the subject of public debate. As a result, central banks, over the last two decades, have been trying to demystify their mandates and working to put across their views in a simple manner to anchor stakeholder expectations. The necessity of this manifested with greater urgency during the covid pandemic.

Let me also add that central banks are unique institutions inasmuch as they probably touch lives of almost everyone in the country. They also have a range of mandates – monetary policy, regulation and supervision of financial system, consumer protection and ensuring financial stability, among others. Effective delivery of these mandates in today's dynamic world requires that they are able to communicate their policies, regulations, and the rationale of their actions clearly in a manner which could reach a wider spectrum of audience. Doing so effectively requires a transparent and consistent communication approach, leveraging on the available mediums, tools, and technology to communicate the right material in the right manner to the audience, both external and internal.

Effective communication is like a good recipe. You have to get all ingredients in the right proportion to make it palatable. Most of the times, communication for a central bank - and you all will agree with me on this – is bit of a tight rope walk in the face of strong cross winds. Central banks must always be careful in their communication to avoid any inconsistency between what they say and what is understood and interpreted by the markets and stakeholders. Everyone tries to dissect and parse each and every word, probably looking at the synonyms and semantics in search of the meaning which was not conveyed or intended in what they speak. Any difference in perception between the two could have unintended consequences or dilute the impact of policy actions.

We have come a long way since the days when Central Banks were shrouded in mystery. Central Bank communication has evolved to become more transparent over the decades. In my opinion, two things have brought about this change. First, as the remit and mandates of modern central banks has expanded in last half century or so, they have become increasingly accountable for their actions. Now, in most countries of the world, central banks must demonstrate that they are acting within the statutory mandate and how are they delivering on that mandate. Second, central banks have realised that the policy making can be more effective if the changes are predictable. Now, there is credible amount of literature which points out that successful 'expectations management' by the central banks through effective and credible communication can increase the effectiveness of policy measures.

In India, we have another dimension to central bank communication. This dimension relates to Reserve Bank's regulatory and developmental role. The Reserve Bank is not only responsible for monetary policy but also for an array of functions including regulation, supervision, currency management, payment systems, management of external sector and the government debt. Therefore, the communication mix of RBI must address a large number of issues ranging from financial literacy to financial stability. To achieve this, a considerable amount of work has been done in recent past in expanding the reach of Reserve Bank's communication.

Earlier, most of the people knew about the Reserve Bank only as an issuer of the currency. However, in past one and half decades, we have undertaken concerted efforts to demystify the mandates and functioning of the Reserve Bank through series of financial literacy and awareness campaigns. We are also undertaking several customer education initiatives under 'RBI Kehta Hai' slogan which I am sure many of you would have seen. At the same time RBI communication on monetary policy, prudential policy and financial stability has also undergone significant changes. It has become clearer, continuous and mostly calendar based. You might recall the regular press conferences by the Governor during the COVID lockdown where he telegraphed the policy steps being taken by the Reserve Bank to mitigate the impact of COVID on the economy, industry, and members of the public. Communication with all stakeholders including members of public is an important strategic tool in furthering public policy objectives and mandates for the Reserve Bank. Public understanding can help ease the way for reforms, as well as increase support for policies.

Today's fast-paced world requires us to continually engage in a process of learning, unlearning, and relearning. The ever-changing modes of communication are also keeping us on our toes, so much so that often it seems that we are chasing a moving target. With the advent of social media, the communication is instantaneously consumed, assimilated, and commented, all within few seconds and in few hundred words. As far as central banks are concerned, there is no one-size-fits-all solution for communication. For serious policy issues and monetary policy, it is important that the context, rationale and setting of decision making is placed before the audience to enable them to appreciate the outcome. For public awareness on topical issues, we have a 360-degree media approach to reach out to as many people as possible in the language they understand.

However, at a broader level, it must be appreciated that effective and transparent communication is the key for achieving the mandate set forth at the individual institutions level, be it is Central Bank or a financial entity. This is particularly challenging for us in India as we are dealing with a large populace in a multilingual and multicultural environment. Communication is a vehicle for the financial services industry for raising awareness, shaping expectations, promoting financial education, and financial inclusion. However, the expanding sphere of entities and people who consume our communications presents both – a challenge and opportunity. Opportunity as it helps in achieving our mandates effectively. Challenge as reaching out to this diverse set of end-users with differing level of financial awareness puts our methods to test. Communication is a very powerful tool to set the right expectations during turbulent times and in tempering expectations right during the periods of exuberance.

Acquiring appropriate soft skills, including good communication skills, is thus important for an organisation to succeed. Additionally, it is important for us as individuals to excel at a personal level and as responsible members of society and institutions. It is for this reason that business communication is an important facet of management education. It is, in my view, an extremely vital skill you need to consciously develop to chart your individual growth paths. Business communication was and I believe still is, a part of the course curriculum for management programmes developed here at the School of Management Studies. Given my experience with the utility of communication in all facets of life, I should in conclusion pay homage to the role of pioneers like Dr Pylee whose vision for establishing a business school in Kochi enabled several of us to partake of these critical skills which have enriched our lives and hopefully the effectiveness of organisations that we serve.

Thank you for your attention.

Namaskaar!!

ARTICLES

*State of the Economy**

The global economy is losing steam, with growth slowing in some of the most resilient economies and high frequency indicators pointing to further levelling in the period ahead. In India, real GDP growth was at a six-quarter high in Q3:2023-24, powered by strong momentum, robust indirect taxes, and lower subsidies. The high visibility of structural demand and healthier corporate and bank balance sheets will likely be the galvanising forces for growth going forward. Even as inflation is on the ebb with broad-based softening of core inflation, the repetitive incidence of short amplitude food price pressures deters a swifter fall in headline inflation towards the target of 4 per cent.

Introduction

The global economy is losing steam, with real gross domestic product (GDP) growth slowing in some of the most resilient economies, flattening out and even mildly contracting in others. High frequency indicators point to further levelling in the period ahead. While business activity is showing some slender improvement in both advanced and emerging economies, external demand remains subdued amidst country-specific weaknesses, including in the property sector, and spiralling public debt. Labour markets remain resilient but are showing signs of easing, especially in terms of wage increases. In some emerging market economies (EMEs), unemployment rates are edging up. At the same time, heightened labour mobility, generative artificial intelligence (AI) and machine learning are lifting labour productivity and business formation. These developments were reflected in the February 29, 2024 Chair's Summary of the first G20 Finance Ministers and Central Bank Governors meeting in Sao Paulo, Brazil which noted "that the likelihood of a soft landing in the global economy has increased, with growth showing resilience, despite divergences across countries and regions."

Inflation has been trending down, both headline and core, but in advanced economies (AEs) sticky services prices keep it still elevated relative to targets. Convergence will most likely be delayed till 2025. Accordingly, most central banks are holding policy rates steady, while tacitly acknowledging that the next move would likely be a cut in the direction of several central banks in Latin America. Central banks are flagging concerns over moving too quickly to cut interest rates, emphasising the importance of carefully assessing incoming data on whether or not inflation is moving down sustainably towards targets. This has imparted uncertainty as to how long a restrictive monetary policy stance needs to be maintained. Japan exited from negative policy rates as widely expected. At the other end of the spectrum, large reductions in key lending rates and reserve requirements in China have been undertaken to support economic activity.

Markets remain exuberant about an imminent downshift in the path of monetary policy, notwithstanding high-for-longer tones in central bank speak. More recently, market expectations of the exact timing of rate cuts have been pared although they continue to fluctuate with incoming data and policy commentaries. Stubborn inflation numbers right up to the January readings have forced market participants to relinquish bets on extensive rate cuts in 2024. Even so, the risk of markets running ahead of central banks, prompting abrupt market movements, cannot be ruled out.

Government bond yields in major AEs have climbed from the lows they hit in January 2024, in part due to central bank signals pushing back

* This article has been prepared by Michael Debabrata Patra, G. V. Nadhanael, Shahbaaz Khan, Biswajeet Mohanty, Khushi Sinha, Kunal Priyadarshi, Harshita Keshan, Ramesh Kumar Gupta, Pankaj Kumar, Harendra Behera, Arjit Shivhare, Suganthi D, Vijaya Agarwal, Akash Raj, Debapriya Saha, Shivam, Shelja Bhatia, Shesadri Banerjee, Kartikey Bhargav, Dilpreet Sharma, Avnish Kumar, Kamal Gupta, Anjaly Maria Jose, Shubham Agnihotri, Priyanka Sachdeva, Akshara Awasthi, Vineet Kumar Srivastava, Samir Ranjan Behera, and Rekha Misra. Views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

expectations of early rate cuts. Nonetheless, bond prices still reflect a more dovish assessment than that of central banks. Yet, burgeoning levels of public debt could provide a fertile habitat for the resurgence of bond vigilantism that could later tip the market over into brutal sell-offs. In fact, bond market volatility has exceeded equity market volatility. In the background, quantitative tightening (QT) is quietly at work, helping to keep financial conditions from excessively easing and shoring up central bank balance sheets reeling under large losses. Corporate spreads have compressed further. Private equity buyout firms are taking advantage of the recovery in corporate bond markets and saving on interest costs by refinancing debt raised in private credit markets with publicly traded bonds and loans. Stock markets and more generally risky assets have rallied on the back of the prospect of monetary easing, robust profitability of large corporates and the anticipated productivity gains related to AI.

In foreign exchange markets, the US dollar has edged up, partly reversing the weakening seen towards the end of 2023, as expectations of rate cuts were pushed back. The euro and the yen have weakened. EMEs continue to receive buoyant portfolio inflows, driven by bonds. EME stocks are poised to erase recent losses, with the Morgan Stanley Capital International (MSCI) EM index trading above its 2023 close. Gains are being driven by technology shares. Sustained geopolitical uncertainties, demand from central banks readjusting their reserves and sticky inflation is driving up gold prices in search of safe haven.

The 13th Ministerial Conference of the World Trade Organisation (WTO) concluded in Abu Dhabi on March 1 with few incremental outcomes, reflecting a shift in focus towards national industrial strategies. Members decided to continue not charging duties on digital products for the time being. A new plurilateral agreement on domestic regulations on services was adopted in the WTO. 72 countries are part of the plurilateral agreement. Several countries including India are not a part of the agreement as it may dilute WTO's multilateral trade framework and hence its legality. On minimum support prices for agricultural crops, subsidies for fisheries and dispute settlement reforms, no decision was taken. The investment facilitation for development agreement was blocked as it is a non-trade issue and falling outside the mandate of the WTO's multilateral trade framework.

By the end of this century, almost every country in the world could have a shrinking population. People are living longer due to advances in healthcare and decline in poverty, but they are also having fewer babies. Over the past half century, the global fertility rate[1] has halved to 2.3. However, in most AEs fertility rate has fallen below the replacement rate of 2.1.[2] The result is a decline in working age populations, entailing significant social, economic and political implications. Developing nations are on a similar downward trajectory. The long-term drop in the fertility rate is the result of socio-economic trends such as rising female labour force participation and education, better welfare systems and lower childhood mortality. It is also a reflection of higher parenting costs, including the opportunity costs of childcare in lost earnings or leisure time. The impact of falling birth rates will be a higher burden of healthcare and pension spending for older populations falling on a shrinking workforce, leading to higher taxes and pressures on public finances. While some countries are adopting pro-natal policies, the economic and social forces driving declining births are unlikely to be reversed in the long term. Immigration could be a solution, but the politics remain difficult. Instead, older workers, AI and automation will have to pick up the slack created by fewer young people.

In India, the end-February 2024 data release of the National Statistical Office (NSO) surprised

1 The total number of births per woman.

2 Replacement rate is the fertility rate required to sustain the population at similar levels over time. At this rate, the population replaces itself from one generation to the next, taking into account mortality rates.

strongly on the upside. Real GDP expanded at a six-quarter high rate in October-December 2023, powered by strong momentum, robust indirect taxes and lower subsidies. Our nowcast of real GDP growth for January-March 2024 (Section III) seen in conjunction with high-frequency indicators for the fourth quarter, suggests that the NSO's estimate for the full year 2023-24 will be exceeded and a rate closer to 8 per cent may be clocked. Purchasing managers' indices (PMI) reflect buoyant demand conditions, rising investment in technology, efficiency gains and favourable sales growth. The overall level of business confidence points to robust optimism about near-term prospects.

Aggregate demand in the third quarter of 2023-24 was investment-driven, with some indications of a revival of the private capex cycle. Capacity utilisation in several sectors has reached a point where there has to be new investments. The high visibility of structural demand and healthier corporate and bank balance sheets will likely be galvanising forces. Central public sector entities achieved 92 per cent of their combined capital expenditure target for the year 2023-24 by February 2024. The current financial year will likely see the highest ever length of four-lane roads being constructed, along with the highest ever length of speed or access-controlled highways – on course to create a world-class road network by 2037.

The biggest segment of aggregate demand – private final consumption expenditure – remained low, despite the third quarter coinciding with the festival season. Moreover, government final consumption contracted during the quarter. Market research indicates that the domestic fast moving consumer goods (FMCG) sector may experience moderate growth over the next six months. On the other hand, the demand outlook for premium consumer businesses is robust and the growth rhythm is expected to persist into the medium-term. This suggests that there are significant per capita income shifts underway. Small town opportunities are leading to growth of business across lifestyle segments, with companies that entered these markets enjoying the fruits of being first movers. New household consumption expenditure survey (HCES) information shows that per capita spending on durables and discretionary products has been rising in both rural and urban markets, with real per capita income up 1.5 times since 2011-12 at a compound annual growth rate of 4 per cent (Section III, Box B). The drag from net exports eased in relation to the preceding quarters of the year.

On the output side, the manufacturing sector expanded at double digits, reflecting the sustained high profitability of corporates, aided by falling input costs. India Inc's interest coverage ratio – earnings before interest and tax (EBIT) divided by the interest outgo - expanded for the third consecutive quarter in October-December 2023, helped by benign raw material prices and cost efficiencies even as topline growth remained moderate.[3] Companies across several sectors reported improvement in the interest coverage ratio, including automobiles, cement, consumer durables, hospitality, oil and gas, petrochemicals, pharmaceuticals, and power. The manufacturing base has also been expanding. For instance, the entire semiconductor chip value chain – design; packaging and fabrication – has made its presence in the country.

Construction activity remained robust. Services maintained pre-pandemic trend growth rates, with several constituents picking up pace sequentially. With corporate travel resuming after a pandemic-induced hiatus, the hospitality industry is slated for a healthy revenue growth, boosted by modest increase in average room rates (ARR) of 5-7 per cent and occupancy at 73-74 per cent. Meanwhile, the retail sector is in the midst of a transformation, with homegrown brands rapidly scaling up operations. In 2023, retail leasing in India's top eight cities totalled 7.1 million square feet

[3] The Economic Times, March 13, 2024.

with domestic brands accounting for 70 per cent. The operational retail space of grade A malls amounted to 68.3 million square feet with capacity under construction rising by 10 per cent. The resurgence of global capability centres (GCCs) has also helped demand for grade A offices to expand strongly. Higher traction in overall leasing has aided the performance of listed companies in this segment.

On the other hand, output from agriculture and allied activities went into contraction during the October-December 2023 quarter as the deficient southwest monsoon impacted the *kharif* harvest and fodder scarcity affected the livestock sector. Looking ahead, however, congenial conditions for the farm sector are foreseen. Various global weather models are forecasting that *La Nina* will set in by June and *El Nino* will turn neutral ahead of the forthcoming southwest monsoon season. Fuller details and analysis of these national income developments are presented in Section III.

Hereafter, the NSO will provide five estimates of GDP instead of six, doing away with the third revised estimate. The final revision will be released two years from the completion of the financial year instead of three. Illustratively, the number for 2021-22 released on February 29, 2024 is the final one and the final number for 2022-23 will be released in 2025. The quarterly release calendar remains unchanged.

Financial markets are on a roll in the backwash of these real sector developments. Stocks are riding an intense bull market - notwithstanding intermittent corrections - driven by a broad-based boom. While large caps are gaining, mid- and small-caps are rising even faster, with hints of froth and a spreading equity culture. Foreign investors account for their smallest share of the Indian stock market in a decade (at 16.3 per cent), reflecting increased buying by domestic institutions, including mutual funds.[4] The INR is appreciating and is among the least volatile currencies. The INR has been bolstered by a pick-up in foreign direct investment (FDI) by 11.4 per cent year-on-year (y-o-y) in October-December 2023. Mergers and acquisitions jumped 78 per cent in terms of deal value in January 2024. Portfolio inflows during April-mid March 2023-24 accounted for a fifth of all such flows to EMEs. Bond yields are at 9-month lows. Corporate bonds are in strong demand with finer cut-offs. The inclusion of Indian sovereign bonds in global bond indices is spurring a strong demand for offshore rupee-denominated bonds issued mostly by multilateral institutions seeking exposure to India.

According to the latest real-time data from the World Poverty Clock by the World Data Lab funded by the International Fund for Agricultural Development (IFAD), India has brought down extreme poverty to below 3 per cent of its population. The 'escape rate' calculates the current rate of poverty reduction in the world, taking US$ 2.15 a day as the threshold income. These findings are also reflected in the HCES 2022-23 cited earlier.

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.

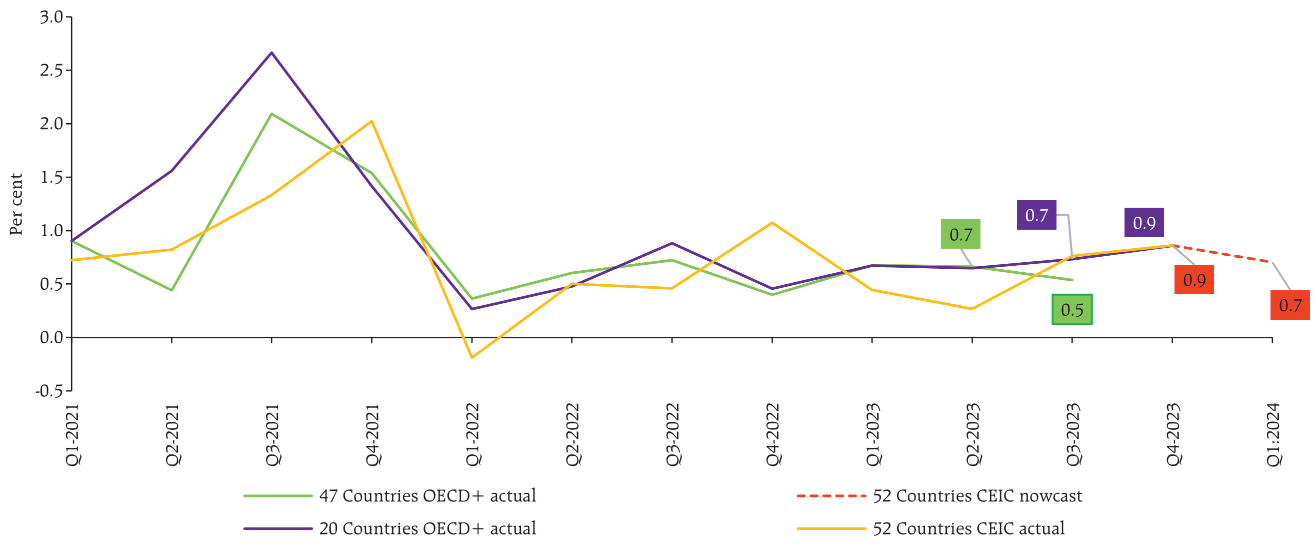
II. Global Setting

The global economic outlook is beset by geopolitical tensions, unsettled financial conditions, and stubborn inflation in major economies. Our model-based nowcast points to a decline in the momentum of global growth during Q1:2024 (Chart II.1).

The global supply chain pressures index (GSCPI) witnessed a further uptick in February 2024, taking it above its historical average (Chart II.2a). The

[4] Business Standard, March 4, 2023.

Chart II.1: Global GDP Growth Nowcast (Q-o-Q)

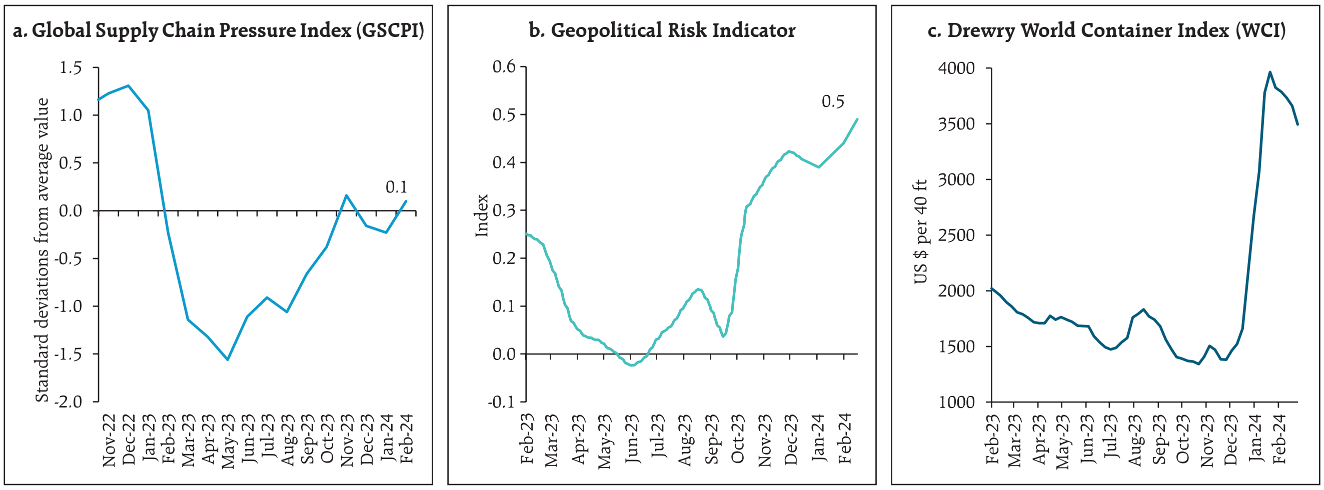


Sources: CEIC; OECD; and RBI staff estimates.

geopolitical risks index also rose to a 19-month high in February, mainly due to risks emerging from the increased scope, scale and sophistication of cyber attacks, tensions in the middle east driven by the ongoing war in Gaza, and the potential for escalation of US-China tensions over Taiwan (Chart II.2b).[5] Container shipping costs have shot up due to ongoing hostilities in the Red Sea causing disruptions in a key global trade route and remained elevated in February, *albeit* sequential decline (Chart II.2c).

Consumer sentiments dipped in the US and the UK, but improved in the euro area where employment

Chart II.2: Trends in Supply Chain Pressures and Geo-political Risks

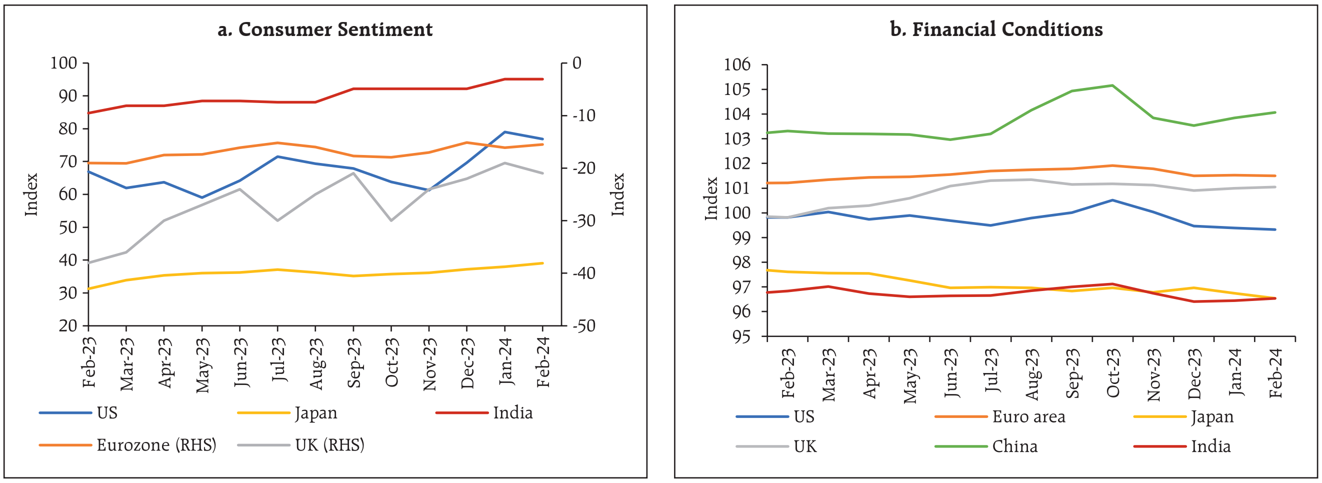


Notes: 1. GSCPI reflects data on transportation costs and manufacturing indicators.
2. The WCI assessed weekly by Drewry reports actual spot container freight rates for major east west trade routes. The composite represents a weighted average of the 8 shipping routes by volume and is reported in USD per 40-foot container.

Sources: Federal Reserve Bank of New York; BlackRock Investment Institute, February 2024; and Bloomberg.

[5] Blackrock Geopolitical Risk Dashboard, February 23, 2024

Chart II.3: Consumer Sentiment and Financial Conditions



Notes: 1. Japan: A score above 50 indicates consumer optimism, below 50 shows a lack of consumer confidence and 50 indicates neutrality.
2. Eurozone and UK: (-)100 indicates extreme lack of confidence, 0 neutrality and 100 extreme confidence.
3. India and US: The higher the value, the higher the consumer confidence.

Source: Bloomberg.

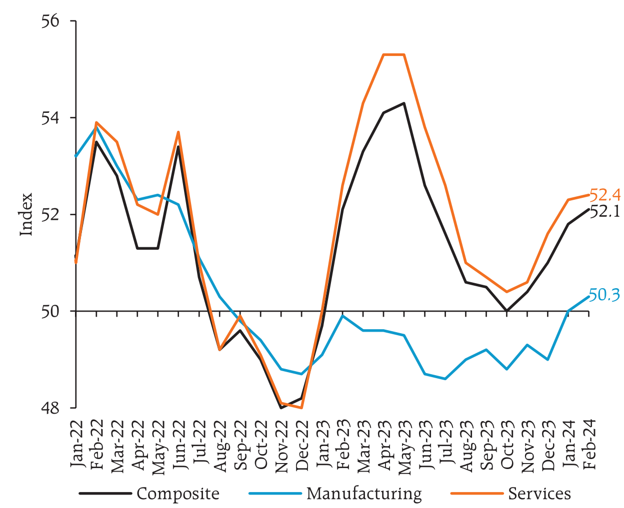
expectations remained broadly stable. Financial conditions stayed tight across geographies as central banks modulated expectations of early policy easing (Chart II.3).

The global composite PMI increased to 52.1 in February 2024 - its highest reading since June 2023 - from 51.8 in January. All six sub-sectors covered by the survey – business services; consumer goods and services; financial services; intermediate goods; and investment goods – recorded output increases simultaneously for the first time since May 2023. The services PMI rose to a seven-month high of 52.4 in February, driven by faster rate of growth in business activity. The manufacturing PMI at 50.3 returned to expansionary zone in February driven by new orders, output and stocks of purchases, after a prolonged contraction for 18 months (Chart II.4).

The composite PMI for export orders rose to 49.6 in February 2024, propelled by its manufacturing component reaching a 19-month high of 49.4. Meanwhile, the services export orders index moderated marginally to 50.4 in expansionary territory (Chart II.5).

Global non-oil commodity prices moderated in February, driven by a fall in prices of agriculture products, especially grains, which led to the Bloomberg commodity price index declining by 1.9 per cent (m-o-m) [Chart II.6a]. Crude oil prices, however, increased by 2.2 per cent in February as OPEC+ members extended voluntary cuts to oil production to end-June 2024 although they were due

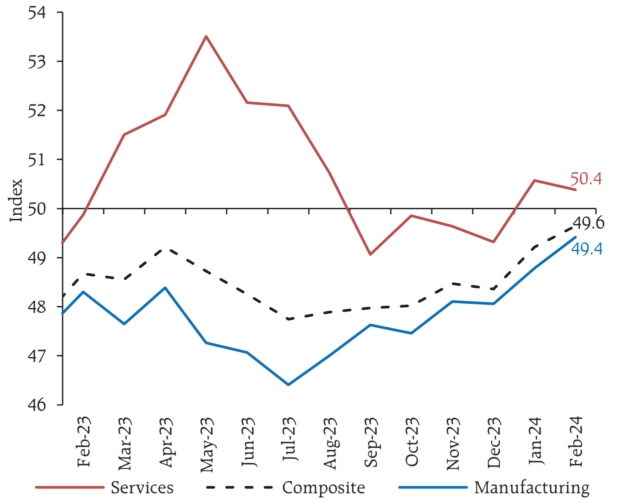
Chart II.4: Global PMI



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

Source: S&P Global.

Chart II.5: Global PMI: Export Orders

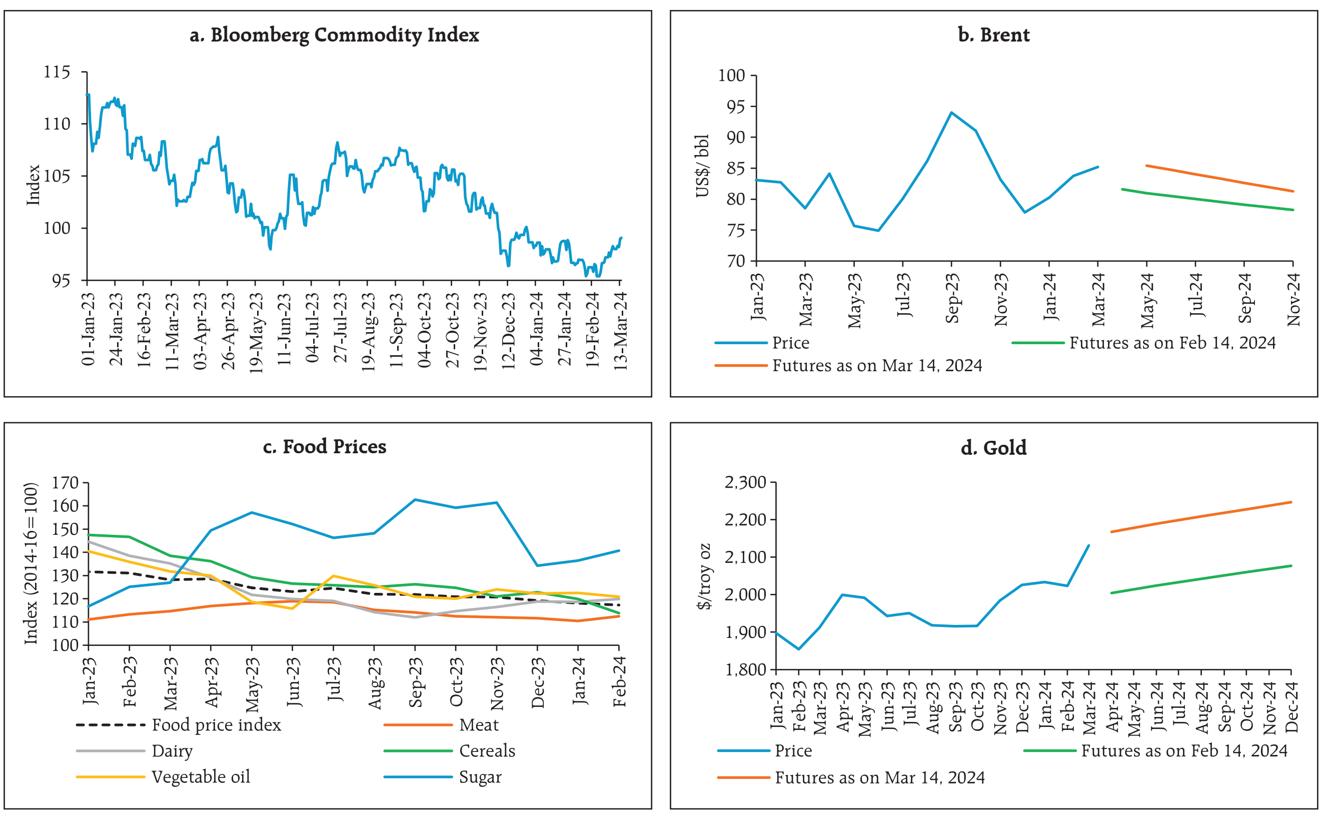


Note: A level of 50 corresponds to no change in activity and a reading above 50 denotes expansion and *vice versa*.
Source: S&P Global.

to expire at end-March 2024 (Chart II.6b). The Food and Agriculture Organization's (FAO's) food price index declined by 0.7 per cent (m-o-m) in February, primarily driven by reduction in the prices of cereals (-5.0 per cent) and vegetable oils (-1.3 per cent). The index stood at 10.2 per cent below its corresponding value a year ago (Chart II.6c). Gold prices remained volatile in February and surged to a record high in March (Chart II.6d).

Headline inflation continued its gradual moderation in major AEs, inching closer to targets in many countries. In the US, however, CPI inflation increased to 3.2 per cent in February 2024 from 3.1 per cent in January primarily due to increase in services inflation across motor insurance and health. The headline personal consumption expenditure (PCE) inflation declined to 2.4 per cent, its lowest in almost three years, in January 2024 from 2.6 per cent in December 2023. As per flash estimates, euro area inflation moderated to 2.6 per cent in February,

Chart II.6: Commodity and Food Prices



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

down from 2.8 per cent in January (Chart II.7a). In the UK, CPI inflation remained steady at 4.0 per cent in January while Japan's inflation (CPI excluding fresh food) softened to 2.0 per cent in January from 2.3 per cent in December.

Among EMEs, inflation edged up in South Africa in January and in Russia in February while inflation in Brazil remained steady for the second consecutive month in February (Chart II.7b). In China, however, inflation increased to 0.7 per cent in February - its highest level in 11 months – from a deflation of 0.8 per cent in January due to robust spending during the lunar new year holiday. Core and services inflation moderated across major AEs but remained higher than headline inflation (Chart II.7c and II.7d).

Global equity markets rallied in February, despite some dent in sentiments earlier in the month on hawkish commentary from systemic central banks. The MSCI world equity index increased by 4.2 per cent in February, reflecting gains in AEs (4.1 per cent) as earnings proved stronger than expected, including those of the 'Magnificent 7'[6] (Chart II.8a). The MSCI for EMEs increased by 4.6 per cent in February, with a strong rally in China, new regulations on short selling and surges in capital flows to EMEs.

The US G-sec yields, both 10-year and 2-year hardened in February along with a widening of the spread by 7 bps (Chart II.8b). In the currency markets, the US dollar index strengthened by 0.9 per cent (m-o-m) in February. On the other hand, the MSCI currency index for EMEs remained relatively steady in February (Chart II.8c and II.8d).

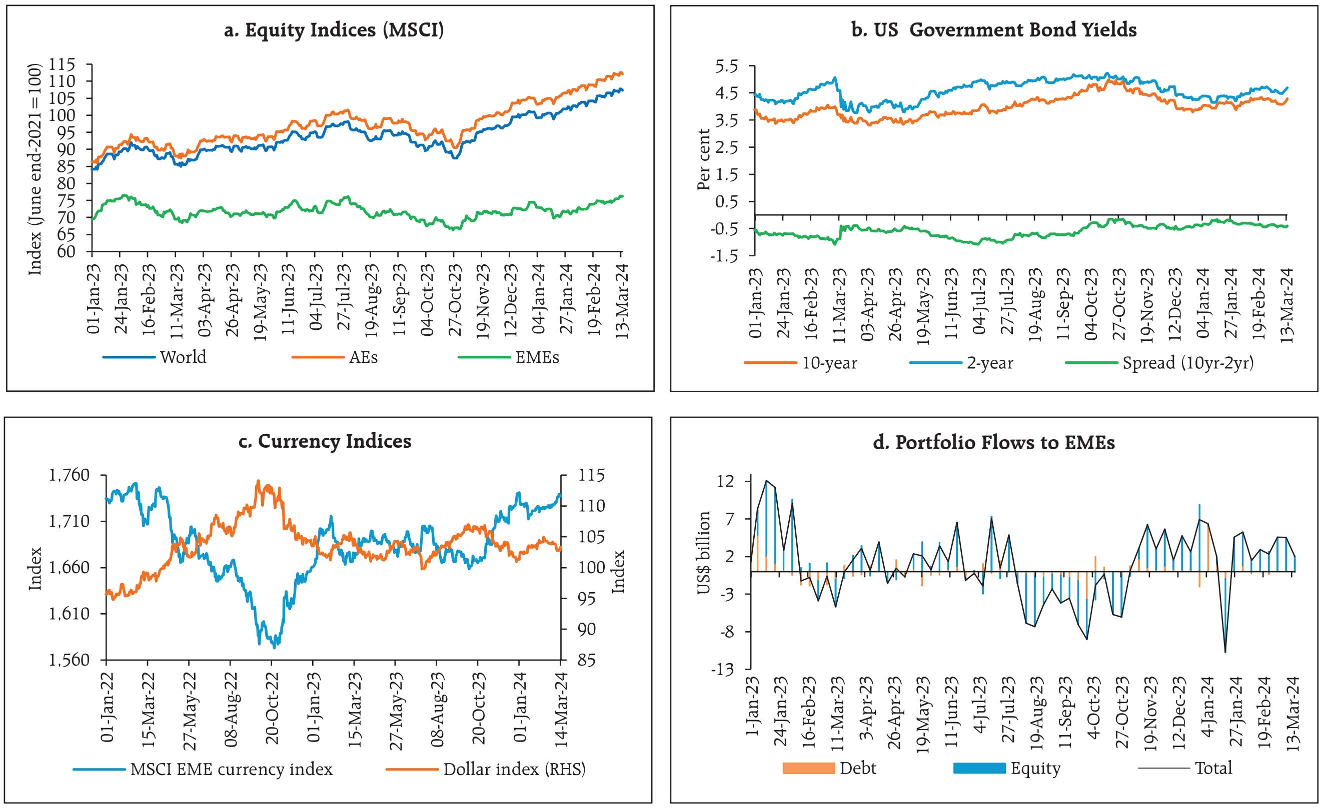
Across the globe, central banks remain cautious while treading the last leg of disinflation, especially in

Chart II.7: Inflation – AEs and EMEs

Sources: Bloomberg; and OECD.

[6] The Magnificent 7 stocks refer to Apple, Microsoft, Google parent Alphabet, Amazon, Nvidia, Meta Platforms and Tesla.

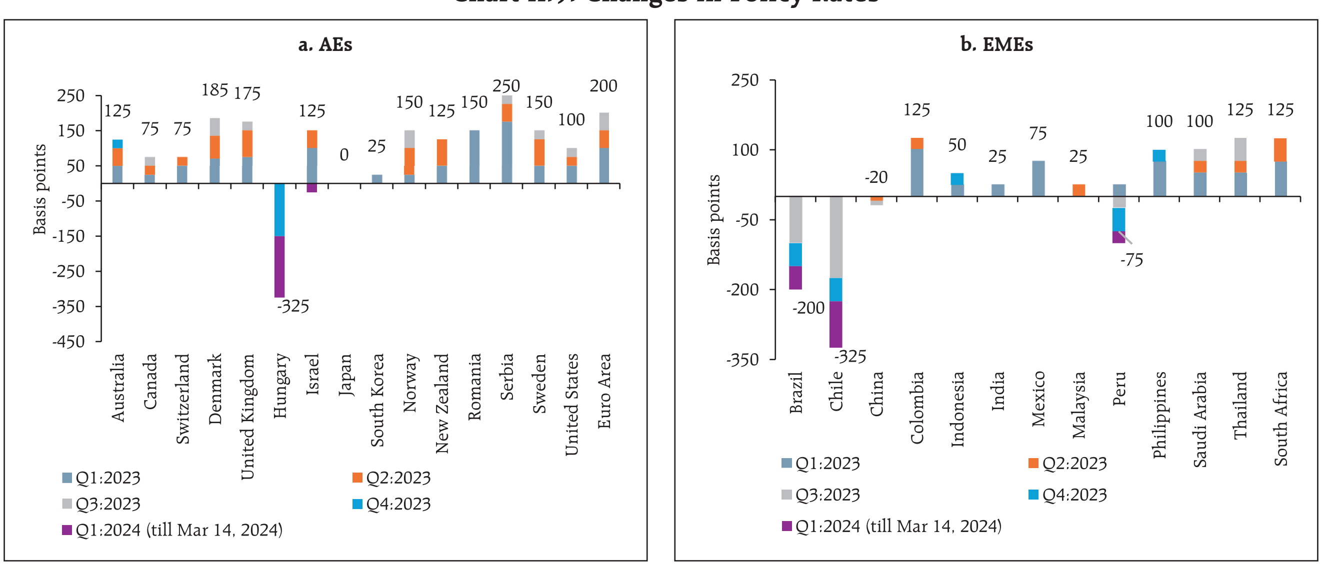
Chart II.8: Global Financial Markets



Sources: Bloomberg; and IIF.

the AEs. Most AE central banks held their policy rates constant in their latest meetings (Chart II.9a). Several EME central banks, however, continued their easing path that started in late 2023 (Chart II.9b).

Chart II.9: Changes in Policy Rates



Source: Bloomberg.

III. Domestic Developments

The Indian economy recorded robust growth amidst external headwinds in the form of supply chain disruptions described earlier (Chart III.1a). Economic activity gained momentum in February 2024 after witnessing a slight moderation in January and GDP growth for Q4:2023-24 is nowcast at 7.2 per cent (Chart III.1b and III.1c).

Looking ahead to the next year, projections from the in-house Dynamic Stochastic General Equilibrium (DSGE) model[7] suggest that the GDP growth is likely to remain robust at 7.4 per cent during 2024-25.[8] The CPI inflation is projected to average 4.4 per cent during 2024-25, lower than 5.4 per cent projected for 2023-24 with most of the decline occurring in H1:2024-25 (Table III.1 and Chart III.2).

Table III.1: Baseline Projections

(y-o-y in per cent)

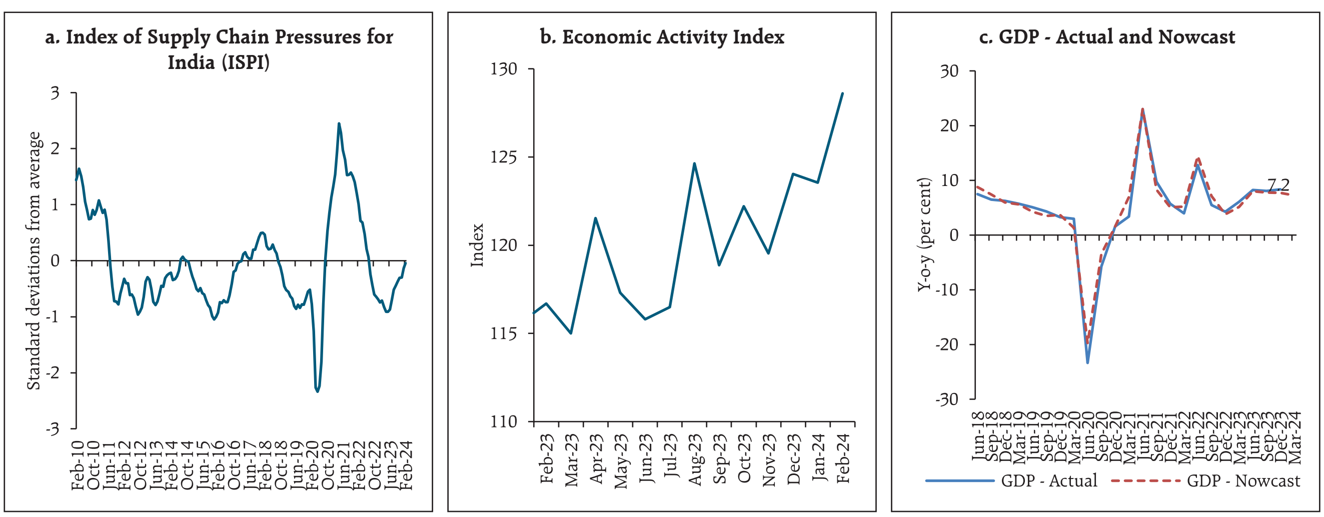
Periods	GDP Growth	CPI Inflation
Q1:2024-25	8.1	4.7
Q2:2024-25	6.6	4.4
Q3:2024-25	8.0	4.3
Q4:2024-25	7.1	4.3
FY 2024-25	**7.4**	**4.4**

Aggregate Demand

The second advance estimates (SAE) of national income released by the NSO on February 29, 2024 placed India's real GDP growth at 7.6 per cent in 2023-24 – an upward revision of 30 basis points (bps) from the first advance estimates (FAE). The revision largely emanates from an upward adjustment of 10 bps in gross fixed capital formation (GFCF) to 10.3 per cent, and the lower drag from net exports of 2.5 per cent of GDP in the SAE from 4.8 per cent of GDP in the FAE.

During Q3:2023-24, real GDP growth accelerated to 8.4 per cent from 8.1 per cent in the preceding quarter and 4.3 per cent in Q3:2022-23. Led by a revival in rural consumption, private consumption

Chart III.1: Economic Activity and GDP Growth Nowcast



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

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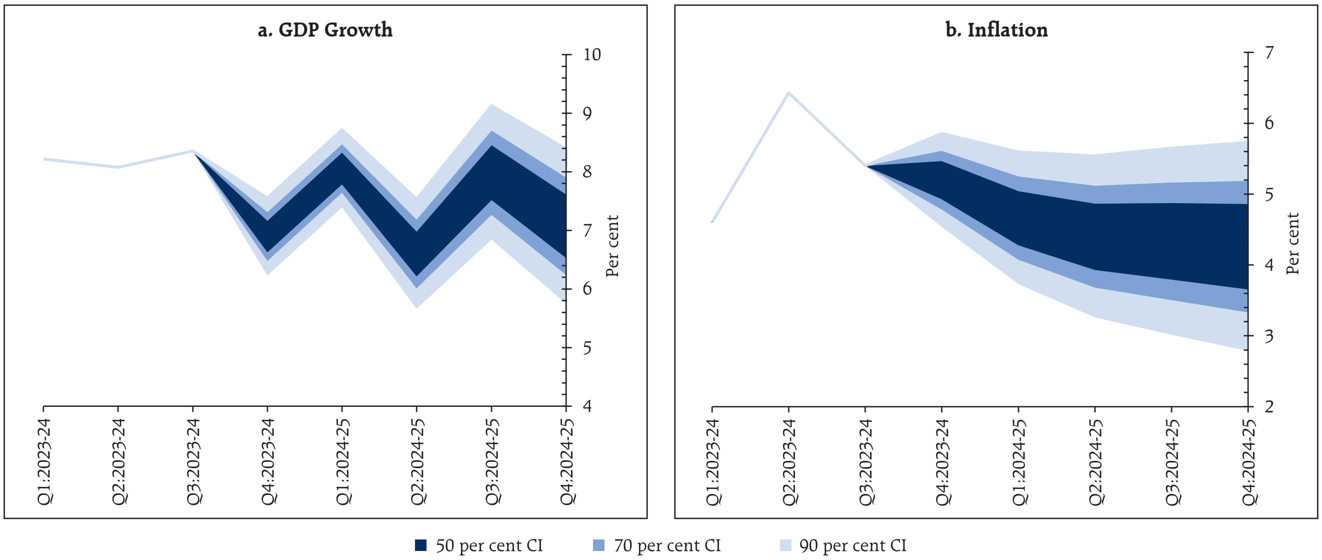
7 For details on methodology, see Shesadri Banerjee, Harendra Behera and Michael Debabrata Patra (2023), "A Prototype Dynamic Stochastic General Equilibrium Model for India", *RBI Bulletin July*.

8 The baseline projections are computed assuming global GDP growth and inflation for 2023-24 and 2024-25 to remain in the trajectory as projected by the IMF in its January 2024 update of the World Economic Outlook and unchanged policy repo rate and US Fed funds rate at 6.5 per cent and 5.5 per cent, respectively, for the current and next financial year.

Chart III.2: Fan Charts of GDP Growth and CPI Inflation Projections

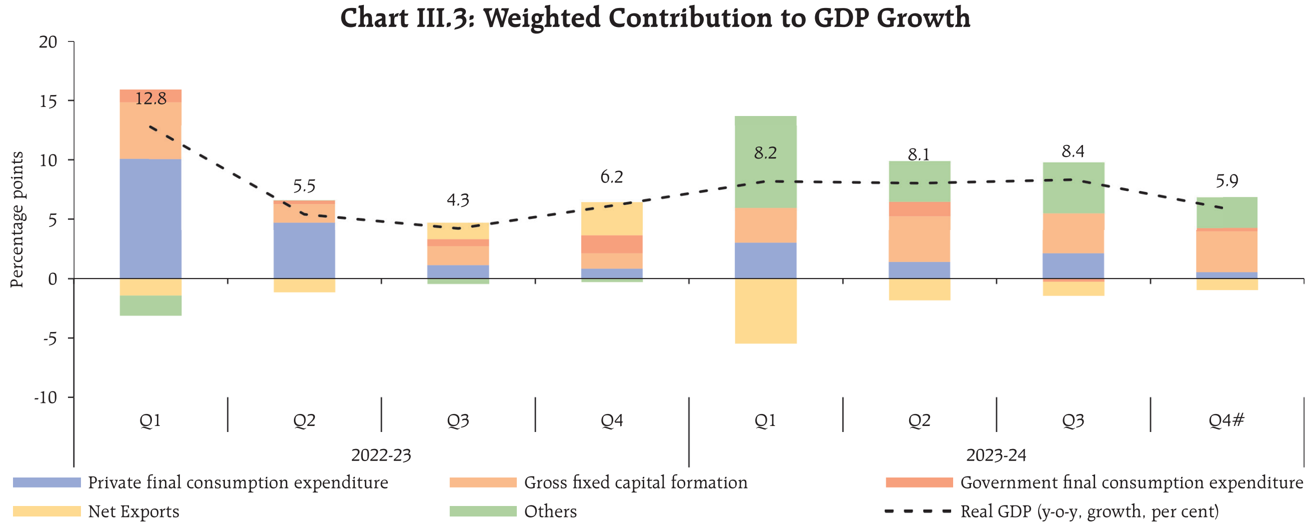


Source: RBI staff estimates.

growth inched up to 3.5 per cent during Q3:2023-24. GFCF continued to register double digit growth (10.6 per cent), which was mirrored in its proximate indicators of steel consumption and capital goods production. Export growth remained subdued amidst weak global demand conditions. With import growth surpassing that of exports, the external sector dragged aggregate demand down by 1.2 percentage points in Q3:2023-24 (Chart III.3).

High frequency indicators point towards continued verve in domestic demand conditions in February 2024[9]. E-way bills increased by 14.8 per cent in February 2024 (Chart III.4a). Toll collections increased by 15.1 per cent (y-o-y) [Chart III.4b].

Chart III.3: Weighted Contribution to GDP Growth

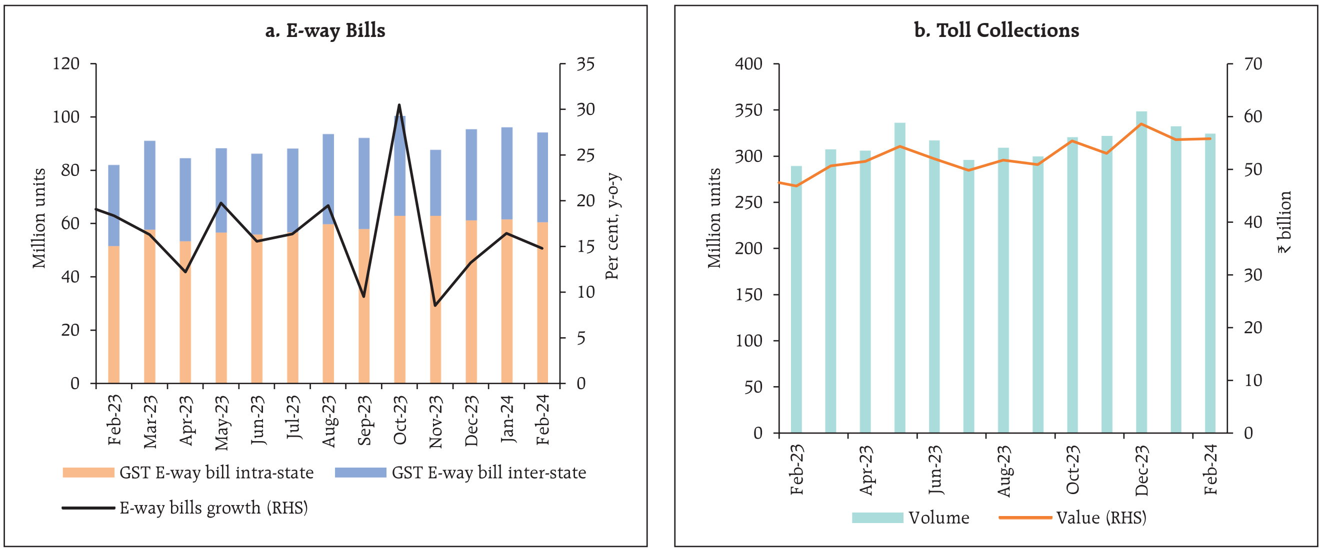


Notes: 1. Others include change in stock, valuables and statistical discrepancies.
2. #: Implicit growth.

Sources: NSO; and RBI staff estimates.

9 For comparison purpose, monthly data for February 2024 is adjusted for the leap year effect. The adjustment is done by a multiple of (28/29).

Chart III.4: E-way Bills and Toll Collections



Sources: GSTN; and RBI.

Automobile sales increased by 24.3 per cent (y-o-y) February 2024, led by increase in two wheelers and passenger vehicle sales (Chart III.5a). While tractor exports recorded robust growth,

Chart III.5: Automobile Sector Indicators

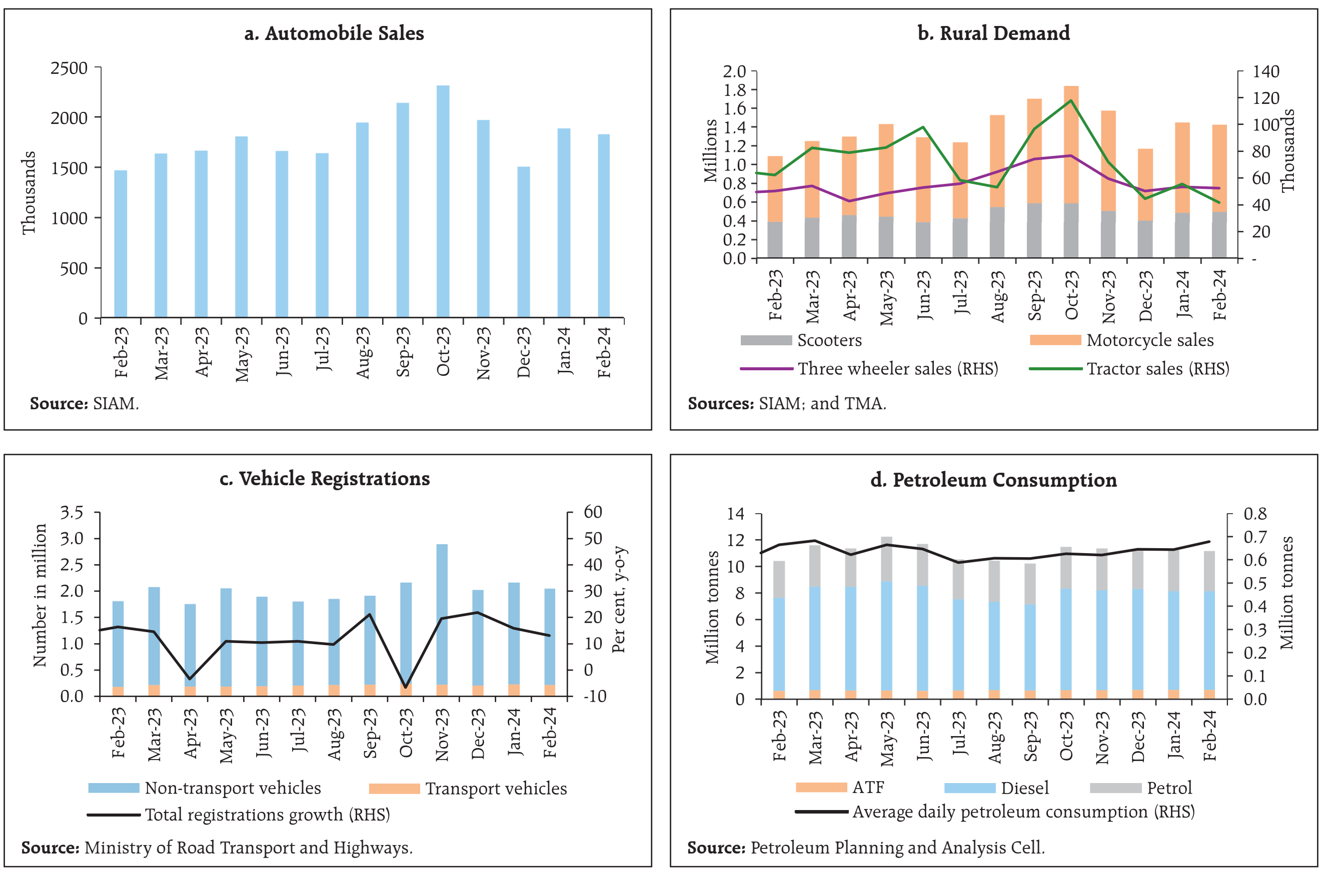
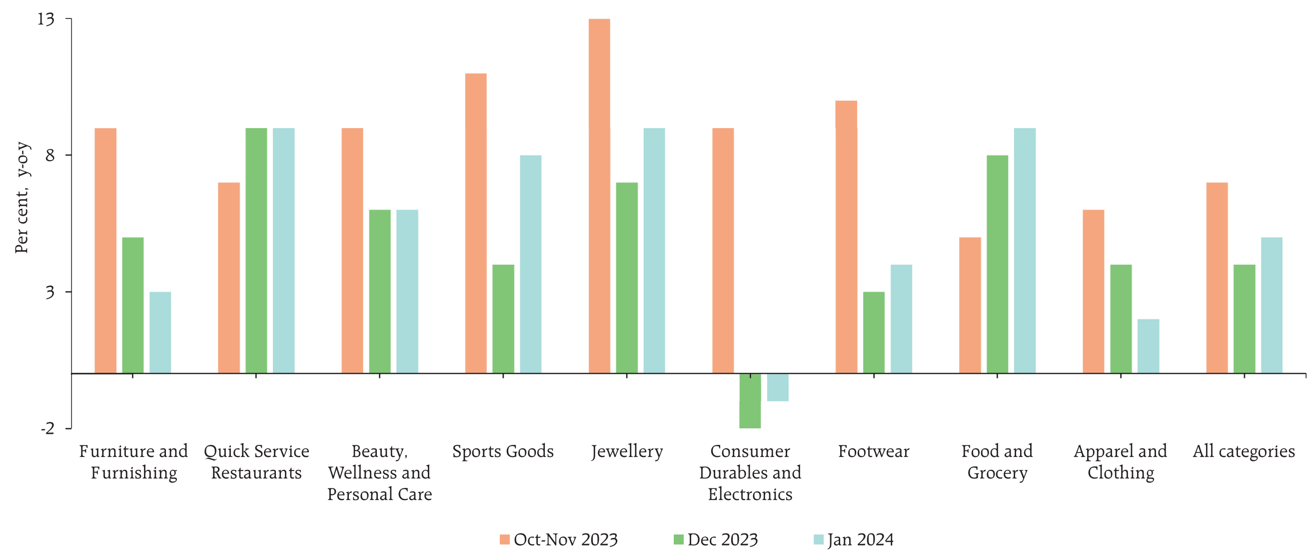


Chart III.6: Retail Sales Growth



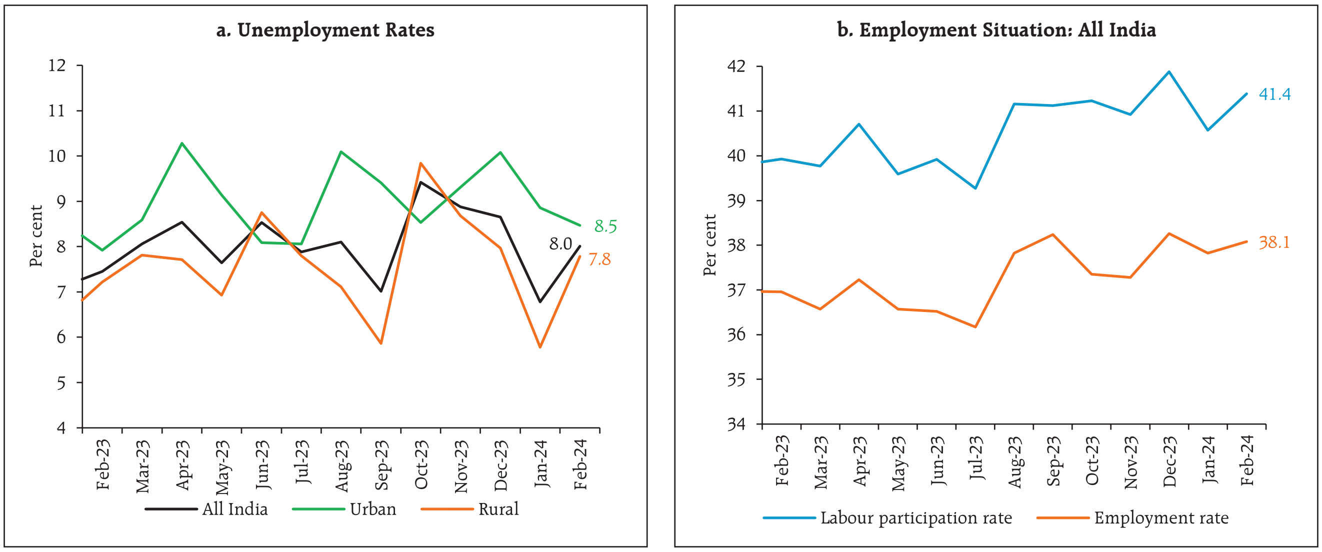
Source: Retailers Association of India.

domestic sales remained subdued (Chart III.5b). Vehicle registration recorded continued y-o-y growth in February (Chart III.5c). Average daily petroleum consumption increased by 2.1 per cent y-o-y, driven by sustained momentum in industrial and transport activity (Chart III.5d).

Retail sales growth (y-o-y) improved in January 2024 over December 2023, broadly driven by quick service restaurants, sports goods, personal care, jewellery, food and groceries, as per the latest business survey conducted by the Retailers Association of India (Chart III.6). Retail demand for consumer durables and electronics, however, remained subdued.

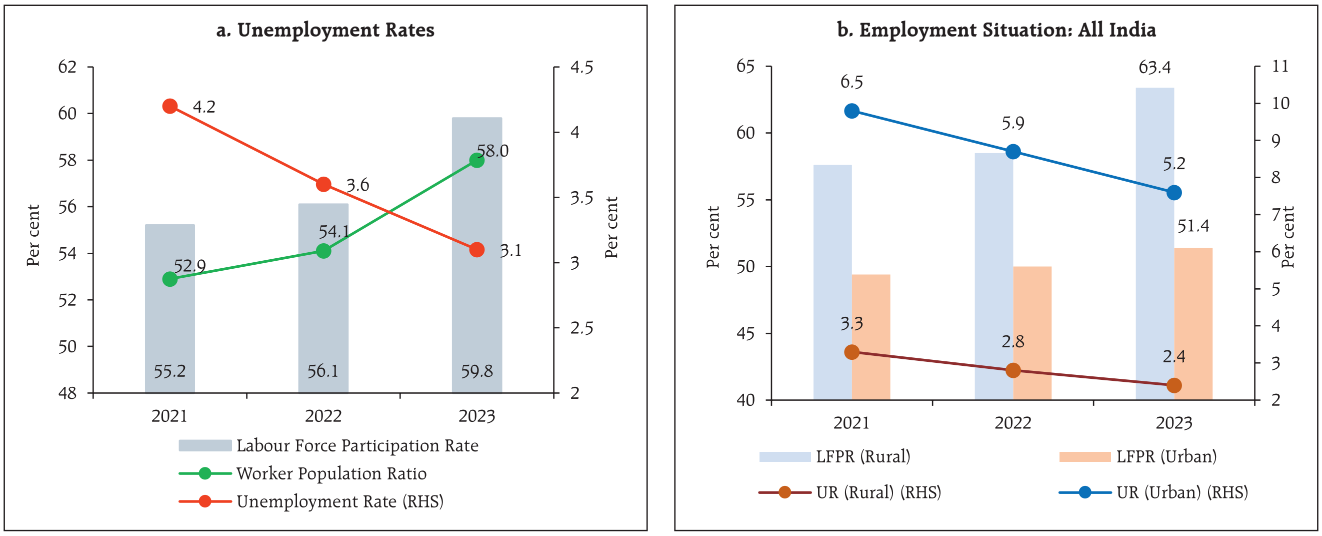
As per the data available from the Centre for Monitoring of Indian Economy (CMIE), the all-India unemployment rate (UR) was at 8.0 per

Chart III.7: Labour Market Conditions



Source: CMIE.

Chart III.8: Labour Market Indicators*- PLFS Calendar Year (Jan-Dec 2023)



Note: *all indicators are for age 15 and above and in usual status (principal activity status+subsidiary economic activity status).
Source: MOSPI.

cent in February (Chart III.7a). The labour force participation rate (LFPR) and employment rate (ER) recorded marginal increases over the previous month (Chart III.7b).

Recently released periodic labour force survey (PLFS) data for the calendar year 2023[10] showed that labour market indicators recorded improvement across rural and urban areas. At the all India level, the LFPR[11] increased to 59.8 per cent in 2023 from 56.1 per cent in 2022, the highest since the survey's inception in 2017-18. Notably, female LFPR has risen to 41.3 per cent from 33.9 per cent last year. The worker population ratio (WPR) also improved to 58.0 in 2023 with significant improvement in the female WPR (from 32.8 in 2022 to 40.1 in 2023). The unemployment rate (UR) fell to 3.1 per cent in 2023 - its lowest in the PLFS series (Chart III.8a).

In rural areas, the LFPR and WPR increased to 63.4 and 61.9, respectively, while the UR fell to of 2.4 per cent. The female LFPR in rural areas saw a significant increase to 47.3 per cent in 2023 from 37.5 per cent in 2022. In urban areas, the LFPR and WPR increased to 51.4 and 48.8, respectively, while UR decreased (Chart III.8b).

The employment outlook in the organised sector, as polled by the PMIs for manufacturing and services, remained subdued in February 2024. While manufacturing employment remained in contraction for the second consecutive month, services employment moderated to an eleven-month low (Chart III.9).

Chart III.9: PMI Employment Indices

Note: A PMI value of above 50 indicates expansion.
Source: S&P Global.

10 PLFS Key labour Force Indicators Calendar Year 2023.pdf (mospi.gov.in).

11 Measured as per the usual status for persons aged 15 years and above.

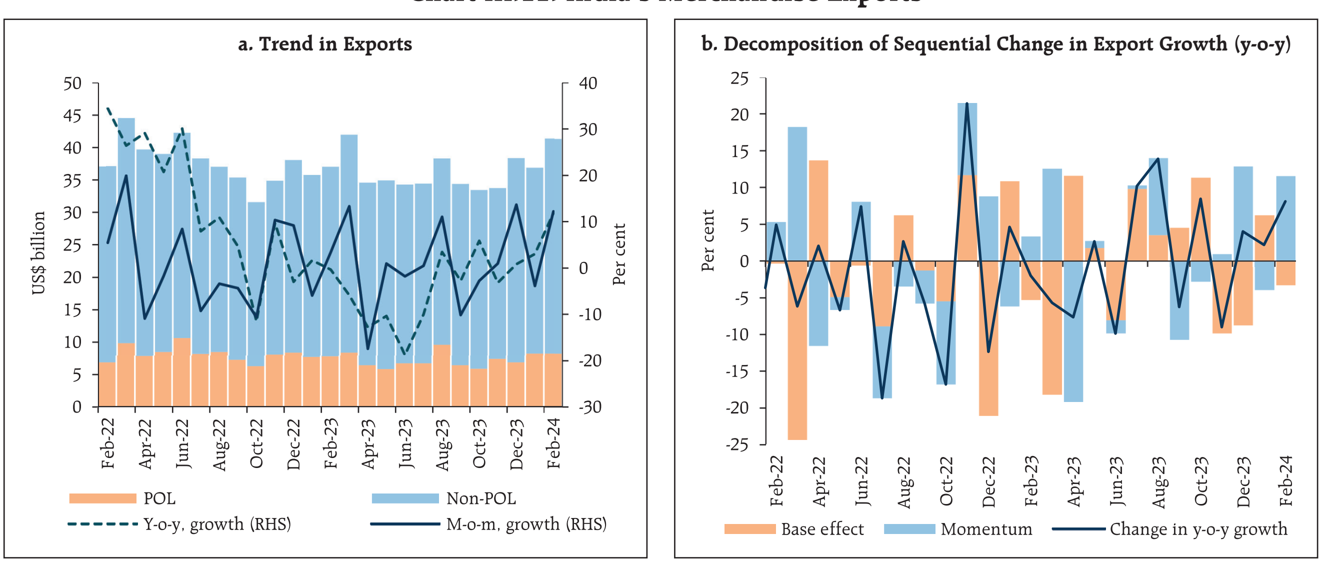
Chart III.10: Demand for work under MGNREGA

Source: Ministry of Rural Development.

The work demanded under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) witnessed an uptick of 0.3 per cent (m-o-m) in February, reflecting lower agricultural labour demand with the completion of *rabi* crop sowing (Chart III.10).

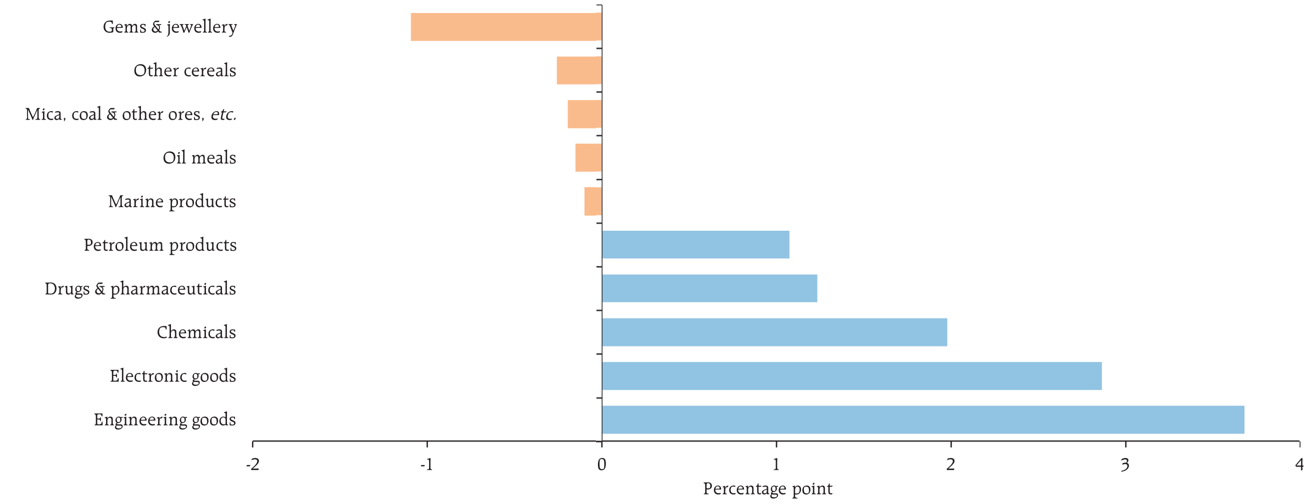
India's merchandise exports at US$ 41.4 billion, an eleven month high, grew by 11.9 per cent (y-o-y) for the third consecutive month in February 2024 as favourable momentum more than offset a negative base effect (Chart III.11). Out of 30 major commodities, 22 commodities (accounting for 83.2 per cent of the

Chart III.11: India's Merchandise Exports



Sources: PIB; and DGCI&S; and RBI staff estimates.

Chart III.12: India's Merchandise Exports – Relative Contribution (February 2024 over February 2023)

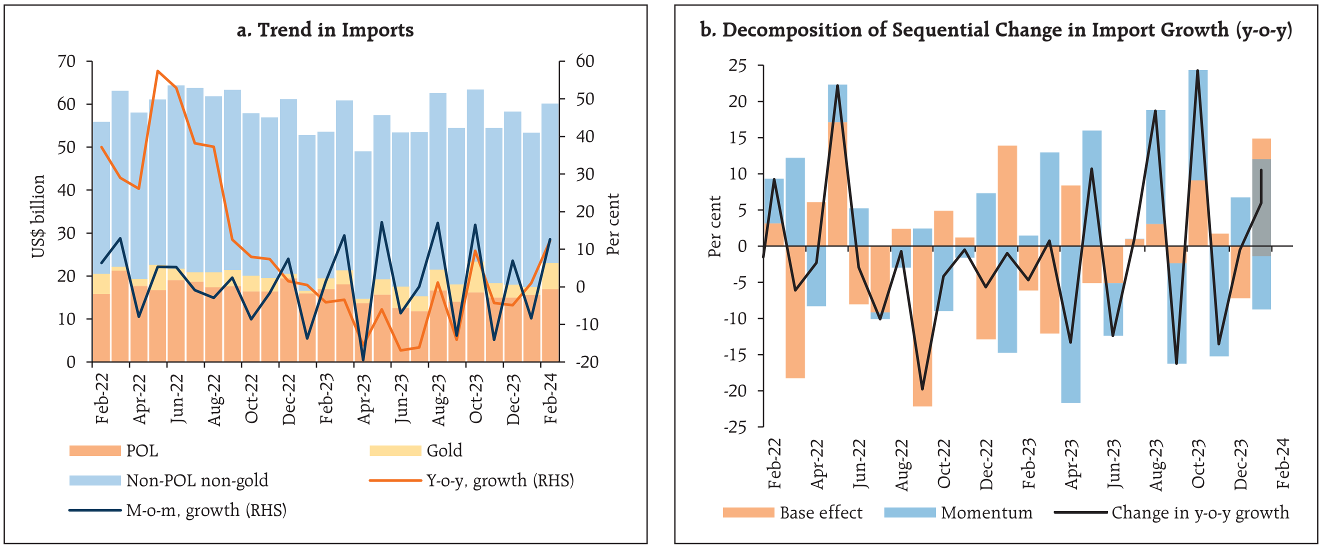


Sources: PIB; and RBI staff estimates.

export basket) registered expansion on a y-o-y basis. Engineering goods, electronic goods, organic and inorganic chemicals, drugs and pharmaceuticals and petroleum products supported export growth, while gems and jewellery, other cereals, mica, coal and other ores, oil meals and marine products dragged down overall exports in February (Chart III.12).

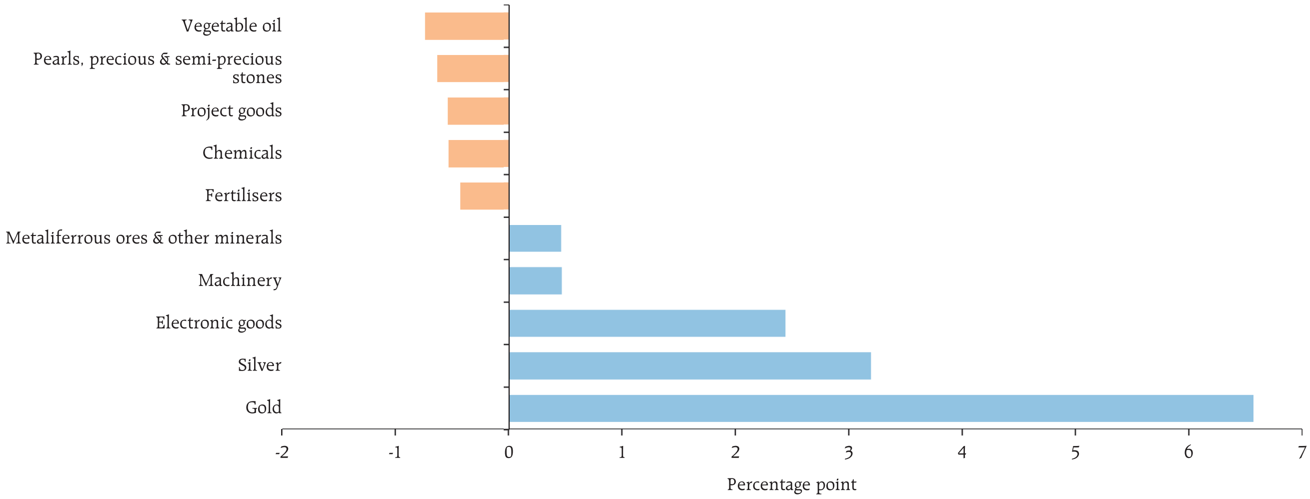
Merchandise imports expanded for the second consecutive month and reached US$ 60.1 billion in February. Higher momentum in imports more than offset a negative base effect, leading to y-o-y growth of 12.2 per cent (Chart III.13). Among the 30 major commodities, 17 commodities (accounting for 77.4 per cent of the import basket) registered growth.

Chart III.13: India's Merchandise Imports



Sources: PIB; DGCI&S; and RBI staff estimates.

Chart III.14: India's Merchandise Imports – Relative Contribution (February 2024 over February 2023)

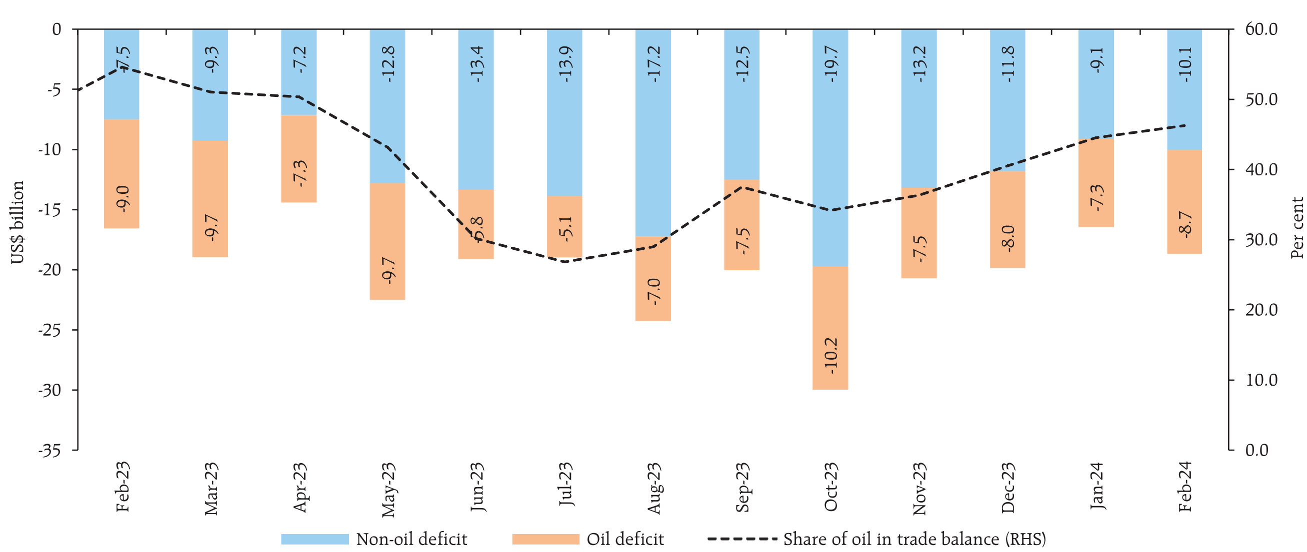


Sources: PIB; and RBI staff estimates.

Gold, silver, electronic goods, machinery and metalliferous ores and other minerals supported import growth, while vegetable oil, pearls, precious and semi-precious stones, project goods, chemicals and fertilisers were the main drags on growth in February (Chart III.14).

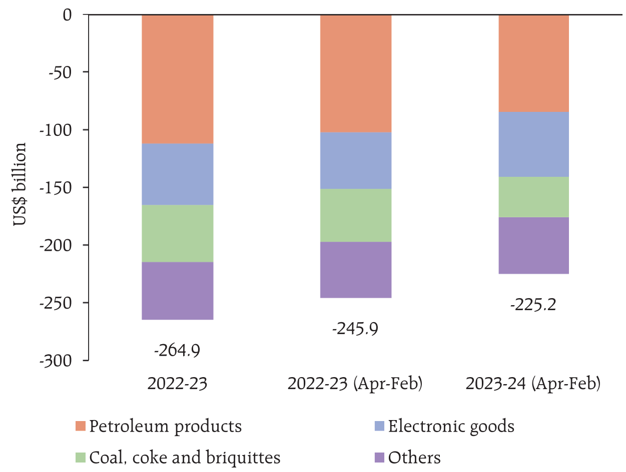
The merchandise trade deficit widened to US$ 18.7 billion in February from US$ 16.5 billion in January as annual and sequential growth in imports outpaced export growth. The share of the POL deficit in total merchandise trade deficit reached a 10-month high of 46.2 per cent in February (Chart III.15).

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



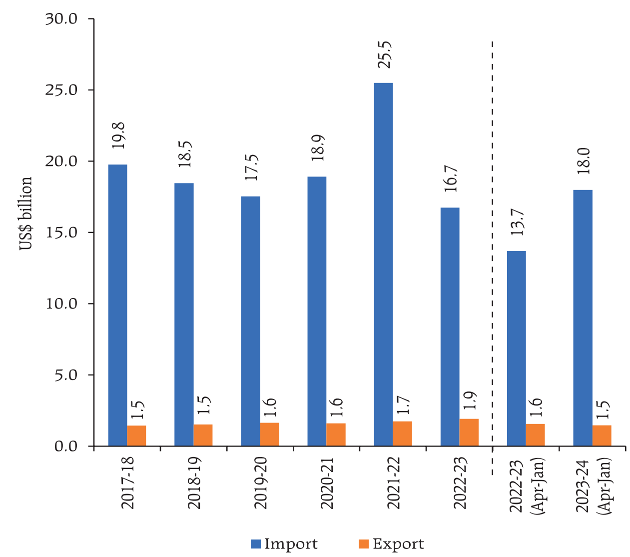
Sources: PIB; and DGCI&S.

Chart III.16: Commodity wise Merchandise Trade Deficit



Note: Coal, coke and briquettes exports in February 2024 are assumed to be at the same level as in January.
Sources: PIB; DGCI&S; and RBI staff estimates.

Chart III.17: India's Trade with EFTA



Source: Ministry of Commerce and Industry.

During April-February 2023-24, India's merchandise exports at US$ 395.0 billion contracted by 3.5 per cent (y-o-y), while merchandise imports at US$ 620.2 billion declined by 5.3 per cent (y-o-y). Consequently, the merchandise trade deficit narrowed to US$ 225.2 billion during this period as compared with US$ 245.9 billion a year ago. Petroleum products were the largest source of the deficit, followed by electronic goods (Chart III.16).

India signed a Trade and Economic Partnership Agreement (TEPA) with the European Free Trade Association (EFTA) on March 10, 2024.[12] India runs a trade deficit with EFTA[13] – goods worth US$ 16.7 billion were imported from this bloc while exports amounted to US$ 1.9 billion in 2022-23 (Chart III.17). Switzerland is the largest trading partner in EFTA, accounting for more than 90 per cent of India's total imports (of which gold accounts for 80 per cent). Major imported commodities from EFTA include gold, petroleum gases, coal, soyabean oil, and pharmaceutical products, while major exports include organic chemicals, precious and semi-precious stones, ships, boats and floating structures, optical instruments, and nuclear reactors. The TEPA aims at FDI to the tune of US$ 100 billion in India from EFTA over the next 15 years and one million direct employment generation.

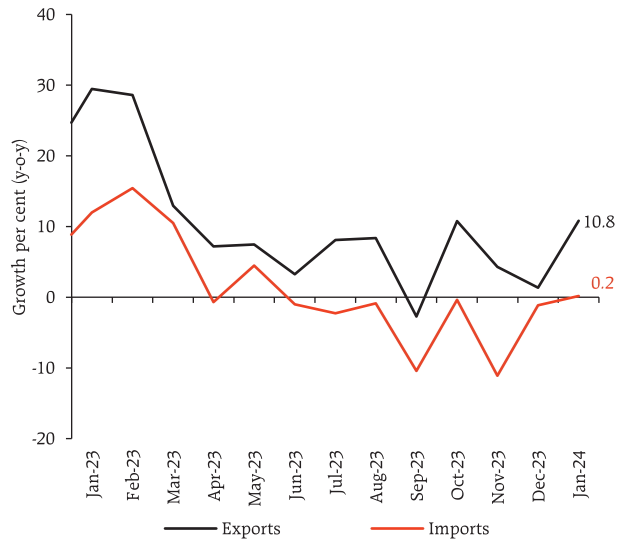
Services exports at US$ 31.0 billion registered a growth of 10.8 per cent (y-o-y) in January 2024, led by a rise in software services, travel services and business services exports. While services imports rose by 0.2 per cent (y-o-y) to US$ 14.8 billion, driven by an increase in software services and travel services imports (Chart III.18). Consequently, net services exports earnings rose by 22.8 per cent (y-o-y) to US$ 16.2 billion in January.

During April-January 2023-24, the gross fiscal deficit (GFD) of the central government stood at 63.6 per cent of the revised estimates (RE), lower than 67.8 per cent of RE during the corresponding period of the previous year, on the back of modest revenue spending and buoyant direct tax revenues. On the expenditure side, capital spending recorded

12 https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2013169. EFTA comprises of four member states, *viz.*, Switzerland, Norway, Iceland, and Liechtenstein.

13 In EFTA, India runs a merchandise trade surplus with Iceland.

Chart III.18: Services Exports and Imports: Growth



Source: RBI.

an increase of 26.5 per cent (y-o-y) while revenue expenditure growth remained contained at 1.4 per cent (y-o-y) [Chart III.19a]. Capital outlay (*i.e.*, capital expenditure excluding loans and advances) recorded an increase of 25.8 per cent, resulting in a marked improvement in the quality of spending of the central government (Chart III.19b).

On the receipts side, direct tax collections grew by 23.5 per cent (y-o-y) during April-January 2023-24, with income tax and corporate tax collections growing at 27.3 per cent and 20.1 per cent, respectively, reflecting increased compliance, higher advance tax collections and widening of the tax base.[14,15,16] Indirect tax collections grew by 4.7 per cent (y-o-y), with goods and services taxes (GST) and customs revenues growing at 9.0 per cent and 1.0 per cent, respectively. On the other hand, excise duties contracted by 6.0 per cent in April-January 2023-24 in relation to the corresponding period of the previous year. Overall, gross tax revenue grew by 14.5 per cent over the previous year, led by robust growth in direct tax collections (Chart III.20).

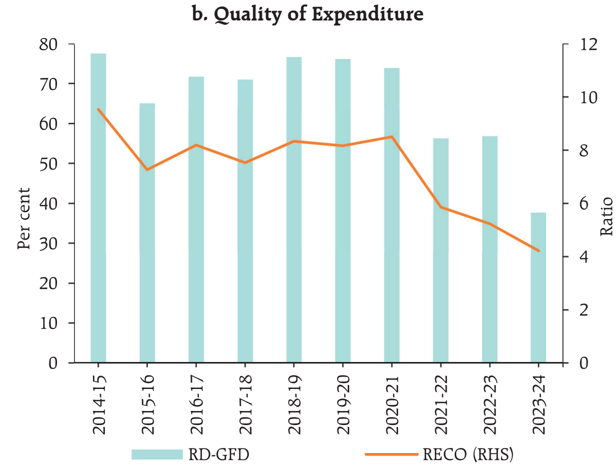
Non-tax revenue collections grew by 46.4 per cent (y-o-y) during April-January 2023-24, mainly attributable to the higher than budgeted surplus

Chart III.19: Government Expenditure (April-January)

a. Expenditure Growth

Source: Controller General of Accounts (CGA).

b. Quality of Expenditure



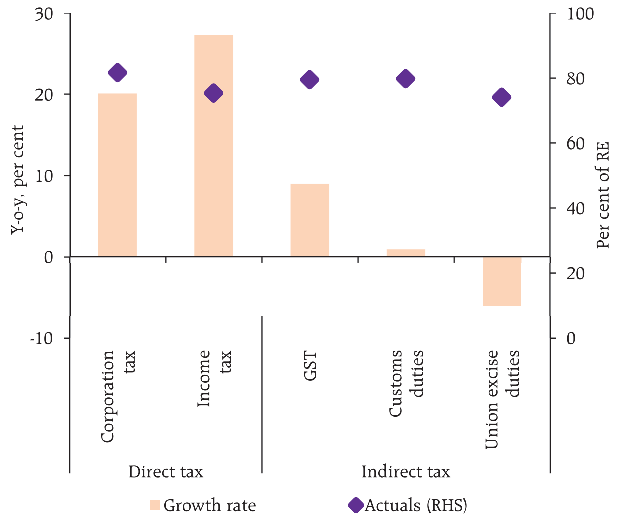
Note: RD-GFD: Revenue deficit to gross fiscal deficit ratio; RECO: Revenue expenditure to capital outlay ratio.
Source: CGA.

14 PIB, Ministry of Finance, January 1, 2024.

15 PIB, Ministry of Finance, December 18, 2023.

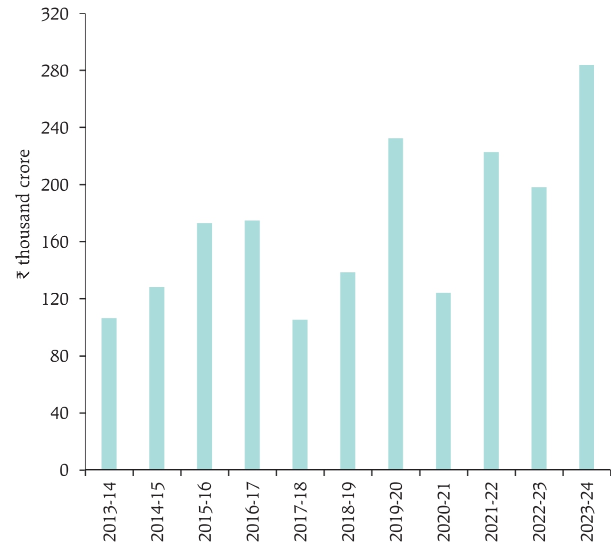
16 PIB, Ministry of Finance, October 26, 2023.

Chart III.20: Tax Revenue (April-January 2023-24)



Sources: CGA; and Union budget documents.

Chart III.21: Non-tax Revenue (April-January)



Source: CGA.

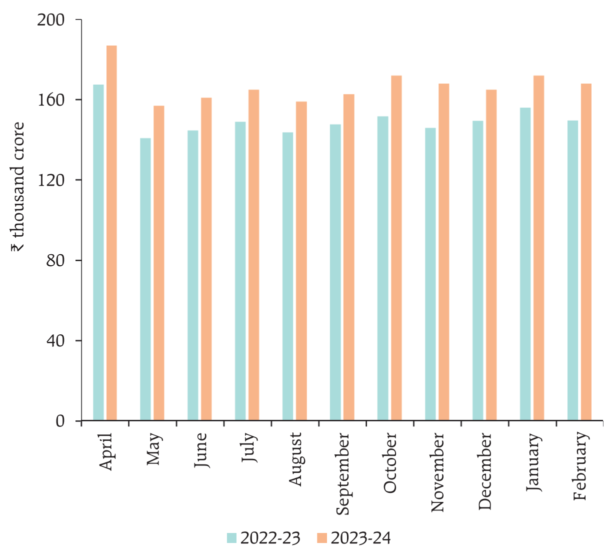
transfer from the Reserve Bank of India (Chart III.21).[17] On the other hand, non-debt capital receipts (comprising mainly of disinvestment receipts) contracted by 40.2 per cent.[18] Overall, the total receipts of the central government expanded by 13.9 per cent (y-o-y).

The Union Government presented the second batch of supplementary demand for grants in February 2024 for 2023-24, involving an additional cash outgo of ₹78,673 crore (revenue expenditure of ₹77,429 crore and capital expenditure of ₹1,244 crore). However, this additional cash outgo is expected to be compensated by higher revenue collections, limiting its impact on the budgeted fiscal deficit.

GST collections (Centre *plus* States) grew by 12.5 per cent (y-o-y) to ₹1.68 lakh crore in February 2024. The gross GST collection during April-February 2023-24 (₹18.4 lakh crore) was 11.7 per cent higher than during the corresponding period last year (Chart III.22).

As per the data available for April-January 2023-24, States' GFD reached 67.5 per cent of their Budget Estimates (BEs), which is 14.6 percentage points higher than the corresponding period of the previous year

Chart III.22: Monthly GST Revenue

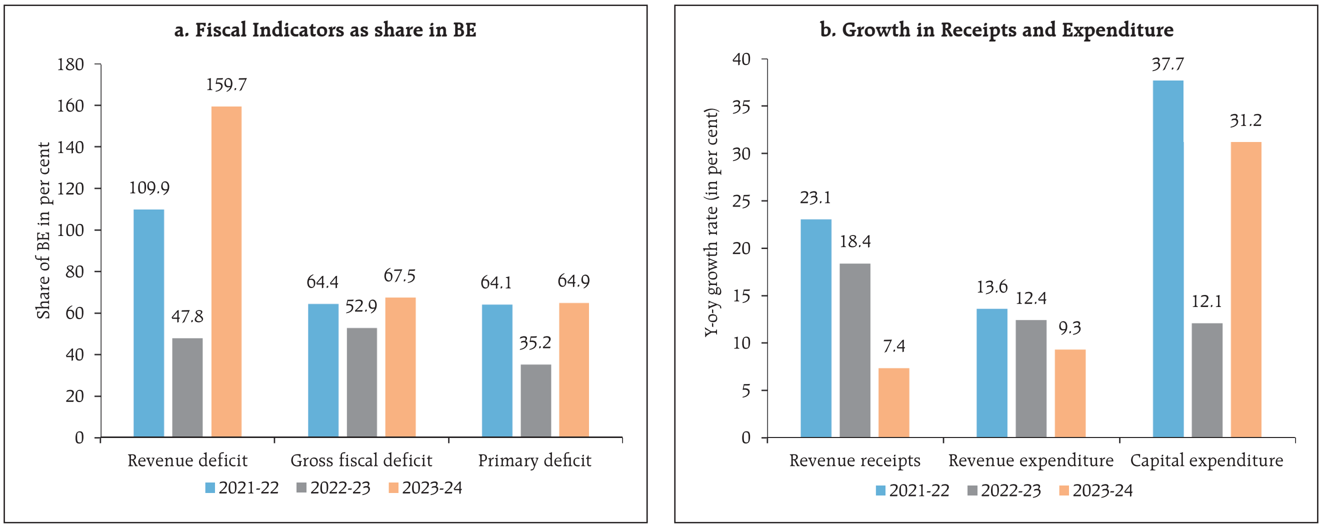


Source: Press Information Bureau (PIB).

[17] 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).

[18] During April-January 2023-24, the government mobilised ₹12,555 crore in the form of disinvestment receipts as compared with ₹38,671 crore during the corresponding period of the previous year

Chart III.23: States' Fiscal Indicators (April-January)

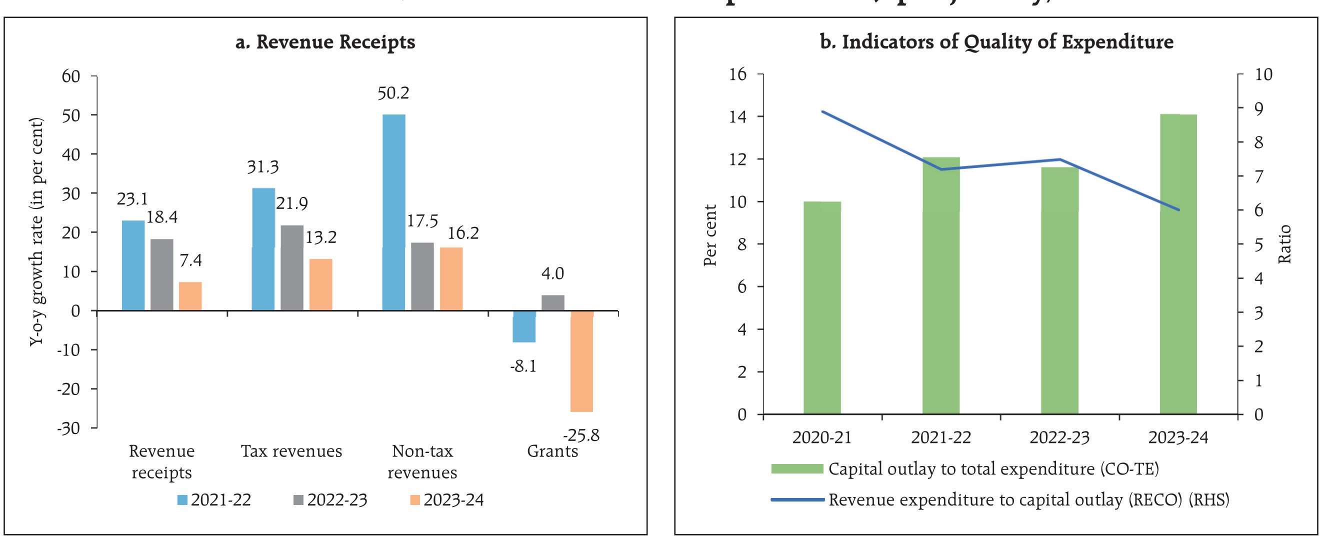


Note: Data pertains to 24 states.
Source: CAG.

(Chart III.23a). This increase was primarily driven by a slowdown in revenue receipts growth and an increase in capital expenditure (Chart III.23b). On the receipts front, States' tax and non-tax revenues recorded growth of 13.2 per cent and 16.2 per cent, respectively. Grants from the Union government contracted following the cessation of GST compensation to states and the tapering of finance commission grants (Chart III.24a).

On the expenditure front, capital spending of states grew by 31.2 per cent (y-o-y), aided by the Scheme for Special Assistance to States for Capital Investment. Till January 2024, the Union government

Chart III.24: States' Revenues and Expenditures (April-January)



Note: Data pertains to 24 states.
Source: CAG.

had sanctioned ₹ 1.11 lakh crore (of the ₹ 1.3 lakh crore allocated for 2023-24), of which ₹66,745 crore has already been disbursed to the states.[19] The sustained capex push has improved the quality of expenditure of the states (Chart III.24b).

Aggregate Supply

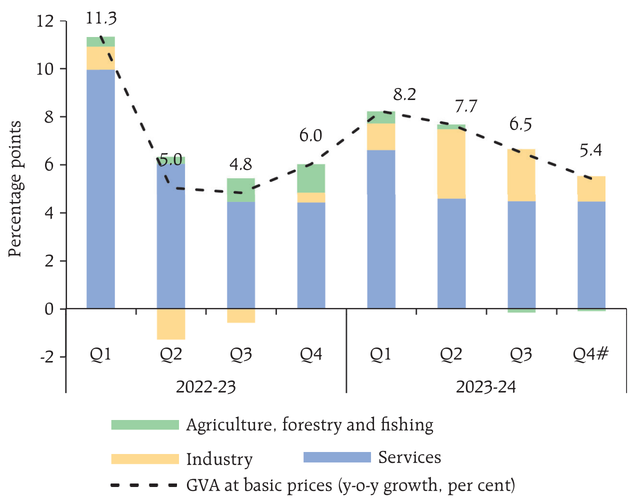
Aggregate supply, as measured by gross value added (GVA) at basic prices, grew by 6.9 per cent in 2023-24 as per the SAE (same as in FAE). The growth was propelled by the industrial and services sectors, while agriculture recorded a moderate growth. On a quarterly basis, real GVA growth moderated to 6.5 per cent in Q3:2023-24 from 7.7 per cent in the preceding quarter (Chart III.25).

The industrial sector sustained strong momentum to register double digit growth successively in Q2 and Q3 of 2023-24. The manufacturing sector remained the primary driver of industrial GVA growth in Q3:2023-24 with a steady growth of 11.6 per cent, aided by elevated profit margins of listed corporate manufacturing firms. Activity in mining and quarrying remained steady. The services sector recorded an acceleration, with broad-based resilience across sub-sectors. Construction activity grew by 9.5 per cent, aided by the government's thrust on infrastructure and ebullient residential housing demand. Growth in trade, hotels, transport, communication, and services related to broadcasting, and financial, real estate and professional services recorded an improvement whereas public administration, defence, and other services moderated marginally.

The SAE of the agricultural crop production placed total foodgrains production at 309.3 million tonnes in 2023-24, 1.3 per cent lower than the final estimates for 2022-23 due to decreases in both *kharif* and *rabi* crop production, by 1.0 per cent and 1.7 per cent, respectively. Wheat production, however, has been estimated at a record 112.0 million tonnes, which is 1.3 per cent higher than the final estimates of the previous year. Most other crops recorded a decline in production over the previous year (Chart III.26).

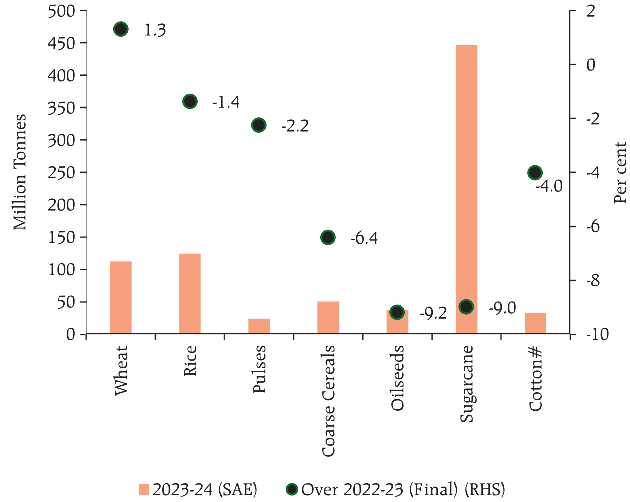
As per the FAE, horticulture production is placed at 355.3 million tonnes during 2023-24, 0.1 per cent lower than the final estimates of 2022-23. In 2022-23,

Chart III.25: Weighted Contribution to GVA Growth



Note: #: Implicit growth.
Source: NSO.

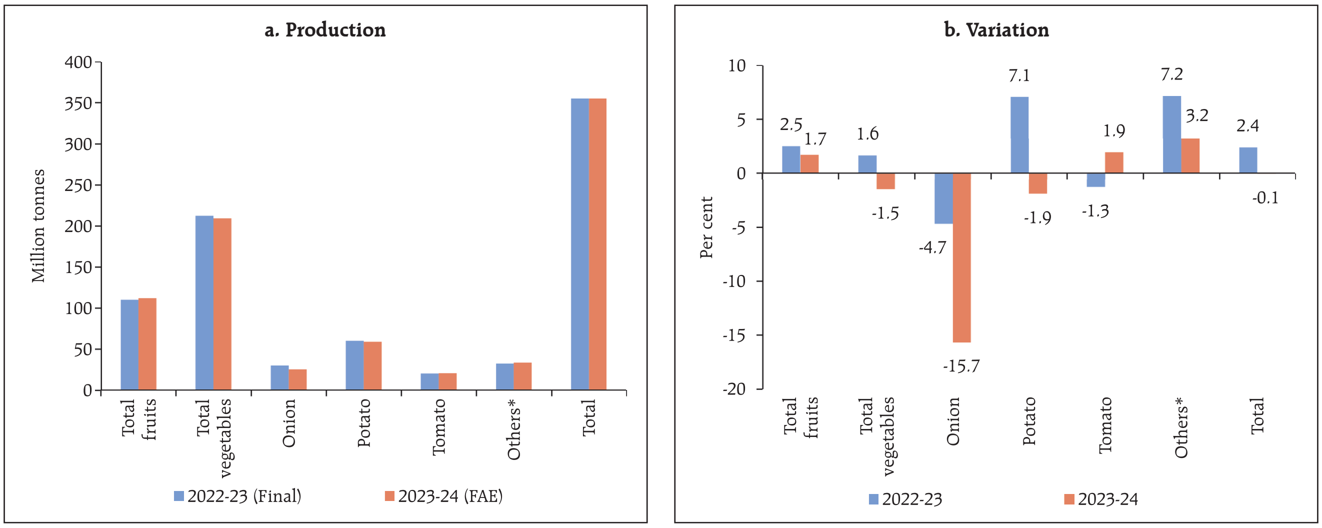
Chart III.26: Agricultural Production in 2023-24 (SAE)



Note: # Million bales of 170 kg each.
Source: Ministry of Agriculture and Farmers' Welfare.

[19] https://doe.gov.in/sites/default/files/Monthly%20Summary%20Report%20of%20Department%20of%20Expenditure%20for%20the%20month%20of%20January%2C%202024.pdf

Chart III.27: Horticulture Production

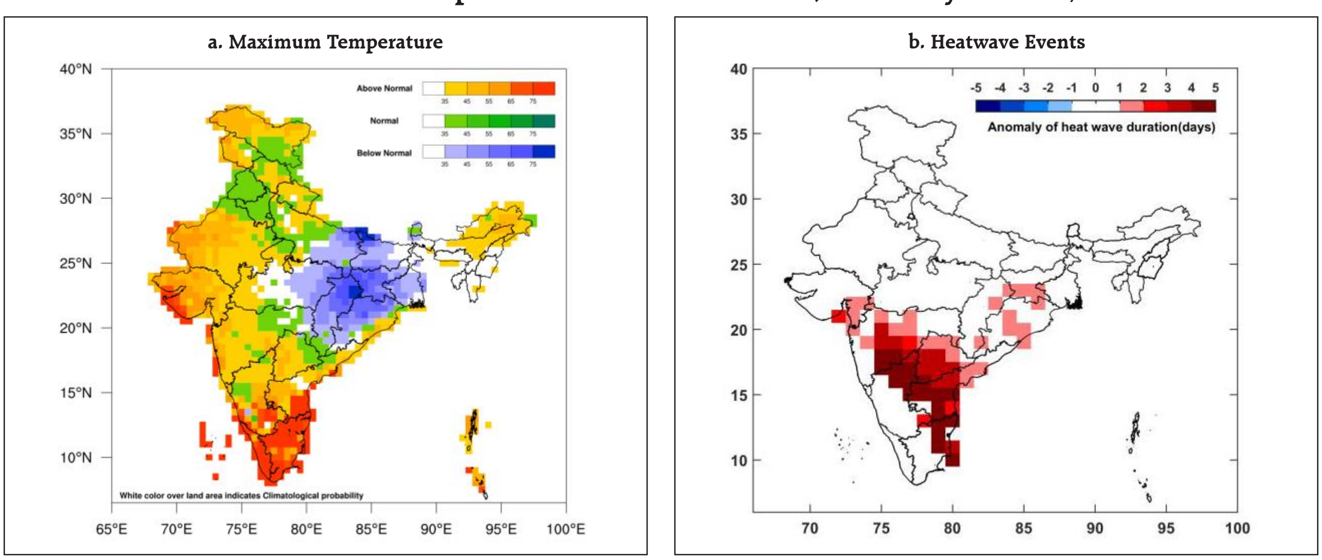


Note: *: Others include plantation crops, spices, flowers, aromatic and medicinal plants.
Source: Ministry of Agriculture and Farmers' Welfare.

the production was 355.5 million tonnes, 2.4 per cent higher than in 2021-22 (Chart III.27).

As per the Indian Meteorological Department (IMD)'s latest outlook[20], above-normal temperatures are likely over most parts of the country during March-May 2024.[21] Extreme above-normal temperatures are less likely over the key wheat-growing states (except Rajasthan) in March, which augurs well for the standing wheat crop (Charts III.28). Prevailing *El Nino* conditions are also expected to weaken during the upcoming season and may turn neutral thereafter.

Chart III.28: Temperature Outlook for March (Probability Forecast)



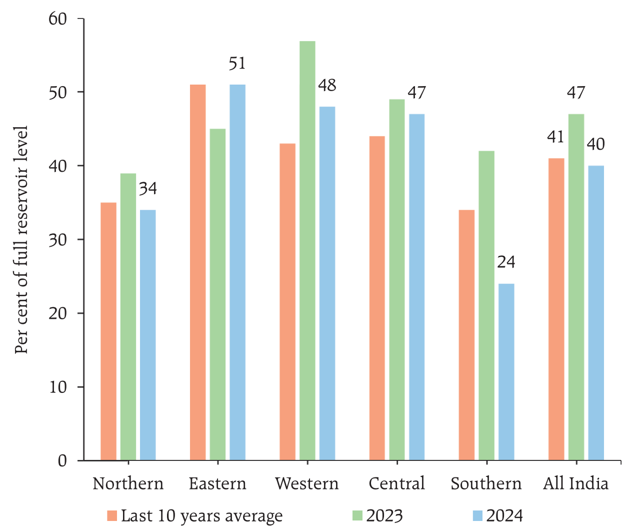
Source: IMD.

[20] Set out in the outlook for 'Seasonal Temperatures During the Hot Weather Season (March to May)' released on March 1, 2024

[21] https://internal.imd.gov.in/press_release/20240301_pr_2850.pdf

As of March 14, 2024, the all-India reservoir level was 40 per cent of total reservoir capacity, lower than the previous year's as well as decadal average levels (Chart III.29).

Chart III.29: Reservoir Level (as of March 14, 2024)



Source: Central Water Commission.

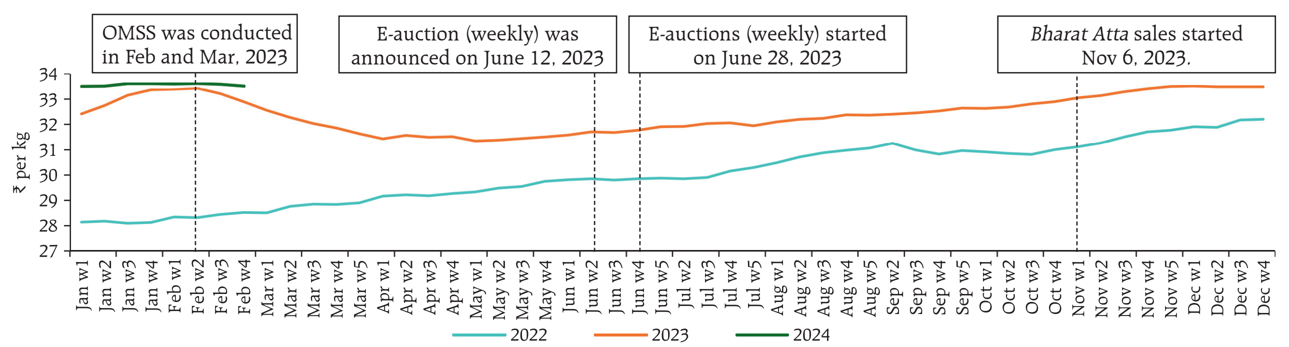
Rice procurement under the *Kharif* marketing season (KMS) 2023-24 stood at 442.8 lakh tonnes as of March 14, 2024, 8 per cent lower than last year. Harvested wheat for the current season has started to arrive in the *mandis* of key producing states. Wheat procurement for the ensuing *Rabi* Marketing Season (RMS) 2024-25 is fixed in the range of 300-320 lakh tonnes. As of March 01, 2024, the stock of foodgrains with the Food Corporation of India (FCI) and other institutions remained at 7.6 times the buffer norm for rice and 0.7 times the norm for wheat.[22]

Wheat prices faced pressures during 2021-22 and 2022-23 triggered by heatwaves. Inflation in retail prices of wheat reached a high of 25.4 per cent in February 2023. Subsequently, aided by astute supply management policies of the Government such as the Open Market Sale Scheme for Wheat (OMSS-W), wheat prices inflation moderated significantly over the course of 2023-24 to reach 2 per cent in February 2024 (Box A).

Box A: Open Market Sale Scheme for Wheat (OMSS-W): Impact on Prices

Supply side responses to moderate price spikes have been instrumental in management of inflation during recent years. These measures include conducting OMSS-W, imposing export restrictions, applying stock limits on wheat traders and sales of *Bharat* brand *atta*[23] (Chart A1). During 2023-24 (till February 28), the government

Chart A1: Trends in Retail Price of Wheat



Note: Daily retail prices were converted to weekly average prices.
Source: CEIC.

(Contd.)

[22] The buffer norm for the January-March quarter for rice and wheat is 76.1 lakh tonnes and 138 lakh tonnes, respectively.

[23] The Union Government announced the sale of *Bharat* brand *atta* at an MRP of ₹27.5/Kg through mobile vans as well as in the stores of *Kendriya Bhandar*, NAFED and NCCF, starting from November 6, 2023.

conducted 36 weekly e-auctions. Out of the 101.5 lakh metric tonnes (LMT) wheat designated for offloading under the OMSS-W, 95 LMT was sold as on February 28, 2024.[24]

To study the impact of the announcement of OMSS on *mandi* prices, an event study was undertaken with the following specification:

$$P_{id} = \alpha_i + \beta_{1d} * OMSS_d + \varepsilon_{id}$$

where, P_{id} is the log transformed *mandi* prices[25] (*i.e.*, wholesale price) of wheat recorded in district i at time d (daily); α_i is the state-district-specific fixed effect; $OMSS_d$ is a dummy variable which takes the value 1 for each of the days after the announcement of the OMSS operations and 0 otherwise and ε_{id} is the error term. The results show that at the aggregate level, the announcement of OMSS operations for wheat itself had a statistically significant and negative effect on wheat *mandi* prices (Table A1). In other words, the prices came down.

Further, the impact of actual offtake under the OMSS-W was examined using a Difference-in-Difference (DiD) approach. Using district level panel data on daily wheat retail prices for 2021-2023 covering districts in 13 states, the following equation was estimated to study the impact of OMSS-W e-auctions across districts:

$$P_{idy} = \alpha_i + \beta_1 OMSS_{id} + \beta_2 Treatment\ Year_{iy} + \beta_3 (OMSS * Treatment\ Year)_{idy} + \varepsilon_{iyd}$$

Table A1. Results of Event Study Analysis

	Mandi Price of Wheat (modal)	*Mandi* Price of Wheat (maximum)
OMSS for Wheat	-0.004** (0.00)	-0.008*** (0.00)
Constant	7.763*** (0.00)	7.826*** (0.00)
State-District Fixed Effects	Yes	Yes
No. of Observations	10,328	10,317
R-squared	0.630	0.703

Notes: 1. Robust Standard errors (clustered at district level) are reported in parentheses.
2. *, **, *** represents 10 per cent, 5 per cent and 1 per cent level of significance.
3. Period before and after policy announcement is taken from May 1 to June 11, 2023 and June 12 to June 27, 2023, respectively.

Table A2: Results of Difference-in-Difference Analysis

	Model 1
	Retail Price of Wheat (2023 against average of 2021-2022)
OMSS for Wheat × Treatment Year	-0.007*** (0.003)
OMSS effect: Date FE$	0.005** (0.003)
Treatment effect: Year FE	0.011*** (0.003)
No. of Observations	182,063
R-squared	0.894
Fixed Effects	State × District, Week of the Year, Day of the Week, *Bharat Atta*#

Notes: 1. Robust Standard errors (clustered at district level) are reported in parentheses.
2. *, **, *** represents 10 per cent, 5 per cent and 1 per cent level of significance.
3. The period before and after the policy announcement is taken from March 1 to June 11, 2023 and June 12 to December 31, 2023, respectively.

$: Fixed Effects

$Bharat\ Atta_{id}$ is a dummy variable taking value 1 for days after November 6, 2023 and 0 otherwise for each district i.

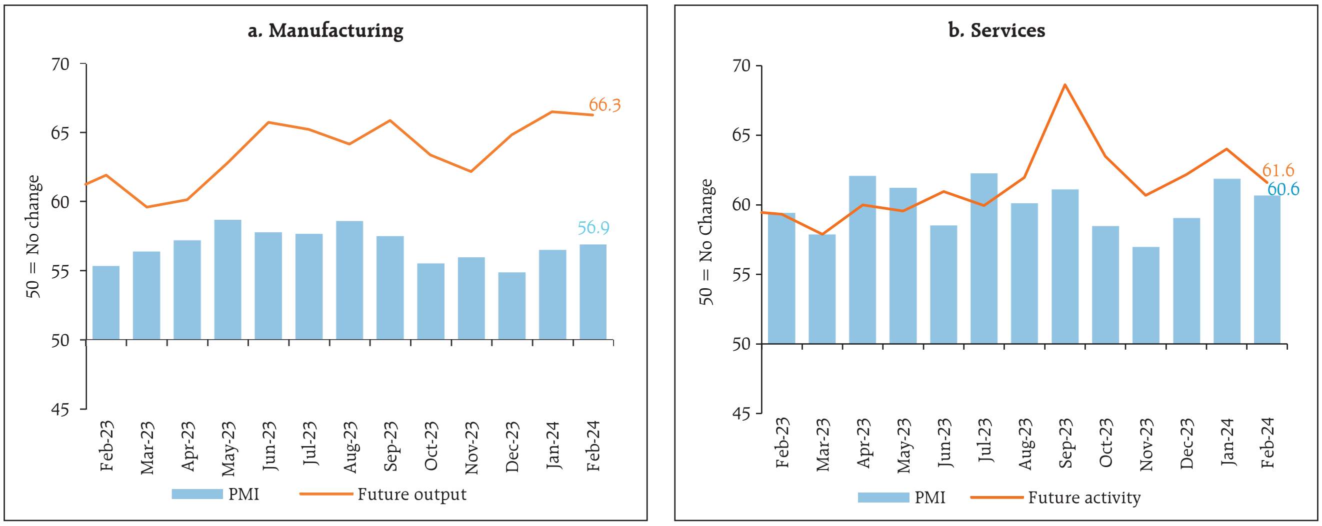
where, P_{idy} is the log transformed retail prices of wheat recorded in district i on d (daily) in year y; $OMSS_{id}$ is a dummy variable which takes the value 0 for each of the days before and 1 after the announcement of the OMSS-W operations for each district i; $Treatment\ Year_{iy}$ is a dummy variable which takes the value 1 for the year 2023 (for OMSS-W operation) and 0, otherwise for each district i; α_i is a vector of fixed effects and ε_{iyd} is the error term. This DiD design compares the price change before and after the OMSS-W began on June 12 in 2023 (treatment period) with the change in average retail price of 2021 and 2022 (control period). Our variable of interest (OMSS for Wheat × Treatment Year), which captures the impact of OMSS-W while controlling for other factors has a negative and significant coefficient, indicating that retail prices came down on account of the Government's policy of releasing wheat through OMSS (Table A2).

Reference: D Suganthi, G V Nadhanael and Biswajeet Mohanty (2024) "Impact of the Announcement and Implementation of OMSS on Wheat Prices", Mimeo.

[24] The reserve prices for Fair and Average Quality (FAQ) and Under Relaxed Specifications (URS) were set at ₹ 2,150/Qtl and ₹ 2,125/Qtl, respectively (Press Information Bureau (PIB), January 31, 2024).

[25] It is the modal and maximum prices reported by the *mandis* on the Agmarknet portal.

Chart III.30: Purchasing Managers' Index (PMI)



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

The headline PMI for the manufacturing sector reached a five-month high of 56.9 in February 2024 - up from 56.5 in January - supported by expansion in output and new orders (Chart III.30a). Services PMI at 60.6 continued to record robust expansion, *albeit* with a sequential moderation (Chart III.30b).

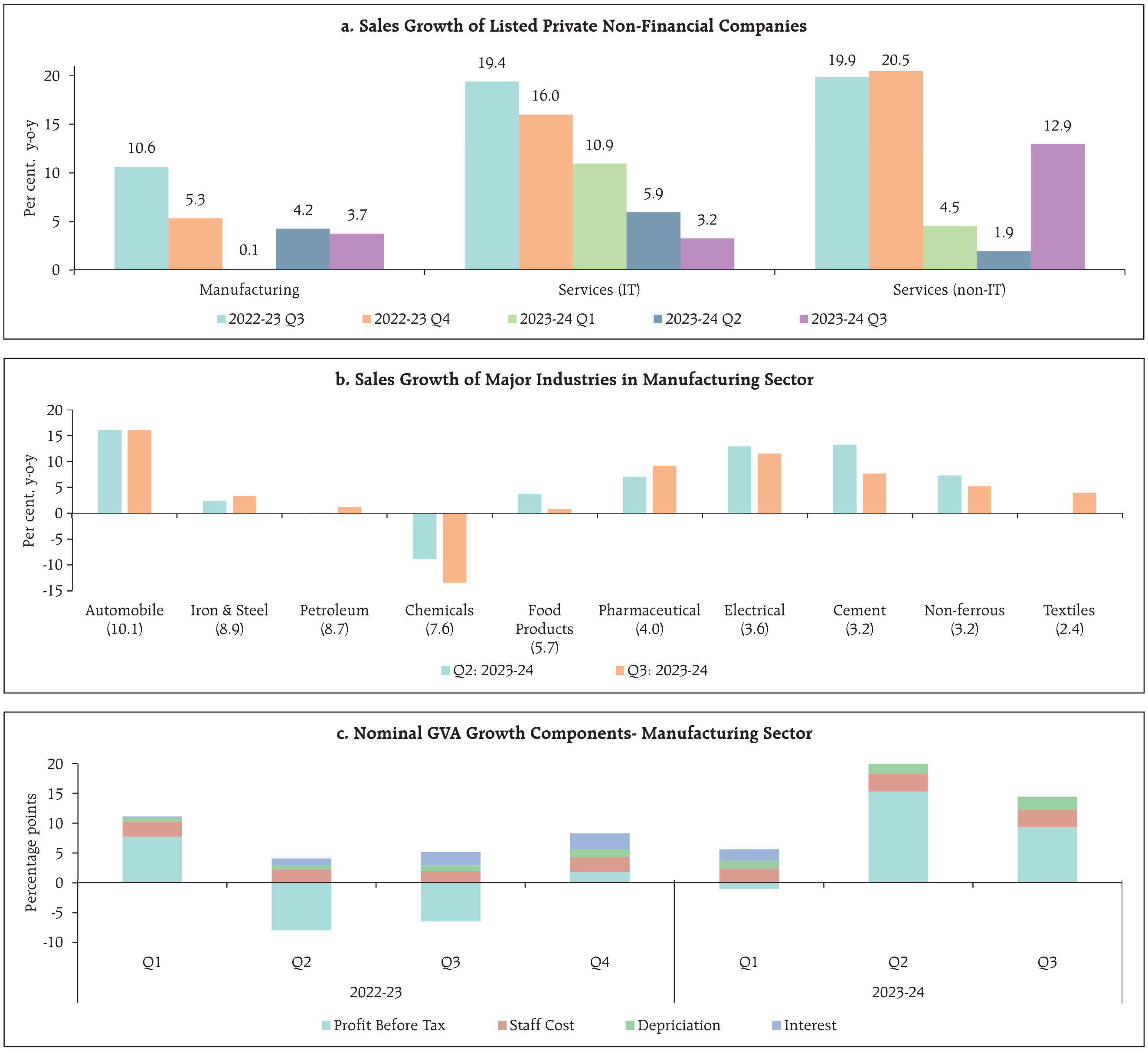
Sales of listed private manufacturing companies recorded lower growth of 3.7 per cent (y-o-y) in nominal terms during Q3:2023-24 as against 4.2 per cent in the previous quarter, largely driven by moderation in food products, electrical products and cement and contraction in chemicals[26] (Chart III.31a and b). From the income side, nominal gross value added growth of 14.5 per cent (y-o-y) in Q32023-24 was primarily driven by profits (Chart III.31c) – operating profits of manufacturing companies improved on both sequential and annual bases.

Information technology (IT) sector's sales continued to decelerate as the industry grappled with slower growth in AEs and the impact of disruptive technologies such as AI. IT companies' revenue growth fell to 3.2 per cent (y-o-y) during Q3 as against 5.9 per cent in the previous quarter and 19.4 per cent a year ago. In contrast, sales of non-IT services companies remained on a high growth trajectory of 12.9 per cent, mainly led by 'wholesale and retail trade' and 'transport and storage services'.

Indicators of transport activity exhibited a mixed picture. Railway freight revenue recorded a y-o-y growth of 6.3 per cent in February 2024, driven by

[26] Sales of chemical industry contracted by 13.5 per cent (y-o-y), excluding which sales growth of listed manufacturing companies stood at 6.4 per cent.

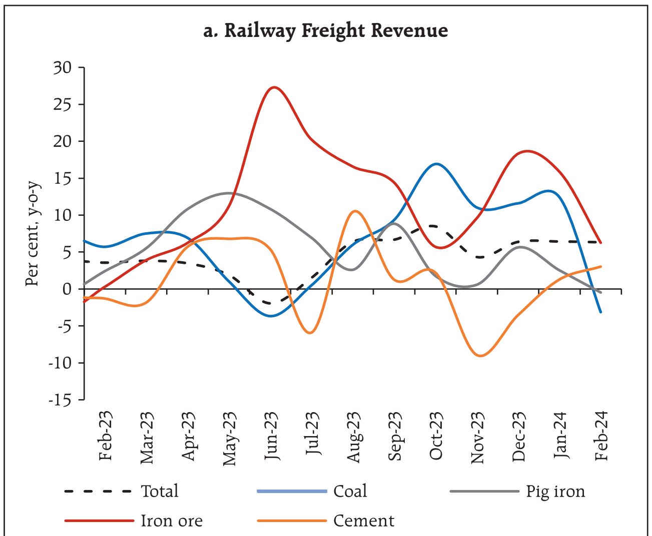
Chart III.31: Corporate Sector Performance



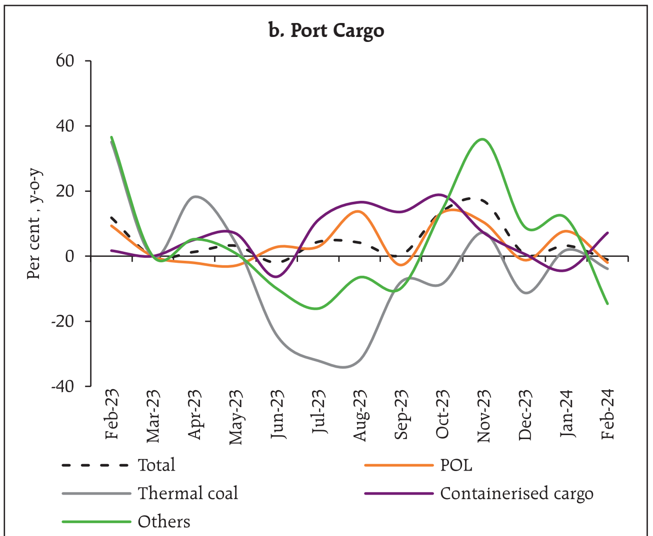
Note: Results are based on 2,580 listed private non-financial companies (1,685 Manufacturing, 706 Non-IT Services and 189 IT companies) for Q3: 2023-24. Numbers in parenthesis are industries' sales share in listed private non-financial companies.
Sources: Capitaline; and RBI staff calculations.

freight movement of iron ore and container services (Chart III.32a). Cargo traffic at major ports, however, declined by 1.1 per cent in February 2024 as POL and coal tonnage recorded a decline (Chart III.32b).

Chart III.32: Railway Traffic and Port Cargo



Source: Rail Drishti.

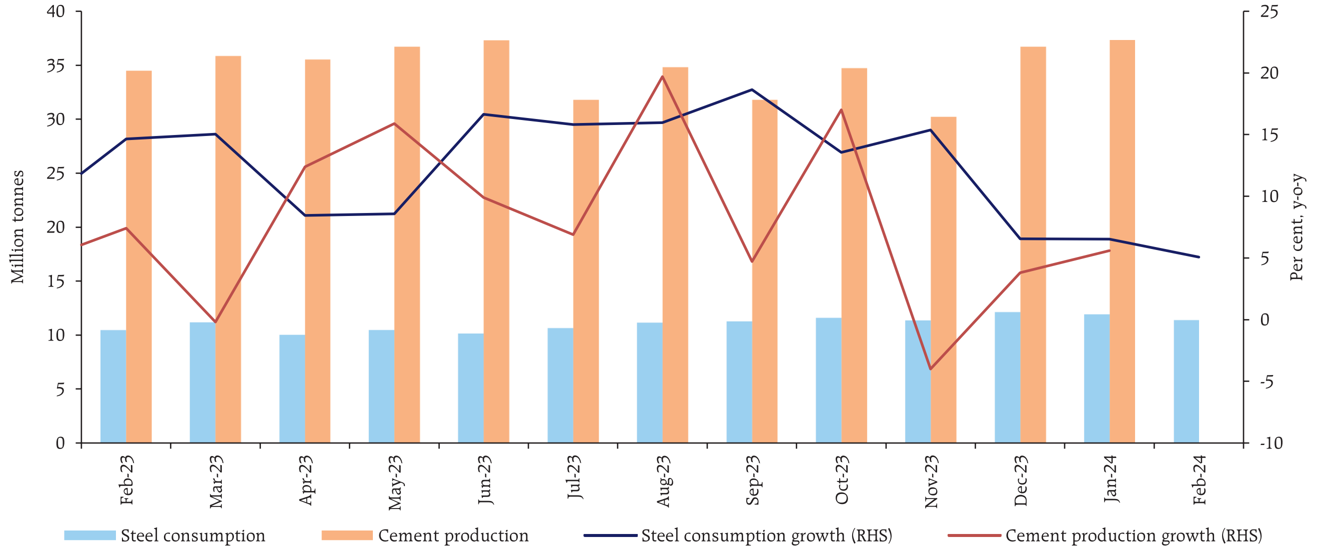


Source: Indian Ports Association.

Among construction sector indicators steel consumption recorded an increase of by 5.1 per cent in February 2024 and cement production increased by 5.6 per cent in January 2024 (Chart III.33).

Various high frequency indicators for the services sector recorded robust growth in February 2024 (Table III.2).

Chart III.33: Steel Consumption and Cement Production



Sources: Joint Plant Committee; and Office of the Economic Adviser, Ministry of Commerce and Industry.

Table III.2: High-Frequency Indicators – Services

Growth (y-o-y, per cent)

Sector	Indicator	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24
Urban demand	Passenger Vehicles Sales	12.9	14.9	1.6	2.9	11.6	3.1	17.3	4.3	3.2	13.9	5.7
Rural demand	Two Wheeler Sales	15.1	17.4	1.7	-7.2	0.6	0.8	20.1	31.3	16.0	26.2	30.0
	Three Wheeler Sales	104.2	70.4	98.6	78.9	68.8	47.0	42.1	30.8	30.6	9.5	4.6
	Tractor Sales	-11.1	1.2	4.2	6.1	1.1	-14.7	-4.3	6.4	-19.8	-15.3	-33.0
Trade, hotels, transport, communication	Commercial Vehicles Sales	-3.3			6.9			3.2				
	Railway Freight Traffic	3.5	1.9	-1.9	1.5	6.4	6.7	8.5	4.3	6.4	6.4	6.3
	Port Cargo Traffic	1.3	3.5	0.4	4.3	4.4	0.3	13.8	17.0	0.7	3.2	-1.1
	Domestic Air Cargo Traffic*	7.6	-4.5	-5.6	-4.1	6.0	-4.5	10.6	9.0	8.7	10.0	-10.5
	International Air Cargo Traffic*	-4.8	2.7	2.7	1.0	7.4	2.7	15.0	4.9	12.2	19.3	21.2
	Domestic Air Passenger Traffic *	22.6	15.7	19.2	26.3	23.6	19.3	10.7	8.7	8.1	5.0	0.0
	International Air Passenger Traffic *	43.0	37.2	26.5	23.6	21.5	19.6	17.5	19.8	18.1	17.0	13.5
	GST E-way Bills (Total)	12.2	19.7	15.5	16.4	19.5	9.5	30.5	8.5	13.2	16.4	14.8
	GST E-way Bills (Intra State)	16.2	23.0	18.8	20.8	22.6	12.4	30.0	22.7	14.2	17.9	17.0
	GST E-way Bills (Inter State)	5.9	14.3	9.9	9.1	14.4	4.9	31.2	-16.2	11.4	13.8	11.0
	Hotel occupancy rate@	63.2	61.9	64.0	60.9	60.9	61.0	62.5	63.0	70.0		
	Average revenue per room	21.2	15.8	14.0	14.2	13.9	18.3	14.8	15.9	12.8		
	Tourist Arrivals	53.7	41.3	24.0	13.6	22.6	17.5	19.8	16.8	7.8		
Construction	Steel Consumption	8.4	8.6	16.7	15.8	16.0	18.6	13.6	15.4	6.5	6.5	5.1
	Cement Production	12.4	15.9	9.9	6.9	19.7	4.7	17.0	-4.0	3.8	5.6	
PMI Index#	Services	62.0	61.2	58.5	62.3	60.1	61.0	58.4	56.9	59.0	61.8	60.6

Note: #: Data in levels. *: February 2024 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.

Inflation

Headline inflation, as measured by y-o-y changes in the all-India consumer price index (CPI)[27], remained unchanged at 5.1 per cent in February 2024 as a positive momentum of around 15 bps was fully offset by favourable base effects. The m-o-m increase was around 10 bps and 25 bps in food and core groups (*i.e.*, excluding food and fuel), respectively, while the fuel group witnessed a negative momentum of around 10 bps (Chart III.34).

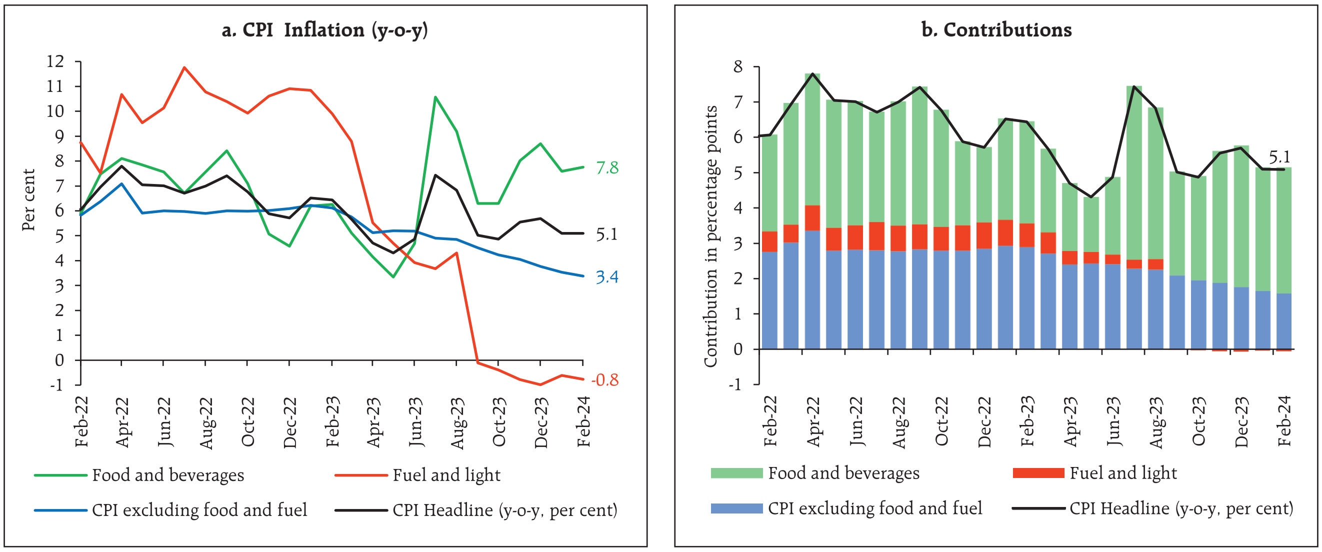
Food inflation (y-o-y) edged up to 7.8 per cent in February from 7.6 per cent in January. In terms of sub-groups, higher inflation was recorded in meat and fish, eggs, vegetables, and sugar while cereals, milk, fruits, pulses, spices, non-alcoholic beverages and prepared meals registered a moderation in inflation. Edible oil prices remained in deflation (Chart III.35).

The fuel and light group continued in deflation at (-) 0.8 per cent in February, deepening from (-) 0.6 per cent in January, mainly on account of a y-o-y decline in LPG and PDS kerosene prices by 13.3 per cent and 11.1 per cent, respectively. Electricity prices, however, recorded inflation of 10.4 per cent y-o-y.

Core inflation continued to ease down to 3.4 per cent in February from 3.5 per cent in January- its

[27] As per the provisional data released by the National Statistical Office (NSO) on March 12, 2024.

Chart III.34: Trends and Drivers of CPI Inflation

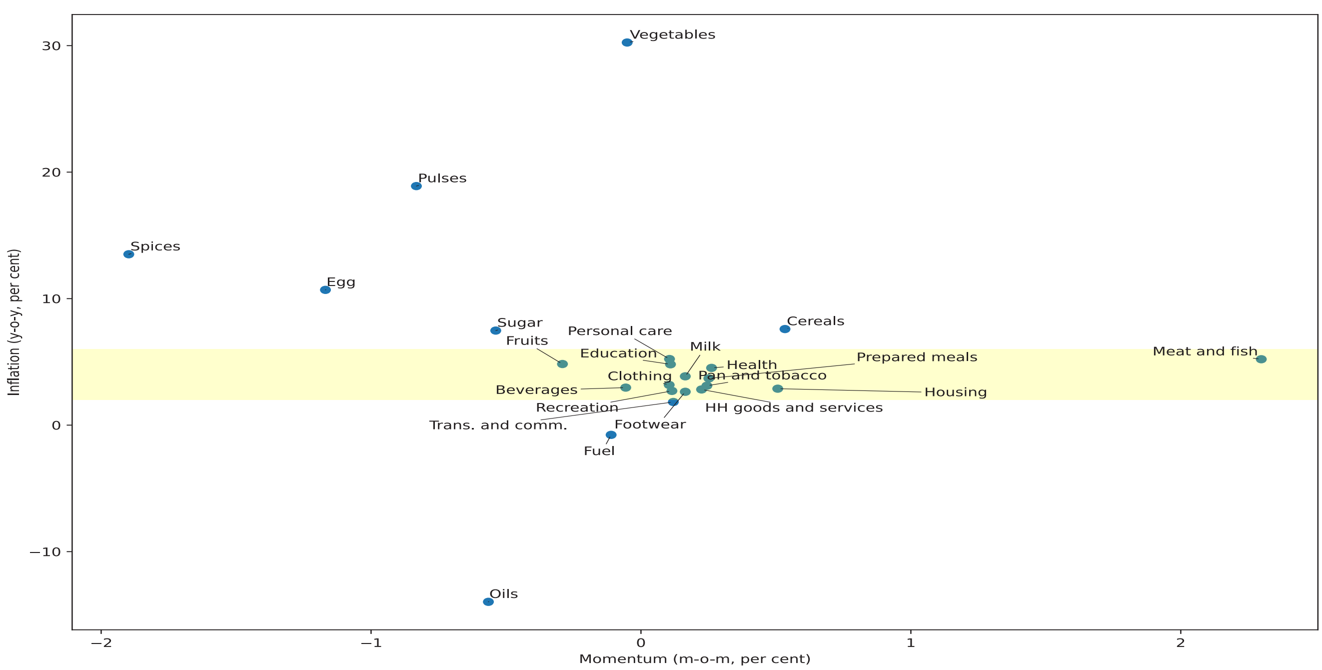


Sources: National Statistical Office (NSO); and RBI staff estimates.

lowest level in four years. The moderation was across all sub-groups (Chart III.36).

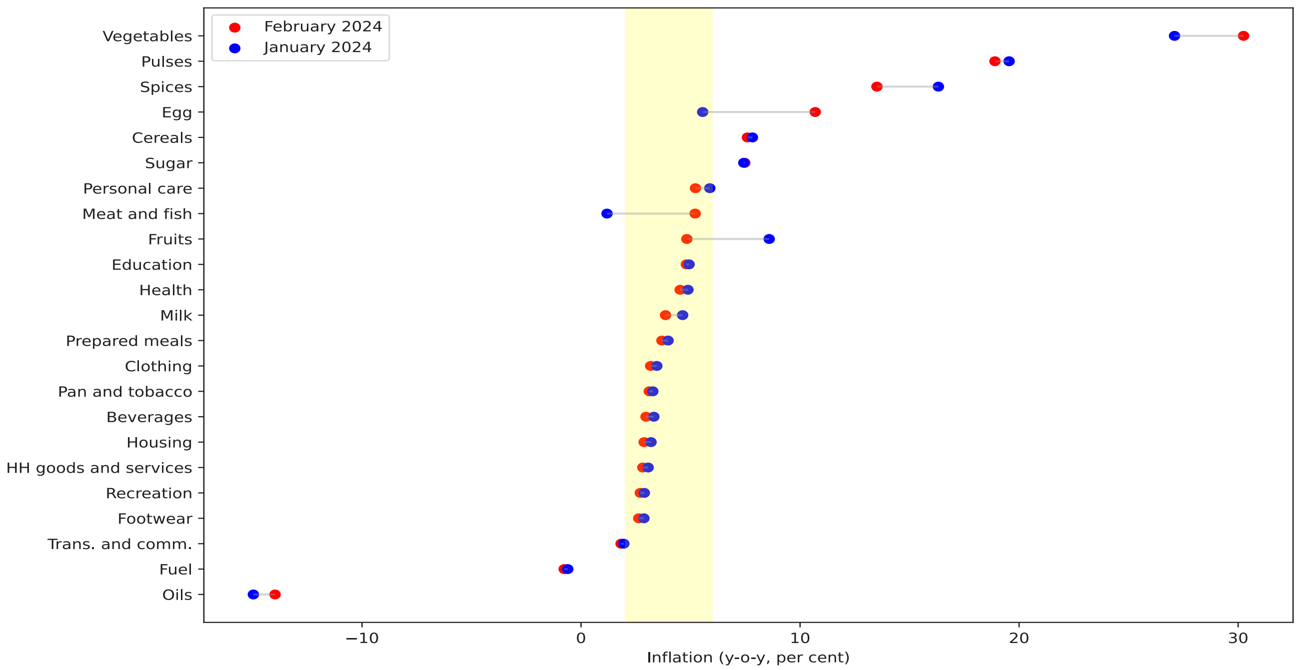
In terms of regional distribution, inflation remained steady in rural areas at 5.3 per cent in February while in urban areas, it softened by 10 basis points to 4.8 per cent. Majority of the states registered inflation in the range of 4-6 per cent (Chart III.37).

Chart III.35: Annual Inflation (y-o-y) and Momentum (m-o-m) across Sub-groups



Sources: NSO; and RBI staff estimates.

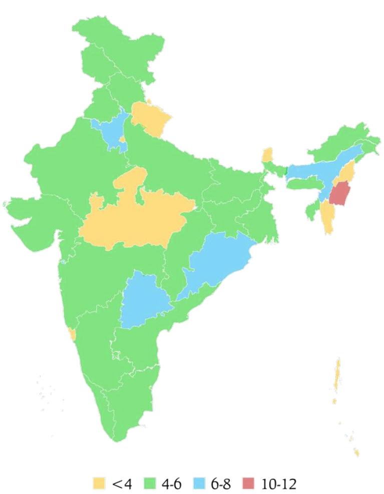
Chart III.36: Annual Inflation across Sub-groups (February 2024 versus January 2024)



Sources: NSO; and RBI staff estimates.

High frequency food price data for March so far (up to 15th) show that cereal prices declined, mainly for wheat. While pulses prices registered a broad-based increase, edible oil prices continued to soften.

Chart III.37: Spatial Distribution of Inflation February 2024 (CPI-Combined, y-o-y, per cent)



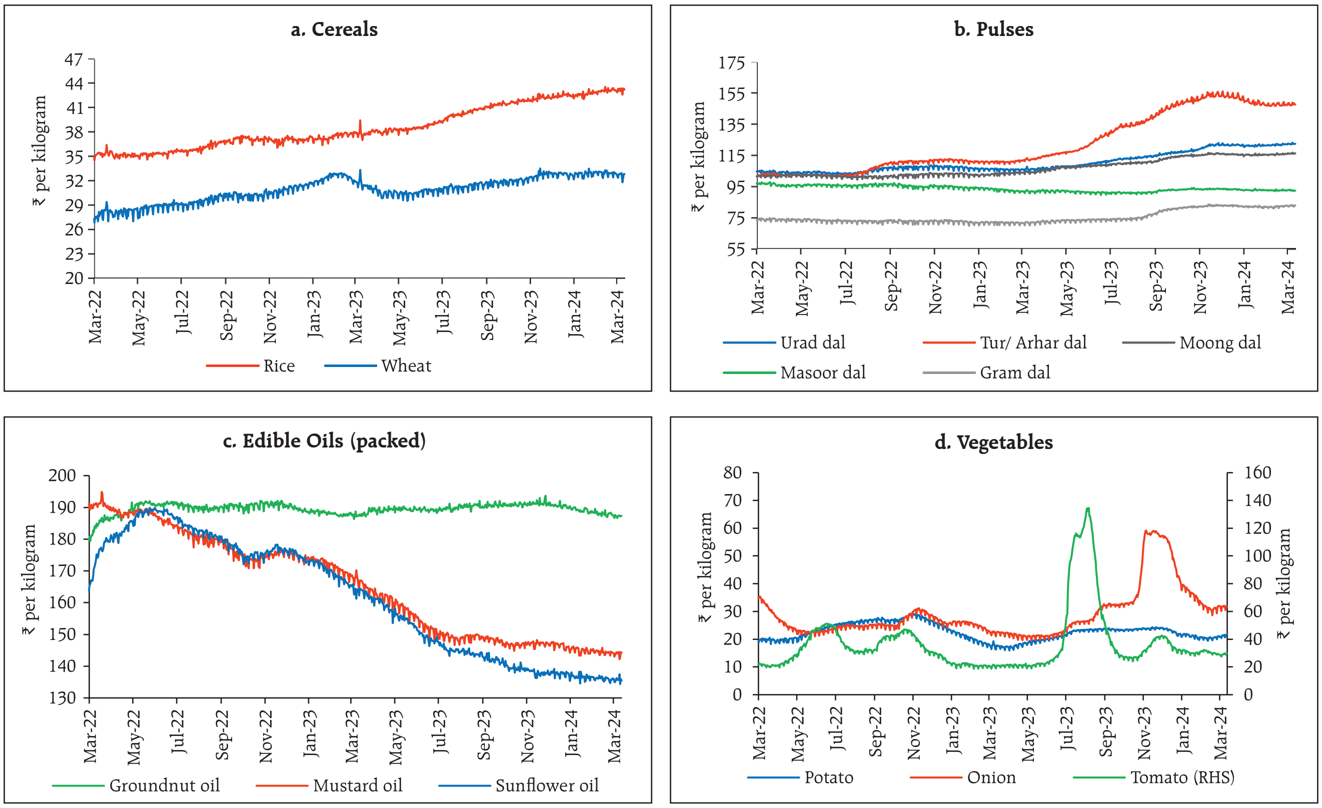
Note: Map is for illustrative purposes only.
Sources: NSO; and RBI staff estimates.

Amongst key vegetables, tomato prices have corrected in March so far while onion and potato prices have recorded an upsurge after softening over the past three months (Chart III.38).

Domestic sugar prices remained stable in February 2024 in contrast to rising international sugar prices (Chart III.39). In order to incentivise production, the Government of India has recently announced an 8.0 per cent increase in the fair and remunerative price (FRP) for sugarcane to ₹340 per quintal at sugar recovery rate of 10.25 per cent. The minimum price is fixed at ₹315.10 per quintal with a recovery rate of 9.5 per cent for the upcoming 2024-25 sugar season starting from October 2024.

A cut in the petrol and diesel prices was announced on March 14, 2024 wherein retail selling prices of petrol and diesel were reduced by ₹2 per litre each. Further, LPG prices were cut by ₹100 per cylinder on March 9, 2024, while kerosene prices increased in March so far (Table III.3).

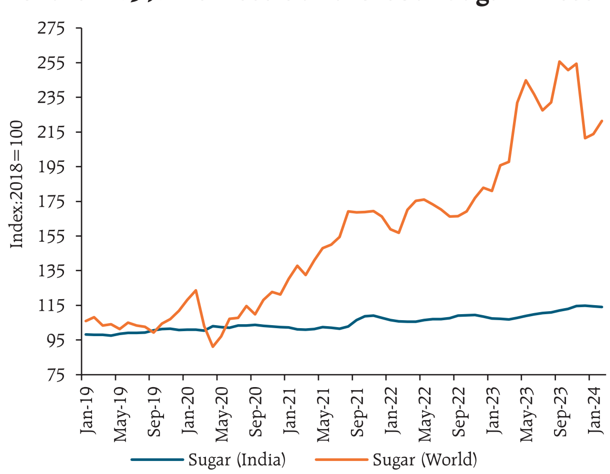
Chart III.38: DCA Essential Commodity Prices



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

The PMIs for February 2024 indicated the slowest increase in input costs in the manufacturing sector, and the third slowest increase in the services sector, since August 2020. Growth in selling prices also moderated across manufacturing and services sectors (Chart III.40).

Chart III.39: Domestic and Global Sugar Prices



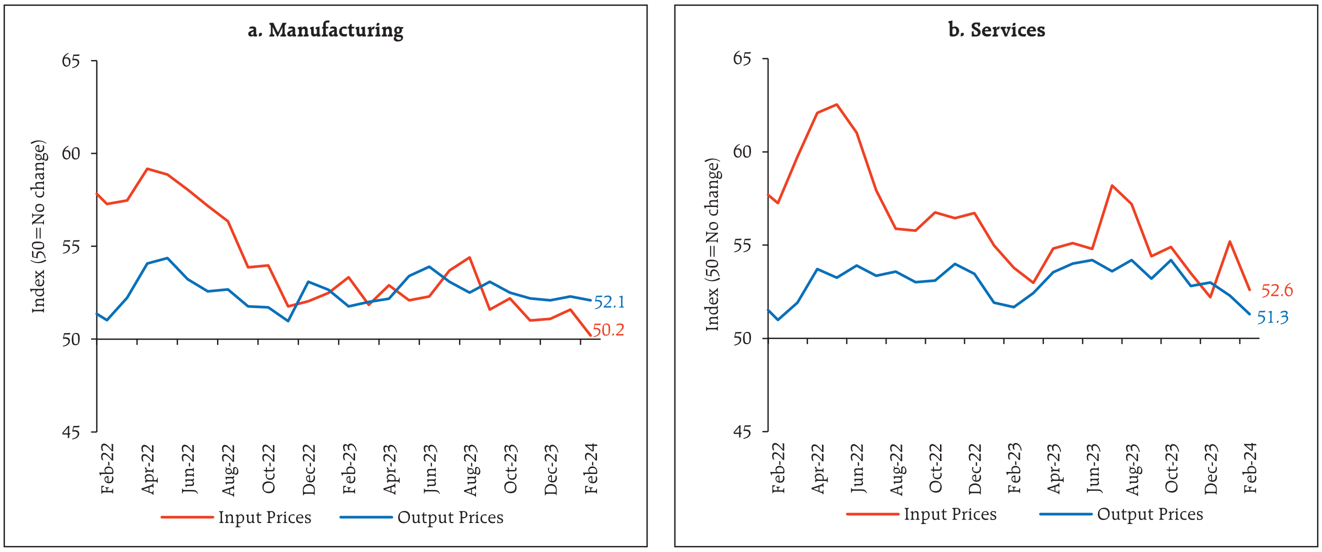
Note: Sugar (India) is average retail price of sugar from DCA.
Sugar (World) is world sugar price in US$ as per World Bank pink sheet multiplied by Rs/US$ exchange rate.
Sources: Department of Consumer Affairs (DCA), Government of India; World Bank Pink Sheet and RBI staff estimates.

Table III.3: Petroleum Products Prices

Item	Unit	Domestic Prices			Month-over-month (per cent)	
		Mar-23	Feb-24	Mar-24^	Feb-24	Mar-24^
Petrol	₹/litre	102.92	102.92	102.79	0.0	-0.1
Diesel	₹/litre	92.72	92.72	92.59	0.0	-0.1
Kerosene (subsidised)	₹/litre	54.21	49.43	49.79	-2.1	0.7
LPG (non-subsidised)	₹/cylinder	1113.25	913.25	813.25	0.0	-10.9

^: For the period March 1-15, 2024.
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.

Chart III.40: PMI: Input and Output Prices

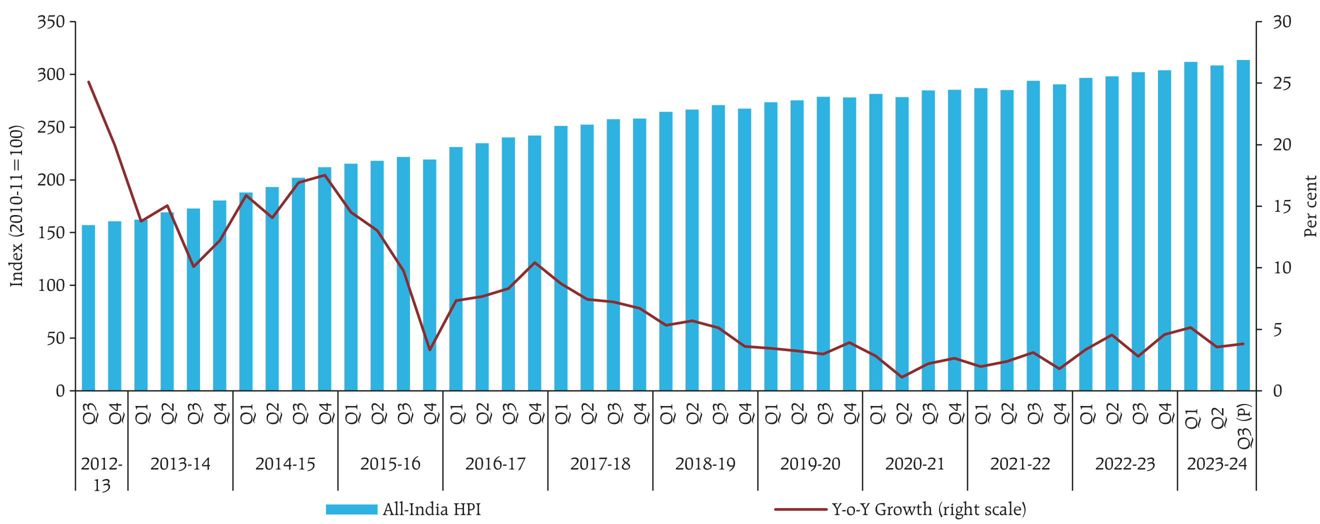


Source: S&P Global.

The all India House Price Index (HPI)[28] grew by 3.8 per cent (y-o-y) during Q3:2023-24 from 3.5 per cent in the previous quarter and 2.8 per cent a year ago. On a sequential basis, the HPI rose by 1.6 per cent, with six out of ten cities exhibiting an increase (Chart III.41).

The recently released fact sheet on the household consumption expenditure for 2022-23 by the National Sample Survey Office (NSSO) shows that the consumption pattern of households has undergone significant changes over the last decade, with a fall in the share of food in overall consumption (Box B).

Chart III.41: Movement of House Price Index



Note: P - Provisional.
Sources: House price data from registration authorities of State governments; and RBI.

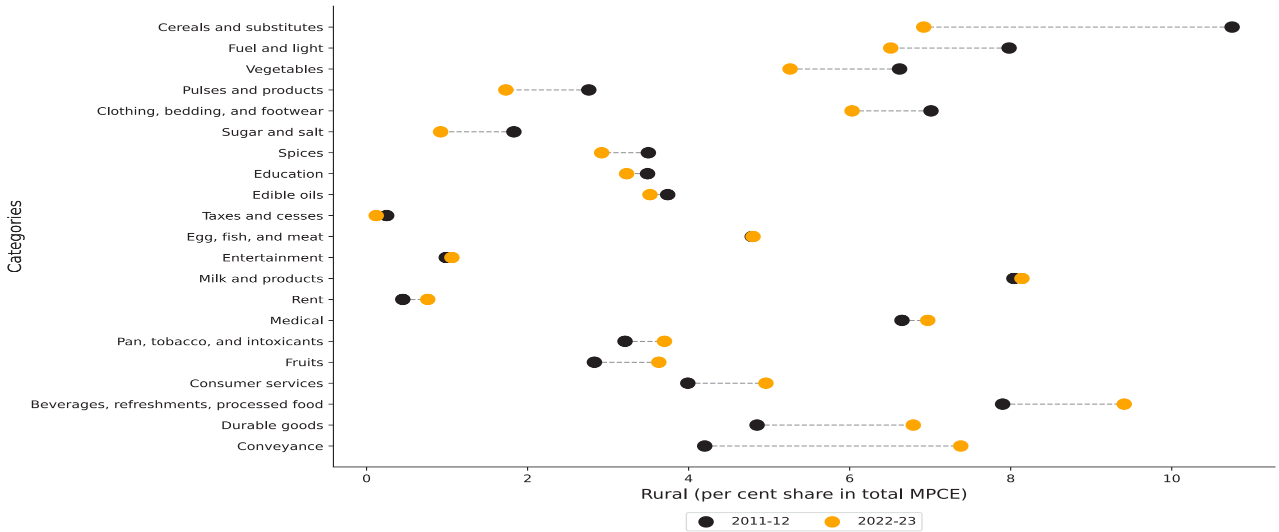
[28] House price index (base: 2010-11=100) is compiled based on transaction-level data received from the registration authorities in ten major cities (*viz.*, Ahmedabad, Bengaluru, Chennai, Delhi, Jaipur, Kanpur, Kochi, Kolkata, Lucknow, and Mumbai).

Box B: Key facts from the Household Consumption Expenditure Survey (HCES): 2022-23

The NSSO's fact sheet based on the results of the HCES for 2022-23 provides valuable information on the expenditure pattern and standard of living of households in India, which would be the basis for the preparation of an updated weighting diagram for CPIs. Some of the key highlights emerging from the results are set out below.

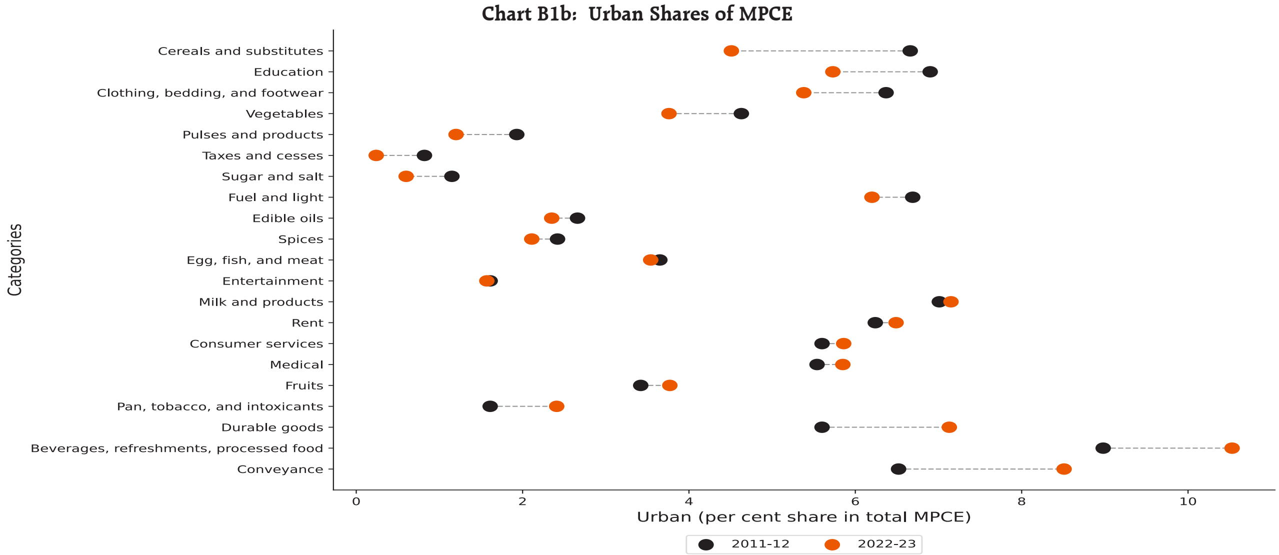
The share of food items in the monthly per capita consumption expenditure (MPCE) has declined from 52.9 per cent to 47.5 per cent in rural areas and from 42.6 per cent to 39.7 per cent in urban areas between 2011-12 and 2022-23, with cereals recording the most significant decline. Within food, however, there has been a rise in the share of high value food products such as fruits, milk and prepared meals (Chart B1a and B1b). Overall, the changes in consumption shares towards non-food items such as consumer services,

Chart B1a: Rural Shares of MPCE



Note: MPCE shares are generated considering the imputed value figures of the items received free by the households through various social welfare programmes.
Sources: HCES; and RBI staff estimates.

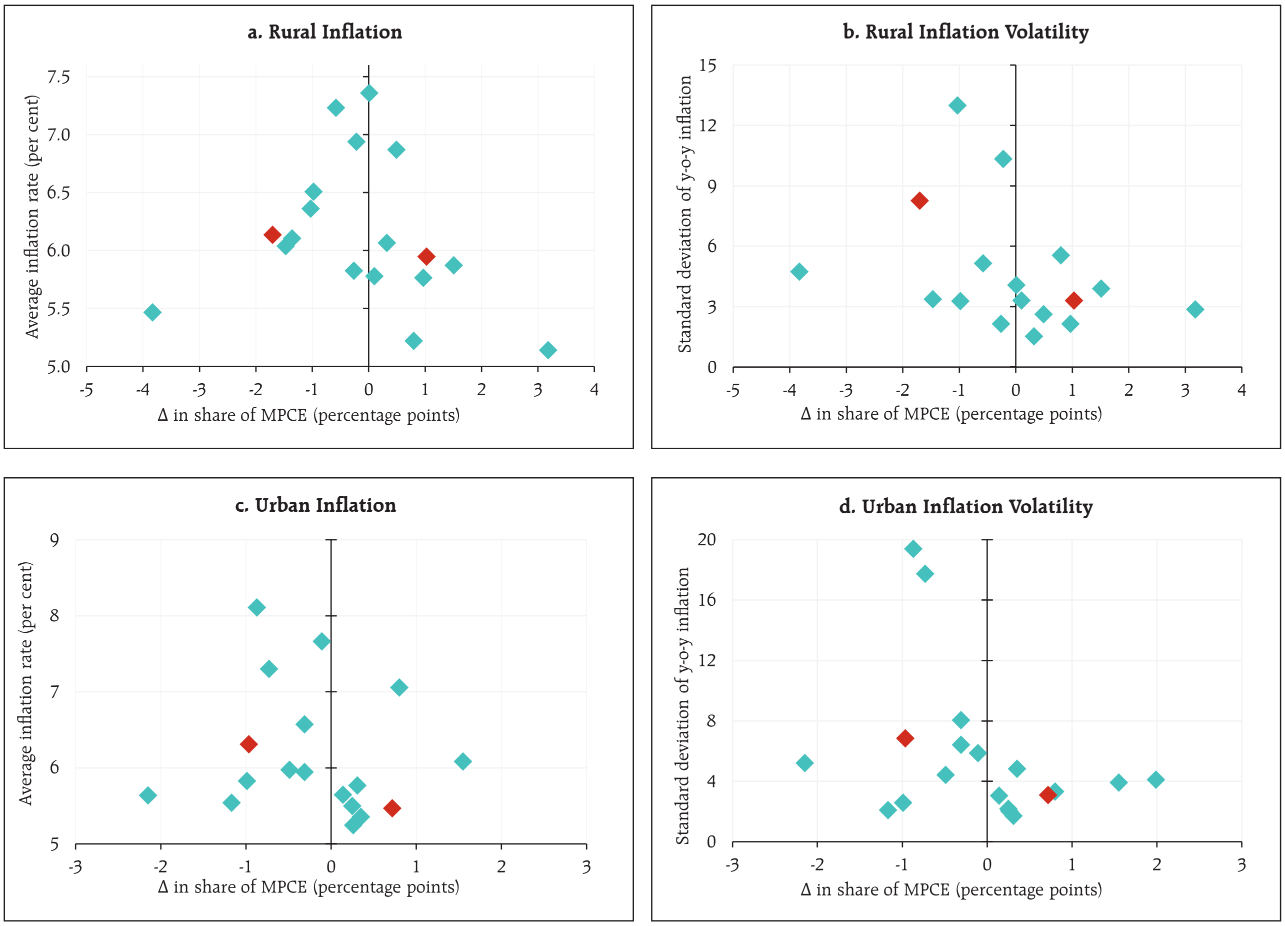
Chart B1b: Urban Shares of MPCE



Note: MPCE shares are generated considering the imputed value figures of the items received free by the households through various social welfare programmes.
Sources: HCES; and RBI staff estimates.

(Contd.)

Chart B2: Impact of Change in MPCE Shares on Inflation and Volatility



Notes: 1. The red data points represent the weighted average of the categories with negative change and positive change in the share of MPCE.
2. Inflation average and volatility cover the period July 2011 to July 2023.
3. Change in consumption expenditure from 2011-12 to 2022-23.

Sources: HCES; MoSPI; and RBI staff estimates.

durable goods, and conveyance point towards evolving household preferences as incomes rise.

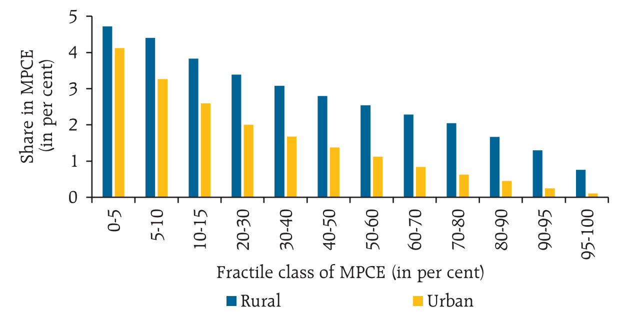
Since the shares of consumption form the weights for calculating CPI (the current CPI derives its weight from the 2011-12 HCES), these changes could impact the measurement of retail inflation. It is seen that in the rural areas, there is no significant difference in the average inflation of items whose shares have increased compared to those whose shares have declined. Items with an increased share, however, exhibit substantially lower volatility (Chart B2a and B2b). For urban areas, the average inflation for items with an increased share is lower (by about 70 basis points) than for those with a decreased share (Chart B2c). Similarly, for items that have witnessed an increase in share, volatility is also lower (Chart B2d). Overall, the share of items with relatively higher inflation as well as volatility has declined over the last decade.

In recent years, household consumption has been augmented by the provision of goods and services through various welfare schemes of the government and the current round of the HCES survey captures their value[29]. The value of consumption of social welfare goods as a

(Contd.)

[29] Social welfare programmes include (i) food items: rice, wheat/atta, jowar, bajra, maize, ragi, barley, small millets, pulses, gram, salt, sugar, edible oil and (ii) nonfood items: laptop/personal computer (pc), tablet, mobile handset, bicycle, motorcycle / scooty, clothing (school uniform), footwear (school shoe, *etc.*) received free of cost by the households. However, health and education related value of welfare services have not been imputed.

Chart B3: Consumption Share Insured by Social Welfare Programmes across Expenditure Classes



Note: The value of consumption of social welfare goods is calculated as the difference between imputed and actual expenditure.
Sources: HCES; and RBI staff estimates.

share of their overall consumption provides an indication of the extent to which household budgets are protected by the provision of social welfare goods. Rural households receive more protection (as a share of their budget). Also, less affluent classes receive a higher share of free welfare goods in both rural and urban areas (Chart B3).

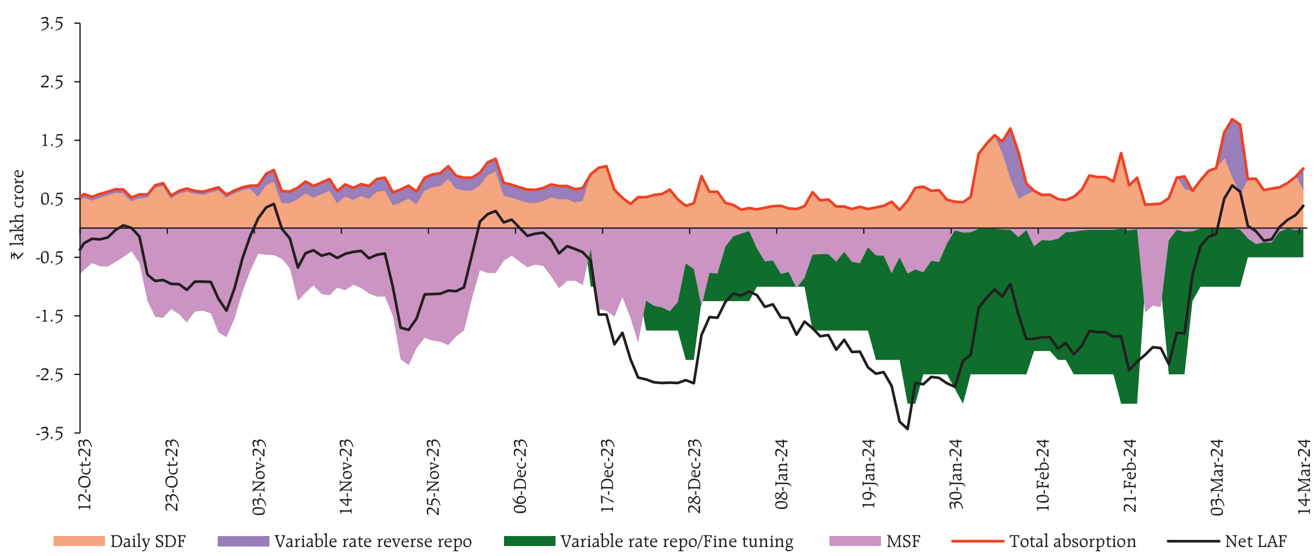
References:

1. MOS&PI (2024). Household Consumption Expenditure Survey (HCES): 2022-23 Fact Sheet.
2. G V Nadhanael, Subhadhra Sankaran, Shashi Kant, Shahbaaz Khan, Rajni Dahiya and Biswajeet Mohanty (2024). Household Consumption Expenditure Survey, 2022-23: A Deep Dive, *Mimeo.*

IV. Financial Conditions

With government spending picking up towards the end of the financial year, there has been easing of liquidity conditions. The return-leg of a USD/INR sell buy swap auction for US$ 5 billion conducted by the Reserve Bank on March 8, 2022 also injected liquidity amounting to ₹42,800 crore on March 11, 2024. Reflecting these developments, the system liquidity turned into surplus with average daily net absorption under the liquidity adjustment facility (LAF) at ₹ 0.07 lakh crore during March 2024 so far (up to March 15) as compared with an average daily net injection of ₹1.91 lakh crore during February 16-29 (Chart IV.1). Between February 16 and March 15, the Reserve Bank conducted one 13-day and one 15-day variable rate repo (VRR) main operation along with five fine-tuning VRR auctions of overnight to seven days maturity.

Chart IV.1: Liquidity Operations



Source: RBI.

Borrowings under the marginal standing facility (MSF) also declined with improvement in liquidity conditions. Of the average total absorption at ₹0.88 lakh crore, placement of funds under the standing deposit facility (SDF) constituted 87.5 per cent while the remaining was mopped up through variable rate reverse repo (VRRR) operations. The Reserve Bank conducted eight fine tuning VRRR operations mainly at end-February and early March to absorb surplus liquidity. In view of banks' likely preference for storing liquidity amidst deficit conditions in March, five of these operations were of overnight maturity.

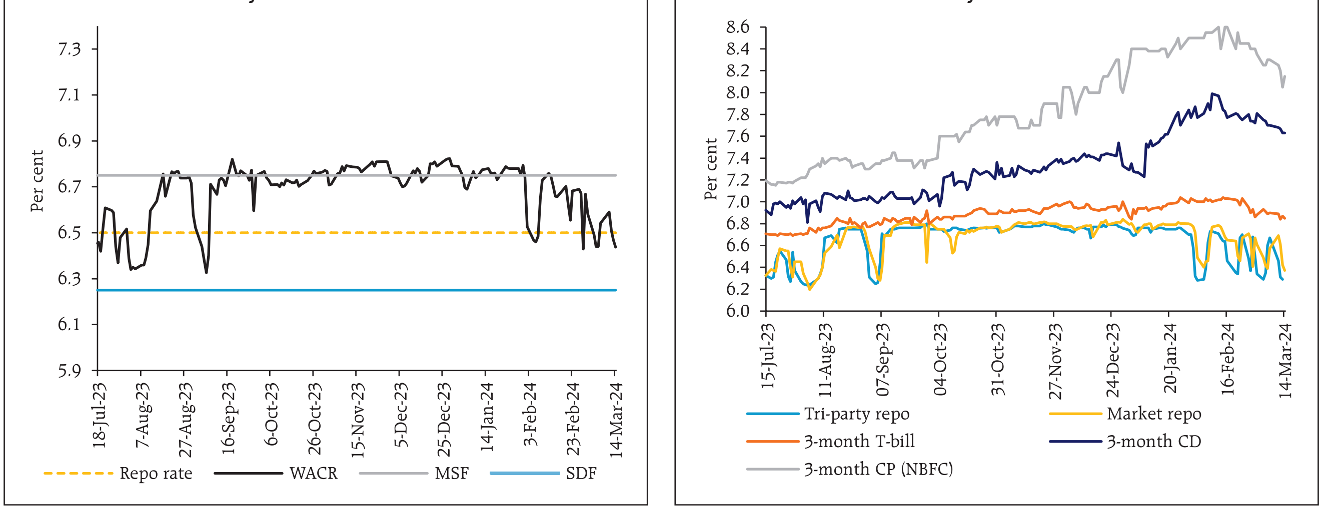
Reflecting liquidity developments, the weighted average call rate (WACR) – the operating target of monetary policy – exhibited a softening bias. The spread of the WACR over the policy repo rate came down to 7 bps during February 16 – March 15, 2024 from 20 bps during January 15 – February 15, 2024 (Chart IV.2a). In tandem, rates in the collateralised segment also softened. Across the term money segment, yields on 3-month certificates of deposit (CDs) and commercial paper (CP) for non-banking financial companies (NBFCs) stayed elevated, while that on 3-month treasury bills (T-bills) eased from its peak (Chart IV.2b). The average risk premia in the money market (3-month CP *minus* 91-day T-bill) remained high at 142 bps during February 16 – March 15, 2024.

In the primary market, fund mobilisation through CD issuances surged to ₹7.89 lakh crore during the financial year so far (up to March 8), from ₹6.33 lakh crore a year ago. Banks resorted to borrowings through CD issuances to meet demand for credit. CP issuances remained largely steady at ₹12.2 lakh crore during the financial year so far (up to February 29) from ₹12.5 lakh crore in the corresponding period last year.

The yields on government securities (G-sec) eased in tandem with US treasury yields coming off their peak. The yield on the Indian 10-year G-sec benchmark softened to 7.06 per cent on March 15 from 7.09 per cent on February 15 (Chart IV.3a). The yield curve shifted downward as yields declined across the term structure (Chart IV.3b).

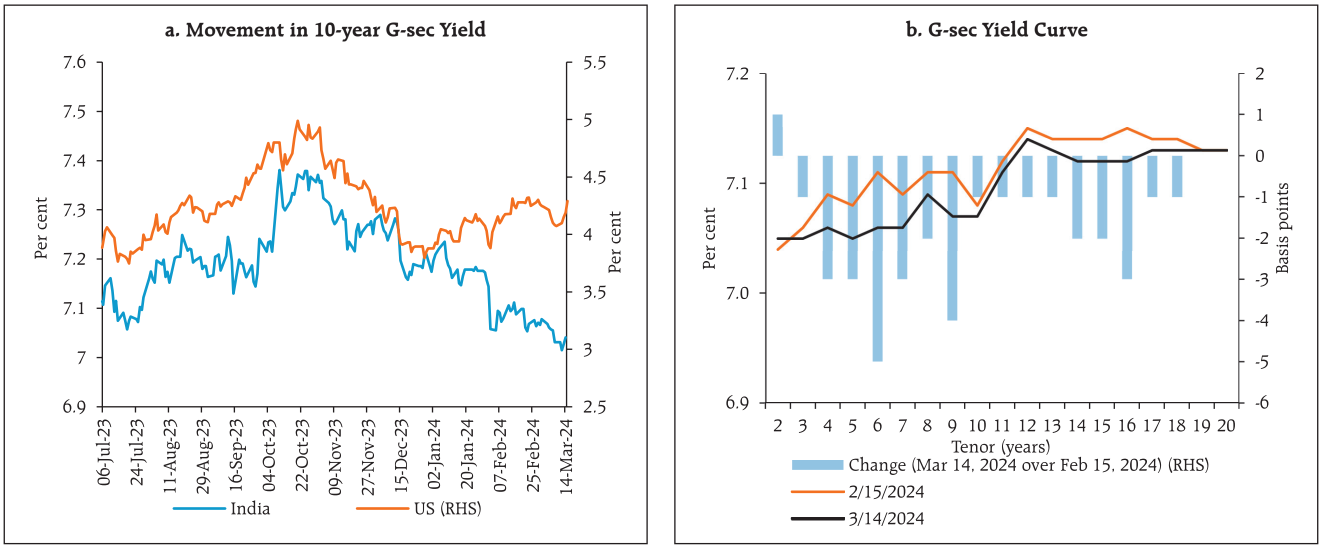
Chart IV.2: Policy Corridor and Money Market Rates

a. Policy Corridor and Call Rate **b. Money Market Rates**



Sources: RBI; CCIL; and Bloomberg.

Chart IV.3: Developments in the G-sec Market



Sources: Bloomberg; CCIL; and RBI staff estimates.

Corporate bond yields and the associated risk premia exhibited mixed movements during February 16 – March 13, 2024 (Table IV.1). Corporate bond issuances during 2023-24 (up to February) were higher at ₹7.5 lakh crore as compared with ₹6.7 lakh crore a year ago. Easing long term yields and relative stability of the sovereign bond market amidst a healthy economic outlook have prompted investors to raise funds for investments through debt issuances.

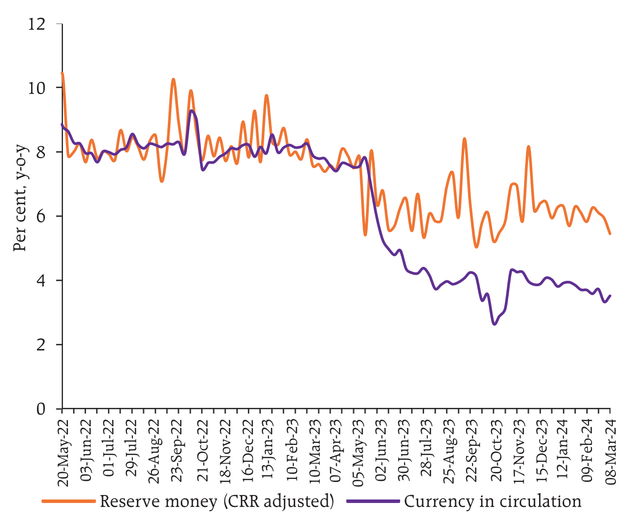
Table IV.1: Financial Markets - Rates and Spread

Instrument	Interest Rates (per cent)			Spread (basis points) (Over Corresponding Risk-free Rate)		
	Jan 16, 2024 – Feb 15, 2024	Feb 16, 2024 – Mar 13, 2024	Variation	Jan 16, 2024 – Feb 15, 2024	Feb 16, 2024 – Mar 13, 2024	Variation
1	2	3	(4 = 3-2)	5	6	(7 = 6-5)
Corporate Bonds						
(i) AAA (1-year)	8.01	8.03	2	76	80	4
(ii) AAA (3-year)	8.00	7.96	-4	84	78	-6
(iii) AAA (5-year)	7.81	7.83	2	63	64	1
(iv) AA (3-year)	8.61	8.55	-6	145	137	-8
(v) BBB- (3-year)	12.26	12.19	-7	510	501	-9

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 5.5 per cent (y-o-y) as on March 8, 2024 (10.8 per cent a year ago) [Chart IV.4]. Growth in currency in circulation (CiC), the largest component of RM, decelerated to 3.5 per cent from 8.3 per cent a year ago, reflecting the withdrawal of ₹2000 banknotes.[30]

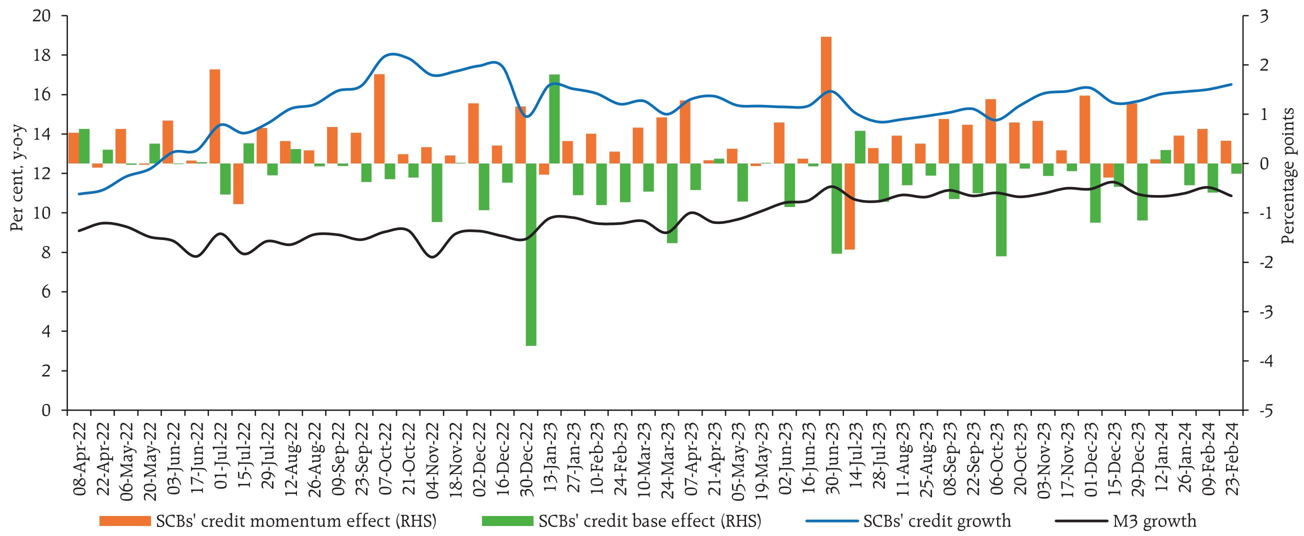
Chart IV.4: Reserve Money and Currency in Circulation



Source: RBI.

[30] Announced on May 19, 2023.

Chart IV.5: M_3 Growth and Credit Growth of SCBs - Base and Momentum Effect

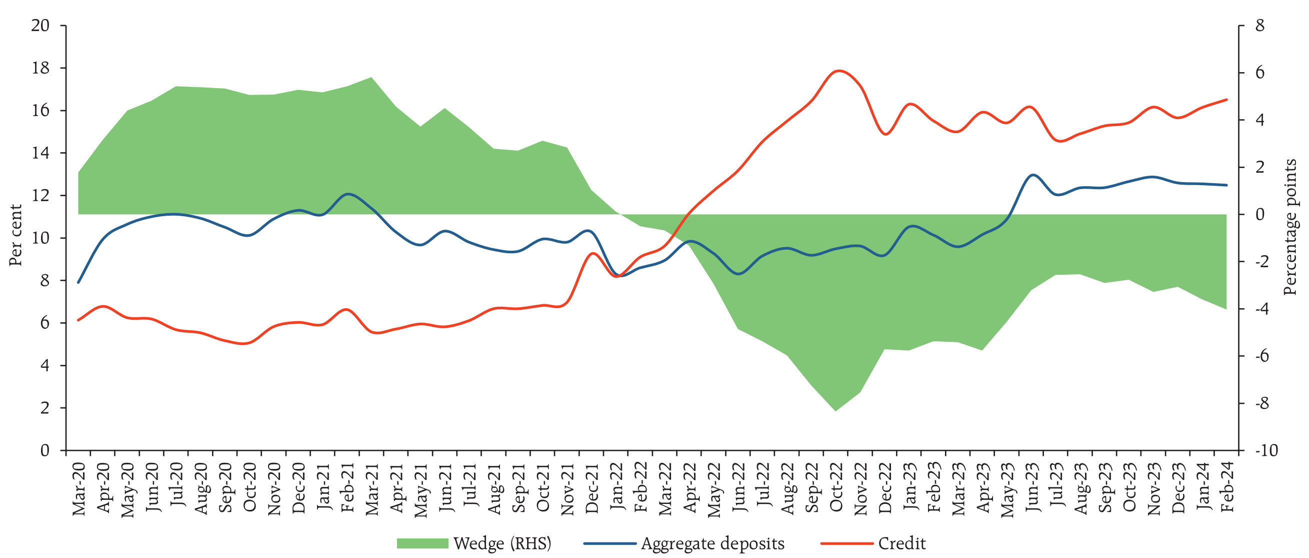


Source: RBI.

Money supply (M3) rose by 10.9 per cent (y-o-y) as on February 23, 2024 (9.5 per cent a year ago).[31] Aggregate deposits with banks, the largest component of M_3, increased by 11.9 per cent (9.7 per cent a year ago). Scheduled commercial banks' (SCBs') credit growth stood at 16.5 per cent as on February 23, 2024 (15.5 per cent a year ago) [Chart IV.5].

SCBs' deposit growth (excluding the impact of the merger) remained in double digits in February 2024 (Chart IV.6).

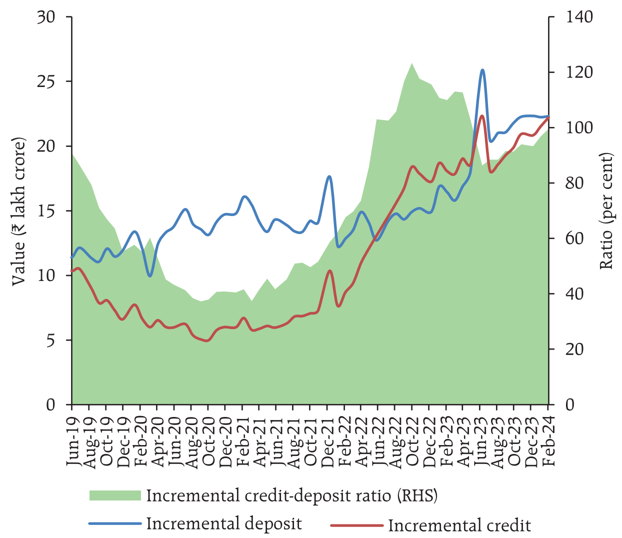
Chart IV.6: SCBs' Aggregate Deposits and Credit Growth - Wedge



Source: RBI.

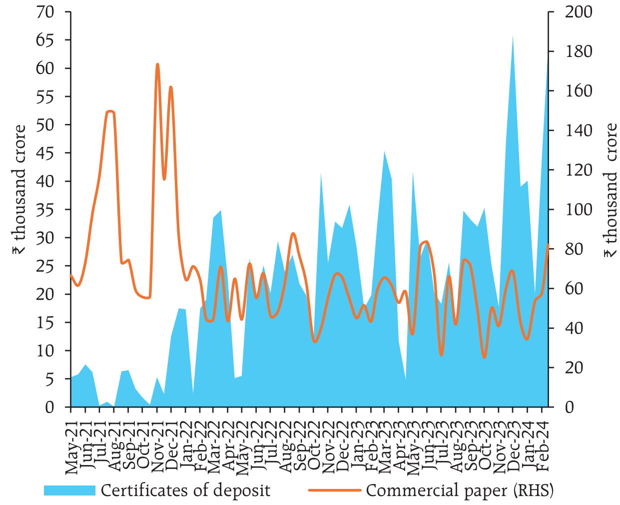
[31] Excluding the impact of the merger of a non-bank with a bank (with effect from July 1, 2023).

Chart IV.7: Incremental Credit-Deposit Ratio



Source: RBI.

Chart IV.8: Certificates of Deposit (CDs) and Commerical Paper (CPs) - Fortnightly Issuances



Source: RBI.

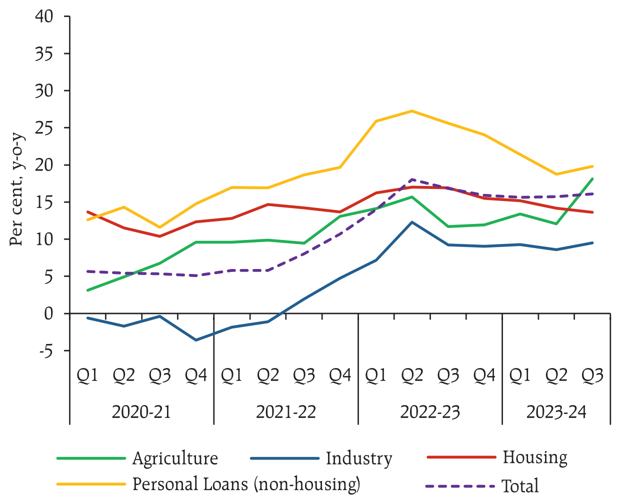
As on February 23, 2024, the incremental credit-deposit ratio stood at 96.9 per cent, indicating that the deposits have been able to fund credit demand at the margin (Chart IV.7).

With the statutory requirements for CRR and SLR at 4.5 per cent and 18 per cent, respectively, around 77 per cent of deposits were available with the banking system for credit expansion as on February 23, 2024. The deposit base was supplemented by CDs issuances (Chart IV.8).

Bank credit to the agriculture sector continued to register double digit growth, reaching its highest level since the Covid-19 pandemic during Q3:2023-24. Bank credit to industry also witnessed a pick-up to record a five-quarter high. Bank credit to housing sector continued to grow in double digits, *albeit* with some sequential moderation. The growth in non-housing personal loans, which peaked at 27.2 per cent in Q2:2022-23, declined to 19.8 per cent in Q3:2023-24 (Chart IV.9).

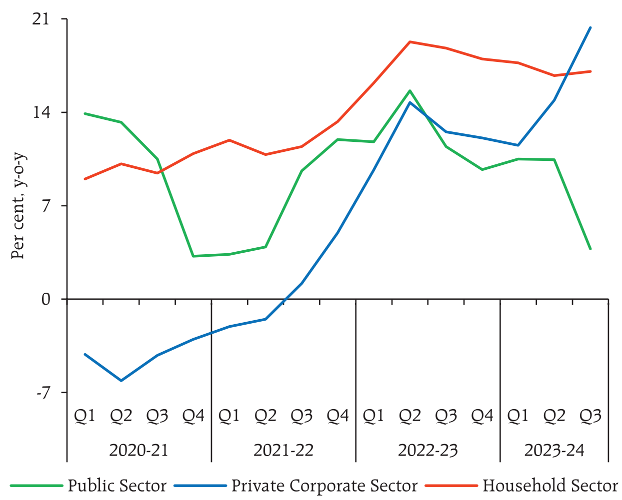
Bank credit to the private corporate sector, which accounted for nearly a quarter of the total bank credit, recorded a sharp acceleration in the second and third quarters of 2023-24 (Chart IV.10). Working capital

Chart IV.9: Annual Growth in Bank Credit - Major Sectors



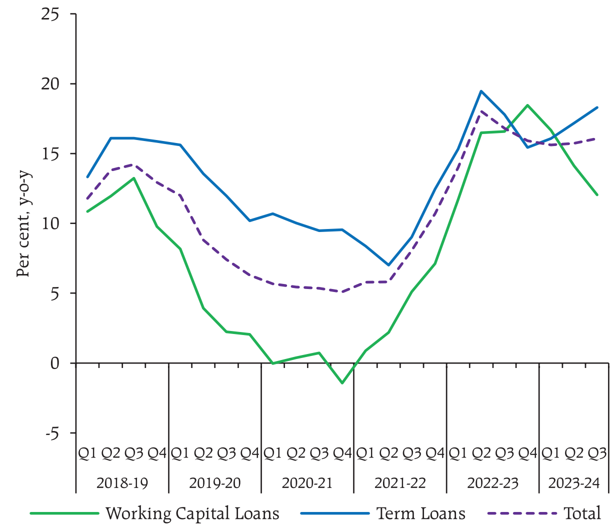
Note: These excludes the impact of merger.
Source: RBI.

Chart IV.10: Annual Credit Growth - Major Ownership Category of Borrowers



Note: These excludes the impact of merger.
Source: RBI.

Chart IV.11: Annual Credit Growth - Loan type



Note: These excludes the impact of merger.
Source: RBI.

loan growth, however, recorded some deceleration (Chart IV.11).

In response to the cumulative increase of 250 basis points (bps) in policy repo rate since May 2022, the 1-year median marginal cost of funds-based lending rate (MCLR) increased by 169 bps during May 2022 to February 2024. Consequently, the weighted average lending rate (WALR) on fresh rupee loans increased by 194 bps and that on outstanding rupee loans rose by 113 bps during May 2022 to January 2024. The weighted average domestic term deposit rate (WADTDR) on fresh and outstanding deposits increased by 240 bps and 181 bps, respectively, during the same period (Table IV.2).

The pass-through to WALRs on fresh rupee loans during May 2022 – January 2024 was higher for public sector banks (PSBs) than for private banks (PVBs), while the transmission to WALRs on outstanding rupee loans was higher for private banks. In case of term deposits, PSBs have increased their deposit rates relatively more than PVBs (Chart IV.12).

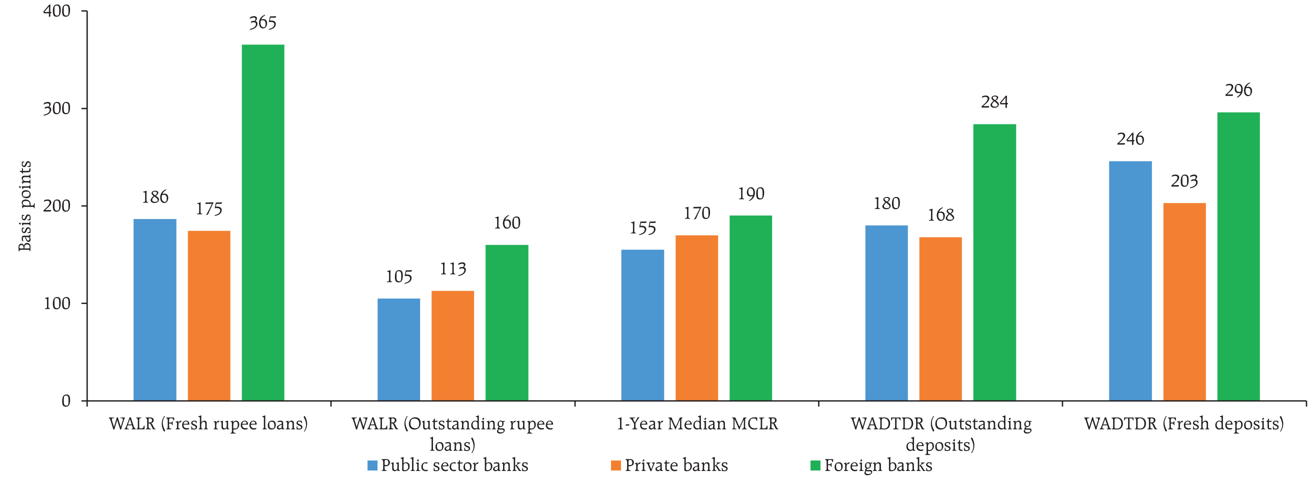
Reflecting the pass-through of policy rate increases, the share of bank loans bearing over 8.0

Table IV.2: Transmission from the Repo Rate to Banks' Deposit and Lending Rates

(Variation in basis points)

Period	Repo Rate (bps)	Term Deposit Rates (bps)		Lending Rates (bps)			
		WADTDR - Fresh Deposits	WADTDR-Outstanding Deposits	EBLR	1-Yr. MCLR (Median)	WALR - Fresh Rupee Loans	WALR-Outstanding Rupee Loans
		Retail and Bulk Deposits					
Easing Phase Feb 2019 to Mar 2022	-250	-259	-188	-250	-155	-232	-150
Tightening Period May 2022 to Jan 2024	+250	240	181	250*	169*	194	113

Note: Data on 1-year MCLR are up to February 2024.
Source: RBI.



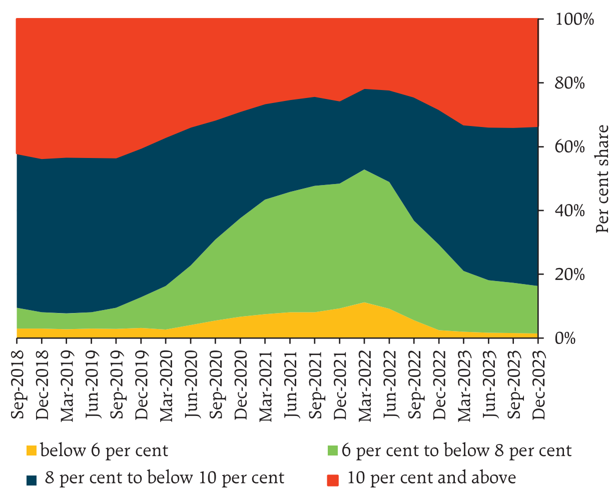
Note: Data on 1-year MCLR are up to February 2024.
Source: RBI.

per cent interest rates increased from 47.2 per cent in March 2022 to 78.9 per cent in March 2023 and further to 83.7 per cent in December 2023 (Chart IV.13).

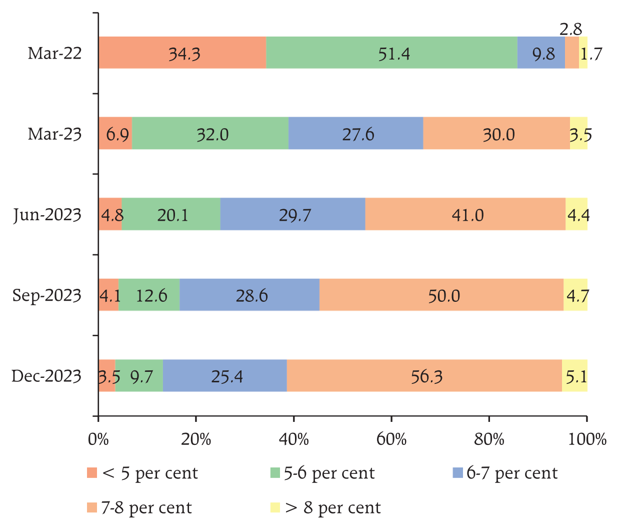
The share of term deposits offering 7 per cent and above interest rates has also increased to 61.4 per cent in December 2023 from 33.5 per cent in March 2023 and 4.5 per cent in March 2022 (Chart IV.14).

This has increased the relative attractiveness of term deposits *vis-à-vis* savings deposits (Chart IV.15).

After remaining volatile in the first half of February 2024, Indian equity markets registered gains. Overall, the benchmark increased by 1,345 points (1.9 per cent) since end-January to close at 73,097 on March 14, 2024 (Chart IV.16). Markets were

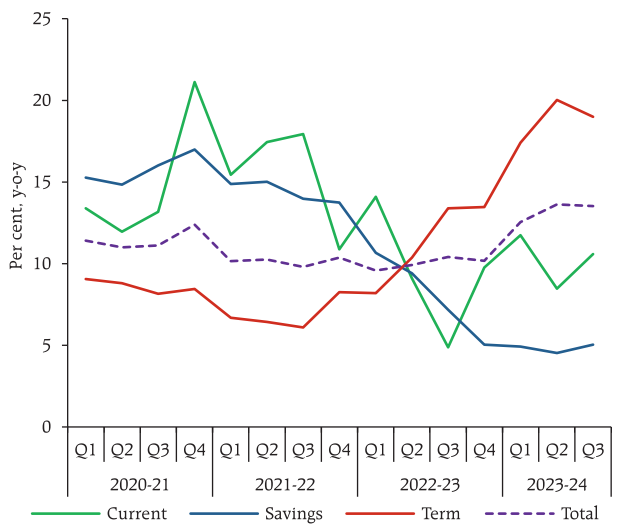


Note: These excludes the impact of merger.
Source: RBI.



Source: RBI.

Chart IV.15: Annual Growth in Aggregate Deposits - Type of Deposits

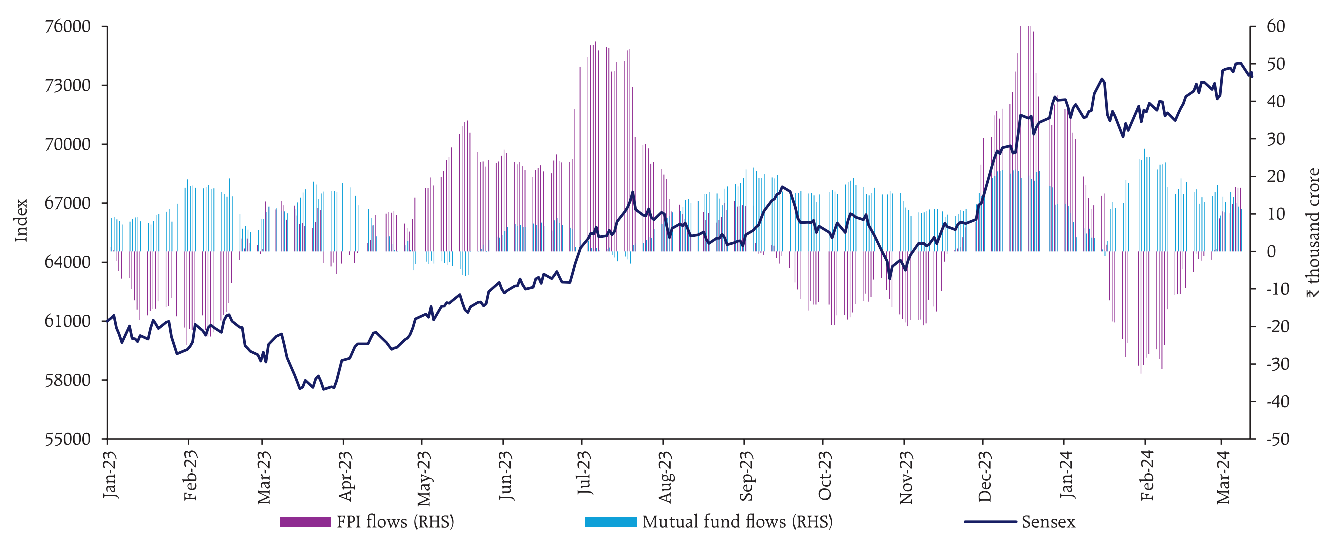


Source: RBI.

buoyed by positive cues from global markets as well as strong domestic GDP data for Q3:2023-24. The broader market indices, however, declined with the BSE Midcap index and BSE Smallcap index retreating by 0.8 per cent and 8.3 per cent, respectively during February-March 2024 so far. Total net mobilisation by open-ended equity oriented mutual fund schemes rose by 23.3 per cent m-o-m to ₹26,866 crore in February 2024. However, flows into small-cap and mid-cap schemes moderated, declining by 11 per cent m-o-m to ₹4,731 crore.

Gross inward foreign direct investment (FDI) declined by 3.6 per cent to US$ 59.5 billion during April 2023 – January 2024 as compared with US$ 61.7 billion during the corresponding period a year ago (Chart IV.17a). Manufacturing, computer services, electricity and other energy sectors, financial services and transport accounted for about two-thirds of the FDI equity inflows during the same period. Around 80 per cent of the equity flows were received from Singapore, Mauritius, the US, the Netherlands, Japan and the UAE. Net FDI moderated to US$ 15.4 billion during April 2023 - January 2024 from US$ 25.0 billion a year ago, mainly due to a rise in repatriation. Despite global FDI flows remaining weak in 2023[32] with only a modest increase of 3 per cent over 2022, India fared better than Asian peers (Chart IV.17b).

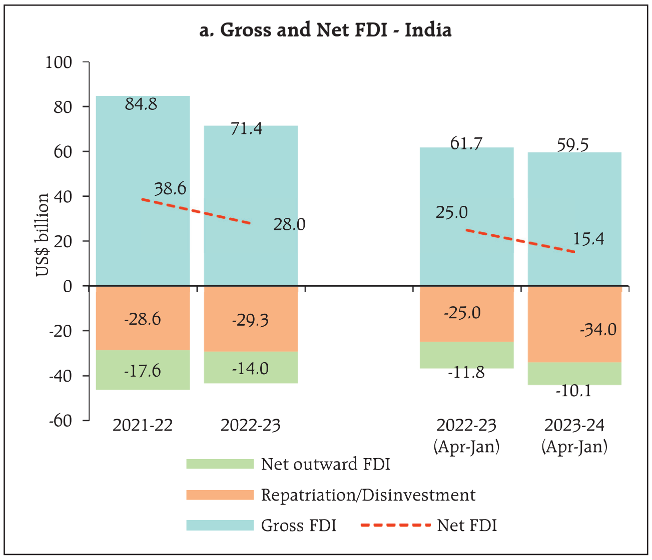
Chart IV.16: BSE Sensex and Institutional Flows

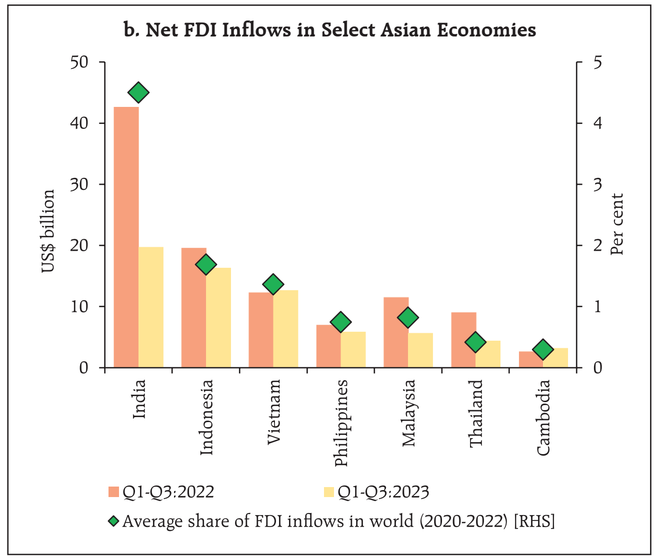


Note: FPI and MF flows are represented on 15-days rolling sum basis.
Source: Bloomberg.

[32] According to the United Nations Conference on Trade and Development (UNCTAD), Global Investment Trends Monitor, January 2024.

Chart IV.17: Foreign Direct Investment Flows

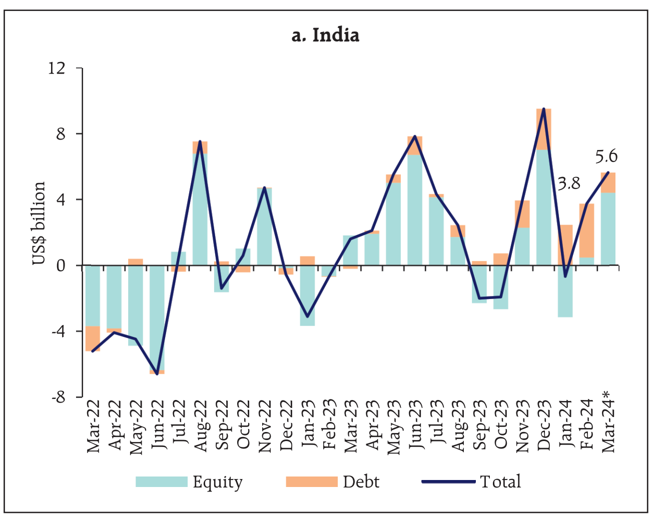


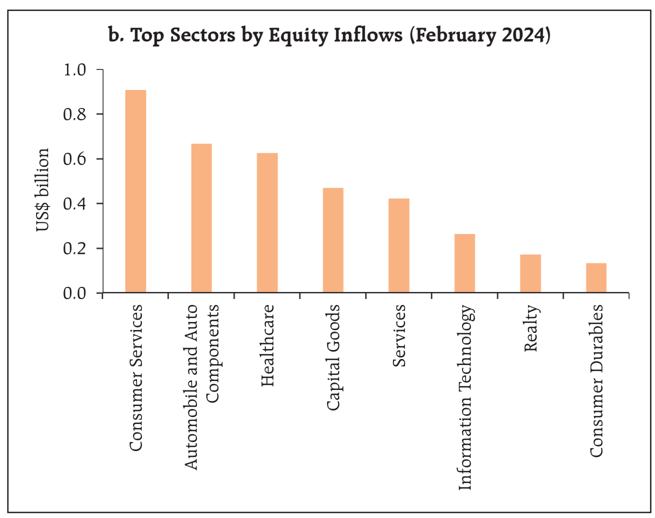


Sources: RBI; UNCTAD; IMF; and CEIC.

Foreign portfolio investment (FPI) flows to India turned positive in February 2024, propelled by the robust domestic growth outlook. Net FPI inflows were of the tune of US$ 3.8 billion in February 2024, primarily led by the debt segment which brought in US$ 3.3 billion in February 2024, the highest since April 2019 (Chart IV.18a). Within equity, consumer services, automobile and auto components, healthcare, and capital goods were the leading FPI recipient sectors during February 2024 (Chart IV.18b). Net FPI flows were to the tune of US$ 5.6 billion during March 2024 (up to 14th). During 2023-24 so far (April 01-March 14), net FPI inflows amounted to US$ 40.5 billion, the highest since 2015-16. India received the highest equity inflows among emerging market peers during the current financial year (April-February).

Chart IV.18: Net Portfolio Investments

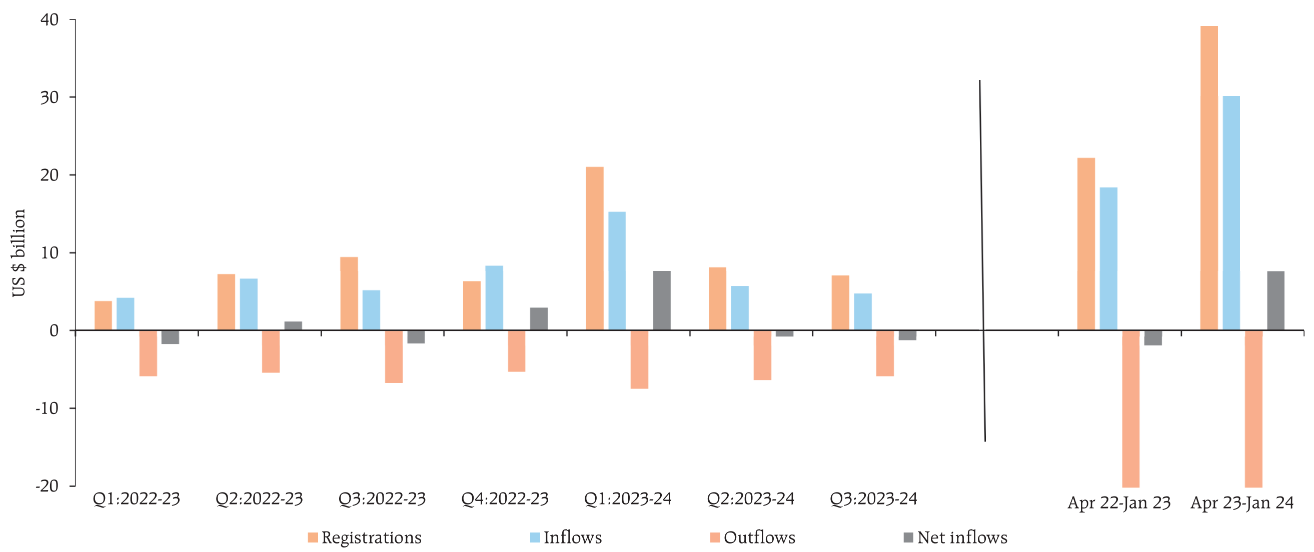




Notes: 1. Debt includes investments under the voluntary retention route and hybrid instruments.
2. *: Data up to March 14, 2024.

Source: National Securities Depository Limited.

Chart IV.19 : External Commercial Borrowings - Registrations and Flows



Source: RBI.

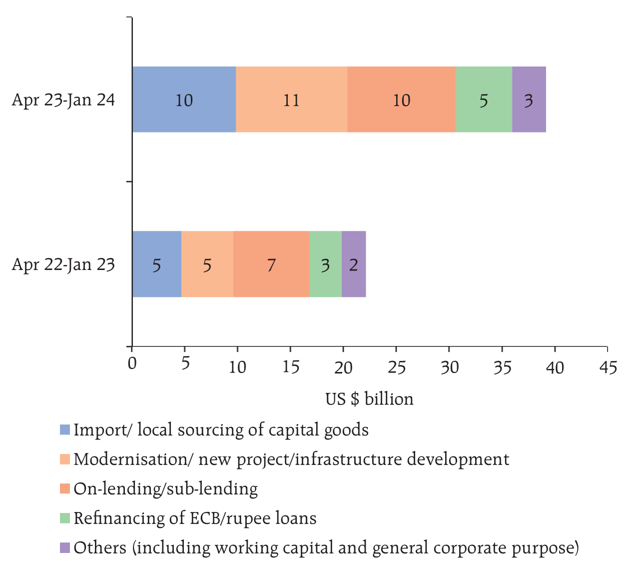
The total net accretions to non-resident deposits rose to US$ 10.2 billion during April 2023 – January 2024 from US$ 6.0 billion a year ago with net accretions in all accounts, *viz.*, Foreign Currency Non-Resident [FCNR(B)] accounts, Non-Resident (External) Rupee Accounts [NR(E)A] and Non-Resident Ordinary (NRO) accounts.

On a cumulative basis, external commercial borrowing (ECB) registrations (US$ 39.2 billion) and disbursements (US$ 30.1 billion) during April 2023 – January 2024 were higher than in the corresponding period last year. On the other hand, ECB outflows on account of principal repayment stood at US$ 22.6 billion during this period, resulting in net inflows of US$ 7.5 billion as against net outflows of US$ 1.9 billion a year ago (Chart IV.19).

Out of the total ECBs registered during April 2023 – January 2024, more than three-fourths of the agreements were earmarked for capital expenditure (capex) purposes (including on-lending and sub-lending for capex) [Chart IV.20]. The weighted average maturity of fresh ECBs in this financial year so far was 5.5 years (5.8 years in the corresponding period last year).

While the overall cost of ECBs has risen over the last two years primarily due to a rise in global benchmark interest rates such as secured overnight financing rate (SOFR)[33], the weighted average interest margin (WAIM) (over the benchmark rates) declined

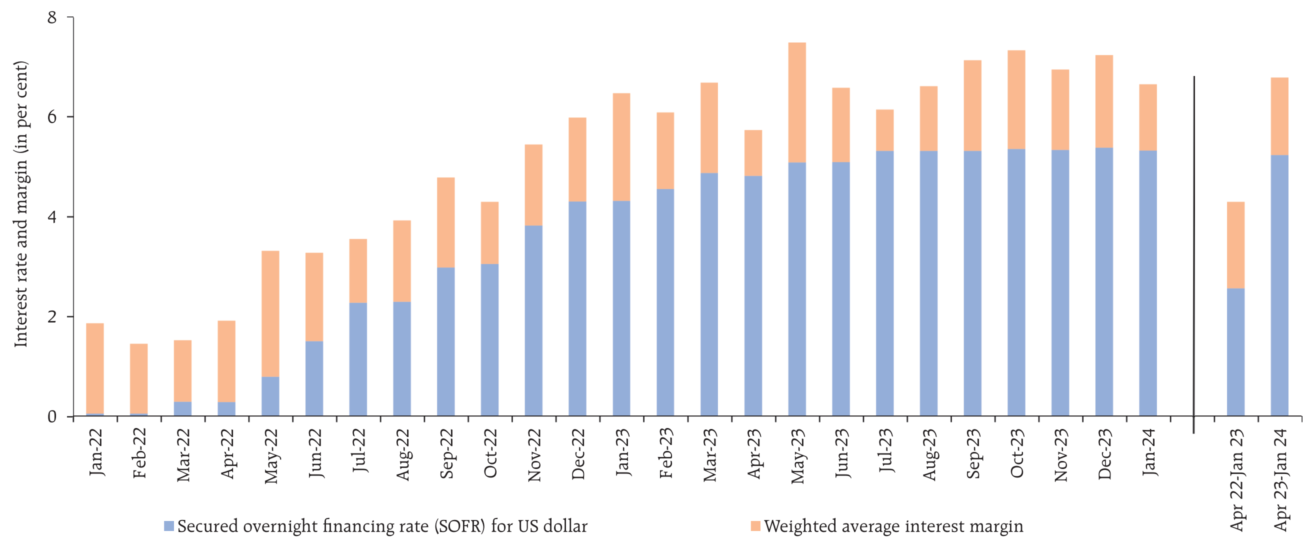
Chart IV.20: End-use of the Registered ECBs



Source: RBI.

[33] With pause in the global monetary policy tightening, the SOFR has remained stable at around 5.3 per cent since July 2023.

Chart IV.21: Overall Cost of ECBs

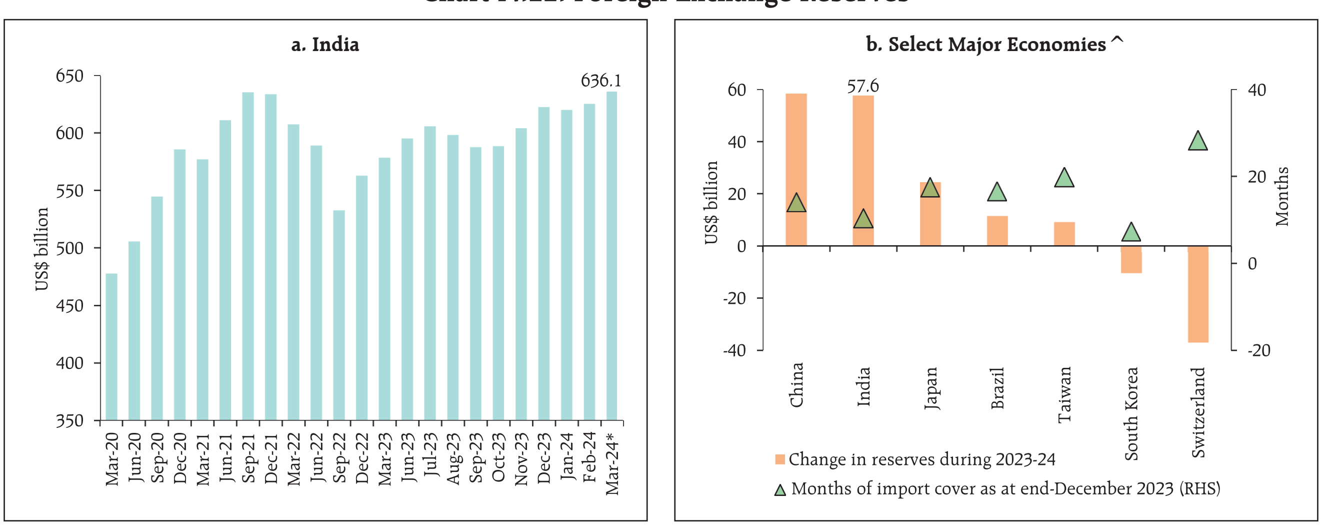


Source: RBI.

to 155 bps during April 2023 – January 2024 from 173 bps during the corresponding period a year ago (Chart IV.21).

India's foreign exchange reserves stood at US$ 636.1 billion on March 8, 2024 covering 10.9 months of imports projected for 2023-24 and more than 100 per cent of total external debt outstanding at end-September 2023 (Chart IV.22a). During the current financial year so far, India's foreign exchange reserves increased by US$ 57.6 billion, which is the second highest among major foreign exchange reserves holding countries (Chart IV.22b).

Chart IV.22: Foreign Exchange Reserves

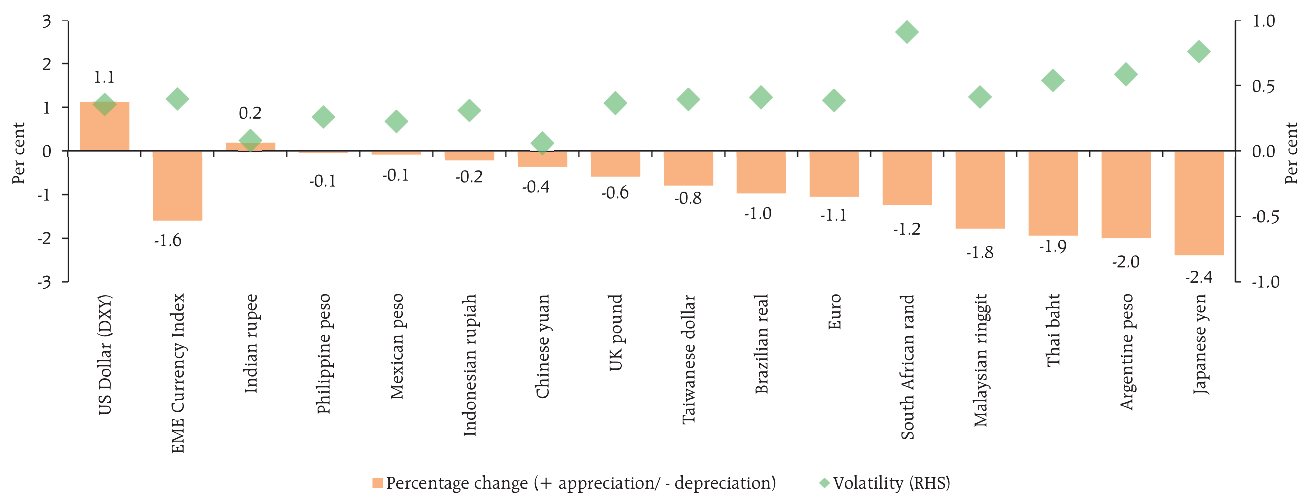


Notes: 1. . *: Data for March 8, 2024.

2. ^: Latest data of foreign exchange reserves for India is for March 8, 2024, end-January 2024 for Switzerland, and end-February 2024 for the remaining countries, while import cover data for India is for September 2023, and December 2023 for other countries.

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

Chart IV.23: Movements of Indian Rupee and Major Currencies against the US Dollar (February 2024 over January 2024)

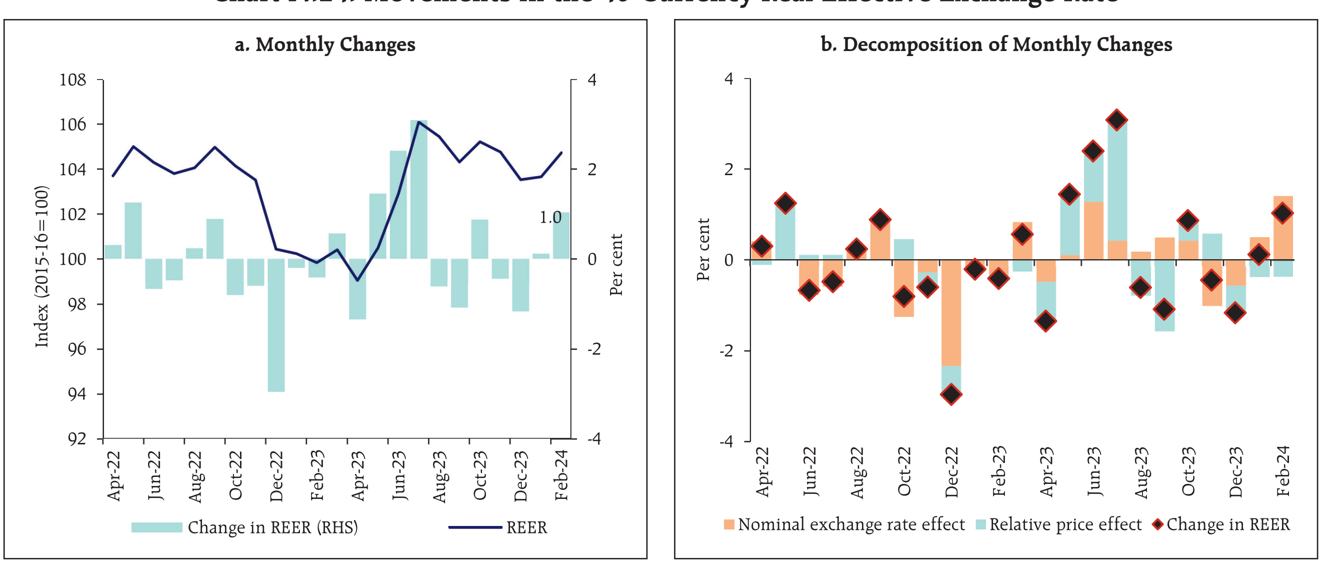


Note: US dollar (DXY) measures the movements of the US dollar against a basket of major currencies (Euro, Japanese yen, British pound, Canadian dollar, Swedish krona, Swiss franc).
Sources: FBIL; Thomson Reuters; and RBI staff estimates.

The Indian rupee (INR) appreciated by 0.2 per cent (m-o-m) *vis-à-vis* the US dollar in February 2024 while other major currencies experienced depreciating pressures. Furthermore, the INR was one of the least volatile major currencies during February 2024 (Chart IV.23).

The INR appreciated by 1.0 per cent (m-o-m) in terms of the 40-currency real effective exchange rate (REER) in February 2024 as appreciation of the INR in nominal effective terms more than offset negative relative price differentials (Chart IV.24).

Chart IV.24: Movements in the 40-Currency Real Effective Exchange Rate



Source: RBI..

Payment Systems

Digital transactions across major payment modes maintained strong expansion (y-o-y) in February 2024 (Table IV.3). Notably, the National Electronic Funds Transfer (NEFT) achieved a milestone on February 29, 2024, processing a record 4.1 crore transactions in a single day. Over the past decade (2013-14 to 2022-23), NEFT and Real Time Gross Settlement (RTGS) have registered robust growth of 700 per cent and 200 per cent, respectively, in terms of volume and 670 per cent and 104 per cent, respectively, in terms of value. The Unified Payments Interface (UPI), registered the highest volume growth among all modes in the month, adding 6.65 crore new users between March 2023 and January 2024.[34] Furthermore, to enhance cross-border payments and streamline remittances from Greece to India using UPI rails, the National Payments Corporation of India (NPCI) International Payments Limited [NIPL] has partnered with Eurobank SA, a leading bank in Greece.[35]

The Bharat Bill Payment System (BBPS), an integrated and interoperable bill payment system, has registered an uptick in value terms owing to increased adoption by businesses and consumers for utility bill payments and higher-value transactions. In order to enhance efficiency of the system, enable greater participation, and enhance customer protection, revisions have been made to the BBPS framework to enable non-bank payment aggregators (PAs) to participate in the system as operating units, effective from April 1, 2024. Additionally, the Reserve Bank has authorised bank and non-bank issuers to issue prepaid payment instruments (PPIs) for payments across various public transport systems to provide convenience, speed, affordability, and safety in digital payment options. In the credit/debit card segment, a series of amendments have been issued in the master directions to strengthen the regulations including billing cycle flexibility, co-branding arrangements between banks and NBFCs, allowing other form-factors[36] in addition to plastic cards, adherence to procedures regarding default reporting and restriction on outsourcing card data.[37] On the innovation front, the Reserve Bank has updated the enabling framework for the regulatory sandbox, which includes revised timelines for various stages and requires entities to comply with provisions of the Digital Personal Data Protection Act, 2023.

Table IV.3 : Growth in Select Payment Systems

(y-o-y in per cent)

Payment System Indicators	Transaction Volume				Transaction Value			
	Jan-23	Jan-24	Feb-23	Feb-24	Jan-23	Jan-24	Feb-23	Feb-24
RTGS	12.6	13.1	11.2	18.8	20.1	17.1	16.7	21.2
NEFT	32.2	43.4	28.7	47.3	15.0	19.8	12.1	25.1
UPI	74.1	51.8	66.4	60.6	56.1	41.7	49.5	47.9
IMPS	7.8	7.2	6.4	19.4	23.4	18.6	21.9	21.2
NACH	-10.5	22.8	67.3	13.1	13.1	21.5	35.2	15.6
NETC	30.2	10.2	18.4	12.1	33.6	15.5	29.0	19.2
BBPS	59.8	24.6	54.1	29.8	66.6	75.4	63.4	85.8

Note: RTGS: Real Time Gross Settlement; NEFT: National Electronic Funds Transfer; UPI: Unified Payments Interface; IMPS: Immediate Payment Service; NACH: National Automated Clearing House; NETC: National Electronic Toll Collection; BBPS: Bharat Bill Payment System.
Source: RBI.

V. Conclusion

The world is confronted with large shifts in structure and sentiments, which are either underway or impending. The outlook is shrouded with layers of uncertainty, exacerbated by geopolitical and extreme weather risks as well as fragmenting forces. By contrast, the Indian economy is experiencing a conducive macroeconomic configuration that can be its launching pad for a step-up in its growth trajectory. Over the period 2021-24, growth has averaged above 8 per cent; and the underlying fundamentals indicate that this can be sustained and even built upon.

[34] Address by Governor, Reserve Bank of India at the Digital Payments Awareness Week celebrations, March 4, 2024, RBI, Mumbai.

[35] NPCI Circular. February 29, 2024.

[36] such as wearables that include watches, wrist bands or rings.

[37] Master Directions - Credit Card and Debit Card. March 7, 2024.

Inflation is on the ebb; the steady decline in core inflation would have taken down headline inflation towards the target of 4 per cent even sooner and faster, but for the repetitive incidence of short amplitude food price pressures. The CPI readings for January and February 2024 show that the winter easing of vegetable prices turned out to be shallow and short-lived. Cereal prices maintained strong momentum, and prices of meat and fish have registered a surge. Food price pressures on the headline have been capped by core disinflation to among its lowest prints in the series. The softening of core inflation has been broad-based. Fuel prices remain in deflation and this may get pronounced in March due to the reduction in price of liquified petroleum gas (LPG). Overall, headline inflation's momentum turned positive in February 2024, offsetting a favourable base effect. Accordingly, monetary policy has to remain in a risk-minimisation mode, guiding inflation towards the target while sustaining the momentum of growth.

Other indicators also point to abiding macroeconomic and financial stability. The current account deficit is modest, external buffers are resilient and fiscal consolidation is into its third consecutive year even as corporations are deleveraging and improving their debt servicing capacity. Balance sheets in the financial sector are sound and healthy, providing the wherewithal for intermediating the productive credit needs of a resurgent economy. Financial markets are reflecting these favourable formations. Capital inflows have resumed strongly as investor interest floods back into India.

Technology is offering new growth opportunities to seize by becoming more competitive and efficient. The time has come to build world class infrastructure, strong manufacturing bases, a high-quality labour force and global leadership in services to convert these favourable factors into opportunities and strengths over the next few decades.

Pandemic-induced Policy Stimulus and Inflation: A Cross-Country Perspective

*by Nishant Singh and Binod B. Bhoi^*

The COVID-19 pandemic triggered large-scale policy stimulus across advanced economies (AEs) and emerging market economies (EMEs). Inflation, which softened initially on economic contraction in 2020 after the onset of the COVID pandemic, started rising in 2021 with the easing of COVID-time restrictions and reached multi-year highs in 2022 following the Russia-Ukraine conflict. Notwithstanding common global shocks, inflation surges varied across economies, both in terms of level and persistence. Using panel-data Phillips Curve framework, this study investigates the impact of pandemic-induced fiscal expansions on inflation in select AEs and EMEs, controlling for supply-side factors. The empirical analysis suggests that countries with larger fiscal stimulus, on average, experienced higher post-pandemic inflation.

I. Introduction

In an inter-connected world, economic shocks occurring at one place carry the potential to impact other economies across the globe through trade, finance, and confidence channels. Two successive black swan events, *i.e.*, the outbreak of the COVID-19 pandemic[1] and the Russia-Ukraine conflict[2] have invoked large-scale adverse macroeconomic effects, including shocks to the trajectory of global inflation. Global output, after declining in 2020, recovered strongly in 2021 benefitting from quick vaccination development and the release of pent-up demand, with a further boost from massive policy support – both fiscal and monetary.

The pandemic-induced health crisis along with supply-side disruptions and significant loss of economic output prompted governments across the globe to cushion the health and economic damage with large-scale fiscal measures encompassing additional spending or revenue forgone (10.2 per cent of world GDP) and liquidity support including contingent liabilities (6.2 per cent of world GDP) (IMF, 2021). Additionally, central banks infused massive liquidity through both conventional and unconventional measures and cut policy interest rates to multi-year lows, close to the zero-lower bound in AEs. However, the interventions varied across economies both in terms of size and composition, with the combined fiscal stimulus in AEs making up for more than 80 per cent of the worldwide fiscal response and being more inclined towards direct transfers like stimulus payments to individuals and families, unemployment benefits, direct tax rebates, and loans and credit guarantees to businesses. While sizeable fiscal support continued for longer in advanced economies (AEs) providing the base for a faster recovery, many emerging market and developing economies (EMDEs) faced a squeeze in their fiscal space due to reprioritisation of expenditure towards pandemic-related emergencies (IMF, 2021). With the reopening of economies and possibly the stimulative policy support, energy and food prices started increasing in 2021 (Blanchard and Bernanke, 2023). However, these price pressures were initially considered transitory in nature and the policy support continued (Walsh, 2022). Alongside economic recovery and the prolonging of the supply chain disruptions, the price pressures persisted and

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1 The World Health Organisation (WHO) declared COVID-19 a Public Health Emergency of International Concern on January 30, 2020, and as a pandemic on March 11, 2020.

2 It started in February 2022 and led to renewed spike in global food and energy prices.

accentuated and the world witnessed a surge in Consumer Price Index (CPI) inflation beginning the second half of 2021.

The outbreak of Russia-Ukraine conflict in February 2022 further amplified supply disruptions and created shortages in key food and energy products leading to sharp increase in global commodity prices. In an environment of stimulus-led economic recovery, this led to a further surge in inflation across economies above their targets to multi-year highs (IMF, 2022). Subsequently, this coupled with the realisation that the existing price pressures may not be transitory prompted central banks to pursue aggressive monetary policy tightening to contain inflation and anchor inflationary expectations.

In India, as in the case of other countries, the pandemic-induced lockdowns and supply chain disruptions led to contraction in real GDP by 5.8 per cent in 2020-21. Unlike the case in other countries, CPI headline inflation in India[3], however, had increased before the onset of the pandemic due to weather-induced food price shocks, which persisted reflecting supply chain disruptions and supply-demand imbalances in the economy following COVID-19 driven lockdowns and restrictions. The central government and the Reserve Bank of India (RBI) introduced a judicious mix of fiscal and monetary policies and announced a special economic and comprehensive package equivalent to 10 per cent of India's GDP[4] to mitigate the negative impact of the pandemic. Reflecting the contraction in GDP and fiscal stimulus announced, the gross fiscal deficit (GFD) of the central government rose to 9.2 per cent of GDP in 2020-21. Fiscal policy measures in India, however, were targeted at vulnerable segments with primary focus on social protection and healthcare during the early stages of the pandemic, aided by additional public investment and support schemes targeting specific sectors later. On the monetary policy front, the policy repo rate was reduced by a cumulative 115 basis points (bps) to 4.0 per cent in a short span of three months (March-May 2020), while liquidity provisions of around 8.7 per cent of GDP were made through both conventional and unconventional measures to ensure adequate liquidity in the system, stimulate the economy, and maintain financial stability (Das, 2023a). Moreover, liquidity measures were targeted (at various market segments or meeting the sectoral credit needs) and time-bound (most measures had pre-specified sunset dates) in nature (Patra and Bhattacharyya, 2022).

Given the heightened uncertainties associated with the evolution of the pandemic, the need for fiscal consolidation was recognised early even as fiscal policy continued to address pandemic time distress. In this regard, the Union Budget for 2021-22 announced in February 2021 provided for a gradual fiscal consolidation path to lower fiscal deficit to 4.5 per cent of GDP by 2025-26 (RBI, 2022). This was accompanied with a focus on capital expenditure to accelerate growth and place the ongoing recovery on a strong footing (RBI, 2023). On the monetary front also, it was realised early that an excessively expanded central bank balance sheet for long could have implications for macroeconomic and financial stability. Accordingly, the pandemic time unconventional liquidity support measures were allowed to expire as per the embedded sunset clauses. In fact, while designing the liquidity measures in response to the pandemic, it was kept in mind that what is being rolled out needs to be rolled back in time and in a non-disruptive manner (Das, 2023b). As a result, RBI's balance sheet, which

[3] CPI Headline inflation is measured by the year-on-year (y-o-y) per cent change in the Consumer Price Index-Combined (CPI-C).

[4] The package includes both the fiscal measures taken by the central government and the liquidity measures by the RBI. For more information, please refer: https://pib.gov.in/PressReleasePage.aspx?PRID=1656925.

had increased to 28.6 per cent of GDP in 2020-21, moderated to 23.3 per cent of GDP in 2022-23. Thus, monetary and fiscal policies were coordinated in India during the pandemic.

With both AEs and EMDEs experiencing a surge in inflation, there is a growing interest in understanding the underlying drivers of what is often termed as 'globalisation of inflation'. The diverse inflation outcomes observed across economies have raised a research question about the potential link between size of fiscal stimulus and inflation, with several studies suggesting that fiscal stimulus played a significant role behind the inflation surge in 2021-2022 (Binici, *et al.*, 2022; IMF, 2022; Bonatti, *et al.*, 2022; De Soyres, *et al.*, 2023).

Against this backdrop, this paper attempts to investigate the potential association between pandemic-induced fiscal support and inflation in select economies using a panel data model in a Phillips Curve (PC)[5] framework on annual data (calendar year) for the period 2001 to 2022. For the empirical exercise, this study covers a sample of 13 AEs and EMEs, including India, representing diverse geographical locations for better representation. The empirical analysis suggests a statistically significant and positive relationship between fiscal expansion and inflation for countries with higher than median fiscal gap during the post-COVID period.

The rest of the paper is organised into five sections. Section II provides a description of the post-pandemic macroeconomic developments. Section III reviews the relevant literature which guides the choice of variables and specification of the model. Section IV provides information on methodology and empirical strategy, followed by results in Section V. Section VI concludes the paper.

II. Stylised Facts

II.1 Macroeconomic Conditions

Headline inflation across several AEs reached decadal highs with post-COVID 4-year average (2020-2023) inflation turning significantly higher than the pre-COVID 4-year average (Chart 1a). Several EMEs also experienced multi-year highs in headline inflation during the same period. Along with the surge in inflation, the volatility[6] also increased in the post-pandemic period, reflecting heightened macroeconomic uncertainty (Chart 1b). Across economies, the rise in inflation started largely in the second half of 2021 and persisted in 2022 (Chart 1c), which led to synchronised monetary policy tightening (Chart 1d).

The outbreak of the COVID-19 pandemic resulted in a recession across economies. Localised and nation-wide lockdowns caused widespread disruption to the businesses, supply chains, and labour markets, and a sharp decline in economic activity leading to negative output gap across AEs (Chart 2a). With gradual opening of the economies from the lockdowns/restrictions following the vaccine rollout, economic activity began to recover, and commodity prices started rising in 2021 reflecting supply chain pressures including high shipping and transportation costs (Chart 2b). The Russia-Ukraine conflict created shortages and further escalated price pressures in food and energy commodities in 2022.

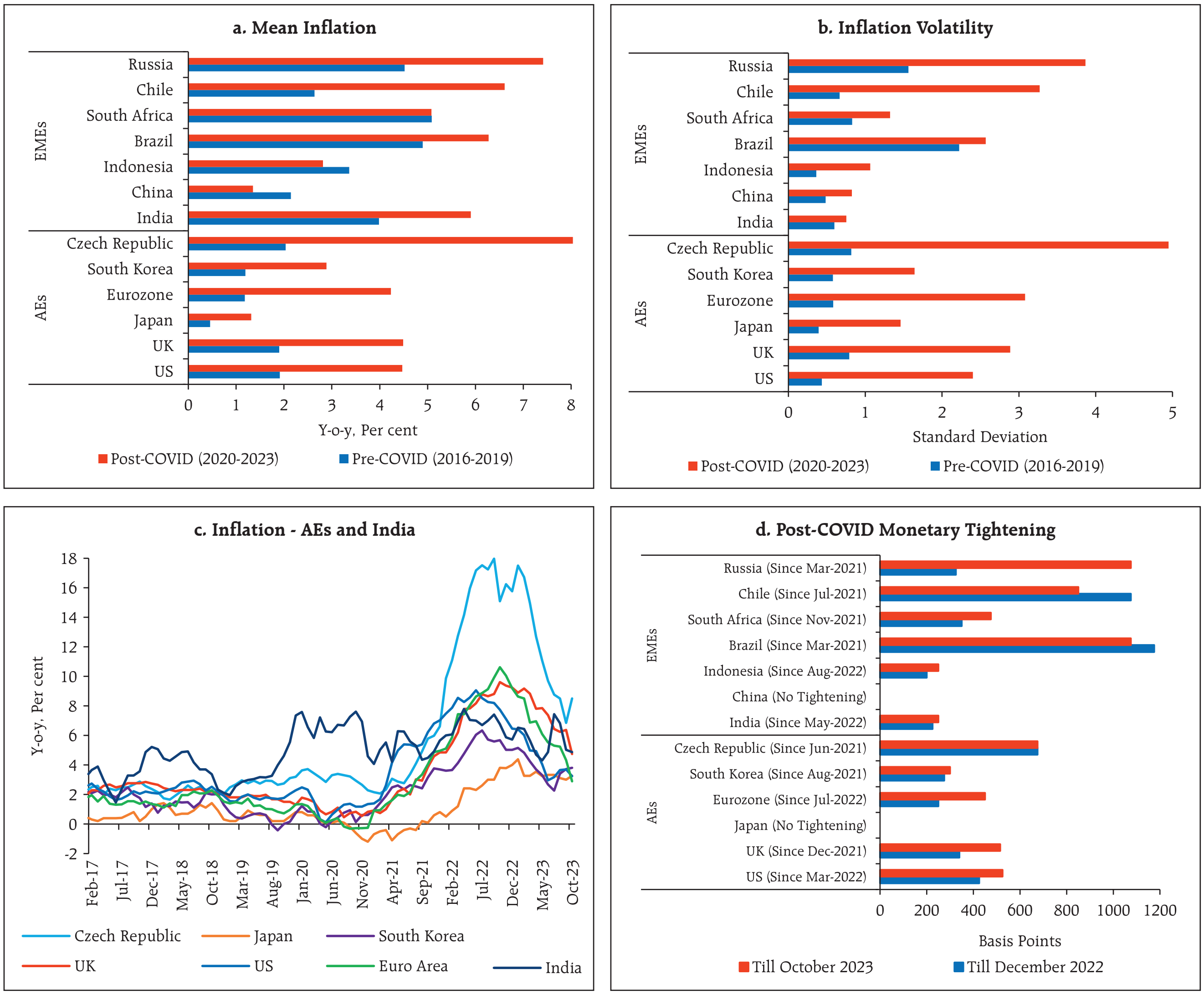
II.2 Support Measures across Economies

With the objective of supporting economic activities and protecting people from the adverse consequences of the pandemic, governments and central banks around the world responded with

5 Phillips Curve (PC) is an equation that relates inflation rate to a measure of aggregate demand.

6 Volatility has been measured by the standard deviation of annual headline inflation for pre-pandemic (2016-2019) and post-pandemic period (2020-2023) four years.

Chart 1: Headline Inflation Dynamics in Select Countries



Notes: 1. Charts 1a and 1b are based on annual CPI inflation for each country. Chart 1c is based on monthly CPI inflation (year-on-year) data for each country.

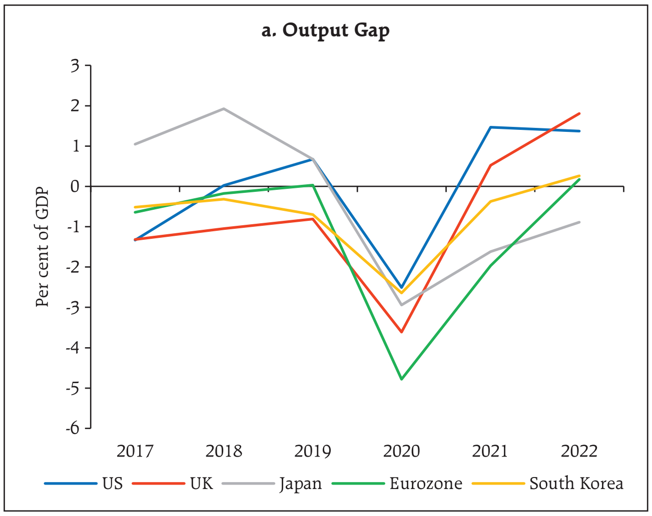
2. In Chart 1d, the first hike in policy rate since the onset of the pandemic is considered as the beginning of monetary tightening phase (and the month is indicated in parentheses for each country) and the cumulative tightening is the total increase in policy rate from those months until December 2022/October 2023 for each country.

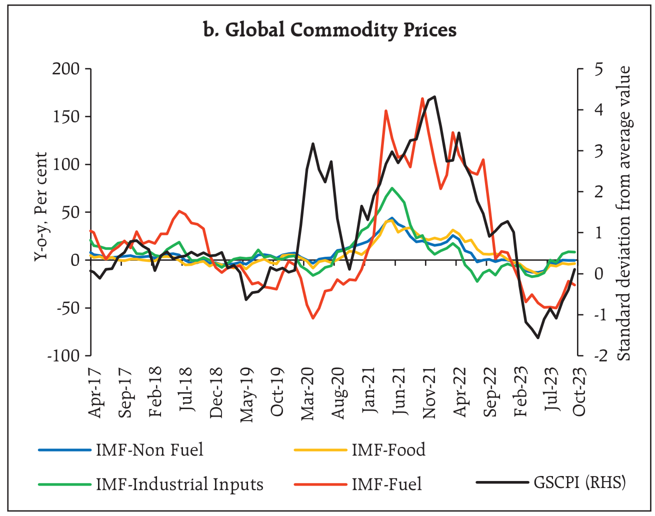
3. Data for 2023 pertain to January-October 2023.

Source: IMF, Federal Reserve, Eurostat, Bloomberg, and Authors' calculations.

unprecedented fiscal and monetary policy actions, including large-scale fiscal stimulus measures, interest rate cuts and liquidity support. The pandemic time support measures across economies encompassed fiscal measures (grants, tax reliefs, tax deferrals, equity participations, loans, and guarantees) as well as conventional (interest rate and reserve requirement changes as well as financing operations) and unconventional (asset purchases) monetary policies, capital and non-capital prudential regulations targeting the banking sector, and other policies such as moratoria, prudential policies affecting non-banks, and market-based measures (Kirti, *et al.*, 2022).

Chart 2: Supply-Side Dynamics





Note: GSCPI: Global Supply Chain Pressure Index.
Source: IMF, Bloomberg, Federal Reserve Bank of New York, and Authors' calculations.

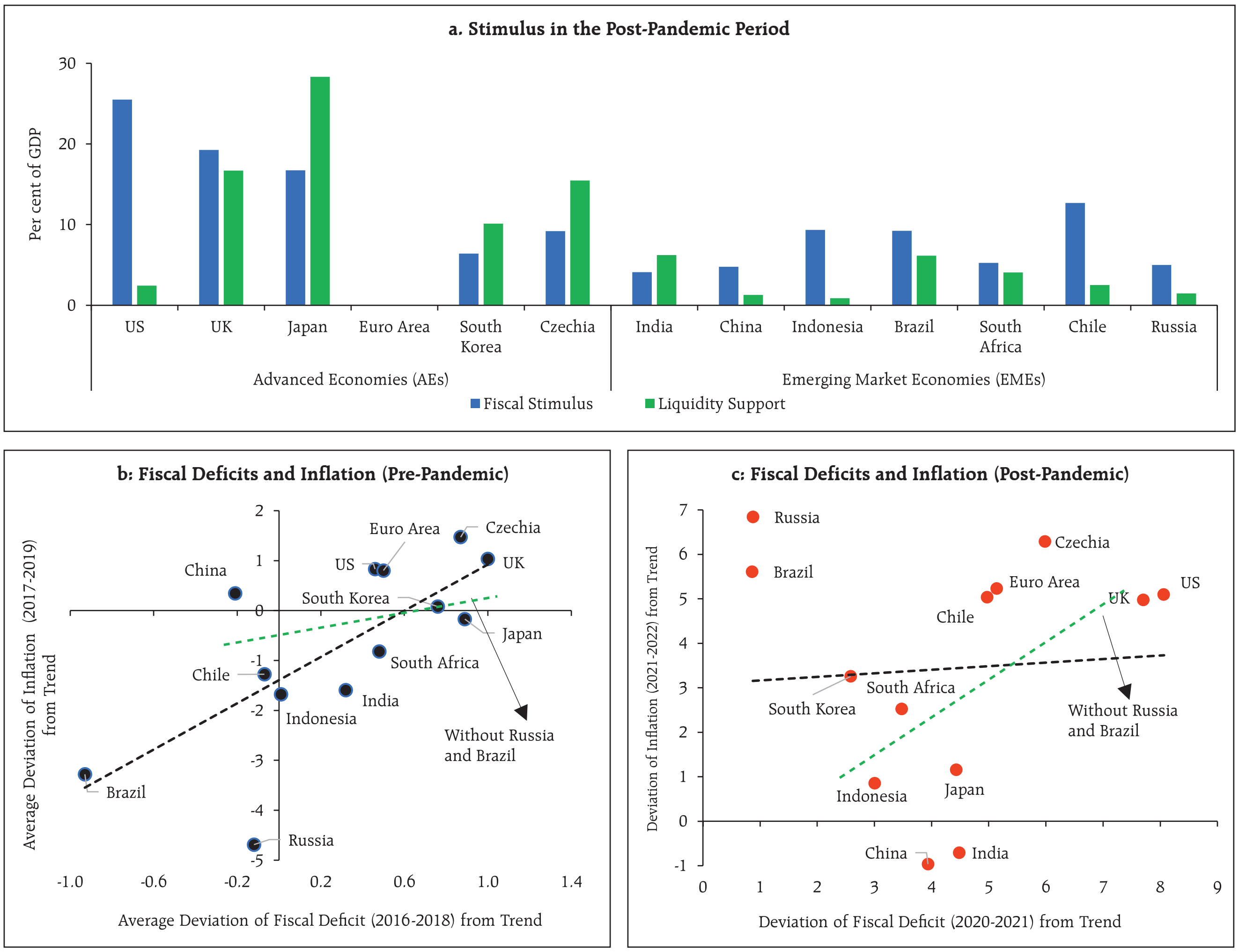
In India, the fiscal measures were calibrated to address the evolving healthcare needs of people, protecting the vulnerable sections of the society, and supporting businesses and households to tide over the unforeseen consequences of the pandemic. These measures, among other, include provision for the country's COVID-19 vaccination program, distribution of free foodgrains for the poor, provision for interest-free loans to states, measures to ease the tax compliance burden, and adjustments in customs duties and other applicable taxes on health related items. Fiscal measures also included reduction in excise duties on fuel products to limit pass-through of higher international oil prices as well as allowing imports of inflation-sensitive food items at lower duties as also imposing restrictions on exports and prescribing stock limits for traders/wholesalers for a temporary period to augment domestic availability and contain price pressures. On the monetary side, apart from reducing the policy rate and enhancing provision of system level liquidity, targeted credit support was provided to specific sectors and entities in distress[7].

Across economies, the extent of direct fiscal stimulus and liquidity support varied with the size of total combined stimulus being higher in AEs than that of EMEs[8] (Chart 3a). Compared to the pre-pandemic period, the association between fiscal intervention and inflation turns out to be stronger and more visible in the post-pandemic period (Chart 3b and 3c). There may be multiple reasons behind higher stimulus in AEs than EMEs: (1) higher prevalence and severity of the pandemic in AEs, (2) higher room for fiscal policy and lower financing costs in AEs, and (3) structural factors like stronger economic and institutional mechanisms allowing a forceful fiscal reaction (Alberola, *et al.*, 2021).

[7] For details, please refer to Patra and Bhattacharyya. (2022).

[8] For more information, please refer to IMF Fiscal Monitor 2021: Database of Country Fiscal Measures in Response to the COVID-19 Pandemic.

Chart 3: Fiscal Support and Inflation



Notes: 1. IMF Fiscal Monitor divides the stimulus into two categories: (1) Above-the-line measures *i.e.*, additional spending or foregone revenue which are considered as direct fiscal stimulus, and (2) Below-the-line measures *i.e.*, equity, loans, and guarantees which are considered as part of the liquidity support. In chart 3a, 'Fiscal Stimulus' refers to above-the-line measures.

2. Chart 3a is based on cumulative support measures given in Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic, October 2021.

3. In charts 3b and 3c, trend refers to previous 4-year rolling average of fiscal deficits of each country.

4. As Russia and Brazil are net exporters of goods, a trend line excluding these two countries is also shown in green in both the charts.

Source: IMF, the US Federal Reserve and Authors' estimates.

III. Literature Review

Both fiscal and monetary policies impact inflation through various channels. Fiscal spending may impact prices when economic agents perceive that increase in public debt may not be matched by future budget surpluses (Cochrane, 2023). Expansionary fiscal policies can stoke inflation if they cause overheated labour market and positive output gap (Blanchard and Bernanke, 2023). Burriel *et al.*, (2009) finds that inflation increases in response to government spending shocks. However, the impact of fiscal policy on inflation varies depending on factors such as potential supply-side dynamics (Jørgensen and Ravn, 2022), fiscal space, and prevailing economic conditions

(Cevik and Miryugin, 2023). The inflationary impact of fiscal deficits is generally higher in regimes with less central bank independence (Banerjee, *et al.*, 2022) and high level of public debt (Kwon, *et al.*, 2009). However, a few studies find no clear evidence of fiscal expansion leading to inflation, such as Magazzino (2011) in case of Mediterranean countries and Canova and Pappa (2007) for the US and EU area.

For India, government spending appears to have positive short-run impact on inflation, which is consistent with the Keynesian view (Nguyen, 2019). Fiscal interventions like subsidies in the form of direct cash transfers to final consumers could also be inflationary in the short run as increased demand may push up prices (RBI, 2013). Moreover, it is argued that in India, fiscal deficits would be inflationary only if the system is at full employment or is characterised by supply bottlenecks in certain sectors (RBI, 2003).

The impact of monetary policy on inflation is more straightforward and well recognised in the literature (Gali, 2015). The literature (Jašová, *et al.*, 2018) also supports the existence of cross-country Phillips curve (PC). The global surge in inflation since 2021 has also reignited interest in assessing the role of post-pandemic expansion in central bank balance sheet in fuelling inflation, against the backdrop of the missing inflation puzzle encountered after the global financial crisis (Pattanaik, *et al.,* 2022).

Since 2021, inflation has increased rapidly all over the world due to a strong post-pandemic recovery driven by fiscal and monetary accommodation, the presence of supply side disturbances, and the emergence of extraordinary cost-push shocks linked with the energy crisis (Bonatti, *et al.*, 2022). Using cross-country data, Hale *et al.* (2023) finds that consumer-targeted fiscal measures were inflationary. In the US, large fiscal stimulus was successful at boosting consumption which, coupled with relatively inelastic supply, led to the price pressures (De Soyres, *et al.* 2023). Further, it is argued that larger fiscal stimulus packages and tighter labour markets are associated with greater inflation acceleration across countries (Hobijn, *et al.*, 2022).

IV. Methodology and Empirical Strategy

Given the cross-country differences in the size and nature of pandemic-induced policy interventions, the objective of this article is to examine whether such differences were a factor in the observed differences in inflation across economies. The study, therefore, undertakes a cross-country panel Phillips Curve (PC) based empirical analysis covering thirteen AEs and EMEs and using annual data for 2001-2022 (calendar year). The United States (US), United Kingdom (UK), Japan, South Korea, Czech Republic and Euro Area (19 countries) represent AEs, while India, China, Indonesia, Brazil, South Africa, Chile, and Russia represent EMEs. To account for the cross-country differences, the study pursues a fixed effects panel regression model.

In order to properly identify the impact of the pandemic-time fiscal policy stimulus along with their cross-country differences on inflation, the study controls for other potential determinants such as exchange rate and global commodity prices. The form of fiscal variable used in the empirical exercise is guided by the post-pandemic literature. To represent fiscal stimulus, De Soyres (2023) and Hobijn, *et al.* (2022) use shocks to government spending (gap or deviation from pre-pandemic trend or projection), Hale *et al.* (2023) uses cumulative fiscal support as per cent of GDP, Cevik and Miryugin (2023) uses budget balance (or fiscal deficit) as per cent of GDP, while Banerjee *et al.* (2022) uses changes in fiscal deficits as per cent of GDP. We use shocks (gap or deviation from respective country trend) to fiscal deficits as per cent of GDP to account for the counter-cyclical behaviour of fiscal support as a response to the state of the economy (depending on economic growth and inflation).

The target variable, *i.e.*, headline inflation (y-o-y) is found to be stationary for the panel sample used in the study (Annex Table A1). Granger causality test suggests unidirectional causality from fiscal deficit gap (deviation from its trend) to inflation and not *vice versa* (Annex Table A2). The study uses annual data on economic variables from alternative official sources – CPI, GDP, GFD and global commodity prices from the IMF and exchange rates from the BIS (Annex Table A3).

V. Results

Alternative PC-based panel models (with and without the fiscal variable) were estimated, controlling for supply shocks (Table 1). The empirical results support the existence of cross-country PC across all models - Model 1 for the pre-pandemic period, which holds even when the fiscal gap is introduced in Model 2. Model 3 confirms the existence of PC for the post-pandemic period as well. While the fiscal gap is insignificant in both the pre-pandemic period (Model 2) and the post-pandemic period (Model 3), the same turns out to be significant in Model 4, which captures the interaction of the fiscal gap with the country-specific dummy (used to identify the countries with high fiscal intervention in the post-pandemic period). This suggests that the fiscal gaps were positively associated with inflation in economies with high fiscal intervention in the post-pandemic period. In other words, the deviation of fiscal deficit as per cent of GDP from its trend played a key role in the inflation surge in the post-pandemic period.

The country-specific coefficients extracted from the panel estimates indicate that the association between fiscal gaps and inflation in the post-pandemic period is stronger mainly in countries with higher

Table 1: Panel Regression Results

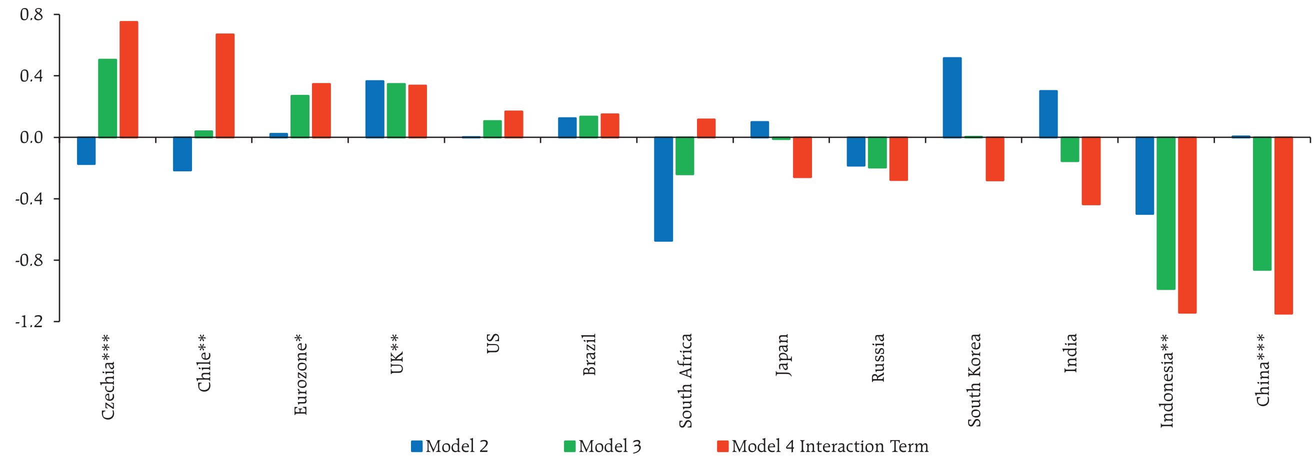
Dependent Variable: Headline Inflation (y-o-y)

	Pre-pandemic (2004-2019) Sample Size = 208		Full Sample (2004-2022) Sample Size = 247	
	Model 1	**Model 2**	**Model 3**	**Model 4**
Explanatory Variables	**Coefficient**	**Coefficient**	**Coefficient**	**Coefficient**
$Constant$	1.44***	1.40***	1.51***	1.55***
$Inflation_{t-1}$	0.33***	0.33***	0.47***	0.45***
$Trend\ Inflation_t$	0.18*	0.19*	0.07	0.06
$Output\ Gap_{t-1}$	0.22***	0.19***	0.20***	0.20***
$NEER\ Growth_t$	-0.10***	-0.11***	-0.08***	-0.07***
$IMF\ Fuel\ Price\ Index\ Growth_t$	0.02***	0.02**	0.03***	0.02***
$IMF\ Non-Fuel\ Price\ Index\ Growth_t$	0.03**	0.03**	-0.00	0.00
$FDGDP\ Gap_{t-1}$		-0.08	0.04	-0.07
$FDGDP\ Gap_{t-1} * DUMMY_{High\ Fiscal}$				0.37***
R^2	0.77	0.77	0.68	0.69
Adjusted R^2	0.75	0.75	0.65	0.67

Notes: 1. FDGDP: Fiscal Deficit as per cent of GDP; NEER: Nominal Effective Exchange Rate.
2. Trend inflation is estimated using Hodrick Prescott (HP) filter.
3. FDGDP Gap is calculated as deviation of actual FDGDP from its trend, where trend is previous 4-year average. $DUMMY_{High\ Fiscal}$ is a dummy variable, used to identify the countries with high fiscal intervention, *i.e.*, above-median fiscal gap, in the post-pandemic period.
4. *: $P < 0.10$; **: $P < 0.05$; ***: $P < 0.01$.

Source: Authors' estimates.

Chart 4: Cross-Country Coefficients of Fiscal Gap



Notes: 1. The data is sorted in decreasing order based on the coefficient of the Model 4 Interaction Term. Statistical significance is also based on the coefficient of the Model 4 Interaction Term.

2. *: P < 0.10; **: P < 0.05; ***: P < 0.01.

Source: Authors' estimates.

fiscal intervention (Chart 4). In the case of India, statistically insignificant coefficient suggests that the post-pandemic fiscal support was not associated with higher inflation.

For a robustness check, an alternative measure of fiscal gap, *i.e.*, actual fiscal deficit as per cent of actual GDP minus cyclically adjusted fiscal deficit as per cent of potential GDP published by the IMF was also used for estimation and the results were found to be broadly similar (Annex Table A4). As another robustness check, the Phillips curve model is estimated controlling explicitly for monetary and liquidity support provided during the pandemic captured through monetary base (M0) of the central bank (over and above what is explained through the output gap channel) and the results still hold (Annex Table A5).

VI. Conclusion

Global macroeconomic situation has become uncertain in the post-pandemic period. With the surge in CPI headline inflation in the second half of 2021 across both AEs and EMEs, an assessment of pandemic-induced fiscal policy actions has become an emerging area of discussion. Using cross-country panel data analysis in a PC-based framework, this study attempts to investigate the impact of pandemic-induced fiscal interventions on headline inflation across economies, controlling for supply side factors and also the monetary and liquidity support measures. The empirical results suggest that larger fiscal expansion (relative to trend) have been associated with higher inflation outcomes in the post-pandemic period. This is also corroborated by the signs and significance of the coefficients extracted from the panel regression results for countries with larger fiscal stimulus. Conversely, countries with moderate fiscal support have experienced relatively moderate inflation outcomes.

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Annex

Table A1: Panel Unit Root Tests

Variable: Headline Inflation (y-o-y) Null Hypothesis: Presence of Unit Root	
Test	**P-Value**
*Levin, Lin & Chu t**	*0.08*
*LM, Pesaran and Shin W-Stat****	*0.00*
*ADF - Fisher Chi-square****	*0.00*
*PP - Fisher Chi-square****	*0.00*

Notes: *: P < 0.10; **: P < 0.05; ***: P < 0.01.
Source: Authors' estimates.

Table A2: Dumitrescu-Hurlin Panel Causality Test

Null Hypothesis	P-Value
*Fiscal Deficit gap does not cause Inflation****	*0.00*
Inflation does not cause Fiscal Deficit gap	*0.45*

Notes: *: P < 0.10; **: P < 0.05; ***: P < 0.01.
Source: Authors' estimates.

Table A3: Data Sources

Information	Source	Variables Used
Consumer Price Index (CPI)	IMF	CPI Inflation (y-o-y, per cent) CPI Trend Inflation (y-o-y, per cent)
Gross Domestic Product (GDP)	IMF	GDP Gap from Trend (per cent)
Fiscal Deficit (FD)	IMF	FD as per cent of GDP (FDGDP, Gap from Trend)
Exchange Rates	BIS	NEER Growth (y-o-y)
Global Commodity Prices	IMF	IMF Fuel Price Index Growth (y-o-y) IMF Non-Fuel Price Index Growth (y-o-y)
Monetary Base (M0)	CEIC, IMF	Monetary Base (M0) Growth (y-o-y)

Notes: 1. Y-o-y: Year-on-Year; NEER: Nominal Effective Exchange Rate.
2. Trend GDP has been calculated using Hodrick-Prescott (HP) filter.
3. FDGDP (Gap from Trend) is calculated as deviation of actual FDGDP from its trend, where trend is based on previous 4-year average.

Table A4: Panel Regression Results

Dependent Variable: Headline Inflation (y-o-y)				
	Pre-pandemic (2004-2019) Sample Size = 208		**Full Sample (2004-2022) Sample Size = 247**	
	Model 1	**Model 2**	**Model 3**	**Model 4**
Explanatory Variables	**Coefficient**	**Coefficient**	**Coefficient**	**Coefficient**
$Constant$	*1.44****	*1.41****	*1.35****	*1.46****
$Inflation_{t-1}$	*0.33****	*0.34****	*0.47****	*0.46****
$Trend\ Inflation_t$	*0.18**	*0.18**	*0.09*	*0.07*
$Output\ Gap_{t-1}$	*0.22****	*0.24****	*0.25****	*0.24****
$NEER\ Growth_t$	*-0.10****	*-0.10****	*-0.08****	*-0.07****
$IMF\ Fuel\ Price\ Index\ Growth_t$	*0.02****	*0.02****	*0.03****	*0.02****
$IMF\ Non-Fuel\ Price\ Index\ Growth_t$	*0.03***	*0.03***	*-0.00*	*0.00*
$FDGDP\ Gap_{t-1}$		*0.06*	*0.17**	*0.07*
$FDGDP\ Gap_{t-1} * DUMMY_{High\ Fiscal}$				*0.27***
R^2	0.77	0.77	0.68	0.69
Adjusted R^2	0.75	0.75	0.66	0.66

Notes: 1. FDGDP: Fiscal Deficit as per cent of GDP; NEER: Nominal Effective Exchange Rate.
2. Trend inflation is estimated using Hodrick Prescott (HP) filter.
3. FDGDP Gap is calculated as actual FDGDP minus IMF-published cyclically adjusted fiscal deficit as per cent of potential GDP. $DUMMY_{High\ Fiscal}$ is a dummy variable, used to identify the countries with high fiscal intervention *i.e.*, above-median fiscal gap, in the post-pandemic period.
4. *: $P < 0.10$; **: $P < 0.05$; ***: $P < 0.01$.

Source: Authors' estimates.

Table A5: Panel Regression Results

Dependent Variable: Headline Inflation (y-o-y)				
	Pre-pandemic (2004-2019) Sample Size = 208		**Full Sample (2004-2022) Sample Size = 247**	
	Model 1	**Model 2**	**Model 3**	**Model 4**
Explanatory Variables	**Coefficient**	**Coefficient**	**Coefficient**	**Coefficient**
$Constant$	*1.35****	*1.31****	*1.45****	*1.49****
$Inflation_{t-1}$	*0.37****	*0.37****	*0.47****	*0.45****
$Trend\ Inflation_t$	*0.16**	*0.17**	*0.06*	*0.05*
$Output\ Gap_{t-1}$	*0.23****	*0.19****	*0.20****	*0.21****
$NEER\ Growth_t$	*-0.10****	*-0.10****	*-0.08****	*-0.07****
$IMF\ Fuel\ Price\ Index\ Growth_t$	*0.02***	*0.02***	*0.03****	*0.02****
$IMF\ Non-Fuel\ Price\ Index\ Growth_t$	*0.03***	*0.03***	*-0.00*	*0.00*
$M0\ Growth_{t-1}$	0.01*	*0.01**	*0.01*	*0.01*
$FDGDP\ Gap_{t-1}$		*-0.08*	*0.04*	*-0.07*
$FDGDP\ Gap_{t-1} * DUMMY_{High\ Fiscal}$				*0.36****
R^2	0.78	0.78	0.68	0.70
Adjusted R^2	0.75	0.75	0.65	0.68

Notes: 1. FDGDP: Fiscal Deficit as per cent of GDP; NEER: Nominal Effective Exchange Rate.

2. Trend inflation is estimated using Hodrick Prescott (HP) filter.

3. FDGDP Gap is calculated as deviation of actual FDGDP from its trend, where trend is previous 4-year average. $DUMMY_{High\ Fiscal}$ is a dummy variable, used to identify the countries with high fiscal intervention, i.e., above-median fiscal gap, in the post-pandemic period.

4. *: $P < 0.10$; **: $P < 0.05$; ***: $P < 0.01$.

Source: Authors' estimates.

Seasonality in India's Key Economic Indicators

*by Shivangee Misra, Rajendra Raghumanda and Sanjay Singh^*

This article presents the seasonal factors of 79 select monthly indicators from the economic/financial time series covering six broad sectors. COVID-led economic disruptions added extremely high volatility in macro-financial data, necessitating revisiting the seasonal adjustment approach. Different approaches were explored to address this volatility in data and the best-suited approach for seasonal adjustment was adopted. The results suggest that the seasonal variation, compared to the pre-COVID period, has accentuated for vegetable prices, mining, production of primary goods and consumer goods and moderated for production of capital goods, food products and beverages, retail electronic clearing and real time gross settlement.

Introduction

Seasonality in macroeconomic indicators refers to the regular and predictable cyclical patterns exhibited over the course of a year. It is one of the important components of a time series along with the trend, cyclical variations and random fluctuations. Seasonal variations occur due to various factors, such as, climatic conditions, production cycle characteristics, seasonal nature of economic activity, festivals and vacation practices. Seasonal adjustment is the process of removing seasonal and calendar effects from a time series data to capture the underlying long-term trend, cycle and short-run innovations in the series. It allows for a more accurate assessment of economic conditions and helps in making informed decisions. The Reserve Bank has been publishing monthly seasonal factors for a set of major macroeconomic variables since 1980.[1]

The incidence of COVID-19 pandemic had a devastating effect on the economic situation and added extremely high volatility in macro-financial data which vitiated the regular seasonal adjustment process and hence the seasonal pattern. This forced several countries to revisit the seasonal adjustment approach being used before onset of COVID-19 led disruptions. For example, the Bank of England reduced the scope of regular annual reviews of its seasonally adjusted (SA) series, to allow for more time to assess and estimate the impacts of pandemic on the seasonally adjusted series.[2] Against this backdrop, this article explores different approaches including user-defined regressors to control for COVID-19 extremities and identifies the most suitable approach to adjust for the impact of pandemic while carrying out seasonal adjustment and presents updated seasonal factors(SFs) of select economic indicators.

The rest of the article is organised as follows. A review of the major literature, focusing mainly on seasonal adjustment amid pandemic induced disturbances is presented in Section II. The data and methodology followed in the article is presented in Section III. Section IV brings out the analyses of empirical results of seasonal patterns in the indicators based on average monthly seasonal factors. Section V investigates the changes in seasonal pattern by evaluating the latest seasonal factors *vis-à-vis* pre-COVID factors. Finally, Section VI concludes by summarising inferences from the study.

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[1] Jan 1980 – RBI Bulletin

[2] https://www.bankofengland.co.uk/paper/2022/seasonal-adjustment-2022-covid-19-review

II. Review of the Major Literature

This section focuses on the literature that has evolved to address the impact of COVID-19 on the seasonality of economic indicators. The US Bureau of Labor Statistics while addressing the seasonal adjustment in nonfarm employment series of the Current Employment Statistics survey for its 2020 Annual Review, split the series into two parts: pre-pandemic and post-pandemic period. For the pre-pandemic period, the seasonal factors were estimated by taking the data till February 2020, whereas, for the post-pandemic period, seasonal factors were calculated by taking into account the entire data including the post pandemic period. As more data became available, for the 2021 Annual Review, it formalised its approach by using additional intervention [using all the three types of outliers - Additive Outlier (AO), Level Shift (LS) and Transitory Change (TC)] to mitigate the effects of the pandemic. The results showed that the three outliers (AO, LS, TC) based treatment performed better in most cases as compared to the normal treatment which included only the AO (Hudson *et al.*, 2022). Tiller *et al.* (2021) while analysing seasonal adjustment for local unemployment series in 421 metro areas of the US explored several options in terms of the sequence and mix of outlier types allowed in the automated modelling process. The F-adjusted Akaike's Information Criterion (corrected for sample size) (AICC) was used to select the most parsimonious model. The three outliers - LS, TC, AO based model performed best in over half of the series; if the TC was excluded, the percentage dropped to 19 per cent.

Bogalo *et al.* (2022) ran a set of simulations contaminating time series with shocks in the trend and seasonal components to emulate the type of shock that the COVID-19 might have created and compared three approaches – projection of the estimated seasonal factors for 2019 in the subsequent months, X-13ARIMA-SEATS[3] with outlier detection and a newly introduced non-parametric technique Circulant Singular Spectrum Analysis (CiSSA). They concluded that projecting the estimated seasonality in 2019 in the following months gives the worst results for any of the procedures used for seasonal adjustment. On the contrary, the usual X-13 ARIMA-SEATS with outlier detection seems a better option. Moreover, if the type of shock is a total disruption in seasonality combined with a shock in the trend, the non-parametric CiSSA seems to render better results.

Central Statistics Office, Ireland has used manually identified series of LS outliers for the pandemic period based on expert knowledge of the data and then testing for significance of the outlier at 5 per cent level of significance (Foley, 2021). Australian Bureau of Statistics (ABS) suspended publishing trend estimates during the COVID period. For publishing seasonal factors, if the time series had significant and prolonged impact of COVID, fixed forward factors were adopted (*i.e.*, seasonal factors were fixed for the next twelve months). The concurrent seasonal adjustment was continued only for times series that are not significantly impacted.[4]

III. Data and Methodology

The macroeconomic series covered in this article include: monetary and banking statistics, price indices, industrial production statistics, service sector indicators, merchandise trade and payment system indicators. As compared to the last edition of this article[5], two series *viz.*, production of commercial

[3] US Census Bureau's latest X-13 ARIMA-SEATS (Signal Extraction in ARIMA Time Series) is an enhanced version of the X-11 variant with two additional options, *viz.*, TRAMO (Time series Regression with ARIMA Noise, Missing Values and Outliers) for automatic model selection and Seasonal Extraction in ARIMA Time Series (SEATS) for conducting the seasonal adjustment procedure.

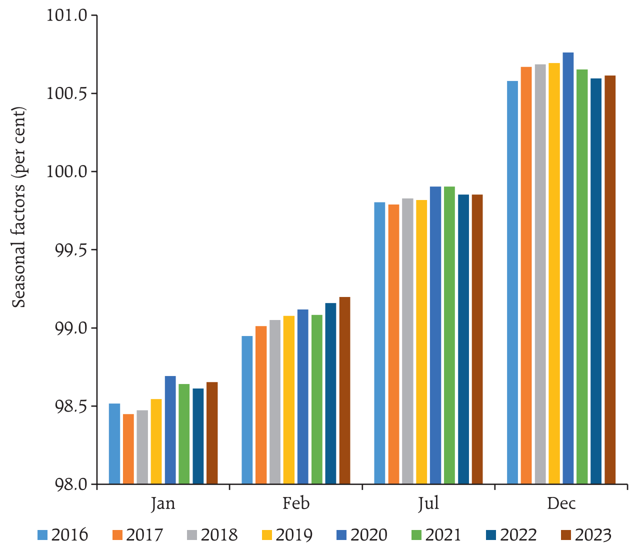
[4] https://www.abs.gov.au/articles/methods-changes-during-covid-19-period#post-release-changes

[5] Seasonality in India's Key Economic Indicators, December 2020, RBI Bulletin.

motor vehicles and sales of commercial motor vehicles were dropped as these series are now available only at quarterly frequency, whereas passenger vehicle sales (wholesale) was added to the list. The complete list of 79 indicators covered under these broad categories is given in Annex Table A1. Seasonal factors, mostly derived for the period April 1994 to March 2023, have been estimated under multiplicative model by using the X13-ARIMA-SEATS software of the US Census Bureau, after configuring it to suit Indian conditions, *e.g.*, incorporating the Diwali and Indian trading day effects.

The onset of the pandemic has posed a challenge to the statistical community around the world with a sharp slowdown in economic activity and a gradual recovery impacting the major macroeconomic series. These abrupt changes in the series posed a challenge for seasonal adjustment. The approaches adopted during COVID period such as using the forecasted factors or fixed forward factors[6] based on pre-COVID data are a temporary solution at best, as these fail to incorporate the new information becoming available subsequently. While using the data of the COVID period, the seasonal factors can get severely impacted by the COVID led extreme volatility. Therefore, a careful and calibrated approach is needed to make seasonal adjustment based on full sample data. Despite best efforts, one has to understand and appreciate the provisional nature of the seasonal factors, which are unobserved. The permanent impact of COVID on seasonal factors could be assessed satisfactorily only when a few years of post-COVID data become available. For example, in the case of US nonfarm payroll data compiled by the US Labor bureau, the seasonal factors showed variation, especially in the month of July, December and January, the crucial months of first and second waves of COVID-19 pandemic (Chart 1). It

Chart 1: Seasonal Factors of US Nonfarm Payrolls



Source: U.S. Bureau of Labor Statistics; and Authors' calculation.

clearly depicts the uncertainty in the pandemic period and insufficiency in estimating reliable seasonal factors. Therefore, it becomes important to carefully monitor these developments to better understand the evolving economic landscape during the pandemic. In this article, the seasonal factors were computed after formalising the approach suitable to incorporate the COVID-19 disruptions.

In order to formalise the approach to be adopted to address the COVID impact, various options have been explored to generate reliable seasonal factors. In the preliminary phase, these approaches/specifications were performed on select macroeconomic indicators and the preferred approach was then applied to the entire set of economic variables.

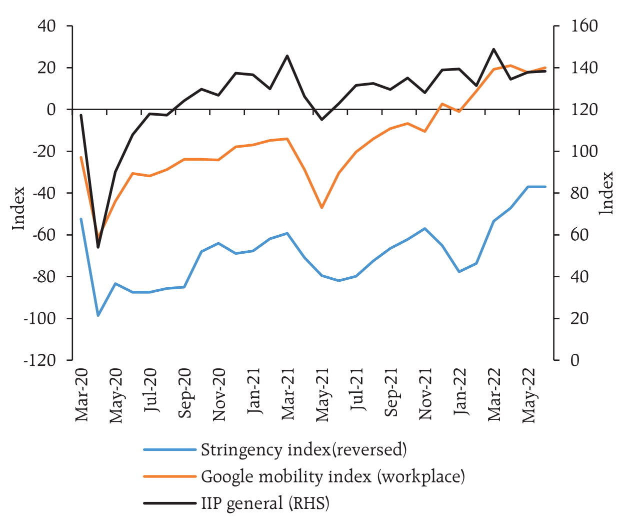
As the sample period covered in this article includes the COVID period, to avoid the COVID led disturbances muddling the significance of calendar effects, the trading day and holiday effects were tested for significance based on the pre-pandemic data *i.e.*, data till Dec 2019. If found significant, they were included in the model for the alternate specifications covering the full sample period till March 2023.

6 The seasonal factors are estimated using data till 2019 (pre-COVID) and the estimated seasonal factors of 2019 are used for the later period.

COVID-19 pandemic and the restrictions imposed to contain the pandemic have impacted the economic activity. Sampi *et al.* (2020) used Google mobility data for nowcasting GDP growth. Cross *et al.* (2020) used the stringency index to show that government restrictions are a trade-off between economic growth and healthcare. Google mobility and stringency index were found to have an impact in economic activities also in the case of India (Chart 2). Accordingly, drawing from the recent literature related to seasonal adjustment during COVID and a close association between Google mobility and stringency index with economic activities, four different specifications by combining set of outliers with Google mobility and stringency indices as user-defined regressors were explored to address COVID-19 led extreme volatility in data (Table 1).

In order to assess the model performance and select the best approach for further analysis, AICC was observed for all the specifications for 22 major select indicators. A lower AICC value is an indicator of a better fit. In majority of the select indicators, AICC was least under the Specification-2 (AO, LS, TC) as compared to the other three specifications (Table 2). Therefore, the specification-2 has been adopted for carrying out seasonal adjustment of all the economic indicators

Chart 2: Industrial Production, Google Mobility and Stringency Indices



Sources: MOSPI; CEIC; and OxCGRT.

Table 1: Alternate Specifications Considered

Series	Specification Description
Pre-pandemic series	AO, LS
Post-pandemic series	Specification-1: AO, LS Specification-2: AO, LS, TC Specification-3: AO, LS, GMW Specification-4: AO, LS, Str

Note: AO: Additive Outlier, **LS:** Level Shift, **TC**: Transitory Change, **GMW**[7]: Google Mobility Workplace, **Str**[8]: Stringency Index

Table 2: AICC

Indicator	pre-COVID	spec1	spec2	spec3	spec4
Industrial production indices (IIP)					
IIP Mining	1296.0	1526.6	**1513.2**	1533.8	1543.8
IIP Manufacturing	1120.4	**1327.2**	1339.8	1354.1	1356.0
IIP Electricity	1287.7	1586.2	1533.6	**1533.1**	1603.2
IIP General Index	1051.7	1266.4	**1266.0**	1276.5	1283.2
IIP Primary goods	396.0	650.7	**615.2**	633.9	623.3
IIP Capital goods	501.9	765.0	**732.5**	752.6	732.6
IIP Intermediate goods	389.3	618.8	**585.5**	625.7	620.2
IIP Infrastructure/ construction goods	476.0	**713.2**	**713.2**	747.9	741.4
IIP Consumer durables	461.3	**692.0**	702.5	741.8	700.4
IIP Consumer non-durables	473.3	753.3	**745.3**	748.4	755.9
Consumer price indices (CPI)					
CPI Food & Beverages	245.9	403.4	**390.7**	404.8	404.2
CPI Clothing & Footwear	-33.2	-5.1	**-10.1**	19.7	-2.9
CPI Housing	86.9	114.6	**76.3**	116.7	116.7
CPI Headline	151.9	214.5	**213.9**	262.7	247.4
CPI Miscellaneous	65.1	133.3	**120.1**	130.7	133.4
Money supply					
Broad Money (M3)	4221.2	4942.1	**4938.5**	4944.1	4943.7
Currency in circulation	3178.4	3785.9	**3675.9**	3759.6	3746.1
Services sector					
Port cargo	1069.0	1271.4	1260.8	1265.1	**1252.0**
Rail freight	1078.1	1271.0	1259.4	**1244.8**	1280.9
Passenger flown (km)-Domestic	3667.0	4277.3	**4233.1**	4270.8	4281.6
Passenger flown (km)-International	3718.8	4353.7	4277.7	**4254.8**	4374.2
Passenger vehicle sales (wholesale)	3844.0	4683.5	**4681.3**	4737.1	4700.1

Note: Cells in bold indicate the lowest AICC amongst specifications 1 to 4 (spec1 to spec4).
Source: Authors' calculation.

[7] Google Mobility Workplace measures the mobility changes against the baseline - median value from the 5-week period of January 3 – February 6, 2020.

[8] The stringency index by Oxford Coronavirus Government Response Tracker (OxCGRT) project is a composite measure based on nine policy response indicators

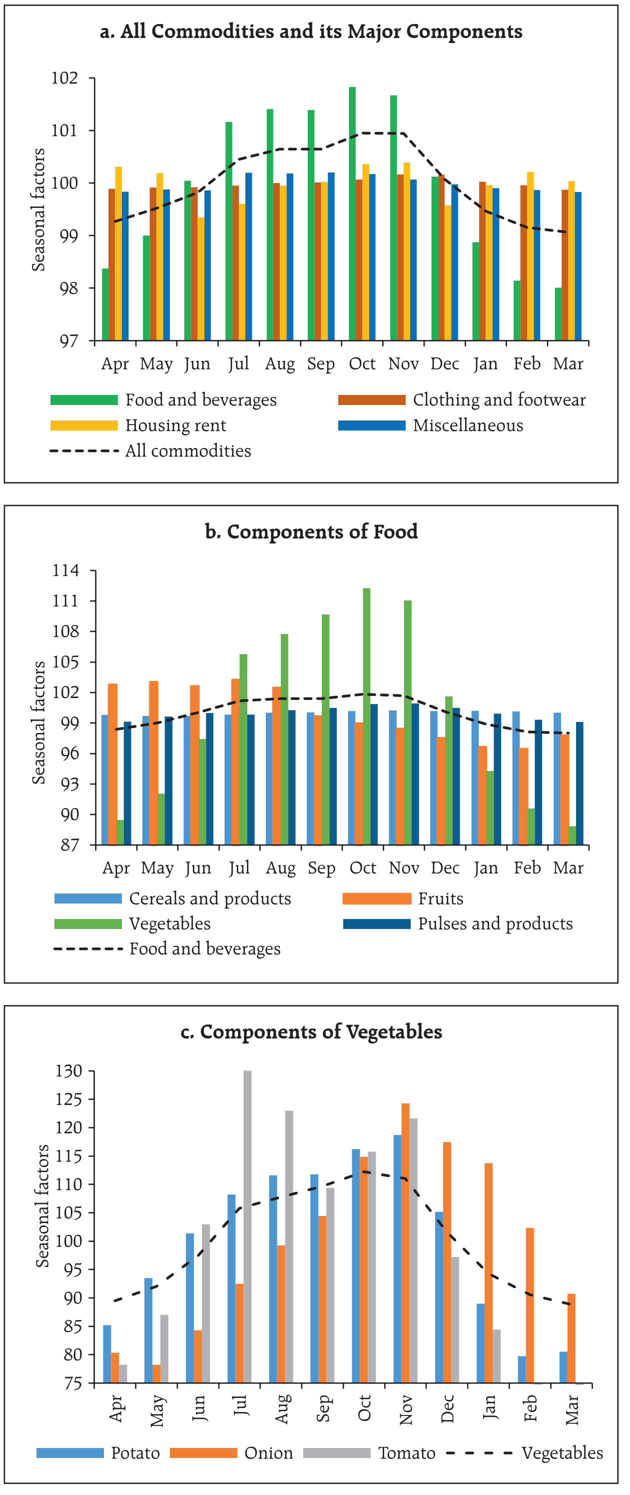
selected for this study. Test statistics confirm the presence of statistically significant seasonality in the original series, while residual seasonality in all the 79 seasonally adjusted series (by using specification-2) was not statistically significant at the conventional level of significance. Furthermore, the Q-statistics[9] for all the series were within the acceptable range of zero to one (Annex, Table A2).

IV. Analysis of Empirical Results

The macroeconomic variables considered for this study exhibit varied seasonality (Annex, Tables A3 and A4). Out of the 14 major monetary and banking indicators, 10 have recorded peak in the month of March or April (around the financial year closure), whereas majority of the indicators witnessed seasonal troughs during the month of August or December. Bank credit, non-food credit, demand deposits, *etc.* were at their peak in March, while investments of the banks were at their trough. Among all the monetary and banking indicators, demand deposits registered the highest average seasonal variation in the last ten years (average SF range[10] at 9.0) followed by cash in hand and balances with RBI (average SF range at 5.0) and narrow money (average SF range at 4.9). On the other hand, time deposits of scheduled commercial banks (SCBs), recorded the least seasonal variation (average SF range at 1.1) (Annex Tables A4 and A5).

Turning to price statistics, the headline Consumer Price Index (CPI) experiences seasonal upside pressure between July and November, largely driven by the prices of food and beverages, which is in turn driven by the seasonal patterns of vegetable prices. Prices of fruits peak during the summer (April - August) and those of vegetables around the monsoon (July - November) (Chart 3).

Chart 3: Average Monthly Seasonal Factors of CPI (combined)



Source: MOSPI; and Authors' calculation.

9 Q-statistic is an overall index of the quality of the seasonal adjustment (acceptable range is between 0 and 1).

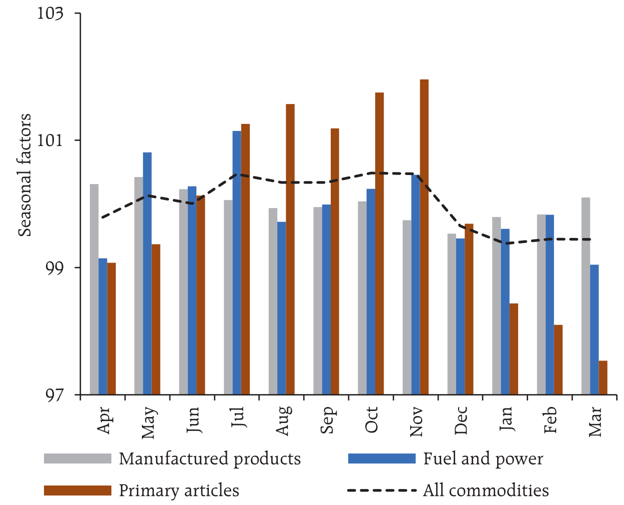
10 Average seasonal factor range (SF range) is the range of average seasonal factors for last ten years. Range is calculated as the difference between maximum and minimum of monthly seasonal factors.

Among the major groups of CPI, food and beverages which account for around 45 per cent share, showed high seasonal variation (average SF range at 3.8) when compared to other components such as clothing & footwear, housing and miscellaneous. Among the sub-groups of food and beverages, CPI vegetables displayed the highest seasonal variation (average SF range at 23.4). Among vegetables, prices of tomatoes, onions and potatoes recorded average SF range of 58.0, 46.1 and 39.0, respectively. Seasonal variation in fruit prices (average SF range of 6.8) was relatively lower than vegetables. The least seasonal variation is observed in series such as non-alcoholic beverages, milk and its products and prepared meals, snacks, sweets (average SF range at 0.3). Further, the seasonal variation in prices of cereals and products (average SF range at 0.6) was lower than that of pulses and products (average SF range at 1.8). Amongst the other major components of CPI, clothing and footwear (weight of 6.5 per cent in the CPI Combined basket) also exhibits low seasonal variation (average SF range at 0.3) (Chart 3).

Expectedly, seasonality in the aggregate CPI series [CPI Combined, CPI for Industrial Workers (CPI-IW), CPI for Agricultural Labourers (CPI-AL) and CPI for Rural Labourers (CPI-RL)] is low while it is pronounced in some of the components, mainly food items. Out of 21 CPI series, 19 registered a seasonal trough around February to May, aligned with the *rabi* harvest (Annex, Table A4).

In the wholesale price index (WPI), seasonal troughs were concentrated during the months of December, January and March relative to the scattered distribution of seasonal peaks. Seasonal fluctuations in the WPI-all commodities were largely driven by primary articles, especially food, which have a seasonal pattern similar to CPI-food and beverages. Primary articles recorded the highest seasonal variation (average SF range at 4.4) while the manufactured products which account for the largest share in WPI recorded the lowest seasonal variation (average SF range at 0.9) (Chart 4 and Annex, Tables A5 & A6).

Chart 4: Average Monthly Seasonal Factors of WPI

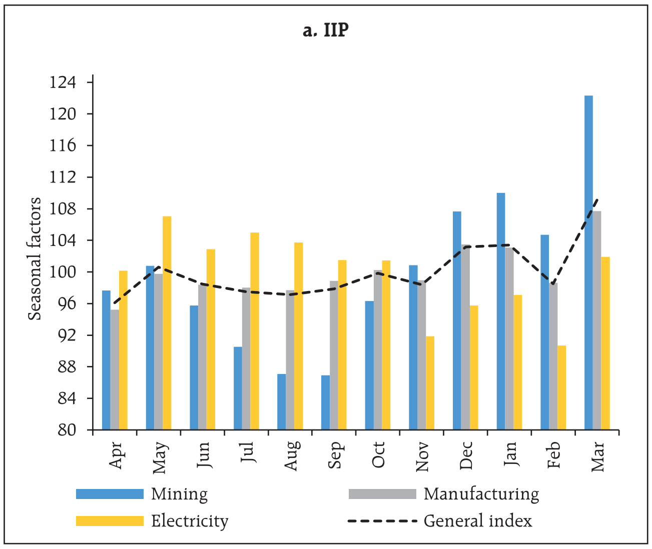


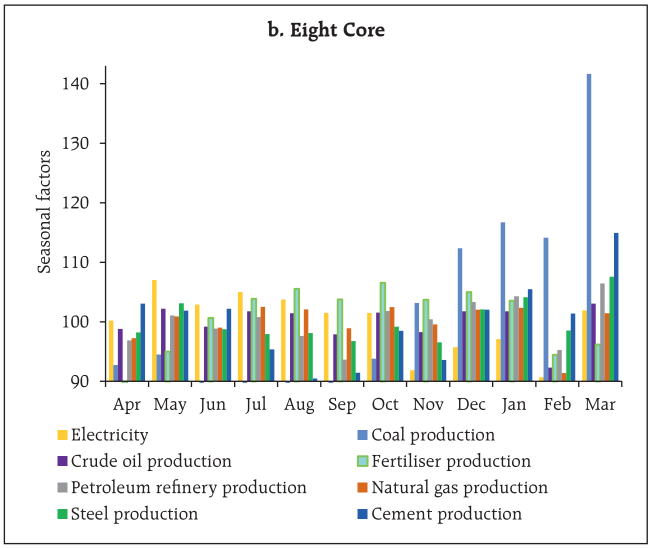
Sources: MOSPI; and Authors' calculation.

As regards seasonality in output, industrial production is highly seasonal - the index of industrial production (IIP) showed an average SF range of 13.0. Seasonal peaks in the industrial production mostly (14 out of 23 series) occurred in March, the last month of the financial year, which could be due to achieving annual targets; seasonal troughs, on the other hand, were scattered.

Among the major sectors, mining had the highest seasonal variation (average SF range at 35.4) with low activity during monsoon months and peak in March. Manufacturing, which has the maximum share in overall IIP, exhibits seasonal peak in the month of March. Electricity production peaked during the hot summer month of May with seasonal troughs observed during the winter months. Among the components of manufacturing, food products and textiles witnessed seasonal peak in December, whereas beverages peaked

Chart 5: Seasonal Factors for IIP and Eight Core





Sources: MOSPI; Office of the Economic Adviser, Ministry of Commerce and Industry; and Authors' calculation.

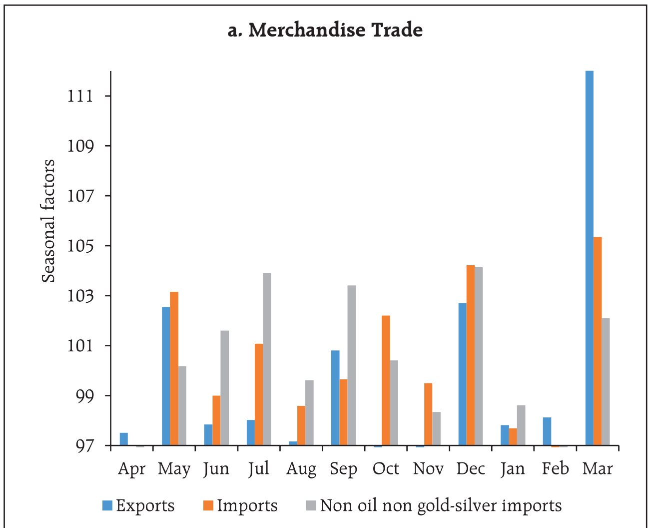
during the summer months with high seasonal variation (average SF range of 37.7). Under the use-based classification, all categories observed peak in March except consumer goods. While consumer durables peaked during October reflecting the festival demand, consumer non-durables peaked during the winter month of December. Indicators of eight core industries recorded seasonal peak during March except fertilisers and natural gas. Coal production recorded the highest seasonal variation with SF range at 61.9 mainly driven by high seasonal production in the month of March. Fertiliser production registered a seasonal decline between February to May, which is the harvesting time of *rabi* crops and a lean season for agricultural activity (Chart 5).

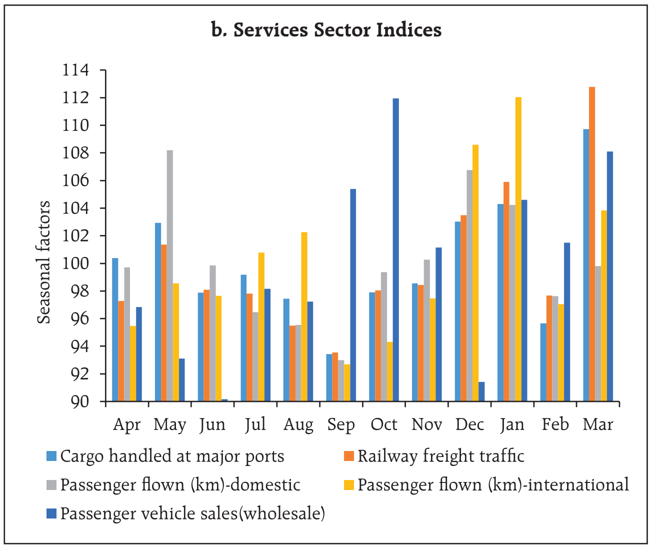
Four of the five services sector indicators recorded seasonal trough in September. Port cargo traffic and railway freight traffic recorded peak in the month of March, reflecting increased activity at the end of the financial year. In the case of domestic and international passenger traffic, the seasonal peak coincided with the holiday seasons in May and January, respectively. Wholesale passenger vehicle sales recorded seasonal peak in October owing to festival demand. The seasonal variation observed in all the five service sector indicators was broadly similar (average SF range 15.2 - 21.8) (Chart 6).

Merchandise exports recorded a seasonal peak in March, coinciding with the peak in the industrial production. Imports also registered a seasonal peak in March, whereas non-oil non-gold imports peaked in December. Seasonal variation in exports is higher than that of imports (Chart 6).

The analysis of payment system indicators shows that Real Time Gross Settlement (RTGS), paper clearing and retail electronic clearance recorded high seasonal variations and peaked during March, indicating heightened usage of online transfers on account of annual financial year closing, whereas the seasonal peak of usage of card payments mode was found to be during October, coinciding with elevated consumption demand around the festival season. The

Chart 6: Seasonal Factors for Merchandise Trade and Services Sector

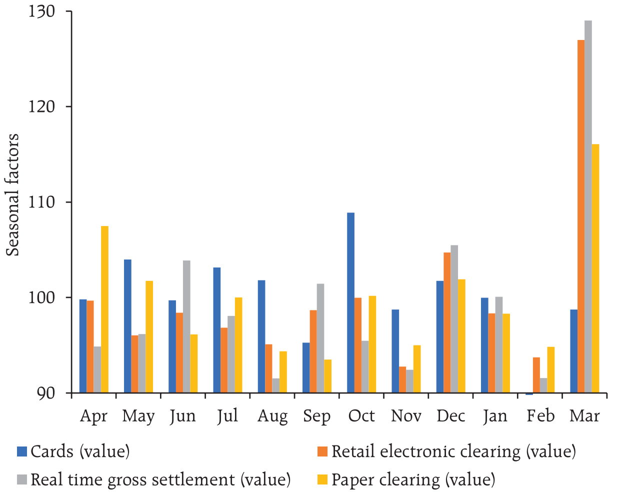




Sources: DGCIS; DGCA; Ministry of Railways; Indian Port Association;SIAM; and Authors' calculation.

seasonal troughs, on the other hand, were found to be scattered (Chart 7).

Chart 7: Seasonal Factors for Payment System Indicators

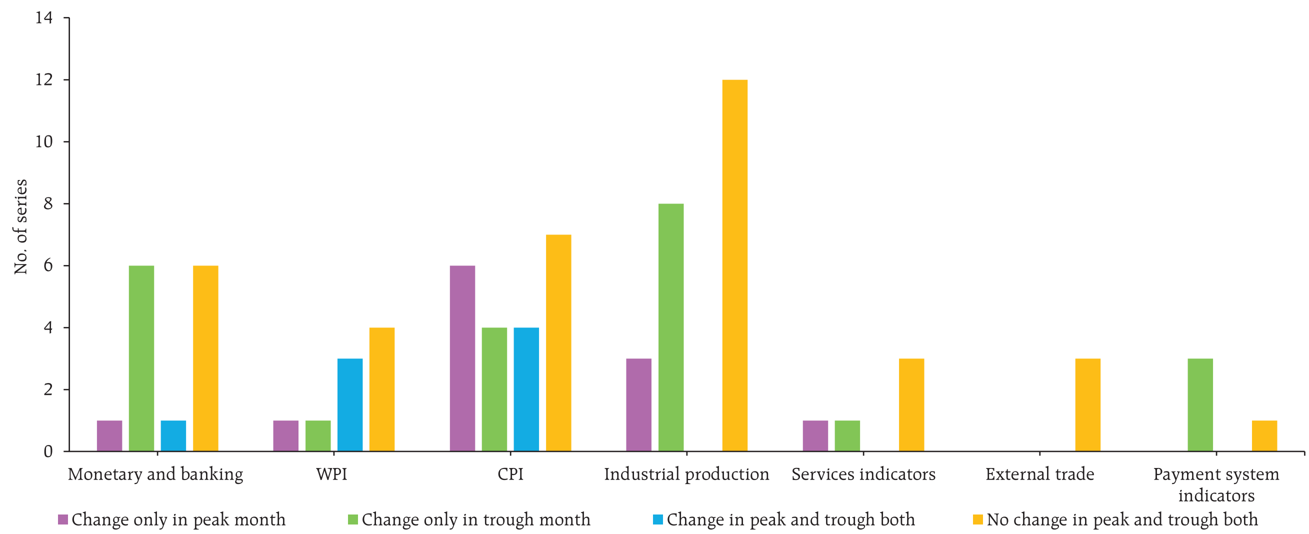


Sources: DBIE; and Authors' calculation.

V. Has the seasonality changed on account of COVID-19 impact?

To examine whether the seasonal fluctuations differ from the pre-COVID period or exhibit nearly the same pattern, the seasonal factors for 2022-23 were compared with the average seasonal factors for the last five years of the pre-COVID period (2015 to 2019). Out of 79 indicators, the seasonal peak and trough months remain unchanged for 36 series, whereas 8 series recorded change in both peak and trough months. Out of 8 series which recorded changes in both peak and trough months, 4 were the components of CPI. There were 23 series which experienced change in the trough month, while peak month changed for 12 series. The majority of IIP series did not notice change in both seasonal peak and trough (Chart 8).

Chart 8: Instance of Shifting Seasonal Peaks and Trough Months



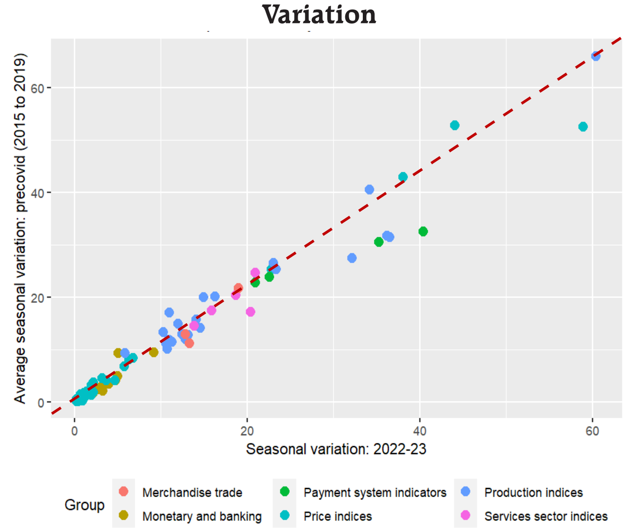
Sources: DBIE; MOSPI; DGCIS; DGCA; Ministry of Railways; Indian Port Association; SIAM and Authors' calculation.

The seasonal peak in CPI-all commodities shifted to November in 2022-23 from October earlier, mainly driven by change in the prices of food and beverages. Convergence in the trough month to November is seen in the case of demand, time and aggregate deposits. Peak month of consumer goods in 2022-23 has aligned with the consumer non-durables in December as against March in the pre-COVID period (Annex, Table A6).

The impact of pandemic on the seasonality of various economic indicators varied by sectors. On the production front, IIP-Mining, production of petroleum refinery, coal production, IIP-Primary good and IIP-Consumer goods recorded an increase in the seasonal variation. Payment system indicators recorded increased seasonal fluctuation in the usage of cards and decreased fluctuation in RTGS and Retail electronic clearing. In the Service sector indicators, passenger flown (international) observed decline in the variation, whereas passenger vehicle sales (wholesale) observed increase in the change in seasonal variation. In merchandise trade, there is an increased variation in exports (Chart 9).

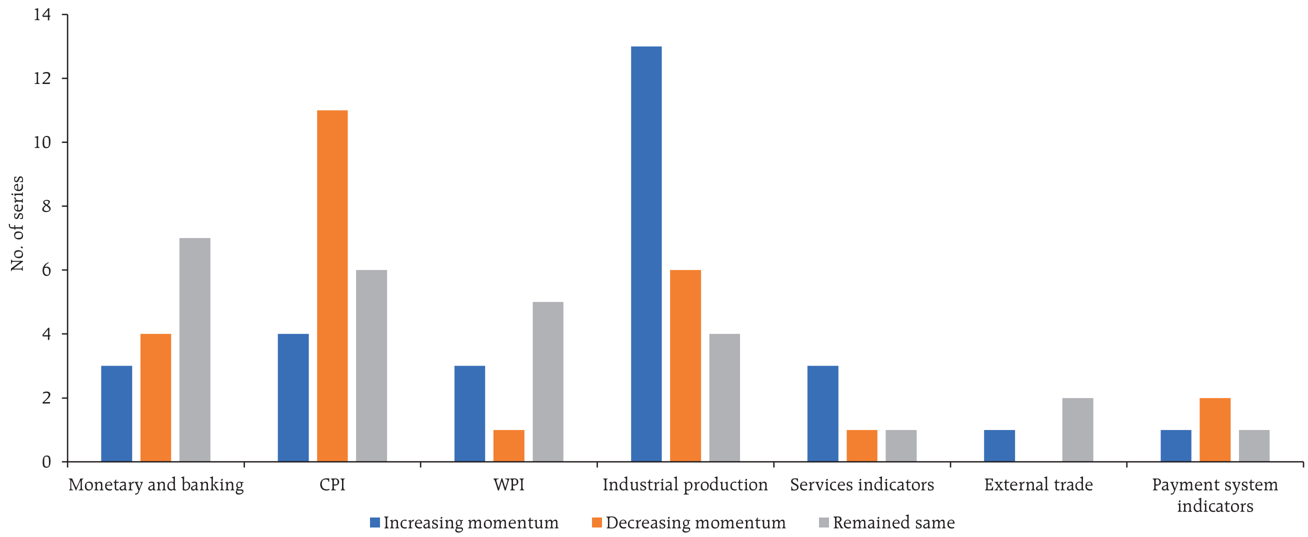
Empirical evidence suggests that seasonal fluctuations became more pronounced for 28 series over longer time horizon of last 10 years while these moderated in another 25 series (Annex, Table A9). Seasonal fluctuations in majority of the monetary and banking aggregates either moderated or remained

Chart 9: Comparative Analysis of Seasonal Variation



Sources: DBIE; MOSPI; DGCIS; DGCA; Ministry of Railways; Indian Port Association; SIAM and Authors' calculation.

Chart 10: Pattern of Changing Seasonal Fluctuation



Sources: DBIE; MOSPI; DGCIS; DGCA; Ministry of Railways; Indian Port Association; SIAM and Authors' calculation

broadly unchanged during last 10 years. Mining and electricity recorded a rise in seasonal variation. Coal is a major driver for increased seasonal variation in mining activity as rising demand for coal is met by higher production during the active season amid continuing low production during the monsoon season. Although seasonal variation moderated for the majority of CPI-combined elements, retail prices of fruits, meat & fish and that of the vegetables such as onion and potato exhibited rise in seasonal variation. Tomato, on the other hand, witnessed a moderation in seasonal variation. In the wholesale market, prices of manufactured products showed rise in the seasonal variation while the fluctuations in the prices of primary articles and fuel and power, remained unchanged. Freight traffic and exports witnessed a rise in seasonal variation (Chart 10 and Annex, Table A9).

VI. Conclusion

COVID pandemic induced shocks to the macroeconomic data has made seasonal adjustment a challenge for practitioners. To tackle this in the context of India, different approaches of seasonal adjustment were explored and it was observed that X-13-ARIMA-SEATS method allowing for automatic outlier detection of three kinds of outliers – Additive outlier, Level Shift and Transitory Change is best suited to adjust data amidst the volatility induced by Covid-19 pandemic.

The seasonal variation observed in terms of range in seasonal factors has increased for cash in hand and balances with RBI, production of primary goods, consumer goods, textiles, petroleum products, electricity production, passenger vehicle sales and merchandise exports. Among the series which observed a change in peak/trough month, most have witnessed a change in the trough month. A considerable number of production indices and banking and monetary aggregate indicators have experienced a shift in the trough month. Among banking indicators, bank credit, non-food credit, demand deposits peak in March while investments were at their trough. Driven by the prices of vegetables, CPI witnesses pressures during the monsoon season, *i.e.*, July to November. Prices of fruits touch their highest during summer months. Most items in industrial production peak in March, whereas the production of consumer durables reaches its maximum in October reflecting festival demand. Both exports and imports peak in March, with exports showing high seasonal variation than imports.

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Annex

Table A1: Time Period Used for Estimating Seasonal Factors

Name of Sectors/Variables	Time Period
Monetary and Banking Indicators (14 series)	
A.1.1 Broad Money (M3) A.1.1.1 Net Bank Credit to Government A.1.1.2 Bank Credit to Commercial Sector A.1.2 Narrow Money (M1) A.1.3 Reserve Money (RM) A.1.3.1 Currency in Circulation A.2.1 Aggregate Deposits (SCBs) A.2.1.1 Demand Deposits (SCBs) A.2.1.2 Time Deposits (SCBs) A.3.1 Cash in Hand and Balances with RBI (SCBs) A.3.2 Bank Credit (SCBs) A.3.2.1 Loans, Cash Credits and Overdrafts (SCBs) A.3.2.2 Non-Food Credit (SCBs) A.3.3 Investments (SCBs)	April 1994 to March 2023
Price Indices[CPI: 21 series and WPI: 9 series]	
B. CPI (Base: 2012 = 100) All Commodities B.1 CPI - Food and beverages B.1 .1 CPI - Cereals and products B.1 .2 CPI - Meat and fish B.1 .3 CPI – Egg B.1 .4 CPI - Milk and products B.1 .5 CPI – Fruits B.1 .6 CPI - Vegetables B.1 .6.1 CPI – Potato B.1 .6.2 CPI – Onion B.1 .6.3 CPI – Tomato B.1 .7 CPI - Pulses and products B.1 .8 CPI – Spices B.1 .9 CPI - Non-alcoholic beverages B.1 .10 CPI - Prepared meals, snacks, sweets *etc.* B.2 CPI - Clothing and footwear B.3 CPI – Housing B.4 CPI - Miscellaneous	January 2011 to March 2023
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100) C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100) C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	January 2000 to March 2023
D. WPI (Base: 2011-12=100) All Commodities D.1 WPI - Primary Articles D.1.1 WPI - Food Articles D.2 WPI- Fuel & Power D.3 WPI-Manufactured Products	April 1994 to March 2023
D.3.1 WPI - Manufacture of Food Products D.3.2 WPI - Manufacture of Chemicals & Chemical Products D.3.3 WPI - Manufacture of Basic Metals D.3.4 WPI - Manufacture of Machinery and Equipment	April 2012 to March 2023

Name of Sectors/Variables	Time Period
Index of Industrial Production (23 series)	
E. IIP (Base 2011-12 = 100) General Index	April 1994 to March 2023
E.1.1 IIP - Primary goods E.1.2 IIP - Capital goods E.1.3 IIP - Intermediate goods E.1.4 IIP - Infrastructure/ construction goods E.1.5 IIP - Consumer goods E.1.5.1 IIP - Consumer durables E.1.5.2 IIP - Consumer non-durables	April 2012 to March 2023
E.2.1 IIP - Mining E.2.2 IIP - Manufacturing	April 1994 to March 2023
E.2.2.1 IIP - Manufacture of food products E.2.2.2 IIP - Manufacture of beverages E.2.2.3 IIP - Manufacture of textiles E.2.2.4 IIP - Manufacture of chemicals and chemical products E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	April 2012 to March 2023
E.2.3 IIP - Electricity	April 1994 to March 2023
E.3 Cement Production E.4 Steel Production E.5 Coal Production E.6 Crude Oil Production E.7 Petroleum Refinery Production E.8 Fertiliser Production E.9 Natural Gas Production	April 2004 to March 2023
Service sector Indicators (5 series)	
F.1 Cargo handled at Major Ports F.2 Railway Freight Traffic F.3 Passenger flown (Km) - Domestic F.4 Passenger flown (Km) - International	April 1994 to March 2023
F.5 Passenger Vehicle Sales (wholesale)	April 2004 to March 2023
Merchandise Trade (3 series)	
G.1 Exports G.2 Imports G.3 Non-Oil Non-Gold Imports	April 1994 to March 2023
Payment System Indicators (4 Series)	
H.1 Real Time Gross Settlement	April 2004 to March 2023
H.2 Paper Clearing	April 2005 to March 2023
H.3 Retail Electronic Clearing H.4 Cards	April 2004 to March 2023

Table A2: Major Diagnostics of all the Indicators *(Contd.)*

Name of variable	Seasonality in Original Series		Residual Seasonality		Quality diagnostics	
	F test p-value	KW test p-value	F test p-value	F test 3 yr p-value	M7	Q
A.1.1 Broad Money (M3)	0.00	0.00	1.00	0.38	0.38	0.26
A.1.1.1 Net Bank Credit to Government	0.00	0.00	1.00	0.99	0.39	0.31
A.1.1.2 Bank Credit to Commercial Sector	0.00	0.00	1.00	0.99	0.33	0.23
A.1.2 Narrow Money (M1)	0.00	0.00	0.93	0.24	0.28	0.27
A.1.3 Reserve Money (RM)	0.00	0.00	0.53	0.84	0.30	0.23
A.1.3.1 Currency in Circulation	0.00	0.00	0.52	0.99	0.20	0.16
A.2.1 Aggregate Deposits (SCBs)	0.00	0.00	1.00	0.93	0.59	0.38
A.2.1.1 Demand Deposits (SCBs)	0.00	0.00	0.98	0.78	0.49	0.54
A.2.1.2 Time Deposits (SCBs)	0.00	0.00	1.00	0.99	0.60	0.29
A.3.1 Cash in Hand and Balances with RBI (SCBs)	0.00	0.02	0.96	1.00	1.31	0.92
A.3.2 Bank Credit (SCBs)	0.00	0.00	1.00	1.00	0.40	0.25
A.3.2.1 Loans, Cash, Credits and Overdrafts (SCBs)	0.00	0.00	1.00	1.00	0.40	0.27
A.3.2.2 Non-Food Credit (SCBs)	0.00	0.00	1.00	1.00	0.71	0.41
A.3.3 Investments (SCBs)	0.00	0.00	0.71	1.00	0.43	0.34
B. CPI (Base: 2012 = 100) All Commodities	0.00	0.00	1.00	0.98	0.25	0.29
B.1 CPI - Food and beverages	0.00	0.00	1.00	0.99	0.25	0.29
B.1 .1 CPI - Cereals and products	0.00	0.00	1.00	1.00	0.90	0.46
B.1 .2 CPI - Meat and fish	0.00	0.00	0.88	0.56	0.45	0.46
B.1 .3 CPI - Egg	0.00	0.00	1.00	1.00	0.42	0.27
B.1 .4 CPI - Milk and products	0.00	0.00	0.99	0.95	1.44	0.68
B.1 .5 CPI - Fruits	0.00	0.00	0.98	0.81	0.35	0.30
B.1 .6 CPI - Vegetables	0.00	0.00	0.99	0.97	0.26	0.32
B.1 .6.1 CPI - Potato	0.00	0.00	1.00	0.80	0.19	0.25
B.1 .6.2 CPI - Onion	0.00	0.00	0.50	0.50	0.62	0.50
B.1 .6.3 CPI - Tomato	0.00	0.00	1.00	0.94	0.42	0.71
B.1 .7 CPI - Pulses and products	0.00	0.00	0.98	0.60	0.93	0.62
B.1 .8 CPI - Spices	0.00	0.00	1.00	1.00	1.32	0.69
B.1 .9 CPI - Non-alcoholic beverages	0.00	0.00	1.00	1.00	1.07	0.57
B.1 .10 CPI - Prepared meals, snacks, sweets *etc.*	0.00	0.00	0.97	0.77	1.46	0.74
B.2 CPI - Clothing and footwear	0.00	0.00	0.98	0.97	1.12	0.66
B.3 CPI - Housing	0.00	0.00	0.90	0.91	0.33	0.36
B.4 CPI - Miscellaneous	0.00	0.00	1.00	0.63	0.86	0.47
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	0.00	0.00	1.00	0.99	0.23	0.27
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	0.00	0.00	1.00	0.98	0.26	0.31
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	0.00	0.00	1.00	0.98	0.26	0.29
D. WPI (Base: 2011-12=100) All Commodities	0.00	0.00	1.00	1.00	0.47	0.44
D.1 WPI- Primary Articles	0.00	0.00	1.00	1.00	0.33	0.41
D.1.1 WPI - Food Articles	0.00	0.00	1.00	1.00	0.30	0.36
D.2 WPI- Fuel & Power	0.00	0.00	1.00	1.00	1.44	0.74
D.3 WPI- Manufactured Products	0.00	0.00	1.00	1.00	0.73	0.58
D.3.1 WPI - Manufacture of Food Products	0.00	0.00	1.00	0.96	0.98	0.70
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	0.00	0.00	1.00	1.00	1.19	0.73
D.3.3 WPI - Manufacture of Basic Metals	0.00	0.00	0.99	0.98	1.02	0.63
D.3.4 WPI - Manufacture of Machinery and Equipment	0.09	0.07	0.99	1.00	1.94	0.93

Table A2: Major Diagnostics of all the Indicators *(Concld.)*

Name of variable	Seasonality in Original Series		Residual Seasonality		Quality diagnostics	
	F test p-value	KW test p-value	F test p-value	F test 3 yr p-value	M7	Q
E. IIP (Base 2011-12 = 100) General Index	0.00	0.00	0.26	0.32	0.16	0.24
E.1.1 IIP - Primary goods	0.00	0.00	0.25	0.44	0.31	0.81
E.1.2 IIP - Capital goods	0.00	0.00	0.29	0.13	0.32	0.49
E.1.3 IIP - Intermediate goods	0.00	0.00	0.56	0.39	0.37	0.46
E.1.4 IIP - Infrastructure/ construction goods	0.00	0.00	0.26	0.25	0.46	0.56
E.1.5 IIP - Consumer goods	0.00	0.00	0.29	0.19	0.38	0.48
E.1.5.1 IIP - Consumer durables	0.00	0.00	0.14	0.03	0.42	0.46
E.1.5.2 IIP - Consumer non-durables	0.00	0.00	0.61	0.66	0.39	0.70
E.2.1 IIP - Mining	0.00	0.00	0.73	0.51	0.24	0.39
E.2.2 IIP - Manufacturing	0.00	0.00	0.19	0.30	0.21	0.26
E.2.2.1 IIP - Manufacture of food products	0.00	0.00	1.00	0.99	0.19	0.43
E.2.2.2 IIP - Manufacture of beverages	0.00	0.00	0.24	0.12	0.55	0.39
E.2.2.3 IIP - Manufacture of textiles	0.00	0.00	0.37	0.34	0.66	0.66
E.2.2.4 IIP - Manufacture of chemicals and chemical products	0.00	0.00	0.62	0.45	0.55	0.77
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	0.00	0.00	0.29	0.13	0.51	0.60
E.2.3 IIP - Electricity	0.00	0.00	0.53	0.56	0.50	0.58
E.3 Cement Production	0.00	0.00	0.49	0.45	0.22	0.32
E.4 Steel Production	0.00	0.00	0.48	0.27	0.49	0.64
E.5 Coal Production	0.00	0.00	0.56	0.21	0.13	0.31
E.6 Crude Oil Production	0.00	0.00	0.87	0.94	0.18	0.32
E.7 Petroleum Refinery Production	0.00	0.00	0.96	0.68	0.49	0.72
E.8 Fertiliser Production	0.00	0.00	0.78	0.15	0.28	0.58
E.9 Natural Gas Production	0.00	0.00	0.92	1.00	0.26	0.41
F.1 Cargo handled at Major Ports	0.00	0.00	0.93	0.81	0.31	0.52
F.2 Railway Freight Traffic	0.00	0.00	0.53	0.56	0.13	0.32
F.3 Passenger flown (Km) - Domestic	0.00	0.00	0.21	0.22	0.30	0.32
F.4 Passenger flown (Km) - International	0.00	0.00	0.68	0.64	0.36	0.48
F.5 Passenger Vehicle Sales (wholesale)	0.00	0.00	0.79	0.23	0.40	0.41
G.1 Exports	0.00	0.00	0.75	0.70	0.37	0.54
G.2 Imports	0.00	0.00	0.99	0.51	0.84	0.76
G.3 Non-Oil Non-Gold Imports	0.00	0.00	0.99	0.49	0.59	0.67
RTGS	0.00	0.00	0.18	0.41	0.36	0.42
Paper Clearing	0.00	0.00	0.08	0.02	0.31	0.71
REC	0.00	0.00	0.68	0.17	0.55	0.43
Cards	0.00	0.00	0.05	0.04	0.43	0.39

Notes: 1. Test for seasonality in original series: F-test for the presence of seasonality assuming stability and Kruskall and Wallis (KW) test (a nonparametric test for stable seasonality).

2. Test for seasonality in seasonally adjusted series: F-test for the presence of seasonality assuming stability for full sample and for latest 3 years.

3. M7 corresponds to the amount of moving seasonality present relative to the amount of stable seasonality (acceptable range is between 0 and 1). However, M Diagnostics are aggregated in a single quality control indicator - Q, which gives the overall assessment of the adjustment (acceptable range is between 0 and 1).

Table A3: No. of Peaks and Troughs Observed Over Different Months

Sectors/sub-sectors		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Monetary and Banking	**Peak**	3	1	1	1	1							7	14
	Trough					5	1	1	1	4		1	1	14
CPI	**Peak**			1	2	1	1	4	9	2	1			21
	Trough	3	3	1						1		2	11	21
WPI	**Peak**		3	1	1		1	2	1					9
	Trough									2	3	1	3	9
Industrial Production	**Peak**		2		2			2		3			14	23
	Trough	6		3		2	3		3	1		5		23
Services Indicators	**Peak**		1					1			1		2	5
	Trough			1			4							5
External Trade	**Peak**									1			2	3
	Trough								1			2		3
Payment System Indicators	**Peak**							1					3	4
	Trough					1	1		1			1		4

Notes: 1. In general, seasonal peaks and troughs have been decided based on the average seasonal factors of last 10 years.

2. Blank cells indicate no peak or trough observed.

Table A4: Average* Monthly Seasonal Factors of Selected Economic Time Series *(Contd.)*

Series/Month	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**
1	2	3	4	5	6	7	8	9	10	11	12	13
Monetary and Banking Indicators(14 series)												
A.1.1 Broad Money (M3)	**101.1**	100.7	100.1	100.3	100.0	99.7	99.8	99.3	**99.2**	99.5	99.7	100.6
A.1.1.1 Net Bank Credit to Government	101.1	100.9	100.6	**101.7**	101.2	99.8	99.7	99.8	**98.0**	99.0	99.4	99.0
A.1.1.2 Bank Credit to Commercial Sector	100.8	100.2	100.0	99.6	**99.0**	99.4	99.3	99.4	100.1	100.1	100.4	**101.8**
A.1.2 Narrow Money (M1)	101.9	101.4	100.8	99.7	99.1	99.1	98.6	**98.3**	98.7	99.0	100.2	**103.2**
A.1.3 Reserve Money (RM)	101.5	101.8	101.5	100.2	99.1	98.4	**98.4**	98.9	99.2	99.1	99.0	**102.9**
A.1.3.1 Currency in Circulation	102.6	**102.7**	101.9	100.2	99.1	**98.1**	98.3	98.7	98.8	99.3	99.9	100.4
A.2.1 Aggregate Deposits (SCBs)	**100.8**	100.2	99.9	100.2	99.8	100.2	100.0	99.6	**99.6**	99.7	99.6	100.4
A.2.1.1 Demand Deposits (SCBs)	100.7	98.6	99.4	98.2	**98.1**	103.0	98.6	98.6	100.3	98.5	99.1	**107.1**
A.2.1.2 Time Deposits (SCBs)	**100.7**	100.3	99.9	100.3	99.9	100.0	100.1	99.8	**99.6**	99.8	99.7	100.0
A.3.1 Cash in Hand and Balances with RBI (SCBs)	100.9	100.1	**102.2**	100.6	100.4	100.4	99.5	100.3	101.8	97.5	**97.2**	98.8
A.3.2 Bank Credit (SCBs)	100.7	100.2	100.0	99.2	**98.8**	99.9	99.4	99.3	100.2	100.1	100.3	**101.9**
A.3.2.1 Loans, Cash, Credits and Overdrafts (SCBs)	100.6	100.1	100.0	99.2	**98.9**	100.0	99.5	99.3	100.2	100.1	100.2	**101.8**
A.3.2.2 Non-Food Credit (SCBs)	100.8	100.1	100.0	99.3	**98.9**	100.2	99.4	99.2	100.1	100.0	100.2	**102.0**
A.3.3 Investments (SCBs)	99.6	100.3	100.3	101.2	**101.6**	101.0	100.8	100.1	98.9	98.9	99.1	**98.1**
Price Indices [CPI: 21 series and WPI: 9 series]												
B. CPI (Base: 2012 = 100) All Commodities	99.3	99.5	99.8	100.5	100.6	100.6	**100.9**	100.9	100.1	99.5	99.2	**99.1**
B.1 CPI - Food and beverages	98.4	99.0	100.0	101.2	101.4	101.4	**101.8**	101.7	100.1	98.9	98.1	**98.0**
B.1 .1 CPI - Cereals and products	99.8	**99.7**	99.7	99.8	100.0	100.1	100.2	**100.2**	100.2	100.2	100.1	100.0
B.1 .2 CPI - Meat and fish	99.6	101.0	**102.2**	101.8	100.5	99.8	99.7	99.1	**98.9**	99.2	98.9	98.9
B.1 .3 CPI - Egg	**96.8**	96.9	98.6	100.4	99.1	98.7	99.2	101.6	103.8	**104.0**	101.9	98.9
B.1 .4 CPI - Milk and products	99.8	100.0	100.0	100.1	**100.1**	100.1	100.1	100.1	100.0	99.9	99.9	**99.8**
B.1 .5 CPI - Fruits	102.8	103.0	102.6	**103.3**	102.5	99.7	99.0	98.5	97.5	96.6	**96.5**	97.8
B.1 .6 CPI - Vegetables	89.5	92.0	97.4	105.8	107.8	109.7	**112.2**	111.1	101.6	94.3	90.6	**88.8**
B.1 .6.1 CPI - Potato	85.2	93.5	101.4	108.2	111.6	111.8	116.2	**118.7**	105.2	89.0	**79.7**	80.5
B.1 .6.2 CPI - Onion	80.3	**78.2**	84.3	92.5	99.3	104.4	114.9	**124.3**	117.5	113.7	102.3	90.7
B.1 .6.3 CPI - Tomato	78.2	87.0	103.0	**132.4**	123.0	109.4	115.8	121.6	97.2	84.4	74.7	**74.4**
B.1 .7 CPI - Pulses and products	99.1	99.6	100.0	99.8	100.3	100.5	100.9	**100.9**	100.5	99.9	99.3	**99.1**
B.1 .8 CPI - Spices	**99.5**	99.6	99.7	100.0	100.1	100.1	100.2	100.3	**100.3**	100.3	100.0	99.8
B.1 .9 CPI - Non-alcoholic beverages	**99.9**	100.0	99.9	100.0	100.0	100.1	100.0	100.1	**100.1**	100.0	100.0	99.9
B.1 .10 CPI - Prepared meals, snacks, sweets *etc.*	99.9	**99.9**	99.9	100.0	100.1	100.0	100.0	**100.2**	100.1	100.0	100.0	99.9
B.2 CPI - Clothing and footwear	99.9	99.9	99.9	100.0	100.0	100.0	100.1	**100.2**	100.2	100.0	100.0	**99.9**
B.3 CPI - Housing	100.3	100.2	**99.3**	99.6	99.9	100.0	100.4	**100.4**	99.6	100.0	100.2	100.0
B.4 CPI - Miscellaneous	99.8	99.9	99.9	100.2	100.2	**100.2**	100.2	100.1	100.0	99.9	99.9	**99.8**
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	99.4	99.6	99.9	100.8	100.6	100.5	**100.9**	100.7	99.9	99.6	99.0	**99.0**
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	99.2	99.4	99.7	100.1	100.5	100.6	101.0	**101.0**	100.5	99.8	99.3	**99.0**
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	99.2	99.5	99.8	100.1	100.5	100.6	100.9	**101.0**	100.4	99.8	99.3	**99.0**
D. WPI (Base: 2011-12=100) All Commodities	99.8	100.1	100.0	100.5	100.3	100.3	**100.5**	100.5	99.7	**99.4**	99.4	99.4
D.1 WPI - Primary Articles	99.1	99.4	100.1	101.3	101.6	101.2	101.8	**102.0**	99.7	98.4	98.1	**97.5**
D.1.1 WPI - Food Articles	98.6	98.9	100.1	101.3	101.7	101.8	**102.8**	102.7	99.5	98.6	97.3	**96.8**
D.2 WPI - Fuel & Power	99.1	100.8	100.3	**101.1**	99.7	100.0	100.2	100.5	99.5	99.6	99.8	**99.0**
D.3 WPI - Manufactured Products	100.3	**100.4**	100.2	100.1	99.9	100.0	100.0	99.7	**99.5**	99.8	99.8	100.1
D.3.1 WPI - Manufacture of Food Products	100.2	100.2	100.3	100.2	100.5	**100.6**	100.2	99.9	99.6	99.5	**99.3**	99.4
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	100.2	**100.5**	100.3	100.3	100.1	100.0	100.0	99.8	99.6	**99.4**	99.7	100.0
D.3.3 WPI - WPI-Manufacture of Basic metals	100.8	**101.3**	100.8	99.7	99.3	99.7	99.6	99.2	**98.8**	99.9	100.1	100.6
D.3.4 WPI- Manufacture of Machinery and Equipment	100.1	100.1	**100.1**	100.0	100.0	100.1	100.1	100.1	99.9	**99.8**	99.9	100.0

Table A4: Average* Monthly Seasonal Factors of Selected Economic Time Series *(Concld.)*

Series/Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	2	3	4	5	6	7	8	9	10	11	12	13
Industrial Production (23 series)												
E. IIP (Base 2011-12 =A51:A72 100) General Index	**96.1**	100.6	98.5	97.5	97.1	97.8	99.9	98.4	103.2	103.4	98.5	**109.1**
E.1.1 IIP - Primary goods	98.1	102.9	99.8	98.7	96.3	**94.2**	98.5	97.7	102.6	104.1	96.8	**110.4**
E.1.2 IIP - Capital goods	**89.6**	97.5	100.2	95.8	96.3	102.1	97.7	97.2	101.0	99.7	101.7	**120.7**
E.1.3 IIP - Intermediate goods	97.3	99.4	97.7	101.1	99.7	99.0	99.1	97.8	102.4	102.0	**97.1**	**107.6**
E.1.4 IIP - Infrastructure/ construction goods	98.9	102.9	100.7	98.0	97.0	95.8	99.2	**95.3**	101.7	103.9	99.4	**107.9**
E.1.5 IIP - Consumer goods	94.6	98.2	**94.3**	97.5	96.4	101.0	100.6	102.8	104.8	103.7	100.2	**106.1**
E.1.5.1 IIP - Consumer durables	**95.7**	99.2	97.4	100.3	99.2	106.0	**107.3**	99.0	97.2	98.4	95.9	104.0
E.1.5.2 IIP - Consumer non-durables	**94.3**	97.8	96.5	96.7	96.1	97.2	96.8	100.8	**108.5**	106.6	102.6	106.2
E.2.1 IIP - Mining	97.7	100.8	95.8	90.5	87.1	**86.9**	96.3	100.8	107.7	110.0	104.7	**122.3**
E.2.2 IIP - Manufacturing	**95.2**	99.8	98.4	98.0	97.7	98.9	100.3	99.0	103.5	103.1	98.6	**107.7**
E.2.2.1 IIP - Manufacture of food products	95.4	88.6	**86.2**	90.9	89.1	89.5	93.9	105.1	**121.5**	118.7	110.9	109.6
E.2.2.2 IIP - Manufacture of beverages	115.4	**125.1**	106.9	91.9	87.8	90.9	90.1	**87.4**	91.9	96.6	98.8	118.1
E.2.2.3 IIP - Manufacture of textiles	98.5	98.9	**96.4**	100.4	101.4	101.0	101.0	100.1	**102.7**	101.2	96.5	102.1
E.2.2.4 IIP - Manufacture of chemicals and chemical products	94.8	100.3	99.7	**104.3**	102.2	101.3	100.5	97.9	101.1	101.0	**93.4**	103.3
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	99.7	100.1	96.9	100.3	98.7	100.1	101.6	99.7	**93.9**	100.5	100.7	**108.3**
E.2.3 IIP - Electricity	100.2	**107.0**	102.9	105.0	103.7	101.5	101.5	91.9	95.7	97.1	**90.7**	101.9
E.3 Cement Production	103.1	101.9	102.2	95.4	**90.5**	91.4	98.5	93.6	102.0	105.5	101.4	**114.9**
E.4 Steel Production	98.2	103.1	98.7	97.9	98.1	96.8	99.2	**96.5**	102.1	104.1	98.5	**107.6**
E.5 Coal Production	92.8	94.5	89.3	81.9	**79.7**	80.3	93.8	103.2	112.3	116.7	114.1	**141.7**
E.6 Crude Oil Production	98.8	102.2	99.2	101.8	101.4	97.9	101.5	98.3	101.7	101.7	**92.3**	**103.1**
E.7 Petroleum Refinery Production	96.9	101.1	98.8	100.8	97.6	**93.6**	101.8	100.4	103.3	104.3	95.2	**106.4**
E.8 Fertiliser Production	**81.9**	95.0	100.6	103.8	105.5	103.7	**106.5**	103.7	105.0	103.5	94.5	96.1
E.9 Natural Gas Production	97.3	100.9	99.0	**102.5**	102.1	98.9	102.5	99.5	102.0	102.3	**91.4**	101.5
Service Sector Indicators (5 series)												
F.1 Cargo handled at Major Ports	100.4	102.9	97.9	99.2	97.4	**93.4**	97.9	98.5	103.0	104.3	95.7	**109.7**
F.2 Railway Freight Traffic	97.3	101.4	98.1	97.8	95.5	**93.6**	98.1	98.4	103.5	105.9	97.7	**112.8**
F.3 Passenger flown (Km) - Domestic	99.7	**108.2**	99.8	96.5	95.5	**93.0**	99.4	100.3	106.8	104.2	97.6	99.8
F.4 Passenger flown (Km) - International	95.5	98.6	97.6	100.8	102.3	**92.7**	94.3	97.5	108.6	**112.0**	97.0	103.8
F.5 Passenger Vehicle Sales (wholesale)	96.8	93.1	**90.2**	98.2	97.2	105.4	**112.0**	101.1	91.4	104.6	101.5	108.1
Merchandise Trade (3 series)												
G.1 Exports	97.5	102.6	97.8	98.0	97.2	100.8	96.5	**95.2**	102.7	97.8	98.1	**115.6**
G.2 Imports	97.0	103.2	99.0	101.1	98.6	99.6	102.2	99.5	104.2	97.7	**92.8**	**105.4**
G.3 Non-Oil Non-Gold Imports	96.5	100.2	101.6	103.9	99.6	103.4	100.4	98.3	**104.1**	98.6	**91.2**	102.1
Payment System Indicators (4 series)												
H.1 RTGS	94.9	96.2	103.9	98.1	**91.5**	101.5	95.5	92.4	105.5	100.1	91.6	**129.0**
H.2 Paper Clearing	107.5	101.8	96.2	100.0	94.4	**93.5**	100.2	95.0	101.9	98.3	94.8	**116.1**
H.3 REC	99.7	96.0	98.4	96.9	95.1	98.7	100.0	**92.8**	104.7	98.3	93.7	**127.0**
H.4 Cards	99.8	104.0	99.7	103.1	101.8	95.3	**108.9**	98.8	101.7	100.0	**87.6**	98.7

*: Average of last ten years' monthly seasonal factors, in general. Here, the average monthly seasonal factors have been computed on the basis of last 10 years (i.e., April 2013 to March 2023). Numbers marked in 'bold' are peaks and troughs of respective series.

Table A5: Range (Difference Between Peak and Trough) of Seasonal Factors *(Contd.)*

Series/Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Average Range
1	2	3	4	5	6	7	8	9	10	11	12
Monetary and Banking Indicators(14 series)											
A.1.1 Broad Money (M3)	1.8	1.9	2.0	2.2	2.3	2.2	2.1	1.8	1.7	1.7	1.9
A.1.1.1 Net Bank Credit to Government	3.7	3.7	3.8	4.0	4.0	4.1	4.0	3.7	3.4	3.5	3.7
A.1.1.2 Bank Credit to Commercial Sector	2.9	2.9	2.9	3.1	3.2	3.2	3.0	2.8	2.6	2.4	2.9
A.1.2 Narrow Money (M1)	3.8	3.9	4.3	4.9	5.6	5.9	5.9	5.6	5.3	5.0	4.9
A.1.3 Reserve Money (RM)	4.4	4.7	4.9	4.9	4.8	4.7	4.5	4.3	4.1	4.1	4.5
A.1.3.1 Currency in Circulation	5.0	5.0	5.0	5.0	5.0	4.7	4.4	4.1	4.0	4.1	4.6
A.2.1 Aggregate Deposits (SCBs)	1.6	1.3	1.1	1.1	1.2	1.3	1.2	1.2	1.3	1.4	1.2
A.2.1.1 Demand Deposits (SCBs)	5.0	5.6	7.3	9.5	11.5	12.2	11.8	10.7	9.8	9.5	9.0
A.2.1.2 Time Deposits (SCBs)	1.6	1.3	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.1	1.1
A.3.1 Cash in Hand and Balances with RBI (SCBs)	5.7	4.5	4.9	5.4	5.6	6.1	6.8	7.1	8.2	9.4	5.0
A.3.2 Bank Credit (SCBs)	2.6	2.6	2.8	3.1	3.4	3.5	3.4	3.2	2.9	2.8	3.0
A.3.2.1 Loans, Cash, Credits and Overdrafts (SCBs)	2.5	2.5	2.7	3.0	3.3	3.3	3.2	2.9	2.7	2.6	2.9
A.3.2.2 Non-Food Credit (SCBs)	2.6	2.5	3.0	3.5	3.8	3.9	3.5	3.1	2.6	2.2	3.0
A.3.3 Investments (SCBs)	4.2	3.9	3.7	3.7	3.6	3.5	3.3	3.4	3.5	3.6	3.5
Price Indices [CPI: 21 series and WPI: 9 series]											
B. CPI (Base: 2012 = 100) All Commodities	2.1	2.0	1.9	1.8	1.8	1.9	1.9	2.0	2.0	2.0	1.9
B.1 CPI - Food and beverages	4.1	4.0	3.8	3.7	3.5	3.6	3.8	4.0	4.0	4.1	3.8
B.1 .1 CPI - Cereals and products	0.8	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.6
B.1 .2 CPI - Meat and fish	3.2	3.2	3.2	3.1	3.1	3.4	3.6	3.9	4.3	4.5	3.3
B.1 .3 CPI - Egg	7.8	7.3	7.0	6.8	6.6	6.7	6.9	7.5	8.0	8.4	7.3
B.1 .4 CPI - Milk and products	0.7	0.7	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.3
B.1 .5 CPI - Fruits	6.4	6.3	6.2	6.2	6.2	6.5	6.9	7.4	7.8	8.1	6.8
B.1 .6 CPI - Vegetables	24.2	23.8	22.8	22.2	21.9	22.8	24.0	25.2	25.5	25.4	23.4
B.1 .6.1 CPI - Potato	36.2	36.1	36.4	36.7	37.5	39.0	40.6	41.9	42.8	43.0	39.0
B.1 .6.2 CPI - Onion	39.7	37.8	36.9	38.8	42.9	48.5	53.3	55.1	54.7	52.8	46.1
B.1 .6.3 CPI - Tomato	63.3	62.7	61.4	60.1	59.2	57.8	56.6	55.6	54.2	52.6	58.0
B.1 .7 CPI - Pulses and products	2.9	2.8	2.6	2.3	1.9	1.5	1.2	1.1	1.3	1.4	1.8
B.1 .8 CPI - Spices	1.4	1.3	1.2	1.1	1.0	0.8	0.7	0.5	0.4	0.3	0.8
B.1 .9 CPI - Non-alcoholic beverages	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3
B.1 .10 CPI - Prepared meals, snacks, sweets *etc.*	0.6	0.6	0.5	0.4	0.4	0.3	0.2	0.2	0.3	0.3	0.3
B.2 CPI - Clothing and footwear	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.3
B.3 CPI - Housing	1.0	1.0	1.0	1.1	1.2	1.1	1.1	1.1	1.0	1.0	1.0
B.4 CPI - Miscellaneous	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	2.3	2.3	2.3	2.2	2.0	1.8	1.7	1.8	1.8	1.8	1.9
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	2.5	2.5	2.4	2.2	2.0	2.0	1.9	1.9	1.9	1.9	2.1
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	2.4	2.4	2.2	2.0	1.9	1.8	1.8	1.8	1.8	1.8	2.0
D. WPI (Base: 2011-12=100) All Commodities	1.5	1.6	1.5	1.4	1.2	1.1	1.1	1.1	1.1	1.1	1.1
D.1 WPI - Primary Articles	4.7	4.9	5.0	4.8	4.7	4.9	4.9	4.8	4.5	4.2	4.4
D.1.1 WPI - Food Articles	5.5	5.6	5.5	5.5	5.8	6.3	6.5	6.8	6.9	6.8	6.0
D.2 WPI - Fuel & Power	2.5	2.9	3.0	2.6	2.0	1.6	1.4	1.9	2.5	3.2	2.1
D.3 WPI - Manufactured Products	0.8	0.8	0.7	0.6	0.6	0.7	0.9	1.1	1.3	1.5	0.9
D.3.1 WPI - Manufacture of Food Products	1.9	1.7	1.5	1.3	1.2	1.2	1.3	1.4	1.6	2.0	1.3
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	1.5	1.3	1.0	1.0	1.0	1.0	1.1	1.4	1.6	1.7	1.2
D.3.3 WPI - Manufacture of Basic Metals	1.5	1.6	1.8	2.0	2.2	2.4	2.8	3.2	3.5	3.7	2.4
D.3.4 WPI- Manufacture of Machinery And Equipment	0.8	0.7	0.5	0.4	0.3	0.2	0.4	0.5	0.5	0.5	0.3

Table A5: Range (Difference Between Peak and Trough) of Seasonal Factors *(Concld.)*

Series/Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Average Range
1	2	3	4	5	6	7	8	9	10	11	12
Industrial Production (23 series)											
E. IIP (Base 2011-12 = 100) General Index	12.7	12.7	12.8	13.0	13.3	13.4	13.3	13.2	13.0	12.8	13.0
E.1.1 IIP - Primary goods	13.3	13.5	13.9	14.4	15.4	16.5	17.6	18.5	19.5	20.0	16.2
E.1.2 IIP - Capital goods	37.8	36.1	34.4	32.1	30.5	29.1	28.3	27.8	27.5	27.5	31.1
E.1.3 IIP - Intermediate goods	10.7	10.9	10.9	10.8	10.9	10.8	10.6	10.5	10.3	10.1	10.5
E.1.4 IIP - Infrastructure/ construction goods	12.0	12.3	12.7	13.0	13.3	13.6	13.7	13.5	13.1	12.9	12.6
E.1.5 IIP - Consumer goods	12.7	12.4	12.1	11.5	11.2	11.7	12.2	13.3	14.3	14.9	11.8
E.1.5.1 IIP - Consumer durables	13.9	13.5	12.8	11.8	11.0	11.2	11.2	11.3	11.3	11.5	11.6
E.1.5.2 IIP - Consumer non-durables	14.1	13.0	13.0	13.5	14.2	14.7	15.2	15.5	15.7	15.7	14.3
E.2.1 IIP - Mining	30.4	31.1	32.0	33.1	35.1	36.8	38.3	39.1	39.9	40.5	35.4
E.2.2 IIP - Manufacturing	12.7	12.6	12.6	12.6	12.8	12.8	12.6	12.3	12.1	12.0	12.5
E.2.2.1 IIP - Manufacture of food products	36.5	36.2	36.2	36.6	36.7	36.3	35.2	34.3	32.8	31.7	35.3
E.2.2.2 IIP - Manufacture of beverages	54.3	51.3	45.9	39.6	34.9	32.0	30.7	30.6	30.7	31.5	37.7
E.2.2.3 IIP - Manufacture of textiles	8.3	7.4	6.4	5.3	5.4	6.6	7.7	8.5	9.0	9.3	6.2
E.2.2.4 IIP - Manufacture of chemicals and chemical products	11.1	10.9	10.6	11.3	11.6	11.3	10.7	11.4	11.6	11.9	10.9
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	13.2	13.9	14.8	15.1	15.3	14.9	14.6	14.0	14.1	14.1	14.4
E.2.3 IIP - Electricity	12.4	13.5	14.6	15.8	17.0	17.9	18.4	19.0	19.9	20.2	16.4
E.3 Cement Production	23.4	22.5	22.4	22.9	24.1	25.4	26.3	26.4	25.9	25.3	24.5
E.4 Steel Production	10.1	9.7	9.6	10.2	11.0	12.0	12.9	13.2	13.2	13.3	11.0
E.5 Coal Production	55.0	55.1	56.6	59.1	62.4	65.2	66.8	67.2	66.8	66.0	61.9
E.6 Crude Oil Production	10.2	10.3	10.5	10.6	10.8	10.8	10.9	11.0	11.1	11.2	10.8
E.7 Petroleum Refinery Production	10.8	10.4	9.8	10.1	11.0	12.5	14.2	15.6	16.8	17.1	12.8
E.8 Fertiliser Production	27.2	26.4	24.5	22.8	22.4	22.7	23.6	24.8	25.8	26.5	24.6
E.9 Natural Gas Production	10.8	10.9	10.8	11.0	11.2	11.4	11.5	11.8	11.7	11.8	11.1
Service Sector Indicators (5 series)											
F.1 Cargo handled at Major Ports	14.8	14.9	15.5	15.8	16.3	16.7	17.0	17.2	17.3	17.5	16.3
F.2 Railway Freight Traffic	18.7	18.2	18.0	18.2	18.9	19.4	19.9	20.1	20.3	20.4	19.2
F.3 Passenger flown (Km) - Domestic	22.2	19.7	17.3	15.0	13.1	12.2	12.0	12.8	13.7	14.5	15.2
F.4 Passenger flown (Km) - International	19.0	19.5	20.1	20.5	21.1	20.9	20.4	19.2	18.3	17.2	19.3
F.5 Passenger Vehicle Sales (wholesale)	21.3	18.6	18.4	19.2	20.4	23.0	24.7	25.7	25.6	24.7	21.8
Merchandise Trade (3 series)											
G.1 Exports	20.6	18.9	18.1	18.2	19.9	21.2	21.8	21.9	22.2	21.7	20.4
G.2 Imports	11.6	12.8	13.7	13.7	13.5	13.0	13.0	12.6	11.9	11.2	12.6
G.3 Non-Oil Non-Gold Imports	12.5	12.7	13.2	13.4	13.3	13.1	13.0	13.1	13.0	13.0	13.0
Payment System Indicators (4 series)											
RTGS	47.0	44.6	42.8	40.7	38.8	37.0	35.2	33.3	33.0	32.5	37.5
Paper Clearing	25.7	24.3	23.1	22.2	22.3	22.2	22.0	22.6	23.5	23.9	22.5
REC	35.5	36.5	36.9	36.6	35.9	35.0	33.6	31.9	30.9	30.6	34.2
Cards	19.3	19.6	20.1	20.4	21.1	21.8	22.5	22.7	22.9	22.8	21.3

Note: Average seasonal factor range is the range of average seasonal factors for last ten years; range is calculated as the difference between maximum and minimum of monthly seasonal factors.

Table A6: Change in Seasonal Peaks and Troughs in 2022-23 *vis-à-vis* previous 5-years of Pre-Covid (2015-2019) *(Contd.)*

Series	Based on SF of Pre-Covid (2015 to 2019)				Based on SF of 2022-23			
	Peak Month	Peak Value	Trough Month	Trough Value	Peak Month	Peak Value	Trough Month	Trough Value
Monetary and Banking Indicators(14 series)								
A.1.1 Broad Money (M3)	Apr	101.2	Dec	99	Apr	100.9	Nov	99.2
A.1.1.1 Net Bank Credit to Government	Jul	101.8	Dec	97.8	Apr	101.8	Dec	98.3
A.1.1.2 Bank Credit to Commercial Sector	Mar	101.9	Aug	98.9	Mar	101.6	Aug	99.2
A.1.2 Narrow Money (M1)	Mar	103.2	Nov	98.2	Mar	103.1	Nov	98
A.1.3 Reserve Money (RM)	Mar	103.2	Oct	98.4	Mar	102.3	Sep	98.2
A.1.3.1 Currency in Circulation	May	102.8	Sep	98	May	102.5	Sep	98.3
A.2.1 Aggregate Deposits (SCBs)	Apr	100.7	Feb	99.6	Apr	100.8	Nov	99.4
A.2.1.1 Demand Deposits (SCBs)	Mar	106.9	Aug	97.8	Mar	107.1	Nov	97.6
A.2.1.2 Time Deposits (SCBs)	Apr	100.6	Dec	99.5	Apr	100.7	Nov	99.6
A.3.1 Cash in Hand and Balances with RBI (SCBs)	Dec	102.6	Jan	97.5	Jul	104.6	Feb	95.2
A.3.2 Bank Credit (SCBs)	Mar	102.0	Aug	98.9	Mar	101.6	Aug	98.8
A.3.2.1 Loans, Cash Credits and Overdrafts (SCBs)	Mar	101.9	Aug	98.9	Mar	101.4	Aug	98.8
A.3.2.2 Non-Food Credit (SCBs)	Mar	102.2	Aug	98.9	Mar	101.3	Aug	99.1
A.3.3 Investments (SCBs)	Aug	101.5	Mar	97.8	Aug	101.7	Jan	98.2
Price Indices [CPI: 21 series and WPI: 9 series]								
B. CPI (Base: 2012 = 100) All Commodities	Oct	100.9	Mar	99.1	Nov	101.1	Mar	99.1
B.1 CPI - Food and beverages	Oct	101.7	Mar	98	Nov	102.1	Mar	98
B.1 .1 CPI - Cereals and products	Nov	100.3	May	99.7	Nov	100.2	Jun	99.7
B.1 .2 CPI - Meat and fish	Jun	102.2	Dec	99	Jun	102.7	Feb	98.2
B.1 .3 CPI - Egg	Jan	103.8	Apr	96.9	Jan	104.6	Apr	96.2
B.1 .4 CPI - Milk and products	Aug	100.2	Mar	99.8	Sep	100.1	Jan	99.9
B.1 .5 CPI - Fruits	Jul	102.9	Feb	96.7	Jul	104.0	Feb	95.9
B.1 .6 CPI - Vegetables	Oct	111.5	Mar	88.7	Oct	114.2	Apr	88.7
B.1 .6.1 CPI - Potato	Nov	117.9	Feb	79.8	Nov	122.7	Feb	79.6
B.1 .6.2 CPI - Onion	Nov	123.8	May	79.7	Nov	127.9	May	75.1
B.1 .6.3 CPI - Tomato	Jul	133.2	Mar	74.3	Jul	126.8	Mar	74.2
B.1 .7 CPI - Pulses and products	Oct	100.9	Mar	98.9	Nov	100.8	Mar	99.4
B.1 .8 CPI - Spices	Dec	100.4	Apr	99.5	Jan	100.1	Apr	99.8
B.1 .9 CPI - Non-alcoholic beverages	Dec	100.1	Mar	99.8	Dec	100.2	Apr	99.9
B.1 .10 CPI - Prepared meals, snacks, sweets *etc.*	Nov	100.2	Jun	99.8	Jul	100.1	Mar	99.8
B.2 CPI - Clothing and footwear	Nov	100.2	Mar	99.9	May	100.1	Mar	99.8
B.3 CPI - Housing	Nov	100.4	Jun	99.3	Apr	100.4	Dec	99.5
B.4 CPI - Miscellaneous	Sep	100.2	Mar	99.8	Jul	100.2	Mar	99.9
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	Jul	100.9	Mar	98.9	Oct	100.9	Feb	99.1
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	Nov	101.0	Mar	98.9	Nov	101.0	Mar	99.1
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	Nov	100.9	Mar	98.9	Nov	100.9	Mar	99.1
D. WPI (Base: 2011-12=100) All Commodities	Nov	100.6	Mar	99.3	May	100.4	Jan	99.2
D.1 WPI - Primary Articles	Nov	102	Mar	97.3	Nov	102.2	Mar	98
D.1.1 WPI - Food Articles	Nov	102.7	Mar	96.8	Oct	103.7	Mar	96.9
D.2 WPI - Fuel & Power	Jul	100.9	Apr	98.9	Jul	101.8	Jan	98.6
D.3 WPI - Manufactured Products	May	100.3	Dec	99.6	May	100.8	Dec	99.3
D.3.1 WPI - Manufacture of Food Products	Sep	100.6	Mar	99.3	May	101.0	Feb	99
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	May	100.5	Jan	99.4	May	100.9	Jan	99.2
D.3.3 WPI - Manufacture of Basic Metals	May	101.2	Dec	98.9	May	102.1	Dec	98.4
D.3.4 WPI- Manufacture of Machinery And Equipment	Jun	100.1	Jan	99.8	Aug	100.3	Feb	99.7

Table A6: Change in Seasonal Peaks and Troughs in 2022-23 *vis-à-vis* previous 5-years of Pre-Covid (2015-2019) *(Concld.)*

Series	Based on SF of Pre-Covid (2015 to 2019)				Based on SF of 2022-23			
	Peak Month	Peak Value	Trough Month	Trough Value	Peak Month	Peak Value	Trough Month	Trough Value
Industrial Production (23 series)								
E. IIP (Base 2011-12 =A51:A72 100) General Index	Mar	109.2	Apr	96.1	Mar	108.6	Apr	95.7
E.1.1 IIP - Primary goods	Mar	109.6	Sep	94.6	Mar	112.6	Sep	92.6
E.1.2 IIP - Capital goods	Mar	121.9	Apr	89.7	Mar	117.2	Apr	89.7
E.1.3 IIP - Intermediate goods	Mar	108.0	Apr	97.2	Mar	106.5	Feb	96.3
E.1.4 IIP - Infrastructure/ construction goods	Mar	107.5	Nov	95.0	Mar	109.0	Jul	96.0
E.1.5 IIP - Consumer goods	Mar	106.6	Jun	94.6	Dec	106.7	Jun	91.8
E.1.5.1 IIP - Consumer durables	Oct	107.2	Apr	95.9	Oct	106.8	Feb	95.3
E.1.5.2 IIP - Consumer non-durables	Dec	108.1	Apr	94.0	Dec	109.6	Apr	93.9
E.2.1 IIP - Mining	Mar	121.4	Aug	87.2	Mar	124.8	Sep	84.3
E.2.2 IIP - Manufacturing	Mar	108.1	Apr	95.2	Mar	106.5	Apr	94.5
E.2.2.1 IIP - Manufacture of food products	Dec	122.1	Jun	85.9	Dec	119.3	Jun	87.6
E.2.2.2 IIP - Manufacture of beverages	May	124.4	Nov	87.9	May	119.6	Oct	88.1
E.2.2.3 IIP - Manufacture of textiles	Dec	102.4	Feb	96.5	Dec	104.3	Jun	95.0
E.2.2.4 IIP - Manufacture of chemicals and chemical products	Mar	104.5	Feb	93.5	Jul	105.1	Feb	93.2
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	Mar	108.1	Dec	93.5	Mar	108.6	Dec	94.5
E.2.3 IIP - Electricity	May	106.9	Feb	90.7	May	108.2	Nov	88.0
E.3 Cement Production	Mar	113.9	Aug	90.5	Mar	116.3	Aug	90.9
E.4 Steel Production	Mar	106.8	Nov	96.6	Mar	109.1	Jul	95.8
E.5 Coal Production	Mar	140.3	Aug	79.9	Mar	144.0	Aug	78.0
E.6 Crude Oil Production	Mar	103.0	Feb	92.3	Mar	103.4	Feb	92.2
E.7 Petroleum Refinery Production	Mar	105.4	Sep	94.4	Mar	108.6	Sep	91.5
E.8 Fertiliser Production	Oct	105.9	Apr	82.8	Oct	106.6	Apr	80.1
E.9 Natural Gas Production	Jul	102.7	Feb	91.6	Oct	102.7	Feb	90.9
Service Sector Indicators (5 series)								
F.1 Cargo handled at Major Ports	Mar	109.4	Sep	93.5	Mar	110.8	Sep	93.3
F.2 Railway Freight Traffic	Mar	112.6	Sep	93.9	Mar	113.2	Sep	92.8
F.3 Passenger flown (Km) - Domestic	May	107.8	Sep	93.9	Dec	107.4	Sep	92.9
F.4 Passenger flown (Km) - International	Jan	112.9	Sep	92.5	Jan	109.5	Apr	92.4
F.5 Passenger Vehicle Sales (wholesale)	Oct	111.4	Jun	90.4	Oct	113.8	Jun	89.1
Merchandise Trade (3 series)								
G.1 Exports	Mar	115.0	Nov	96.1	Mar	115.6	Nov	93.8
G.2 Imports	Mar	105.3	Feb	92.0	Mar	105.6	Feb	94.4
G.3 Non-Oil Non-Gold Imports	Dec	104.1	Feb	91.2	Dec	104.1	Feb	91.1
Payment System Indicators (4 series)								
H.1 RTGS	Mar	131.2	Feb	90.7	Mar	123.5	Apr	91.0
H.2 Paper Clearing	Mar	115.7	Sep	93.1	Mar	116.2	Aug	92.3
H.3 REC	Mar	128.0	Nov	92.7	Mar	125.2	Apr	94.6
H.4 Cards	Oct	108.6	Feb	87.7	Oct	109.9	Feb	87.1

Table A7: Change in seasonal variation in 2022-23 *vis-à-vis* previous 5-years of Pre-COVID (2015-2019)

Name of Variable	2022-23	Average Range	Change
Monetary and Banking Indicators (14 series)			
A.1.1 Broad Money (M3)	1.7	2.2	-0.5
A.1.1.1 Net Bank Credit to Government	3.5	4.0	-0.5
A.1.1.2 Bank Credit to Commercial Sector	2.4	3.0	-0.6
A.1.2 Narrow Money (M1)	5.0	5.0	0.0
A.1.3 Reserve Money (RM)	4.1	4.8	-0.8
A.1.3.1 Currency in Circulation	4.1	4.8	-0.7
A.2.1 Aggregate Deposits (SCBs)	1.4	1.1	0.3
A.2.1.1 Demand Deposits (SCBs)	9.5	9.2	0.3
A.2.1.2 Time Deposits (SCBs)	1.1	1.1	0.0
A.3.1 Cash in Hand and Balances with RBI (SCBs)	9.4	5.1	4.3
A.3.2 Bank Credit (SCBs)	2.8	3.1	-0.3
A.3.2.1 Loans, Cash, Credits and Overdrafts (SCBs)	2.6	3.0	-0.4
A.3.2.2 Non-Food Credit (SCBs)	2.2	3.3	-1.2
A.3.3 Investments (SCBs)	3.6	3.7	-0.2
Price Indices [CPI: 21 series and WPI: 9 series]			
B. CPI (Base: 2012 = 100) All Commodities	2.0	1.9	0.1
B.1 CPI - Food and beverages	4.1	3.7	0.4
B.1 .1 CPI - Cereals and products	0.6	0.6	0.0
B.1 .2 CPI - Meat and fish	4.5	3.2	1.3
B.1 .3 CPI – Egg	8.4	6.8	1.5
B.1 .4 CPI - Milk and products	0.2	0.4	-0.2
B.1 .5 CPI - Fruits	8.1	6.3	1.8
B.1 .6 CPI - Vegetables	25.4	22.8	2.7
B.1 .6.1 CPI - Potato	43.0	38.1	4.9
B.1 .6.2 CPI - Onion	52.8	44.1	8.7
B.1 .6.3 CPI - Tomato	52.6	58.9	-6.3
B.1 .7 CPI - Pulses and products	1.4	2.0	-0.6
B.1 .8 CPI - Spices	0.3	1.0	-0.7
B.1 .9 CPI - Non-alcoholic beverages	0.3	0.3	0.1
B.1 .10 CPI - Prepared meals, snacks, sweets *etc.*	0.3	0.4	0.0
B.2 CPI - Clothing and footwear	0.2	0.3	-0.1
B.3 CPI - Housing	1.0	1.1	-0.1
B.4 CPI - Miscellaneous	0.4	0.4	0.0
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	1.8	2.0	-0.2
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	1.9	2.2	-0.3
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	1.8	2.0	-0.2
D. WPI (Base: 2011-12=100) All Commodities	1.1	1.3	-0.1
D.1 WPI - Primary Articles	4.2	4.7	-0.4
D.1.1 WPI - Food Articles	6.8	5.8	1.0
D.2 WPI - Fuel & Power	3.2	2.0	1.3
D.3 WPI - Manufactured Products	1.5	0.7	0.8
D.3.1 WPI - Manufacture of Food Products	2.0	1.4	0.6
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	1.7	1.1	0.6
D.3.3 WPI - Manufacture of Basic Metals	3.7	2.2	1.5
D.3.4 WPI- Manufacture of Machinery and Equipment	0.5	0.3	0.2

Name of Variable	2022-23	Average Range	Change
Industrial Production (23 series)			
E. IIP (Base 2011-12 = 100) General Index	12.8	13.2	-0.3
E.1.1 IIP - Primary goods	20.0	15.0	5.0
E.1.2 IIP - Capital goods	27.5	32.2	-4.7
E.1.3 IIP - Intermediate goods	10.1	10.8	-0.7
E.1.4 IIP - Infrastructure/construction goods	12.9	12.5	0.4
E.1.5 IIP - Consumer goods	14.9	12.0	3.0
E.1.5.1 IIP - Consumer durables	11.5	11.3	0.1
E.1.5.2 IIP - Consumer non-durables	15.7	14.1	1.6
E.2.1 IIP - Mining	40.5	34.2	6.3
E.2.2 IIP - Manufacturing	12.0	12.9	-0.9
E.2.2.1 IIP - Manufacture of food products	31.7	36.2	-4.4
E.2.2.2 IIP - Manufacture of beverages	31.5	36.5	-5.0
E.2.2.3 IIP - Manufacture of textiles	9.3	5.9	3.4
E.2.2.4 IIP - Manufacture of chemicals and chemical products	11.9	10.9	1.0
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	14.1	14.6	-0.5
E.2.3 IIP - Electricity	20.2	16.3	3.9
E.3 Cement Production	25.3	23.4	1.9
E.4 Steel Production	13.3	10.3	3.0
E.5 Coal Production	66.0	60.4	5.6
E.6 Crude Oil Production	11.2	10.6	0.6
E.7 Petroleum Refinery Production	17.1	11.0	6.1
E.8 Fertiliser Production	26.5	23.1	3.4
E.9 Natural Gas Production	11.8	11.1	0.7
Service sector Indicators (6 series)			
F.1 Cargo handled at Major Ports	17.5	15.9	1.6
F.2 Railway Freight Traffic	20.4	18.7	1.7
F.3 Passenger flown (Km) - Domestic	14.5	13.9	0.6
F.4 Passenger flown (Km) - International	17.2	20.4	-3.2
F.5 Passenger Vehicle Sales (wholesale)	24.7	21.0	3.8
Merchandise Trade (3 series)			
G.1 Exports	21.7	19.0	2.8
G.2 Imports	11.2	13.3	-2.1
G.3 Non-Oil Non-Gold Imports	13.0	12.9	0.1
Payment System Indicators (4 series)			
H.1 RTGS	32.5	40.4	-7.9
H.2 Paper Clearing	23.9	22.6	1.3
H.3 REC	30.6	35.3	-4.7
H.4 Cards	22.8	21.0	1.8

Table A8: List of Top-Twenty and Bottom-Twenty Series based on Average Range of Monthly Seasonal Factors during Last Ten Years (Apr 2013 – Mar 2023)

Top-Twenty Series (Name)	Average Range	Peak Month	Trough Month	Bottom-Twenty Series (Name)	Average Range	Peak Month	Trough Month
1	2	3	4	5	6	7	8
Coal production	61.9	Jun	Nov	CPI-Non-alcoholic beverages	0.3	Mar	Jul
CPI-Tomato	58.0	Oct	Jun	CPI-Clothing and Footwear	0.3	Feb	Jun
CPI-onion	46.1	Feb	Aug	CPI-Prepared meals, snacks, sweets *etc.*	0.3	Feb	Aug
CPI-Potato	39.0	Feb	May	CPI-Milk & Products	0.3	Nov	Jun
IIP-Manufacture of beverages	37.7	Aug	Feb	WPI- Manufacture of Machinery And Equipment	0.3	Sep	Apr
Real Time Gross Settlement	37.5	Jun	Nov	CPI-Miscellaneous	0.4	Dec	Jun
IIP-Mining	35.4	Jun	Dec	CPI-Cereals & Products	0.6	Feb	Aug
IIP-Manufacture of food products	35.3	Mar	Sep	CPI-Spices	0.8	Mar	Jul
Retail Electronic Cleaning	34.2	Jun	Feb	WPI- Manufactured Products	0.9	Aug	Mar
IIP-Capital goods	31.1	Jun	Jul	CPI-Housing	1.0	Feb	Sep
Fertiliser Production	24.6	Jan	Jul	Time deposits (SCBs)	1.1	Jul	Mar
Cement production	24.5	Jun	Nov	WPI-All commodities	1.1	Jan	Apr
CPI-Vegetables	23.4	Jan	Jun	WPI-Manufacture of Chemicals and Chemical Products	1.2	Aug	Apr
Paper Clearing	22.5	Jun	Dec	Aggregate deposits (SCBs)	1.2	Jul	Mar
Passenger vehicle sales (wholesale)	21.8	Jan	Sep	WPI-Manufacture of Food products	1.3	Dec	May
Cards	21.3	Jan	May	CPI-Pulses & Products	1.8	Feb	Jun
Exports	20.4	Jun	Feb	CPI-All commodities	1.9	Jan	Jun
Passenger flown (km)-International	19.3	Apr	Dec	M3	1.9	Jul	Mar
Railway Freight Traffic	19.2	Jun	Dec	CPI-Industrial Workers	1.9	Jan	Jun
IIP-Electricity	16.4	Aug	May	CPI-Rural Labourers	2.0	Feb	Jun

Table A9: Regression Estimates

Name of Variable	Coefficient Estimate*	p-value$
Monetary and Banking Indicators (14 series)		
A.1.1 Broad Money (M3)	-0.023	0.352
A.1.1.1 Net Bank Credit to Government	-0.024	0.388
A.1.1.2 Bank Credit to Commercial Sector	-0.046	0.110
A.1.2 Narrow Money (M1)	0.187	0.019
A.1.3 Reserve Money (RM)	-0.065	0.045
A.1.3.1 Currency in Circulation	-0.127	0.000
A.2.1 Aggregate Deposits (SCBs)	-0.008	0.647
A.2.1.1 Demand Deposits (SCBs)	0.569	0.030
A.2.1.2 Time Deposits (SCBs)	-0.044	0.027
A.3.1 Cash in Hand and Balances with RBI (SCBs)	0.454	0.000
A.3.2 Bank Credit (SCBs)	0.040	0.302
A.3.2.1 Loans, Cash, Credits and Overdrafts (SCBs)	0.025	0.498
A.3.2.2 Non-Food Credit (SCBs)	-0.020	0.784
A.3.3 Investments (SCBs)	-0.069	0.005
Price Indices [CPI: 21 series and WPI: 9 series]		
B. CPI (Base: 2012 = 100) All Commodities	-0.002	0.860
B.1 CPI - Food and beverages	0.007	0.765
B.1 .1 CPI - Cereals and products	-0.029	0.001
B.1 .2 CPI - Meat and fish	0.151	0.001
B.1 .3 CPI - Egg	0.077	0.263
B.1 .4 CPI - Milk and products	-0.071	0.000
B.1 .5 CPI - Fruits	0.209	0.001
B.1 .6 CPI - Vegetables	0.250	0.081
B.1 .6.1 CPI - Potato	0.907	0.000
B.1 .6.2 CPI - Onion	2.274	0.000
B.1 .6.3 CPI - Tomato	-1.191	0.000
B.1 .7 CPI - Pulses and products	-0.214	0.000
B.1 .8 CPI - Spices	-0.128	0.000
B.1 .9 CPI - Non-alcoholic beverages	-0.009	0.197
B.1 .10 CPI - Prepared meals, snacks, sweets *etc.*	-0.043	0.001
B.2 CPI - Clothing and footwear	-0.042	0.000
B.3 CPI - Housing	0.001	0.891
B.4 CPI - Miscellaneous	-0.038	0.003
C.1 Consumer Price Index for Industrial Workers (Base: 2001=100)	-0.070	0.001
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	-0.082	0.000
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	-0.077	0.000
D. WPI (Base: 2011-12=100) All Commodities	-0.057	0.002
D.1 WPI - Primary Articles	-0.048	0.060
D.1.1 WPI - Food Articles	0.186	0.000
D.2 WPI - Fuel & Power	-0.039	0.591
D.3 WPI - Manufactured Products	0.079	0.008
D.3.1 WPI - Manufacture of Food Products	-0.004	0.898
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	0.038	0.217
D.3.3 WPI - Manufacture of Basic Metals	0.256	0.000
D.3.4 WPI- Manufacture of Machinery And Equipment	-0.022	0.266

Name of Variable	Coefficient Estimate*	p-value$
Index of Industrial Production (23 series)		
E. IIP (Base 2011-12 = 100) General Index	0.035	0.252
E.1.1 IIP - Primary goods	0.822	0.000
E.1.2 IIP - Capital goods	-1.203	0.000
E.1.3 IIP - Intermediate goods	-0.079	0.002
E.1.4 IIP - Infrastructure/ construction goods	0.124	0.034
E.1.5 IIP - Consumer goods	0.253	0.049
E.1.5.1 IIP - Consumer durables	-0.286	0.005
E.1.5.2 IIP - Consumer non-durables	0.309	0.001
E.2.1 IIP - Mining	1.242	0.000
E.2.2 IIP - Manufacturing	-0.068	0.017
E.2.2.1 IIP - Manufacture of food products	-0.489	0.002
E.2.2.2 IIP - Manufacture of beverages	-2.758	0.000
E.2.2.3 IIP - Manufacture of textiles	0.229	0.154
E.2.2.4 IIP - Manufacture of chemicals and chemical products	0.085	0.044
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	0.028	0.717
E.2.3 IIP - Electricity	0.884	0.000
E.3 Cement Production	0.444	0.003
E.4 Steel Production	0.485	0.000
E.5 Coal Production	1.572	0.000
E.6 Crude Oil Production	0.113	0.000
E.7 Petroleum Refinery Production	0.882	0.000
E.8 Fertiliser Production	-0.035	0.870
E.9 Natural Gas Production	0.130	0.000
Service sector Indicators (5 series)		
F.1 Cargo handled at Major Ports	0.325	0.000
F.2 Railway Freight Traffic	0.282	0.000
F.3 Passenger flown (Km) - Domestic	-0.871	0.010
F.4 Passenger flown (Km) - International	-0.183	0.202
F.5 Passenger Vehicle Sales (wholesale)	0.817	0.003
Merchandise Trade (3 series)		
G.1 Exports	0.387	0.014
G.2 Imports	-0.103	0.306
G.3 Non-Oil Non-Gold Imports	0.028	0.395
Payment System Indicators (4 series)		
H.1 RTGS	-1.680	0.000
H.2 Paper Clearing	-0.153	0.260
H.3 REC	-0.715	0.001
H.4 Cards	0.453	0.000

*: A series is found to have moderation (rise) in seasonal fluctuation if the coefficient is statistically significant at 5 per cent level of significance with '-'ve sign ('+'ve sign). However, seasonal fluctuation of a series is unchanged if corresponding coefficient is not statistically significant at 5 per cent level of significance.

$: p-value is also known as observed level of significance. A coefficient is found to be statistically significant at 5 per cent level of significance if its p-value is less than or equal to 0.05.

CURRENT STATISTICS

Contents

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

No. 1: Select Economic Indicators

Item	2022-23	2022-23		2023-24	
		Q2	Q3	Q2	Q3
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	6.7	5.0	4.8	7.7	6.5
1.1.1 Agriculture	4.7	2.3	5.2	1.6	-0.8
1.1.2 Industry	-0.6	-5.5	-2.8	13.6	10.9
1.1.3 Services	9.9	9.4	7.5	6.9	7.4
1.1a Final Consumption Expenditure	7.1	7.6	2.4	3.9	2.7
1.1b Gross Fixed Capital Formation	6.6	4.7	5.0	11.6	10.6
	2022-23	2022	2023		2024
		Dec.	Jan.	Dec.	Jan.
	1	2	3	4	5
1.2 Index of Industrial Production	5.2	5.1	5.8	4.2	3.8
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	9.6	9.2	10.5	12.6	12.5
				(13.3)	(13.2)
2.1.2 Credit #	15.0	14.9	16.3	15.6	16.1
				(20.0)	(20.3)
2.1.2.1 Non-food Credit #	15.4	15.3	16.7	15.8	16.2
				(20.1)	(20.4)
2.1.3 Investment in Govt. Securities	14.5	10.6	13.4	15.6	13.2
				(17.6)	(15.0)
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	7.8	10.3	10.8	6.0	6.3
2.2.2 Broad Money (M3)	9.0	8.7	9.8	11.0	11.0
				(11.5)	(11.5)
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	5.3	5.2	5.2	5.1
				(5.2)	(5.1)
3.4 Credit-Deposit Ratio	75.8	75.0	75.3	77.1	77.7
				(79.5)	(80.0)
3.5 Incremental Credit-Deposit Ratio #	113.0	111.6	115.3	89.1	95.6
				(111.9)	(117.5)
3.6 Investment-Deposit Ratio	30.0	28.7	29.3	29.5	29.5
				(29.8)	(29.8)
3.7 Incremental Investment-Deposit Ratio	43.5	28.9	37.1	24.7	24.5
				(28.2)	(27.7)
4 Interest Rates (%)					
4.1 Policy Repo Rate	6.50	6.25	6.25	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	6.00	6.00	6.25	6.25
4.4 Marginal Standing Facility (MSF) Rate	6.75	6.50	6.50	6.75	6.75
4.5 Bank Rate	6.75	6.50	6.50	6.75	6.75
4.6 Base Rate	8.65/10.10	8.10/9.40	8.65/9.40	8.95/10.25	9.10/10.25
4.7 MCLR (Overnight)	7.50/8.50	7.30/8.15	7.30/8.40	7.95/8.50	8.00/8.60
4.8 Term Deposit Rate >1 Year	6.00/7.25	6.00/7.25	6.00/7.25	6.50/7.25	6.50/7.25
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	6.38	6.44	6.81	6.77
4.11 91-Day Treasury Bill (Primary) Yield	-	6.31	6.47	6.93	7.04
4.12 182-Day Treasury Bill (Primary) Yield	7.28	6.74	6.87	7.16	7.18
4.13 364-Day Treasury Bill (Primary) Yield	7.31	6.89	6.90	7.13	7.15
4.14 10-Year G-Sec Par Yield (FBIL)	7.31	7.34	7.35	7.20	7.15
5 Reference Rate and Forward Premia					
5.1 INR-US$ Spot Rate (Rs. Per Foreign Currency)	82.22	82.79	81.54	83.12	83.12
5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency)	89.61	88.15	88.66	92.00	90.42
5.3 Forward Premia of US$ 1-month (%)	2.41	2.17	1.77	1.23	1.30
3-month (%)	2.19	2.17	2.55	1.65	1.59
6-month (%)	2.31	2.22	2.44	1.51	1.60
6 Inflation (%)					
6.1 All India Consumer Price Index	6.7	5.7	6.5	5.7	5.1
6.2 Consumer Price Index for Industrial Workers	6.1	5.5	6.2	4.9	4.6
6.3 Wholesale Price Index	9.6	5.0	4.8	0.9	0.3
6.3.1 Primary Articles	10.3	2.7	4.1	5.7	3.8
6.3.2 Fuel and Power	29.4	18.1	15.0	-1.4	-0.5
6.3.3 Manufactured Products	5.7	3.4	3.1	-0.8	-1.1
7 Foreign Trade (% Change)					
7.1 Imports	16.8	1.5	0.5	-4.8	1.0
7.2 Exports	6.9	-3.0	1.6	0.8	3.1

Note : Financial Benchmark India Pvt. Ltd. (FBIL) has commenced publication of the G-Sec benchmarks with effect from March 31, 2018 as per RBI circularFMRD.DIRD. 7/14.03.025/2017-18 dated March 31, 2018. FBIL has started dissemination of reference rates w.e.f. July 10, 2018.
#: Bank credit growth and related ratios for all fortnights from December 3, 2021 to November 18, 2022 are adjusted for past reporting errors by select scheduled commercial banks (SCBs).
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	2023	2024				
		Feb.	Jan. 26	Feb. 02	Feb. 09	Feb. 16	Feb. 23
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	3348235	3301605	3386320	3387715	3415209	3417066	3423265
1.1.2 Notes held in Banking Department	9	11	13	12	10	13	13
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	**3348245**	**3301616**	**3386333**	**3387726**	**3415219**	**3417080**	**3423278**
1.2 Assets							
1.2.1 Gold	140766	130104	149322	150542	149465	147628	148980
1.2.2 Foreign Securities	3207202	3171023	3236716	3236936	3265363	3269106	3274006
1.2.3 Rupee Coin	277	489	296	247	391	346	293
1.2.4 Government of India Rupee Securities	-	-	-	-	-	-	-
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	1354217	1320222	1734444	1680455	1663904	1669652	1656495
2.1.1.1 Central Government	5001	101	100	101	101	101	101
2.1.1.2 Market Stabilisation Scheme							
2.1.1.3 State Governments	42	43	42	42	42	42	42
2.1.1.4 Scheduled Commercial Banks	868940	797986	933808	947250	906763	962424	909400
2.1.1.5 Scheduled State Co-operative Banks	8100	7320	8039	8429	8013	8631	8520
2.1.1.6 Non-Scheduled State Co-operative Banks	5177	4419	4935	5214	5113	5084	5127
2.1.1.7 Other Banks	48260	45092	47419	48690	47639	47570	47991
2.1.1.8 Others	316490	357329	593671	520638	536176	483564	540867
2.1.1.9 Financial Institution Outside India	102207	107934	146428	150090	160056	162237	144448
2.1.2 Other Liabilities	1642294	1509502	1732677	1771471	1718670	1709574	1712392
2.1/2.2 Total Liabilities or Assets	**2996512**	**2829724**	**3467121**	**3451926**	**3382573**	**3379226**	**3368888**
2.2 Assets							
2.2.1 Notes and Coins	9	11	13	12	10	13	13
2.2.2 Balances Held Abroad	1008993	960958	1345848	1378187	1314994	1304319	1315955
2.2.3 Loans and Advances							
2.2.3.1 Central Government	48677	-	-	-	-	-	-
2.2.3.2 State Governments	792	9515	12810	22237	20255	13292	14809
2.2.3.3 Scheduled Commercial Banks	112731	109026	337637	263369	253342	265341	256374
2.2.3.4 Scheduled State Co-op.Banks	-	-	-	-	-	35	35
2.2.3.5 Industrial Dev. Bank of India	-	-	-	-	-	-	-
2.2.3.6 NABARD	-	0	-	-	-	-	-
2.2.3.7 EXIM Bank	-	-	-	-	-	-	-
2.2.3.8 Others	24485	10466	3174	5692	7114	8736	9066
2.2.3.9 Financial Institution Outside India	102128	107037	145120	150378	159050	160547	142640
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	-	-	-	-	-	-	-
2.2.4.2 Government Treasury Bills	-	-	-	-	-	-	-
2.2.5 Investments	1408486	1399711	1360963	1366708	1363652	1363891	1364312
2.2.6 Other Assets	290209	233001	261555	265343	264156	263051	265683
2.2.6.1 Gold	230734	215380	245322	248243	246921	245683	247933

* Data are provisional.

No. 3: Liquidity Operations by RBI

(₹ Crore)

Date	Liquidity Adjustment Facility						Standing Liquidity Facilities	OMO (Outright)		Net Injection (+)/ Absorption (-) (1+3+5+7+9-2-4-6 -8)
	Repo	Reverse Repo	Variable Rate Repo	Variable Rate Reverse Repo	MSF	SDF		Sale	Purchase	
	1	2	3	4	5	6	7	8	9	10
Jan. 1, 2024	-	-	-	-	31351	42844	-	-	-	-11493
Jan. 2, 2024	-	-	-	-	14219	39447	-	-	-	-25228
Jan. 3, 2024	-	-	-	-	9773	31586	-	-	-	-21813
Jan. 4, 2024	-	-	-	-	5259	34225	-	-	-	-28966
Jan. 5, 2024	-	-	100009	-	34448	31953	-	-	-	102504
Jan. 6, 2024	-	-	-	-	54482	32067	-	-	-	22415
Jan. 7, 2024	-	-	-	-	31492	30874	-	-	-	618
Jan. 8, 2024	-	-	-	-	78473	38049	-656	-	-	39768
Jan. 9, 2024	-	-	-	-	75226	33643	652	-	-	42235
Jan. 10, 2024	-	-	-	-	102535	32774	-	-	-	69761
Jan. 11, 2024	-	-	-	-	85062	37469	-	-	-	47593
Jan. 12, 2024	-	-	175010	-	45533	61273	-	-	-	159270
Jan. 13, 2024	-	-	-	-	4187	34793	-	-	-	-30606
Jan. 14, 2024	-	-	-	-	3946	36605	-	-	-	-32659
Jan. 15, 2024	-	-	-	-	57770	37067	-	-	-	20703
Jan. 16, 2024	-	-	-	-	40537	36771	-	-	-	3766
Jan. 17, 2024	-	-	-	-	57407	32784	10	-	-	24633
Jan. 18, 2024	-	-	-	-	60109	36325	-	-	-	23784
Jan. 19, 2024	-	-	50007	-	33157	32512	-	-	-	50652
Jan. 20, 2024	-	-	-	-	45209	29868	-	-	-	15341
Jan. 21, 2024	-	-	-	-	29656	29180	-	-	-	476
Jan. 22, 2024	-	-	-	-	62763	42849	-	-	-	19914
Jan. 23, 2024	-	-	125005	-	49690	31018	-	-	-	143677
Jan. 24, 2024	-	-	-	-	77618	46540	-	-	-	31078
Jan. 25, 2024	-	-	250010	-	70794	68302	-	-	-	252502
Jan. 26, 2024	-	-	-	-	32611	63670	-	-	-	-31059
Jan. 27, 2024	-	-	-	-	7780	50657	-	-	-	-42877
Jan. 28, 2024	-	-	-	-	9452	51608	-	-	-	-42156
Jan. 29, 2024	-	-	25001	-	26368	48273	-	-	-	3096
Jan. 30, 2024	-	-	25008	-	4189	45291	-	-	-	-16094
Jan. 31, 2024	-	-	-	-	8113	44153	171	-	-	-35869

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

i) Operations in onshore / offshore OTC segment

Item	2022-23	2023		2024
		Jan.	Dec.	Jan.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1-1.2)	-25516	-384	2067	1950
1.1 Purchase (+)	187054	12902	31730	10400
1.2 Sale (–)	212570	13286	29663	8450
2 ₹ equivalent at contract rate (₹ Crores)	-217259	-3869	17234	16205
3 Cumulative (over end-March) (US $ Million)	-25516	-26520	17515	19465
(₹ Crore)	-217259	-224276	142319	158524
4 Outstanding Net Forward Sales (-)/ Purchase (+) at the end of month (US $ Million)	23600	21729	2184	9974

ii) Operations in currency futures segment

Item	2022-23	2023		2024
		Jan.	Dec.	Jan.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1-1.2)	0	0	0	0
1.1 Purchase (+)	10930	150	1397	1050
1.2 Sale (–)	10930	150	1397	1050
2 Outstanding Net Currency Futures Sales (-)/ Purchase (+) at the end of month (US $ Million)	0	0	-1558	0

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

Item	As on January 31 , 2024		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	280	0	280
2. More than 1 month and upto 3 months	6141	0	6141
3. More than 3 months and upto 1 year	3553	0	3553
4. More than 1 year	0	0	0
Total (1+2+3+4)	**9974**	**0**	**9974**

No. 5: RBI's Standing Facilities

(₹ Crore)

Item	As on the Last Reporting Friday							
	2022-23	2023					2024	
		Feb. 24	Sep. 22	Oct. 20	Nov. 17	Dec. 29	Jan. 26	Feb. 23
	1	2	3	4	5	6	7	8
1 MSF	28388	15233	168348	124191	111386	134232	32611	144270
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	9900
3.2 Outstanding	2442	2107	3054	3181	3181	3167	3174	9066
4 Others								
4.1 Limit	76000	76000	76000	76000	76000	76000	76000	76000
4.2 Outstanding	15900	8350						
5 Total Outstanding (1+2.2+3.2+4.2)	46730	25690	171402	127372	114567	137399	35785	153336

Money and Banking

No. 6: Money Stock Measures

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/ reporting Fridays				
	2022-23	2023		2024	
		Jan. 27	Dec. 29	Jan. 12	Jan. 26
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	3276436	3169720	3255680	3311754	3323263
1.1 Notes in Circulation	3348219	3261863	3330296	3377787	3386177
1.2 Circulation of Rupee Coin	29542	29048	31521	31853	32144
1.3 Circulation of Small Coins	743	743	743	743	743
1.4 Cash on Hand with Banks	102085	122062	106983	98745	95944
2 Deposit Money of the Public	2398359	2360613	2661541	2486473	2578240
2.1 Demand Deposits with Banks	2320598	2296792	2580490	2408007	2497829
2.2 'Other' Deposits with Reserve Bank	77761	63821	81051	78465	80411
3 M1 (1 + 2)	**5674795**	**5530333**	**5917221**	**5798227**	**5901503**
4 Post Office Saving Bank Deposits	200257	199087	200257	200257	200257
5 M2 (3 + 4)	**5875052**	**5729420**	**6117478**	**5998484**	**6101760**
6 Time Deposits with Banks	16668966	16364701	18338335	18412018	18399864
			(18459622)	(18459622)	(18459622)
7 M3 (3 + 6)	22343760	21895034	24255556	24210245	24301366
			(24376843)	(24257849)	(24361125)
8 Total Post Office Deposits	1113230	1105137	1113230	1113230	1113230
9 M4 (7 + 8)	23456990	23000171	25368786	25323475	25414596
			(25490073)	(25371079)	(25474355)

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

No. 7: Sources of Money Stock (M_3)

(₹ Crore)

Sources	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2022-23	2023		2024	
		Jan. 27	Dec. 29	Jan. 12	Jan. 26
	1	2	3	4	5
1 Net Bank Credit to Government	**7165533**	**6657365**	**7171807**	**7228507**	**7116700**
			(7272617)	(7325127)	(7210188)
1.1 RBI's net credit to Government (1.1.1–1.1.2)	1451126	1162729	979659	1016037	934359
1.1.1 Claims on Government	1456169	1419355	1360482	1375058	1372005
1.1.1.1 Central Government	1455377	1402610	1357903	1358970	1359195
1.1.1.2 State Governments	792	16745	2579	16087	12810
1.1.2 Government deposits with RBI	5043	256626	380824	359021	437646
1.1.2.1 Central Government	5001	256584	380781	358978	437603
1.1.2.2 State Governments	42	42	43	42	42
1.2 Other Banks' Credit to Government	5714407	5494636	6192149	6212470	6182341
			(6292959)	(6309091)	(6275829)
2 Bank Credit to Commercial Sector	**14429636**	**14072457**	**16137606**	**16150090**	**16239988**
			(16710678)	(16716631)	(16793224)
2.1 RBI's credit to commercial sector	26549	11223	5080	5228	5237
2.2 Other banks' credit to commercial sector	14403087	14061234	16132526	16144862	16234750
			(16705598)	(16711403)	(16787986)
2.2.1 Bank credit by commercial banks	13675235	13337536	15389861	15403385	15490356
			(15962934)	(15969926)	(16043592)
2.2.2 Bank credit by co-operative banks	710187	706416	725337	723985	726809
2.2.3 Investments by commercial and co-operative banks in other securities	17665	17281	17327	17493	17586
			(17327)	(17493)	(17586)
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	**4911766**	**4792608**	**5316262**	**5261137**	**5253791**
3.1 RBI's net foreign exchange assets (3.1.1–3.1.2)	4587355	4537015	5038109	4982983	4975638
3.1.1 Gross foreign assets	4587616	4537274	5038371	4983245	4975899
3.1.2 Foreign liabilities	260	259	261	261	261
3.2 Other banks' net foreign exchange assets	324410	255593	278153	278153	278153
4 Government's Currency Liabilities to the Public	**30285**	**29791**	**32264**	**32596**	**32887**
5 Banking Sector's Net Non-monetary Liabilities	**4193459**	**3657186**	**4402384**	**4462085**	**4342000**
			(4954980)	(5005886)	(4872422)
5.1 Net non-monetary liabilities of RBI	1587565	1531460	1792947	1739965	1721122
5.2 Net non-monetary liabilities of other banks (residual)	2605895	2125727	2609437	2722120	2620878
			(3162033)	(3265921)	(3151300)
M_3(1+2+3+4–5)	**22343760**	**21895034**	**24255556**	**24210245**	**24301366**
			(24376843)	(24329605)	(24417668)

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	2023		2024	
		Jan. 27	Dec. 29	Jan. 12	Jan. 26
	1	2	3	4	5
Monetary Aggregates					
NM_1 (1.1+1.2.1+1.3)	5674795	5530333	5917552	5798227	5901503
NM_2 (NM_1 + 1.2.2.1)	13103413	12824431	14080992	13994156	14090325
			(14135571)	(14047868)	(14142660)
NM_3 (NM_2 +1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	22628165	22199210	24817594	24837420	24909712
			(24938881)	(24956779)	(25026014)
1 Components					
1.1 Currency with the Public	3276436	3169720	3256012	3311754	3323263
1.2 Aggregate Deposits of Residents	18828639	18505900	20721466	20621184	20695211
			(20842754)	(20740544)	(20811512)
1.2.1 Demand Deposits	2320598	2296792	2580490	2408007	2497829
1.2.2 Time Deposits of Residents	16508041	16209108	18140977	18213177	18197382
			(18262264)	(18332536)	(18313684)
1.2.2.1 Short-term Time Deposits	7428619	7294099	8163440	8195929	8188822
			(8218019)	(8249641)	(8241158)
1.2.2.1.1 Certificates of Deposits (CDs)	303993	282706	342514	342781	353658
1.2.2.2 Long-term Time Deposits	9079423	8915009	9977537	10017247	10008560
			(10044245)	(10082895)	(10072526)
1.3 'Other' Deposits with RBI	77761	63821	81051	78465	80411
1.4 Call/Term Funding from Financial Institutions	445329	459769	759065	826016	810828
2 Sources					
2.1 Domestic Credit	22710730	21844812	24397438	24475650	24461941
			(25071321)	(25138811)	(25108664)
2.1.1 Net Bank Credit to the Government	7165533	6657365	7171807	7228507	7116700
			(7272617)	(7325127)	(7210188)
2.1.1.1 Net RBI credit to the Government	1451126	1162729	979659	1016037	934359
2.1.1.2 Credit to the Government by the Banking System	5714407	5494636	6192149	6212470	6182341
			(6292959)	(6309091)	(6275829)
2.1.2 Bank Credit to the Commercial Sector	15545198	15187447	17225631	17247143	17345240
			(17798704)	(17813684)	(17898476)
2.1.2.1 RBI Credit to the Commercial Sector	26549	11223	5080	5228	5237
2.1.2.2 Credit to the Commercial Sector by the Banking System	15518649	15176224	17220551	17241916	17340003
			(17793624)	(17808456)	(17893239)
2.1.2.2.1 Other Investments (Non-SLR Securities)	1096333	1094156	1074161	1077378	1087256
2.2 Government's Currency Liabilities to the Public	30285	29791	32596	32596	32887
2.3 Net Foreign Exchange Assets of the Banking Sector	4699822	4627909	4977214	4932177	4952686
2.3.1 Net Foreign Exchange Assets of the RBI	4587355	4537015	5038109	4982983	4975638
2.3.2 Net Foreign Currency Assets of the Banking System	112467	90895	-60896	-50807	-22951
2.4 Capital Account	3446786	3501781	4020302	3972799	3977586
2.5 Other items (net)	1365887	801521	1121948	1174006	1090638

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

No. 9: Liquidity Aggregates

(₹ Crore)

Aggregates	2022-23	2023			2024
		Jan.	Nov.	Dec.	Jan.
	1	2	3	4	5
1 NM_3	**22628165**	**22199020**	**24462473**	**24817594**	**24909712**
			(24590707)	(24938881)	(25026014)
2 Postal Deposits	668887	651847	702174	702174	702174
3 L_1 (1 + 2)	**23297052**	**22850867**	**25164647**	**25519768**	**25611886**
			(25292881)	(25641055)	(25728188)
4 Liabilities of Financial Institutions	54724	70232	67961	68815	76805
4.1 Term Money Borrowings	1692	1133	1214	1305	1990
4.2 Certificates of Deposit	46407	61870	53910	54485	61750
4.3 Term Deposits	6625	7229	12837	13025	13065
5 L_2 (3 + 4)	**23351776**	**22921099**	**25232608**	**25588583**	**25688692**
			(25360842)	(25709870)	(25804993)
6 Public Deposits with Non-Banking Financial Companies	85254	..	..	91373	..
7 L_3 (5 + 6)	**23437030**	**..**	**..**	**25679956**	**..**

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/reporting Fridays				
	2022-23	2023		2024	
		Jan. 27	Dec. 29	Jan. 12	Jan. 26
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	3378521	3291782	3362995	3410499	3419207
1.2 Bankers' Deposits with the RBI	930477	870956	1001281	979284	994201
1.2.1 Scheduled Commercial Banks	868940	813573	939847	919311	933808
1.3 'Other' Deposits with the RBI	77761	63821	81051	78465	80411
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	4386759	4226559	4445327	4468249	4493820
2 Sources					
2.1 RBI's Domestic Credit	1356683	1191213	1167569	1192634	1206417
2.1.1 Net RBI credit to the Government	1451126	1162729	979659	1016037	934359
2.1.1.1 Net RBI credit to the Central Government (2.1.1.1.1 + 2.1.1.1.2 + 2.1.1.1.3 + 2.1.1.1.4 – 2.1.1.1.5)	1450376	1146027	977122	999992	921591
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	1402174	1357627	1358597	1358899
2.1.1.1.3.1 Central Government Securities	1406423	1402174	1357627	1358597	1358899
2.1.1.1.4 Rupee Coins	277	436	276	373	296
2.1.1.1.5 Deposits of the Central Government	5001	256584	380781	358978	437603
2.1.1.2 Net RBI credit to State Governments	749	16702	2537	16045	12768
2.1.2 RBI's Claims on Banks	-120992	17261	182830	171370	266820
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	-120992	17261	182830	171370	266820
2.1.3 RBI's Credit to Commercial Sector	26549	11223	5080	5228	5237
2.1.3.1 Loans and Advances to Primary Dealers	8476	1675	3167	3164	3174
2.1.3.2 Loans and Advances to NABARD	-	-	-	-	-
2.2 Government's Currency Liabilities to the Public	30285	29791	32596	32596	32887
2.3 Net Foreign Exchange Assets of the RBI	4587355	4537015	5038109	4982983	4975638
2.3.1 Gold	371500	358942	402148	391785	394644
2.3.2 Foreign Currency Assets	4215873	4178090	4635979	4591216	4581011
2.4 Capital Account	1505657	1566409	1727402	1678973	1670689
2.5 Other Items (net)	81908	-34950	65545	60992	50433

No. 11: Reserve Money - Components and Sources

(₹ Crore)

Item	2022-23	Outstanding as on March 31/last Fridays of the month/Fridays					
		2023		2024			
		Jan. 27	Dec. 29	Jan. 5	Jan. 12	Jan. 19	Jan. 26
	1	2	3	4	5	6	7
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 + 2.4 + 2.5 – 2.6)	4386759	4226559	4445327	4470114	4468249	4505091	4493820
1 Components							
1.1 Currency in Circulation	3378521	3291782	3362995	3379221	3410499	3408271	3419207
1.2 Bankers' Deposits with RBI	930477	870956	1001281	1012434	979284	1019002	994201
1.3 'Other' Deposits with RBI	77761	63821	81051	78459	78465	77819	80411
2 Sources							
2.1 Net Reserve Bank Credit to Government	1451126	1162729	979659	1069672	1016037	975573	934359
2.2 Reserve Bank Credit to Banks	-120992	17261	182830	114604	171370	237762	266820
2.3 Reserve Bank Credit to Commercial Sector	26549	11223	5080	5231	5228	5237	5237
2.4 Net Foreign Exchange Assets of RBI	4587355	4537015	5038109	4984935	4982983	4968600	4975638
2.5 Government's Currency Liabilities to the Public	30285	29791	32596	32596	32596	32596	32887
2.6 Net Non- Monetary Liabilities of RBI	1587565	1531460	1792947	1736924	1739965	1714677	1721122

No. 12: Commercial Bank Survey

(₹ Crore)

Item	Outstanding as on last reporting Fridays of the month/ reporting Fridays of the month				
	2022-23	2023		2024	
		Jan. 27	Dec. 29	Jan. 12	Jan. 26
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	17882989	17563835	19769396	19666634	19740368
			(19890683)	(19785994)	(19856670)
1.1.1 Demand Deposits	2180431	2156747	2437504	2265400	2355015
1.1.2 Time Deposits of Residents	15702559	15407088	17331892	17401233	17385354
			(17453179)	(17520593)	(17501655)
1.1.2.1 Short-term Time Deposits	7066151	6933189	7799351	7830555	7823409
1.1.2.1.1 Certificates of Deposits (CDs)	303993	282706	342514	342781	353658
1.1.2.2 Long-term Time Deposits	8636407	8473898	9532541	9570678	9561944
1.2 Call/Term Funding from Financial Institutions	445329	459769	759065	826016	810828
2 Sources					
2.1 Domestic Credit	20197246	19638447	22358880	22401411	22467590
			(23032763)	(23064572)	(23114313)
2.1.1 Credit to the Government	5414322	5193768	5888955	5908945	5879874
			(5989765)	(6005566)	(5973362)
2.1.2 Credit to the Commercial Sector	14782924	14444680	16469925	16492466	16587716
			(17042997)	(17059007)	(17140952)
2.1.2.1 Bank Credit	13675235	13337536	15389861	15403385	15490356
			(15962934)	(15969926)	(16043592)
2.1.2.1.1 Non-food Credit	13655330	13287371	15346723	15359417	15444737
			(15919795)	(15925957)	(15997973)
2.1.2.2 Net Credit to Primary Dealers	19491	21097	14127	19939	18260
2.1.2.3 Investments in Other Approved Securities	826	853	737	727	807
2.1.2.4 Other Investments (in non-SLR Securities)	1087371	1085194	1065199	1068415	1078293
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1-2.2.2-2.2.3)	112467	90895	-60896	-50807	-22951
2.2.1 Foreign Currency Assets	351387	318086	258410	266117	300706
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	160924	155593	197358	198842	202482
2.2.3 Overseas Foreign Currency Borrowings	77996	71598	121947	118082	121175
2.3 Net Bank Reserves (2.3.1+2.3.2-2.3.3)	833002	906743	852099	834873	751085
2.3.1 Balances with the RBI	809907	813573	939847	919311	933808
2.3.2 Cash in Hand	90263	110431	95083	86932	84097
2.3.3 Loans and Advances from the RBI	67168	17261	182830	171370	266820
2.4 Capital Account	1916959	1911201	2268729	2269655	2282726
2.5 Other items (net) (2.1+2.2+2.3-2.4-1.1-1.2)	897438	701280	352894	423173	361801
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	711655	660102	811858	754133	769739
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	44733	32462	174832	192040	194111

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 March 24, 2023	2023		2024	
		Jan. 27	Dec. 29	Jan. 12	Jan. 26
	1	2	3	4	5
1 SLR Securities	5415148	5194621	5990503	6006293	5974168
			(5889692)	(5909672)	(5880681)
2 Other Government Securities (Non-SLR)	182265	181956	180084	180319	177924
3 Commercial Paper	65058	52392	57466	52549	49323
4 Shares issued by					
4.1 PSUs	9736	10047	8751	8790	8906
4.2 Private Corporate Sector	71099	70612	81517	80508	80202
4.3 Others	4500	5071	5605	3242	5616
5 Bonds/Debentures issued by					
5.1 PSUs	92304	90212	94289	91824	96460
5.2 Private Corporate Sector	325035	326385	289204	285169	285046
5.3 Others	99384	97973	111242	108075	109878
6 Instruments issued by					
6.1 Mutual funds	48810	58938	56810	79457	81830
6.2 Financial institutions	189180	191608	181283	178484	183109

Note: 1. Data since July 14, 2023 include the impact of the merger of a non-bank with a bank.
2. 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	2023		2024	2022-23	2023		2024
		Jan.	Dec.	Jan.		Jan.	Dec.	Jan.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	212	212	210	210	137	137	137	137
1 Liabilities to the Banking System	**355252**	**329409**	**528876**	**538999**	**351843**	**326191**	**524747**	**534561**
1.1 Demand and Time Deposits from Banks	228517	210725	269437	269499	226119	208480	266043	265719
1.2 Borrowings from Banks	67566	63049	189114	197781	67199	62698	189078	197682
1.3 Other Demand and Time Liabilities	59170	55635	70324	71719	58524	55013	69626	71160
2 Liabilities to Others	**19730504**	**19353582**	**22240106**	**22220230**	**19278894**	**18910898**	**21784236**	**21760894**
2.1 Aggregate Deposits	18477677	18145363	20525354	20501500	18043914	17719428	20088041	20059152
			(20404067)	(20385198)			(19966754)	(19942850)
2.1.1 Demand	2225416	2201162	2485497	2403099	2180431	2156747	2437504	2355015
2.1.2 Time	16252261	15944201	18039857	18098401	15863483	15562681	17650537	17704137
2.2 Borrowings	449945	464367	763584	815756	445329	459769	759065	810828
2.3 Other Demand and Time Liabilities	802881	743851	951168	902975	789651	731701	937130	890914
3 Borrowings from Reserve Bank	**165085**	**121622**	**271352**	**337637**	**165085**	**121622**	**271352**	**337637**
3.1 Against Usance Bills /Promissory Notes	-	-	-	-	-	-	-	-
3.2 Others	165085	121622	271352	337637	165085	121622	271352	337637
4 Cash in Hand and Balances with Reserve Bank	920953	945680	1056932	1039630	900170	924004	1034929	1017905
4.1 Cash in Hand	92788	112768	97605	86504	90263	110431	95082	84097
4.2 Balances with Reserve Bank	828165	832912	959326	953126	809907	813573	939847	933808
5 Assets with the Banking System	**397974**	**376259**	**430787**	**430800**	**326601**	**314826**	**364152**	**358710**
5.1 Balances with Other Banks	232378	227365	247269	244098	193422	190072	202063	199024
5.1.1 In Current Account	18939	24940	13515	12269	15528	21710	10360	10038
5.1.2 In Other Accounts	213440	202425	233755	231829	177894	168362	191703	188986
5.2 Money at Call and Short Notice	49763	40131	34891	39669	24864	21711	17201	17404
5.3 Advances to Banks	45330	43544	45516	44910	41184	40586	44105	42300
5.4 Other Assets	70503	65218	103111	102122	67130	62457	100782	99982
6 Investment	**5560664**	**5340544**	**6139074**	**6122017**	**5415148**	**5194621**	**5990503**	**5974168**
			(6038263)	(6028529)			(5889692)	(5880681)
6.1 Government Securities	5553702	5333965	6132448	6115133	5414322	5193768	5989765	5973362
6.2 Other Approved Securities	6963	6579	6625	6884	826	853	737	807
7 Bank Credit	**14078261**	**13734998**	**16386269**	**16472392**	**13675235**	**13337536**	**15961944**	**16043592**
			(15813197)	(15919156)			(15388871)	(15490356)
7a Food Credit	65622	95883	95534	98012	19906	50165	43139	45619
7.1 Loans, Cash-credits and Overdrafts	13824693	13500963	16094103	16190479	13424906	13106520	15672642	15764523
7.2 Inland Bills-Purchased	39446	34384	52280	51383	39435	34366	52269	51372
7.3 Inland Bills-Discounted	165428	153963	198816	191500	162910	151575	196536	189237
7.4 Foreign Bills-Purchased	19758	17315	17624	16786	19545	17142	17404	16575
7.5 Foreign Bills-Discounted	28936	28373	23446	22244	28439	27933	23093	21885

Note: 1. Data since July 2023 include the impact of the merger of a non-bank with a bank.
2. 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, 2023	2023		2024	Financial year so far	Y-o-Y
		Jan. 27	Dec. 29	Jan. 26	2023-24	2024
	1	2	3	4	%	%
I. Bank Credit (II + III)	**13675235**	**13337536**	**15961345**	**16044693**	**17.3**	**20.3**
			(15388272)	(15491457)	(13.3)	(16.1)
II. Food Credit	**19906**	**50165**	**43139**	**45619**	**129.2**	**-9.1**
III. Non-food Credit	**13655330**	**13287371**	**15918206**	**15999075**	**17.2**	**20.4**
			(15345134)	(15445839)	(13.1)	(16.2)
1. Agriculture & Allied Activities	**1728063**	**1676112**	**1994505**	**2012507**	**16.5**	**20.1**
2. Industry (Micro and Small, Medium and Large)	**3416353**	**3372742**	**3664791**	**3654130**	**7.0**	**8.3**
			(3647315)	(3636797)	(6.5)	(7.8)
2.1 Micro and Small	633587	612604	704065	712636	12.5	16.3
2.2 Medium	268557	265621	290511	292257	8.8	10.0
2.3 Large	2514209	2494518	2670215	2649237	5.4	6.2
3. Services	**3699716**	**3569050**	**4406134**	**4420556**	**19.5**	**23.9**
			(4289319)	(4306862)	(16.4)	(20.7)
3.1 Transport Operators	192323	181921	224270	227934	18.5	25.3
3.2 Computer Software	24927	24296	27571	26930	8.0	10.8
3.3 Tourism, Hotels & Restaurants	69462	67989	77442	77512	11.6	14.0
3.4 Shipping	7074	7719	6986	7114	0.6	-7.8
3.5 Aviation	28348	27829	45031	45076	59.0	62.0
3.6 Professional Services	139584	132313	157544	162508	16.4	22.8
3.7 Trade	853417	810997	939929	955025	11.9	17.8
3.7.1. Wholesale Trade[1]	422630	406843	471530	485763	14.9	19.4
3.7.2 Retail Trade	430788	404154	468398	469261	8.9	16.1
3.8 Commercial Real Estate	322573	321624	436186	438435	35.9	36.3
			(369705)	(374173)	(16.0)	(16.3)
3.9 Non-Banking Financial Companies (NBFCs)[2] of which,	1342070	1300281	1520800	1503342	12.0	15.6
3.9.1 Housing Finance Companies (HFCs)	318729	313994	328775	337673	5.9	7.5
3.9.2 Public Financial Institutions (PFIs)	175714	181903	212038	210586	19.8	15.8
3.10 Other Services[3]	719936	694082	970376	976680	35.7	40.7
			(934558)	(941471)	(30.8)	(35.6)
4. Personal Loans	**4180838**	**4051850**	**5175423**	**5217944**	**24.8**	**28.8**
			(4737380)	(4795805)	(14.7)	(18.4)
4.1 Consumer Durables	20983	21111	24312	24160	15.1	14.4
4.2 Housing	1988532	1939432	2640255	2660342	33.8	37.2
			(2228607)	(2264119)	(13.9)	(16.7)
4.3 Advances against Fixed Deposits	122116	109931	117474	116251	-4.8	5.7
4.4 Advances to Individuals against share & bonds	7634	7677	8257	7413	-2.9	-3.4
4.5 Credit Card Outstanding	204708	196839	251880	258524	26.3	31.3
4.6 Education	96853	95235	114952	117073	20.9	22.9
4.7 Vehicle Loans	502377	496249	583297	577279	14.9	16.3
4.8 Loan against gold jewellery	89382	86815	101925	101934	14.0	17.4
4.9 Other Personal Loans	1148253	1098561	1333071	1354969	18.0	23.3
			(1307065)	(1329351)	(15.8)	(21.0)
5. Priority Sector (Memo)						
(i) Agriculture & Allied Activities[4]	1746051	1690986	2008819	2032292	16.4	20.2
(ii) Micro & Small Enterprises[5]	1645484	1605639	1918338	1943836	18.1	21.1
(iii) Medium Enterprises[6]	423888	416905	468942	469954	10.9	12.7
(iv) Housing	622799	616365	747520	756504	21.5	22.7
			(649527)	(659377)	(5.9)	(7.0)
(v) Education Loans	59513	59259	62256	61984	4.2	4.6
(vi) Renewable Energy	4670	4632	4861	5404	15.7	16.7
(vii) Social Infrastructure	2464	2499	2572	2581	4.8	3.3
(viii) Export Credit	19515	29285	12940	20489	5.0	-30.0
(ix) Others	60835	49735	53282	64169	5.5	29.0
(x) Weaker Sections including net PSLC- SF/MF	1411633	1333312	1570568	1618611	14.7	21.4

Notes:
(1) Data are provisional. Bank credit, Food credit and Non-food credit data are based on Section-42 return, which covers all scheduled commercial banks (SCBs), while sectoral non-food credit data are based on sector-wise and industry-wise bank credit (SIBC) return, which covers select banks accounting for about 95 per cent of total non-food credit extended by all SCBs, pertaining to the last reporting Friday of the month.
(2) Data since July 28, 2023 include the impact of the merger of a non-bank with a bank. 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, 2023	2023		2024	Financial year so far	Y-o-Y
		Jan. 27	Dec. 29	Jan. 26	2024-25	2024
	1	2	3	4	%	%
2 Industries (2.1 to 2.19)	3416353	3372742	3664791	3654130	7.0	8.3
			(3647315)	(3636797)	(6.5)	(7.8)
2.1 Mining & Quarrying (incl. Coal)	60978	58471	56853	54123	-11.2	-7.4
2.2 Food Processing	185709	176848	195982	200426	7.9	13.3
2.2.1 Sugar	22934	18979	17167	20371	-11.2	7.3
2.2.2 Edible Oils & Vanaspati	19850	19081	22673	20971	5.6	9.9
2.2.3 Tea	5219	5149	5913	5962	14.2	15.8
2.2.4 Others	137706	133638	150229	153122	11.2	14.6
2.3 Beverage & Tobacco	23975	21258	28541	28843	20.3	35.7
2.4 Textiles	236374	228320	256133	258834	9.5	13.4
2.4.1 Cotton Textiles	93054	88605	98806	99694	7.1	12.5
2.4.2 Jute Textiles	4044	4027	4387	4330	7.1	7.5
2.4.3 Man-Made Textiles	40909	40161	46993	47341	15.7	17.9
2.4.4 Other Textiles	98366	95527	105947	107470	9.3	12.5
2.5 Leather & Leather Products	12086	11901	12313	12336	2.1	3.7
2.6 Wood & Wood Products	21370	20189	23637	23924	11.9	18.5
2.7 Paper & Paper Products	45223	44822	46584	46853	3.6	4.5
2.8 Petroleum, Coal Products & Nuclear Fuels	149962	150972	133529	131710	-12.2	-12.8
2.9 Chemicals & Chemical Products	225174	224145	248147	244062	8.4	8.9
2.9.1 Fertiliser	34680	35890	36073	34007	-1.9	-5.2
2.9.2 Drugs & Pharmaceuticals	71058	70331	81020	80301	13.0	14.2
2.9.3 Petro Chemicals	20844	21041	22992	22831	9.5	8.5
2.9.4 Others	98592	96884	108062	106923	8.5	10.4
2.10 Rubber, Plastic & their Products	84522	83293	88422	90794	7.4	9.0
2.11 Glass & Glassware	9583	9241	11347	11735	22.4	27.0
2.12 Cement & Cement Products	58244	54891	61352	60165	3.3	9.6
2.13 Basic Metal & Metal Product	352218	346192	389349	386121	9.6	11.5
2.13.1 Iron & Steel	235399	237110	272625	271994	15.5	14.7
2.13.2 Other Metal & Metal Product	116819	109082	116724	114127	-2.3	4.6
2.14 All Engineering	182500	177603	194594	198842	9.0	12.0
2.14.1 Electronics	43563	42481	45501	47288	8.6	11.3
2.14.2 Others	138938	135123	149093	151554	9.1	12.2
2.15 Vehicles, Vehicle Parts & Transport Equipment	103029	103705	112054	110763	7.5	6.8
2.16 Gems & Jewellery	81201	79664	91401	84860	4.5	6.5
2.17 Construction	127186	120422	135305	137425	8.1	14.1
2.18 Infrastructure	1212238	1206226	1289378	1277471	5.4	5.9
2.18.1 Power	623918	619213	645640	638751	2.4	3.2
2.18.2 Telecommunications	111600	110867	143525	140142	25.6	26.4
2.18.3 Roads	288216	288708	305800	305993	6.2	6.0
2.18.4 Airports	9579	9298	6894	6865	-28.3	-26.2
2.18.5 Ports	8197	7878	7153	7399	-9.7	-6.1
2.18.6 Railways	11255	10940	12186	12742	13.2	16.5
2.18.7 Other Infrastructure	159472	159322	168180	165579	3.8	3.9
2.19 Other Industries	244781	254580	289870	294844	20.5	15.8

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/ Reporting Friday								
	2022-23	2022	2023						
		Dec. 30	Oct. 27	Nov. 03	Nov. 17	Nov. 24	Dec. 01	Dec. 15	Dec. 29
	1	2	3	4	5	6	7	8	9
Number of Reporting Banks	33	33	33	33	33	33	33	33	33
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	**144701.9**	**130835.0**	**136454.8**	**136198.3**	**133643.3**	**134731.3**	**135247.4**	**135675.4**	**134207.5**
2 Demand and Time Liabilities									
2.1 Demand Liabilities	**30241.2**	**28819.0**	**27401.2**	**31330.4**	**25474.0**	**25612.9**	**27117.8**	**27960.3**	**28479.2**
2.1.1 Deposits									
2.1.1.1 Inter-Bank	6893.3	5202.0	6210.8	8465.2	6583.1	6378.6	7183.8	7223.4	6777.1
2.1.1.2 Others	18195.4	15610.0	14768.0	15018.3	13511.7	13811.7	14047.4	15208.9	14679.1
2.1.2 Borrowings from Banks	0.0	50.0	1254.6	1109.7	464.7	299.8	339.8		
2.1.3 Other Demand Liabilities	5152.4	7958.0	5167.8	6737.2	4914.5	5122.8	5546.8	5528.0	7023.0
2.2 Time Liabilities	**194129.9**	**174160.0**	**173252.2**	**172873.3**	**171680.4**	**172169.3**	**176297.7**	**177675.1**	**178662.9**
2.2.1 Deposits									
2.2.1.1 Inter-Bank	65875.0	55396.0	49258.2	48929.8	48825.3	49028.6	52267.0	53811.7	55648.9
2.2.1.2 Others	126506.5	115226.0	121686.8	121180.0	120131.6	120919.6	121200.0	120466.5	119528.4
2.2.2 Borrowings from Banks	845.8	1074.0	889.7	1244.7	1343.7	819.7	1396.5	2152.7	2244.3
2.2.3 Other Time Liabilities	902.6	2464.0	1417.5	1518.8	1379.8	1401.4	1434.2	1244.2	1241.3
3 Borrowing from Reserve Bank	0.0								
4 Borrowings from a notified bank / Government	84382.5	79539.0	74228.2	74418.0	76207.2	80417.0	87085.9	89193.5	88584.8
4.1 Demand	20545.9	17875.0	19329.5	19005.0	19204.5	21638.3	21603.4	23832.5	22764.0
4.2 Time	63836.7	61664.0	54898.7	55413.0	57002.7	58778.7	65482.5	65361.0	65820.8
5 Cash in Hand and Balances with Reserve Bank	**12386.8**	**11342.0**	**11176.0**	**11248.6**	**10962.3**	**10725.0**	**11429.7**	**11384.5**	**11065.3**
5.1 Cash in Hand	1540.1	894.0	992.9	688.6	732.4	684.5	803.8	733.9	766.3
5.2 Balance with Reserve Bank	10846.7	10448.0	10183.1	10560.0	10229.9	10040.5	10625.9	10650.6	10299.0
6 Balances with Other Banks in Current Account	**3500.7**	**1676.0**	**1685.7**	**1715.8**	**1384.0**	**1598.5**	**1698.6**	**1634.7**	**1645.3**
7 Investments in Government Securities	**80906.4**	**72306.0**	**73744.2**	**73281.0**	**71976.8**	**73325.1**	**73437.2**	**73867.3**	**74036.6**
8 Money at Call and Short Notice	**34771.6**	**23466.0**	**16653.1**	**16151.7**	**15363.8**	**21174.1**	**24940.7**	**26023.5**	**23160.0**
9 Bank Credit (10.1+11)	**124978.1**	**121588.0**	**123771.7**	**127545.7**	**126785.7**	**127421.9**	**129011.7**	**130325.1**	**132527.0**
10 Advances									
10.1 Loans, Cash-Credits and Overdrafts	**124928.2**	**121546.0**	**123727.6**	**127477.0**	**126701.9**	**127336.5**	**128925.0**	**130234.3**	**132420.5**
10.2 Due from Banks	131095.9	122855.0	122092.6	122943.2	123801.8	125133.8	128682.9	131624.2	133287.7
11 Bills Purchased and Discounted	49.9	42.0	44.1	68.7	83.8	85.4	86.7	90.8	106.5

Prices and Production

No. 18: Consumer Price Index (Base: 2012=100)

Group/Sub group	2022-23			Rural			Urban			Combined		
	Rural	Urban	Combined	Feb.23	Jan.24	Feb.24 (P)	Feb.23	Jan.24	Feb.24 (P)	Feb.23	Jan.24	Feb.24 (P)
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	**173.9**	**179.7**	**176.0**	**174.7**	**187.7**	**187.8**	**179.8**	**194.2**	**194.5**	**176.6**	**190.1**	**190.3**
1.1 Cereals and products	163.3	165.3	164.0	175.3	187.5	188.5	174.8	187.1	188.3	175.1	187.4	188.4
1.2 Meat and fish	208.7	215.2	211.0	204.9	209.9	214.9	211.8	219.4	223.9	207.3	213.2	218.1
1.3 Egg	174.7	177.1	175.6	182.4	204.8	201.8	184.6	206.1	204.7	183.3	205.3	202.9
1.4 Milk and products	170.1	170.7	170.3	175.8	182.6	182.9	176.9	182.8	183.3	176.2	182.7	183.0
1.5 Oils and fats	197.0	181.1	191.2	188.9	161.2	160.2	175.6	155.8	155.1	184.0	159.2	158.3
1.6 Fruits	164.1	169.6	166.7	161.2	169.7	169.2	166.1	174.5	174.0	163.5	171.9	171.4
1.7 Vegetables	160.8	198.7	173.6	138.8	179.9	179.8	172.1	226.2	226.1	150.1	195.6	195.5
1.8 Pulses and products	168.1	168.2	168.2	170.1	202.5	200.8	171.0	207.7	206.0	170.4	204.3	202.6
1.9 Sugar and confectionery	119.9	122.2	120.7	119.5	129.7	128.7	122.2	131.0	130.7	120.4	130.1	129.4
1.10 Spices	199.4	193.5	197.5	211.8	245.9	240.7	204.8	235.5	232.0	209.5	242.4	237.8
1.11 Non-alcoholic beverages	175.4	161.3	169.6	177.3	182.3	182.1	164.3	169.8	169.9	171.9	177.1	177.0
1.12 Prepared meals, snacks, sweets	185.1	190.4	187.6	189.2	195.0	195.3	195.7	203.1	204.0	192.2	198.8	199.3
2 Pan, tobacco and intoxicants	**195.0**	**199.9**	**196.3**	**197.8**	**203.2**	**203.7**	**202.2**	**208.9**	**209.5**	**199.0**	**204.7**	**205.2**
3 Clothing and footwear	**184.5**	**172.9**	**179.9**	**189.2**	**194.6**	**194.8**	**177.4**	**183.1**	**183.4**	**184.5**	**190.0**	**190.3**
3.1 Clothing	184.8	175.0	180.9	189.6	195.3	195.4	179.4	185.1	185.5	185.6	191.3	191.5
3.2 Footwear	182.7	161.4	173.9	186.9	190.4	190.9	166.2	171.8	172.0	178.3	182.7	183.0
4 Housing	--	**170.0**	**170.0**	--	--	--	**173.5**	**177.6**	**178.5**	**173.5**	**177.6**	**178.5**
5 Fuel and light	**179.7**	**178.4**	**179.2**	**183.0**	**184.1**	**183.8**	**180.7**	**175.7**	**175.6**	**182.1**	**180.9**	**180.7**
6 Miscellaneous	**173.8**	**166.5**	**170.3**	**177.3**	**183.4**	**183.7**	**169.5**	**175.2**	**175.5**	**173.5**	**179.4**	**179.7**
6.1 Household goods and services	173.7	165.1	169.6	178.0	182.9	183.4	168.8	173.0	173.3	173.7	178.2	178.6
6.2 Health	181.3	174.6	178.7	185.6	193.2	193.8	179.9	187.8	188.3	183.4	191.2	191.7
6.3 Transport and communication	167.3	158.8	162.8	168.7	172.0	172.2	159.7	162.1	162.3	164.0	166.8	167.0
6.4 Recreation and amusement	170.0	165.8	167.6	172.4	177.2	177.4	168.1	172.2	172.5	170.0	174.4	174.6
6.5 Education	175.6	169.7	172.2	178.2	185.8	186.0	172.2	180.8	181.0	174.7	182.9	183.1
6.6 Personal care and effects	173.2	173.4	173.3	179.7	188.6	188.8	180.1	189.9	190.1	179.9	189.1	189.3
General Index (All Groups)	**175.8**	**173.5**	**174.7**	**177.9**	**187.3**	**187.4**	**175.6**	**183.5**	**184.0**	**176.8**	**185.5**	**185.8**

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	2023		2024
				Jan.	Dec.	Jan.
	1	2	3	4	5	6
1 Consumer Price Index for Industrial Workers	2016	2.88	131.1	132.8	138.8	138.9
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	1148	1170	1257	1258
3 Consumer Price Index for Rural Labourers	1986-87	-	1160	1181	1267	1268

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	2023		2024
		Jan.	Dec.	Jan.
	1	2	3	4
1 Standard Gold (₹ per 10 grams)	52731	56246	62173	62322
2 Silver (₹ per kilogram)	61991	68305	73926	71723

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	2023		2024	
			Feb.	Dec.	Jan.(P)	Feb.(P)
	1	2	3	4	5	6
1 ALL COMMODITIES	**100.000**	**152.5**	**150.9**	**151.8**	**151.1**	**151.2**
1.1 PRIMARY ARTICLES	**22.618**	**176.8**	**173.6**	**182.8**	**181.0**	**181.4**
1.1.1 FOOD ARTICLES	**15.256**	**179.5**	**176.9**	**191.2**	**188.7**	**189.2**
1.1.1.1 Food Grains (Cereals+Pulses)	3.462	178.6	185.4	200.8	198.7	201.6
1.1.1.2 Fruits & Vegetables	3.475	200.6	173.0	201.1	190.3	187.5
1.1.1.3 Milk	4.440	167.8	174.1	181.7	182.2	183.6
1.1.1.4 Eggs,Meat & Fish	2.402	170.6	169.8	165.7	168.5	169.0
1.1.1.5 Condiments & Spices	0.529	187.2	191.8	248.1	246.5	248.9
1.1.1.6 Other Food Articles	0.948	178.1	182.3	196.6	194.9	194.5
1.1.2 NON-FOOD ARTICLES	**4.119**	**172.1**	**170.2**	**162.3**	**162.3**	**159.5**
1.1.2.1 Fibres	0.839	203.0	182.6	161.9	161.1	161.1
1.1.2.2 Oil Seeds	1.115	205.2	199.5	185.3	182.7	178.7
1.1.2.3 Other non-food Articles	1.960	131.2	135.0	134.1	133.8	133.2
1.1.2.4 Floriculture	0.204	257.4	297.7	310.0	328.6	299.7
1.1.3 MINERALS	**0.833**	**203.5**	**217.5**	**217.7**	**217.7**	**223.8**
1.1.3.1 Metallic Minerals	0.648	191.7	206.1	208.3	208.3	207.3
1.1.3.2 Other Minerals	0.185	245.2	257.2	250.7	250.7	281.3
1.1.4 CRUDE PETROLEUM & NATURAL GAS	**2.410**	**158.4**	**143.2**	**152.2**	**151.7**	**155.0**
1.2 FUEL & POWER	**13.152**	**159.5**	**157.6**	**155.8**	**154.8**	**155.1**
1.2.1 COAL	**2.138**	**133.3**	**135.6**	**136.7**	**136.2**	**136.0**
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	324.4	258.1	246.6	241.8
1.2.2 MINERAL OILS	**7.950**	**172.9**	**165.5**	**160.0**	**159.1**	**159.2**
1.2.3 ELECTRICITY	**3.064**	**143.3**	**152.4**	**158.4**	**156.5**	**157.7**
1.3 MANUFACTURED PRODUCTS	**64.231**	**142.6**	**141.6**	**140.0**	**139.8**	**139.8**
1.3.1 MANUFACTURE OF FOOD PRODUCTS	**9.122**	**165.3**	**161.9**	**161.1**	**160.1**	**160.1**
1.3.1.1 Processing and Preserving of meat	0.134	143.7	142.7	144.9	144.8	145.5
1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof	0.204	144.9	144.4	145.5	142.8	144.2
1.3.1.3 Processing and Preserving of fruit and Vegetables	0.138	125.8	126.8	130.4	128.6	130.0
1.3.1.4 Vegetable and Animal oils and Fats	2.643	181.9	162.9	140.8	140.0	141.2
1.3.1.5 Dairy products	1.165	167.0	174.7	179.7	178.3	179.0
1.3.1.6 Grain mill products	2.010	162.1	168.8	180.2	180.8	180.9
1.3.1.7 Starches and Starch products	0.110	158.9	157.3	163.0	163.1	165.2
1.3.1.8 Bakery products	0.215	163.0	166.3	166.5	168.1	167.4
1.3.1.9 Sugar, Molasses & honey	1.163	126.8	127.1	138.1	137.7	136.9
1.3.1.10 Cocoa, Chocolate and Sugar confectionery	0.175	135.9	138.0	141.4	142.4	143.6
1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products	0.026	155.8	153.7	150.9	150.0	149.3
1.3.1.12 Tea & Coffee products	0.371	178.2	165.2	173.9	163.4	153.7
1.3.1.13 Processed condiments & salt	0.163	176.5	178.1	199.1	200.0	197.1
1.3.1.14 Processed ready to eat food	0.024	141.2	141.3	147.5	147.6	147.9
1.3.1.15 Health supplements	0.225	179.4	181.1	178.8	175.6	179.9
1.3.1.16 Prepared animal feeds	0.356	208.8	207.8	210.2	207.1	203.9
1.3.2 MANUFACTURE OF BEVERAGES	**0.909**	**128.9**	**130.3**	**132.0**	**132.5**	**132.3**
1.3.2.1 Wines & spirits	0.408	129.3	132.0	134.4	134.4	134.1
1.3.2.2 Malt liquors and Malt	0.225	134.5	134.5	136.8	136.9	136.3
1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters	0.275	123.7	124.4	124.5	126.1	126.4

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2022-23	2023		2024	
			Feb.	Dec.	Jan.(P)	Feb.(P)
	1	2	3	4	5	6
1.3.3 MANUFACTURE OF TOBACCO PRODUCTS	**0.514**	**165.3**	**166.5**	**172.7**	**171.6**	**173.6**
1.3.3.1 Tobacco products	0.514	165.3	166.5	172.7	171.6	173.6
1.3.4 MANUFACTURE OF TEXTILES	**4.881**	**142.7**	**137.2**	**133.7**	**134.0**	**134.6**
1.3.4.1 Preparation and Spinning of textile fibres	2.582	133.2	123.8	118.7	118.5	119.6
1.3.4.2 Weaving & Finishing of textiles	1.509	158.9	159.3	156.7	158.2	157.9
1.3.4.3 Knitted and Crocheted fabrics	0.193	129.9	123.0	119.7	117.9	120.0
1.3.4.4 Made-up textile articles, Except apparel	0.299	153.6	152.9	157.1	157.6	157.6
1.3.4.5 Cordage, Rope, Twine and Netting	0.098	156.8	147.4	136.8	137.5	137.8
1.3.4.6 Other textiles	0.201	132.2	130.4	130.4	130.7	129.9
1.3.5 MANUFACTURE OF WEARING APPAREL	**0.814**	**148.7**	**149.7**	**151.9**	**151.8**	**151.9**
1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel	0.593	147.3	148.4	149.0	148.9	149.1
1.3.5.2 Knitted and Crocheted apparel	0.221	152.2	153.2	159.8	159.8	159.6
1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS	**0.535**	**122.2**	**122.2**	**124.1**	**124.0**	**124.1**
1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur	0.142	105.6	106.4	106.6	105.4	104.8
1.3.6.2 Luggage, HandbAgs, Saddlery and Harness	0.075	141.0	140.1	140.8	141.3	141.4
1.3.6.3 Footwear	0.318	125.2	125.1	127.9	128.2	128.6
1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK	**0.772**	**143.2**	**142.6**	**147.6**	**147.7**	**148.6**
1.3.7.1 Saw milling and Planing of wood	0.124	137.6	137.7	135.1	135.5	139.3
1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards	0.493	141.8	140.7	148.4	148.5	148.6
1.3.7.3 Builder's carpentry and Joinery	0.036	204.0	203.2	207.3	209.1	210.1
1.3.7.4 Wooden containers	0.119	136.7	137.6	139.8	138.4	139.8
1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS	**1.113**	**152.0**	**148.0**	**138.4**	**138.8**	**138.5**
1.3.8.1 Pulp, Paper and Paperboard	0.493	158.4	157.2	145.6	145.5	145.2
1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard	0.314	148.3	143.1	140.5	141.7	141.8
1.3.8.3 Other articles of paper and Paperboard	0.306	145.6	138.2	124.7	125.2	124.3
1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA	**0.676**	**172.5**	**180.4**	**185.4**	**185.5**	**184.1**
1.3.9.1 Printing	0.676	172.5	180.4	185.4	185.5	184.1
1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	**6.465**	**145.4**	**142.8**	**135.7**	**135.4**	**135.4**
1.3.10.1 Basic chemicals	1.433	159.2	150.7	138.2	137.4	136.9
1.3.10.2 Fertilizers and Nitrogen compounds	1.485	144.8	146.7	142.5	141.3	141.9
1.3.10.3 Plastic and Synthetic rubber in primary form	1.001	143.2	140.4	129.0	130.9	131.4
1.3.10.4 Pesticides and Other agrochemical products	0.454	143.4	140.7	132.3	131.9	130.7
1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics	0.491	145.0	145.5	144.9	144.1	142.9
1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations	0.612	140.8	141.3	138.9	138.8	138.8
1.3.10.7 Other chemical products	0.692	142.1	138.3	133.1	132.8	132.6
1.3.10.8 Man-made fibres	0.296	110.7	106.3	102.3	102.4	103.1
1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS	**1.993**	**140.9**	**142.4**	**143.3**	**142.9**	**143.8**
1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products	1.993	140.9	142.4	143.3	142.9	143.8
1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	**2.299**	**129.7**	**128.7**	**127.5**	**127.6**	**127.3**
1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	0.609	111.8	113.7	114.1	113.6	114.1
1.3.12.2 Other Rubber Products	0.272	106.4	106.3	107.3	107.5	108.2
1.3.12.3 Plastics products	1.418	141.8	139.4	137.2	137.4	136.6

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2022-23	2023		2024	
			Feb.	Dec.	Jan.(P)	Feb.(P)
	1	2	3	4	5	6
1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	**3.202**	**133.7**	**135.3**	**135.4**	**134.5**	**133.8**
1.3.13.1 Glass and Glass products	0.295	158.1	164.0	164.6	163.9	164.6
1.3.13.2 Refractory products	0.223	119.0	118.8	119.0	119.1	119.4
1.3.13.3 Clay Building Materials	0.121	135.3	130.0	116.4	117.3	113.8
1.3.13.4 Other Porcelain and Ceramic Products	0.222	118.0	119.2	122.7	123.3	124.0
1.3.13.5 Cement, Lime and Plaster	1.645	137.2	138.9	138.9	137.1	136.2
1.3.13.6 Articles of Concrete, Cement and Plaster	0.292	134.4	135.6	138.0	138.9	137.0
1.3.13.7 Cutting, Shaping and Finishing of Stone	0.234	125.6	126.0	132.5	131.7	131.2
1.3.13.8 Other Non-Metallic Mineral Products	0.169	105.9	108.4	101.8	101.4	101.3
1.3.14 MANUFACTURE OF BASIC METALS	**9.646**	**148.7**	**146.9**	**139.6**	**139.0**	**138.5**
1.3.14.1 Inputs into steel making	1.411	159.7	154.6	137.0	135.9	135.2
1.3.14.2 Metallic Iron	0.653	165.9	160.8	151.1	150.8	150.4
1.3.14.3 Mild Steel - Semi Finished Steel	1.274	127.0	124.8	117.8	117.3	116.7
1.3.14.4 Mild Steel -Long Products	1.081	149.7	148.4	139.7	138.5	138.4
1.3.14.5 Mild Steel - Flat products	1.144	155.0	150.5	142.0	140.4	140.2
1.3.14.6 Alloy steel other than Stainless Steel- Shapes	0.067	146.9	144.8	135.3	133.8	133.3
1.3.14.7 Stainless Steel - Semi Finished	0.924	151.9	146.8	132.0	132.1	130.1
1.3.14.8 Pipes & tubes	0.205	175.4	175.2	170.8	168.4	170.7
1.3.14.9 Non-ferrous metals incl. precious metals	1.693	145.9	147.7	144.4	144.4	145.1
1.3.14.10 Castings	0.925	130.7	133.8	144.7	144.8	142.8
1.3.14.11 Forgings of steel	0.271	172.4	175.7	172.2	174.6	172.1
1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	**3.155**	**139.0**	**139.1**	**137.9**	**138.4**	**137.9**
1.3.15.1 Structural Metal Products	1.031	132.7	131.5	131.5	132.5	131.9
1.3.15.2 Tanks, Reservoirs and Containers of Metal	0.660	161.1	159.7	153.6	157.7	156.4
1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers	0.145	100.5	102.4	105.8	105.9	106.4
1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	0.383	135.2	138.3	144.5	144.9	140.8
1.3.15.5 Cutlery, Hand Tools and General Hardware	0.208	112.2	110.6	109.1	100.5	109.4
1.3.15.6 Other Fabricated Metal Products	0.728	145.0	146.9	143.8	143.1	142.7
1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS	**2.009**	**116.6**	**116.8**	**119.9**	**119.5**	**119.4**
1.3.16.1 Electronic Components	0.402	115.0	114.8	114.7	114.5	114.3
1.3.16.2 Computers and Peripheral Equipment	0.336	135.0	135.1	135.1	135.1	135.1
1.3.16.3 Communication Equipment	0.310	129.4	130.5	139.4	139.4	139.3
1.3.16.4 Consumer Electronics	0.641	99.7	99.5	103.9	102.8	102.7
1.3.16.5 Measuring, Testing, Navigating and Control equipment	0.181	112.8	113.0	113.8	113.8	114.0
1.3.16.6 Watches and Clocks	0.076	151.2	151.9	159.2	159.3	159.8
1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment	0.055	108.9	109.1	109.6	109.6	109.3
1.3.16.8 Optical instruments and Photographic equipment	0.008	100.5	100.3	102.2	102.7	103.1
1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT	**2.930**	**128.8**	**129.9**	**131.6**	**131.7**	**132.0**
1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus	1.298	126.3	127.3	130.6	131.1	131.7

No. 21: Wholesale Price Index (Concld.)

(Base: 2011-12 = 100)

Commodities	Weight	2022-23	2023		2024	
			Feb.	Dec.	Jan.(P)	Feb.(P)
	1	2	3	4	5	6
1.3.17.2 Batteries and Accumulators	0.236	131.9	131.6	139.1	139.0	139.1
1.3.17.3 Fibre optic cables for data transmission or live transmission of images	0.133	116.6	122.9	126.0	123.1	122.4
1.3.17.4 Other electronic and Electric wires and Cables	0.428	146.3	149.0	145.6	145.5	144.9
1.3.17.5 Wiring devices, Electric lighting & display equipment	0.263	117.2	116.9	117.1	117.2	117.7
1.3.17.6 Domestic appliances	0.366	134.1	133.2	132.6	132.7	133.1
1.3.17.7 Other electrical equipment	0.206	117.4	120.0	119.8	120.6	120.9
1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT	**4.789**	**126.2**	**127.7**	**129.4**	**129.8**	**129.8**
1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines	0.638	126.9	128.0	130.9	130.6	130.7
1.3.18.2 Fluid power equipment	0.162	128.4	130.3	132.4	132.3	132.3
1.3.18.3 Other pumps, Compressors, Taps and Valves	0.552	117.6	117.5	117.8	117.9	118.2
1.3.18.4 Bearings, Gears, Gearing and Driving elements	0.340	124.2	126.6	128.8	128.9	128.7
1.3.18.5 Ovens, Furnaces and Furnace burners	0.008	79.8	81.5	85.0	83.0	85.2
1.3.18.6 Lifting and Handling equipment	0.285	126.3	128.0	129.5	129.7	129.7
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	145.7	142.4	146.4	144.1
1.3.18.9 Agricultural and Forestry machinery	0.833	137.2	139.4	143.9	144.1	144.0
1.3.18.10 Metal-forming machinery and Machine tools	0.224	120.5	121.6	123.1	123.3	122.3
1.3.18.11 Machinery for mining, Quarrying and Construction	0.371	84.9	86.6	88.6	88.7	88.8
1.3.18.12 Machinery for food, Beverage and Tobacco processing	0.228	127.7	124.6	123.4	123.5	124.4
1.3.18.13 Machinery for textile, Apparel and Leather production	0.192	130.0	130.9	135.2	135.3	137.8
1.3.18.14 Other special-purpose machinery	0.468	140.6	143.6	144.9	145.0	145.9
1.3.18.15 Renewable electricity generating equipment	0.046	69.2	69.7	70.2	70.7	70.2
1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	**4.969**	**127.6**	**127.1**	**128.4**	**128.5**	**128.7**
1.3.19.1 Motor vehicles	2.600	126.0	125.8	128.7	128.5	129.0
1.3.19.2 Parts and Accessories for motor vehicles	2.368	129.3	128.6	128.0	128.5	128.4
1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	**1.648**	**137.4**	**139.6**	**143.7**	**143.5**	**143.5**
1.3.20.1 Building of ships and Floating structures	0.117	162.5	163.6	163.6	163.7	163.7
1.3.20.2 Railway locomotives and Rolling stock	0.110	105.5	106.5	108.9	110.2	108.4
1.3.20.3 Motor cycles	1.302	137.6	140.3	145.3	144.9	145.2
1.3.20.4 Bicycles and Invalid carriages	0.117	139.8	138.5	137.8	138.1	137.9
1.3.20.5 Other transport equipment	0.002	152.5	155.8	163.1	159.4	160.5
1.3.21 MANUFACTURE OF FURNITURE	**0.727**	**157.2**	**158.2**	**159.3**	**159.6**	**160.2**
1.3.21.1 Furniture	0.727	157.2	158.2	159.3	159.6	160.2
1.3.22 OTHER MANUFACTURING	**1.064**	**147.7**	**153.8**	**161.1**	**160.9**	**161.5**
1.3.22.1 Jewellery and Related articles	0.996	146.5	153.1	161.1	160.9	161.6
1.3.22.2 Musical instruments	0.001	189.3	200.4	179.2	190.6	191.9
1.3.22.3 Sports goods	0.012	150.5	152.4	155.8	156.2	155.2
1.3.22.4 Games and Toys	0.005	159.0	158.5	159.7	159.6	159.9
1.3.22.5 Medical and Dental instruments and Supplies	0.049	170.4	166.7	162.2	161.2	161.2
2 FOOD INDEX	**24.378**	**174.2**	**171.3**	**179.9**	**178.0**	**178.3**

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-January		January	
				2022-23	2023-24	2023	2024
	1	2	3	4	5	6	7
General Index	100.00	131.6	138.5	137.1	145.2	147.4	153.0
1 Sectoral Classification							
1.1 Mining	14.37	113.3	119.9	115.5	125.1	136.1	144.1
1.2 Manufacturing	77.63	131.0	137.1	136.0	143.4	145.5	150.1
1.3 Electricity	7.99	170.1	185.2	186.1	198.8	186.6	197.1
2 Use-Based Classification							
2.1 Primary Goods	34.05	129.5	139.2	137.2	146.1	149.9	154.2
2.2 Capital Goods	8.22	88.7	100.3	97.5	104.2	104.9	109.2
2.3 Intermediate Goods	17.22	143.9	149.4	148.9	156.0	155.6	163.0
2.4 Infrastructure/ Construction Goods	12.34	148.2	160.7	158.1	173.9	176.9	185.0
2.5 Consumer Durables	12.84	113.8	114.5	114.7	117.0	108.8	120.7
Consumer non-durables	15.33	146.7	147.7	147.0	153.8	164.4	163.9

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	April – January			
	2023-24 (Revised Estimates)	2023-24 (Actuals)	2022-23 (Actuals)	Percentage to Revised Estimates	
				2023-24	2022-23
	1	2	3	4	5
1 Revenue Receipts	**2699713**	**2217909**	**1919649**	**82.2**	**81.7**
1.1 Tax Revenue (Net)	2323918	1879840	1688710	80.9	80.9
1.2 Non-Tax Revenue	375795	338069	230939	90.0	88.2
2 Non Debt Capital Receipt	**56000**	**34219**	**57194**	**61.1**	**68.5**
2.1 Recovery of Loans	26000	21664	18523	83.3	78.8
2.2 Other Receipts	30000	12555	38671	41.9	64.5
3 Total Receipts (excluding borrowings) (1+2)	**2755713**	**2252128**	**1976843**	**81.7**	**81.3**
4 Revenue Expenditure of which :	3540239	2633543	2597756	74.4	75.1
4.1 Interest Payments	1055427	821731	738658	77.9	78.5
5 Capital Expenditure	950246	721187	569892	75.9	78.3
6 Total Expenditure (4+5)	**4490486**	**3354730**	**3167648**	**74.7**	**75.7**
7 Revenue Deficit (4-1)	**840527**	**415634**	**678107**	**49.4**	**61.1**
8 Fiscal Deficit (6-3)	**1734773**	**1102602**	**1190805**	**63.6**	**67.8**
9 Gross Primary Deficit (8-4.1)	**679346**	**280871**	**452147**	**41.3**	**55.5**

Source: Controller General of Accounts (CGA), Ministry of Finance, Government of India and Interim Union Budget 2024-25.

No. 24: Treasury Bills – Ownership Pattern

(₹ Crore)

Item	2022-23	2023			2024			
		Jan. 27	Dec. 22	Dec. 29	Jan. 5	Jan. 12	Jan. 19	Jan. 26
	1	2	3	4	5	6	7	8
1 91-day								
1.1 Banks	6191	8769	8091	9694	7770	7183	6895	6344
1.2 Primary Dealers	20071	18178	19201	16909	17050	15765	19442	25383
1.3 State Governments	8038	44263	15651	24851	25006	26812	26142	26142
1.4 Others	80638	105302	79208	75897	79680	83051	80663	76273
2 182-day								
2.1 Banks	53154	63052	77470	79976	78559	82615	80813	73978
2.2 Primary Dealers	97274	56129	68038	60167	62648	62739	63858	69518
2.3 State Governments	2592	12568	10043	8887	8387	8487	8462	6987
2.4 Others	110072	76069	77496	78861	79796	77650	80333	83508
3 364-day								
3.1 Banks	101834	95938	100742	102529	101009	100345	101580	101169
3.2 Primary Dealers	146080	179052	179626	177911	174625	175272	171099	170822
3.3 State Governments	48284	45637	42875	44909	45066	43831	41692	44229
3.4 Others	149086	132010	165632	168561	172366	171383	173322	173009
4 14-day Intermediate								
4.1 Banks								
4.2 Primary Dealers								
4.3 State Governments	212758	161017	207744	198774	131132	167299	170928	192600
4.4 Others	926	1211	754	1780	1280	688	1625	883
Total Treasury Bills (Excluding 14 day Intermediate T Bills) #	823313	836969	844073	849151	851962	855133	854300	857361

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	10
91-day Treasury Bills										
2023-24										
Jan. 3	8000	102	26288	2733	37	7946	2733	10679	98.30	6.9378
Jan. 10	8000	118	26800	2366	37	7940	2366	10306	98.30	6.9275
Jan. 17	8000	80	17693	2205	55	7952	2205	10157	98.29	6.9698
Jan. 24	8000	81	17111	37	44	7963	37	8000	98.28	7.0201
Jan. 31	8000	68	15785	1934	48	7966	1934	9900	98.27	7.0446
182-day Treasury Bills										
2023-24										
Jan. 3	10000	130	21636	30	72	9970	30	10000	96.56	7.1498
Jan. 10	10000	164	24873	346	86	9954	346	10300	96.56	7.1550
Jan. 17	10000	149	22271	1531	103	9969	1531	11500	96.55	7.1701
Jan. 24	10000	146	22762	562	80	9963	562	10525	96.54	7.1924
Jan. 31	10000	161	29502	1032	69	9968	1032	11000	96.54	7.1845
364-day Treasury Bills										
2023-24										
Jan. 3	9000	131	22760	188	67	8973	188	9161	93.37	7.1257
Jan. 10	9000	121	20554	44	86	8972	44	9016	93.35	7.1486
Jan. 17	9000	156	25904	1026	72	8935	1026	9961	93.34	7.1540
Jan. 24	9000	158	25010	2681	64	8985	2681	11666	93.33	7.1700
Jan. 31	9000	175	36960	157	33	8985	157	9141	93.34	7.1541

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
January 1, 2024	5.50-7.10	6.79
January 2, 2024	5.00-6.90	6.77
January 3, 2024	5.00-6.85	6.75
January 4, 2024	5.00-6.85	6.70
January 5, 2024	5.50-6.80	6.69
January 6, 2024	5.50-6.75	6.28
January 8, 2024	5.00-6.90	6.76
January 9, 2024	5.00-6.85	6.74
January 10, 2024	5.00-6.85	6.75
January 11, 2024	5.00-6.90	6.76
January 12, 2024	5.00-6.85	6.77
January 15, 2024	5.00-6.93	6.78
January 16, 2024	5.00-6.87	6.76
January 17, 2024	5.00-6.85	6.76
January 18, 2024	5.00-6.88	6.76
January 19, 2024	5.00-6.86	6.73
January 20, 2024	5.50-6.85	6.28
January 23, 2024	5.00-6.90	6.79
January 24, 2024	5.00-6.90	6.78
January 25, 2024	5.00-6.95	6.78
January 29, 2024	5.00-6.85	6.78
January 30, 2024	5.00-7.10	6.76
January 31, 2024	5.00-7.00	6.79
February 01 ,2024	5.00-6.97	6.74
February 02 ,2024	5.00-6.75	6.52
February 03 ,2024	5.65-6.50	6.10
February 05 ,2024	5.00-6.55	6.47
February 06 ,2024	5.00-6.56	6.46
February 07 ,2024	5.00-6.75	6.49
February 08 ,2024	5.00-6.75	6.65
February 09 ,2024	5.00-6.86	6.73
February 12 ,2024	5.00-6.86	6.76
February 13 ,2024	5.00-6.86	6.75
February 14 ,2024	5.00-7.05	6.71
February 15 ,2024	5.00-6.77	6.66

Note: Includes Notice Money.

No. 27: Certificates of Deposit

Item	2023			2024	
	Jan. 27	Dec. 15	Dec. 29	Jan. 12	Jan. 26
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	279788.46	341805.23	344752.77	351131.83	355281.29
1.1 Issued during the fortnight (₹ Crore)	17509.69	65939.27	38992.46	40119.37	20013.21
2 Rate of Interest (per cent)	6.82-7.30	7.06-7.96	7.27-7.98	7.08-7.59	7.07-8.02

No. 28: Commercial Paper

Item	2023			2024	
	Jan. 31	Dec. 15	Dec. 31	Jan. 15	Jan. 31
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	363889.15	387266.65	364181.25	378628.10	377707.20
1.1 Reported during the fortnight (₹ Crore)	51481.60	68393.55	42874.35	34492.95	53532.05
2 Rate of Interest (per cent)	6.56-13.10	7.17-11.77	7.02-12.13	7.12-12.34	7.00-14.74

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Crore)

Item	2022-23	2023			2024			
		Jan. 27	Dec. 22	Dec. 29	Jan. 5	Jan. 12	Jan. 19	Jan. 26
	1	2	3	4	5	6	7	8
1 Call Money	19987	24030	19814	17285	14687	19175	20412	20336
2 Notice Money	2605	244	394	5238	3638	970	4494	942
3 Term Money	612	317	698	598	881	746	1182	645
4 Triparty Repo	697245	636660	603746	708714	605163	600192	735997	528710
5 Market Repo	504418	450512	467414	512436	479474	458126	582394	452165
6 Repo in Corporate Bond	2085	8260	2071	1207	222	544	281	1220
7 Forex (US $ million)	67793	97941	87077	121622	74518	92656	96967	109345
8 Govt. of India Dated Securities	66200	60310	99405	52022	70883	74385	88331	57000
9 State Govt. Securities	5450	6547	8476	6640	4861	3876	5010	6260
10 Treasury Bills								
10.1 91-Day	4380	1535	4049	7661	5396	3690	3327	3193
10.2 182-Day	4480	2134	2648	5339	5873	2432	6653	3699
10.3 364-Day	2900	1422	4345	5623	6445	2915	5990	3357
10.4 Cash Management Bills								
11 Total Govt. Securities (8+9+10)	83410	71947	118923	77285	93459	87298	109311	73508
11.1 RBI	660	674	535	46	618	502	334	73

No. 30: New Capital Issues by Non-Government Public Limited Companies

(Amount in ₹ Crore)

Security & Type of Issue	2022-23		2022-23 (Apr.-Jan.)		2023-24 (Apr.-Jan.) *		Jan. 2023		Jan. 2024 *	
	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount
	1	2	3	4	5	6	7	8	9	10
1 Equity Shares	**237**	**45266**	**183**	**41631**	**268**	**61022**	**21**	**1122**	**25**	**3612**
1A Premium	218	42408	168	39148	258	57967	18	978	25	3448
1.1 Public	164	38515	134	37435	217	54291	12	478	22	3419
1.1.1 Premium	161	37158	131	36172	217	52528	12	435	22	3303
1.2 Rights	73	6751	49	4196	51	6731	9	644	3	194
1.2.1 Premium	57	5250	37	2976	41	5439	6	543	3	146
2 Preference Shares	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2.1 Public	-	-	-	-	-	-	-	-	-	-
2.2 Rights	-	-	-	-	-	-	-	-	-	-
3 Bonds & Debentures	**34**	**9221**	**31**	**8735**	**36**	**14610**	**7**	**1863**	**5**	**2190**
3.1 Convertible	-	-	-	-	-	-	-	-	-	-
3.1.1 Public	-	-	-	-	-	-	-	-	-	-
3.1.2 Rights	-	-	-	-	-	-	-	-	-	-
3.2 Non-Convertible	34	9221	31	8735	36	14610	7	1863	5	2190
3.2.1 Public	34	9221	31	8735	36	14610	7	1863	5	2190
3.2.2 Rights	-	-	-	-	-	-	-	-	-	-
4 Total (1+2+3)	**271**	**54487**	**214**	**50366**	**304**	**75632**	**28**	**2985**	**30**	**5802**
4.1 Public	198	47736	165	46170	253	68901	19	2341	27	5609
4.2 Rights	73	6751	49	4196	51	6731	9	644	3	194

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					2024
			Jan.	Sep.	Oct.	Nov.	Dec.	Jan.
		1	2	3	4	5	6	7
1 Exports	₹ Crore	3621550	293195	285748	278441	281214	319688	306667
	US $ Million	451070	35799	34408	33452	33760	38388	36894
1.1 Oil	₹ Crore	782303	63093	53631	49136	61684	57412	68184
	US $ Million	97468	7704	6458	5903	7405	6894	8203
1.2 Non-oil	₹ Crore	2839247	230102	232117	229305	219529	262276	238483
	US $ Million	353602	28096	27950	27549	26355	31494	28691
2 Imports	₹ Crore	5749801	432646	452390	528079	453853	485107	443475
	US $ Million	715969	52826	54474	63444	54486	58251	53353
2.1 Oil	₹ Crore	1682475	130040	116167	134410	124404	124426	129080
	US $ Million	209418	15878	13988	16148	14935	14941	15529
2.2 Non-oil	₹ Crore	4067326	302606	336224	393669	329450	360682	314395
	US $ Million	506551	36948	40486	47296	39551	43310	37824
3 Trade Balance	₹ Crore	-2128251	-139450	-166642	-249638	-172640	-165420	-136809
	US $ Million	-264899	-17027	-20066	-29992	-20726	-19863	-16459
3.1 Oil	₹ Crore	-900172	-66947	-62536	-85274	-62719	-67014	-60896
	US $ Million	-111950	-8174	-7530	-10245	-7530	-8047	-7326
3.2 Non-oil	₹ Crore	-1228079	-72504	-104106	-164365	-109920	-98406	-75913
	US $ Million	-152949	-8853	-12536	-19747	-13196	-11816	-9133

Source: DGCI&S and Ministry of Commerce & Industry.

No. 32: Foreign Exchange Reserves

Item	Unit	2023	2024					
		Mar. 03	Jan. 19	Jan. 26	Feb. 02	Feb. 09	Feb. 16	Feb. 23
		1	2	3	4	5	6	7
1 Total Reserves	**₹ Crore**	**4610849**	**5118229**	**5126070**	**5161947**	**5124965**	**5114732**	**5135344**
	US $ Million	**562400**	**616143**	**616733**	**622469**	**617230**	**616097**	**619072**
1.1 Foreign Currency Assets	₹ Crore	4075251	4534331	4539360	4572053	4537894	4530988	4547374
	US $ Million	497087	545855	546144	551331	546524	545783	548188
1.2 Gold	₹ Crore	344595	392185	394644	398786	396386	393310	396913
	US $ Million	42033	47212	47481	48088	47739	47376	47848
	Volume (Metric Tonnes)	791.10	810.46	810.46	812.33	813.26	816.99	816.99
1.3 SDRs	SDRs Million	13667	13688	13688	13688	13688	13688	13694
	₹ Crore	148993	151361	151673	150849	150580	150322	150946
	US $ Million	18174	18221	18248	18190	18135	18107	18197
1.4 Reserve Tranche Position in IMF	₹ Crore	42010	40353	40393	40260	40104	40111	40111
	US $ Million	5107	4854	4860	4860	4832	4831	4839

* Difference, if any, is due to rounding off.

No. 33: Non-Resident Deposits

(US $ Million)

Scheme	Outstanding				Flows	
	2022-23	2023		2024	2022-23	2023-24
		Jan.	Dec.	Jan. (P)	Apr.-Jan.	Apr.-Jan.(P)
	1	2	3	4	5	6
1 NRI Deposits	**138879**	**136821**	**146909**	**147732**	**5964**	**10160**
1.1 FCNR(B)	19363	18207	22815	23517	1289	4154
1.2 NR(E)RA	95817	95490	97692	97466	1398	2689
1.3 NRO	23699	23125	26403	26749	3278	3317

P: Provisional.

No. 34: Foreign Investment Inflows

(US $ Million)

Item	2022-23	2022-23 Apr.-Jan.	2023-24 Apr.-Jan.	2023 Jan.	2023 Dec.	2024 Jan.
	1	2	3	4	5	6
1.1 Net Foreign Direct Investment (1.1.1-1.1.2)	**27986**	**24996**	**15419**	**3364**	**-3864**	**5740**
1.1.1 Direct Investment to India (1.1.1.1-1.1.1.2)	**42006**	**36753**	**25537**	**4066**	**-2159**	**6301**
1.1.1.1 Gross Inflows/Gross Investments	**71355**	**61743**	**59538**	**6246**	**4523**	**8035**
1.1.1.1.1 Equity	47600	42088	39237	4196	2511	6135
1.1.1.1.1.1 Government (SIA/FIPB)	692	682	474	29	103	147
1.1.1.1.1.2 RBI	37097	33083	26582	3434	1278	5516
1.1.1.1.1.3 Acquisition of shares	8245	7037	10975	592	993	332
1.1.1.1.1.4 Equity capital of unincorporated bodies	1566	1286	1205	140	137	140
1.1.1.1.2 Reinvested earnings	19105	15787	16108	1659	1689	1659
1.1.1.1.3 Other capital	4650	3868	4193	391	324	241
1.1.1.2 Repatriation/Disinvestment	**29349**	**24990**	**34001**	**2179**	**6682**	**1733**
1.1.1.2.1 Equity	27094	22924	31151	2085	5717	1544
1.1.1.2.2 Other capital	2255	2066	2849	95	965	189
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3-1.1.2.4)	**14020**	**11757**	**10118**	**702**	**1706**	**561**
1.1.2.1 Equity capital	8771	7240	5881	592	848	373
1.1.2.2 Reinvested Earnings	4412	3676	3776	368	368	368
1.1.2.3 Other Capital	4714	3900	3766	151	754	208
1.1.2.4 Repatriation/Disinvestment	3877	3059	3305	409	264	387
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3-1.2.4)	**-5152**	**-6380**	**31339**	**-2892**	**9590**	**-962**
1.2.1 GDRs/ADRs	-	-	-	-	-	-
1.2.2 FIIs	-4828	-6107	32246	-2867	9507	-666
1.2.3 Offshore funds and others	-	-	-	-	-	-
1.2.4 Portfolio investment by India	324	273	907	26	-82	296
1 Foreign Investment Inflows	**22834**	**18616**	**46758**	**472**	**5726**	**4778**

No. 35: Outward Remittances under the Liberalised Remittance Scheme (LRS) for Resident Individuals

(US $ Million)

Item	2022-23	2023 Jan.	2023 Nov.	2023 Dec.	2024 Jan.
	1	2	3	4	5
1 Outward Remittances under the LRS	**27140.65**	**2728.17**	**1878.67**	**2402.07**	**2619.71**
1.1 Deposit	1011.07	73.14	25.19	26.64	33.88
1.2 Purchase of immovable property	188.73	14.98	10.31	12.17	17.31
1.3 Investment in equity/debt	1256.15	160.05	41.30	101.43	59.87
1.4 Gift	3005.27	223.22	181.55	190.77	209.58
1.5 Donations	12.78	0.66	0.54	0.71	0.82
1.6 Travel	13662.15	1493.17	1180.42	1548.65	1549.97
1.7 Maintenance of close relatives	4174.06	342.47	206.63	219.71	267.02
1.8 Medical Treatment	55.74	6.27	8.02	7.79	9.32
1.9 Studies Abroad	3427.81	395.87	207.55	267.56	449.46
1.10 Others	346.89	18.34	17.15	26.65	22.47

No. 36: Indices of Nominal Effective Exchange Rate (NEER) and Real Effective Exchange Rate (REER) of the Indian Rupee

Item	2021-22	2022-23	2023	2024	
			Feb	Jan	Feb
	1	2	3	4	5
40-Currency Basket (Base: 2015-16=100)					
1 Trade-Weighted					
1.1 NEER	93.13	91.27	88.81	90.72	91.99
1.2 REER	104.67	102.86	99.83	103.65	104.72
2 Export-Weighted					
2.1 NEER	93.55	93.03	90.73	93.24	94.40
2.2 REER	103.48	101.12	98.11	101.25	102.05
6-Currency Basket (Trade-weighted)					
1 Base : 2015-16 =100					
1.1 NEER	87.04	85.93	82.79	83.18	83.80
1.2 REER	102.12	101.80	98.10	101.98	102.48
2 Base : 2021-22 =100					
2.1 NEER	100.00	98.72	95.11	95.57	96.27
2.2 REER	100.00	99.69	96.07	99.86	100.35

No. 37: External Commercial Borrowings (ECBs) – Registrations

(Amount in US $ Million)

Item	2023-24	2023		2024
		Jan.	Dec.	Jan.
	1	2	3	4
1 Automatic Route				
1.1 Number	1093	74	95	77
1.2 Amount	24156	777	3693	1820
2 Approval Route				
2.1 Number	9	1	3	5
2.2 Amount	2473	1000	1450	1270
3 Total (1+2)				
3.1 Number	1102	75	98	82
3.2 Amount	26629	1777	5143	3090
4 Weighted Average Maturity (in years)	5.72	7.90	4.90	3.70
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over alternative reference rate (ARR) for Floating Rate Loans@	1.68	2.16	1.85	1.33
5.2 Interest rate range for Fixed Rate Loans	0.00-11.80	0.00-11.30	0.00-10.50	0.00-11.00
Borrower Category				
I. Corporate Manufacturing	6925	291	519	166
II. Corporate-Infrastructure	8396	192	2623	706
a.) Transport	333	0	240	100
b.) Energy	2235	2	1963	55
c.) Water and Sanitation	32	0	0	0
d.) Communication	1538	0	0	0
e.) Social and Commercial Infrastructure	530	0	0	1
f.) Exploration,Mining and Refinery	2085	150	420	550
g.) Other Sub-Sectors	1643	40	0	0
III. Corporate Service-Sector	1773	236	58	13
IV. Other Entities	1805	1000	750	0
a.) units in SEZ	6	0	0	0
b.) SIDBI	0	0	0	0
c.) Exim Bank	1800	1000	750	0
V. Banks	0	0	0	0
VI. Financial Institution (Other than NBFC)	0	0	0	20
VII. NBFCs	7540	35	1131	2145
a). NBFC- IFC/AFC	3031	0	700	1437
b). NBFC-MFI	313	35	11	0
c). NBFC-Others	4196	0	420	708
VIII. Non-Government Organization (NGO)	0	0	0	0
IX. Micro Finance Institution (MFI)	0	0	0	0
X. Others	189	23	62	40

Note: Based on applications for ECB/Foreign Currency Convertible Bonds (FCCBs) which have been allotted loan registration number during the period.
@ With effect from July 01, 2023, the benchmark rate is changed to Alternative Reference Rate (ARR)

No. 38: India's Overall Balance of Payments

(US$ Million)

	Jul-Sep 2022			Jul-Sep 2023 (P)		
	Credit	Debit	Net	Credit	Debit	Net
Item	1	2	3	4	5	6
Overall Balance Of Payments (1+2+3)	**375274**	**405653**	**-30379**	**434954**	**432436**	**2519**
1 Current Account (1.1+ 1.2)	**225322**	**256224**	**-30902**	**231599**	**239918**	**-8319**
1.1 Merchandise	**111852**	**190165**	**-78313**	**108468**	**169502**	**-61034**
1.2 Invisibles (1.2.1+1.2.2+1.2.3)	**113470**	**66059**	**47411**	**123131**	**70416**	**52715**
1.2.1 Services	79981	45555	34426	83362	43411	39950
1.2.1.1 Travel	5775	7539	-1764	7482	8662	-1180
1.2.1.2 Transportation	9529	11337	-1809	7062	7277	-215
1.2.1.3 Insurance	756	586	170	829	821	8
1.2.1.4 G.n.i.e.	183	219	-36	140	244	-104
1.2.1.5 Miscellaneous	63738	25873	37865	67850	26408	41442
1.2.1.5.1 Software Services	36228	3546	32681	39570	4333	35237
1.2.1.5.2 Business Services	19141	13964	5178	21472	13673	7799
1.2.1.5.3 Financial Services	2113	1600	514	2069	1183	887
1.2.1.5.4 Communication Services	803	399	403	887	365	522
1.2.2 Transfers	27462	2688	24773	28145	3193	24952
1.2.2.1 Official	52	269	-217	23	240	-217
1.2.2.2 Private	27410	2419	24991	28123	2954	25169
1.2.3 Income	6027	17816	-11788	11624	23811	-12187
1.2.3.1 Investment Income	4398	16961	-12564	9864	22894	-13030
1.2.3.2 Compensation of Employees	1630	854	775	1760	917	843
2 Capital Account (2.1+2.2+2.3+2.4+2.5)	**149953**	**148492**	**1461**	**202511**	**192518**	**9994**
2.1 Foreign Investment (2.1.1+2.1.2)	**99783**	**87042**	**12741**	**128612**	**123952**	**4660**
2.1.1 Foreign Direct Investment	18104	11895	6209	16626	16913	-287
2.1.1.1 In India	16900	7803	9097	15762	12686	3076
2.1.1.1.1 Equity	10699	7111	3588	9879	12278	-2399
2.1.1.1.2 Reinvested Earnings	4672	0	4672	4815		4815
2.1.1.1.3 Other Capital	1529	692	837	1068	409	660
2.1.1.2 Abroad	1204	4092	-2888	864	4227	-3363
2.1.1.2.1 Equity	1204	1782	-578	864	1489	-626
2.1.1.2.2 Reinvested Earnings	0	1103	-1103	0	1153	-1153
2.1.1.2.3 Other Capital	0	1207	-1207	0	1585	-1585
2.1.2 Portfolio Investment	81678	75146	6532	111986	107040	4947
2.1.2.1 In India	81375	74473	6901	111127	105841	5286
2.1.2.1.1 FIIs	81375	74473	6901	111127	105841	5286
2.1.2.1.1.1 Equity	72212	66210	6003	101529	97937	3593
2.1.2.1.1.2 Debt	9163	8264	899	9598	7905	1693
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	303	673	-370	859	1198	-339
2.2 Loans (2.2.1+2.2.2+2.2.3)	**24578**	**23971**	**607**	**27809**	**26358**	**1451**
2.2.1 External Assistance	2017	1523	494	2600	1774	826
2.2.1.1 By India	8	23	-15	7	23	-16
2.2.1.2 To India	2009	1501	508	2592	1751	842
2.2.2 Commercial Borrowings	5409	5606	-197	7462	10352	-2890
2.2.2.1 By India	359	100	258	2853	3926	-1073
2.2.2.2 To India	5051	5506	-455	4609	6426	-1817
2.2.3 Short Term to India	17152	16842	310	17748	14232	3516
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	17152	15041	2111	17632	14232	3400
2.2.3.2 Suppliers' Credit up to 180 days	0	1801	-1801	116	0	116
2.3 Banking Capital (2.3.1+2.3.2)	**15567**	**24013**	**-8447**	**34020**	**29686**	**4333**
2.3.1 Commercial Banks	15567	24012	-8445	34020	29614	4405
2.3.1.1 Assets	134	10646	-10512	8673	11210	-2538
2.3.1.2 Liabilities	15433	13366	2067	25347	18404	6943
2.3.1.2.1 Non-Resident Deposits	13993	11504	2490	21257	18048	3209
2.3.2 Others	0	2	-2	0	72	-72
2.4 Rupee Debt Service	**0**	**1**	**-1**	**0**	**1**	**-1**
2.5 Other Capital	**10025**	**13464**	**-3439**	**12070**	**12520**	**-449**
3 Errors & Omissions	**0**	**937**	**-937**	**844**	**0**	**844**
4 Monetary Movements (4.1+ 4.2)	**30379**	**0**	**30379**	**0**	**2519**	**-2519**
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	30379	0	30379	0	2519	-2519

Note: P: Preliminary.

No. 39: India's Overall Balance of Payments

(₹ Crore)

Item	Jul-Sep 2022			Jul-Sep 2023 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance Of Payments (1+2+3)	**2994541**	**3236952**	**-242411**	**3595402**	**3574583**	**20819**
1 Current Account (1.1+ 1.2)	**1797977**	**2044566**	**-246589**	**1914436**	**1983202**	**-68765**
1.1 Merchandise	**892533**	**1517441**	**-624907**	**896615**	**1401132**	**-504517**
1.2 Invisibles (1.2.1+1.2.2+1.2.3)	**905444**	**527125**	**378319**	**1017821**	**582069**	**435752**
1.2.1 Services	638217	363513	274704	689083	358846	330237
1.2.1.1 Travel	46081	60160	-14079	61845	71601	-9756
1.2.1.2 Transportation	76035	90467	-14432	58377	60151	-1774
1.2.1.3 Insurance	6031	4676	1355	6850	6785	66
1.2.1.4 G.n.i.e.	1463	1751	-288	1154	2018	-863
1.2.1.5 Miscellaneous	508608	206460	302148	560857	218292	342565
1.2.1.5.1 Software Services	289082	28298	260784	327091	35818	291272
1.2.1.5.2 Business Services	152740	111423	41317	177488	113019	64469
1.2.1.5.3 Financial Services	16862	12764	4098	17106	9777	7329
1.2.1.5.4 Communication Services	6405	3185	3219	7334	3015	4319
1.2.2 Transfers	219132	21450	197682	232654	26397	206257
1.2.2.1 Official	413	2145	-1732	189	1981	-1792
1.2.2.2 Private	218719	19305	199414	232466	24416	208049
1.2.3 Income	48094	142162	-94067	96084	196826	-100742
1.2.3.1 Investment Income	35091	135345	-100254	81540	189247	-107707
1.2.3.2 Compensation of Employees	13003	6816	6187	14544	7579	6965
2 Capital Account (2.1+2.2+2.3+2.4+2.5)	**1196564**	**1184907**	**11657**	**1673990**	**1591381**	**82609**
2.1 Foreign Investment (2.1.1+2.1.2)	**796226**	**694559**	**101667**	**1063129**	**1024610**	**38518**
2.1.1 Foreign Direct Investment	144465	94920	49545	137433	139804	-2370
2.1.1.1 In India	134857	62266	72591	130295	104866	25429
2.1.1.1.1 Equity	85372	56743	28629	81661	101488	-19827
2.1.1.1.2 Reinvested Earnings	37283	0	37283	39803	0	39803
2.1.1.1.3 Other Capital	12202	5523	6678	8831	3378	5453
2.1.1.2 Abroad	9608	32654	-23046	7138	34938	-27800
2.1.1.2.1 Equity	9608	14223	-4615	7138	12309	-5171
2.1.1.2.2 Reinvested Earnings	0	8801	-8801	0	9530	-9530
2.1.1.2.3 Other Capital	0	9630	-9630	0	13098	-13098
2.1.2 Portfolio Investment	651761	599639	52122	925695	884807	40889
2.1.2.1 In India	649339	594268	55071	918597	874902	43695
2.1.2.1.1 FIIs	649339	594268	55071	918597	874902	43695
2.1.2.1.1.1 Equity	576224	528326	47898	839257	809559	29698
2.1.2.1.1.2 Debt	73116	65943	7173	79340	65343	13997
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	2422	5371	-2949	7099	9905	-2806
2.2 Loans (2.2.1+2.2.2+2.2.3)	**196127**	**191281**	**4846**	**229873**	**217877**	**11996**
2.2.1 External Assistance	16095	12155	3940	21491	14665	6826
2.2.1.1 By India	63	180	-117	61	192	-131
2.2.1.2 To India	16032	11975	4057	21430	14473	6957
2.2.2 Commercial Borrowings	43165	44735	-1570	61678	85571	-23893
2.2.2.1 By India	2861	799	2062	23582	32453	-8871
2.2.2.2 To India	40304	43936	-3632	38096	53118	-15022
2.2.3 Short Term to India	136866	134391	2475	146704	117640	29063
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	136866	120023	16843	145745	117640	28105
2.2.3.2 Suppliers' Credit up to 180 days	0	14368	-14368	958	0	958
2.3 Banking Capital (2.3.1+2.3.2)	**124217**	**191617**	**-67400**	**281213**	**245392**	**35820**
2.3.1 Commercial Banks	124217	191604	-67387	281213	244798	36415
2.3.1.1 Assets	1070	84951	-83881	71689	92667	-20978
2.3.1.2 Liabilities	123147	106652	16494	209524	152131	57393
2.3.1.2.1 Non-Resident Deposits	111661	91794	19867	175715	149187	26528
2.3.2 Others	0	13	-13	0	594	-594
2.4 Rupee Debt Service	**0**	**10**	**-10**	**0**	**12**	**-12**
2.5 Other Capital	**79995**	**107440**	**-27445**	**99776**	**103490**	**-3714**
3 Errors & Omissions	**0**	**7480**	**-7480**	**6975**	**0**	**6975**
4 Monetary Movements (4.1+ 4.2)	**242411**	**0**	**242411**	**0**	**20819**	**-20819**
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	242411	0	242411	0	20819	-20819

Note: P: Preliminary.

No. 40: Standard Presentation of BoP in India as per BPM6

(US$ Million)

Item	Jul-Sep 2022			Jul-Sep 2023 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**225318**	**256203**	**-30885**	**231599**	**239899**	**-8300**
1.A Goods and Services (1.A.a+1.A.b)	**191833**	**235720**	**-43887**	**191830**	**212914**	**-21084**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**111852**	**190165**	**-78313**	**108468**	**169502**	**-61034**
1.A.a.1 General merchandise on a BOP basis	111538	180388	-68850	107580	156950	-49369
1.A.a.2 Net exports of goods under merchanting	313	0	313	888	0	888
1.A.a.3 Nonmonetary gold	0	9776	-9776		12553	-12553
1.A.b Services (1.A.b.1 to 1.A.b.13)	**79981**	**45555**	**34426**	**83362**	**43411**	**39950**
1.A.b.1 Manufacturing services on physical inputs owned by others	311	28	283	283	39	244
1.A.b.2 Maintenance and repair services n.i.e.	50	542	-492	56	308	-251
1.A.b.3 Transport	9529	11337	-1809	7062	7277	-215
1.A.b.4 Travel	5775	7539	-1764	7482	8662	-1180
1.A.b.5 Construction	858	833	26	954	677	277
1.A.b.6 Insurance and pension services	756	586	170	829	821	8
1.A.b.7 Financial services	2113	1600	514	2069	1183	887
1.A.b.8 Charges for the use of intellectual property n.i.e.	324	2224	-1900	422	3341	-2919
1.A.b.9 Telecommunications, computer, and information services	37111	4140	32971	40546	4968	35578
1.A.b.10 Other business services	19141	13964	5178	21472	13673	7799
1.A.b.11 Personal, cultural, and recreational services	917	1654	-737	1211	2080	-869
1.A.b.12 Government goods and services n.i.e.	183	219	-36	140	244	-104
1.A.b.13 Others n.i.e.	2913	890	2023	836	140	696
1.B Primary Income (1.B.1 to 1.B.3)	**6027**	**17816**	**-11788**	**11624**	**23811**	**-12187**
1.B.1 Compensation of employees	1630	854	775	1760	917	843
1.B.2 Investment income	3559	16855	-13296	8645	22481	-13836
1.B.2.1 Direct investment	2145	9945	-7799	2028	12357	-10328
1.B.2.2 Portfolio investment	55	2917	-2862	84	3657	-3573
1.B.2.3 Other investment	146	3947	-3802	520	6250	-5730
1.B.2.4 Reserve assets	1213	46	1167	6013	217	5796
1.B.3 Other primary income	838	106	732	1219	413	806
1.C Secondary Income (1.C.1+1.C.2)	**27458**	**2667**	**24791**	**28145**	**3174**	**24971**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	27410	2419	24991	28123	2954	25169
1.C.1.1 Personal transfers (Current transfers between resident and/non-resident households)	26686	1750	24935	27335	2040	25296
1.C.1.2 Other current transfers	724	669	55	787	914	-127
1.C.2 General government	48	248	-200	22	220	-198
2 Capital Account (2.1+2.2)	**136**	**119**	**17**	**151**	**199**	**-48**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	6	36	-30	9	91	-82
2.2 Capital transfers	130	83	47	142	108	34
3 Financial Account (3.1 to 3.5)	**180199**	**148394**	**31806**	**202361**	**194857**	**7504**
3.1 Direct Investment (3.1A+3.1B)	**18104**	**11895**	**6209**	**16626**	**16913**	**-287**
3.1.A Direct Investment in India	16900	7803	9097	15762	12686	3076
3.1.A.1 Equity and investment fund shares	15371	7111	8260	14694	12278	2417
3.1.A.1.1 Equity other than reinvestment of earnings	10699	7111	3588	9879	12278	-2399
3.1.A.1.2 Reinvestment of earnings	4672	0	4672	4815		4815
3.1.A.2 Debt instruments	1529	692	837	1068	409	660
3.1.A.2.1 Direct investor in direct investment enterprises	1529	692	837	1068	409	660
3.1.B Direct Investment by India	1204	4092	-2888	864	4227	-3363
3.1.B.1 Equity and investment fund shares	1204	2885	-1681	864	2642	-1778
3.1.B.1.1 Equity other than reinvestment of earnings	1204	1782	-578	864	1489	-626
3.1.B.1.2 Reinvestment of earnings	0	1103	-1103		1153	-1153
3.1.B.2 Debt instruments	0	1207	-1207	0	1585	-1585
3.1.B.2.1 Direct investor in direct investment enterprises	0	1207	-1207		1585	-1585
3.2 Portfolio Investment	**81678**	**75146**	**6532**	**111986**	**107040**	**4947**
3.2.A Portfolio Investment in India	81375	74473	6901	111127	105841	5286
3.2.1 Equity and investment fund shares	72212	66210	6003	101529	97937	3593
3.2.2 Debt securities	9163	8264	899	9598	7905	1693
3.2.B Portfolio Investment by India	303	673	-370	859	1198	-339
3.3 Financial derivatives (other than reserves) and employee stock options	**7454**	**7308**	**145**	**5476**	**7362**	**-1887**
3.4 Other investment	**42584**	**54043**	**-11460**	**68273**	**61023**	**7250**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	13993	11505	2488	21257	18120	3137
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	0	2	-2	0	72	-72
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	13993	11504	2490	21257	18048	3209
3.4.2.3 General government	0	0	0			0
3.4.2.4 Other sectors	0	0	0			0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	9000	19637	-10638	22824	23693	-869
3.4.3.A Loans to India	8634	19515	-10881	19964	19743	220
3.4.3.B Loans by India	366	123	244	2860	3949	-1089
3.4.4 Insurance, pension, and standardized guarantee schemes	59	1	59	144	10	134
3.4.5 Trade credit and advances	17152	16842	310	17748	14232	3516
3.4.6 Other accounts receivable/payable - other	2380	6058	-3679	6300	4969	1331
3.4.7 Special drawing rights	0	0	0	0		0
3.5 Reserve assets	**30379**	**0**	**30379**	**0**	**2519**	**-2519**
3.5.1 Monetary gold	0	0	0			0
3.5.2 Special drawing rights n.a.	0	0	0		0	0
3.5.3 Reserve position in the IMF n.a.	0	0	0			0
3.5.4 Other reserve assets (Foreign Currency Assets)	30379	0	30379	0	2519	-2519
4 Total assets/liabilities	**180199**	**148394**	**31806**	**202361**	**194857**	**7504**
4.1 Equity and investment fund shares	96603	84188	12416	123566	121427	2139
4.2 Debt instruments	50837	58147	-7310	72495	65942	6553
4.3 Other financial assets and liabilities	32758	6058	26700	6300	7488	-1188
5 Net errors and omissions	**0**	**937**	**-937**	**844**	**0**	**844**

Note: P: Preliminary.

No. 41: Standard Presentation of BoP in India as per BPM6

(₹ Crore)

Item	Jul-Sep 2022			Jul-Sep 2023 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**1797946**	**2044398**	**-246452**	**1914433**	**1983040**	**-68606**
1.A Goods and Services (1.A.a+1.A.b)	**1530750**	**1880954**	**-350204**	**1585698**	**1759978**	**-174280**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**892533**	**1517441**	**-624907**	**896615**	**1401132**	**-504517**
1.A.a.1 General merchandise on a BOP basis	890032	1439429	-549396	889277	1297370	-408093
1.A.a.2 Net exports of goods under merchanting	2501	0	2501	7339	0	7339
1.A.a.3 Nonmonetary gold	0	78012	-78012	0	103763	-103763
1.A.b Services (1.A.b.1 to 1.A.b.13)	**638217**	**363513**	**274704**	**689083**	**358846**	**330237**
1.A.b.1 Manufacturing services on physical inputs owned by others	2480	223	2256	2339	320	2019
1.A.b.2 Maintenance and repair services n.i.e.	396	4323	-3927	465	2544	-2078
1.A.b.3 Transport	76035	90467	-14432	58377	60151	-1774
1.A.b.4 Travel	46081	60160	-14079	61845	71601	-9756
1.A.b.5 Construction	6848	6643	205	7887	5598	2289
1.A.b.6 Insurance and pension services	6031	4676	1355	6850	6785	66
1.A.b.7 Financial services	16862	12764	4098	17106	9777	7329
1.A.b.8 Charges for the use of intellectual property n.i.e.	2589	17749	-15161	3485	27618	-24133
1.A.b.9 Telecommunications, computer, and information services	296127	33035	263092	335161	41064	294097
1.A.b.10 Other business services	152740	111423	41317	177488	113019	64469
1.A.b.11 Personal, cultural, and recreational services	7319	13197	-5878	10012	17193	-7180
1.A.b.12 Government goods and services n.i.e.	1463	1751	-288	1154	2018	-863
1.A.b.13 Others n.i.e.	23247	7102	16146	6913	1160	5753
1.B Primary Income (1.B.1 to 1.B.3)	**48094**	**142162**	**-94067**	**96084**	**196826**	**-100742**
1.B.1 Compensation of employees	13003	6816	6187	14544	7579	6965
1.B.2 Investment income	28402	134499	-106097	71464	185831	-114368
1.B.2.1 Direct investment	17120	79356	-62236	16768	102143	-85375
1.B.2.2 Portfolio investment	442	23280	-22838	692	30227	-29535
1.B.2.3 Other investment	1162	31499	-30336	4298	51664	-47365
1.B.2.4 Reserve assets	9677	364	9313	49705	1797	47908
1.B.3 Other primary income	6690	846	5843	10076	3415	6661
1.C Secondary Income (1.C.1+1.C.2)	**219101**	**21283**	**197819**	**232651**	**26235**	**206416**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	218719	19305	199414	232466	24416	208049
1.C.1.1 Personal transfers (Current transfers between resident and/non-resident households)	212941	13968	198973	225958	16860	209099
1.C.1.2 Other current transfers	5779	5337	442	6507	7557	-1049
1.C.2 General government	382	1978	-1596	186	1819	-1633
2 Capital Account (2.1+2.2)	**1089**	**953**	**136**	**1245**	**1645**	**-400**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	50	289	-239	74	755	-680
2.2 Capital transfers	1039	664	375	1170	890	280
3 Financial Account (3.1 to 3.5)	**1437917**	**1184122**	**253796**	**1672748**	**1610717**	**62031**
3.1 Direct Investment (3.1A+3.1B)	**144465**	**94920**	**49545**	**137433**	**139804**	**-2370**
3.1.A Direct Investment in India	134857	62266	72591	130295	104866	25429
3.1.A.1 Equity and investment fund shares	122656	56743	65912	121464	101488	19976
3.1.A.1.1 Equity other than reinvestment of earnings	85372	56743	28629	81661	101488	-19827
3.1.A.1.2 Reinvestment of earnings	37283	0	37283	39803	0	39803
3.1.A.2 Debt instruments	12202	5523	6678	8831	3378	5453
3.1.A.2.1 Direct investor in direct investment enterprises	12202	5523	6678	8831	3378	5453
3.1.B Direct Investment by India	9608	32654	-23046	7138	34938	-27800
3.1.B.1 Equity and investment fund shares	9608	23024	-13416	7138	21839	-14701
3.1.B.1.1 Equity other than reinvestment of earnings	9608	14223	-4615	7138	12309	-5171
3.1.B.1.2 Reinvestment of earnings	0	8801	-8801	0	9530	-9530
3.1.B.2 Debt instruments	0	9630	-9630	0	13098	-13098
3.1.B.2.1 Direct investor in direct investment enterprises	0	9630	-9630	0	13098	-13098
3.2 Portfolio Investment	**651761**	**599639**	**52122**	**925695**	**884807**	**40889**
3.2.A Portfolio Investment in India	649339	594268	55071	918597	874902	43695
3.2.1 Equity and investment fund shares	576224	528326	47898	839257	809559	29698
3.2.2 Debt securities	73116	65943	7173	79340	65343	13997
3.2.B Portfolio Investment by India	2422	5371	-2949	7099	9905	-2806
3.3 Financial derivatives (other than reserves) and employee stock options	**59477**	**58316**	**1161**	**45263**	**60858**	**-15595**
3.4 Other investment	**339803**	**431246**	**-91443**	**564356**	**504430**	**59927**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	111661	91807	19854	175715	149782	25933
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	0	13	-13	0	594	-594
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	111661	91794	19867	175715	149187	26528
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)	71816	156699	-84883	188667	195847	-7180
3.4.3.A Loans to India	68892	155720	-86828	165024	163202	1822
3.4.3.B Loans by India	2924	979	1945	23643	32645	-9002
3.4.4 Insurance, pension, and standardized guarantee schemes	471	4	467	1194	85	1109
3.4.5 Trade credit and advances	136866	134391	2475	146704	117640	29063
3.4.6 Other accounts receivable/payable - other	18988	48344	-29356	52077	41076	11001
3.4.7 Special drawing rights	0	0	0	0	0	0
3.5 Reserve assets	**242411**	**0**	**242411**	**0**	**20819**	**-20819**
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)	242411	0	242411	0	20819	-20819
4 Total assets/liabilities	**1437917**	**1184122**	**253796**	**1672748**	**1610717**	**62031**
4.1 Equity and investment fund shares	770858	671784	99073	1021414	1003733	17681
4.2 Debt instruments	405661	463993	-58333	599256	545089	54168
4.3 Other financial assets and liabilities	261399	48344	213056	52077	61895	-9818
5 Net errors and omissions	**0**	**7480**	**-7480**	**6975**	**0**	**6975**

Note: P: Preliminary.

No. 42: India's International Investment Position

(US$ Million)

Item	As on Financial Year/Quarter End							
	2022-23		2022		2023			
			Sep.		Jun.		Sep.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8
1. Direct investment Abroad/in India	225592	523312	217331	510132	227886	532300	231249	528599
1.1 Equity Capital*	142071	493896	136252	481978	143548	501438	145327	497714
1.2 Other Capital	83521	29416	81079	28153	84338	30862	85923	30885
2. Portfolio investment	10966	243522	10983	244349	11325	258453	11664	259385
2.1 Equity	4958	138958	6312	137013	8698	152928	7939	154634
2.2 Debt	6008	104564	4671	107335	2627	105525	3726	104751
3. Other investment	87717	503281	85860	478823	92599	515584	102181	525685
3.1 Trade credit	27507	124304	24618	123158	29718	119301	31088	122821
3.2 Loan	10714	202514	8084	190195	14499	207119	9739	208956
3.3 Currency and Deposits	30526	141133	33528	135621	30584	144069	43364	146150
3.4 Other Assets/Liabilities	18970	35330	19630	29850	17798	45094	17991	47758
4. Reserves	578449		532664		595051		587714	
5. Total Assets/ Liabilities	902725	1270115	846837	1233303	926862	1306336	932809	1313670
6. Net IIP (Assets - Liabilities)	-367390		-386466		-379474		-380861	

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	2023		2024	FY 2022-23	2023		2024
		Jan.	Dec.	Jan.		Jan.	Dec.	Jan.
	1	2	3	4	5	6	7	8
A. Settlement Systems								
Financial Market Infrastructures (FMIs)								
1 CCIL Operated Systems (1.1 to 1.3)	41.44	3.66	3.41	3.74	258797336	21571346	22228644	21705635
1.1 Govt. Securities Clearing (1.1.1 to 1.1.3)	15.00	1.17	1.29	1.42	172251292	14383734	14220985	14658627
1.1.1 Outright	7.99	0.60	0.69	0.79	10090700	785714	1009116	1100547
1.1.2 Repo	4.07	0.35	0.40	0.43	68032487	5556922	5903343	6039056
1.1.3 Tri-party Repo	2.94	0.21	0.20	0.21	94128105	8041098	7308526	7519024
1.2 Forex Clearing	25.16	2.40	2.01	2.21	78932050	6553596	7392675	6439543
1.3 Rupee Derivatives @	1.27	0.10	0.11	0.11	7613994	634016	614984	607465
B. Payment Systems								
I Financial Market Infrastructures (FMIs)	-	-	-	-	-	-	-	-
1 Credit Transfers - RTGS (1.1 to 1.2)	2425.62	204.18	230.39	230.99	149946286	12546467	15888778	14691625
1.1 Customer Transactions	2411.19	202.99	229.23	229.79	131667176	11028450	14244586	13127720
1.2 Interbank Transactions	14.43	1.19	1.16	1.20	18279111	1518016	1644192	1563905
II Retail								
2 Credit Transfers - Retail (2.1 to 2.6)	983620.84	92396.07	134755.92	137068.03	55009620	4738328	5917191	5945126
2.1 AePS (Fund Transfers) @	5.90	0.32	0.32	0.36	356	23	23	24
2.2 APBS $	17833.95	1112.35	1580.49	2118.74	247535	19956	27013	42872
2.3 IMPS	56532.64	4745.08	4987.93	5087.92	5585441	477491	570126	566310
2.4 NACH Cr $	19257.19	1354.13	1310.99	948.05	1541815	131620	128244	127514
2.5 NEFT	52847.43	4798.31	6673.93	6882.78	33719541	2810180	3368836	3367322
2.6 UPI @	837143.73	80385.88	120202.26	122030.18	13914932	1299059	1822949	1841084
2.6.1 of which USSD @	17.21	1.79	2.06	1.90	197	19	26	21
3 Debit Transfers and Direct Debits (3.1 to 3.3)	15343.05	1360.36	1557.74	1571.50	1289611	115658	152705	154405
3.1 BHIM Aadhaar Pay @	214.22	13.01	14.09	18.82	6791	468	478	619
3.2 NACH Dr $	13502.52	1202.79	1403.46	1440.08	1280219	114953	151991	153564
3.3 NETC (linked to bank account) @	1626.31	144.56	140.19	112.60	2601	236	237	222
4 Card Payments (4.1 to 4.2)	63324.72	5103.61	4983.15	4935.80	2152245	183460	213054	211930
4.1 Credit Cards (4.1.1 to 4.1.2)	29145.24	2593.52	3215.00	3289.52	1432255	127682	165119	166444
4.1.1 PoS based $	15598.46	1409.19	1706.70	1725.59	541932	48934	58300	58532
4.1.2 Others $	13546.79	1184.33	1508.29	1563.93	890323	78748	106819	107912
4.2 Debit Cards (4.2.1 to 4.2.1)	34179.48	2510.09	1768.16	1646.29	719989	55778	47935	45486
4.2.1 PoS based $	22904.86	1742.51	1301.59	1193.18	476520	37520	32225	30383
4.2.2 Others $	11274.61	767.59	466.56	453.11	243470	18258	15709	15103
5 Prepaid Payment Instruments (5.1 to 5.2)	74667.44	6129.40	7235.20	7087.25	287111	22193	26173	25784
5.1 Wallets	59112.76	4873.96	5960.57	5766.67	221896	17899	21732	21259
5.2 Cards (5.2.1 to 5.2.2)	15554.69	1255.44	1274.63	1320.58	65215	4294	4441	4525
5.2.1 PoS based $	1013.09	64.59	709.65	690.67	14777	774	915	927
5.2.2 Others $	14541.60	1190.86	564.98	629.91	50438	3520	3526	3598
6 Paper-based Instruments (6.1 to 6.2)	7109.28	573.18	547.23	547.17	7172904	570639	592972	583653
6.1 CTS (NPCI Managed)	7109.28	573.18	547.23	547.17	7172904	570639	592972	583653
6.2 Others	0.00	–	–	–	–	–	–	–
Total - Retail Payments (2+3+4+5+6)	1144065.34	105562.62	149079.24	151209.76	65911490	5630279	6902095	6920898
Total Payments (1+2+3+4+5+6)	1146490.96	105766.80	149309.63	151440.75	215857776	18176745	22790873	21612523
Total Digital Payments (1+2+3+4+5)	1139381.68	105193.62	148762.40	150893.58	208684872	17606106	22197901	21028871

PART II - Payment Modes and Channels

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2022-23	2023		2024	FY 2022-23	2023		2024
		Jan.	Dec.	Jan.		Jan.	Dec.	Jan.
	1	2	3	4	5	6	7	8
A. Other Payment Channels								
1 Mobile Payments (mobile app based) (1.1 to 1.2)	805338.23	75947.75	116329.75	117903.61	22031628	1962895	2804467	2816377
1.1 Intra-bank $	62306.61	4884.25	7372.04	7654.37	4191430	345334	508669	524854
1.2 Inter-bank $	743031.61	71063.50	108957.71	110249.24	17840197	1617561	2295798	2291522
2 Internet Payments (Netbanking / Internet Browser Based) @ (2.1 to 2.2)	42630.64	3544.67	3836.26	3837.71	91539296	7327328	9388620	9123993
2.1 Intra-bank @	10703.78	889.79	1050.96	1024.85	53506133	4089462	4862570	4760851
2.2 Inter-bank @	31926.86	2654.88	2785.31	2812.86	38033163	3237866	4526051	4363142
B. ATMs								
3 Cash Withdrawal at ATMs $ (3.1 to 3.3)	69468.87	5750.37	5463.60	5304.00	3305008	272142	269288	260647
3.1 Using Credit Cards $	88.37	8.13	8.19	8.26	4296	385	405	404
3.2 Using Debit Cards $	68975.18	5709.48	5428.47	5270.18	3286749	270595	267843	259227
3.3 Using Pre-paid Cards $	405.32	32.76	26.94	25.56	13963	1161	1041	1016
4 Cash Withdrawal at PoS $ (4.1 to 4.2)	27.73	2.44	0.66	0.65	278	24	6	6
4.1 Using Debit Cards $	27.41	2.42	0.66	0.64	276	24	6	6
4.2 Using Pre-paid Cards $	0.33	0.02	0.00	0.02	2	0	0	0
5 Cash Withrawal at Micro ATMs @	12375.16	963.46	929.51	839.66	333966	26203	24592	22351
5.1 AePS @	12375.16	963.46	929.51	839.66	333966	26203	24592	22351

PART III - Payment Infrastructures (Lakh)

System	As on March 2023	2023		2024
		Jan.	Dec.	Jan.
	1	2	3	4
Payment System Infrastructures				
1 Number of Cards (1.1 to 1.2)	10465.62	10280.33	10587.85	10570.66
1.1 Credit Cards	853.03	824.52	979.05	995.00
1.2 Debit Cards	9612.59	9455.81	9608.81	9575.65
2 Number of PPIs @ (2.1 to 2.2)	16185.22	16029.29	17544.34	17676.26
2.1 Wallets @	13384.65	13244.34	14293.01	14396.94
2.2 Cards @	2800.57	2784.95	3251.33	3279.32
3 Number of ATMs (3.1 to 3.2)	2.59	2.58	2.58	2.58
3.1 Bank owned ATMs $	2.23	2.21	2.24	2.24
3.2 White Label ATMs $	0.36	0.37	0.34	0.34
4 Number of Micro ATMs @	16.11	14.75	16.89	17.60
5 Number of PoS Terminals	77.90	76.57	85.67	85.93
6 Bharat QR @	53.82	50.57	59.57	60.04
7 UPI QR *	2563.77	2442.34	3170.66	3213.79

@: 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		2022-23	2022	2023		
			Sep.	Jul.	Aug.	Sep.
		1	2	3	4	5
1 Small Savings	**Receipts**	**173993**	**12355**	**20647**	**16376**	**17908**
	Outstanding	**1636935**	**1546025**	**1713539**	**1729599**	**1747246**
1.1 Total Deposits	**Receipts**	**125209**	**9351**	**14544**	**11247**	**13376**
	Outstanding	**1137451**	**1074586**	**1191699**	**1202949**	**1216325**
1.1.1 Post Office Saving Bank Deposits	Receipts	20680	1480	1965	-467	2879
	Outstanding	209112	196440	208884	208417	211296
1.1.2 Sukanya Samriddhi Yojna	Receipts	29003	1560	1860	1782	1672
	Outstanding	87787	68781	95973	97755	99427
1.1.3 National Saving Scheme, 1987	Receipts	-244	-24	0	0	0
	Outstanding	0	1721	0	0	0
1.1.4 National Saving Scheme, 1992	Receipts	-20	-3	0	0	0
	Outstanding	0	-193	0	0	0
1.1.5 Monthly Income Scheme	Receipts	6492	485	2643	2444	2073
	Outstanding	242313	240165	253864	256308	258381
1.1.6 Senior Citizen Scheme 2004	Receipts	17971	1527	4057	3498	2643
	Outstanding	137304	129161	156046	159545	162188
1.1.7 Post Office Time Deposits	Receipts	29155	2392	2018	2320	1849
	Outstanding	280436	270285	287656	289976	291826
1.1.7.1 1 year Time Deposits	Outstanding	125951	123883	129103	130352	131305
1.1.7.2 2 year Time Deposits	Outstanding	9497	8389	10208	10435	10640
1.1.7.3 3 year Time Deposits	Outstanding	7543	6812	8091	8190	8255
1.1.7.4 5 year Time Deposits	Outstanding	137445	131201	140254	140999	141626
1.1.8 Post Office Recurring Deposits	Receipts	21552	1934	2024	1694	2284
	Outstanding	178422	168129	187337	189031	191314
1.1.9 Post Office Cumulative Time Deposits	Receipts	0	0	0	0	0
	Outstanding	0	-19	0	0	0
1.1.10 Other Deposits	Receipts	288	0	-29	-24	-24
	Outstanding	1745	22	1600	1577	1553
1.1.11 PM Care for children	Receipts	332	0	6	0	0
	Outstanding	332	94	339	340	340
1.2 Saving Certificates	**Receipts**	**33965**	**2660**	**5861**	**4922**	**4343**
	Outstanding	**366317**	**351313**	**387823**	**392426**	**396508**
1.2.1 National Savings Certificate VIII issue	Receipts	10793	876	1476	1373	1176
	Outstanding	165836	161361	171258	172631	173807
1.2.2 Indira Vikas Patras	Receipts	0	0	0	0	0
	Outstanding	0	142	0	0	0
1.2.3 Kisan Vikas Patras	Receipts	-1892	-286	0	0	0
	Outstanding	0	-9168	0	0	0
1.2.4 Kisan Vikas Patras - 2014	Receipts	25064	2070	2212	1857	1853
	Outstanding	199624	187766	208278	210135	211987
1.2.5 National Saving Certificate VI issue	Receipts	0	0	0	0	0
	Outstanding	0	-22	0	0	0
1.2.6 National Saving Certificate VII issue	Receipts	0	0	0	0	0
	Outstanding	0	-44	0	0	0
1.2.7 M.S. Certificates	Receipts			2173	1692	1314
	Outstanding			8448	10140	11454
1.2.8 Other Certificates	Outstanding	857	11278	-161	-480	-740
1.3 Public Provident Fund	**Receipts**	**14819**	**344**	**242**	**207**	**189**
	Outstanding	**133167**	**120126**	**134017**	**134224**	**134413**

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)

Central Government Dated Securities					
Category	2022	2023			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(A) Total (in ₹. Crore)	**9373372**	**9645776**	**9898751**	**10383607**	**10538792**
1 Commercial Banks	36.13	36.61	36.58	37.96	37.55
2 Co-operative Banks	1.70	1.64	1.56	1.52	1.49
3 Non-Bank PDs	0.44	0.49	0.73	0.66	0.67
4 Insurance Companies	26.14	25.97	26.21	26.05	26.16
5 Mutual Funds	2.87	2.81	2.69	3.02	3.03
6 Provident Funds	4.67	4.71	4.59	4.42	4.57
7 Pension Funds	3.91	3.98	4.18	4.32	4.44
8 Financial Institutions	1.07	0.98	1.20	0.54	0.55
9 Corporates	1.57	1.62	1.22	1.21	1.33
10 Foreign Portfolio Investors	1.31	1.36	1.59	1.61	1.92
11 RBI	14.73	14.26	13.78	13.06	12.54
12 Others	5.45	5.57	5.67	5.64	5.74
12.1 State Governments	1.88	2.03	2.03	2.04	2.07

State Governments Securities					
Category	2022	2023			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(B) Total (in ₹. Crore)	**4712902**	**4929079**	**5050874**	**5161642**	**5338587**
1 Commercial Banks	34.34	33.91	34.13	33.87	33.90
2 Co-operative Banks	3.80	3.64	3.68	3.60	3.53
3 Non-Bank PDs	0.44	0.62	0.50	0.61	0.63
4 Insurance Companies	27.42	26.80	26.73	26.97	26.64
5 Mutual Funds	2.02	1.94	2.08	1.86	2.00
6 Provident Funds	20.31	21.29	21.19	21.70	22.00
7 Pension Funds	4.74	4.81	4.84	4.82	4.56
8 Financial Institutions	1.77	1.84	1.82	1.65	1.63
9 Corporates	1.94	2.00	1.92	1.87	2.03
10 Foreign Portfolio Investors	0.02	0.02	0.02	0.02	0.03
11 RBI	0.75	0.72	0.70	0.69	0.66
12 Others	2.45	2.42	2.39	2.34	2.37
12.1 State Governments	0.24	0.27	0.27	0.27	0.27

Treasury Bills					
Category	2022	2023			
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(C) Total (in ₹. Crore)	**839931**	**823313**	**1012301**	**925317**	**849151**
1 Commercial Banks	49.15	53.92	47.64	56.35	57.18
2 Co-operative Banks	1.27	1.29	1.20	1.20	1.28
3 Non-Bank PDs	2.17	2.85	1.99	0.54	1.70
4 Insurance Companies	5.81	6.11	4.93	5.26	5.50
5 Mutual Funds	14.23	15.30	17.04	12.74	11.21
6 Provident Funds	1.37	0.10	1.46	1.52	0.08
7 Pension Funds	0.02	0.07	0.01	0.01	0.00
8 Financial Institutions	4.52	3.72	7.96	4.10	5.34
9 Corporates	3.59	4.99	4.42	4.00	4.58
10 Foreign Portfolio Investors	0.50	0.40	0.12	0.10	0.07
11 RBI	0.00	0.00	0.00	0.00	0.00
12 Others	17.37	11.25	13.23	14.17	13.06
12.1 State Governments	13.38	7.16	10.33	11.36	9.26

No. 46: Combined Receipts and Disbursements of the Central and State Governments

(₹ Crore)

Item	2018-19	2019-20	2020-21	2021-22	2022-23 RE	2023-24 BE
	1	2	3	4	5	6
1 Total Disbursements	**5040747**	**5410887**	**6353359**	**7098451**	**8376972**	**9045119**
1.1 Developmental	2882758	3074492	3823423	4189146	5073367	5426440
1.1.1 Revenue	2224367	2446605	3150221	3255207	3838714	3836447
1.1.2 Capital	596774	588233	550358	861777	1146013	1471534
1.1.3 Loans	61617	39654	122844	72163	88639	118460
1.2 Non-Developmental	2078276	2253027	2442941	2810388	3188699	3490946
1.2.1 Revenue	1965907	2109629	2271637	2602750	2988556	3277722
1.2.1.1 Interest Payments	894520	955801	1060602	1226672	1403183	1589435
1.2.2 Capital	111029	141457	169155	175519	196688	208268
1.2.3 Loans	1340	1941	2148	32119	3455	4957
1.3 Others	79713	83368	86995	98916	114906	127733
2 Total Receipts	**5023352**	**5734166**	**6397162**	**7156342**	**8258187**	**9149787**
2.1 Revenue Receipts	3797731	3851563	3688030	4823821	5706246	6337126
2.1.1 Tax Receipts	3278947	3231582	3193390	4160414	4837048	5477428
2.1.1.1 Taxes on commodities and services	2030050	2012578	2076013	2626553	2967610	3372525
2.1.1.2 Taxes on Income and Property	1246083	1216203	1114805	1530636	1865298	2100430
2.1.1.3 Taxes of Union Territories (Without Legislature)	2814	2800	2572	3225	4140	4473
2.1.2 Non-Tax Receipts	518783	619981	494640	663407	869198	859698
2.1.2.1 Interest Receipts	36273	31137	33448	35250	37974	45199
2.2 Non-debt Capital Receipts	140287	110094	64994	44077	88273	119373
2.2.1 Recovery of Loans & Advances	44667	59515	16951	27665	25661	34501
2.2.2 Disinvestment proceeds	95621	50578	48044	16412	62611	84872
3 Gross Fiscal Deficit [1 - (2.1 + 2.2)]	**1102729**	**1449230**	**2600335**	**2230553**	**2582453**	**2588620**
3A Sources of Financing: Institution-wise						
3A.1 Domestic Financing	1097210	1440548	2530155	2194406	2558579	2566503
3A.1.1 Net Bank Credit to Government	387091	571872	890012	627255	687904	...
3A.1.1.1 Net RBI Credit to Government	325987	190241	107493	350911	529	...
3A.1.2 Non-Bank Credit to Government	710119	868676	1640143	1567151	1870675	...
3A.2 External Financing	5519	8682	70180	36147	23874	22118
3B Sources of Financing: Instrument-wise						
3B.1 Domestic Financing	1097210	1440548	2530155	2194406	2558579	2566503
3B.1.1 Market Borrowings (net)	795845	971378	1696012	1213169	1776747	1902862
3B.1.2 Small Savings (net)	88961	209232	458801	526693	403838	441189
3B.1.3 State Provident Funds (net)	51004	38280	41273	28100	36454	37114
3B.1.4 Reserve Funds	-18298	10411	4545	42153	3524	24429
3B.1.5 Deposits and Advances	66289	-14227	25682	42203	82485	58404
3B.1.6 Cash Balances	17395	-323279	-43802	-57891	118784	-104667
3B.1.7 Others	96014	548753	347643	399980	136748	207172
3B.2 External Financing	5519	8682	70180	36147	23874	22118
4 Total Disbursements as per cent of GDP	*26.7*	*26.9*	*32.0*	*30.1*	*31.1*	*30.0*
5 Total Receipts as per cent of GDP	*26.6*	*28.5*	*32.2*	*30.3*	*30.6*	*30.3*
6 Revenue Receipts as per cent of GDP	*20.1*	*19.2*	*18.6*	*20.4*	*21.2*	*21.0*
7 Tax Receipts as per cent of GDP	*17.3*	*16.1*	*16.1*	*17.6*	*17.9*	*18.2*
8 Gross Fiscal Deficit as per cent of GDP	*5.8*	*7.2*	*13.1*	*9.5*	*9.6*	*8.6*

… : Not available; RE: Revised Estimates; BE: Budget Estimates
Source : Budget Documents of Central and State Governments.
Note: GDP data is based on 2011-12 base. GDP for 2023-24 is from Union Budget 2023-24.
Data pertains to all States and Union Territories.
1 & 2: Data are net of repayments of the Central Government (including repayments to the NSSF) and State Governments.
1.3: Represents compensation and assignments by States to local bodies and Panchayati Raj institutions.
2: Data are net of variation in cash balances of the Central and State Governments and includes borrowing receipts of the Central and State Governments.
3A.1.1: Data as per RBI records.
3B.1.1: Borrowings through dated securities.
3B.1.2: Represent net investment in Central and State Governments' special securities by the National Small Savings Fund (NSSF).
This data may vary from previous publications due to adjustments across components with availability of new data.
3B.1.6: Include Ways and Means Advances by the Centre to the State Governments.
3B.1.7: Include Treasury Bills, loans from financial institutions, insurance and pension funds, remittances, cash balance investment account.

No. 47: Financial Accommodation Availed by State Governments under various Facilities

(₹ Crore)

Sr. No	State/Union Territory	During January-2024					
		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	880.89	25	1710.87	22	1239.08	11
2	Arunachal Pradesh	-	-	-	-	-	-
3	Assam	416.21	5	-	-	-	-
4	Bihar	-	-	-	-	-	-
5	Chhattisgarh	-	-	-	-	-	-
6	Goa	-	-	-	-	-	-
7	Gujarat	-	-	-	-	-	-
8	Haryana	359.42	12	287.12	4	-	-
9	Himachal Pradesh	-	-	-	-	-	-
10	Jammu & Kashmir UT	-	-	913.21	28	530.25	19
11	Jharkhand	-	-	-	-	-	-
12	Karnataka	-	-	-	-	-	-
13	Kerala	235.13	29	958.92	21	1153.96	8
14	Madhya Pradesh	-	-	-	-	-	-
15	Maharashtra	166.85	1	-	-	-	-
16	Manipur	13.78	29	183.13	29	62.07	14
17	Meghalaya	-	-	-	-	-	-
18	Mizoram	27.65	14	14.83	2	-	-
19	Nagaland	-	-	-	-	-	-
20	Odisha	-	-	-	-	-	-
21	Puducherry	-	-	-	-	-	-
22	Punjab	2118.95	31	813.77	24	5.28	1
23	Rajasthan	5937.82	31	237.12	2	-	-
24	Tamil Nadu	-	-	-	-	-	-
25	Telangana	883.60	31	1391.36	30	634.82	14
26	Tripura	-	-	-	-	-	-
27	Uttar Pradesh	-	-	-	-	-	-
28	Uttarakhand	356.83	8	158.42	4	-	-
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. No	State/Union Territory	As on end of January 2024			
		Consolidated Sinking Fund (CSF)	Guarantee Redemption Fund (GRF)	Government Securities	Auction Treasury Bills (ATBs)
	1	2	3	4	5
1	Andhra Pradesh	10733	1058	0	0
2	Arunachal Pradesh	2446	5	0	2000
3	Assam	6744	83	0	0
4	Bihar	10157	-	0	1000
5	Chhattisgarh	6813	5	1	3450
6	Goa	883	425	0	0
7	Gujarat	12445	619	0	10500
8	Haryana	1895	1574	0	0
9	Himachal Pradesh	-	-	0	0
10	Jammu & Kashmir UT	-	-	0	0
11	Jharkhand	1669	-	0	700
12	Karnataka	17011	485	0	25909
13	Kerala	2837	-	0	0
14	Madhya Pradesh	-	1185	0	0
15	Maharashtra	64974	1553	0	4000
16	Manipur	64	130	0	0
17	Meghalaya	1097	86	0	0
18	Mizoram	413	48	0	0
19	Nagaland	1660	43	0	0
20	Odisha	16903	1902	109	17262
21	Puducherry	501	-	0	1400
22	Punjab	8534	0	0	0
23	Rajasthan	-	-	129	8000
24	Tamil Nadu	4703	-	0	2911
25	Telangana	7332	1602	0	0
26	Tripura	1039	22	0	225
27	Uttarakhand	4662	196	0	0
28	Uttar Pradesh	7591	-	89	0
29	West Bengal	12068	909	239	0
	Total	**205175**	**11932**	**567**	**77357**

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	
						November		December		January			
		Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross	Net
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Andhra Pradesh	46443	36103	57478	45814	4000	3414	4000	2932	6550	4038	61500	51691
2	Arunachal Pradesh	563	530	559	389	500	500	170	170	-	-	670	570
3	Assam	12753	10753	17100	16105	1000	500	1500	1500	1750	1250	14500	13500
4	Bihar	28489	24334	36800	27467	6000	6000	4000	3000	8000	7000	36000	21422
5	Chhattisgarh	4000	913	2000	-2287	2000	2000	-	-	4000	3300	12000	8300
6	Goa	2000	1450	1350	500	500	350	250	250	200	100	2300	1500
7	Gujarat	31054	13554	43000	28300	2000	1000	6000	3000	9500	6440	26500	11871
8	Haryana	30500	20683	45158	28638	4500	4500	3000	1708	4000	2944	36000	24014
9	Himachal Pradesh	4000	1875	14000	11941	800	800	1200	900	1000	800	6300	4673
10	Jammu & Kashmir UT	8562	5373	8473	5969	4100	4100	2400	2400	330	-70	12503	10463
11	Jharkhand	5000	3191	4000	-155	-	-	-	-	1000	50	1000	-750
12	Karnataka	59000	49000	36000	26000	9000	7000	15000	9800	23000	19000	50000	33198
13	Kerala	27000	18120	30839	15620	3000	1750	3100	2100	1930	930	28830	17130
14	Madhya Pradesh	22000	13900	40158	26849	4000	3000	-	-	2500	500	25500	18500
15	Maharashtra	68750	40790	72000	42815	17000	14140	-	-3610	9000	4213	69000	40572
16	Manipur	1476	1326	1422	1147	100	100	-	-100	-	-	1100	900
17	Meghalaya	1608	1298	1753	1356	170	70	172	172	-	-	1364	1004
18	Mizoram	747	447	1315	1129	-	-	90	30	80	80	740	530
19	Nagaland	1727	1222	1854	1199	350	220	501	501	-	-	1751	1361
20	Odisha	0	-6473	0	-7500	-	-1000	-	-	-	-938	-	-3938
21	Puducherry	1374	841	1200	698	-	-	-	-270	200	-30	200	-425
22	Punjab	25814	12428	45500	33660	4206	3606	941	441	4500	3900	40487	29904
23	Rajasthan	51149	38243	46057	30110	11500	10000	1049	49	6500	5500	53049	35767
24	Sikkim	1511	1471	1414	1320	-	-	-	-90	481	481	1431	1251
25	Tamil Nadu	87000	72500	87000	65722	6000	2250	8000	4500	10001	8822	87001	55002
26	Telangana	45716	39256	40150	30922	4500	4081	1400	637	3000	1205	38900	31890
27	Tripura	300	0	0	-645	-	-	-	-	-	-200	-	-200
28	Uttar Pradesh	62500	42355	55612	41797	19200	18450	8000	7422	-	-500	54700	45413
29	Uttarakhand	3200	1800	3200	1450	-	-	500	500	-	-500	2800	2300
30	West Bengal	67390	45199	63000	42500	6500	4000	6410	4910	6500	3500	41910	23910
	Grand Total	701626	492483	758392	518829	110926	90831	67683	42852	104022	71815	708036	481323

- : 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
Net Financial Assets (I-II)	**583412.7**	**554437.6**	**463583.5**	**679174.4**	**2280608.2**
Per cent of GDP	*15.0*	*11.7*	*8.5*	*11.8*	*11.5*
I. Financial Assets	**788786.3**	**592945.3**	**633317.9**	**1047276.1**	**3062325.6**
Per cent of GDP	*20.3*	*12.5*	*11.6*	*18.2*	*15.4*
of which:					
1.Total Deposits (a+b)	**297412.4**	**278631.7**	**158172.2**	**506213.3**	**1240429.7**
(a) Bank Deposits	**281191.3**	**264565.3**	**147096.0**	**507719.3**	**1200571.8**
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) Non-Bank Deposits	**16221.1**	**14066.4**	**11076.3**	**-1506.0**	**39857.9**
of which:					
Other Financial Institutions (i+ii)	**11040.9**	**8886.2**	**5896.0**	**-6686.2**	**19137.0**
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
2. Life Insurance Funds	**124387.9**	**143462.2**	**157535.1**	**142216.5**	**567601.8**
3. Provident and Pension Funds (including PPF)	**114496.3**	**107087.9**	**105344.6**	**175769.3**	**502698.2**
4. Currency	**202432.7**	**21286.9**	**91456.0**	**66800.5**	**381976.1**
5. Investments	**6249.8**	**-12956.4**	**67659.3**	**63624.0**	**124576.7**
of which:					
(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
6. Small Savings (excluding PPF)	**42751.6**	**54377.4**	**52095.1**	**91597.0**	**240821.1**
II. Financial Liabilities	**205373.6**	**38507.7**	**169734.4**	**368101.7**	**781717.4**
Per cent of GDP	*5.3*	*0.8*	*3.1*	*6.4*	*3.9*
Loans/Borrowings					
1. Financial Corporations (a+b)	**205490.3**	**38624.3**	**169851.0**	**368219.1**	**782184.7**
(a) Banking Sector	**211058.8**	**13213.0**	**139622.0**	**276579.8**	**640473.6**
of which:					
i. Commercial Banks	211259.3	13213.8	140514.3	240050.4	605037.9
(b) Other Financial Institutions	**-5568.6**	**25411.3**	**30229.0**	**91639.4**	**141711.1**
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
2. Non-Financial Corporations (Private Corporate Business)	**33.8**	**33.8**	**33.8**	**33.0**	**134.4**
3. General Government	**-150.4**	**-150.4**	**-150.4**	**-150.4**	**-601.7**

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
Net Financial Assets (I-II)	**370115.8**	**334234.9**	**489774.4**	**503089.0**	**1696155.6**
Per cent of GDP	*7.2*	*6.0*	*7.9*	*7.7*	*7.2*
I. Financial Assets	**364661.7**	**527896.1**	**818355.4**	**887657.3**	**2597511.9**
Per cent of GDP	*7.1*	*9.4*	*13.1*	*13.6*	*11.1*
of which:					
1.Total Deposits (a+b)	**-82726.1**	**204033.6**	**426977.3**	**277625.7**	**824852.1**
(a) Bank Deposits	**-106428.9**	**197105.1**	**422392.9**	**264882.9**	**777952.1**
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) Non-Bank Deposits	**23702.8**	**6928.5**	**4584.5**	**12742.8**	**46900.0**
of which:					
Other Financial Institutions (i+ii)	**16950.0**	**170.7**	**-2178.3**	**5960.0**	**20902.3**
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
2. Life Insurance Funds	**114711.5**	**127449.8**	**103248.6**	**121541.6**	**466951.5**
3. Provident and Pension Funds (including PPF)	**127624.0**	**115463.1**	**98146.0**	**221372.4**	**562605.5**
4. Currency	**128660.2**	**-68631.2**	**62793.3**	**146845.0**	**269667.4**
5. Investments	**24929.6**	**82305.4**	**69760.9**	**50972.1**	**227967.9**
of which:					
(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
6. Small Savings (excluding PPF)	**50405.2**	**66218.1**	**56372.0**	**68243.2**	**241238.4**
II. Financial Liabilities	**-5454.1**	**193661.2**	**328581.0**	**384568.3**	**901356.3**
Per cent of GDP	*-0.1*	*3.5*	*5.3*	*5.9*	*3.8*
Loans/Borrowings					
1. Financial Corporations (a+b)	**-5562.3**	**193553.0**	**328472.8**	**384460.1**	**900923.7**
(a) Banking Sector	**21436.5**	**138722.6**	**267950.7**	**348360.4**	**776470.2**
of which:					
i. Commercial Banks	26978.6	140268.7	265271.5	337009.8	769528.5
(b) Other Financial Institutions	**-26998.8**	**54830.4**	**60522.2**	**36099.7**	**124453.5**
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
2. Non-Financial Corporations (Private Corporate Business)	**33.8**	**33.8**	**33.8**	**33.8**	**135.1**
3. General Government	**74.4**	**74.4**	**74.4**	**74.4**	**297.4**

No. 50 (a): Flow of Financial Assets and Liabilities of Households - Instrument-wise (Concld.)

(Amount in ₹ Crore)

Item	2022-23				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	**297770.4**	**293705.1**	**279460.1**	**505937.8**	**1376873.5**
Per cent of GDP	*4.6*	*4.5*	*4.0*	*7.0*	*5.1*
I. Financial Assets	**586920.5**	**646714.8**	**750856.7**	**974558.5**	**2959050.5**
Per cent of GDP	*9.0*	*9.8*	*10.8*	*13.6*	*10.9*
of which:					
1.Total Deposits (a+b)	**183072.0**	**315216.2**	**276593.9**	**324746.6**	**1099628.6**
(a) Bank Deposits	**163162.9**	**299545.0**	**256363.7**	**307491.6**	**1026563.1**
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	**19909.1**	**15671.3**	**20230.2**	**17255.0**	**73065.5**
of which:					
Other Financial Institutions (i+ii)	**6314.4**	**2076.7**	**6635.6**	**3660.4**	**18687.1**
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
2. Life Insurance Funds	**73669.9**	**152049.5**	**167894.1**	**141206.6**	**534820.1**
3. Provident and Pension Funds (including PPF)	**155604.2**	**132126.0**	**140204.4**	**235093.2**	**663027.7**
4. Currency	**66438.9**	**-54579.3**	**76760.1**	**148990.2**	**237609.8**
5. Investments	**51603.2**	**48630.6**	**49879.2**	**64168.5**	**214281.5**
of which:					
(a) Mutual Funds	35443.5	44484.0	40205.9	58954.5	179087.8
(b) Equity	13560.9	1378.2	6434.1	1664.9	23038.1
6. Small Savings (excluding PPF)	**54375.1**	**51114.5**	**37367.7**	**58196.2**	**201053.5**
II. Financial Liabilities	**289150.0**	**353009.7**	**471396.5**	**468620.7**	**1582177.0**
Per cent of GDP	*4.4*	*5.4*	*6.8*	*6.5*	*5.8*
Loans/Borrowings					
1. Financial Corporations (a+b)	**289141.6**	**353001.2**	**471388.1**	**468612.3**	**1582143.3**
(a) Banking Sector	**234845.3**	**263782.5**	**368167.4**	**349555.0**	**1216350.1**
of which:					
i. Commercial Banks	230283.8	261265.3	365304.6	331292.5	1188146.3
(b) Other Financial Institutions	**54296.3**	**89218.8**	**103220.8**	**119057.3**	**365793.1**
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
2. Non-Financial Corporations (Private Corporate Business)	**33.7**	**33.7**	**33.7**	**33.7**	**135.0**
3. General Government	**-25.3**	**-25.3**	**-25.3**	**-25.3**	**-101.3**

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

(Amount in ₹ Crore)

Item	Jun-2020	Sep-2020	Dec-2020	Mar-2021
Financial Assets (a+b+c+d+e+f+g+h)	**20405824.2**	**21066027.8**	**21906338.5**	**22874301.5**
Per cent of GDP	*107.2*	*111.5*	*114.0*	*115.4*
(a) Bank Deposits (i+ii)	**9977865.6**	**10242430.9**	**10389526.9**	**10897246.1**
i. Commercial Banks	9192702.5	9454736.2	9598294.8	10060984.6
ii. Co-operative Banks	785163.1	787694.7	791232.1	836261.6
(b) Non-Bank Deposits				
of which:				
Other Financial Institutions	**180857.4**	**189743.6**	**195639.6**	**188953.5**
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
(c) Life Insurance Funds	**4102000.7**	**4274424.9**	**4551882.0**	**4752932.3**
(d) Currency	**2434693.7**	**2455980.6**	**2547436.6**	**2614237.0**
(e) Mutual funds	**1343752.0**	**1443784.4**	**1648999.0**	**1730461.0**
(f) Public Provident Fund (PPF)	**663478.0**	**671884.3**	**678997.2**	**742189.5**
(g) Pension Funds	**464705.0**	**494930.0**	**548913.0**	**578025.0**
(h) Small Savings (excluding PPF)	**1238471.7**	**1292849.1**	**1344944.2**	**1370257.1**
Financial Liabilities (a+b)	**7190710.8**	**7229335.1**	**7399186.1**	**7767405.3**
Per cent of GDP	*37.8*	*38.3*	*38.5*	*39.2*
Loans/Borrowings				
(a) Banking Sector	**5728735.3**	**5741948.3**	**5881570.2**	**6158150.0**
of which:				
i. Commercial Banks	5226482.2	5239696.0	5380210.4	5620260.7
ii. Co-operative Banks	500870.2	500865.3	499968.8	536494.1
(b) Other Financial Institutions	**1461975.5**	**1487386.9**	**1517615.9**	**1609255.3**
of which:				
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
Financial Assets (a+b+c+d+e+f+g+h)	**23318920.4**	**23991428.3**	**24700622.2**	**25435684.2**
Per cent of GDP	*110.7*	*109.3*	*108.7*	*108.4*
(a) Bank Deposits (i+ii)	**10790817.3**	**10987922.4**	**11410315.3**	**11675198.2**
i. Commercial Banks	9953043.9	10148485.7	10566752.7	10829078.8
ii. Co-operative Banks	837773.4	839436.7	843562.6	846119.4
(b) Non-Bank Deposits				
of which:				
Other Financial Institutions	**205903.4**	**206074.1**	**203895.8**	**209855.7**
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
(c) Life Insurance Funds	**4929725.2**	**5142278.8**	**5213527.2**	**5357350.2**
(d) Currency	**2742897.3**	**2674266.1**	**2737059.4**	**2883904.4**
(e) Mutual funds	**1855000.1**	**2064363.5**	**2126112.0**	**2152140.5**
(f) Public Provident Fund (PPF)	**757397.8**	**762264.0**	**767287.3**	**834147.6**
(g) Pension Funds	**616517.0**	**667379.0**	**699173.0**	**736592.0**
(h) Small Savings (excluding PPF)	**1420662.3**	**1486880.4**	**1543252.3**	**1586495.5**
Financial Liabilities (a+b)	**7755119.8**	**7868215.0**	**8256715.7**	**8668329.0**
Per cent of GDP	*36.8*	*35.9*	*36.3*	*36.9*
Loans/Borrowings				
(a) Banking Sector	**6172863.3**	**6231128.1**	**6559106.7**	**6934620.2**
of which:				
i. Commercial Banks	5640516.1	5700327.0	6025626.4	6389789.3
ii. Co-operative Banks	530937.1	529376.2	532040.6	543376.3
(b) Other Financial Institutions	**1582256.5**	**1637086.9**	**1697609.1**	**1733708.8**
of which:				
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 (Concld.)

(Amount in ₹ Crore)

Item	Jun-2022	Sep-2022	Dec-2022	Mar-2023
Financial Assets (a+b+c+d+e+f+g+h)	**25689017.4**	**26240728.5**	**27208717.9**	**28083947.0**
Per cent of GDP	*103.2*	*101.5*	*102.4*	*103.1*
(a) Bank Deposits (i+ii)	**11911196.2**	**11956360.9**	**12421907.5**	**12701761.3**
i. Commercial Banks	11060527.2	11106712.0	11564354.7	11821685.0
ii. Co-operative Banks	850669.0	849648.9	857552.8	880076.4
(b) Non-Bank Deposits				
of which:				
Other Financial Institutions	**216170.2**	**218246.9**	**224882.5**	**228542.9**
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
(c) Life Insurance Funds	**5325967.3**	**5559681.9**	**5786592.6**	**6038630.4**
(d) Currency	**2950343.2**	**2895763.9**	**2972524.0**	**3121514.2**
(e) Mutual funds	**2048097.3**	**2260209.7**	**2355315.8**	**2367792.5**
(f) Public Provident Fund (PPF)	**851913.4**	**858591.1**	**864730.6**	**939814.6**
(g) Pension Funds	**744459.2**	**799889.0**	**853412.0**	**898342.0**
(h) Small Savings (excluding PPF)	**1640870.6**	**1691985.1**	**1729352.9**	**1787549.1**
Financial Liabilities (a+b)	**8957470.6**	**9310471.8**	**9781859.9**	**10253472.2**
Per cent of GDP	*36.0*	*36.0*	*36.8*	*37.6*
Loans/Borrowings				
(a) Banking Sector	**7169465.5**	**7433248.0**	**7801415.3**	**8153970.3**
of which:				
i. Commercial Banks	6620073.1	6881338.5	7246643.0	7580935.6
ii. Co-operative Banks	547894.8	550354.8	553201.4	571339.8
(b) Other Financial Institutions	**1788005.1**	**1877223.8**	**1980444.6**	**2099501.9**
of which:				
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_2 and NM_3 do not include FCNR (B) deposits.
2.4: Consist of paid-up capital and reserves.
2.5: includes other demand and time liabilities of the banking system.

Table No. 9

Financial institutions comprise EXIM Bank, SIDBI, NABARD and NHB.
L_1 and L_2 are compiled monthly and L_3 quarterly.
Wherever data are not available, the last available data have been repeated.

Table No. 13

Data against column Nos. (1), (2) & (3) are Final and for column Nos. (4) & (5) data are Provisional.

Table No. 14

Data in column Nos. (4) & (8) are Provisional.

Table No. 17

2.1.1: Exclude reserve fund maintained by co-operative societies with State Co-operative Banks

2.1.2: Exclude borrowings from RBI, SBI, IDBI, NABARD, notified banks and State Governments.

4: Include borrowings from IDBI and NABARD.

Table No. 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 & 1.1.1.1.1.4: 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 –
- 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.

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.*

Data since September 2023 includes the impact of the merger of a non-bank with a bank.

Table No. 46

GDP data is based on 2011-12 base. GDP for 2023-24 is from Union Budget 2023-24.

Data pertains to all States and Union Territories.

1 & 2: Data are net of repayments of the Central Government (including repayments to the NSSF) and State Governments.

1.3: Represents compensation and assignments by States to local bodies and Panchayati Raj institutions.

2: Data are net of variation in cash balances of the Central and State Governments and includes borrowing receipts of the Central and State Governments.

3A.1.1: Data as per RBI records.

3B.1.1: Borrowings through dated securities.

3B.1.2: Represent net investment in Central and State Governments' special securities by the National Small Savings Fund (NSSF).

This data may vary from previous publications due to adjustments across components with availability of new data.

3B.1.6: Include Ways and Means Advances by the Centre to the State Governments.

3B.1.7: Include Treasury Bills, loans from financial institutions, insurance and pension funds, remittances, cash balance investment account.

Table No. 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

Name of Publication	Price	
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2. Handbook of Statistics on the Indian States 2022-23	₹550 (Normal) ₹600 (inclusive of postage)	US$ 24 (inclusive of air mail courier charges)
3. Handbook of Statistics on the Indian Economy 2022-23	₹600 (Normal) ₹650 (inclusive of postage) ₹450 (concessional) ₹500 (concessional with postage)	US$ 50 (inclusive of air mail courier charges)
4. State Finances - A Study of Budgets of 2023-24	₹600 per copy (over the counter) ₹650 per copy (inclusive of postal charges)	US$ 24 per copy (inclusive of air mail courier charges)
5. Report on Currency and Finance 2022-23	₹575 per copy (over the counter) ₹625 per copy (inclusive of postal charges)	US$ 22 per copy (inclusive of air mail courier charges)
6. Reserve Bank of India Occasional Papers Vol. 43, No. 2, 2022	₹200 per copy (over the counter) ₹250 per copy (inclusive of postal charges)	US$ 18 per copy (inclusive of air mail courier charges)
7. Finances of Panchayati Raj Institutions	₹300 per copy (over the counter) ₹350 per copy (inclusive of postal charges)	US$ 16 per copy (inclusive of air mail courier charges)
8. Report on Trend and Progress of Banking in India 2022-23	Issued as Supplement to RBI Bulletin January, 2024	
9. Financial Stability Report, December 2023	Issued as Supplement to RBI Bulletin January, 2024	
10. Monetary Policy Report - October 2023	Included in RBI Bulletin October 2023	

Notes

1. Many of the above publications are available at the RBI website (www.rbi.org.in).
2. Time Series data are available at the Database on Indian Economy (http://dbie.rbi.org.in).
3. The Reserve Bank of India History 1935-2008 (5 Volumes) 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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