RESERVE BANK OF INDIA

BULLETIN

SEPTEMBER 2022

VOLUME LXXVI NUMBER 9

The Reserve Bank of India Bulletin is issued monthly by the Department of Economic and Policy Research, Reserve Bank of India, under the direction of the Editorial Committee.
The Central Board of the Bank is not responsible for interpretation and opinions expressed. In the case of signed articles, the responsibility is that of the author.

For subscription to Bulletin, please refer to Section 'Recent Publications'

The Reserve Bank of India Bulletin can be accessed at **https://bulletin.rbi.org.in**

CONTENTS

SPEECHES

*Financial Market Reforms: Approach and Expectations**

Shaktikanta Das

I am happy to be part of this FIMMDA[1] event today. I take this opportunity to place on record the RBI's appreciation of the key role played by FIMMDA in the development of financial markets in India.

In my address this evening, I propose to reflect upon some recent financial market developments and our efforts to navigate through them in the prevailing global and domestic environment. I shall then touch upon some of our recent initiatives for the development of domestic financial markets and then go on to conclude by expressing our expectations from market participants and market bodies in the way ahead.

Recent Financial Market Turmoil

The recent commentary from the US Fed at Jackson Hole on the future trajectory of US monetary policy has infused substantial volatility into global financial markets, with large spillovers and knock-on effects on emerging market economies (EMEs). This episode is yet another demonstration of the point made in my media interview on August 23, 2022 that while forward guidance can be a useful policy instrument in an accommodative monetary policy phase, it can be quite difficult to provide coherent and consistent guidance in a tightening cycle. The difficulty gets further compounded in the current environment of high uncertainty. Such forward guidance may even have destabilising effects on financial markets, especially if the subsequent policy actions are at variance with earlier pronouncements. Central bank communication in the current context has thus become even more challenging than the actual policy actions. Notably, however, financial markets in India have recovered from the lows that they fell to in the immediate aftermath of the Jackson Hole event.

In this turbulent global environment, the resilience exhibited by Indian financial markets reflects the robust macroeconomic fundamentals of the economy, and the proactive and strategic policy interventions to mitigate the impact of the two black swan events that have occurred in quick succession – the COVID-19 pandemic and the war in Europe.

Experience tells us that markets often tend to overreact to new information, which also amplifies volatility. Especially in times such as now, when geopolitical tensions and synchronised monetary policy tightening come together, overshooting often precedes subsequent realignment with the underlying fundamentals. Hence, it is useful to take stock of India's macroeconomic fundamentals and buffers, and assess them in the current and evolving conditions. First, India is widely perceived to be among the fastest growing major economies in the world in 2022[2], when the other major economies may encounter recession or considerable moderation in their growth momentum. The favorable growth differential of India provides confidence to investors. This is amply reflected in the surge of portfolio flows into India since July 2022. Inflows in August alone at US$ 7.5 billion are more than 16 times the net inflows in July. Second, the recent softening of commodity prices and supply chain pressures have eased the terms of trade shock that India faced in the aftermath of the pandemic and the war. With the consequent easing of imported inflation pressures, India's CPI inflation has peaked in April 2022. Further, the average Indian basket crude price in August at USD 97.4 per barrel has turned out to be lower than what we had assumed for the full year - USD 105 per barrel - in the monetary

* Address by Shri Shaktikanta Das, Governor, Reserve Bank of India - September 05, 2022 - at FIMMDA annual event, Mumbai

1 Fixed Income Money Market and Derivatives Association of India

2 World Economic Outlook Update, July 2022, IMF.

policy resolution of August 5. In fact, India's inflation is lower than a large number of its trading partners. Third, the shift in the commodity price outlook is also altering the assessment of India's current account deficit in 2022-23, which is now expected to remain well within sustainable levels. Fourth, at a time when food security is threatened the world over by shortages and soaring prices, India's large buffer stocks of food grains supplement domestic supply and assure food security domestically. Fifth, India's foreign exchange reserves of US$ 561 billion (as on August 26) provide a cushion against external shocks, as is being demonstrated on a day-to-day basis. Moreover, the reserves are also reinforced by forward assets. Sixth, the health of our banking system is sound. It is well capitalised and well provisioned, with improved asset quality. This constitutes a key pillar of financial stability and is expected to provide positive spillovers for the financial markets.

Reflecting these fundamental factors, the Indian rupee has moved in an orderly manner in the current financial year so far. It has held its own in a world of sharp depreciation across other EME and AE currencies. While the US dollar has appreciated by 11.8 per cent during the current financial year so far, the INR has depreciated by 5.1 per cent, which is among the lowest in the world. The RBI is in the market on a regular basis, providing liquidity and confidence so as to facilitate its smooth and normal functioning.

Exchange rate stability is an intrinsic element of our overall macroeconomic and financial stability. Our endeavour amidst the extraordinary events unfolding globally on an ongoing basis has been to anchor expectations and allow the exchange rate to reflect the fundamentals rather than overshoot. Avoiding undue and excessive volatility is a desirable policy objective for all stakeholders, while reaping the benefits of a market determined exchange rate regime.

Price stability provides the anchor for exchange rate stability in the medium-run. The flexible inflation targeting (FIT) regime provides credibility to the RBI's monetary policy mandate of assigning priority to containing inflation and keeping inflation expectations anchored while keeping in mind the objective of growth. While the incoming monthly inflation prints in the near-term could be bumpy, we expect it to moderate in the second half of 2022-23, and then move within the tolerance band in Q4 and then even lower in Q1:2023-24.

Response to the Pandemic and the War in Europe

In response to the pandemic, as you are well aware, the RBI deployed conventional and unconventional monetary policy tools. The financing conditions were kept easy. Normal functioning of various segments of the financial market was ensured. Our communications and forward guidance provided the much-needed clarity and confidence to the markets – both financial and non-financial.

As we adapted to the pandemic, the policy approach has been gradually normalised. Even as the Indian economy was recovering from the pandemic, it faced a setback from the war in Europe, which caused fresh supply disruptions and accentuated the earlier ones. Inflation became globalized. Consequently, the response from Central banks has been aggressive leading to synchronized monetary tightening across the world. In India, the MPC re-prioritised price stability as the foremost objective of monetary policy and began a process of withdrawal of accommodation.

Going forward, our monetary policy will remain watchful, nimble-footed and calibrated in order to ensure price stability while supporting growth. The RBI remains committed to support the market with two-way operations, as warranted, in line with the revised liquidity management framework. The RBI will also strive to ensure stable money market conditions, the smooth conduct of the primary auctions in G-secs and facilitate the orderly evolution of the yield curve.

Reforms in Regulatory Framework and Financial Markets

In spite of the two black swan events that have dominated the recent discourse, the RBI has steadfastly persevered with regulatory reforms aimed at the development of the domestic financial markets. Our approach is based on the principle of adapting to the needs of a modernising financial market as it integrates with the rest of the world.

Let me touch upon on some of the regulatory changes which have taken place during the last three years. The orderly development of the sovereign yield curve needs significant market liquidity at important benchmark tenor points and supply of G-Secs of various tenors to diverse class of market participants matching with their investment requirements. To this end, the Benchmark Security Issuance Strategy was introduced during 2020-21 under which government securities (g-secs) of specific benchmark tenors of 2, 5, 10, 14, 30 and 40-years are issued. This year, g-secs with a 7-year tenor have also been introduced after market consultation.

Issuance of green bonds provides a strong signal of a country's commitment to a low-carbon economy. It also helps in bringing down the cost of capital for green projects. Following the announcement in the Union Budget for 2022-23, the Government and the RBI are putting in place a framework for issuance of Sovereign Green Bonds, in line with global standards.

As part of our continuing efforts to increase retail participation in G-secs, the 'RBI Retail Direct Scheme' was launched in November 2021 to facilitate individual investors to conveniently invest in G-secs, state development loans (SDLs) and sovereign gold bonds. Further, to ensure liquidity to the retail investor, the "Retail Direct Scheme - Market Making" was notified on January 04, 2022. The scheme requires primary dealers to respond to buy/sell requests from the retail investors throughout market hours.

The RBI has continuously engaged in ensuring state-of-the-art infrastructure for trading, settlement and timely dissemination of information in the g-sec market. An important initiative in this context is the introduction of the Request for Quote (RFQ) dealing mode on NDS-OM in October 2020. The RFQ mode aims to enable market participants to negotiate trades on the NDS-OM platform itself for better price discovery.

Derivative markets play an important role in allowing entities to hedge their risks and improving liquidity for the underlying product. Several measures have been taken to rationalise the regulatory framework for forex, credit and interest rate derivative markets. Principle-based regimes have been implemented in place of prescriptive regulations in a bid to provide greater flexibility and operational freedom to market participants. Access of non-residents to these markets has been eased. The access of institutional users to the markets has been facilitated both for hedging and for expressing their views on market movements.

With these reform measures, product due diligence assumes greater importance. It would ensure that market-makers offer products that match the requirement of the users and avoid exposing their clients to excessive risk. Considering the recent changes in the regulations relating to OTC derivatives and in line with international standards, a regulatory framework for market-makers in OTC derivatives[3] has been put in place to ensure high standards of governance, risk management and conduct by market makers.

We have also continued our efforts towards integrating domestic and offshore INR markets. Banks in India with operative IFSC Banking Units were permitted to access the offshore non-deliverable rupee

[3] Master Direction – Reserve Bank of India (Market Maker in OTC Derivatives) Directions, 2021 dated September 16, 2021 (https://www.rbi.org.in/scripts/FS_Notification.aspx?Id=12163&fn=6&Mode=0)

derivative market in 2020. To facilitate integration of offshore and onshore markets for Overnight Indexed Swaps (OIS) – the most active rupee interest rate derivative in the domestic market – Banks in India and standalone primary dealers (SPDs) have been permitted to undertake settlement of OIS transactions with non-residents in foreign currency.

Broadly, the recent regulatory and institutional reforms have been aimed at enabling the domestic financial markets to face the challenges of the next decade. Cutting across market segments, these reforms seek to usher in a simplified, principle-based regulatory framework that seeks to broadbase markets by easing access, enhancing participation, facilitating innovation, protecting users and promoting fair conduct.

Market Participants and Market Bodies as Reform Partners

It is important to note that achievement of the desired outcomes from the significant changes in the regulatory framework for financial market and its infrastructure is contingent upon market participants taking forward the reform agenda. It is heartening to see the market participants rising to the occasion and partnering with the Reserve Bank to meet the challenges of recent years. One such instance was the smooth completion of the government borrowing programme, despite the increased issuances in the last two years.

Similarly, the move towards normalisation of liquidity conditions in the market has also taken place without any disruption. In response to changes in regulation, we are seeing our banks becoming active and visible in global markets and coming up with new products to meet the hedging needs of the real sector. The transition away from LIBOR has also been achieved with relative smoothness. Of course, the efforts towards complete transition need to continue as we approach the deadline for the cessation of all US dollar LIBOR settings less than a year away. In all of these areas, market bodies such as the FIMMDA, PDAI[4], FEDAI[5] and the Indian Banks Association (IBA) have continued to play an important role in acting as bridges between the market participants and the regulator, proactively conveying the views of the market and providing timely inputs for policy making.

Expectations from Market Participants

There are, however, some areas where performance of market participants can improve further. One area has been the delivery of services to the small / retail customers. While there has been a steady increase in the quantum of secondary market trades under the RBI Retail Direct Scheme, there remains considerable scope for improvement in ensuring liquidity for the retail investors throughout market hours on the NDS-OM platform. We continue to get representations from customers - particularly, those undertaking forex transactions with small ticket sizes - about fair pricing of forex products. A research study by some officers in the RBI found empirical evidence of the presence of considerable price discrimination in the OTC currency derivatives market. The services provided by banks on the FX-Retail platform need special attention. The response time and onboarding of customers on the platform can be faster.

The revised product regulations in OTC derivative markets now permit market-makers to deal in derivative products of varying complexity and to offer these products only to non-retail/institutional customers who have the ability to handle the risks associated with such products. It has been reassuring to note that market participants and users have been taking a prudent approach in the use of complex products. The valuation and the risk management systems of the market-makers may need to be continually updated. Customers also need to be made aware of the unique risks associated with these products.

4 Primary Dealers Association of India (PDAI)

5 Foreign Exchange Dealers Association of India (FEDAI)

The recent reform measures have facilitated greater linkages of the domestic market with the global markets. As the footprints of banks in India increase in the offshore markets, it is expected that price discovery of rupee products will also consolidate in the onshore market. To realise this potential, banks need to put in place adequate supporting infrastructure backed by expertise in risk management. More so, because integrated financial markets can also facilitate faster propagation of shocks which require appropriate risk management processes.

Conclusion

Let me now conclude by stating that market development ultimately is a shared goal of both the regulator and the market participants. The RBI has taken steps towards liberalising markets, removing barriers and putting in place a facilitative regulatory framework. Adoption of new products requires participation from market participants in terms of providing liquidity, contributing to price determination and easing operational constraints. It is upon the market participants to take the baton forward to develop the market and offer innovative financial products to a broader set of clients. The RBI will remain constantly engaged with the market bodies and participants. Together, we should remain future ready at all times. I firmly believe that we can do this. I wish FIMMDA all success in its future endeavours and look forward to our continued partnership.

Thank you.

Dynamics of Inflation in South Asia *

Michael Debabrata Patra

Good afternoon and a warm welcome to South Asian Association for Regional Cooperation (SAARC) central bank colleagues participating in this first physical seminar under the aegis of the SAARCFINANCE after the onset of the pandemic.

Greetings to Ms. Dechen Pelzom, Executive Director, Royal Monetary Authority of Bhutan.

We are delighted to have with us colleagues from the Ministry of Finance, and virtual participants from our central banks, the Bank for International Settlements (BIS) and the International Monetary Fund (IMF). I am joined in our appreciation of your participation by colleagues from the Reserve Bank of India (RBI) representing various departments.

This Seminar marks the fulfilment of the commitment made by India in the 41st meeting of the SAARCFINANCE Governor's Group in March 2021. Given the developments in our countries and the global inflation crisis gripping the world around us, the seminar's theme – the Dynamics of Inflation and its Control in South Asia - could not have been more timely and relevant. From a broader perspective, seminars and workshops of this type under the mandate of the SAARCFINANCE have proved to be an effective avenue for intensifying our engagement through sharing of knowledge and experiences as well as by energising person-to-person interactions. Our next seminar will be on the SAARCFINANCE database, which will be hosted by the Maldives Monetary Authority.

SAARC: Our History

By way of historical background, the South Asian Association of Regional Cooperation (SAARC) was created in 1985 as an expression of the collective desire for fostering shared understanding and collaboration in our region. At present, Afghanistan, Bangladesh, Bhutan, India, Nepal, Maldives, Pakistan and Sri Lanka are members of the SAARC.

Over the years, our countries have developed strong linkages in the form of trade, remittances and financial transactions, over and above our strong cultural ties and shared history. We now look forward to strengthening our economies with the goal of accelerating economic development and prosperity by tapping into the full growth potential of the region.

SAARCFINANCE: The Journey

SAARCFINANCE was established in 1998 as a network of our Central Bank Governors and Finance Secretaries to facilitate dialogue on macroeconomic policies and the exchange of mutual experiences and ideas. SAARCFINANCE received formal recognition in January 2002 at the 11th SAARC Summit held in Kathmandu, Nepal.

Over the last two decades, cooperation between our central banks has expanded and strengthened. The swap facility, which has been the cornerstone of this cooperation, has played a vital role in helping to manage external sector pressures during the pandemic. India has also extended financial support in the form of a number of credit lines to SAARC partners.

Policy interface, technical assistance, capacity building and knowledge exchange have all played a vital role in deepening this engagement. In particular, research and policy driven collaborative studies, and symposiums and seminars such as this one, have facilitated this whole endeavour by bringing about greater appreciation of the issues, challenges and

---

* Keynote address delivered by Dr. Michael Debabrata Patra, Deputy Governor, Reserve Bank of India (RBI) at the SAARCFINANCE Seminar hosted by India on August 24, 2022 at New Delhi. Valuable inputs from Smita Sharma, Soumasree Tiwari and Ajesh Palayi and editorial assistance from Vineet Kumar Srivastava are gratefully acknowledged.

successes experienced by each country and the region as a whole.

To cite some fulfilled deliverables under the belt of SAARCFINANCE, the Governors' Group Meetings have formalised our cooperation and dialogue on macroeconomic conditions and policies. The SAARCFINANCE website was developed and launched in 2011. The SAARCFINANCE Database went live on May 26, 2016 at the Governors' Symposium held in Mumbai. The first issue of the half-yearly SAARCFINANCE e-Newsletter was published in December 2006. During India's Chair in 2020-21, the portal called 'SAARCFINANCE Sync' was created as a network of connectivity among our central banks. The scope and coverage of the Scholarship Scheme was expanded by including more universities, more central banking related courses and by increasing both the scholarship amounts and the number of scholarships that may be granted in a year. Efforts have also been made to revamp the SAARCFINANCE newsletter with a new design and format and by expanding its ambit to topical articles. Our virtual seminars kept alive our engagement through the pandemic. The Financial Inclusion Platform, a repository of initiatives taken by SAARC central banks to promote financial inclusion and financial literacy, has also facilitated policy making by enriching it with pan-regional perspectives. The measures to deepen cooperation on capacity building are also noteworthy, especially the collaborative studies on a variety of topics.

Macroeconomic Developments: Opportunities and Challenges

Our countries have come together to jointly fight COVID-19 by establishing an exclusive SAARC COVID-19 Emergency Fund with contributions from all members. As a leading producer of vaccines, India has remained deeply committed to equitable access. India has delivered vaccines to many SAARC countries within a month from the rollout of its Vaccine Maitri Initiative in January 2021.

The RBI remains committed to expanding co-operation in the field of digital banking and finance. Its Payment Vision 2025 envisages global outreach of our real time gross settlement (RTGS), the National Electronic Funds Transfer (NEFT), the Unified Payment Interface (UPI) and RuPay Cards. For instance, Bhutan and India have built cooperation around RuPay cards so that Bhutanese banks can issue RuPay Cards to their citizens.

The share of intra-SAARC trade in total exports of SAARC countries has increased from 6.1 per cent in 2010 to 7.1 per cent in 2020. Similarly, the share of intra-SAARC trade in total imports of SAARC countries has increased from 3.6 per cent in 2010 to 5.0 per cent in 2020. The pace of expansion of trade remains slow, however, even relative to other regional groupings like ASEAN.

Being severely hit by the pandemic, the region witnessed economic contraction in 2020. A tenuous recovery coursed through 2021, with varying degrees of traction and pitfalls across the region. The scars of the pandemic are still deep and painful in several parts of our region.

In 2022, elevated and persistent inflation has taken hold, threatening to undermine the nascent progress made in 2021. Several members face double digit inflation in high reaches. Global spillovers in the form of exchange rate volatility, elevated commodity prices and supply chain pressures have exacerbated imported inflation. Since February this year, shortages of essential commodities and soaring food and energy prices have threatened livelihood and the welfare of our people.

On the external front, terms of trade shocks and tightening global financial conditions have translated into wider current account deficits, capital outflows, high volatility in domestic financial markets and losses of reserves while amplifying external vulnerabilities. Some of us are also experiencing debt

distress. Access to international financial markets, constrained by rating downgrades by various external credit rating agencies, has worsened external liquidity and financing conditions. Some of us need urgent access to multilateral support in these challenging conditions.

Theme of the Seminar

The theme of the seminar assumes significance in this milieu. With inflation broadening across national jurisdictions, repeated shocks stemming from the outbreak of the pandemic and more recently due to the war, have translated into an inflation crisis not seen in years. According to the IMF's World Economic Outlook Update of July 2022, surging commodity prices and broadening price pressures may cause inflation to reach 6.6 per cent in 2022 in advanced economies and 9.5 per cent in emerging market and developing economies, posing a clear and present danger to macroeconomic stability.

In response, the most synchronised and front-loaded monetary policy tightening ever seen in decades is underway. Consequently, as liquidity and monetary conditions harden, the probability of a recession or hard landing has risen in advanced economies to levels that have preceded actual recessions in the past. Central banks all over the world are aggressively striving to regain and entrench their credibility so as to anchor inflation expectations and bring inflation under control.

Despite the diversity of the South Asian region in terms of country size, economic and social development, geography, population, trade and political systems, this daunting spectre of inflation haunts us all. Food is a large part of our average consumption basket as well as our price indices – its share in consumer prices ranging across the region between 35 and 47 per cent. South Asia is most vulnerable to food inflation, given the large segment of our populations battling poverty. Moreover, this is a region in which it is rising food prices that can trigger second round effects leading to the generalisation of inflation and its persistence. Furthermore, dependence on oil imports has made our countries commonly vulnerable to terms of trade and supply shocks. Consequently, inflation dynamics in the region show strong co-movements, with common drivers. On the other hand, our policy frameworks are somewhat diverse, reflecting country-specific circumstances, and this will condition our approach to controlling inflation. Our exchange rate regimes also reflect this diversity.

Dealing with the inflation crisis has become complicated as we battle global spillovers on an ongoing basis. The region now faces a tremendous developmental challenge within which recovering the losses due to black swan events like the pandemic look the most formidable. Our countries have also experienced sharp increases in fiscal deficits and deterioration of the balance of payments. The future appears uncertain and gloomy against the backdrop of an unprecedented slowdown in economic activity, employment and export earnings. Risks to our growth prospects are slanted to the downside. The dark shadow of stagflation looms over us and our outlook.

The Indian Experience

In India, we have adopted an inflation targeting framework since 2016, with a target of 4 per cent defined in terms of headline CPI inflation within a tolerance band of +/- 2 per cent around it. Policy decisions are taken by a majority vote by a monetary policy committee (MPC). There are strong accountability criteria embedded into the framework by legislation and associated regulations in the case of deviations of inflation outcomes from the target. While inflation averaged under 4 per cent during 2016-20, it rose to 6.2 per cent in 2020-21 – the year of the pandemic's first wave. Although it moderated in the following year, *i.e.*, 2021-22 to 5.5 per cent and was

projected to ease further to 4.5 per cent in 2022-23 as recently as February 2022, the war in Ukraine has altered the outlook drastically. Although it appears to be moderating from its peak of 7.8 per cent in April this year, we would prefer to await more incoming data before we are convinced that this a durable trend. While some easing of international commodity prices and supply chain pressures, both globally and domestically, are positive developments, upside risks remain in the form of potential second order effects and the transmission of input cost pressures to the sticky core component of inflation. For the financial year 2022-23 (April-March) as a whole, the RBI has projected that headline CPI inflation would average 6.7 per cent.

Accordingly, the RBI has embarked on a front-loaded monetary policy response, with a cumulative 140 basis points increase in the policy rate so far, besides narrowing of the policy rate corridor in April that pulled up money market rates by 40 basis points from pandemic lows. In its latest meeting in early August, the monetary policy committee (MPC) decided to remain focused on withdrawal of accommodation to ensure that inflation remains within the target going forward, while supporting growth. Simultaneously, the RBI is engaged in withdrawal of the liquidity infused into the economy during the pandemic in a calibrated, multi-year time frame.

As the inflation forecast performs the role of an intermediate target in the monetary policy framework, the RBI has taken several initiatives to strengthen inflation monitoring and improve the accuracy of forecasting. Besides widening the ambit and depth of a suite of forward-looking surveys, a data science lab has been set up to explore alternative forecasting techniques and models, including artificial intelligence and machine learning (AI/ML). In view of the sizable share of food in the consumer price index and the fact that the Indian economy is prone to supply shocks, work on assessing the crop situation through remote sensing has also been started in the data science lab to assist inflation forecasting. In addition, new initiatives are being taken to gauge the public's expectations through sentiment analysis that should inform the forecasting exercise and thereby improve precision. We have also stepped up the gathering of market-based intelligence from trade bodies, traders, domain experts and regional units. The intent is to assimilate as much useful information as possible and enrich our understanding of inflation dynamics. In the near-term, however, the inflation trajectory continues to be heavily contingent upon the evolving geopolitical developments, international commodity market dynamics and global financial market developments.

Concluding Remarks

As central banks and public institutions, we are entrusted with ensuring and maintaining macroeconomic and financial stability and ensuring the progress of our economies to secure the full actualisation of our developmental aspirations. We face challenging trade-offs in our day-to-day functioning and keen public scrutiny. Mostly unsung, our role has undergone a transformation in recent years. From lenders of the last resort, we have become defenders of the first resort. Hence, our response to inflation shocks such as the one we face today has to be predicated on managing expectations and fortifying credibility. If credibility is high and the shock is transitory, inflation returns to equilibrium without the need for any monetary policy action. On the other hand, repeated supply shocks – which we are encountering now – trigger second round effects through cost pushes, expectations, exchange rate and demand channels, warranting pre-emptive monetary policy action. Even with perfect credibility, monetary policy cannot look through the second-round effects of repeated supply shocks. If the inflation target is breached for a prolonged period, this could unsettle expectations and eventually get reflected in higher inflation. Higher credibility can reduce – not substitute

for – the monetary policy response to second round effects of repeated supply shocks. At the current juncture, our experience is that by frontloading monetary policy actions, credibility is demonstrated by showing commitment to the inflation target. Another dimension of monetary policy credibility is the timing of its response. A delay in the monetary policy response leads to a further loss of credibility, unhinging of inflation expectations and eventually, higher inflation outcomes with a higher sacrifice of growth.

SAARC has great potential for economic expansion with abundant natural resources, human capital and market access. The promotion of economic and social development through increased trade and investment and through deeper regional economic integration holds considerable promise in South Asia. We must rise up to this challenge and seize the window of opportunity even as we recover from the debilitating effects of the pandemic and geopolitical developments. High quality research and engagements in seminars such as this one will help us build capacity and technical skills, illuminating our way forward. The Roadmap of Regional Cooperation which was framed in 2016 needs to be revised to reflect the current realities and focus areas, with quantifiable milestones and timelines within the mandate of SAARCFINANCE.

I wish you all success in your deliberations.

Thank you.

*Inclusive Credit: The Next Milestone**

M. Rajeshwar Rao

Ladies and Gentlemen,

I thank ASSOCHAM for inviting me to deliver this talk here today. The theme of this summit - "Financial Inclusion & Future of Financial Services in India - Vision 2030" is indeed contextual and relevant given the challenges we face at this juncture. The discussions around the issue at this summit should generate invigorating discussions and productive outcomes during the course of the day.

Financial inclusion has always been an important policy imperative realising its importance in economic development and social well-being of the populace. We have come a long way in our pursuit for financial inclusion which started with promotion of cooperatives, nationalisation of banks, institutionalisation of priority sector lending and lead bank scheme, implementation of BC model and more recently with Pradhan Mantri Jan Dhan Yojana (PMJDY).

In this journey, we have adjusted our strategies and policy focus factoring in the changing demographics, economic situation, and social needs. Given the wide geographical spread and the need to include large unbanked population, the policy thrust for a long time had been on providing access to basic financial services. It is quite rightly recognised that access to a bank and a bank account is the first step toward broader financial inclusion since it enables people to carry out basic banking functions such as remittances besides acting as a gateway to access other financial services. In this effort, RBI mandated banks to open branches in underbanked pockets which led to a considerable increase in bank branches and later Automated Teller Machines (ATMs) in the 1990s to early 2000s. A roadmap for having banking outlets in villages with population more than 2000 (in 2009) and less than 2000 (in 2012) was also prepared. Subsequently, the banks were advised to open brick and mortar branches in villages with population of more than 5000. To strengthen financial inclusion, the branch authorisation guidelines were relaxed and Financial Inclusion Fund (FIF) with an initial corpus of ₹2000 crore was established to support adoption of technology and capacity building.

Financial inclusion was also one of the consideration for issue of differentiated banking license for Small Finance Banks (SFBs) and Payments Banks (PBs) in 2015. The SFBs were setup to further financial inclusion through tailored deposit products and for providing credit to small business units, small and marginal farmers, micro and small industries, and other unorganised sector entities through technology led low-cost operations. Payments Banks were also set up to provide small savings accounts and payments/ remittance services to migrant labour workforce, low-income households, small businesses, and other unorganised sector entities / other users.

The Pradhan Mantri Jan Dhan Yojana (PMJDY) and National Strategy for Financial Inclusion (NSFI) 2019-2024 has given a further fillip to these efforts. The NSFI defines the vision and key objectives of the financial inclusion policies in India to help expand and sustain the financial inclusion process at the national level through a broad convergence of action involving all the stakeholders in the financial sector. The strategy aims to provide access to formal financial services in an affordable manner, broadening and deepening financial inclusion and promoting financial literacy and consumer protection while the reach of

---

* Remarks delivered by Shri M. Rajeshwar Rao, Deputy Governor, Reserve Bank of India – on September 08, 2022 - at ASSOCHAM's 17th Annual Summit & Awards on Banking & Financial Sector Lending in Mumbai. The inputs provided by Shri Chandan Kumar, Shri Pradeep Kumar and Shri Pramanshu Rajput are thankfully acknowledged.

the banks amongst the ranks of the underserved got a boost through the PMJDY.

Some data would help us get a perspective. Under PMJDY, 46.40 Crore beneficiary accounts have been opened so far with outstanding balance of ₹1.73 Lakh Crore in these accounts[1]. As of June 2022, there are 1.59 Lakh branches operated by SCBs with a total deposit of more than 170 lakh crore rupees[2], which translates to close to approximately 15 branches per 1 lakh of population. This is further complemented by a network of 2.17 lakh ATMs[3], out of which 47 per cent are in rural and semi-urban areas and there are close to 32 lakh Business Correspondents engaged by banks[4]. As per data from World Bank's Global Findex Database, as of 2021, 78 per cent of Indian adults (population with 15 years or more of age) had a bank account as compared to 53 per cent in 2014. We have been able to provide banking access to almost every village within a 5 km radius in 25 states and 7 UTs covering 99.94 per cent of identified villages.

But we cannot remain content with this, and efforts are continuing to achieve universal access to financial services and products. At the same time the policy focus is being repositioned from 'access of financial services' alone to 'Usage' and 'Quality' of financial services as well. The FI-Index constructed by RBI, which is an indicator of our efforts in this direction, is based on the above three dimensions *viz.*, 'Access', 'Usage' and 'Quality'. The weights of the index are forward-looking with higher weights given to the deepening aspect of financial inclusion ('Usage' and 'Quality').

Responsible and sustained financial inclusion requires balancing opportunity and innovation on both the supply and demand side. On the supply side, it includes steps to provide affordable and easy access to savings account and suite of appropriate financial products and services. On the demand side, it seeks to improve financial literacy and awareness which helps in increasing demand for financial products and services. These demand side and supply side measures should ideally complement each other. In emerging market economies like India, there is generally a disequilibrium amongst the demand and supply side factors.

While the traditional brick and mortar structures have helped in taking basic banking services to the nook and corners of our country, the advent of digital innovations in the extension of financial services, have the potential to be an enabler for graduating to the next level of financial inclusion where the quality of inclusion takes precedence over just availability of financial services. India as a continental economy with multiple languages and cultures, different and sometimes even difficult terrains, large population and low-income levels need to ensure inclusive growth. The focus is thus not only on opening the bank accounts but also making available a bouquet of financial services - transactions, payments, savings, insurance, and ensure easily accessible and affordable credit to the customers. Inclusive credit will have to be the bedrock of inclusive financial inclusion.

The Committee on Financial Inclusion (Chairman: Dr. C. Rangarajan, RBI, 2008) explicitly included 'timely and adequate credit at an affordable cost' for vulnerable groups in the definition of the financial inclusion. The Committee on Medium-Term Path to Financial Inclusion (Chairman: Shri Deepak Mohanty, RBI, 2015) also emphasised on increasing the access of small and marginal enterprises to formal finance. Thus, access to credit has always been an integral part of RBI's efforts towards furthering financial inclusion. Let me dwell a little bit on provision of inclusive credit.

1 https://www.pmjdy.gov.in as of August 24, 2022

2 dbie.rbi.org.in

3 https://www.rbi.org.in/Scripts/ATMView.aspx?atmid=136

4 RBI Annual Report 2021-22

Importance of inclusive credit

Access to credit acts as a force multiplier if utilised optimally by individuals as well as firms. For individuals, it helps to meet their financial and enterprising needs and also where required, reduce their vulnerability to economic shocks whereas for firms, it enables normal business operations besides allowing them to plan for investments in newer and more productive technologies. Business diversification and expansion helps them grow thereby leading to increase in job opportunities and in general promote economic development. Without adequate, timely and affordable access to formal credit, the customers are dependent upon either own equity or informal sources of credit, both of which are not only costly but perhaps unsustainable on a long-term basis.

However, a challenge in our financial inclusion journey is to enhance the level of activity and utilisation of diverse financial products and services following opening of a bank account. In this background, going digital way seems to be a solution for all the obstacles. However, this is easier said than done.

RBI and inclusive credit

In this endeavour, RBI has adopted a three-pronged strategy which involves:

- Setting up of financial intermediaries for extending digital credit or facilitating digital loans,
- Nurturing technological infrastructure to ensure safe and seamless credit disbursal and
- Adopting a customer-first regulatory approach

Let me share a perspective on each of these three focus areas.

Setting up of financial intermediaries for extending credit

As a first step in tackling supply side issues in the financial inclusion, new financial intermediaries have been introduced for provision of credit and to ensure financial services are available to the customer at 'when and where basis', thus translating into a truly 'anywhere anytime banking'. This includes -

P2P lending Platform: In first of such initiatives, RBI came out with P2P regulations at a time when the industry itself was at a nascent stage of development. A 'Peer to Peer Lending Platform' provides an online on-tap avenue to both borrowers to avail and investor to extend mostly small ticket loans. The regulations have been designed in a way to ensure that the framework does not impinge upon the innovative lending services, while at the same time, seeking to protect customer's interests and minimising systemic concerns.

Digital Only NBFCs: Second, RBI came out with registration guidelines for Digital-Only NBFCs which, as the name suggests, is an NBFC running solely on a digital platform without any brick-and-mortar presence (except for administrative purpose). RBI enabled healthy innovation in credit intermediation by permitting the setting up an NBFC over a digital platform in 2018. Though not a new category of NBFC, their licensing conditions mandates on them to provide their products only in a digital mode. Here too, protection of consumers have been kept paramount and the entities are required to maintain audit trails by putting in place required IT infrastructure with adequate safeguards on unauthorised access, alteration and destruction of data, if any. Regulatory features such as explicit consent for data sharing, domestic location of servers, maintaining audit trails, information security audit, *etc.* are progressive and at the same time pre-emptive in nature.

Digital Banking Unit: With digital banking emerging as the preferred mode of delivery along with 'brick and mortar' banking outlets, the

concept of Digital Banking Units was announced in the Union Budget 2022-23 and the guidelines for operationalising these units were issued by RBI earlier this year. Scheduled Commercial Banks have been authorised to set up digital banking units which are intended as specialised fixed point business units housing certain minimum digital infrastructure for delivering digital banking products and services as well as servicing existing financial products digitally, in both self-service and assisted mode. It is expected that such units would enable customers to have cost-effective, convenient and enhanced digital experience of such products and services in an efficient, paperless, secured, and connected environment with most services being available in self-service mode at any time.

Creating market infrastructure for inclusive credit

India has made significant strides in creating an enabling digital infrastructure in financial services space. UPI, GSTN, TReDS, JAM trinity and Account Aggregators (AA) to cite a few. This strong ensemble of digital infrastructure has stabilised and as it matures, would pave the way for expansion of credit in a seamless and timely manner which could be made digitally available in an almost paperless environment. AA's capability to aggregate financial data spread across different financial service providers and to leverage this data to build analytics and insights to help consumers in their financial planning would allow financial service providers to offer customised products to their customers. The AA framework also has an important element of 'electronic consent architecture' which is an improvement upon the open banking regimes of many developed countries.

As UPI transformed the way people pay, the Account Aggregator has the potential to transform credit by making it more seamless and accessible for everyone using digital infrastructure. The JAM trinity has done wonders for FI. The next trinity consisting of UPI, e-KYC and AA is expected to enable the next revolution in banking in the provision of customised and inclusive credit services.

Customer-first regulatory approach

A paradigm shift in digital lending was noticed during the pandemic. Post outbreak of Covid-19 there was a spurt of online lending platforms / mobile lending apps with a study[5] estimating that downloads of lending apps increased by 21 per cent during the Covid pandemic.

In earlier times, people used to talk of the 3-6-3 rule in banking alluding to the banking practices in 1950s right down to the 1970s as a result of the simplistic and non-competitive conditions in the industry. The rule was to raise deposits at 3 per cent, lend at 6 per cent and play golf after 3 PM. However, FinTech revolution has transformed this into a 2-1-0 formula - 2 minutes to decide, 1 minute to transfer the money with zero human to human contact. This change in the banking business model with supportive technological transformations has expanded the realm of what's possible.

The Working Group on Digital Lending set up last year by the RBI noted that lending through digital mode relative to physical mode is still at a nascent stage in the case of banks (₹1.12 lakh crore via digital mode[6] *vis-à-vis* ₹53.08 lakh crore via physical mode), for NBFCs, a higher proportion of lending (₹0.23 lakh crore *via* digital mode *vis-à-vis* ₹1.93 lakh crore *via* physical mode) is being routed through digital mode[7]. However, if we observe the growth in overall volume

[5] Fu, Jonathan and Mishra, Mrinal, Fintech in the Time of COVID-19: Technological Adoption During Crises (November 28, 2021). Swiss Finance Institute Research Paper No. 20-38, Journal of Financial Intermediation, Forthcoming, Available at SRN: https://ssrn.com/abstract=3588453 or http://dx.doi.org/10.2139/ssrn.3588453

[6] Includes lending through online platforms and mobile apps

[7] Available at https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=52589.

of disbursement through digital mode, it has exhibited a massive twelve-fold growth between 2017 and 2020. The digital lending landscape has seen a rapid rise in innovative models for product delivery including Point of Sale (PoS) transactions-based lending, Bank-FinTech partnership models, marketplace lending and bank-led digital models. However, most of the digital lending is being enabled by bank/NBFC – FinTech partnerships where FinTechs are acting as Lending Service Providers (LSPs) for banks/ NBFCs.

However, with the expansion of digital lending, various concerns have also emerged. These primarily relate to the unbridled engagement of third parties, mis-selling, breach of data privacy, unfair business conduct, exorbitant interest rates, and unethical recovery practices. As a pre-emptive measure, RBI came out with a circular on digital lending on June 24, 2020, wherein it was advised that digital lending platforms shall disclose the name of bank/ NBFC upfront on whose behalf they are providing credit, ensure that sanction letter is on the letterhead of the bank/ NBFC concerned and banks/ NBFCs in turn will ensure adequate oversight over the digital lending platforms engaged by them.

The Working Group on Digital Lending delved deeper into the concerns arising out of digital lending ecosystem. The recently announced regulatory framework for digital lending encapsulates RBI's approach of customer-first regulations. The framework is designed to strike a balance between the need for an innovative and inclusive system while at the same time ensuring that regulatory arbitrage is not exploited to the detriment of the customer's interest. Another underlying theme of this regulatory framework is that the onus of complying with the regulatory guidelines rests with the regulated entities and they will have to ensure that the loan service facilitators and digital lending apps with which they have outsourcing tie-ups functions within the regulatory ecosystem, not just in letter but also in spirit.

Looking Ahead

The deepening and widening of financial inclusion will drive the growth in financialisation of savings in India. Increasing adoption of digital modes, GSTN, online shopping, P2P payments, QR code deployment and everything else together will generate reams of customer data. This data could be potentially utilised to chart customer needs, behaviour and repayment capacity and help in digital inclusion. One specific area where digital lending has the potential to be a catalyst for economic growth is cash-flow based lending to MSMEs. MSMEs are an important engine of growth for the Indian economy as they contribute around 45 per cent of exports and provide employment opportunities to more than 11.1 crore people. The provision of appropriate credit for MSMEs through seamless and digital cash-flow based lending will provide them with the much-needed impetus. It would enable lenders to leverage real time cash-flow data to reimagine end-to-end lending process and "sachetisation" of products.

On the other hand, additional measures recommended by the Working Group on Digital Lending, *viz.*, establishment of Digital India Trust Agency (DIGITA), a Self-Regulatory Organisation (SRO) and the recommended / proposed legislative interventions like restricting balance sheet lending through digital mode to authorised entities only by framing a legislation styled as Banning of Unregulated Lending Activities (BULA) Act on the lines of Banning of Unregulated Deposit Schemes (BUDS) Act, 2019 would go a long way in creating a digital lending ecosystem which is safe and sound.

Conclusion

The challenge for the regulator in a fast-developing economy like ours is to keep pace with the market innovations and strive to strike a balance between ensuring safety without stifling innovation which is never an easy task. Responsible financial innovation

requires balancing innovative products with necessary safeguards for ensuring financial system stability and customer protection. Therefore, while appreciating and recognising the benefits emanating from digital credit, we need to take cognizance of the attendant risks such as data privacy, disruptive business models, aggressive recovery methods, and exorbitant interest rates. As a regulator, we have been following a nuanced approach for industry/ market development and this is reflected in bringing out an appropriate regulatory framework for digital lending.

By empowering individuals and firms to cultivate economic opportunities, digital credit can be a powerful agent for a sustainable and inclusive growth. We must remember that financial inclusion is not just a goal but also a means to an end as an enabler for sustainable economic growth, reduction of inequality and eliminating poverty. Financial inclusion has been identified by the United Nations as an enabler for 7 of the 17 Sustainable Development Goals. At its best, digital credit need to be responsible, inclusive, and affordable, which is something every financial institution should strive for. As always, we, at the RBI, would continue with our efforts to create an enabling regulatory ecosystem for financial innovation, protection of customers' interest and strengthening of the financial infrastructure.

Thank you.

*Corporate Bond Markets in India – Challenges and Prospects**

T. Rabi Sankar

Introduction

An active corporate bond market serves multiple functions. Apart from providing borrowers an alternative to bank finance, corporate bonds can lower the cost of long- term funding. Banks are typically constrained in lending long-term because their liabilities are relatively of a shorter tenor. An efficient corporate bond market with lower costs and quicker issuing time can offer an efficient and cost-effective source of longer term funds for corporates. At the same time, it can also provide institutional investors such as insurance companies and provident and pension funds with long-term financial assets ("preferred habitat"), helping them match the durations of their assets and liabilities.

From a macro-financial or financial stability perspective, a well-developed corporate bond market serves to spread risks away from the banking system. Banks are key to financial stability, as they provide liquidity services, credit and payment systems to the economy, and it is important to regulate their risk-taking activities. A market-based source of finance, such as corporate bond market, therefore, is more effective in dissipating risk across a much wider category of investors, thereby contributing to overall financial stability. A reasonably developed corporate bond market can play the role of the "spare tyre[1]", mitigating financial shocks and preserving financial stability.

It is against this background that the Government, SEBI and the Reserve Bank have been taking concerted efforts to facilitate the development of the corporate bond market in India. I thought I would use this opportunity to dwell upon the various aspects related to the development of this market, the journey so far, the challenges which have been encountered and share some thoughts on the potential way forward.

The Regulatory Effort

The efforts taken to develop the corporate bond markets broadly over the last decade and a half have been wide ranging. The reforms and developments have ranged from advancements in the corporate bond microstructure to the evolution of a facilitative regulatory framework, complemented by efforts to develop related risk and derivative markets and measures to enhance secondary market liquidity.

SEBI, the primary regulator of the corporate bond market, has taken significant steps over the years to improve the market microstructure for corporate bonds – settlement through delivery versus payment (DvP) mode which removes settlement risk; operationalisation of a trade reporting platform for enhancing transparency; introduction of an electronic bidding platform (EBP) for primary issuance; consolidation of stock through reissuance; introduction of request for quote (RFQ) platforms and many more. RBI has also been taking measures to develop the corporate bond market - permitting banks to provide partial credit enhancement (PCE) to incentivise a larger investor base; requiring large borrowers to raise a share (about 50 per cent) of their incremental borrowings through market instruments; encouraging FPI investment by raising investment caps, introduction of Voluntary Retention Route; etc. As entity regulators, RBI, IRDAI and PFRDA

---

* Keynote address delivered by Shri T Rabi Sankar, Deputy Governor on August 24, 2022 at the Bombay Chamber of Commerce & Industry, Mumbai. Inputs from Dimple Bhandia, Chief General Manager, G Jagan Mohan, General Manager and Rituraj, Assistant General Manager of RBI's Financial Markets Regulation Department are gratefully acknowledged.

[1] The term "spare tyre" originally came from a speech in 1999 by Alan Greenspan, Chairman, Federal Reserve (1999) and relates to alternative sources of raising resources compared to bank finance.

have encouraged their regulated entities to invest in corporate debt securities.

The Current Status

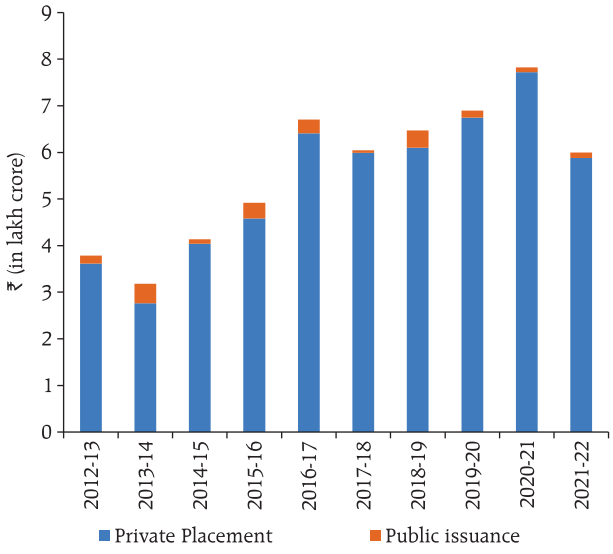
Having gone through the various measures and efforts taken for the development of the corporate bond markets, let me now spend a few moments introspecting on the progress made.

A. Resource mobilisation - the primary market

The growing size of the corporate bond market and the number of issuances every year are important indicators of the success of the development efforts of the Government and regulators. Over the years, there has been a steady increase in mobilisation of resources through the corporate bond route. The outstanding stock of corporate bonds has increased four-fold from ₹10.51 lakh crore as at end of FY 2012 to ₹40.20 lakh crore as at end of FY 2022 (Chart 1). Annual issuances during this period have increased from ₹3.80 lakh crore to close to ₹6.0 lakh crore (Chart 2).

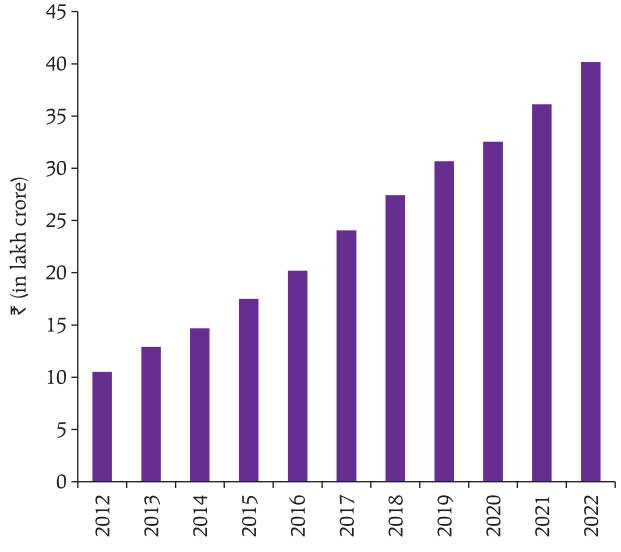
The long-term trend of the share of corporate bonds in the flow of resources to the commercial sector in India is reassuring. Data from RBI's Handbook of Statistics for the Indian economy shows that ratio of "gross private placements by non-financial entities" - a broad proxy for issuances by corporate bonds by non-financial entities – to non-food credit has increased from 0.09 in 2010-11 to 0.50 in 2020-21 (Chart 3).

Chart 2: Corporate Bonds - Issuance



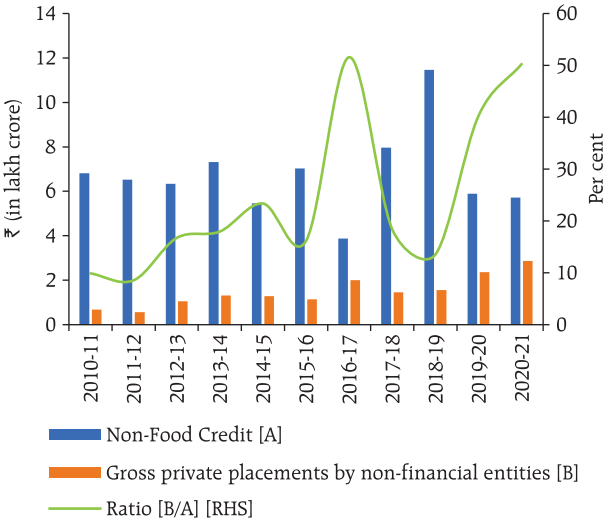
Source: https://www.sebi.gov.in/statistics/corporate-bonds/publicissuedata.html

Chart 1: Corporate Bonds -Outstanding



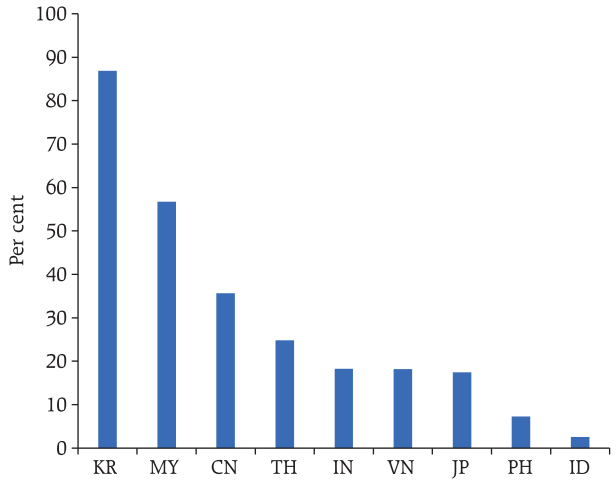
Source: https://www.sebi.gov.in/statistics/corporate-bonds/outstandingcropbond.html

Chart 3: Flow of Resources to Commercial Sector in India



Source: RBI.

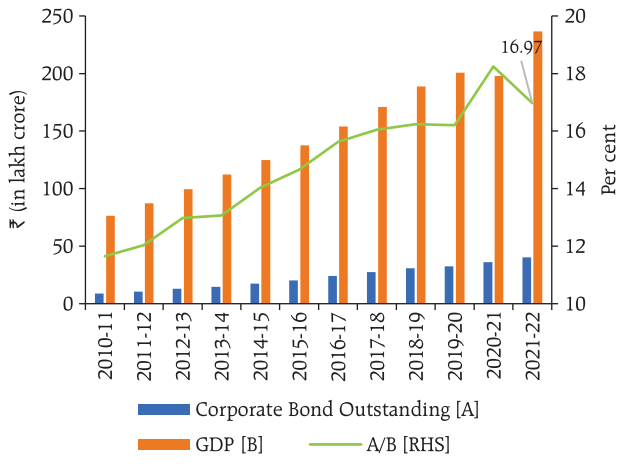
Chart 4: Corporate Bond Outstanding (as per cent of GDP) in Major Asian Economies



Data as on March 2022.

Source: https://asianbondsonline.adb.org/data-portal/ & https://www.sebi.gov.in/statistics/corporate-bonds/outstandingcropbond.html

Chart 5: Corporate Bond Outstanding as a share of GDP



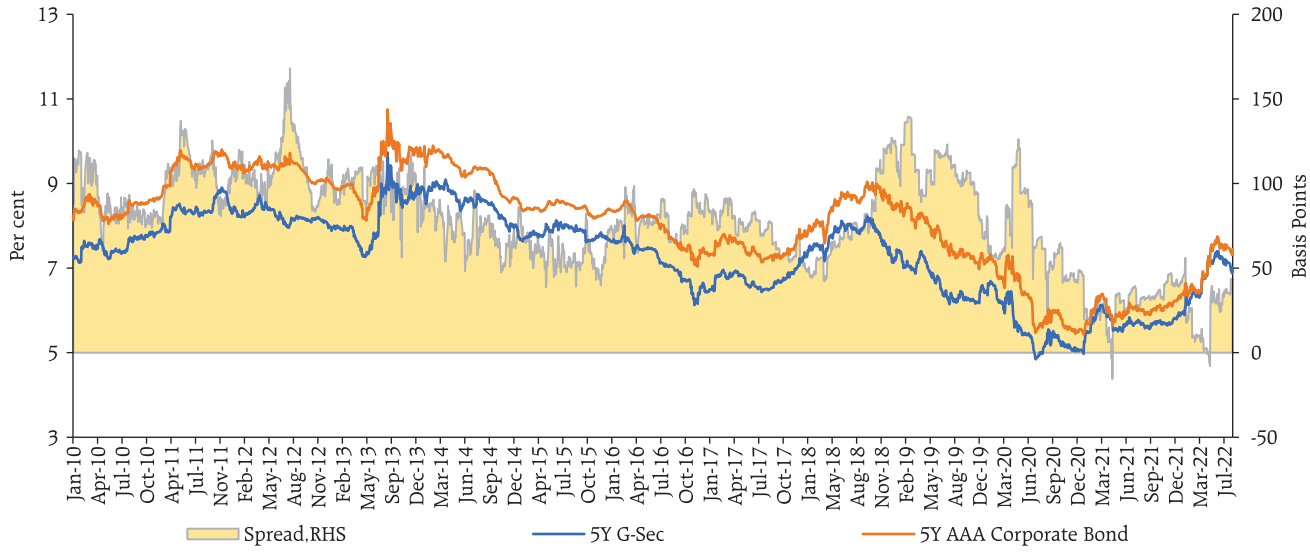
Source: RBI & SEBI
https://www.sebi.gov.in/statistics/corporate-bonds/outstandingcorpdata.html & https://www.sebi.gov.in/statistics/corporate-bonds/outstandingcropbond.html

Admittedly, the size of the corporate bond market in India, scaled by GDP, remains small compared to other major Asian emerging markets such as Malaysia, Korea and China (Chart 4). But the market is growing steadily (Chart 5) and reasonably given the traditional bank dominance.

The growing size of the corporate bond market is accompanied by growing diversity of issuers and markets. We now have issuances by new types of entities e.g. REITs and InvITs pursuant to the Union Budget announcing changes in several Acts including the SEBI Act, 1992, the Securities Contract Regulation Act, 1956 and the SARFAESI Act, 2002 to provide a legal framework for these entities to issue corporate debt securities. The SEBI issuance of regulations on the issue and listing of municipal debt securities has enabled market-based financing of infrastructure projects. Of course, more will need to be done to put in place conducive conditions for this sector to develop through, for example, greater transparency in city budgets, credible accounting and financial statements, independent audits and monitorable performance criteria. Also reassuring are the early signs of the development of a market for distressed corporate debt securities including debt securities issued as part of corporate insolvency processes.

There are other factors which testify to the development of the corporate bond market in the country and to its increasing resilience. A well-developed government securities market provides the backbone for the development of other rate markets such as corporate bond market. Corporate bonds are generally priced off the sovereign yield curve and resilient markets are characterised by stable credit spreads over benchmark yields of government securities. A comparison of the yields of 5-year government securities and AAA rated bonds of 5-year tenor over the last decade or so in the country clearly indicate that the government securities yield curve has provided a stable backbone for pricing of corporate bonds in the country (Chart 6). Trends in the variations of credit spreads has also been reassuring – the spreads have widened during times of stress and volatility, domestic or global, in testimony to the maturity of the corporate bond market in pricing.

Chart 6: 5Y G-Sec and 5Y AAA Bond Yield Movement



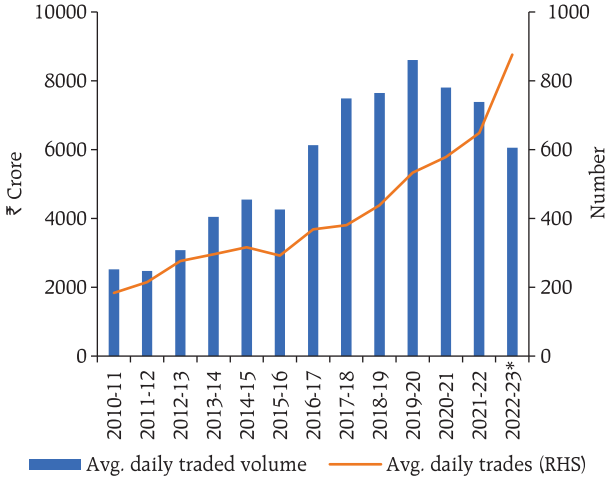
Source: Bloomberg.

Another reassuring trend about the evolution and maturity of corporate bond markets has been its ability to innovate and adapt. Thus, when concerns about the credit quality of business firms and their ability to withstand the disruptions of lockdowns were dominating discourse in the early days of the pandemic, the corporate bond market innovated with bonds featuring conditional credit risk premium entailed to harmonise the interests of issuers preferring to lock in the low interest rates prevailing then with that of investors' concerns about credit quality. Similarly, while corporate bonds in India are predominantly issued as fixed coupon bonds, during the calendar year 2021, increased issuances of floating rate bonds with coupons linked to money market and government securities benchmarks were witnessed, indicating efforts by investors to hedge against any increase in domestic interest rates. These are important metrics testifying to the resilience of the market in particular is ability to function well in times of stress.

B. Liquidity metrics - Developing the secondary market

The second important metric to assess the development of a corporate bond market is the development of secondary bond markets. Have secondary market trading volumes grown over the years? Undoubtedly, they have (Chart 7). The total settled value of secondary market trades during FY 2010-11 was ₹4.50 lakh crore which rose to ₹14.37 lakh crore for FY 2021-22. Clearly, secondary trading has not risen in consonance with the size of the market.

Chart 7: Secondary Market Trading in Corporate Bonds



* Data for FY 2022-23 is upto June 2022

Source: https://www.sebi.gov.in/statistics/corporate-bonds/corpbondsarchivesnew.html

But let us pause before passing judgement in this matter. A 2019 report on "Establishing Viable Capital Markets" by the BIS Committee of Global Financial System, based on a survey of a sample set of jurisdictions, concluded that the degree of liquidity concerns in the corporate bond markets of the surveyed advanced economics (barring the US) and emerging market economies were similar, on average. The challenges in development of liquidity in bond markets are thus clearly not unique to the corporate bond markets in India. Comparable data on turnover ratios of corporate bond markets of different jurisdictions are not readily available but approximate assessments do not indicate that the Indian corporate bond market lags its peers in respect of secondary market liquidity.

Let me spend a moment to look at the underlying issues. As on June 30, 2022, the outstanding stock of corporate bonds stood at ₹39.58 lakh crore[2]. The number of instruments outstanding was 29,745. The average size of an outstanding corporate bond instrument was, therefore, ₹133 crore – a small amount not conducive to development of liquidity in the secondary market. Compare this with the current outstanding stock of government securities at ₹84.71 lakh crore in 100 instruments[3]. The two markets are not comparable and it is not my intention to compare them. There is a single issuer in the government securities market – the government, compared to 5,394 issuers, as on June 30, 2022, in the corporate bond market. Replicating the experience of the Government bond market in the corporate bond market is not a realistic objective. SEBI has been progressively making efforts to nudge the market towards re-issuances in a bid to reduce fragmentation and improve liquidity in corporate bond markets - limiting the number of corporate bonds that could mature in any financial year. The constraint is that a corporate does not have the tools available to a Government to meet the rollover risk implicit in bunched up repayment obligations that result from consolidation through reissuance. Other factors that contribute to the limited activity in the secondary market are the "buy and hold" nature of investors and the predominance of private placement.

C. Development of complementary markets

It is well-established globally that well-functioning related markets – derivatives and repo markets - complement and supplement the development of liquidity in the cash market by enabling investors and market-makers to better manage risks and fund positions.

The primary risks associated with holding corporate bonds are interest rate risk and credit risk. The interest rate derivative market is reasonably liquid, particularly the overnight indexed swaps market. Markets for other interest rate derivative products like swaptions are developing. Recent regulatory efforts seek to harmonize on-shore and off-shore markets by, on the one hand, allowing non-residents to access the domestic market, and on the other hand, permitting domestic market makers to access the offshore market. Interest rate derivatives are also trading on exchanges though volumes are small.

The absence of a market for credit derivatives, despite regulatory initiatives for more than a decade, is a concern. To a certain extent, there is a chicken and egg problem here. The dominance of top rated issuances reduces the need to manage credit risk, while development of a Credit Default Swap (CDS) market is essential for the issuances of lower rated bonds. Two recent developments offer hope for the future development of the CDS market. The passage of the Act for Bilateral Netting of Qualified Financial Contracts, 2020, pursuant to which the Reserve Bank has notified CDSs, along with other OTC derivatives,

[2] Source: https://www.sebi.gov.in

[3] Source: RBI

as qualified financial contracts for netting. In February this year, RBI expanded the issuer (protection seller) and participant base for CDSs to include all major non-bank regulated entities viz., primary dealers, NBFCs, insurance companies, pension funds, alternate investment funds and mutual funds in addition to banks and foreign investors.

The market for repo in government securities is one of the most liquid markets in the country. But repo in corporate bonds has not taken off. Market feedback suggests that issues related to the lack of a trading platform like the one available for repos in government securities, lack of a central counterparty, high margin requirements, etc. have impeded the development of the market for repos in corporate bonds. SEBI is trying to facilitate the setting up of a repo clearing corporation. We keep our fingers crossed that going forward we will see this market too start to develop.

Issues, concerns and challenges

Let me now turn to some of the micro-structure issues of the corporate bond market in the country, which pose concern or which need to be addressed if the market has to take the leap to the next level of development and fulfil its potential as the major avenue for resource mobilisation in the country.

A. Rating profile

First, as is well known the market is dominated by highly rated issuers. But let us look at the dimension of the problem. In FY 2021-22, ratings were assigned to 1,235 corporate debt securities amounting to ₹22.55 lakh crore[5]. Of these, 278 or 22.5 per cent were rated AAA and 358 or 29 per cent were rated AA. 66 issuances or 5.3 per cent of issuances were non-investment grade. While these numbers themselves are skewed in favour of highly rated issuances, the skew is much more pronounced when looked at in value terms – 80 per cent of issuances in value terms were rated AAA and another 15 per cent were rated AA. While we can discuss the reasons for this trend, it is clear that the corporate bond market largely meets the needs of highly rated corporates.

B. Mode of issuance

The second issue relates to the mode of issuance. The large bulk of corporate bond issuances every year is through the private placement route rather than through public issuances. In FY 2021-22, the amount of money raised through public issuances of corporate bonds was ₹11,589 crore – just about 2 per cent of the amount of money raised through private placement at ₹5.88 lakh crore[5]. The advantages of a public issuance in terms of transparency and efficiency of price discovery are well understood. SEBI has been making efforts to make the private placement process more transparent and efficient, for example, through the introduction of the Electronic Bidding Process on stock exchanges. Nevertheless, there is an overwhelming preference for private placement. A hard look at the underlying issues including the reasons for issuers preferring to eschew the public issuance process is perhaps called for.

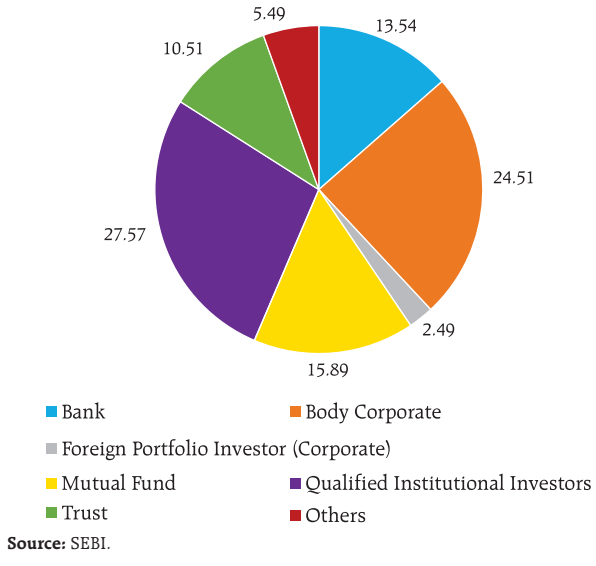
C. Investor profile

Third, let us look at the investor base. The investor base for corporate bonds is, as can be expected given the market microstructure, largely dominated by domestic institutions – insurance companies, banks and mutual funds (Chart 8). Retail participation in corporate bonds remains low – this in fact is a global trend. What is somewhat unique in India is that investors in debt oriented mutual funds – which is the avenue through which globally the retail investor participates in debt markets – are also largely institutional. Foreign participation in corporate debt, has also not been favorable to secondary market activity.

[4] Source: https://www.sebi.gov.in

[5] Source: https://www.sebi.gov.in

Chart 8: Share in Outstanding Corporate Bonds (Per cent) - As at end of FY' 22



Source: SEBI.

The profile of the investor base for the corporate bond markets has had implications for some of the issues and concerns I have flagged earlier. I talked of the limited access of lower rated issuers to the corporate bond market for mobilising resources. Part of the answer does lie in the investor base in the market which is closely regulated and has a preference for highly rated issuances, perhaps justifiably so. The economic profile, mandate and / or regulatory environment of these entities often incentivises "buy and hold" kind of participation in corporate bond market. With a large investor base with this profile, the challenges of developing liquidity in the secondary market or of developing liquid repo and derivative markets are compounded. To take an example, insurance and pension funds are one of the most active participants of credit derivative markets globally – both as buyers and sellers of protection. Without participation of these entities, it may be difficult for the credit derivatives market to develop in the country.

The question that arises is that what measures may be considered to widen the investor base to enhance accessibility of lower rated issuers and liquidity in the corporate bond market. Given the rise in retail investments in the domestic equity market, can this category, which is conspicuous by its absence in the corporate bond market, be offered incentives to broaden the investor base in the market? What can be done to attract foreign investment in our markets? What can be done by way of incentives for regulated entities to participate more actively in risk markets, without compromising on prudential considerations? These are questions which need deliberations by all stakeholders – Government, regulators and the participants of the corporate bond markets themselves.

D. Specialised Bonds

In the last couple of years, there have been increasing instances of domestic corporates tapping the global markets for raising funds. To a large extent, this is only to be expected given the large pool of liquidity and benign interest rate environment that was prevailing internationally. This is also an inevitable result of greater integration of the domestic economy with the rest of the world. But there are a couple of trends which require closer examination.

A number of our corporates have been tapping international markets to raise Environmental, Social & Governance (ESG) funding while domestically such issuances have been low. I know a lot of efforts are ongoing but there is perhaps a need for us to look closely at what are the factors impeding the development of the domestic market for ESG bonds and what needs to be done to attract the growing global pool of ESG funds to the country. Going by international experience, beyond the regulatory measures, there is a need to create conducive conditions for ESG bonds - greater transparency, credible checks against greenwashing including through arrangements for independent audits, and a robust taxonomy for the market and bonds. The announcement in this year's Union Budget referring to mobilisation of resources via 'Green Bonds' is also expected to enable a price anchor for ESG bonds in due course.

There is a limited investor base for capital bonds issued by banks in India. This has resulted in Indian banks accessing global markets for raising capital. While any issuer, including banks, will naturally search for the market where they can most efficiently raise funds, there is a need perhaps to look at factors which are impeding domestic appetite for such bonds and whether the factors are aligned to international norms / standards.

E. Price Transparency

The importance of high-quality and timely information on financial markets is basic to the development of the market. Most of you will be aware that in the domestic government securities market, information about every single trade is disseminated in near-real time ensuing the highest standards of transparency. There has been feedback from market participants about the need for improving the timeliness and integrity of data on primary and secondary market transactions in the corporate bond market. This is arguably a low hanging fruit which we can aspire for. It has also been highlighted that there is a need for adoption of uniform valuation methodology across investors. Valuation by an independent benchmark administrator would be ideal.

Conclusion

Let me conclude now. We have made impressive progress in the development of the corporate bond markets - the market is large and growing; the issuer base is expanding; product diversity and sophistication are developing; secondary volumes are low but growing; and market infrastructure is the best in the world. Efforts need to focus on improving complementary– repo and derivative – markets, diversify the investor base, both domestic and global, and improve access of borrowers at the lower end of the credit spectrum. Beyond this, market development and improvements will remain a continuous exercise. As much as we need to take these steps, it will serve us well to temper our expectations on the degree of liquidity in secondary corporate bond markets. If international experience is anything to go by, the best we can achieve may be well short of the liquidity we are used to in Government bond markets or equity markets.

Thank you.

ARTICLES

*State of the Economy**

Loss of momentum in global economic activity may be taking the edge off inflation, which remains elevated. The Indian economy is poised to shrug off the modest tapering of growth momentum in the first quarter of 2022-23. Aggregate demand is firm and poised to expand further as the festival season sets in. Domestic financial conditions remain supportive of growth impulses. Inflation remains elevated and above the tolerance level, underscoring the need for monetary policy to keep second order effects contained and inflation expectations firmly anchored.

Introduction

We live in times of conflicting possibilities – elevated inflation and rising recession risks; economic stagnation and increasing debt; strengthening US dollar and weakening currencies in the rest of the world; easing supply chain pressures and reshoring; synchronization in policy actions and deglobalisation; balance sheet normalization and liquidity stress. As a result, policy makers the world over are confronted with the most daunting challenges, but this cognitive dissonance is "the test of a first-rate intelligence, the ability to hold two opposing ideas in the mind at the same time and still retain the ability to function."[1]

In its latest statistics news release, the Organisation for Economic Cooperation and Development (OECD) points to gross domestic product (GDP) of the G20[2] falling quarter-on quarter (q-o-q) in the second quarter of 2022 after rising 0.5 per cent in the first quarter. Rather than a synchronized slowdown, however, this loss of momentum reflects country-specific factors. For India, the OECD attributes "decreases in government spending and net trade".[3]

Be that as it may, the slowdown in activity is taking the edge off inflation – it has been estimated that global inflation eased in July 2022 to 0.3 per cent on a monthly basis from an average of 0.7 per cent a month in the first half of the year[4], and going by data releases so far, this easing in inflation's momentum has extended into August as well. Weakening global demand in the face of diminished purchasing power is driving disinflation through two main channels – by weighing on commodity prices and by easing global supply chain constraints. Prices of grains, cereals and oils, staples of diets around the world, are falling back to earth - to levels last seen before the war began. Suppliers' delivery time is improving globally and transport costs are moderating. Retailers that had built inventories in response to supply chain pressures are cutting prices to shift stock. In India too, supply chain pressures are easing on the back of improvements in domestic supply delivery time, backlogs and decline in truck freights (Chart 1).

As supply chains normalise and demand rotates back from goods to services and balances out, carrying large stocks of finished goods could turn out to be costly and unnecessary. An improvement in the balance between supply and demand as supply chain pressures fade could stabilise economic activity. This could regenerate on a more even keel the recovery that was underway before the outbreak of geopolitical

---

* This article has been prepared by G. V. Nadhanael, Madhuresh Kumar, Kunal Priyadarshi, Rajeev Jain, Garima Wahi, Ramesh Kumar Gupta, Kaustubh, Pankaj Kumar, Arjit Shivhare, Prashant Kumar, Ipsita Padhi, Aayushi Khandelwal, Love Kumar Shandilya, Asish Thomas George, Shelja Bhatia, Akash Kovuri, Priyanka Sachdeva, Supriyo Mondal, Pratibha Kedia, Avnish Kumar, Yuvraj Kashyap, Palak Godara, John Vijay Guria, Sakshi Awasthy, Rajendra Raghumanda, Shreya Bhan, Arvind Kumar Shrivastava, Harendra Behera, Vineet Kumar Srivastava, Samir Ranjan Behera, Deba Prasad Rath and Michael Debabrata Patra. Views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

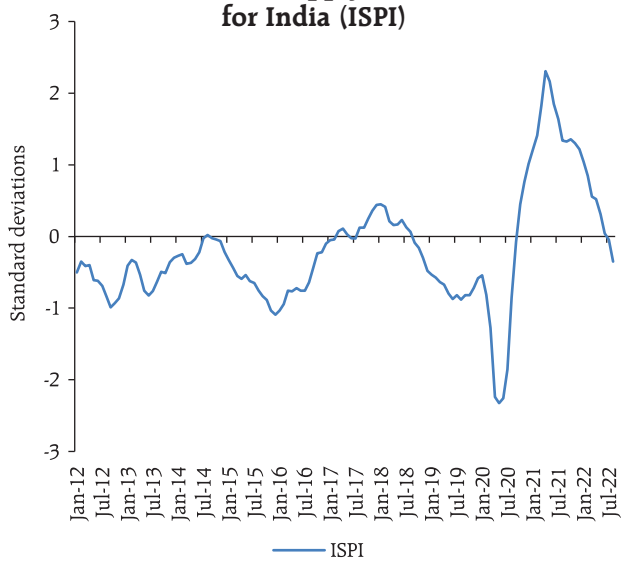
1 F. Fitzgerald Scott in the essay The Crack-Up, Esquire, 1936.

2 According to the International Monetary Fund (IMF), the G20 accounts for more than 80 per cent of global GDP.

3 OECD, Statistics News Release G20 GDP Growth, 13 September 2022, Paris.

4 Szentivanyi, N., (September 4, 2022). 'A Slowing China Helps Rein in Inflation Around the World'. WSJ: https://www.wsj.com/articles/a-slowing-china-helps-rein-in-inflation-around-the-world-11662296400

Chart 1: Index of Supply Chain Pressures for India (ISPI)



Source: RBI staff estimates.

hostilities. This positive outlook is, however, heavily contingent on the war and the course of the pandemic. The relief on imported inflation may flow through to consumer prices in the coming quarters, notwithstanding factors like labour market tightness and war-driven natural gas prices pushing the other way. It is expected that global inflation could ease to an annualized rate of 5 per cent in the second half of 2022 from 9.7 per cent in the second quarter.

There are indications though that the road to a lower inflation regime will be one less travelled by. The biggest craters are those that global spillover explosions are creating on financial markets and financial conditions more generally. Even as Brent spot languishes in the 90s (US $ 93 per barrel on September 12, 2022), the energy crisis gets bigger by every passing day and a bleak winter looms. The global economy is being rattled by big realignments in exchange rates. As the US dollar tests 20-year highs, it humbles the other reserve currencies and throws emerging market economy (EME) currencies into disarray. Each country is on its own in matters of currency depreciation, imported inflation, wider current account imbalances, capital outflows, reserve losses and financial instability. The words of the US Treasury Secretary John Connally 50 years ago appear to be coming home to roost: "the dollar is our currency but it's your problem".[5] Meanwhile, as the pace of runoff of the Fed's treasury holdings doubles from this month, US dollar liquidity is getting sucked out of markets everywhere, gripping equities and bonds in a pincer. Spillovers unleashed by Fedspeak are perhaps the greatest risk to the global economy's rendezvous with its interrupted recovery.

Turning to India, the economy is priming for take-off and this is best epitomised by the INS Vikrant, India's first indigenous aircraft carrier taking to the seas on September 2 and catapulting India into a select club of the world's great maritime powers. During the month, India also took further steps towards becoming a manufacturing hub for semi-conductors and display fabs. Apart from ensuring self-sufficiency and immunity to future supply chain disruptions in these strategic intermediates, this will open up job opportunities and investment horizons. Reshoring has begun.

Underlying these developments, there are indications that the economy is shrugging off the modest tapering of the momentum of GDP growth that is typical of the first quarter of the financial year. This is most evident in aggregate supply conditions. With the late revival and spread of the monsoon to the deficit regions and predictions of a delayed withdrawal, *kharif* sowing is set to exceed last year's acreage. Even paddy and pulses are swiftly catching up. Reservoir levels will buffer up *rabi* prospects. Hence, the foodgrains production target of 328 million tonnes for 2022-23 – only 4 per cent above last year's output – appears to be in striking range. The momentum of industrial production did turn negative in July 2022, but that was after 7 months of continuous increase. For August, the manufacturing purchasing managers'

[5] G10 meeting, Rome, 1971.

index (PMI) has held up well, as the section on domestic developments will address. Services are on a roll and the business expectations index for services was at a 51-month high. Sales of passenger vehicles, fast moving consumer goods and property, and the movement of goods and people suggest that aggregate demand is firm and poised to expand further as the festival season sets in.

Domestic financial conditions are engendering an environment in which the impulses of growth can be nurtured and strengthened. Equity markets are getting their groove back as foreign portfolio flows are coming back, with the trickle of July turning into a flood in August and September so far. Bond yields have softened, bucking the global trend and this is creating congenial borrowing cost conditions all around. Bank credit is accelerating every fortnight, even adjusting for base effects, to regain its place as the predominant source of finance in India. In response, banks are mobilising bulk deposits, drawing down balances held with the Reserve Bank of India (RBI) and their investments in non-SLR instruments. Mobilising of retail deposits is gaining pace with deposit rates being raised across the banking system. In the currency markets, the Indian rupee (INR) is holding its poise, with adequate supplies of dollar liquidity; in fact, the Indian forex market is considered among the most liquid in the region and is actively used by foreign investors to redomicile assets held in neighbouring countries.

While on exchange rates, it is worthwhile noting in passing that India has the fifth largest reserves and is the fifth largest economy of the world – up from 6th – with a GDP of US $ 3.5 trillion in FY 2022. Hence, there can be no disagreement with the statement of the Managing Director, IMF that India continues to be a bright spot in the global economy, despite the global uncertainty and headwinds.

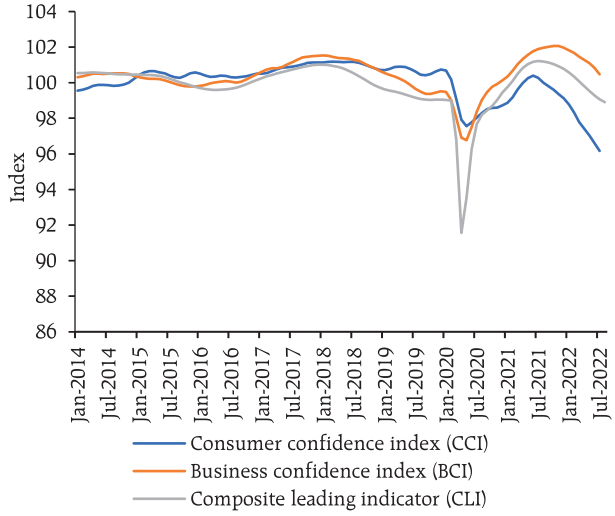
Set against this backdrop, the remainder of the article is structured into four sections. Section II captures the rapidly evolving developments in the global economy. An assessment of domestic macroeconomic conditions is presented in Section III. Section IV reviews financial conditions in India, while the last Section concludes the article.

II. Global Setting

Global economic activity experienced a loss of momentum in Q2:2022, with most economies exhibiting contraction or deceleration as the outlook deteriorated. This was reflected in a sequential fall in the composite lead indicator (CLI) for OECD countries for 13 months in a row up to August 2022 (Chart 2). Synchronised and aggressive monetary tightening, lingering uncertainty from geopolitical tensions, continued supply chain disruptions and multi-decadal high inflation were the major drags on growth. Both business conditions and consumer confidence worsened with the decline in the latter being more pronounced.

Our model based nowcast shows that global GDP contracted in Q2:2022, and this is likely to persist in Q3:2022 (Chart 3). [6]

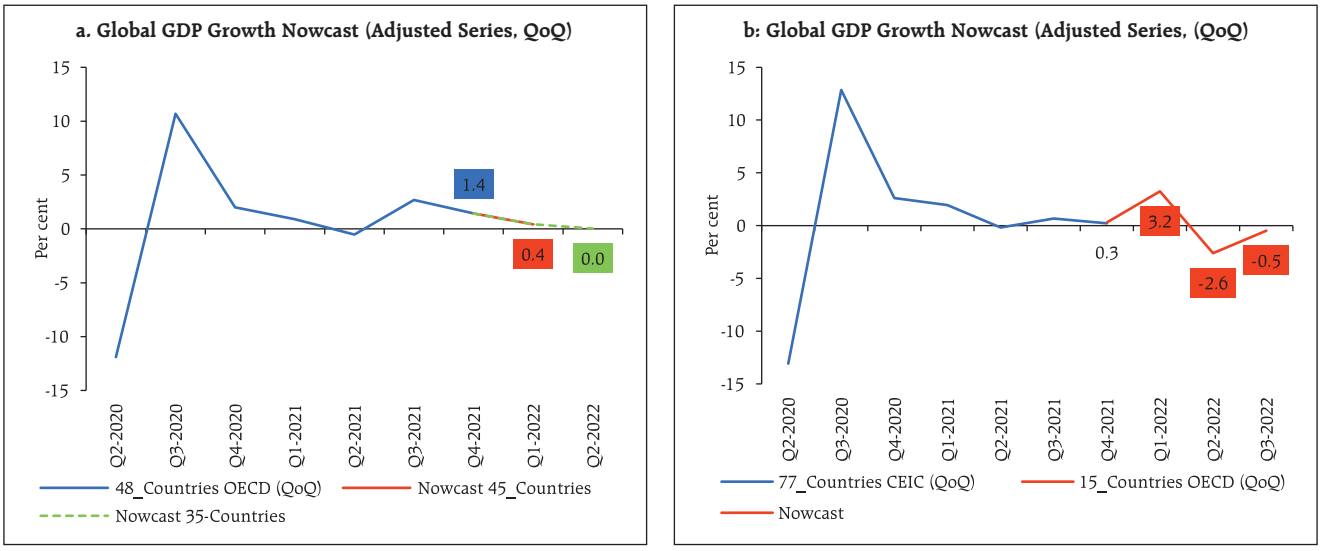
Chart 2: Leading Indicators of Economic Activity in OECD Countries



Source: OECD (Accessed September 12, 2022).

[6] Q2:2022 GDP series compiled by OECD is available for 35 countries so far as against 45 countries till Q1:2022.

Chart 3: Global GDP Nowcasts



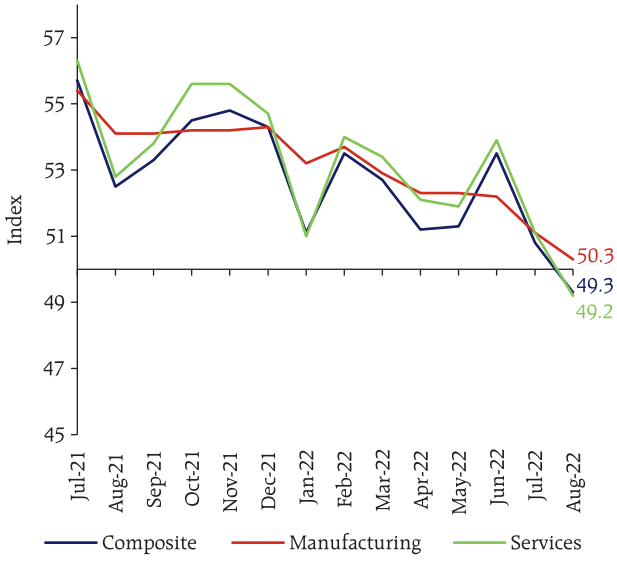
Source: RBI staff estimates.

Among high frequency indicators, the global manufacturing PMI fell to a 26-month low of 50.3 in August from 51.1 in July as new orders and global manufacturing production contracted while stocks of finished goods rose. Output contracted across advanced economies (AEs) including the US, the euro area, Japan and the UK while slowing growth was observed for countries like China, Brazil, Spain and Australia. The global composite purchasing managers' index (PMI) contracted for the first time since June 2020 from 50.8 in July to 49.3 in August, along with a contraction in services index (Chart 4). Sector wise, the PMI declined across consumer, intermediate and investment goods.

In August release, the Goods Trade Barometer compiled by the World Trade Organization (WTO) indicated on-trend trade expansion, but against a weakening outlook for the remaining part of the year. World merchandise trade volume growth slowed down to 5.1 per cent (y-o-y) in June 2022 from 5.8 per cent in May on a combination of an unfavourable base effect and weak momentum (Chart 5a). Concomitantly, waning demand for vessels caused the Baltic Dry Index – a measure of shipping charges for dry bulk commodities – to slide by 49.1 per cent in August to its lowest level in over 2 years (Chart 5b). PMI subindices indicate a fall in the volume of new export business for the sixth consecutive month and receding international trade flows. Only India and Australia saw improvement in foreign demand in August.

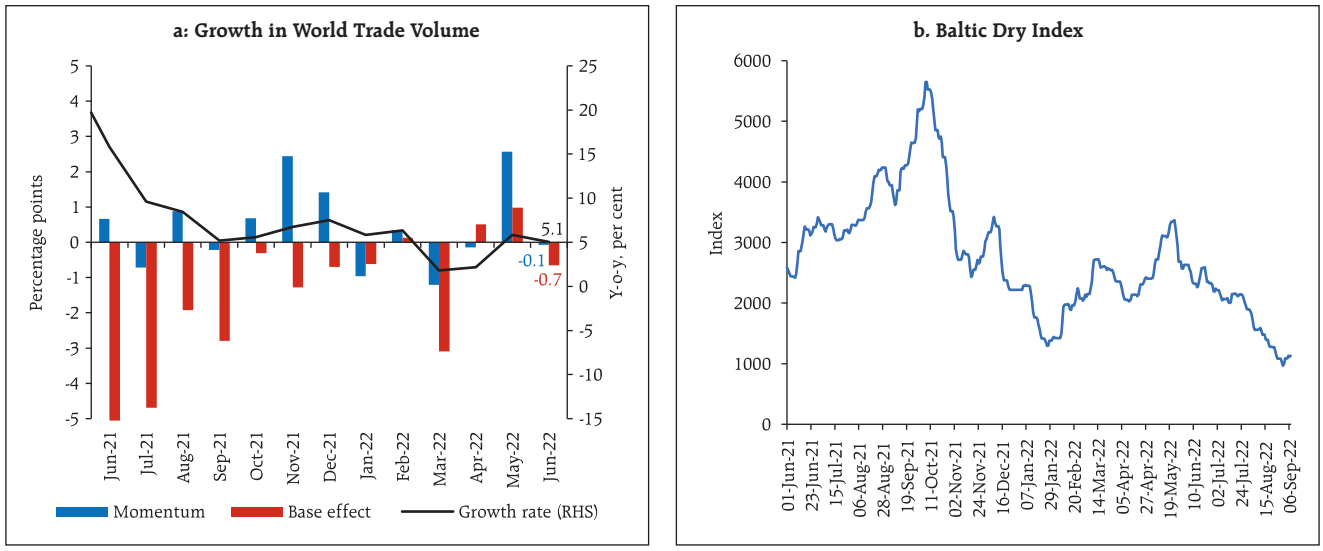
Global commodity prices remained volatile after their fall in June from historical highs. Prices edged up during late July - early August, before

Chart 4: Global PMIs



Source: IHS Markit.

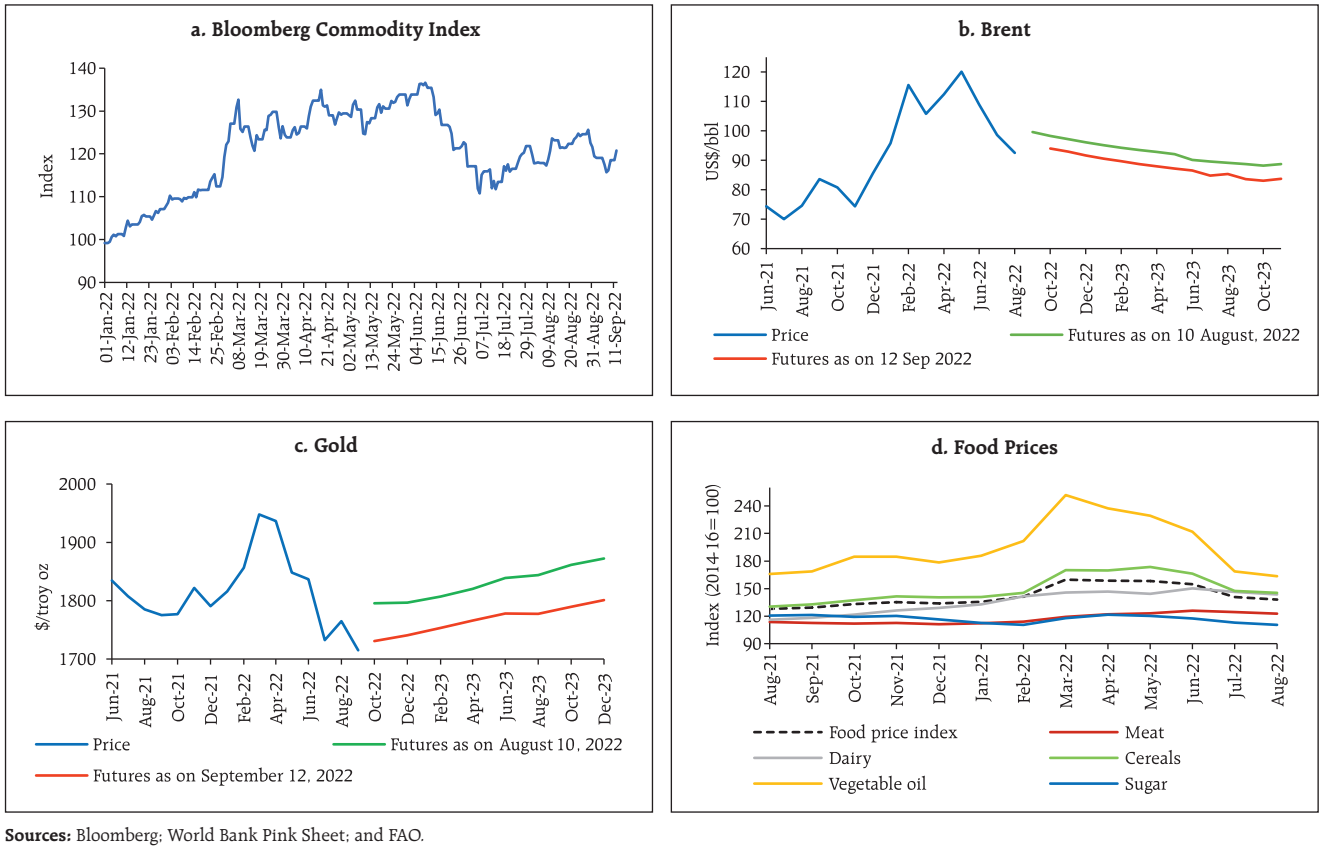
Chart 5: World Trade and Shipping Costs



Source: CPB Netherlands; and Bloomberg.

moderating towards the end of the month, largely driven by concerns over demand slowdown (Chart 6a). Crude oil prices traded below US$ 100 per barrel with heightened volatility due to expectations

Chart 6: Commodity and Food Prices



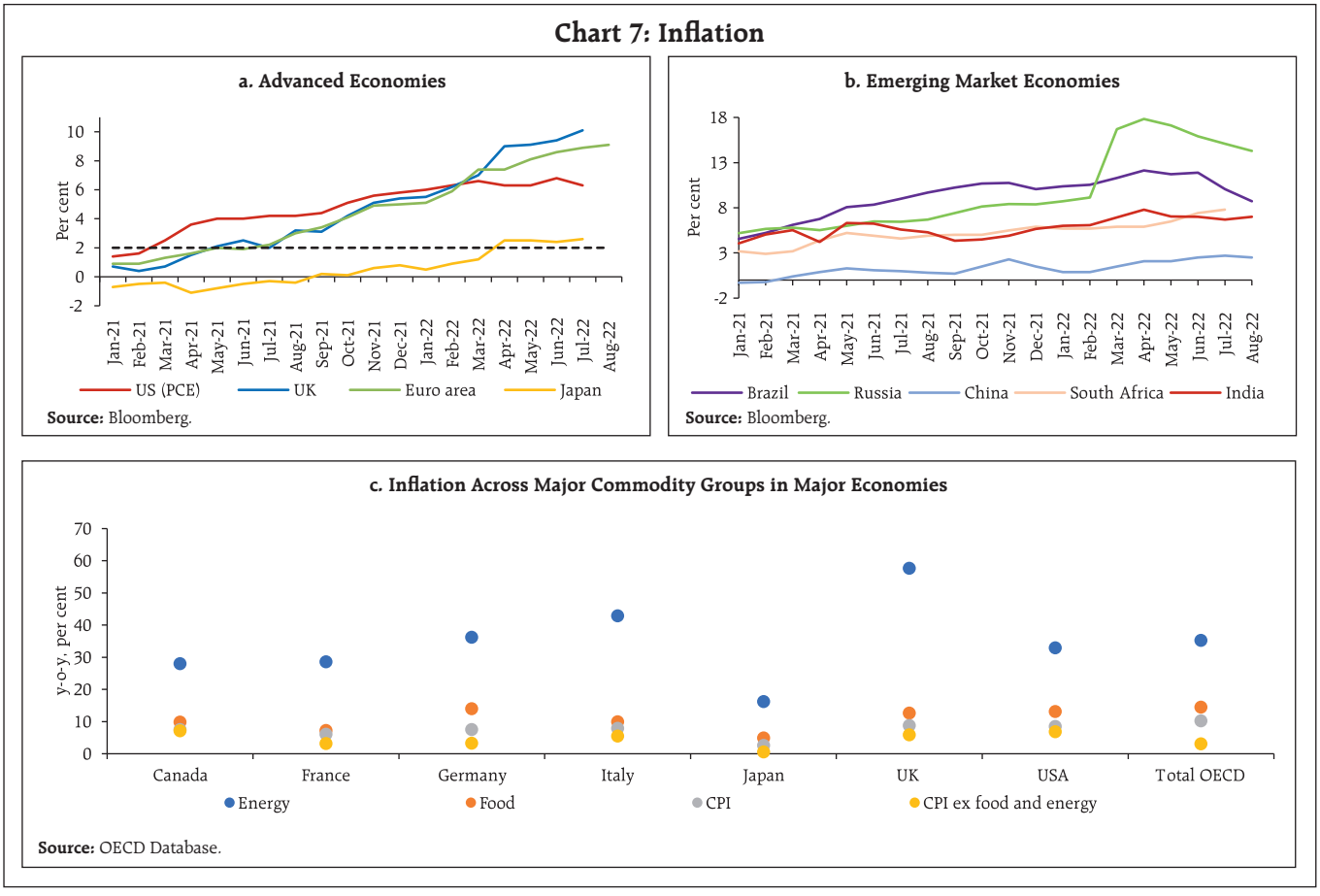
Sources: Bloomberg; World Bank Pink Sheet; and FAO.

of an imminent slowdown in global demand. Brent crude prices broke below the key support of US$ 90 per barrel on September 7 – the first time since February. The decision of Organization of Petroleum Exporting Countries (OPEC) to cut output by 1,00,000 barrels per day reignited supply concerns. Crude oil prices have recorded a 21.5 per cent gain year to date (up to September 14, 2022) (Chart 6b).

Gold prices lost the momentum gained in early August and fell by close to 4 per cent in the second half of August due to the stronger US dollar and rising US 10-year G-sec yields (Chart 6c). The FAO food price index registered its fifth consecutive monthly decline as it dropped by 1.9 per cent in August 2022, marked by fall in all its five sub-indices[7] (Chart 6d).

Inflation remained elevated much above targets/ tolerance levels in both AEs and emerging market economies (EMEs), driven up by energy and food prices (Chart 7). The US headline CPI inflation (y-o-y) moderated to 8.3 per cent in August 2022 from 8.5 per cent in July while core CPI accelerated to 6.3 per cent in August. Inflation in the US measured by the y-o-y change in the personal consumption expenditure (PCE) price index moderated to 6.3 per cent in July 2022 from 6.8 per cent in June with a monthly momentum of -0.1 per cent as energy prices decreased 4.8 per cent (m-o-m) while food prices increased 1.3 per cent. Core PCE inflation also decelerated to 4.6 per cent in July 2022 from 4.8 per cent a month ago as the monthly momentum of 0.1 per cent was cloaked by a favourable base effect. On the other hand, Euro

Chart 7: Inflation



[7] FAO food price index is made up of sub-indices for meat, dairy, cereals, vegetable oils and sugar.

area annual inflation shot up to a record high of 9.1 per cent in August, primarily driven by high energy prices followed by those of food, alcohol and tobacco. CPI inflation in the UK eased to 9.9 per cent (y-o-y) in August 2022 from its double digit peak in July due to moderation in motor fuel prices.

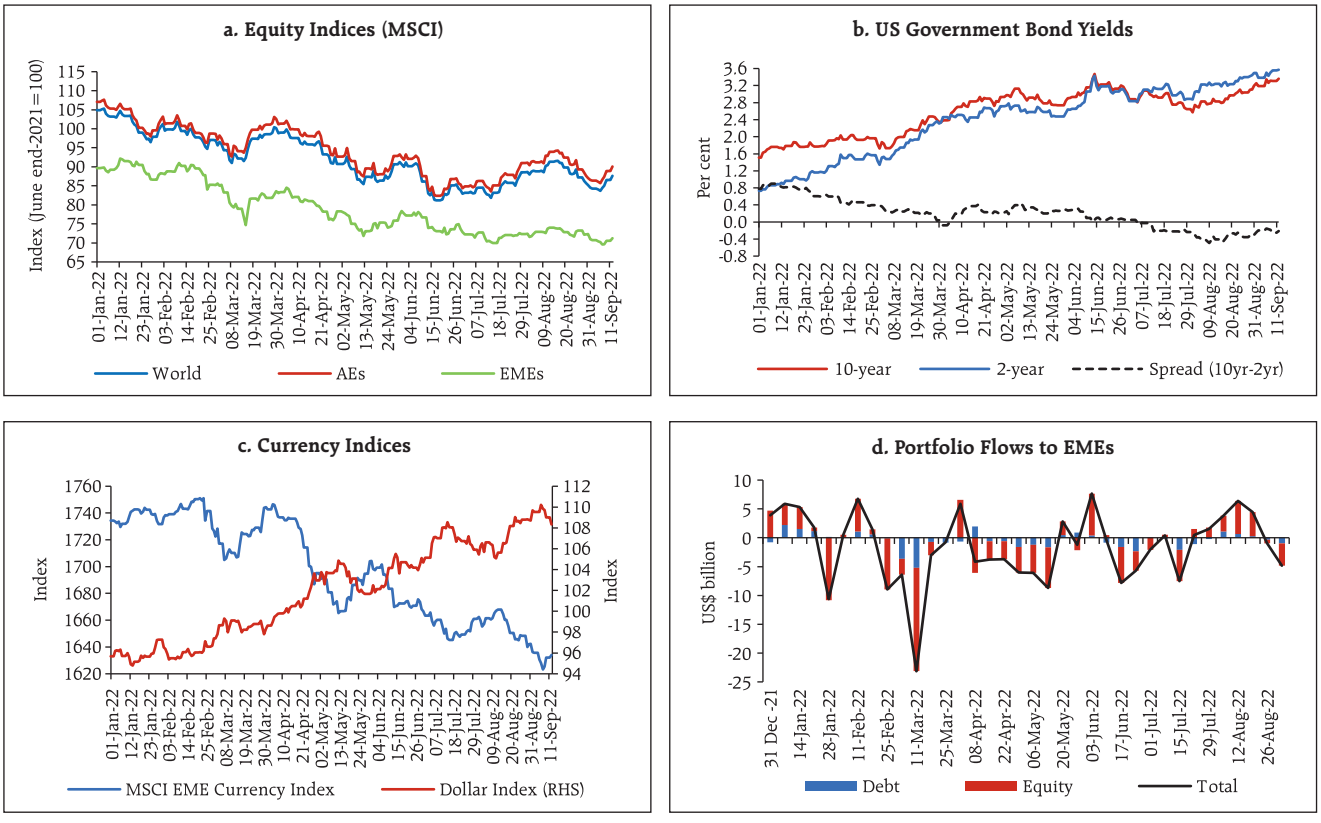
Among the BRICS economies, inflation in Brazil eased to 8.7 per cent in August from 10.1 per cent in July, while in China it eased to 2.5 per cent (Chart 7b). In Russia, inflation softened further to 14.3 per cent in August from 15.1 per cent in July.

Global equity markets, which were on an uptrend from mid-June to early-August, started to edge down in the second half of August. The MSCI world equity index retracted its gains, ending the month 3.9 per cent lower than in July. The decline was primarily driven by the AEs sub-index while emerging market equities managed to hold on to the levels in the previous month (Chart 8a).

In the bond market, 10-year G-sec yields hardened across major AEs reflecting central banks' hawkish stance as inflation edged up. The 10-year US Treasury yield shot up by 54 basis points in August while the 2-year G-sec yield rose by 61 bps, thus widening the gap between the two and leading to a steeper inverted yield curve (Chart 8b). The US dollar continued its rally in August and early September on the Federal Reserve's hawkish tone and on safe haven demand. Concomitantly, the MSCI currency index for EMEs declined in August and early September due to equity and debt outflows from EMEs (Chart 8c & 8d).

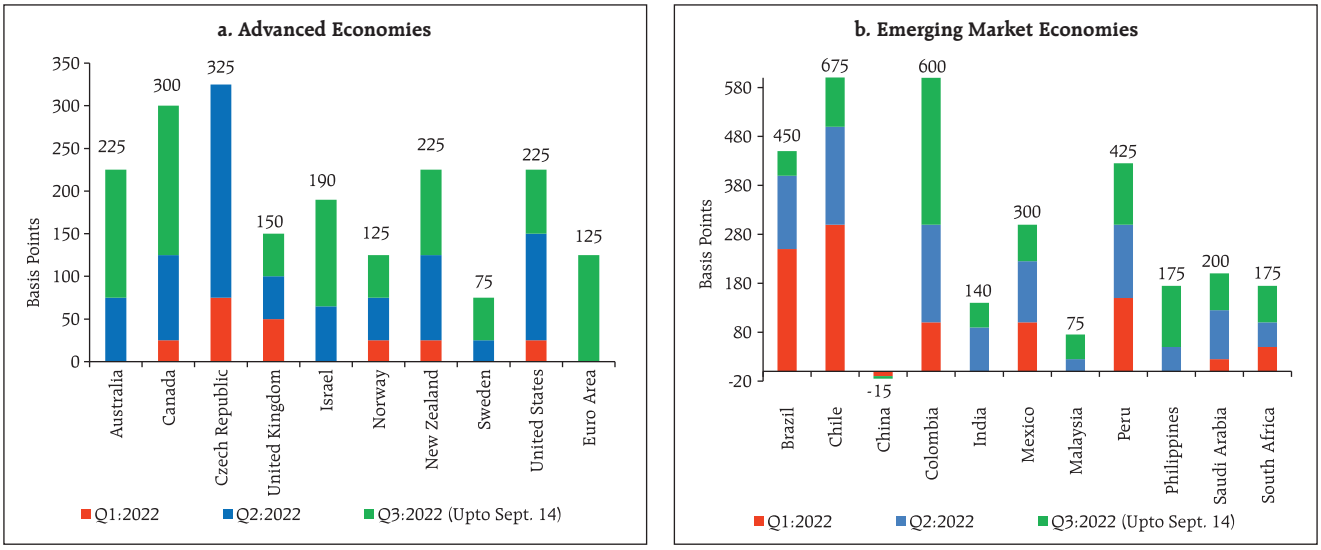
Central banks of most AEs and EMEs have undertaken aggressive monetary tightening to bring down inflation. The European Central Bank (ECB)

Chart 8: Financial Markets



Sources: Bloomberg; and IIF.

Chart 9: Synchronised Policy Tightening



Source: BIS.

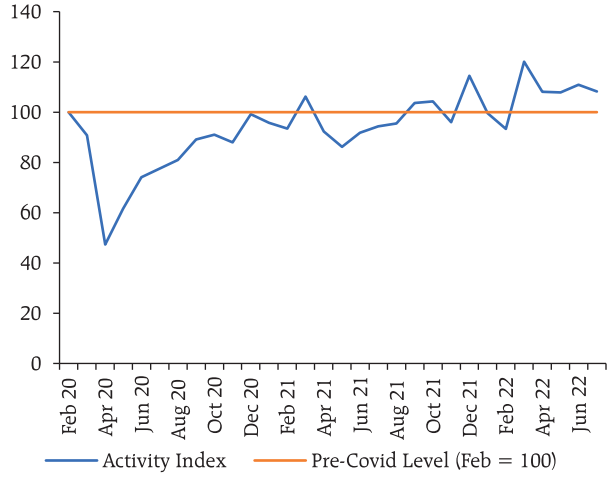
hiked its policy rate by a record 75 bps as a frontload measure and hinted at further rate increases to dampen demand and guard against the risk of persistent upward shift in inflation expectations. The Bank of England raised its policy rate in August by 50 bps and indicated commencement of gilt sales after its September meeting. The Bank of Canada also hiked by 75 bps in September on persistent inflation, especially core inflation. Reserve Bank of Australia increased its cash rate by 50 bps in September to contain rising inflation. Israel and Iceland raised its policy rate by 75 bps while New Zealand and Norway increased by 50 bps each in August. Japan, however, continued to buck the trend by maintaining an accommodative stance.

Most EME central banks have also continued with policy tightening (Chart 9). Indonesia embarked on the policy tightening route with a 25 bps increase, the first increase since 2018. Turkey remained an outlier by cutting its rate by 100 bps. China also continued with its monetary policy easing cycle by reducing the 1-year Loan Prime Rate (LPR) by 5 bps and the 5-year LPR benchmark for pricing of mortgages by 15 bps in August.

III. Domestic Developments

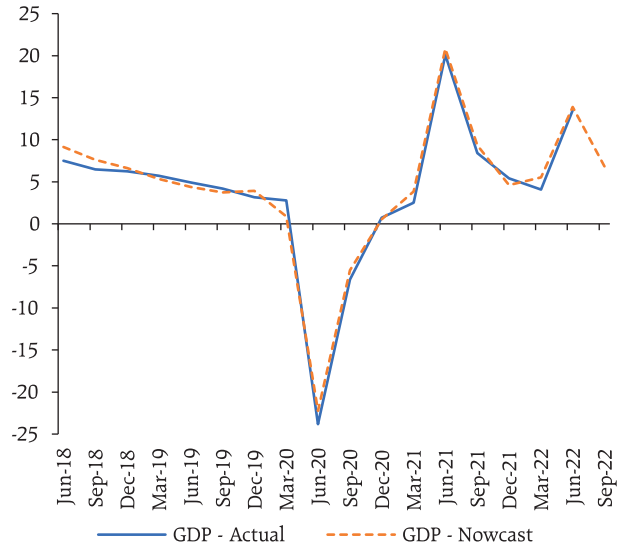
The Indian economy continued to tread a path of recovery in 2022-23 in spite of some loss of momentum due to global headwinds. Our economic activity index that employs a dynamic factor model (DFM) with 15 high frequency indicators indicates range bound performance during May to July (Chart 10). Under alternative model specifications,

Chart 10: Activity index (DF-15)



Note: The Activity index is constructed by extracting the common trend underlying the set of carefully selected high frequency indicators of the economic activity using Dynamic Factor Model (DFM).
Source: RBI staff estimates.

Chart 11: GDP - Actual and Nowcast



Source: RBI staff estimates.

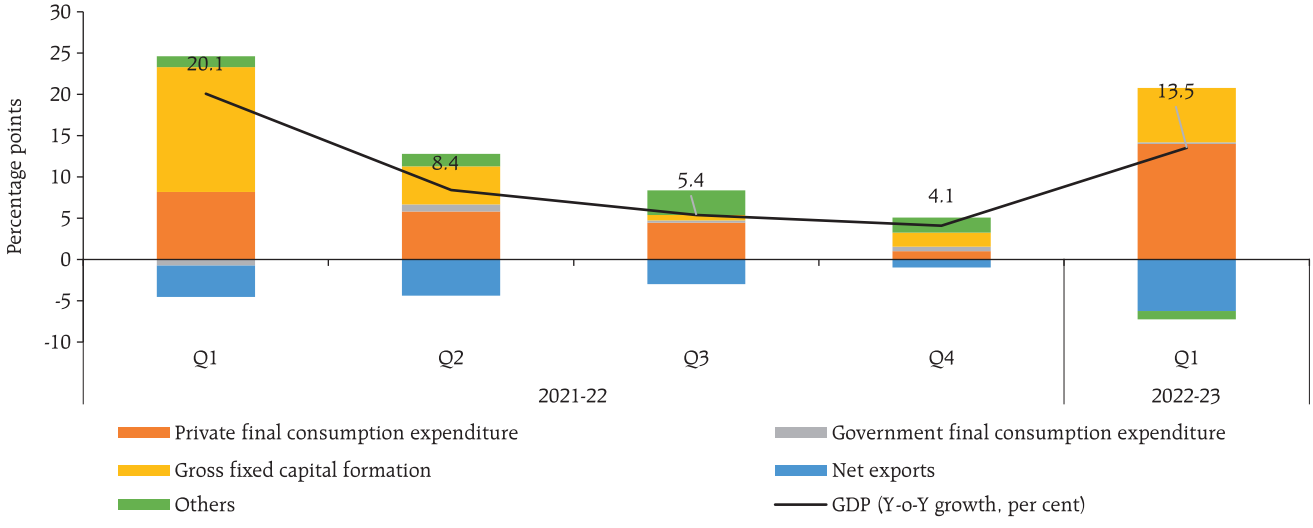
GDP growth for Q2:2022-23 is nowcast at 6.8 per cent (Chart 11). A fuller assessment of Q2 GDP with a wider set of information and indicators will be presented in MPC resolution of September 30, 2022.

Aggregate Demand

The quarterly estimates released by the National Statistical Office (NSO) showed that the Indian economy clocked a growth of 13.5 per cent in Q1:2022-23, aided by a favourable base effect (Chart 12). By June 2022, GDP was 3.8 per cent higher than its pre-pandemic level (Q1:2019-20). Private consumption, which registered a growth of 25.9 per cent in Q1:2022-23, was the major driver. Buoyed by the government's thrust on infrastructure, gross fixed capital formation (GFCF) recorded a growth of 20.1 per cent in Q1:2022-23. This was also reflected in a sharp acceleration in proximate coincident indicators – steel consumption; cement production; and imports of capital goods. With the growth of imports outpacing that of exports, net exports contributed negatively in Q1:2022-23.

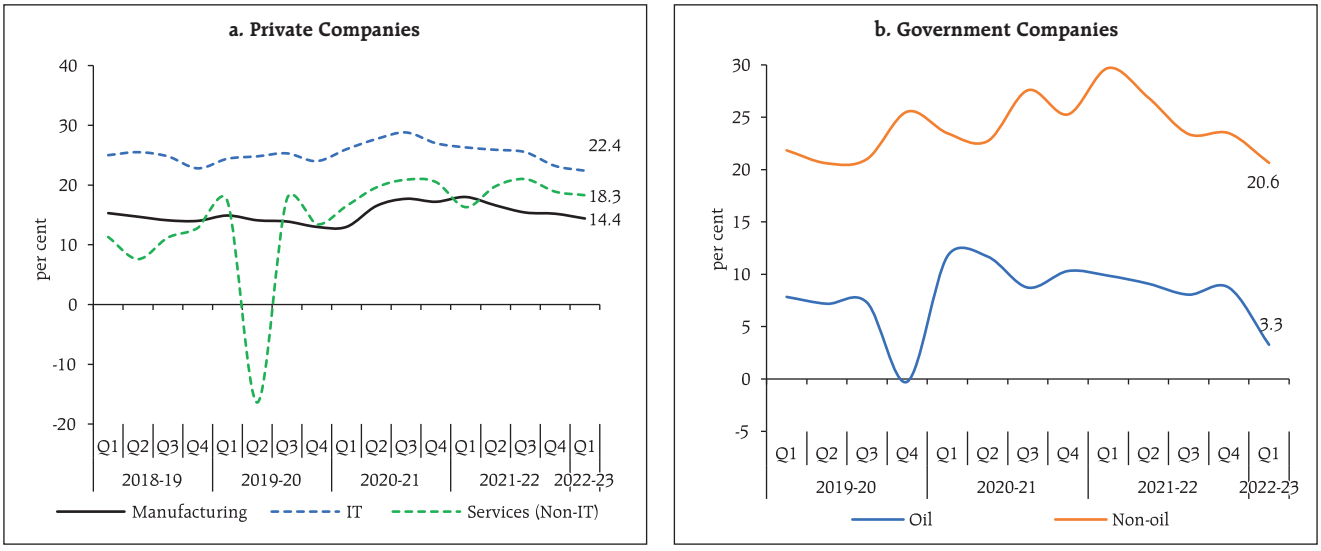
Indian companies, listed non-financial private and government companies' sales growth (y-o-y) surged by 41.0 per cent and 73.6 per cent, respectively, in Q1:2022-23. Even adjusted for inflation, sales growth remained in high double digits. Operating profit margins of both government and private companies have come under some pressure in the face of an across-the-board rise in variable costs of production, including raw materials

Chart 12: Weighted Contribution to GDP Growth



Note: Others include change in stock, valuables and statistical discrepancies.
Source: NSO.

Chart 13: Listed Non-financial Companies – Operating Profit Margin



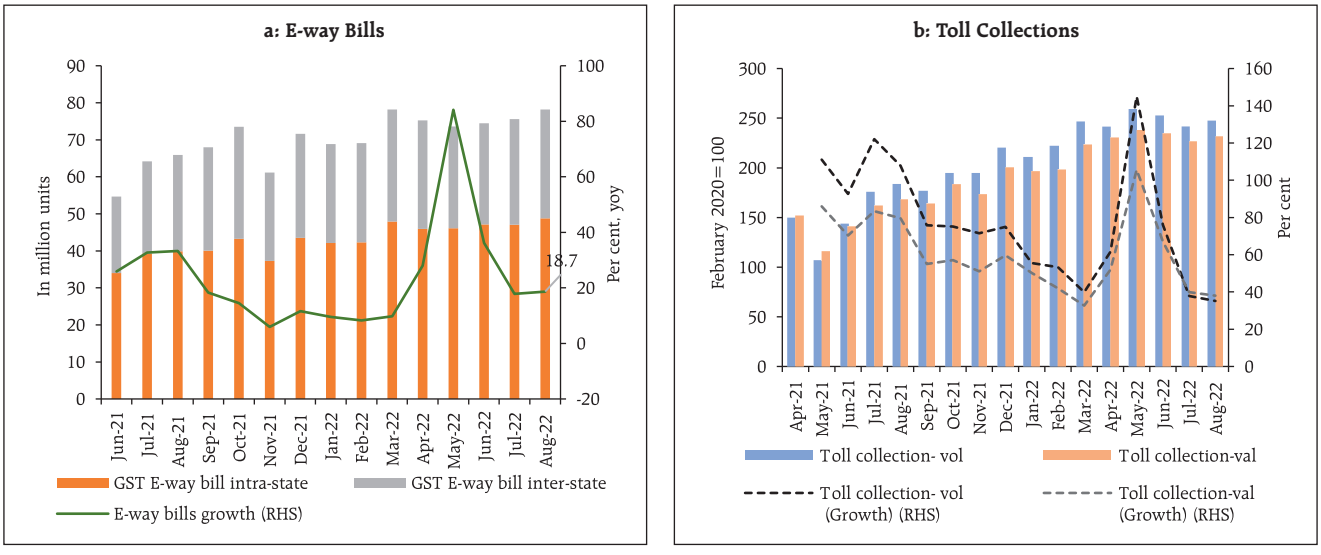
Source: Capitaline database; and RBI staff estimates.

(Chart 13). With global commodity prices moderating and domestic inflationary pressures easing, operating margins are expected to go up going forward.

High frequency indicators of economic activity indicate continued recovery *albeit* at a slower pace in Q2:2022-23. Both inter and intra-state E-way bills generation picked up sequentially in August 2022 (Chart 14a). Toll collections increased in both volume and value terms over the previous month (Chart 14b).

Fuel consumption increased in August, helped by an increase in off-take of petrol and aviation turbine fuel (ATF) consumption, even as high-

Chart 14: E-way Bills and Toll Collections



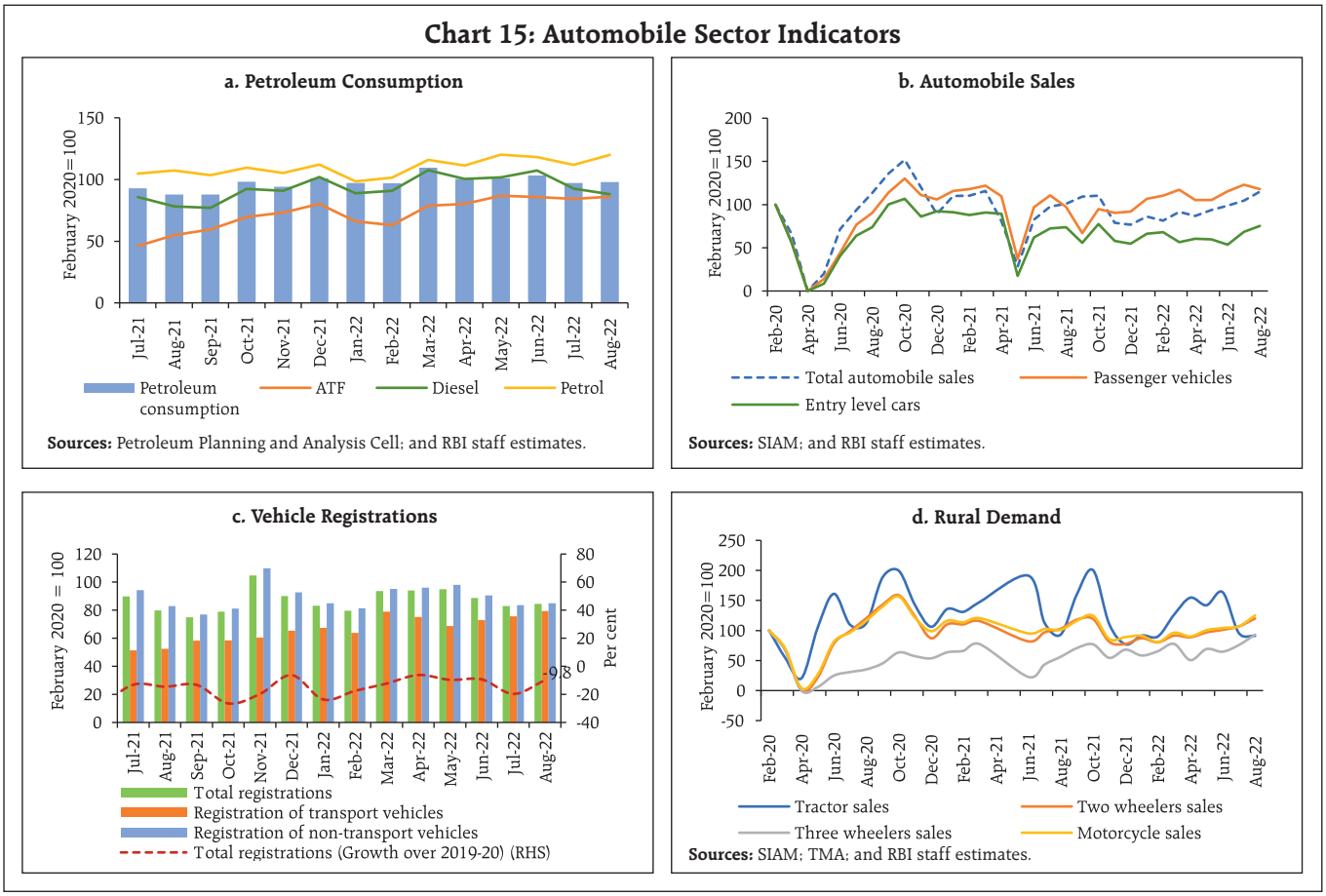
Source: GSTN; Reserve Bank of India; and RBI staff estimates.

speed diesel used in transport vehicles, recorded a marginal dip (Chart 15a). The automobile sector continued to gain momentum in August with supply bottlenecks coming to a near end. Within passenger vehicles, the entry level segment (in the range of under 3600 mm) picked up in August, reaching about 75 per cent of pre-pandemic sales domestically (Chart 15b). Retail sales of automobiles picked up in August as registration of both transport and non-transport vehicles recorded expansion on account of the beginning of the festive season, new product launches and easing supply constraints (Chart 15c). The rural sector also exhibited robust demand, with sales of two wheelers and three wheelers picking up sequentially, the latter recording the highest sales in 30 months. Other indicators, *viz.*, domestic sales of two wheelers continued to cross pre-pandemic levels, even as tractor sales remained muted due to uneven spread of monsoon (Chart 15d).

FMCG sales recovered in August 2022, with festive season bumping demand. Rural consumption recording an upturn, aided by good monsoon and cash earnings. Total FMCG sales recorded a value growth by 6.3 per cent in August on a m-o-m basis[8]. Demand is expected to sustain in the coming months, with the festival season, normal monsoon and cooling commodity prices expected to boost FMCG sales.

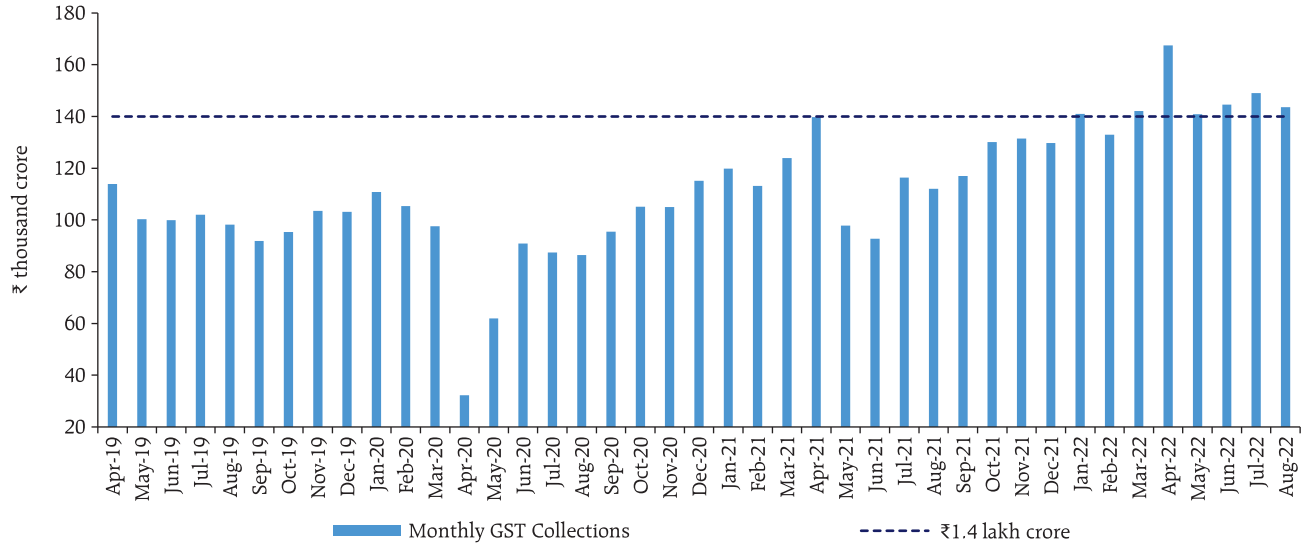
GST collections (Centre *plus* states) stood at ₹1.44 lakh crore in August 2022, surpassing ₹1.4 lakh crore

Chart 15: Automobile Sector Indicators



[8] Business Standard, Sep 02, 2022.

Chart 16: Monthly GST Revenue



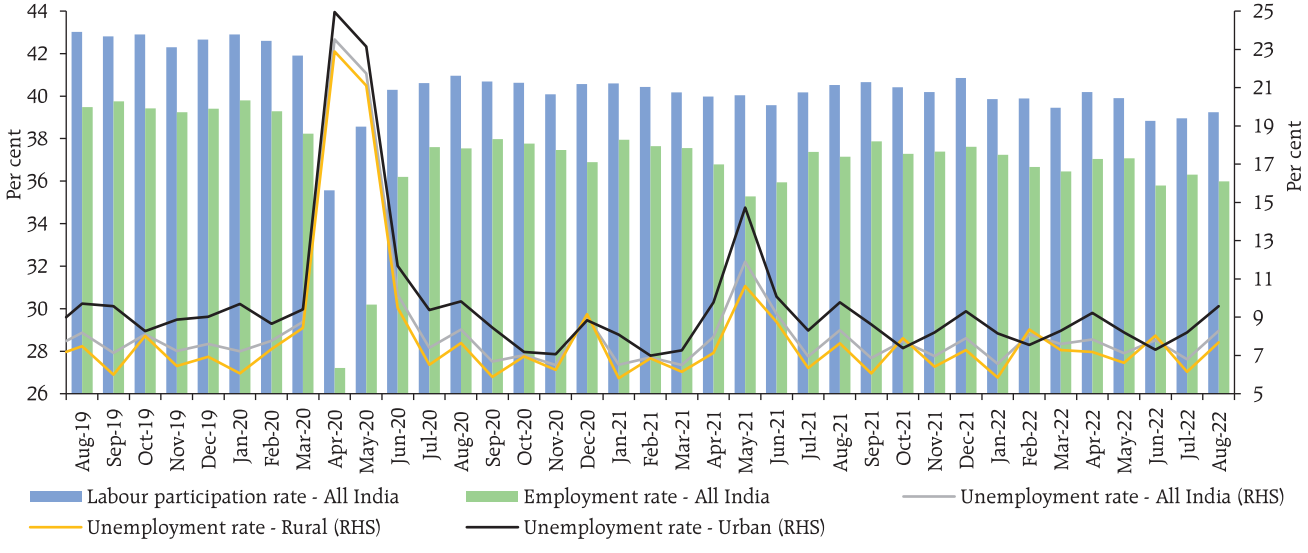
Source: Press Information Bureau (PIB).

for the sixth consecutive month, with a y-o-y growth of 28.2 per cent (Chart 16).

As per the household survey of the Centre for Monitoring Indian Economy (CMIE), the labour participation rate improved to 39.2 per cent in August 2022 from 39.0 per cent a month ago while the employment rate fell by 0.3 percentage points. As a result of these developments, the unemployment rate rose from 6.8 per cent in July to 8.3 per cent (Chart 17). While the rise in unemployment in August has a strong seasonal component, it is equally spread across rural and urban areas (Annex).

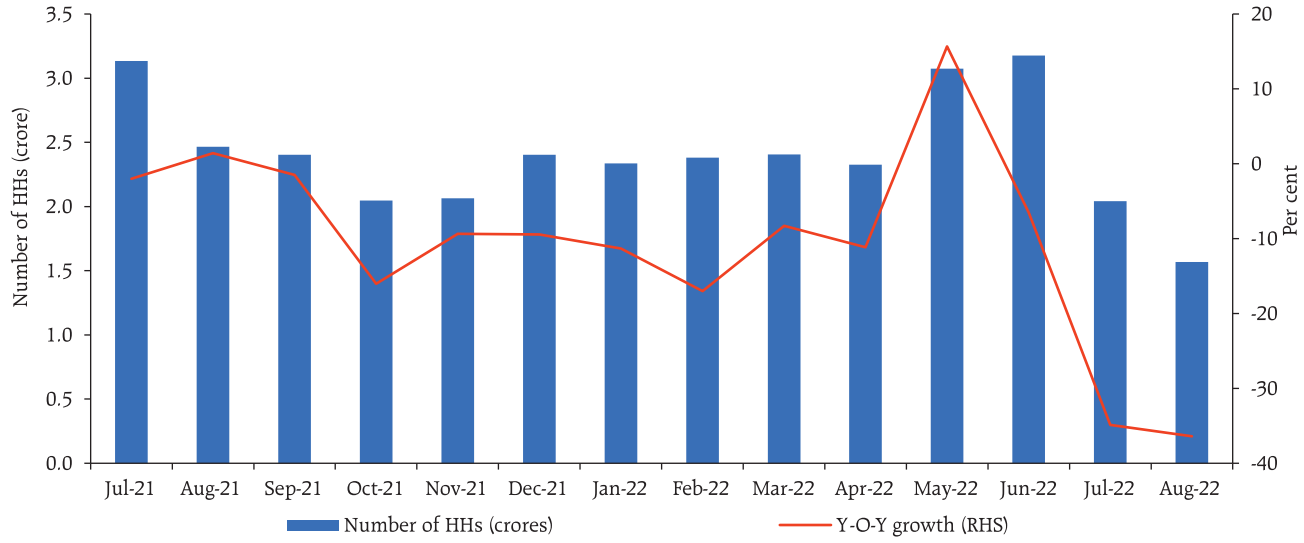
Demand for work under the Mahatma Gandhi National Rural Employment Guarantee Scheme

Chart 17: Employment, Unemployment and Labour Participation Rates



Source: CMIE.

Chart 18: Demand for work under MGNREGs

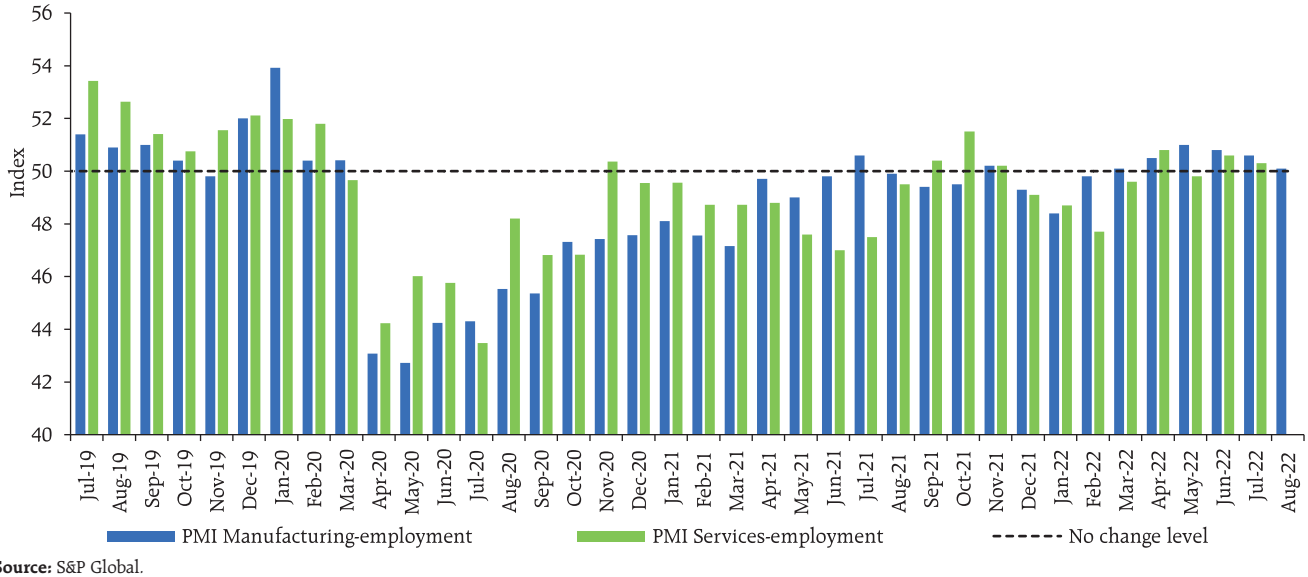


Source: Ministry of Rural Development, Government of India.

(MGNREGS) continued to show a decline in August with a y-o-y reduction of 36.4 per cent indicating availability of gainful employment opportunities in agriculture and farm sectors (Chart 18).

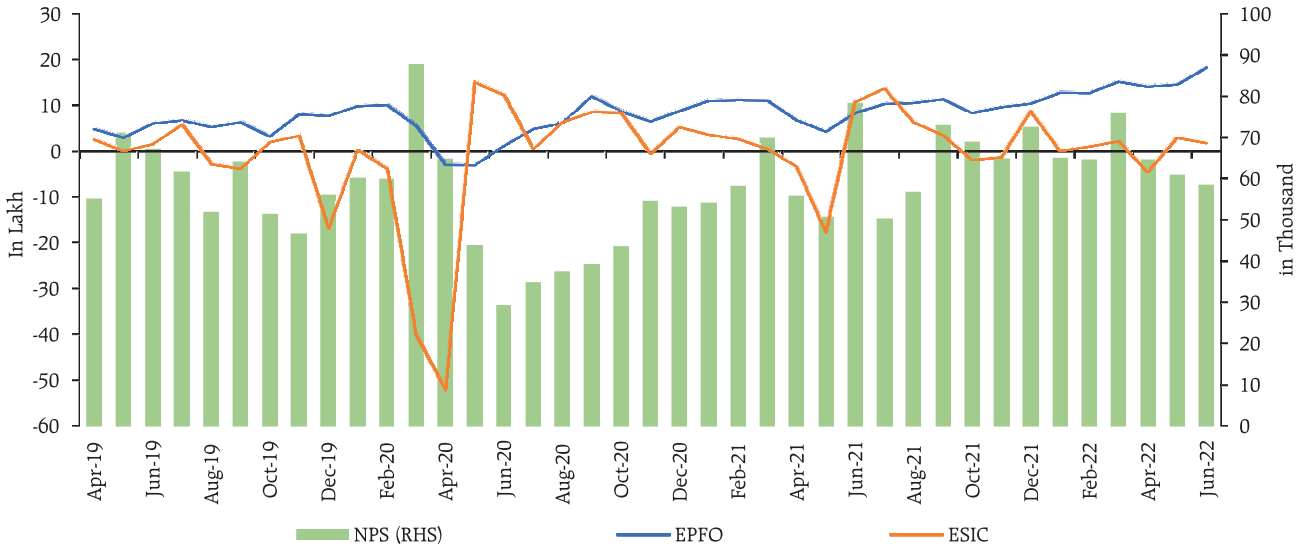
In terms of the organised sector employment outlook, the Purchasing Managers' Index (PMI) employment sub-index for manufacturing moderated while the services sector employment PMI recorded a 14-year high, led by improvement in the outlook for consumer services (Chart 19). The organised job market, as captured by the social security schemes such as Employees' Provident Fund Organisation (EPFO), Employees' State Insurance Corporation (ESIC) and National Pension

Chart 19: PMI Employment Indices



Source: S&P Global.

Chart 20: Organised Sector Employment



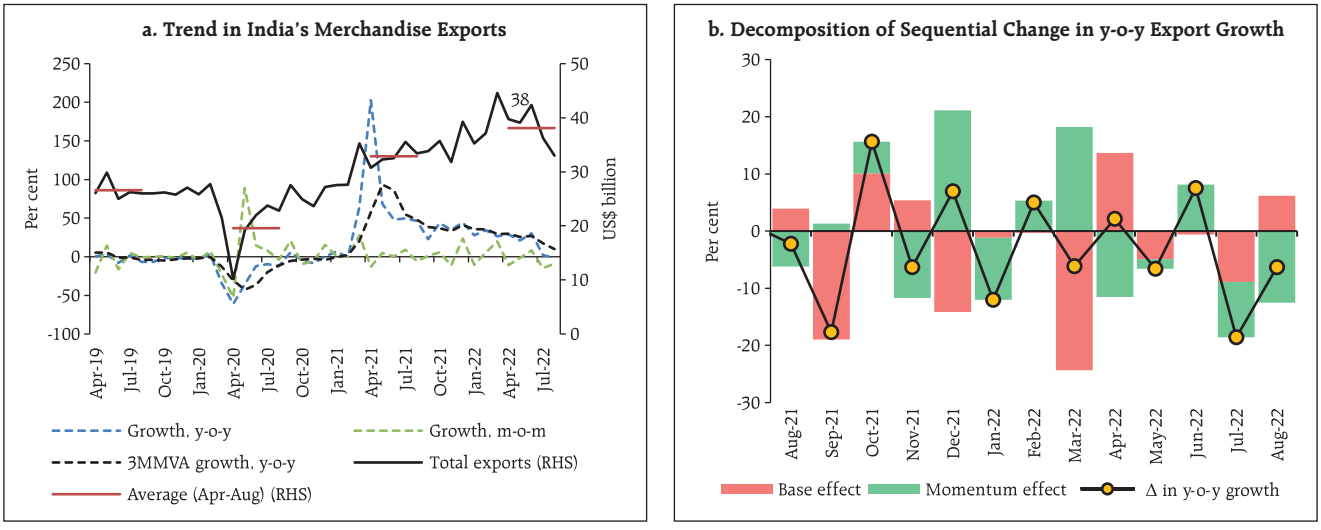
Source: Ministry of Statistics & Programme Implementation; and Ministry of Labour & Employment.

System (NPS), however, shows a mixed picture in Q1:2022-23 (Chart 20).

The ripple effect of the global trade slowdown was also felt on India's merchandise exports. Exports witnessed muted growth of 1.6 per cent on y-o-y basis, however, declined sequentially (11.8 per cent) and stood at US$ 33.9 billion in August 2022 (Chart 21).

Disaggregated commodity-wise data reveal that export of engineering goods, textile, cotton and plastics, which account for one-third of the total export basket contracted on both sequential and y-o-y bases (Table 1). Petroleum exports at US$ 5.7 billion declined sequentially by more than one-fourth in August 2022. Non-oil exports (US$ 28.2 billion)

Chart 21: India's Merchandise Exports – August 2022



3MMVA: Three month moving value average
Sources: PIB; DGCI&S; and RBI Staff Estimates.

Table 1: Top 10 Export and Import Commodities

Exports					Imports				
Top 10 Commodity Group	**Aug'22 (Share)**	**Aug'22 (US$ Bn)**	**Y-o-Y Growth**	**M-o-M Growth**	**Top 10 Commodity Group**	**Aug'22 (Share)**	**Aug'22 (US$ Bn)**	**Y-o-Y Growth**	**M-o-M Growth**
Engineering Goods	25%	8.3	-14.6	-11.7	Petroleum, Crude and Products	29%	17.6	86.4	-16.7
Petroleum Products	18%	4.9	5.4	-23.0	Electronic Goods	12%	7.3	22.9	7.0
Gems and Jewellery	10%	3.3	-4.1	0.4	Coal, Coke and Briquettes, etc.	7%	4.5	133.6	-12.5
Chemicals	8%	2.5	13.4	-3.5	Machinery	6%	3.9	33.3	2.0
Drugs and Pharmaceuticals	6%	2.1	6.6	0.9	Gold	6%	3.5	-47.5	48.4
Electronic Goods	5%	1.7	50.7	-5.0	Chemicals	5%	3.0	42.7	-6.0
RMG of all Textiles	4%	1.2	-0.4	-10.7	Pearls, precious and Semi-precious Stones	4%	2.4	7.5	-24.9
Rice	3%	1.0	42.3	11.0	Artificial resins, plastic materials,	3%	2.0	47.0	-8.0
Cotton Yarn/Fabrics/Made-ups,	3%	0.9	-32.3	-6.7	Vegetable Oil	3%	1.9	41.6	-6.2
Plastic and Linoleum	2%	0.7	-1.5	-7.3	Iron and Steel	3%	1.8	32.0	2.0
Total of 10 Major Commodity Groups	81%	26.7	-1.5	-9.7	Total of 10 Major Commodity Groups	78%	47.9	35.6	-7.2
Total Exports	**100.0**	**33.0**	-1.2	-9.0	**Total Imports**	**100.0**	**61.7**	36.8	-6.9

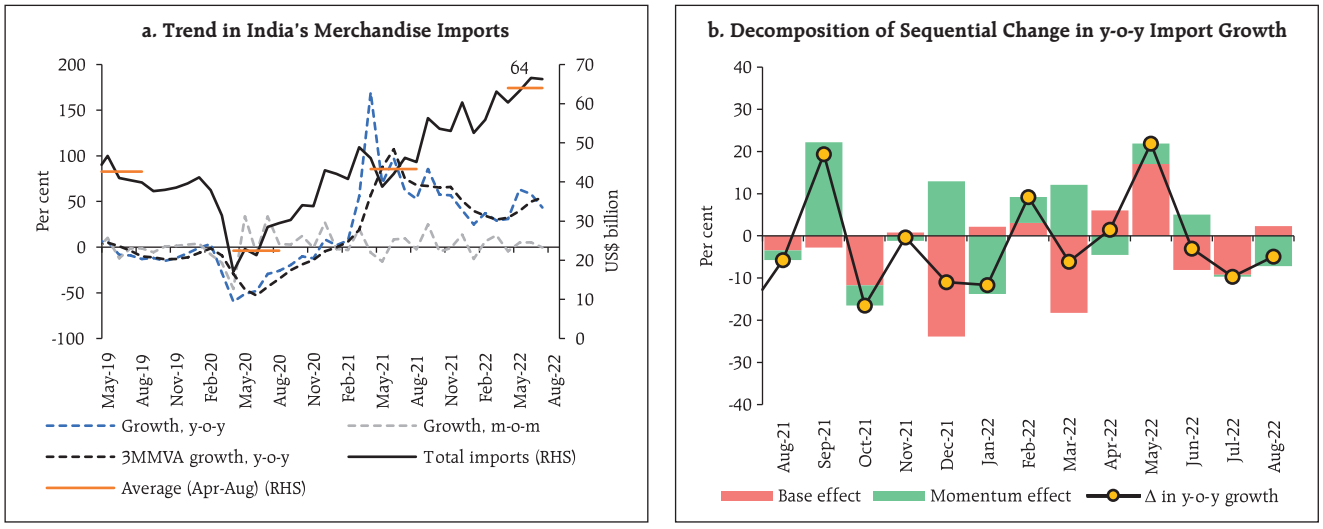
Source: MoCI.

witnessed a contraction of 1.8 per cent on y-o-y basis after 23 months of consecutive expansion.

Destination-wise, India's exports to the UAE have increased by 28.5 per cent during April - July 2022 on a y-o-y basis reflecting the positive impact of India – UAE Comprehensive Economic Partnership Agreement (CEPA).

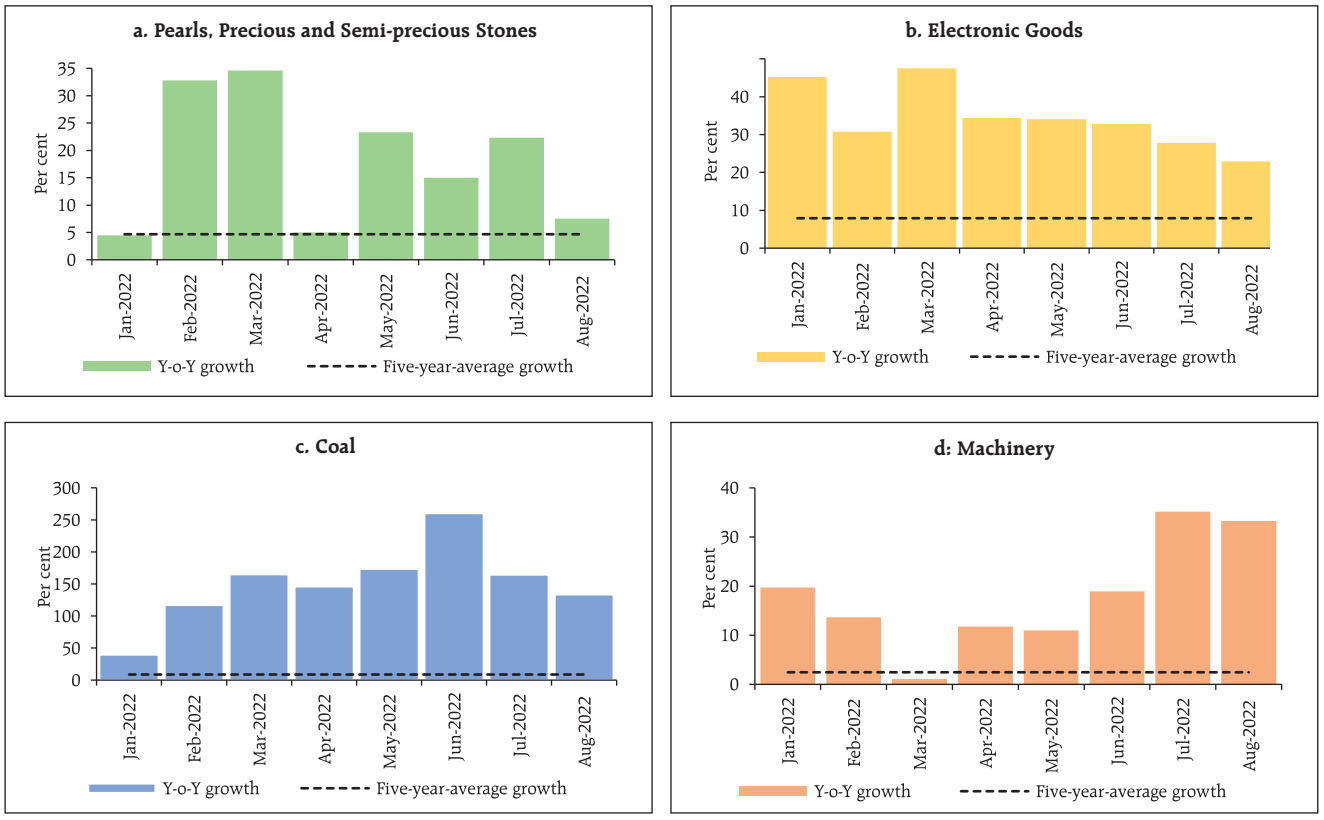
India's merchandise imports surpassed US$ 60 billion for the sixth consecutive month, although they lost momentum in August 2022 (Chart 22).

Chart 22: India's Merchandise Imports – August 2022



3MMVA: Three month moving value average
Sources: PIB; DGCI&S; and RBI Staff Estimates.

Chart 23: Import Growth in Key Commodities



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

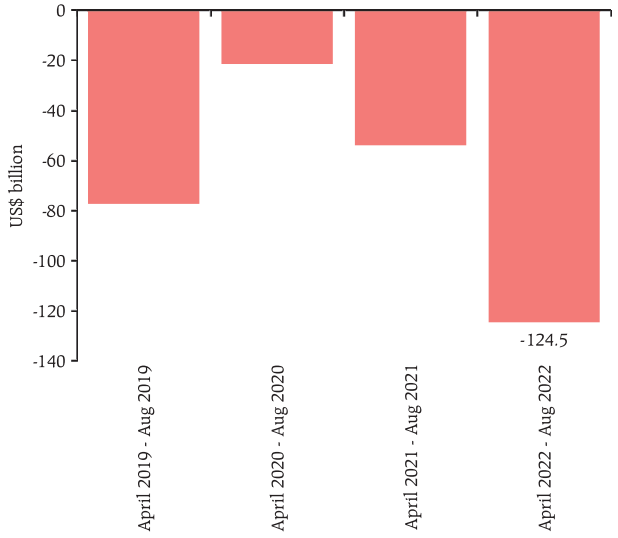
Disaggregated analysis reveals that barring gold, imports of all commodity groups grew on a y-o-y basis (Table 1). Moreover, major imported commodities such as electronic goods, coal, and machinery, accounting for around one-fifth of India's total imports, are trending above their five-year average growth (Chart 23).

Oil imports remained elevated during April-August 2022. In August 2022, India's oil imports grew by 87.4 per cent on a y-o-y basis in value terms. Robust electronics import growth reflects inventory management aligned to cater to the growing upcoming demand in the festival season. Coal imports at US$ 4.5 billion declined on a sequential basis, partly due to the government's decision to revoke mandatory blending requirements. Earlier in April 2022, the Ministry of Power had mandated that power plants should import 10 per cent coal for blending purposes in view of its domestic shortage. Gold import during July-August 2022 declined by around half to US$ 5.9 billion, reflecting a hike in the import duty.

India's trade deficit more than doubled to US$ 28.0 billion in August 2022 from US$ 11.7 billion in the corresponding period a year ago. Moreover, the trade deficit during the first five months of 2022-23 widened to US$ 124.5 billion from US$ 54 billion in the previous corresponding period (Chart 24).

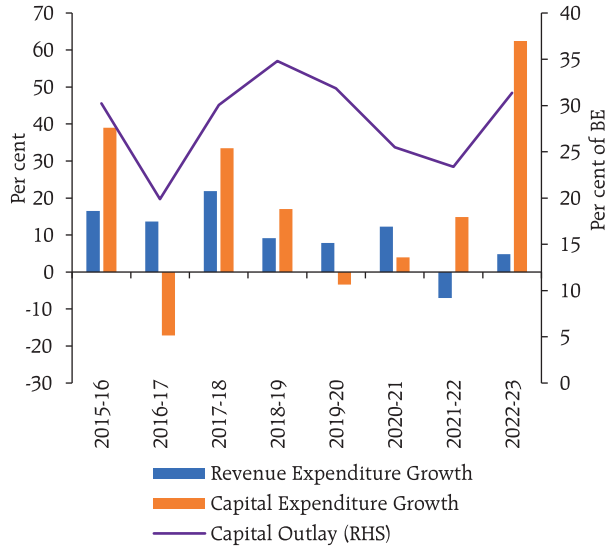
During April-July 2022-23, the Centre's gross fiscal deficit (GFD) remained contained at 20.5 per cent of BE as against 21.3 per cent a year ago, on the back of robust tax collections and lower revenue spending. The expenditure thrust remained geared towards capital spending, with the y-o-y growth in capital outlay at 59.4 per cent (Chart 25).

Chart 24: India's Merchandise Trade Deficit



Sources: DGCI&S; and PIB.

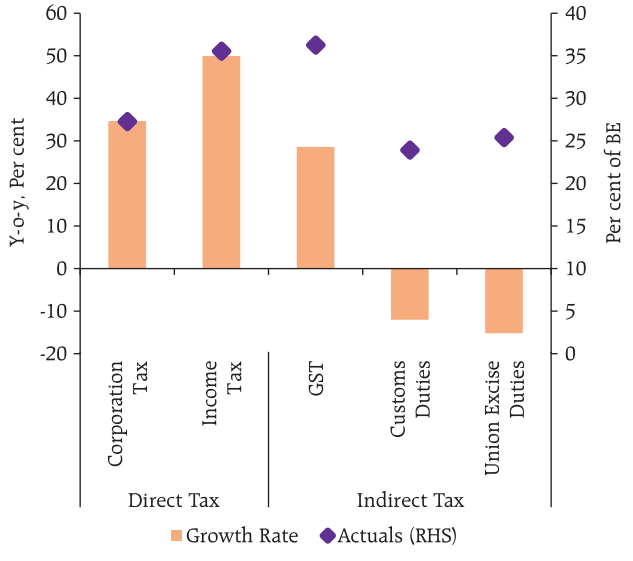
Chart 25: Expenditure Trends during April-July



Sources: Controller General of Accounts (CGA); and Union budget documents.

On the receipts side, gross tax revenue continued to witness double digit growth, with direct and indirect taxes registering a y-o-y growth of 41.9 per cent and 11.0 per cent, respectively, despite contraction in customs and excise duties (Chart 26). According to the provisional figures of direct tax collections, 37.2 per cent of the budgeted estimates have been collected up to September 08, 2022.

Chart 26: Tax Revenue during April-July 2022-23



Sources: CGA; and Union budget documents.

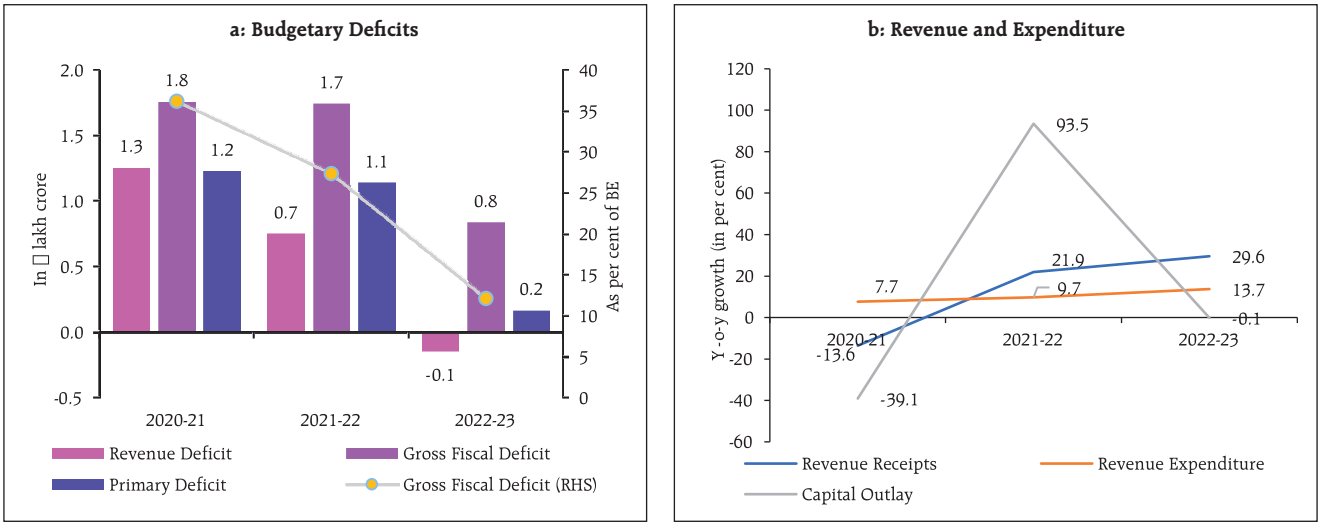
The key budgetary deficits of the States continued to decline during April-July.[9] Further, the proportion of the consolidated budgeted gross fiscal deficit (GFD) of the states was lower than the corresponding period last year, thereby, improving their likelihood of staying within their consolidated budgeted GFD target of 3.3 per cent of GSDP[10] for 2022-23 (Chart 27a).

This improvement was primarily led by sustained and robust growth in the revenue receipts at 29.6 per cent in April-July spread across all sub-components - tax revenue and non-tax revenue as well as grants from the Centre. The y-o-y growth in revenue expenditure was slightly higher in April-July 2022-23. However, the capital outlay by the States suffered a downturn and moved into negative territory (Chart 27b). In August 2022, the Centre released two instalments of tax devolution amounting to ₹1.16 lakh crore to the States, which is likely to support States in accelerating their capital outlay.

[9] The Data pertains to 21 States.

[10] The Data for 2022-23 Budget Estimates (BE) pertains to 29 States/UTs.

Chart 27: Trends in Key Indicators of the States in April-July Period



Note: The data pertains to 21 States.
Source: Comptroller and Auditor General (CAG) of India.

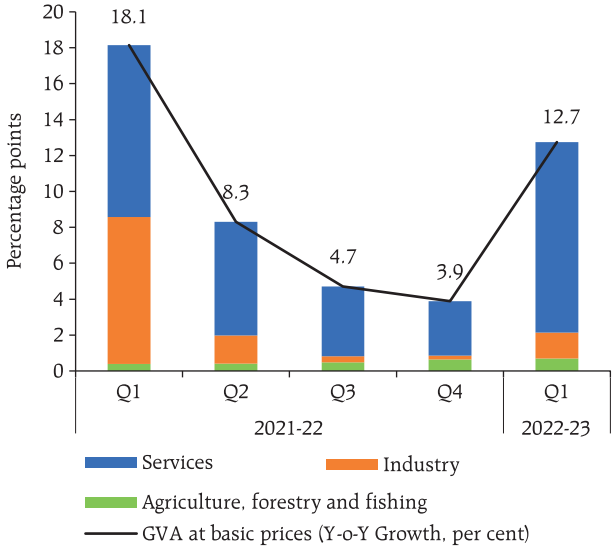
Aggregate Supply

Aggregate supply, measured by the gross value added (GVA) at basic prices, expanded by 12.7 per cent in Q1:2022-23 (Chart 28). While agriculture and services sectors remained robust, industrial growth moderated due to escalation of input cost pressures and disruptions in global supply chains.

Agriculture continues to show resilience against uncertainties around rainfall distribution (Chart 29).

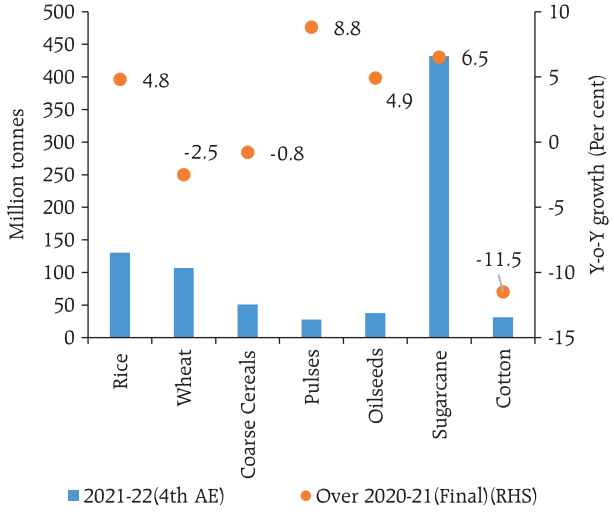
The south-west monsoon, which trailed its long period average (LPA)[11] by 8.0 per cent in June, recovered subsequently to 5.0 per cent above LPA as on September 9, 2022. The spatial distribution of rainfall has, however, been uneven this year so far

Chart 28: Weighted Contribution to GVA Growth



Source: NSO.

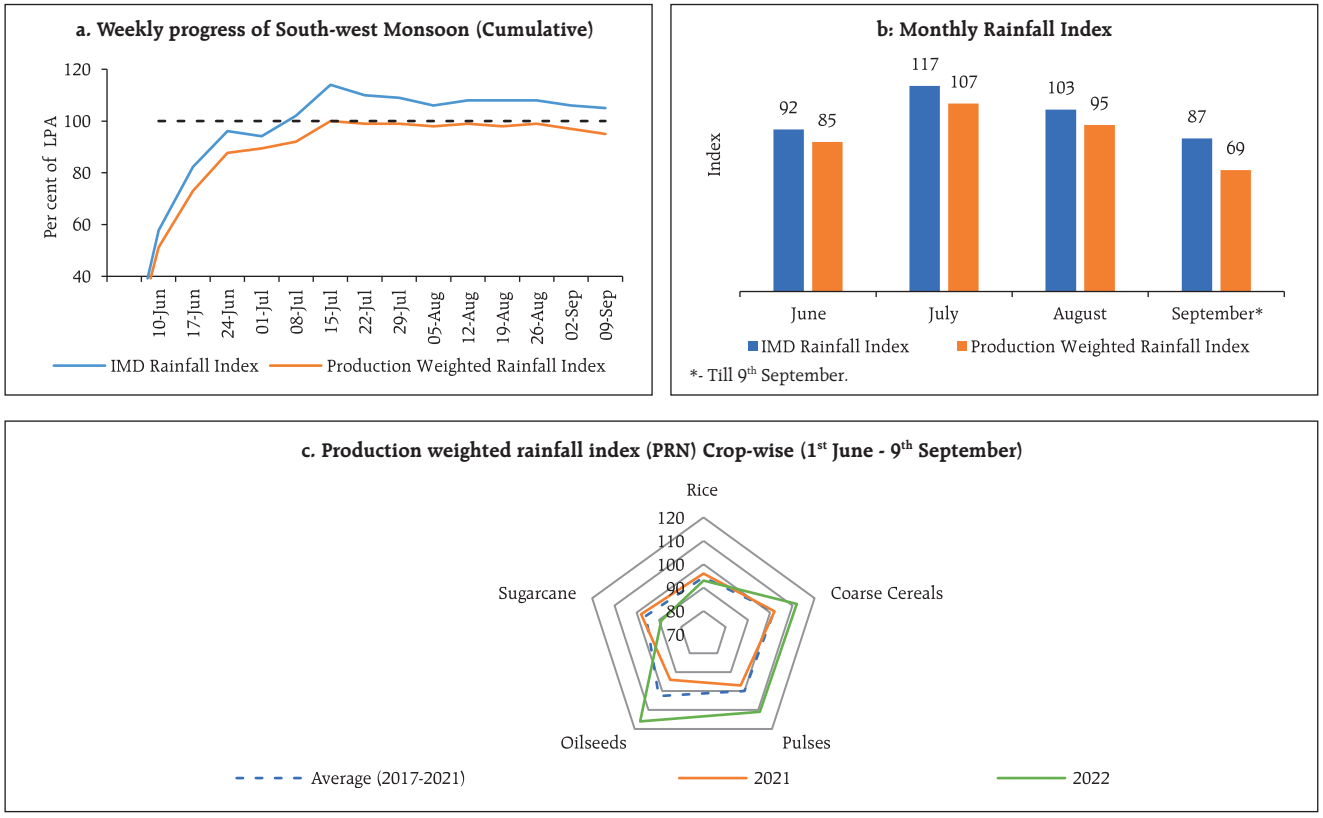
Chart 29: Production of Agricultural Crops (4th Advanced estimates, 2021-22)



Source: Ministry of Agriculture and Farmers Welfare.

[11] LPA stands for Long Period Average Rainfall, which is calculated as 50 years' average (1971-2020) rainfall.

Chart 30: Progress of South-West Monsoon Rainfall



Sources: IMD; and RBI staff estimates.

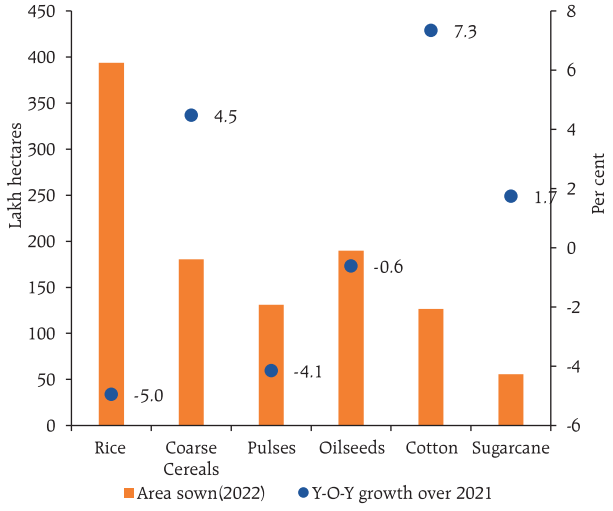
and the production weighted rainfall index (PRN)[12] has remained below the Indian Meteorological Department's aggregate rainfall index (Charts 30a & b). Specifically, rainfall in major States cultivating water intensive crops like rice and sugarcane remained below their respective long period average (Chart 30c).

Four major States, namely, Uttar Pradesh, Bihar, Jharkhand and West Bengal, which together produce nearly a third of the country's total foodgrains, recorded significantly lower rainfall this year so far (18-46 per cent below normal). The current reservoir levels in these States also remained lower *vis-à-vis* their 10-year average levels, which may impact *rabi* crops going forward. State governments have been proactive in implementing risk mitigating strategies such as West Bengal's announcement to restore defunct irrigation installations and Bihar's provision of diesel subsidy to step up irrigation efforts. Nevertheless, overall *kharif* acreage stood marginally lower than last year (as on September 09, 2022). While sown area under coarse cereals, cotton and sugarcane recorded positive growth, it declined in the case of rice, pulses, and oilseeds (Chart 31).

Wheat procurement for the current *rabi* marketing season (2022-23) ended at 18.8 million tonnes, which is 43.4 per cent of the amount procured last year. The cumulative procurement of rice at 59.2 million tonnes is marginally higher than last year. As on August 31, 2022, the stock of rice in the central pool is 2.6 times the quarterly (July-September) buffer norm while in the case of wheat, it has fallen below the buffer norm (Chart 32). In the wake of the expected fall in domestic production, the Government imposed a duty of 20 per

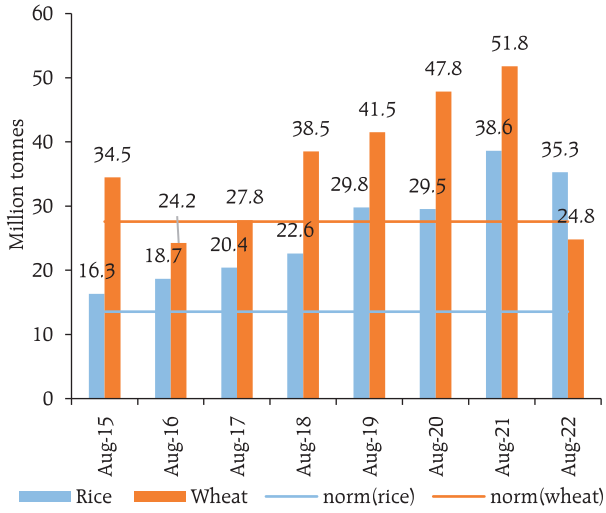
[12] PRN is calculated using contribution of foodgrains production by each State.

Chart 31. Progress of *Kharif* Sowing (As on September 09, 2022)



Source: Ministry of Agriculture and Farmers' Welfare.

Chart 32: Stock of Rice and Wheat in Central Pool (as on August 31)

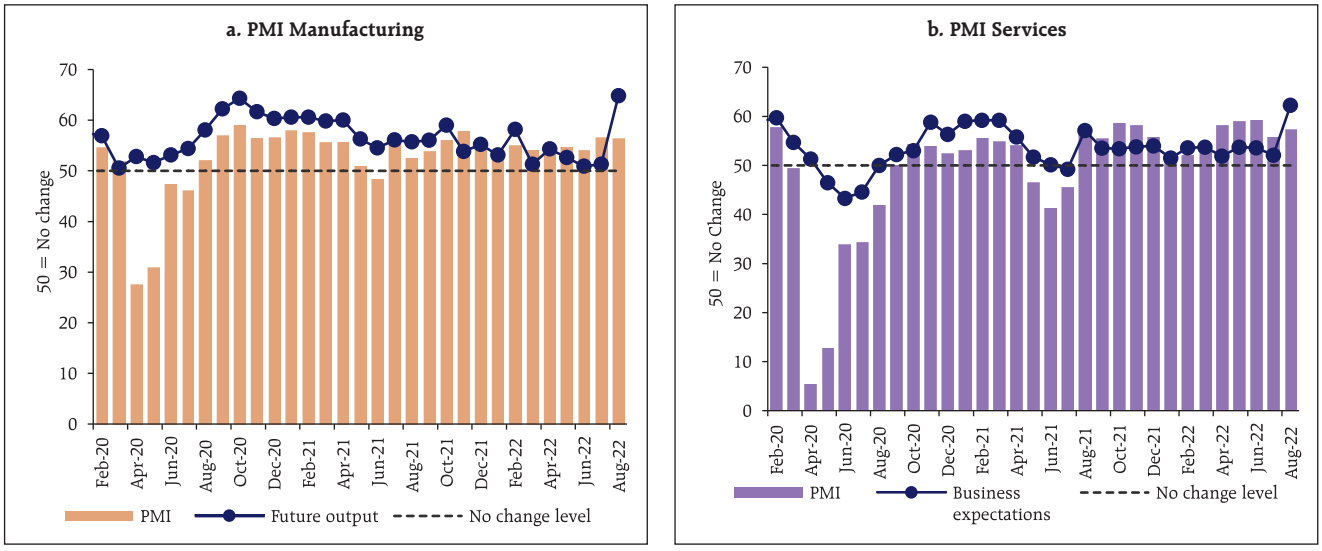


Source: Ministry of consumer Affairs, Food and Public Distribution.

cent on export of most varieties of rice and restricted the exports of broken rice with effect from September 9, 2022.

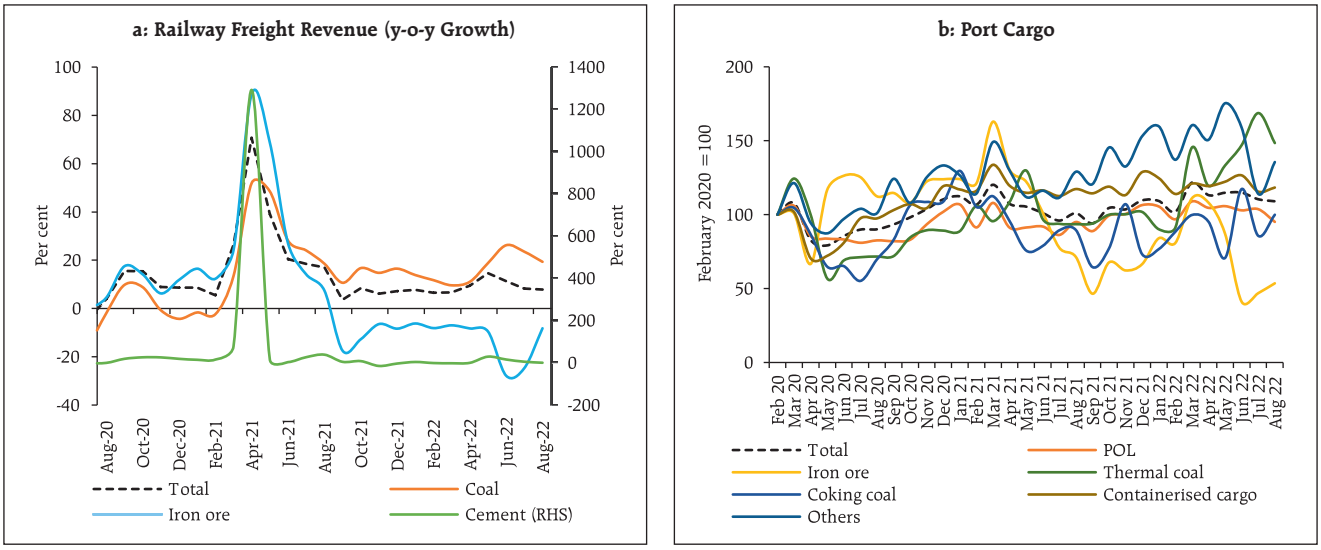
In the industrial sector, the headline manufacturing PMI at 56.2 in August remained in expansionary zone, *albeit* decelerating over the previous month. Consolidation of demand along with cooling of input prices boosted sentiments, pushing the future output sub-index to a six-year high of 64.8 in August 2022 (Chart 33a). The PMI services, on the other hand, recorded strong expansion at 57.2 in August 2022 from a four-month low of 55.5 in July.

Chart 33: Purchasing Managers' Index



Source: S&P Global.

Chart 34: Railway and Cargo Traffic



Source: Indian Ports Association.

The upturn was attributed to robust demand, stronger gains in new businesses and job creation (Chart 33b).

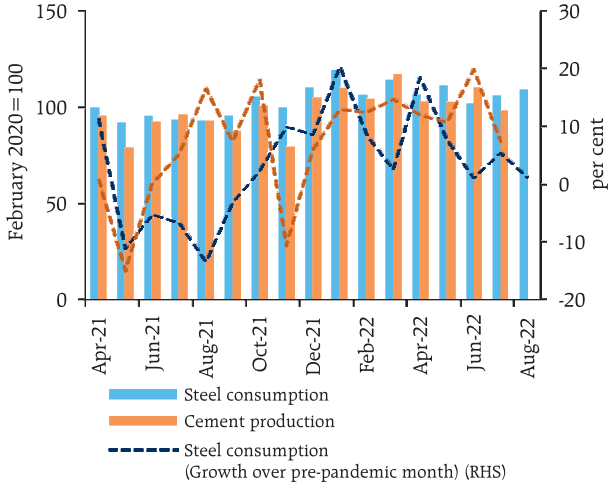
In the services sector, transport indicators remained in expansionary zone as railway freight traffic earnings grew by 7.8 per cent (y-o-y) in August 2022 (Chart 34a). While coal and fertilisers recorded sharp expansion, iron ore and food grains continued to show contraction. Cargo traffic at major ports recorded slight moderation in August owing to a decrease in iron ore and raw fertilisers, which together account for around 21 per cent of total cargo (Chart 34b).

In the construction sector, activity maintained its expansion path during July – August 2022, with cement production and steel consumption recording growth over pre-pandemic levels for eight and eleven straight months respectively (Chart 35). Cement production recorded moderation in July as construction activity slowed down due to monsoon rains.

Within the aviation sector, domestic passenger footfalls recorded expansion by 0.7 per cent in August, after contraction in July. All other segments, *viz.*, international passenger traffic, and domestic and international cargo exhibited contraction in August over July.

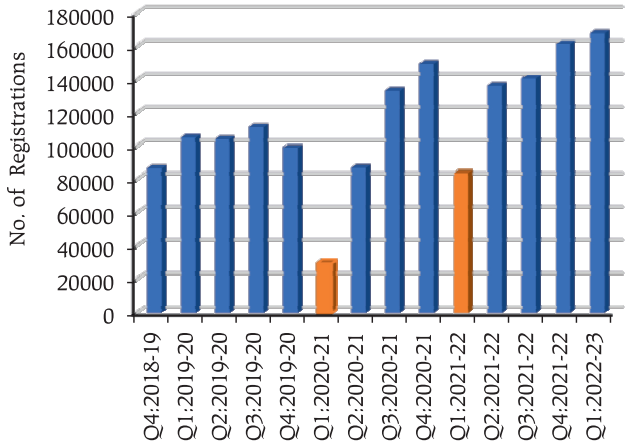
Housing remained robust on the back of sustained demand. The number of residential property registrations in ten major cities reached a new high during Q1:2022-23 and surpassed the pre-pandemic peak by over 50 per cent (Chart 36). The all-India House

Chart 35: Steel Consumption and Cement Production



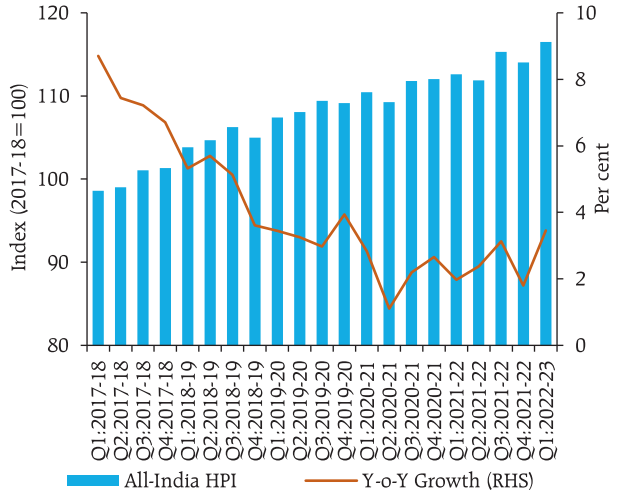
Source: Joint Plant Committee; Office of the Economic Advisor, Ministry of Commerce and Industry.

Chart 36:Total Property Registration in Ten Major Cities*



*: The ten major cities include Mumbai, Delhi, Bengaluru, Ahmedabad, Lucknow, Kolkata, Chennai, Jaipur, Kanpur and Kochi.
Sources: House prices data from registration authorities of State governments; and RBI staff estimates.

Chart 37: Movement of House Price Index



Notes: Data for Q1:2022-23 is provisional.
Sources: House prices data from registration authorities of State governments; and RBI staff estimates.

Price Index (HPI)[13] recorded 3.5 per cent annual (y-o-y) growth and 2.2 per cent sequential (q-o-q) growth in Q1:2022-23 (Chart 37).

High frequency indicators witnessed moderation in economic activities in July amidst slowing global economy and inflationary pressures (Table 2). Overall

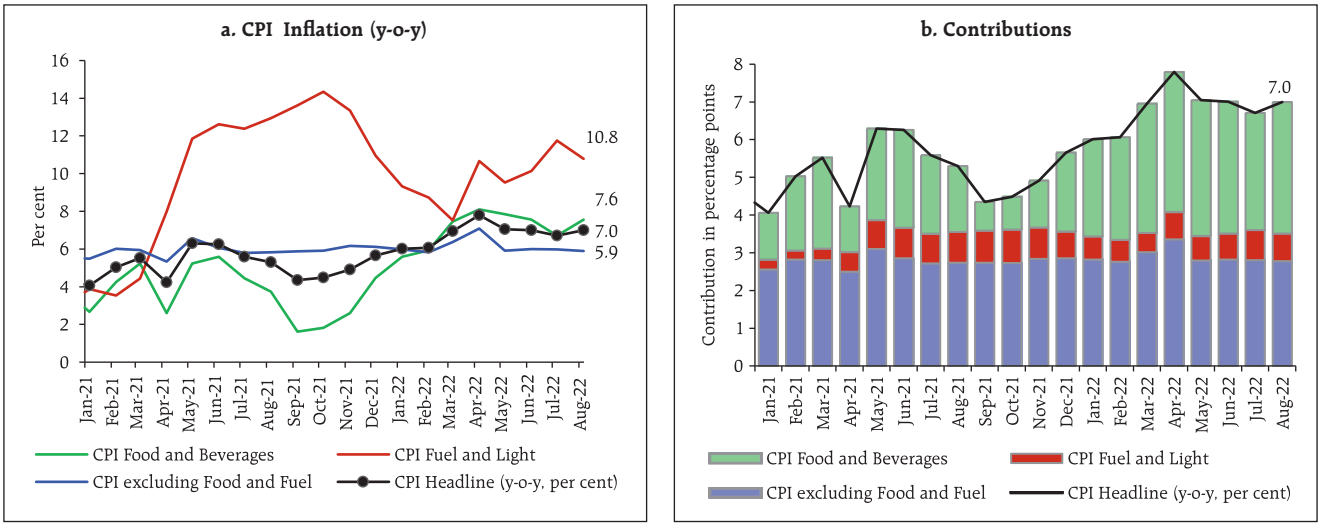
Table 2: High Frequency Indicators- Services

Sector	Indicator	High Frequency Indicators- Services Growth (y-o-y, per cent)				Growth over 2019			
		May-22	Jun-22	Jul-22	Aug-22	May-22/ May-19	Jun-22/ Jun-19	July-22/ July-19	Aug-22/ Aug-19
Urban Demand	Passenger Vehicles Sales	185.1	19.1	11.1	21.1	10.6	31.6	54.6	48.7
Rural Demand	Two Wheeler Sales	253.2	23.4	9.6	17.0	-27.4	-20.7	-8.6	2.9
	Three Wheeler Sales	2161.6	183.9	72.8	65.3	-44.7	-48.5	-43.8	-34.8
	Tractor Sales	47.4	-14.4	-15.3	-1.9	41.1	24.5	21.2	42.2
Trade, hotels, transport, communication	Commercial Vehicles Sales	100.3				11			
	Railway Freight Traffic	14.6	11.3	8.3	7.8	25.5	23.7	22.5	31
	Port Cargo Traffic	10.2	12.2	15.1	8.6	11.4	14.6	6.9	8.6
	Domestic Air Cargo Traffic	54.7	40.4	18.8		1.9	4.4	-1.6	
	International Air Cargo Traffic	-4.6	0.5	-1.5		-13.6	-5.1	-9.4	
	Domestic Air Passenger Traffic	474.7	247.9	97.9		-2.0	-10.5	-17.1	
	International Air Passenger Traffic	722.8	753.6	487.7		-28.0	-21.5	-18.1	
	GST E-way Bills (Total)	84.1	36.2	17.8	18.7	35.6	49.7	44.9	52.7
	GST E-way Bills (Intra State)	83.3	38.6	19.8	22.5	45.5	58.7	51.5	62.6
	GST E-way Bills (Inter State)	85.5	32.2	14.7	12.9	21.8	36.4	35.2	38.7
	Tourist Arrivals	2043.7	1349.2	783.9		-31.1	-28	-21.7	
Construction	Steel Consumption	21.3	6.4	12.5	13.1	7.7	0.7	5.5	1.3
	Cement Production	26.2	19.7	2.1		10.8	19.9	7.5	
PMI Index	Manufacturing	54.6	53.9	56.4	56.2				
	Services	58.9	59.2	55.5	57.2				

Sources:

[13] House price index (HPI) (base: 2010-11=100) is compiled based on the official data on property price transactions collected from the registration authorities of state governments of 10 major cities.

Chart 38: Trends and Drivers of CPI Inflation



Note: CPI inflation for April-May 2021 was computed based on imputed CPI indices for April-May 2020.
Sources: National Statistical Office (NSO); and RBI staff estimates.

sustained recovery in services sector may cushion a moderation in manufacturing sector.

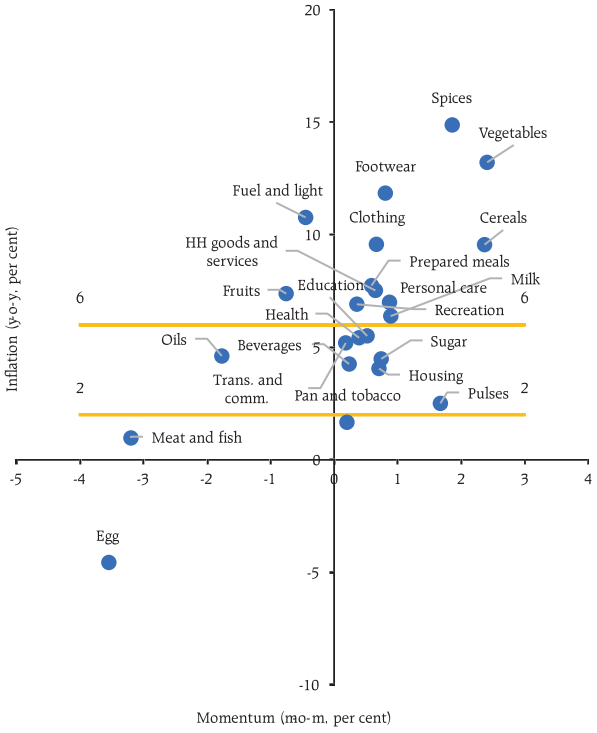
Inflation

As per the provisional data released by the National Statistical Office (NSO) on September 12, 2022, inflation edged up to 7.0 per cent in August from 6.7 per cent in the previous month (Chart 38a). A momentum (month-on-month change in index) of around 50 bps was partially offset by a favourable base effect (month-on-month change in prices a year ago) of around 20 bps, leading to an increase in headline inflation by around 30 bps between July and August.

Among the major groups, m-o-m increases in prices were of the highest order for food and beverages (0.7 per cent), followed by core CPI (0.4 per cent). The fuel and light category, on the other hand, registered a decline by 0.4 per cent (Chart 38b). At the disaggregated level, cereals, pulses, spices and vegetables exhibited significant price pressures during the month whereas fruits, edible oils, eggs, meat and fish recorded m-o-m decline in prices (Chart 39).

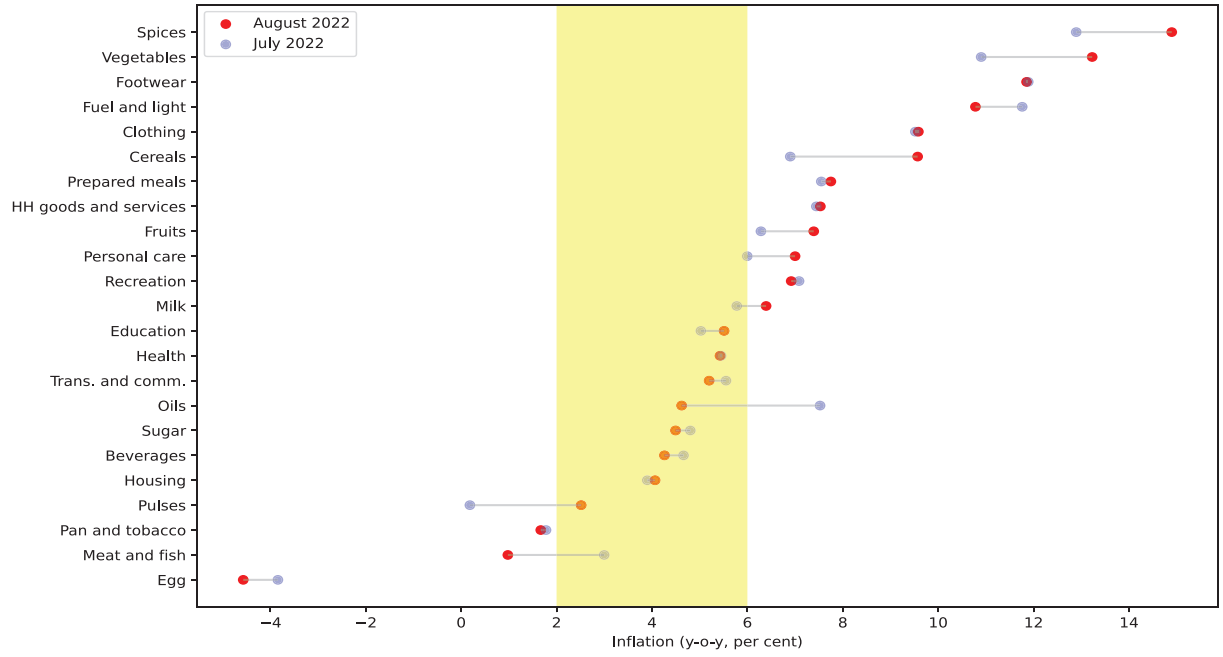
The sharp increase in CPI food inflation (y-o-y) to 7.6 per cent in August from 6.7 per cent a month ago

Chart 39: Annual Inflation (y-o-y) and Momentum (m-o-m) across Subgroups



Sources: NSO; and RBI staff estimates.

Chart 40: Annual Inflation across Sub-groups (July *vs* August 2022)



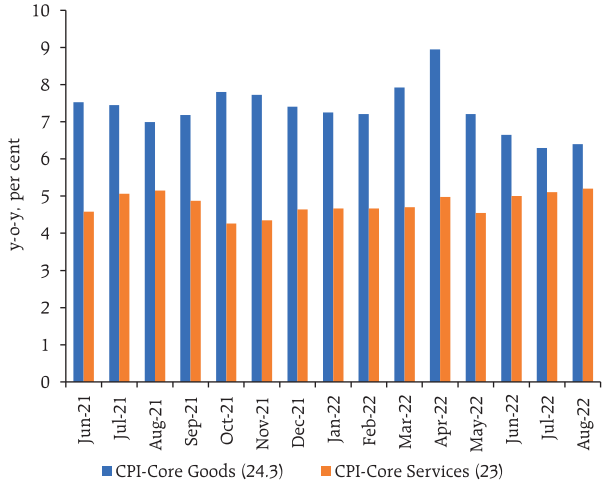
Sources: NSO; and RBI staff estimates.

was driven by higher inflation in cereals, milk, fruits, pulses, vegetables, spices and prepared meals (Chart 40). On the other hand, inflation softened in meat and fish, edible oils, sugar and non-alcoholic beverages. Deflation in eggs deepened in August *vis-à-vis* July.

After increasing for three consecutive months, inflation in the fuel and light category moderated to 10.8 per cent in August from 11.8 per cent in July. This was led by a sharp decline in kerosene (PDS) inflation even as Liquified Petroleum Gas (LPG) inflation remained elevated. Electricity prices remained in deflation. Despite the moderation in inflation, the fuel group contributed 10.4 per cent of headline inflation in August due to its weight of 6.8 per cent in the CPI basket.

Core inflation softened marginally to 5.9 per cent from 6.0 per cent during the previous two months. While sub-groups such as housing, household goods and services, education, and personal care and effects registered an increase in inflation, pan, tobacco and intoxicants, transport and communication, and recreation and amusement witnessed moderation. Inflation in clothing and footwear, and health sub-groups remained range-bound. Within the core category, inflation in goods continued to remain higher than services (Chart 41).

Chart 41: CPI Core Inflation - Goods *Versus* Services

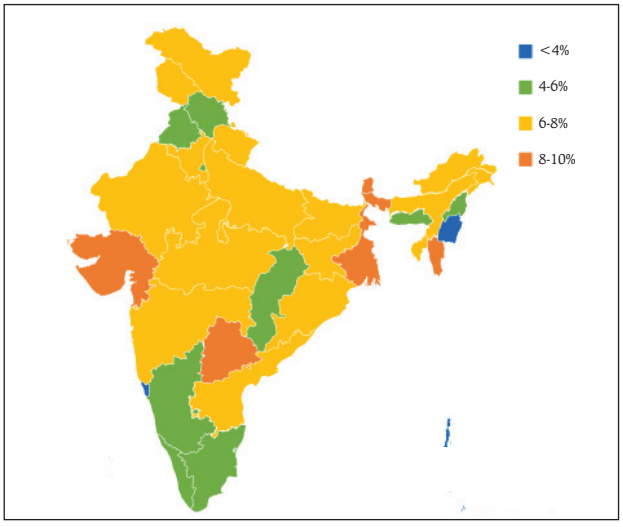


Note: Figures in parenthesis are weights.
Sources: NSO; and RBI staff estimates.

In terms of geographical distribution, rural inflation (7.2 per cent) was higher than urban inflation (6.7 per cent) in August. Across the States, there has been wide variation in rates of inflation with Goa and Manipur recording below 4 per cent inflation while Gujarat, Telangana and West Bengal exhibited inflation in excess of 8 per cent (Chart 42).

High frequency food price data for September so far (September 1-12) from the Department of Consumer Affairs (DCA) point to an increase in prices of cereals, primarily on account of a surge in wheat prices. Price of pulses registered a broad-based increase while edible oil prices registered a decline in tandem with decline in international edible oil prices. Among key vegetables, potato and onion prices continued to harden. Tomato prices exhibited a sharp reversal after the fall witnessed during July-August due to heavy rains in key tomato producing areas (Chart 43).

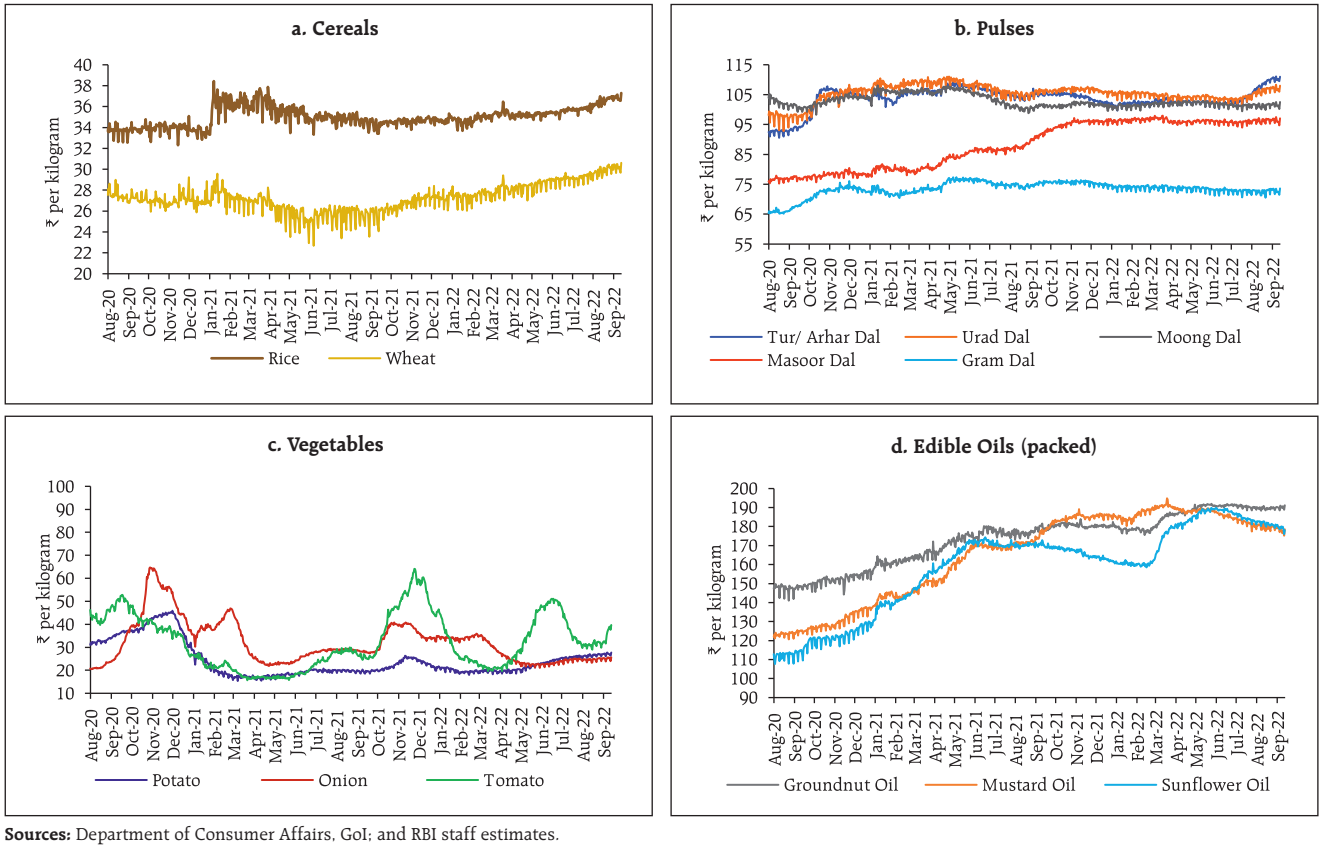
Chart 42: Spatial Distribution of Inflation (CPI- Combined, y-o-y)



Sources: NSO; and RBI staff estimates.

Retail selling prices of petrol and diesel in the four major metros remained the same in September so

Chart 43: DCA Essential Commodity Prices



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

Table 4: Petroleum Product Prices

Item	Unit	Domestic Prices			Month-over-month (per cent)	
		Sep-21	Aug-22	Sep-22^	Aug-22	Sep-22
Petrol	₹/litre	102.30	102.92	102.92	-0.5	0.0
Diesel	₹/litre	92.62	92.72	92.72	-0.4	0.0
Kerosene (subsidised)	₹/litre	33.18	62.73	60.13	-12.2	-4.2
LPG (non-subsidised)	₹/cylinder	895.13	1063.25	1063.25	0.8	0.0

^: For the period September 1-12, 2022.

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: Indian oil corporation limited (IOCL); Petroleum Planning and Analysis Cell (PPAC); and RBI staff estimates.

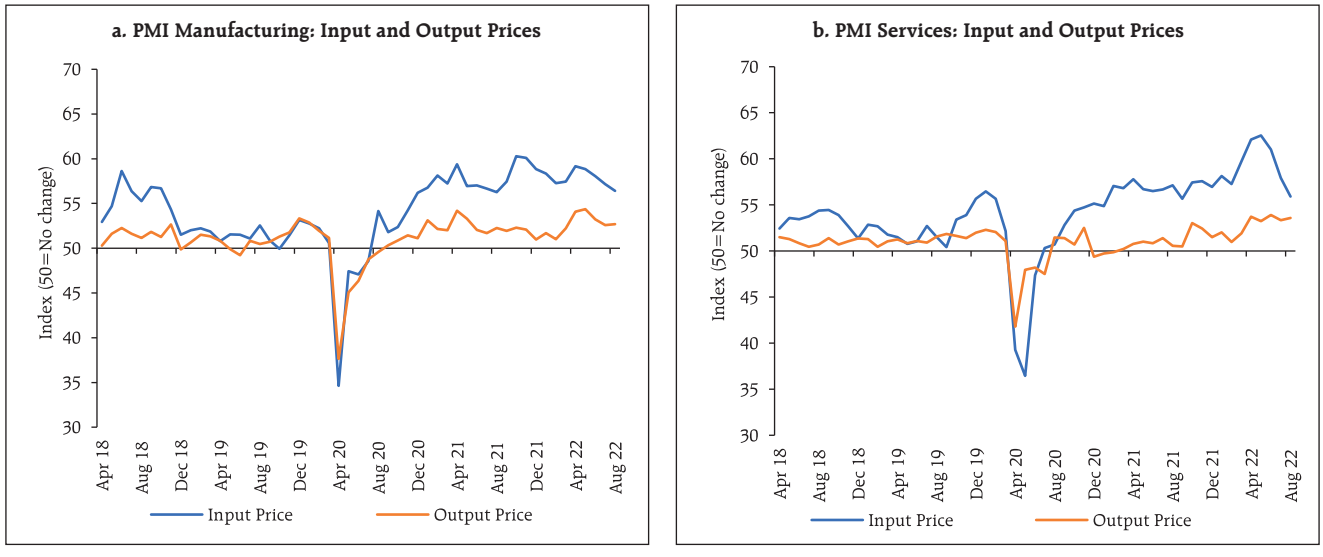
far. While kerosene prices moderated *vis-à-vis* August, LPG prices were steady in the first half of September (Table 3).

Input cost pressures increased in August 2022 across manufacturing and services, *albeit* at a slower pace, as reflected in the PMIs. Selling prices also edged up across manufacturing and services (Chart 44).

IV. Financial Conditions

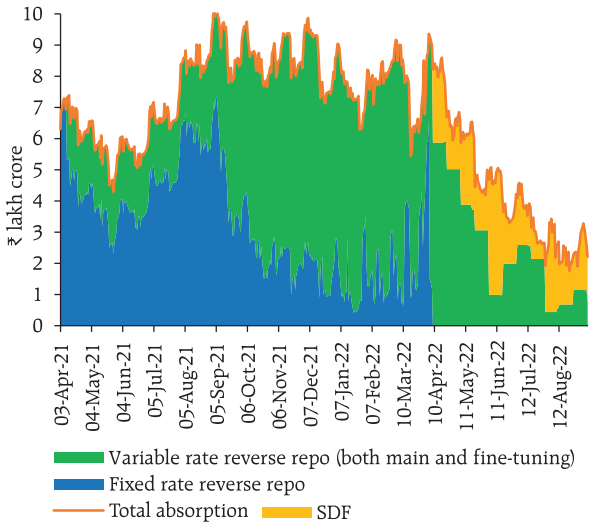
Absorptions under the liquidity adjustment facility (LAF) moderated to ₹2.6 lakh crore during August 16 to September 14, 2022 from ₹2.7 lakh crore during July 16 to August 15, 2022 (Chart 45). Of the daily average surplus liquidity during this period, nearly ₹1.6 lakh crore was absorbed through the overnight standing deposit facility (SDF), while the remaining

Chart 44: Input and Output Prices



Sources: S&P Global; MOSPI; and RBI staff estimates.

Chart 45: Liqudity Conditions

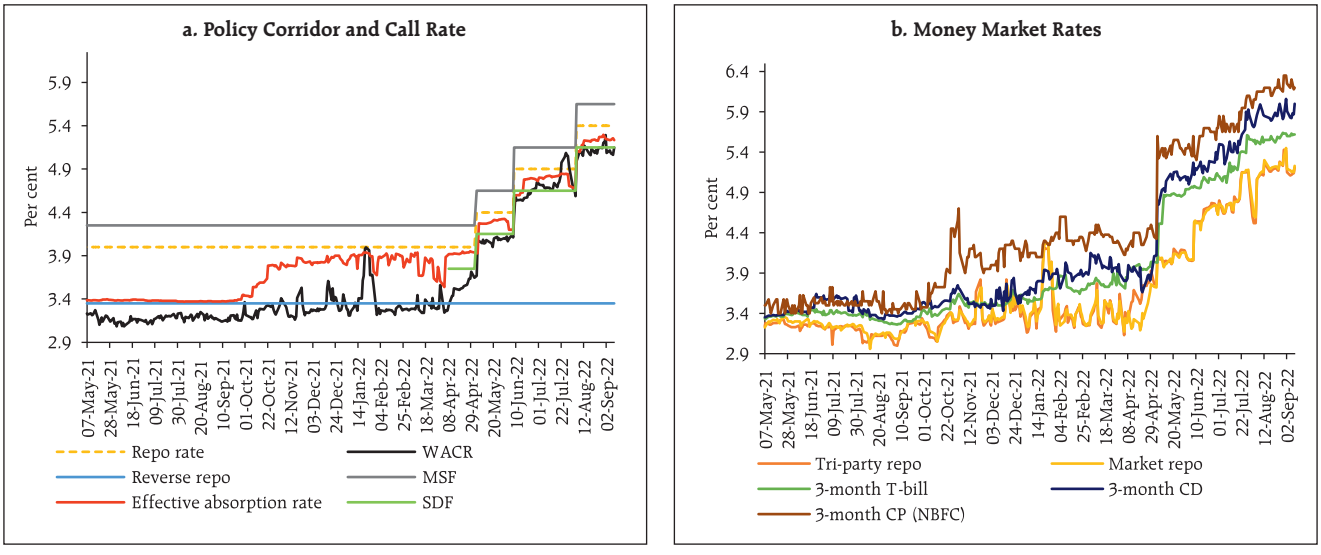


Source: RBI.

was mopped up through variable rate reverse repo (VRRR) auctions (both main and fine-tuning) of longer tenor at an average effective absorption rate[14] of 5.24 per cent. In view of anticipated liquidity tightness, a reduction in banks' appetite to park funds under fortnightly auctions is evident in lower bid-cover ratios. The 14-day VRRR operations conducted on August 26 and September 9 saw lukewarm response: both the auctions elicited ₹70,331 crore and ₹33,392 crore, respectively, as against the notified amount of ₹2.0 lakh crore each, at a weighted average rate of 5.39 per cent each.

The weighted average call rate (WACR) traded on average 28 bps below the policy repo rate and 3 bps below the SDF rate during the second half of August through September 14, 2022 as against 13 bps below the policy repo rate and 12 bps above SDF in the previous fortnight (Chart 46a). In the collateralised segment, tri-party rate and market repo rate traded within the LAF corridor – on average, 22 bps and 19 bps, respectively, below the policy repo rate – during the same period (Chart 46b). The 3-month treasury bill (T-bill) rate traded closer to the marginal standing facility (MSF) rate while yields on 3-month certificates of deposit (CDs) and 3-month commercial paper (CPs) traded on average 29 bps and 62 bps, respectively, above the MSF rate (Chart 39b). In the primary market, fund mobilisation through CP issuances increased

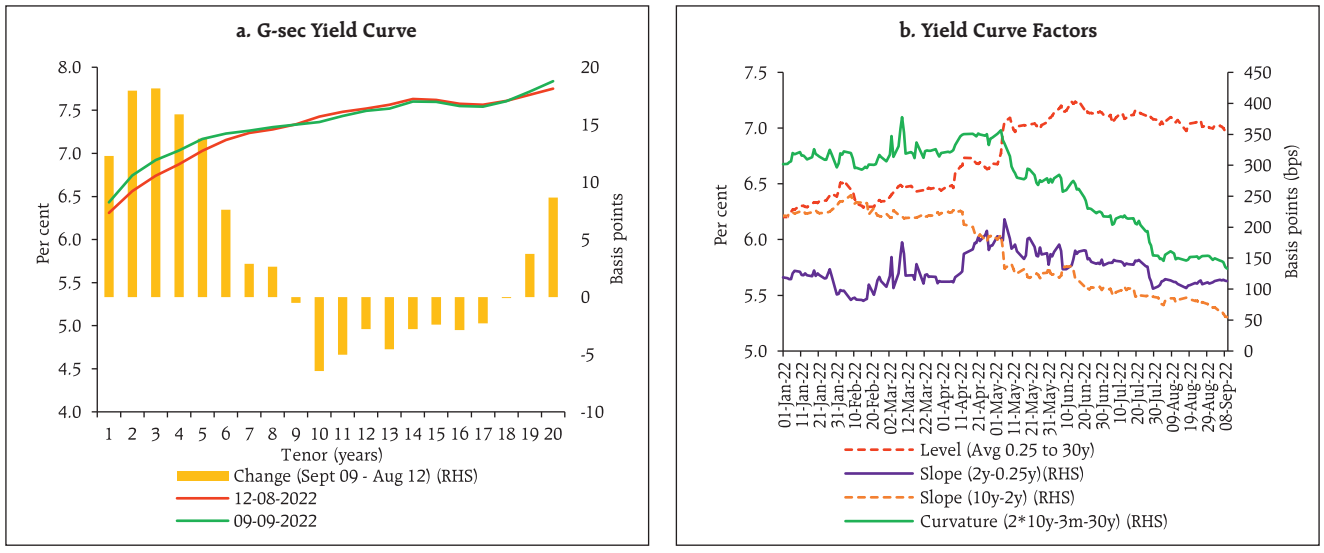
Chart 46: Policy Corridor and Money Market Rates



Sources: RBI; Bloomberg; and RBI staff estimates.

[14] The weighted average of the SDF rate and the VRRR auctions of varying maturity with weights being amounts absorbed under the SDF and VRRR windows, respectively.

Chart 47: Developments in G-sec Market



Sources: Bloomberg; CCIL; and RBI staff estimates.

to ₹1.51 lakh crore during August 2022 as compared with ₹94,599 crore in the preceding month, though it remained lower than in the corresponding period a year ago (₹2.21 lakh crore). The bulk of the primary issuances was in the 31-90 days maturity segment.

In the fixed income market, bond yields at the long end of the curve generally softened, with the yield on new 10-year benchmark G-sec (7.26 GS 2032) closing at 7.12 per cent on September 14, 2022. During the period August 16 to September 9, 2022, yields increased intermittently on the back of hawkish commentary by Fed officials on US monetary policy. The pressure from hardening of US bond yields was, however, offset by easing crude oil prices. Rising expectations over likely inclusion of India's bond in global bond indices also kept sentiment upbeat. At the same time, the short end of the curve steepened, with rates hardening for tenors up to 8 years (Chart 47a). Consequently, the slope – as measured by the spread between the 10-year and 2-year G-sec yields – further flattened, reflecting the impact of monetary tightening (Chart 47b). While the upward shift in the level of the yield curve is consistent with a declining slope (as measured by the 10-year minus 2-year spread) since April, a perceptible decline in the curvature[15] is evident since the May policy meeting, indicating subdued expectations of further policy tightening. Overall, the yield curve suggests an improvement in long-term growth prospects and moderation in *ex ante* inflation expectations.[16]

Corporate bond yields generally softened or changed marginally in tandem with G-sec yields across tenors and the rating spectrum (Table 4). Credit risk premium also softened marginally during the same period. Corporate bond issuances jumped to ₹69,166 crore during July 2022 (the highest so far in 2022-23), more than doubling from ₹31,889 crore a year ago. Over the last couple of months, the decline in corporate bond yields suggests stable risk premia, which has attracted large corporates to mobilise funds from the bond market.

[15] The curvature of the yield curve describes the relationship between yields at short, medium and longer maturities. Higher curvature means higher concavity of the curve, *i.e.*, the yield curve is steep in the short to medium tenure compared to medium to long-end yields, and therefore, shows a hump in the yield curve. The curvature is calculated as 2 times the 10-year yield minus the sum of 30-year and 3-month yields.

[16] Patra, M.D., Joice, J., Kushwaha, K.M., and I. Bhattacharyya (2022). 'What is the Yield Curve telling us about the Economy?' *RBI Bulletin*, June.

Table 4: Financial Markets - Rates and Spread

Instrument	Interest Rates (per cent)			Spread (bps) (Over Corresponding Risk-free Rate)		
	Jul 16 - Aug 15 2022	Aug 16 - Sept 09 2022	Variation (in bps)	Jul 16 - Aug 15 2022	Aug 16 - Sept 09 2022	Variation (in bps)
1	2	3	(4 = 3-2)	5	6	(7 = 6-5)
Corporate Bonds						
(i) AAA (1-year)	6.63	6.90	27	28	46	18
(ii) AAA (3-year)	7.32	7.32	0	41	41	0
(iii) AAA (5-year)	7.51	7.43	-8	30	29	-1
(iv) AA (3-year)	8.04	8.06	2	113	115	2
(v) BBB- (3-year)	11.72	11.73	1	481	482	1
10-year G-sec	7.33	7.22	-11			

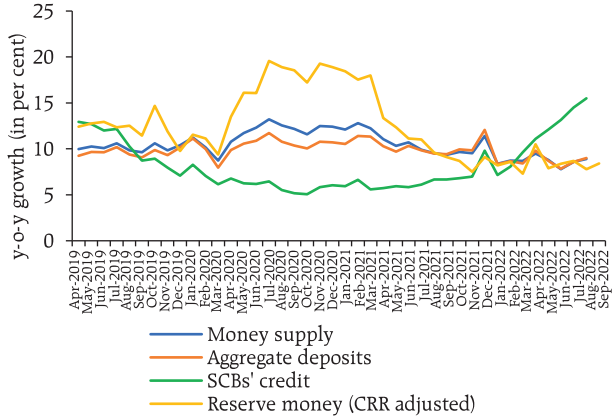
Note: Yields and spreads are computed as monthly averages.
Source: FIMMDA; and Bloomberg.

Reserve money (RM) excluding the first-round impact of change in cash reserve ratio (CRR) rose by 8.4 per cent on a y-o-y basis as on September 2, 2022 (9.3 per cent a year ago) [Chart 48]. Currency in circulation (CiC), the largest component of RM, grew at 8.3 per cent (9.4 per cent a year ago). Money supply (M_3) – the liabilities of the banking sector – registered growth of 8.9 per cent as on August 26, 2022 (9.5 per cent a year ago).

Scheduled commercial banks' (SCBs') credit growth surged to 15.5 per cent as on August 26, 2022 (6.7 per cent a year ago). Metropolitan branches of banks, which account for over 60 per cent of bank credit and over half of bank deposits, have been the major drivers of growth of banking business.

During April to July 2022, when the policy repo rate was increased by 90 bps, the weighted average lending rates (WALRs) on fresh and outstanding rupee loans of SCBs increased by 55 bps and 27 bps respectively (Table 5). Besides, major banks have fully adjusted their external benchmark-based lending rates (EBLRs) upwards by a total of 140 bps at end-August. During April to August 2022, the 1-year median marginal cost of funds-based lending rate (MCLR) of SCBs increased by 55 bps.

Chart 48: Monetary and Credit Aggregates



Note: 1. Data pertain to last reporting Friday of every month for money supply, aggregate deposits and bank credit; and last Friday of every month for reserve money.
2. Latest data for reserve money pertain to September 2, 2022, whereas for money supply as on August 26, 2022.
Source: RBI.

Table 5: Transmission from the Repo Rate to Banks' Deposit and Lending Rates

(Variation in Basis Points)

Period	Repo Rate	Deposit Rates		Lending Rates		
		Median TDR (Fresh Retail Deposits)	WADTDR (Outstanding Deposits)	1–Year MCLR (Median)	WALR (Fresh Rupee Loans)	WALR (Outstanding Rupee Loans)
April to August 2022*	**140**	**24**	**19**	**55**	**55**	**27**
Memo						
April 2022	0	0	0	0	-12	-2
May to August 2022*	140	24	19	55	67	29

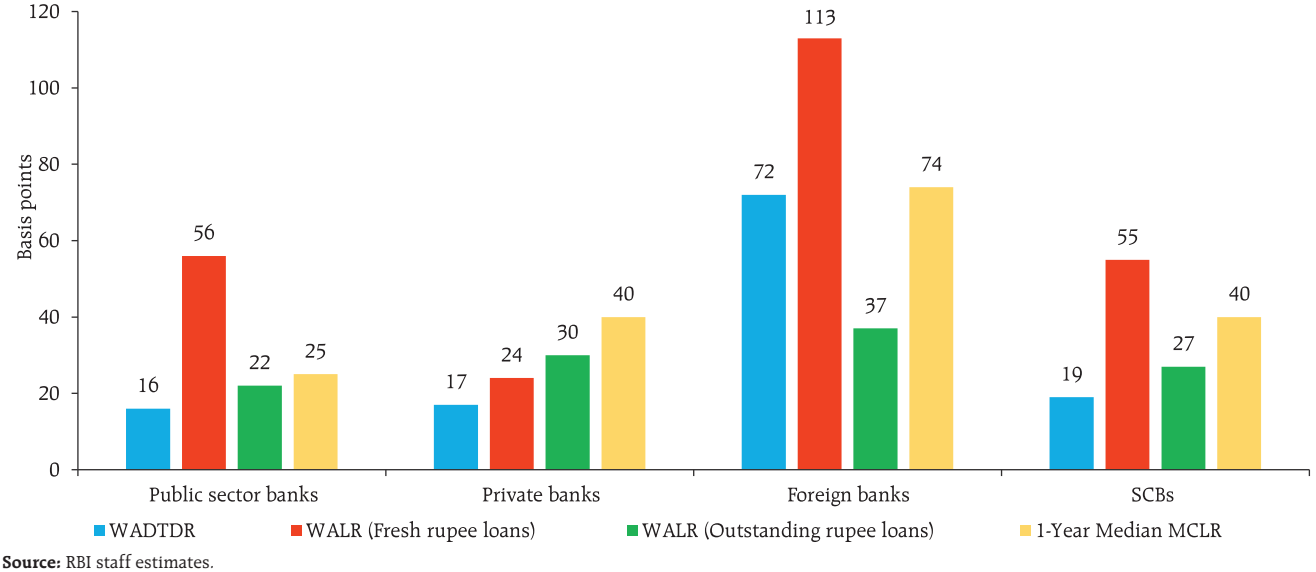
* Latest data on WALRs and WADTDR pertain to July 2022 and hence 50 bps hike in repo rate in August is not captured in pass-through to WALRs and WADTDR.
WALR: Weighted average lending rate; WADTDR: Weighted average domestic term deposit rate.
MCLR: Marginal cost of funds-based lending rate; TDR: Term deposit rate.
Source: RBI staff estimates.

The moderation in systemic liquidity, coupled with increase in credit demand, has prompted banks to increase their deposit rates to mobilise stable funding. Median term deposit rates – card rates on fresh retail deposits – has increased by 24 bps during April to August 2022. The increase in interest rates on bulk deposits is even higher. Available information indicates that major banks have increased their bulk deposit rates (1 to 2 year tenor) by up to 200 bps since April 2022.

At the bank group level, transmission to lending and deposit rates was the maximum in the case of foreign banks, reflecting a higher share of low cost and lower duration wholesale deposits in their total liabilities (Chart 49). Across domestic banks, public sector banks were relatively quicker in passing the repo rate hikes to lending rates for new borrowers as compared with private banks.

The Indian equity market bagged positive returns for the second consecutive month in August 2022, with the BSE Sensex gaining by 3.4 per cent. The markets commenced the month on a bullish note in response to strong GST collections and higher than expected domestic manufacturing PMI data for July. Shrugging off weak global cues following US-China tensions, domestic equities continued to trade in the green amidst foreign portfolio investors (FPI) buying, softening domestic inflation and buoyant retail sales. The market felt jitters toward the end of the month in lockstep with Asian peers following hawkish statements on future rate hikes from the US Fed and the European Central Bank (ECB). After a rough start, domestic equities rebounded in September, with the BSE Sensex gaining by 0.4 per cent to close at 59,793 on September 9, 2022 amidst easing commodity prices. In 2022-23 so far, Indian equities have shown resilience relative to most of advanced and EME peers (Chart 50a). Consequently, valuations continued to remain elevated, with the Sensex 12-month forward price to earnings ratio increasing to 21.6x, driving the bond yields-earnings yield gap[17] to 2.5 per cent, which is 75 bps more than its long-term average of 1.7 per cent (Chart 50b).

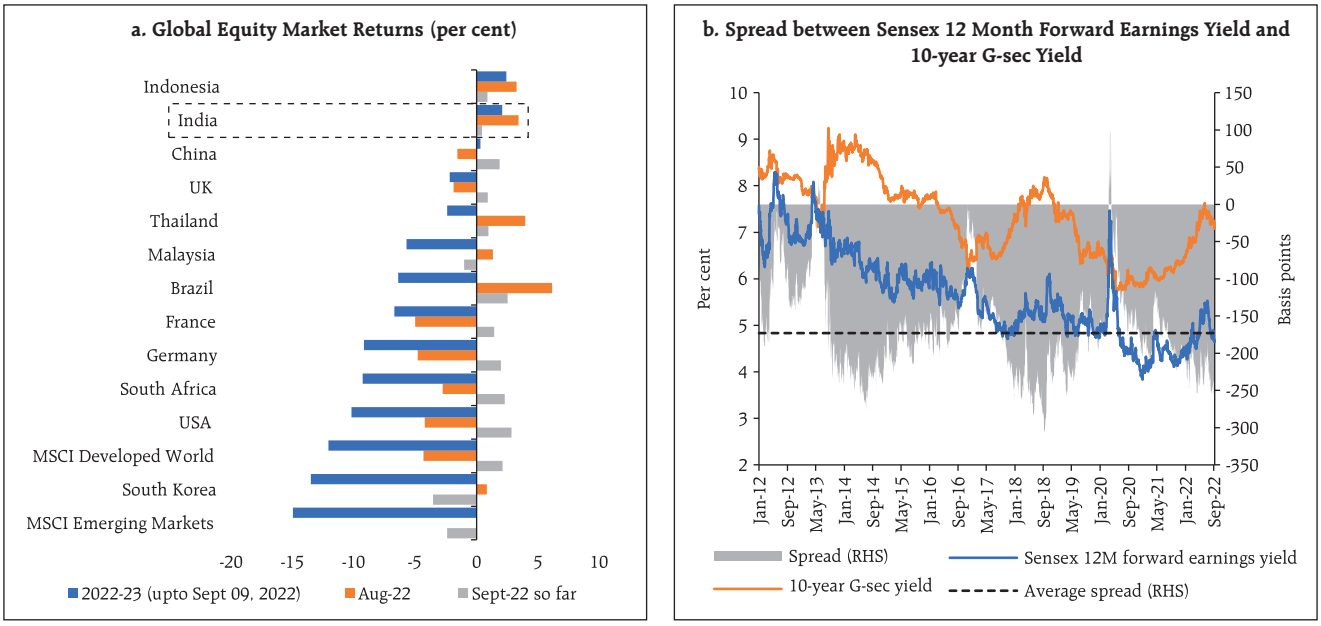
Chart 49: Bank Group-wise Transmission to Lending and Deposit Rates (April to July 2022)



Source: RBI staff estimates.

[17] Earnings yield is a valuation metric that refers to the earning per share divided by the current price per share (inverse of price-to-earnings ratio). As valuation expands, earnings yield drops and *vice versa*. The difference in yields between the Sensex earnings and long-term G-sec is tracked to find the relative attractiveness of equity investment.

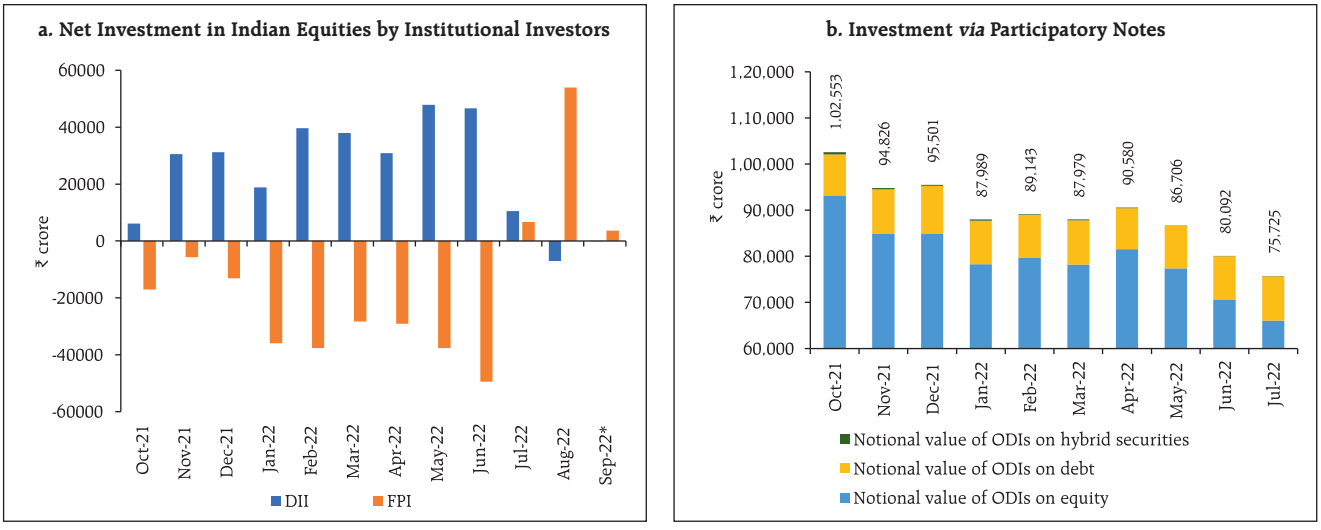
Chart 50: Equity Market and Valuations



Sources: Bloomberg; and RBI staff calculations.

FPIs continued to be aggressive buyers of Indian equities and pumped ₹53,994 crore in August. On the other hand, domestic institutional investors (DIIs) turned net sellers in August 2022 to the tune of ₹7,069 crore after making heavy purchases in the equity market for 17 consecutive months which largely absorbed the selling pressure by FPIs (Chart 51a). Furthermore, FII investment in the Indian capital market through participatory notes dipped to ₹75,725 crore at end-July 2022, the lowest level in 2 years (since October 2020) after the third consecutive month of decline (Chart 51b). However,

Chart 51: Institutional Investment



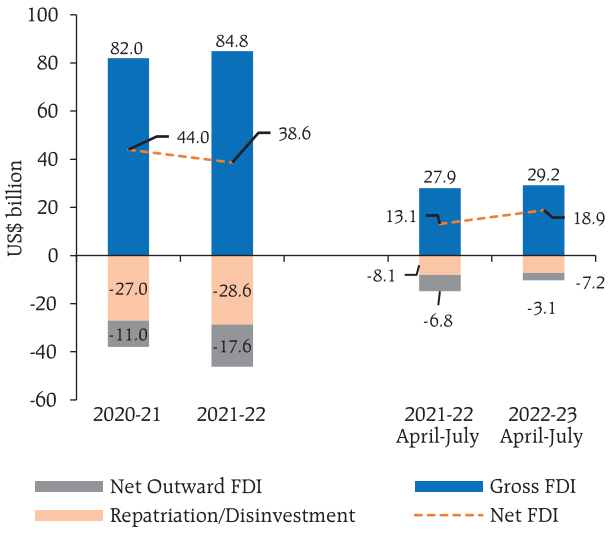
Note: ODIs: Offshore derivative instruments. *: Data is up to September 9, 2022.
Sources: NSDL; Capitaline; and SEBI.

retail investors continued to enter the domestic equity market with the number of demat accounts hitting the 100 million milestone in August 2022.

Gross inward foreign direct investment (FDI) at US$ 29.2 billion during April-July 2022 was higher than its level a year ago (Chart 52). Similarly, net FDI increased to US$ 18.9 billion during this period from US$ 13.1 billion a year ago mainly on account of an increase in fresh equity inflows and a decline in outward FDI from India. Manufacturing, services, and retail and wholesale trade sectors received the major share of the FDI equity inflows during April-July 2022.

Net purchases of US$ 6.8 billion in equities by FPIs in August 2022 were the highest since December 2020, higher than emerging market peers (Chart 53). The renewed portfolio interest in Indian equities may be attributed to strong corporate earnings and improvement in macro fundamentals. Financial services, power, and oil, gas and consumable fuels sectors were the biggest recipients of FPI equity inflows. FPIs also turned net buyers in the Indian debt market in August.

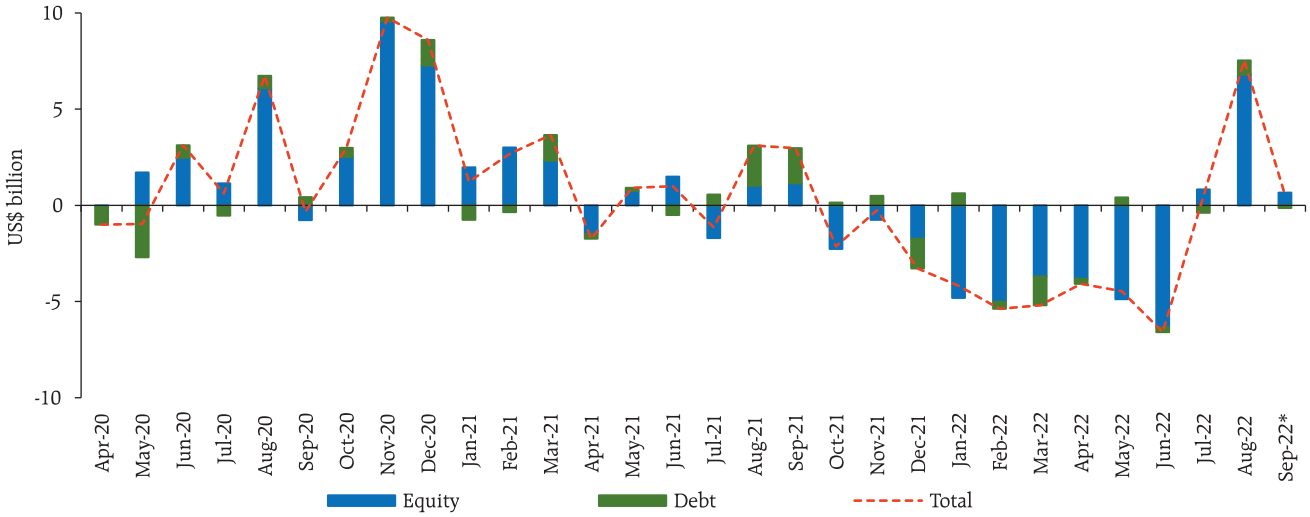
Chart 52: Foreign Direct Investment



Source: RBI.

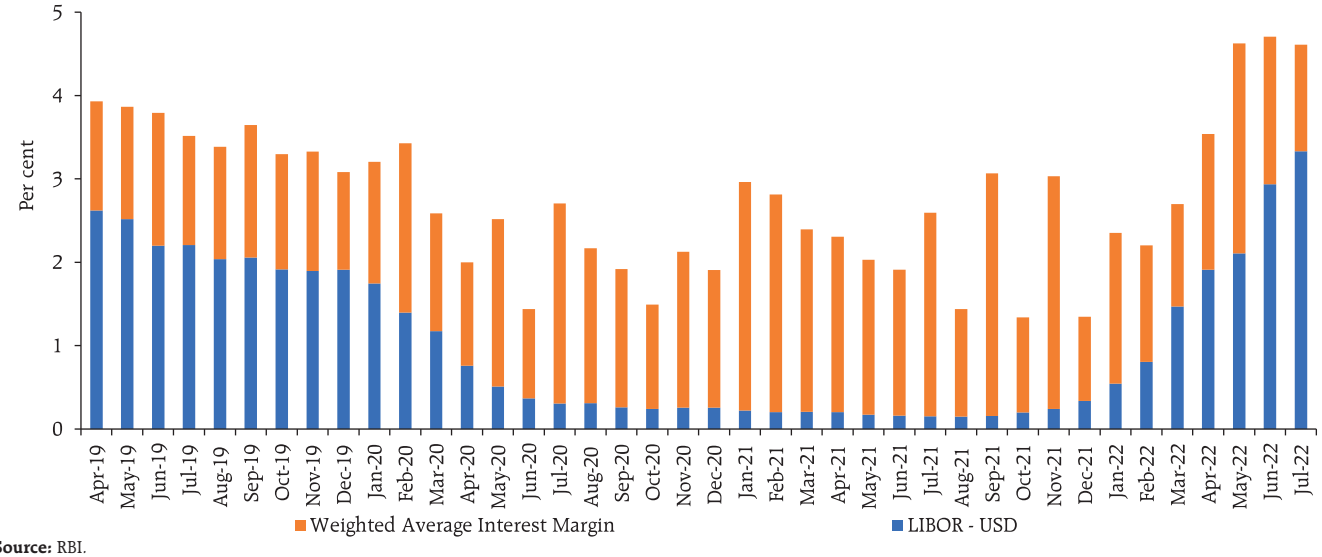
Gross external commercial borrowings (ECBs) to India moderated to US$ 5.6 billion during April-July 2022 from US$ 6.7 billion a year ago. ECBs, excluding inter-company borrowings, recorded net repayments of US$ 2.5 billion during this period as against net disbursements of US$ 1.6 billion a year ago. In July

Chart 53: Net Foreign Portfolio Investment (FPI)



*: Up to September 12, 2022.
Source: National Securities Depository Limited (NSDL).

Chart 54: Overall Cost of ECBs

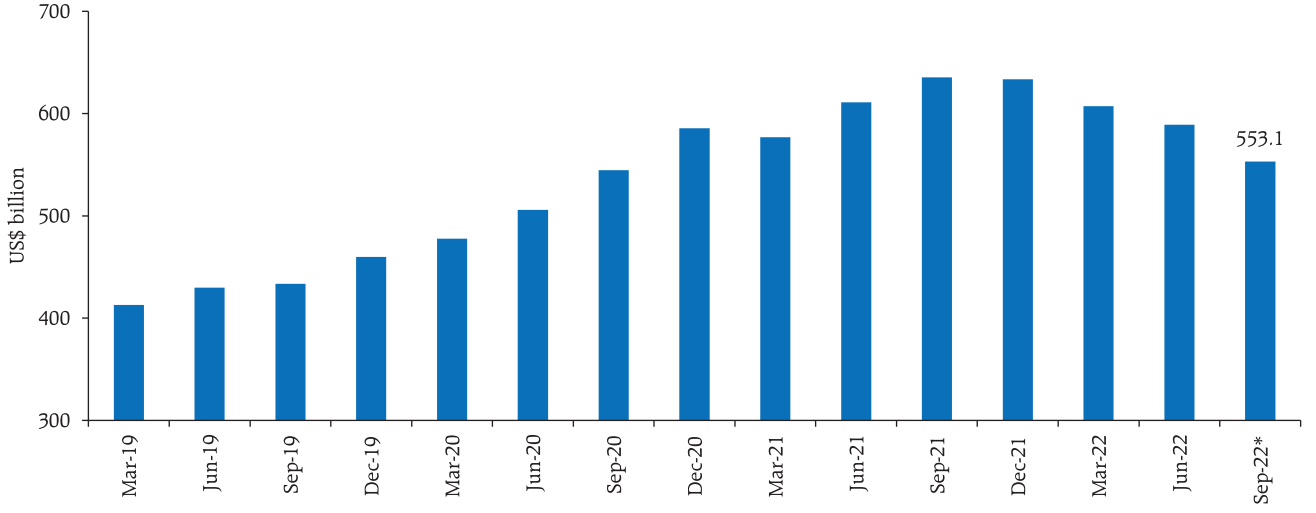


Source: RBI.

2022, the major share of ECBs was raised for the purpose of on-lending/sub-lending, refinancing of earlier ECBs and working capital. Benchmark global rates have been rising in the recent period, with the London interbank offer rate (LIBOR) and the secured overnight financing rate (SOFR) increasing by 280 bps and 220 bps, respectively, between January 2022 to July 2022. The rise in overall cost of ECB loans has, however, been relatively moderate as the weighted average interest rate spread of ECBs (over benchmark interest rate) has been declining (Chart 54).

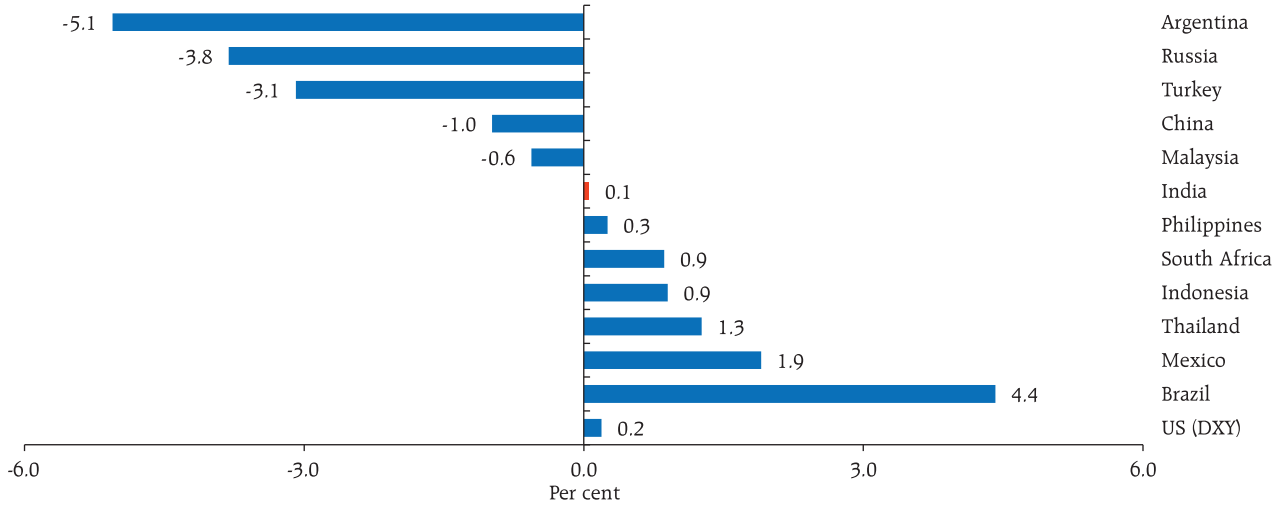
Foreign exchange reserves at US$ 553.1 billion on September 2, 2022 were equivalent to 9 months of imports projected for 2022-23 (Chart 55).

Chart 55: Foreign Exchange Reserves



*: September 2, 2022.
Source: RBI.

Chart 56: Movements of Indian Rupee and EME Currencies against the US Dollar (August 2022, m-o-m)



Sources: FBIL; Thomson Reuters; and RBI staff calculations.

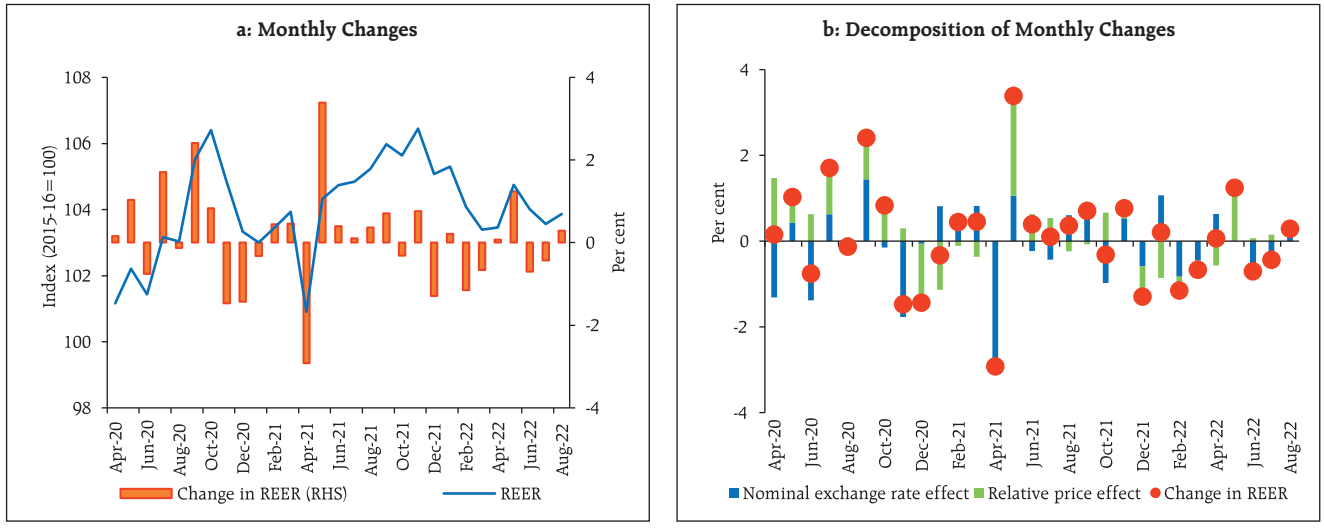
In the foreign exchange market, the Indian rupee (INR) appreciated by 0.1 per cent *vis-à-vis* the US dollar (m-o-m) in August 2022, despite strengthening of the US dollar (Chart 56).

The INR appreciated in terms of the 40-currency real effective exchange rate (REER) in the month as it appreciated in nominal effective terms (Chart 57).

Payment Systems

In August 2022, the digital payment ecosystem, spanning large-value and retail segments, continued to gain stride in volume and value terms (y-o-y, Table 6). The Unified Payments Interface (UPI) sustained its run of record highs, with 658 crore transactions worth ₹10.73 lakh crore. Efforts toward

Chart 57: Monthly Movements in 40-Currency Real Effective Exchange Rate



Note: Figures for August 2022 are provisional.
Source: RBI.

Table 6: Growth Rates in Select Payment Systems

(per cent)

Payment System Indicators	Transaction Volume Growth (y-o-y)				Transaction Value Growth (y-o-y)			
	Jul-21	Jul-22	Aug-21	Aug-22	Jul-21	Jul-22	Aug-21	Aug-22
RTGS	34.4	12.9	42.6	12.9	28.9	7.5	39.4	14.8
NEFT	32.0	26.8	37.2	29.5	12.3	19.2	14.5	19.1
UPI	116.7	93.8	119.6	85.1	108.5	75.5	114.2	67.9
IMPS	58.7	30.7	54.3	23.0	37.9	42.8	36.2	39.3
NACH	1.9	36.4	-2.3	14.3	1.8	29.4	21.0	24.3
NETC	122.0	37.9	107.8	35.2	83.4	39.8	79.6	38.0
BBPS	153.7	67.9	177.6	48.5	159.3	68.7	172.5	56.1

Source: RBI.

expanding integration of the UPI beyond Indian borders are expected to turbocharge this growth momentum.[18] The lowering of average monthly transaction values of the UPI and the Prepaid Payment Instruments (PPI-mobile wallets) suggest a growing shift towards retail digital modes for serving small-value transactional needs.[19] Interestingly, the ticket size of cash withdrawals through the National Financial Switch (NFS) also waned, suggesting tapering of the pandemic-induced precautionary balances. Other retail payment modes such as the Immediate Payment Service (IMPS), the National Electronic Toll Collection (NETC), and the Bharat Bill Payment System (BBPS) exhibited strong growth (y-o-y), notwithstanding the high base a year ago.

Propelled by robust policy support, widespread technology adoption, and growing financial awareness, the Indian Fintech market is poised to clock US$ 1 trillion in assets under management (AUM) and US$ 200 billion in revenues by 2030, *i.e.,* nearly a 10-fold jump from 2021 (US$ 100 billion and US$ 20 billion, respectively).[20] A key FinTech component – digital lending – is expected to reach US$ 515 billion by 2030.[21]

In August, the Reserve Bank released three key initiatives aimed at altering the contours of the payments industry through a collaborative and calibrated approach. First, the 'Discussion Paper on Charges in Payment Systems' solicits review of feedback on various charges for payment services. Next, the Bank launched a pilot project for end-to-end digitalisation of Kisan Credit Card (KCC) lending to transform the rural credit delivery system. Finally, the Bank issued Regulatory framework on Digital Lending, based on the recommendations of a Working Group (Chairman: Shri. J. K. Dash).[22] These measures include, *inter alia*, direct pass-through of loans from regulated entities to customers; adequate disclosures of the terms of loan arrangements; prohibition on automatic increase in credit limit without explicit consent; and need-based data collection with clear audit trails.

Conclusion

In the August edition of this article, we hypothesized that inflation peaked in April 2022 and thereafter there would be a grudging and uneven

[18] NPCI International Payments Limited (NIPL) has partnered with payments solutions provider PayXpert to internationalise the acceptance of UPI in the UK.

[19] The average ticket size stood at ₹1,841 for UPI payments and ₹416 for PPI-mobile wallets in 2021-22. These values have reduced to ₹1,630 (August 2022) and ₹386 (July 2022), respectively.

[20] Chiratae Ventures & EY. August 2022. *$ 1 trillion India Fintech Opportunity.*

[21] Ibid.

[22] Report of the Working Group on Digital Lending including Lending through Online Platforms and Mobile Apps, RBI (constituted on January 13, 2021).

easing of the momentum of price changes. The August 2022 reading was largely in line with this prognosis – in fact, the momentum of headline inflation was unchanged from its June/July level of 0.5 per cent, but the fading away of base effects pushed up the headline by 30 basis points relative to July. There is, however, a resurgence of food price pressures, mainly stemming from cereals even as fuel and core components provided a modest measure of respite. Spatial unevenness in rainfall in September has set off an upsurge in prices of key vegetables, in particular, tomatoes. On the food front, furthermore, we need to brace up for the impact of the predicted delayed withdrawal of the monsoon. Barring these pressure points and the huge uncertainty surrounding energy prices in spite of the recent softening, we maintain our view that inflation momentum should ease in Q3 and turn mildly negative in Q4. With base effects being favourable in the second half of 2022-23, inflation should moderate, although upside risks are in the air. On the downside, imported inflation pressures are letting up, helped by the stability in the exchange rate, and input costs have eased, which could temper the pass through to selling prices.

The less austere inflation outlook is also associated with an improvement in India's net terms of trade, which should have favourable implications for the external current account balance. Most importantly, future prices for crude oil contracts over the next few months have softened. International prices of vegetable oils and fertilisers are also looking more benign than before. There are other bright spots too. In August, exports of petroleum products have rebounded y-o-y. New markets are opening up with free trade agreements. Overall, the export target of US$ 750 billion for goods and services for 2022-23 is appearing within reach. In addition, India is cementing its position as the top remittances' receiver in the world, with inflows touching US$ 90 billion last year and set to create a new record. Overall, the current account deficit is expected to be within 3.0 per cent of GDP. With portfolio flows returning and foreign direct investment remaining strong, this order of deficit is eminently financeable.

At this critical juncture, monetary policy has to perform the role of nominal anchor for the economy as it charts a new growth trajectory. The focus should be on being time consistent in aligning inflation with the target. In this context, front-loading of monetary policy actions can keep inflation expectations firmly anchored and reduce the medium-term growth sacrifice.

Annex

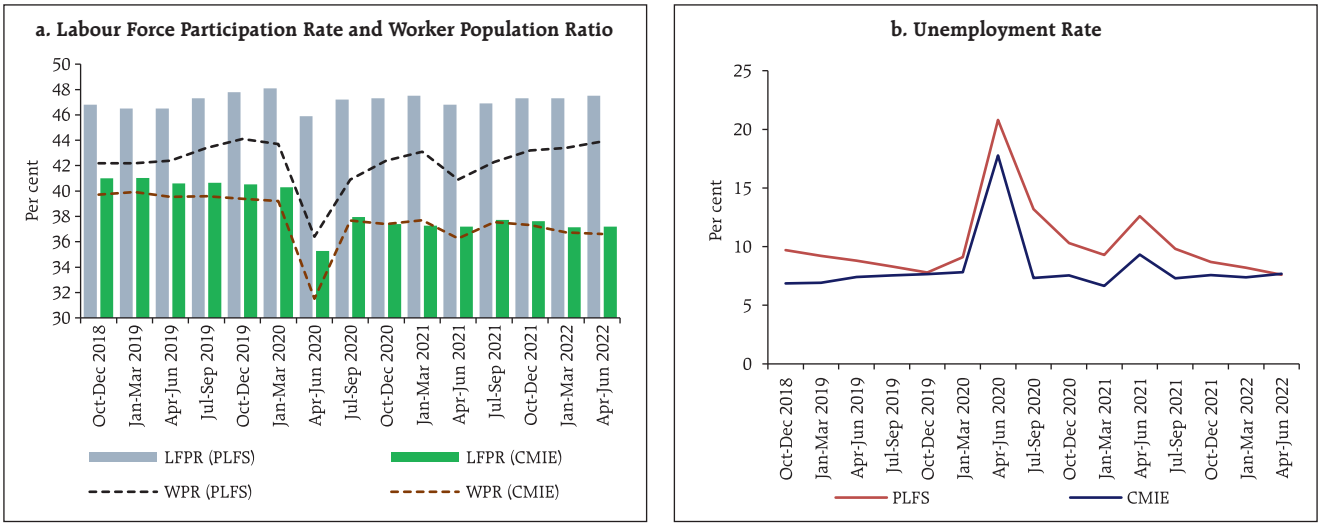
Labour Market Data: Diverging Trends?

The Ministry of Statistics and Programme Implementation (MoS&PI) on August 31, 2022 released the Quarterly Bulletin of the Periodic Labour Force Survey (PLFS)[23] for urban areas pertaining to April-June 2022. The report shows an improvement in all the key labour market indicators *viz.*, Labour Force Participation Rate (LFPR), Worker Population Ratio (WPR) and Unemployment Rate (UR) in the quarter ending June 2022 both sequentially and over the last year. The labour force participation rate increased from 47.3 per cent in January-March 2022 to 47.5 per cent in April-June 2022, while the worker population ratio strengthened from 43.4 per cent to 43.9 per cent in the same period. The unemployment rate, on the other hand, declined from 8.2 per cent in January-March 2022 to 7.6 per cent in April-June 2022. It also fell significantly below the levels recorded a year ago at 12.6 per cent.

Since the official estimates of the labour market in India are usually available with a lag, information from various private sources of employment data is used to gauge trends in the labour market. Comparing the labour market data across PFLS and CPHS for urban areas at a quarterly frequency, it is found that while the labour participation rate has not recovered to its pre-pandemic level (January-March 2020) in both the datasets, the worker population ratio has crossed the pre-pandemic level only under the PLFS. While the worker population ratio for April-June 2022 under PLFS is 0.2 percentage points above the pre-pandemic level, it still lags by 2.6 percentage points under CPHS (Chart A1a).

The perverse impact of the COVID-19 pandemic on the unemployment rate is similar across both the survey datasets. On the other hand, data from the PLFS shows a consistent decline in the quarterly unemployment rate in urban areas since April-June 2021 whereas the CPHS data shows that the unemployment rate, after falling initially in July-September 2021 quarter from the highs of the second wave of the pandemic, has remained stagnant around 7.5 per cent (Chart A1b).

Chart A1: Labour Market Conditions (Urban, Quarterly)



Note: All the comparisons are done for the 15 years and above age cohort.
Sources: PLFS; CPHS.

(Contd.)

[23] Press Note on Periodic Labour Force Survey (PLFS), Quarterly Bulletin (April-June 2022), National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India. (*https://mospi.gov.in/documents/213904/416359//3.Press_note_QB151661945262123.pdf/ 8642cf-aae6-41a0-69f2-7c2060352708*)

These discrepancies pose questions on the accuracy of employment data from various private sources. The PLFS adopts an internationally accepted methodology[24] in assigning employment status to the survey participants. In the quarterly report for urban areas, PLFS follows the Current Weekly Status (CWS) methodology. Under this methodology, a person is considered employed if the individual engages in an income-generating activity for at least one hour of the past week. CPHS, on the other hand, considers a person employed only if the individual is engaged in any economic activity either on the day of the survey or on the day preceding the survey or is generally regularly engaged in an economic activity but did not work on any of these days only temporarily.[25] This brings about differences in the labour market indicators. It is important to keep these issues in mind when using these datasets for understanding the labour market trends and formulating policies.

[24] *https://mospi.gov.in/documents/213904/301563//Quarterly%20Bulletin%20PLFS%20April%20June%2020222161945175911.pdf/c904e4b1-c5c8-2421-53f9-8e064e0db20a*

[25] *consumerpyramidsdx.cmie.com*

*Sensitivity of Output Prices to Input Prices: An Empirical Analysis for India**

*by Aastha^, Shelja Bhatia^ and Sangita Misra^*

Elevated input price pressures resulting from higher global energy prices, commodity prices and supply chain disruptions could inflate output prices depending on the stage of the business cycle and the pricing power of firms. Understanding the dynamics of pass-through of input prices to retail prices in varying market conditions is critical for an appropriate monetary policy response. Empirical analyses in the article suggest modest pass-through from input prices to output prices in India, with the sensitivity of output prices to input prices found to be non-linear, rising more when incidence of input prices is high.

I. Introduction

The rise in global inflation since 2021, primarily owing to supply-side factors triggered by the pandemic, got further entrenched due to headwinds from war in Europe. Elevated input price pressures due to higher global energy and commodity prices, amidst persistent global supply chain bottlenecks and strong rebound in demand for goods relative to services, created the breeding ground for accelerated cost-push inflation across the world. Generally, such commodity price shocks would only have a transitory impact on overall inflation. However, a critical factor determining whether the higher input costs are translating to higher headline inflation, which is persistent rather than transitory, is the extent of pass-through of these higher input prices to output prices, generally called the pricing power, leading to the broadening of price pressures over time. There is ample literature to support the state-contingent nature of the firm's pricing power whereby pass-through is stronger when demand conditions are favourable and *vice versa*[1] (Schnabel, 2022). Well anchored inflation expectations also show significant role in permitting central banks to follow an active monetary policy. Studies have shown an overall decline in the inflation pass-through (short term to long term inflation forecasts), with overall share of countries experiencing anchored inflation expectations increasing over time on account of inflation targeting (Yetman, 2020). In the post-pandemic world, while input costs have risen almost everywhere due to supply chain disruptions, the pattern and extent of its transmission to output prices have varied across nations depending upon the stage of the business cycles and the pricing power of firms. While in advanced economies (AEs) like United States (US), pricing power of firms has increased significantly against intense pressures from elevated input prices and strong demand since 2021 (Vijilder, 2022), other AEs and emerging market economies (EMEs) are either joining the US or have started experiencing such pressures beginning 2022 with increasing signs of sectoral spill overs with extended period of higher input price pressures (Das, 2022).

Looking at India, input cost prices as seen from a host of indices have been rising since 2021-22, though their pass-through to output prices have remained muted in view of the continuing slack in demand (RBI, 2022). Resultantly, the gap[2] between input and output prices kept widening since mid-2020-21 (Chart 1). In the current year FY2022-23, however,

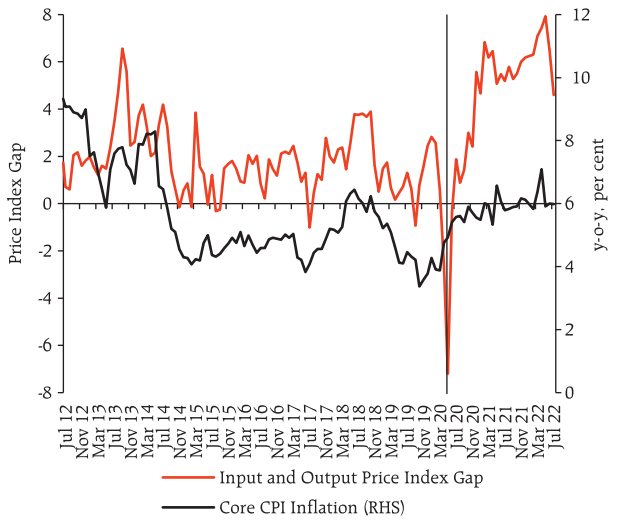
^ The authors are from Monetary Policy Department.

* The authors are grateful to Shri Muneesh Kapur for his valuable suggestions and feedback. The views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

[1] In United States (US), reduction in the pricing power appeared as one of the explanations for absence of upsurge in inflation in the country during the late 1990s.

[2] Price gap is calculated using the difference between input and output price index released by S&P Global.

Chart 1: Input-Output Price Index Gap and Core Inflation



Sources: S&P Global; MOSPI; and RBI staff estimates.

some early signs of pressures on output prices on account of rising input prices are evident from Reserve Banks' surveys. The broadbased surge in prices of key industrial inputs coupled with global supply chain disruptions due to war in Europe with crude oil prices hovering above US$ 100 per barrel for almost six months during 2022 have further elevated the pass-through risks of the unprecedented input-cost pressures among the processed food, non-food manufactured products and services categories. While input cost push pressures are exhibiting some signs of respite in near term, they continue to remain elevated fraught with uncertainties essentially due to geopolitical factors. It is against this backdrop that it becomes imperative to monitor the dynamics of pass-through of input costs to retail prices as the Indian economy recovers. This is critical to understand the dynamics of supply side inflation to effectively distinguish between initial transitory inflation shock *versus* second round effects.

Thus, the primary objective of this article is to analyse and decode the input cost pricing behaviour and supplement existing studies on sensitivity of inflation in India to input cost pressures. The rest of the article is organised as follows: Section II presents a brief review of stylised facts on recent input and output prices based on purchasing managers indices (PMI) for both India and other major AEs and EMEs. Section III presents the empirical framework against the backdrop of a brief literature review on the subject, description of the data and empirical methodology used in the study. Section IV discusses the results, and the last section reports concluding observations.

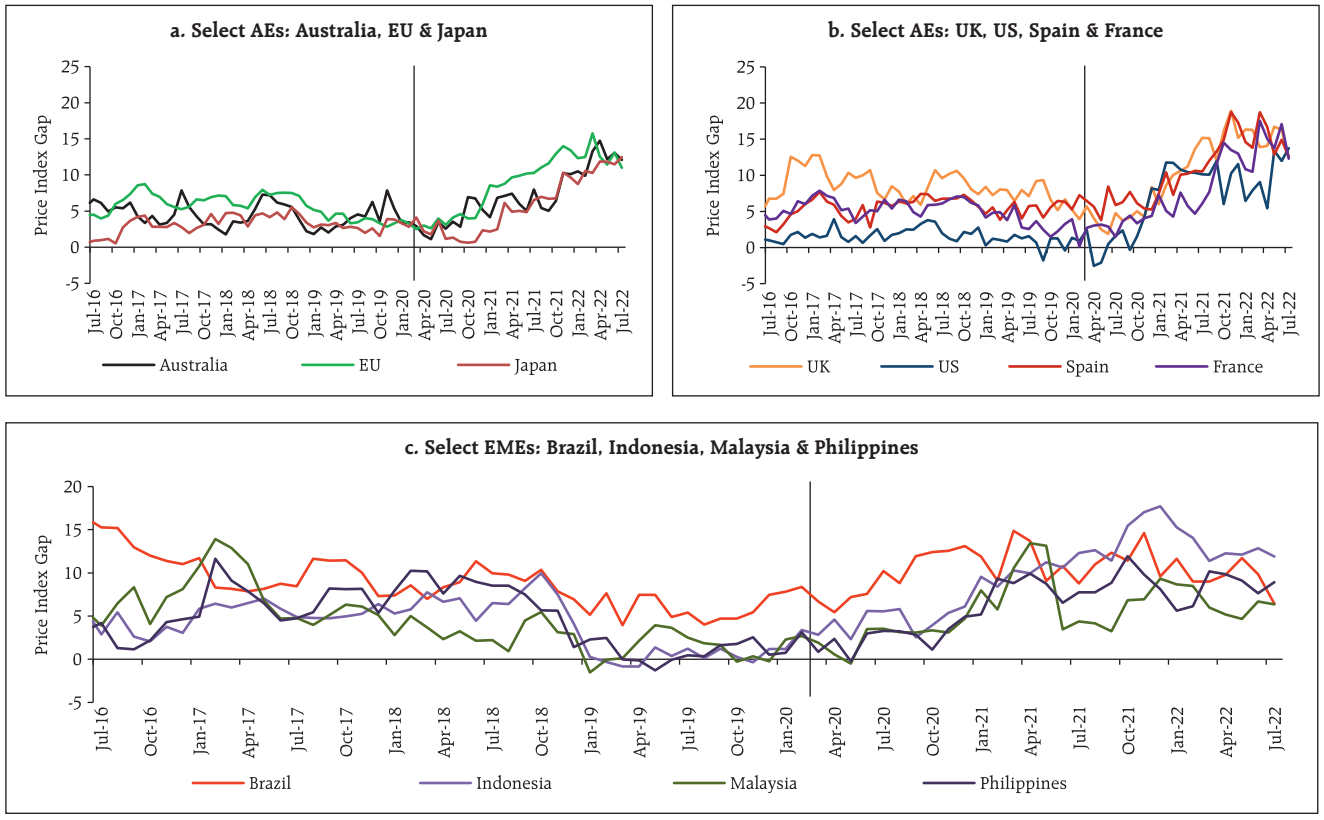
II. Input and Output Price Behaviour

Globally, the input-output price gap as witnessed from PMI price indices[3] varied across economies since the emergence of the COVID-19 pandemic in March 2020. Worldwide input cost pressures intensified amidst large scale supply disruptions and rise in cost of various raw materials. However, with countries witnessing diverse post-COVID growth trajectories, input and output price gaps have followed different trail across economies. The final pass-through of input prices to output prices in most countries is dependent on the domestically driven indicators reshaping their trajectories.

In general, AEs have been able to transfer the large increase in input costs to customers with firms protecting their margins to ensure profitability of their business, *albeit* divergences exist with regard to the extent of pass-through. Countries like Australia, Japan, and some of those in the Eurozone exhibit a rising trend in their input-output price gap in their latest surveys reflecting intense input cost pressures, which are not commensurately compensated through output price hikes (Chart 2a). In contrast, in countries like US, United Kingdom (UK), France and Spain, the rising trend in input-output price gap witnessed during 2020 has either stagnated or has begun its descent sometime around the last year reflecting the pass-through of input costs to consumers (Chart 2b).

[3] The PMI price indices have been used in the paper as they represent a common indicator across the globe to gauge input and output price pressures.

Chart 2: Input-Output Price Index Gap across AEs and EMEs



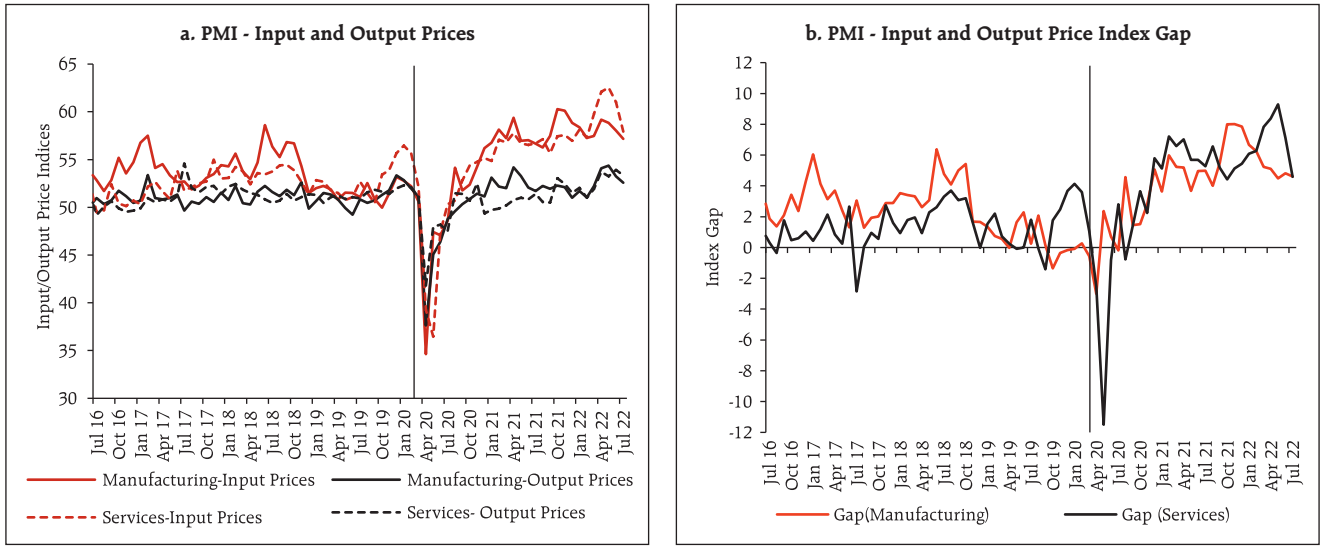
Sources: S&P Global; and RBI staff estimates.

However, for the EMEs the gap between input and output prices after rising through 2020 has remained quite volatile at elevated levels throughout 2021 and 2022 reflecting high overheads and fuel prices with firms succumbing to pass-through pressures intermittently (Chart 2c). India's input-output price gap although having risen significantly post pandemic, remains moderate in magnitude and volatility when compared with that of AEs and EMEs (Chart 1 earlier).

PMI Input and Output Prices: India

With the onset of COVID-19 pandemic in March 2020, its impact on Indian economy in April 2020 was seen in an unprecedented contraction in manufacturing output and services. The contraction in services sector was relatively stronger, attributable to the need to maintain social distancing norms and reduced consumer footfall. The sharp contraction led input and output prices to fall considerably with the rate of disinflation being stronger for manufacturing sector than the services sector as evident from PMI indicators (Chart 3a). In the subsequent months, the manufacturing firms passed-on lower input costs to their customers. Similarly, the service providers registered a notable easing in the rate of output price which was outpaced by drop in operating costs. With the relaxation in COVID-norms in ensuing months of August and September, PMI registered broad-based stabilisation in October 2020. Manufacturing sector gained optimism with the relaxation of restrictions and pent-up demand, allowing manufacturers to regain pre-pandemic output levels whereas, the service providers observed weaker growth in their activities with contact-intensive services bearing most of the brunt.

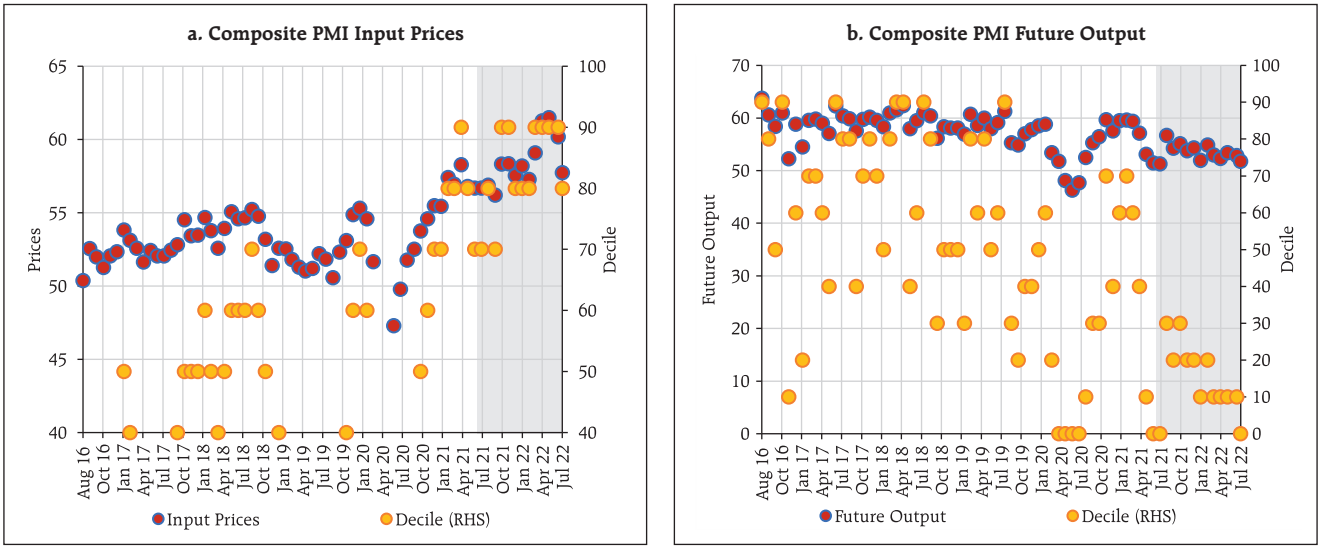
Chart 3: Input and Output Prices



Source: S&P Global; MOSPI; and RBI staff estimates.

The year 2021 started with manufacturing PMI remaining in expansion territory in the month of January, signalling a sixth consecutive month of improvement in business conditions and, thus moved further away from the COVID-19 related contractions which were recorded around mid-2020 (April-July, 2020). The improving demand environment provided an accommodative space for price hikes and charges to grow at faster pace. In the services sector, input costs witnessed sharpest upsurge due to pick up in fuel prices. However, the prices charged by service providers got reduced as most of the companies offered discounts to beat the competition and stimulate demand conditions. Hence, the overall output charges were broadly unchanged as discounts offered by service providers were offset by the increase in prices among goods producers. With the successive emergence of the second wave of COVID-19 in India, the strains on manufacturing sector got intensified again in the first quarter of FY2021-22. Input costs got exaggerated further due to raw material scarcity pushing prices to go up. Meanwhile, in the services sector the cost-push inflationary pressures eased, but remained elevated compared to their historical standards. However, the selling prices increased slightly as several companies left their fees/charges unchanged to support the subdued demand conditions despite the high input prices and operating expenses. Hence, the pass-through to goods sectors was more than that for the services sectors (Chart 3b). In the terminal months of 2021, the PMI data indicated robust growth for services and manufacturing sector. However, the inflationary cost pressures remained elevated and intense at higher levels amid transportation issues and difficulties to source major raw materials. Hence, passing on of the cost burden to client led to moderate inflation. As production growth picked up considerably in November, private sector output expanded at the fastest pace since January 2021. Hence, not only did the firms saw their expenses picking up further since November 2021, but also to the greatest extent in a decade, with input prices operating at the highest decile for over a year [February 2021-June 2022] (Chart 4a). Future output, an indicator of expected demand conditions and pass-through sentiments, however, remained modest (Chart 4b). Reflecting this, there are some indications of cost burden being partly shared with customers *via* upward revisions to selling prices, though input-output price gap still persists.

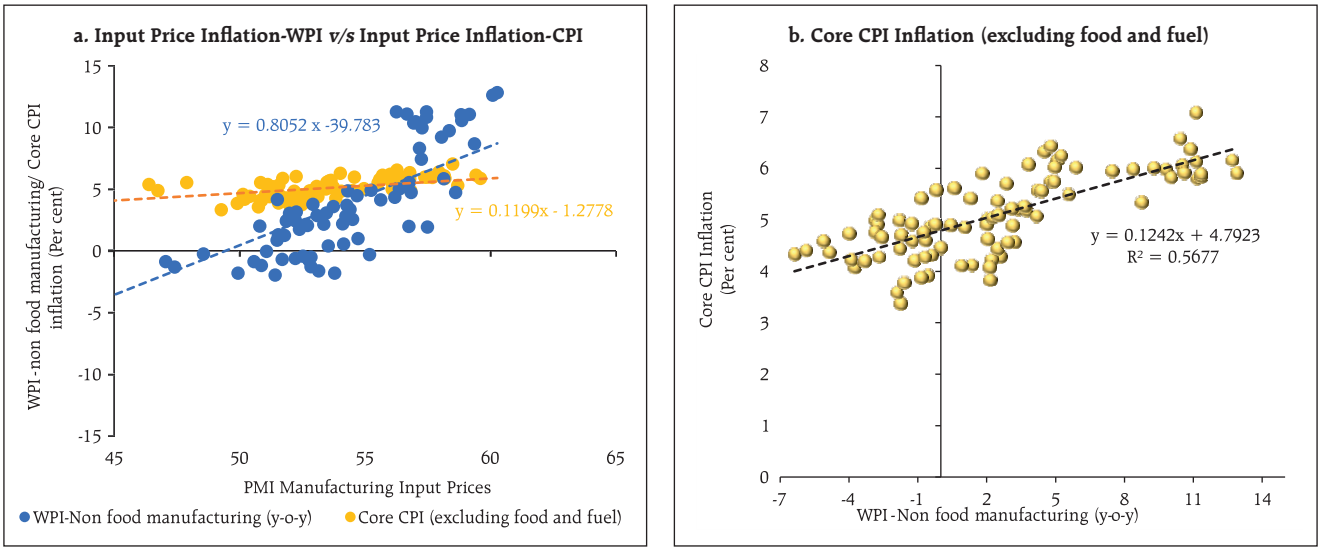
Chart 4: Range of PMI Input Prices and Future Output



Source: S&P Global; and RBI staff estimates.

The extent of pass-through of input prices to output prices and, in turn, to headline Consumer Price Index (CPI) inflation is, however, conditioned by a host of cyclical and structural factors that determine the nature of second-round effects. It is generally observed that input price pressures are glaringly reflected in the core component of the wholesale price indices (WPI)[4], though its correlation with core CPI inflation (excluding food and fuel) is rather weak (Chart 5a). Change in input prices impacts core CPI indirectly through change in core WPI, thus, making the impact on core CPI relatively subdued with input price changes (Chart 5b).

Chart 5: Manufacturing Input Prices and Core Inflation based Measures



Source: MOSPI, S&P Global; and RBI staff estimates.

[4] Non-food manufacturing WPI is used as a measure of Core inflation based on the previous studies (Raj and Misra, 2011).

III. Empirical Analysis

Review of Literature

The pass-through of input costs to output costs, typically called pricing power, is conventionally considered a critical input in monetary policy making (Ball, 1999). The degree of pass-through is vital for forecasting inflation and pivotal for central banks to decide on the extent of monetary tightening while framing monetary policy in response to elevated inflation. The inflationary environment of the pricing actions of firms is investigated in the literature through two key paradigms namely - Monetary Theory and Theory of Price Setting with Imperfect Competition. Blanchard and Kiyotaki (1987) and Svennson (1986) have shown the importance of imperfect competitive models in price adjustment theories where firms own the market power, whereas the other set of theories includes the importance of changing pattern of pricing power through microeconomic foundations of staggered price setting. Under the staggered price setting models developed by Ball and Cecchetti (1988), the changes in the pricing behaviour of firms could be influenced by inflation persistence expectation or through fluctuations noticed in input costs. The cross-country experience of key AEs like US and Eurozone area shows that pricing power of firms increased significantly during 2021-22 against a background of intense pressure from input prices and strong demand (Vijlder, 2022).

In the Indian context, several studies have tried to analyse empirically various aspects of the relationship between input/output prices and the inflation and demand conditions. First, using firm level data, decline in corporate pricing power has been observed since 2009-10 with net impact of pricing power on inflation being subdued, *albeit* positive (Hait *et. al.,* 2013). Second, PMI price indices are shown to be good indicators and have significant predictive power of the changes in WPI, which served as the headline in the pre-FIT (flexible inflation targeting) period (Khundrakpam and George, 2013)[5]. Third, wage-price spiral relationship has also been empirically examined in the Indian context. In Indian agricultural sector, evidence supporting price impact of wages through cost-push channel since 2007 is prevalent with labour cost constituting major part of operational cost (Nadhanael, 2012). Moreover, both nominal agricultural and non-agricultural wages are observed to be positively related to prices in the long run although wage-push risks to inflation is found to be weaker relative to inflation induced wage pressures (Kundu, 2019). Lastly, a more recent exercise has shown that the direct pass-through of global commodity prices has a relatively modest impact on CPI as compared to headline WPI (RBI Annual Report, 2022)[6]. On the whole, studies in this area have looked at the issue of pass-through from input to output prices either tangentially or were primarily based on pre-pandemic data, thus enunciating the need to examine the current behaviour in the post-pandemic cost-push regime. Against this backdrop, an attempt is made to examine empirically the sensitivity of the output prices to changes in input prices to gauge the likely pass-through of the current rise in input prices, especially as demand recovery gathers steam.

Data

The empirical estimation in the study is attempted by using monthly time series data from 2011 to 2022[7]. The variables used in our study are as follows: composite PMI input prices as an explanatory variable and PMI output prices as dependent variable. Core CPI (excluding food and fuel) is also used as another dependent variable to examine its relationship with

[5] Studies in the US have successfully used PMI price indices, along with other variables, to forecast inflation (Banerjee and Marcellino, 2006; and Wright, 2008).

[6] A one per cent change in overall global commodity prices leads to a 0.02 per cent change in overall CPI inflation, and around 0.11 per cent change in overall WPI inflation (Annual Report, Reserve Bank of India 2021-22)

[7] As the PMI future output index is available only after 2012, empirical results reported in Table 2, 3 and 4 are being estimated using the monthly series from 2012 to 2022.

Table 1: Granger Causality Tests

Hypothesis	Number of observations	F-Statistic
Composite Input Prices do not granger cause Composite Output Prices	197	9.17***
Composite Output Prices do not granger cause Composite Input Prices	197	0.374
Composite Input Prices do not granger cause Core CPI	135	14.67***
Core CPI does not granger cause Composite Input Prices	135	1.76

Notes: 1. *** denotes significance at 1 per cent level of significance.
2. Results are reported for lag 1 of input prices; however, results also hold for higher lags for composite input to output prices, *albeit* significance reduces for higher lags for composite input to Core CPI (seasonally adjusted, m-o-m).

Source: RBI staff estimates.

Table 2: OLS Estimate: Input to Output Prices
Dependent Variable: PMI Output Prices

Independent Variables	Model 1	Model 2
Constant	30.48***	18.26***
	(0.00)	(0.00)
Input Prices *(lagged no. of variables=2)*	-	0.10**
		(0.03)
Input Prices *(lagged no. of variables=4)*	0.26**	-
	(0.03)	
Output Prices *(lagged no. of variables=1)*	-	0.48***
		(0.00)
Future Output	0.11***	0.04
	(0.000)	(0.01)
Dum_April_2020	-9.65***	-10.57***
	(0.000)	(0.00)
Adjusted R-squared	0.73	0.81

Notes: 1. *** and **denotes significance at 1 and 5 per cent levels.
2. Figures in parentheses are p-values.
3. The results are estimated for period: April 2012-June 2022.

Source: RBI staff estimates.

PMI input prices. The model also includes future output (expected) as a control variable for expected demand conditions, in line with literature, along with suitable dummies for the COVID-19 period. Descriptive statistics of the model are given in Table 1 in Annex A. Unit root test for stationarity indicates that at one per cent confidence level PMI input and output prices are stationary, while core CPI index in levels is non-stationary; seasonally adjusted month-on-month core CPI inflation is found to be stationary (Table 2 Annex A).

As a next step, the causal relationship of input prices as represented by PMI composite input prices is examined *vis-à-vis* PMI composite output prices and core CPI. Granger causality tests confirm that input prices influence output prices and Core CPI with no evidence of reverse causality (Table 1).

IV. Empirical Results

The extent of sensitivity of output prices to input prices is examined using standard ordinary least squares (OLS) and quantile regression (QR) analysis controlling for expected activity[8], which might influence output prices from the demand-side along with input prices from the cost push angle. The OLS regression results suggest that the pass through from PMI composite input prices to corresponding output prices is slow and incomplete, and the long-run pass-through is in the range 0.26 - 0.27 (Table 2).

Quantile Regression

With an objective to decode non-linear relationship between output prices and input prices that are state dependent, quantile regression is attempted to examine the impact of input prices on output prices at different quantiles. The estimates of quantile regression coefficients for five quantiles (0.2, 0.3, 0.5, 0.7, and 0.8) are given in Table 3. It is observed that the estimated coefficients of the PMI input price as independent variable have the expected positive sign, are statistically significant at the 1 per cent level, and gradually increase from lower to upper quantiles ranging from 0.24 to 0.32.

The null hypothesis of the slope coefficients of the estimated model being equal across quantiles is rejected (Chart 4a and Table 4b)[9]. With PMI input prices

[8] The future output index of composite PMI that surveys whether the level of business activity expected over next 12 months' will remain higher, lower or constant is used as an indicator of expected demand.

[9] This is pertinent because it shows that in cases when the research importance is on specific quantiles, linear models can lead to insufficient conclusions as to whether there is a link between the explanatory and dependent variables, and if a link exists, the strength of the link.

Table 3: Quantile Regression Results
Dependent Variable: PMI Output Prices

Independent Variables	Quantile Regression Estimates				
	0.2	0.3	0.5	0.7	0.8
C	34.48*** (0.00)	33.74*** (0.00)	29.23*** (0.00)	26.45*** (0.00)	26.32*** (0.00)
Input Prices	0.24*** (0.00)	0.24*** (0.00)	0.30*** (0.00)	0.32*** (0.00)	0.32*** (0.00)
Future Output	0.07** (0.01)	0.08** (0.01)	0.10** (0.02)	0.14*** (0.00)	0.14*** (0.00)
Dum_April_2020	-5.72*** (0.00)	-6.10*** (0.00)	-5.29*** (0.00)	-5.10*** (0.00)	-5.43*** (0.00)

Notes: 1. *** and ** denotes significance at 1 and 5 per cent levels.
2. Figures in parentheses are p-values.
3. Quantile regression component: Huber Sandwich Standard Errors & Covariance; Sparsity method: Kernel (Epanechnikov) using residuals; Unique optimal solution identified.
4. The results are estimated for period: April 2012-June 2022.

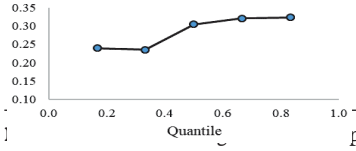
Source: RBI Staff estimates.

operating at the highest decile for a significantly long time period, its pass-through to output prices could be stronger, more so as future output is moving towards its upper decile with growth recovering.

The second objective of this article is to explore the effect of input prices on the core CPI which is a component of headline CPI to identify the relationship between the two. Using quantile regression, it is observed that the impact of PMI input prices on core CPI[10] for the period April 2012-June 2022 is higher

Table 4: Quantile Regression
(Dependent Variable: PMI Output Prices)

a. Quantile Process Estimates
Coefficient



b. Quantile Slope Equality Test

Test Summary	:	Wald Test
Chi-sq Statistic	:	28.05***
Chi-sq d.f	:	12
P-value	:	0.00

per cent level.
2. Estimated equation quantile tau = 0.5; Test quantiles = 0.9; Test statistic compares all coefficients.
3. Annex B reports the confidence bands from OLS estimation in comparison to QR coefficients.

Source: RBI Staff estimates.

[10] Seasonally adjusted, m-o-m core CPI has been used for the analysis.

Table 5: Quantile Regression
Dependent Variable: Core CPI (m-o-m)

Independent Variables	Quantile Regression Estimates				
	0.2	0.3	0.5	0.7	0.8
C	-0.84 (0.14)	-1.01 (0.10)	-1.50** (0.02)	-1.68** (0.01)	-0.97 (0.28)
Input Prices	0.02** (0.05)	0.02** (0.03)	0.04*** (0.00)	0.04*** (0.00)	0.03* (0.06)
Dum_April2020	0.81*** (0.00)	0.80*** (0.00)	0.88*** (0.00)	0.88** (0.00)	0.57* (0.06)

Notes: 1. ***, ** and* denotes significance at 1, 5 and 10 per cent levels, respectively.
2. Figures in parentheses are p-values.
3. Quantile regression component: Huber Sandwich Standard Errors & Covariance; Sparsity method: Kernel (Epanechnikov) using residuals; Unique optimal solution identified.
4. The results are estimated for period: April 2012-June 2022.

Source: RBI Staff estimates.

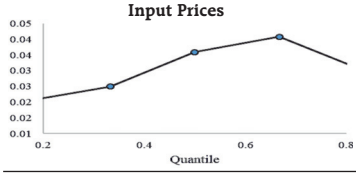
at higher quantiles of input prices, although overall impact is modest with pass-through coefficient in the range of 0.02-0.04 (Table 5 and 6).

Vector Autoregression (VAR) Analysis

To further explore the dynamics of the relationship for both core CPI and headline CPI, we considered bi-variate VAR models of (a) PMI input prices with headline inflation and (b) PMI input prices with core CPI inflation. The focus of this empirical exercise is to compare the response from input prices to CPI headline and core inflation and examine the magnitude and persistence of the impact. For this purpose, we depend on impulse responses of headline and core CPI inflation obtained from VAR estimates (Chart 6).

Table 6: Quantile Regression
(Dependent Variable: Core CPI, m-o-m)

a. Quantile Process Estimates
Input Prices



b. Quantile Slope Equality Test

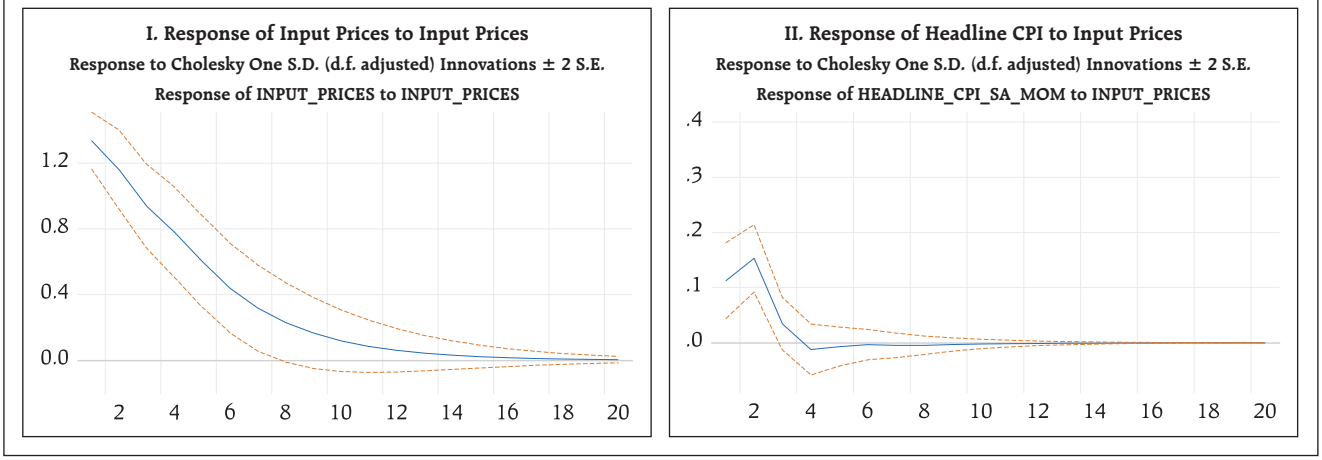
Test Summary	:	Wald Test
Chi-sq Statistic	:	13.66*
Chi-sq d.f	:	8
P-value	:	0.09

Notes: 1. * denotes significance at 10 per cent level.
2. The results are estimated for period: April 2012-June 2022.

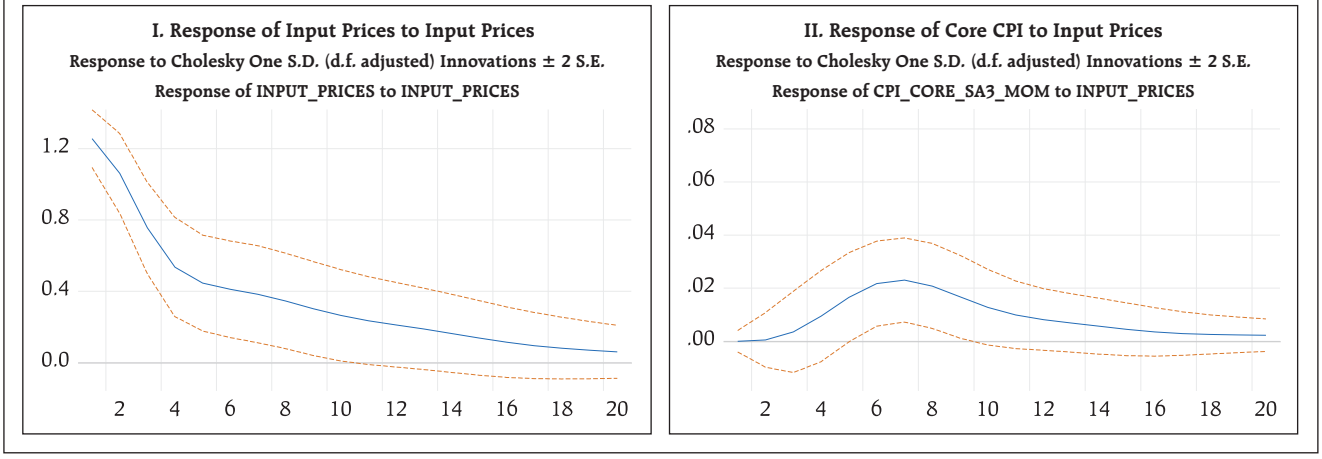
Source: RBI Staff estimates.

Chart 6: Bi-variate VAR Results

a. PMI Input Prices and Headline CPI



b. PMI Input Prices and Core-CPI (excluding food and fuel)



Notes: 1. The results for VAR are estimated for period: May 2011-June 2022.
2. Selection with AIC and SC gave the model with four lags. The residuals of the models are checked for autocorrelation with the VAR Residual Serial Correlation LM test.
3. Stability condition check indicates no root lies outside the unit circle verifying the stability condition of VAR.

Source: RBI Staff estimates.

The model is estimated using four lags as suggested by the AIC criteria. For headline CPI, impulse responses indicate that a one standard deviation shock to input prices (which is 1.2 per cent rise) leads to a peak impact of around 15 basis points (m-o-m) on headline inflation with a lag of three months and the impact decays quickly. On the other hand, a broadly similar shock to input prices leads to a more gradual impact on core inflation. The peak impact of around 2 bps occurs after 7 months. The analysis thus suggests a relatively faster and stronger impact of input price shocks on headline inflation and a more inertial and shallower impact on core inflation.

V. Conclusion

This article decodes the pass-through behaviour from input prices to output prices, which is a key component in assessing second order effects of cost-push pressures. Driven by higher fuel, raw materials, transportation costs and other supply chain related constraints, input prices have seen a broad-based rise with the repeated waves of the pandemic which was

further aggravated by war in Europe. With output prices not rising proportionately due to persistent slack in the Indian economy during 2020 and 2021, the gap between input and output prices widened during the pandemic, particularly post the first COVID-19 wave. Empirical results of the paper suggest that pass-through from input to output prices builds over time, with the long run coefficient in the range of 0.26-0.27. Non-linearity in the relationship is also empirically verified with the sensitivity of output prices to input prices rising at higher quantiles of input prices. Besides, higher input prices have a quicker transmission and stronger impact on the headline inflation relative to core inflation.

Firms have begun to pass on a part of their rising cost to selling prices in the manufacturing and services sector, following the improvements in demand conditions that enables them to do so. Going forward, one needs to be watchful of the dynamics playing out between divergent forces - demand picking up; some softening in input price pressures in very recent months; and continuing global uncertainties – that could determine the impact on headline inflation.

VI. References

Ball, L. M. (1999). Policy rules for open economies. In Monetary policy rules (pp. 127-156). University of Chicago Press.

Ball, L., & Cecchetti, S. G. (1988). Imperfect Information and Staggered Price Setting. *The American Economic Review*, 999-1018.

Blanchard, O. J., & Kiyotaki, N. (1987). Monopolistic competition and the effects of aggregate demand. *The American Economic Review*, 647-666.

Hait, A., John, J., Das, A., & Mitra, A. (2013). Corporate Pricing Power, Inflation and IIP Growth: An Empirical Investigation. *Reserve Bank of India, WPS (DEPR), 09.*

Khundrakpam, J. K., & George, A. T., (2013). An empirical analysis of the Relationship between WPI and PMI-Manufacturing Price Indices in India. *Reserve Bank of India, WPS (DEPR), 06.*

Koenker, R., & Bassett Jr, G. (1982). Robust tests for heteroscedasticity based on regression quantiles. *Econometrica: Journal of the Econometric Society*, 43-61.

Kundu, S. (2019). Rural wage dynamics in India: What role does inflation play. *RBI Occasional Paper*, *40*, 51-84.

Nadhanael, G. V. (2012). Recent Trends in Rural Wages: An Analysis of Inflationary Implications. *Reserve Bank of India Occasional Papers*, *33*(1), 89-112.

Patra, M. D., Behera, H., & John, J. (2021). 'Is the Phillips Curve in India Dead, Inert and Stirring to Life or Alive and Well?. *RBI Bulletin, November.*

Raj, J., & Misra, S. (2011). Measures of core inflation in India–an empirical evaluation. *Reserve Bank of India, WPS (DEPR), 16.*

Schnabel, I. (2022). The globalization of inflation. In *Speech given at a conference organised by the Österreichische Vereinigung für Finanzanalyse und Asset Management, May* (Vol. 11).

Svensson, L. E. (1986). Sticky goods prices, flexible asset prices, monopolistic competition, and monetary policy. *The Review of Economic Studies*, *53*(3), 385-405.

Vijlder, W., (2022), "Companies' Pricing Power and the Inflation Outlook", BNP Paribas.

Yetman, J. (2020). *Pass-through from short-horizon to long-horizon inflation expectations, and the anchoring of inflation expectations.* Bank for International Settlements, Monetary and Economic Department.

RBI (2022). Globalisation of Inflation and Conduct of Monetary Policy, Speech by Shri Shaktikanta Das, Governor, Reserve Bank of India - July 9, 2022 - Delivered at the Kautilya Economic Conclave, organised by Institute of Economic Growth in New Delhi.

RBI (2022). Annual Report for 2021-22.

RBI (2022). Monetary Policy Report, April.

RBI (2022). Resolution of the Monetary Policy Committee (MPC), February.

Annex A

I. Descriptive Statistics

Table 1: Descriptive Statistics

Duration: April 2012 – May 2022

Measure	PMI-Input Prices	PMI-Output Prices	Core CPI (Seasonally Adjusted, m-o-m)
Observations			136
Mean	53.77	51.43	0.49
Standard Deviation	3.27	1.87	0.26
Minimum	37.82	40.50	-0.11
Maximum	61.50	57.27	1.68
Skewness	-1.21	-0.83	0.78
Kurtosis	8.85	13.25	5.08

Source: RBI Staff estimates.

II. Unit Root Tests

Table 2: Augmented Dickey Fuller (ADF) Test Results

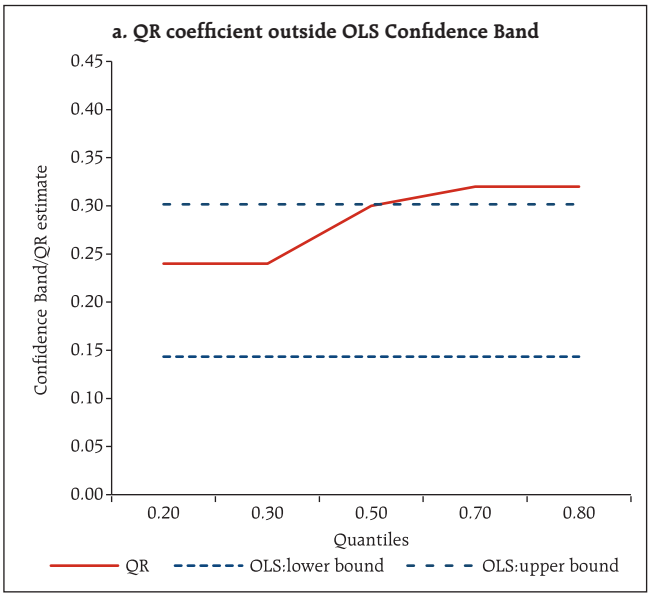
Variables	Constant	Trend
PMI Input Prices	-3.14***	-3.08
PMI Output Prices	-4.63***	-4.79***
Core CPI	2.01	0.81
Core CPI m-o-m (Seasonally Adjusted)	-9.25***	-9.86***
Headline CPI m-o-m (Seasonally Adjusted)	-9.02***	-9.18***
Future Output	-2.59	-3.21
Future Output (at first difference)	-15.06***	-15.07***

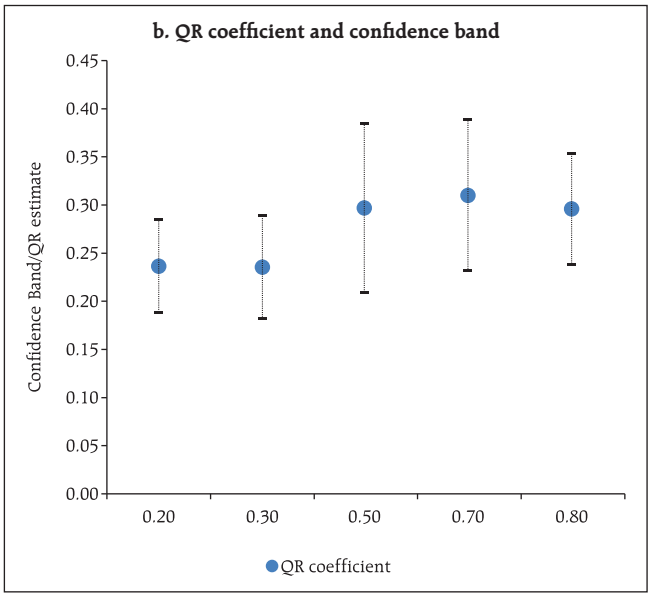
Notes: 1. *** denotes significance at 1 per cent level.

2. The unit root tests indicate rejection of null hypothesis for PMI input and output prices series making them I(0) variables.

Source: RBI Staff estimates

Annex B





Note: QR and OLS indicates Quantile Regression & Ordinary Least Squares respectively.
Source: RBI staff estimates.

*Impact of COVID-19 on Economic Activity Across Indian States**

*by Sudhanshu Goyal^, Akash Kovuri^ and Ramesh Golait^*

India witnessed differential regional impact of the COVID-19 pandemic on economic activity. We construct an economic activity index at regional level to understand the drivers of asymmetry in economic impact and subsequent recovery trajectories. We find that differences in economic structure played a key role. States with higher share of agriculture and mining in their Gross State Value Added (GSVA) witnessed a lower contraction in economic activity vis-à-vis States with higher share of industry and services, necessitating differential policy responses in States supplementing national policy response to mitigate the impact of the pandemic.

Introduction

The Indian economy is composed of heterogenous regional units which have different economic trajectories. It is critical for policy makers to take cognisance of the regional and spatial dimensions of economic activity for effective policy making and implementation. The overall economic development of a country is crucially dependent on the equitable progress of its States/regions. To this end, economic monitoring of the regions and sub-national units becomes important.

Currently, overall economic activity at the State level can be measured by Gross State Domestic Product (GSDP) data which is available annually. As evident during the pandemic, near real time monitoring of the economic activity at State level is important for quick policy responses calibrated to regional conditions. High frequency indicators available at State level provide a sectoral instead of an overall economic picture of the State. In this context, an index capturing the aggregate economic scenario at the regional level is imperative.

During the COVID-19 pandemic, lockdowns created disruptions in economic activity, supply chains, nature of work and migration patterns. With the Union Government giving a broad direction and policy support, States and local governments took the lead in adapting and implementing policies according to their specific local conditions. As a result, economic recovery is expected to vary across States. In this context, we construct an economic activity index to measure the diverse economic trajectories across States. The economic structure of the regions may be one possible explanation for the asymmetric economic impact induced by COVID-19 lockdowns and mobility restrictions.

The rest of the paper is organised as follows: Section II provides a review of the literature on regional economic activity indices across the world, as well as the literature specific to India. Section III briefly describes the data and Principal Component Analysis (PCA) methodology used for constructing the regional economic activity index. Section IV presents the index at State level. Section V discusses the relationship between economic structure and impact on economic activity and Section VI concludes the article.

II. Literature Review

The need for a real time measurement of economic performance has been recognised by policy makers across the world. Globally, there are several indices to measure economic activity at a sub-national level.

The Federal Reserve Bank of Philadelphia produces a monthly coincident index for each of the 50 States. A dynamic single-factor model is used to create the State

^ The authors are from Department of Economic and Policy Research (DEPR).

* The authors immensely benefited from the suggestions and the constant encouragement received from Dr. Deba Prasad Rath, Principal Adviser, DEPR. Comments from Dr. Rajeev Jain and Dr. G. V. Nadhanael are acknowledged. The views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

indexes using four variables *viz.*, non-farm payroll employment, average hours worked in manufacturing by production workers, the unemployment rate, and wage and salary disbursements. Texas Leading Index by Dallas FED is used to predict economic activity in the State. It uses eight leading indicators *viz.*, Texas value of the dollar, U.S. leading index, real oil price, well permits, initial claims for unemployment insurance, Texas stock index, help-wanted index and average weekly hours worked in manufacturing to arrive at a composite index.

Habli *et al.* (2020) proposed four experimental composite economic activity indices in the context of Canada using PCA and a mix of other methods. The Reserve Bank of New Zealand has developed experimental Regional Activity Index (RAI) to track how regional economies are performing in near real-time. Each regional index summarises 6 monthly indicators of economic activity, covering consumer spending, jobseeker numbers, online job vacancies, traffic volumes (light and heavy vehicles), and electricity demand. Reserve Bank of New Zealand uses PCA methodology to arrive at the weights used to calculate the index.

The Chicago Fed National Activity Index (CFNAI) is a weighted average of 85 monthly indicators of national economic activity. It was found that a single index constructed from the first principal component of 85 economic activity series could forecast inflation effectively. The economic indicators used for the CFNAI are drawn from four broad categories of data: i) production and income; ii) employment, unemployment, and hours; iii) personal consumption and housing; and iv) sales, orders, and inventories. Indexes such as the CFNAI provide useful information on the current and future course of economic activity and inflation in the United States.

In India, Bhadury *et al.* (2020) constructed single-index dynamic factors using 6, 9 and 12 high-frequency indicators at the national level. Kumar (2020) constructed an economic activity index for India from 27 monthly indicators using a dynamic factor model. The study uses monthly indicators representing industry, services, global and miscellaneous activities to gauge the underlying State of the economy. However, such research at sub-national or regional level are relatively scarce in the Indian context.

In this backdrop, we attempt to construct a composite index of economic activity at regional level for the Indian sub-national units. The index is a composite of six high frequency monthly indicators reflecting the economic activity at a regional level using PCA method.

III. Variables and Composite Data Analysis

Variable selection is the most crucial part of the exercise to construct an economic activity index at the State-level. Our aim is to include indicators that capture the pronounced and persistent movements in economic activity. To capture the trend of economic activity across States on a monthly basis, a composite index using PCA technique is constructed for the select 18 States[1] .These States were taken based on coherency of data availability and to avoid missing values for the selected time period. The variables considered in this paper are: i) Goods and Services Tax (GST) collections; ii) electricity generation; iii) employment rate; iv) exports; v) Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) work demand and vi) Deposits in accounts under Pradhan Mantri Jan Dhan Yojana (PMJDY). These indicators represent activities covering multiple sectors in the economy. The data ranges from March 2020 to February 2022.

Since rise in GST collections reflects a rise in economic activity, it is taken as one of the crucial indicators of economic activity at State level. Electricity generation can be construed as an indicator of performance of industrial sector in the economy,

[1] These States together account for more than 93 per cent of India's GDP.

thereby being an important reflector of economic activity. Employment rate is another indicator which has a direct bearing on output and income. Higher employment rate augurs well for higher economic growth and *vice-versa*. Another important variable is exports which is a part of overall output produced in the State. Rise in exports would mainly be the result of higher output production and thus reflect higher economic activity. The MGNREGS work demand is considered as a vital indicator for the rural economy. Increase in work demand under MGNREGS may reflect downturn in economic activity at rural level because demand for MGNREGS work increases when people do not find alternate livelihood opportunities in the event of a slump. This trend was particularly evident during the COVID-19 induced slowdown in the economy, thereby indicating the significance of this variable in gauging economic activity at State level. Deposits under PMJDY accounts mainly belong to informal and unorganised sector workers. Rise in the deposits under PMJDY accounts may reflect a rise in income of the informal workers and thus indicate an uptick in economic activity.

A composite indicator is used to represent multiple dimensions of economic activity to arrive at a single indicator. This indicator is used to analyse various dynamics of economic activity. A multivariate analysis is used to study the overall structure of the dataset, assess its suitability, and guide subsequent methodological choices (*e.g.*, weighting, aggregation).

III.1: Principal Component Analysis (PCA)

Researchers generally use a set of data analysis techniques. For instance, Cronbach Coefficient Alpha technique (henceforth, C-alpha) (Cronbach, 1951) is the most common estimate of internal consistency of items in a model or survey. However, the weakness of C-alpha technique is that correlations do not necessarily represent the real influence of the individual indicators on the phenomenon expressed by the composite indicator. Cluster Analysis (CLA) technique, which will always produce a grouping, is a purely descriptive tool and may not be transparent if the methodological choices made during the analysis are not clearly explained. Canonical Correlation Analysis (CCA) is another technique which can be used to investigate the relationship between two groups of variables. In CCA, a way to classify variables (or cases) into the values of a dichotomous dependent variable is given by Discriminant Function Analysis (DFA). However, DFA is based on several assumptions, like low correlation of the predictors, linearity and additivity, and adequate sample size which limits its use (OECD, 2008).

There are challenges in assessing the underlying performance of Indian States using high frequency indicators and empirical exercise. For instance, the choice of appropriate indicators from a large set of potential indicators and with a single extraction from the chosen indicators, may reflect short-term idiosyncrasy rather than an underlying general trend. In the absence of monthly data for GSVA for the given period, it is difficult to use other empirical tools. We use PCA method to develop a composite indicator that can trace the turning points and trends in activity indicators.

This article describes the process to derive an economic activity index to mimic trends in aggregate output data at State-level by performing PCA on various characteristic representative variables. The main advantage of this method over the traditional methods is that it avoids many of the measurement problems associated with other methods, such as recall bias, seasonality, and data collection time. Compared with other statistical alternatives, PCA is computationally easier, and uses all of the variables in reducing the dimensionality of the data. PCA converts high-dimensional data to low-dimensional data. Moreover, it improves algorithm performance by removing correlated features along with minimising information loss.

III.2 PCA Methodology

The PCA works by extracting the maximum variance (largest eigenvalue) across different dimensions of the data set. In this context, we construct monthly economic activity index from different high-frequency variables. Our selection of high-frequency variables is based on criteria such as: i) State-wise economic indicators represent key sectors of the economy; and ii) the variables are released in a timely manner and without significant publication lag.

PCA works by transforming a large set of variables into a smaller one that still contains most of the information in the larger set. Principal components are new variables that are constructed as linear combinations of the initial variables that try to capture most of the information from the original set of variables.

In mathematical terms, from an initial set of n correlated variables, PCA creates uncorrelated indices or orthogonal components, where each component is a linear weighted combination of the initial variables. For example, from a set of variables X_1 to X_n, principal components are

$$PC_1 = a_{11}X_1 + a_{12}X_2 + \ldots.. + a_{1n}X_n$$

$$\vdots$$

$$PC_m = a_{m1}X_1 + a_{m2}X_2 + \ldots\ldots + a_{mn}X_n$$

where a_{mn} represents the weight for the m^{th} principal component and the n^{th} variable. In order to overcome the potential bias in index generated due to large differences between the range of various variables, it is vital to perform standardization of all the variables prior to applying PCA technique. Subsequently, covariance matrix is constructed from which, eigenvectors and eigenvalues will be derived which is key to compute principal components to construct an index.

The covariance matrix is a n × n symmetric matrix that has entries as the covariances associated with all possible pairs of the initial variables. For example, for a 3-dimensional data set with 3 variables x, y, and z, the covariance matrix is a 3×3 matrix of this form:

$$\begin{bmatrix} Cov(x, x) & Cov(x, y) & Cov(x, z) \\ Cov(y, x) & Cov(y, y) & Cov(y, z) \\ Cov(z, x) & Cov(z, y) & Cov(z, z) \end{bmatrix}$$

In order to determine the principal components of the data, eigenvectors and eigenvalues are computed from the covariance matrix. Every eigenvector has an eigenvalue and their number is equal to the number of dimensions of the data. The variance (λ_i) for each principal component is given by the eigenvalue of the corresponding eigenvector. By ranking eigenvectors in order of their eigenvalues, highest to lowest, we get the principal components in order of significance.

Subject to the constraint that the sum of squared weights is one, the components are ordered in descending order based on amount of variation explained by them in data set. The first component (PC_1) explains the largest possible amount of variation in the dataset. The proportion of the total variation in the original data set accounted by each principal component is given by λ_i /n, because the sum of the eigenvalues equals the number of variables in the initial data set (Vyas & Kumaranayake, 2006).

Subject to the same constraint, the second component (PC_2) is completely uncorrelated with the first component. The second component explains less variation than the first component. However, each component captures an additional dimension in the data because subsequent components are uncorrelated with previous components; but explains smaller and smaller proportion of the variation in the original data set. In the present study, we have considered first principal component to construct the index.

A standardised value of the level of the variables in the PCA is calculated. A positive value of the index means that the activity was above average and *vice-versa* for a negative value. The index should be used as indicator of regional economic momentum. For example, if a given index value increases (decreases) over the course of several consecutive months for any particular State, that can be taken as a signal that conditions in the regional economy are improving (worsening). Similarly, several consecutive months of positive values can be taken as a signal that activity in that region is rising at above-average level and *vice-versa*.

IV. Economic Activity Index at State level

The COVID-19 pandemic and consequent lockdown led to a severe downfall in economic activity across the States (Table 1). This is reflected in a sharp dip in index value across the States in the months of April and May 2020. Consequently, as the severity of pandemic started reducing across the States, relative improvement in the index value is evident in the ensuing months. However, with the arrival of second wave, economic activity was hampered again, though less severely than the first pandemic wave. This was reflected in the relatively lower contraction of the index in the States compared to the first wave. Subsequently, with focus on rapid vaccination and better preparedness on health front among other steps, the effect of Omicron wave was less severe on both lives and livelihood. The index remained positive in December 2021 and January 2022 across the States despite the Omicron wave.

During the month of April 2020, as the economic activity was undergoing an overall fall across the States, relatively higher impact was seen in Rajasthan and Maharashtra. During the second wave induced economic shock, States like Odisha, Jharkhand and Chhattisgarh witnessed a lower decline in economic activity. While Telangana, Assam and West Bengal saw a relatively higher impact on economic activity. Subsequently, as the Omicron variant hit the country, many States' economies were able to withstand its impact as can be inferred from the positive values of the index across the States. Thus,

Table 1: State-wise Economic Activity Index

Region	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22
Andhra Pradesh	-0.82	-2.03	-1.15	-0.04	-0.53	-0.44	-0.29	-0.40	-0.66	-0.25	0.71	0.26	1.29	0.79	-0.02	0.51	0.51	0.66	0.33	0.43	-0.09	0.17	0.51	0.55
Assam	-0.09	-1.96	-1.13	-0.13	-0.18	-0.51	0.27	0.24	-0.11	0.08	0.29	-0.30	0.20	0.19	-0.39	-0.81	0.18	0.46	0.93	1.29	0.43	0.42	0.35	0.26
Bihar	-0.71	-1.92	-1.55	-0.48	-0.37	-0.82	-0.44	-0.27	-0.76	-0.23	0.16	0.09	0.78	0.82	0.05	0.04	0.54	0.23	0.07	0.49	0.47	1.14	1.38	1.29
Chhattisgarh	-1.40	-2.28	-0.65	-0.02	-0.26	-0.17	-0.54	-0.58	-0.61	-0.21	0.07	-0.16	0.75	0.79	0.35	0.69	0.73	0.92	0.21	0.38	0.02	0.55	0.72	0.69
Gujarat	-0.62	-1.83	-1.19	-0.46	-0.56	-0.66	-0.13	-0.10	-0.20	-0.17	-0.04	0.06	0.36	0.47	0.39	0.20	0.59	0.40	0.24	0.61	0.57	0.63	0.59	0.83
Haryana	-0.89	-2.36	-1.43	-0.77	-0.72	-0.84	-0.07	-0.25	-0.34	0.10	0.65	0.37	0.86	0.62	-0.15	0.02	0.36	0.47	0.52	0.54	0.34	0.93	1.17	0.89
Jharkhand	-0.33	-2.15	-1.46	-0.53	-0.35	-0.13	-0.22	-0.18	-0.12	-0.14	-0.06	0.16	0.68	0.67	0.21	0.33	0.42	0.35	0.35	0.43	0.10	0.30	0.76	0.90
Karnataka	-0.44	-1.76	-0.94	-0.53	-0.75	-0.68	-0.90	-0.70	-0.72	-0.22	-0.03	0.00	0.73	0.73	-0.10	-0.12	0.46	0.64	0.52	0.69	0.32	1.03	1.27	1.49
Kerala	-0.29	-1.67	-0.51	-0.26	-0.24	-0.19	-0.11	-0.03	-0.52	0.01	0.03	0.02	0.43	0.94	-0.04	-0.27	0.16	0.32	0.03	0.53	0.48	0.39	0.43	0.34
Madhya Pradesh	-0.97	-2.43	-1.51	-0.39	-0.20	-0.32	-0.13	0.04	0.07	0.40	0.37	-0.03	0.86	0.61	-0.05	-0.20	0.42	0.02	0.15	0.25	0.46	1.07	0.81	0.70
Maharashtra	-0.74	-2.53	-1.54	-0.83	-0.81	-0.79	-0.45	-0.04	-0.12	0.25	0.41	0.29	1.01	0.73	0.27	0.07	0.56	0.47	0.26	0.62	0.44	0.90	0.84	0.75
Odisha	-1.16	-2.17	-1.02	-0.54	-0.57	-0.61	-0.66	-0.47	-0.75	-0.31	-0.28	-0.09	0.48	0.57	0.50	0.46	0.80	0.60	0.56	0.59	0.73	1.18	0.90	1.28
Punjab	0.11	-2.49	-1.82	-0.44	-0.02	-0.29	-0.27	-0.34	-0.09	0.14	0.01	-0.02	0.28	0.70	-0.02	-0.04	0.72	0.53	0.20	0.45	0.74	0.77	0.65	0.53
Rajasthan	-1.00	-2.67	-1.33	-0.54	-0.37	-0.58	-0.38	-0.17	-0.14	0.18	0.28	0.14	0.58	0.48	-0.12	-0.08	0.51	0.61	0.13	0.70	0.59	0.77	1.24	1.16
Tamil Nadu	-0.14	-1.70	-1.21	-0.62	-0.45	-0.18	-0.19	-0.17	-0.12	0.19	0.22	0.09	0.58	0.58	-0.07	-0.10	0.22	0.35	0.29	0.46	0.40	0.53	0.59	0.43
Telangana	-0.38	-2.12	-1.64	-0.91	-0.26	-0.24	-0.19	-0.04	-0.13	0.11	0.21	-0.18	0.52	0.51	-0.25	-0.22	0.51	0.77	0.73	1.07	0.28	0.67	0.69	0.50
Uttar Pradesh	-0.92	-1.96	-1.54	-1.02	-0.47	-0.42	-0.26	-0.25	-0.48	-0.13	0.05	-0.07	0.63	0.67	-0.11	0.12	0.64	0.57	0.56	0.70	0.45	0.90	1.28	1.09
West Bengal	-0.36	-2.41	-1.81	-0.87	-0.23	-0.53	-0.13	-0.17	-0.48	0.11	0.40	0.38	0.99	0.90	-0.36	-0.33	0.30	0.33	0.44	0.69	0.58	0.86	0.92	0.77

Source: Authors' own calculation.

there was a distinct spatial pattern for the impact of COVID-19 on economic activity in Indian States. Lockdown induced mobility restrictions impacted States in different ways. In the following section, this article shows that one possible explanation for this distinct economic impact could be the varied economic structure of these States.

V. Empirical Analysis

As a result of social distancing and lockdown during COVID-19, daily mobility and lifestyle-related habits have changed in a significant manner. IMF (2021) quantifies the impact of containment measures and voluntary social distancing on both the spread of the virus and the economy at the State level during the first wave of the COVID-19 pandemic. State-level empirical analysis suggests that social distancing and containment measures effectively reduced case numbers but came with high economic costs.

Beyer *et al.* (2021) used daily electricity consumption and monthly night-time light intensity data to measure economic activity in India. They show that not all States and Union Territories have been affected equally. Part of the heterogeneity is explained by the prevalence of COVID-19 infections, the share of manufacturing, and return migration. Meinen *et al.* (2021) conduct ex-post analysis of the determinants of within-country regional heterogeneity of the labour market impact of COVID-19. The study finds that the propagation of the economic impact across regions cannot be explained by the spread of infections only. Instead, a region's economic structure is a significant driver of the observed heterogeneity.

In this context, we analyse a pertinent question; how the impact of COVID-19 manifest at the State level taking into account differences in economic structure of various States.

The impact of lockdowns was evident on economic activity during the pandemic. Various policy measures taken by the governments across the States to contain the spread of the virus reduced the mobility of people. The strictness of the mobility restriction measures, and its implementation is reflected in the google mobility data (Table 2). This data is used as a proxy

Table 2: State-wise Google Mobility data

Region	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22
Andhra Pradesh	-16.4	-51.1	-33.6	-18.4	-23.7	-23.4	-17.0	-19.4	-16.8	-8.5	-10.2	-5.9	-5.3	-14.5	-36.3	-23.9	-14.6	-9.3	-5.5	-3.9	-0.1	8.3	2.9	14.9
Assam	-12.5	-45.1	-24.0	-15.9	-27.2	-19.4	-10.6	-15.4	-12.7	-4.7	-8.3	-5.8	-5.7	-13.4	-32.5	-25.2	-20.5	-12.0	-4.9	-4.3	4.5	16.1	9.5	26.2
Bihar	-16.7	-38.1	-22.4	-12.0	-19.5	-7.6	-1.9	-9.4	-15.4	-3.7	-2.6	-4.6	-4.3	-16.7	-39.5	-16.6	-5.3	-0.5	5.6	1.4	-2.2	16.8	17.3	26.7
Chhattisgarh	-20.3	-43.8	-24.7	-17.2	-21.1	-19.0	-24.5	-19.6	-21.7	-13.1	-11.1	-12.7	-12.4	-46.5	-44.2	-20.9	-10.6	-4.1	0.3	2.9	-2.5	13.6	14.4	23.7
Gujarat	-24.3	-67.8	-49.4	-27.1	-26.3	-26.5	-20.0	-18.3	-26.6	-16.3	-15.9	-14.0	-13.5	-26.6	-33.5	-16.5	-11.6	-9.7	-4.3	0.6	-20.0	2.9	3.0	9.5
Haryana	-26.3	-66.0	-44.4	-32.1	-29.5	-27.6	-23.5	-21.5	-23.5	-18.6	-19.1	-16.1	-14.8	-21.5	-46.2	-24.2	-16.7	-13.2	-7.5	-5.2	-11.6	2.1	-4.1	7.3
Jharkhand	-17.2	-43.8	-31.1	-19.5	-16.7	-14.2	-11.4	-16.4	-17.0	-8.8	-8.8	-9.1	-8.4	-24.3	-42.0	-25.9	-17.5	-9.2	-2.1	-2.9	-3.6	9.2	7.0	20.8
Karnataka	-25.0	-66.9	-44.8	-33.4	-42.7	-34.6	-32.9	-33.6	-31.2	-28.5	-25.9	-23.1	-21.7	-35.6	-61.1	-49.4	-35.2	-25.4	-21.9	-20.7	-20.5	-11.1	-16.7	-7.6
Kerala	-20.5	-52.3	-30.2	-20.2	-25.4	-21.4	-19.6	-21.9	-18.6	-15.5	-10.8	-9.3	-6.4	-18.8	-52.1	-35.5	-23.2	-13.7	-6.6	-0.5	6.8	13.0	13.5	23.4
Madhya Pradesh	-22.2	-57.1	-40.8	-27.0	-24.7	-22.4	-15.3	-17.8	-19.0	-12.4	-9.9	-10.4	-12.2	-42.6	-53.2	-29.0	-14.6	-8.8	-3.0	-1.6	-5.0	9.4	10.6	16.8
Maharashtra	-29.0	-71.9	-60.3	-47.1	-47.1	-41.6	-37.6	-33.5	-32.1	-25.3	-23.2	-21.5	-22.5	-43.4	-45.8	-32.8	-26.4	-18.9	-16.3	-9.9	-16.6	-3.8	-3.4	2.9
Odisha	-18.6	-45.8	-26.6	-24.9	-28.4	-21.7	-15.2	-20.7	-17.0	-11.9	-9.5	-12.4	-9.7	-15.4	-44.1	-33.3	-21.8	-10.5	-4.8	-4.6	1.9	9.6	8.4	17.8
Punjab	-22.2	-61.3	-38.1	-25.9	-24.8	-25.8	-23.7	-20.0	-20.1	-16.5	-17.3	-17.1	-16.8	-19.8	-35.3	-22.6	-14.2	-10.7	-7.1	-6.1	-8.7	-1.3	-3.9	3.4
Rajasthan	-23.0	-57.0	-36.5	-20.9	-16.4	-19.1	-16.5	-18.6	-23.5	-15.0	-12.5	-11.8	-10.4	-27.6	-52.5	-27.3	-13.3	-8.4	-4.9	-3.4	-8.0	7.6	8.5	19.2
Tamil Nadu	-18.7	-65.0	-41.9	-32.4	-34.4	-31.2	-23.3	-22.3	-23.4	-16.6	-19.6	-14.4	-11.3	-19.9	-50.1	-37.9	-18.7	-11.4	-8.2	-4.4	-11.6	2.4	-9.2	7.6
Telangana	-25.0	-66.6	-49.9	-35.5	-38.8	-38.1	-33.3	-34.0	-29.9	-26.5	-25.4	-20.1	-20.0	-29.3	-46.0	-34.1	-26.5	-22.3	-18.0	-16.0	-12.3	-4.6	-13.6	-2.0
Uttar Pradesh	-20.7	-50.2	-28.1	-19.5	-18.5	-15.2	-12.6	-13.1	-14.9	-7.7	-6.2	-3.9	-2.8	-15.4	-43.4	-23.1	-10.8	-2.9	5.6	6.1	2.7	18.9	13.0	20.8
West Bengal	-20.2	-56.8	-46.5	-29.1	-30.7	-28.1	-21.1	-24.7	-20.3	-13.2	-13.7	-14.0	-11.9	-17.9	-42.0	-31.5	-20.9	-13.6	-8.6	-13.7	-7.6	3.3	1.7	12.3

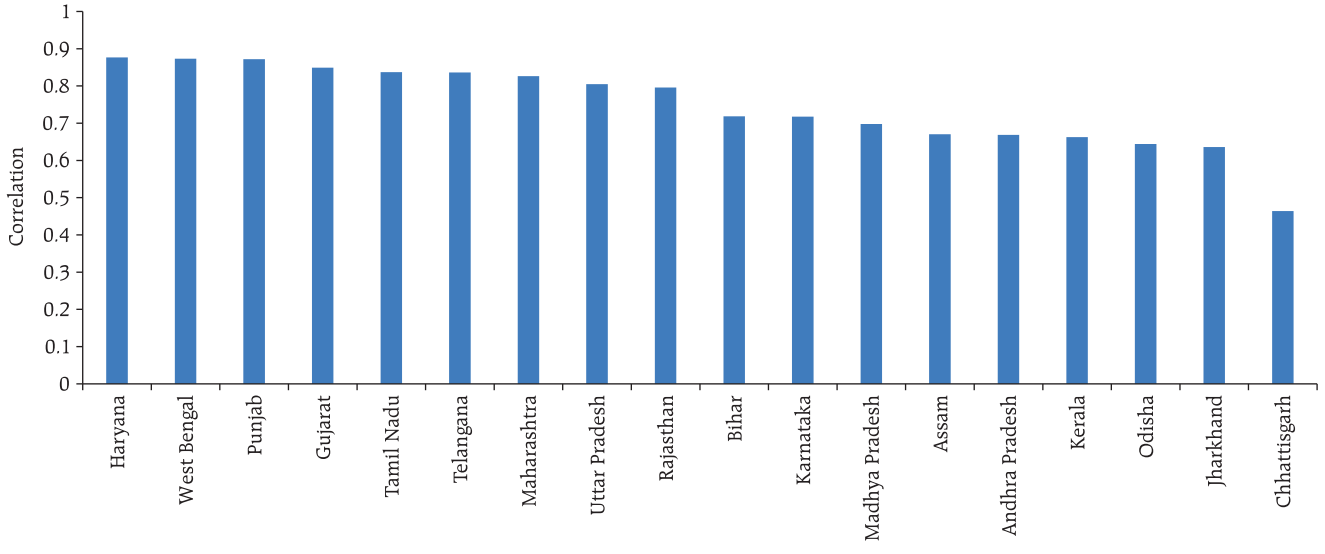
Source: Google Mobility Reports Data.

to reflect the stringency of the lockdown measures. Higher mobility restrictions were clearly associated with the fall in economic activity index during the first wave of the pandemic. The months of April and May 2020 had the most stringent lockdown and the economic activity also witnessed sharp contraction in these months. During the second wave, mobility restrictions were relatively milder leading to a less severe impact on economic activity. Moreover, as the Omicron wave hit the country, the lockdowns were only marginal as a result of which economic activity continued to steer on a positive trajectory. Lockdown had a direct impact on economic activity necessitating it to be used in a calibrated and well-thought-out manner and to be used as a last resort so that economic activity can be restored swiftly through suitable measures.

However, there is relatively differential impact of the mobility restrictions on the economic activity across the States. It was found that prolonged mobility restrictions in some States had higher debilitating impact on economic activity. In contrast, some States witnessed a resurgence in economic activity relatively sooner even when they had continued mobility restrictions for longer periods. The restrictions on mobility impacted economic activity across the States with varying intensity (Chart 1).

The varied economic structure and sectoral composition of the States was one possible reason for differential impact on economic activity (Chart 2). The States that were dependent more on agriculture and allied activities coupled with mining and quarrying were observed to have relatively better economic scenario amidst the pandemic. Agriculture sector continued to be the silver lining witnessing the least decline in growth. Within Services sector, some services witnessed a benign impact due to the work from home/work from anywhere policy of the companies and robust use of internet for seamless continuation of work. However, contact intensive services were the most negatively impacted, while services like public administration tried to provide a cushion against significant downfall in services. States having economic structure with dominance of manufacturing, also, witnessed the brunt of lockdown more than others.

Chart 1: Correlation between Mobility and Economic Activity across Indian States



Source: Authors' own calculation.

Chart 2: State-wise Sectoral Composition of GSVA

Source: MOSPI, GoI.

The charts presented in the subsequent section show the relation between economic structure of the State and impact of mobility restrictions on overall economic activity. The downward sloping nature of the curve would mean that States with higher share of the mentioned sub-sector in GSVA (the value on the Y axis is greater) have low correlation between economic activity and mobility (the value on the X axis is lower) thereby leading to lower impact of mobility restrictions on overall economic activity of the State. This means States which had higher share of that sector were relatively less impacted due to mobility restrictions *vis-à-vis* other States. In other words, downward sloping curve means that mobility restrictions had relatively lower impact on the overall economic activity thereby indicating that higher share of that sector in GSVA strengthened State's economic resilience against lockdown induced mobility restrictions in comparison to other States.

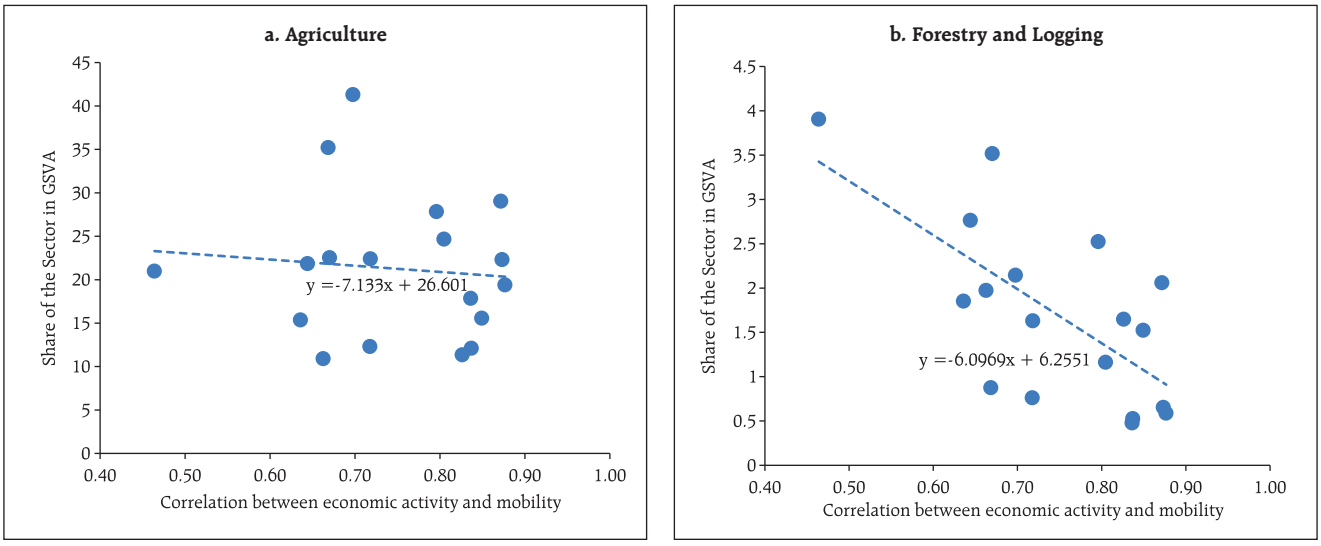
V.1 Agriculture

The correlation between mobility and economic activity index was found to be lower for States which have higher share of agriculture in their GSVA (Chart 3a). This indicates that States with relatively greater share of agriculture have witnessed a lower impact on economic activity. Agriculture sector has proved to be resilient amidst the COVID-19 induced economic shock. Within agriculture sector, States which are more dependent on forestry and logging witnessed a relatively lower impact on economic activity as reflected in the lower correlation between mobility and economic activity for States with high share in forestry and logging (Chart 3b).

V.2 Industry

The Industrial sector was severely hit due to supply chain disruptions, shortage of migrant workers due to reverse migration and less demand. States with

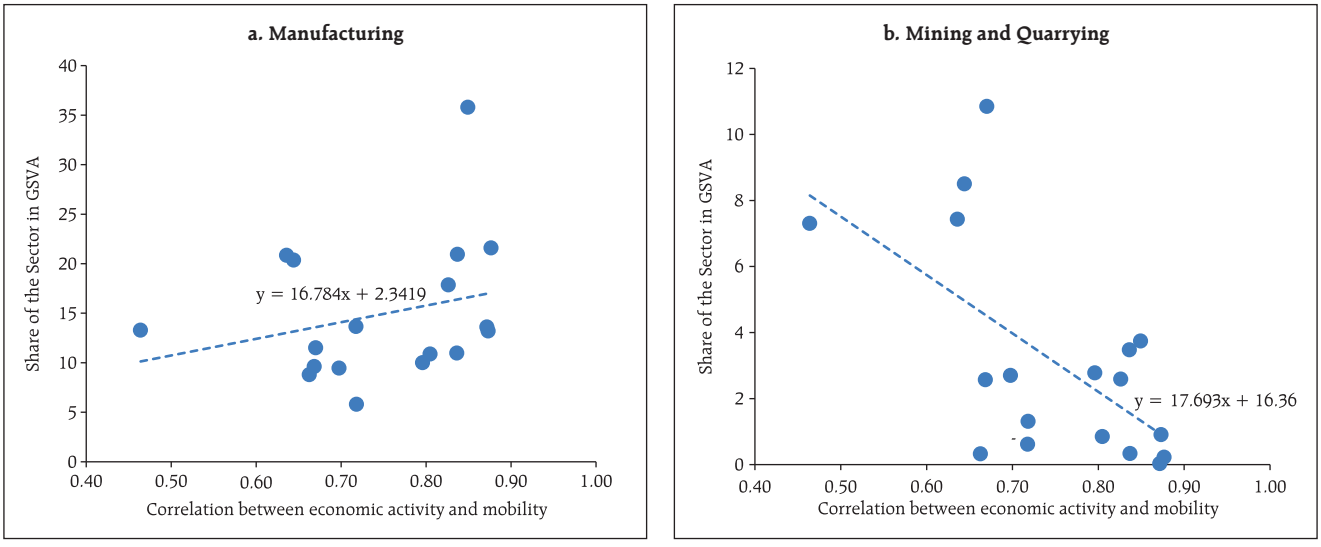
Chart 3: Agriculture and Forestry



Source: Authors' own calculations.

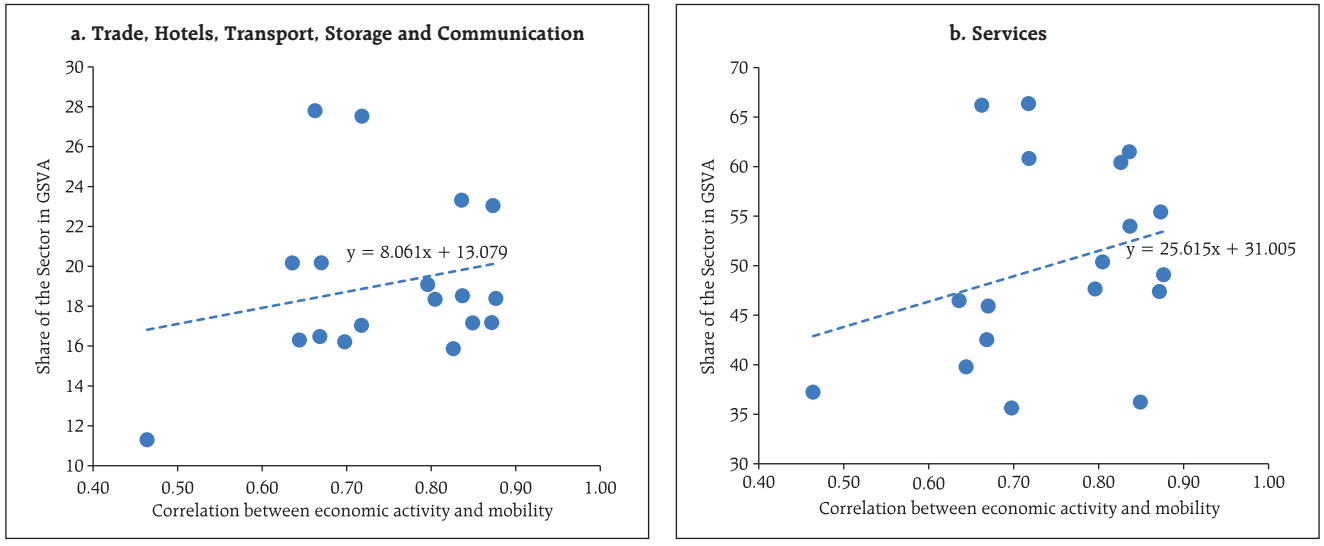
higher dependence on manufacturing were found to have higher correlation between economic activity and mobility thereby leading to greater impact of mobility restrictions on these States (Chart 4a). With higher share of manufacturing and high correlation between mobility and economic activity, mobility restrictions had a more profound impact on overall economic activity. Within industry sector, however, States with high share of mining and quarrying had a low correlation between mobility and economic activity indicating lower impact of mobility restrictions on economic activity in such States (Chart 4b).

Chart 4: Industry



Source: Authors' own calculations.

Chart 5: Services



Source: Authors' own calculations.

V.3 Services

Services sector has been heavily affected by the COVID-19 outbreak. Given the sector's role in providing inputs for other economic activities, it witnessed a significant economic impact. Within services sector, States with higher share of contact intensive services like trade, hotels, transport, storage and communication were found to have high correlation between mobility and economic activity and *vice-versa*. This clearly indicates that the mobility restrictions had much higher impact on economic activity in States having more dependence on contact-intensive services (Chart 5a and 5b).

VI. Conclusion

COVID-19 has left a lasting imprint on the State economies, causing permanent changes. State-wise economic activity index reveals the massive and unprecedented downfall brought by the COVID-19 led disruptions in the State economies. The associated lockdowns and mobility restrictions, however, brought differential impact across the States. The economic structure of respective States has played a significant role in influencing their economic trajectories in the aftermath of COVID-19 induced restrictions. It was found that States with higher share of agriculture and mining in their GSVA witnessed a more resilient economic path *vis-à-vis* States with higher share of industry and services. Within agriculture sector, States with higher share of forestry and logging in GSVA witnessed a relatively lower impact on economic activity. It was also evident that States with high share of manufacturing and services in their GSVA witnessed relatively more impact on economic activity.

Apart from the economic structure, it is, however, possible that the relationship between mobility and economic activity may be influenced by other factors, including varied localised mobility restrictions and adaptive policy responses in different States. Adding these factors will further enrich the analysis, however, such formal analysis requires availability and quantifiability of data, which is scarce at this point in time.

Such granular analysis at sub-sectoral level and of economic structure has emphasized the need and importance to have a differential policy

response by the States based on their respective economic structure supplementing the national policy interventions. This will ensure that, during such massive crisis, well-informed and coordinated policy decisions at the national and State-level will lead to minimum loss in overall economic activity and wheels of economic development will recover swiftly after major economic disruptions.

References

Bhadury, S., Ghosh, S., and Kumar, P. (2020), "Nowcasting Indian GDP Growth Using a Dynamic Factor Model", *RBI Working Paper Series No. 03.*

Beyer, R. C., Franco-Bedoya, S., and Galdo, V. (2021), "Examining the economic impact of COVID-19 in India through daily electricity consumption and nighttime light intensity", *World Development*, 140, 105287.

Cortina, J. M. (1993), "What is coefficient alpha? An examination of theory and applications", *Journal of applied psychology*, 78(1), 98.

Crone, T. M., and Clayton-Matthews, A. (2005), "Consistent economic indexes for the 50 states", *Review of Economics and Statistics*, 87(4), 593-603.

Cronbach L. J. (1951), "Coefficient alpha and the internal structure of tests", *Psychometrika*, 16: 297-334.

Deb P, Furceri D, David J, and Tawk N (2020), "The Effect of Containment Measures on the COVID-19 Pandemic", *IMF Working Paper*, August.

Habli N., Macdonald R. and Tweedle J. (2020), "Experimental Economic Activity Indexes for Canadian Provinces and Territories: Experimental Measures Based on Combinations of Monthly Time series", *Analytical Studies Branch Research Paper Series, Statistics Canada.*

IMF (2020), "The Great Lockdowns", *World Economic Outlook*, April.

Jobson, J. D. (1992), "Principal components, factors and correspondence analysis", Applied multivariate data analysis (pp. 345-482), *Springer, New York, NY.*

Joint Research Centre-European Commission. (2008), "Handbook on constructing composite indicators: methodology and user guide", *OECD publishing.*

Kumar P. (2020), "An Economic Activity Index for India", *RBI Bulletin*, November 2020.

McLachlan G., (2004), "Discriminant Analysis and Statistical Pattern Recognition", NY: Wiley-Interscience, Wiley Series in Probability and Statistics.

Meinen, P., Serafini, R., and Papagalli, O. (2021). Regional economic impact of Covid-19: the role of sectoral structure and trade linkages. *Working Paper Series 2528, European Central Bank.*

Kishore N., Kahn R. and others (2021), "Lockdowns result in changes in human mobility which may impact the epidemiologic dynamics of SARS-CoV-2", *Scientific Report.* (https://www.nature.com/articles/s41598-021-86297-w.pdf)

Regional Activity Indices (RAIs), Treasury of New Zealand. https://www.treasury.govt.nz/publications/research-and-commentary/regional-activity-indices.

Vyas S., and Kumaranayake L. (2006), "Constructing socio-economic status indices: how to use principal components analysis", *Health policy and planning*, 21(6), 459-468.

CURRENT STATISTICS

Select Economic Indicators

Reserve Bank of India

Money and Banking

Prices and Production

Government Accounts and Treasury Bills

Financial Markets

External Sector

Payment and Settlement Systems

Occasional Series

Contents

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

No. 1: Select Economic Indicators

Item	2021-22	2020-21	2021-22		2022-23
		Q4	Q1	Q4	Q1
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	8.1	5.7	18.1	3.9	12.7
1.1.1 Agriculture	3.0	2.8	2.2	4.1	4.5
1.1.2 Industry	9.8	11.6	40.4	1.0	6.0
1.1.3 Services	8.8	4.3	15.5	5.0	17.5
1.1a Final Consumption Expenditure	7.0	9.6	10.2	2.3	21.3
1.1b Gross Fixed Capital Formation	15.8	10.1	62.5	5.1	20.1
	2021-22	2021		2022	
		Jun.	Jul.	Jun.	Jul.
	1	2	3	4	5
1.2 Index of Industrial Production	11.4	13.8	11.5	12.7	-
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	8.9	9.8	9.8	8.6	9.2
2.1.2 Credit #	9.6	6.1	6.1	13.4	14.5
2.1.2.1 Non-food Credit #	9.7	6.1	6.2	13.9	15.1
2.1.3 Investment in Govt. Securities	6.0	10.4	8.2	6.2	8.0
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	13.0	16.9	16.8	10.9	11.3
2.2.2 Broad Money (M3)	8.8	10.7	9.9	7.8	8.6
3 Ratios (%)					
3.1 Cash Reserve Ratio	4.00	4.00	4.00	4.50	4.50
3.2 Statutory Liquidity Ratio	18.00	18.00	18.00	18.00	18.00
3.3 Cash-Deposit Ratio	4.7	4.7	5.0	5.3	5.6
3.4 Credit-Deposit Ratio	72.2	71.1	70.2	73.5	72.9
3.5 Incremental Credit-Deposit Ratio #	77.2	-56.5	-8.9	235.9	94.3
3.6 Investment-Deposit Ratio	28.7	30.1	29.9	29.5	29.5
3.7 Incremental Investment-Deposit Ratio	19.7	87.1	41.6	124.8	56.3
4 Interest Rates (%)					
4.1 Policy Repo Rate	4.00	4.00	4.00	4.90	4.90
4.2 Fixed Reverse Repo Rate	3.35	3.35	3.35	3.35	3.35
4.3 Standing Deposit Facility (SDF) Rate *	-	-	-	4.65	4.65
4.4 Marginal Standing Facility (MSF) Rate	4.25	4.25	4.25	5.15	5.15
4.5 Bank Rate	4.25	4.25	4.25	5.15	5.15
4.6 Base Rate	7.25/8.80	7.40/8.80	7.40/8.80	7.25/8.80	7.75/8.80
4.7 MCLR (Overnight)	6.45/7.00	6.55/7.05	6.55/7.00	6.70/7.30	6.70/7.50
4.8 Term Deposit Rate >1 Year	5.00/5.60	4.90/5.50	4.90/5.50	5.00/5.75	5.30/5.75
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)	3.34	3.15	3.21	4.61	5.04
4.11 91-Day Treasury Bill (Primary) Yield	3.84	3.44	3.39	5.16	5.62
4.12 182-Day Treasury Bill (Primary) Yield	4.27	3.72	3.53	5.79	5.98
4.13 364-Day Treasury Bill (Primary) Yield	4.58	3.89	3.73	6.29	6.33
4.14 10-Year G-Sec Par Yield (FBIL)	6.86	6.36	6.22	7.50	7.32
5 Reference Rate and Forward Premia					
5.1 INR-US$ Spot Rate (Rs. Per Foreign Currency)	76.18	74.18	74.39	78.33	79.42
5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency)	84.01	88.57	88.39	82.56	81.17
5.3 Forward Premia of US$ 1-month (%)	5.67	3.80	3.55	2.76	3.32
3-month (%)	4.46	3.99	3.82	2.86	3.35
6-month (%)	4.10	4.13	4.01	2.89	3.20
6 Inflation (%)					
6.1 All India Consumer Price Index	5.51	6.3	5.6	7.0	6.7
6.2 Consumer Price Index for Industrial Workers	5.13	5.6	5.3	6.2	5.8
6.3 Wholesale Price Index	12.97	12.1	11.6	16.2	13.9
6.3.1 Primary Articles	10.25	8.6	6.3	18.6	15.0
6.3.2 Fuel and Power	32.50	29.3	27.0	50.9	43.8
6.3.3 Manufactured Products	11.10	11.0	11.5	9.3	8.2
7 Foreign Trade (% Change)					
7.1 Imports	55.43	97.5	62.0	58.2	43.6
7.2 Exports	44.62	47.9	49.7	30.4	2.1

Note : Financial Benchmark India Pvt. Ltd. (FBIL) has commenced publication of the G-Sec benchmarks with effect from March 31, 2018 as per RBI circular FMRD.DIRD.7/14.03.025/2017-18 dated March 31, 2018. FBIL has started dissemination of reference rates w.e.f. July 10, 2018.

*: As per Press Release No. 2022-2023/41 dated April 08, 2022

#: Bank credit growth and related ratios for all fortnights since December 3, 2021 are adjusted for past reporting errors by select scheduled commercial banks (SCBs).

Reserve Bank of India

No. 2: RBI - Liabilities and Assets *

(₹ Crore)

Item	As on the Last Friday/ Friday						
	2021-22	2021	2022				
		Aug.	Jul. 29	Aug. 5	Aug. 12	Aug. 19	Aug. 26
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	3107637	2916737	3156104	3166385	3185355	3168838	3154428
1.1.2 Notes Held in Banking Department	15	15	10	11	9	10	13
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	**3107652**	**2916752**	**3156114**	**3166396**	**3185364**	**3168849**	**3154440**
1.2 Assets							
1.2.1 Gold	128208	111366	119129	121153	122636	120697	120011
1.2.2 Foreign Securities	2978927	2804667	3036520	3044812	3062327	3047770	3034085
1.2.3 Rupee Coin	518	719	465	430	401	382	345
1.2.4 Government of India Rupee Securities	–	–	–	–	–	–	–
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	1794574	2011955	1543010	1525598	1478677	1493989	1496095
2.1.1.1 Central Government	101	101	101	101	100	101	101
2.1.1.2 Market Stabilisation Scheme							
2.1.1.3 State Governments	42	42	42	42	42	42	42
2.1.1.4 Scheduled Commercial Banks	683437	641437	834457	801142	809848	813943	764114
2.1.1.5 Scheduled State Co-operative Banks	7123	6682	8140	7664	8134	7898	7734
2.1.1.6 Non-Scheduled State Co-operative Banks	4121	3546	4384	4471	4418	4330	4104
2.1.1.7 Other Banks	37589	37424	45065	43126	44578	43048	43222
2.1.1.8 Others	988819	1292462	600009	618317	562464	578873	623501
2.1.1.9 Financial Institution Outside India	73343	30259	50814	50735	49092	45754	53277
2.1.2 Other Liabilities	1359254	1318100	1336039	1339700	1357352	1316958	1313445
2.1/2.2 Total Liabilities or Assets	**3153828**	**3330055**	**2879049**	**2865298**	**2836029**	**2810948**	**2809540**
2.2 Assets							
2.2.1 Notes and Coins	15	15	10	11	9	11	13
2.2.2 Balances Held Abroad	1243853	1435914	1042764	1021935	1002202	976910	974458
2.2.3 Loans and Advances							
2.2.3.1 Central Government	–	–	–	–	–	–	–
2.2.3.2 State Governments	670	3080	6083	11292	6142	7689	4811
2.2.3.3 Scheduled Commercial Banks	94299	91806	94387	95569	97060	95955	98308
2.2.3.4 Scheduled State Co-op.Banks	–	35	–	–	–	–	–
2.2.3.5 Industrial Dev. Bank of India	–	–	–	–	–	–	–
2.2.3.6 NABARD	24927	16772	9668	9707	9707	9707	9707
2.2.3.7 EXIM Bank	–	–	–	–	–	–	–
2.2.3.8 Others	8077	6634	32683	31598	23750	31150	30905
2.2.3.9 Financial Institution Outside India	72741	28450	50932	50615	49006	45131	52039
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	–	–	–	–	–	–	–
2.2.4.2 Government Treasury Bills	–	–	–	–	–	–	–
2.2.5 Investments	1491042	1577196	1439687	1438280	1439160	1438491	1434212
2.2.6 Other Assets	218203	170152	202834	206291	208991	205903	205088
2.2.6.1 Gold	201354	164566	195144	198460	200889	197713	196588

* 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
Jul. 1, 2022	-	-	-	225495	504	149825	–	-	-	-374816
Jul. 2, 2022	-	-	-	-	25	44424	–	-	-	-44399
Jul. 3, 2022	-	-	-	-	4	4919	–	-	-	-4915
Jul. 4, 2022	-	-	-	-	202	161099	–	-	-	-160897
Jul. 5, 2022	-	-	-	-	327	196499	–	-	-	-196172
Jul. 6, 2022	-	-	-	-	322	159209	–	-	-	-158887
Jul. 7, 2022	-	-	-	-	352	125646	–	-	-	-125294
Jul. 8, 2022	-	-	-	-	370	115902	–	-	-	-115532
Jul. 9, 2022	-	-	-	-	26	5383	–	-	-	-5357
Jul. 10, 2022	-	-	-	-	10	7094	–	-	-	-7084
Jul. 11, 2022	-	-	-	-	1367	94077	–	-	-	-92710
Jul. 12, 2022	-	-	-	30884	277	116810	–	-	-	-147417
Jul. 13, 2022	-	-	-	-	298	135917	–	-	-	-135619
Jul. 14, 2022	-	-	-	-	120	122152	–	-	-	-122032
Jul. 15, 2022	-	-	-	183276	1089	100227	–	400	-	-282814
Jul. 16, 2022	-	-	-	-	37	27914	–	-	-	-27877
Jul. 17, 2022	-	-	-	-	2	4475	–	-	-	-4473
Jul. 18, 2022	-	-	-	-	83	88341	–	-	-	-88258
Jul. 19, 2022	-	-	-	-	1175	88597	–	80	-	-87502
Jul. 20, 2022	-	-	-	-	890	73537	–	825	-	-73472
Jul. 21, 2022	-	-	-	-	3661	50435	698	750	-	-46826
Jul. 22, 2022	-	-	-	-	15456	49796	95	-	-	-34245
Jul. 23, 2022	-	-	-	-	129	4592	–	-	-	-4463
Jul. 24, 2022	-	-	-	-	60	3960	–	-	-	-3900
Jul. 25, 2022	-	-	-	-	59312	51909	160	655	-	6908
Jul. 26, 2022	-	-	50006	-	29032	48205	434	65	-	31202
Jul. 27, 2022	-	-	-	-	33001	51810	267	220	-	-18762
Jul. 28, 2022	-	-	-	-	10161	50759	-5000	505	-	-46103
Jul. 29, 2022	-	-	-	12712	139	148888	–	640	-	-162101
Jul. 30, 2022	-	-	-	-	778	37268	–	-	-	-36490
Jul. 31, 2022	-	-	-	-	14	4964	–	-	-	-4950

SDF: Standing Deposit Facility; MSF: Marginal Standing Facility.

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

i) Operations in onshore / offshore OTC segment

Item	2021-22	2021	2022	
		Jul.	Jun.	Jul.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1–1.2)	17312	7205	-3719	-19049
1.1 Purchase (+)	113991	16160	18960	19721
1.2 Sale (–)	96679	8955	22679	38770
2 ₹ equivalent at contract rate (₹ Crores)	134629	54618	-29401	-152265
3 Cumulative (over end-March) (US $ Million)	17312	35892	247	-18802
(₹ Crores)	134629	268570	-551	-152816
4 Outstanding Net Forward Sales (–)/ Purchase (+) at the end of month (US $ Million)	65791	49010	30856	22019

ii) Operations in currency futures segment

Item	2021-22	2021	2022	
		Jul.	Jun.	Jul.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1–1.2)	0	0	0	0
1.1 Purchase (+)	2370	0	3570	1695
1.2 Sale (–)	2370	0	3570	1695
2 Outstanding Net Currency Futures Sales (–)/ Purchase (+) at the end of month (US $ Million)	0	0	-2406	0

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

Item	As on July 31, 2022		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	5348	17293	-11945
2. More than 1 month and upto 3 months	13320	3040	10280
3. More than 3 months and upto 1 year	15082	1533	13549
4. More than 1 year	10135	0	10135
Total (1+2+3+4)	**43885**	**21866**	**22019**

No. 5: RBI's Standing Facilities

(₹ Crore)

Item	As on the Last Reporting Friday							
	2021-22	2021	2022					
		Aug. 27	Mar. 25	Apr. 22	May 20	Jun. 17	Jul. 29	Aug. 26
	1	2	3	4	5	6	7	8
1 MSF	11	2	11	140	1009	7	139	4034
2 Export Credit Refinance for Scheduled Banks								
2.1 Limit	-	-	-	-	-	-	-	-
2.2 Outstanding	-	-	-	-	-	-	-	-
3 Liquidity Facility for PDs								
3.1 Limit	4900	4900	4900	4900	4900	4900	4900	4900
3.2 Outstanding	–	0	0	0	0	0	1655	0
4 Others								
4.1 Limit	76000	76000	76000	76000	76000	76000	76000	76000
4.2 Outstanding	32401	23296	32401	31021	35521	49364	40314	40159
5 Total Outstanding (1+2.2+3.2+4.2)	32412	23298	32412	31161	36530	49371	42108	44193

Note :1.Special refinance facility to Others, i.e. to the EXIM Bank, is reopened since May 22, 2020
2.Refinance facility to Others, i.e. to the NABARD/SIDBI/NHB U/S 17(4H) of RBI ACT,1934, since, April 17, 2020.

Money and Banking

No. 6: Money Stock Measures

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2021-22	2021	2022		
		Jul. 30	Jun. 17	Jul. 15	Jul. 29
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	3035689	2839134	3102251	3105134	3063746
1.1 Notes in Circulation	3105703	2919525	3198495	3187360	3156104
1.2 Circulation of Rupee Coin	27270	26381	27550	27708	27868
1.3 Circulation of Small Coins	743	743	743	743	743
1.4 Cash on Hand with Banks	98028	107515	124537	110677	120968
2 Deposit Money of the Public	2271436	2016798	2141695	2152268	2240452
2.1 Demand Deposits with Banks	2212992	1970701	2087340	2095076	2183209
2.2 'Other' Deposits with Reserve Bank	58444	46097	54355	57192	57244
3 M_1 (1 + 2)	**5307125**	**4855932**	**5243946**	**5257402**	**5304199**
4 Post Office Saving Bank Deposits	187061	174061	187061	187061	187061
5 M_2 (3 + 4)	**5494186**	**5029993**	**5431007**	**5444463**	**5491260**
6 Time Deposits with Banks	15186605	14516843	15417971	15653489	15728149
7 M_3 (3 + 6)	**20493729**	**19372776**	**20661917**	**20910891**	**21032348**
8 Total Post Office Deposits	1008539	910439	1008539	1008539	1008539
9 M_4 (7 + 8)	**21502268**	**20283215**	**21670456**	**21919430**	**22040887**

No. 7: Sources of Money Stock (M_3)

(₹ Crore)

Sources	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2021-22	2021	2022		
		Jul. 30	Jun. 17	Jul. 15	Jul. 29
	1	2	3	4	5
1 Net Bank Credit to Government	**6477629**	**6055460**	**6261159**	**6420322**	**6408664**
1.1 RBI's net credit to Government (1.1.1–1.1.2)	1450596	1116973	1081805	1130936	1098524
1.1.1 Claims on Government	1490991	1517584	1434456	1452911	1444172
1.1.1.1 Central Government	1489324	1516748	1426587	1435151	1438088
1.1.1.2 State Governments	1667	836	7869	17760	6083
1.1.2 Government deposits with RBI	40394	400612	352651	321975	345648
1.1.2.1 Central Government	40352	400569	352608	321933	345606
1.1.2.2 State Governments	42	42	42	42	42
1.2 Other Banks' Credit to Government	5027033	4938487	5179354	5289386	5310141
2 Bank Credit to Commercial Sector	**12616520**	**11624568**	**12901572**	**13028084**	**13116787**
2.1 RBI's credit to commercial sector	16571	8573	29081	33079	34706
2.2 Other banks' credit to commercial sector	12599950	11615995	12872491	12995005	13082081
2.2.1 Bank credit by commercial banks	11891314	10910567	12150353	12281271	12369350
2.2.2 Bank credit by co-operative banks	690201	687606	695940	697171	695813
2.2.3 Investments by commercial and co-operative banks in other securities	18435	17823	26198	16563	16918
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	**4854063**	**4938902**	**4869550**	**4830738**	**4805020**
3.1 RBI's net foreign exchange assets (3.1.1–3.1.2)	4442479	4595551	4457966	4419154	4393436
3.1.1 Gross foreign assets	4442720	4595795	4458204	4419395	4393676
3.1.2 Foreign liabilities	241	244	238	240	240
3.2 Other banks' net foreign exchange assets	411583	343350	411583	411583	411583
4 Government's Currency Liabilities to the Public	**28013**	**27124**	**28293**	**28451**	**28611**
5 Banking Sector's Net Non-monetary Liabilities	**3482496**	**3273278**	**3398657**	**3396705**	**3326734**
5.1 Net non-monetary liabilities of RBI	1308500	1382828	1212556	1282927	1332885
5.2 Net non-monetary liabilities of other banks (residual)	2173996	1890450	2186101	2113778	1993849
M_3 (1+2+3+4–5)	**20493729**	**19372776**	**20661917**	**20910891**	**21032348**

No. 8: Monetary Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2021-22	2021	2022		
		Jul. 30	Jun. 17	Jul. 15	Jul. 29
	1	2	3	4	5
Monetary Aggregates					
NM_1 (1.1 + 1.2.1+1.3)	5307125	4855932	5243946	5257402	5304199
NM_2 (NM_1 + 1.2.2.1)	12081049	11320478	12124564	12242806	12322838
NM_3 (NM_2 + 1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	20634885	19464641	20905548	21111856	21254775
1 Components					
1.1 Currency with the Public	3035689	2839134	3102251	3105134	3063746
1.2 Aggregate Deposits of Residents	17266157	16336358	17377601	17618194	17780184
1.2.1 Demand Deposits	2212992	1970701	2087340	2095076	2183209
1.2.2 Time Deposits of Residents	15053166	14365657	15290260	15523118	15596976
1.2.2.1 Short-term Time Deposits	6773925	6464546	6880617	6985403	7018639
1.2.2.1.1 Certificates of Deposit (CDs)	176718	64620	178170	227366	233740
1.2.2.2 Long-term Time Deposits	8279241	7901111	8409643	8537715	8578337
1.3 'Other' Deposits with RBI	58444	46097	54355	57192	57244
1.4 Call/Term Funding from Financial Institutions	274594	243052	371341	331335	353600
2 Sources					
2.1 Domestic Credit	20080599	18659755	20253679	20533599	20603077
2.1.1 Net Bank Credit to the Government	6477629	6055460	6261159	6420322	6408664
2.1.1.1 Net RBI credit to the Government	1450596	1116973	1081805	1130936	1098524
2.1.1.2 Credit to the Government by the Banking System	5027033	4938487	5179354	5289386	5310141
2.1.2 Bank Credit to the Commercial Sector	13602969	12604296	13992520	14113277	14194412
2.1.2.1 RBI Credit to the Commercial Sector	39581	25304	52248	47937	44374
2.1.2.2 Credit to the Commercial Sector by the Banking System	13563389	12578992	13940272	14065340	14150038
2.1.2.2.1 Other Investments (Non-SLR Securities)	952181	954632	1051364	1053851	1053136
2.2 Government's Currency Liabilities to the Public	28013	27124	28293	28451	28611
2.3 Net Foreign Exchange Assets of the Banking Sector	4705191	4818369	4599366	4578159	4598202
2.3.1 Net Foreign Exchange Assets of the RBI	4442479	4595551	4457966	4419154	4393436
2.3.2 Net Foreign Currency Assets of the Banking System	262711	222818	141399	159005	204766
2.4 Capital Account	3021858	3025175	3256980	3288535	3291910
2.5 Other items (net)	1157060	1015432	718810	739819	683205

No. 9: Liquidity Aggregates

(₹ Crore)

Aggregates	2021-22	2021	2022		
		Jul.	May	Jun.	Jul.
	1	2	3	4	5
1 NM_3	**20630753**	**19464641**	**20946605**	**20905548**	**21254775**
2 Postal Deposits	594633	536387	594633	594633	594633
3 L_1 (1 + 2)	**21225386**	**20001028**	**21541238**	**21500181**	**21849408**
4 Liabilities of Financial Institutions	49578	25815	30285	51696	52886
4.1 Term Money Borrowings	1824	4077	2044	2136	1924
4.2 Certificates of Deposit	39170	16525	28070	41045	43145
4.3 Term Deposits	8584	5212	171	8514	7817
5 L_2 (3 + 4)	**21274964**	**20026843**	**21571524**	**21551877**	**21902293**
6 Public Deposits with Non-Banking Financial Companies	66542	..	..	66542	..
7 L_3 (5 + 6)	**21341506**	..	..	**21618419**	..

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

No. 10: Reserve Bank of India Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2021-22	2021	2022		
		Jul. 30	Jun. 17	Jul. 15	Jul. 29
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	3133716	2946649	3226788	3215811	3184715
1.2 Bankers' Deposits with the RBI	876726	723212	856083	851510	892045
1.2.1 Scheduled Commercial Banks	823632	674997	800142	795474	834457
1.3 'Other' Deposits with the RBI	58444	46097	54355	57192	57244
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	4068887	3715957	4137226	4124513	4134003
2 Sources					
2.1 RBI's Domestic Credit	906895	476111	863522	959835	1044841
2.1.1 Net RBI credit to the Government	1450596	1116973	1081805	1130936	1098524
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)	1448972	1116179	1073979	1113218	1092483
2.1.1.1.1 Loans and Advances to the Central Government	–	–	–	–	–
2.1.1.1.2 Investments in Treasury Bills	–	–	–	–	–
2.1.1.1.3 Investments in dated Government Securities	1488816	1515963	1426161	1434627	1437624
2.1.1.1.3.1 Central Government Securities	1488816	1515963	1426161	1434627	1437624
2.1.1.1.4 Rupee Coins	508	786	426	524	465
2.1.1.1.5 Deposits of the Central Government	40352	400569	352608	321933	345606
2.1.1.2 Net RBI credit to State Governments	1624	794	7826	17718	6041
2.1.2 RBI's Claims on Banks	-583282	-666167	-270530	-219038	-98057
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	-560272	-649436	-247364	-204181	-88389
2.1.3 RBI's Credit to Commercial Sector	39581	25304	52248	47937	44374
2.1.3.1 Loans and Advances to Primary Dealers	–	–	–	–	1655
2.1.3.2 Loans and Advances to NABARD	23010	16731	23167	14857	9668
2.2 Government's Currency Liabilities to the Public	28013	27124	28293	28451	28611
2.3 Net Foreign Exchange Assets of the RBI	4442479	4595551	4457966	4419154	4393436
2.3.1 Gold	322213	280086	316922	306415	314274
2.3.2 Foreign Currency Assets	4120283	4315482	4141062	4112757	4079180
2.4 Capital Account	1254092	1282350	1359593	1378470	1387980
2.5 Other Items (net)	54408	100478	-147037	-95543	-55096

No. 11: Reserve Money - Components and Sources

(₹ Crore)

Item	2021-22	Outstanding as on March 31/ last Fridays of the month/ Fridays					
		2021	2022				
		Jul. 30	Jul. 1	Jul. 8	Jul. 15	Jul. 22	Jul. 29
	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)	4068887	3715957	4111879	4094782	4124513	4069734	4134003
1 Components							
1.1 Currency in Circulation	3133716	2946649	3202121	3224973	3215811	3203720	3184715
1.2 Bankers' Deposits with RBI	876726	723212	850691	813181	851510	809343	892045
1.3 'Other' Deposits with RBI	58444	46097	59067	56628	57192	56671	57244
2 Sources							
2.1 Net Reserve Bank Credit to Government	1450596	1116973	1142729	1126687	1130936	1052960	1098524
2.2 Reserve Bank Credit to Banks	-560272	-649436	-299090	-265378	-204181	-139395	-88389
2.3 Reserve Bank Credit to Commercial Sector	16571	8573	33091	33091	33079	33885	34706
2.4 Net Foreign Exchange Assets of RBI	4442479	4595551	4487814	4444499	4419154	4411791	4393436
2.5 Government's Currency Liabilities to the Public	28013	27124	28451	28451	28451	28451	28611
2.6 Net Non- Monetary Liabilities of RBI	1308500	1382828	1281116	1272569	1282927	1317959	1332885

No. 12: Commercial Bank Survey

(₹ Crore)

Item	Outstanding as on last reporting Fridays of the month/ reporting Fridays of the month				
	2021-22	2021	2022		
		Jul. 30	Jun. 17	Jul. 15	Jul. 29
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	16331874	15397909	16441606	16679626	16841140
1.1.1 Demand Deposits	2072747	1834965	1946297	1955843	2042035
1.1.2 Time Deposits of Residents	14259128	13562944	14495309	14723782	14799104
1.1.2.1 Short-term Time Deposits	6416607	6103325	6522889	6625702	6659597
1.1.2.1.1 Certificates of Deposits (CDs)	176718	64620	178170	227366	233740
1.1.2.2 Long-term Time Deposits	7842520	7459619	7972420	8098080	8139507
1.2 Call/Term Funding from Financial Institutions	274594	243052	371341	331335	353600
2 Sources					
2.1 Domestic Credit	17575002	16509051	18098650	18333362	18442905
2.1.1 Credit to the Government	4728179	4642819	4878940	4989653	5013472
2.1.2 Credit to the Commercial Sector	12846823	11866233	13219710	13343710	13429432
2.1.2.1 Bank Credit	11891314	10910567	12150353	12281271	12369350
2.1.2.1.1 Non-food Credit	11836304	10833089	12106795	12245342	12337006
2.1.2.2 Net Credit to Primary Dealers	11522	8628	16680	16748	15084
2.1.2.3 Investments in Other Approved Securities	769	1369	10274	803	825
2.1.2.4 Other Investments (in non-SLR Securities)	943218	945669	1042402	1044888	1044173
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1–2.2.2–2.2.3)	262711	222818	141399	159005	204766
2.2.1 Foreign Currency Assets	465464	429173	337352	351058	395303
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	133439	151187	127711	130370	131174
2.2.3 Overseas Foreign Currency Borrowings	69314	55168	68242	61683	59364
2.3 Net Bank Reserves (2.3.1+2.3.2–2.3.3)	1268887	1420586	1159593	1098140	1031308
2.3.1 Balances with the RBI	683437	674997	800142	795474	834457
2.3.2 Cash in Hand	85926	96153	112088	98485	108463
2.3.3 Loans and Advances from the RBI	-499524	-649436	-247364	-204181	-88389
2.4 Capital Account	1743595	1718654	1873217	1885894	1879759
2.5 Other items (net) (2.1+2.2+2.3–2.4–1.1–1.2)	756537	792840	713478	693652	604480
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	571535	518436	598531	573552	607998
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	26533	50080	14199	15996	4635

No. 13: Scheduled Commercial Banks' Investments

(₹ Crore)

Item	As on March 25, 2022	2021	2022		
		Jul. 30	Jun. 17	Jul. 15	Jul. 29
	1	2	3	4	5
1 SLR Securities	4728948	4644188	4881576	4990456	5014297
2 Other Government Securities (Non-SLR)	-	-	155014	155675	155767
3 Commercial Paper	55315	80502	61302	63059	66568
4 Shares issued by					
4.1 PSUs	7642	10674	10495	9634	9643
4.2 Private Corporate Sector	73814	70398	69429	69284	69317
4.3 Others	5152	5162	5052	5024	5039
5 Bonds/Debentures issued by					
5.1 PSUs	117860	113832	95982	101002	100216
5.2 Private Corporate Sector	326188	315601	304876	317146	321684
5.3 Others	148753	149065	94194	91171	92223
6 Instruments issued by					
6.1 Mutual funds	34404	47220	53426	54338	42228
6.2 Financial institutions	174090	153215	187793	178555	181488

Note: Data against column Nos. (1), (2) & (3) are Final and for column Nos. (4) & (5) data are Provisional.
'-' Data are not available.

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			
	2021-22	2021	2022		2021-22	2021	2022	
		Jul.	Jun.	Jul.		Jul.	Jun.	Jul.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	212	210	212	213	136	134	136	137
1 Liabilities to the Banking System	**262674**	**244295**	**285295**	**277258**	**258649**	**239820**	**281448**	**273313**
1.1 Demand and Time Deposits from Banks	194143	184989	192746	189750	190570	180794	189411	186516
1.2 Borrowings from Banks	38369	40938	52754	44571	38317	40920	52745	44372
1.3 Other Demand and Time Liabilities	30162	18369	39794	42937	29762	18106	39291	42425
2 Liabilities to Others	**17832517**	**16802388**	**18047818**	**18437473**	**17380755**	**16365752**	**17603893**	**17993275**
2.1 Aggregate Deposits	16899634	15968858	17018078	17398187	16465313	15549096	16592098	16972313
2.1.1 Demand	2117513	1875111	2000093	2088527	2072747	1834965	1953690	2042035
2.1.2 Time	14782121	14093747	15017985	15309660	14392567	13714131	14638408	14930278
2.2 Borrowings	278985	248716	377078	358861	274594	243052	371389	353600
2.3 Other Demand and Time Liabilities	653898	584814	652663	680426	640848	573604	640406	667362
3 Borrowings from Reserve Bank	**94299**	**91796**	**94514**	**94387**	**94299**	**91796**	**94514**	**94387**
3.1 Against Usance Bills /Promissory Notes	–	–	–	–	–	–	–	–
3.2 Others	94299	91796	94514	94387	94299	91796	94514	94387
4 Cash in Hand and Balances with Reserve Bank	788725	790639	900326	965461	769363	771150	878046	942919
4.1 Cash in Hand	88732	98123	105079	111672	85926	96153	101525	108463
4.2 Balances with Reserve Bank	699993	692516	795246	853789	683437	674997	776521	834457
5 Assets with the Banking System	**315282**	**251433**	**351706**	**342859**	**243637**	**198368**	**290692**	**283762**
5.1 Balances with Other Banks	199434	177673	227191	213644	164240	142739	192665	180250
5.1.1 In Current Account	19733	21223	16502	23550	16691	18316	13393	20748
5.1.2 In Other Accounts	179701	156450	210689	190094	147549	124423	179272	159502
5.2 Money at Call and Short Notice	36905	22888	39869	32149	6982	7856	18581	12456
5.3 Advances to Banks	39340	23898	28852	39130	35802	23030	27413	37065
5.4 Other Assets	39603	26974	55793	57937	36613	24743	52032	53991
6 Investment	**4874070**	**4784348**	**5031395**	**5155661**	**4728948**	**4644188**	**4887253**	**5014297**
6.1 Government Securities	4867102	4776959	5025387	5149445	4728179	4642819	4886445	5013472
6.2 Other Approved Securities	6968	7389	6008	6215	769	1369	807	825
7 Bank Credit	**12259048**	**11247903**	**12558493**	**12734992**	**11891314**	**10910567**	**12190429**	**12369350**
7a Food Credit	90827	113296	86635	78064	55011	77478	40915	32345
7.1 Loans, Cash-credits and Overdrafts	12016486	11040563	12324519	12489317	11651337	10705239	11959103	12126412
7.2 Inland Bills-Purchased	36070	30468	32204	34760	36055	30452	32188	34745
7.3 Inland Bills-Discounted	155796	124749	151304	161899	154212	123424	149482	159962
7.4 Foreign Bills-Purchased	19537	19261	19739	18685	19157	19080	19518	18453
7.5 Foreign Bills-Discounted	31160	32862	30727	30331	30554	32371	30138	29778

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

No. 15: Deployment of Gross Bank Credit by Major Sectors

(₹ Crore)

Sector	Outstanding as on				Growth (%)	
	Mar.25, 2022	2021	2022		Financial year so far	Y-o-Y
		Jul.30	Jun.17	Jul.29	2022-23	2022
	1	2	3	4	%	%
I. Gross Bank Credit (II+III)	**11891314**	**10800511**	**12149034**	**12369224**	**4.0**	**14.5**
II. Food Credit	**55011**	**77478**	**43559**	**32345**	**-41.2**	**-58.3**
III. Non-food Credit	**11836304**	**10723034**	**12105475**	**12336880**	**4.2**	**15.1**
1. Agriculture & Allied Activities	**1461350**	**1351072**	**1500875**	**1529206**	**4.6**	**13.2**
2. Industry (Micro and Small, Medium and Large)	**3152449**	**2880627**	**3168168**	**3182010**	**0.9**	**10.5**
2.1 Micro and Small [1]	532081	434388	554398	557251	4.7	28.3
2.2 Medium	213996	160312	220669	219327	2.5	36.8
2.3 Large	2406372	2285927	2393101	2405433	0.0	5.2
3. Services	**3017116**	**2722774**	**3070538**	**3171546**	**5.1**	**16.5**
3.1 Transport Operators	155353	141665	152045	155202	-0.1	9.6
3.2 Computer Software	20899	20457	19687	20925	0.1	2.3
3.3 Tourism, Hotels & Restaurants	64369	59881	63973	65089	1.1	8.7
3.4 Shipping	8437	7558	7205	7306	-13.4	-3.3
3.5 Aviation	23979	32301	21733	22498	-6.2	-30.3
3.6 Professional Services	116743	109606	120107	118567	1.6	8.2
3.7 Trade	696349	630630	733416	720086	3.4	14.2
3.7.1 Wholesale Trade	351228	327579	384026	366135	4.2	11.8
3.7.2 Retail Trade	345121	303052	349390	353950	2.6	16.8
3.8 Commercial Real Estate	291168	284585	298732	294842	1.3	3.6
3.9 Non-Banking Financial Companies (NBFCs)[2] *of which,*	1078447	913694	1101044	1163637	7.9	27.4
3.9.1 Housing Finance Companies (HFCs)	278979	255481	283992	305509	9.5	19.6
3.9.2 Public Financial Institutions (PFIs)	144121	83808	140173	157764	9.5	88.2
3.10 Other Services [3]	561373	522397	552596	603395	7.5	15.5
4. Personal Loans	**3385827**	**3024152**	**3520062**	**3594016**	**6.1**	**18.8**
4.1 Consumer Durables	27613	18945	30461	32175	16.5	69.8
4.2 Housing	1684424	1522703	1740921	1769249	5.0	16.2
4.3 Advances against Fixed Deposits	78734	64531	78429	87991	11.8	36.4
4.4 Advances to Individuals against share & bonds	6161	5557	6547	6473	5.1	16.5
4.5 Credit Card Outstanding	147789	126835	152931	162706	10.1	28.3
4.6 Education	82723	77773	84375	85098	2.9	9.4
4.7 Vehicle Loans	402667	368230	427654	438973	9.0	19.2
4.8 Loan against gold jewellery	75311	73215	75024	77325	2.7	5.6
4.9 Other Personal Loans	880406	766365	923719	934025	6.1	21.9
5. Priority Sector *(Memo)*						
5.1 Agriculture & Allied Activities [4]	1485438	1356044	1450586	1535442	3.4	13.2
5.2 Micro & Small Enterprises [5]	1377138	1209760	1429973	1441472	4.7	19.2
5.3 Medium Enterprises [6]	351900	246461	363489	367377	4.4	49.1
5.4 Housing	614487	592064	616839	606970	-1.2	2.5
5.5 Education Loans	58118	64601	57931	57499	-1.1	-11.0
5.6 Renewable Energy	3538	2245	3868	4239	19.8	88.8
5.7 Social Infrastructure	2483	3012	2586	2535	2.1	-15.8
5.8 Export Credit	23330	25734	18582	17637	-24.4	-31.5
5.9 Others	37159	34032	46243	47359	27.4	39.2
5.10 Weaker Sections including net PSLC- SF/MF	1180928	985765	1190612	1244034	5.3	26.2

Note 1: Data are provisional. Gross bank credit and non-food credit data are based on Section-42 return, which covers all scheduled commercial banks (SCBs), while sectoral non-food credit data are based on sector-wise and industry-wise bank credit (SIBC) return, which covers select banks accounting for about 93 per cent of total non-food credit extended by all SCBs.
Note 2: With effect from January 2021, sectoral credit data are based on revised format due to which values and growth rates of some of the existing components published earlier have undergone some changes.
Note 3: Bank credit growth are adjusted for past reporting errors by select SCBs.

1 Micro & Small includes credit to micro & small industries in the manufacturing sector.

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 also include priority sector lending certificates (PSLCs).

5 Micro and Small Enterprises include credit to micro and small enterprises in manufacturing and services sector and also include PSLCs.

6 Medium Enterprises include credit to medium enterprises in the manufacturing and services sector.

No. 16: Industry-wise Deployment of Gross Bank Credit

(₹ Crore)

Industry	Outstanding as on				Growth (%)	
	Mar. 25, 2022	2021	2022		Financial year so far	Y-o-Y
		Jul. 30	Jun.17	Jul. 29	2022-23	2022
	1	2	3	4	%	%
2 Industries (2.1 to 2.19)	3152449	2880627	3168168	3182010	0.9	10.5
2.1 Mining & Quarrying (incl. Coal)	49038	45736	48459	50525	3.0	10.5
2.2 Food Processing	173243	153923	175631	169002	–2.4	9.8
2.2.1 Sugar	26307	21953	24107	21764	–17.3	–0.9
2.2.2 Edible Oils & Vanaspati	18246	16399	18322	16393	–10.2	0.0
2.2.3 Tea	5728	5266	6382	5810	1.4	10.3
2.2.4 Others	122962	110305	126820	125034	1.7	13.4
2.3 Beverage & Tobacco	18176	16558	17471	17098	–5.9	3.3
2.4 Textiles	223508	206106	218393	213990	–4.3	3.8
2.4.1 Cotton Textiles	90189	81791	86492	83098	–7.9	1.6
2.4.2 Jute Textiles	3509	2593	3582	3631	3.5	40.0
2.4.3 Man-Made Textiles	38354	37299	38363	38354	0.0	2.8
2.4.4 Other Textiles	91456	84423	89955	88907	–2.8	5.3
2.5 Leather & Leather Products	11481	10862	11349	11428	–0.5	5.2
2.6 Wood & Wood Products	16248	15270	16658	16951	4.3	11.0
2.7 Paper & Paper Products	40073	38499	40885	41083	2.5	6.7
2.8 Petroleum, Coal Products & Nuclear Fuels	107242	87087	102685	113550	5.9	30.4
2.9 Chemicals & Chemical Products	196179	174987	207155	210273	7.2	20.2
2.9.1 Fertiliser	33160	26911	34780	35530	7.1	32.0
2.9.2 Drugs & Pharmaceuticals	61093	52662	63009	62263	1.9	18.2
2.9.3 Petro Chemicals	19622	24459	20896	21485	9.5	–12.2
2.9.4 Others	82303	70955	88470	90995	10.6	28.2
2.10 Rubber, Plastic & their Products	71915	60067	72228	72485	0.8	20.7
2.11 Glass & Glassware	5948	6163	5916	6088	2.3	–1.2
2.12 Cement & Cement Products	47912	48434	48310	49356	3.0	1.9
2.13 Basic Metal & Metal Product	288395	283855	292613	299621	3.9	5.6
2.13.1 Iron & Steel	187443	193359	187121	196997	5.1	1.9
2.13.2 Other Metal & Metal Product	100952	90497	105492	102624	1.7	13.4
2.14 All Engineering	167680	148758	166937	165512	–1.3	11.3
2.14.1 Electronics	38180	34001	39191	39505	3.5	16.2
2.14.2 Others	129500	114757	127746	126007	–2.7	9.8
2.15 Vehicles, Vehicle Parts & Transport Equipment	89688	88437	91996	91404	1.9	3.4
2.16 Gems & Jewellery	80411	71901	73082	73652	–8.4	2.4
2.17 Construction	117625	120777	117986	116875	–0.6	–3.2
2.18 Infrastructure	1193965	1093502	1211341	1214513	1.7	11.1
2.18.1 Power	610815	571749	620478	627053	2.7	9.7
2.18.2 Telecommunications	130349	115859	131922	129063	–1.0	11.4
2.18.3 Roads	269896	240119	278364	279600	3.6	16.4
2.18.4 Airports	6646	7420	6794	8673	30.5	16.9
2.18.5 Ports	8886	11430	7954	8028	–9.6	–29.8
2.18.6 Railways	10512	12916	11494	11561	10.0	–10.5
2.18.7 Other Infrastructure	156861	134010	154335	150534	–4.0	12.3
2.19 Other Industries	253724	209703	249073	248604	–2.0	18.6

Note : With effect from January 2021, sectoral credit data are based on revised format due to which values and growth rates of some of the existing components published earlier have undergone some changes.

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								
	2020-21	2021	2022						
		Jun, 25	Apr, 29	May, 06	May, 20	May, 27	Jun, 03	Jun, 17	Jun, 24
	1	2	3	4	5	6	7	8	9
Number of Reporting Banks	32	33	33	31	31	32	31	32	31
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	**125859.6**	**126578.8**	**130356.1**	**126088.5**	**125524.8**	**126958.1**	**125966.0**	**126781.0**	**126907.3**
2 Demand and Time Liabilities									
2.1 Demand Liabilities	**23736.9**	**26326.8**	**26799.3**	**24951.1**	**23918.5**	**24062.9**	**24419.3**	**25476.7**	**25634.1**
2.1.1 Deposits									
2.1.1.1 Inter-Bank	4896.9	4843.0	5097.7	5178.3	5609.3	5845.9	6064.0	6339.0	5795.6
2.1.1.2 Others	13,899.4	16531.2	14888.6	12730.8	12344.8	12752.4	12737.0	13391.9	14144.1
2.1.2 Borrowings from Banks	0.0	819.8	579.8	664.8	444.9	619.8	724.4	824.7	869.7
2.1.3 Other Demand Liabilities	4940.6	4132.8	6233.2	6377.3	5519.6	4844.8	4893.9	4921.2	4824.7
2.2 Time Liabilities	**179957.5**	**169926.4**	**188046.3**	**185154.8**	**183304.2**	**183687.5**	**179240.0**	**178448.5**	**171256.4**
2.2.1 Deposits									
2.2.1.1 Inter-Bank	65333.7	56574.5	69276.0	68469.7	66818.1	66131.9	62589.3	61653.1	55387.0
2.2.1.2 Others	111960.2	110047.6	115467.5	113357.8	113180.0	114205.7	113228.9	113389.1	112763.2
2.2.2 Borrowings from Banks	630.0	909.2	1000.0	999.7	998.7	1024.3	998.3	994.8	994.8
2.2.3 Other Time Liabilities	2033.7	2395.1	2302.9	2327.5	2307.4	2325.6	2423.3	2411.5	2111.4
3 Borrowing from Reserve Bank	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 Borrowings from a notified bank / Government	63559.8	53948.1	63081.2	62142.7	61405.1	61247.8	57891.0	59306.8	59486.6
4.1 Demand	15691.8	10771.0	13292.8	13229.4	13178.1	13228.8	13304.8	13449.4	13779.8
4.2 Time	47868.0	43177.2	49788.3	48913.3	48227.0	48019.0	44586.3	45857.5	45706.8
5 Cash in Hand and Balances with Reserve Bank	**8151.1**	**8751.1**	**10297.1**	**10261.9**	**11345.9**	**10695.3**	**11134.4**	**11382.2**	**10732.4**
5.1 Cash in Hand	570.3	669.6	886.4	802.6	973.4	798.5	905.4	982.8	1229.4
5.2 Balance with Reserve Bank	7580.8	8081.5	9410.7	9459.3	10372.5	9896.9	10229.0	10399.4	9503.0
6 Balances with Other Banks in Current Account	**1148.1**	**1222.8**	**1398.7**	**1098.2**	**1162.1**	**1227.5**	**1184.0**	**1372.1**	**1274.2**
7 Investments in Government Securities	**64455.2**	**67450.1**	**72964.6**	**71668.6**	**70980.1**	**71631.0**	**70529.4**	**70958.1**	**69014.4**
8 Money at Call and Short Notice	**28835.7**	**20792.7**	**28772.6**	**27555.1**	**25709.0**	**26130.0**	**23984.4**	**23731.8**	**20955.4**
9 Bank Credit (10.1+11)	**114631.6**	**106675.1**	**120025.5**	**118961.7**	**118897.7**	**119819.7**	**117024.7**	**118113.1**	**117728.1**
10 Advances									
10.1 Loans, Cash-Credits and Overdrafts	**114612.1**	**106671.0**	**120004.5**	**118940.8**	**118876.8**	**119798.9**	**117003.8**	**118092.2**	**117707.2**
10.2 Due from Banks	89429.1	86149.5	108476.3	106788.7	106283.7	105636.7	104787.9	105785.2	83603.8
11 Bills Purchased and Discounted	19.5	4.1	21.0	20.9	20.9	20.9	20.9	20.8	20.8

Prices and Production

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

Group/Sub group	2021-22			Rural			Urban			Combined		
	Rural	Urban	Combined	Jul.21	Jun.22	Jul.22(P)	Jul.21	Jun.22	Jul.22(P)	Jul.21	Jun.22	Jul.22(P)
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	**162.8**	**168.7**	**165.0**	**161.7**	**172.4**	**172.5**	**167.9**	**179.3**	**179.4**	**164.0**	**174.9**	**175.0**
1.1 Cereals and products	146.4	150.4	147.6	145.1	153.8	155.2	149.1	157.5	159.3	146.4	155.0	156.5
1.2 Meat and fish	200.4	206.5	202.6	204.5	217.2	210.8	210.9	223.4	217.1	206.8	219.4	213.0
1.3 Egg	173.3	176.0	174.4	180.4	169.6	174.3	185.0	172.8	176.7	182.2	170.8	175.2
1.4 Milk and products	158.3	159.0	158.6	157.1	165.4	166.4	158.2	166.4	167.1	157.5	165.8	166.7
1.5 Oils and fats	192.2	172.4	184.9	188.7	208.1	202.2	170.6	188.6	184.8	182.1	200.9	195.8
1.6 Fruits	155.3	163.5	159.2	157.7	165.8	169.9	170.9	174.1	179.6	163.9	169.7	174.4
1.7 Vegetables	156.1	192.8	168.5	152.8	167.3	168.6	186.4	211.5	208.5	164.2	182.3	182.1
1.8 Pulses and products	164.1	164.4	164.2	163.6	164.6	164.4	164.7	163.6	164.0	164.0	164.3	164.3
1.9 Sugar and confectionery	117.4	119.1	118.0	113.9	119.1	119.2	115.7	121.4	121.5	114.5	119.9	120.0
1.10 Spices	171.2	167.5	170.0	169.7	188.9	191.8	165.5	183.5	186.3	168.3	187.1	190.0
1.11 Non-alcoholic beverages	167.8	154.7	162.3	166.2	174.2	174.5	153.4	159.1	159.8	160.9	167.9	168.4
1.12 Prepared meals, snacks, sweets	173.0	175.8	174.3	171.0	181.9	183.1	173.5	186.3	187.7	172.2	183.9	185.2
2 Pan, tobacco and intoxicants	**190.3**	**196.5**	**191.9**	**189.7**	**192.9**	**193.2**	**195.5**	**198.3**	**198.6**	**191.2**	**194.3**	**194.6**
3 Clothing and footwear	**168.2**	**158.4**	**164.3**	**165.3**	**180.4**	**181.8**	**155.5**	**169.4**	**170.6**	**161.4**	**176.0**	**177.4**
3.1 Clothing	168.8	160.9	165.7	166.0	180.7	182.0	157.9	171.6	172.7	162.8	177.1	178.3
3.2 Footwear	164.5	144.7	156.3	161.1	178.7	180.3	141.9	157.4	158.7	153.1	169.9	171.3
4 Housing	**--**	**163.0**	**163.0**	**--**	**--**	**--**	**161.5**	**166.8**	**167.8**	**161.5**	**166.8**	**167.8**
5 Fuel and light	**164.0**	**159.8**	**162.4**	**162.5**	**176.7**	**179.6**	**157.7**	**174.9**	**179.6**	**160.7**	**176.0**	**179.6**
6 Miscellaneous	**164.1**	**156.1**	**160.2**	**162.8**	**171.0**	**171.8**	**155.0**	**163.8**	**164.7**	**159.0**	**167.5**	**168.4**
6.1 Household goods and services	161.8	153.5	157.9	160.3	170.3	171.3	150.7	162.1	163.0	155.8	166.4	167.4
6.2 Health	172.0	163.3	168.6	170.4	178.2	178.8	161.5	170.9	171.7	167.0	175.4	176.1
6.3 Transport and communication	157.9	150.0	153.7	157.1	165.5	166.3	149.5	157.2	157.4	153.1	161.1	161.6
6.4 Recreation and amusement	162.7	154.8	158.2	160.7	168.0	168.6	151.2	164.1	164.6	155.3	165.8	166.3
6.5 Education	168.4	160.1	163.5	167.2	172.6	174.6	160.3	166.5	169.2	163.2	169.0	171.4
6.6 Personal care and effects	161.3	160.8	161.1	160.4	169.5	169.7	159.6	169.2	169.8	160.1	169.4	169.7
General Index (All Groups)	**164.5**	**163.1**	**163.8**	**163.2**	**173.6**	**174.3**	**161.8**	**171.4**	**172.3**	**162.5**	**172.6**	**173.4**

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	2021-22	2021	2022	
				Jul.	Jun.	Jul.
	1	2	3	4	5	6
1 Consumer Price Index for Industrial Workers	2016	2.88	123.6	122.8	129.2	129.9
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	1075	1061	1125	1131
3 Consumer Price Index for Rural Labourers	1986-87	–	1084	1070	1137	1143

Source: Labour Bureau, Ministry of Labour and Employment, Government of India.

No. 20: Monthly Average Price of Gold and Silver in Mumbai

Item	2021-22	2021	2022	
		Jul.	Jun.	Jul.
	1	2	3	4
1 Standard Gold (₹ per 10 grams)	47999	47764	50804	50784
2 Silver (₹ per kilogram)	65426	68338	60936	55994

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	2021-22	2021	2022		
			Jul.	May	Jun. (P)	Jul. (P)
	1	2	3	4	5	6
1 ALL COMMODITIES	**100.000**	**139.4**	**135.0**	**155.0**	**154.0**	**153.8**
1.1 PRIMARY ARTICLES	**22.618**	**160.7**	**154.3**	**178.5**	**182.4**	**177.5**
1.1.1 FOOD ARTICLES	**15.256**	**167.3**	**161.5**	**178.4**	**183.6**	**178.9**
1.1.1.1 Food Grains (Cereals+Pulses)	3.462	163.5	159.7	171.7	170.7	172.6
1.1.1.2 Fruits & Vegetables	3.475	187.6	170.1	208.4	229.1	208.7
1.1.1.3 Milk	4.440	156.9	155.9	163.9	164.2	164.4
1.1.1.4 Eggs,Meat & Fish	2.402	164.0	164.0	173.6	177.8	173.1
1.1.1.5 Condiments & Spices	0.529	159.8	150.1	177.9	177.9	182.9
1.1.1.6 Other Food Articles	0.948	168.3	162.8	173.5	172.1	172.3
1.1.2 NON-FOOD ARTICLES	**4.119**	**158.1**	**152.2**	**179.9**	**176.3**	**171.7**
1.1.2.1 Fibres	0.839	158.4	146.3	234.6	228.1	208.6
1.1.2.2 Oil Seeds	1.115	214.4	216.9	223.7	217.5	208.1
1.1.2.3 Other non-food Articles	1.960	119.9	116.3	127.7	128.6	129.5
1.1.2.4 Floriculture	0.204	217.0	168.2	217.1	196.3	225.5
1.1.3 MINERALS	**0.833**	**197.2**	**187.4**	**210.2**	**208.2**	**210.2**
1.1.3.1 Metallic Minerals	0.648	193.3	182.0	206.0	204.0	206.0
1.1.3.2 Other Minerals	0.185	211.0	206.5	224.7	223.2	225.1
1.1.4 CRUDE PETROLEUM & NATURAL GAS	**2.410**	**110.3**	**101.0**	**165.5**	**176.4**	**167.5**
1.2 FUEL & POWER	**13.152**	**124.6**	**115.2**	**163.6**	**155.4**	**165.6**
1.2.1 COAL	**2.138**	**129.0**	**127.5**	**130.9**	**130.9**	**130.9**
1.2.1.1 Coking Coal	0.647	143.0	142.5	143.4	143.4	143.4
1.2.1.2 Non-Coking Coal	1.401	119.8	119.8	119.8	119.8	119.8
1.2.1.3 Lignite	0.090	170.5	138.1	212.6	212.6	212.6
1.2.2 MINERAL OILS	**7.950**	**126.2**	**118.5**	**186.7**	**174.8**	**188.7**
1.2.3 ELECTRICITY	**3.064**	**117.4**	**98.2**	**126.4**	**122.2**	**130.0**
1.3 MANUFACTURED PRODUCTS	**64.231**	**135.0**	**132.3**	**145.0**	**143.7**	**143.1**
1.3.1 MANUFACTURE OF FOOD PRODUCTS	**9.122**	**157.9**	**155.8**	**170.8**	**169.6**	**167.0**
1.3.1.1 Processing and Preserving of meat	0.134	142.8	142.2	145.9	147.1	147.3
1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof	0.204	144.1	142.2	145.6	144.0	148.6
1.3.1.3 Processing and Preserving of fruit and Vegetables	0.138	122.3	123.3	122.8	123.9	125.1
1.3.1.4 Vegetable and Animal oils and Fats	2.643	187.2	185.6	213.6	207.3	193.4
1.3.1.5 Dairy products	1.165	149.4	148.0	160.7	160.5	161.9
1.3.1.6 Grain mill products	2.010	145.6	142.9	151.7	152.2	156.5
1.3.1.7 Starches and Starch products	0.110	133.3	125.9	159.5	155.1	155.2
1.3.1.8 Bakery products	0.215	146.2	142.6	156.3	159.4	162.7
1.3.1.9 Sugar, Molasses & honey	1.163	122.9	118.0	126.3	125.9	125.9
1.3.1.10 Cocoa, Chocolate and Sugar confectionery	0.175	130.5	127.0	134.3	134.6	134.4
1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products	0.026	136.7	131.9	158.0	156.5	160.7
1.3.1.12 Tea & Coffee products	0.371	171.1	172.5	178.0	187.4	190.1
1.3.1.13 Processed condiments & salt	0.163	157.5	153.6	170.3	169.6	171.6
1.3.1.14 Processed ready to eat food	0.024	137.0	136.6	140.8	140.9	141.7
1.3.1.15 Health supplements	0.225	153.5	151.5	170.4	177.1	178.2
1.3.1.16 Prepared animal feeds	0.356	200.9	202.1	207.0	209.2	206.5
1.3.2 MANUFACTURE OF BEVERAGES	**0.909**	**126.8**	**126.5**	**128.4**	**128.5**	**128.4**
1.3.2.1 Wines & spirits	0.408	123.6	123.0	127.6	127.6	127.9
1.3.2.2 Malt liquors and Malt	0.225	130.5	129.6	135.0	135.5	135.6
1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters	0.275	128.6	129.3	124.1	124.0	123.2
1.3.3 MANUFACTURE OF TOBACCO PRODUCTS	**0.514**	**160.2**	**161.1**	**164.3**	**164.0**	**164.8**
1.3.3.1 Tobacco products	0.514	160.2	161.1	164.3	164.0	164.8

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2021-22	2021	2022		
			Jul.	May	Jun. (P)	Jul. (P)
1.3.4 MANUFACTURE OF TEXTILES	**4.881**	**135.2**	**130.8**	**148.5**	**148.6**	**147.2**
1.3.4.1 Preparation and Spinning of textile fibres	2.582	128.2	121.3	143.5	143.3	140.1
1.3.4.2 Weaving & Finishing of textiles	1.509	146.8	145.5	158.9	159.6	160.1
1.3.4.3 Knitted and Crocheted fabrics	0.193	125.5	123.4	133.4	133.3	133.5
1.3.4.4 Made-up textile articles, Except apparel	0.299	138.7	135.7	151.7	154.4	154.6
1.3.4.5 Cordage, Rope, Twine and Netting	0.098	168.5	168.6	167.4	163.0	161.8
1.3.4.6 Other textiles	0.201	126.2	123.6	135.1	135.1	135.8
1.3.5 MANUFACTURE OF WEARING APPAREL	**0.814**	**143.1**	**141.8**	**146.7**	**146.7**	**147.3**
1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel	0.593	142.0	140.9	145.4	145.2	146.1
1.3.5.2 Knitted and Crocheted apparel	0.221	145.8	144.0	150.3	150.5	150.5
1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS	**0.535**	**119.2**	**117.3**	**121.4**	**122.5**	**122.9**
1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur	0.142	103.4	102.6	106.9	107.5	107.5
1.3.6.2 Luggage, HandbAgs, Saddlery and Harness	0.075	141.5	140.1	142.1	141.7	141.5
1.3.6.3 Footwear	0.318	121.0	118.5	123.0	124.7	125.3
1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK	**0.772**	**141.0**	**140.2**	**141.7**	**148.3**	**143.0**
1.3.7.1 Saw milling and Planing of wood	0.124	128.8	126.5	136.3	136.9	136.3
1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards	0.493	141.9	141.1	140.1	150.0	142.3
1.3.7.3 Builder's carpentry and Joinery	0.036	193.9	194.2	201.5	203.0	202.3
1.3.7.4 Wooden containers	0.119	134.1	134.8	136.2	136.8	135.5
1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS	**1.113**	**137.5**	**133.5**	**156.3**	**155.8**	**153.9**
1.3.8.1 Pulp, Paper and Paperboard	0.493	141.4	135.6	157.9	158.4	157.6
1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard	0.314	137.8	135.9	153.6	152.6	150.4
1.3.8.3 Other articles of paper and Paperboard	0.306	131.0	127.8	156.5	154.9	151.6
1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA	**0.676**	**157.8**	**156.1**	**167.7**	**167.3**	**167.0**
1.3.9.1 Printing	0.676	157.8	156.1	167.7	167.3	167.0
1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	**6.465**	**133.5**	**129.3**	**147.0**	**147.5**	**147.2**
1.3.10.1 Basic chemicals	1.433	143.8	137.5	166.6	166.3	166.0
1.3.10.2 Fertilizers and Nitrogen compounds	1.485	129.6	127.3	139.2	141.3	141.9
1.3.10.3 Plastic and Synthetic rubber in primary form	1.001	140.3	135.1	152.0	150.5	146.6
1.3.10.4 Pesticides and Other agrochemical products	0.454	132.1	128.9	142.1	143.7	144.0
1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics	0.491	130.4	124.6	143.1	142.3	143.3
1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations	0.612	128.1	126.8	138.1	139.0	140.6
1.3.10.7 Other chemical products	0.692	130.3	125.6	143.8	144.7	145.0
1.3.10.8 Man-made fibres	0.296	106.6	102.7	115.2	116.0	115.6
1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS	**1.993**	**135.9**	**134.3**	**139.1**	**139.9**	**139.9**
1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products	1.993	135.9	134.3	139.1	139.9	139.9
1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	**2.299**	**124.8**	**121.4**	**132.0**	**131.6**	**130.5**
1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	0.609	104.3	102.9	108.0	109.2	111.1
1.3.12.2 Other Rubber Products	0.272	101.9	100.7	106.6	106.3	106.8
1.3.12.3 Plastics products	1.418	138.0	133.2	147.2	146.0	143.4
1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	**3.202**	**123.7**	**122.6**	**131.9**	**132.6**	**132.0**
1.3.13.1 Glass and Glass products	0.295	139.1	137.9	148.5	155.9	155.8
1.3.13.2 Refractory products	0.223	115.6	114.2	118.3	118.9	118.9
1.3.13.3 Clay Building Materials	0.121	119.3	109.0	136.0	140.1	138.6
1.3.13.4 Other Porcelain and Ceramic Products	0.222	112.9	112.1	117.4	117.2	117.8
1.3.13.5 Cement, Lime and Plaster	1.645	126.4	126.2	136.1	135.9	134.3

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2021-22	2021	2022		
			Jul.	May	Jun. (P)	Jul. (P)
1.3.13.6 Articles of Concrete, Cement and Plaster	0.292	129.2	127.8	134.1	133.2	134.4
1.3.13.7 Cutting, Shaping and Finishing of Stone	0.234	122.2	123.9	123.4	123.8	124.6
1.3.13.8 Other Non-Metallic Mineral Products	0.169	90.6	85.5	104.3	103.9	104.5
1.3.14 MANUFACTURE OF BASIC METALS	**9.646**	**140.1**	**134.0**	**158.2**	**150.2**	**148.9**
1.3.14.1 Inputs into steel making	1.411	150.8	137.8	176.1	159.3	163.0
1.3.14.2 Metallic Iron	0.653	147.7	140.9	174.8	161.2	156.9
1.3.14.3 Mild Steel - Semi Finished Steel	1.274	119.1	115.2	133.3	129.0	128.0
1.3.14.4 Mild Steel -Long Products	1.081	137.4	131.4	156.7	152.7	149.9
1.3.14.5 Mild Steel - Flat products	1.144	157.5	156.3	174.1	162.6	157.2
1.3.14.6 Alloy steel other than Stainless Steel- Shapes	0.067	133.7	127.0	149.2	147.0	147.5
1.3.14.7 Stainless Steel - Semi Finished	0.924	141.7	134.1	167.4	148.1	156.7
1.3.14.8 Pipes & tubes	0.205	155.9	148.5	177.0	169.2	174.0
1.3.14.9 Non-ferrous metals incl. precious metals	1.693	139.7	133.4	153.3	152.0	145.2
1.3.14.10 Castings	0.925	118.9	117.1	128.3	128.0	127.0
1.3.14.11 Forgings of steel	0.271	159.0	154.7	172.1	169.9	168.5
1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	**3.155**	**130.5**	**129.3**	**140.6**	**139.3**	**140.3**
1.3.15.1 Structural Metal Products	1.031	123.9	123.2	133.7	133.1	133.7
1.3.15.2 Tanks, Reservoirs and Containers of Metal	0.660	156.2	156.2	170.3	165.7	164.5
1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers	0.145	96.1	96.8	99.7	97.5	100.0
1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	0.383	117.5	115.3	132.3	133.6	139.2
1.3.15.5 Cutlery, Hand Tools and General Hardware	0.208	108.2	106.5	112.2	112.5	112.3
1.3.15.6 Other Fabricated Metal Products	0.728	136.5	134.1	143.9	143.2	144.3
1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS	**2.009**	**113.7**	**113.1**	**115.9**	**116.1**	**116.2**
1.3.16.1 Electronic Components	0.402	106.0	104.1	114.8	115.0	117.2
1.3.16.2 Computers and Peripheral Equipment	0.336	134.7	134.6	135.0	134.9	134.9
1.3.16.3 Communication Equipment	0.310	121.7	119.7	128.2	128.0	128.6
1.3.16.4 Consumer Electronics	0.641	102.1	102.8	98.7	98.6	97.7
1.3.16.5 Measuring, Testing, Navigating and Control equipment	0.181	108.4	107.7	112.7	112.7	112.9
1.3.16.6 Watches and Clocks	0.076	145.6	144.9	149.6	152.6	149.6
1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment	0.055	106.1	105.2	106.1	108.3	107.0
1.3.16.8 Optical instruments and Photographic equipment	0.008	98.3	98.5	99.6	98.3	98.3
1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT	**2.930**	**122.3**	**121.1**	**127.2**	**128.3**	**127.5**
1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus	1.298	119.7	118.8	122.6	124.2	124.3
1.3.17.2 Batteries and Accumulators	0.236	121.8	120.0	129.7	131.7	132.1
1.3.17.3 Fibre optic cables for data transmission or live transmission of images	0.133	103.1	99.6	108.6	112.4	112.9
1.3.17.4 Other electronic and Electric wires and Cables	0.428	140.7	138.9	152.0	151.6	145.7
1.3.17.5 Wiring devices, Electric lighting & display equipment	0.263	114.5	114.1	117.0	116.8	117.0
1.3.17.6 Domestic appliances	0.366	128.4	126.3	134.0	134.1	134.6
1.3.17.7 Other electrical equipment	0.206	113.2	113.1	114.7	116.4	115.6
1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT	**4.789**	**120.0**	**119.2**	**124.9**	**124.7**	**125.5**
1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines	0.638	119.2	119.4	127.7	125.7	125.8
1.3.18.2 Fluid power equipment	0.162	122.1	120.4	126.5	127.1	127.6
1.3.18.3 Other pumps, Compressors, Taps and Valves	0.552	115.1	114.0	117.6	117.5	117.7
1.3.18.4 Bearings, Gears, Gearing and Driving elements	0.340	118.1	120.6	120.5	120.9	123.7
1.3.18.5 Ovens, Furnaces and Furnace burners	0.008	74.2	74.2	78.1	78.5	78.2
1.3.18.6 Lifting and Handling equipment	0.285	120.0	117.0	125.3	124.6	126.4

No. 21: Wholesale Price Index (Concld.)

(Base: 2011-12 = 100)

Commodities	Weight	2021-22	2021	2022		
			Jul.	May	Jun. (P)	Jul. (P)
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	133.4	135.0	144.9	142.6	143.5
1.3.18.9 Agricultural and Forestry machinery	0.833	128.4	126.4	133.8	134.3	136.5
1.3.18.10 Metal-forming machinery and Machine tools	0.224	114.2	114.8	118.6	118.3	119.6
1.3.18.11 Machinery for mining, Quarrying and Construction	0.371	78.2	76.6	83.6	84.2	83.8
1.3.18.12 Machinery for food, Beverage and Tobacco processing	0.228	130.1	128.6	129.6	129.4	128.0
1.3.18.13 Machinery for textile, Apparel and Leather production	0.192	125.3	121.4	125.8	126.9	126.7
1.3.18.14 Other special-purpose machinery	0.468	134.7	133.1	137.2	137.9	138.9
1.3.18.15 Renewable electricity generating equipment	0.046	66.6	66.2	68.3	68.3	68.2
1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	**4.969**	**122.7**	**121.3**	**127.5**	**127.7**	**127.5**
1.3.19.1 Motor vehicles	2.600	122.6	121.5	126.2	126.2	126.3
1.3.19.2 Parts and Accessories for motor vehicles	2.368	122.7	121.1	129.1	129.4	128.9
1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	**1.648**	**131.7**	**130.6**	**135.3**	**135.5**	**136.2**
1.3.20.1 Building of ships and Floating structures	0.117	158.9	158.9	159.1	159.1	163.5
1.3.20.2 Railway locomotives and Rolling stock	0.110	104.4	104.5	103.8	104.0	103.9
1.3.20.3 Motor cycles	1.302	131.0	129.7	135.3	135.6	136.0
1.3.20.4 Bicycles and Invalid carriages	0.117	137.2	136.4	139.9	139.9	140.8
1.3.20.5 Other transport equipment	0.002	135.9	132.3	146.5	147.7	149.2
1.3.21 MANUFACTURE OF FURNITURE	**0.727**	**150.1**	**146.2**	**155.9**	**155.8**	**157.7**
1.3.21.1 Furniture	0.727	150.1	146.2	155.9	155.8	157.7
1.3.22 OTHER MANUFACTURING	**1.064**	**137.9**	**137.0**	**144.1**	**139.6**	**144.3**
1.3.22.1 Jewellery and Related articles	0.996	136.0	135.1	142.3	137.7	142.7
1.3.22.2 Musical instruments	0.001	192.3	203.3	186.8	192.1	175.4
1.3.22.3 Sports goods	0.012	140.4	138.3	147.5	148.2	148.9
1.3.22.4 Games and Toys	0.005	150.9	150.1	156.7	160.6	160.9
1.3.22.5 Medical and Dental instruments and Supplies	0.049	171.8	171.3	175.7	173.5	171.3
2 FOOD INDEX	**24.378**	**163.8**	**159.4**	**175.6**	**178.4**	**174.4**

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	2020-21	2021-22	April-June		June	
				2021-22	2022-23	2021	2022
	1	2	3	4	5	6	7
General Index	100.00	118.1	131.6	121.3	136.7	122.8	137.9
1 Sectoral Classification							
1.1 Mining	14.37	101.0	113.3	107.1	116.7	105.5	113.4
1.2 Manufacturing	77.63	117.2	131.0	119.1	134.2	121.2	136.3
1.3 Electricity	7.99	157.6	170.1	168.3	197.1	169.1	196.9
2 Use-Based Classification							
2.1 Primary Goods	34.05	118.1	129.5	123.9	141.1	122.4	139.2
2.2 Capital Goods	8.22	75.9	88.7	74.0	95.8	81.2	102.4
2.3 Intermediate Goods	17.22	124.7	143.9	133.8	149.5	132.7	147.3
2.4 Infrastructure/ Construction Goods	12.34	124.7	148.2	137.1	150.6	137.9	148.9
2.5 Consumer Durables	12.84	101.2	113.8	91.7	116.1	100.1	123.9
2.6 Consumer Non-Durables	15.33	142.1	146.7	139.1	140.7	141.8	145.9

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

(₹ Crore)

Item	Financial Year	April - July			
	2022-23 (Budget Estimates)	2022-23 (Actuals)	2021-22 (Actuals)	Percentage to Budget Estimates	
				2022-23	2021-22
	1	2	3	4	5
1 Revenue Receipts	**2204422**	**755795**	**669149**	**34.3**	**37.4**
1.1 Tax Revenue (Net)	1934771	666212	529189	34.4	34.2
1.2 Non-Tax Revenue	269651	89583	139960	33.2	57.6
2 Non-Debt Capital Receipt	**79291**	**30119**	**14148**	**38.0**	**7.5**
2.1 Recovery of Loans	14291	5559	5777	38.9	44.4
2.2 Other Receipts	65000	24560	8371	37.8	4.8
3 Total Receipts (excluding borrowings) (1+2)	**2283713**	**785914**	**683297**	**34.4**	**34.6**
4 Revenue Expenditure	3194663	918075	876012	28.7	29.9
of which:					
4.1 Interest Payments	940651	283870	225817	30.2	27.9
5 Capital Expenditure	750246	208670	128428	27.8	23.2
6 Total Expenditure (4+5)	**3944909**	**1126745**	**1004440**	**28.6**	**28.8**
7 Revenue Deficit (4-1)	**990241**	**162280**	**206863**	**16.4**	**18.1**
8 Fiscal Deficit (6-3)	**1661196**	**340831**	**321143**	**20.5**	**21.3**
9 Gross Primary Deficit (8-4.1)	**720545**	**56961**	**95326**	**7.9**	**13.7**

Source: Controller General of Accounts (CGA), Ministry of Finance, Government of India and Union Budget 2022-23.

No. 24: Treasury Bills – Ownership Pattern

(₹ Crore)

Item	2021-22	2021	2022					
		Jul. 30	Jun. 24	Jul. 1	Jul. 8	Jul. 15	Jul. 22	Jul. 29
	1	2	3	4	5	6	7	8
1 91-day								
1.1 Banks	5310	9355	9455	9969	11681	12099	10785	11428
1.2 Primary Dealers	16705	23157	34041	29426	26678	28800	29993	35008
1.3 State Governments	31320	47982	70800	56300	70000	68800	59800	58800
1.4 Others	72109	159946	128325	138186	135518	129105	127831	121432
2 182-day								
2.1 Banks	70130	119323	102032	105571	102273	102307	102435	103721
2.2 Primary Dealers	63669	54786	111392	109413	102865	101420	99496	99464
2.3 State Governments	15763	15355	28246	28218	38718	38887	38887	38187
2.4 Others	69259	113457	110496	116191	122509	119605	117743	113193
3 364-day								
3.1 Banks	112386	120838	113968	116249	113296	109776	118731	113731
3.2 Primary Dealers	160461	123281	181683	174254	174070	175478	179050	178252
3.3 State Governments	22836	19825	26686	27825	27825	27825	27925	26571
3.4 Others	118392	94163	125126	132315	135458	138639	127465	132209
4 14-day Intermediate								
4.1 Banks								
4.2 Primary Dealers								
4.3 State Governments	289362	159116	155906	156291	85925	114790	123995	129551
4.4 Others	659	314	934	854	743	984	1189	638
Total Treasury Bills (Excluding 14 day Intermediate T Bills) #	758339	901468	1042250	1043917	1060892	1052742	1040141	1031995

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										
2022-23										
Jun. 29	13000	87	33195	7011	47	12989	7011	20000	98.73	5.1595
Jul. 6	9000	100	28436	13720	52	8980	13720	22700	98.74	5.1389
Jul. 13	9000	115	38019	1690	55	8960	1690	10650	98.71	5.2401
Jul. 20	9000	97	28467	3220	50	8980	3220	12200	98.67	5.3987
Jul. 27	9000	140	44475	1527	40	8983	1527	10510	98.62	5.6229
182-day Treasury Bills										
2022-23										
Jun. 29	12000	185	33092	1015	75	11985	1015	13000	97.19	5.7899
Jul. 6	7000	164	38850	10513	40	6987	10513	17500	97.25	5.6651
Jul. 13	7000	135	23911	183	54	6986	183	7169	97.22	5.7453
Jul. 20	7000	111	21688	11	37	6989	11	7000	97.17	5.8515
Jul. 27	7000	109	23147	13	33	6987	13	7000	97.11	5.9788
364-day Treasury Bills										
2022-23										
Jun. 29	8000	206	24833	1167	50	7973	1167	9139	94.10	6.2870
Jul. 6	5000	200	19532	30	78	4970	30	5000	94.23	6.1390
Jul. 13	5000	172	19962	43	62	4957	43	5000	94.20	6.1750
Jul. 20	5000	161	13106	1363	91	4937	1363	6300	94.14	6.2441
Jul. 27	5000	156	22243	271	57	4975	271	5246	94.06	6.3300

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
July	1, 2022	3.30-5.20	4.72
July	2, 2022	3.70-4.90	4.28
July	4, 2022	3.00-4.95	4.72
July	5, 2022	3.30-4.90	4.71
July	6, 2022	3.00-4.85	4.68
July	7, 2022	3.30-5.00	4.67
July	8, 2022	3.30-4.95	4.69
July	11, 2022	3.30-4.95	4.69
July	12, 2022	3.30-4.90	4.66
July	13, 2022	3.30-4.85	4.66
July	14, 2022	3.30-4.85	4.67
July	15, 2022	3.25-5.25	4.74
July	16, 2022	3.80-4.95	4.30
July	18, 2022	2.50-4.90	4.69
July	19, 2022	2.50-4.92	4.73
July	20, 2022	3.30-4.90	4.75
July	21, 2022	3.30-5.25	4.82
July	22, 2022	3.30-5.30	4.98
July	25, 2022	3.30-5.40	5.04
July	26, 2022	3.30-5.50	5.09
July	27, 2022	3.30-5.45	5.06
July	28, 2022	3.30-5.40	5.06
July	29, 2022	3.25-5.30	4.92
July	30, 2022	3.80-4.51	4.22
August	1, 2022	3.35-4.95	4.73
August	2, 2022	3.25-4.85	4.66
August	3, 2022	3.25-4.85	4.65
August	4, 2022	3.25-4.80	4.59
August	5, 2022	3.30-5.35	5.00
August	6, 2022	4.00-5.40	4.44
August	8, 2022	3.50-5.65	5.10
August	10, 2022	3.50-5.30	5.08
August	11, 2022	3.25-5.25	5.05
August	12, 2022	3.50-5.50	5.17

Note: Includes Notice Money.

No. 27: Certificates of Deposit

Item	2021	2022			
	Jul. 30	Jun. 17	Jul. 1	Jul. 15	Jul. 29
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	64304.10	194418.87	223791.41	235248.52	249062.16
1.1 Issued during the fortnight (₹ Crore)	950.89	25090.17	50542.41	20150.94	29372.29
2 Rate of Interest (per cent)	4.05-4.85	4.86-6.58	4.93-6.39	5.38-6.19	5.33-6.38

No. 28: Commercial Paper

Item	2021	2022			
	Jul. 31	Jun. 15	Jun. 30	Jul. 15	Jul. 31
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	414981.65	389282.00	372542.35	381468.70	374226.45
1.1 Reported during the fortnight (₹ Crore)	149052.15	55172.75	67595.30	46218.50	48380.15
2 Rate of Interest (per cent)	3.38-12.94	4.69-13.52	4.88-12.38	4.95-12.13	5.05-12.40

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Crore)

Item	2021-22	2021	2022					
		Jul. 30	Jun. 24	Jul. 1	Jul. 8	Jul. 15	Jul. 22	Jul. 29
	1	2	3	4	5	6	7	8
1 Call Money	14515	13281	21624	25106	25664	22265	25768	21115
2 Notice Money	2122	3801	689	5655	767	6353	518	4246
3 Term Money	515	575	238	577	426	653	351	318
4 Triparty Repo	618526	652552	710395	779612	611867	716782	589701	724049
5 Market Repo	383844	337951	482415	588716	490392	538102	449231	515023
6 Repo in Corporate Bond	4373	7200	116	100	308	5129	2947	183
7 Forex (US $ million)	67793	77056	84579	105754	73721	85366	91965	98204
8 Govt. of India Dated Securities	51300	40423	70092	49175	68638	66162	59173	70519
9 State Govt. Securities	5570	5104	5016	5785	5517	3863	4603	5865
10 Treasury Bills								
10.1 91-Day	4690	3883	6131	8629	5577	3000	3823	2921
10.2 182-Day	3440	3251	4424	5815	6677	4434	4651	5438
10.3 364-Day	3530	5958	2916	4023	2168	2664	2107	1597
10.4 Cash Management Bills								
11 Total Govt. Securities (8+9+10)	68530	58619	88578	73427	88577	80123	74357	86341
11.1 RBI	–	224	133	24	80	386	336	442

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

(Amount in ₹ Crore)

Security & Type of Issue	2021-22		2021-22 (Apr.-Jul.)		2022-23 (Apr.-Jul.) *		Jul. 2021		Jul. 2022 *	
	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	**164**	**138894**	**32**	**26117**	**59**	**18579**	**10**	**13252**	**14**	**281**
1A Premium	154	136893	30	25523	54	17699	9	13073	12	206
1.1 Public	121	112567	24	25354	42	17324	8	13198	11	222
1.1.1 Premium	119	111314	24	24881	40	16739	8	13061	10	188
1.2 Rights	43	26327	8	763	17	1254	2	54	3	59
1.2.1 Premium	35	25580	6	641	14	960	1	13	2	18
2 Preference Shares	–	–	–	–	–	–	–	–	–	–
2.1 Public	–	–	–	–	–	–	–	–	–	–
2.2 Rights	–	–	–	–	–	–	–	–	–	–
3 Bonds & Debentures	**28**	**11589**	**10**	**5389**	**12**	**2823**	**4**	**1808**	**1**	**298**
3.1 Convertible	–	–	–	–	–	–	–	–	–	–
3.1.1 Public	–	–	–	–	–	–	–	–	–	–
3.1.2 Rights	–	–	–	–	–	–	–	–	–	–
3.2 Non-Convertible	28	11589	10	5389	12	2823	4	1808	1	298
3.2.1 Public	28	11589	10	5389	12	2823	4	1808	1	298
3.2.2 Rights	–	–	–	–	–	–	–	–	–	–
4 Total(1+2+3)	**192**	**150484**	**42**	**31506**	**71**	**21401**	**14**	**15061**	**15**	**579**
4.1 Public	149	124157	34	30743	54	20147	12	15007	12	520
4.2 Rights	43	26327	8	763	17	1254	2	54	3	59

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	2021-22	2021	2022				
			Jul.	Mar.	Apr.	May	Jun.	Jul.
		1	2	3	4	5	6	7
1 Exports	₹ Crore	3147021	264666	339850	302579	302079	330827	288748
	US $ Million	422004	35513	44574	39725	39069	42373	36274
1.1 Oil	₹ Crore	503850	43524	74769	60009	66033	83255	50756
	US $ Million	67472	5840	9806	7878	8540	10664	6376
1.2 Non-oil	₹ Crore	2643171	221142	265081	242570	236046	247572	237992
	US $ Million	354533	29673	34767	31847	30529	31710	29898
2 Imports	₹ Crore	4572775	343920	481031	459226	489335	519834	527542
	US $ Million	613052	46147	63091	60291	63288	66582	66273
2.1 Oil	₹ Crore	1207803	92429	161219	153257	148600	168311	168227
	US $ Million	161810	12402	21145	20121	19219	21558	21134
2.2 Non-oil	₹ Crore	3364972	251491	319812	305969	340736	351524	359315
	US $ Million	451242	33745	41946	40170	44069	45024	45139
3 Trade Balance	₹ Crore	-1425753	-79253	-141181	-156647	-187257	-189008	-238794
	US $ Million	-191048	-10634	-18517	-20566	-24219	-24209	-29999
3.1 Oil	₹ Crore	-703953	-48905	-86450	-93248	-82567	-85056	-117471
	US $ Million	-94339	-6562	-11339	-12242	-10679	-10894	-14757
3.2 Non-oil	₹ Crore	-721800	-30348	-54730	-63399	-104690	-103952	-121323
	US $ Million	-96709	-4072	-7178	-8324	-13540	-13314	-15241

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

No. 32: Foreign Exchange Reserves

Item	Unit	2021	2022					
		Aug. 27	Jul. 22	Jul. 29	Aug. 5	Aug. 12	Aug. 19	Aug. 26
		1	2	3	4	5	6	7
1 Total Reserves	**₹ Crore**	**4669426**	**4568803**	**4549652**	**4542615**	**4545959**	**4499645**	**4480681**
	US $ Million	**633558**	**571560**	**573875**	**572978**	**570740**	**564053**	**561046**
1.1 Foreign Currency Assets	₹ Crore	4212584	4077817	4053160	4040594	4038200	3998377	3982307
	US $ Million	571600	510136	511257	509646	506994	501216	498645
1.2 Gold	₹ Crore	275932	307766	314274	319613	323525	318410	316599
	US $ Million	37441	38502	39642	40313	40618	39914	39643
	Volume (Metric Tonnes)	724.24	780.36	781.29	781.29	781.29	781.29	781.29
1.3 SDRs	SDRs Million	13657	13657	13657	13657	13657	13658	13658
	₹ Crore	143028	143587	142583	142952	144431	143493	142411
	US $ Million	19407	17963	17985	18031	18133	17987	17832
1.4 Reserve Tranche Position in IMF	₹ Crore	37883	39632	39635	39456	39803	39364	39363
	US $ Million	5110	4960	4991	4987	4994	4936	4926

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

No. 33: Non-Resident Deposits

(US$ Million)

Scheme	Outstanding				Flows	
	2021-22	2021	2022		2021-22	2022-23
		Jul.	Jun.	Jul.	Apr.-Jul.	Apr.-Jul.
	1	2	3	4	5	6
1 NRI Deposits	**139022**	**141791**	**135977**	**135407**	**3127**	**1428**
1.1 FCNR(B)	16918	19599	15681	15878	-875	-1040
1.2 NR(E)RA	100801	102989	98982	97937	3138	1293
1.3 NRO	21303	19203	21314	21592	863	1175

No. 34: Foreign Investment Inflows

(US$ Million)

Item	2021-22	2021-22	2022-23	2021	2022	
		Apr.-Jul.	Apr.-Jul.	Jul.	Jun.	Jul.
	1	2	3	4	5	6
1.1 Net Foreign Direct Investment (1.1.1–1.1.2)	**38587**	**13106**	**18879**	**1552**	**3772**	**5213**
1.1.1 Direct Investment to India (1.1.1.1–1. 1.1.2)	**56231**	**19857**	**22025**	**2620**	**4773**	**5834**
1.1.1.1 Gross Inflows/Gross Investments	**84835**	**27925**	**29207**	**4778**	**5951**	**6791**
1.1.1.1.1 Equity	59684	20695	21839	2922	4047	5044
1.1.1.1.1.1 Government (SIA/FIPB)	1698	112	439	2	113	60
1.1.1.1.1.2 RBI	42932	12983	16561	2373	2285	4155
1.1.1.1.1.3 Acquisition of shares	14143	7320	4561	473	1580	756
1.1.1.1.1.4 Equity capital of unincorporated bodies	910	279	279	73	69	73
1.1.1.1.2 Reinvested earnings	19347	5934	5934	1556	1459	1556
1.1.1.1.3 Other capital	5805	1297	1434	300	445	191
1.1.1.2 Repatriation/Disinvestment	**28605**	**8068**	**7183**	**2158**	**1178**	**957**
1.1.1.2.1 Equity	27189	7904	6707	2086	1074	895
1.1.1.2.2 Other capital	1416	164	475	72	103	62
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3–1.1.2.4)	**17644**	**6751**	**3146**	**1068**	**1001**	**622**
1.1.2.1 Equity capital	10061	3350	1546	818	421	483
1.1.2.2 Reinvested Earnings	3379	1126	1126	282	282	282
1.1.2.3 Other Capital	7604	3206	1343	357	487	174
1.1.2.4 Repatriation/Disinvestment	3400	931	869	389	189	317
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3–1.2.4)	**-16777**	**-1216**	**-14701**	**-1618**	**-6694**	**362**
1.2.1 GDRs/ADRs	–	–	–	–	–	–
1.2.2 FIIs	-14071	-1018	-14657	-1396	-6586	458
1.2.3 Offshore funds and others	–	–	–	–	–	–
1.2.4 Portfolio investment by India	2706	198	44	222	108	96
1 Foreign Investment Inflows	**21809**	**11890**	**4178**	**-66**	**-2922**	**5574**

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

(US$ Million)

Item	2021-22	2021	2022		
		Jul.	May	Jun.	Jul.
	1	2	3	4	5
1 Outward Remittances under the LRS	**19610.77**	**1308.47**	**2039.26**	**1984.68**	**1982.44**
1.1 Deposit	830.05	46.93	79.46	72.49	79.96
1.2 Purchase of immovable property	112.90	6.89	11.76	14.54	11.65
1.3 Investment in equity/debt	746.57	50.21	82.47	65.03	59.71
1.4 Gift	2336.29	175.22	248.69	222.77	216.33
1.5 Donations	16.55	0.78	1.01	1.12	1.18
1.6 Travel	6909.04	346.91	994.82	1043.08	1015.27
1.7 Maintenance of close relatives	3302.37	243.23	336.96	304.85	292.72
1.8 Medical Treatment	37.79	2.88	4.43	4.39	4.29
1.9 Studies Abroad	5165.33	423.35	264.61	240.86	276.03
1.10 Others	153.88	12.07	15.04	15.55	25.30

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

Item	2020-21	2021-22	2021	2022	
			August	July	August
	1	2	3	4	5
40-Currency Basket (Base: 2015-16=100)					
1 Trade-weighted					
1.1 NEER	93.92	93.13	93.19	92.08	92.26
1.2 REER	103.46	104.66	105.23	103.56	103.86
2 Export-weighted					
2.1 NEER	93.59	93.55	93.36	93.50	93.65
2.2 REER	102.96	103.48	103.95	102.31	102.58
6-Currency Basket (Trade-weighted)					
1 Base: 2015-16 = 100					
1.1 NEER	88.45	87.03	87.16	86.88	87.24
1.2 REER	101.84	102.27	102.72	102.96	103.77
2 Base: 2020-21 = 100					
2.1 NEER	100.00	98.39	98.54	98.23	98.63
2.2 REER	100.00	100.42	100.86	101.11	101.90

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

(Amount in US$ Million)

Item	2021-22	2021	2022	
		Jul	Jun	Jul
	1	2	3	4
1 Automatic Route				
1.1 Number	1086	80	109	96
1.2 Amount	28851	3034	1789	2316
2 Approval Route				
2.1 Number	18	1	1	1
2.2 Amount	11035	400	100	300
3 Total (1+2)				
3.1 Number	1104	81	110	97
3.2 Amount	39886	3434	1889	2616
4 Weighted Average Maturity (in years)	8.00	9.23	5.50	4.64
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans	1.71	2.44	1.77	1.28
5.2 Interest rate range for Fixed Rate Loans	0.00-10.50	0.00-10.50	0.00-10.37	0.00-11.15
Borrower Category				
I. Corporate Manufacturing	12244	1001	389	296
II. Corporate-Infrastructure	17023	1699	131	288
a.) Transport	1597	0	0	36
b.) Energy	8215	442	125	60
c.) Water and Sanitation	10	1	0	0
d.) Communication	1258	0	0	0
e.) Social and Commercial Infrastructure	0	0	0	0
f.) Exploration,Mining and Refinery	4691	500	5	164
g.) Other Sub-Sectors	1252	756	1	28
III. Corporate Service-Sector	1570	32	661	118
IV. Other Entities	609	0	300	303
a.) units in SEZ	9	0	0	3
b.) SIDBI				
c.) Exim Bank	600	0	300	300
V. Banks	100	0	0	0
VI. Financial Institution (Other than NBFC)	4	0	0	0
VII. NBFCs	7995	679	406	1611
a). NBFC- IFC/AFC	5621	414	0	340
b). NBFC-MFI	93	15	6	51
c). NBFC-Others	2282	250	400	1220
VIII. Non-Government Organization (NGO)	0	0	0	0
IX. Micro Finance Institution (MFI)	0	0	0	0
X. Others	341	23	2	0

No. 38: India's Overall Balance of Payments

(US$ Million)

Item	Jan-Mar 2021			Jan-Mar 2022(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**336072**	**332683**	**3389**	**384903**	**400927**	**-16024**
1 CURRENT ACCOUNT (1.1+ 1.2)	**173382**	**181543**	**-8161**	**218823**	**232247**	**-13424**
1.1 MERCHANDISE	**91281**	**133025**	**-41745**	**118020**	**172503**	**-54483**
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	**82101**	**48518**	**33583**	**100803**	**59744**	**41059**
1.2.1 Services	56004	32520	23485	69876	41557	28319
1.2.1.1 Travel	2308	3141	-834	2757	5133	-2376
1.2.1.2 Transportation	6080	5633	446	9398	11002	-1604
1.2.1.3 Insurance	647	566	82	904	428	476
1.2.1.4 G.n.i.e.	159	241	-82	160	271	-111
1.2.1.5 Miscellaneous	46811	22938	23873	56657	24723	31934
1.2.1.5.1 Software Services	26802	3327	23475	32786	3520	29266
1.2.1.5.2 Business Services	13324	12847	478	16835	13867	2968
1.2.1.5.3 Financial Services	1258	1402	-145	1615	1504	111
1.2.1.5.4 Communication Services	696	399	297	763	269	494
1.2.2 Transfers	20927	2085	18842	23723	2591	21132
1.2.2.1 Official	18	285	-267	21	239	-218
1.2.2.2 Private	20909	1801	19108	23702	2353	21350
1.2.3 Income	5170	13913	-8743	7204	15596	-8392
1.2.3.1 Investment Income	3517	13192	-9675	5589	14792	-9202
1.2.3.2 Compensation of Employees	1653	721	932	1614	804	810
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	**162690**	**150429**	**12261**	**166081**	**167787**	**-1707**
2.1 Foreign Investment (2.1.1+2.1.2)	**108195**	**98236**	**9959**	**95111**	**96550**	**-1439**
2.1.1 Foreign Direct Investment	15393	12714	2679	24396	10620	13777
2.1.1.1 In India	13679	7928	5750	23281	6028	17253
2.1.1.1.1 Equity	8553	7894	659	15845	5177	10669
2.1.1.1.2 Reinvested Earnings	4519		4519	5229		5229
2.1.1.1.3 Other Capital	607	34	573	2207	851	1356
2.1.1.2 Abroad	1714	4786	-3072	1115	4592	-3477
2.1.1.2.1 Equity	1714	1197	517	1115	2132	-1017
2.1.1.2.2 Reinvested Earnings	0	753	-753	0	845	-845
2.1.1.2.3 Other Capital	0	2835	-2835	0	1615	-1615
2.1.2 Portfolio Investment	92802	85522	7280	70715	85930	-15215
2.1.2.1 In India	92500	84310	8190	70254	84543	-14289
2.1.2.1.1 FIIs	92500	84310	8190	70254	84543	-14289
2.1.2.1.1.1 Equity	81440	73679	7761	62553	75636	-13083
2.1.2.1.1.2 Debt	11059	10631	428	7701	8907	-1206
2.1.2.1.2 ADR/GDRs	0	0	0	0		0
2.1.2.2 Abroad	303	1212	-909	461	1387	-926
2.2 Loans (2.2.1+2.2.2+2.2.3)	**26446**	**18725**	**7721**	**33737**	**20826**	**12911**
2.2.1 External Assistance	5380	1387	3993	3988	1331	2657
2.2.1.1 By India	10	21	-11	13	16	-3
2.2.1.2 To India	5370	1366	4004	3976	1315	2661
2.2.2 Commercial Borrowings	11834	5759	6075	11346	7913	3433
2.2.2.1 By India	683	745	-63	514	373	141
2.2.2.2 To India	11152	5014	6138	10832	7540	3292
2.2.3 Short Term to India	9232	11578	-2346	18403	11582	6821
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	8067	11578	-3511	14571	11582	2988
2.2.3.2 Suppliers' Credit up to 180 days	1165	0	1165	3833	0	3833
2.3 Banking Capital (2.3.1+2.3.2)	**16733**	**21158**	**-4425**	**27241**	**33202**	**-5961**
2.3.1 Commercial Banks	16518	21158	-4640	27195	32602	-5407
2.3.1.1 Assets	4141	7973	-3832	13120	17970	-4850
2.3.1.2 Liabilities	12377	13185	-808	14075	14632	-557
2.3.1.2.1 Non-Resident Deposits	11350	11889	-539	13468	13309	159
2.3.2 Others	215	0	215	46	600	-554
2.4 Rupee Debt Service		7	-7	0	12	-12
2.5 Other Capital	11315	12302	-987	9991	17196	-7205
3 Errors & Omissions		**711**	**-711**	0	**893**	**-893**
4 Monetary Movements (4.1+ 4.2)	0	**3389**	**-3389**	**16024**	0	**16024**
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	0	3389	-3389	16024	0	16024

Note : P : Preliminary

No. 39: India's Overall Balance of Payments

(₹ Crore)

Item	Jan-Mar 2021			Jan-Mar 2022(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	**2449502**	**2424800**	**24702**	**2895618**	**3016163**	**-120545**
1 CURRENT ACCOUNT (1.1+ 1.2)	**1263718**	**1323202**	**-59484**	**1646199**	**1747190**	**-100991**
1.1 MERCHANDISE	**665312**	**969572**	**-304260**	**887863**	**1297738**	**-409875**
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	**598406**	**353629**	**244776**	**758336**	**449452**	**308883**
1.2.1 Services	408194	237025	171170	525672	312631	213042
1.2.1.1 Travel	16819	22896	-6077	20740	38617	-17877
1.2.1.2 Transportation	44312	41058	3254	70702	82770	-12068
1.2.1.3 Insurance	4719	4125	594	6801	3218	3583
1.2.1.4 G.n.i.e.	1158	1759	-601	1201	2035	-834
1.2.1.5 Miscellaneous	341186	167187	173999	426228	185990	240238
1.2.1.5.1 Software Services	195350	24250	171099	246649	26481	220167
1.2.1.5.2 Business Services	97117	93634	3484	126651	104321	22330
1.2.1.5.3 Financial Services	9166	10220	-1054	12147	11313	834
1.2.1.5.4 Communication Services	5073	2905	2168	5742	2024	3718
1.2.2 Transfers	152529	15199	137330	178471	19496	158975
1.2.2.1 Official	129	2074	-1945	158	1796	-1638
1.2.2.2 Private	152400	13125	139275	178313	17700	160613
1.2.3 Income	37682	101406	-63724	54193	117326	-63133
1.2.3.1 Investment Income	25637	96153	-70517	42047	111277	-69230
1.2.3.2 Compensation of Employees	12045	5252	6793	12145	6049	6096
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	**1185784**	**1096418**	**89366**	**1249419**	**1262257**	**-12838**
2.1 Foreign Investment (2.1.1+2.1.2)	**788594**	**716008**	**72586**	**715520**	**726343**	**-10823**
2.1.1 Foreign Direct Investment	112193	92670	19523	183534	79893	103640
2.1.1.1 In India	99699	57788	41911	175144	45346	129797
2.1.1.1.1 Equity	62338	57537	4801	119205	38945	80260
2.1.1.1.2 Reinvested Earnings	32935	0	32935	39334	0	39334
2.1.1.1.3 Other Capital	4427	251	4176	16605	6401	10203
2.1.1.2 Abroad	12493	34882	-22389	8390	34547	-26157
2.1.1.2.1 Equity	12493	8726	3767	8390	16040	-7650
2.1.1.2.2 Reinvested Earnings	0	5490	-5490	0	6355	-6355
2.1.1.2.3 Other Capital	0	20666	-20666	0	12153	-12153
2.1.2 Portfolio Investment	676402	623338	53063	531986	646450	-114463
2.1.2.1 In India	674196	614505	59691	528521	636017	-107496
2.1.2.1.1 FIIs	674196	614505	59691	528521	636017	-107496
2.1.2.1.1.1 Equity	593588	537019	56569	470586	569008	-98422
2.1.2.1.1.2 Debt	80608	77487	3122	57935	67009	-9074
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	2206	8833	-6628	3465	10433	-6968
2.2 Loans (2.2.1+2.2.2+2.2.3)	**192758**	**136479**	**56279**	**253804**	**156675**	**97128**
2.2.1 External Assistance	39212	10111	29101	30003	10013	19989
2.2.1.1 By India	71	153	-82	95	120	-26
2.2.1.2 To India	39141	9958	29183	29908	9893	20015
2.2.2 Commercial Borrowings	86255	41978	44276	85354	59528	25826
2.2.2.1 By India	4975	5433	-459	3867	2804	1062
2.2.2.2 To India	81280	36545	44735	81487	56723	24764
2.2.3 Short Term to India	67291	84390	-17099	138447	87134	51313
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	58799	84390	-25591	109614	87134	22479
2.2.3.2 Suppliers' Credit up to 180 days	8492	0	8492	28833	0	28833
2.3 Banking Capital (2.3.1+2.3.2)	**121962**	**154215**	**-32253**	**204931**	**249778**	**-44847**
2.3.1 Commercial Banks	120397	154215	-33818	204584	245264	-40680
2.3.1.1 Assets	30186	58112	-27927	98701	135191	-36490
2.3.1.2 Liabilities	90211	96103	-5892	105884	110073	-4190
2.3.1.2.1 Non-Resident Deposits	82726	86651	-3925	101318	100121	1197
2.3.2 Others	1565	0	1565	347	4514	-4167
2.4 Rupee Debt Service	0	50	-50	0	93	-93
2.5 Other Capital	82471	89666	-7196	75165	129368	-54203
3 Errors & Omissions	0	**5180**	**-5180**	0	**6716**	**-6716**
4 Monetary Movements (4.1+ 4.2)	0	**24702**	**-24702**	**120545**	0	**120545**
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	0	24702	-24702	120545	0	120545

Note : P: Preliminary

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

(US$ Million)

Item	Jan-Mar 2021			Jan-Mar 2022(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**173382**	**181517**	**-8135**	**218822**	**232225**	**-13404**
1.A Goods and Services (1.A.a+1.A.b)	**147285**	**165545**	**-18260**	**187896**	**214060**	**-26164**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**91281**	**133025**	**-41745**	**118020**	**172503**	**-54483**
1.A.a.1 General merchandise on a BOP basis	89691	115206	-25515	118046	164299	-46253
1.A.a.2 Net exports of goods under merchanting	1590	0	1590	-26	0	-26
1.A.a.3 Nonmonetary gold		17819	-17819		8204	-8204
1.A.b Services (1.A.b.1 to 1.A.b.13)	**56004**	**32520**	**23485**	**69876**	**41557**	**28319**
1.A.b.1 Manufacturing services on physical inputs owned by others	102	6	96	214	24	190
1.A.b.2 Maintenance and repair services n.i.e.	54	211	-157	44	440	-397
1.A.b.3 Transport	6080	5633	446	9398	11002	-1604
1.A.b.4 Travel	2308	3141	-834	2757	5133	-2376
1.A.b.5 Construction	752	713	39	596	720	-124
1.A.b.6 Insurance and pension services	647	566	82	904	428	476
1.A.b.7 Financial services	1258	1402	-145	1615	1504	111
1.A.b.8 Charges for the use of intellectual property n.i.e.	238	2107	-1868	193	2518	-2325
1.A.b.9 Telecommunications, computer, and information services	27574	3909	23665	33629	4009	29620
1.A.b.10 Other business services	13324	12847	478	16835	13867	2968
1.A.b.11 Personal, cultural, and recreational services	727	878	-150	970	1224	-253
1.A.b.12 Government goods and services n.i.e.	159	241	-82	160	271	-111
1.A.b.13 Others n.i.e.	2781	865	1916	2560	416	2145
1.B Primary Income (1.B.1 to 1.B.3)	**5170**	**13913**	**-8743**	**7204**	**15596**	**-8392**
1.B.1 Compensation of employees	1653	721	932	1614	804	810
1.B.2 Investment income	2621	12952	-10331	4303	13417	-9113
1.B.2.1 Direct investment	1363	7837	-6474	3206	8193	-4987
1.B.2.2 Portfolio investment	28	1633	-1605	80	1591	-1511
1.B.2.3 Other investment	122	3481	-3359	96	3629	-3533
1.B.2.4 Reserve assets	1109	1	1107	922	4	918
1.B.3 Other primary income	896	240	656	1286	1375	-89
1.C Secondary Income (1.C.1+1.C.2)	**20927**	**2058**	**18868**	**23722**	**2570**	**21153**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	20909	1801	19108	23702	2353	21350
1.C.1.1 Personal transfers (Current transfers between resident and/ non-resident households)	20224	1303	18920	22943	1677	21267
1.C.1.2 Other current transfers	686	497	188	759	676	83
1.C.2 General government	17	258	-240	20	217	-197
2 Capital Account (2.1+2.2)	**191**	**230**	**-38**	**244**	**173**	**71**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	87	38	49	117	29	88
2.2 Capital transfers	104	191	-88	127	144	-17
3 Financial Account (3.1 to 3.5)	**162499**	**153615**	**8884**	**181861**	**167636**	**14226**
3.1 Direct Investment (3.1A+3.1B)	**15393**	**12714**	**2679**	**24396**	**10620**	**13777**
3.1.A Direct Investment in India	13679	7928	5750	23281	6028	17253
3.1.A.1 Equity and investment fund shares	13071	7894	5177	21074	5177	15897
3.1.A.1.1 Equity other than reinvestment of earnings	8553	7894	659	15845	5177	10669
3.1.A.1.2 Reinvestment of earnings	4519		4519	5229		5229
3.1.A.2 Debt instruments	607	34	573	2207	851	1356
3.1.A.2.1 Direct investor in direct investment enterprises	607	34	573	2207	851	1356
3.1.B Direct Investment by India	1714	4786	-3072	1115	4592	-3477
3.1.B.1 Equity and investment fund shares	1714	1950	-236	1115	2977	-1862
3.1.B.1.1 Equity other than reinvestment of earnings	1714	1197	517	1115	2132	-1017
3.1.B.1.2 Reinvestment of earnings		753	-753		845	-845
3.1.B.2 Debt instruments	0	2835	-2835	0	1615	-1615
3.1.B.2.1 Direct investor in direct investment enterprises		2835	-2835		1615	-1615
3.2 Portfolio Investment	**92802**	**85522**	**7280**	**70715**	**85930**	**-15215**
3.2.A Portfolio Investment in India	92500	84310	8190	70254	84543	-14289
3.2.1 Equity and investment fund shares	81440	73679	7761	62553	75636	-13083
3.2.2 Debt securities	11059	10631	428	7701	8907	-1206
3.2.B Portfolio Investment by India	303	1212	-909	461	1387	-926
3.3 Financial derivatives (other than reserves) and employee stock options	**2662**	**4929**	**-2267**	**4629**	**7403**	**-2774**
3.4 Other investment	**51642**	**47061**	**4581**	**66098**	**63683**	**2415**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	11565	11889	-324	13514	13909	-395
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	215	0	215	46	600	-554
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	11350	11889	-539	13468	13309	159
3.4.2.3 General government			0			0
3.4.2.4 Other sectors			0			0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	22382	16416	5966	29061	28537	524
3.4.3.A Loans to India	21690	15650	6040	28534	28148	386
3.4.3.B Loans by India	692	766	-74	527	389	138
3.4.4 Insurance, pension, and standardized guarantee schemes	27	43	-16	40	17	22
3.4.5 Trade credit and advances	9232	11578	-2346	18403	11582	6821
3.4.6 Other accounts receivable/payable - other	8435	7134	1301	5080	9637	-4557
3.4.7 Special drawing rights			0			0
3.5 Reserve assets	0	**3389**	**-3389**	**16024**	0	**16024**
3.5.1 Monetary gold			0			0
3.5.2 Special drawing rights n.a.			0			0
3.5.3 Reserve position in the IMF n.a.			0			0
3.5.4 Other reserve assets (Foreign Currency Assets)	0	3389	-3389	16024	0	16024
4 Total assets/liabilities	**162499**	**153615**	**8884**	**181861**	**167636**	**14226**
4.1 Equity and investment fund shares	99217	89707	9510	89872	92596	-2725
4.2 Debt instruments	54846	53384	1462	70886	65402	5484
4.3 Other financial assets and liabilities	8435	10524	-2088	21104	9637	11466
5 Net errors and omissions		**711**	**-711**		**893**	**-893**

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

(₹ Crore)

Item	Jan-Mar 2021			Jan-Mar 2022(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**1263714**	**1323006**	**-59291**	**1646190**	**1747025**	**-100835**
1.A Goods and Services (1.A.a+1.A.b)	**1073506**	**1206597**	**-133090**	**1413535**	**1610368**	**-196833**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**665312**	**969572**	**-304260**	**887863**	**1297738**	**-409875**
1.A.a.1 General merchandise on a BOP basis	653724	839694	-185970	888059	1236020	-347961
1.A.a.2 Net exports of goods under merchanting	11588	0	11588	-196	0	-196
1.A.a.3 Nonmonetary gold	0	129878	-129878	0	61718	-61718
1.A.b Services (1.A.b.1 to 1.A.b.13)	**408194**	**237025**	**171170**	**525672**	**312631**	**213042**
1.A.b.1 Manufacturing services on physical inputs owned by others	741	44	697	1613	184	1429
1.A.b.2 Maintenance and repair services n.i.e.	393	1536	-1143	329	3313	-2984
1.A.b.3 Transport	44312	41058	3254	70702	82770	-12068
1.A.b.4 Travel	16819	22896	-6077	20740	38617	-17877
1.A.b.5 Construction	5482	5199	283	4482	5418	-937
1.A.b.6 Insurance and pension services	4719	4125	594	6801	3218	3583
1.A.b.7 Financial services	9166	10220	-1054	12147	11313	834
1.A.b.8 Charges for the use of intellectual property n.i.e.	1737	15356	-13619	1454	18944	-17489
1.A.b.9 Telecommunications, computer, and information services	200979	28494	172485	252989	30162	222827
1.A.b.10 Other business services	97117	93634	3484	126651	104321	22330
1.A.b.11 Personal, cultural, and recreational services	5300	6397	-1096	7300	9206	-1906
1.A.b.12 Government goods and services n.i.e.	1158	1759	-601	1201	2035	-834
1.A.b.13 Others n.i.e.	20269	6308	13962	19262	3129	16133
1.B Primary Income (1.B.1 to 1.B.3)	**37682**	**101406**	**-63724**	**54193**	**117326**	**-63133**
1.B.1 Compensation of employees	12045	5252	6793	12145	6049	6096
1.B.2 Investment income	19106	94405	-75299	32373	100933	-68559
1.B.2.1 Direct investment	9937	57123	-47186	24116	61632	-37516
1.B.2.2 Portfolio investment	203	11901	-11699	602	11973	-11371
1.B.2.3 Other investment	886	25372	-24486	721	27299	-26578
1.B.2.4 Reserve assets	8080	10	8071	6935	29	6906
1.B.3 Other primary income	6530	1748	4782	9674	10344	-670
1.C Secondary Income (1.C.1+1.C.2)	**152526**	**15003**	**137523**	**178462**	**19331**	**159131**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	152400	13125	139275	178313	17700	160613
1.C.1.1 Personal transfers (Current transfers between resident and/ non-resident households)	147403	9500	137903	172602	12613	159989
1.C.1.2 Other current transfers	4997	3625	1372	5711	5086	624
1.C.2 General government	126	1878	-1752	149	1631	-1482
2 Capital Account (2.1+2.2)	**1393**	**1673**	**-280**	**1836**	**1303**	**533**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	636	278	358	879	220	660
2.2 Capital transfers	757	1395	-638	957	1084	-127
3 Financial Account (3.1 to 3.5)	**1184395**	**1119643**	**64752**	**1368137**	**1261119**	**107018**
3.1 Direct Investment (3.1A+3.1B)	**112193**	**92670**	**19523**	**183534**	**79893**	**103640**
3.1.A Direct Investment in India	99699	57788	41911	175144	45346	129797
3.1.A.1 Equity and investment fund shares	95272	57537	37735	158539	38945	119594
3.1.A.1.1 Equity other than reinvestment of earnings	62338	57537	4801	119205	38945	80260
3.1.A.1.2 Reinvestment of earnings	32935	0	32935	39334	0	39334
3.1.A.2 Debt instruments	4427	251	4176	16605	6401	10203
3.1.A.2.1 Direct investor in direct investment enterprises	4427	251	4176	16605	6401	10203
3.1.B Direct Investment by India	12493	34882	-22389	8390	34547	-26157
3.1.B.1 Equity and investment fund shares	12493	14216	-1723	8390	22395	-14005
3.1.B.1.1 Equity other than reinvestment of earnings	12493	8726	3767	8390	16040	-7650
3.1.B.1.2 Reinvestment of earnings	0	5490	-5490	0	6355	-6355
3.1.B.2 Debt instruments	0	20666	-20666	0	12153	-12153
3.1.B.2.1 Direct investor in direct investment enterprises	0	20666	-20666	0	12153	-12153
3.2 Portfolio Investment	**676402**	**623338**	**53063**	**531986**	**646450**	**-114463**
3.2.A Portfolio Investment in India	674196	614505	59691	528521	636017	-107496
3.2.1 Equity and investment fund shares	593588	537019	56569	470586	569008	-98422
3.2.2 Debt securities	80608	77487	3122	57935	67009	-9074
3.2.B Portfolio Investment by India	2206	8833	-6628	3465	10433	-6968
3.3 Financial derivatives (other than reserves) and employee stock options	**19402**	**35925**	**-16523**	**34822**	**55690**	**-20868**
3.4 Other investment	**376398**	**343008**	**33391**	**497250**	**479086**	**18164**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	84291	86651	-2360	101664	104634	-2970
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	1565	0	1565	347	4514	-4167
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	82726	86651	-3925	101318	100121	1197
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)	163138	119653	43484	218623	214684	3939
3.4.3.A Loans to India	158092	114067	44025	214662	211760	2902
3.4.3.B Loans by India	5045	5586	-540	3961	2925	1037
3.4.4 Insurance, pension, and standardized guarantee schemes	198	313	-116	300	131	169
3.4.5 Trade credit and advances	67291	84390	-17099	138447	87134	51313
3.4.6 Other accounts receivable/payable - other	61481	52000	9481	38216	72502	-34286
3.4.7 Special drawing rights	0	0	0	0	0	0
3.5 Reserve assets	**0**	**24702**	**-24702**	**120545**	**0**	**120545**
3.5.1 Monetary gold			0	0	0	
3.5.2 Special drawing rights n.a.			0	0	0	
3.5.3 Reserve position in the IMF n.a.			0	0	0	
3.5.4 Other reserve assets (Foreign Currency Assets)	0	24702	-24702	120545	0	120545
4 Total assets/liabilities	**1184395**	**1119643**	**64752**	**1368137**	**1261119**	**107018**
4.1 Equity and investment fund shares	723159	653844	69315	676102	696601	-20499
4.2 Debt instruments	399754	389097	10657	533274	492016	41258
4.3 Other financial assets and liabilities	61481	76702	-15221	158761	72502	86259
5 Net errors and omissions	**0**	**5180**	**-5180**	**0**	**6716**	**-6716**

Note : P: Preliminary

No. 42: International Investment Position

(US$ Million)

Item	As of Financial Year /Quarter End							
	2021-22		2021				2022	
			Mar.		Dec.		Mar.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8
1.1 Equity and investment fund shares	132765	493987	122726	456947	130904	487895	132765	493987
1.2 Debt instruments	78807	27694	71203	25177	77192	26301	78807	27694
1 Direct investment	211573	521681	193929	482125	208096	514196	211573	521681
2.1 Equity and investment fund shares	1110	156381	2340	177278	6113	172794	1110	156381
2.2 Debt securities	9533	105994	5596	101232	3603	104286	9533	105994
2. Portfolio investment	10642	262375	7936	278510	9716	277080	10642	262375
3.1 Trade credit and advances	18603	118156	5644	100329	12891	113450	18603	118156
3.2 Loans	10474	205023	13335	197527	8856	204063	10474	205023
3.3 Currency and deposits	42081	140994	42436	143760	34796	143502	42081	140994
3.4 Other accounts receivable	19918	32203	19191	12384	19946	29833	19918	32203
3 Other investment	91075	496377	80606	454000	76489	490849	91075	496377
4 Reserve assets	607309		576984		633614		607309	
5 Total Assets / Liabilities	920599	1280433	859454	1214634	927915	1282125	920599	1280433
6 Net International Investment Position	-359834		-355180		-354210		-359834	

Payment and Settlement Systems

No.43: Payment System Indicators

PART I - Payment System Indicators - Payment & Settlement System Statistics

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2021-22	2021	2022		FY 2021-22	2021	2022	
		Jul.	Jun.	Jul.		Jul.	Jun.	Jul.
	1	2	3	4	5	6	7	8
A. Settlement Systems								
Financial Market Infrastructures (FMIs)								
1 CCIL Operated Systems (1.1 to 1.3)	33.01	2.68	3.42	3.39	206873112	16798812	22912930	21126044
1.1 Govt. Securities Clearing (1.1.1 to 1.1.3)	12.22	0.98	1.32	1.33	142072939	11096031	15445511	14218681
1.1.1 Outright	6.22	0.50	0.68	0.71	8793301	744621	844409	851204
1.1.2 Repo	3.08	0.25	0.34	0.34	51015712	3802644	5627915	5764070
1.1.3 Tri-party Repo	2.92	0.24	0.30	0.28	82263926	6548766	8973188	7603407
1.2 Forex Clearing	19.91	1.64	1.97	1.93	59775826	5290626	6778125	6272728
1.3 Rupee Derivatives @	0.88	0.07	0.13	0.13	5024347	412155	689294	634635
B. Payment Systems								
I Financial Market Infrastructures (FMIs)	–	–	–	–	–	–	–	–
1 Credit Transfers - RTGS (1.1 to 1.2)	2078.39	167.65	194.42	189.26	128657516	10741314	12356054	11551440
1.1 Customer Transactions	2063.73	166.43	193.18	188.06	113319292	9288984	10840909	9927091
1.2 Interbank Transactions	14.66	1.22	1.24	1.20	15338225	1452331	1515145	1624349
II Retail								
2 Credit Transfers - Retail (2.1 to 2.6)	577934.74	41372.72	69921.27	74673.64	42728006	3215234	4298158	4267239
2.1 AePS (Fund Transfers) @	9.76	1.03	0.62	0.68	575	61	37	40
2.2 APBS $	12573.33	1047.34	1222.24	1259.99	133345	7981	23010	12511
2.3 IMPS	46625.25	3524.64	4557.01	4608.30	4171037	311310	443776	444541
2.4 NACH Cr $	18757.82	1174.68	1489.99	1892.88	1281685	85697	100909	119677
2.5 NEFT	40407.29	3170.00	4022.33	4018.39	28725463	2204303	2716013	2627354
2.6 UPI @	459561.30	32455.02	58629.08	62893.40	8415900	605883	1014413	1063117
2.6.1 of which USSD @	11.99	1.08	0.99	1.62	177	16	12	18
3 Debit Transfers and Direct Debits (3.1 to 3.3)	12189.49	986.32	1225.96	1217.97	1034444	86503	100325	100581
3.1 BHIM Aadhaar Pay @	227.73	17.49	39.82	21.26	6113	414	1049	621
3.2 NACH Dr $	10754.74	877.08	1048.14	1067.05	1026641	85980	99060	99754
3.3 NETC (linked to bank account) @	1207.02	91.75	138.00	129.66	1689	109	216	207
4 Card Payments (4.1 to 4.2)	61782.93	5225.86	5376.24	5481.80	1701851	135972	169669	180371
4.1 Credit Cards (4.1.1 to 4.1.2)	22398.82	1820.49	2279.46	2348.34	971638	74885	108752	115856
4.1.1 PoS based $	11124.59	900.27	1210.51	1220.69	380643	30498	40466	41767
4.1.2 Others $	11274.23	920.21	1068.95	1127.64	590994	44387	68286	74089
4.2 Debit Cards (4.2.1 to 4.2.1)	39384.11	3405.37	3096.79	3133.47	730213	61087	60917	64515
4.2.1 PoS based $	22967.10	1901.64	2012.90	2053.40	451550	36764	39877	41211
4.2.2 Others $	16417.00	1503.73	1083.89	1080.07	278663	24324	21040	23304
5 Prepaid Payment Instruments (5.1 to 5.2)	65782.75	4958.99	6258.03	6195.34	279416	20587	24738	25309
5.1 Wallets	53013.86	4068.85	4979.19	4855.87	220183	16624	18488	18775
5.2 Cards (5.2.1 to 5.2.2)	12768.89	890.14	1278.83	1339.48	59233	3963	6250	6534
5.2.1 PoS based $	1116.16	73.49	87.22	85.43	19546	893	1301	1285
5.2.2 Others $	11652.73	816.64	1191.62	1254.05	39687	3070	4949	5250
6 Paper-based Instruments (6.1 to 6.2)	6999.12	596.11	593.72	588.67	6650333	553256	599196	579727
6.1 CTS (NPCI Managed)	6999.12	596.11	593.72	588.67	6650333	553256	599196	579727
6.2 Others	0.00	–	–	–	–	–	–	–
Total - Retail Payments (2+3+4+5+6)	724689.03	53139.99	83375.21	88157.42	52394049	4011553	5192086	5153226
Total Payments (1+2+3+4+5+6)	726767.42	53307.64	83569.63	88346.69	181051565	14752867	17548140	16704666
Total Digital Payments (1+2+3+4+5)	719768.30	52711.53	82975.91	87758.02	174401233	14199611	16948944	16124940

PART II - Payment Modes and Channels

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2021-22	2021	2022		FY 2021-22	2021	2022	
		Jul.	Jun.	Jul.		Jul.	Jun.	Jul.
	1	2	3	4	5	6	7	8
A. Other Payment Channels								
1 Mobile Payments (mobile app based) (1.1 to 1.2)	507531.37	36837.05	62581.28	68450.73	14973395	1137233	1715115	1786611
1.1 Intra-bank $	40805.69	3133.94	4309.58	4902.42	2726360	210685	305131	323926
1.2 Inter-bank $	466725.68	33703.12	58271.69	63548.30	12247035	926547	1409985	1462684
2 Internet Payments (Netbanking / Internet Browser Based) @ (2.1 to 2.2)	40726.59	3474.33	3551.14	3734.46	83159996	6812775	8205044	7325646
2.1 Intra-bank @	9583.32	828.56	866.17	930.32	52142582	4294238	5134748	4438066
2.2 Inter-bank @	31143.27	2645.77	2684.67	2804.13	31017413	2518538	3070297	2887580
B. ATMs								
3 Cash Withdrawal at ATMs $ (3.1 to 3.3)	65287.63	5378.82	5734.36	5777.88	3111948	254886	271368	272103
3.1 Using Credit Cards $	62.37	4.74	6.79	6.95	3130	235	336	342
3.2 Using Debit Cards $	64898.80	5348.70	5694.37	5735.52	3097741	253780	269936	270609
3.3 Using Pre-paid Cards $	326.45	25.38	33.20	35.42	11076	871	1096	1152
4 Cash Withdrawal at PoS $ (4.1 to 4.2)	91.17	7.45	2.30	2.26	728	62	22	22
4.1 Using Debit Cards $	79.42	6.15	2.27	2.25	557	43	22	22
4.2 Using Pre-paid Cards $	11.75	1.30	0.03	0.01	171	19	0	0
5 Cash Withrawal at Micro ATMs @	11126.04	869.89	1167.16	1082.22	299776	22973	31318	29517
5.1 AePS @	11126.04	869.89	1167.16	1082.22	299776	22973	31318	29517

PART III - Payment Infrastructures (Lakh)

System	As on March 2022	2021	2022	
		Jul.	Jun.	Jul.
	1	2	3	4
Payment System Infrastructures				
1 Number of Cards (1.1 to 1.2)	9912.93	9690.43	10004.74	10083.90
1.1 Credit Cards	736.27	634.14	787.23	802.56
1.2 Debit Cards	9176.66	9056.29	9217.52	9281.34
2 Number of PPIs @ (2.1 to 2.2)	15553.69	13176.84	15589.89	15604.53
2.1 Wallets @	12787.93	11032.89	12932.46	12922.65
2.2 Cards @	2765.76	2143.95	2657.43	2681.89
3 Number of ATMs (3.1 to 3.2)	2.52	2.40	2.53	2.54
3.1 Bank owned ATMs $	2.20	2.13	2.20	2.20
3.2 White Label ATMs $	0.31	0.27	0.33	0.34
4 Number of Micro ATMs @	7.81	4.75	9.40	9.64
5 Number of PoS Terminals	60.70	46.08	65.91	68.19
6 Bharat QR @	49.72	42.51	42.80	45.21
7 UPI QR *	1727.34	1078.80	1951.71	2013.02

@: 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.

Occasional Series

No. 44: Small Savings

(₹ Crore)

Scheme		2020-21	2021		2022	
			Feb.	Dec.	Jan.	Feb.
		1	2	3	4	5
1 Small Savings	**Receipts**	**181237**	**14405**	**18175**	**14893**	**13932**
	Outstanding	**1259585**	**1224772**	**1397878**	**1412766**	**1426737**
1.1 Total Deposits	**Receipts**	**132687**	**10143**	**13855**	**10676**	**9753**
	Outstanding	**867494**	**847119**	**969847**	**980523**	**990274**
1.1.1 Post Office Saving Bank Deposits	Receipts	39748	2252	4475	3018	3568
	Outstanding	205888	194738	226701	229719	233287
1.1.2 MGNREG	Receipts					
	Outstanding					
1.1.3 National Saving Scheme, 1987	Receipts	276	-23	-366	-15	-20
	Outstanding	3419	3037	3200	3185	3165
1.1.4 National Saving Scheme, 1992	Receipts	166	57	2	-1	-777
	Outstanding	175	40	150	149	-628
1.1.5 Monthly Income Scheme	Receipts	12211	1135	1228	1146	933
	Outstanding	221379	220277	232747	233892	234825
1.1.6 Senior Citizen Scheme 2004	Receipts	21009	1950	1929	1615	1490
	Outstanding	97051	94750	114134	115749	117239
1.1.7 Post Office Time Deposits	Receipts	41470	3798	3926	3438	3217
	Outstanding	207557	203597	241034	244474	247690
1.1.7.1 1 year Time Deposits	Outstanding	108205	107099	116043	116819	117578
1.1.7.2 2 year Time Deposits	Outstanding	7473	7418	7931	7967	7996
1.1.7.3 3 year Time Deposits	Outstanding	7227	7267	6983	6964	6944
1.1.7.4 5 year Time Deposits	Outstanding	84652	81813	110077	112724	115172
1.1.8 Post Office Recurring Deposits	Receipts	17807	974	2662	1475	1338
	Outstanding	132029	130683	151885	153359	154697
1.1.9 Post Office Cumulative Time Deposits	Receipts	0	0	-1	0	4
	Outstanding	-25	-24	-25	-25	-22
1.1.10 Other Deposits	Receipts	0	0	0	0	0
	Outstanding	21	21	21	21	21
1.2 Saving Certificates	**Receipts**	**34860**	**3647**	**3978**	**3691**	**3583**
	Outstanding	**286863**	**282483**	**321027**	**324713**	**328337**
1.2.1 National Savings Certificate VIII issue	Receipts	17361	1843	1860	1626	1585
	Outstanding	135348	133016	150513	152139	153724
1.2.2 Indira Vikas Patras	Receipts	-3	0	0	0	0
	Outstanding	159	157	158	158	158
1.2.3 Kisan Vikas Patras	Receipts	-7911	-470	-426	-193	940
	Outstanding	-6776	-6194	-8455	-8648	-7708
1.2.4 Kisan Vikas Patras - 2014	Receipts	25340	2274	2544	2258	1019
	Outstanding	147942	145422	168720	170978	171996
1.2.5 National Saving Certificate VI issue	Receipts	41	0	0	0	23
	Outstanding	-114	-147	-114	-114	-90
1.2.6 National Saving Certificate VII issue	Receipts	32	0	0	0	16
	Outstanding	-74	-103	-74	-74	-58
1.2.7 Other Certificates	Outstanding	10378	10332	10279	10274	10315
1.3 Public Provident Fund	**Receipts**	**13690**	**615**	**342**	**526**	**596**
	Outstanding	**105228**	**95170**	**107004**	**107530**	**108126**

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	2021			2022	
	Jun.	Sep.	Dec.	Mar.	Jun.
	1	2	3	4	5
(A) Total (in ₹. Crore)	**7882533**	**8235318**	**8439811**	**8529036**	**8784931**
1 Commercial Banks	35.99	37.82	35.40	37.75	38.04
2 Non-Bank PDs	0.34	0.35	0.27	0.29	0.33
3 Insurance Companies	25.83	24.18	25.74	25.89	26.34
4 Mutual Funds	2.82	2.91	3.08	2.91	2.32
5 Co-operative Banks	1.82	1.50	1.82	1.81	1.84
6 Financial Institutions	1.43	1.17	1.69	0.94	1.09
7 Corporates	1.39	0.72	1.37	1.47	1.52
8 Foreign Portfolio Investors	1.79	1.81	1.66	1.56	1.43
9 Provident Funds	4.04	3.77	4.33	4.60	4.77
10 RBI	17.11	16.98	16.92	16.62	16.06
11. Others	7.43	8.79	7.73	6.15	6.30
11.1 State Governments	1.67	1.67	1.69	1.82	1.84

State Governments Securities					
Category	2021			2022	
	Jun.	Sep.	Dec.	Mar.	Jun.
	1	2	3	4	5
(B) Total (in ₹. Crore)	**4028849**	**4153508**	**4257578**	**4410250**	**4472011**
1 Commercial Banks	33.75	35.94	34.41	34.39	34.22
2 Non-Bank PDs	0.39	0.44	0.40	0.38	0.41
3 Insurance Companies	29.67	27.50	28.85	28.42	28.39
4 Mutual Funds	1.74	1.97	1.91	1.82	1.89
5 Co-operative Banks	4.12	3.60	4.07	4.04	4.06
6 Financial Institutions	1.79	1.72	1.73	1.72	1.73
7 Corporates	1.45	1.32	1.70	1.82	1.98
8 Foreign Portfolio Investors	0.02	0.03	0.02	0.02	0.02
9 Provident Funds	21.09	18.27	20.66	20.79	20.52
10 RBI	0.88	0.85	0.83	0.80	0.79
11. Others	5.10	8.38	5.40	5.81	5.99
11.1 State Governments	0.18	0.18	0.19	0.20	0.21

Treasury Bills					
Category	2021			2022	
	Jun.	Sep.	Dec.	Mar.	Jun.
	1	2	3	4	5
(C) Total (in ₹. Crore)	**901327**	**763582**	**692869**	**757198**	**1022053**
1 Commercial Banks	52.25	50.22	47.01	51.14	53.14
2 Non-Bank PDs	1.82	1.33	1.53	4.20	2.49
3 Insurance Companies	4.75	4.12	6.29	6.58	5.34
4 Mutual Funds	19.93	17.72	13.72	14.01	14.86
5 Co-operative Banks	1.60	1.32	1.49	1.79	1.34
6 Financial Institutions	2.56	2.12	2.36	3.53	3.73
7 Corporates	3.00	2.40	3.13	3.47	4.27
8 Foreign Portfolio Investors	0.00	0.15	0.72	0.49	0.40
9 Provident Funds	0.10	0.37	0.85	0.21	1.70
10 RBI	2.58	2.63	0.00	0.00	0.00
11. Others	11.42	17.62	22.89	14.59	12.72
11.1 State Governments	7.97	12.64	18.92	11.54	10.99

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

(₹ Crore)

Item	2016-17	2017-18	2018-19	2019-20	2020-21 RE	2021-22 BE
	1	2	3	4	5	6
1 Total Disbursements	**4265969**	**4515946**	**5040747**	**5410887**	**6523916**	**7160694**
1.1 Developmental	2537905	2635110	2882758	3074492	3906147	4254004
1.1.1 Revenue	1878417	2029044	2224367	2446605	3259401	3242247
1.1.2 Capital	501213	519356	596774	588233	636062	922982
1.1.3 Loans	158275	86710	61617	39654	10684	88775
1.2 Non-Developmental	1672646	1812455	2078276	2253027	2526514	2810847
1.2.1 Revenue	1555239	1741432	1965907	2109629	2334608	2602289
1.2.1.1 Interest Payments	724448	814757	894520	955801	1082302	1244457
1.2.2 Capital	115775	69370	111029	141457	189487	177328
1.2.3 Loans	1632	1654	1340	1941	2419	31230
1.3 Others	55417	68381	79713	83368	91255	95843
2 Total Receipts	**4288432**	**4528422**	**5023352**	**5734166**	**6489736**	**7039032**
2.1 Revenue Receipts	3132201	3376416	3797731	3851563	3834126	4682025
2.1.1 Tax Receipts	2622145	2978134	3278947	3231582	3175594	3829889
2.1.1.1 Taxes on commodities and services	1652377	1853859	2030050	2012578	2100982	2514708
2.1.1.2 Taxes on Income and Property	965622	1121189	1246083	1216203	1071552	1311449
2.1.1.3 Taxes of Union Territories (Without Legislature)	4146	3086	2814	2800	3060	3732
2.1.2 Non-Tax Receipts	510056	398282	518783	619981	658532	852135
2.1.2.1 Interest Receipts	33220	34224	36273	31137	39830	33198
2.2 Non-debt Capital Receipts	69063	142433	140287	110094	54861	201138
2.2.1 Recovery of Loans & Advances	20942	42213	44667	59515	21151	19581
2.2.2 Disinvestment proceeds	48122	100219	95621	50578	33710	181557
3 Gross Fiscal Deficit [1 - (2.1 + 2.2)]	**1064704**	**997097**	**1102729**	**1449230**	**2634928**	**2277532**
3A Sources of Financing: Institution-wise						
3A.1 Domestic Financing	1046708	989167	1097210	1440548	2580406	2276017
3A.1.1 Net Bank Credit to Government	617123	144792	387091	571872	890012	-----
3A.1.1.1 Net RBI Credit to Government	195816	-144847	325987	190241	107494	-----
3A.1.2 Non-Bank Credit to Government	429585	844375	710119	868676	1690394	-----
3A.2 External Financing	17997	7931	5519	8682	54522	1514
3B Sources of Financing: Instrument-wise						
3B.1 Domestic Financing	1046708	989167	1097210	1440548	2580406	2276017
3B.1.1 Market Borrowings (net)	689821	794856	795845	971378	1778062	1620936
3B.1.2 Small Savings (net)	35038	71222	88961	209232	455724	367863
3B.1.3 State Provident Funds (net)	45688	42351	51004	38280	47300	45504
3B.1.4 Reserve Funds	-6436	18423	-18298	10411	-3450	5051
3B.1.5 Deposits and Advances	17792	25138	66289	-14227	29050	28868
3B.1.6 Cash Balances	-22463	-12476	17395	-323279	34179	121663
3B.1.7 Others	287268	49653	96014	548753	239540	86132
3B.2 External Financing	17997	7931	5519	8682	54522	1514
4 Total Disbursements as per cent of GDP	*27.7*	*26.4*	*26.7*	*26.6*	*33.0*	*32.1*
5 Total Receipts as per cent of GDP	*27.9*	*26.5*	*26.6*	*28.2*	*32.9*	*31.6*
6 Revenue Receipts as per cent of GDP	*20.3*	*19.8*	*20.1*	*18.9*	*19.4*	*21.0*
7 Tax Receipts as per cent of GDP	*17.0*	*17.4*	*17.4*	*15.9*	*16.1*	*17.2*
8 Gross Fiscal Deficit as per cent of GDP	*6.9*	*5.8*	*5.8*	*7.1*	*13.3*	*10.2*

…: Not available. RE: Revised Estimates; BE: Budget Estimates

Source : Budget Documents of Central and State Governments.

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

(₹ Crore)

Sr. No	State/Union Territory	During July-2022					
		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	745.17	31	1842.24	29	2179.68	16
2	Arunachal Pradesh	-	-	-	-	-	-
3	Assam	-	-	-	-	-	-
4	Bihar	-	-	-	-	-	-
5	Chhattisgarh	-	-	-	-	-	-
6	Goa	-	-	-	-	-	-
7	Gujarat	-	-	-	-	-	-
8	Haryana	-	-	-	-	-	-
9	Himachal Pradesh	-	-	414.62	17	357.80	3
10	Jammu & Kashmir UT	-	-	914.12	22	559.26	11
11	Jharkhand	-	-	-	-	-	-
12	Karnataka	-	-	-	-	-	-
13	Kerala	-	-	-	-	-	-
14	Madhya Pradesh	-	-	-	-	-	-
15	Maharashtra	-	-	-	-	-	-
16	Manipur	12.29	27	181.79	27	512.95	12
17	Meghalaya	111.14	20	89.07	13	-	-
18	Mizoram	68.09	23	145.85	17	181.54	11
19	Nagaland	120.32	27	186.51	25	157.92	16
20	Odisha	-	-	-	-	-	-
21	Puducherry	-	-	-	-	-	-
22	Punjab	714.60	30	-	-	-	-
23	Rajasthan	4859.53	31	-	-	-	-
24	Tamil Nadu	-	-	-	-	-	-
25	Telangana	717.36	31	1369.32	30	988.22	18
26	Tripura	-	-	-	-	-	-
27	Uttar Pradesh	-	-	-	-	-	-
28	Uttarakhand	-	-	-	-	-	-
29	West Bengal	-	-	-	-	-	-

Source: Reserve Bank of India.

No. 48: Investments by State Governments

(₹ Crore)

Sr. No	State/Union Territory	As on end of July 2022			
		Consolidated Sinking Fund (CSF)	Guarantee Redemption Fund (GRF)	Government Securities	Auction Treasury Bills (ATBs)
	1	2	3	4	5
1	Andhra Pradesh	9556	945	0	0
2	Arunachal Pradesh	2081	3	0	0
3	Assam	3512	72	0	0
4	Bihar	6477	0	0	0
5	Chhattisgarh	5703	0	1	4308
6	Goa	788	380	0	0
7	Gujarat	8368	554	0	1000
8	Haryana	1404	1405	0	0
9	Himachal Pradesh	0	0	0	0
10	Jammu & Kashmir UT	0	0	0	0
11	Jharkhand	997	0	0	0
12	Karnataka	10656	0	0	38746
13	Kerala	2476	0	0	0
14	Madhya Pradesh	0	1059	0	0
15	Maharashtra	53921	1169	0	18000
16	Manipur	177	116	0	0
17	Meghalaya	904	63	9	0
18	Mizoram	449	55	0	0
19	Nagaland	1899	38	0	0
20	Odisha	15069	1697	98	43400
21	Puducherry	389	0	0	923
22	Punjab	4192	0	0	0
23	Rajasthan	0	0	129	6400
24	Tamil Nadu	7725	0	28	9182
25	Telangana	6527	1427	0	0
26	Tripura	702	15	0	1600
27	Uttar Pradesh	3087	0	116	0
28	Uttarakhand	3968	156	0	0
29	West Bengal	10387	721	235	0
	Total	**161413**	**9874**	**614**	**123559**

No. 49: Market Borrowings of State Governments

(₹ Crore)

Sr. No.	State	2020-21		2021-22		2022-23						Total amount raised, so far in 2022-23	
						May		June		July			
		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	50896	41915	46443	36692	7390	6810	10500	9630	8000	7130	29890	26265
2	Arunachal Pradesh	767	767	563	530	-	-	-	-	-	-20	-	-20
3	Assam	15030	14230	12753	10753	-	-	2000	2000	2000	2000	4000	4000
4	Bihar	27285	24685	28489	24334	-	-750	-	-	-	-	-	-750
5	Chhattisgarh	13000	10500	4000	913	-	-	-	-	-	-	-	-
6	Goa	3354	3054	2000	1450	-	-	100	100	-	-	100	100
7	Gujarat	44780	33280	31054	13554	-	-3000	4000	2500	4500	3300	8500	2800
8	Haryana	30000	25550	30500	20683	3000	1000	8000	5625	4000	2745	15000	8720
9	Himachal Pradesh	6000	3755	4000	1875	-	-	-	-430	1000	570	1000	140
10	Jammu & Kashmir UT	9328	6020	8562	5373	1000	1000	-	-	1250	750	2250	1750
11	Jharkhand	9400	8900	5000	3191	-	-	-	-200	-	-	-	-200
12	Karnataka	69000	61900	59000	49000	-	-	-	-	-	-	-	-
13	Kerala	28566	23066	27000	18120	-	-1000	1500	1500	-	-1000	1500	-1500
14	Madhya Pradesh	45573	38773	22000	13900	-	-	2000	2000	-	-	2000	2000
15	Maharashtra	69000	50022	68750	40790	16000	13500	10000	3500	-	-1800	30000	19200
16	Manipur	1302	1044	1476	1326	250	250	150	150	250	190	650	515
17	Meghalaya	1777	1587	1608	1298	-	-	200	200	200	150	400	350
18	Mizoram	944	677	747	447	150	150	100	100	90	90	340	275
19	Nagaland	1721	1366	1727	1222	-	-	400	400	250	250	650	650
20	Odisha	3000	500	0	-6473	-	-	-	-1000	-	-	-	-2500
21	Puducherry	1390	790	1374	841	-	-	-	-	200	200	200	200
22	Punjab	32995	23467	25814	12428	1500	800	-	-1742	5100	4100	8100	3558
23	Rajasthan	57359	44273	51149	38243	3500	3000	6500	3688	5000	4000	15000	10688
24	Sikkim	1292	1292	1511	1471	-	-	-	-	150	150	150	150
25	Tamil Nadu	87977	76796	87000	72500	-	-622	8000	6150	8000	6500	16000	12028
26	Telangana	43784	37365	45716	38667	-	-420	7000	6370	5000	4370	12000	9375
27	Tripura	1916	1631	300	0	-	-	-	-125	-	-	-	-125
28	Uttar Pradesh	75500	59185	62500	42355	-	-1500	-	-2733	-	-1000	-	-5233
29	Uttarakhand	6200	5208	3200	1800	-	-	-	-	-	-	-	-
30	West Bengal	59680	50180	67390	45199	2500	-	5000	4500	8000	6500	15500	8500
	Grand Total	798816	651777	701626	492483	35290	19218	65450	42183	52990	39175	163230	100936

- : 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	2019-20				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	**238613.6**	**476724.8**	**386450.4**	**530769.8**	**1632558.5**
Per cent of GDP	*4.8*	*9.8*	*7.5*	*10.3*	*8.1*
I. Financial Assets	**398076.7**	**567753.2**	**517351.0**	**924069.3**	**2407250.2**
Per cent of GDP	*8.1*	*11.7*	*10.1*	*18.0*	*12.0*
of which:					
1.Total Deposits (a+b)	12239.0	296625.6	124015.7	451698.3	884578.5
(a) Bank Deposits	-10550.9	278124.4	116211.9	444044.6	827830.0
i. Commercial Banks	-13293.8	269475.4	66666.7	446006.7	768855.0
ii. Co-operative Banks	2742.9	8649.0	49545.2	-1962.1	58975.0
(b) Non-Bank Deposits	22789.9	18501.2	7803.7	7653.7	56748.5
2. Life Insurance Funds	117873.1	108209.1	110373.8	37714.2	374170.2
3. Provident and Pension Funds (including PPF)	104681.1	98426.3	103356.1	193739.0	500202.5
4. Currency	61244.1	-26104.8	86832.6	160690.2	282662.1
5. Investments	43936.8	43018.8	22655.1	-11953.8	97656.9
of which:					
(a) Mutual Funds	23303.5	38382.2	19191.1	-19191.1	61685.7
(b) Equity	18648.2	2172.4	936.2	4981.0	26737.8
6. Small Savings (excluding PPF)	57038.5	46514.1	69053.6	91117.2	263723.4
II. Financial Liabilities	**159463.1**	**91028.5**	**130900.6**	**393299.5**	**774691.7**
Per cent of GDP	*3.2*	*1.9*	*2.6*	*7.7*	*3.9*
Loans (Borrowings) from					
1. Financial Corporations (a+b)	159429.6	90994.9	130867.1	393266.0	774557.6
(a) Banking Sector	140261.4	58074.4	114905.9	196581.1	509822.8
of which:					
Commercial Banks	135754.1	57135.0	87377.4	202214.2	482480.6
(b) Other Financial Institutions	19168.2	32920.5	15961.2	196684.8	264734.8
i. Non-Banking Financial Companies	-519.7	22976.7	29930.7	198264.3	250652.0
ii. Housing Finance Companies	17033.0	8093.1	-15710.4	-3093.1	6322.6
iii. Insurance Companies	2655.0	1850.8	1740.9	1513.6	7760.2
2. Non-Financial Corporations (Private Corporate Business)	33.8	33.8	33.8	33.8	135.1
3. General Government	-0.3	-0.3	-0.3	-0.3	-1.0

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

(Amount in ₹ Crore)

Item	2020-21				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	**600422.5**	**573643.2**	**481433.5**	**719844.5**	**2375343.7**
Per cent of GDP	*15.5*	*12.1*	*8.8*	*12.5*	*12.0*
I. Financial Assets	**805869.5**	**612224.3**	**651241.3**	**1092617.4**	**3161952.5**
Per cent of GDP	*20.8*	*13.0*	*12.0*	*19.0*	*16.0*
of which:					
1.Total Deposits (a+b)	297412.4	278631.7	158172.2	525550.7	1259767.1
(a) Bank Deposits	281191.3	264565.3	147096.0	527056.7	1219909.2
i. Commercial Banks	279010.5	262033.7	143558.6	471730.9	1156333.7
ii. Co-operative Banks	2180.8	2531.6	3537.3	55325.8	63575.6
(b) Non-Bank Deposits	16221.1	14066.4	11076.3	-1506.0	39857.9
2. Life Insurance Funds	123291.4	142365.7	156438.6	141120.0	563215.8
3. Provident and Pension Funds (including PPF)	119666.9	110916.6	108512.2	207604.5	546700.1
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)	55760.7	70924.2	67947.4	86862.2	281494.6
II. Financial Liabilities	**205447.0**	**38581.1**	**169807.8**	**372772.9**	**786608.8**
Per cent of GDP	*5.3*	*0.8*	*3.1*	*6.5*	*4.0*
Loans (Borrowings) from					
1. Financial Corporations (a+b)	205490.3	38624.3	169851.0	372816.9	786782.5
(a) Banking Sector	211058.8	13213.0	139622.0	284732.6	648626.4
of which:					
Commercial Banks	211259.3	13213.8	140514.3	242476.0	607463.5
(b) Other Financial Institutions	-5568.6	25411.3	30229.0	88084.4	138156.1
i. Non-Banking Financial Companies	-15450.4	21627.1	15921.2	61326.1	83424.0
ii. Housing Finance Companies	10516.6	2875.1	13048.5	25336.1	51776.2
iii. Insurance Companies	-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	-77.0	-77.0	-77.0	-77.0	-308.0

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

(Amount in ₹ Crore)

Item	2021-22				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	**519781.2**	**358325.2**	**453302.7**	**636259.8**	**1967668.9**
Per cent of GDP	*10.1*	*6.4*	*7.2*	*9.6*	*8.3*
I. Financial Assets	**382780.7**	**547346.2**	**834009.6**	**796341.7**	**2560478.2**
Per cent of GDP	*7.5*	*9.7*	*13.2*	*12.0*	*10.8*
of which:					
1.Total Deposits (a+b)	-84377.1	202652.1	425821.4	151374.9	695471.4
(a) Bank Deposits	-106507.3	197301.2	422819.5	140297.2	653910.7
i. Commercial Banks	-108037.7	195617.4	418642.9	145510.5	651733.1
ii. Co-operative Banks	1530.4	1683.8	4176.7	-5213.3	2177.6
(b) Non-Bank Deposits	22130.2	5350.9	3001.9	11077.7	41560.7
2. Life Insurance Funds	114617.8	127356.0	103154.9	95681.7	440810.4
3. Provident and Pension Funds (including PPF)	126469.7	108777.0	91543.9	254877.2	581667.9
4. Currency	128660.2	-68631.2	62793.3	146845.0	269667.4
5. Investments	24929.6	82305.4	69760.9	50980.8	227976.7
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)	71423.1	93829.6	79877.9	95524.7	340655.3
II. Financial Liabilities	**-137000.5**	**189021.0**	**380706.9**	**160081.8**	**592809.2**
Per cent of GDP	*-2.7*	*3.4*	*6.0*	*2.4*	*2.5*
Loans (Borrowings) from					
1. Financial Corporations (a+b)	-137021.8	188999.7	380685.6	160060.6	592724.1
(a) Banking Sector	-113662.5	134166.1	320160.2	153323.3	493987.0
of which:					
Commercial Banks	-108061.2	135728.8	317452.5	152364.2	497484.4
(b) Other Financial Institutions	-23359.3	54833.7	60525.5	6737.3	98737.1
i. Non-Banking Financial Companies	-31118.4	28880.1	29479.8	-31016.3	-3774.8
ii. Housing Finance Companies	7132.0	24403.8	29494.8	37436.2	98466.8
iii. Insurance Companies	627.1	1549.8	1550.9	317.4	4045.2
2. Non-Financial Corporations (Private Corporate Business)	33.8	33.8	33.8	33.8	135.1
3. General Government	-12.5	-12.5	-12.5	-12.5	-50.0

Notes: 1. Net Financial Savings of households refer to the flow of net financial assets, which represents change in financial assets held by households minus change in their financial liabilities.
2. Revisions in small savings and PPF are mainly on account of quarterly figures being derived from monthly receipts data sourced from Controller General of Accounts, Government of India.
3. Revisions in bank deposits for 2021-22 are attributed to the lower share of households in total deposits as per BSR-2.
4. Data as ratios to GDP have been calculated based on the Provisional Estimates of National Income 2021-22 released on May 31, 2022.
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-2019	Sep-2019	Dec-2019	Mar-2020
Financial Assets (a+b+c+d)	**16315506.3**	**16632816.5**	**17010694.5**	**17180616.2**
Per cent of GDP	*84.7*	*85.4*	*86.2*	*85.6*
(a) Bank Deposits (i+ii)	8858293.4	9136417.9	9252629.8	9696674.3
i. Commercial Banks	8131543.2	8401018.6	8467685.3	8913692.0
ii. Co-operative Banks	726750.2	735399.2	784944.4	782982.3
(b) Life Insurance Funds	3883609.7	3930727.6	4049902.5	3884771.5
(c) Currency	2010842.9	1984738.1	2071570.7	2232261.0
(d) Mutual Funds	1404631.5	1412654.1	1468727.6	1197092.9
Financial Liabilities (a+b)	**6370092.6**	**6461087.5**	**6591954.6**	**6985220.6**
Per cent of GDP	*33.1*	*33.2*	*33.4*	*34.8*
Loans (Borrowings) from				
(a) Banking Sector	5148115.0	5206189.4	5321095.3	5517676.4
of which:				
i. Commercial Banks	4668496.4	4725631.3	4813008.7	5015222.9
ii. Co-operative Banks	478956.2	479656.9	506946.6	501074.8
(b) Other Financial Institutions	1221977.5	1254898.1	1270859.3	1467544.1
of which:				
i. Non-Banking Financial Companies	451922.3	474899.0	504829.7	703094.0
ii. Housing Finance Companies	673312.1	681405.2	665694.8	662601.7

No. 50 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators (Contd.)

(Amount in ₹ Crore)

Item	Jun-2020	Sep-2020	Dec-2020	Mar-2021
Financial Assets (a+b+c+d)	**18039169.4**	**18606364.4**	**19333484.1**	**20168953.3**
Per cent of GDP	*94.9*	*98.6*	*100.8*	*101.9*
(a) Bank Deposits (i+ii)	9977865.6	10242430.9	10389526.9	10916583.6
i. Commercial Banks	9192702.5	9454736.2	9598294.8	10070025.7
ii. Co-operative Banks	785163.1	787694.7	791232.1	846557.9
(b) Life Insurance Funds	4102000.7	4274424.9	4551882.0	4718718.2
(c) Currency	2434693.7	2455980.6	2547436.6	2614237.0
(d) Mutual Funds	1343752.0	1443784.4	1648999.0	1730461.0
Financial Liabilities (a+b)	**7190710.8**	**7229335.1**	**7399186.1**	**7772003.0**
Per cent of GDP	*37.8*	*38.3*	*38.6*	*39.3*
Loans (Borrowings) from				
(a) Banking Sector	5728735.3	5741948.3	5881570.2	6166302.8
of which:				
i. Commercial Banks	5226482.2	5239696.0	5380210.4	5622686.4
ii. Co-operative Banks	500870.2	500865.3	499968.8	542221.2
(b) Other Financial Institutions	1461975.5	1487386.9	1517615.9	1605700.3
of which:				
i. Non-Banking Financial Companies	687643.6	709270.7	725191.9	786518.0
ii. Housing Finance Companies	673118.3	675993.4	689041.8	714377.9

No. 50 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators (Concld.)

(Amount in ₹ Crore)

Item	Jun-2021	Sep-2021	Dec-2021	Mar-2022
Financial Assets (a+b+c+d)	**20508115.7**	**21057343.4**	**21673261.7**	**22104312.7**
Per cent of GDP	*97.4*	*95.9*	*95.0*	*93.4*
(a) Bank Deposits (i+ii)	10810076.3	11007377.6	11430197.1	11570494.3
i. Commercial Banks	9961988.0	10157605.4	10576248.3	10721758.8
ii. Co-operative Banks	848088.3	849772.1	853948.8	848735.5
(b) Life Insurance Funds	4894238.5	5105262.1	5175997.5	5287980.3
(c) Currency	2742897.3	2674266.1	2737059.4	2883904.4
(d) Mutual Funds	1855000.1	2064363.5	2126112.0	2152140.5
Financial Liabilities (a+b)	**7634981.2**	**7823980.9**	**8204666.6**	**8364727.1**
Per cent of GDP	*36.3*	*35.6*	*36.0*	*35.3*
Loans (Borrowings) from				
(a) Banking Sector	6052640.2	6186806.3	6506966.5	6660289.7
of which:				
i. Commercial Banks	5514625.2	5650354.1	5967806.6	6120170.8
ii. Co-operative Banks	536604.9	535027.3	537720.1	538664.3
(b) Other Financial Institutions	1582341.0	1637174.6	1697700.1	1704437.4
of which:				
i. Non-Banking Financial Companies	755399.6	784279.7	813759.5	782743.2
ii. Housing Finance Companies	721510.0	745913.7	775408.5	812844.7

Notes: 1. Data have been compiled for select financial instruments only (loans from Banking Sector, NBFCs and HFCs) for which data are available.
2. Data as ratios to GDP have been calculated based on the Provisional Estimates of National Income 2021-22 released on May 31, 2022.
3. 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 SWAP arrangement. 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 2020-21 is a moving one, which gets updated every year. REER figures are based on Consumer Price Index (combined). The details on methodology used for compilation of NEER/REER indices are available in December 2005, April 2014 and January 2021 issues of the RBI Bulletin.

Table No. 37

Based on applications for ECB/Foreign Currency Convertible Bonds (FCCBs) which have been allotted loan registration number during the period.

Table Nos. 38, 39, 40 & 41

Explanatory notes on these tables are available in December issue of RBI Bulletin, 2012.

Table No. 43

Part I-A. Settlement systems

1.1.3: Tri- party Repo under the securities segment has been operationalised from November 05, 2018.

Part I-B. Payments systems

4.1.2: 'Others' includes e-commerce transactions and digital bill payments through ATMs, etc.

4.2.2: 'Others' includes e-commerce transactions, card to card transfers and digital bill payments through ATMs, etc.

5: Available from December 2010.

5.1: includes purchase of goods and services and fund transfer through wallets.

5.2.2: includes usage of PPI Cards for online transactions and other transactions.

6.1: Pertain to three grids – Mumbai, New Delhi and Chennai.

6.2: 'Others' comprises of Non-MICR transactions which pertains to clearing houses managed by 21 banks.

Part II-A. Other payment channels

1: Mobile Payments –
- Include transactions done through mobile apps of banks and UPI apps.
- The data from July 2017 includes only individual payments and corporate payments initiated, processed, and authorised using mobile device. Other corporate payments which are not initiated, processed, and authorised using mobile device are excluded.

2: Internet Payments – includes only e-commerce transactions through 'netbanking' and any financial transaction using internet banking website of the bank.

Part II-B. ATMs

3.3 and 4.2: only relates to transactions using bank issued PPIs.

Part III. Payment systems infrastructure

3: Includes ATMs deployed by Scheduled Commercial Banks (SCBs) and White Label ATM Operators (WLAOs). WLAs are included from April 2014 onwards.

Table No. 45

(-): represents nil or negligible

The revised table format since June 2016, incorporates the ownership pattern of State Governments Securities and Treasury Bills along with the Central Government Securities.

State Government Securities include special bonds issued under Ujwal DISCOM Assurance Yojana (UDAY) scheme.

Bank PDs are clubbed under Commercial Banks. However, they form very small fraction of total outstanding securities.

The category 'Others' comprises State Governments, Pension Funds, PSUs, Trusts, HUF/Individuals *etc.*

Table No. 46

GDP data is based on 2011-12 base. GDP data from 2019-20 pertains to the Provisional Estimates of National Income released by National Statistics Office on 29th May 2020. GDP for 2020-21 is from Union Budget 2020-21.
Data pertains to all States and Union Territories.
Total receipts and total expenditure exclude National Calamity Contingency Fund expenditure.
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	
	India	Abroad
1. Reserve Bank of India Bulletin 2022	₹350 per copy (over the counter) ₹400 per copy (inclusive of postage) ₹4,800 (one year subscription - inclusive of postage) ₹3,600 (one year concessional rate*) ₹3,840 (one year subscription - inclusive of postage@) ₹2,880 (one year concessional rate@)	US$ 15 per copy (inclusive of postage) US$ 180 (one-year subscription) (inclusive of air mail courier charges)
2. Handbook of Statistics on the Indian States 2020-21	₹550 (Normal) ₹600 (inclusive of postage)	US$ 24 (inclusive of air mail courier charges)
3. Handbook of Statistics on the Indian Economy 2020-21	₹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 2021-22	₹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 2021-22	₹575 per copy (over the counter) ₹625 per copy (inclusive of postal charges)	US$ 22 per copy (inclusive of air mail courier charges)
6. Report of the committee on Fuller Capital account Convertibility (Tarapore Committee Report II)	₹140 per copy (over the counter) ₹170 per copy (inclusive of postal charges)	US$ 25 per copy (inclusive of air mail courier charges)
7. Banking Glossary (2012)	₹80 per copy (over the counter) ₹120 per copy (inclusive of postal charges)	
8. Anuvad Ke Vividh Aayam (Hindi)	₹165 per copy (over the counter) ₹205 per copy (inclusive of postal charges)	
9. Bank Me Rajbhasha Niti Ka Karyanvayan: Dasha Aur Disha (Hindi)	₹150 per copy (over the counter) ₹200 per copy (inclusive of postal charges)	
10. Reserve Bank of India Occasional Papers Vol. 41, No. 2, 2020	₹200 per copy (over the counter) ₹250 per copy (inclusive of postal charges)	US$ 18 per copy (inclusive of air mail courier charges)
11. Reserve Bank of India Occasional Papers Vol. 42, No. 1, 2021	₹200 per copy (over the counter) ₹250 per copy (inclusive of postal charges)	US$ 18 per copy (inclusive of air mail courier charges)
12. Perspectives on Central Banking Governors Speak (1935-2010) Platinum Jubilee	₹1400 per copy (over the counter)	US$ 50 per copy (inclusive of air mail courier charges)

Notes

1. Many of the above publications are available at the RBI website (www.rbi.org.in).
2. Time Series data are available at the Database on Indian Economy (http://dbie.rbi.org.in).
3. The Reserve Bank of India History 1935-1997 (4 Volumes), Challenges to Central Banking in the Context of Financial Crisis and the Regional Economy of India: Growth and Finance are available at leading book stores in India.

* Discount of 25% is available for students, teachers/lecturers, academic/education institutions, public libraries and Booksellers in India provided the proof of eligibility is submitted from institution.

@ In order to promote electronic payments it has been decided to offer 20% discount to domestic subscribers who are willing to pay through NEFT.

General Instructions

1. Publications once sold will not be taken back.
2. Publications will not be supplied on a consignment VPP basis.
3. Wherever concessional price is not indicated, a discount of 25 per cent is available for students, teachers/lecturers, academic/education institutions, public libraries and book sellers in India provided the proof of eligibility is submitted from the concerned institution. Back issues of the publication are generally not available.
4. The publications are available for sale (Monday to Friday), at Sales Section, Division of Reports and knowledge dissemination, Department of Economic and Policy Research, Reserve Bank of India, Amar Building, Ground Floor, Sir P. M. Road, Fort, P. B. No.1036, Mumbai - 400 001. The contact number of Sales Section is 022-2260 3000 Extn.: 4002, Email: spsdepr@rbi.org.in.
5. Subscription should be made preferably by NEFT & forwarding letter enclosing NEFT details should be addressed to the Director, Division of Reports and knowledge dissemination, Department of Economic and Policy Research, Reserve Bank of India, Amar Building, Ground Floor, Sir P. M. Road, Fort, P. B. No.1036, Mumbai - 400 001.

   Following information is required to be filled in NEFT form by you:

Beneficiary Name	Department of Economic and Policy Research, RBI
Name of the Bank	Reserve Bank of India
Branch and addess	Fort, Mumbai
IFSC of Bank Branch	RBIS0MBPA04
Type of Account	Current Account
Account Number	41-8024129-19
Sender to reciver information	Name of Subscriber..... Subscriber No. .....

6. Every endeavour will be made to despatch publications expeditiously. In case of rush of orders, dispatch will be executed on a first-come first-served basis. It may take a minimum of a month's time to complete formalities and then to dispatch the available publications. Complaints regarding 'non-receipt of publication' may be sent **within a period of 2 months**.
7. **Kindly send your subscription number, name, address, and email id to spsdepr@rbi.org.in enabling us to communicate with you in an efficient manner.**