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GOVERNOR'S STATEMENT

Governor's Statement

Governor's Statement*

Shaktikanta Das

In my statement of April 8, 2022 I had referred to the tectonic shifts caused by the conflict in Europe which had created fresh challenges for global growth and the conduct of monetary policy. As the war draws on and sanctions and retaliatory actions intensify, shortages, volatility in commodity and financial markets, supply dislocations and, most alarmingly, persistent and spreading inflationary pressures are becoming more acute with every passing day. Debt distress is rising in the developing world amidst capital outflows and currency depreciations. Recent GDP releases suggest that the global economic recovery is losing pace.

Amidst these challenges, which I termed as humongous in my April statement, the Indian economy has shown resilience, drawing upon the innate strength of its underlying fundamentals and supported by a prudent and favourable policy mix. In the conduct of monetary policy, we have demonstrated our resolve not to be bound by any rulebook and our preparedness to decisively deploy the full range of tools – conventional and unconventional. By remaining accommodative, monetary policy continues to foster congenial financial conditions to support growth and mitigate the adverse effects of the geopolitical crisis. As a result, the Indian economy has managed to weather the shock so far. Reassuringly, we have also been able to preserve macro-financial stability, despite the synchronised shocks of commodity prices, supply disruptions and higher inflation unleashed by the war. Confronted by elevated inflationary pressures that have shifted the future trajectory of inflation upwards, we have announced our intention to engage in withdrawal of accommodation to ensure that

inflation remains aligned to the target. As I had stated in the April monetary policy statement, our actions will be calibrated to the rapidly evolving situation so that the impulses of growth are preserved and strengthened. Our journey is best reflected in the words of the famous Greek philosopher Epictetus: "The trials you encounter will introduce you to your strengths. Remain steadfast...and one day you will build something that endures."¹

As we navigate through this difficult period, it is necessary to be sensitive to the new realities and incorporate them into our thinking. In its World Economic Outlook of April 2022, the International Monetary Fund (IMF) has noted: "The economic effects of the war are spreading far and wide – like seismic waves that emanate from the epicentre of an earthquake – mainly through commodity markets, trade, and financial linkages."² It is, however, important to recognise that, despite our strengths and our buffers, India is not an island in this globally connected world. There was a spike in the headline CPI inflation in March, 2022 as anticipated in the April policy statement. The print for April is also expected to be elevated. There is the collateral risk that if inflation remains elevated at these levels for too long, it can de-anchor inflation expectations which, in turn, can become self-fulfilling and detrimental to growth and financial stability. Hence, we must remain in readiness to use all policy levers to preserve macroeconomic and financial stability while enhancing the economy's resilience. I reiterate that the situation is dynamic and fast changing and our actions have to be tailored accordingly.

Decisions and Deliberations of the Monetary Policy Committee

Against this backdrop, the Monetary Policy Committee (MPC) decided to hold an off-cycle

¹ Source: Epictetus, Greek Philosopher 55-135 AD [The Art of Living]

² World Economic Outlook, April 2022, International Monetary Fund.

meeting on 2nd and 4th May, 2022 to reassess the evolving inflation-growth dynamics and the impact of the developments after the MPC meeting of April 6-8, 2022. Based on this assessment of the macroeconomic situation and the outlook, the MPC voted unanimously to increase the policy repo rate by 40 basis points to 4.40 per cent, with immediate effect. Consequently, the standing deposit facility (SDF) rate stands adjusted to 4.15 per cent; and the marginal standing facility (MSF) rate and the Bank Rate to 4.65 per cent. The MPC also decided unanimously to remain accommodative while focusing on withdrawal of accommodation to ensure that inflation remains within the target going forward, while supporting growth.

I would now like to set out the rationale behind the MPC's decision and stance. Globally, inflation is rising alarmingly and spreading fast. Geopolitical tensions are ratcheting up inflation to their highest levels in the last 3 to 4 decades in major economies while moderating external demand. Global crude oil prices are ruling above US\$ 100 per barrel and remain volatile. Global food prices touched a new record in March and have firmed up even further since then. Inflation sensitive items relevant to India such as edible oils are facing shortages due to the conflict in Europe and export bans by key producers. The jump in fertiliser prices and other input costs has a direct impact on food prices in India. Further, the normalisation of monetary policy in major advanced economies is now expected to gain pace significantly – both in terms of rate increases and unwinding of quantitative easing as well as rollout of quantitative tightening. These developments would have ominous implications for emerging economies, including India. Meanwhile, COVID-19 infections and lockdowns in major global production hubs are likely to accentuate global supply chain bottlenecks while depressing growth. In fact, global growth projections have been revised downwards by up to 100 basis points for this calendar year. These dynamics pose upside risks

to India's inflation trajectory set out in the MPC resolution of April 2022.

Further, the MPC noted that domestic economic activity is progressing broadly on the lines anticipated in April. Contact-intensive services are benefitting from pent-up demand and investment activity is showing some signs of gaining traction. At the same time, the MPC judged that the inflation outlook warrants an appropriate and timely response through resolute and calibrated steps to ensure that the second-round effects of supply side shocks on the economy are contained and long-term inflation expectations are kept firmly anchored. In the MPC's view, monetary policy response at this juncture would help to preserve macro-financial stability amidst increasing volatility in financial markets. Accordingly, the MPC decided to increase the policy repo rate by 40 basis points in its meeting today; it also decided to remain accommodative while focusing on withdrawal of accommodation to ensure that inflation remains within the target going forward, while supporting growth.

Outlook for Growth and Inflation

Growth

In this high-voltage global environment, it is useful to take stock of the domestic macroeconomic and financial conditions. The rebound in domestic economic activity that took hold with the ebbing of the Omicron wave is turning out to be increasingly broad-based. Private consumption is regaining traction on the back of recuperating contact-intensive services and rising discretionary spending. The forecast of a normal southwest monsoon in 2022 for the fourth successive year has brightened agricultural prospects and this should support rural consumption. There are also signs of an incipient revival taking place in the investment cycle. This is reflected in high-frequency indicators like imports and production of capital goods; rising capacity utilisation supported by conducive

financial conditions; and stronger corporate balance sheets. Export growth has remained buoyant while persisting high growth in non-oil non-gold imports reflects a durable revival in domestic demand.

Even as the drivers of domestic economic activity are getting stronger, they face headwinds from global spillovers in the form of protracted and intensifying geopolitical tensions; elevated commodity prices; COVID-19 related lockdowns or restrictions in some major economies; slowing external demand; and tightening global financial conditions on the back of monetary policy normalisation in advanced economies. These risks are evolving on the lines anticipated in the April 2022 statement and appear to be lingering.

Inflation

The sharp acceleration in headline CPI inflation in March 2022 to 7 per cent was propelled, in particular, by food inflation due to the impact of adverse spillovers from unprecedented high global food prices. Nine out of the twelve food sub-groups registered an increase in inflation in March. High frequency price indicators for April indicate the persistence of food price pressures. Simultaneously, the direct impact of the increases in domestic pump prices of petroleum products – beginning the second fortnight of March – is feeding into core inflation prints and is expected to have intensified in April.

Looking ahead, food inflation pressures are likely to continue. Food price indices of the Food and Agriculture Organisation (FAO) and the World Bank touched historical highs in March and remain elevated. Spillovers from global wheat shortages are impacting domestic prices, even though domestic supply remains comfortable. Prices of edible oils may firm up further due to export restrictions by key producing countries and the loss of sunflower oil output due to the war. Elevated feed costs are translating into escalation in poultry, milk and dairy product prices. International

crude oil prices continue to hover above US\$ 100 per barrel and this is prompting pass-through to domestic pump prices. The risks of unprecedented input cost pressures translating into yet another round of price increases for processed food, non-food manufactured products and services are now more potent than before. This could strengthen corporate pricing power if margins get squeezed inordinately. To sum up, the strengthening of inflationary impulses in sync with the persistence of adverse global price shocks poses upward risks to the inflation trajectory presented in the April MPC resolution.

In these circumstances, it is necessary for monetary policy to focus on the withdrawal of accommodation. It may be recalled that in response to the pandemic, monetary policy had shifted gears to an ultra-accommodative mode, with a large reduction of 75 basis points in the policy repo rate on March 27, 2020 followed by another reduction of 40 basis points on May 22, 2020. Accordingly, the decision of the MPC today to raise the policy repo rate by 40 bps to 4.40 per cent may be seen as a reversal of the rate action of May 22, 2020 in keeping with the announced stance of withdrawal of accommodation set out in April 2022.

Liquidity and Financial Market Conditions

In April, several liquidity management measures were taken in alignment with the shift in the monetary policy stance, including restoration of a symmetric LAF corridor around the policy repo rate and the introduction of the standing deposit facility (SDF). These measures operationalise the primacy accorded to maintaining price stability, while keeping in mind the objective of growth. Monetary policy has to engender an environment in which inflation persistence is broken and inflation expectations are re-anchored. Headroom for this reordering of priorities is becoming available with the receding of the pandemic and the steady broad basing of growth as economic activity regains and surpasses pre-pandemic levels.

Liquidity conditions need to be modulated in line with the policy action and stance to ensure their full and efficient transmission to the rest of the economy. Since the April policy announcement, banking system liquidity has remained comfortable. Average surplus liquidity in the banking system – reflected in total absorption through SDF and variable rate reverse repo (VRRR) auctions – amounted to ₹7.5 lakh crore during April 8-29, 2022. The large liquidity overhang in the form of daily surplus funds parked under the SDF (average of ₹2.0 lakh crore during April 8-29, 2022) has resulted in the weighted average call money rate (WACR) – the operating target of monetary policy – dipping below the SDF rate. The favourable response of banks as evident in bid-cover ratios of 14-day and 28-day VRRR auctions as well as the USD/INR sell-buy swap auction conducted on April 26 also suggest that system-level liquidity remains ample. Therefore, in keeping with the stance of withdrawal of accommodation and in line with the earlier announcement of gradual withdrawal of liquidity over a multi-year time frame, it has been decided to increase the cash reserve ratio (CRR) by 50 basis points to 4.5 per cent of net demand and time liabilities (NDTL), effective from the fortnight beginning May 21, 2022. The withdrawal of liquidity through this increase in the CRR would be of the order of ₹87,000 crore.

Sustained high inflation inevitably hurts savings, investment, competitiveness and output growth. It has pronounced adverse effects on the poorer segments of the population by eroding their purchasing power. I would, therefore, like to emphasise that our monetary policy actions today – aimed at lowering inflation and anchoring inflation expectations – will strengthen and consolidate the medium-term growth prospects of the economy. We remain mindful of the possible near-term impact of higher interest rates on output. Our actions will, therefore, be calibrated. I would like to further stress that monetary policy remains accommodative and our approach will be to focus on a

careful and calibrated withdrawal of pandemic-related extraordinary accommodation, keeping in mind the inflation-growth dynamics. It is reiterated that the RBI will ensure adequate liquidity in the system to meet the productive requirements of the economy in support of credit offtake and growth.

External Sector

India's external sector has remained resilient amidst formidable global headwinds. Provisional data suggest that India's merchandise exports remained strong in April 2022 and services exports reached a new high in March 2022. Potential market opportunities have opened up due to geopolitical conditions and the recent trade agreements. Strong revenue guidance by major information technology (IT) companies also bodes well for the overall external sector outlook in 2022-23. The worsening of terms of trade, driven by higher commodity prices could have implications for the current account deficit in 2022-23, but it is expected to be comfortably financed. Net foreign direct investment flows have remained robust, despite some recent moderation. Long term flows such as external commercial borrowings also remain stable. India's foreign exchange reserves are sizeable with net forward assets providing a strong back-up. The external debt to GDP ratio remains low at 20 per cent.

Concluding Remarks

The last two years are a saga of our determined fight against the daunting challenges posed by the pandemic and now the war. We rose to these challenges to safeguard the economy and the financial system from a maelstrom of shocks. We now stand at a crucial juncture once again. We, in the RBI, remain steadfast in our commitment to contain inflation and support growth. Inflation must be tamed in order to keep the Indian economy resolute on its course to sustained and inclusive growth. The biggest contribution to

overall macroeconomic and financial stability as well as sustainable growth would come from our effort to maintain price stability.

As several storms hit together, our actions today are important steps to steady the ship. We remain watchful of incoming data and information to constantly reassess the situation and the outlook. We will be proactive and flexible in our approach. Despite challenges, it is comforting to note that the fundamentals of our economy remain strong and we are well placed to deal with the situation emanating from the global developments. The IMF

has also recently pointed out that the macroeconomic management of the pandemic in India has resulted in a strong recovery and the country is in a good position to face the current external shock.³ Let me repeat what I have said earlier – I am an eternal optimist. My colleagues in the RBI and I strongly believe that our chosen path will guide us to a better and brighter tomorrow. As Mahatma Gandhi said: "I have had my share of disappointments, uttermost darkness, but I am able to say that my faith...has ultimately conquered every one of these difficulties."⁴

Thank you. Stay safe. Stay well. Namaskar.

³ <https://www.thehindu.com/news/national/india-in-much-better-place-to-face-ukrainian-crisis-imf-official/article65340653.ece>

⁴ Young India, 20-12-1928, p. 420.

MONETARY POLICY STATEMENT FOR 2022~23

Resolution of the Monetary Policy Committee (MPC)
May 2 and 4, 2022

Monetary Policy Statement, 2022-23 Resolution of the Monetary Policy Committee (MPC)*

On the basis of an assessment of the current and evolving macroeconomic situation, the Monetary Policy Committee (MPC) at its meeting today (May 4, 2022) decided to:

- Increase the policy repo rate under the liquidity adjustment facility (LAF) by 40 basis points to 4.40 per cent with immediate effect.

Consequently, the standing deposit facility (SDF) rate stands adjusted to 4.15 per cent and the marginal standing facility (MSF) rate and the Bank Rate to 4.65 per cent.

- The MPC also decided to remain accommodative while focusing on withdrawal of accommodation to ensure that inflation remains within the target going forward, while supporting growth.

These decisions are in consonance with the objective of achieving the medium-term target for consumer price index (CPI) inflation of 4 per cent within a band of +/- 2 per cent, while supporting growth.

The main considerations underlying the decision are set out in the statement below

Assessment

Global Economy

2. Since the MPC's meeting in April 2022, disruptions, shortages and escalating prices induced by the geopolitical tensions and sanctions have persisted and downside risks have increased. The

International Monetary Fund (IMF) has revised down its forecast of global output growth for 2022 by 0.8 percentage point to 3.6 per cent, in a span of less than three months. The World Trade Organization has scaled down projection of world trade growth for 2022 by 1.7 percentage points to 3.0 per cent.

Domestic Economy

3. Domestic economic activity stabilised in March-April with the ebbing of the third wave of COVID-19 and the easing of restrictions. Urban demand appears to have maintained expansion but some weakness persists in rural demand. Investment activity seems to be gaining traction. Merchandise exports recorded double digit expansion for the fourteenth consecutive month in April. Non-oil non-gold imports also grew robustly on the back of improving domestic demand.
4. Overall system liquidity remained in large surplus. Bank credit rose (y-o-y) by 11.1 per cent as on April 22, 2022. India's foreign exchange reserves declined by US\$ 6.9 billion in 2022-23 (up to April 22) to US\$ 600.4 billion.

5. In March 2022, headline CPI inflation surged to 7.0 per cent from 6.1 per cent in February, largely reflecting the impact of geopolitical spillovers. Food inflation increased by 154 basis points to 7.5 per cent and core inflation rose by 54 bps to 6.4 per cent. The rapid rise in inflation is occurring in an environment in which inflationary pressures are broadening across the world. The IMF projects inflation to increase by 2.6 percentage points to 5.7 per cent in advanced economies in 2022 and by 2.8 percentage points to 8.7 per cent in emerging market and developing economies.

Outlook

6. Heightened uncertainty surrounds the inflation trajectory, which is heavily contingent upon the evolving geopolitical situation. Global commodity price dynamics are driving the path of food inflation

* Released on May 4, 2022.

in India, including prices of inflation sensitive items that are impacted by global shortages due to output losses and export restrictions by key producing countries. International crude oil prices remain high but volatile, posing considerable upside risks to the inflation trajectory through both direct and indirect effects. Core inflation is likely to remain elevated in the coming months, reflecting high domestic pump prices and pressures from prices of essential medicines. Renewed lockdowns and supply chain disruptions due to resurgence of COVID-19 infections in major economies could sustain higher logistics costs for longer. All these factors impart significant upside risks to the inflation trajectory set out in the April statement of the MPC.

7. As regard the outlook for domestic economic activity, the forecast of a normal southwest monsoon brightens the prospects for kharif production. The recovery in contact-intensive services is expected to be sustained, with the ebbing of the third wave and the growing vaccination coverage. Investment activity should get an uplift from robust government capex, improving capacity utilisation, stronger corporate balance sheets and congenial financial conditions. On the other hand, the worsening external environment, elevated commodity prices and persistent supply bottlenecks pose formidable headwinds, along with volatility spillovers from monetary policy normalisation in advanced economies. On balance, the Indian economy appears capable of weathering the deterioration in geopolitical conditions but it is prudent to continuously monitor the balance of risks.

8. Against this background, the MPC is of the view that while economic activity is navigating the vortex of forces confronting the world with resilience on the strength of underlying fundamentals and buffers, the risks to the near-term inflation outlook are rapidly materialising, as reflected in the inflation print for March and the developments thereafter. In this milieu, the MPC expects inflation to rule at elevated levels, warranting resolute and calibrated steps to anchor inflation expectations and contain second round effects. Accordingly, the MPC decided to increase the policy repo rate by 40 basis points to 4.40 per cent. The MPC also decided to remain accommodative while focusing on withdrawal of accommodation to ensure that inflation remains within the target going forward, while supporting growth.

9. All members of the MPC – Dr. Shashanka Bhide, Dr. Ashima Goyal, Prof. Jayanth R. Varma, Dr. Rajiv Ranjan, Dr. Michael Debabrata Patra and Shri Shaktikanta Das – unanimously voted to increase the policy repo rate by 40 basis points to 4.4 per cent.

10. All members, namely, Dr. Shashanka Bhide, Dr. Ashima Goyal, Prof. Jayanth R. Varma, Dr. Rajiv Ranjan, Dr. Michael Debabrata Patra and Shri Shaktikanta Das unanimously voted to remain accommodative while focusing on withdrawal of accommodation to ensure that inflation remains within the target going forward, while supporting growth.

11. The minutes of the MPC's meeting will be published on May 18, 2022.

12. The next meeting of the MPC is scheduled during June 6-8, 2022.

SPEECH

Resolution of Stressed Assets and IBC
M. Rajeshwar Rao

*Resolution of Stressed Assets and IBC**

M. Rajeshwar Rao

Hon'ble Minister of State for Corporate Affairs
Shri Rao Inderjit Singh, Shri Rajesh Verma, Secretary,
Ministry of Corporate Affairs, Shri Ravi Mittal,
Chairman, IBBI, Shri Sudhakar Shukla, Whole Time
Member, IBBI, distinguished guests, panelists and
researchers, Ladies and Gentlemen,

At the outset, let me express my gratitude to the organisers for inviting me to deliver the keynote address in this conference. This conference quite appropriately focuses on one of the most important facets of a robust financial system – resolution of stressed assets. It would not be an understatement if I were to say that India has been witnessing a paradigm shift in the regulatory architecture concerning resolution of stressed assets over the past few years. The Insolvency and Bankruptcy Code (IBC) has had profound impact on the creditor-debtor relationship in India. It's been a bit more than five years since the provisions related to corporate insolvency resolution process (CIRP) under the Code were notified and implemented, and it provides a window for stock taking of the progress achieved so far and the expectations about the future.

Insolvency and its resolution

For any lender, the credit risk i.e., the possibility of not receiving the timely repayment of the contracted amount or of the counterparty not honouring its obligations in respect of the credit contract, constitutes a significant risk which need

to be covered by maintaining adequate capital and risk provisions. In principle, a borrower defaults when he is either unable to pay his creditors because of inadequate cash flows from his business or the market value of his assets falls below the value of his liabilities which hinders his capability to liquidate his assets and pay off creditors to ensure that no default takes place. In such a situation, the borrower is said to have become insolvent. Unfortunately, in real-world situations, it is not easy to ascertain whether a borrower has become insolvent till the time a default occurs. Mostly, by then, the marketable value of the assets of the borrower would have already fallen below its liabilities. As liabilities of the borrower are the assets of the lender, the inability of the borrower to pay its liabilities will reduce the value of the assets of the lender thereby impacting their ability to repay their creditors, which primarily includes depositors in the case of banks. This is the main reason why RBI is interested in timely resolution of stressed assets by the regulated entities. Even where the lender is not a bank, the interconnectedness of the financial system would lead to second order effects that would adversely impact the financial system.

Once a borrower becomes insolvent, the natural instinct of creditors is to cut their losses by rushing for the biggest possible piece of the remaining pie of marketable assets of the concerned borrower. However, we also need to bear in mind the fact that a state of insolvency does not mean that the future prospects of the borrower are non-existent – in many cases a judicious rebalancing of debt would suffice to bring it back on track – unless the financial stress is extremely acute. Almost always, a going concern should be more valuable to a creditor than a liquidated company. It is in this context that a comprehensive insolvency resolution legislation assumes importance.

As such, an efficient insolvency legislation should be premised on following five pillars:

* Remarks delivered by Shri M. Rajeshwar Rao, Deputy Governor, Reserve Bank of India – April 30, 2022 - in the International Research Conference on Insolvency and Bankruptcy held at IIM, Ahmedabad. The inputs provided by Vaibhav Chaturvedi, Sooraj Menon and Pradeep Kumar are gratefully acknowledged.

- I. It should prioritise going concern status over liquidation.
- II. It should force the creditors to come together and work out a resolution plan that tries to preserve the value by looking at the options to keep the company as a going concern.
- III. It should ensure a time bound resolution so that value deterioration for the creditors of an insolvent exposure is arrested.
- IV. It must provide claw back of questionable transactions that may have contributed to the financial stress of the defaulting borrower.
- V. Finally, an effective resolution regime should protect the majority from the minority by forcing a cramdown if the majority decision covers a predefined threshold of approval.

In addition to the above five principles, the resolution framework should also distinguish between various classes of financial creditors based on the quality of security available to them since the initial pricing of the credit instrument may have factored in the availability of security, and the lender stands to lose if such security is not reckoned while assessing the share in resolution value. In the absence of such an accommodation, creditors are likely to demand higher compensation for credit risks that they are taking, thereby increasing the overall credit costs in the economy.

While any resolution framework should prioritise preserving the value of the firm, at the same time, "going concern over liquidation" cannot be an absolute preference. In case of borrowers deploying unproductive or outdated factors of production, liquidation can help unlock the value stuck in such ventures and then be recycled to aid more efficient and productive ventures. In the absence of "ease of exit", overall production capacity in an economy will

be held hostage to inefficient business ventures and prevent the economy from reaching to its potential. Thus, an effective insolvency legislation should not shy away from liquidating ventures when they are perceived to be costlier to the society and that it would be more beneficial to unlock the value for redeployment.

Insolvency resolution prior to 2016

Prior to the enactment of IBC in 2016, India had a plethora of legislations, each having part jurisdiction over the process of insolvency resolution of a borrower. The Sick Industrial Companies Act (SICA) was enacted in 1985 and Board for Industrial Financial Reconstruction (BIFR) was set up. Subsequently, DRTs were set-up under the Recovery of Debts Due to Banks and Financial Institutions Act, 1993 (since rechristened as Recovery of Debts and Bankruptcy Act, 1993). In 2002, the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act (SARFAESI) was enacted to provide for faster enforcement of security interest without the intervention of courts.

While these laws had a positive impact on the resolution of stressed assets in the initial period after their enactment, improvements tapered off over time. Moreover, the focus of the pre-IBC resolution efforts was more towards preservation of companies and employment, sometimes even at the expense of credit discipline and production efficiency of the economy.

As mentioned earlier, timely resolution of stressed assets, especially by deposit taking institutions is of key interest to the RBI. In the absence of a comprehensive insolvency law in place, RBI had to put in place a series of schemes that emulated desirable features of an insolvency legislation. Thus, the earlier regulations mandated formation of Joint Lenders' Forum, which had a similar role to play as the Committee of Creditors under the IBC. The asset classification standstill was comparable to the moratorium pronounced under

IBC. The requirement of the majority decision being binding on the dissenting creditors was a regulatory equivalent of the statutory cramdown under IBC.

However, the statutory powers available to RBI for resolution of stressed assets in the financial system are limited to the entities regulated by RBI whereas unravelling of the complex web of financial contracts and rewriting them in consonance with the income generating capabilities of an insolvent debtor required a comprehensive statutory framework with sweeping powers over various types of creditors. Though well-intentioned, the schemes designed by RBI sometimes became a channel for lenders to delay recognition of financial stress in the borrowers by postponing the actual asset classification.

Paradigm shift under IBC

The enactment of IBC in 2016 resulted in a paradigm shift in the efforts towards resolution of stressed assets in the financial system. The Code marked a radical departure from the prevalent approaches in that it embraced the "creditor-in-control" model as against the "debtor-in-possession" model that had failed to produce any tangible improvements in the credit discipline in the country. Thus, the Code fundamentally reset the power balance between debtors and creditors in the face of a default by the debtors. This approach is economically sound since creditors only have the contractually agreed share of the economic surplus created by a borrower with the rest of the surplus going to equity holders without any limits till a default occurs. At that point the equity holders are protected by limited liability while the creditors stand to lose up to the entirety of their exposure to the insolvent debtor. In a single stroke, the Code removed "the divine right of promoters to continue in saddle", as had been observed by the Hon'ble Supreme Court, restoring the interests of other stakeholders, especially the creditors.

The insertion of Section 29A provided further fillip to the notion that an insolvent debtor has to be protected from its own management, if required, for the maximisation of value from the debtor to the society as a whole. Thus, for the first time, the promoters faced with the possibility of losing control of their respective companies if financial stress is not addressed in a timely and comprehensive manner.

The Code also established Committee of Creditors as a public institution with the paramount responsibility of ensuring maximisation of value for stakeholders during the resolution of a corporate debtor. That the Committee of Creditors, which consists only of financial creditors, has to treat their individual interests as subservient to the larger public interest is a unique feature of the Code as compared to similar legislations elsewhere.

The Code also enhanced the negotiating power of operational creditors by allowing them also to make applications for initiating CIRP in respect of operational debtors who are in default. Of the total CIRP cases as on December 31, 2021, over 51% of the cases had been filed by operational creditors. Such cases had higher proportion of withdrawals as well – at over 50%, constituting 71% of the total withdrawal cases – indicating that filing of insolvency proceedings as a negotiating tactic appears to be working for operational creditors.

There have been some concerns about the high levels of haircuts that creditors have had to take in resolutions that happened under IBC. In these discussions, we miss the fact that in a public auction-based resolution model, the extent of haircut represents the discount the market demands in continuing to invest in an insolvent borrower. Since significant value deterioration may have happened to the assets of the insolvent borrower, comparison with the outstanding amount may not be a reasonable indicator to evaluate the effectiveness of resolution.

Rather, the resolution values must be compared with the next best alternative for the creditors, which in this case is liquidation. Of the CIRP cases that have yielded resolution, financial creditors have been able to realise 166% in comparison to the liquidation value of the debtors indicating that creditors have been better-off than the next logical outcome.

Another often ignored aspect relating to the impact of the Code is the credible 'threat of insolvency'. A key metric for assessing this impact is the number of CIRP applications that are withdrawn before admission. Till December 2021, 19,803 applications for initiation of CIRPs having total underlying default of ₹6.1 lakh crore were resolved before admission. In the absence of the Code, it is most likely that these defaults would have lingered on for much longer, resulting in value destruction.

RBI and IBC

Even though RBI does not have any direct role to play in the CIRP under the Code, the RBI regulated lending system is an important stakeholders of an effective bankruptcy law. With the increasing levels of credit disintermediation, IBC becomes the most preferred tool available for a comprehensive resolution of debtors.

The fact, that the Code can be leveraged to give an impetus to resolution of long-standing stress was recognised almost immediately after the notification of the provisions related to CIRP under the Code. This culminated in the Banking Regulation (Amendment) Act, 2017 which vested powers on the RBI to issue directions to banks for referring specific default cases for resolution under IBC. Under these powers, as is now widely known, the RBI issued directions in June 2017, to the banks to initiate insolvency proceedings under IBC in respect of 12 largest debtors which were classified as NPA. These were followed by another set of directions in August 2017, where the banks

were directed to implement time-bound resolution plans in respect of another 29 corporate borrowers in default, failing which insolvency proceedings had to be initiated against them.

The enactment of IBC and the default event being the trigger for initiating insolvency proceedings under the statute forced a rethink of the regulatory trigger for mandatory resolution as well. We replaced all the prevailing schemes for restructuring with a simple and harmonised Prudential Framework for Resolution of Stressed Assets (Prudential Framework) which was issued on June 7, 2019, which enshrined the following fundamental principles:

- Early recognition and reporting of default in respect of large borrowers by banks, FIs and NBFCs.
- Complete discretion to lenders with regard to design and implementation of resolution plans, subject to the specified timeline and independent credit evaluation.
- A system of disincentives in the form of additional provisioning for delay in implementation of resolution plan or initiation of insolvency proceedings.
- Withdrawal of asset classification dispensations on restructuring. Future upgrades to be contingent on a meaningful demonstration of satisfactory performance for a reasonable period.
- For the purpose of restructuring, the definition of 'financial difficulty' was aligned with the guidelines issued by the Basel Committee on Banking Supervision; and,
- Signing of inter-creditor agreement (ICA) by all lenders was made mandatory, which will provide for a majority decision making criteria.

The approach of RBI towards resolution of stressed assets outside IBC has been to incentivise timely initiation of resolution efforts; proper recognition of increased credit risk to the lenders on account of the concessions granted in the form of debt recast; and the borrowers are required to demonstrate that the concessions have improved their viability by performing satisfactorily on their debt obligations during a reasonable period subsequent to the debt recast.

Expectations from the Insolvency framework

A modern insolvency law such as the IBC deserves support and patience from all stakeholders and the attitude towards the new piece of law should not be influenced merely by losses materialised in respect of resolution of assets that have been stressed for long. At the same time, it is necessary to continue improving the regulatory regime for out-of-court resolutions through suitable harmonisation of the regimes across various classes of regulated entities as well as periodic review of the framework to keep pace with the changes in the economy and financial system. I feel that to strengthen the Code further, we need to work on following four dimensions:

A. The big picture in resolution: A comprehensive law like the IBC is often viewed as a last resort by the lenders – an avenue that needs to be explored after exhausting all alternatives. However, this view stems from the lack of a comprehensive vision for the future of a beleaguered borrower. Various classes of lenders are governed by disjoined set of out-of-court resolution frameworks that applies separately to each class of lender. Without participation of all lenders, any effort towards resolution is likely to be incomplete and would be a mere postponement of the inevitable reckoning. The time lost in

pursuing such incomplete resolutions is likely to compound the eventual losses to the creditors and costs to the financial system. Since this is a research conference, I would like to propose a research question: what is the average time taken between default by a borrower and the eventual filing of application for insolvency resolution by the creditors? It would also be interesting to see the relationship between such filing delays and the value deterioration that the creditors are required to recognise subsequently.

- B. Delays in admission of insolvency applications:** Another disconcerting aspect is the time taken between filing of an insolvency application and the eventual admission of the application. The Code prescribes a period of 14 days. However, in reality, the admission usually takes a much longer time than that. A consultation paper released by the IBBI on April 13, 2022, notes that average time taken for admission of an insolvency application by an operational creditor has increased from 468 days in 2020-21 to 650 days in 2021-22. This is longer than even the stipulated deadline for completion of a CIRP under the Code. Such delays in admission are likely to reduce the efficiency of IBC as a comprehensive bankruptcy law and may weaken the creditor rights and ease of exit for bankrupt borrowers. Here is another research question: the factors driving the delays in admission of insolvency applications and the chances of the creditors whose applications are thus delayed resorting to IBC subsequently to resolve their stressed assets.
- C. Increase in the coverage of pre-pack resolutions:** Like any piece of legislation, IBC also needs to evolve with the changing

economic fundamentals. The present review architecture in the form of Standing Committee on Insolvency Law has been doing an exemplary job of ensuring the same, guided by the able regulatory capabilities of IBBI. The new dimensions being introduced to the IBC such as the new module of the pre-packaged insolvency resolution process (PPIRP/pre-packs) which combines the best of the out-of-court resolution efforts and the judicial finality of a resolution plan approved by an Adjudicating Authority are welcome initiatives. Even though PPIRP has been presently allowed only for borrowers that are classified as micro, small and medium enterprises, we could envision pre-packs as a natural complement to the Prudential Framework of RBI in respect of all borrowers in that difficult resolution involving non-cooperative lenders can be resolved using such pre-packaged plans. It would be worthwhile to consider extending PPIRP to all borrowers.

- D. Group Resolutions :** Another important dimension that needs to be incorporated in the Code is the concept of group resolution – one in which the resolution of borrowers belonging to the same corporate group is undertaken together. We saw an example of this during the resolution process of the Videocon Group; however, the same was put in place through discretionary powers available to the Adjudicating Authority rather than through a feature of the Code. Such a process is especially vital in an economy like India where traditionally credit contracts have been embedded with cross obligations and credit mitigating covers provided by parent and group companies of the borrower. In

such a system, default by a borrower is likely to spur cross defaults by group companies thereby increasing the overall credit risk to the financial system. A comprehensive process for collective resolution of such interlinked corporate groups is thus necessary to further improve the efficacy of the Code.

Expectations from creditors

Deepening of the credit risk market in India is a necessary condition to take the financial system to the next level of sophistication. RBI has been taking many steps towards this in the recent years. The guidelines covering transfer of loan exposures have been reviewed and harmonised across lending institutions. The secondary market for stressed loans has been thrown open to transferees who are not regulated by RBI. The recommendations of the Committee on the Development of Housing Finance Securitisation Market in India (Chairperson: Dr. Harsh Vardhan) and Task Force on the Development of Secondary Market for Corporate Loans (Chairperson: Shri T N Manoharan) are being implemented in phases. One of the major recommendations of the latter – the self-regulatory organisation for secondary market for corporate loans – has been implemented with the establishment of Secondary Loan Market Association. RBI is also exploring further avenues to deepen the credit risk market by exploring the feasibility of allowing additional types of securitisations.

At the same time, we would expect that lenders do not wait for a default by a borrower to initiate resolution processes. Lenders should combine prudent risk pricing of their exposures with ongoing monitoring of the exposure and maintenance of adequate capital and risk provisions. Additionally, since the point at which a counterparty has become insolvent cannot be pinpointed accurately, the risk management practices of the lenders have to be

sophisticated enough to capture the changes in risk factors that may affect the safety of the said credit exposure. Lenders should also perform periodic stress tests to estimate possible trajectories that the credit exposure is likely to take and calibrate their responses accordingly. Ultimately, they are responsible for safeguarding their own interest and interest of their stakeholder.

Conclusion

To summarise, we have come a long way in improving the credit discipline in the country.

However, as with any public policy, it is always a work in progress with scope for improvement at any time.

RBI will continue to engage with various stakeholders to improve the resolution frameworks and will also constantly adopt more sophisticated and updated risk management practices to take care of the systemic concerns that arise from the activities of the various credit intermediaries. With this perspective in mind, I wish that this conference becomes first of its kind and generates insightful debates that will guide us in the times to come.

ARTICLES

State of the Economy

Financial Stocks and Flow of Funds of the Indian Economy 2019-20

Growth Maximising External Debt of India

Irrigation Management for Sustainable Agriculture

*State of the Economy**

The Indian economy consolidated its recovery, with most constituents surpassing pre-pandemic levels of activity. Heightened global risks stemming from weakening growth, elevated inflation, supply disruptions on account of geopolitical spillovers and financial market volatility stemming from synchronised monetary tightening pose near-term challenges.

Introduction

Clouds of geopolitical conflict in Europe shroud global economic prospects, with risks slanted down. Commodity prices remain volatile at elevated levels, and supply chain disruptions got worsened. Inflation pressures have heightened across geographies, and central banks are aggressively tightening monetary policy and liquidity conditions. As financial conditions become adverse in response, financial markets are unsettled and volatile, with emerging market economies (EMEs) facing the brunt of a surge in risk-averse sentiments among global investors. This is triggering capital outflows and currency depreciations amidst losses of reserves. EMEs face the risk of their hesitant and incomplete recoveries stifled which in turn can spill back on to the prospects for the broader global recovery. Reflecting these developments, the International Monetary Fund (IMF) in its April 2022 release of the World Economic Outlook (WEO) cut its global growth forecast for 2022 relative to its January 2022 projection by 0.8 percentage points (ppts) to 3.6 per cent. The downward revision is sharper for emerging market and developing economies (EMDEs) than for advanced economies (AEs). Inflation is

expected to surge to 5.7 per cent and 8.7 per cent in 2022 for AEs and EMDEs, respectively, higher by 1.8 ppts and 2.8 ppts, respectively, from the January 2022 update.

In this hostile international environment, the Indian economy consolidated the path of recovery. Activity in contact-intensive services is gaining traction, and consumer confidence is inching up to its highest level since the outbreak of the pandemic. An uptick in economic activity in April 2022 is evident in high frequency indicators. With the tapering down of infections, mobility indicators have improved while labour participation is picking up in both urban and rural constituents. Revenue collection under the goods and services tax (GST) stood at ₹1.68 lakh crore in April 2022 – the highest in its history.

The headline manufacturing purchasing managers' index (PMI) remained in the expansionary zone in April 2022, with most companies recording an acceleration in new orders and production. With demand gaining traction amidst rising mercury levels, electricity generation recorded double-digit growth during the month, even though coal supply shortages led to disruptions. New business, increasing demand and a renewed increase in employment led to the headline services PMI hovering in expansionary territory for the ninth consecutive month. On the external front, merchandise exports stood robust at US\$ 40.2 billion in April 2022, thereby remaining well above the US\$ 30 billion mark for the past fourteen months in succession.

Amidst these developments, inflation pressures became increasingly generalised across commodity groups in the April 2022 print of the consumer price index (CPI) resulting in a sharp spike in headline inflation to 7.8 per cent – well above the upper tolerance band. In an off-cycle meeting held on May 4, 2022 the Monetary Policy Committee (MPC) decided unanimously to increase the policy repo rate by 40 bps to 4.40 per cent with immediate effect. The standing

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deposit facility (SDF) and the marginal standing facility (MSF) rates were symmetrically adjusted to 4.15 per cent and 4.65 per cent, respectively. Furthermore, the Reserve Bank also decided to increase the cash reserve ratio (CRR) by 50 bps to 4.50 per cent (effective fortnight beginning May 21, 2022), withdrawing liquidity to the tune of ₹87,000 crore from the banking system. These measures reinforced the emphasis on withdrawal of accommodation in the policy stance.

The MPC highlighted that volatile international crude oil prices, renewed lockdowns and supply chain disruptions impart significant upside risks to the inflation trajectory set out in the April 2022 meeting of the MPC. The MPC also felt that it is important to contain the second-round effects of inflation and anchor inflation expectations effectively to preserve the resilience and momentum of growth while according primacy to the price stability mandate at this juncture. The swift response of the MPC demonstrates a resolute commitment to price stability which bodes well for the credibility of monetary policy. Governor Shri Shaktikanta Das emphasised that the Reserve Bank remains "steadfast in our commitment to contain inflation and support growth. Inflation must be tamed in order to keep the Indian economy resolute on its course to sustained and inclusive growth. The biggest contribution to overall macroeconomic and financial stability as well as sustainable growth would come from our effort to maintain price stability".¹

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

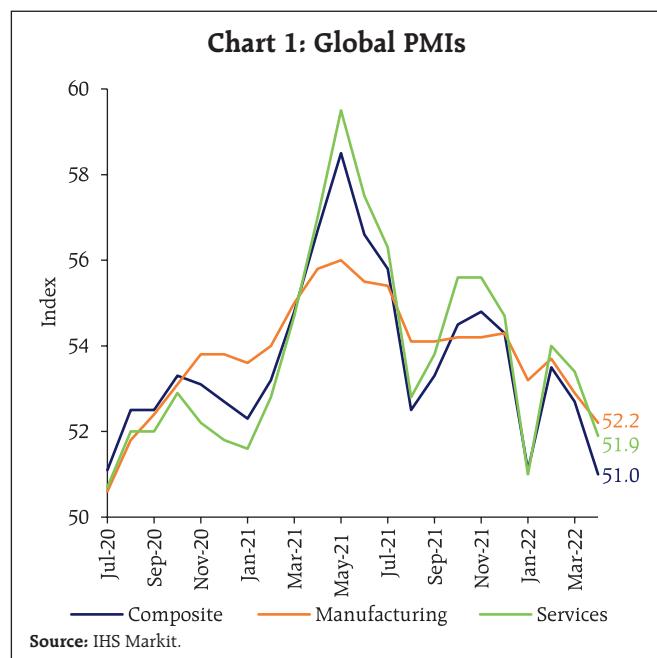
The global economic outlook is overcast with downside risks due to the ongoing geopolitical upheaval and its impact on trade, output and prices. As per the World Bank's latest Commodity Markets Outlook, a sharp increase in most commodity prices is forecast through 2022 and further into the medium-term. A significant tightening of financial conditions due to frontloaded monetary policy actions, and high inflation are posing financial stability concerns. Downside risks to global growth are also amplified by outbreak of infections and lockdowns in some parts

Table 1: GDP Growth Projections – Select AEs and EMEs

Country	2022		2023		(Per cent)
	January 2022	April 2022	January 2022	April 2022	
 World	4.4	3.6	3.8	3.6	
Advanced Economies					
 US	4.0	3.7	2.6	2.3	
 UK	4.7	3.7	2.3	1.2	
 Euro area	3.9	2.8	2.5	2.3	
 Japan	3.3	2.4	1.8	2.3	
Emerging Market Economies					
 Brazil	0.3	0.8	1.6	1.4	
 Russia	2.8	-8.5	2.1	-2.3	
 India	9.0	8.2	7.1	6.9	
 China	4.8	4.4	5.2	5.1	
 South Africa	4.6	1.9	1.9	1.4	

Source: IMF.

¹ Governor's statement on May 4, 2022.

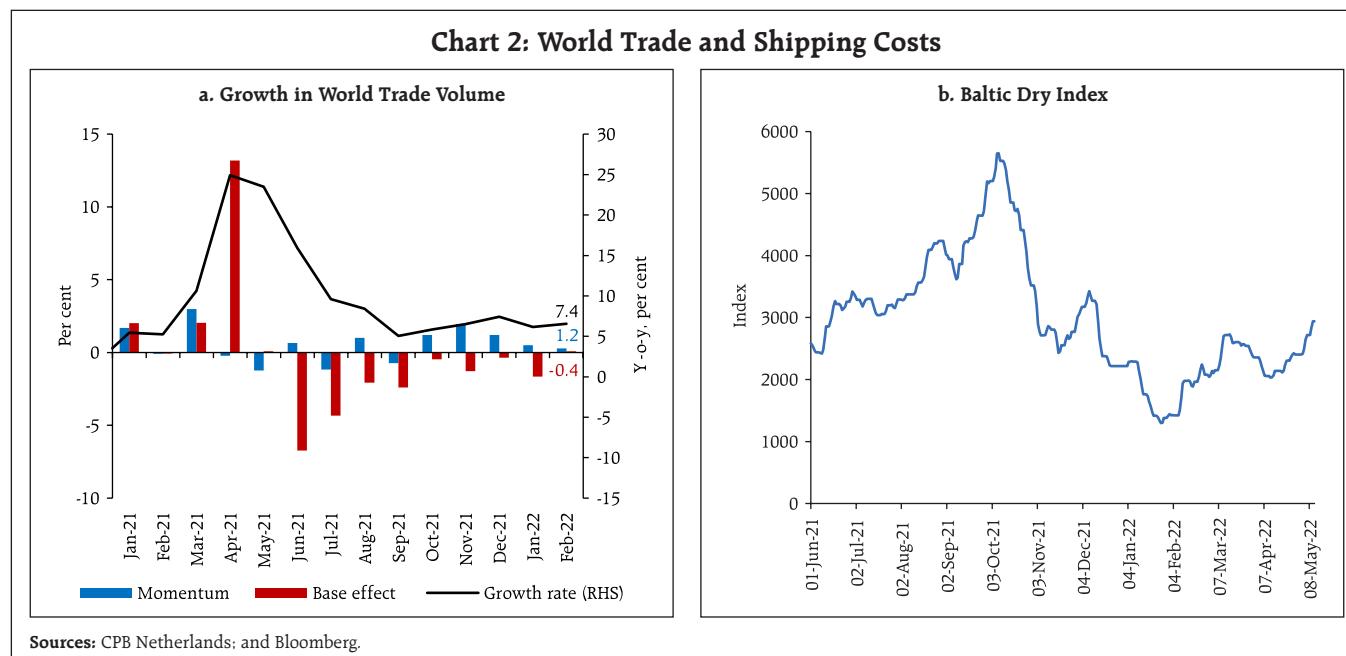


of the world. Uncertainty around the evolution of the pandemic continues to prevail.

Among high frequency indicators, the global composite purchasing managers' index (PMI) plummeted to a 22-month low of 51.0 in April from 52.7 a month ago as growth of new orders slowed, and

business optimism slipped to a 19-month low (Chart 1). Both services and manufacturing PMIs eased, with the latter slipping to a 20-month low with manufacturing output contracting for the first time since June 2020. The decline in output mainly reflected lockdowns in China. The global manufacturing output index excluding China registered a marginal improvement over March.

On the trade front, the World Trade Organization (WTO) scaled down its projection for merchandise trade volume growth for 2022 to 3.0 per cent from 4.7 per cent projected earlier, following the Russia-Ukraine conflict and lockdowns in China disrupting seaborne trade. In the April WEO, the IMF also slashed the projection for growth in world trade volume of goods and services to 5.0 per cent in 2022 and 4.4 per cent in 2023 – a full percentage point lower for 2022 and half a percentage point for 2023 relative to its January 2022 projections. Monthly data show some positive momentum but the weakest in five months (Chart 2a). The Baltic Dry Index, a measure of shipping charges for dry bulk commodities, remained volatile and increased by 2 per cent in April (Chart 2b).



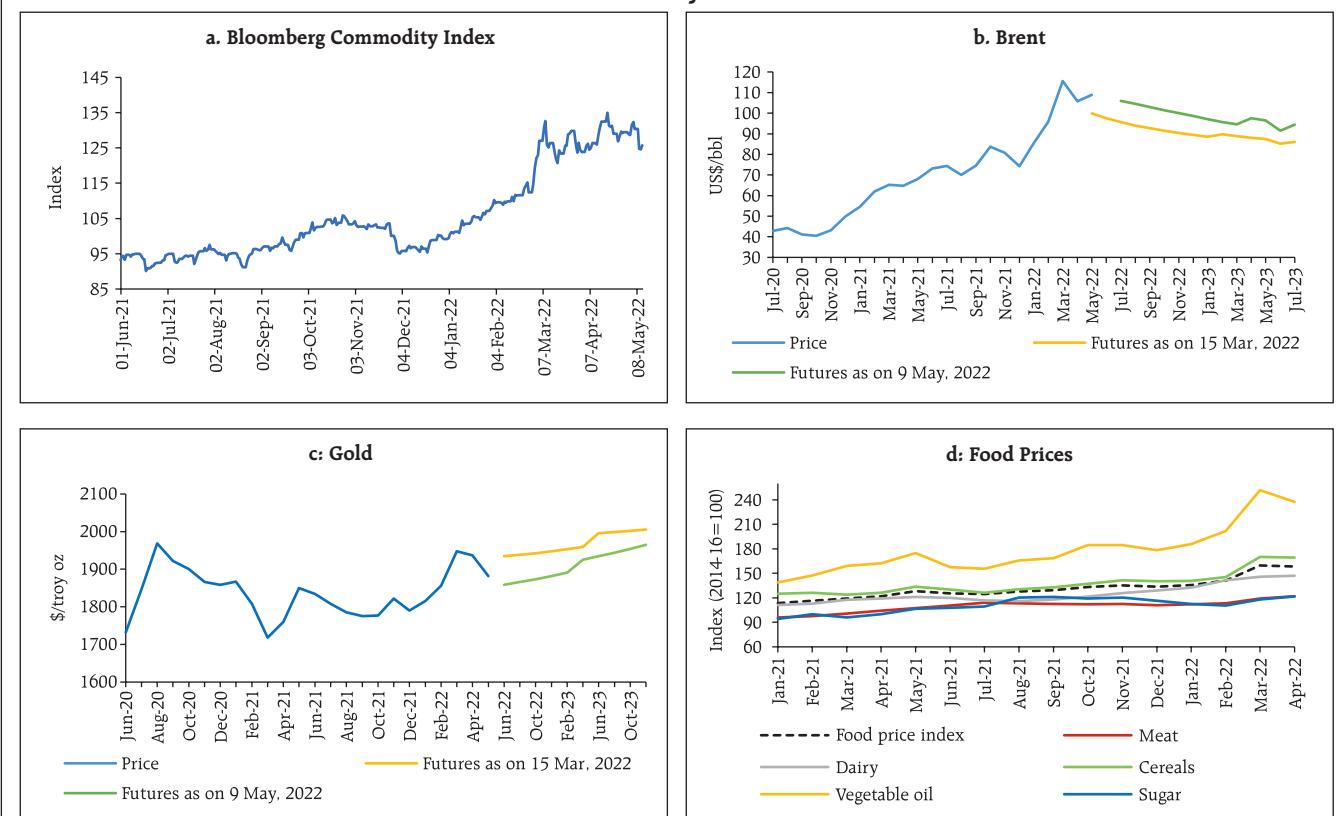
The Bloomberg commodity price index continued its ongoing surge, hitting an 8-year high in mid-April (Chart 3a). Crude oil prices retreated from a recent peak, as concerns about slowing world economic growth including in major economies such as China outweighed fears of further supply disruptions (Chart 3b). Nonetheless, crude prices have marked a 37.6 per cent gain year to date (up to May 12, 2022). Plans to phase out Europe's crude oil dependence on Russia in six months led to further pressure on prices in early May. Gold prices faced headwinds as bond yields hardened and the US dollar traded stronger, whereas safe haven and inflation hedge demand provided support to the bullion, resulting in range-bound movements (Chart 3c). The Food and Agriculture Organization (FAO) food price index retreated marginally to 158.5 in April from the all-

time high registered in March due to moderation in vegetable oil and cereals prices while continuing to exhibit acceleration for sugar, meat and dairy prices (Chart 3d).

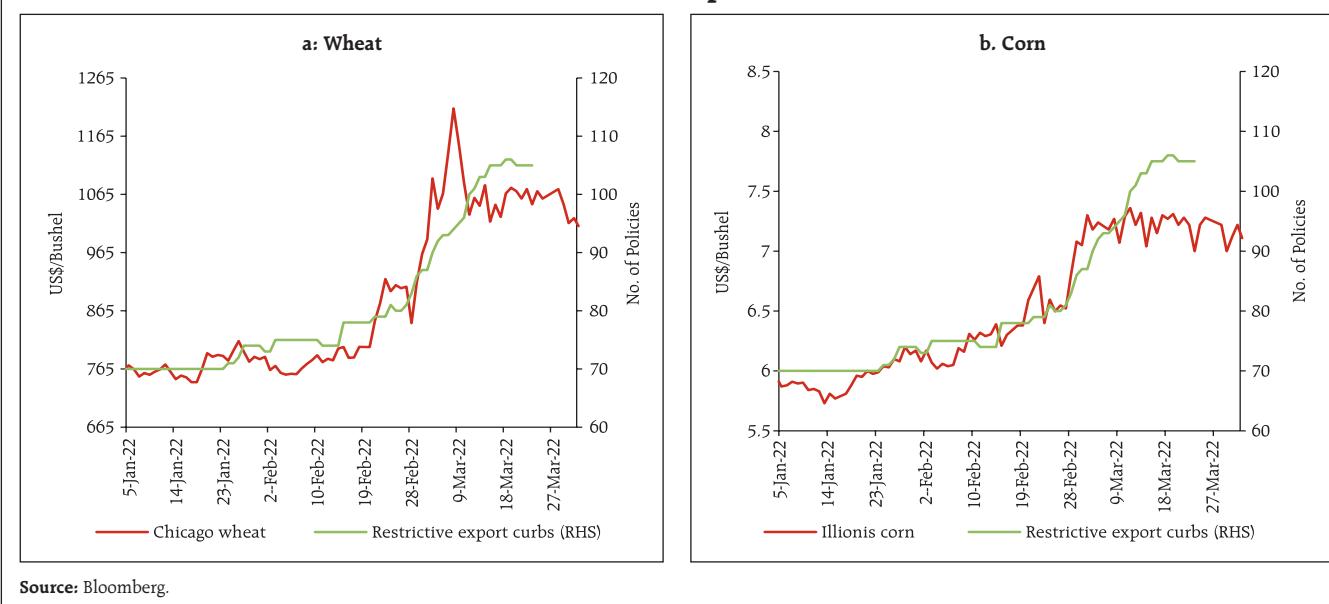
The prolonged Russia-Ukraine conflict has led to a number of export restrictions in several countries which contributed to high food prices, particularly of wheat and corn (Chart 4).

Inflation has soared to multi-decadal highs for most economies (Chart 5). The US CPI inflation, however, marginally eased to 8.3 per cent in April 2022 from 8.5 per cent a month ago with the monthly momentum of 0.3 per cent – the lowest since August 2021 as energy prices declined by 2.7 per cent (m-o-m). On the other hand, the personal consumption expenditure (PCE) price index firmed up to a 40-

Chart 3: Commodity and Food Prices



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

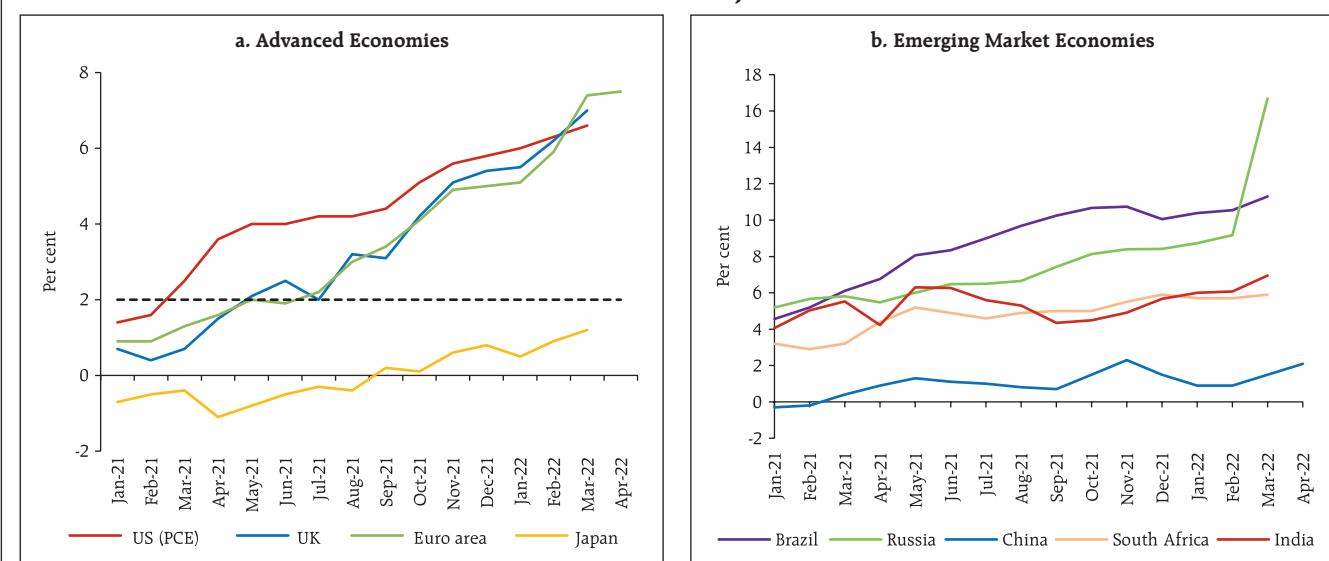
Chart 4: Prices and Export Restrictions

Source: Bloomberg.

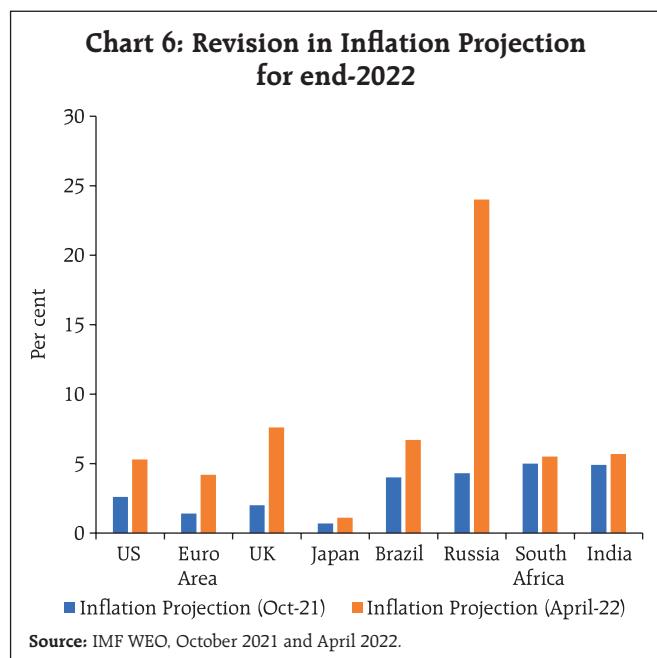
year high of 6.6 per cent in March. CPI inflation in the UK surged to 7.0 per cent in March, the highest in the data series, with the largest contribution of 1.83 ppts from the transport component. Euro area annual inflation reached a new peak of 7.5 per cent in April primarily driven by energy and followed by food, alcohol and tobacco. Among BRICS economies,

inflation in China rose to a five-month high of 2.1 per cent in April as supply pressure worsened due to widespread lockdowns (Chart 5b).

Inflation projections have been raised substantially for most economies. The IMF in its April 2022 WEO has revised up inflation projections for end 2022 for major AEs and Russia by a much

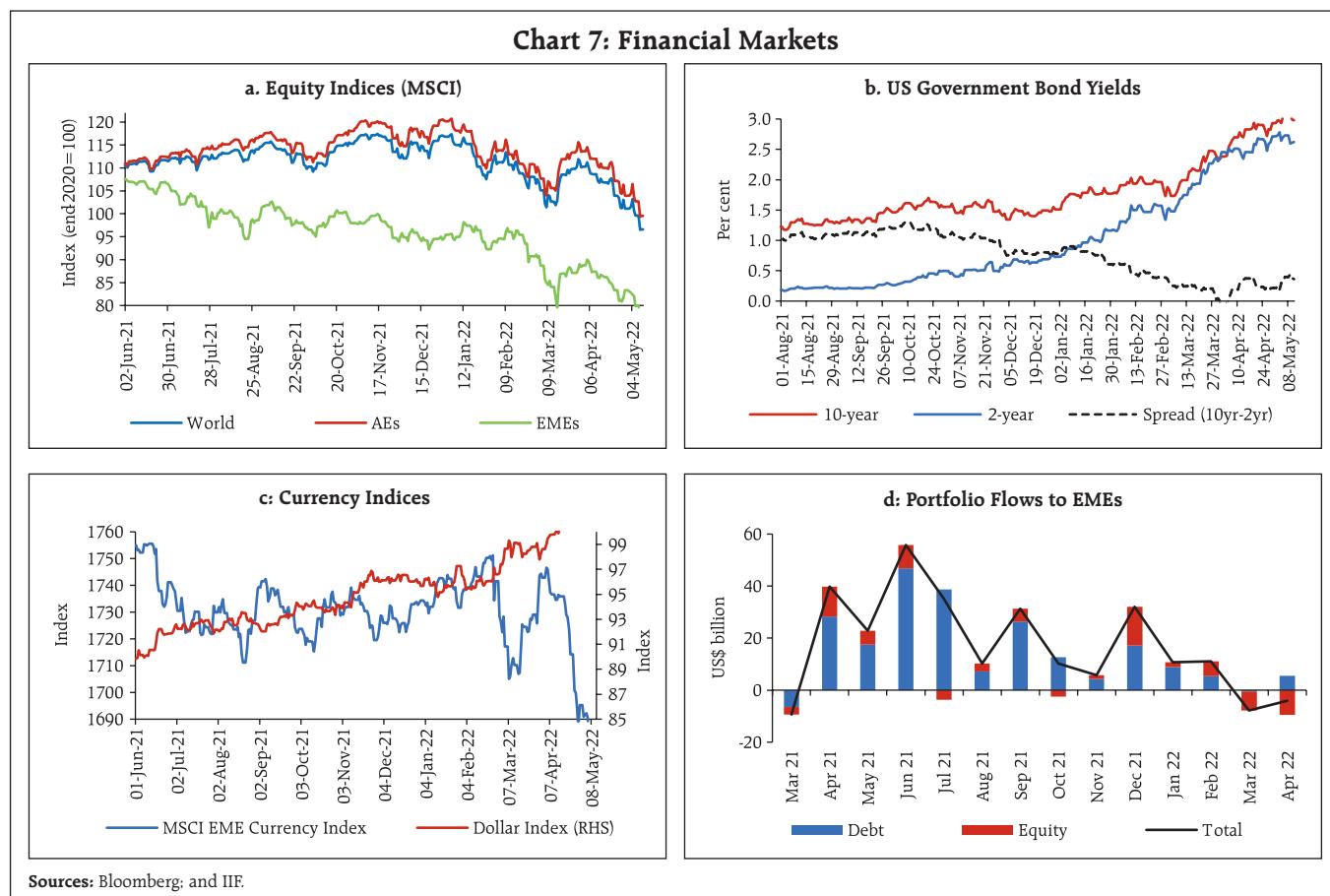
Chart 5: Inflation in Major Economies

Source: Bloomberg.

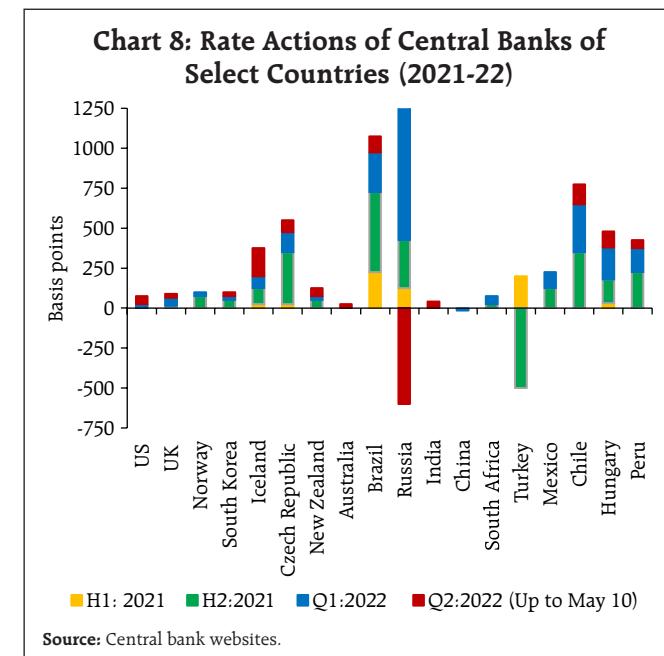


larger magnitude than for emerging economies, including India (Chart 6).

Global financial markets have seen sharp sell-offs since the beginning of April as uncertainty regarding the pace of unwinding by major central banks, particularly the US Fed, along with mounting growth concerns rattled investor sentiments. The MSCI World Equity Index fell 8 per cent in April with declines in both AE and EME stock indices (Chart 7a). In the bond markets, the US 10-year treasury yield hardened to a 3-year high as the market priced in more aggressive Fed tightening than previously anticipated. Furthermore, short term rates have also leaped simultaneously, resulting in a flatter yield curve (Chart 7b). The US dollar continued strengthening, hitting multi-decadal highs in response to the Fed's hawkish stance. Other currencies depreciated on country-specific factors with the yen sliding to a 20-year low (Chart 7c). Most EME currencies depreciated, with net capital outflows exacerbating the downturn (Chart 7d).



Monetary policy actions and stances appear to be synchronising across countries, with more AE and EME central banks undertaking rate hikes. In line with market expectations, the Federal Reserve raised the target range of the Federal Funds rate by 50 bps to 0.75-1.0 per cent, the first 50 bps hike since May 2000. In his opening remarks at the press conference, Chairman Powell mentioned that "an additional 50 basis point increase should be on the table at the next couple of meetings". The Fed also unveiled plans for reducing the size of the balance sheet by reduction in its holdings of treasury securities, agency debt and agency mortgage-backed securities (MBS) from June 1. The Bank of England also raised its policy rate by 25 bps to 1.0 per cent – the highest since February 2009 taking the cumulative increase to 90 bps in its current tightening cycle which started in December 2021. The Bank of Canada and the Reserve Bank of New Zealand raised their policy rates by 50 bps each in April to 1.0 per cent and 1.5 per cent, respectively. The Bank of Korea also raised its benchmark interest rate by 25 bps while the Monetary Authority of Singapore tightened monetary policy for the third time in six months. The Bank of Japan is a rare AE central bank that has maintained a dovish stance, reinforcing its yield curve control by committing to daily purchases of Japanese government bonds at 0.25 per cent yield in its latest meeting. Most EME central banks have continued with policy tightening including Brazil, Poland and Peru hiking their benchmark rates by 250 bps, 375 bps and 200 bps respectively in 2022 so far. The Central Bank of Sri Lanka also raised its key rate by an unprecedented 700 bps to 14.5 per cent in April. On the other hand, the Bank of Russia reduced its policy rate by a cumulative 600 bps to 14 per cent in April as price and financial stability risks eased. The People's Bank of China reduced the reserve requirement ratio by 25 bps, injecting 500 billion renminbi (approximately US\$ 78 billion) of liquidity to boost the economy and kept other interest rates unchanged in its April meeting (Chart 8).

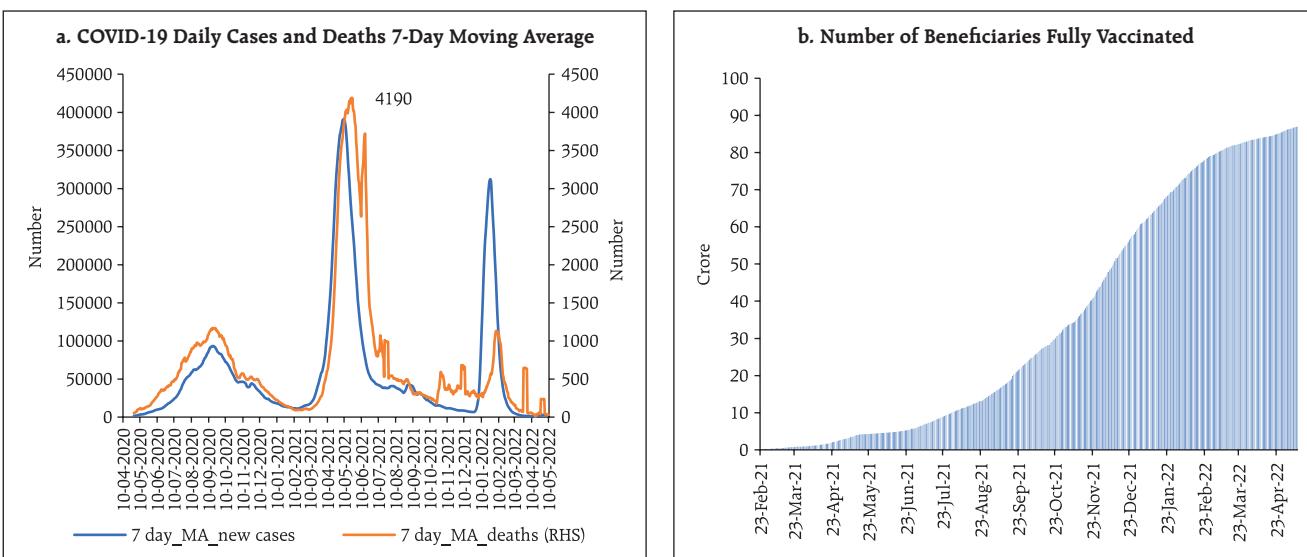


To sum up, downside risks to global growth have increased alongside upside risks to global inflation rising the spectre of stagflation in several countries. For EMEs, the outlook is fragile, and employment and output could remain below pre-pandemic levels through 2026 reflecting deep scarring.

III. Domestic Developments

Domestic macroeconomic conditions continued to gain strength as activity started to normalise in spite of a pick-up in COVID-19 infections in some parts of the country since the second fortnight of April (Chart 9a). Over 86 per cent of the adult population (81 crore) is fully vaccinated and total vaccination doses crossed 190 crore as on May 10, 2022 (Chart 9b). Over 4.3 crore children in the 15–18 year age group are fully vaccinated, while 3.1 crore children in the 12–14 year age group have been inoculated with the first dose. Precautionary doses of COVID vaccines are being made available to all those who are more than 18 years of age and have completed 9 months after the administration of the second dose.

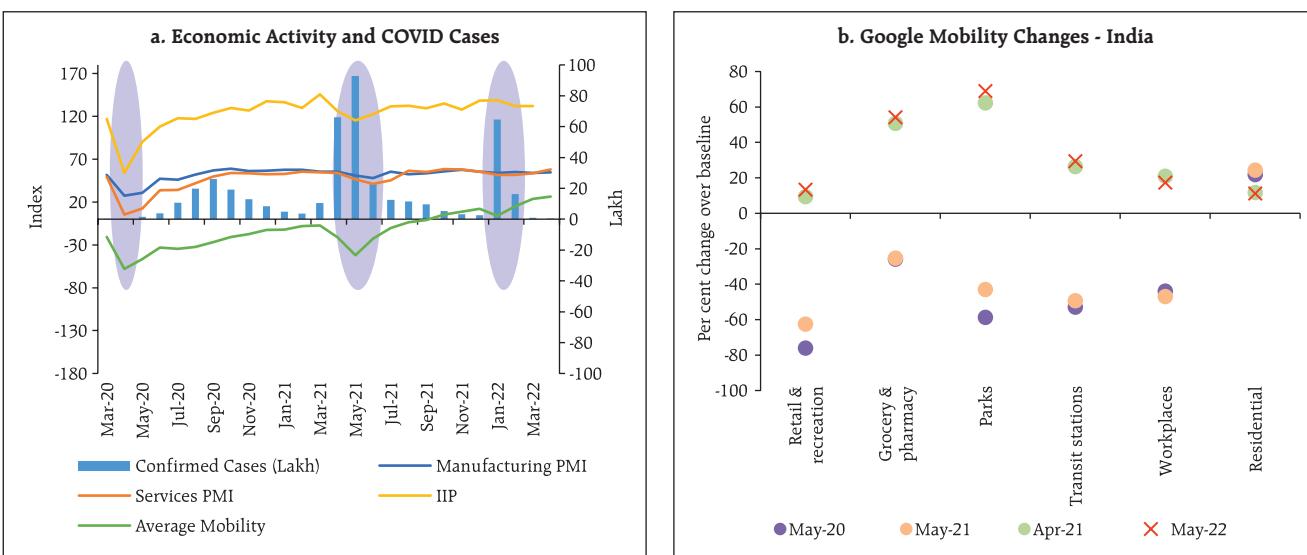
Living with COVID is becoming the norm. While the initial lockdown and the first and second

Chart 9: COVID-19 Cases and Vaccinations

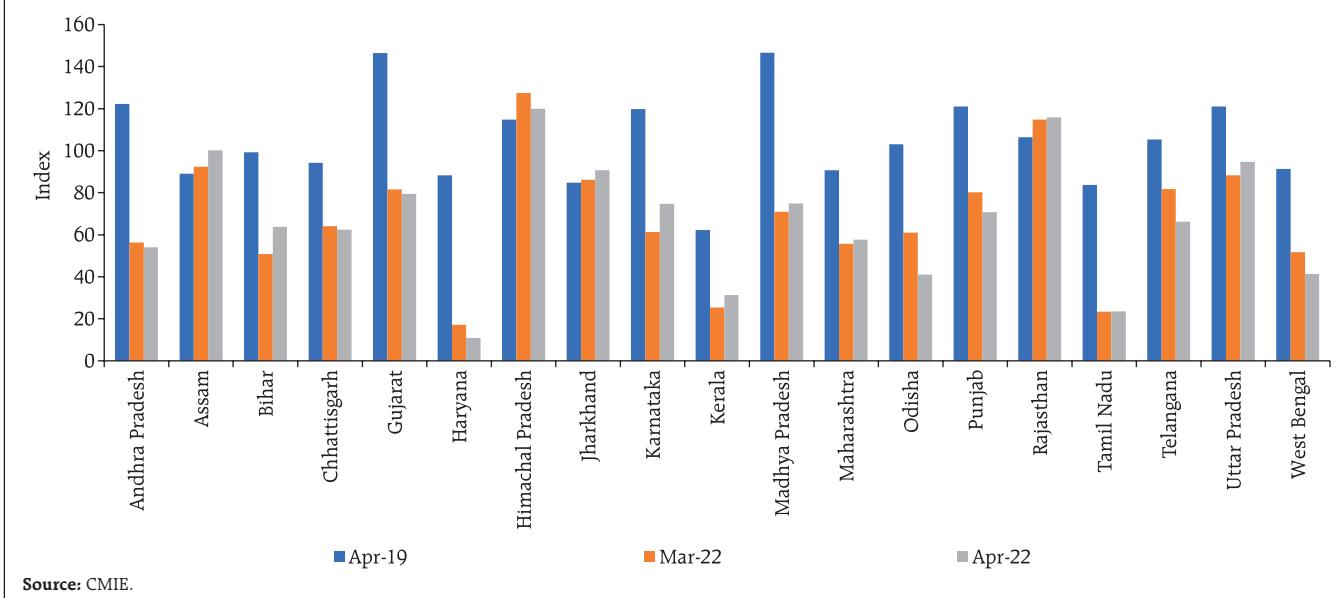
Sources: Ministry of Health and Family Welfare (MoH&FW), CEIC, CMIE.

waves of COVID dented economic activity, the third wave and the recent spurt in infections has had a relatively benign impact on overall economic activity (Chart 10a). The decoupling is also visible in movement of people, with google mobility rising beyond baseline pre-pandemic figures for most activities in April.

While mobility around grocery, pharmacy and parks were above 50 per cent over the baseline numbers, mobility around residential units hovered just above the baseline metric, perhaps due to the work-from-home/hybrid models of work increasingly adopted by India Inc. (Chart 10b). Reflecting these developments,

Chart 10: Impact of COVID-19 on Economic Activity

Sources: Google; IHS Markit; MOSPI; CEIC.

Chart 11: State-wise Consumer Sentiment Index

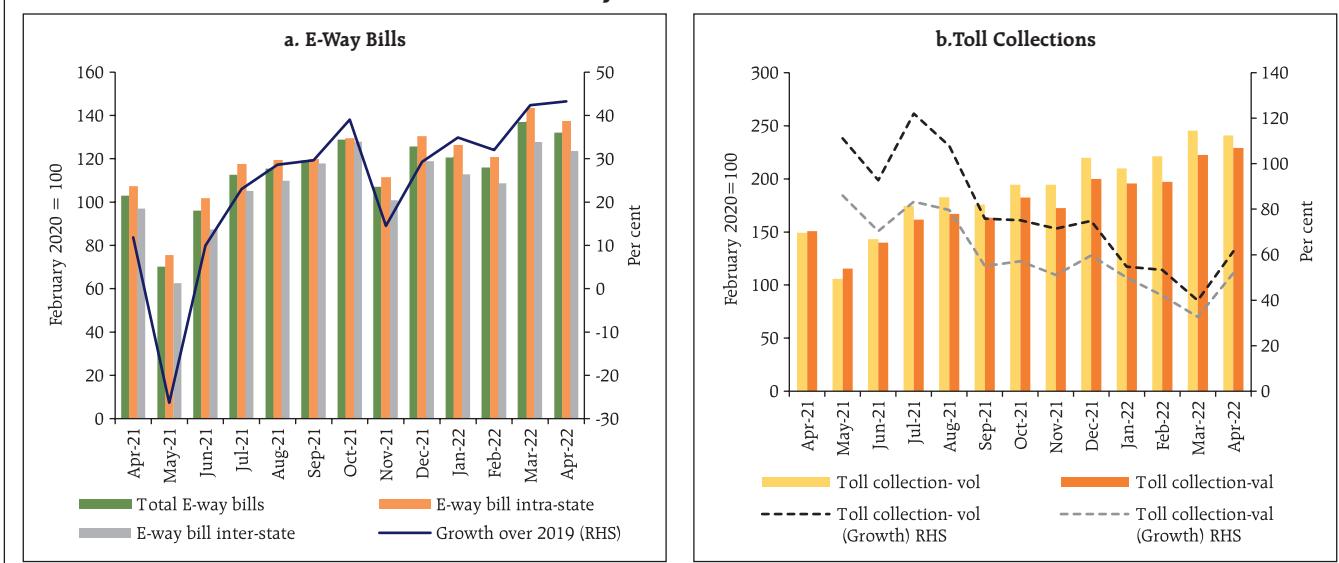
consumer sentiment improved at the all-India level with wide variations across states (Chart 11).

Aggregate Demand

Signs of recovery in overall demand conditions broadened. Total E-way bills generation in April 2022 was about 43 per cent higher than in April 2019 (Chart 12a). Toll collections increased on account of

the pick-up of volumes while the hike of 10-15 per cent in national highway tolls starting April 1, 2022 led to a faster growth in value terms (Chart 12b).

Fuel consumption faced headwinds from successive price hikes between March 22 to April 16 with petrol and diesel prices cumulatively increasing by ₹10 per litre. The impact of fuel inflation was

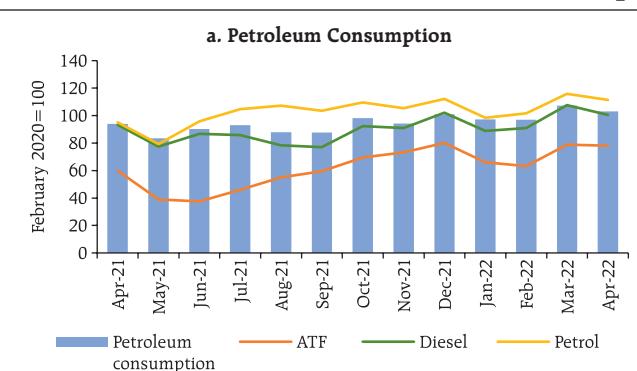
Chart 12: E-way Bills and Toll Collections

recorded across categories of diesel, petrol and aviation turbine fuel (ATF) consumption (Chart 13a).

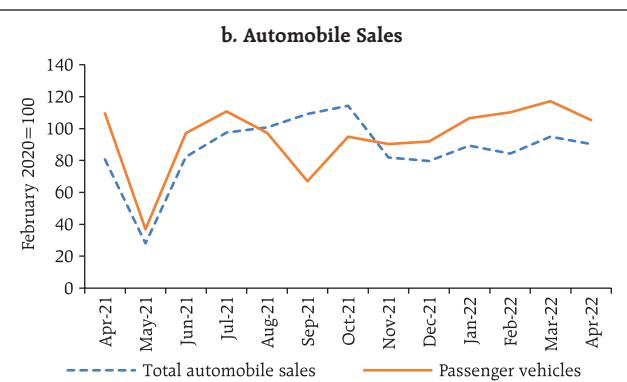
Semiconductor shortages, high metal prices and lockdown in China lengthened waiting times for passenger vehicles in April 2022. Consequently, domestic sales of passenger vehicles moderated, albeit normalising over pre-pandemic baseline (1.6

per cent higher than in April 2019; Chart 13b). Retail sales of automobiles stagnated, with registrations for transport vehicles dragging. Over pre-pandemic levels of April 2019, registrations continued to contract (Chart 13c). Vehicle registrations in Karnataka and Uttar Pradesh surpassed their pre-pandemic levels (Chart 13d).

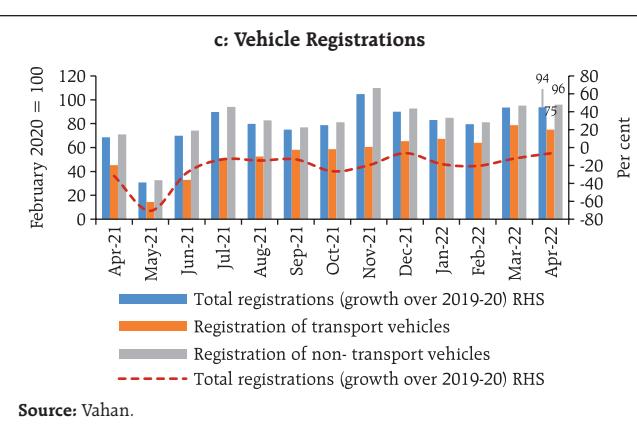
Chart 13: Transport Sector Indicators



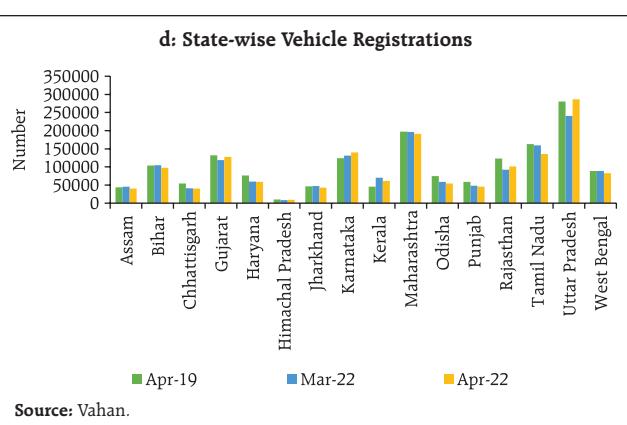
Sources: Petroleum Planning and Analysis Cell; and Authors' own calculations.



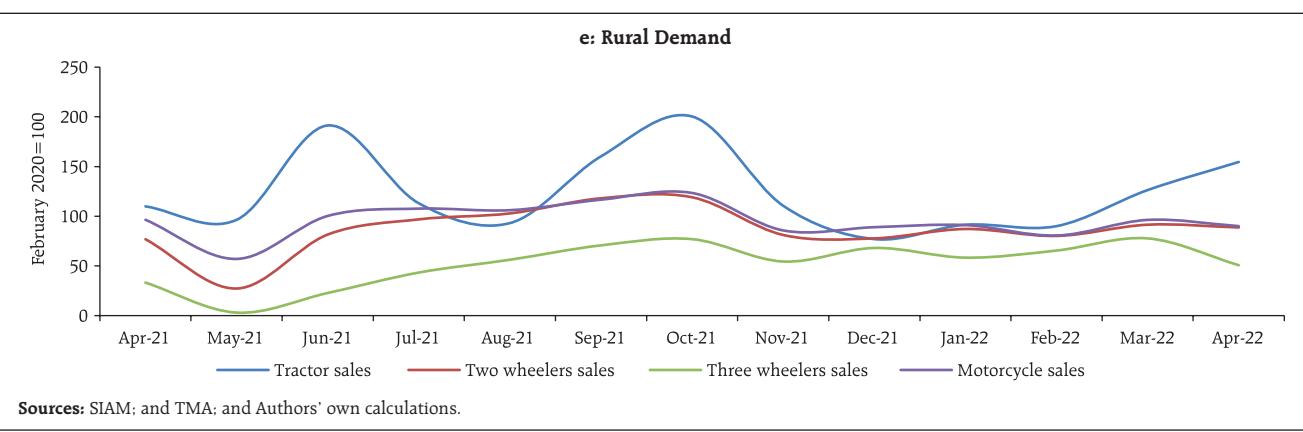
Sources: SIAM; and Authors' own calculations.



Source: Vahan.



Source: Vahan.



Sources: SIAM; and TMA; and Authors' own calculations.

Rural demand strengthened with the farm sector anticipating normal monsoons, and tractor sales recorded an expansion by 55.5 per cent over April 2019. Two-wheelers and motorcycles sales stagnated, while three-wheelers declined, indicating a skewed recovery in the general rural sector (Chart 13e).

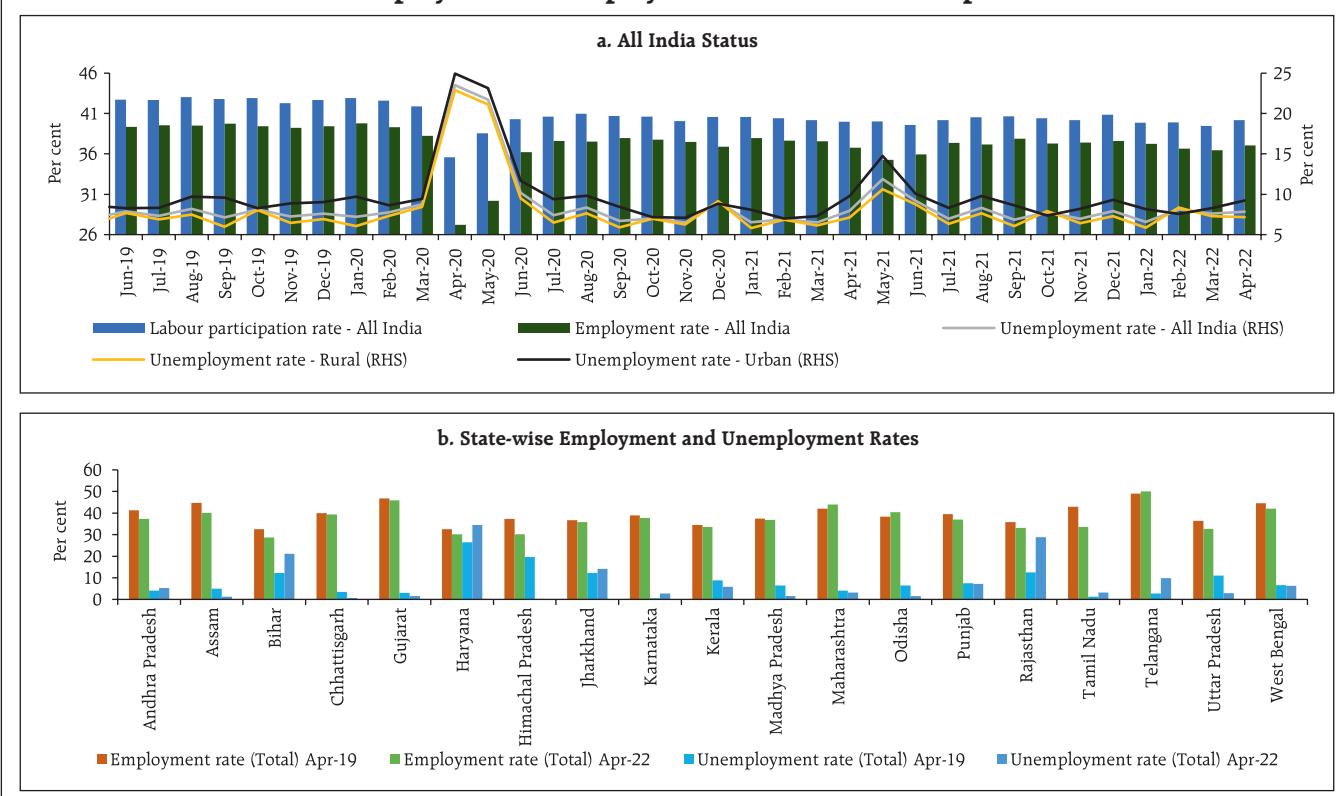
As per the household survey of the Centre for Monitoring Indian Economy (CMIE), the labour participation rate increased from 39.5 per cent in March to 40.2 per cent in April. The employment rate (worker population ratio) also improved to 37.1 per cent in April from 36.5 per cent a month ago. The entire increase in the labour force was not, however, absorbed into employment, leading to a rise in the unemployment rate from 7.6 per cent last month to 7.8 per cent (Chart 14a). Though most States continue to record employment rates below their pre-pandemic levels, Maharashtra, Odisha

and Telangana have shown a remarkable recovery, surpassing their pre-pandemic employment rates (Chart 14b).

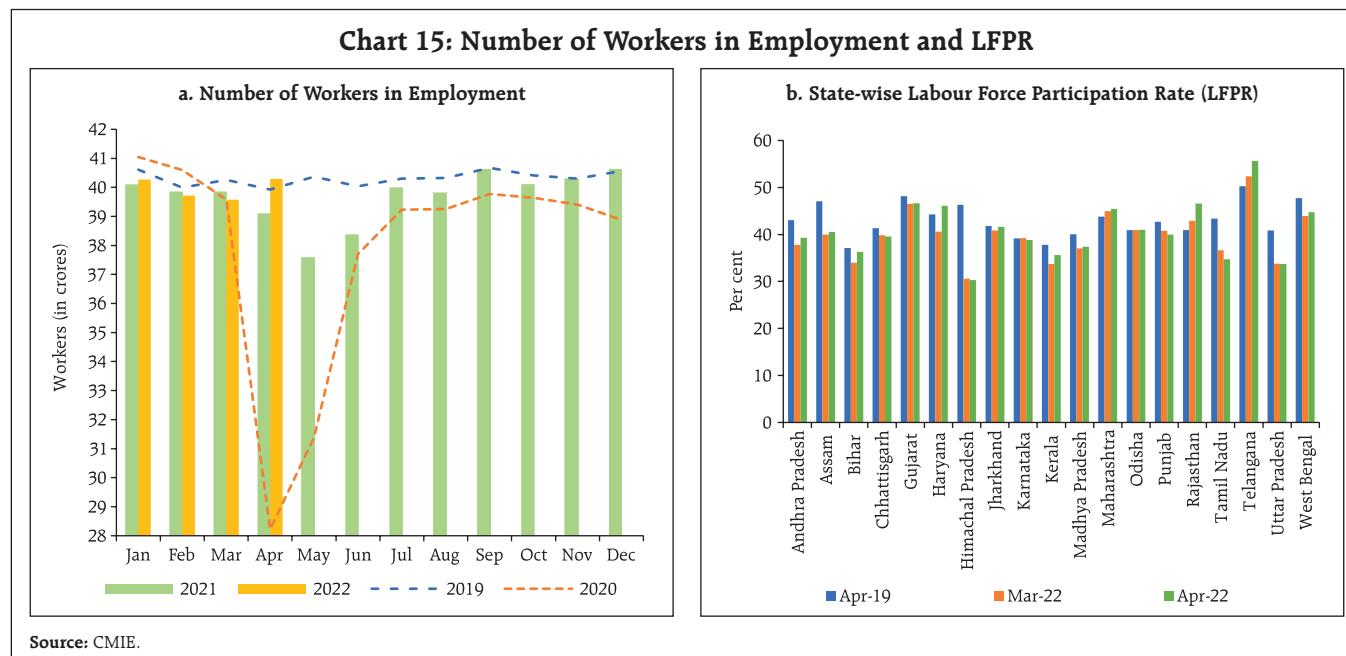
The CMIE's employment statistics show that the total number of employed workers increased by 7.2 million (m-o-m) and 12.2 million (y-o-y), respectively, in April 2022 surpassing pre-pandemic levels (Chart 15a). The labour force participation rate (LFPR) increased for most states in April 2022 compared to the preceding month; however, it is still below pre-pandemic levels in many states (Chart 15b).

PMI employment index in the manufacturing sector improved further in April after an expansion in March following three months of contraction. In the services sector, employment reverted to expansion in April after four successive months of contraction (Chart 16).

Chart 14: Employment, Unemployment and Labour Participation Rates

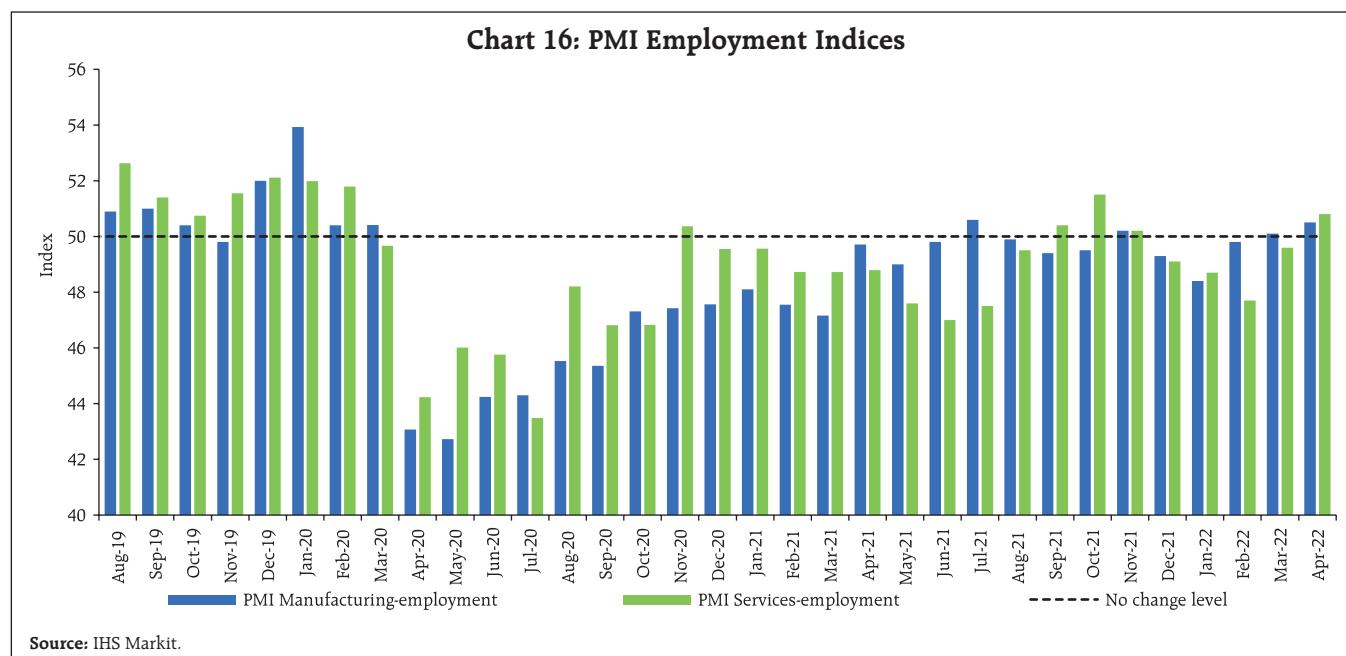


Source: CMIE.



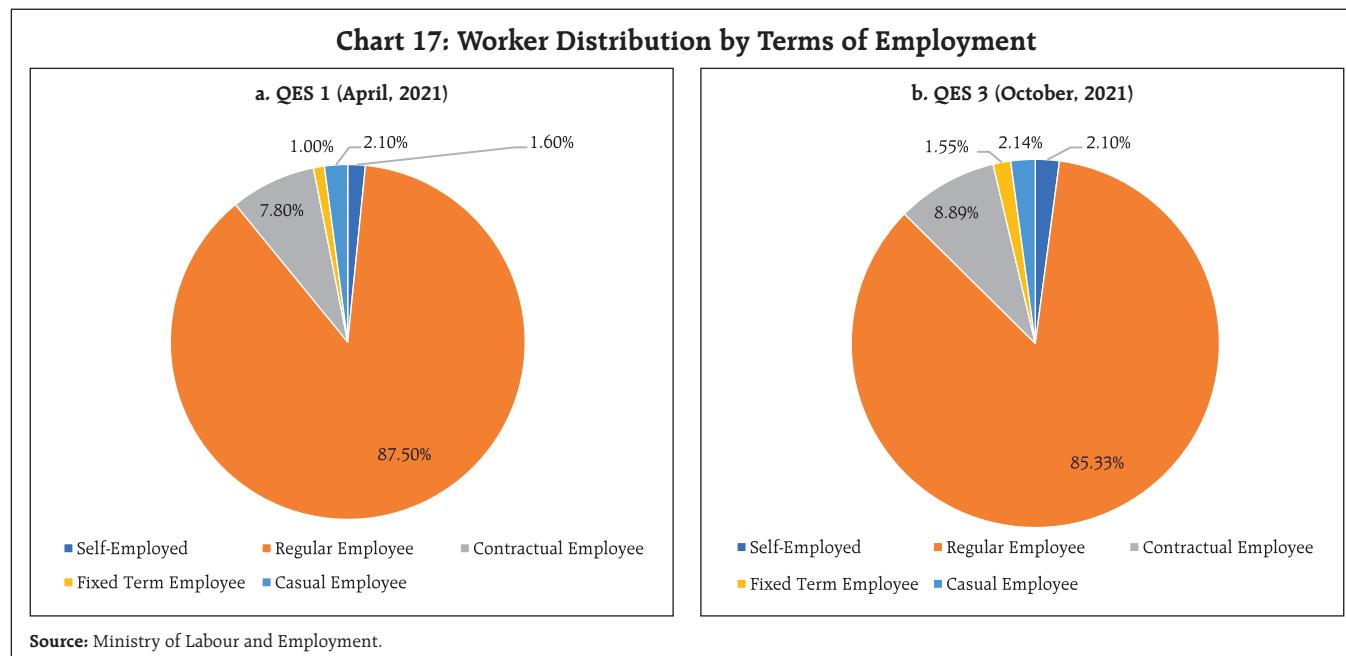
The Ministry of Labour and Employment released the third edition of its Quarterly Employment Survey (QES) on April 28, 2022. Between April and October

2021, the estimated number of total workers in the nine organised sectors² which are covered by the Survey³ increased from 3.08 crores to 3.14 crores. The



² The nine selected sectors are manufacturing, construction, trade, transport, education, health, accommodation and restaurant, IT/BPO and financial services.

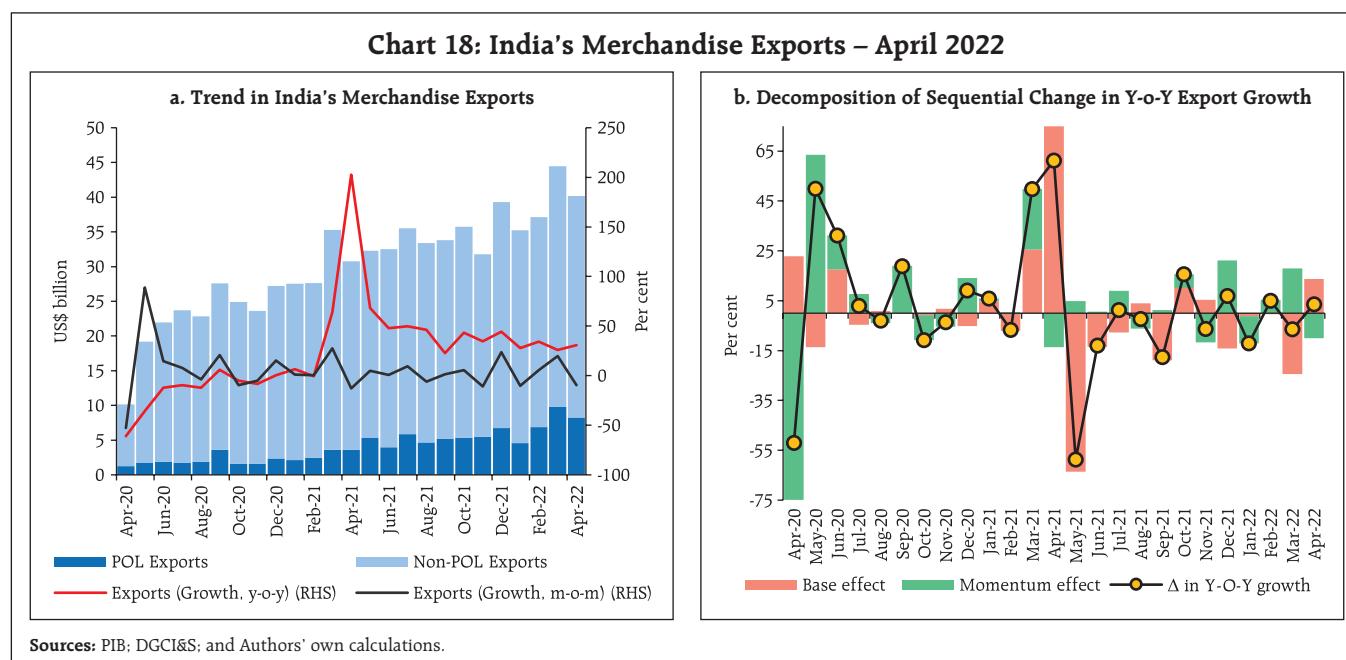
³ The scope of the QES is limited only to establishments employing 10 or more workers (Organised Segment) as identified by the Sixth Economic Census (2013-14) and covers nine sectors which accounts for 85 per cent employment in organised sector.

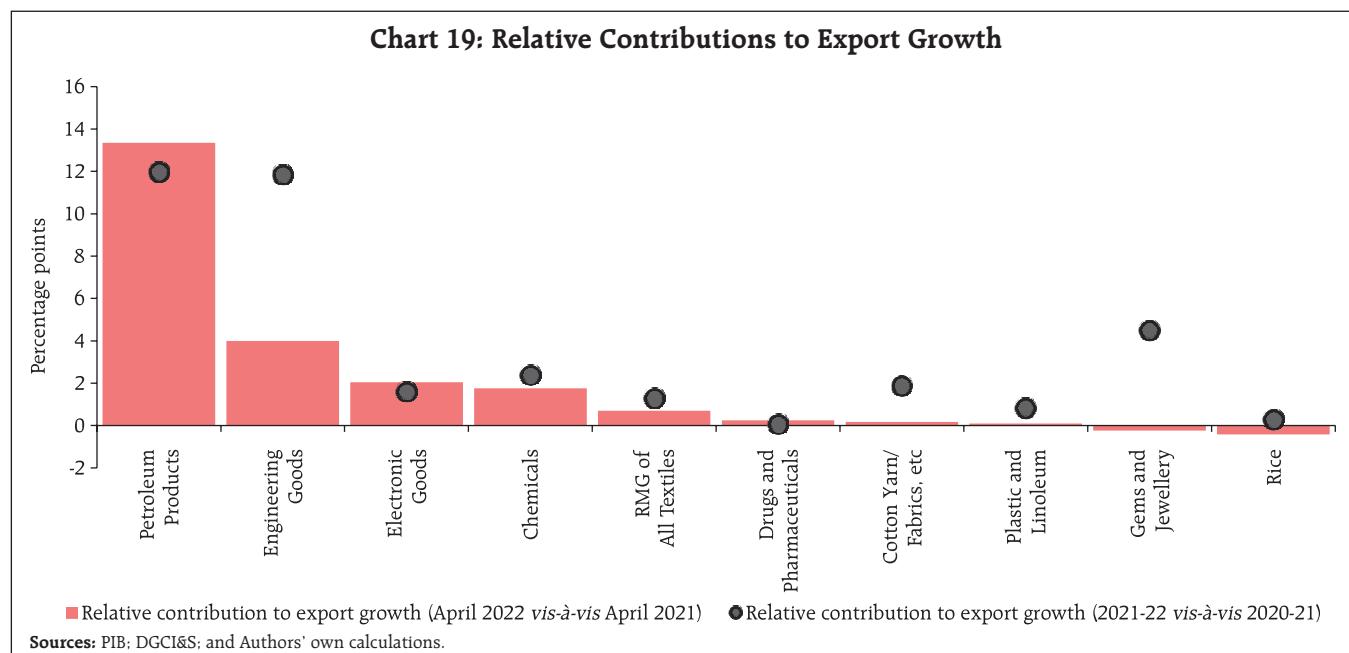


shares of contractual employees, fixed term employees and self-employed in the total employment have increased while the share of regular workers has come down from 87.5 per cent to 85.3 per cent (Chart 17).

On the external front, India's merchandise exports at US\$ 40.2 billion in April 2022 continued to register robust growth of 30.7 per cent on a y-o-y basis (Chart 18).

Export growth was broad-based, as 8 out of 10 major commodity groups accounting for around 70 per cent of exports grew on a y-o-y basis. The improvement in export performance stemmed from the higher value of shipments of petroleum products, engineering goods and electronic goods (Chart 19). On a sequential basis, however, merchandise exports



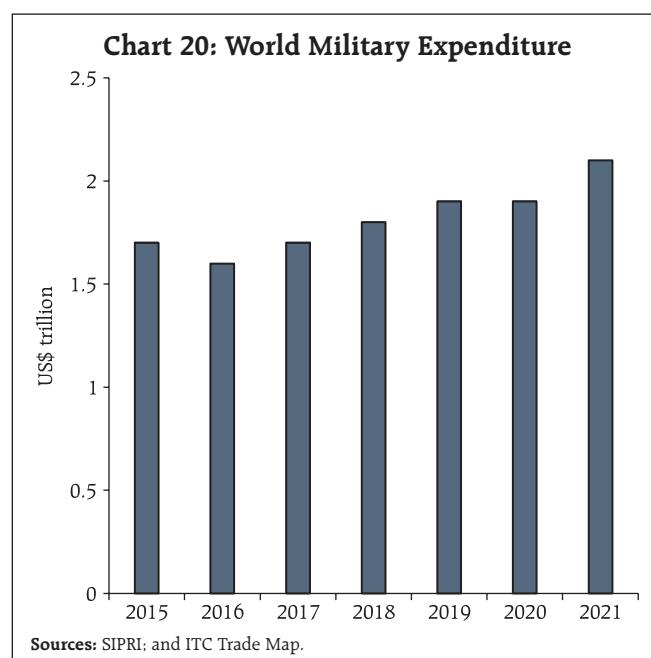


witnessed contraction across all major exporting segments.

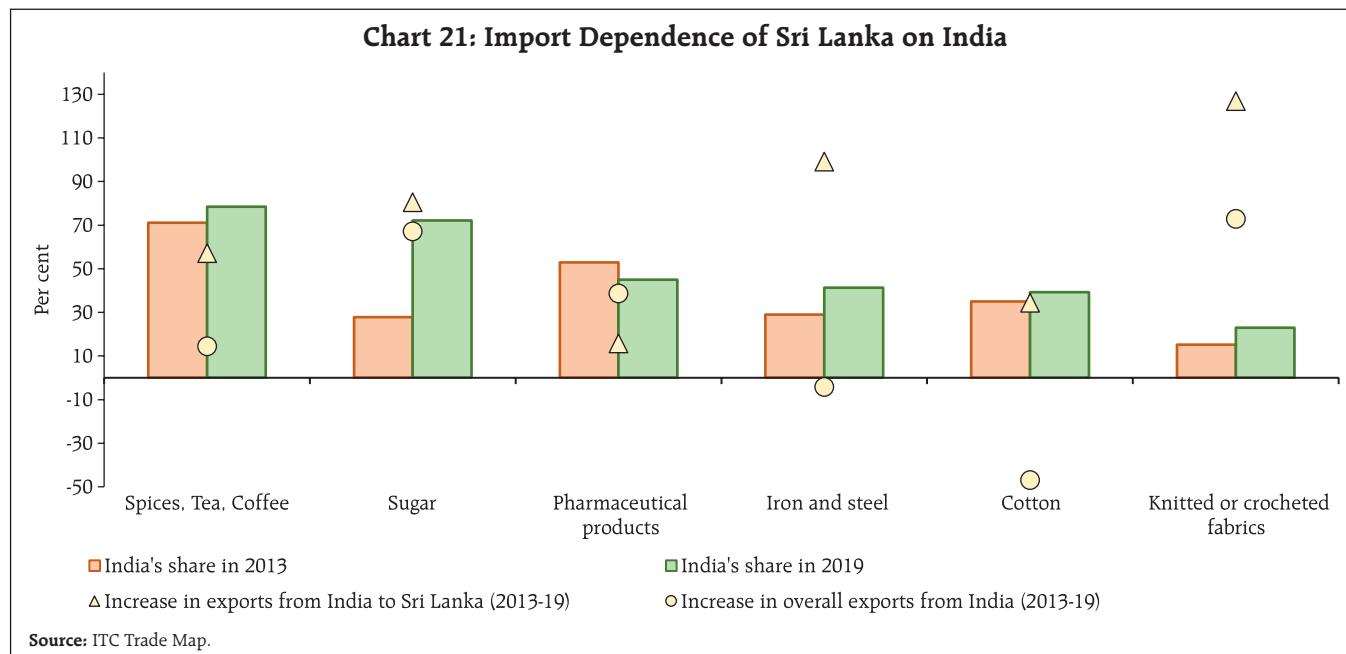
In 2022, the Government of India is putting special emphasis on defence exports through policies such as introducing an open general export license policy, launching seven defence public sector units, and establishing defence industrial corridors in Uttar Pradesh and Tamil Nadu⁴. The world's military expenditure had already crossed US\$ 2 trillion for the first time in 2021 (Chart 20). India's defence exports also more than doubled in the last five years.

Indian exporters are also exploiting opportunity to fill the global supply gap in tea and apparel exports as supply from Sri Lanka is impacted by the ongoing economic crisis. Sri Lanka's increasing import dependence on India for essentials and inputs for its export-intensive sectors are receiving support from India (Chart 21).

Merchandise imports at US\$ 60.3 billion remained above US\$ 50 billion for the 8th consecutive month in April 2022 (Chart 22).

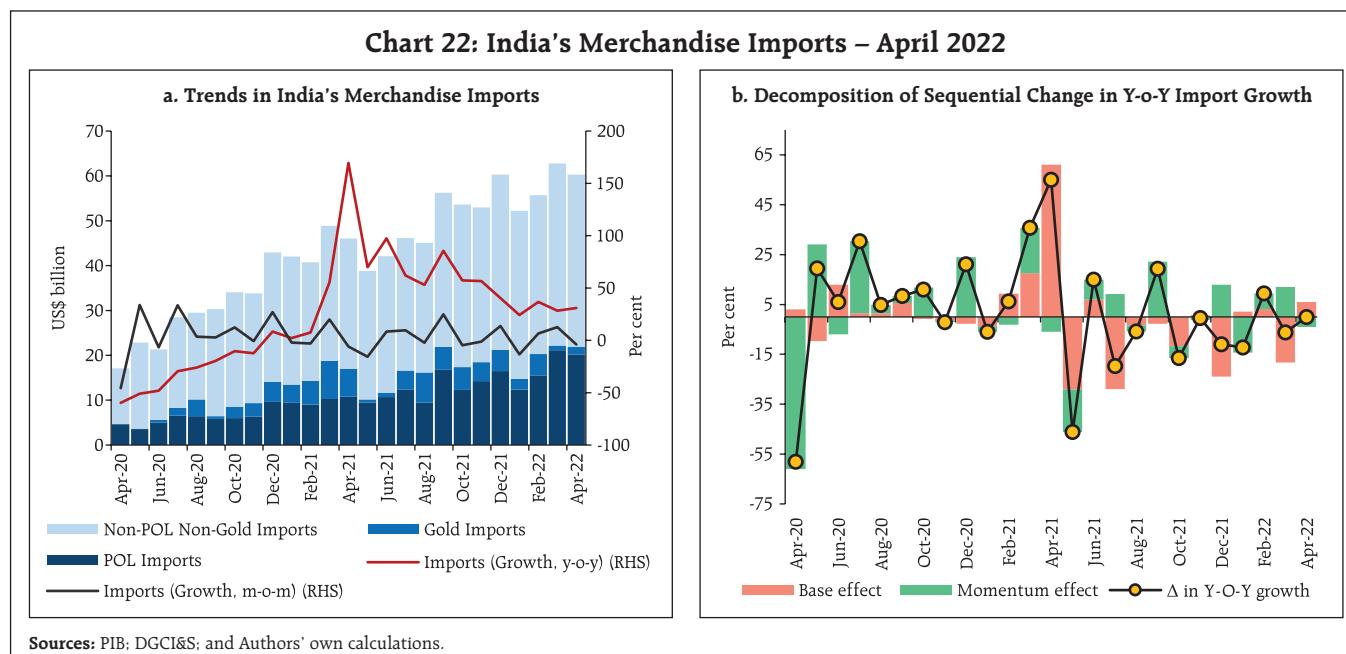


⁴ <https://www.makeinindia.com/defence-industrial-corridors-india>

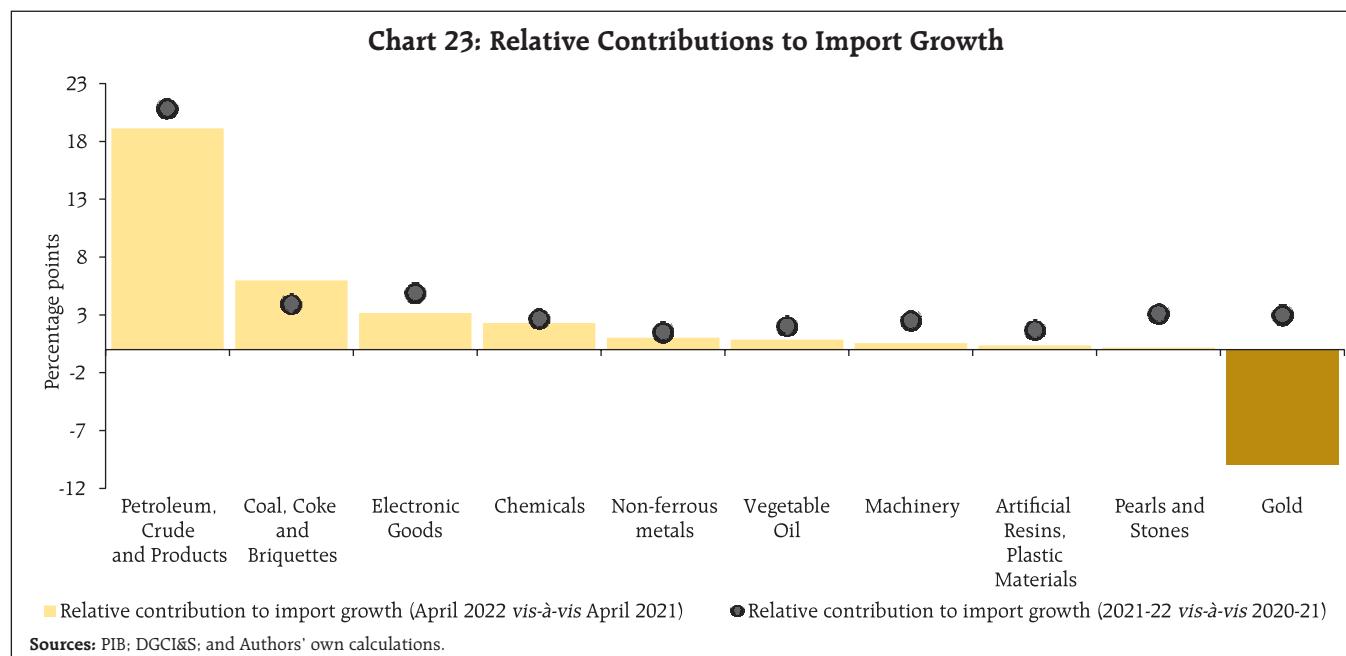


Import growth was broad-based, as 9 out of 10 major commodity groups accounting for more than 75 per cent of imports recorded an expansion on a y-o-y basis. Robust import demand was driven by petroleum products⁵, coal, coke, briquettes, and electronic goods (Chart 23).

A sharp jump in global energy prices resulted in coal imports falling in volume terms (Chart 24a). The energy crisis has led to an unprecedented rally in coal prices globally amplified by the Russia-Ukraine war (Chart 24b). In value terms, coal imports more than doubled in April 2022 on a y-o-y basis.



⁵ According to S&P Global commodity intelligence firm / Kpler, India's imports of Russian Urals crude have increased to 6.3 million barrels/day in April 2022 from 2.7 million barrels/day in March 2022, leading to sequential moderation in crude prices (Indian basket) during April 2022.



The import of vegetable oils increased by more than 30 per cent in April 2022 on a y-o-y basis. The adverse weather conditions in top vegetable oil-producing nations, demand-supply gaps caused in segments such as sunflower due to the Russia-Ukraine war, and Indonesia's decision to ban palm

oil exports have led to high prices of vegetable oils. Palm oil imports account for more than half of total imports in the vegetable oil segment. Indonesia supplies more than half of India's edible oil imports (Chart 25). However, India has sufficient edible oil stocks – roughly 21 lakh metric tonnes (LMT) – and

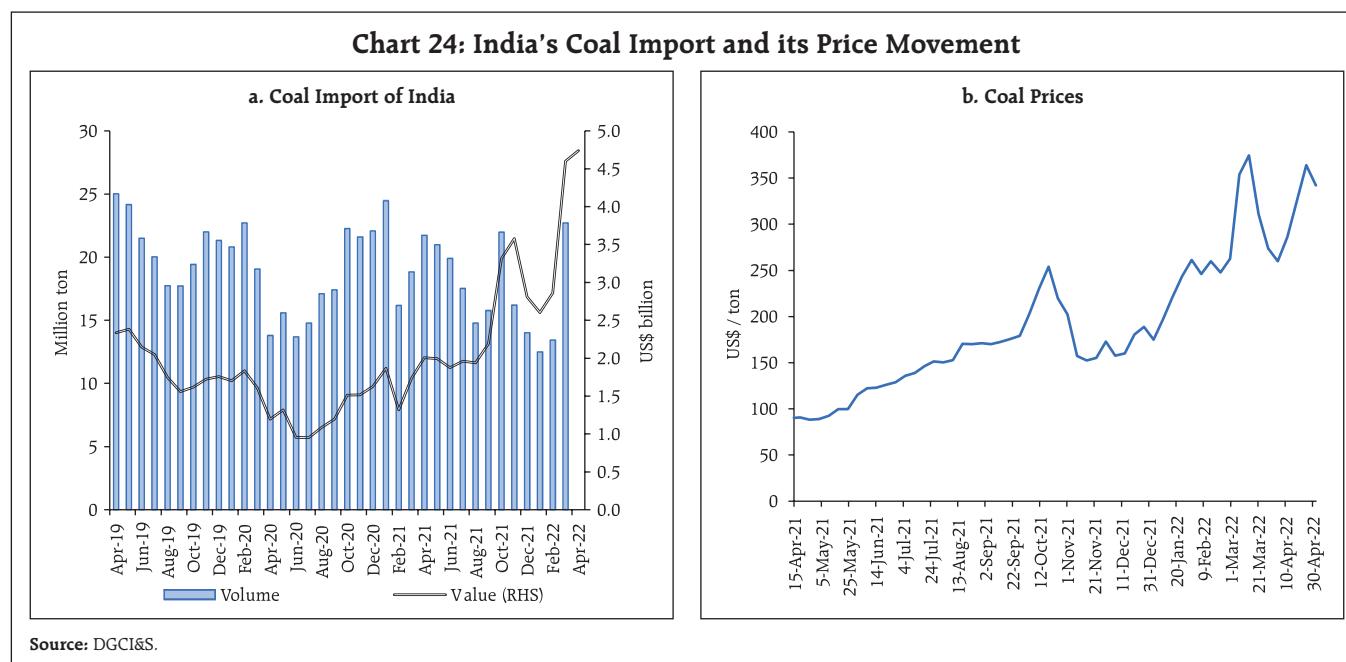
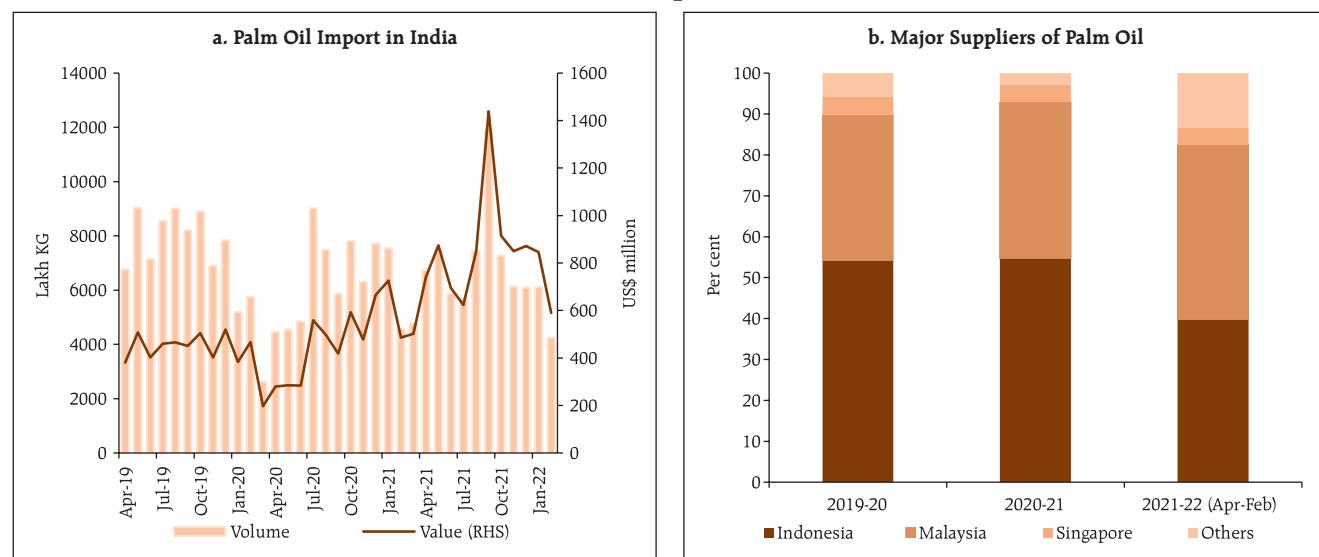


Chart 25: Palm Oil Imports and its Sources

Source: DGCI&S.

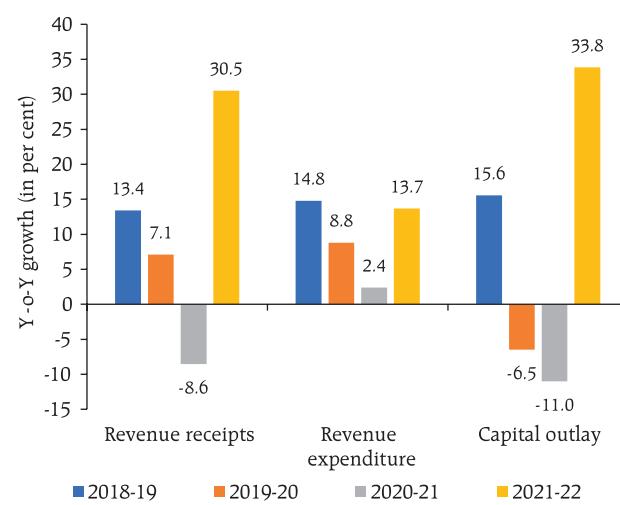
almost 12 LMT in transit arriving in May 2022 to cover the lean period.⁶

India's merchandise trade deficit at US\$ 20.1 billion in April 2022 widened on a y-o-y basis (US\$ 15.3 billion) as well as on a sequential basis (US\$ 18.5 billion).

As per the data available for 25 States from Comptroller and Auditor General (CAG), States have been able to sustain an upward momentum in their receipts and expenditures during April-February 2021-22 (Chart 26). Moreover, the revenue receipts and capital outlays posted a higher growth in 2021-22 than in 2019-20 (pre-pandemic year), indicating a swift recovery in their finances.

In the Union Budget 2022-23, the Centre set a limit on States' gross fiscal deficit (GFD) at 4 per cent, of which 0.5 per cent is tied to their efforts towards power sector reforms. As per the latest Budget of 20 States, they are expected to reduce their GFD-GSDP ratio to 3.2 per cent in 2022-23 (BE) as against

3.7 per cent in 2021-22 (RE). The reduction in GFD is emanating from higher revenue collection and lower revenue expenditure. States have targeted a higher growth in capital expenditure than in revenue expenditure in 2022-23 (BE), which augurs well for long-term economic growth prospects and improves the quality of States' expenditure.

Chart 26: Revenue and Expenditure of States (April-February 2021-22)

Note: The data pertains to 25 States.

Source: Comptroller and Auditor General.

⁶ <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1821727>

Aggregate Supply

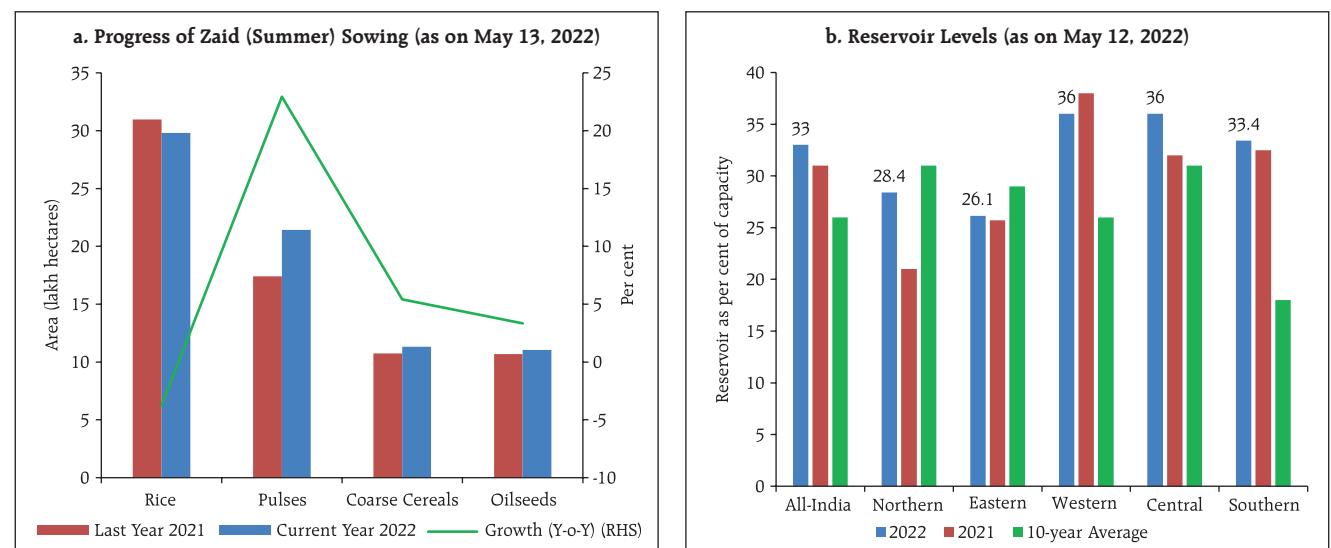
The agriculture and allied sector is poised to perform well in the forthcoming *Kharif* season, with the official forecast of a normal south-west monsoon (SWM) and the increase in non-urea fertiliser subsidy announced by the Union Government. In anticipation, the National Conference on Agriculture for *Kharif* Campaign held on April 19, 2022 has set a food grains production target of 328 million tonnes during 2022-23.

Summer or *Zaid* crops⁷ have covered an area of 73.58 lakh hectares as on May 13, 2022, 5.4 per cent higher than a year ago, attributable to significantly higher acreage under pulses (Chart 27a). The total live storage in 140 major reservoirs as on May 12, 2022, was higher at 33 per cent of the full reservoir level (FRL) as compared to 31 per cent during the previous year and the decadal average of 26 per cent (Chart 27b).

Heat wave conditions prevailed in the northwest and central regions of India during March and April, creating risks to livelihood and economic activity. The average maximum temperature recorded in the country during March 2022 was the highest at 33.10°C in the last 122 years (1901-2022). Similarly, the recorded average maximum temperature in April was the third highest at 35.30°C since 1901 (Chart 28). An early summer marked by extremely dry and hot weather before wheat harvest resulted in a condition called 'terminal heat stress' that has wilted crops and has led to shrivelled grains, especially in Punjab, Haryana, and Uttar Pradesh.

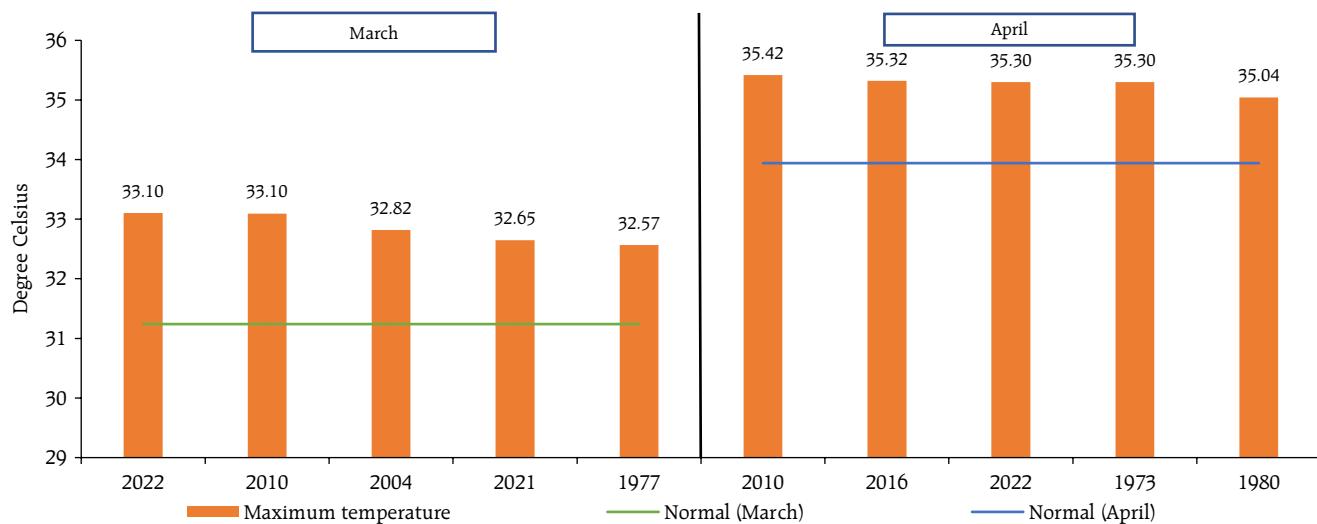
Wheat procurement during the *Rabi* Marketing Season (RMS) 2022-23 so far (since April 2022) has been lower, reflecting the loss in yields, private traders' procurement, farmers selling in agriculture wholesale markets (*mandis*) and farmgate sales to meet the strong export demand from Egypt, Turkey and other African countries. Procurement stands at

Chart 27: Progress of Sowing and Reservoir Levels



Sources: MoA&FW, Central Water Commission.

⁷ Crops which are majorly sown between March and May.

Chart 28: Maximum Temperature during March and April for All-India and Ranking

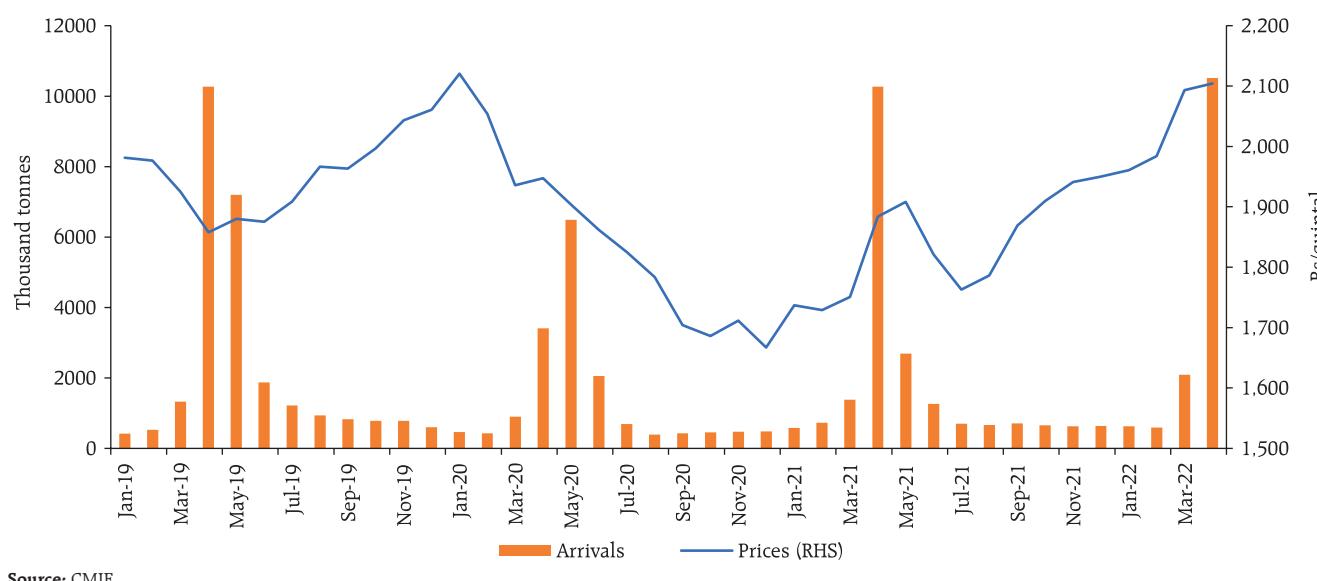
Note: Normal is based on the period from 1981 to 2010.

Source: IMD.

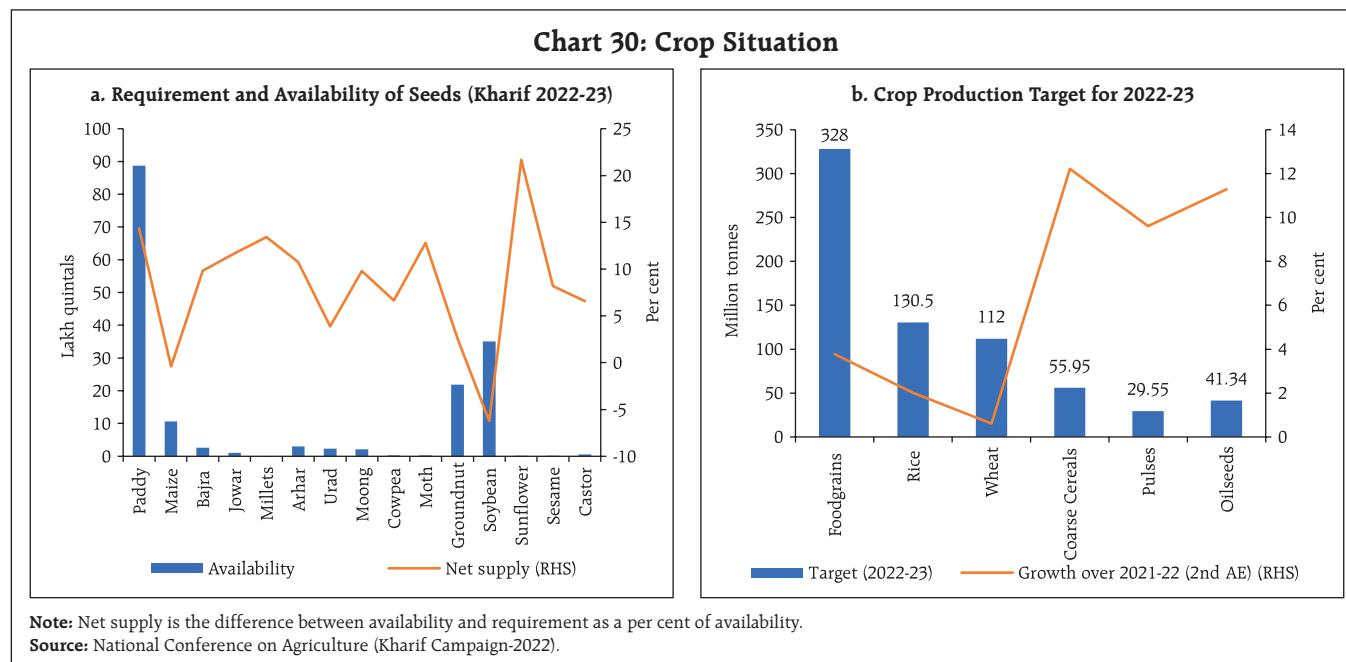
17.9 million metric tonnes (MT) as on May 12, 2022, registering a 49.3 per cent decline from last year's purchase of 35.4 million MT. The procurement operations have, however, benefitted 16.83 lakh farmers with an estimated outflow of ₹36,208 crore at the minimum support price (MSP) of ₹20,150 per MT. Taking into account the lower wheat procurement under central pool and the higher

market prices than MSP, the Central government on May 13 decided to restrict export of wheat, except in case of irrevocable letter of credit and requests from neighbouring / food-deficit countries (Chart 29).

Alongside the India Meteorological Department's (IMD) prediction of normal rainfall at 99 per cent (± 5 per cent of long-period average (LPA)), production

Chart 29: All-India Market Arrivals and Prices of Wheat

Source: CMIE.



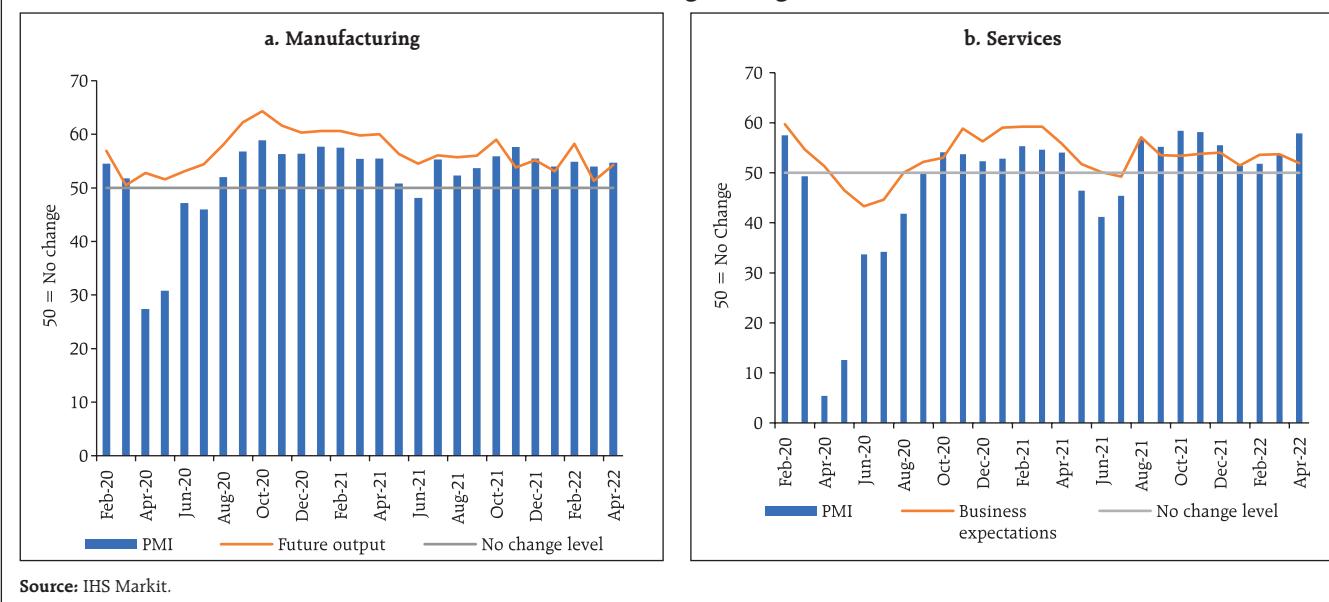
prospects are brightened by sufficient availability of seeds for *Kharif* crops except for soybean and maize (Chart 30a). Incidentally, the LPA (or normal) rainfall for SWM is also revised to 868.6 mm for the period 1971-2020, lower by 12.0 mm from the earlier LPA (880.6 mm for 1961-2010). The production targets for coarse cereals, pulses and oilseeds are 12 per cent, 10 per cent and 11 per cent higher, respectively, than the second advance estimates of 2021-22 (Chart 30b).

In the industrial sector, the headline manufacturing PMI improved in April to 54.7 from 54.0 a month ago, as output and new orders increased. The future output index increased to 54.3 as uncertainty around geopolitical tensions eased, even as it remained below its long-run average. PMI services also improved to 57.9 in April from 53.6 in March, recording the strongest expansion since November 2021. The business expectations index (BEI) for services weakened to 51.9 in April 2022 from 53.7 a month ago, with inflation concerns keeping expectations low (Chart 31).

The recovery in economic activity post the third wave of COVID-19 drove electricity generation higher in April, sustaining at levels recorded a month

ago and surpassing pre-pandemic levels (Chart 32a). Rising temperatures and heat waves in the country nudged up power demand further. This has put pressure on electricity distribution companies (DISCOMs) in meeting the elevated demand, leading to an increase in daily peak shortages (Chart 32b). Power shortage has also forced industrial consumers and DISCOMs to buy electricity from the India Energy Exchange (IEX) (India's energy trading platform), thereby pushing up the spot price of electricity on the exchange (Chart 32c). But the situation is gradually normalising with both electricity peak shortage and electricity spot prices moderating in the second week of May 2022.

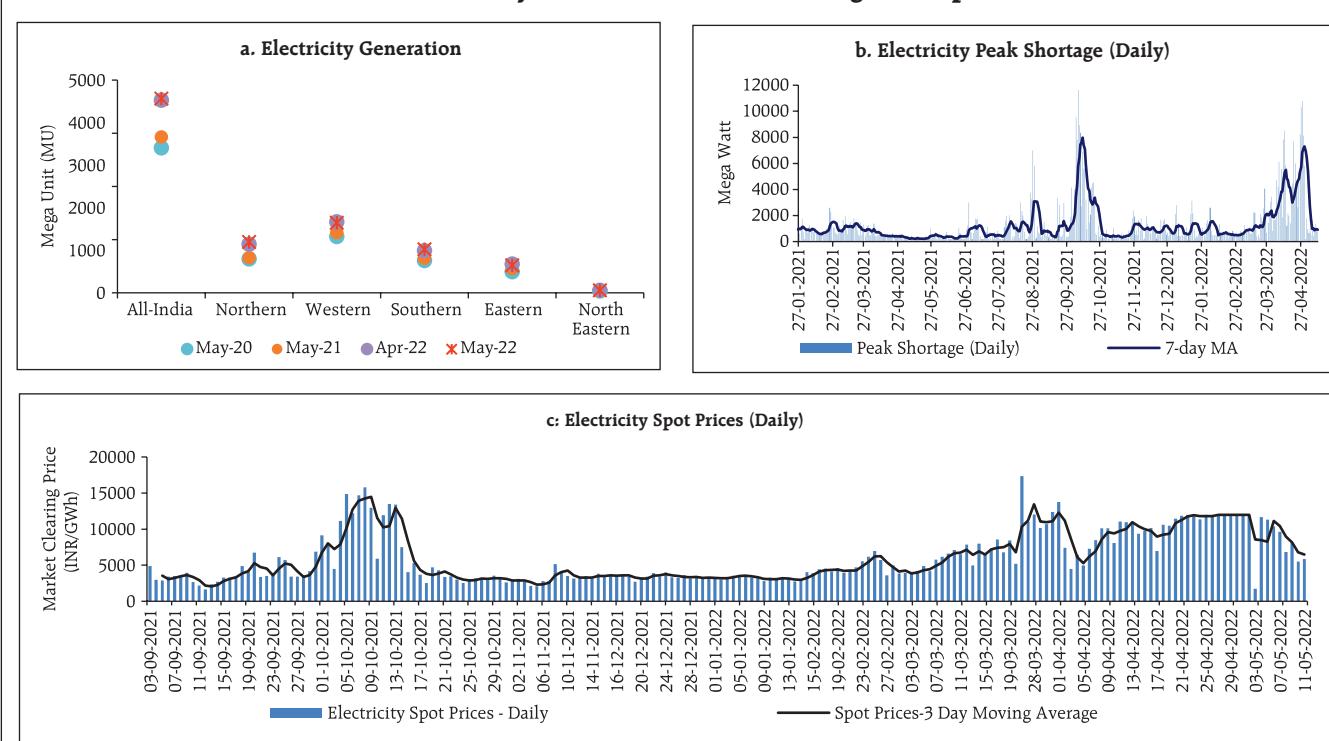
Power shortage was further accentuated by shortage of coal stocks at power plants. The number of thermal power plants with critical levels of coal stock (a week or less) increased to 104 as on May 11, 2022 from 32 a year ago. Normally, domestic shortfall of coal is supplemented by imported coal, but amidst the ongoing geopolitical tensions and supply disruptions, coal imports remain relatively subdued. As about three-fourths of the power generation relies on coal as a fuel, any disruptions in supply of coal

Chart 31: Purchasing Managers' Index

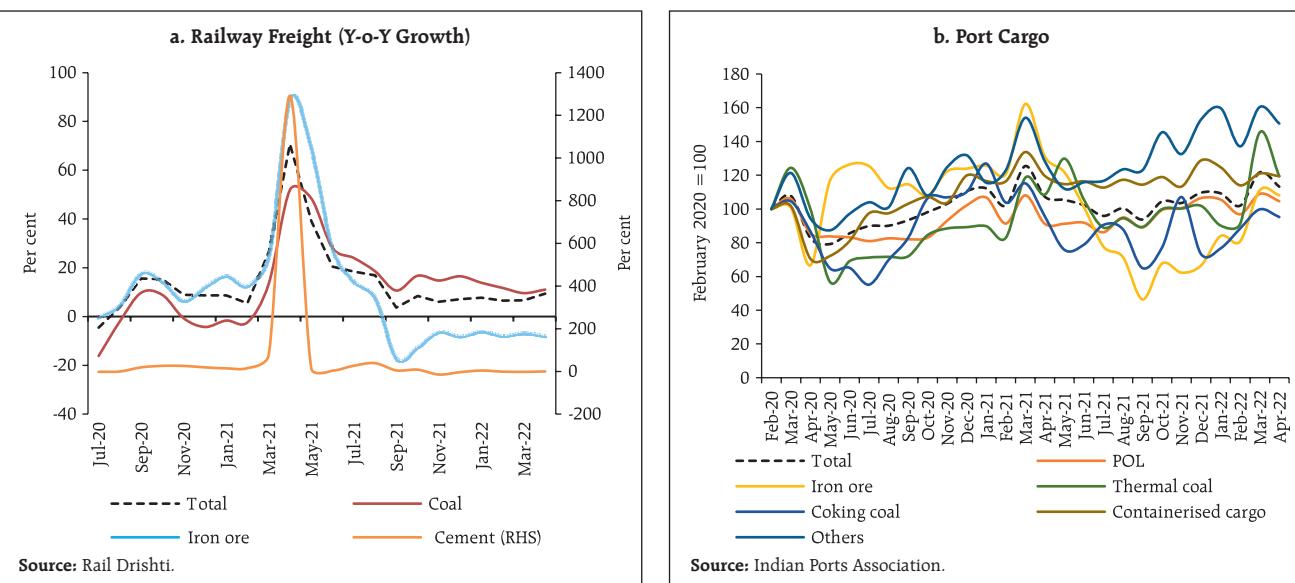
Source: IHS Markit.

spills over to electricity supply. This underscores the need for improving supply networks and creating spare capacity.

In the services sector, transport indicators improved with railways freight traffic increasing by 9.4 per cent (y-o-y) in April 2022 despite a high base

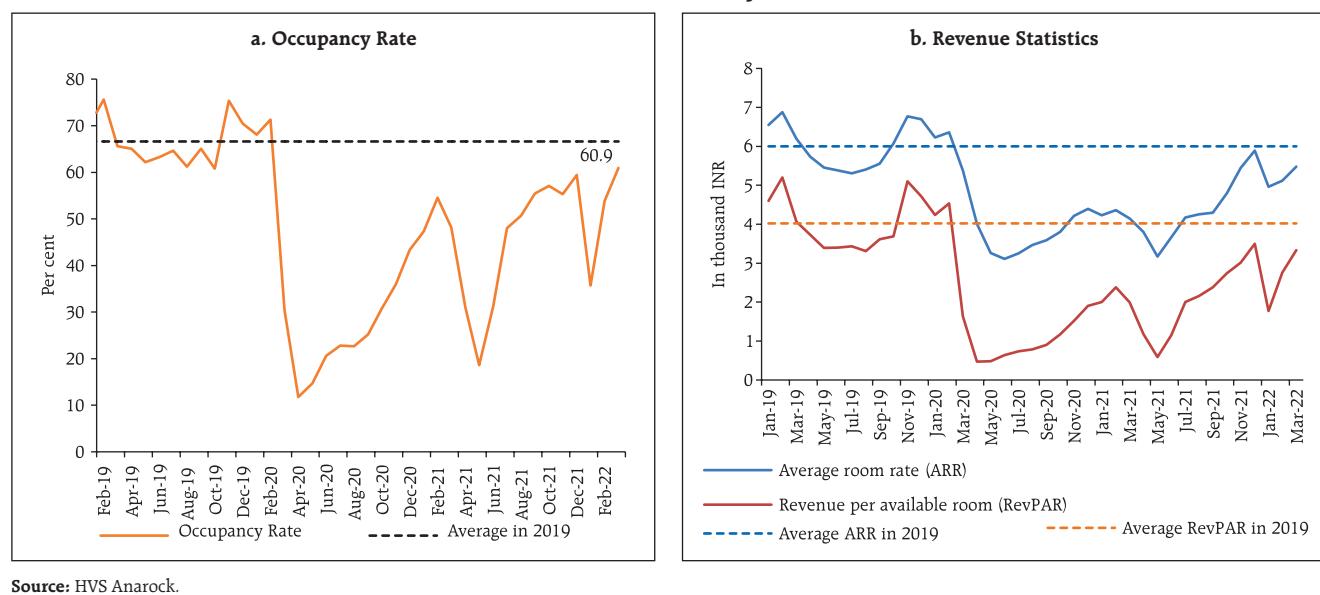
Chart 32: Electricity Generation, Power Shortage and Spot Prices

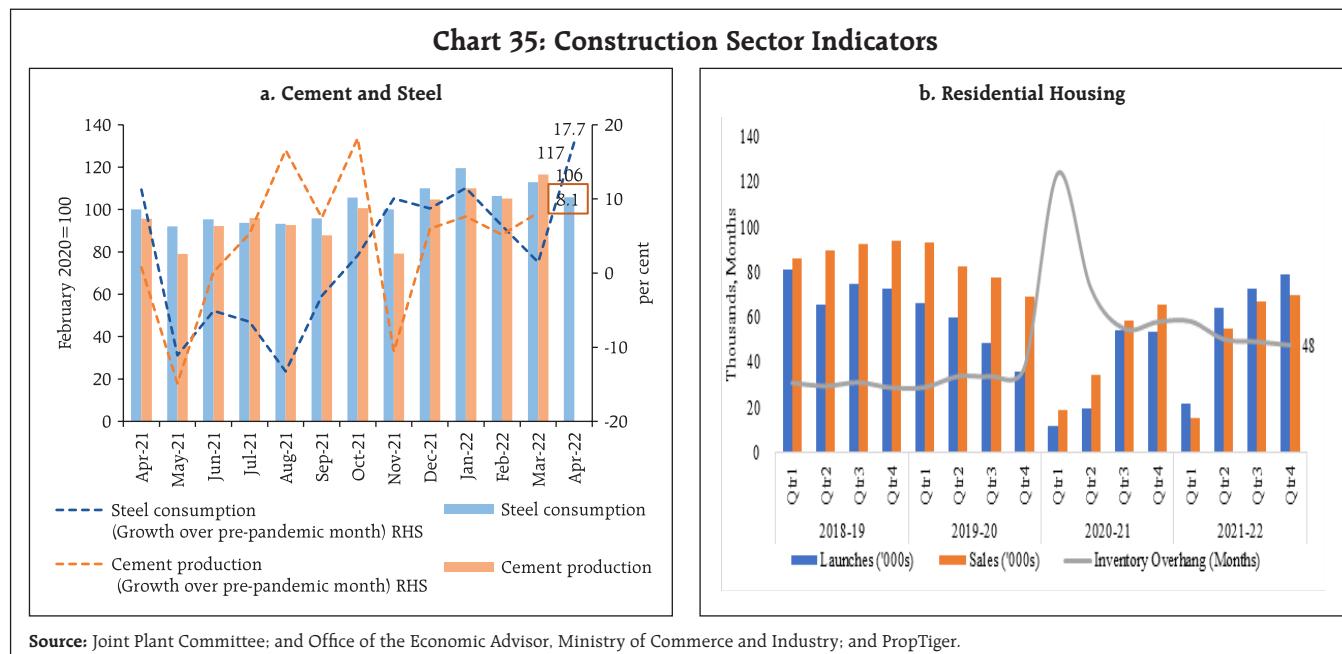
Source: Power System Operation Corporation Limited, and India Energy Exchange.

Chart 33: Railway and Cargo Traffic

(Chart 33a). An increase in coal freight was also recorded, even as iron ore and cement declined on a high base. Cargo at major ports recorded 5.6 per cent growth in April with some loss of momentum in volumes *vis-à-vis* the previous month, due to moderation in all commodities (Chart 33b).

With the reopening up of the services sector, hotel occupancy rates recovered in March 2022 recording their highest levels since the outbreak of the pandemic. Average room rate and revenue per available room inched up, although both remained below the pre-pandemic average (Chart 34).

Chart 34: Hotel Industry Statistics



Activity in the construction sector picked up during March-April 2022, with cement production and steel consumption recording expansion over the pre-pandemic month (Chart 35a)⁸. Rising demand was also reflected in new launches and sales of residential units in Q4:2021-22. Inventory overhang dipped to an eight-quarter low of 48 months (Chart 35b).

The aviation sector maintained its recovery in April 2022, especially in the international passenger segment. Daily domestic airport footfalls averaged 6.9 lakh per day – an expansion of 1.0 per cent over the preceding month. International airport footfalls

increased by 12.4 per cent sequentially, while the cargo segment increased by 2.6 per cent (m-o-m) for domestic cargo and contracted by 6.2 per cent (m-o-m) for international cargo. In the first fifteen days of May, domestic airport footfalls increased by 7.7 per cent over the corresponding period in April, signalling sustained demand for aviation.

Responding to the removal of restrictions, services sector retained momentum which was echoed in high frequency indicators recording growth in most trade and transport sectors. Contact-intensive aviation and tourism sectors recorded sequential improvement, but the recovery remains lagged (Table 2).

⁸ January and February 2022 compared to corresponding months in 2020, March 2022 over March 2019 to account for the base year effect.

Table 2: High Frequency Indicators - Services

Sector	Indicator	High Frequency Indicators- Services Growth (y-o-y, per cent)						Growth over pre-pandemic month		
		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Feb 22/ Feb 20	Mar 22/ Mar 19'	Apr 22/ Apr 19
Urban Demand	Passenger Vehicles Sales	-18.6	-13.3	-8.1	-6.5	-3.9	-3.8	10.2	-4.2	1.6
Rural Demand	Two Wheelers Sales	-34.4	-10.8	-21.1	-27.3	-20.9	15.4	-19.8	-17.8	-29.9
	Three Wheelers Sales	-6.6	27.0	-8.5	-1.1	0.5	52.5	-34.5	-51.6	-54.7
	Tractor Sales	-22.5	-27.5	-32.6	-31.3	-14.3	40.6	-10.0	17	55.5
Trade, hotels, transport, communication	Commercial Vehicles Sales			26.0						
	Railway Freight Traffic	6.1	7.2	7.7	6.6	6.7	9.4	12.4	16.3	20.9
	Port Cargo Traffic	-0.2	-0.4	-2.9	0.0	0.7	5.6	2.0	7.7	8.1
	Domestic Air Cargo Traffic	-1.7	2.0	-6.1	-6.3	-1.0		-12.5	-4.4	
	International Air Cargo Traffic	11.7	10.5	5.2	-0.4	1.1		-10.2	-10.7	
	Domestic Air Passenger Traffic	65.5	53.3	-16.2	-1.0	37.7		-36.6	-5.3	
	International Air Passenger Traffic	140.2	121.7	67.5	66.6	105.7		-56.0	-43.8	
	GST E-way Bills (Total)	5.9	11.6	9.5	8.3	9.7	28.0	20.9	42.4	43.3
	GST E-way Bills (Intra State)	7.3	13.4	11.4	10.3	11.8	28.4	26.3	49	50.8
	GST E-way Bills (Inter State)	3.9	8.9	6.6	5.3	6.6	27.4	13.3	33	32.9
	Tourist Arrivals	255.0	235.5	140.4						
Construction	Steel Consumption	-7.1	-8.3	0.5	-5.3	-0.5	1.0	0.4	1.5	17.7
	Cement Production	-3.6	14.2	14.3	5.0	8.8		5.2	8.1	
PMI Index	Manufacturing	57.6	55.5	54.0	54.9	54.0	54.7			
	Services	58.1	55.5	51.5	51.8	53.6	57.9			

Inflation

Provisional consumer price index (CPI) data for April 2022 released by the National Statistical Office (NSO) on May 12, 2022 showed that headline CPI inflation (year-on-year) rose to 7.8 per cent in April from 7.0 per cent in March on account of an acceleration across all major groups (Chart 36a). A positive price momentum (month-on-month change in prices in the current month) of 143 bps in April was partially offset by favourable base effects (month-on-month change in prices a year ago) of 64 bps, leading to an increase in headline inflation by around 80 bps between March and April.

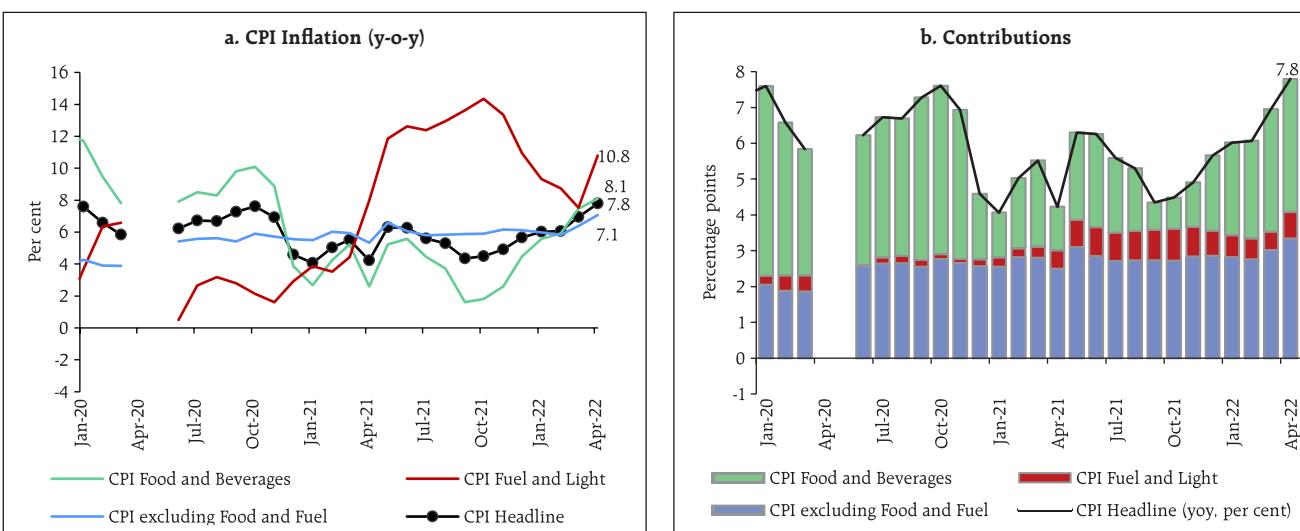
Food and beverages inflation was the main driver, rising to 8.1 per cent in April from 7.5 per cent in March. The sub-groups pushing up inflation were cereals, milk, fruits, vegetables, spices and prepared meals. On the other hand, price increases softened

in respect of eggs, meat and fish, pulses, sugar and non-alcoholic beverages. Edible oils and fats recorded moderate m-o-m increase in prices in April compared to March, which was reflected in the decline in y-o-y inflation.

After moderating for the past five months, fuel inflation increased sharply from 7.5 per cent in March to 10.8 per cent in April, primarily due to an increase in kerosene (PDS) and LPG inflation. Electricity prices continued to record negative inflation on a y-o-y basis (-0.6 per cent), despite increasing in April over March by 1.6 per cent. Fuel (weight of 6.84 per cent in the CPI basket) contributed around 9.3 per cent of headline inflation in April (Chart 36b).

Inflation excluding food and fuel⁹ increased by 70 bps to 7.1 per cent in April from 6.4 per cent in March

⁹ CPI excluding food and fuel is worked out by eliminating the groups 'food and beverages' and 'fuel and light' from the headline CPI.

Chart 36: 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.

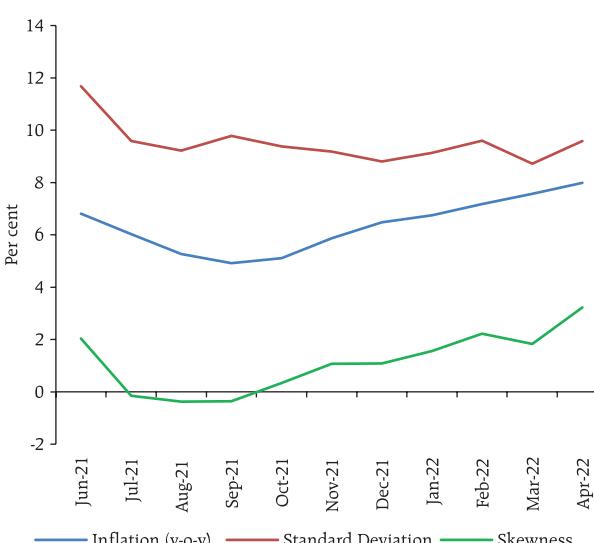
(Chart 36a). This was largely due to the pressures emanating from transport and communication, education, clothing and footwear, recreation and amusement, household goods and services, health and housing sub-groups. Inflation in pan, tobacco and intoxicants and personal care and effects sub-groups moderated.

Along with higher inflation, there has been an uptick in both standard deviation and skewness of inflation in April over March levels,¹⁰ with few items contributing disproportionately to the overall inflation (Chart 37).

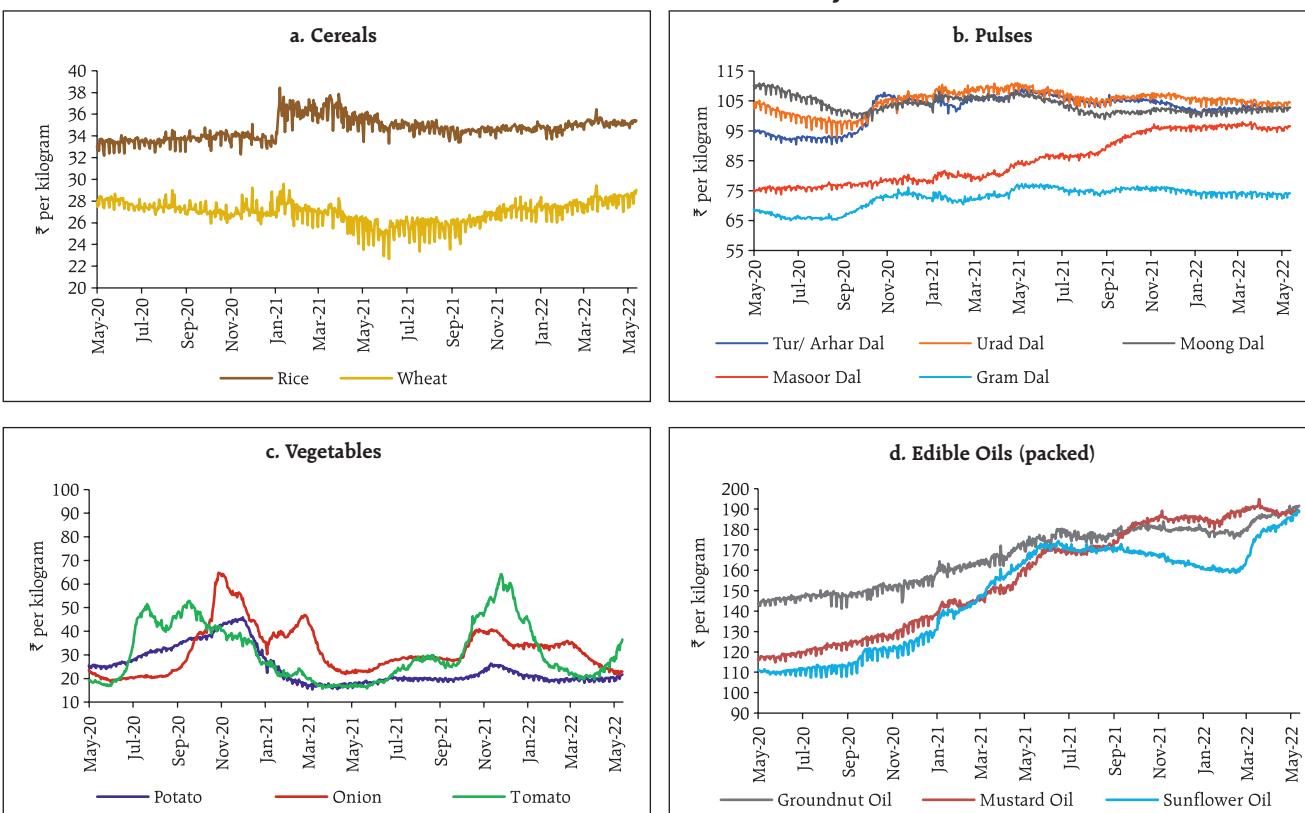
High frequency food price data from the Ministry of Consumer Affairs, Food and Public Distribution (Department of Consumer Affairs) for May so far (May 1-12, 2022) indicate an increase in cereals prices, primarily on account of a surge in wheat prices. Pulses prices remained steady, although *tur* prices have moderated while *masoor* prices edged up. Edible oils prices registered a broad-based increase. Among key vegetables, tomato prices rose sharply, while onion

prices moderated. Potato prices also hardened in May so far (Chart 38).

Retail selling prices of petrol and diesel in the four major metros remained steady in May so far (until 12th). On May 7, 2022 LPG prices increased by ₹50 per cylinder. Kerosene prices remained steady in May after increasing sharply in April (Table 3).

Chart 37: CPI Inflation Moments

¹⁰ Measured using the all India item level CPI data. Standard deviation indicates variability in inflation across commodities while skewness measures the asymmetry around the average.

Chart 38: DCA Essential Commodity Prices

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

Input costs increased sharply in April 2022 across manufacturing and services as reflected in the PMIs. In April, selling prices in manufacturing pushed

inflation to its highest annual level, while selling prices in services rose at the sharpest rate since July 2017.

IV. Financial Conditions

Liquidity conditions evolved in line with the overall stance of monetary policy, with the focus on withdrawal of accommodation as set out in April policy and reinforced through the repo rate and CRR increases announced on May 4, 2022. Daily liquidity absorptions under the liquidity adjustment facility (LAF) averaged ₹6.8 lakh crore in the second half of April 2022 through May 12, moderating from ₹7.5 lakh crore during the second fortnight of March through mid-April 2022. Since the inception of the SDF, average daily absorption under the SDF (which replaced the fixed rate reverse repo (FRRR) as the floor of the LAF corridor on April 8) stood at ₹2.0

^ : For the period May 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: IOCL; Petroleum Planning and Analysis Cell (PPAC); and RBI staff estimates.

lakh crore while the bulk of surplus liquidity was mopped up through variable rate reverse repo (VRRR) auctions (both main and fine-tuning). As liquidity surplus moderated from a peak of near ₹9 lakh crore, overnight money market rates firmed up towards the SDF rate, with the tri-party rate briefly breaching it (Chart 39). The transition from the FRRR to the higher SDF rate as the lower bound of the corridor in the April policy followed by policy rate hike in off-cycle meeting on May 4, 2022 has pulled up the overnight rates. Along the outer term money market segment, yields on 3-month T-bills trended higher in May. The interest rates on 3-month certificates of deposit (CDs) and 3-month commercial paper (CP) after softening intermittently in the second half of April due to low issuances amidst steady inflows to mutual funds, resumed upward momentum, thereafter, surging past the MSF rate.

Bond yields exhibited a hardening bias beginning the second half of April 2022, following the Reserve Bank's May 4 monetary policy decision. The 10-year G-sec yield hardened to an intra-day high of 7.42 per cent on May 4 after the hike in the policy

repo rate and CRR was announced in an off-cycle meeting (Chart 40a). The rise in the US treasury yields also weighed on market sentiment. The short-end of the G-sec yield curve increased in sync with the transition from the FRRR to the SDF, reflecting the repricing of securities of the same maturity (Chart 40b). Subsequently, the policy rate hike brought about an upward shift in the yield curve.

The bearishness in G-sec market spilled to corporate bond market wherein yields experienced synchronised hardening across maturity profile and rating spectrum (Chart 41). The yield on 3-year AAA rated corporate bond hardened by 58 bps from 6.41 per cent on April 13 to 6.99 per cent on May 10, 2022.

Monetary and credit aggregates exhibited sequential improvement in April. Reserve money (RM), excluding the first-round impact of the CRR restoration, grew at 10.0 per cent on a y-o-y basis as on May 6, 2022 (13.5 per cent a year ago) with currency in circulation, the largest component of RM, growing at 9.9 per cent (14.4 per cent a year ago). On the other hand, money supply (M_3) recorded a growth at 10.2 per cent as on April 22, 2022 (11.1 per cent a year

Chart 39: Money Market Rates and Liquidity Conditions

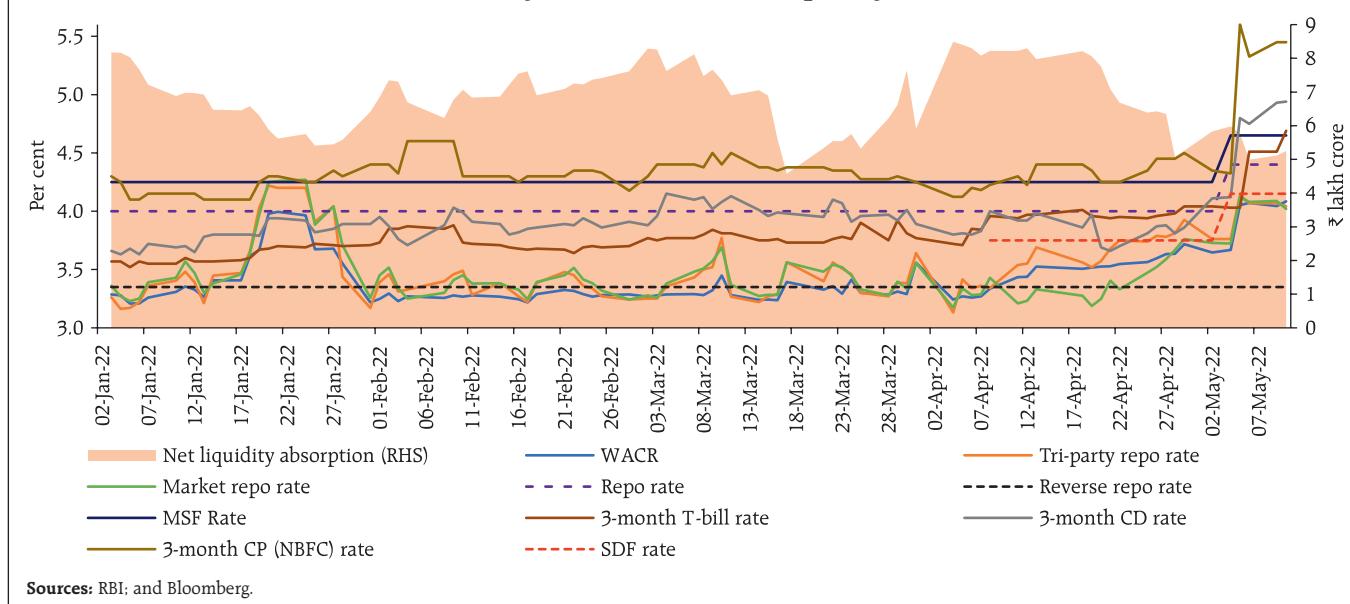
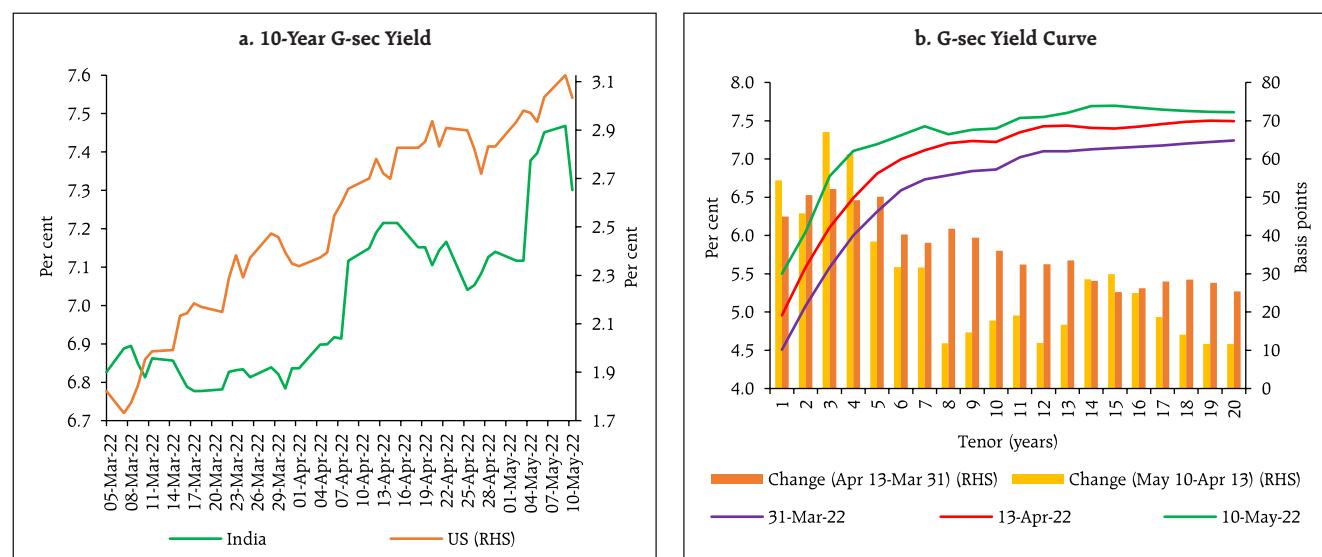
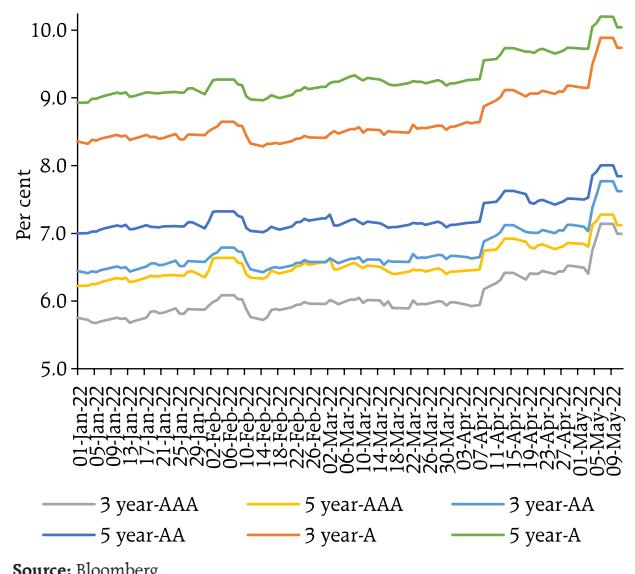
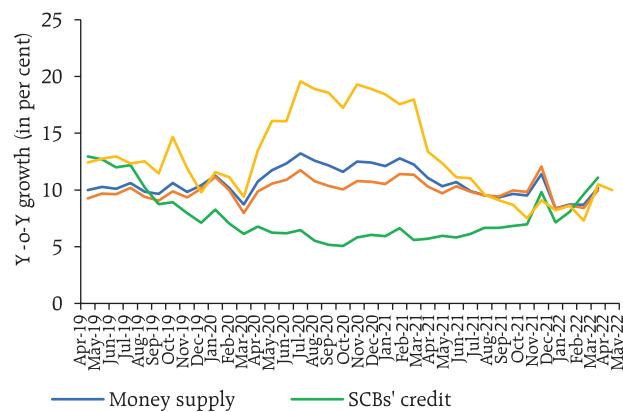


Chart 40: G-sec Market

Sources: Bloomberg; and FIMMDA.

ago), primarily driven by the growth in aggregate deposits at 10.0 per cent (10.3 per cent a year ago). The growth in scheduled commercial banks' (SCBs') credit to the commercial sector crossed double digits for the first time since August 2019 and accelerated to 11.1 per cent as on April 22, 2022 as compared with 5.7 per cent a year ago (Chart 42).

The lagged impact of past monetary policy actions, forward guidance on the accommodative stance of monetary policy and surplus liquidity in the system facilitated transmission of policy rates to lending rates. The weighted average lending rates on fresh and outstanding rupee loans declined by 26 bps and 36 bps, respectively, on a point-to-point

Chart 41: Corporate Bond Yields**Chart 42: Monetary and Credit Aggregates**

basis during April 2021 to March 2022 (Chart 43). The extent of pass-through to the weighted average lending rate (WALR) on outstanding loans was higher than on fresh rupee loans. The median marginal cost of funds-based lending rate (MCLR) of SCBs declined only by 2 bps, while lending rates on new loans declined only marginally. However, with the decline in shares of outstanding loans linked to the base rate and the MCLR and concomitant increase in the share of external benchmark linked outstanding loans which are priced at a lower rate, pass-through to the WALR on outstanding rupee loans was much larger¹¹.

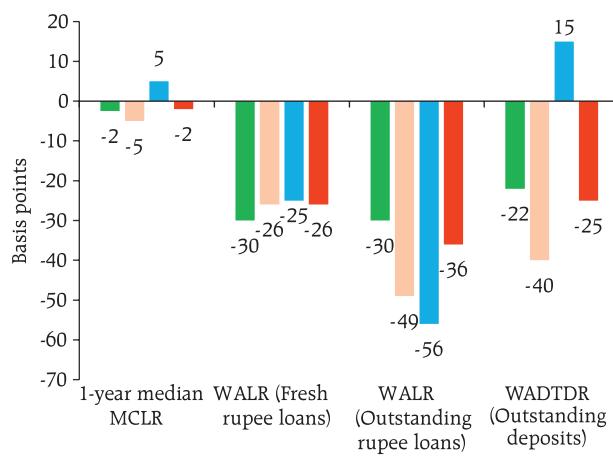
With an increase in the incremental credit to deposit ratio since December 2021, banks have started raising rates on term deposits to mobilise stable funding to meet the increased demand for credit.¹² The median term deposit rate (*i.e.*, average card rates

on fresh deposits across all tenors) of SCBs increased from 4.04 per cent in December 2021 to 4.10 per cent in April 2022 (Chart 44). In response to the Reserve Bank's repo rate hike of 40 bps on May 4, banks have started adjusting their benchmark rates for loan pricing, *i.e.*, MCLRs and external benchmark linked lending rates (EBLRs), upwards.

In April 2022, seven domestic banks, including two public sector banks and five private banks, increased their MCLRs in the range of 5 to 13 bps. The move to increase benchmark rates by some major banks is guiding the direction of lending and deposit rates of non-banking financial companies (NBFCs). Some major non-banks have increased their deposit and lending rates in April 2022.

Q4:2021-22 earnings declared by 409 listed non-financial companies, constituting around 56.3 per cent of all listed non-financial companies, indicate a healthy performance in terms of most of the key

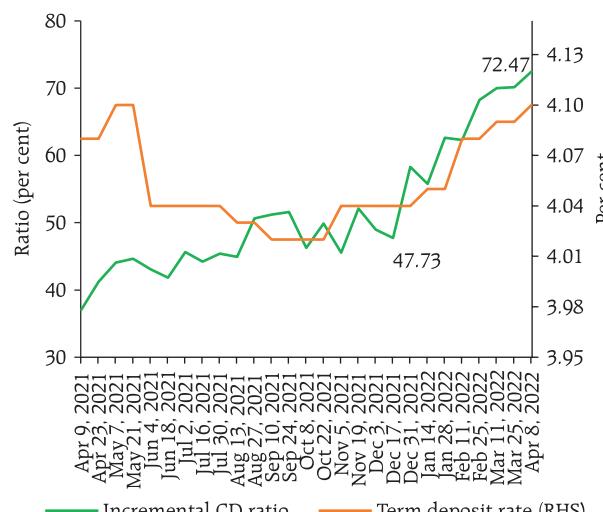
Chart 43: Transmission to Lending and Deposit Rates (April 2021 to April 2022)



Note: Latest data on WALRs and WADTDR pertain to March 2022.

Sources: RBI; and RBI staff estimates.

Chart 44: Incremental CD Ratio and Term Deposit Rates



Source: RBI.

¹¹ The share of outstanding floating rate rupee loans linked to the base rate and the MCLR declined from 6.4 per cent and 62.8 per cent, respectively, in March 2021 to 5.3 per cent and 53.1 per cent, respectively, in December 2021. During the same period, the share of external benchmark linked loans in total outstanding loans increased from 28.6 per cent to 39.2 per cent (RBI Bulletin, April 2022 https://rbi.org.in/Scripts/BS_ViewBulletin.aspx?Id=20939)

¹² A high CD ratio, *ceteris paribus*, could allow banks' pricing power to raise their lending rates, while a moderation in their CD ratio, reflecting subdued credit demand conditions could be expected to put downward pressure on their lending rates.

parameters (Chart 45). Net sales growth during the quarter remained robust, partly driven by a rise in output prices. Raw material costs of firms surged during the quarter owing to the impact of rise in various commodity prices. To cushion the impact of rising input costs, a few firms increased prices of their products while others adopted cost cutting measures, such as reducing discretionary expenses on advertisements, etc. Furthermore, wages and salaries registered an increase during the quarter. Overall, operating expenditure increased at a faster rate than sales which weighed on firms' operating margins. Nonetheless, growth in operating profits remained robust driven by strong performance from oil and gas companies. Other income, which includes income from treasury operations, etc., grew at a robust rate, however, higher tax expenses led to some moderation in net profits growth.

Banking and financial sector, based on an analysis of 120 companies constituting around 73.7 per cent of all listed financial companies, registered strong operating performance during Q4:2021-22 (Chart 46). Net sales, which primarily includes interest income,

registered a sharp increase with pick-up in credit growth. Other income, which includes, profit/loss from treasury operations, fees and commissions, however, registered a decline during the period. Expenditure increased at a subdued rate than the topline, resulting in double-digit growth in operating profits. Furthermore, gaining from improved asset quality, provisioning costs declined sharply during the quarter, contributing to a sharp jump in net profits.

After declining by 2.6 per cent in April 2022, the Indian equity market benchmark BSE Sensex declined further by 7.2 per cent in May 2022 (up to May 12, 2022) tracking weak cues from global markets. Market sentiment remained cautious amidst concerns on rising global inflation, monetary policy tightening in the US and COVID-19 related lockdowns in China. The initial reaction of the equity market to a hike by the Fed of 50 bps was muted, however, it registered steep decline subsequently as investors fretted about monetary policy tightening in the world's largest economy. Even though equity markets are expected to react negatively to interest rate hikes, strong demand

Chart 45: Performance of Listed Non-Financial Companies

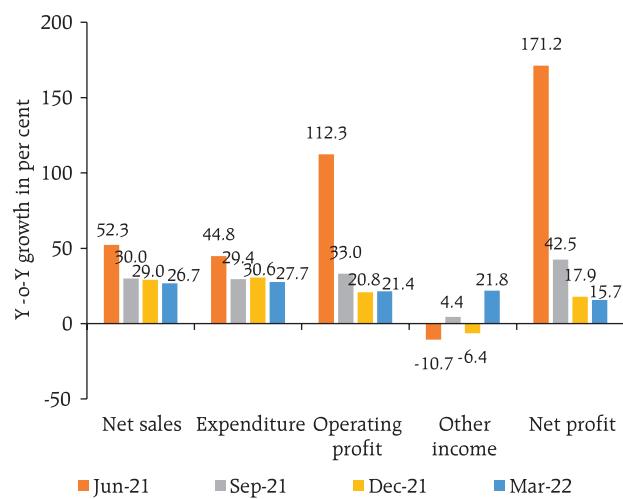
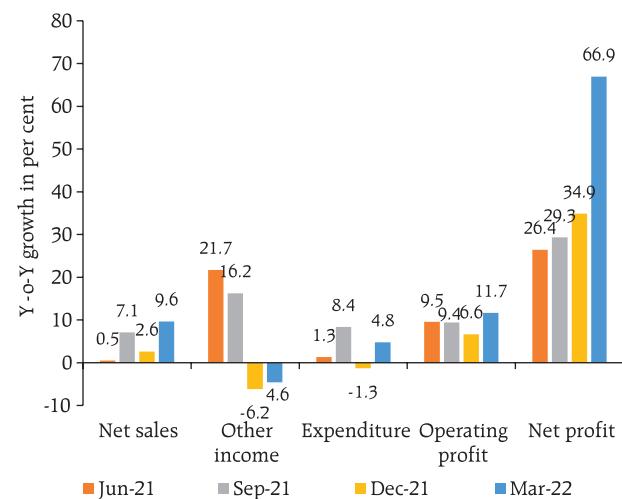
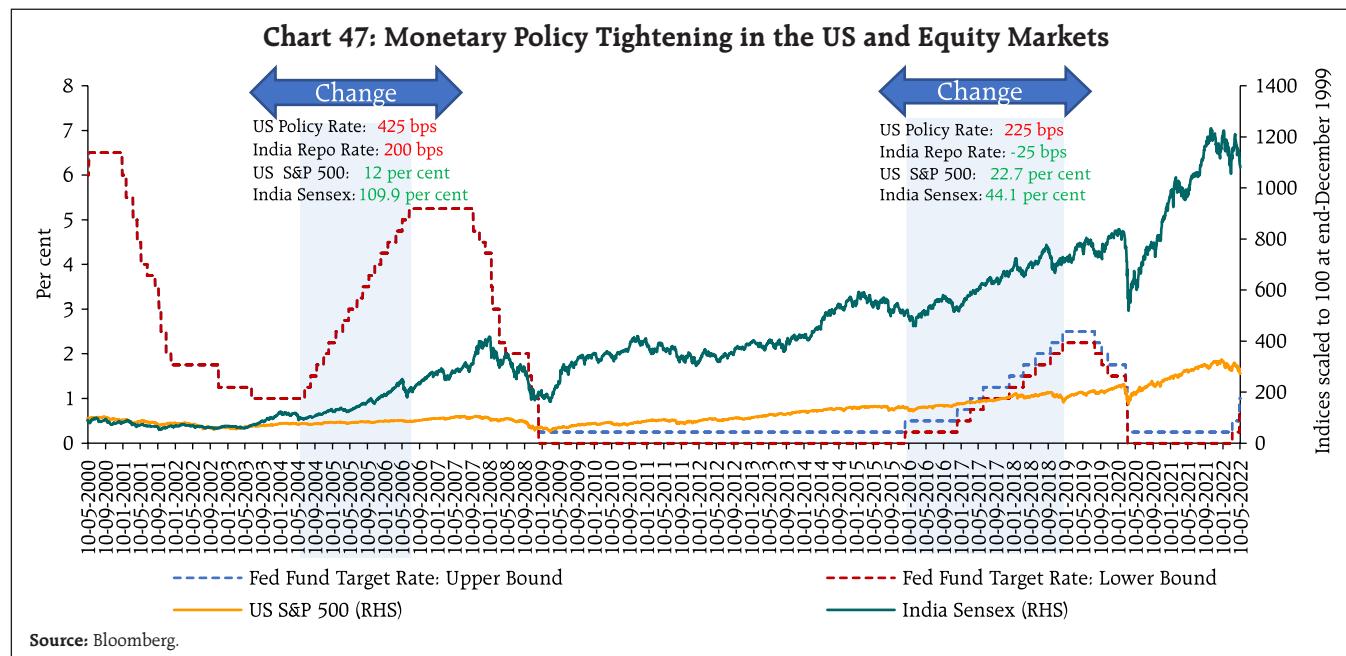


Chart 46: Performance of Listed Financial Companies





conditions and improved profitability would act as a counter force. Historical data suggest that during the two episodes of policy rate hikes by the US Fed since 2000 – first during mid-2004 to mid-2006 and second during end-December 2015 to end-December 2018 – equity markets in India and the US gained as corporate earnings increased (Chart 47).

In contrast to heavy selling by foreign portfolio investors (FPIs) in recent months, domestic investors have emerged as a strong counterbalancing force in the wake of increasing diversification by households into stock markets through direct investments as well as indirect investments through mutual funds. The combined share of domestic institutional investors (DIIs), which includes domestic mutual funds, insurance companies, banks and financial institutions; retail investors and high net-worth individuals (HNIs) in NSE-listed companies reached 23.3 per cent at end-March 2022. In contrast, FPIs held 20.2 per cent at end-March 2022 (Chart 48).

India remained an attractive destination for foreign direct investors in 2021-22. Gross foreign direct investment (FDI) inflows at US\$ 83.6 billion

in 2021-22 surpassed their level of US\$ 82.0 billion recorded a year ago (Chart 49). However, net FDI moderated to US\$ 39.3 billion in 2021-22 from US\$ 44.0 billion a year ago, due to higher outward FDI by India and repatriation by foreign investors. Services and manufacturing sectors accounted for a major share in FDI equity inflows in 2021-22.

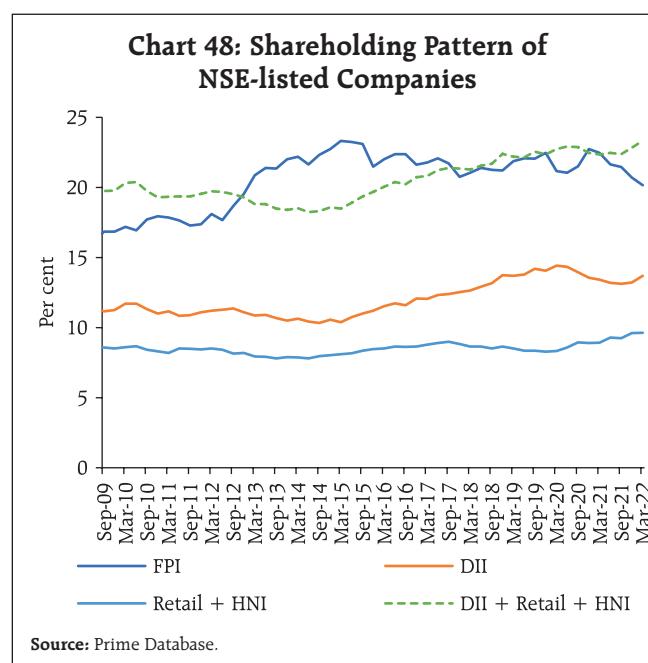
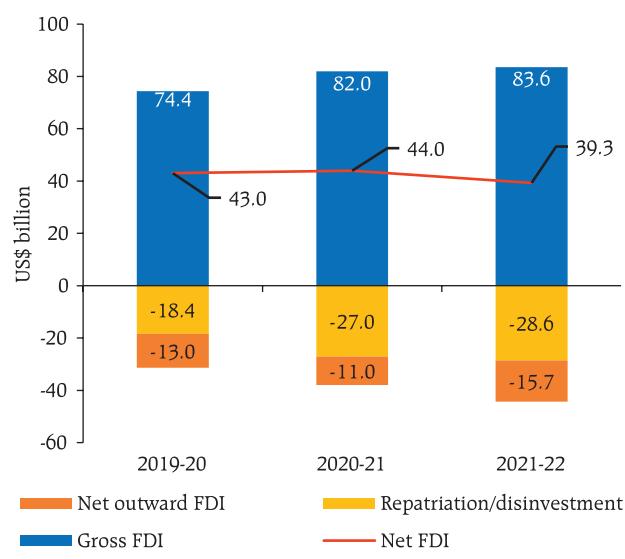
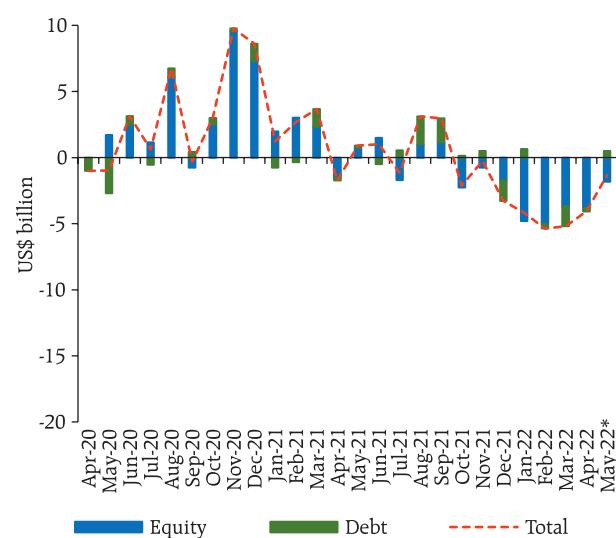


Chart 49: Foreign Direct Investment

Source: RBI.

Chart 50: Net Foreign Portfolio Investment

*, Up to May 10, 2022.

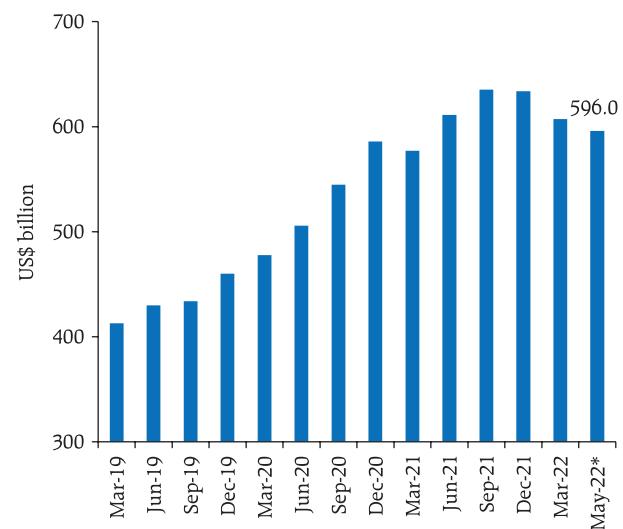
Source: National Securities Depositories Limited (NSDL).

FPIs remained net sellers in April 2022 in the domestic market, amidst inflationary pressures, oil price surges, incoming information on policy normalisation in major AEs and geopolitical tensions. Net FPI outflows in the month to the tune of US\$ 4.1 billion were largely driven by the sell-off in the equity market (Chart 50). A large part of FPI outflows in the month was recorded in financial services and information technology sectors.

Net disbursements of external commercial borrowings (ECBs) to India, excluding inter-company borrowings, stood higher at US\$ 7.7 billion during 2021-22 as compared with US\$ 0.2 billion a year ago, while net disbursements, including inter-company borrowings, were to the tune of US\$ 12.2 billion during this period as against US\$ 4.1 billion a year ago. A large part of ECBs in March 2022 was routed to infrastructure development, expenditure for local capital goods and refinancing of earlier ECBs.

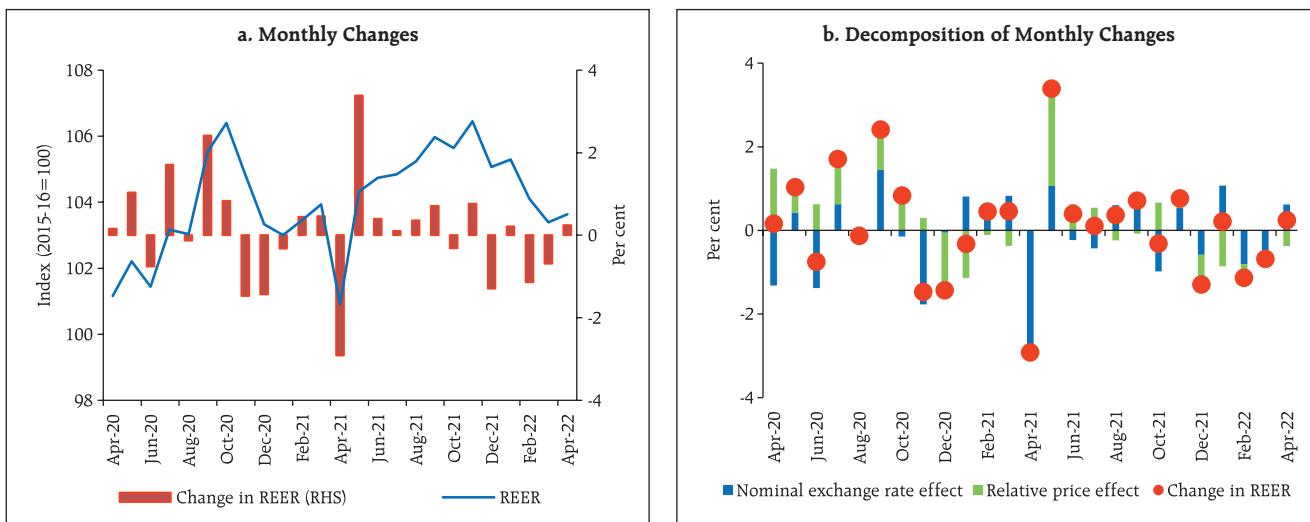
Foreign exchange reserves at US\$ 596.0 billion as on May 6, 2022 were equivalent to about 10 months of imports projected for 2022-23 (Chart 51).

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 April 2022. This was reflected in the movement of the 40-currency real effective exchange rate (REER) of the INR, which appreciated by 0.2 per cent in the month (Chart 52).

Chart 51: Foreign Exchange Reserves

*: As on May 6, 2022.

Source: RBI.

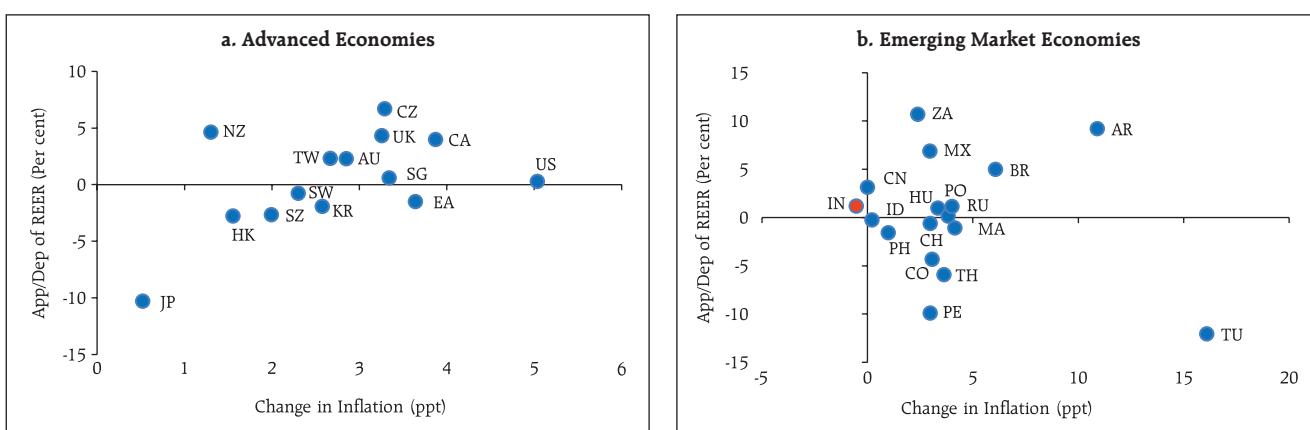
Chart 52: Monthly Movements in 40-Currency Real Effective Exchange Rate (REER)

Note: Figures for April 2022 are provisional.

Source: RBI.

High inflationary pressures have led to a significant appreciation in REERs in the UK and Canada, while the REER has remained stable in the US (Chart 53a). By contrast, price surges are accompanied by a moderation in the REER in the Euro area. Among major EMEs, inflationary pressures have induced

a significant appreciation in the REER in Argentina (Chart 53b). Similarly, REERs have been largely driven by domestic price pressures in Brazil, Mexico, and South Africa. By contrast, high inflationary pressures are accompanied by a significant moderation in the REER in Turkey.

Chart 53: Domestic Inflation and REER in 2021-22

AR: Argentina; AU: Australia; BR: Brazil; CA: Canada; CH: Chile; CN: China; CO: Colombia; CZ: Czech Republic; EA: Euro Area; HK: Hong Kong; HU: Hungary; ID: Indonesia; IN: India; IS: Israel; JP: Japan; KR: Korea; MA: Malaysia; MX: Mexico; NZ: New Zealand; PE: Peru; PH: Philippines; PO: Poland; RU: Russia; SG: Singapore; SW: Sweden; SZ: Switzerland; TH: Thailand; TU: Turkey; TW: Taiwan; UK: United Kingdom; and US: United States.

Notes: 1. Change in inflation represents an increase or decrease in annual inflation (percentage point) in 2021-22 over 2020-21.
2. Appreciation (+) and depreciation (-) of REER is the percentage change in REER in 2021-22 over 2020-21.

Sources: RBI; BIS; IMF; Thomson Reuters; and CEIC.

Payment Systems

Digital payments maintained a healthy expansion in April 2022. Large-value transfers through the Real Time Gross Settlement (RTGS) posted double-digit growth (y-o-y). On the retail side, transactions through the Unified Payments Interface (UPI) maintained robust volume and value growth, with values inching closer to hitting ₹10 lakh crore mark. The National Electronic Funds Transfer (NEFT), the Immediate Payment Service (IMPS), the National Electronic Toll Collection (NETC), and the National Automated Clearing House (NACH) also recorded acceleration in transactions (Table 4). The Bharat Bill Payment System (BBPS) registered the highest number of transactions in a month (7.4 crore), reflecting its popular adoption. The surge was led by electricity bills payment, with increased demand during the summer season, followed by loan repayments. Credit card transactions gained further traction, owing to the revitalisation of air travel and hospitality, combined with the emergence of new players and expansion into lower-tier cities.¹³ The number of outstanding credit cards

increased to 7.36 crore in March 2022, around 19 per cent higher than a year ago.

As part of its efforts to develop a consumer-friendly and robust payment ecosystem, the Reserve Bank has consolidated and updated the guidelines concerning the issuance of cards and conduct of operations by card issuers in India.¹⁴ These regulations simplify the extant regulatory environment relating to the card system, mandate issuers to take explicit consent of customers regarding the provision of card-related services and handling of their data, allow NBFCs to issue credit cards without a banking partner subject to the prior approval of the Reserve Bank, and strengthen the grievance redressal mechanism. Making new strides in internationalisation of the UPI, the NPCI International Payments Ltd. has enabled the acceptance of BHIM UPI across NEOPAY¹⁵ enabled stores in the United Arab Emirates (UAE).¹⁶ As a measure to enhance digital financial inclusion, the BBPS has partnered with FAARMS¹⁷ to facilitate recurring payments for farmers throughout India.

Table 4: Growth Rates in Select Payment Systems

Payment System	Transaction Volume Growth (Y-o-Y, per cent)				Transaction Value Growth (Y-o-Y, per cent)			
	Mar-2021	Mar-2022	Apr-2021	Apr-2022	Mar-2021	Mar-2022	Apr-2021	Apr-2022
RTGS	70.1	13.7	178.8	28.9	7.8	11.4	36.6	26.1
NEFT	32.7	23.9	62.7	30.6	33.4	14.6	56.6	22.1
UPI	119.1	97.9	164.2	111.4	144.5	90.3	226.6	99.2
IMPS	67.5	35.5	163.7	46.0	62.0	41.3	147.3	48.4
NACH	-22.0	9.0	-43.0	19.0	16.0	-8.0	24.0	14.3
NETC	128.6	39.9	1500.8	61.5	117.2	32.7	1021.6	51.9
BBPS	122.4	102.4	175.2	110.9	165.9	120.7	279.4	117.7

Source: RBI.

¹³ <https://www.pwc.in/assets/pdfs/consulting/financial-services/fintech/payments-transformation/the-indian-payments-handbook-2021-2026.pdf>

¹⁴ Master Direction – Credit Card and Debit Card – Issuance and Conduct Directions, 2022.

¹⁵ NEOPAY is a payment subsidiary of Mashreq Bank, UAE. It provides digital banking and online payment solutions to businesses.

¹⁶ <https://www.npci.org.in/PDF/npci/press-releases/2022/NIPL-Press-Release-BHIM-UPI-goes-live-at-NEOPAY-terminals-in-UAE.pdf>

¹⁷ FAARMS is a digital platform aimed at provision of a one-stop solution to farmers for their various needs.

Overall, the digital payment market is expanding, with the rise in e-commerce adoption, FinTech app installs¹⁸, number of active internet users¹⁹, and the number of smartphones²⁰ combined with the leveraging of India Stack²¹ by FinTech players. Riding on the back of growing acceptance of existing digital modes and novel payment offerings such as Buy-Now-Pay-Later schemes and offline payments, the Indian digital payment market is expected to reach 21,700 crore transactions by 2026.²²

Conclusion

The global growth outlook appears grim as geopolitical tensions linger, commodity prices remain elevated and withdrawal of monetary accommodation gathers speed. Emerging economies face risks of capital outflows and higher commodity prices feeding into inflation prints. Meanwhile, the pandemic continues to impinge on near-term economic prospects.

The Indian economy's recovery remains resilient, although risks stemming from global developments have thwarted the momentum. Inflation risks have become more accentuated in recent months. The increase in international commodity prices also imparts a net terms of trade shock that is widening the trade and current account deficits.

India faces challenges in building from the scars of the pandemic through larger investments in health and productivity of the human capital. With an acceleration in the pace of digitalisation, the footprint of the unicorn ecosystem in India is expanding, reflecting a rapidly changing economy. In order to achieve a higher growth path on a sustainable basis, private investment needs to be encouraged through higher capital expenditure by the government which crowds in private investment. Improving infrastructure, ensuring low and stable inflation and maintaining macroeconomic stability are critical for reviving animal spirits and spurring growth.

¹⁸ Total number of FinTech app installs grew by around 32 per cent in CY2021, of which 81 per cent were payment app installs. <https://www.thehindubusinessline.com/companies/indias-fintech-market-projected-to-touch-150160-billion-by-2025-affle-report/article65334947.ece>

¹⁹ https://www.business-standard.com/article/economy-policy/45-growth-in-active-internet-users-in-rural-india-since-2019-study-122050501161_1.html

²⁰ <https://indianexpress.com/article/technology/mobile-tabs/indian-smartphone-market-up-2-percent-in-q1-2022-as-supply-bottlenecks-loom-large-canals-7880190/>

²¹ India Stack is a set of Application Programming Interfaces (Aadhaar, UPI, E-Sign, DigiLocker etc.) which enables stakeholders to utilise digital infrastructure for paper-less and cashless service delivery.

²² https://www.business-standard.com/article/economy-policy/upi-to-stay-on-top-digital-currency-to-drive-payments-in-next-5-years-122041700252_1.html

*Financial Stocks and Flow of Funds of the Indian Economy 2019-20**

The financial resource gap of the domestic economy, measured by the net acquisition of financial assets less net increase in financial liabilities, narrowed in 2019-20. While households and financial corporations remained net lenders, net borrowings of the non-financial corporations and general government increased during the year. Dependency on foreign resources, however, declined in 2019-20 as compared to a year ago. Net flows to the general government sector from other depository corporations and other financial corporations increased in 2019-20. A major proportion of investments of other financial corporations was in G-sec. Currency and deposits remained the preferred investment avenues for the households.

Introduction

The extensive framework used by the Reserve Bank of India (RBI) to compile accounts covering financial stocks and flow of funds (FSF) for the Indian economy, following the System of National Accounts (SNA), 2008, presents instrument-wise financial accounts¹ for the five institutional sectors² on a 'from-whom-to-whom' (FWTW) basis (Annex I). The set of accounts provides essential macroeconomic information at the inter-sectoral level in an accessible yet rigorous format, disentangling portfolio shifts across sectors caused by economic transformation and development as well as portfolio adjustments on account of significant economic events. In the wake

of COVID-19 and the intermittent lockdowns, the data collection system was disrupted for some time³, throwing up several challenges, particularly for the non-government non-financial sector. Efforts have been sustained, however, to augment the compilation with methodological refinements and improvements in sourcing of data⁴.

The changing pattern of financial flows across the five institutional sectors in the past decade has altered the share of these sectors in total financial assets, albeit moderately. In terms of sectoral share in both financial assets and liabilities, financial corporations (FCs) dominated by commercial banks constitute the largest sector. Households and the private non-financial corporations (PvNFCs) follow in that order in terms of the asset size, whereas the PvNFCs and the general government (GG) sector follow FCs in terms of total liabilities. Compared with their share in total assets, households' share in total liabilities remain much smaller. The share of public NFCs (PuNFCs) in total assets shrunk to 1.3 per cent in 2019-20 from 2.0 per cent in 2011-12, whereas those of the central and state governments remained stable. The relatively minor share of the rest of the world (RoW) sector in both assets and liabilities reflects the preponderant domestic orientation of the economy (Chart 1).

This article, apart from imparting important understanding about instrument-wise borrowing and lending relationships between institutional sectors, presents financial flows on a FWTW basis for 2019-20. The article is organised into five sections

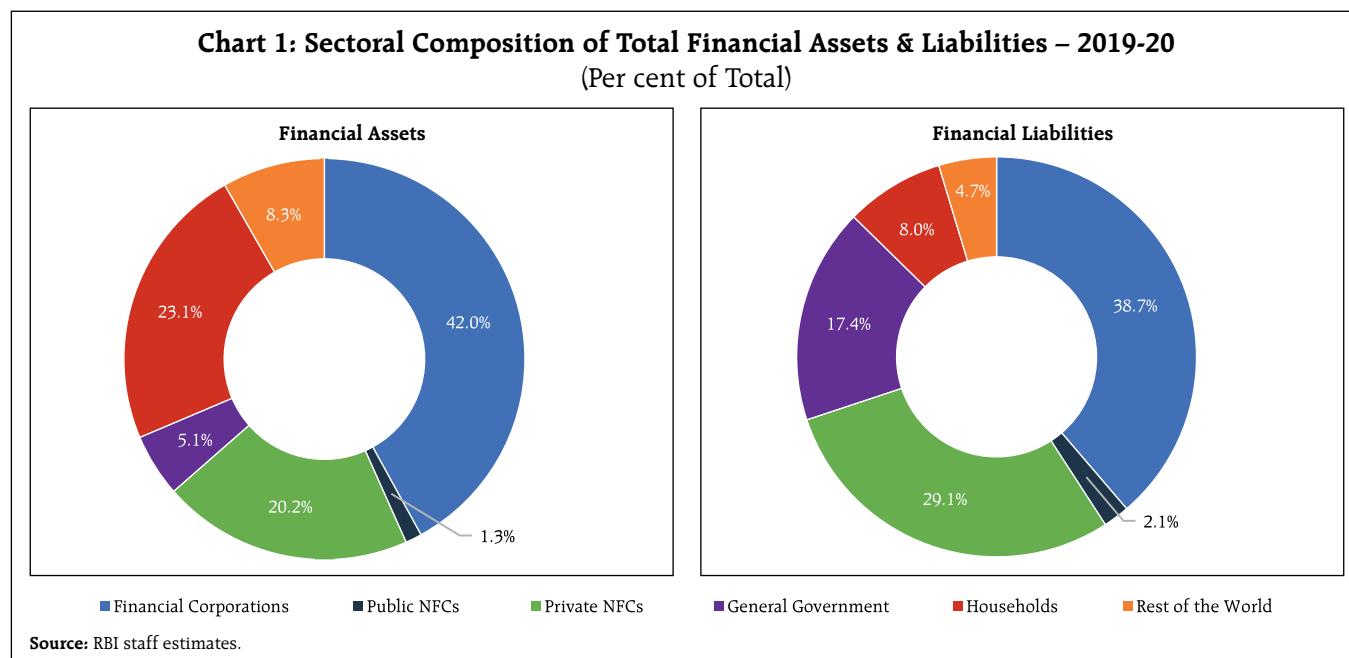
¹ Financial accounts comprise financial assets and liabilities which do not include fixed assets, reserves, provisions and deferred tax.

² The five institutional sectors include: (i) financial corporations (FCs); (ii) non-financial corporations (NFCs); (iii) general government (GG); (iv) households (HH) including non-profit institutions serving households (NPISHs); and (v) rest of the world (RoW).

³ *Financial Stocks and Flows of the Indian Economy: 2016-17 to 2018-19* was published in RBI Bulletin, July 2020.

⁴ The [detailed statements 1 to 9](#), with revised series 2011-12 onwards have also been released with this article.

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– Section II presents the progress on the G-20 Data Gaps Initiative-2 (DGI-2) followed by a brief account of the sectoral financial resource gaps in section III. Section IV discusses the sectoral mapping of the financial flows, and section V concludes with policy perspectives. Annex I outlines the framework and methodology of compilation, while Annex II presents the major improvements introduced in this round of compilation.

II. Progress under Data Gaps Initiative-2

The sixth progress report of DGI-2, October 2021 – 'Countdown to December 2021'⁵ acknowledged the delay in the DGI-2 work programme due to the pandemic. Nevertheless, the participating economies were advised to continue to take forward the agreed recommendations⁶, in particular, recommendation

II.8 on sectoral accounts which states, "*The G-20 economies to compile and disseminate, on a quarterly and annual frequency, sectoral accounts flows and balance sheet data, based on the internationally agreed template, including data for the other (non-bank) financial corporations sector, and develop from-whom-to-whom matrices for both transactions and stocks to support balance sheet analysis.*"

As per the progress report, six G-20 nations, viz., Canada, France, Germany, Italy, Turkey and the US, based on self-assessment⁷, have fulfilled the target requirements for annual and quarterly financial accounts and balance sheets. Spain has completed both annual and quarterly accounts and the Netherlands has completed its quarterly accounts with detailed information. Indonesia has finished the compilation and reconciliation of the annual and quarterly sectoral accounts and balance

⁵ 2021 marked the final year of the second phase of the G-20 DGI-2, and the twelfth year since the G-20 Finance Ministers and Central Bank Governors (FMCBG) endorsed the twenty recommendations made by the International Monetary Fund (IMF) and the Financial Stability Board (FSB) Secretariat to address the data gaps identified during the GFC of 2007-09.

⁶ G-20 DGI recommendations relevant to the use of financial accounts, Presentation by Peter van de Ven in the Irving Fischer Committee on Central Bank Statistics, BIS, 2019.

⁷ The inter-agency group (IAG) on economic and financial statistics, in collaboration with the Inter-Secretariat Working Group on National Accounts (ISWGNA), is entrusted to encourage and monitor the progress by G-20 economies.

sheets for 2015-19, while China has published flow of funds (FoF) account for both financial and non-financial transactions at an annual level, making gradual strides towards quarterly reporting. Russia published main financial instruments on an annual and quarterly basis and has prioritised to extend the sectoral and instrument-wise breakdown in near future. Apart from financial accounts, the US is also progressing towards developing quarterly data for non-financial transactions at the sectoral level.

India has been disseminating financial balance sheets for the five institutional sectors and bifurcation of financial flows into transactions and valuation changes (for mutual funds, insurance, pension and provident funds, households and the central bank) on an annual basis since 2019⁸ when the flow of funds were augmented with sector-wise outstanding positions for the first time. The Reserve Bank has been publishing the FoF accounts for the Indian economy from 1951-52 onwards, and on a FWTW basis since 1964. The work in India, consistent with the evolving international best practices, has progressed under various committees set up from time to time. The current work plan is being guided by the recommendations of the Committee on Financial Sector Statistics, 2018 (Chairman: R.H. Dholakia) which include *inter alia*: (i) release of higher frequency data – quarterly as well as annual with a reduced lag; (ii) coverage of new variables; and (iii) coverage of new aspects such as, flows *vs.* stocks and transactions *vs.* valuation.

In 2019-20, compilation and dissemination of quarterly accounts for the household sector began including the stock and flow of financial assets and liabilities of the households⁹ to gross domestic

product (GDP) ratio. Some further improvements have been made possible with the availability of better sources of data, *inter alia*, loans and advances and equity investments of the central government (CG) from the Finance Account by Controller General of Accounts (CGA); relatively detailed information regarding Regional Rural Banks' (RRBs') assets and liabilities from *Key Statistics and Financial Statements of Regional Rural Banks* published by the National Bank for Agriculture and Rural Development (NABARD); and information on Rural Co-operative Banks (RCBs) from the National Federation of State Co-operative Banks (NAFSCOB) report – *Basic Data on performance of StCBs, DCCBs, PACs, NAFSCOB*¹⁰ (Annex II). Furthermore, net flow of resources from the household sector to mutual funds is arrived at by adding net sales of Individual (retail), High Net-worth Individual (HNI) and Hindu Undivided Family (HUF¹¹) categories.

III. Sectoral Financial Resource Gap

The financial resource gap of the domestic economy – measured by the net acquisition of financial assets less net increase in financial liabilities narrowed in 2019-20 (Chart 2). While households and financial corporations remained net lenders, net borrowings of public non-financial corporations and general government increased during 2019-20.

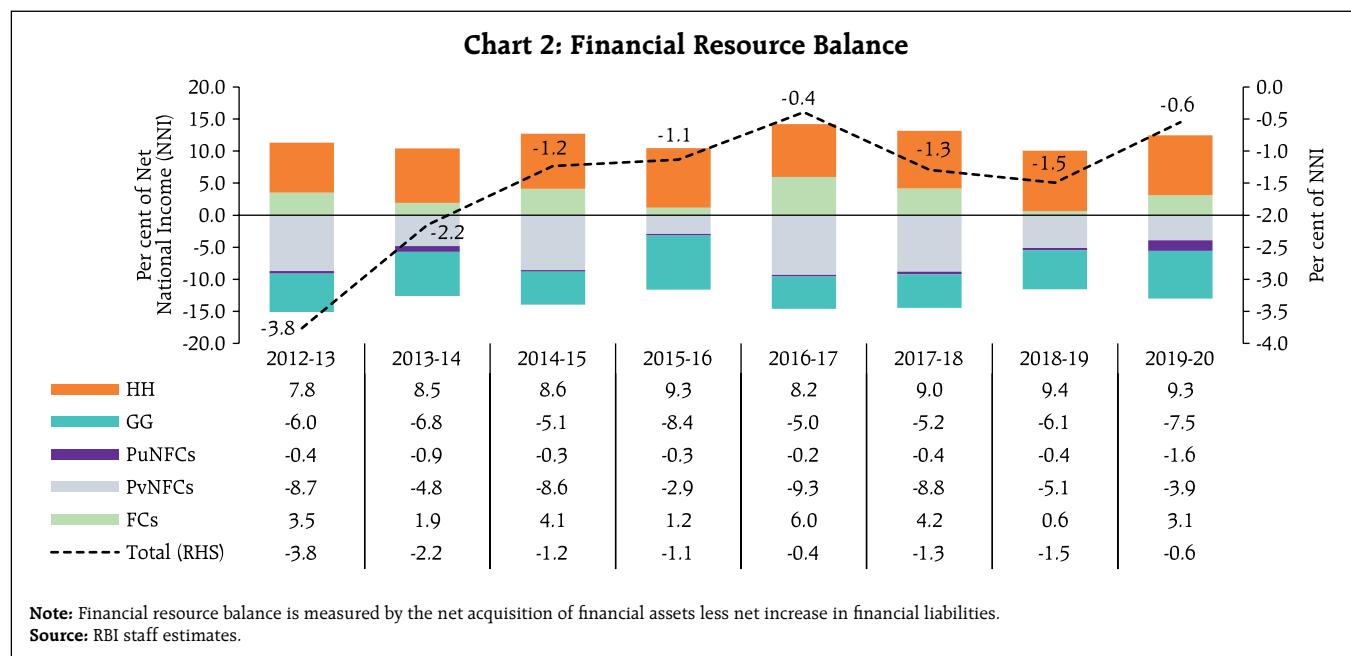
The financial net worth of each sector is derived by netting out outstanding external financial liabilities from outstanding financial assets. Being prime savers in the economy and lenders to other

⁸ Break-ups for debt securities, loans and equity as well as consolidated data for GG sector remain to be reported in line with the FoF accounts template.

⁹ RBI Bulletin, March 2022 under Current Statistics, Occasional Series.

¹⁰ Amongst the rural co-operatives, short term institutions comprise State Co-operative Banks (StCBs), District Central Co-operative Banks (DCCBs) and Primary Agricultural Credit Societies (PACS).

¹¹ As per the Basic Statistical Returns (BSR) survey, households' share in credit and deposits include HUF as part of 'Households – Others'. Accordingly, for net flow in mutual funds of the household sector, the HUF category is included.



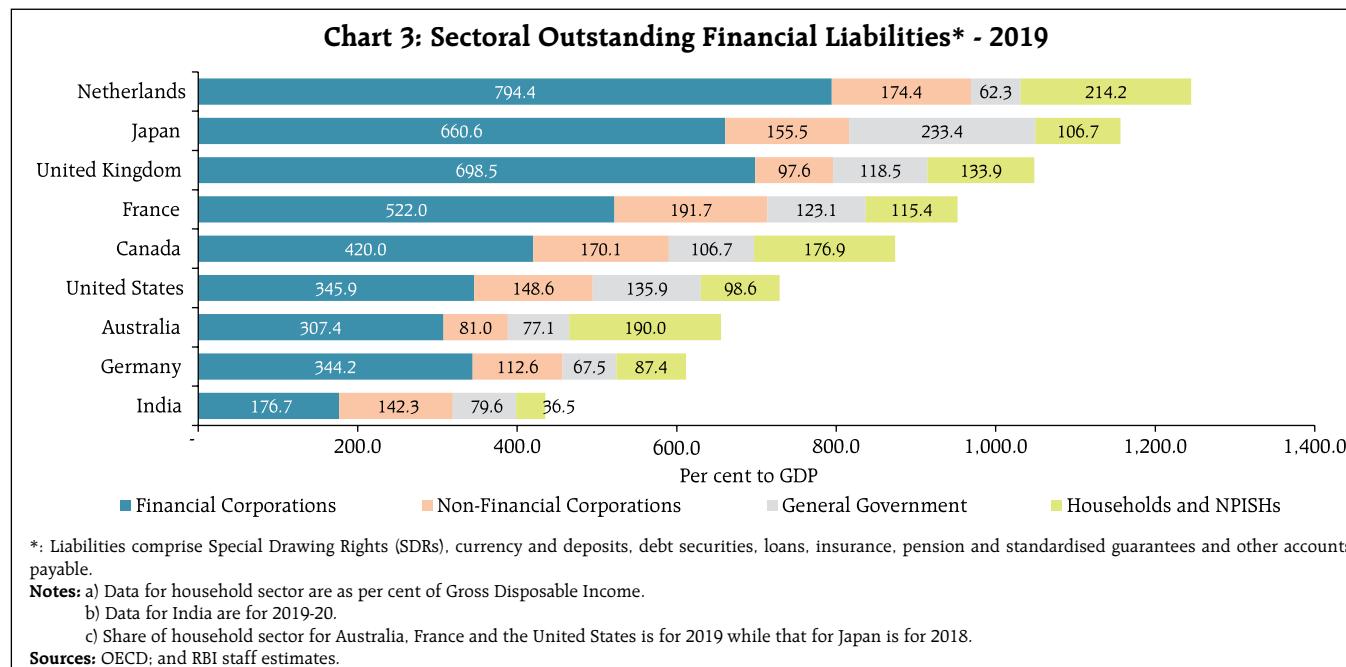
sectors, households enjoy the highest financial net worth followed by FCs, whereas GG and NFCs have

consistently remained in a deficit position in the economy (Table 1).

Table 1: Sectoral Financial Net Worth
(Per cent of NNI at current market prices)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Financial Assets									
1 FCs	222.5	224.3	224.3	227.4	227.0	226.8	230.0	230.0	235.6
2 NFCs	162.7	150.9	123.9	120.6	122.8	109.3	125.8	111.2	120.8
2.1 PuNFCs	11.7	10.7	9.8	8.9	8.0	7.5	7.5	7.5	7.4
2.2 PvNFCs	151.0	140.2	114.0	111.7	114.9	101.8	118.3	103.8	113.4
3 GG	29.3	28.9	27.5	27.1	25.7	26.5	27.4	27.7	28.5
4 HH	123.9	121.7	120.3	122.0	122.5	122.2	124.5	127.6	129.6
5 RoW	46.0	48.0	50.1	50.6	49.7	45.6	45.2	44.6	46.4
Financial Liabilities									
1 FCs	192.9	193.6	194.1	196.3	196.3	194.1	195.6	197.0	200.3
2 NFCs	165.4	162.9	145.0	144.7	136.5	129.6	139.1	129.3	133.8
2.1 PuNFCs	12.8	12.0	11.7	10.8	10.1	9.4	9.5	9.6	11.0
2.2 PvNFCs	152.6	151.0	133.2	134.0	126.4	120.2	129.6	119.7	122.9
3 GG	85.2	84.2	83.4	82.5	84.2	83.7	84.1	85.2	90.2
4 HH	39.9	39.1	38.3	37.9	37.4	37.0	38.0	39.0	41.3
5 RoW	21.5	20.8	22.5	23.4	23.5	21.4	21.8	21.0	24.1
Financial Net Worth									
1 FCs	29.7	30.7	30.2	31.1	30.8	32.8	34.3	33.0	35.3
2 NFCs	-14.4	-19.1	-20.3	-26.6	-25.9	-30.6	-36.4	-37.5	-40.4
2.1 PuNFCs	-1.2	-1.2	-1.9	-1.9	-2.1	-1.9	-2.0	-2.1	-3.5
2.2 PvNFCs	-13.2	-17.8	-18.4	-24.7	-23.8	-28.6	-34.4	-35.3	-36.8
3 GG	-55.8	-55.3	-55.8	-55.4	-58.5	-57.2	-56.8	-57.5	-61.7
4 HH	84.0	82.6	82.0	84.1	85.1	85.2	86.5	88.6	88.3
5 RoW	24.5	27.2	27.6	27.2	26.2	24.2	23.4	23.7	22.3

Note: Financial net worth is calculated as the difference between outstanding financial assets and financial liabilities (excluding shareholders' equity).
Source: RBI staff estimates.



A cross-country comparison of the position of outstanding financial liabilities as at end-December 2019 based on the OECD database¹² against the comparable data at end-March 2020 for India based on our calculations, shows the significantly higher levels of indebtedness in the advanced economies (AEs). For the select economies, FCs contribute the maximum share to total outstanding financial liabilities (Chart 3).

IV. Financial Flows across Sectors: 2019-20

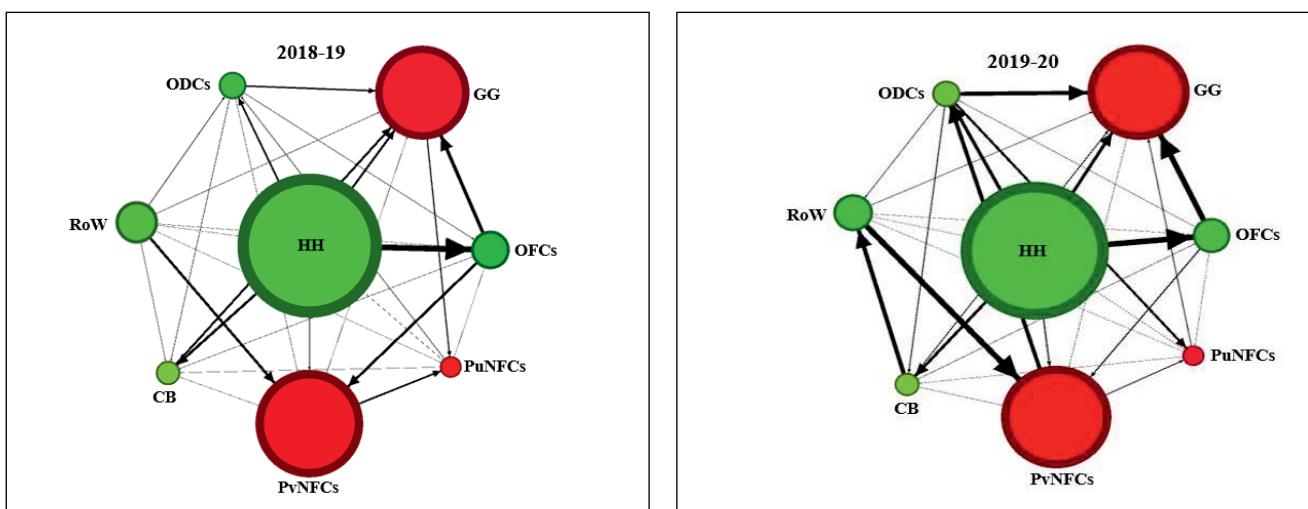
Mapping of sectoral financial flows is essentially based on information aggregated from individual balance sheets of respective economic entities. The sectoral flows are captured from snapshots of the holdings and issuance of various financial instruments and counterparty positions at the end of the financial year. It provides a clearer picture of the financial relationship between the institutional sectors and also residents and non-residents, describing who finances whom, by what type of instrument, and in what amount.

Net flows (uses *minus* sources) across various sectors of the economy are presented in a network plot (Chart 4). Despite a fall in the relative share, households and GG continue to be the largest lender and borrower in the economy, respectively. As compared to the previous year, net flows to GG from other depository corporations (ODCs) and other financial corporations (OFCs); and to PvNFCs from RoW increased in 2019-20, as visible in the thick directional edges.

Instrument-wise Investment in Financial Assets

Loans and advances remained the most preferred instrument for deployment of resources during 2019-20, followed by currency and deposits. A major proportion of investments of OFCs and the Reserve Bank were in debt securities – while the former had a higher share in G-sec, the Reserve Bank mostly invested in foreign securities (Chart 5). Investment via equity and investment funds were dominated by investments from corporates and RoW. Currency and deposits remained the preferred investment avenues for the households followed by insurance, pension and provident funds.

¹² Financial Accounts, OECD, <https://stats.oecd.org/>

Chart 4: Sectoral Flows

Note: The size of a node represents the relative outstanding net lending/borrowing position of all sectors in the economy. Weight of the edges represents the relative share of sectoral flows in the economy during the year. Net lenders are reflected in green whereas net borrowers in red.

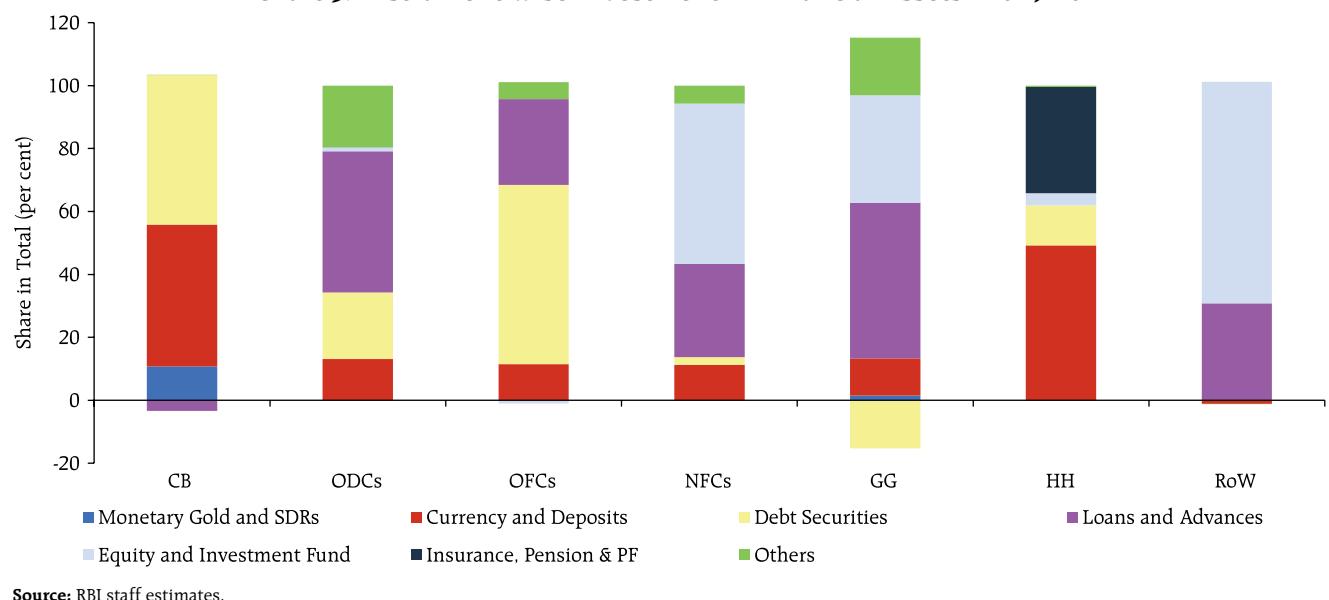
Source: RBI staff estimates.

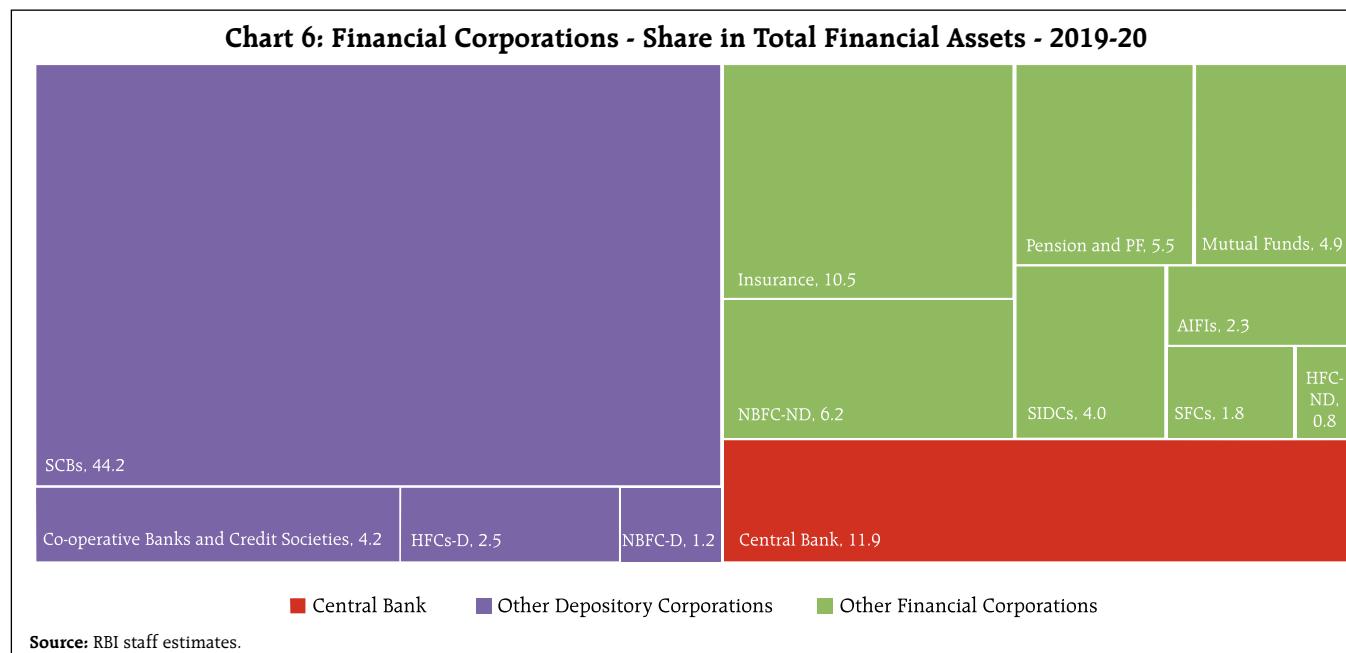
The sector-wise flows of financial assets and liabilities during 2019-20 have been expounded in the following sub-sections:

IV.1 Financial Corporations

ODCs constitute the largest sub-sector of FCs. In 2019-20, they comprised 52.1 per cent of total financial

assets of FCs, followed by OFCs (36.0 per cent) and the central bank (11.9 per cent). Among the ODCs, scheduled commercial banks (SCBs) have a lion's share (44.2 per cent) in the total financial assets of FCs, highlighting the bank-based nature of the Indian financial system. Within OFCs, insurance sector has the major weight, followed by non-deposit taking

Chart 5: Instrument-wise Investment in Financial Assets - 2019-20



NBFCs (NBFC-ND), provident and pension funds and mutual funds (Chart 6).

IV.1.1 Central Bank

The financial net worth of the Reserve Bank increased to 7.3 per cent in 2019-20 from 6.0 per cent in 2018-19, with the institution continuing to be one of the net lending sectors. In view of the growth slowdown in the Indian economy in 2019-20, the Reserve Bank had pre-emptively shifted its monetary policy stance from neutral to accommodative in June 2019. This led to an expansion in the Bank's financial assets to 24.6 per cent of GDP in 2019-20 from 21.7 per cent of GDP in 2018-19. The financial liabilities¹³, however, increased to 18.2 per cent of GDP in 2019-20 from 16.4 per cent in the previous year.

The flow of currency in circulation, which had decelerated a year before, increased marginally during 2019-20, taking the currency-GDP ratio to 12.1 per cent. Deposits with the Reserve Bank increased

during 2019-20, primarily on account of liquidity injection resulting in reverse repo with ODCs despite a reduction in reverse repo rate¹⁴.

In keeping with the objective of financial stability, the Reserve Bank increased its holding of gold and foreign currency assets (FCAs). The monetary gold reserve increased both on account of an increase in gold holding and a rise in international prices of gold. The stock of FCAs¹⁵ grew by 24.9 per cent during 2019-20 as against 2.7 per cent in 2018-19. The maximum growth was observed in the deposits with other central banks and the Bank for International Settlements (BIS), followed by investment in debt securities. FCAs made valuation gains driven by the 'flight to safety', with the outbreak of the pandemic. The investment in domestic securities, *viz.*, dated

¹³ Reserve money comprising currency in circulation, bankers' deposits and other deposits with the Reserve Bank, however, went up to 15.1 per cent of GDP in 2019-20 from 14.7 per cent a year ago.

¹⁴ The reverse repo rate was reduced to 4.0 per cent on March 27, 2020, to make it relatively unattractive for banks to passively deposit funds with the Reserve Bank and instead, to use these funds for on-lending to productive sectors of the economy (RBI, 2020a).

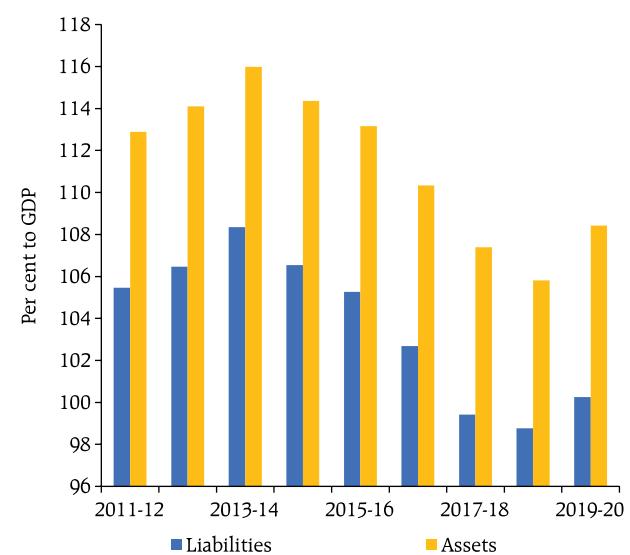
¹⁵ The FCAs include (i) deposits with other central banks; (ii) deposits with the BIS; (iii) deposits with commercial banks overseas; (iv) investments in foreign T-Bills and securities; and (v) SDRs acquired from the Government of India.

Government securities and T-Bills increased by 8.5 per cent in 2019-20 as compared with 44.1 per cent in the preceding year due to various liquidity management operations. Furthermore, an increase in several liquidity augmenting measures by the Reserve Bank such as long-term repo operations (LTROs) and targeted LTROs in the latter half of the year led to an extension of loans and advances to ODCs.

IV.1.2 Other Depository Corporations

A confluence of factors, viz., economic slowdown, deleveraging of corporate balance sheets, risk aversion on the part of banks and the write-off of non-performing assets (NPAs) had led to a steady decline in the financial assets of ODCs as per cent of GDP since 2014-15. A turn around took place during 2019-20 on account of the improved asset quality, stronger capital and provision buffers and return to profitability (Chart 7). As compared to 2018-19, however, deposits growth lost the steam across SCBs, co-operatives and NBFCs-D in the backdrop of a slowdown in GDP growth, with major moderation in co-operative banks. Competing asset classes became attractive due to easing of interest rates and solvency issues related

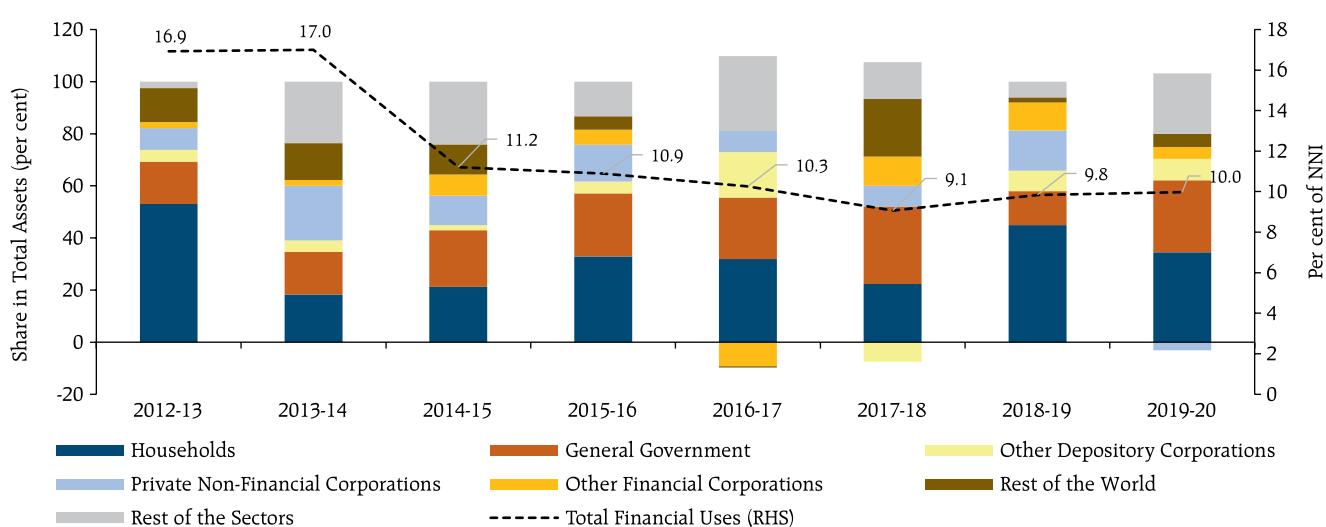
Chart 7: Financial Assets and Liabilities of ODCs

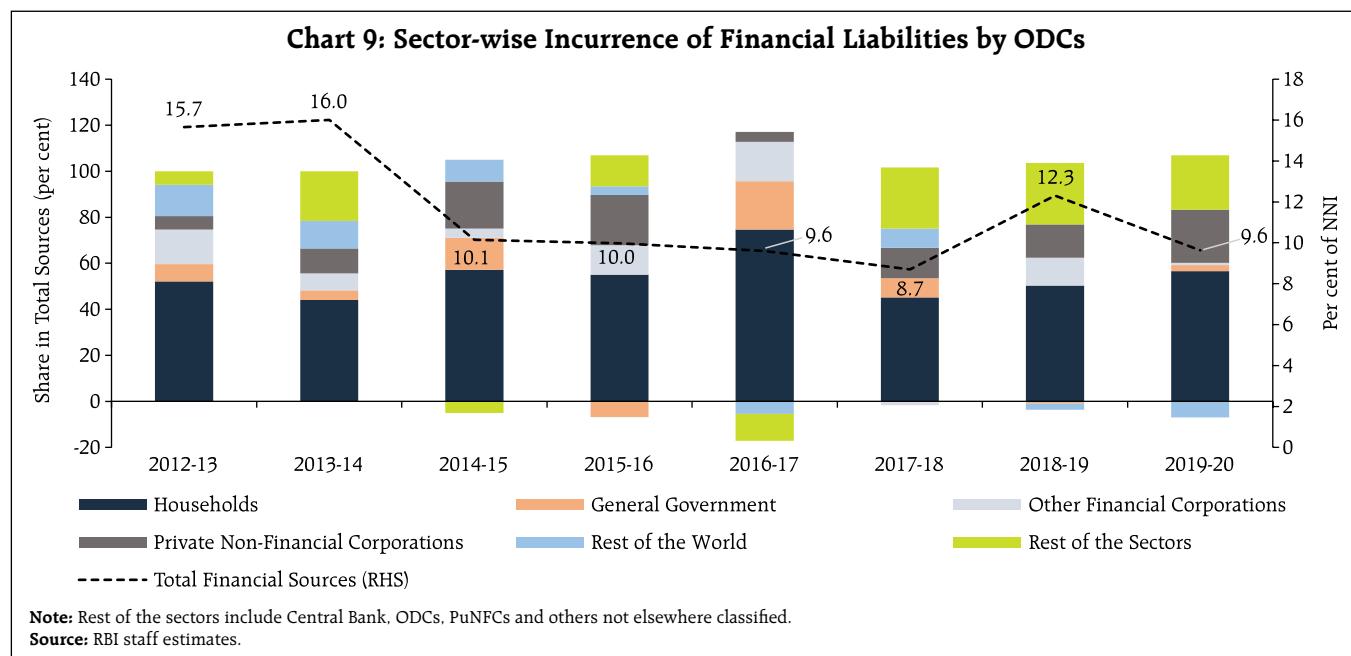


to a private sector bank also brought about some reassignment of deposits (RBI, 2020b).

On the assets side, reflecting both risk aversion and tepid demand in a slowing economy in 2019-20, credit outgo of SCBs decelerated while their investment in risk-free government securities improved, as reflected in the overall trend of ODCs (Chart 8). Following a

Chart 8: Sector-wise Flow of Financial Assets of ODCs





similar pattern, credit growth of NBFCs-D moderated while their investments – specifically in mutual funds accelerated. In case of HFCs-D, growth in their financial assets decelerated owing to a sharp decrease in loans and advances following increased stress in the real estate sector (RBI, 2020b). The co-operative banking institutions with an extensive reach to the unbanked and credit-deprived segments of the society, however, registered an increase in financial assets by 11.3 per cent in 2019-20 relative to 3.1 per cent in 2018-19, mainly driven by loans and advances extended to households.

Household deposits is the most important instrument comprising the liabilities of ODCs, followed by deposits from PvNFCs (Chart 9). Capital infusion in public sector banks by the government received a boost in 2019-20, taking the government's shareholding in SCBs to 56.6 per cent from 41.9 per cent in the preceding year. This was reflected in an increased liability of ODCs towards the government.

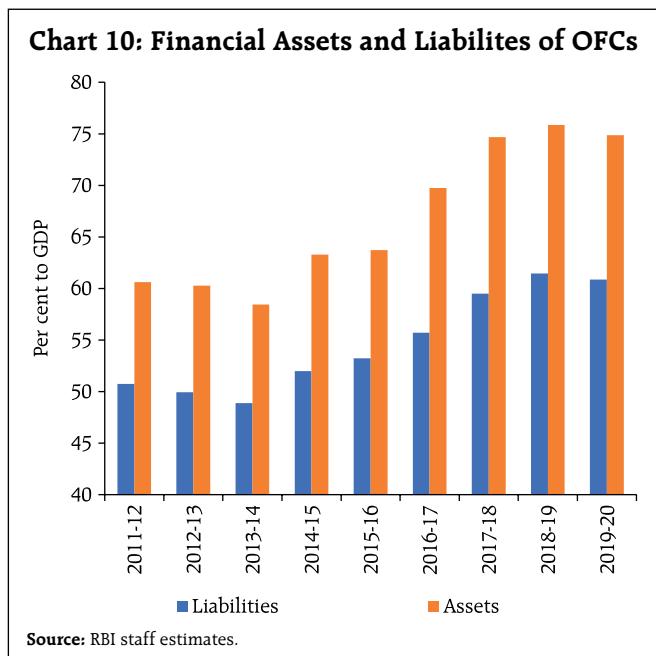
Within co-operatives, urban co-operative banks (UCBs) relied chiefly on household deposits for their funds, whereas deposits from other co-operatives

together with borrowings from OFCs aided the rural co-operative banks (RCBs) in financing their operations. Reliance on banks for funds rose for both NBFCs-D and HFCs-D in the context of the Infrastructure Leasing and Financial Services (IL&FS) default and the related downgrades (RBI, 2020b). Issuance of debentures by HFCs-D also contracted during 2019-20. The ODCs' liability towards RoW contracted during the year because of the ongoing global economic slowdown and India experiencing one of the highest outflows amongst emerging market peers (RBI, 2020a).

IV.1.3 Other Financial Corporations

The financial assets and liabilities of OFCs, which had been expanding over the last few years, contracted by 1.0 and 0.6 percentage points of GDP, respectively, in 2019-20 (Chart 10). The moderation in the growth of financial assets and liabilities of OFCs, however, needs to be seen against the lower GDP growth recorded during the year.

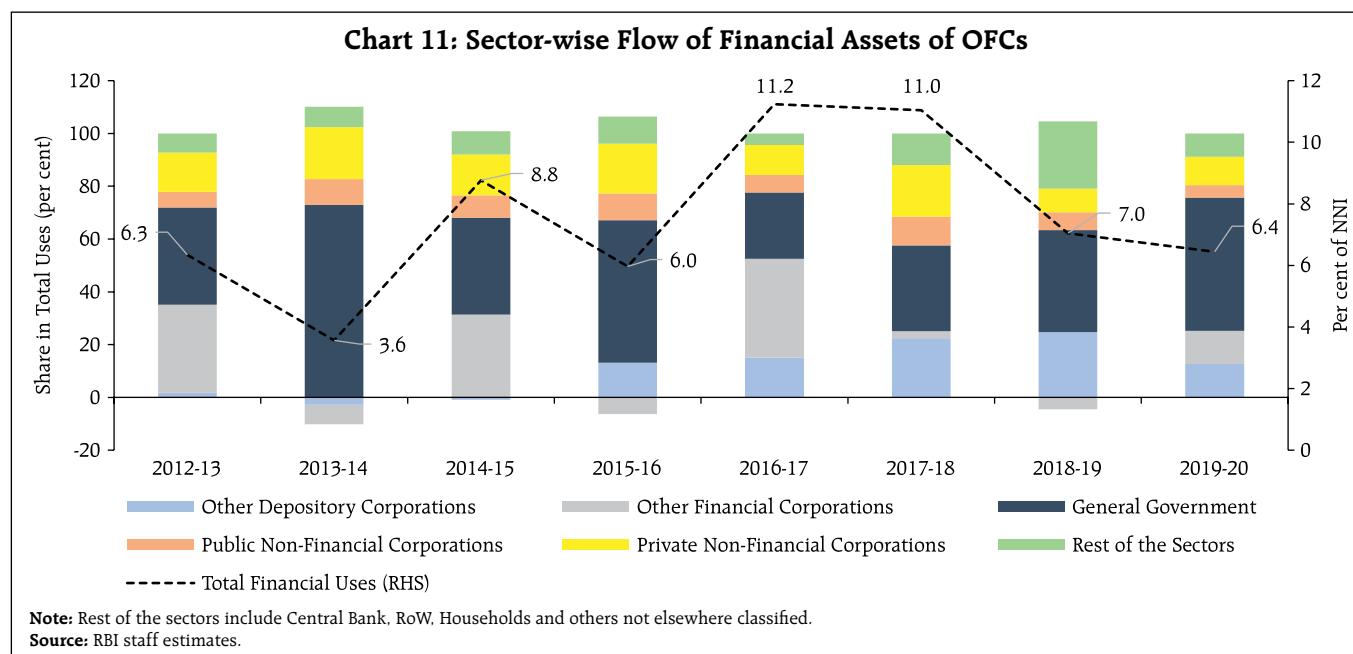
HFCs-ND witnessed a marginal contraction in their financial assets and liabilities whereas the growth in case of NBFCs-ND decelerated in 2019-20, as compared to the double-digit growth in the last two



years. Following the trend of NBFCs-D, the reliance on loans has continued to rise for NBFCs-ND post-IL&FS default and the related downgrades. Foreign liabilities of the NBFCs-ND rose owing to easing of

external commercial borrowings (ECB) norms by the Reserve Bank, which helped them in accessing foreign funds (RBI, 2020b). The liabilities of the four all-India financial institutions (AIFIs)¹⁶ which are a part of OFCs, are primarily driven by the deposits of ODCs, debt securities of the OFCs, ODCs and CG and equity shares of CG. While the majority equity holding in SIDBI (around 85 per cent) rests with ODCs and OFCs, CG has the complete ownership in case of the other three.

Market prices of equity and investment funds in the balance sheets of OFCs contracted significantly owing to the stock market crash in February-March 2019-20¹⁷. GG securities remained the favourable investment avenue for OFCs in recent years, coupled with intra-sectoral lending in 2019-20 (Chart 11). Headwinds in the aftermath of the IL&FS episode leading to an erosion in confidence, liquidity pressure and rating downgrades got exacerbated when the COVID-19 pandemic hit in March 2020, resulting in a substantial deceleration in asset growth of NBFCs-



¹⁶ NABARD, EXIM Bank, SIDBI and NHB are the AIFIs.

¹⁷ <https://www.thehindubusinessline.com/markets/stock-markets/market-rout-mutual-funds-equity-assets-halve-in-march/article31273736.ece>; <https://www.paytmmoney.com/blog/amfi-mutual-fund-report-march/>

ND in 2019-20 (RBI, 2020b). The gross financial assets of insurance and provident funds continued their increasing trend in 2019-20, mainly driven by investment in government debt securities. Following the notification¹⁸ on the Employees' Provident Fund Organisation (EPFO) investment, there has been a diversification of investment portfolio towards Exchange Traded Funds (ETFs). The financial assets of pension funds increased in 2019-20 with both the National Pension System (NPS) and the Atal Pension Yojana (APY) registering growth in their subscriber base. In case of AIFIs, loans and advances increased broadly to all the sectors except households.

IV.2 Non-Financial Corporations

With the majority of assets being non-financial in nature, financial net worth of NFCs is significantly lower than their total net worth. At an aggregate level, financial resource gap of PuNFCs deteriorated to (-) 1.6 per cent in 2019-20 from (-) 0.4 per cent in 2018-19, while that of PvNFCs improved to (-) 3.9 per cent from (-) 5.1 per cent in the previous year. In 2019-20, increased borrowing by the central public sector enterprises (CPSEs) pulled up the financial liabilities of the PuNFCs. On the other hand, the growth in financial assets decelerated sharply due to a drop in the value of equity investments and other account receivables.

PvNFCs – the third largest sector after FCs and households in terms of size of total financial assets and liabilities – accounted for 20.2 per cent of financial assets of the economy in 2019-20. The incurrence of financial liabilities by PvNFCs exhibited an uptick from 2018-19 along with asset acquisition. In terms of instruments, loans and borrowing from FCs has been the predominant source of finance for PvNFCs followed by equity.

¹⁸ The Ministry of Labour and Employment, Govt. of India *vide* notification no. 1071 (E) dated April 23, 2015 has prescribed 5 to 15 per cent investments by EPFO in equity and related investment (ETFs of Nifty and Sensex).

IV.3 General Government¹⁹

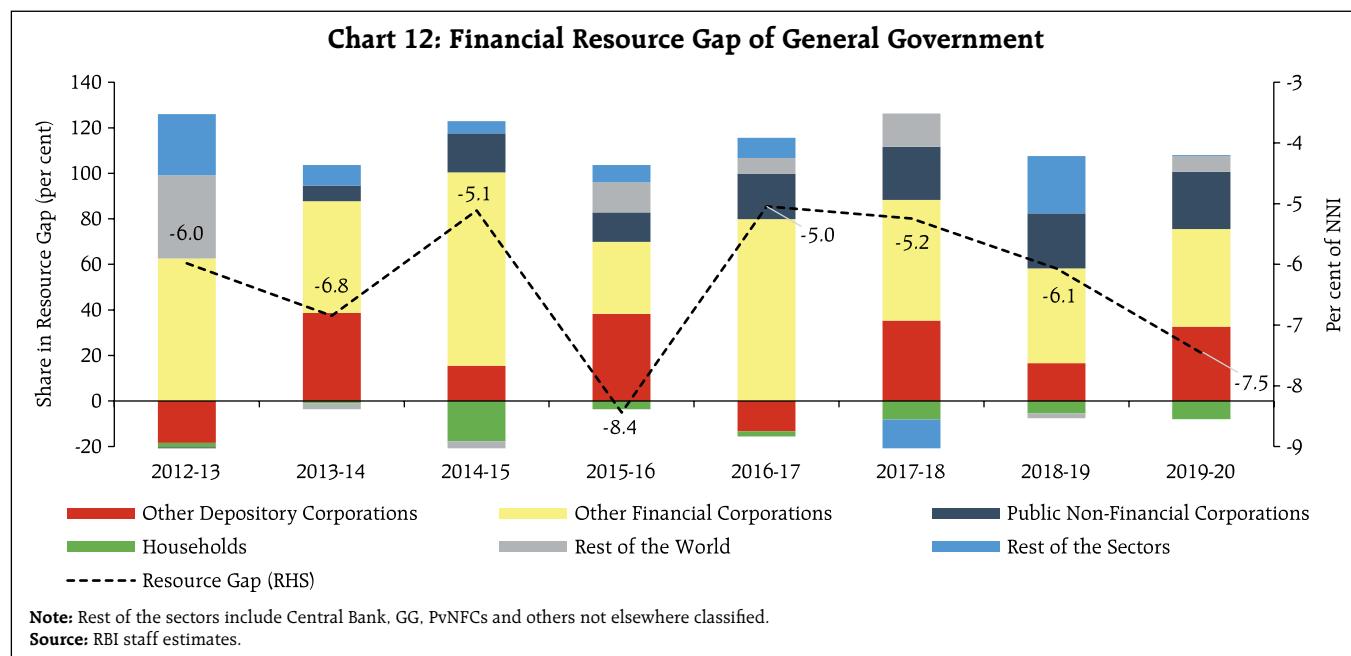
GG and NFCs are the only two sectors with a negative resource balance. While the financial assets of GG improved marginally to 25 per cent of GDP, the financial liabilities amplified to 80 per cent in 2019-20, of which the liabilities of CG stood at 53 per cent of the GDP. Moreover, the growth in financial liabilities outpaced that in financial assets by a notable 3.4 percentage points.

Both central and state governments finance majority of their debts *via* issuance of marketable debt securities, which are primarily subscribed by ODCs, OFCs and households (Chart 12). Akin to the previous years, the subscription pattern of debt securities remained similar during 2019-20. The Food Corporation of India (FCI) that operates on a no-profit and no-loss basis and also receives support by way of subsidies and grants from the government is classified as part of CG²⁰. The National Small Saving Fund (NSSF) borrowing by the FCI since 2016-17, considered as borrowing by CG, stood at ₹2,54,600 crore as at end-March 2020. In case of state governments, while their net market borrowings increased by about 40 per cent, gross market borrowings rose by 32.7 per cent (RBI, 2020c).

The asset composition of CG is dominated by three instruments, namely, equity investment (35.9 per cent); loans and advances (28.6 per cent); and debt securities (18.0 per cent). Over the last decade, CG's investment portfolio moved away from debt securities to equity and loans and advances. Particularly, CG's equity in the state co-operative banks and other banks (excluding RBI) increased by 21.9 per cent, from

¹⁹ GG includes CG and state governments only.

²⁰ SNA 2008 defines a public corporation, or a corporation controlled by the government as the one controlled by another public unit/government and is also a market producer *i.e.*, a unit providing all or most of its output to others at economically significant prices. FCI is 100 per cent owned by CG and is not a profit earning corporation in which the entire investment is for creating infrastructure. Considering the above classification criteria, FCI has been classified as part of CG.

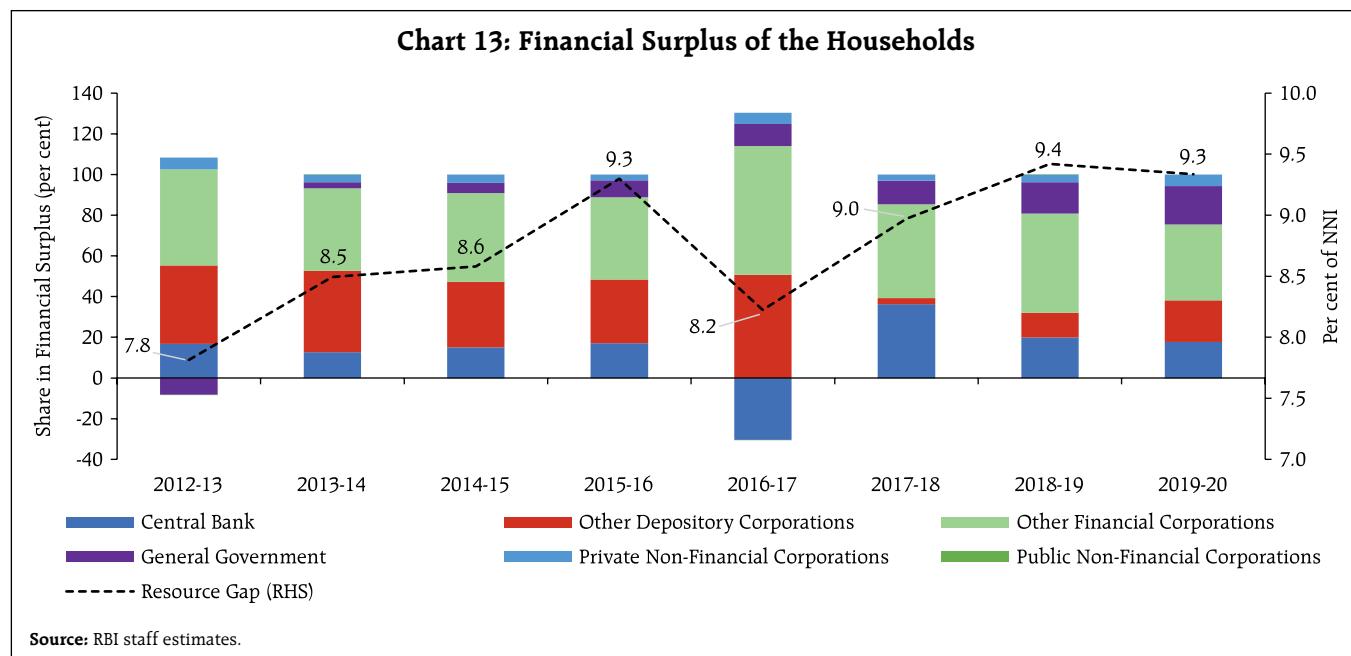


around ₹3.6 lakh crore in 2018-19 to ₹4.4 lakh crore in 2019-20. For state governments, most of their financial assets are held in the form of deposits followed by equity and debt securities.

IV.4 Households (including NPISHs)

Households, apart from being the biggest source of consumption expenditure, contribute significantly

to financial surplus for investment into financial and non-financial assets in the economy. Growth in both financial assets and liabilities of the household sector weakened in 2019-20 with a sharper moderation in financial assets. As a result, the financial surplus of the household sector reduced slightly by 0.1 percentage point to 9.3 per cent of NNI in 2019-20 (Chart 13).



The rise in the household financial savings to 11.6 per cent of GDP in 2020-21 has already confirmed the ballooning of household financial assets, owing to reduction in discretionary expenditure and the associated surge in precautionary/forced saving despite stagnant/reduced income. The share of ODCs in the flow of financial assets, which reduced to a negligible level in 2017-18 – owing to remonetisation led large withdrawal of cash by the households – soared to almost 21 per cent in 2019-20. This surge is expected to further strengthen in 2020-21, on account of feeble non-essential consumption spending, particularly in the first quarter. Furthermore, a steady flow of resources is maintained from the households to the insurance sector, which is likely to accentuate in 2020-21.

The share of deposits and insurance has been gradually rising, accounting for almost 63 per cent of household financial assets in 2019-20 followed by equity, currency, debt securities and investment in mutual funds. The shift in household's preference towards investment funds is also reflected in the secular rise in their outstanding asset value, which however, plummeted following massive sell-offs by foreign portfolio investors in March 2020.

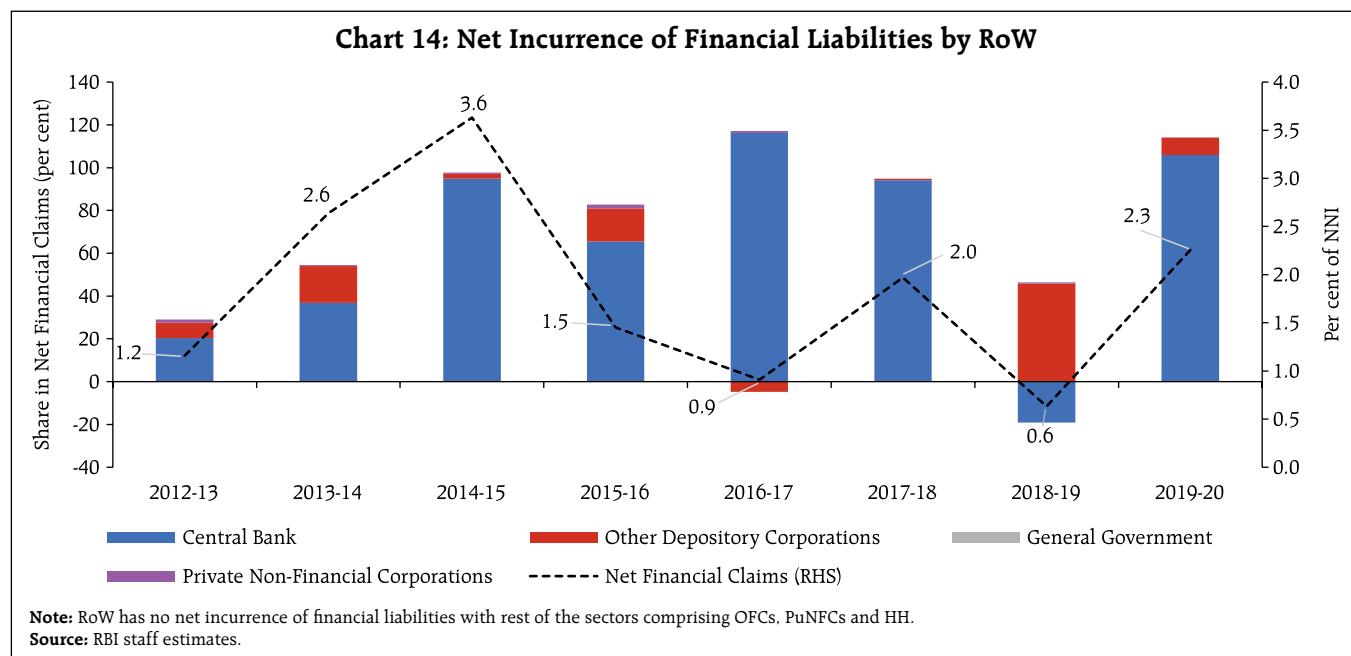
IV.5 Rest of the World

India remained a net borrower from RoW in 2019-20. Dependency on foreign resources, however, declined in 2019-20 as compared to a year ago. It is further corroborated by the narrowing of India's current account deficit (CAD) to (-) 0.9 per cent of GDP in 2019-20 from (-) 2.1 per cent in 2018-19, on the back of lower trade deficit amidst a slowdown in the global economy and growing global investment concerns due to disruptions in supply chains. Despite multiple headwinds, major sources of foreign capital increased, and net capital inflows were more than sufficient to finance the lower CAD.

As at end-March 2020, two-third of RoW's total financial liabilities was towards the Reserve Bank in the form of reserve assets²¹, particularly securities and deposits with other central banks. Besides reserve assets, around one-third was towards NFCs in the form of debt securities and equity. The liability of RoW increased by 20.8 per cent in 2019-20 over its preceding year primarily led by a surge in the Reserve Bank's subscription to debt securities issued abroad (Chart 14).

Acquisition of equities and debt securities of NFCs by RoW remained robust in 2019-20. Besides, India was able to sustain the pace of foreign direct investment in 2019-20, on the back of continuous economic reforms. However, foreign portfolio investment (FPI) flows were largely influenced by global developments and remained volatile since the beginning of 2019-20, despite several confidence building measures by the government and the Reserve Bank. An unprecedented wave of global risk aversion in the wake of COVID-19 led to net selloffs by the end of the financial year. In fact, outflows from EMEs in Q4:2019-20 were the largest ever flight to safety. A slew of measures was undertaken by the government and the Reserve Bank to encourage foreign inflows, *viz.*, increase in the limit for FPI investment, rationalisation of Know Your Customer (KYC) norms for foreign investors, hike in the short-term investments by FPIs in CG securities (including T-Bills) and state development loans. These measures helped reverse the FPI outflow considerably by end-March 2020. A combination of factors like abundant global liquidity, favourable overseas interest rates and liberalisation measures led to robust ECB inflows in 2019-20. Overall, the net acquisition of

²¹ Reserve assets include monetary gold, SDR holdings, reserve position in the IMF, currency and deposits, securities and other claims.

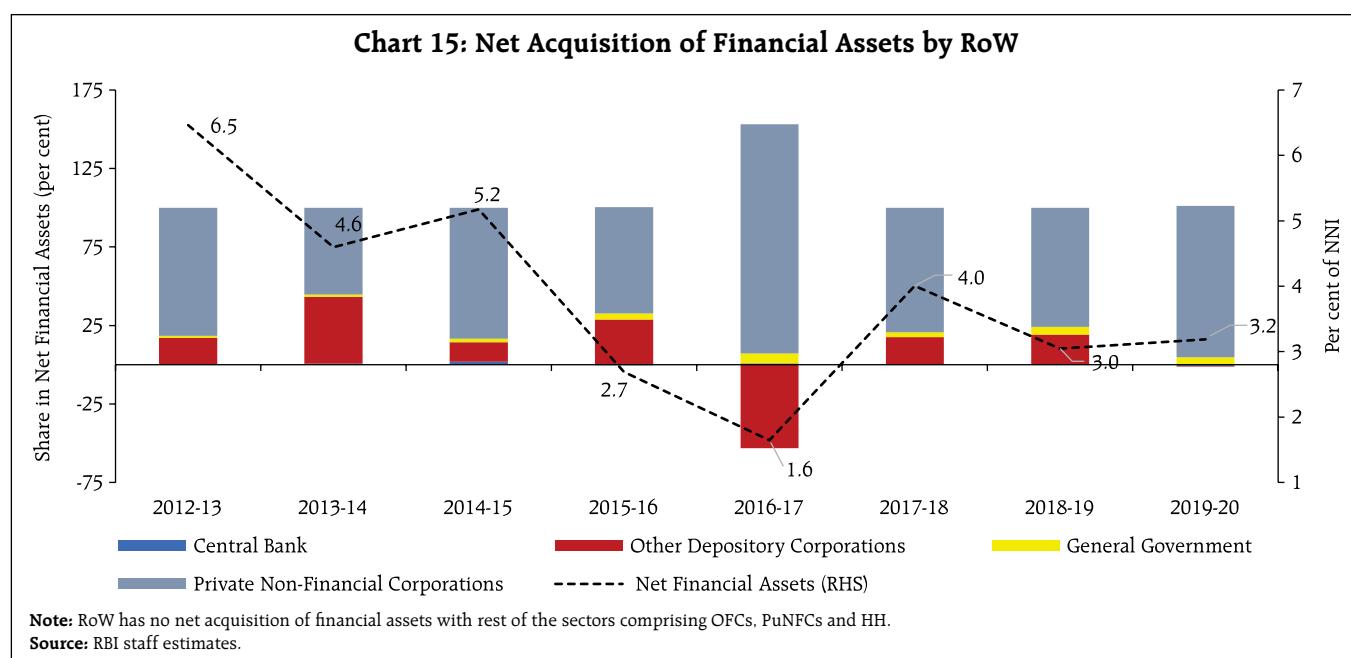


assets by RoW in 2019-20 remained almost stable at the level of 2018-19 (Chart 15).

V. Conclusion

The financial resource gap of the economy, measured by the net acquisition of financial assets less net increase in financial liabilities, narrowed in

2019-20. Households and financial corporations continued to provide liquidity to the deficit sectors, with reduced requirement of external funding. Net borrowing from RoW declined sharply in 2019-20. The financial resource balance of the Reserve Bank remained in the positive territory – ensuring timely and appropriate liquidity support to various sectors of



the economy, especially in the backdrop of a general slowdown in the economy. Better performance of the other depository corporations in terms of generating surplus resources may be attributed to the enhancement in asset quality and decline in the NPAs of the banking sector. Within non-deposit taking segment, the growth in case of NBFCs-ND decelerated in 2019-20, as compared to the double-digit growth recorded in the preceding two years. The financial liabilities of both central and state governments amplified with the share of the central government remaining higher than that of the state governments.

Going forward, various policy measures initiated to tide over the disruptions in the pandemic year 2020-21, would affect the net lending/borrowing position of the sectors. The government sector resources would reflect the impact of wide-ranging fiscal support measures undertaken in the wake of multiple pandemic waves. The relevance of foreign exchange reserves buffer to provide a cushion to tackle unforeseen economic and financial shocks, may become more evident and would be reflected in the Reserve Bank's financial accounts. The allocation of SDR 12.57 billion to India by the IMF on August 23, 2021 would accordingly have implications for the financial accounts of the associated sectors viz., the central bank, central government, and rest of the world. Policy initiatives like asset monetisation and higher infrastructure and capital expenditure by the central government could help improve asset quality of both the public and private non-financial corporations. On account of the pandemic restrictions, bank credit reportedly suffered a broad-based slowdown, except for agriculture. On the liabilities side, however, banks reported higher deposit growth which was reflected in a spike in the household sector's financial savings due to a decline in discretionary spending. Owing to pandemic-induced slowdown in 2020-21, the Indian economy

registered a current account surplus for the first time since 2003-04 on the back of a compressed trade deficit.

While households and financial corporations are expected to continue generating higher financial surpluses, better balance sheet position of corporates and banks could facilitate higher flow of resources to the productive sectors of the economy supported by greater digitisation.

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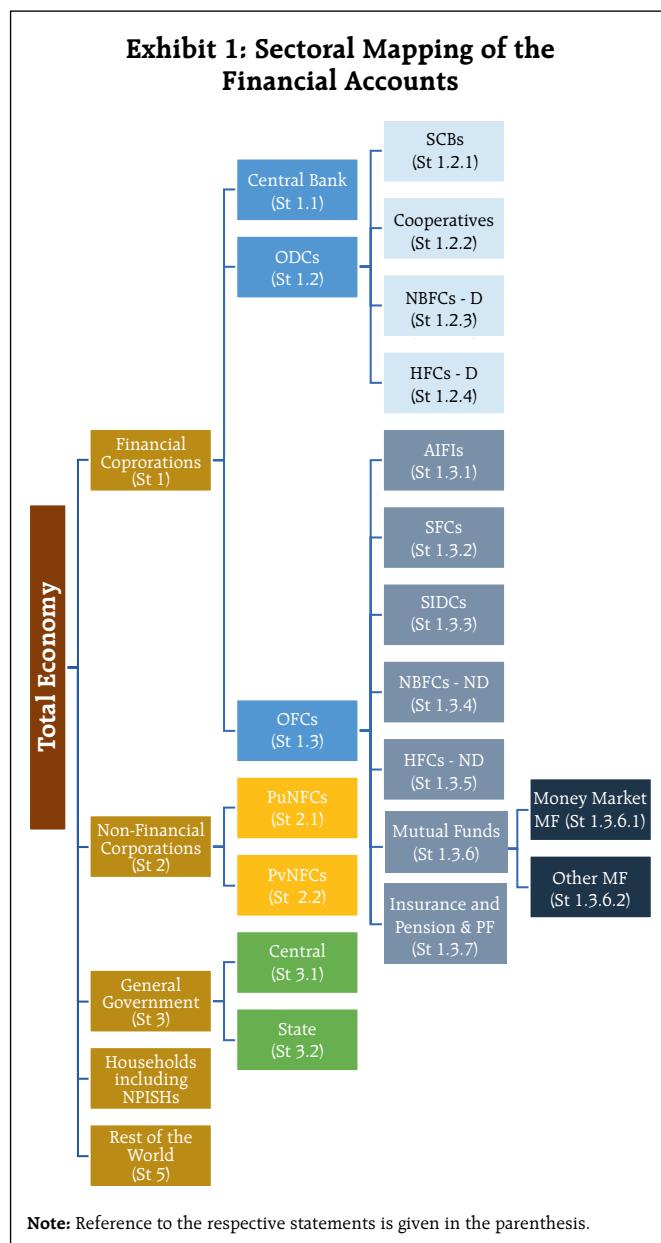
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Annex I: Framework of the Financial Stocks and Flow of Funds of the Indian Economy

Institutional Sectors of the Economy

The detailed sectoral classification has been presented in Exhibit 1.

The *financial corporations* sector covers corporations that are principally engaged in financial intermediation or in auxiliary financial activities including insurance and pension funds. It plays an important role of



channelising funds from savers to investors. The sector is further disaggregated into subsectors on the basis of their function and type of financing – central bank which exercises control over the financial system; ODCs which engage in financial intermediation via liabilities in the form of deposits; and OFCs.

The *non-financial corporations* sector encompasses incorporated legal entities that are involved in production of non-financial goods and services. It consists of both public and private non-financial corporations that may be listed or unlisted with limited liability.

The *general government* sector consists of all the government departments, offices and other bodies mainly involved in the non-market production of goods and services, for collective consumption by government itself (e.g., public administration, defence police, etc.) and for individual consumption by the public (e.g., health and education). The sector is classified into central government and the state governments.

The *household* sector acts both as a consumer of final goods and services, and as an investor in financial and non-financial assets. Furthermore, it incorporates NPISHs that produce non-market goods and services and are not controlled by the government.

The *RoW* sector consists of all the non-resident institutional units, be it non-resident governments, corporations, or persons, that enter into transactions with resident units, or that have other economic links with resident units.

Classification of Financial Instruments

The financial instruments (Table A.1) used for compiling FSF account is consistent with the list of instruments specified in SNA 2008, which have been grouped together on the basis of similar characteristics.

Table A.1: Classification of Financial Instruments

SNA 2008 Code	Financial Instrument
F1 F11 F12	Monetary gold and SDRs Monetary gold SDRs
F2 F21 F22 + F29	Currency and Deposits Currency Deposits
F3	Debt Securities
F4	Loans
F5 F51 F52	Equity and Investment fund shares/units Equity Investment fund shares/units
F6 F61 F62 F63 F64 F66	Insurance, pension and standardised guarantee schemes Non-life insurance technical reserves Life insurance and annuity entitlements Pension entitlements Claims of pension funds on pension managers Provisions for calls under standardised guarantees
F8 F81 F89	Other accounts receivable/payable Trade credits and advances Other accounts receivable/payable

Monetary gold is the reserve asset held exclusively by the central bank in the form of gold bullion with no corresponding liability. Similarly, *SDRs* are international reserve assets, owned by central government and the monetary authority to supplement monetary gold.

Currency, consisting of notes and coins, can be a liability of central bank (domestic currency) and the non-resident authorities (foreign currency).

Deposits comprise instruments such as bank accounts, demand deposits, savings and fixed-term deposits. It can be a liability of the central bank, ODCs and RoW.

Debt securities include negotiable instruments, viz., T-bills, commercial paper, bonds, and asset-backed securities that serve as evidence of debt.

Loans are non-negotiable financial assets that include instruments like overdrafts, instalment loans, claims on or liabilities to the IMF, and repo agreements.

Equity and investment fund shares do not provide the owner with a right to a predetermined amount, but only to a residual claim on the assets of the issuer of these instruments. Investment fund shares are issued by collective investment vehicles that pool funds for investment in financial and non-financial assets and are disaggregated into money market and non-money market fund shares.

Insurance, pension, and standardised guarantee schemes consists of life and non-life insurance and annuities entitlements, pension, and non-pension entitlements. These are the liabilities in the insurance and pension fund subsectors and assets of the participants in the schemes.

Other account receivable or payable includes trade credit and advances extended to corporations, government, households and NPISHs, and RoW, and other receivables or payables related to taxes, dividends, social contributions, wages and salaries.

Annex II:
Refinements in Methodology and Data Sources

The compilation of financial stocks and flow of funds, which involves a large variety of data sources is subject to certain limitations on account of missing information, measurement errors and incompatibilities. Consequently, statistical discrepancies emerge as a difference between aggregate sources and uses of funds notwithstanding efforts to minimise them. Nonetheless, timely compilation and availability of institutional statistics with instrument-wise details is the most significant prerequisite for minimising discrepancies. In this round of compilation, the major improvements introduced are as follows:

- As per the SNA 2008, reserves are not to be classified as part of financial transactions as they do not create a counterpart liability. Accordingly, the reserve funds have not been considered as the financial liabilities.
- The financial assets of CG have been revised using better sources of data for the loans and advances, and equity investments. In line with the SNA 2008, the entire SDR allocations have

been treated as liability of the CG.

- As per the extant practice, RRBs accounts used to be compiled using the aggregates from the Reserve Bank's Report on Trend and Progress (RTP) of Banking in India. For the sectoral mapping, shares as calculated from the balance sheet of SCBs were applied. In this article, the NABARD report – Key Statistics and Financial Statements of Regional Rural Banks has been used.
- Akin to RRBs, the compilation of FSF account for RCBs was carried out using the aggregates from the RTP. The current article has instead used information from the NAFSCOB for computing the sectoral shares for different tiers of the RCBs.
- As per the data made available by Association of Mutual Funds in India (AMFI), net flow of the household sector to mutual funds has been arrived at by adding net sales of Individual (retail), High Net-worth Individual (HNI) and Hindu Undivided Family (HUF) categories.

Growth Maximising External Debt of India *

This article investigates the relationship between external debt and growth with a view to identify the growth maximising threshold level of external debt for India. The empirical results suggest that as against India's current external debt to GDP ratio of 20 per cent, the estimated threshold level is higher in the range between 23 per cent and 24 per cent of GDP, indicating space for attracting more debt flows of the order of USD 90 billion. Given the risk of amplifying external vulnerabilities because of higher exposure to external debt, the estimated space may be used carefully balancing the objective of growth and macro-stability.

Introduction

External debt, by supplementing domestic savings, can help countries grow faster. But a large stock of external debt can potentially create vulnerabilities and dent growth prospects. Since the onset of the pandemic, many countries have expanded public spending to support the recovery, which has led to a build-up of their external debt (IMF, 2022). For the low-and middle-income countries, excluding China, the ratio of external debt to GNI averaged 42 per cent in 2020, a 4.9 percentage point jump from 2019. Similarly, the external debt to exports ratio rose to 154 per cent from 126 per cent during the corresponding period (World Bank, 2022).

Against this evolving global backdrop, this article investigates the relationship between external debt and growth in India and estimates growth maximising optimal threshold level of external debt by employing

various models, such as spline regression, threshold regression and smooth transition regression, in addition to the quadratic regression. Rest of the article is organised into six sections. Section 2 outlines stylised features of India's external debt in terms of historical and recent trends. Section 3 provides a brief review of literature. Section 4 presents the methodology and data, while Section 5 discusses the empirical results. Finally, Section 6 concludes.

II. Stylised Features of India's External Debt

Historical Trends

On the eve of Independence, India had little external debt. In the aftermath of independence, India adopted a planned era of economic growth and development anchored by Five-Year Plans with an overarching theme of import substitution through public sector attaining the commanding heights of the economy. India's external debt rose from below 2 per cent of GDP at end-March 1955 to about 13 per cent by end-March 1970. The focus was to augment the economy's investment rate by supplementing domestic savings with foreign borrowing and external transfers in the form of grants. During the 1970s, the external debt ratio remained range-bound in the neighborhood of just below 15 per cent. However, the widening of the current account deficit during 1980s was increasingly funded by the debt capital in the form of costly external commercial borrowings (ECBs), IMF loans and NRI deposits. Accordingly, the ratio of external debt to GDP rose to 38.7 per cent as at the end of 1991.

A new policy on external debt came into being on the basis of the lessons emanating from the balance of payments (BoP) crisis of 1991 and the recommendations of the High-level Committee on Balance of Payments, 1993 (Chairman: Dr. C. Rangarajan). The new policy was guided by (i) restrictions on size, maturity and end-use of ECBs; (ii) LIBOR-based interest ceiling on non-resident deposits to discourage the volatile

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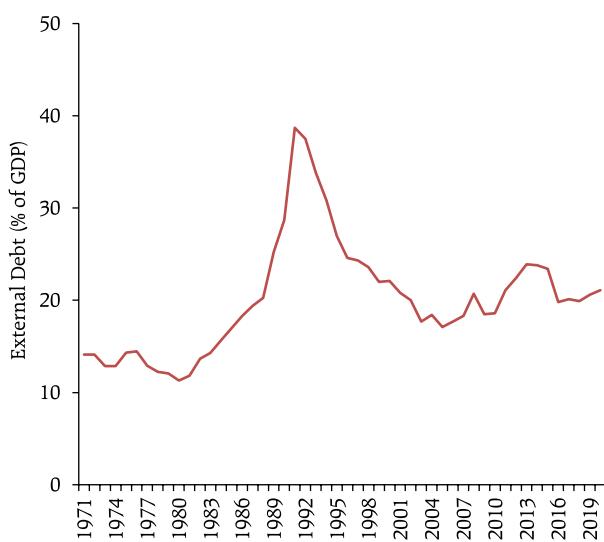
component of such deposits; (iii) pre-payment and refinancing of high-cost external debt; and (iv) measures to encourage non-debt creating financial flows such as foreign direct investment (FDI) and foreign portfolio investment (FPI). In the aftermath of the new policy, the ratio of external debt to GDP moderated significantly and consistently and reached around 17.0 per cent by the end of 2005. Even though it accelerated post 2005, the ratio remained low in relation to the levels witnessed in the early 1990s (Figure 1).

The World Bank classifies external debt into long-term debt, short-term debt and IMF credit. The long-term debt is further broken down into public & publicly guaranteed debt (PPG) and private non-guaranteed debt (PrNG). In terms of share in the total external debt, the PPG accounted for over 80 per cent through the decades till 2000, barring 1980s. The PPG constituted basically borrowing from multilateral and bilateral sources. During the first half of 2000s, these high-cost multilateral and bilateral loans were prepaid as part of a conscious policy choice. Further, reliance on concessional borrowings from official creditors was pared down. As a result, the share of PPG halved from

about 80 per cent in 2000 to about 38.0 per cent in 2006. As at the end of 2020, the share of PPG in total external debt stood at 34.2 per cent. On the other hand, as the process of reforms and liberalization rolled out during the 1990s, room for greater private corporate participation opened up, requiring modernization of the manufacturing sector by allowing greater access to foreign technology and foreign capital. Consequently, the share of PrNG rose to 46.0 per cent from about 15.0 per cent during the same period. As at the end of 2020, the share of PrNG in total external debt stood at 46.5 per cent (Figure 2).

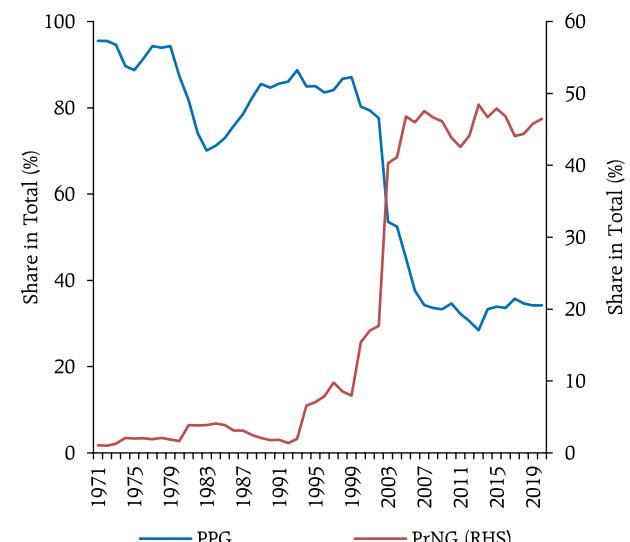
Another stylised feature discernible from a cross-country perspective involving low-and-middle-income countries is that countries with higher per capita income are typically the ones with lower share of public & publicly guaranteed debt (Figure 3a) and higher share of private non-guaranteed debt in the total external debt (Figure 3b). In the case of India, the former ratio is below, while the latter ratio is above the cross-country trend line. This implies perhaps that among the low-and-middle-income-countries, India proactively, though in a carefully calibrated manner, encouraged private sector access to foreign debt

Figure 1: India's External Debt to GDP Ratio

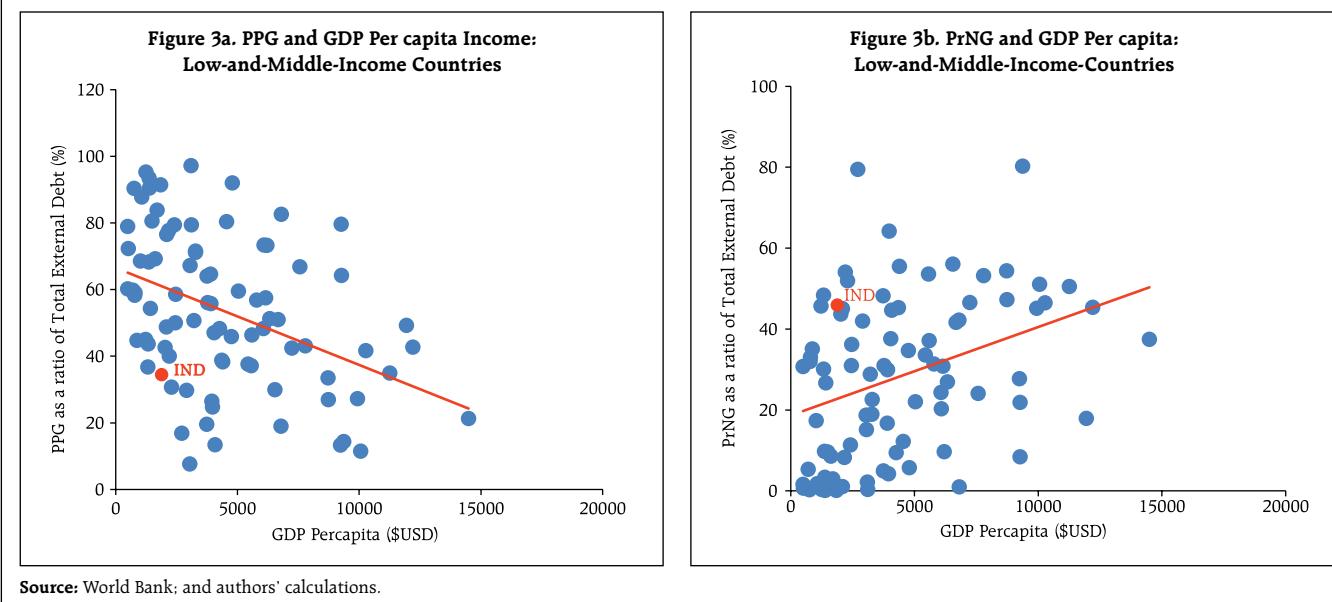


Source: RBI, Ministry of Finance and World Bank.

Figure 2: Long-term External Debt: PPG vs PrNG



Source: World Bank.

Figure 3: External Debt and Per-Capita Income: A Cross-Sectional View

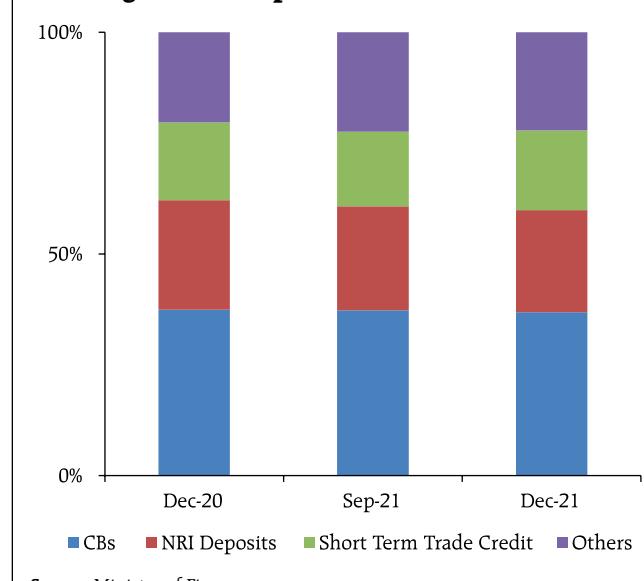
capital, while exercising conservatism in providing public sector access to such capital. This policy approach to foreign debt within a broader policy on capital account convertibility has indeed served the country well.

Recent Trends

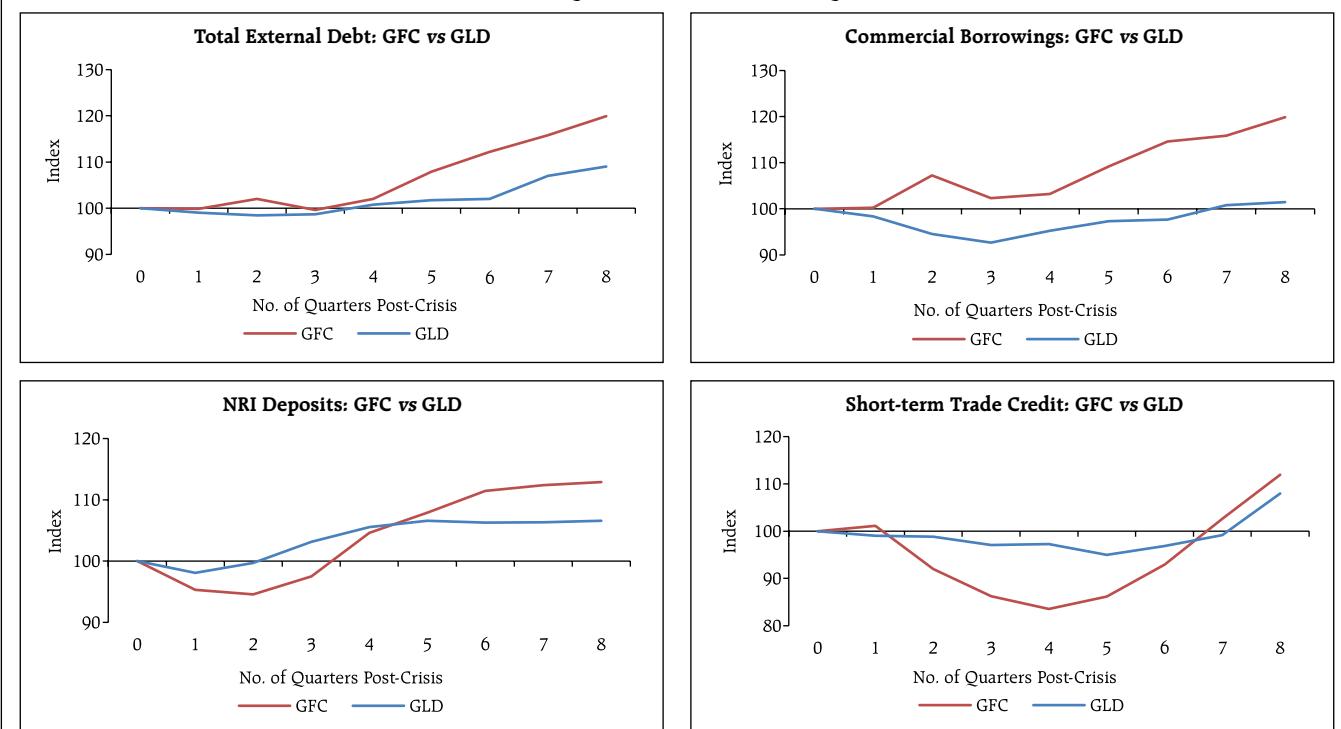
On March 31, 2022, Department of Economic Affairs, Ministry of Finance, Government of India published India's external debt statistics for the quarter ending December 2021. According to these estimates, India's external debt stood at US\$ 614.9 billion as at end-December 2022. Commercial borrowings (CBs) at US\$ 226.4 billion, NRI deposits at US\$ 141.9 billion and short-term trade credit at US\$ 110.5 billion, together account for about 78 per cent of the total external debt (Figure 4). The external debt to GDP ratio as at end-December 2021 was 20.0 per cent.

An analysis of the relative performance of India's external debt in the aftermath of the pandemic/Great Lockdown (GLD) and the global financial crisis (GFC) reveals interesting insights. Outstanding external debt as at the end of the pre-crisis quarter is rebased to 100. Q2 of 2008 and Q4 of 2019 is identified as the

pre-crisis quarter for the GFC and GLD, respectively. As can be seen from Figure 4, the total external debt, which fell below the pre-crisis levels in the immediate aftermath of the GLD, crossed the pre-pandemic levels as at end-December 2020 and consolidated further helped by NRI deposits crossing pre-pandemic levels as at end-June 2020; commercial borrowings crossing

Figure 4: Component of External Debt

**Figure 5: Performance of India's External Debt: GFC vs GLD
(GFC, 2008:Q2=100; GLD, 2019:Q4=100)**



Source: RBI, Ministry of Finance and authors' calculations.

the pre-pandemic levels as at end September 2021; and short-term trade credit crossing the pre-pandemic levels as at end-December 2021. In contrast, India's external debt remained relatively immune to the GFC reflecting the resilience of commercial borrowings, the most growth-sensitive and the largest component of India's external debt. The resilience of commercial borrowings in the wake of the GFC stemmed largely from relatively muted impact of GFC on growth in sharp contrast to that during GLD (Figure 5).

III. Literature Review

In a typical neo-classical framework, for a country facing scarcity of capital, supplementing its domestic savings with external capital in the form of debt could fund larger investment, leading to higher economic growth. Some endogenous growth models have similar implications. Then, why does larger

levels of accumulated external debt result in lower growth? There are two channels showcased in the literature: overhang and crowding-out. Debt overhang and crowding-out challenges arise when a country's debt levels exceed its ability to repay in future, with the expected rise in debt service preempting the country's output. In other words, returns on investing in the country which could have otherwise accrued to the investors would instead be taxed away by foreign creditors and as a consequence, new investment is discouraged (Krugman, 1988; Sachs, 1989). The channels via which adverse impact of external debt overhang and crowding out on growth could be realised are through lower volume of investment and efficiency of investment. In addition, uncertainty arising out of large debt stock could reduce investment, output, consumption and hours worked/employment (Moore, 2016; Basu & Burdick 2015; Leduc & Lie, 2016).

There are models underscoring non-linear effects of debt on growth, through reduced investment and productivity of investment (Cohen, 1994). Non-linear models advocate existence of a Laffer curve type effect of debt on growth. Along the left (or on the good) side of the curve, increase in the stock of external debt is associated with higher growth through increasing investment and productivity. On the other hand, a rise in the stock of external debt on the right (or the bad) side of the curve would manifest in lower growth with reduced investment and productivity. The tipping/inflexion point of such an external debt Laffer curve is the growth-maximising threshold.

There have not been many empirical studies on the impact of external debt on growth. In the empirical literature, typically a reduced form Barro-type growth model is employed, augmented with relevant external debt variables to capture the impact of external debt on growth. Further, these studies are basically cross-country in nature (Pattilo *et al* 2002, 2004, 2011; Clements, *et al.*, 2003; Jayaraman *et al* 2009; Lau *et al* 2014; Siddique *et al.*, 2016; Qureshi *et al* 2019; and Felix, 2020).

Pattilo *et al* (2002, 2004, 2011) assess the non-linear impact of external debt on growth using a large panel data set of 93 developing countries over 1969-98. The findings support that while the average impact of debt becomes negative at about 30-40 per cent of GDP, the marginal impact turns negative at about half of the above range. Clements *et al* (2003) examine the channels through which external debt affects growth in 55 low-income countries covering the period 1970-99. The results indicate a threshold level of around 30-37 per cent of GDP. Siddique *et al* (2016) analyses the extent to which the external debt burden impacts growth, both in short-run and long-run, in 40 heavily indebted poor countries based on the data for 1970-2007. The results support the debt overhang hypothesis. Qureshi *et al* (2019) examines the relationship between the types of external debt

(total, public and private external debt) and income growth using data for 23 countries from 1990 to 2015. While the total external debt appears to have a negative effect on growth rate at the generic level, it is positively related with income growth in lower and upper-middle-income countries. Further, public external debt negatively impacts economic growth for all countries, while the impact of private external debt is not statistically significant. Contrary to other studies cited above, the authors don't find evidence of a common threshold level for external debt. Jayaraman *et al* (2009) used panel data for six Pacific Island Countries (PICs) covering a 17-year period of 1988-2004. The results underscore that while in the long-run there is no relationship between external debt and growth, in the short-run, external debt promotes growth. Lau *et al* (2014) examine the nexus between external debt and growth in 17 Asian countries during 1988 to 2006. The results provide evidence that external debt contributes to growth in these countries. Felix (2020) determines the influence of external debt on economic growth in the Economic Community of West African States (ECOWAS) using the data from 1990 to 2016. The results support that in the short-run, the threshold stood at 45 per cent, while in the long-run, it was at 42.5 per cent.

Thus, apart from presenting a mixed picture, the empirical literature is mostly populated with cross-country studies, not amenable to country-specific implications. Methodologically, most of the empirical studies employ estimation methods based on instrument variables, fixed effects, system GMM, Panel Vector Auto Regressive (PVAR) model, or Auto Regressive Distributed Lag models.

Against the aforesaid review of literature, the present study attempts to contribute to the sparse country-specific empirical literature, focusing on India, modeling non-linearity by employing spline regression for detecting regime change, supplemented by smooth transition regression. The methodological details are presented in the following section.

IV. Methodology and Data

Nonlinear Multivariate Regression:

Drawing on the empirical literature reviewed above, a standard Barro growth model is augmented with a quadratic function debt variable to evaluate the impact of external debt on growth.

$$y = \alpha + \Theta'X + \beta D + \phi D^2 + u \quad \dots(1)$$

where y is real GDP per capita income growth, X is a vector of control variables and Θ is their associated vector of coefficients; D is the external debt variable represented by external debt as a per cent of GDP, and u is an error term which is an independent and identically distributed (IID) with mean zero and variance σ^2 . The parameters are estimated based on ordinary least square (OLS) method.

To have a robust estimate of the optimal threshold of external debt which maximises economic growth, various econometric approaches based on spline regression with two regimes, threshold regression model and smooth transition regression method which are based on structural break are considered in this article.

Spline Regression Model:

A spline regression model allows for changes in slope, with the estimated line being continuous and can consists of two or more straight line segments. Thus, the model is continuous, with a structural break. In this article, accordingly two segmented line is considered to estimate the threshold and is expressed as follows:

$$y = \alpha + \Theta'X + \beta_1 I(D \leq D^*)D + \beta_2 I(D > D^*)D + u$$

After some manipulation, the following equation is obtained:

$$\begin{aligned} y &= \alpha + \Theta'X + \beta_1 [I(D \leq D^*) + I(D > D^*)]D + \\ &\quad (\beta_2 - \beta_1)I(D > D^*)D + u \\ y &= \alpha + \Theta'X + \beta_1 D + \delta I(D > D^*)D + u \quad \dots(2) \end{aligned}$$

where, D^* represent the external debt threshold and $I(D > D^*)$ is an indicator variable taking the value 1 if $D > D^*$, and 0, otherwise. Here the coefficient δ is measured in terms of the change in the slope from β_1 , to examine whether the change in the slope is significant or not. The significant of this change in slope at given threshold will indicate optimal threshold. In this article, the threshold along with other coefficients of the model are estimated using nonlinear least square (NLLS) method.

Threshold Regression Model

Threshold regression approach is employed by Sarel (1996) and Khan and Senhadji (2001) to estimate the inflation threshold in inflation-growth nexus model. Sarel (1996) runs a series of regression models for given threshold level and the optimal threshold is chosen based on maximum R-squared or minimum root mean square error (RMSE). However, Khan and Senhadji (2001) argued that since the threshold is unknown, it should be estimated along with other parameters of the model rather than the procedure suggested in Sarel (1996). The model suggested by Khan and Senhadji (2001) is used in this article to estimate the optimal threshold of external debt and is presented below.

$$\begin{cases} y = \alpha + \Theta'X + \beta_1(D - D^*) + u & \text{if } D \leq D^* \\ y = \alpha + \Theta'X + \beta_2(D - D^*) + u & \text{if } D > D^* \end{cases} \quad \dots(3)$$

$H_0: \beta_1 = \beta_2$ is tested against $H_1: \beta_1 \neq \beta_2$ for checking for the existence of optimal threshold. The model is estimated using nonlinear least square (NLLS) method.

Smooth Transition Regression Model

Most economic variables change regimes in a smooth manner, with transition from one regime to another taking some time. Smooth transition regression (STR) model allows for incorporating regime switching behaviour both when the exact time of the regime change is not known with certainty and when

there is a short transition period to a new regime. Therefore, STR models provide additional information on the dynamics of variables that show their value even during the transition period. Further, smooth transitions between regimes are often realistic than abrupt switches. In this article, the model described in Espinoza et al. (2010) and Deepak et al (2011) is adopted with slight modification and is given below.

$$y = \alpha + \Theta'X + \beta_1 G(\gamma, c; d)(D - D^*) + \beta_2 G(\gamma, c; d)(D - D^*) + u \quad \dots(4)$$

$G(\cdot)$ stands for a continuous transition function usually bounded between 0 and 1. Most popularly used transition functions are logistic and exponential function and are defined as follows:

$$\text{Logistic : } G(\gamma, c; d) = \frac{1}{1 + e^{-\gamma(d-c)}}, \quad \gamma > 0$$

$$\text{Exponential: } G(\gamma, c; d) = 1 - e^{-\gamma(d-c)^2}, \quad \gamma > 0$$

The slope parameter $\gamma > 0$ is an indicator of the speed of transition between 0 and 1, whereas the threshold parameter c points to where the transition takes place, and the transition variable is denoted by d . In this article, both the logistic smooth transition regression (LSTR) as well as exponential smooth transition regression (ESTR) models are used. The parameters of the model including transition parameter and threshold are estimated using nonlinear least square (NLLS) method. The logistic specification of smooth transition is based on the cumulative logistic function, while the exponential specification if based on the inverted normal density function.

This article uses annual data from 1970 to 2020 sourced basically from the Database on Indian Economy (DBIE), Reserve Bank of India¹. However, wherever data is not available from RBI, such

data is supplemented from the database of World Development Indicators, World Bank.

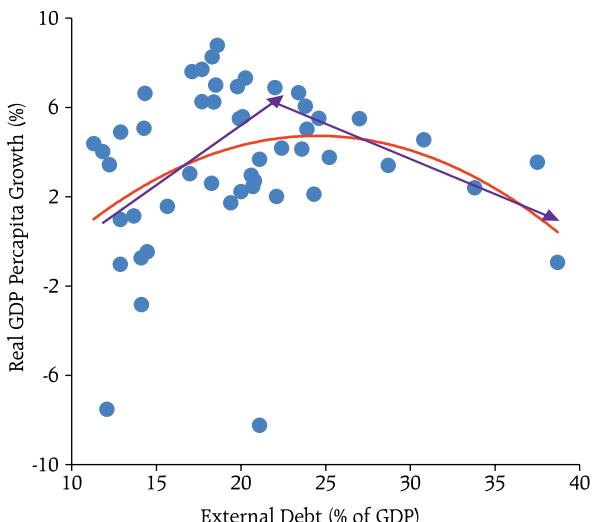
V. Empirical Results

To begin with, the real GDP per capita growth is plotted against the external debt to GDP ratio in Figure 6 to assess the relationship between them. There appears to be a nonlinear relationship between external growth and growth in India (Figure 6).

In order to better understand the type of nonlinear relationship that exists between external debt and economic growth, and the sensitivity of inflection point, a bivariate polynomial regression with various power functions including quadratic is investigated. The estimated coefficients of polynomial regression with various power along with their optimal external debt threshold is presented in Table 1 and the results are illustrated in Figure A.1 in Annex.

The results from applying different functional forms show that the relationship between external debt and economic growth remains nonlinear (concave) and it depicts an inverted U-shaped relationship, corroborating the presence of a Laffer-curve type relationship. Higher power yields slightly

Figure 6: Relationship between External Debt and Real GDP Per capita Growth



¹ For our empirical analysis, the back series of real per capita income is obtained by splicing method. In case of CPI inflation, the back series of CPI-Combined is obtained by splicing on CPI-IW.

Table 1: Sensitivity of Turning point of External Debt

Power	Constant	Coeff. of External Debt	Coeff. of External Debt Power term	Optimal Point
1.2	-15.20** (7.12)	5.02** (1.95)	-2.22** (0.87)	23.77
1.4	-12.66** (6.17)	2.53** (0.98)	-0.51** (0.20)	23.95
1.6	-10.77* (5.47)	1.71** (0.66)	-0.16** (0.06)	24.14
1.8	-9.30* (4.94)	1.30** (0.50)	-0.06** (0.02)	24.32
2.0	-8.12* (4.52)	1.05** (0.41)	-0.02** (0.01)	24.51
2.2	-7.17* (4.181)	0.88** (0.343)	-0.01** (0.003)	24.69
2.4	-6.38 (3.907)	0.77** (0.299)	-0.004** (0.001)	24.87
2.6	-5.71 (3.679)	0.68** (0.266)	-0.002** (0.001)	25.05
2.8	-5.14 (3.4888)	0.61** (0.2409)	-0.001** (0.0003)	25.23
3.0	-4.65 (3.3277)	0.56** (0.2213)	-0.0003** (0.0001)	25.41

Note: (1) Figures in parentheses are the Standard Error. (2) * indicates significance at 10%, ** significance at 5% and *** significance at 1%.

higher optimal level of external debt². The estimated optimal level of external debt estimated using different functional form is in the range of around 23.8 to 25.4 per cent. The optimal level of external debt estimated with power 2 is at 24.51 per cent.

To have a robust estimate of the inflexion point, nonlinear multivariate regression is considered by including a set of control variables drawn from the literature such as log of real per capita income with a lag (initial level of per capita income)³, percentage change in the terms of trade, gross domestic investment as a per cent of GDP, openness indicator (exports plus imports as a ratio to GDP), population growth rate, enrolment rate in primary school, gross fiscal deficit of general government as a ratio to GDP, CPI-Combined inflation rate, total external debt service as a per cent of GDP and external debt indicator (external

debt to GDP). The same set of control variables are included in other nonlinear models considered in this article. Initial level of per-capita (log of real per capita income) is expected to have a negative coefficient, drawing from income convergence hypothesis. Population growth and investment rate represent the conventional factors of production, while the primary school enrolment rate proxies for the quality of human capital. The coefficient on population rate is typically found to be negative in the empirical literature while that on investment and primary school enrolment are expected to be positive. The terms of trade variable is meant to capture external shock. For a commodity-importing country like India, coefficient on terms of trade is expected to be negative. The openness indicator is meant to reflect the strand in the literature that more open economies tend to have higher long-term growth in per-capita income. The fiscal balance variable accounts for the role of the fiscal in growth and the coefficient is expected to be positive. Inflation variable represents the impact of price rise on growth and hence expected to have a negative coefficient. As the data on external debt ratio and debt services ratio are available in DBIE from 1990-91 onwards, the data for these variables including enrolment in primary school prior to 1990-91 are collected from the World Bank.

Nonlinear Multivariate Regression:

Initially the nonlinear multivariate regression is estimated using all the control variables. However, population growth and gross fiscal deficit are found to be insignificant. Therefore, to have a more parsimonious model of estimating threshold, these two variables are excluded in further investigation as inclusion of these statistically insignificant variables may influence the estimation of other coefficients in the model, which in turn impact the estimated threshold. Ordinary Least Square estimation of the models exhibits presence of serial autocorrelation and heteroskedasticity. Therefore, these equations are estimated using the newey-west standard errors

² In a functional relationship of the form of $y = a + bx + cx^{power}$, power of 1.0 indicate linearity, while power more than 1.0 indicate the nonlinearity with power 2.0 representing the quadratic form.

³ Reflecting conditional convergence.

for coefficients estimated by OLS regression as newey-west standard error estimates are robust to heteroskedasticity and autocorrelation⁴. Results of the nonlinear multivariate regression excluding population growth and gross fiscal deficits are presented in Table 2⁵.

The initial income is statistically significant with negative sign supporting the conditional growth convergence hypothesis. Investment rate and the schooling enrolment rate too are statistically significant with positive sign, an empirical finding in line with the growth literature. The coefficient on terms of trade is negative and statistically significant, underscoring the fact that India is a commodity importing country. The coefficient on openness indicator is negative and statistically significant. Inflation coefficient has proper negative sign and statistically significant. The

positive and statistically significant external debt (D) indicates that accumulation of external debt leads to higher growth up to a certain level and the negative statistically significant coefficient of external debt-squared (D^2) shows that the stock of external debt results in lower growth beyond a threshold. Based on the coefficients of D and D^2 , the threshold level of external debt for India is estimated to be around 27 per cent of GDP⁶.

Spline and Threshold Regressions:

Using the spline and threshold regression model as described in the methodology, the existence of optimal threshold external debt is tested. The empirical results from the spline and threshold regression estimated using NLLS method are presented in Table 3.

Table 2: Linear and Quadratic Effect of External Debt on Growth

	Linear	Quadratic
Constant	38.264** (7.893)	42.941*** (6.140)
$\text{Log}(Income)_{t-1}$	-7.681*** (0.911)	-8.829*** (0.980)
Term of Trade Growth	-0.050** (0.014)	-0.043*** (0.014)
Investment Rate	0.472* (0.243)	0.506** (0.244)
Openness	-0.125 (0.039)	-0.189** (0.049)
Schooling	0.396** (0.156)	0.394** (0.150)
Inflation	-0.199*** (0.036)	-0.168*** (0.034)
(Debt Service/GDP)	0.001 (0.022)	-0.104*** (0.029)
D	0.021 (0.037)	0.858*** (0.130)
D^2		-0.016*** (0.002)

Note: (1) Figures in parentheses are the Standard Error. (2) * indicates significance at 10%, ** significance at 5% and *** significance at 1%.

⁴ Presence of serial correlation is tested using Breusch-Godfrey test and they are found to be significant in case of non-linear regression. Breusch-Pagan/Cook-Weisberg test for heteroskedasticity shows the presence of significant heteroskedasticity in both the regression models.

⁵ As can be seen from Table 2, the impact of D on growth is statistically insignificant in the linear form underscoring the nonlinear relationship.

Table 3: Estimated Turning Point of External Debt Ratio: Spline and Threshold Regression Models

	Spline Regression	Threshold regression
Constant	46.595*** (6.203)	47.742*** (6.091)
$\text{Log}(Income)_{t-1}$	-8.873*** (1.401)	-8.990*** (1.307)
Term of Trade Growth	-0.042*** (0.015)	-0.042*** (0.015)
Investment Rate	0.550** (0.259)	0.539** (0.266)
Openness	-0.195*** (0.043)	-0.198*** (0.051)
Schooling	0.400** (0.165)	0.403** (0.161)
Inflation	-0.179*** (0.045)	-0.180*** (0.049)
(Debt Service/GDP)	-0.073 (0.050)	-0.089* (0.046)
β_1	0.273** (0.122)	0.297** (0.118)
δ	-0.057*** (0.017)	
β_2		-0.438*** (0.107)
Threshold (D^*)	23.40*** (5.057)	23.60*** (2.736)
Test ($H_0: \beta_1 = \beta_2$)		16.72*** ($p = 0.0002$)

Note: (1) Figures in parentheses are the Standard Error. (2) * indicates significance at 10%, ** significance at 5% and *** significance at 1%.

⁶ Optimal threshold is estimated using the formula: $[-D/2D^2]$.

The significance of slope change in both the spline and threshold regressions suggest that there is a structural break in the external debt-growth relationship. The estimated threshold of external debt from spline and threshold regression is at 23.4 per cent and 23.6 per cent, respectively. This provides evidence that the impact of external debt on growth changes when external debt to GDP ratio crosses 23.4 to 23.6 per cent.

Smooth Transition Regression:

The empirical results from the smooth transition regression using both logistics and exponential transition function are presented in Table 4. The threshold of external debt estimated from logistic smooth transition regression (LSTR) and exponential smooth transition regression (ESTR) is at 23.5 per cent and 23.6 per cent, respectively. The findings from the LSTR and ESTR support the threshold estimated from the spline and threshold regression.

The transition of the external debt-growth relationship from one regime to another at estimated threshold level based on the logistic and exponential transition function is illustrated in Figure 7.

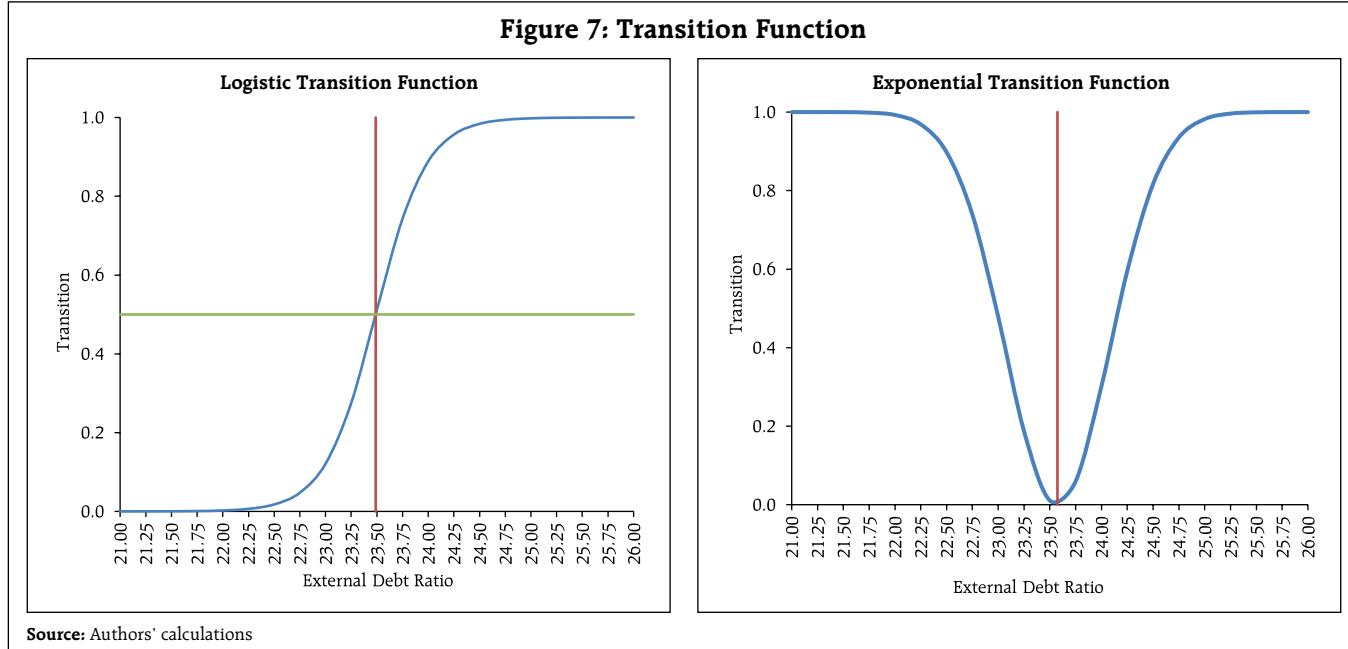
Table 4: Estimated Turning Point of External Debt Ratio Based on Smooth Transition Regression (STR)

	Logistic STR	Exponential STR
Constant	48.263*** (5.346)	42.567*** (6.325)
$\text{Log}(Income)_{t-1}$	-9.021*** (1.330)	-8.273*** (0.741)
Term of Trade Growth	-0.047*** (0.012)	-0.058*** (0.013)
Investment Rate	0.547** (0.262)	0.546* (0.314)
Openness	-0.191** (0.044)	-0.154** (0.066)
Schooling	0.402** (0.172)	0.404** (0.178)
Inflation	-0.189*** (0.042)	-0.227*** (0.048)
(Debt Service/GDP)	-0.072 (0.046)	0.009 (0.046)
β_1	0.257*** (0.116)	0.160*** (0.008)
β_2	-0.117** (0.043)	-0.149*** (0.026)
γ	58.150 (2159)	7.233 (6.714)
Threshold (D^*)	23.49*** (3.637)	23.57*** (0.022)

Note: (1) Figures in parentheses are the Standard Error. (2) * indicates significance at 10%, ** significance at 5% and *** significance at 1%.

The trend behaviour in the relationship between external debt and growth based on the above models

Figure 7: Transition Function



are presented in Figure A.2 of Annex. The regime change and the threshold level are discernible from the spline regression, threshold regression and smooth transition regression as they are based on the structural break. On the other hand, the trend of the non-linear quadratic multivariate regression is smoother, making it relatively difficult to identify the threshold. The quadratic polynomial may not perhaps be the suitable representation of a nonlinear relationship, given that threshold estimates are sensitive to the form of nonlinear function included in the model and their estimated coefficients as seen in Table 1. Based on the thresholds emanating from the above structural break models, it could broadly be inferred that the growth maximising external debt to GDP ratio (optimal threshold) for India could be between 23.4 per cent and 23.6 per cent^{7,8}.

VI. Conclusion

The article examines the relationship between external debt and economic growth in India. It finds evidence that there is a nonlinear relationship between them within a conventional conditional growth convergence framework, reflecting a typical inverted U-shaped external debt Laffer curve. The inflexion point or the growth-maximising external debt to GDP ratio threshold is estimated in the range of 23.4 per cent to 23.6 per cent. The actual external debt to GDP

ratio as at end-December 2021 is estimated at 20 per cent, indicating a potential space to promote growth enhancing external debt by about 3 percentage points of GDP, equivalent to additional US\$ 90 billion of debt at the current level of India's GDP.

India's debt market is being progressively opened up to the foreign capital in a careful and calibrated manner. As part of the annual budget in 2020, the government announced a list of government securities that are fully opened to foreign investors without a limit under Fully Accessible Route (FAR). The Statement on Developmental and Regulatory Policies announced by the RBI on February 10, 2022 enhanced the investment limit under the Voluntary Retention Route (VRR) by ₹1 lakh crore. Further, efforts are underway for a possible inclusion of Indian G-sec in global bond indices. There are estimates that such an inclusion would prompt additional bond inflows into the Indian debt market, given the burgeoning size of the FAR securities. These policy developments may be seen in the context of the findings of this study. At present, a rule-based dynamic limit for outstanding stock of ECBs at 6.5 per cent of GDP is in place. As India aims at higher, sustainable and inclusive growth, the need for attracting larger external debt flows within the estimated threshold may be assessed along with other external vulnerability parameters so that the growth objective is pursued while preserving overall macro-stability.

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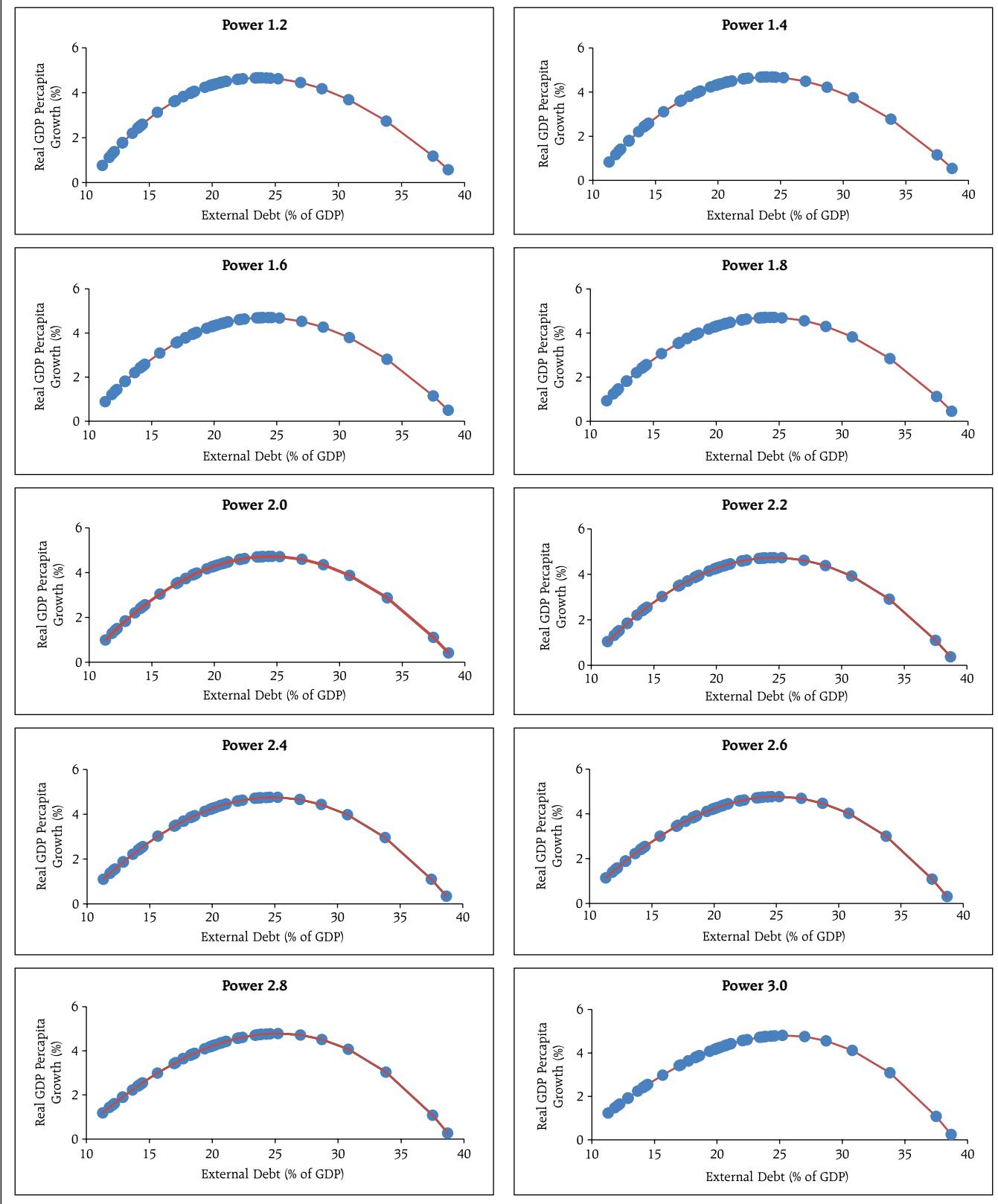
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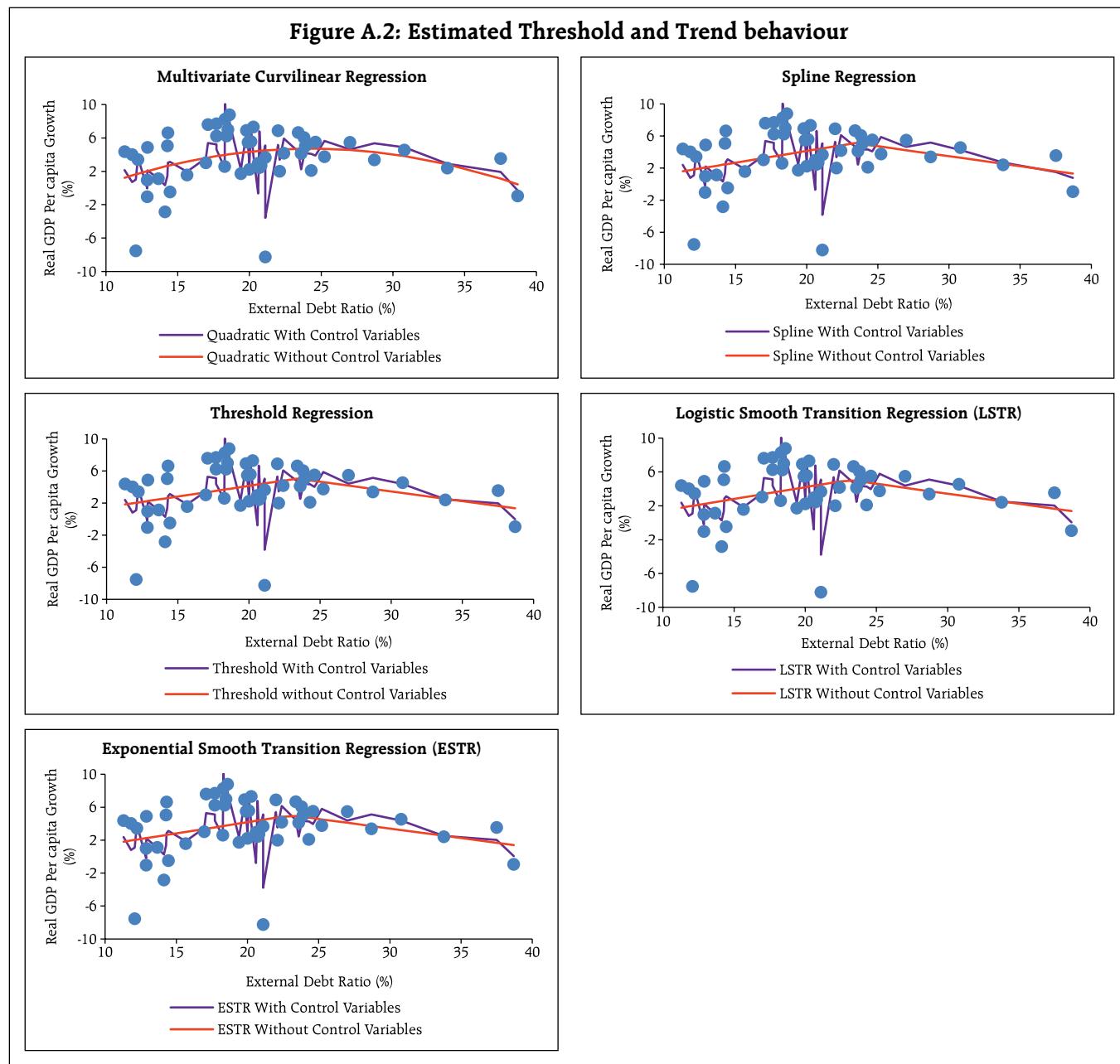
⁷ Spline regression, threshold regression and smooth transition regression were also estimated without the control variables to check for the robustness of the results. The inflection points as reported in the above results do not change significantly.

⁸ In these above models, the external debt variable (D) is represented by external debt as a ratio to GDP, while the external debt service is represented by debt service to GDP. To examine the impact of accumulated external debt in the past (*i.e.*, lagged external debt to GDP ratio) on growth in the current period, external debt variable is alternatively represented by lagged external debt to GDP ratio. Similarly, from an external vulnerability stand point, debt service obligations need to be assessed *vis-à-vis* export earnings. Accordingly, external debt service is alternatively represented by the ratio of debt service to exports. The results of the estimated threshold level of external debt from these alternative sets of models remained broadly unchanged.

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Annex

Figure A.1: Optimal External Debt level using Alternative functional form



Irrigation Management for Sustainable Agriculture*

With increasing demand for ground water from farm and non-farm sectors, enhancing irrigation efficiency is critical for sustainable agriculture. This article computes the area-weighted cost of irrigation, estimates technical efficiency of irrigation and identifies factors influencing technical efficiency for 19 agriculturally important States in India. The study finds a declining trend in the area-weighted cost of irrigation partly reflecting the subsidised power supply and lower irrigation efficiency in most of these states. Cost and availability of energy to the farm sector along with the depth of ground water level appear to influence the irrigation efficiency. There is a need for redesigning irrigation policy including promotion of improved technological interventions to correct the inter-state irrigation imbalances.

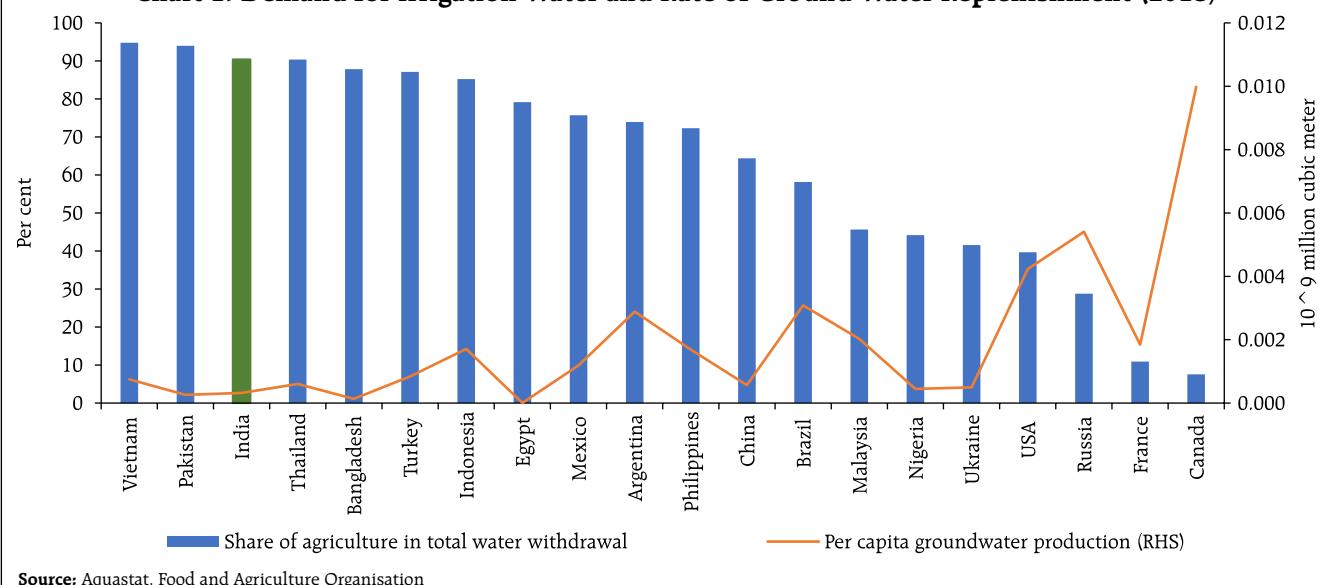
Introduction

Globally, availability of adequate water and its balanced distribution to various sectors of the

economy is emerging as a key concern. Water resources are becoming increasingly scarce due to growing demands from households for drinking and sanitation; from the farm sector for irrigation purposes; and from the non-farm sectors, including the energy sector¹. To illustrate, nearly a quarter of the world's population living in 17 countries face 'extremely high' water stress (as per World Resources Institute's Aqueduct Water Risk Atlas). India ranked 13th in this list with a population more than three times the combined population of the other 16 nations (GoI, 2019).

The supply of clean and usable water has not kept pace with the demand from various sectors making the balanced allocation among these sectors a policy challenge. Agriculture sector absorbs the largest share of water in most economies, particularly in the emerging and developing economies even as the rate of ground water replenishment remains low (Chart 1). The share of the sector in overall demand

Chart 1: Demand for Irrigation Water and Rate of Ground Water Replenishment (2018)



* This article has been prepared by Rishabh Kumar, Jobin Sebastian and Arun Vishnu Kumar from the Department of Economic and Policy Research. The authors are grateful to Sitikantha Pattanaik, Executive Director and D. Suganthi, Manager for their support. The views expressed in the article are those of the authors and do not represent the views of the Reserve Bank of India.

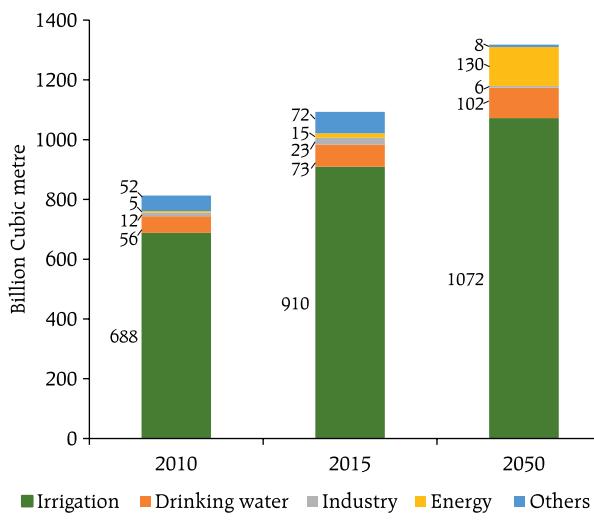
¹ Recognising the seriousness of the problem, the United Nations has set the theme for the World Water Development Report:2022 as "Groundwater: Making the Invisible Visible" on the eve of World Water Day (March 22).

for water is one of the highest in India as well, while the per capita groundwater replenishment rate is very low.

In India, even as the share of the agriculture and allied sector in total gross value added (GVA) in the economy has been declining since independence, the sector continues to absorb a major share of water for irrigation purposes. The share of irrigation in overall water demand is predicted to moderate from 85 per cent in 2010 to around 74 per cent by 2050; however, the quantity of water demanded in absolute terms is expected to increase by 1.6 times (GoI, 2019) (Chart 2).

To meet the growing demand for water from the agriculture sector, irrigation infrastructure has expanded at a considerable pace, making India a food sufficient nation by reducing its dependence on monsoons. However, the expansion of irrigation infrastructure driven by increase in the area irrigated through canals, tanks and wells in the 1950s has shifted to a rise in the area under tube wells since the 1960s, which in turn has led to fast depletion of ground water (Chart 3). While the adoption of newer technology

**Chart 2: Projected Water Demand in India
(By different uses)**

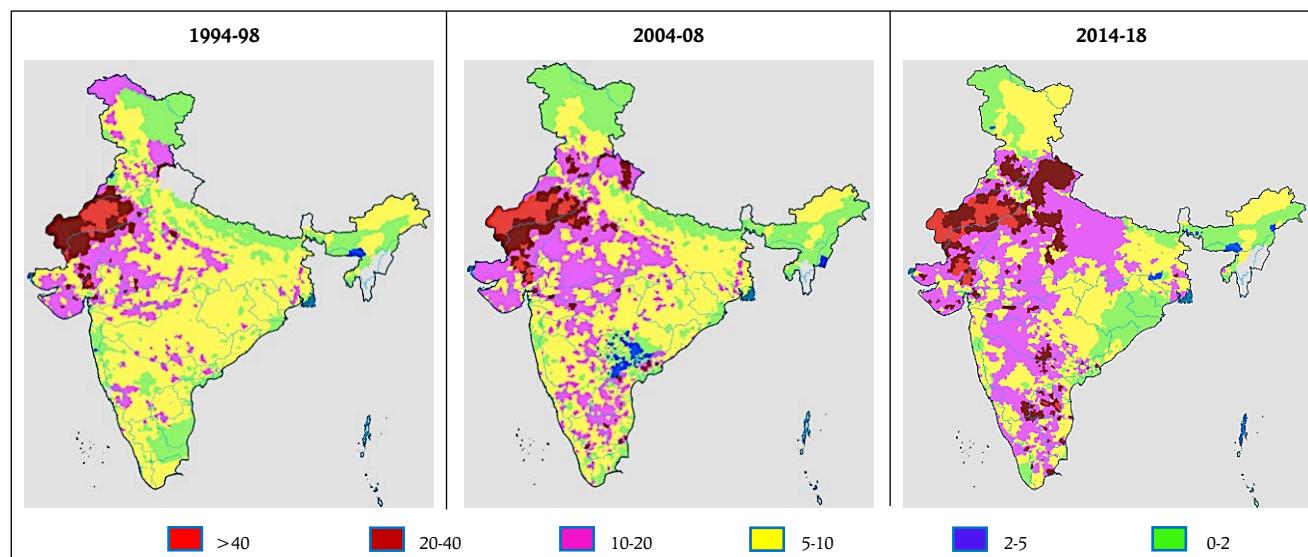


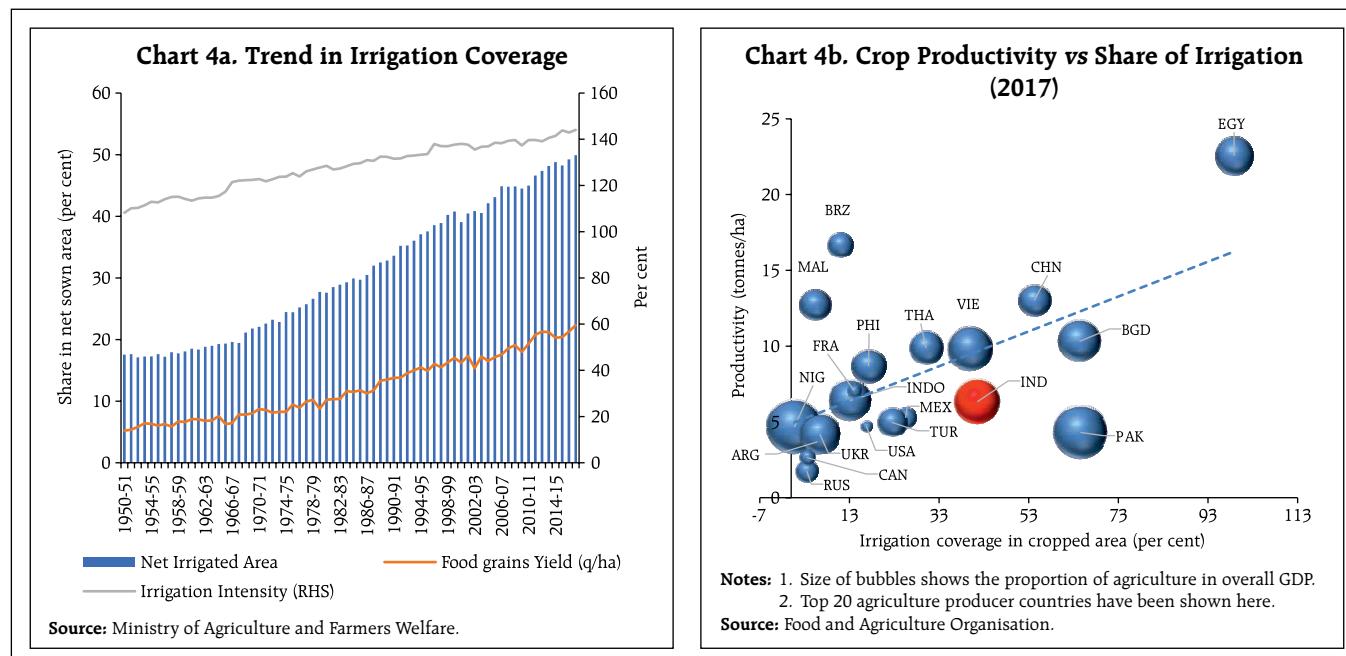
Source: Standing Sub-committee of the Ministry of Water Resources.

such as automated irrigation, water harvesting, micro irrigation, intensive cultivation techniques and the gradual shift away from water intensive crops such as paddy and sugarcane have come up as potential solutions to this problem, their impact remains less than desirable.

Chart 3: Status of Groundwater Level in India

(Depth of water table below ground level in meter)





With the ground water level depleting fast, issues related to the cost of irrigation and the efficiency of water use has gained importance in recent years to address the conflicting objectives of ensuring food security and raising farmers' income on the one hand, and maintaining environmental sustainability, on the other.

While issues related to the cost of irrigation and water use efficiency have been analysed in the extant literature, most of them pertain to specific years and time periods. Projections of future water demand assume that the irrigation efficiency will increase from current levels of 35-40 per cent to around 60 per cent (GoI, 2019). This provides the context for studying the dynamics of irrigation efficiency with a forward-looking perspective. Amidst dynamic changes in water consumption, cropping pattern and irrigation technologies, there is a need to analyse the trends in cost and efficiency of irrigation services and identify factors to improve efficiency.

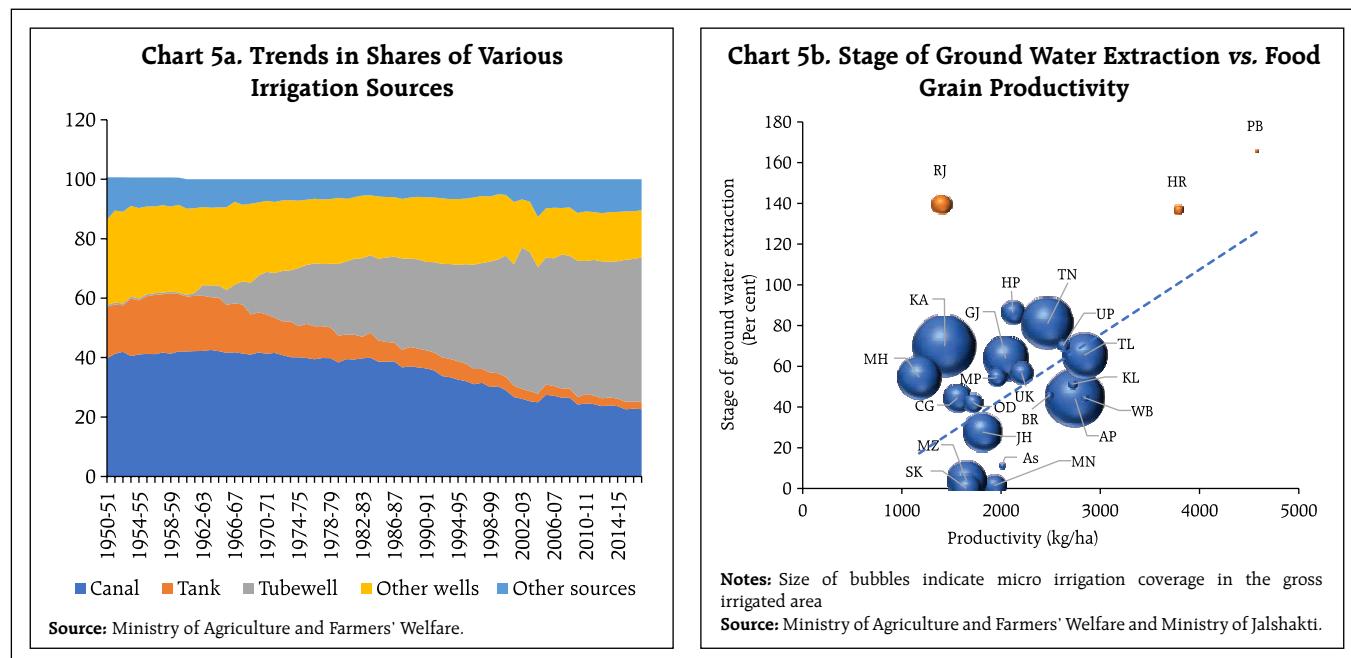
In this backdrop, the article examines three major issues. First, it computes an area-weighted cost of irrigation for 19 States. Second, it estimates

state-wise irrigation efficiency using the Data Envelopment Analysis (DEA). Finally, it identifies the determinants of irrigation efficiency based on a random panel Tobit regression. The study uses the Comprehensive Cost of Cultivation data published by the Ministry of Agriculture and Farmers' Welfare for 19 States for the period from 2002-03 to 2017-18. Although it has few limitations, this is a rich dataset in terms of information (GoI, 2008; Nawn, 2013).

The remainder of the paper is structured as follows. Section II presents some stylised facts on the progress of irrigation and agricultural productivity in India. The computation of state-wise area-weighted average costs of irrigation has been taken up in Section III. Irrigation efficiency is estimated in section IV followed by identification of some of its determinants in Section V. The last section concludes the article with some policy suggestions.

II. Stylised Facts

India has made considerable progress in strengthening the access to irrigation over the years. Irrigation area coverage increased from around 17 per cent of net sown area (NSA) at the time of

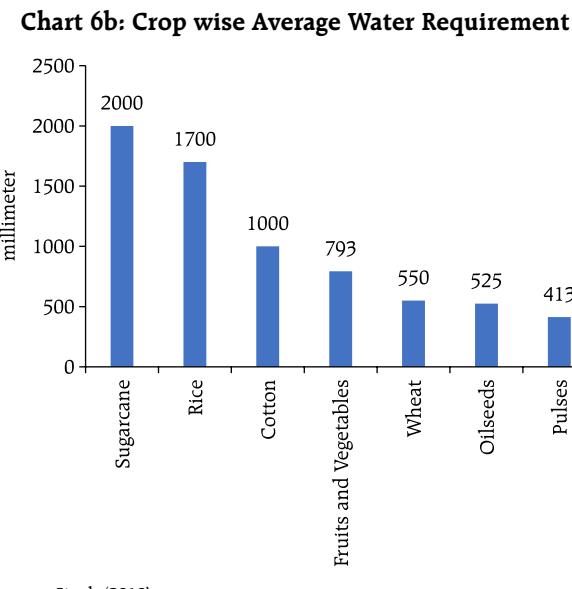
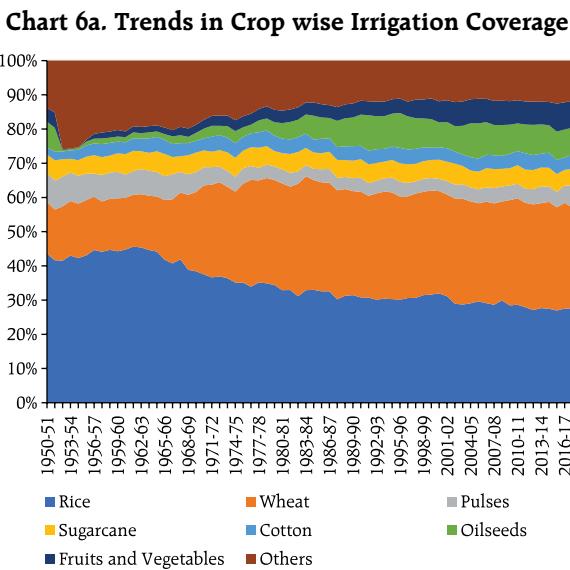


independence to around 50 per cent in 2017-18 (as per latest available data) (Chart 4a). Similarly, the irrigation intensity (ratio of gross irrigated area to net irrigated area) recorded an increase from 110 per cent in 1950-51 to around 144 per cent in 2017-18. Consequent to the progress in irrigation and adoption of high yielding varieties, agricultural productivity has increased. In terms of the irrigation and productivity relationship, India needs to increase the productivity via irrigation, as has been the case in some other countries (Chart 4b).

The development of irrigation infrastructure, however, appears to be biased towards certain sources of irrigation, states and crops. First, the dominance of tube wells in the overall irrigation infrastructure has continuously increased since the 1960s and currently it occupies almost half of the total net irrigated area (Chart 5a). This has resulted in rising pressure on ground water reserve and higher energy demand to extract the ground water. Simultaneously, many of the efficient and sustainable structures used earlier such as tanks and ponds are losing their importance.

In addition, modern technologies like micro irrigation are yet to be adopted by the farm sector in India on a large scale.

Second, there is also a wide variation among the states in terms of affordable irrigation accessibility depending on the ground water availability and extent of subsidy provided by the state governments in the electricity tariffs for agricultural purposes (Gulati *et al.*, 2019). While the tariff rates on power supply for agriculture are almost nil in the states like Andhra Pradesh, Karnataka, Punjab, Tamil Nadu and Telangana, the rates charged varied across other states (GoI, 2019a). There are also wide variations across the states in terms of quality of electricity supply, depth of water table and relative proportions of tube wells run by cheaper electricity and costlier diesel pumps. In particular, ground water extraction is more than the replenishable levels in Punjab, Haryana and Rajasthan (Chart 5b). Further, these states, which are on the verge of groundwater extinction, have minimal coverage under micro irrigation.



Thirdly, though the share of irrigated area under crops that require relatively lesser amount of water per crop cycle such as wheat, oilseeds, fruits and vegetables have increased over time (Chart 6a), substantial volume of irrigated water continues to be consumed by water intensive crops like sugarcane, rice and cotton (Chart 6b). Crops like pulses, fruits and vegetables which have relatively higher water productivity are still not preferred by the farmers in irrigated tracts.

III. Cost of Irrigation

Irrigation is one of the factors raises agricultural productivity. Substantial portions of agricultural production in India comes from the irrigated areas on account of higher productivity as compared to the rainfed areas. Further, productivity varies widely across different sources of irrigation. Evidence suggests that tube well irrigated areas have been found to have higher crop productivity as compared to other sources (Dhawan, 1987).

Cost of irrigation depends on various factors including frequency of irrigation supply, depth of ground water, ownership of the sources (community

or individual) and type of water markets (primary or secondary). The distribution of these factors varies widely across states resulting in differences in the cost of irrigation. Most of the studies on cost of irrigation are based on primary survey in the selected tracts for specific years (Sankarnaryanan *et al.*, 2011; Narayananamoorthy and Jothi, 2019).

The Comprehensive Scheme on the Cost of Cultivation by the Directorate of Economics and Statistics gives the crop wise data on various costs and returns, including the cost of irrigation (termed as irrigation charges²) for the states. Using this dataset, we compute the state wise area-weighted average irrigation charges in 19 states from 2002-03 to 2017-18 based on data availability. The area weighted cost of irrigation has been computed using the following formula:

$$IC = \frac{\sum_{i=1}^{n} c_i * GIA_i}{\sum_{i=1}^{n} GIA_i}$$

Where, IC = Area weighted cost of irrigation; c_i = irrigation charge for the i^{th} crop; GIA_i = Gross irrigated

² The irrigation charge is evaluated based on operational cost incurred in case of own irrigation and the actual amount paid in case of hired irrigation services (GoI, 2008).

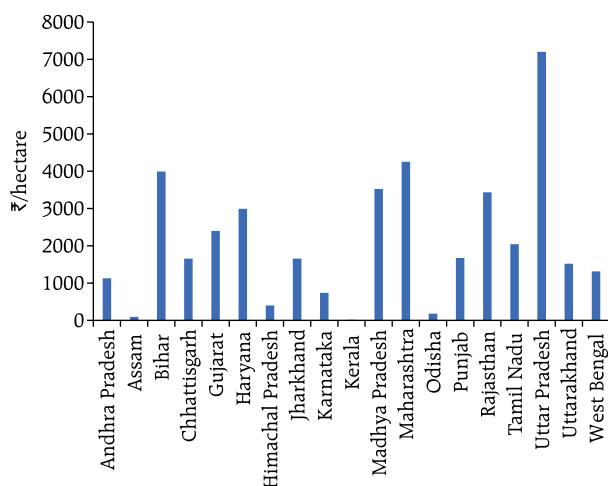
area under the i^{th} crop; and $i = \text{number of crops}$ (1, 2, 3, ..., n)

Cross-sectional data for 2017-18 shows that Kerala, Assam and Odisha had the lowest area-weighted irrigation charges while Uttar Pradesh had the highest charges followed by Maharashtra, Bihar and Madhya Pradesh (Chart 7). The relatively lower cost of irrigation in states like Punjab, Tamil Nadu, Andhra Pradesh and Karnataka could be partly explained by the 100 per cent subsidised electricity for agricultural purposes (GoI, 2019).

The trend shows that there appears to be a gradual decline in the area-weighted average cost of irrigation over the years in most of the states, except in Bihar, Madhya Pradesh, Himachal Pradesh, Jharkhand and Uttar Pradesh (Chart A3, Annex I). The incremental cost of irrigation with declining water table, however, is not incurred by the farmers due to subsidised power supply (Gulati *et al.*, 2019).

The rising cost of irrigation in Bihar, Madhya Pradesh, Himachal Pradesh, Jharkhand and Uttar Pradesh may be due to various factors. First, many farmers may not have irrigation facility of their own and may end up generally purchasing from other

Chart 7: State wise Area Weighted Cost of Irrigation (2017-18)



Source: Authors' calculations based on Cost of Cultivation data published by MoAFW.

farmers at higher rates (secondary irrigation markets). Second, the declining water table in these states could have increased the cost of energy for drawing water. Third, farmers are often compelled to use diesel run pumps for irrigation due to lack of access to uninterrupted power supply leading to higher expenditure.

IV. Irrigation Efficiency

Irrigation efficiency is estimated using the Data Envelopment Analysis (DEA) methodology (Charnes, Cooper and Rhodes, 1978; and Banker, Charnes and Cooper, 1984). DEA is a non-parametric linear programming approach for evaluating the performance of a set of peer entities called decision-making units (here, the States). It calibrates the technical efficiency based on the estimated best-practice or efficient frontier, or envelopment surface made up by a set of Pareto-efficient states (efficiency score= 1). The efficiency of the states has been calculated in relation to this and gets the score range between 0 and 1.

The study utilises two input variables, namely area weighted cost of irrigation³ and area coverage under irrigation and one output variable, that is 'value of output' for estimating technical efficiency. We have estimated output oriented technical efficiency of irrigation (IE) under the assumption of constant returns to scale.

The estimation results reveal that Kerala and Assam lead with maximum technical efficiency (Table 1). The results are on expected lines as the irrigation coverage (20.3 per cent and 11.9 per cent, respectively) as well as irrigation charges (₹9.8/ha and ₹70.5/ha, respectively) are comparatively lower than other states. The value of output is on the higher side due to significant presence of horticulture and plantation crops [54 per cent of total area under

³ The primary survey-based studies like Gautam *et al.* (2020) have taken various cost components (like labour, pipe, energy, repair, and maintenance) separately. However, due to paucity of secondary statistics on such granular data, we have considered single variable on cost of irrigation which would encompass all these components.

Table 1. State wise Status of Major Irrigation Related Variables (for Triennium Ending 2018)

States	Irrigation Efficiency	Area under water guzzlers ⁵ (%)	Ground water (m)	Share in all India public procurement of rice (%)	Share of tubewells (%)	Share of other irrigation sources (%)	Energy consumption by non-agri sector (%)	Area weighted cost of irrigation (₹/ha)	Micro irrigation Coverage (%)	Energy availability for agriculture sector (KWh/capita)
Andhra Pradesh	0.4	62.3	8.6	6.1	42.3	13.0	72.2	771.3	19.5	167.36
Assam	1.0	78.8	4.4	0.1	10.9	61.4	99.4	258.1	0.2	1.88
Bihar	0.2	44.5	5.6	2.0	62.6	6.3	97.6	2496.1	0.3	11.61
Chhattisgarh	0.3	76.5	8.7	6.6	33.7	8.5	77.6	634.9	4.6	34.29
Gujarat	0.4	11.1	16.4	0.0	26.5	55.3	80.4	1765.7	11.5	249.34
Haryana	0.4	25.6	16.3	16.9	63.0	0.0	71.9	2246.1	0.5	237.58
Himachal Pradesh	0.5	24.1	7.0	0.0	21.8	75.0	99.3	194.2	3.3	3.15
Jharkhand	0.5	20.9	8.1	0.2	12.4	85.6	99.4	706.3	8.6	1.81
Karnataka	0.3	33.7	8.9	0.0	44.8	25.2	62.8	895.2	21.7	157.99
Kerala	1.0	27.1	7.7	0.5	10.8	69.4	98.4	47.6	0.5	5.69
Madhya Pradesh	0.2	9.0	10.8	8.8	12.3	70.1	62.1	1746.9	2.0	83.28
Maharashtra	0.6	27.3	9.2	0.5	66.7	0.0	76.7	3208.1	10.6	107.27
Odisha	0.3	94.4	5.9	5.9	13.7	4.5	98.1	104.1	2.0	4.59
Punjab	0.5	41.0	17.4	35.5	72.0	0.0	72.3	1050.3	0.1	234.05
Rajasthan	0.3	1.3	25.2	1.2	47.6	28.2	58.1	2413.4	2.3	74.04
Tamil Nadu	0.4	57.7	10.6	0.2	19.8	57.8	86.0	1792.2	15.2	143.11
Uttar Pradesh	0.3	36.1	8.3	5.2	74.9	10.0	80.7	4108.8	0.7	28.08
Uttarakhand	1.0	51.4	13.9	1.2	56.8	20.9	98.7	1189.0	3.1	42.38
West Bengal	0.3	43.9	7.4	3.1	0.0	100.0	96.7	1596.6	0.2	8.84

coconut, rubber, and tapioca (Jhonson, 2018)] in Kerala which consume less water but fetch higher market value for the products as compared to other crops. As regards Assam, the high irrigation efficiency can be attributed to minimal cost of irrigation resulting from higher water table levels as compared to other States. The irrigation efficiency for the remaining states lies in the range of 20 per cent to 60 per cent for the Triennium Ending⁴ (TE) 2018. States like Chhattisgarh, Karnataka, Madhya Pradesh and Odisha have low irrigation efficiency on an average.

The trend analysis shows that states like Andhra Pradesh, Bihar, Gujarat, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal have recorded

declining trends in irrigation efficiency, especially during the recent years (Chart A4, Annex I). On the other hand, Jharkhand and Maharashtra have recorded increasing trends.

V. Factors influencing Irrigation Efficiency

Based on the efficiency scores obtained in the previous section using the DEA methodology, an attempt is made to find out the potential factors that determine efficiency of states using a random panel Tobit regression (Luoma *et al.*, 1996; Chilingerian 1995; Kirjavainen and Loikkanen 1998; Romagnoli *et al.*, 2021) [Annex III]. Four models with different determinants, namely area under water guzzling crops, share of different sources of irrigation, public procurement policy, energy availability to farm sector and depth of ground water level, were fitted. Two

⁴ Three years average (2015-16 to 2017-18).

⁵ Rice and sugarcane.

variables, namely energy availability to farm sector and depth of ground water level were observed to have a significant impact on irrigation efficiency across all the models. The marginal effects also corroborate the negative impact of these variables on irrigation efficiency. The higher rate of energy consumption by the farm sector reveals the excessive water usage for irrigation leading to inefficiency. Deeper ground water levels pull down the water pumping efficiency of the motors resulting in increased irrigation inefficiency.

Although the irrigation efficiency values generally show similar trends across most of the states, the wide variations in socio-economic and geological conditions indicate that a "one-size-fits-all" policy may not work for development of efficient irrigation practices in India (Table 1). Some of the major factors affecting the efficiency of irrigation are discussed below.

1. Area under water guzzling crops: States like Odisha, Assam, Chhattisgarh, West Bengal, Punjab, Bihar and Andhra Pradesh have very high share of acreage under the water guzzlers like rice and sugarcane. There is a need for shifting the cropping pattern as per the location-specific water availability (Jain et al., 2019; Dangar et al., 2021; Fishman et al., 2015). Technologies like the System of Rice Intensification (SRI) need to be expanded and incentivised among the farmers which not only has the potential to improve land productivity by 46 per cent in the rice-based cropping system but also reduce the water requirement by 40 per cent (Naryanamoorthy and Jothi, 2019).

2. Over-exploitation of groundwater: The water table is at alarming levels in Rajasthan, Punjab, Haryana, Chhattisgarh, Gujarat, Uttarakhand, Madhya Pradesh and Tamil Nadu. The continuing practice of traditional flood irrigation techniques

leading to excessive use of ground water aided by cheap availability of electricity has led to sharp decline in water table. Cheaper access to unlimited groundwater increases inefficiency by depleting the water table and thus, increasing the energy requirement for irrigation.

One of the solutions to tackle this energy-irrigation nexus is the introduction of water saving technologies like micro irrigation on a larger scale in these states (Palanisami et al., 2011). However, except for Karnataka, Andhra Pradesh and Tamil Nadu, micro irrigation coverage in the gross irrigated area in States is very low. Apart from micro irrigation, other available policy options are two feeder power supply⁶ (separate feeders for agriculture at subsidised rates and for domestic consumption at non-subsidised rates); and hybrid tariff policies (location specific mix of flat and metered tariff) (Sidhu et al., 2020). The use of solar irrigation pumps with buyback scheme of surplus power has also been experimented and are being promoted by the government⁷ to curb the excess groundwater usage.

3. Share of tube well irrigation: The depletion of ground water has been significantly associated with the increase in tube well coverage in the irrigated area. Especially in states like Rajasthan, Punjab, Uttar Pradesh and Haryana where the share of tube wells has increased at an unprecedented rate, there is a need to revive the traditional sources

⁶ Deendayal Upadhyay Gram Jyoti Yojana

⁷ Launched in 2018-19, Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan (PM KUSUM) is the umbrella scheme for promoting solar irrigation pumps. In the scheme, *inter alia*, one of the components is buyback of surplus solar power. It allows the farmers to make money by selling excess power, which would provide them an economic incentive to irrigate their crops efficiently, thus helping to conserve groundwater and energy use.

of irrigation, including tanks, farm ponds, *diggis*⁸ and other water harvesting cum irrigation structures, on a larger scale. These structures can furnish irrigation supply much higher than the demand and would also help in rainwater harvesting and ground water recharge (Chinnasamy and Srivastava, 2021). On the other hand, in states like Uttar Pradesh and Bihar, with the higher cost of irrigation, there is a need to decrease the dependency of diesel run tube wells and enhance access to power supply through adequate electricity in the grid connected farms and promoting solar irrigation pumps in the remaining farms.

4. **Food grain procurement policies:** States like Punjab and Haryana (and recently also Andhra Pradesh) have relatively higher share in rice procurement at the assured minimum support prices (MSPs). This encourages the farmers to go for rice cultivation in large areas using ground water making the irrigation supply inefficient and unsustainable. Studies have often argued for increase in MSPs of pulses as they incur less social cost in terms of water usage (GoI, 2016).
5. **Crop Diversification towards horticulture crops:** As seen in Kerala, the higher irrigation efficiency appears to be driven by low cost of irrigation as well as higher value of output realised per hectare. Horticulture crops consume relatively less quantity of water per hectare of cultivation, although quality in terms of water supply schedule is an important determinant of production. Moreover, these crops are more remunerative than food grains. Thus, shifting towards region specific horticulture crops would not

only increase the irrigation efficiency but also would be more environmentally and economically sustainable. The government has initiated Crop Diversification Programme in Punjab, Haryana, and Western Uttar Pradesh; however, the progress has remained insignificant (Mukherjee, 2022).

Based on the stage of development of irrigation infrastructure, the composition of irrigation sources and the cropping pattern, we have identified the state wise issues and related policy suggestions (Table 2). States like Kerala, Assam, Himachal Pradesh, Jharkhand and Odisha need to increase the area under irrigation. The states, where outreach of power supply is inadequate, can explore solar irrigation pumps which can help overcome the requirement of grid connection of the farms, whereas micro irrigation needs to be taken up on a large scale in Punjab, Rajasthan, Haryana, Gujarat and others. The irrigation costs need to be brought down in Bihar and Uttar Pradesh by reducing the dependence on diesel run pumps and expanding the access of quality power supply for irrigation. In Maharashtra, the cost has remained on the higher side due to hard rock aquifers leading to frequent events of discontinued discharge from the wells and well failures (Gulati *et al.*, 2019). Though this problem was also reported in Karnataka and Tamil Nadu, which is reflected in the low irrigation efficiency values, its impact on cost has been masked due to higher subsidies. In such areas there is also a need to ensure artificial recharge of the aquifers. Further, the pricing policy needs to be inclusive of the social cost of groundwater extraction to guide the crop diversification. In addition to these policy measures there is also a need to expand various other technological innovations including SRI cultivation, use of drought tolerant and less water consuming crop cultivars, and *in situ* and *ex situ* water conservation technologies.

⁸ Small pond like structures.

Table 2. State-wise Issues and Policy Priorities for Irrigation Development

State	Issues	Policy priority
Andhra Pradesh	High rice procurement; decline in share of tanks	Reducing the share of paddy in the cropping system and revitalising tanks.
Assam	High area under water guzzlers and low share of tube wells	Expansion of area under irrigation
Bihar	Higher cost of irrigation	Need to improve power infrastructure
Chhattisgarh	High area under water guzzlers	Crop diversification away from water guzzlers.
Gujarat	Low water table	Expansion of area under micro irrigation
Haryana	Low water table, high share in rice procurement, low share of minor irrigation sources	Shifting away from rice-based cropping system. Expansion of area under micro-irrigation
Himachal Pradesh	Lower irrigation coverage	Expansion of area under irrigation
Jharkhand	Low irrigation coverage	Expansion of area under irrigation
Karnataka	Low water table (though not at alarming stage), Hard surface aquifers.	Expansion of area under micro-irrigation; Artificial groundwater recharge structures
Kerala	Lower irrigation coverage	Expansion of area under irrigation
Madhya Pradesh	Low water table (though not at alarming stage)	Expansion of area under micro-irrigation
Maharashtra	Low water table (though not at alarming stage), Hard surface aquifers. Low irrigation coverage, low share of minor irrigation sources.	Expansion of area under micro-irrigation; Artificial groundwater recharge structures
Odisha	Large area under water guzzlers, low irrigation coverage	Shifting away from rice-based cropping system; Expansion of area under irrigation
Punjab	Low water table, High paddy procurement, low share of minor irrigation sources	Shifting away from rice-based cropping system; Expansion of area under micro-irrigation
Rajasthan	Low water table, high cost of irrigation	Expansion of area under micro-irrigation; Replacing costly diesel pumps with solar irrigation pumps.
Tamil Nadu	Low water table (though not at alarming stage), Hard surface aquifers.	Expansion of area under micro-irrigation; Artificial groundwater recharge structures
Uttar Pradesh	Increase in the minor irrigation sources, High cost of irrigation	Promoting the minor irrigation infrastructure and power supply
Uttarakhand	Low water table	Expansion of area under micro-irrigation

VI. Conclusion and Way Forward

Agricultural production process continues to be highly water intensive in India. The depleting ground water and increasing demand from the non-farm sectors pose challenges for sustainable agriculture and food security. In this light, using the State-wise and crop-wise data, this article computes and examines the trends in State-wise area-weighted average cost of irrigation; estimates and analyses the trends in State-wise technical efficiency of irrigation using the methodology of Data Envelopment Analysis; and identifies determinants of IE based on random panel Tobit regression.

Findings suggest that the State-wise area weighted average cost of irrigation generally showed a declining

trend over the years perhaps reflecting the impact of increased access to subsidised power. However, the costs are still high in some states. Estimated technical efficiency of irrigation shows that majority of the agriculturally important Indian states lie far away from the efficiency frontier and have also recorded declining efficiency over time. The random panel Tobit regression models suggest that energy availability to the farm sector and ground water accessibility are the significant determinants of efficiency.

If the current low efficiency water management practices continue alongside the expanding rural electrification and low electricity tariffs for agriculture, it could further amplify imbalances in agriculture. There is a need for concentrated policy focus on

efficient irrigation technologies like micro irrigation and cropping pattern diversification away from water guzzling crops, particularly in states where efficiency is declining.

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Annex I**Chart A1: State wise trends in irrigation coverage (2002-03 to 2017-18)**

(Net irrigated area as per cent of net sown area)

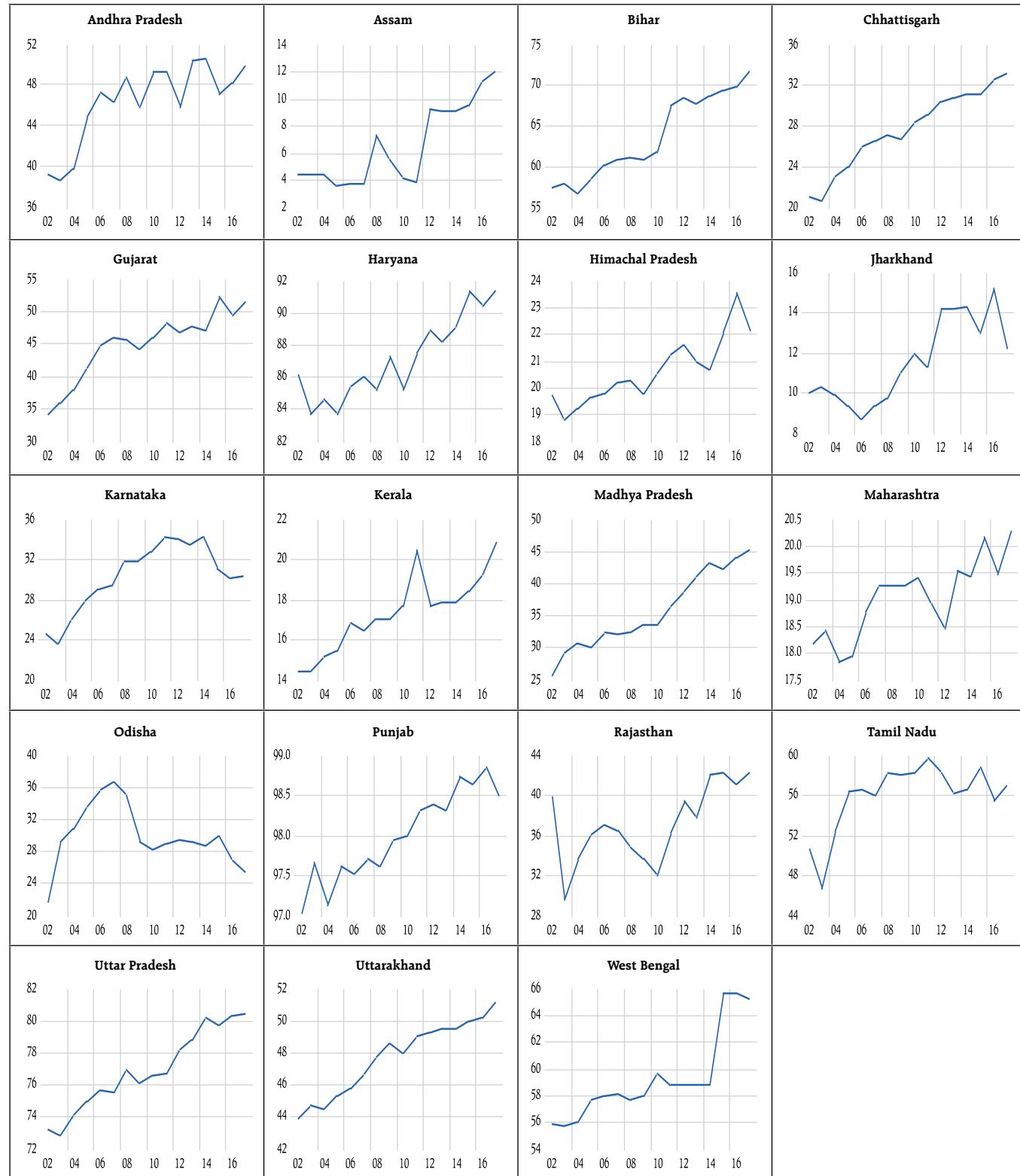
Irrigation Coverage**Source:** Authors' calculation based on data from Ministry of Agriculture and Farmers Welfare

Chart A2: State wise trends in average value of crop output (2002-03 to 2017-18)

(₹/ha at 2011-12 prices)

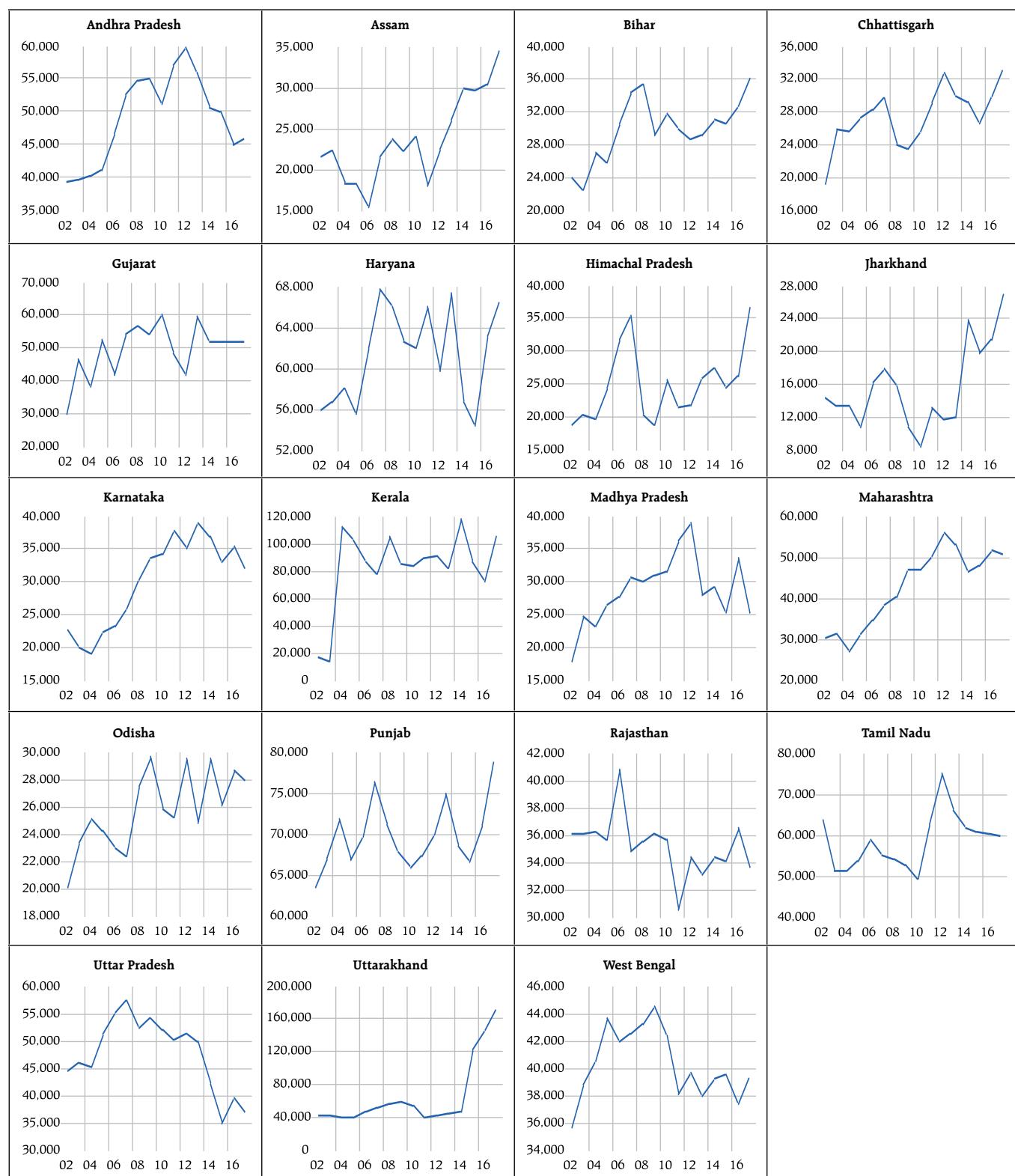
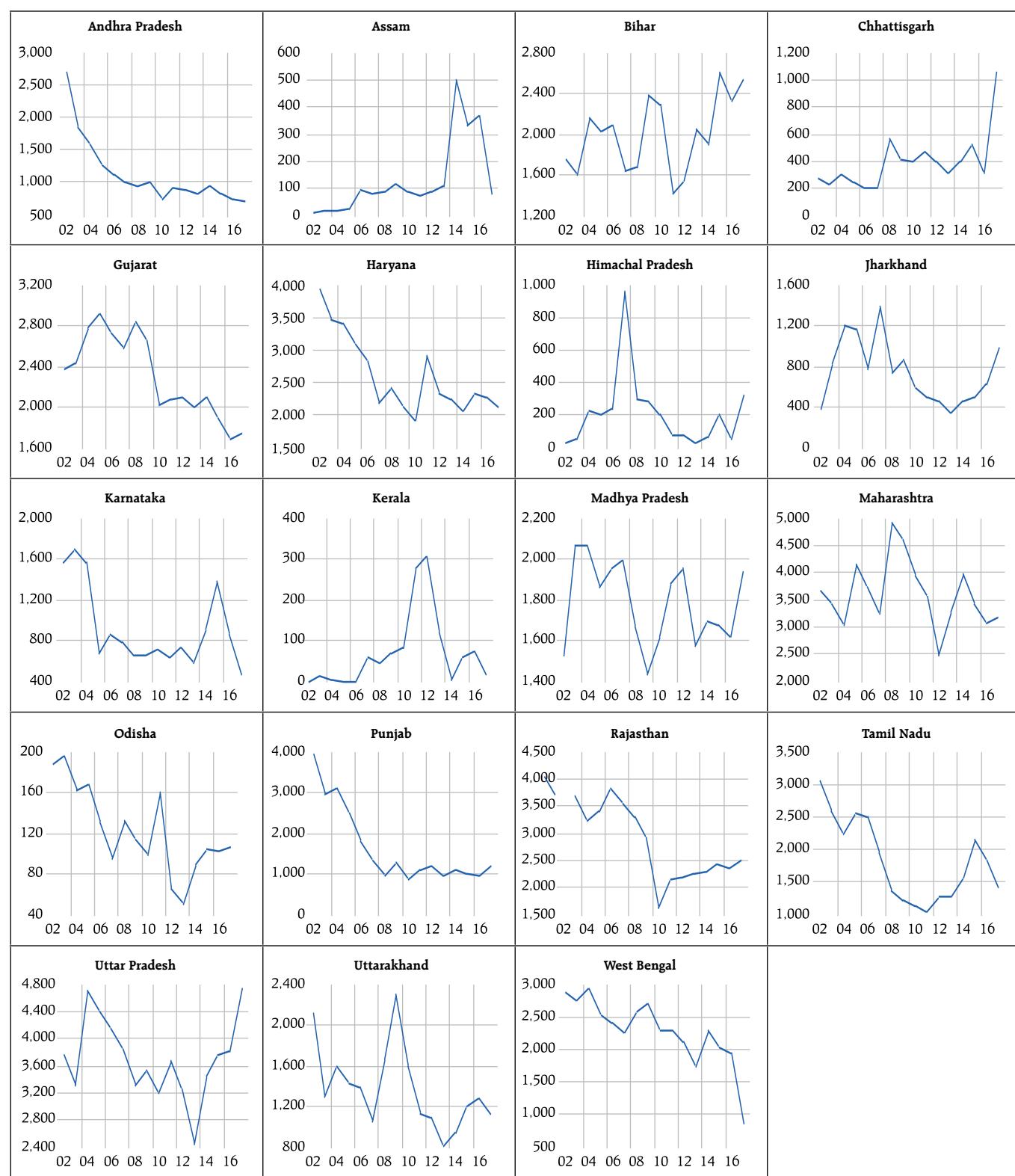
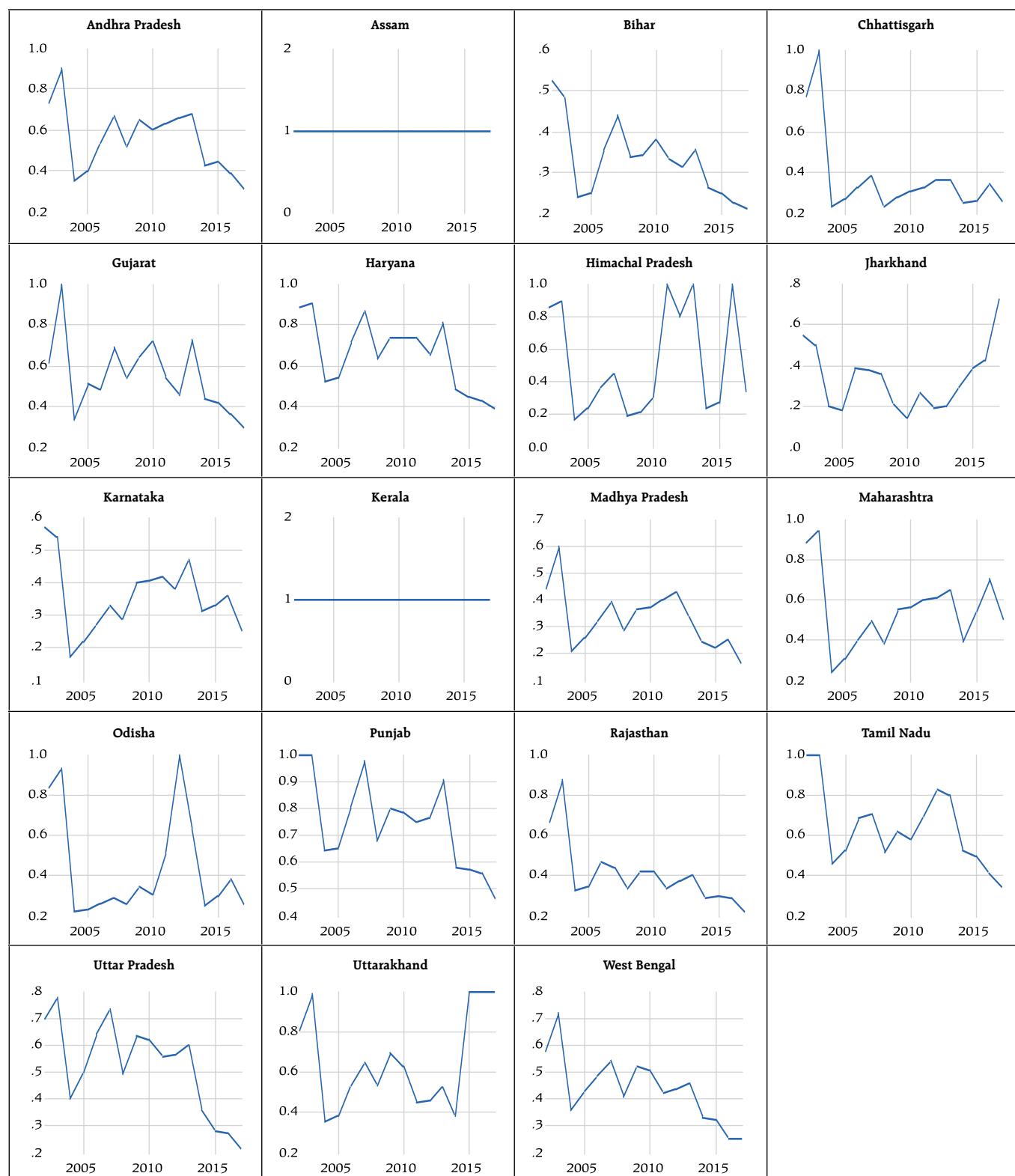
Value of output per ha**Source:** Authors' calculation based on Cost of Cultivation data from Ministry of Agriculture and Farmers' Welfare.

Chart A3: State wise trends in cost of irrigation (2002-03 to 2017-18)

(₹/ha at 2011-12 prices)

Irrigation charges

Source: Authors' calculation based on Cost of Cultivation data from Ministry of Agriculture and Farmers' Welfare.

Chart A4: State wise trends in estimated technical efficiency of irrigation

Source: Authors' estimation.

Annexe II**Table A1: Review of Other Studies which employ the DEA Methodology**

Study	Objective(s)	Data and Methodology	Major Findings
Chilingerian (1995)	To check the clinical efficiency of physicians in a hospital and to identify the factors associated with the high performance	DEA and Multifactor Tobit analysis	Found out 24 inefficient physicians from the sample and the tobit analysis revealed two broad categories of technically efficient physicians. Moreover, the study brought out the fact that blending of DEA with censored regression would produce better results.
Luoma <i>et al.</i> (1996)	To check the efficiency of Finnish health centres and the determining factors.	DEA and Tobit model	More generous resources tend to increase inefficiency while a high share of doctors and low share of supporting staffs promote efficiency. In addition to this low elderly population long distance to the nearest hospital are positively connected to the efficiency.
Kirjavainen and Loikkanen (1998)	Efficiency difference estimation among Finnish senior secondary schools	DEA and Tobit model	Average efficiency ranged between 82-84 per cent. Small classes, heterogeneous student bodies negatively affecting efficiency whereas well educated parents enhancing the efficiencies of school. Private schools found to be more inefficient as compared to public schools.
Wang <i>et al.</i> (2019)	Estimation of water use efficiency and its influencing factors in China	DEA and Tobit model	Overall water use efficiency in the Chinese provinces estimated as 0.582 and eastern china occupies maximum number of provinces with higher water efficiencies. The positive influencing factors identified as export dependence, technical progress and educational value. Industrial structure identified as negatively influencing factor while government intervention had little influence on water efficiency.
Gautam <i>et al.</i> (2020)	Irrigation water use efficiency of soybean in Louisiana, USA.	DEA supplemented with Russell measure	Producers are overusing irrigation water by 37%. The study suggests the need of appropriate management practices including rescheduling, input management and other best irrigation management practices.

Study	Objective(s)	Data and Methodology	Major Findings
Badiani and Jessoe (2013)	Tried to find out the relationship between electricity subsidy, ground water extraction and agricultural productivity in Indian scenario.	Agricultural production model by taking relevant variables for the study.	The dead weight loss of the electricity subsidies is quite low and results positive agricultural implications both in terms value and crop composition as it is shifting more towards the water intensive crops. The study suggests that a 10% reduction in agricultural subsidies produce a 6.7 % reduction in ground water extraction. Additionally, the study indicates the environmental cost and plausible sustainability issues due to the over extraction of ground water.
Fishman <i>et al.</i> (2015)	'Can improved agricultural water use efficiency save India's groundwater'?	Scenario analysis (naive and realistic scenarios with appropriate technological mix)	The results revealed that micro irrigation techniques like drip and sprinkler irrigation have the capacity to reduce the ground water extraction by two-third. More than technical intervention in the farm the farmer's water use decisions impact the water table depletion. Moreover, the study adds the importance of conservation incentives along with the technological interventions.
Jain <i>et al.</i> (2019)	Bird's eye view of the irrigation status in India along with challenges and potential options	Blend of both meta-analysis as well as descriptive and tabular analysis.	The paper indicated that due to outrageous dependency on groundwater resulted in depletion of water table in 64% of the districts in the country between TE 2002 to 2016. Additionally, the paper points out the importance of micro irrigation over surface irrigation in the country to improve the water use efficiency. Two preconditions identified as important factors determining the adoption of water efficient technologies.
Sidhu <i>et al.</i> (2020)	Effect of power tariffs (flat tariffs and metered tariffs) on ground water extraction in India and its environmental, economic and equity trade-offs.	Tabular, graphical, and descriptive analysis.	Though flat tariffs have low administrative costs and equitable distributional outcomes, but it doesn't provide any incentive to the farmers for water conservation. On the other hand, metered tariff promotes judicious consumption but it's disadvantageous to the low-income farmers since their over dependency on big ground water owners. By considering the heterogeneity of agricultural practices and ground water availability in the country the paper suggests adoption of location specific tariff policies in a flexible manner.

Study	Objective(s)	Data and Methodology	Major Findings
Dangar and Mishra (2021)	To identify the natural and man-made factors responsible for ground water depletion in Ganga river basin	Hydrological Simulation model	Results identified as non-renewable ground water abstraction (80%) is the significant contributor of ground water depletion in the basin. Severe and frequent droughts in the area intensified the withdrawal and slowed down the recharge. The study suggested appropriate changes in the cropping pattern, metering of ground water level and enhanced water use efficiency are crucial factors responsible for sustainable ground water usage in the area.
Romagnoli et al. (2021)	Estimation of Italian diversified farms efficiency and the major drivers.	Two step DEA-Tobit analysis	There is much scope for improving the Incidence of diversifies firms. Also, regression results indicate that incidence of output from other gainful activities increases efficiency significantly. However, rising intermediate costs have a negative impact on efficiency parameters. Geographical and managerial factors found to be influencing the efficiency scores in multiple ways.
Watto and Mugera (2014)	Estimation of technical efficiency and irrigation water use efficiency of groundwater irrigated cotton farms in Punjab, Pakistan	Stochastic frontier model	The study results proposed that both tube-well owners and water buyers can increase the production by 19% and 28% respectively. Irrigation water use inefficiencies are more severe than the technical inefficiencies.
Oulmane et.al. (2019)	Estimation of water use efficiency and its determinants in small horticultural farmers in Algeria.	DEA and Tobit analysis	Average technical efficiency scores obtained are 68% and 79% respectively for CRS and VRS assumptions. Water use efficiency is determined by variables such as level of education and technical know-how, total number of cultivated house and water resources, credit access, green houses etc.
Wang (2010)	Irrigation water use efficiency and its determinants in Northwest China	DEA and Tobit regression	Average technical efficiency estimated as 0.62. The study suggested the scope of 38.49% of further expansion of wheat production by efficient use of inputs. Farmer's age, farm size, education and income affect the irrigation water efficiency positively.

Annexe III

Factors determining irrigation efficiency

Panel Tobit Regression

The efficiency scores obtained from first step have been considered as the dependent variable in the subsequent stage. Since the dependent variable irrigation efficiency parameter varies between 0 to 1, the ordinary least square (OLS) method would produce biased and inconsistent estimates (Greene, 2003). Moreover, the DEA values are relative efficiency values which can result in correlation between indices thereby rendering OLS regression ineffective (Atkinson and Wilson, 1995). Thus, we estimated the parameters by using the maximum likelihood estimation procedure. To produce consistent and nonbiased parameter estimates the DEA scores are corrected using a smoothing homogeneous bootstrapping procedure (Simar and Wilson, 1998, 2000). It is basically a resampling technique which can address the inherent dependency problem of efficiency scores (Xue and Harker, 1999)

The general form of the random effect⁹ Tobit model is:

$$y_{it} = \begin{cases} c, & \text{if } y_{it}^* \leq c \\ y_{it}^*, & \text{if } y_{it}^* > c \end{cases}, \text{ with} \\ y_{it}^* = x'_{it}\beta + \alpha_i + \nu_{it}$$

The marginal effect on y_{it} is

$$\frac{\partial E[y_{it}|x_{it}]}{\partial x_{it}} = \hat{\beta} \Phi\left(\frac{x'_{it}\hat{\beta}}{\sqrt{\sigma_\alpha^2 + \sigma_\nu^2}}\right)$$

Six relevant variables¹⁰ were selected which included share of tube wells, energy availability for agriculture sector, ground water level, share of canals, area under water guzzling crops and procurement of food grains; and four different models estimated by panel Tobit analysis. Descriptive statistics of the selected panel

Table A2: Descriptive statistics of panel variables

(n=304)

Variable	Description	Mean	Std. Dev.	Min	Max	Expected Sign
Technical Efficiency	-	0.58	0.26	0.15	1.00	NA
Share of tube wells	Per cent of gross irrigated area in gross sown area	34.20	23.88	0.00	74.92	-
Energy availability for the agriculture sector	KWh/capita	115.09	116.87	0.51	416.71	-
Ground water level	Dummy variable=1 if >/= nation average ¹¹ ; =0 otherwise	0.47	0.50	0.00	1.00	-
Share of Canals	Per cent	28.02	18.45	0.00	82.74	+/-
Area under water guzzling crops	Per cent	40.82	24.12	0.58	94.43	-
Food grain Procurement	Per cent share in all India	5.19	9.12	0.00	50.65	-

⁹ We have adopted random effects rather than fixed effects models because later are technically unavailable in non-linear models such as Tobit (Greene, 2004).

¹⁰ The panel unit root tests (independent across the cross sections) for the variables were tested significant thus rejecting the null hypothesis (existence of unit root in the time series).

¹¹ Median

variables are listed in Table A2 depicts the efficiency parameter calculated from DEA ranges from 0.142 to 1 and the kernel density plot (Chart A5) shows the bimodal nature of the distribution.

The results of the panel Tobit random effect model are given in Table A3 which explains the various factors impacting the irrigation efficiency of 19 Indian states for a period of 16 years (2002-2017).

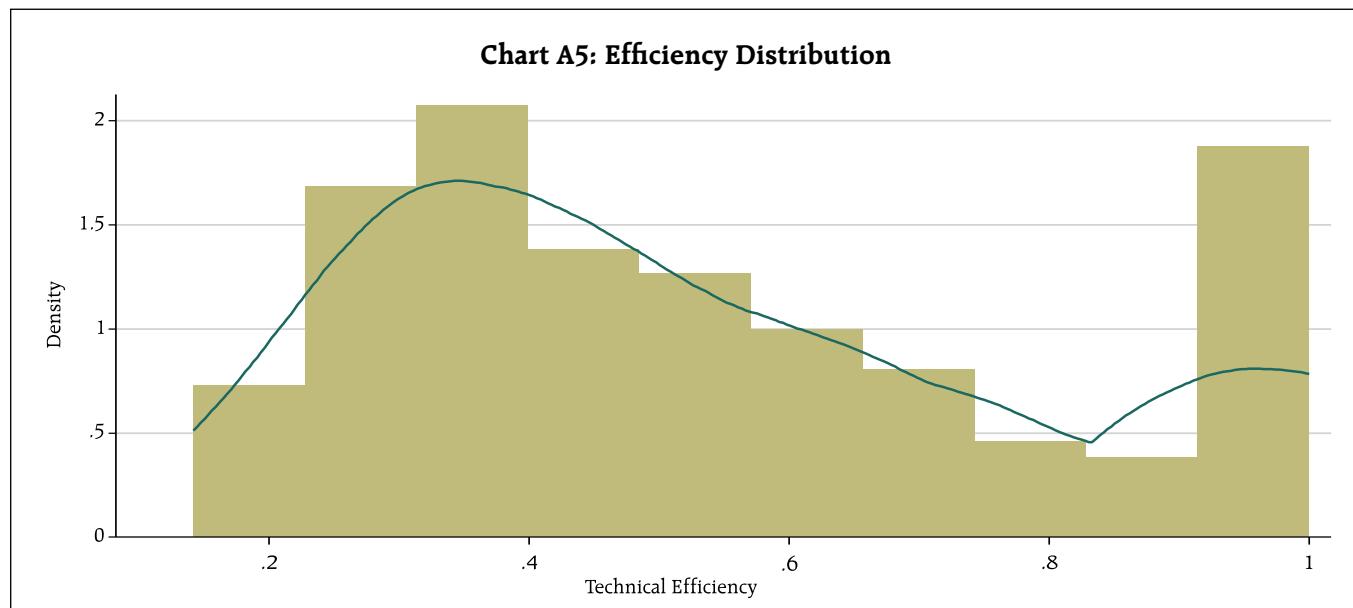
Table A3: Second stage panel Tobit regression result

Model 1				<i>Log likelihood=65.4</i>	<i>Wald chi sq.=11.7</i>
Variable	Estimate	SE	Z Value	P>Z	Marginal Effect
Constant	0.809	0.148	5.450	0.000	
Share of canals	-0.001	0.003	-0.360	0.721	-0.001
Energy availability for the agriculture sector	-0.001	0.000	-2.760	0.006	-0.001
Share of tube wells	-0.002	0.003	-0.820	0.411	-0.002
Ground water level	-0.062	0.031	-1.990	0.046	-0.055

Model 2				<i>Log likelihood=67.1</i>	<i>Wald chi sq.=11.3</i>
Variable	Estimate	SE	Z Value	P>Z	Marginal Effect
Constant	0.699	0.089	7.890	0.000	
Share of canals	-0.001	0.002	-0.380	0.707	-0.001
Energy availability for the agriculture sector	-0.001	0.000	-2.830	0.005	-0.001
Food grain procurement	0.008	0.006	1.420	0.156	0.007
Ground water level	-0.061	0.034	-1.800	0.072	-0.056

Model 3				<i>Log likelihood=65.2</i>	<i>Wald chi sq.=14.5</i>
Variable	Estimate	SE	Z Value	P>Z	Marginal Effect
Constant	0.772	0.135	5.730	0.000	
Share of tube wells	-0.002	0.002	-1.060	0.288	-0.002
Energy availability for the agriculture sector	-0.001	0.000	-3.030	0.002	-0.001
Area under water guzzling crops	0.000	0.001	0.000	0.997	0.000
Ground water level	-0.060	0.028	-2.170	0.030	-0.053

Model 4				<i>Log likelihood=68.2</i>	<i>Wald chi sq.=16.6</i>
Variable	Estimate	SE	Z Value	P>Z	Marginal Effect
Constant	0.760	0.146	5.200	0.000	
Share of tube wells	-0.002	0.002	-1.160	0.244	-0.002
Energy availability for the agriculture sector	-0.001	0.000	-2.990	0.003	-0.001
Area under water guzzling crops	0.000	0.002	0.210	0.833	0.000
Ground water level	-0.059	0.035	-1.690	0.090	-0.054
Share of canals	-0.001	0.003	-0.420	0.678	-0.001
Food grain procurement	0.009	0.006	1.380	0.169	0.008



CURRENT STATISTICS

Select Economic Indicators

Reserve Bank of India

Money and Banking

Prices and Production

Government Accounts and Treasury Bills

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50 (b)	Stocks of Financial Assets and Liabilities of Households- Select Indicators	155

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

No. 1: Select Economic Indicators

Item	2021-22	2020-21		2021-22	
		Q2	Q3	Q2	Q3
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	8.3	-5.9	2.1	8.4	4.7
1.1.1 Agriculture	3.3	3.2	4.1	3.7	2.6
1.1.2 Industry	10.4	3.0	6.2	6.6	1.4
1.1.3 Services	8.8	-10.4	0.04	10.0	6.7
1.1a Final Consumption Expenditure	7.2	-10.8	0.4	10.1	6.5
1.1b Gross Fixed Capital Formation	14.6	-4.5	-0.6	14.6	2.0
	2021-22	2021		2022	
		Feb.	Mar.	Feb.	Mar.
	1	2	3	4	5
1.2 Index of Industrial Production	11.3	-3.2	24.2	1.5	1.9
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	8.9	12.1	11.4	8.6	8.9
2.1.2 Credit #	9.6	6.6	5.6	9.1	9.6
2.1.2.1 Non-food Credit #	9.7	6.6	5.5	9.2	9.7
2.1.3 Investment in Govt. Securities	6.0	18.3	19.3	4.7	6.0
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	8.9	13.6	18.8	13.9	8.9
2.2.2 Broad Money (M3)	8.7	12.8	12.2	8.7	8.7
3 Ratios (%)					
3.1 Cash Reserve Ratio	4.00	3.00	3.50	4.00	4.00
3.2 Statutory Liquidity Ratio	18.00	18.00	18.00	18.00	18.00
3.3 Cash-Deposit Ratio	4.7	3.7	4.2	4.6	4.7
3.4 Credit-Deposit Ratio	72.2	72.2	72.4	71.8	72.2
3.5 Incremental Credit-Deposit Ratio #	77.2	29.6	37.4	72.1	77.2
3.6 Investment-Deposit Ratio	28.7	29.9	29.5	28.8	28.7
3.7 Incremental Investment-Deposit Ratio	19.7	52.8	46.8	18.8	19.7
4 Interest Rates (%)					
4.1 Policy Repo Rate	4.00	4.00	4.00	4.00	4.00
4.2 Reverse Repo Rate	3.35	3.35	3.35	3.35	3.35
4.3 Marginal Standing Facility (MSF) Rate	4.25	4.25	4.25	4.25	4.25
4.4 Bank Rate	4.25	4.25	4.25	4.25	4.25
4.5 Base Rate	7.25/8.80	7.30/8.80	7.40/8.80	7.25/8.80	7.25/8.80
4.6 MCLR (Overnight)	6.45/7.00	6.55/7.05	6.55/7.05	6.45/7.00	6.45/7.00
4.7 Term Deposit Rate >1 Year	5.00/5.60	4.90/5.50	4.90/5.50	5.00/5.60	5.00/5.60
4.8 Savings Deposit Rate	2.70/3.00	2.70/3.00	2.70/3.00	2.70/3.00	2.70/3.00
4.9 Call Money Rate (Weighted Average)	3.34	3.25	3.25	3.30	3.34
4.10 91-Day Treasury Bill (Primary) Yield	3.84	3.17	3.32	3.70	3.84
4.11 182-Day Treasury Bill (Primary) Yield	4.27	3.48	3.47	4.19	4.27
4.12 364-Day Treasury Bill (Primary) Yield	4.58	3.70	3.83	4.52	4.58
4.13 10-Year G-Sec Par Yield (FBIL)	6.86	6.34	6.34	6.78	6.86
5 Reference Rate and Forward Premium					
5.1 INR-US\$ Spot Rate (Rs. Per Foreign Currency)	76.18	73.04	72.40	75.28	76.18
5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency)	84.01	88.80	85.31	84.38	84.01
5.3 Forward Premium of US\$ 1-month (%)	5.67	5.59	6.80	4.30	5.67
3-month (%)	4.46	5.59	5.64	4.41	4.46
6-month (%)	4.10	5.19	5.47	4.20	4.10
6 Inflation (%)					
6.1 All India Consumer Price Index	5.51	5.0	5.5	6.1	7.0
6.2 Consumer Price Index for Industrial Workers	5.13	4.5	5.7	5.0	5.4
6.3 Wholesale Price Index	12.94	4.8	7.9	13.1	14.5
6.3.1 Primary Articles	10.17	3.0	7.3	13.4	15.5
6.3.2 Fuel and Power	32.79	2.0	9.7	31.5	34.5
6.3.3 Manufactured Products	11.02	6.1	7.8	9.8	10.7
7 Foreign Trade (% Change)					
7.1 Imports	55.13	7.5	55.4	39.9	24.2
7.2 Exports	43.81	-0.4	64.1	34.4	19.8

Data are provisional for Col (1) and (5).

Note : 1. 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.

2. #: 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				
		Apr.	Apr. 1	Apr. 8	Apr. 15	Apr. 22	Apr. 29
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	3107637	2887884	3105703	3148104	3172815	3181381	3182321
1.1.2 Notes held in Banking Department	15	14	17	15	18	17	13
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	3107652	2887898	3105721	3148119	3172833	3181398	3182334
1.2 Assets							
1.2.1 Gold	128208	110440	125887	125535	127853	127258	123547
1.2.2 Foreign Securities	2978927	2776759	2979325	3022105	3044519	3053708	3058380
1.2.3 Rupee Coin	518	699	508	479	461	432	407
1.2.4 Government of India Rupee Securities	—	—	—	—	—	—	—
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	1794574	1507507	1733548	1692610	1705269	1647280	1654833
2.1.1.1 Central Government	101	100	100	100	101	101	100
2.1.1.2 Market Stabilisation Scheme	42	42	42	42	42	43	42
2.1.1.3 State Governments	683437	579344	748612	673528	706313	684949	740234
2.1.1.4 Scheduled Commercial Banks	7123	6487	7634	8659	7462	7832	7650
2.1.1.5 Scheduled State Co-operative Banks	4121	3311	5151	4339	4411	4149	4156
2.1.1.6 Non-Scheduled State Co-operative Banks	37589	32482	41322	38276	38551	38419	38403
2.1.1.7 Other Banks	988819	885731	856476	897072	879588	853370	804385
2.1.1.9 Financial Institutions Outside India	73343	8	74209	70593	68801	58417	59862
2.1.2 Other Liabilities	1359254	1458976	1301575	1268422	1273278	1265376	1237355
2.1/2 Total Liabilities or Assets	3153828	2966482	3035123	2961032	2978547	2912656	2892188
2.2 Assets							
2.2.1 Notes and Coins	15	14	17	15	19	17	13
2.2.2 Balances held Abroad	1243853	1296637	1134111	1084649	1070654	1056752	1040173
2.2.3 Loans and Advances							
2.2.3.1 Central Government	—	—	—	—	33892	—	—
2.2.3.2 State Governments	670	4506	2384	4184	4677	2698	4380
2.2.3.3 Scheduled Commercial Banks	94299	89934	94934	94281	98638	94388	94306
2.2.3.4 Scheduled State Co-op.Banks	—	—	—	—	—	—	—
2.2.3.5 Industrial Dev. Bank of India	—	—	—	—	—	—	—
2.2.3.6 NABARD	24927	17077	23010	23010	23010	23010	23010
2.2.3.7 EXIM Bank	—	—	—	—	—	—	—
2.2.3.8 Others	8077	6729	14507	11702	11702	8701	6498
2.2.3.9 Financial Institutions Outside India	72741	8	73725	70067	68244	57784	59307
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	—	—	—	—	—	—	—
2.2.4.2 Government Treasury Bills	—	—	—	—	—	—	—
2.2.5 Investments	1491042	1397597	1490818	1471944	1462775	1465168	1464756
2.2.6 Other Assets	218203	153979	201618	201179	204936	204139	199745
2.2.6.1 Gold	201354	152269	197709	197157	200797	199862	194425

* Data are provisional

No. 3: Liquidity Operations by RBI

(₹ Crore)

Date	Liquidity Adjustment Facility				MSF	Standing Liquidity Facilities	Market Stabilisation Scheme	OMO (Outright)		Long Term Repo Operations &	Targeted Long Term Repo Operations #	Special Long-Term Repo Operations for Small Finance Banks	Special Reverse Repo ₹	Net Injection (+)/ Absorption (-) (I+3+5+6+9+10+ 11+12-2-4-7-8-13)
	Repo	Reverse Repo	Variable Rate Repo	Variable Rate Reverse Repo				Sale	Purchase					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Mar. 1, 2022	-	39102	-	-	1203	-	-	-	-	-	-	-	-	-37899
Mar. 2, 2022	-	225644	-	-	1090	-	-	-	-	-	-	-	-	-224554
Mar. 3, 2022	-	222710	-	-	1114	-	-	-	-	-	-	-	-	-221596
Mar. 4, 2022	-	82076	-	225096	1243	-	-	-	-	-	-	-	-	-305929
Mar. 5, 2022	-	39782	-	-	414	-	-	-	-	-	-	-	-	-39368
Mar. 6, 2022	-	11191	-	-	66	-	-	-	-	-	-	-	-	-11125
Mar. 7, 2022	-	132145	-	-	1156	-	-	-	-	-	-	-	-	-130989
Mar. 8, 2022	-	66700	-	-	952	-	-	-	-	-	-	-	-	-65748
Mar. 9, 2022	-	85565	-	-	804	-	-	-	-	-	-	-	-	-84761
Mar. 10, 2022	-	59695	-	-	5437	7000	-	-	-	-	-	-	-	-47258
Mar. 11, 2022	-	378843	-	353944	897	-7000	-	10	10	-	-	-	-	-738890
Mar. 12, 2022	-	18112	-	-	328	-	-	-	-	-	-	-	-	-17784
Mar. 13, 2022	-	6181	-	-	6	-	-	-	-	-	-	-	-	-6175
Mar. 14, 2022	-	394312	-	-	1547	-	-	-	-	-	-	-	-	-392765
Mar. 15, 2022	-	377532	-	-	870	-	-	-	-	-	-	-	-	-376662
Mar. 16, 2022	-	249620	-	-	609	-	-	-	-	-	-	-	-	-249011
Mar. 17, 2022	-	89155	-	57120	1559	2800	-	-	-	-	-	-	-	-141916
Mar. 18, 2022	-	12087	-	-	1320	-	-	-	-	-	-	-	-	-10767
Mar. 19, 2022	-	73795	-	-	1857	-	-	-	-	-	-	-	-	-71938
Mar. 20, 2022	-	8453	-	-	42	-	-	-	-	-	-	-	-	-8411
Mar. 21, 2022	-	164783	-	-	491	-	-	-	-	-	-	-	-	-164292
Mar. 22, 2022	-	115964	-	114612	248	-	-	-	-	-	-	-	-	-230328
Mar. 23, 2022	-	115888	-	-	227	-	-	-	-	-	-	-	-	-115661
Mar. 24, 2022	-	138413	-	-	2608	2000	-	-	-	-	-	-	-	-133805
Mar. 25, 2022	-	340351	-	231258	11	3200	-	-	-	-	-	-	-	-568398
Mar. 26, 2022	-	32222	-	-	128	-	-	-	-	-	-	-	-	-32094
Mar. 27, 2022	-	5052	-	-	26	-	-	-	-	-	-	-	-	-5026
Mar. 28, 2022	-	430596	-	-	344	-	-	-	-	-	-	-	-	-430252
Mar. 29, 2022	-	251541	-	218762	0	2300	-	-	-	-	-	-	-	-468003
Mar. 30, 2022	-	353471	-	-	5	1920	-	-	-	-	-	-	-	-351546
Mar. 31, 2022	-	399200	-	-	52	200	-	-	-	-	-	-	-	-398948

Notes: #Includes Targeted Long Term Repo Operations (TLTRO), Targeted Long Term Repo Operations 2.0 (TLTRO 2.0) and On Tap Targeted Long Term Repo Operations. Negative (-) sign indicates repayments done by Banks.

& Negative (-) sign indicates repayments done by Banks.

£ As per Press Release No. 2021-2022/177 dated May 07, 2021. From June 18, 2021, the data also includes the amount absorbed as per the Press Release No. 2021-2022/323 dated June 04, 2021.

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

i) Operations in onshore / offshore OTC segment

ii) Operations in currency futures segment

Item	2020-21	2021		2022	
		Mar.	Feb.	Mar.	
		1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US \$ Million) (1.1–1.2)		0	0	0	0
1.1 Purchase (+)		12118	830	0	570
1.2 Sale (-)		12118	830	0	570
2 Outstanding Net Currency Futures Sales (–)/ Purchase (+) at the end of month (US \$ Million)		690	690	0	0

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

Item	As on March 31, 2022		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	11965	5000	6965
2. More than 1 month and upto 3 months	14345	0	14345
3. More than 3 months and upto 1 year	39346	0	39346
4. More than 1 year	5135	0	5135
Total (1+2+3+4)	70791	5000	65791

No. 5: RBI's Standing Facilities

(₹ Crore)

Item	As on the Last Reporting Friday							
	2021-22	2021			2022			
		Apr. 23	Nov. 19	Dec. 31	Jan. 28	Feb. 25	Mar. 25	Apr. 22
	1	2	3	4	5	6	7	8
1 MSF	11	149	7201	8176	38	1858	11	140
3.1 Limit	4900	4900	4900	4900	4900	4900	4900	4900
3.2 Outstanding	—	0	0	0	734	0	0	0
4.1 Limit	76000	75000	76000	76000	76000	76000	76000	76000
4.2 Outstanding	32401	27122	24196	24401	24401	24401	32401	31021
5 Total Outstanding (1+2+3.2+4.2)	32412	27271	31397	32577	25173	26259	32412	31161

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 25/last reporting Fridays of the month/reporting Fridays				
	2021-22	2021	2022		
		Mar. 26	Feb. 25	Mar. 11	Mar. 25
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	3037622	2756705	2980565	3018879	3037622
1.1 Notes in Circulation	3107637	2831727	3052620	3087949	3107637
1.2 Circulation of Rupee Coin	27270	26170	27139	27139	27270
1.3 Circulation of Small Coins	743	743	743	743	743
1.4 Cash on Hand with Banks	98028	101935	99937	96951	98028
2 Deposit Money of the Public	2265371	2042467	2157809	2095752	2265371
2.1 Demand Deposits with Banks	2212992	1995120	2103056	2044072	2212992
2.2 ‘Other’ Deposits with Reserve Bank	52379	47347	54752	51680	52379
3 M ₁ (1 + 2)	5302993	4799173	5138374	5114631	5302993
4 Post Office Saving Bank Deposits	170853	170853	170853	170853	170853
5 M ₂ (3 + 4)	5473846	4970026	5309227	5285484	5473846
6 Time Deposits with Banks	15186605	14050278	15045154	15164344	15186605
7 M ₃ (3 + 6)	20489597	18849451	20183528	20278975	20489597
8 Total Post Office Deposits	510435	509544	510435	510435	510435
9 M ₄ (7 + 8)	21000032	19358995	20693963	20789410	21000032

No. 7: Sources of Money Stock (M₃)

(₹ Crore)

Sources	Outstanding as on March 25/last reporting Fridays of the month/reporting Fridays				
	2021-22	2021	2022		
		Mar. 26	Feb. 25	Mar. 11	Mar. 25
	1	2	3	4	5
1 Net Bank Credit to Government	6204211	5732751	6232004	6339925	6204211
1.1 RBI's net credit to Government (1.1.1–1.1.2)	1177178	982063	1267912	1294485	1177178
1.1.1 Claims on Government	1490166	1332127	1498132	1493337	1490166
1.1.1.1 Central Government	1489496	1330453	1497945	1487128	1489496
1.1.1.2 State Governments	670	1674	186	6209	670
1.1.2 Government deposits with RBI	312988	350065	230220	198852	312988
1.1.2.1 Central Government	312946	350022	230177	198810	312946
1.1.2.2 State Governments	42	42	43	42	42
1.2 Other Banks' Credit to Government	5027033	4750689	4964092	5045441	5027033
2 Bank Credit to Commercial Sector	12610042	11668281	12350302	12421076	12610042
2.1 RBI's credit to commercial sector	10092	8524	1853	2086	10092
2.2 Other banks' credit to commercial sector	12599950	11659757	12348448	12418990	12599950
2.2.1 Bank credit by commercial banks	11891314	10949509	11643717	11712341	11891314
2.2.2 Bank credit by co-operative banks	690201	694758	686893	688748	690201
2.2.3 Investments by commercial and co-operative banks in other securities	18435	15490	17838	17900	18435
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	4850355	4560899	4881815	4904843	4850355
3.1 RBI's net foreign exchange assets (3.1.1–3.1.2)	4551499	4181453	4582959	4605987	4551499
3.1.1 Gross foreign assets	4551740	4181689	4583200	4606228	4551740
3.1.2 Foreign liabilities	241	237	241	241	241
3.2 Other banks' net foreign exchange assets	298856	379446	298856	298856	298856
4 Government's Currency Liabilities to the Public	28013	26913	27882	27882	28013
5 Banking Sector's Net Non-monetary Liabilities	3203024	3139393	3308475	3414751	3203024
5.1 Net non-monetary liabilities of RBI	1346960	1331957	1324383	1387918	1346960
5.2 Net non-monetary liabilities of other banks (residual)	1856064	1807436	1984092	2026834	1856064
M₃ (1+2+3+4–5)	20489597	18849451	20183528	20278975	20489597

No. 8: Monetary Survey

(₹ Crore)

Item	Outstanding as on March 25/last reporting Fridays of the month/reporting Fridays				
	2021-22	2021	2022		
		Mar. 26	Feb. 25	Mar. 11	Mar. 25
	1	2	3	4	5
Monetary Aggregates					
NM ₁ (1.1 + 1.2.1+1.3)	5302864	4799173	5138374	5114631	5302864
NM ₂ (NM ₁ + 1.2.2.1)	12076789	11053150	11848308	11877938	12076789
NM ₃ (NM ₂ + 1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	20630625	18940924	20326078	20429724	20630625
1 Components					
1.1 Currency with the Public	3037491	2756705	2980565	3018879	3037491
1.2 Aggregate Deposits of Residents	17266162	15892847	17014022	17073643	17266162
1.2.1 Demand Deposits	2212994	1995121	2103056	2044072	2212994
1.2.2 Time Deposits of Residents	15053167	13897727	14910965	15029571	15053167
1.2.2.1 Short-term Time Deposits	6773925	6253977	6709934	6763307	6773925
1.2.2.1.1 Certificates of Deposit (CDs)	176718	78702	128295	151931	176718
1.2.2.2 Long-term Time Deposits	8279242	7643750	8201031	8266264	8279242
1.3 ‘Other’ Deposits with RBI	52379	47347	54752	51680	52379
1.4 Call/Term Funding from Financial Institutions	274594	244025	276739	285522	274594
2 Sources					
2.1 Domestic Credit	19802634	18402138	19568630	19744987	19802634
2.1.1 Net Bank Credit to the Government	6204211	5732751	6232004	6339925	6204211
2.1.1.1 Net RBI credit to the Government	1177178	982063	1267912	1294485	1177178
2.1.1.2 Credit to the Government by the Banking System	5027033	4750689	4964092	5045441	5027033
2.1.2 Bank Credit to the Commercial Sector	13598423	12669387	13336626	13405062	13598423
2.1.2.1 RBI Credit to the Commercial Sector	35020	34946	26706	27014	35020
2.1.2.2 Credit to the Commercial Sector by the Banking System	13563403	12634441	13309920	13378048	13563403
2.1.2.2.1 Other Investments (Non-SLR Securities)	952195	951313	952639	948251	952195
2.2 Government’s Currency Liabilities to the Public	27882	26913	27882	27882	27882
2.3 Net Foreign Exchange Assets of the Banking Sector	4814212	4420255	4763868	4796337	4814212
2.3.1 Net Foreign Exchange Assets of the RBI	4551499	4181453	4582959	4605987	4551499
2.3.2 Net Foreign Currency Assets of the Banking System	262713	238802	180908	190350	262713
2.4 Capital Account	3111573	2790207	3053964	3132979	3111573
2.5 Other items (net)	902530	1118174	980337	1006502	902530

No. 9: Liquidity Aggregates

(₹ Crore)

Aggregates	2021-22	2022			
		Apr.	Feb.	Mar.	Apr.
	1	2	3	4	5
1 NM₃	20630625	19001607	20326078	20630625	20994980
2 Postal Deposits	510435	510435	510435	510435	510435
3 L₁ (1 + 2)	21141060	19512042	20836513	21141060	21505415
4 Liabilities of Financial Institutions	49578	28937	44627	49578	41050
4.1 Term Money Borrowings	1824	3563	2082	1824	1758
4.2 Certificates of Deposit	39170	20275	34185	39170	39170
4.3 Term Deposits	8584	5099	8360	8584	122
5 L₂ (3 + 4)	21190639	19540979	20881140	21190639	21546464
6 Public Deposits with Non-Banking Financial Companies	66542	66542	..
7 L₃ (5 + 6)	21257181	21257181	..

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 25/last reporting Fridays of the month/reporting Fridays				
	2021-22	2021	2022		
		Mar. 26	Feb. 25	Mar. 11	Mar. 25
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	3135649	2858640	3080502	3115831	3135649
1.2 Bankers' Deposits with the RBI	732270	584246	712237	717331	732270
1.2.1 Scheduled Commercial Banks	683437	542693	664473	669083	683437
1.3 'Other' Deposits with the RBI	52379	47347	54752	51680	52379
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 - 2.4 - 2.5)	3920298	3490233	3847491	3884842	3920298
2 Sources					
2.1 RBI's Domestic Credit	687746	613825	561032	638891	687746
2.1.1 Net RBI credit to the Government	1177178	982063	1267912	1294485	1177178
2.1.1.1 Net RBI credit to the Central Government (2.1.1.1 + 2.1.1.2 + 2.1.1.3 + 2.1.1.4 - 2.1.1.5)	1176550	980431	1267768	1288318	1176550
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	1488978	1329707	1497537	1486766	1488978
2.1.1.1.3.1 Central Government Securities	1488978	1329707	1497537	1486766	1488978
2.1.1.1.4 Rupee Coins	518	746	409	362	518
2.1.1.1.5 Deposits of the Central Government	312946	350022	230177	198810	312946
2.1.1.2 Net RBI credit to State Governments	628	1632	144	6167	628
2.1.2 RBI's Claims on Banks	-524452	-403183	-733586	-682608	-524452
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	-499524	-376761	-708733	-657680	-499524
2.1.3 RBI's Credit to Commercial Sector	35020	34946	26706	27014	35020
2.1.3.1 Loans and Advances to Primary Dealers	-	-	-	-	-
2.1.3.2 Loans and Advances to NABARD	24927	26422	24853	24927	24927
2.2 Government's Currency Liabilities to the Public	28013	26913	27882	27882	28013
2.3 Net Foreign Exchange Assets of the RBI	4551499	4181453	4582959	4605987	4551499
2.3.1 Gold	329562	253128	319800	335721	329562
2.3.2 Foreign Currency Assets	4221955	3928343	4263177	4270283	4221955
2.4 Capital Account	1344369	1187995	1290045	1366888	1344369
2.5 Other Items (net)	2592	143962	34338	21030	2592

No. 11: Reserve Money - Components and Sources

(₹ Crore)

Item	2021-22	Outstanding as on March 31/ last Fridays of the month/ Fridays					
		2021	2022				
			Mar. 26	Feb. 25	Mar. 4	Mar. 11	Mar. 18
		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)	3920298	3490233	3847491	3907213	3884842	3938734	3920298
1 Components							
1.1 Currency in Circulation	3135649	2858640	3080502	3092827	3115831	3125325	3135649
1.2 Bankers' Deposits with RBI	732270	584246	712237	759525	717331	761301	732270
1.3 'Other' Deposits with RBI	52379	47347	54752	54861	51680	52108	52379
2 Sources							
2.1 Net Reserve Bank Credit to Government	1177178	982063	1267912	1332489	1294485	1121968	1177178
2.2 Reserve Bank Credit to Banks	-499524	-376761	-708733	-728973	-657680	-435164	-499524
2.3 Reserve Bank Credit to Commercial Sector	10092	8524	1853	1640	2086	4833	10092
2.4 Net Foreign Exchange Assets of RBI	4551499	4181453	4582959	4649951	4605987	4543959	4551499
2.5 Government's Currency Liabilities to the Public	28013	26913	27882	27882	27882	27882	28013
2.6 Net Non- Monetary Liabilities of RBI	1346960	1331957	1324383	1375776	1387918	1324744	1346960

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		
		Mar. 26	Feb. 25	Mar. 11	Mar. 25
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	16331876	14960961	16083340	16141913	16331876
1.1.1 Demand Deposits	2072747	1861193	1963976	1904694	2072747
1.1.2 Time Deposits of Residents	14259129	13099768	14119364	14237219	14259129
1.1.2.1 Short-term Time Deposits	6416608	5894896	6353714	6406748	6416608
1.1.2.1.1 Certificates of Deposits (CDs)	176718	78702	128295	151931	176718
1.1.2.2 Long-term Time Deposits	7842521	7204873	7765650	7830470	7842521
1.2 Call/Term Funding from Financial Institutions	274594	244025	276739	285522	274594
2 Sources					
2.1 Domestic Credit	17575016	16378019	17266721	17413901	17575016
2.1.1 Credit to the Government	4728179	4461632	4669023	4750085	4728179
2.1.2 Credit to the Commercial Sector	12846837	11916387	12597698	12663815	12846837
2.1.2.1 Bank Credit	11891314	10949509	11643717	11712341	11891314
2.1.2.1.1 Non-food Credit	11836304	10888255	11575493	11651434	11836304
2.1.2.2 Net Credit to Primary Dealers	11522	23633	9095	11070	11522
2.1.2.3 Investments in Other Approved Securities	769	894	1209	1116	769
2.1.2.4 Other Investments (in non-SLR Securities)	943233	942351	943677	939289	943233
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1–2.2.2–2.2.3)	262713	238802	180908	190350	262713
2.2.1 Foreign Currency Assets	465464	454866	384970	393190	465464
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	133437	152552	134189	134772	133437
2.2.3 Overseas Foreign Currency Borrowings	69314	63512	69873	68068	69314
2.3 Net Bank Reserves (2.3.1+2.3.2–2.3.3)	1268887	1010202	1461464	1411947	1268887
2.3.1 Balances with the RBI	683437	542693	664473	669083	683437
2.3.2 Cash in Hand	85926	90748	88258	85184	85926
2.3.3 Loans and Advances from the RBI	-499524	-376761	-708733	-657680	-499524
2.4 Capital Account	1743033	1578041	1739748	1741920	1743033
2.5 Other items (net) (2.1+2.2+2.3–2.4–1.1–1.2)	757113	843995	809267	846843	757113
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	571534	593095	568393	578592	571534
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	26533	80681	28229	32994	26533

No. 13: Scheduled Commercial Banks' Investments

(₹ Crore)

Item	As on March 25, 2022	2022			
		2021		2022	
		Mar. 26	Feb. 25	Mar. 11	Mar. 25
		1	2	3	4
1 SLR Securities	4728948	4462526	4670231	4751201	4728948
2 Commercial Paper	55317	82584	49155	48966	55317
3 Shares issued by					
3.1 PSUs	7642	9840	8384	7576	7642
3.2 Private Corporate Sector	73808	64035	73319	73791	73808
3.3 Others	5152	5210	5014	5009	5152
4 Bonds/Debentures issued by					
4.1 PSUs	117860	121008	117941	118063	117860
4.2 Private Corporate Sector	326206	308904	336955	332398	326206
4.3 Others	148754	149325	142778	145028	148754
5 Instruments issued by					
5.1 Mutual funds	34404	31142	43286	36341	34404
5.2 Financial institutions	174090	167130	166879	172116	174090

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

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	
		Mar.	Feb.	Mar.		Mar.	Feb.	Mar.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	212	209	212	212	136	133	136	136
1 Liabilities to the Banking System	262674	259530	255874	262674	258649	254589	251956	258649
1.1 Demand and Time Deposits from Banks	194143	200585	185500	194143	190570	195866	182114	190570
1.2 Borrowings from Banks	38369	40886	44491	38369	38317	40880	44343	38317
1.3 Other Demand and Time Liabilities	30162	18059	25883	30162	29762	17843	25499	29762
2 Liabilities to Others	17832491	16457782	17569489	17832491	17380755	16014145	17132534	17380755
2.1 Aggregate Deposits	16899604	15540152	16638218	16899604	16465313	15113512	16217529	16465313
2.1.1 Demand	2117542	1899343	2006907	2117542	2072747	1861193	1963976	2072747
2.1.2 Time	14782062	13640809	14631311	14782062	14392567	13252320	14253553	14392567
2.2 Borrowings	278985	248271	281772	278985	274594	244025	276739	274594
2.3 Other Demand and Time Liabilities	653902	669359	649500	653902	640848	656607	638266	640848
3 Borrowings from Reserve Bank	94299	90275	96123	94299	94299	90275	96123	94299
3.1 Against Usance Bills /Promissory Notes	—	—	—	—	—	—	—	—
3.2 Others	94299	90275	96123	94299	94299	90275	96123	94299
4 Cash in Hand and Balances with Reserve Bank	788723	650745	771413	788723	769363	633440	752731	769363
4.1 Cash in Hand	88731	92793	90640	88731	85926	90748	88258	85926
4.2 Balances with Reserve Bank	699993	557951	680772	699993	683437	542693	664473	683437
5 Assets with the Banking System	314857	265729	296277	314857	243637	197541	232823	243637
5.1 Balances with Other Banks	199109	179430	196853	199109	164240	143294	161886	164240
5.1.1 In Current Account	19408	16796	23926	19408	16691	14226	21250	16691
5.1.2 In Other Accounts	179701	162634	172927	179701	147549	129068	140636	147549
5.2 Money at Call and Short Notice	36805	36716	27515	36805	6982	10654	6053	6982
5.3 Advances to Banks	39340	19908	36348	39340	35802	16764	32138	35802
5.4 Other Assets	39602	29675	35561	39602	36613	26829	32746	36613
6 Investment	4874070	4598924	4810498	4874070	4728948	4462526	4670231	4728948
6.1 Government Securities	4866337	4591896	4803361	4866337	4728179	4461632	4669023	4728179
6.2 Other Approved Securities	7732	7029	7136	7732	769	894	1209	769
7 Bank Credit	12258948	11297014	12003700	12258948	11891314	10949509	11643717	11891314
7a Food Credit	90827	91653	104041	90827	55011	61254	68224	55011
7.1 Loans, Cash-credits and Overdrafts	12016385	11081668	11774926	12016385	11651337	10736491	11417404	11651337
7.2 Inland Bills-Purchased	36070	30896	34151	36070	36055	30531	34138	36055
7.3 Inland Bills-Discounted	155796	128831	146599	155796	154212	127883	145123	154212
7.4 Foreign Bills-Purchased	19537	20762	19676	19537	19157	20394	19269	19157
7.5 Foreign Bills-Discounted	31160	34857	28348	31160	30554	34210	27783	30554

Note: Data in column Nos. (1), (4), (5) & (8) are Provisional.

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

(₹ Crore)

Sector	Outstanding as on				Growth (%)	
	Mar.26, 2021	2021	2022		Financial year so far	Y-o-Y
		Mar.26	Feb.25	Mar.25	2021-22	2022
	1	2	3	4	%	%
I. Gross Bank Credit (II+III)	10847288	10847288	11627008	11890638	9.6	9.6
II. Food Credit	61254	61254	68224	55011	-10.2	-10.2
III. Non-food Credit	10786033	10786033	11558783	11835628	9.7	9.7
1. Agriculture & Allied Activities	1334022	1334022	1448928	1466514	9.9	9.9
2. Industry (Micro and Small, Medium and Large)	2962332	2962332	3135271	3171909	7.1	7.1
2.1 Micro and Small ¹	407675	407675	484465	495281	21.5	21.5
2.2 Medium	141339	141339	235050	242269	71.4	71.4
2.3 Large	2413318	2413318	2415757	2434359	0.9	0.9
3. Services	2788463	2788463	2966593	3036122	8.9	8.9
3.1 Transport Operators	142898	142898	149178	155220	8.6	8.6
3.2 Computer Software	19671	19671	20134	20497	4.2	4.2
3.3 Tourism, Hotels & Restaurants	59519	59519	64607	64408	8.2	8.2
3.4 Shipping	7747	7747	7480	8603	11.1	11.1
3.5 Aviation	26043	26043	23221	23292	-10.6	-10.6
3.6 Professional Services	107236	107236	113204	115756	7.9	7.9
3.7 Trade	628246	628246	687305	697194	11.0	11.0
3.7.1 Wholesale Trade	318582	318582	336982	341795	7.3	7.3
3.7.2 Retail Trade	309663	309663	350322	355399	14.8	14.8
3.8 Commercial Real Estate	289129	289129	288221	291580	0.8	0.8
3.9 Non-Banking Financial Companies (NBFCs) ² of which,	955311	955311	1027183	1054200	10.4	10.4
3.9.1 Housing Finance Companies (HFCs)	218619	218619	235080	239287	9.5	9.5
3.9.2 Public Financial Institutions (PFIs)	78987	78987	118244	119364	51.1	51.1
3.10 Other Services ³	552665	552665	586058	605372	9.5	9.5
4. Personal Loans	3001645	3001645	3306650	3374876	12.4	12.4
4.1 Consumer Durables	17265	17265	26587	27618	60.0	60.0
4.2 Housing	1493906	1493906	1578125	1589326	6.4	6.4
4.3 Advances against Fixed Deposits	68731	68731	76579	79315	15.4	15.4
4.4 Advances to Individuals against share & bonds	5236	5236	5968	6042	15.4	15.4
4.5 Credit Card Outstanding	131193	131193	144004	147782	12.6	12.6
4.6 Education	62645	62645	63130	62622	0.0	0.0
4.7 Vehicle Loans	301445	301445	329636	329753	9.4	9.4
4.8 Loan against gold jewellery	60907	60907	71408	73743	21.1	21.1
4.9 Other Personal Loans	860316	860316	1011213	1058675	23.1	23.1
5. Priority Sector (Memo)						
5.1 Agriculture & Allied Activities ⁴	1277989	1277989	1375748	1393313	9.0	9.0
5.2 Micro & Small Enterprises ⁵	1186591	1186591	1312435	1312705	10.6	10.6
5.3 Medium Enterprises ⁶	222591	222591	298107	304724	36.9	36.9
5.4 Housing	491495	491495	487611	493562	0.4	0.4
5.5 Education Loans	48053	48053	45643	45040	-6.3	-6.3
5.6 Renewable Energy	1244	1244	2573	3726	199.6	199.6
5.7 Social Infrastructure	2666	2666	2480	2421	-9.2	-9.2
5.8 Export Credit	31910	31910	29721	30638	-4.0	-4.0
5.9 Others	15795	15795	40603	37376	136.6	136.6
5.10 Weaker Sections including net PSLC- SF/MF	870584	870584	933147	912822	4.9	4.9

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 94 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. 26, 2021	2021		2022	Financial year so far	Y-o-Y
		Mar. 26	Feb. 25	Mar. 25	2021-22	2022
	1	2	3	4	%	%
2 Industries (2.1 to 2.19)	2962332	2962332	3135271	3171909	7.1	7.1
2.1 Mining & Quarrying (incl. Coal)	43635	43635	49824	48972	12.2	12.2
2.2 Food Processing	156502	156502	169669	173530	10.9	10.9
2.2.1 Sugar	26263	26263	23848	26159	-0.4	-0.4
2.2.2 Edible Oils & Vanaspati	18892	18892	18678	19360	2.5	2.5
2.2.3 Tea	5252	5252	5709	6189	17.8	17.8
2.2.4 Others	106095	106095	121434	121821	14.8	14.8
2.3 Beverage & Tobacco	17708	17708	17948	18266	3.2	3.2
2.4 Textiles	204521	204521	225098	225096	10.1	10.1
2.4.1 Cotton Textiles	89881	89881	96904	95271	6.0	6.0
2.4.2 Jute Textiles	2825	2825	3558	3710	31.3	31.3
2.4.3 Man-Made Textiles	38877	38877	42153	43196	11.1	11.1
2.4.4 Other Textiles	72938	72938	82482	82920	13.7	13.7
2.5 Leather & Leather Products	10524	10524	11449	11491	9.2	9.2
2.6 Wood & Wood Products	13778	13778	15102	15037	9.1	9.1
2.7 Paper & Paper Products	35185	35185	39242	38505	9.4	9.4
2.8 Petroleum, Coal Products & Nuclear Fuels	67253	67253	83255	87615	30.3	30.3
2.9 Chemicals & Chemical Products	196958	196958	200420	214141	8.7	8.7
2.9.1 Fertiliser	32584	32584	28907	33243	2.0	2.0
2.9.2 Drugs & Pharmaceuticals	54136	54136	59181	61398	13.4	13.4
2.9.3 Petro Chemicals	45765	45765	36667	40297	-11.9	-11.9
2.9.4 Others	64473	64473	75665	79202	22.8	22.8
2.10 Rubber, Plastic & their Products	56018	56018	70840	72088	28.7	28.7
2.11 Glass & Glassware	6687	6687	5967	6071	-9.2	-9.2
2.12 Cement & Cement Products	55445	55445	48886	47925	-13.6	-13.6
2.13 Basic Metal & Metal Product	326284	326284	295886	296427	-9.2	-9.2
2.13.1 Iron & Steel	228834	228834	195855	192658	-15.8	-15.8
2.13.2 Other Metal & Metal Product	97450	97450	100031	103769	6.5	6.5
2.14 All Engineering	149191	149191	161443	162205	8.7	8.7
2.14.1 Electronics	34162	34162	38789	37763	10.5	10.5
2.14.2 Others	115030	115030	122654	124441	8.2	8.2
2.15 Vehicles, Vehicle Parts & Transport Equipment	86053	86053	90744	91364	6.2	6.2
2.16 Gems & Jewellery	73291	73291	77923	79747	8.8	8.8
2.17 Construction	100430	100430	104617	104700	4.3	4.3
2.18 Infrastructure	1100774	1100774	1194553	1202694	9.3	9.3
2.18.1 Power	569015	569015	605572	609773	7.2	7.2
2.18.2 Telecommunications	115861	115861	134285	137381	18.6	18.6
2.18.3 Roads	231487	231487	264088	270806	17.0	17.0
2.18.4 Airports	8573	8573	6638	6646	-22.5	-22.5
2.18.5 Ports	10154	10154	8828	8886	-12.5	-12.5
2.18.6 Railways	12471	12471	13954	10512	-15.7	-15.7
2.18.7 Other Infrastructure	153212	153212	161188	158691	3.6	3.6
2.19 Other Industries	262095	262095	272405	276036	5.3	5.3

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			
		Feb, 26	Dec, 03	Dec, 17	Dec, 31	Jan, 14	Jan, 28	Feb, 11	Feb, 25
	1	2	3	4	5	6	7	8	9
Number of Reporting Banks	32	32	33	33	33	33	33	33	33
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	125859.6	124513.6	126775.8	126250.1	125717.1	127755.5	127431.3	126324.0	126531.5
2 Demand and Time Liabilities									
2.1 Demand Liabilities	23736.9	21473.4	24362.4	24175.7	25194.1	24360.8	24041.4	26573.3	24733.8
2.1.1 Deposits									
2.1.1.1 Inter-Bank	4896.9	3526.9	5644.8	5476.8	4992.8	5599.7	5534.4	5468.9	5237.4
2.1.1.2 Others	13,899.4	13379.6	13711.9	13239.2	13529.3	13388.7	13490.3	13829.4	13918.4
2.1.2 Borrowings from Banks	0.0	353.0	0.0	0.0	30.0	0.0	0.0	294.9	499.9
2.1.3 Other Demand Liabilities	4940.6	4214.0	5005.7	5459.6	6642.1	5372.5	5016.7	6980.0	5078.1
2.2 Time Liabilities	179957.5	173903.3	174844.3	176049.4	175645.6	177700.6	178141.3	176359.3	177613.0
2.2.1 Deposits									
2.2.1.1 Inter-Bank	65333.7	59862.2	58648.8	59937.1	60369.4	60244.0	61099.8	60724.4	61880.2
2.2.1.2 Others	111960.2	111134.0	113063.8	113010.9	112187.8	114366.9	113941.1	112494.5	112613.1
2.2.2 Borrowings from Banks	630.0	629.9	910.1	900.5	879.7	877.6	876.9	876.8	859.4
2.2.3 Other Time Liabilities	2033.7	2277.1	2221.5	2200.8	2208.6	2212.1	2223.6	2263.6	2260.3
3 Borrowing from Reserve Bank	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 Borrowings from a notified bank / Government	63559.8	60792.5	62643.7	62867.4	65323.6	64801.9	64328.2	65375.2	64466.5
4.1 Demand	15691.8	14579.3	12696.3	13148.7	12617.5	12576.2	12684.0	13311.1	12992.3
4.2 Time	47868.0	46213.1	49947.4	49718.6	52706.1	52225.7	51644.2	52064.0	51474.2
5 Cash in Hand and Balances with Reserve Bank	8151.1	6871.4	9590.4	9918.8	9710.1	9513.9	9868.9	9040.8	9228.6
5.1 Cash in Hand	570.3	572.5	636.1	673.2	706.3	681.3	705.8	691.6	743.8
5.2 Balance with Reserve Bank	7580.8	6298.9	8954.3	9245.6	9003.8	8832.7	9163.0	8349.1	8484.8
6 Balances with Other Banks in Current Account	1148.1	834.6	1245.1	1141.8	1419.1	1186.3	1275.4	1284.4	1310.3
7 Investments in Government Securities	64455.2	61913.1	73860.5	72595.8	71870.3	72279.7	71991.8	71964.6	71262.5
8 Money at Call and Short Notice	28835.7	26344.9	21465.8	23039.9	24601.8	24189.3	25584.6	24200.2	24875.8
9 Bank Credit (10.1+11)	114631.6	114409.0	108518.7	109958.7	109318.7	110344.5	110029.1	112313.6	111718.8
10 Advances									
10.1 Loans, Cash-Credits and Overdrafts	114612.1	114389.5	108497.9	109938.2	109298.1	110323.9	110008.5	112293.0	111698.2
10.2 Due from Banks	89429.1	91887.8	99615.8	100260.1	103321.6	102808.2	103697.0	104523.9	106973.7
11 Bills Purchased and Discounted	19.5	19.5	20.9	20.5	20.6	20.6	20.6	20.6	20.6

Prices and Production

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

Group/Sub group	2021-22			Rural			Urban			Combined		
	Rural	Urban	Combined	Mar. 21	Feb. 22	Mar 22(P)	Mar. 21	Feb. 22	Mar 22(P)	Mar. 21	Feb. 22	Mar 22(P)
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	162.8	168.7	165.0	154.5	163.9	166.6	160.4	170.2	171.5	156.7	166.2	168.4
1.1 Cereals and products	146.4	150.4	147.6	142.5	148.8	150.1	147.5	152.5	153.7	144.1	150.0	151.2
1.2 Meat and fish	200.4	206.5	202.6	189.4	198.1	208.0	197.5	205.2	215.8	192.2	200.6	210.7
1.3 Egg	173.3	176.0	174.4	163.2	175.5	168.0	164.7	176.4	167.6	163.8	175.8	167.8
1.4 Milk and products	158.3	159.0	158.6	154.5	160.7	162.0	155.6	160.6	162.6	154.9	160.7	162.2
1.5 Oils and fats	192.2	172.4	184.9	168.2	192.6	203.1	156.4	171.5	180.1	163.9	184.9	194.7
1.6 Fruits	155.3	163.5	159.2	150.5	151.4	155.9	157.3	156.4	159.6	153.7	153.7	157.6
1.7 Vegetables	156.1	192.8	168.5	141.0	155.2	155.9	166.1	198.0	188.3	149.5	169.7	166.9
1.8 Pulses and products	164.1	164.4	164.2	159.2	163.9	164.2	161.1	163.2	163.4	159.8	163.7	163.9
1.9 Sugar and confectionery	117.4	119.1	118.0	111.7	118.1	118.1	114.3	120.6	120.3	112.6	118.9	118.8
1.10 Spices	171.2	167.5	170.0	164.0	175.4	178.7	162.6	172.2	174.7	163.5	174.3	177.4
1.11 Non-alcoholic beverages	167.8	154.7	162.3	160.6	170.5	171.2	150.7	156.7	157.1	156.5	164.7	165.3
1.12 Prepared meals, snacks, sweets	173.0	175.8	174.3	166.4	176.3	177.4	170.3	180.0	181.5	168.2	178.0	179.3
2 Pan, tobacco and intoxicants	190.3	196.5	191.9	186.1	191.5	192.3	193.5	196.5	197.6	188.1	192.8	193.7
3 Clothing and footwear	168.2	158.4	164.3	158.9	173.7	175.1	152.6	163.4	164.9	156.4	169.6	171.1
3.1 Clothing	168.8	160.9	165.7	159.6	174.1	175.4	155.1	165.7	167.1	157.8	170.8	172.1
3.2 Footwear	164.5	144.7	156.3	154.4	171.0	173.2	138.7	150.4	152.5	147.9	162.4	164.6
4 Housing	--	163.0	163.0	--	--	--	159.9	165.5	165.3	159.9	165.5	165.3
5 Fuel and light	164.0	159.8	162.4	156.0	167.4	168.9	154.8	163.0	164.5	155.5	165.7	167.2
6 Miscellaneous	164.1	156.1	160.2	157.3	167.3	168.3	150.0	159.4	160.6	153.8	163.5	164.6
6.1 Household goods and services	161.8	153.5	157.9	154.8	165.7	166.5	147.2	157.4	158.6	151.2	161.8	162.8
6.2 Health	172.0	163.3	168.6	164.6	175.3	176.0	156.9	167.2	168.2	161.7	172.2	173.0
6.3 Transport and communication	157.9	150.0	153.7	151.3	161.2	162.0	141.7	153.1	154.2	146.2	156.9	157.9
6.4 Recreation and amusement	162.7	154.8	158.2	157.8	165.5	166.6	148.6	159.5	160.8	152.6	162.1	163.3
6.5 Education	168.4	160.1	163.5	163.8	170.3	170.6	157.6	162.0	162.6	160.2	165.4	165.9
6.6 Personal care and effects	161.3	160.8	161.1	153.1	164.5	167.4	154.9	164.2	166.8	153.8	164.4	167.2
General Index (All Groups)	164.5	163.1	163.8	156.7	166.7	168.7	156.9	165.5	166.5	156.8	166.1	167.7

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	
			2021-22	2021-22	2021	2022	2022	2022
	1	2	3	4	5	6	7	8
1 Consumer Price Index for Industrial Workers	2016	2.88	-	119.6	125	126		
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	1075	1035	1095	1098		
3 Consumer Price Index for Rural Labourers	1986-87	-	1084	1043	1106	1109		

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

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

Item	2020-21	2021		2022	
		Mar.	Feb.	Mar.	Mar.
	1	2	3	4	5
1 Standard Gold (₹ per 10 grams)	48723	44648	49254	51750	
2 Silver (₹ per kilogram)	59283	65981	63175	68286	

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	
			Mar	Jan.	Feb. (P)	Mar (P)
	1	2	3	4	5	6
1 ALL COMMODITIES	100.000	139.4	129.9	143.8	144.9	148.8
1.1 PRIMARY ARTICLES	22.618	160.5	147.4	167.5	166.8	170.3
1.1.1 FOOD ARTICLES	15.256	167.3	156.4	172.0	170.4	169.0
1.1.1.1 Food Grains (Cereals+Pulses)	3.462	163.5	158.1	165.5	165.9	169.1
1.1.1.2 Fruits & Vegetables	3.475	187.5	154.6	201.8	192.1	178.5
1.1.1.3 Milk	4.440	156.7	155.2	157.4	157.8	159.7
1.1.1.4 Eggs, Meat & Fish	2.402	164.0	155.0	165.6	167.3	169.6
1.1.1.5 Condiments & Spices	0.529	159.8	151.9	168.5	170.2	172.9
1.1.1.6 Other Food Articles	0.948	168.2	168.4	172.6	173.5	173.0
1.1.2 NON-FOOD ARTICLES	4.119	158.1	139.7	165.9	170.2	175.2
1.1.2.1 Fibres	0.839	158.5	133.2	177.4	190.3	201.1
1.1.2.2 Oil Seeds	1.115	214.4	185.0	210.8	215.4	226.6
1.1.2.3 Other non-food Articles	1.960	119.9	115.2	122.3	123.3	126.7
1.1.2.4 Floriculture	0.204	217.0	154.2	292.2	290.2	253.9
1.1.3 MINERALS	0.833	195.2	188.1	224.7	204.8	224.7
1.1.3.1 Metallic Minerals	0.648	190.8	187.9	226.6	200.9	226.6
1.1.3.2 Other Minerals	0.185	210.4	189.0	218.0	218.6	218.3
1.1.4 CRUDE PETROLEUM & NATURAL GAS	2.410	110.3	89.6	122.3	125.1	151.6
1.2 FUEL & POWER	13.152	124.9	109.2	135.3	139.0	146.9
1.2.1 COAL	2.138	129.0	126.9	130.9	130.9	130.9
1.2.1.1 Coking Coal	0.647	143.0	141.9	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	129.9	212.6	212.6	212.6
1.2.2 MINERAL OILS	7.950	126.2	103.7	136.5	142.6	155.7
1.2.3 ELECTRICITY	3.064	118.8	111.1	135.3	135.3	135.3
1.3 MANUFACTURED PRODUCTS	64.231	134.9	127.9	137.2	138.4	141.6
1.3.1 MANUFACTURE OF FOOD PRODUCTS	9.122	157.8	149.8	156.9	159.8	164.6
1.3.1.1 Processing and Preserving of meat	0.134	142.7	141.3	142.3	140.9	142.1
1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof	0.204	144.2	145.1	146.3	149.1	142.8
1.3.1.3 Processing and Preserving of fruit and Vegetables	0.138	122.3	121.7	122.5	123.1	122.1
1.3.1.4 Vegetable and Animal oils and Fats	2.643	186.9	172.5	180.8	188.9	200.2
1.3.1.5 Dairy products	1.165	149.3	148.0	149.3	151.2	155.0
1.3.1.6 Grain mill products	2.010	145.5	141.5	147.1	147.1	149.9
1.3.1.7 Starches and Starch products	0.110	133.2	120.1	142.0	146.2	151.0
1.3.1.8 Bakery products	0.215	146.2	139.3	150.8	150.8	152.5
1.3.1.9 Sugar, Molasses & honey	1.163	122.9	116.8	124.7	124.8	124.6
1.3.1.10 Cocoa, Chocolate and Sugar confectionery	0.175	130.3	128.0	132.8	132.9	133.6
1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products	0.026	135.6	135.6	142.3	139.7	142.8
1.3.1.12 Tea & Coffee products	0.371	170.8	163.8	168.1	165.5	166.6
1.3.1.13 Processed condiments & salt	0.163	157.4	149.0	163.8	163.7	165.0
1.3.1.14 Processed ready to eat food	0.024	136.9	136.6	137.1	137.4	138.7
1.3.1.15 Health supplements	0.225	153.1	138.2	152.5	161.6	165.2
1.3.1.16 Prepared animal feeds	0.356	200.9	179.5	199.7	203.8	210.1
1.3.2 MANUFACTURE OF BEVERAGES	0.909	126.9	125.0	127.3	128.4	127.6
1.3.2.1 Wines & spirits	0.408	123.6	120.4	124.1	124.9	125.4
1.3.2.2 Malt liquors and Malt	0.225	130.4	127.8	131.8	132.9	132.6
1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters	0.275	129.1	129.6	128.4	130.1	126.9
1.3.3 MANUFACTURE OF TOBACCO PRODUCTS	0.514	160.2	157.8	160.7	160.7	161.3
1.3.3.1 Tobacco products	0.514	160.2	157.8	160.7	160.7	161.3

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2021-22	2021	2022		
			Mar	Jan.	Feb. (P)	Mar (P)
1.3.4 MANUFACTURE OF TEXTILES	4.881	135.2	127.4	140.2	142.4	143.5
1.3.4.1 Preparation and Spinning of textile fibres	2.582	128.1	120.0	135.2	138.1	138.3
1.3.4.2 Weaving & Finishing of textiles	1.509	146.8	138.5	149.7	151.6	154.1
1.3.4.3 Knitted and Crocheted fabrics	0.193	125.5	119.0	130.3	130.1	127.7
1.3.4.4 Made-up textile articles, Except apparel	0.299	138.6	133.6	141.7	142.0	146.6
1.3.4.5 Cordage, Rope, Twine and Netting	0.098	168.5	167.4	167.6	166.1	162.9
1.3.4.6 Other textiles	0.201	126.2	117.9	128.8	130.3	132.3
1.3.5 MANUFACTURE OF WEARING APPAREL	0.814	143.1	140.0	144.7	145.2	145.2
1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel	0.593	142.1	139.2	143.3	144.0	143.7
1.3.5.2 Knitted and Crocheted apparel	0.221	145.9	142.4	148.3	148.4	149.0
1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS	0.535	119.3	117.6	120.9	121.3	121.7
1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur	0.142	103.7	96.6	105.6	107.4	108.2
1.3.6.2 Luggage, Handbags, Saddlery and Harness	0.075	141.5	140.2	143.7	144.4	144.5
1.3.6.3 Footwear	0.318	121.0	121.7	122.4	122.1	122.3
1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK	0.772	141.0	137.7	141.9	142.4	144.1
1.3.7.1 Saw milling and Planing of wood	0.124	128.9	123.5	132.1	131.1	135.5
1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards	0.493	141.9	139.2	142.6	143.1	144.5
1.3.7.3 Builder's carpentry and Joinery	0.036	193.9	191.3	194.6	195.2	195.2
1.3.7.4 Wooden containers	0.119	133.9	130.0	133.2	135.8	136.1
1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS	1.113	137.3	130.7	142.1	142.4	146.7
1.3.8.1 Pulp, Paper and Paperboard	0.493	141.2	135.9	145.1	146.1	149.6
1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard	0.314	137.5	131.0	141.1	141.2	144.9
1.3.8.3 Other articles of paper and Paperboard	0.306	130.8	121.8	138.5	137.5	144.0
1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA	0.676	158.0	153.7	162.6	162.4	163.1
1.3.9.1 Printing	0.676	158.0	153.7	162.6	162.4	163.1
1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	6.465	133.4	125.6	137.5	139.3	141.5
1.3.10.1 Basic chemicals	1.433	143.7	130.3	150.9	152.6	156.4
1.3.10.2 Fertilizers and Nitrogen compounds	1.485	129.6	124.7	133.4	134.4	134.4
1.3.10.3 Plastic and Synthetic rubber in primary form	1.001	140.2	136.2	140.8	143.2	149.6
1.3.10.4 Pesticides and Other agrochemical products	0.454	131.9	125.4	136.2	138.5	141.0
1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics	0.491	130.4	118.7	137.8	137.6	138.6
1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations	0.612	128.1	122.8	126.9	132.1	129.6
1.3.10.7 Other chemical products	0.692	130.2	120.0	136.3	137.0	139.7
1.3.10.8 Man-made fibres	0.296	106.4	102.8	109.0	109.9	112.9
1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS	1.993	135.8	133.4	137.1	138.2	136.3
1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products	1.993	135.8	133.4	137.1	138.2	136.3
1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	2.299	124.8	119.5	127.3	127.1	129.8
1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	0.609	104.3	100.1	106.5	106.3	106.1
1.3.12.2 Other Rubber Products	0.272	101.9	97.4	104.4	105.0	106.4
1.3.12.3 Plastics products	1.418	137.9	132.1	140.7	140.3	144.4
1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	3.202	123.6	120.2	125.8	126.3	127.3
1.3.13.1 Glass and Glass products	0.295	138.9	130.4	144.7	142.6	145.6
1.3.13.2 Refractory products	0.223	115.6	113.5	119.1	120.0	119.4
1.3.13.3 Clay Building Materials	0.121	119.4	112.2	131.3	134.1	132.7
1.3.13.4 Other Porcelain and Ceramic Products	0.222	112.9	112.0	116.3	116.1	116.6
1.3.13.5 Cement, Lime and Plaster	1.645	126.3	123.6	127.0	127.9	129.0

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2021-22	2021	2022		
			Mar	Jan.	Feb. (P)	Mar (P)
1.3.13.6 Articles of Concrete, Cement and Plaster	0.292	129.2	126.4	129.8	130.8	131.4
1.3.13.7 Cutting, Shaping and Finishing of Stone	0.234	122.2	123.5	121.5	121.5	120.9
1.3.13.8 Other Non-Metallic Mineral Products	0.169	90.4	79.6	99.0	97.9	100.2
1.3.14 MANUFACTURE OF BASIC METALS	9.646	139.8	124.0	143.1	145.1	156.2
1.3.14.1 Inputs into steel making	1.411	150.3	125.5	153.9	157.0	177.1
1.3.14.2 Metallic Iron	0.653	147.4	129.1	149.2	150.6	172.0
1.3.14.3 Mild Steel - Semi Finished Steel	1.274	118.6	110.3	120.6	121.4	127.9
1.3.14.4 Mild Steel -Long Products	1.081	137.1	124.6	139.9	143.6	153.1
1.3.14.5 Mild Steel - Flat products	1.144	157.3	133.5	157.1	158.2	169.8
1.3.14.6 Alloy steel other than Stainless Steel- Shapes	0.067	133.5	123.5	136.6	142.5	150.2
1.3.14.7 Stainless Steel - Semi Finished	0.924	141.7	125.7	145.5	147.5	169.8
1.3.14.8 Pipes & tubes	0.205	155.8	141.4	163.8	165.9	171.0
1.3.14.9 Non-ferrous metals incl. precious metals	1.693	139.6	123.8	145.6	148.5	154.9
1.3.14.10 Castings	0.925	118.7	112.8	121.6	121.7	122.6
1.3.14.11 forgings of steel	0.271	159.0	148.3	165.1	165.8	165.0
1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	3.155	130.3	121.8	133.2	133.0	134.4
1.3.15.1 Structural Metal Products	1.031	123.8	119.0	124.6	124.3	127.5
1.3.15.2 Tanks, Reservoirs and Containers of Metal	0.660	155.9	140.8	160.0	159.8	159.5
1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers	0.145	96.1	96.8	92.3	93.8	96.4
1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	0.383	117.4	99.5	125.2	125.1	126.2
1.3.15.5 Cutlery, Hand Tools and General Hardware	0.208	108.2	106.5	109.5	109.4	108.5
1.3.15.6 Other Fabricated Metal Products	0.728	136.4	129.7	140.3	139.8	140.8
1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS	2.009	113.5	111.0	115.6	114.7	116.5
1.3.16.1 Electronic Components	0.402	105.8	101.2	110.5	109.0	111.5
1.3.16.2 Computers and Peripheral Equipment	0.336	134.7	134.5	134.8	134.7	134.8
1.3.16.3 Communication Equipment	0.310	121.1	116.4	128.6	121.3	128.8
1.3.16.4 Consumer Electronics	0.641	102.2	100.9	101.4	103.2	102.2
1.3.16.5 Measuring, Testing, Navigating and Control equipment	0.181	108.2	106.1	109.2	109.5	112.2
1.3.16.6 Watches and Clocks	0.076	145.5	141.7	147.6	147.2	150.5
1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment	0.055	106.0	102.4	106.2	106.3	107.6
1.3.16.8 Optical instruments and Photographic equipment	0.008	98.3	95.9	99.6	99.6	99.7
1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT	2.930	122.3	118.9	124.8	124.8	125.2
1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus	1.298	119.6	119.1	121.6	121.5	121.4
1.3.17.2 Batteries and Accumulators	0.236	121.7	116.4	125.6	125.0	126.2
1.3.17.3 Fibre optic cables for data transmission or live transmission of images	0.133	102.9	100.5	106.0	106.1	107.2
1.3.17.4 Other electronic and Electric wires and Cables	0.428	140.5	129.4	144.7	145.6	148.1
1.3.17.5 Wiring devices, Electric lighting & display equipment	0.263	114.5	111.8	115.3	115.3	115.3
1.3.17.6 Domestic appliances	0.366	128.4	123.8	131.3	131.2	131.3
1.3.17.7 Other electrical equipment	0.206	113.3	110.9	115.6	115.3	113.4
1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT	4.789	120.0	116.1	121.6	122.0	122.3
1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines	0.638	119.2	110.7	119.4	121.7	122.7
1.3.18.2 Fluid power equipment	0.162	121.9	120.4	123.7	123.1	124.9
1.3.18.3 Other pumps, Compressors, Taps and Valves	0.552	115.1	113.6	115.9	115.1	115.5
1.3.18.4 Bearings, Gears, Gearing and Driving elements	0.340	118.2	112.7	120.6	120.9	119.6
1.3.18.5 Ovens, Furnaces and Furnace burners	0.008	74.2	70.9	74.8	76.0	76.5
1.3.18.6 Lifting and Handling equipment	0.285	119.9	115.6	123.0	122.7	124.0

No. 21: Wholesale Price Index (Concl.)

(Base: 2011-12 = 100)

Commodities	Weight	2021-22	2021		2022		
			Mar	Jan.	Feb. (P)	Mar (P)	
1.3.18.7 Office machinery and Equipment	0.006	130.2	130.2	130.2	130.2	130.2	130.2
1.3.18.8 Other general-purpose machinery	0.437	133.4	131.5	133.5	135.1	134.0	
1.3.18.9 Agricultural and Forestry machinery	0.833	128.4	122.7	131.9	132.0	132.8	
1.3.18.10 Metal-forming machinery and Machine tools	0.224	114.0	108.7	114.6	115.4	116.5	
1.3.18.11 Machinery for mining, Quarrying and Construction	0.371	78.1	76.6	79.4	79.2	79.7	
1.3.18.12 Machinery for food, Beverage and Tobacco processing	0.228	130.1	131.2	130.7	131.1	130.5	
1.3.18.13 Machinery for textile, Apparel and Leather production	0.192	125.3	120.2	128.0	128.1	126.6	
1.3.18.14 Other special-purpose machinery	0.468	134.8	132.6	136.4	136.2	137.4	
1.3.18.15 Renewable electricity generating equipment	0.046	66.6	66.4	66.9	67.2	67.3	
1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	4.969	122.7	120.1	125.3	125.8	126.3	
1.3.19.1 Motor vehicles	2.600	122.7	122.0	125.7	125.9	126.4	
1.3.19.2 Parts and Accessories for motor vehicles	2.368	122.7	118.0	124.8	125.6	126.1	
1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	1.648	131.7	128.7	133.4	133.9	133.8	
1.3.20.1 Building of ships and Floating structures	0.117	158.9	158.9	158.9	158.9	159.0	
1.3.20.2 Railway locomotives and Rolling stock	0.110	104.3	104.0	105.3	103.3	103.7	
1.3.20.3 Motor cycles	1.302	131.0	127.5	133.1	133.8	133.6	
1.3.20.4 Bicycles and Invalid carriages	0.117	137.1	134.8	138.2	138.2	138.3	
1.3.20.5 Other transport equipment	0.002	135.9	132.6	138.6	139.3	142.0	
1.3.21 MANUFACTURE OF FURNITURE	0.727	150.1	143.2	153.3	154.9	157.2	
1.3.21.1 Furniture	0.727	150.1	143.2	153.3	154.9	157.2	
1.3.22 OTHER MANUFACTURING	1.064	137.7	134.2	138.3	139.2	146.6	
1.3.22.1 Jewellery and Related articles	0.996	135.9	132.4	136.5	137.6	145.0	
1.3.22.2 Musical instruments	0.001	192.3	192.3	195.0	185.1	180.7	
1.3.22.3 Sports goods	0.012	140.4	134.2	143.8	144.3	145.9	
1.3.22.4 Games and Toys	0.005	150.6	146.7	152.7	148.7	154.8	
1.3.22.5 Medical and Dental instruments and Supplies	0.049	171.8	168.8	170.8	169.6	177.8	
2 FOOD INDEX	24.378	163.7	153.9	166.3	166.4	167.3	

Source: Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India.

No. 22: Index of Industrial Production (Base:2011-12=100)

Industry	Weight	2019-20	2020-21	April-February		February	
				2020-21	2021-22	2021	2022
	1	2	3	4	5	6	7
General Index	100.00	129.0	118.1	115.6	130.0	129.9	132.1
1 Sectoral Classification							
1.1 Mining	14.37	109.6	101.0	97.5	110.4	117.9	123.2
1.2 Manufacturing	77.63	129.6	117.2	114.8	129.6	129.7	130.8
1.3 Electricity	7.99	158.4	157.6	155.5	168.2	153.9	160.8
2 Use-Based Classification							
2.1 Primary Goods	34.05	127.0	118.1	115.7	127.3	125.0	130.8
2.2 Capital Goods	8.22	93.3	75.9	72.8	86.5	93.3	94.3
2.3 Intermediate Goods	17.22	137.7	124.7	122.0	142.5	138.0	144.0
2.4 Infrastructure/ Construction Goods	12.34	136.6	124.7	121.6	146.4	139.9	153.0
2.5 Consumer Durables	12.84	119.0	101.2	98.4	112.6	125.0	114.7
2.6 Consumer Non-Durables	15.33	145.3	142.1	140.8	146.4	147.6	139.5

Source : National Statistical 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 2021-22 (Revised Estimates)	April - February			
		2021-22 (Actuals)	2020-21 (Actuals)	Percentage to Revised Estimates	
				2021-22	2020-21
	1	2	3	4	5
1 Revenue Receipts	2078936	1791017	1370272	86.2	88.1
1.1 Tax Revenue (Net)	1765145	1480886	1216086	83.9	90.4
1.2 Non-Tax Revenue	313791	310131	154186	98.8	73.2
2 Non-Debt Capital Receipt	99975	36263	42824	36.3	92.1
2.1 Recovery of Loans	21975	22749	17156	103.5	118.3
2.2 Other Receipts	78000	13514	25668	17.3	80.2
3 Total Receipts (excluding borrowings) (1+2)	2178911	1827280	1413096	83.9	88.2
4 Revenue Expenditure	3167289	2658694	2413375	83.9	80.1
4.1 Interest Payments	813791	670501	559483	82.4	80.7
5 Capital Expenditure	602711	485181	405268	80.5	92.3
6 Total Expenditure (4+5)	3770000	3143875	2818643	83.4	81.7
7 Revenue Deficit (4-1)	1088352	867677	1043103	79.7	71.6
8 Fiscal Deficit (6-3)	1591089	1316595	1405547	82.7	76.0
9 Gross Primary Deficit (8-4.1)	777298	646094	846064	83.1	73.2

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					
		Mar. 26	Feb. 18	Feb. 25	Mar. 4	Mar. 11	Mar. 18	Mar. 25	
		1	2	3	4	5	6	7	8
1 91-day									
1.1 Banks	5310	5676	5396	4923	5158	5406	5485	5310	
1.2 Primary Dealers	16705	16740	15444	15781	15686	18645	18421	16705	
1.3 State Governments	31320	13347	76538	58638	53546	50731	41556	31320	
1.4 Others	72109	52802	85652	80823	77882	75686	73307	72109	
2 182-day									
2.1 Banks	70130	67473	58097	58219	62566	66864	64912	70130	
2.2 Primary Dealers	63669	30966	46019	49488	52764	54561	59703	63669	
2.3 State Governments	15763	9436	4826	8826	9826	10826	13326	15763	
2.4 Others	69259	31800	46142	49752	53438	58348	66235	69259	
3 364-day									
3.1 Banks	112386	119024	115928	116951	119467	116330	117765	112386	
3.2 Primary Dealers	160461	154197	121756	125294	127426	139278	138202	160461	
3.3 State Governments	22836	18510	23056	20551	22851	22851	22846	22836	
3.4 Others	118392	174501	118826	117697	122944	121722	128739	118392	
4 14-day Intermediate									
4.1 Banks									
4.2 Primary Dealers									
4.3 State Governments	289362	220351	210094	367557	315325	276150	282842	289362	
4.4 Others	659	747	813	976	1223	495	1352	659	
Total Treasury Bills (Excluding 14 day Intermediate T Bills) #	758339	694471	717682	706943	723556	741248	750498	758339	

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

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													
2021-22													
Mar. 2	7000	82	20988	4508	37	6994	4508	11502	99.08	3.7448			
Mar. 9	7000	105	35863	4013	27	6987	4013	11000	99.06	3.8061			
Mar. 16	7000	98	19007	2507	42	6993	2507	9500	99.07	3.7689			
Mar. 23	7000	88	22625	3552	51	6948	3552	10500	99.06	3.7992			
Mar. 30	7000	56	15499	21507	35	6996	21507	28504	99.05	3.8400			
182-day Treasury Bills													
2021-22													
Mar. 2	15000	143	37315	1000	75	15000	1000	16000	97.91	4.2889			
Mar. 9	15000	169	40023	1001	78	14999	1001	16000	97.86	4.3800			
Mar. 16	15000	244	60173	3001	44	14999	3001	18000	97.88	4.3345			
Mar. 23	15000	205	47637	2448	62	14990	2448	17438	97.89	4.3199			
Mar. 30	15000	181	49020	1001	47	14999	1001	16000	97.92	4.2669			
364-day Treasury Bills													
2021-22													
Mar. 2	16000	162	44760	2300	80	16000	2300	18300	95.59	4.6299			
Mar. 9	15000	188	47615	0	34	15000	0	15000	95.52	4.7085			
Mar. 16	15000	236	58748	0	43	15000	0	15000	95.57	4.6481			
Mar. 23	15000	198	53266	0	12	15000	0	15000	95.60	4.6189			
Mar. 30	15000	157	49888	1	47	14999	1	15000	95.63	4.5805			

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
March	2, 2022	2.20-3.45	3.27
March	3, 2022	2.20-3.55	3.28
March	4, 2022	2.00-3.50	3.28
March	5, 2022	2.40-3.50	3.22
March	7, 2022	2.00-3.65	3.29
March	8, 2022	2.00-3.65	3.28
March	9, 2022	2.00-3.65	3.32
March	10, 2022	2.00-4.00	3.45
March	11, 2022	2.00-3.50	3.29
March	14, 2022	2.20-3.45	3.24
March	15, 2022	2.20-3.45	3.25
March	16, 2022	2.00-3.55	3.24
March	17, 2022	2.25-3.75	3.39
March	19, 2022	2.70-3.65	2.93
March	21, 2022	2.00-3.60	3.33
March	22, 2022	2.00-3.85	3.36
March	23, 2022	2.00-3.70	3.29
March	24, 2022	2.00-3.80	3.41
March	25, 2022	2.20-3.65	3.30
March	28, 2022	2.00-3.50	3.29
March	29, 2022	2.20-3.60	3.31
March	30, 2022	2.20-4.25	3.29
March	31, 2022	2.20-4.10	3.56
April	4, 2022	2.20-3.40	3.24
April	5, 2022	2.20-3.55	3.26
April	6, 2022	2.20-3.60	3.26
April	7, 2022	2.20-3.55	3.27
April	8, 2022	2.20-3.80	3.33
April	11, 2022	2.20-3.80	3.44
April	12, 2022	2.20-3.80	3.44
April	13, 2022	2.20-3.90	3.52

Note: Includes Notice Money.

No. 27: Certificates of Deposit

Item	2021		2022		
	Mar. 26		Feb. 11	Feb. 25	Mar. 11
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	80621.98	112564.73	127618.40	154363.89	181171.43
1.1 Issued during the fortnight (₹ Crore)	25590.02	17451.50	19096.55	33526.78	34878.78
2 Rate of Interest (per cent)	3.28-5.12	4.01-5.44	3.86-5.62	3.77-5.44	3.82-5.49

No. 28: Commercial Paper

Item	2021		2022		
	Mar. 31		Feb. 15	Feb. 28	Mar. 15
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	364374.30	389950.70	364645.30	368090.45	352292.55
1.1 Reported during the fortnight (₹ Crore)	96417.25	64232.70	44435.25	44531.60	71015.75
2 Rate of Interest (per cent)	3.32-13.37	3.67-12.29	3.64-11.51	3.84-12.15	3.79-12.17

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Crore)

Item	2020-21	2021		2022				
		Mar. 26	Feb. 18	Feb. 25	Mar. 4	Mar. 11	Mar. 18	Mar. 25
	1	2	3	4	5	6	7	8
1 Call Money	17461	25647	15742	16146	12428	13861	11830	17736
2 Notice Money	2604	575	643	383	4203	415	4911	1305
3 Term Money	757	504	535	334	462	232	770	822
4 Triparty Repo	421118	462956	845803	823707	772807	627893	705350	611595
5 Market Repo	337341	358990	450982	492832	511933	465864	484255	427776
6 Repo in Corporate Bond	2990	9399	112	358	265	418	274	191
7 Forex (US \$ million)	67793	90158	75825	87562	91065	93434	82757	96538
8 Govt. of India Dated Securities	62490	55985	53123	39524	48664	43354	36039	41031
9 State Govt. Securities	5080	7252	6462	3982	7432	8111	5251	5734
10 Treasury Bills								
10.1 91-Day	4970	5756	4253	2800	4175	3328	4913	4558
10.2 182-Day	4870	2971	2504	3479	4633	5523	4514	7723
10.3 364-Day	4010	11791	6098	1353	3766	3824	2513	5035
10.4 Cash Management Bills	1490							
11 Total Govt. Securities (8+9+10)	82910	83755	72441	51137	68669	64140	53231	64080
11.1 RBI	-	4872	1038	615	1241	478	722	907

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

(Amount in ₹ Crore)

Security & Type of Issue	2020-21		2020-21 (Apr.-Mar.)		2021-22 (Apr.-Mar.) *		Mar. 2021		Mar. 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	74	102062	74	102062	164	138894	19	6454	16	1054
1A Premium	73	97648	73	97648	154	136893	18	6216	15	983
1.1 Public	53	38004	53	38004	121	112567	16	6382	10	175
1.1.1 Premium	53	34848	53	34848	119	111314	16	6163	10	142
1.2 Rights	21	64059	21	64059	43	26327	3	72	6	879
1.2.1 Premium	20	62800	20	62800	35	25580	2	53	5	841
2 Preference Shares	—	—	—	—	—	—	—	—	—	—
2.1 Public	—	—	—	—	—	—	—	—	—	—
2.2 Rights	—	—	—	—	—	—	—	—	—	—
3 Bonds & Debentures	16	5806	16	5806	28	11589	2	900	1	178
3.1 Convertible	—	—	—	—	—	—	—	—	—	—
3.1.1 Public	—	—	—	—	—	—	—	—	—	—
3.1.2 Rights	—	—	—	—	—	—	—	—	—	—
3.2 Non-Convertible	16	5806	16	5806	28	11589	2	900	1	178
3.2.1 Public	16	5806	16	5806	28	11589	2	900	1	178
3.2.2 Rights	—	—	—	—	—	—	—	—	—	—
4 Total(1+2+3)	90	107868	90	107868	192	150484	21	7353	17	1231
4.1 Public	69	43809	69	43809	149	124157	18	7281	11	353
4.2 Rights	21	64059	21	64059	43	26327	3	72	6	879

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 of numbers.

Source : Securities and Exchange Board of India.

* : Data is Provisional

External Sector

No. 31: Foreign Trade

Item	Unit	2021-22	2021			2022		
			Mar.	Nov.	Dec.	Jan.	Feb.	Mar.
		1	2	3	4	5	6	7
1 Exports	₹ Crore	3129096	256643	236855	295992	262109	278563	321935
	US \$ Million	419654	35257	31794	39271	35210	37140	42224
1.1 Oil	₹ Crore	488381	29274	40936	50912	34022	51736	59281
	US \$ Million	65443	3609	5495	6755	4570	6898	7775
1.2 Non-oil	₹ Crore	2640715	227369	195919	245080	228087	226827	262654
	US \$ Million	354211	31647	26299	32516	30640	30242	34449
2 Imports	₹ Crore	4563804	355949	397941	454508	388980	427704	463100
	US \$ Million	611894	48899	53417	60302	52253	57025	60739
2.1 Oil	₹ Crore	1201934	74768	109361	124323	91968	126186	143292
	US \$ Million	161070	10271	14680	16494	12354	16824	18794
2.2 Non-oil	₹ Crore	3361870	281180	288580	330185	297012	301518	319809
	US \$ Million	450824	38627	38737	43807	39899	40201	41945
3 Trade Balance	₹ Crore	-1434708	-99306	-161086	-158516	-126871	-149141	-141165
	US \$ Million	-192241	-13642	-21623	-21031	-17043	-19885	-18515
3.1 Oil	₹ Crore	-713553	-45495	-68425	-73410	-57946	-74449	-84010
	US \$ Million	-95627	-6662	-9185	-9740	-7784	-9926	-11019
3.2 Non-oil	₹ Crore	-721155	-53811	-92661	-85106	-68925	-74691	-57155
	US \$ Million	-96614	-6980	-12438	-11291	-9259	-9958	-7496

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

No. 32: Foreign Exchange Reserves

Item	Unit	2021	2022					
			Apr. 30	Mar. 25	Apr. 1	Apr. 8	Apr. 15	Apr. 22
		1	2	3	4	5	6	7
1 Total Reserves	₹ Crore	4355951	4707396	4592504	4583925	4598531	4592398	4568295
	US \$ Million	588020	617648	606475	604004	603694	600423	597728
1.1 Foreign Currency Assets	₹ Crore	4045137	4195294	4087017	4080361	4088715	4083917	4072243
	US \$ Million	546059	550454	539727	537645	536768	533933	532823
1.2 Gold	₹ Crore	262709	329562	323596	322692	328649	327120	317972
	US \$ Million	35464	43241	42734	42519	43145	42768	41604
1.3 SDRs	Volume (Metric Tonnes)	695.31	760.42	760.42	760.42	760.42	760.42	761.35
	SDRs Million	1049	13657	13657	13657	13657	13657	13657
1.4 Reserve Tranche Position in IMF	₹ Crore	11168	143446	142960	142212	142400	142737	139857
	US \$ Million	1508	18821	18879	18738	18694	18662	18299

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

No. 33: Non-Resident Deposits

(US\$ Million)

Scheme	Outstanding					Flows	
	2021-22	2021		2022		2020-21	2021-22
		Mar.	Feb.	Mar.	Apr.-Mar.	Apr.-Mar.	Apr.-Mar.
	1	2	3	4	5	6	7
1 NRI Deposits	139,020	141,895	139,572	139,020	7,364	3,232	
1.1 FCNR(B)	16,918	20,473	17,293	16,918	-3,771	-3,555	
1.2 NR(E)RA	100,801	102,579	101,116	100,801	8,845	3,332	
1.3 NRO	21,301	18,842	21,163	21,301	2,290	3,454	

No. 34: Foreign Investment Inflows

(US\$ Million)

Item	2021-22	2020-21		2021-22		2021		2022	
		Apr.-Mar.	Apr.-Mar.	Mar.	Feb.	Mar.			
	1	2	3	4	5	6			
1.1 Net Foreign Direct Investment (1.1.1–1.1.2)	39,290	43,955	39,290	755	4,224	2,742			
1.1.1 Direct Investment to India (1.1.1.1–1.1.2)	54,971	54,927	54,971	2,067	4,884	4,298			
1.1.1.1 Gross Inflows/Gross Investments	83,572	81,973	83,572	4,709	6,448	6,676			
1.1.1.1.1 Equity	59,826	61,088	59,826	3,001	4,747	4,723			
1.1.1.1.1.1 Government (SIA/FIPB)	1,698	948	1,698	6	18	60			
1.1.1.1.1.2 RBI	42,932	51,597	42,932	2,252	3,366	4,226			
1.1.1.1.1.3 Acquisition of shares	14,143	7,091	14,143	613	1,234	307			
1.1.1.1.1.4 Equity capital of unincorporated bodies	1,052	1,452	1,052	129	129	129			
1.1.1.1.2 Reinvested earnings	18,647	16,935	18,647	1,506	1,506	1,506			
1.1.1.1.3 Other capital	5,100	3,950	5,100	202	195	446			
1.1.1.2 Repatriation/Disinvestment	28,602	27,046	28,602	2,643	1,564	2,378			
1.1.1.2.1 Equity	27,184	26,983	27,184	2,631	1,480	2,106			
1.1.1.2.2 Other capital	1,417	63	1,417	11	84	272			
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3–1.1.2.4)	15,680	10,972	15,680	1,311	660	1,556			
1.1.2.1 Equity capital	8,788	5,583	8,788	570	216	993			
1.1.2.2 Reinvested Earnings	2,744	3,013	2,744	251	251	251			
1.1.2.3 Other Capital	7,539	6,688	7,539	1,061	334	1,128			
1.1.2.4 Repatriation/Disinvestment	3,391	4,313	3,391	571	141	816			
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3–1.2.4)	-17,225	36,137	-17,225	-792	-5,492	-5,251			
1.2.1 GDRs/ADRs	—	—	—	—	—	—			
1.2.2 FIIs	-14,541	38,725	-14,541	-489	-5,372	-5,201			
1.2.3 Offshore funds and others	—	—	—	—	—	—			
1.2.4 Portfolio investment by India	2,683	2,589	2,683	303	121	50			
1 Foreign Investment Inflows	22,066	80,092	22,066	-36	-1,268	-2,509			

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

(US\$ Million)

Item	2021-22	2021		2022		
		Mar.	Jan.	Feb.	Mar.	
	1	2	3	4	5	
1 Outward Remittances under the LRS	19610.77	1547.80	2018.31	1823.35	1968.77	
1.1 Deposit	830.05	151.49	66.27	54.20	182.61	
1.2 Purchase of immovable property	112.90	11.07	8.58	8.07	16.35	
1.3 Investment in equity/debt	746.57	89.54	73.53	60.39	104.51	
1.4 Gift	2336.29	224.75	200.23	201.36	276.19	
1.5 Donations	16.55	0.65	1.53	3.28	0.65	
1.6 Travel	6909.04	335.95	989.05	980.45	776.64	
1.7 Maintenance of close relatives	3302.37	330.04	315.61	282.61	391.02	
1.8 Medical Treatment	37.79	2.98	3.77	3.69	4.21	
1.9 Studies Abroad	5165.33	390.55	345.76	216.07	202.25	
1.10 Others	153.88	10.77	13.98	13.23	14.33	

**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	
			April	March	April	May
	1	2	3	4	5	
40-Currency Basket (Base: 2015-16=100)						
1 Trade-weighted						
1.1 NEER	93.92	93.13	92.26	92.74	93.31	
1.2 REER	103.46	104.66	100.90	103.39	103.64	
2 Export-weighted						
2.1 NEER	93.59	93.55	92.40	93.72	94.48	
2.2 REER	102.96	103.48	99.84	102.30	102.62	
6-Currency Basket (Trade-weighted)						
1 Base: 2015-16 = 100						
1.1 NEER	88.45	87.03	86.56	86.42	87.59	
1.2 REER	101.84	102.27	99.72	100.92	103.58	
2 Base: 2020-21 = 100						
2.1 NEER	100.00	98.39	97.86	97.70	99.03	
2.2 REER	100.00	100.42	97.92	99.10	101.71	

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

(Amount in US\$ Million)

Item	2020-21	2021		2022	
		Mar	Feb	Mar	Mar
		1	2	3	4
1 Automatic Route					
1.1 Number	1063	106	71	115	
1.2 Amount	26799	3883	805	3938	
2 Approval Route					
2.1 Number	13	5	2	2	
2.2 Amount	8456	5350	1523	1104	
3 Total (1+2)					
3.1 Number	1076	111	73	117	
3.2 Amount	35255	9233	2328	5042	
4 Weighted Average Maturity (in years)					
5 Interest Rate (per cent)					
5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans	6.03	7.35	6.30	5.90	
5.2 Interest rate range for Fixed Rate Loans	0.00-13.00	0.00-10.69	0.00-12.00	0.00-11.50	
Borrower Category					
I. Corporate Manufacturing	12827	710	491	680	
II. Corporate-Infrastructure	9985	3952	1324	2987	
a.) Transport	636	27	1308	36	
b.) Energy	2713	1425	7	1150	
c.) Water and Sanitation	151	0	0	0	
d.) Communication	757	750	0	750	
e.) Social and Commercial Infrastructure	161	0	0	0	
f.) Exploration,Mining and Refinery	2946	1750	0	1051	
g.) Other Sub-Sectors	2622	0	9	0	
III. Corporate Service-Sector	1894	333	129	53	
IV. Other Entities	1026	0	0	9	
a.) units in SEZ	26	0	0	9	
b.) SIDBI	0				
c.) Exim Bank	1000	0	0	0	
V. Banks	0	0	0	0	
VI. Financial Institution (Other than NBFC)	2110	2110	0	0	
VII. NBFCs	6934	1809	372	1216	
a). NBFC- IFC/AFC	6024	1750	273	1118	
b). NBFC-MFI	84	9	0	27	
c). NBFC-Others	827	50	99	71	
VIII. Non-Government Organization (NGO)	0	0	0	0	
IX. Micro Finance Institution (MFI)	8	0	0	0	
X. Others	470	319	12	97	

No. 38: India's Overall Balance of Payments

(US\$ Million)

Item	Oct-Dec 2020			Oct-Dec 2021(P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance of Payments(1+2+3)	328716	296233	32483	427028	426562	465
1 CURRENT ACCOUNT (1.1+ 1.2)	156966	159200	-2235	205430	228454	-23024
1.1 MERCHANDISE	77218	111820	-34602	108970	169395	-60425
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	79748	47380	32367	96461	59059	37402
1.2.1 Services	53339	30103	23237	67018	39207	27811
1.2.1.1 Travel	2170	2836	-667	2745	4335	-1590
1.2.1.2 Transportation	5602	5147	455	8950	10037	-1088
1.2.1.3 Insurance	575	577	-2	845	644	201
1.2.1.4 G.n.i.e.	179	260	-82	223	264	-41
1.2.1.5 Miscellaneous	44815	21282	23532	54256	23927	30329
1.2.1.5.1 Software Services	25782	2312	23470	31740	3384	28356
1.2.1.5.2 Business Services	12930	12807	123	15312	13722	1590
1.2.1.5.3 Financial Services	1068	1192	-124	1354	1535	-181
1.2.1.5.4 Communication Services	738	381	357	801	276	524
1.2.2 Transfers	20757	1498	19258	23528	2216	21312
1.2.2.1 Official	62	298	-236	132	267	-135
1.2.2.2 Private	20695	1200	19494	23396	1949	21447
1.2.3 Income	5652	15779	-10128	5914	17636	-11721
1.2.3.1 Investment Income	4118	15063	-10945	4267	16841	-12574
1.2.3.2 Compensation of Employees	1534	717	818	1647	794	853
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	171174	137033	34141	221313	198108	23205
2.1 Foreign Investment (2.1.1+2.1.2)	120012	81415	38597	147673	148394	-721
2.1.1 Foreign Direct Investment	28407	11027	17380	19591	14471	5120
2.1.1.1 In India	26926	6932	19994	19015	10192	8823
2.1.1.1.1 Equity	21843	6919	14924	12259	9936	2324
2.1.1.1.2 Reinvested Earnings	4392		4392	5073		5073
2.1.1.1.3 Other Capital	691	13	678	1683	257	1426
2.1.1.2 Abroad	1480	4094	-2614	576	4278	-3702
2.1.1.2.1 Equity	1480	1949	-469	576	2215	-1639
2.1.1.2.2 Reinvested Earnings	0	753	-753	0	663	-663
2.1.1.2.3 Other Capital	0	1392	-1392	0	1400	-1400
2.1.2 Portfolio Investment	91605	70388	21217	128082	133924	-5842
2.1.2.1 In India	91216	69514	21703	127509	132213	-4704
2.1.2.1.1 FIIs	91216	69514	21703	127509	132213	-4704
2.1.2.1.1.1 Equity	80566	60741	19825	115423	119516	-4093
2.1.2.1.1.2 Debt	10650	8772	1877	12086	12697	-611
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	389	875	-485	573	1711	-1138
2.2 Loans (2.2.1+2.2.2+2.2.3)	19712	19393	319	29363	19137	10226
2.2.1 External Assistance	2567	1383	1184	2692	1399	1293
2.2.1.1 By India	10	21	-11	13	16	-3
2.2.1.2 To India	2557	1362	1195	2680	1383	1297
2.2.2 Commercial Borrowings	6692	7786	-1094	6041	6092	-51
2.2.2.1 By India	970	484	486	352	241	111
2.2.2.2 To India	5722	7302	-1580	5689	5851	-162
2.2.3 Short Term to India	10453	10224	229	20629	11645	8984
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	9538	10224	-686	12003	11645	357
2.2.3.2 Suppliers' Credit up to 180 days	915	0	915	8626	0	8626
2.3 Banking Capital (2.3.1+2.3.2)	21093	28707	-7614	25913	17707	8206
2.3.1 Commercial Banks	20700	28707	-8007	25913	17501	8412
2.3.1.1 Assets	5384	15872	-10489	11213	6154	5058
2.3.1.2 Liabilities	15316	12834	2481	14700	11346	3353
2.3.1.2.1 Non-Resident Deposits	14151	11183	2969	12141	10809	1332
2.3.2 Others	393	0	393	0	206	-206
2.4 Rupee Debt Service						
2.5 Other Capital	10358	7519	2839	18365	12871	5494
3 Errors & Omissions	576		576	284		284
4 Monetary Movements (4.1+ 4.2)	0	32483	-32483	0	465	-465
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)		32483	-32483	0	465	-465

Note : P : Preliminary

No. 39: India's Overall Balance of Payments

Item	Oct-Dec 2020			Oct-Dec 2021(P)			(₹ Crore)
	Credit	Debit	Net	Credit	Debit	Net	
	1	2	3	4	5	6	
Overall Balance of Payments(1+2+3)	2424516	2184933	239583	3199638	3196151	3487	
1 CURRENT ACCOUNT (1.1+ 1.2)	1157735	1174217	-16482	1539250	1711763	-172513	
1.1 MERCHANDISE	569540	824754	-255214	816489	1269245	-452756	
1.2 INVISIBLES (1.2.1+1.2.2+1.2.3)	588196	349463	238733	722761	442518	280243	
1.2.1 Services	393415	222028	171388	502154	293770	208384	
1.2.1.1 Travel	16002	20921	-4919	20568	32478	-11910	
1.2.1.2 Transportation	41319	37963	3355	67059	75208	-8149	
1.2.1.3 Insurance	4238	4254	-17	6329	4826	1503	
1.2.1.4 G.n.i.e.	1317	1918	-601	1668	1976	-309	
1.2.1.5 Miscellaneous	330540	156971	173569	406530	179282	227248	
1.2.1.5.1 Software Services	190159	17051	173108	237819	25352	212467	
1.2.1.5.2 Business Services	95368	94463	905	114730	102817	11913	
1.2.1.5.3 Financial Services	7879	8793	-914	10149	11503	-1354	
1.2.1.5.4 Communication Services	5440	2809	2632	6000	2071	3929	
1.2.2 Transfers	153095	11051	142044	176292	16607	159685	
1.2.2.1 Official	457	2199	-1742	991	2002	-1011	
1.2.2.2 Private	152638	8852	143786	175301	14605	160696	
1.2.3 Income	41685	116384	-74699	44315	132141	-87826	
1.2.3.1 Investment Income	30370	111099	-80729	31975	126190	-94216	
1.2.3.2 Compensation of Employees	11315	5285	6030	12340	5951	6389	
2 CAPITAL ACCOUNT (2.1+2.2+2.3+2.4+2.5)	1262531	1010716	251816	1658258	1484387	173871	
2.1 Foreign Investment (2.1.1+2.1.2)	885174	600491	284682	1106486	1111889	-5404	
2.1.1 Foreign Direct Investment	209519	81329	128190	146792	108426	38366	
2.1.1.1 In India	198601	51132	147469	142477	76370	66107	
2.1.1.1.1 Equity	161110	51035	110074	91857	74446	17411	
2.1.1.1.2 Reinvested Earnings	32393	0	32393	38013	0	38013	
2.1.1.1.3 Other Capital	5098	96	5002	12608	1925	10683	
2.1.1.2 Abroad	10918	30197	-19279	4315	32056	-27741	
2.1.1.2.1 Equity	10918	14377	-3459	4315	16597	-12282	
2.1.1.2.2 Reinvested Earnings	0	5556	-5556	0	4971	-4971	
2.1.1.2.3 Other Capital	0	10264	-10264	0	10487	-10487	
2.1.2 Portfolio Investment	675655	519162	156492	959694	1003463	-43770	
2.1.2.1 In India	672784	512712	160072	955401	990645	-35244	
2.1.2.1.1 FIIs	672784	512712	160072	955401	990645	-35244	
2.1.2.1.1.1 Equity	594234	448009	146225	864845	895510	-30665	
2.1.2.1.1.2 Debt	78550	64703	13847	90555	95135	-4580	
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0	
2.1.2.2 Abroad	2871	6450	-3580	4293	12818	-8525	
2.2 Loans (2.2.1+2.2.2+2.2.3)	145387	143035	2352	220011	143386	76625	
2.2.1 External Assistance	18933	10202	8731	20174	10483	9690	
2.2.1.1 By India	71	153	-82	95	120	-26	
2.2.1.2 To India	18862	10049	8813	20079	10363	9716	
2.2.2 Commercial Borrowings	49355	57424	-8070	45268	45646	-378	
2.2.2.1 By India	7153	3567	3586	2638	1806	833	
2.2.2.2 To India	42202	53857	-11655	42629	43840	-1211	
2.2.3 Short Term to India	77100	75409	1690	154570	87257	67313	
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	70350	75409	-5059	89934	87257	2677	
2.2.3.2 Suppliers' Credit up to 180 days	6749	0	6749	64636	0	64636	
2.3 Banking Capital (2.3.1+2.3.2)	155574	211734	-56160	194158	132675	61483	
2.3.1 Commercial Banks	152674	211734	-59060	194158	131130	63028	
2.3.1.1 Assets	39708	117071	-77362	84016	46113	37902	
2.3.1.2 Liabilities	112966	94663	18303	110142	85016	25126	
2.3.1.2.1 Non-Resident Deposits	104375	82480	21896	90969	80991	9978	
2.3.2 Others	2900	0	2900	0	1546	-1546	
2.4 Rupee Debt Service	0	0	0	0	0	0	
2.5 Other Capital	76397	55456	20941	137603	96436	41167	
3 Errors & Omissions	4249	0	4249	2129	0	2129	
4 Monetary Movements (4.1+ 4.2)	0	239583	-239583	0	3487	-3487	
4.1 I.M.F.	0	0	0	0	0	0	
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	0	239583	-239583	0	3487	-3487	

Note : P: Preliminary

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

Item	(US\$ Million)					
	Oct-Dec 2020			Oct-Dec 2021(P)		
	Credit 1	Debit 2	Net 3	Credit 4	Debit 5	Net 6
1 Current Account (1.A+1.B+1.C)						
1.A Goods and Services (1.A.a+1.A.b)						
1.A.a Goods (1.A.a.1 to 1.A.a.3)						
1.A.a.1 General merchandise on a BOP basis	156961	159174	-2212	205419	228432	-23013
1.A.a.2 Net exports of goods under merchanting	130557	141923	-11365	175988	208602	-32614
1.A.a.3 Nonmonetary gold	77218	111820	-34602	108970	169395	-60425
1.A.b Services (1.A.b.1 to 1.A.b.13)						
1.A.b.1 Manufacturing services on physical inputs owned by others	76304	101812	-25508	108854	155340	-46486
1.A.b.2 Maintenance and repair services n.i.e.	914	0	914	116	0	116
1.A.b.3 Transport	5602	5147	455	8950	10037	-1088
1.A.b.4 Travel	2170	2836	-667	2745	4335	-1590
1.A.b.5 Construction	619	705	-86	750	592	158
1.A.b.6 Insurance and pension services	575	577	-2	845	644	201
1.A.b.7 Financial services	1068	1192	-124	1354	1535	-181
1.A.b.8 Charges for the use of intellectual property n.i.e.	359	2297	-1937	238	2363	-2125
1.A.b.9 Telecommunications, computer, and information services	26593	2810	23783	32638	3813	28825
1.A.b.10 Other business services	12930	12807	123	15312	13722	1590
1.A.b.11 Personal, cultural, and recreational services	579	768	-190	834	1205	-371
1.A.b.12 Government goods and services n.i.e.	179	260	-82	223	264	-41
1.A.b.13 Others n.i.e.	2579	408	2171	2933	286	2647
1.B Primary Income (1.B.1 to 1.B.3)						
1.B.1 Compensation of employees	5652	15779	-10128	5914	17636	-11721
1.B.2 Investment income	1534	717	818	1647	794	853
1.B.2.1 Direct investment	3126	14713	-11587	2886	16554	-13668
1.B.2.2 Portfolio investment	1631	9693	-8062	1568	11635	-10067
1.B.2.3 Other investment	67	1974	-1906	88	1941	-1853
1.B.2.4 Reserve assets	130	3045	-2916	82	2976	-2893
1.B.3 Other primary income	1298	1	1297	1147	2	1144
1.C Secondary Income (1.C.1+1.C.2)						
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	20752	1472	19281	23516	2194	21322
1.C.1.1 Personal transfers (Current transfers between resident and/ non-resident households)	20695	1200	19494	23396	1949	21447
1.C.1.2 Other current transfers	19969	847	19122	22443	1359	21084
1.C.2 General government	725	353	373	953	590	363
2 Capital Account (2.1+2.2)						
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	98	265	-167	227	430	-202
2.2 Capital transfers	4	109	-105	94	166	-71
3 Financial Account (3.1 to 3.5)						
3.1 Direct Investment (3.1A+3.1B)						
3.1.A Direct Investment in India	171080	169277	1803	221098	198166	22932
3.1.A.1 Equity and investment fund shares	28407	11027	17380	19591	14471	5120
3.1.A.1.1 Equity other than reinvestment of earnings	26926	6932	19994	19015	10192	8823
3.1.A.1.2 Reinvestment of earnings	26235	6919	19316	17333	9936	7397
3.1.A.2 Debt instruments	21843	6919	14924	12259	9936	2324
3.1.A.2.1 Direct investor in direct investment enterprises	4392	4392	5073	5073	5073	5073
3.1.B Direct Investment by India	691	13	678	1683	257	1426
3.1.B.1 Equity and investment fund shares	1480	4094	-2614	576	4278	-3702
3.1.B.1.1 Equity other than reinvestment of earnings	1480	2702	-1222	576	2879	-2303
3.1.B.1.2 Reinvestment of earnings	1480	1949	-469	576	2215	-1639
3.1.B.2 Debt instruments	0	1392	-1392	0	1400	-1400
3.1.B.2.1 Direct investor in direct investment enterprises	1392	-1392	1400	1400	1400	-1400
3.2 Portfolio Investment						
3.2.A Portfolio Investment in India	91605	70388	21217	128082	133924	-5842
3.2.1 Equity and investment fund shares	91216	69514	21703	127509	132213	-4704
3.2.2 Debt securities	80566	60741	19825	115423	119516	-4093
3.2.B Portfolio Investment by India	10650	8772	1877	12086	12697	-611
3.3 Financial derivatives (other than reserves) and employee stock options						
3.4 Other investment						
3.4.1 Other equity (ADRs/GDRs)	2748	3818	-1071	4851	6752	-1902
3.4.2 Currency and deposits	48321	51562	-3241	68574	42554	26020
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	0	0	0	0	0	0
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	14544	11183	3362	12141	11015	1125
3.4.2.3 General government	393	0	393	0	206	-206
3.4.2.4 Other sectors	393	0	0	0	0	0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	14151	11183	2969	12141	10809	1332
3.4.3.A Loans to India	15807	26693	-10886	22506	14183	8323
3.4.3.B Loans by India	14827	26189	-11361	22141	13926	8215
3.4.4 Insurance, pension, and standardized guarantee schemes	979	504	475	365	257	108
3.4.5 Trade credit and advances	55	44	11	70	89	-19
3.4.6 Other accounts receivable/payable - other	10453	10224	229	20629	11645	8984
3.4.7 Special drawing rights	7462	3418	4044	13229	5621	7607
3.5 Reserve assets						
3.5.1 Monetary gold	0	32483	-32483	0	465	-465
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	32483	-32483	0	465	-465
4 Total assets/liabilities						
4.1 Equity and investment fund shares	171080	169277	1803	221098	198166	22932
4.2 Debt instruments	111473	75100	36373	138825	140882	-2057
4.3 Other financial assets and liabilities	52145	58277	-6131	69044	51197	17847
5 Net errors and omissions						
	576	576	284	284	284	284

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

Item	(₹ Crore)					
	Oct-Dec 2020			Oct-Dec 2021(P)		
	Credit	Debit	Net	Credit	Debit	Net
1 Current Account (1.A+1.B+1.C)						
1.A Goods and Services (1.A.a+1.A.b)						
1.A.a Goods (1.A.a.1 to 1.A.a.3)						
1.A.a.1 General merchandise on a BOP basis	962955	1046782	-83827	1318643	1563015	-244372
1.A.a.2 Net exports of goods under merchanting	569540	824754	-255214	816489	1269245	-452756
1.A.a.3 Nonmonetary gold	562796	750936	-188140	815620	1163930	-348311
1.A.a.4 Other goods	6744	0	6744	869	0	869
1.A.b Services (1.A.b.1 to 1.A.b.13)						
1.A.b.1 Manufacturing services on physical inputs owned by others	364	34	330	967	127	839
1.A.b.2 Maintenance and repair services n.i.e.	281	2143	-1863	506	2950	-2444
1.A.b.3 Transport	41319	37963	3355	67059	75208	-8149
1.A.b.4 Travel	16002	20921	-4919	20568	32478	-11910
1.A.b.5 Construction	4565	5197	-633	5621	4437	1183
1.A.b.6 Insurance and pension services	4238	4254	-17	6329	4826	1503
1.A.b.7 Financial services	7879	8793	-914	10149	11503	-1354
1.A.b.8 Charges for the use of intellectual property n.i.e.	2651	16941	-14290	1784	17709	-15926
1.A.b.9 Telecommunications, computer, and information services	196143	20727	175416	244549	28566	215983
1.A.b.10 Other business services	95368	94463	905	114730	102817	11913
1.A.b.11 Personal, cultural, and recreational services	4269	5668	-1398	6250	9030	-2780
1.A.b.12 Government goods and services n.i.e.	1317	1918	-601	1668	1976	-309
1.A.b.13 Others n.i.e.	19020	3006	16015	21975	2142	19833
1.B Primary Income (1.B.1 to 1.B.3)						
1.B.1 Compensation of employees	41685	116384	-74699	44315	132141	-87826
1.B.2 Investment income	11315	5285	6030	12340	5951	6389
1.B.2.1 Direct investment	23057	108522	-85465	21622	124037	-102415
1.B.2.2 Portfolio investment	12030	71495	-59464	11752	87181	-75429
1.B.2.3 Other investment	497	14556	-14059	661	14541	-13881
1.B.2.4 Reserve assets	957	22462	-21506	617	22297	-21679
1.B.3 Other primary income	9573	9	9564	8592	18	8574
1.C Secondary Income (1.C.1+1.C.2)						
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	153064	10855	142209	176205	16442	159763
1.C.1.1 Personal transfers (Current transfers between resident and/ non-resident households)	152638	8852	143786	175301	14605	160696
1.C.1.2 Other current transfers	147287	6249	141038	168163	10186	157977
1.C.2 General government	5351	2603	2748	7138	4419	2719
2 Capital Account (2.1+2.2)						
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	724	1955	-1232	1704	3220	-1516
2.2 Capital transfers	32	803	-772	707	1241	-535
3 Financial Account (3.1 to 3.5)						
3.1 Direct Investment (3.1A+3.1B)						
3.1.A Direct Investment in India	1261839	1248540	13299	1656642	1484820	171822
3.1.A.1 Equity and investment fund shares	209519	81329	128190	146792	108426	38366
3.1.A.1.1 Equity other than reinvestment of earnings	198601	51132	147469	142477	76370	66107
3.1.A.1.2 Reinvestment of earnings	193502	51035	142467	129870	74446	55424
3.1.A.2 Debt instruments	161110	51035	110074	91857	74446	17411
3.1.A.2.1 Direct investor in direct investment enterprises	32393	0	32393	38013	0	38013
3.1.A.2.1.1 Direct investor in direct investment enterprises	5098	96	5002	12608	1925	10683
3.1.A.2.1.2 Reinvestment of earnings	5098	96	5002	12608	1925	10683
3.1.B Direct Investment by India	10918	30197	-19279	4315	32056	-27741
3.1.B.1 Equity and investment fund shares	10918	19933	-9015	4315	21568	-17253
3.1.B.1.1 Equity other than reinvestment of earnings	10918	14377	-3459	4315	16597	-12282
3.1.B.1.2 Reinvestment of earnings	0	5556	-5556	0	4971	-4971
3.1.B.2 Debt instruments	0	10264	-10264	0	10487	-10487
3.1.B.2.1 Direct investor in direct investment enterprises	0	10264	-10264	0	10487	-10487
3.2 Portfolio Investment						
3.2.A Portfolio Investment in India	675655	519162	156492	959694	1003463	-43770
3.2.A.1 Equity and investment fund shares	672784	512712	160072	955401	990645	-35244
3.2.A.2 Debt securities	594234	448009	146225	864845	895510	-30665
3.2.B Portfolio Investment by India	78550	64703	13847	90555	95135	-4580
3.2.B.1 Equity and investment fund shares	2871	6450	-3580	4293	12818	-8525
3.2.B.2 Debt instruments	20265	28161	-7896	36345	50593	-14248
3.3 Financial derivatives (other than reserves) and employee stock options						
3.4 Other investment						
3.4.1 Other equity (ADRs/GDRs)	356400	380304	-23904	513811	318850	194961
3.4.2 Currency and deposits	0	0	0	0	0	0
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	107275	82480	24796	90969	82537	8432
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	2900	0	2900	0	1546	-1546
3.4.2.3 General government	104375	82480	21896	90969	80991	9978
3.4.2.4 Other sectors	0	0	0	0	0	0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	116586	196880	-80294	168631	106268	62362
3.4.3.A Loans to India	109363	193160	-83798	165898	104342	61555
3.4.3.B Loans by India	7224	3720	3504	2733	1926	807
3.4.4 Insurance, pension, and standardized guarantee schemes	404	326	78	522	668	-146
3.4.5 Trade credit and advances	77100	75409	1690	154570	87257	67313
3.4.6 Other accounts receivable/payable - other	55035	25209	29825	99120	42120	56999
3.4.7 Special drawing rights	0	0	0	0	0	0
3.5 Reserve assets						
3.5.1 Monetary gold	0	239583	-239583	0	3487	-3487
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	239583	-239583	0	3487	-3487
4 Total assets/liabilities						
4.1 Equity and investment fund shares	1261839	1248540	13299	1656642	1484820	171822
4.2 Debt instruments	822194	553914	268280	1040190	1055603	-15414
4.3 Other financial assets and liabilities	384610	429833	-45223	517332	383609	133724
5 Net errors and omissions						
	55035	264793	-209758	99120	45607	53512
	4249	4249	2129	0	2129	

Note : P: Preliminary

No. 42: International Investment Position

(US\$ Million)

Item	As on Financial Year /Quarter End							
	2020-21		2020		2021			
			Dec.		Sep.		Dec.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8
1. Direct investment Abroad/in India	193929	482234	190857	480255	202675	506835	206378	514292
1.1 Equity Capital*	122726	456947	122489	454603	126945	480753	129248	487905
1.2 Other Capital	71203	25286	68368	25651	75730	26082	77130	26386
2. Portfolio investment	7936	278524	6277	270276	8578	282598	9716	277231
2.1 Equity	2340	177278	2482	170630	4590	177034	6444	172794
2.2 Debt	5596	101245	3795	99647	3988	105564	3272	104437
3. Other investment	80606	453950	69382	446978	84517	478419	76504	492569
3.1 Trade credit	5644	100343	3196	102598	11819	104450	12891	113463
3.2 Loan	13335	197464	10610	192181	10831	201073	8871	203970
3.3 Currency and Deposits	42436	143760	37343	142491	42302	142904	34796	143502
3.4 Other Assets/Liabilities	19191	12384	18234	9708	19565	29991	19946	31633
4. Reserves	576984		585771		635363		633614	
5. Total Assets / Liabilities	859454	1214707	852286	1197509	931134	1267851	926212	1284091
6. Net IIP (Assets - Liabilities)			-355253		-345223		-336718	
								-357880

Note: * Equity capital includes share of investment funds and reinvested earnings.

Payment and Settlement Systems

No.43: Payment System Indicators

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

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2021-22	2021	2022		FY 2021-22	2021	2022	
		Mar.	Feb.	Mar.		Mar.	Feb.	Mar.
	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	2.92	2.92	3.25	206873111	17383479	17994586	20588727
1.1 Govt. Securities Clearing (1.1.1 to 1.1.3)	12.22	0.91	1.10	1.04	142072938	11182301	12914111	13682354
1.1.1 Outright	6.21	0.42	0.58	0.46	8793301	678873	721038	660443
1.1.2 Repo	3.09	0.26	0.25	0.30	51015712	4362390	4221392	5341282
1.1.3 Tri-party Repo	2.92	0.23	0.27	0.27	82263925	6141037	7971681	7680629
1.2 Forex Clearing	19.90	1.95	1.73	2.11	59775826	5828078	4540145	6232193
1.3 Rupee Derivatives @	0.88	0.06	0.10	0.11	5024347	373100	540330	674180
B. Payment Systems								
I Financial Market Infrastructures (FMIs)								
1 Credit Transfers - RTGS (1.1 to 1.2)	2078.39	202.35	180.29	230.04	128657517	12982215	10324618	14458955
1.1 Customer Transactions	2063.73	200.70	179.15	228.68	113319291	11427958	9277356	13069669
1.2 Interbank Transactions	14.66	1.65	1.13	1.36	15338225	1554257	1047262	1389286
II Retail								
2 Credit Transfers - Retail (2.1 to 2.7)	577631.89	37208.51	55283.72	66272.08	42722829	4053907	3806375	5062364
2.1 AePS (Fund Transfers) @	9.76	1.16	0.51	0.56	575	72	28	35
2.2 APBS \$	12298.50	1128.83	629.87	1154.92	133052	11086	13043	15462
2.3 ECS Cr	4920.01	—	—	4920.01	462279	—	—	462279
2.4 IMPS	41705.24	3631.44	4209.31	—	3708759	327236	384404	—
2.5 NACH Cr \$	18729.79	1648.84	1536.56	1825.88	1276801	164298	104998	131428
2.6 NEFT	40407.29	3481.39	3632.58	4314.20	28725463	3046329	2477059	3492578
2.7 UPI @	459561.30	27316.85	45274.89	54056.51	8415900	504886	826843	960582
2.7.1 of which USSD @	11.99	0.94	0.68	0.91	177	15	10	12
3 Debit Transfers and Direct Debits (3.1 to 3.4)	12222.27	1038.84	1089.30	1136.67	1038335	86505	90746	98645
3.1 BHIM Aadhaar Pay @	227.73	12.92	15.23	19.47	6114	346	506	640
3.2 ECS Dr	—	—	—	—	—	—	—	—
3.3 NACH Dr \$	10787.53	920.42	948.20	979.27	1030532	86005	90056	97801
3.4 NETC (linked to bank account) @	1207.01	105.50	125.87	137.93	1690	154	184	204
4 Card Payments (4.1 to 4.2)	61785.64	5650.32	4840.43	5515.40	1701900	139705	143106	171214
4.1 Credit Cards (4.1.1 to 4.1.2)	22398.83	1887.27	1884.24	2237.51	971632	72319	86041	107101
4.1.1 PoS based \$	11124.59	1012.86	963.40	1134.33	380640	33286	32500	38773
4.1.2 Others \$	11274.23	874.41	920.84	1103.18	590992	39033	53541	68328
4.2 Debit Cards (4.2.1 to 4.2.1)	39476.78	3763.05	2956.19	3277.89	731368	67386	57065	64113
4.2.1 PoS based \$	23059.81	2229.12	1845.45	2081.16	452711	42816	36376	40831
4.2.2 Others \$	16416.97	1533.93	1110.75	1196.73	278658	24570	20689	23282
5 Prepaid Payment Instruments (5.1 to 5.2)	65812.39	5201.05	5626.89	6567.09	293658	21372	24649	27865
5.1 Wallets	52683.01	4182.92	4386.09	5016.86	226645	14856	17259	20054
5.2 Cards (5.2.1 to 5.2.2)	13129.38	1018.13	1240.79	1550.23	67014	6516	7390	7811
5.2.1 PoS based \$	1066.47	59.48	126.61	164.77	18123	1453	3360	2860
5.2.2 Others \$	12062.91	958.65	1114.18	1385.46	48891	5063	4030	4951
6 Paper-based Instruments (6.1 to 6.2)	6999.12	806.59	581.98	702.93	6650332	722031	615321	694335
6.1 CTS (NPCI Managed)	6999.12	806.59	581.98	702.93	6650332	722031	615321	694335
6.2 Others	0.00	0.00	0.00	0.00	—	—	—	—
Total - Retail Payments (2+3+4+5+6)	724451.29	49905.31	67422.32	80194.17	52407055	5023520	4680197	6054424
Total Payments (1+2+3+4+5+6)	726529.68	50107.66	67602.60	80424.21	181064571	18005734	15004815	20513379
Total Digital Payments (1+2+3+4+5)	719530.55	49301.07	67020.62	79721.28	174414239	17283703	14389494	19819044

PART II - Payment Modes and Channels

System	Volume (Lakh)				Value (₹ Crore)					
	FY 2021-22	2021		2022		FY 2021-22	2021		2022	
		Mar.	Feb.	Mar.	Mar.		Mar.	Feb.	Mar.	
	1	2	3	4	5	6	7	8		
A. Other Payment Channels										
1 Mobile Payments (mobile app based) (1.1 to 1.2)	507531	33082.40	48507.66	57378.43	14970883	1248779	1395093	1650284		
1.1 Intra-bank \$	40806	4852.88	3626.98	4218.03	2723849	270764	246931	296045		
1.2 Inter-bank \$	466726	28229.52	44880.68	53160.39	12247034	978015	1148163	1354239		
2 Internet Payments (Netbanking / Internet Browser Based) @ (2.1 to 2.2)	35667	3390.80	2697.65	3574.14	49787576	4976087	3824220	8520751		
2.1 Intra-bank @	7032	707.26	552.69	654.75	23192702	2355028	1635618	5037166		
2.2 Inter-bank @	28635	2683.55	2144.96	2919.39	26594875	2621059	2188602	3483584		
B. ATMs										
3 Cash Withdrawal at ATMs \$ (3.1 to 3.3)	65084	6040.02	5300.30	5767.24	3105624	285268	256463	281048		
3.1 Using Credit Cards \$	62	5.92	5.29	6.80	3130	307	264	344		
3.2 Using Debit Cards \$	64695	6007.92	5266.81	5728.28	3091415	283955	255218	279567		
3.3 Using Pre-paid Cards \$	327	26.18	28.20	32.16	11079	1007	981	1138		
4 Cash Withdrawal at PoS \$ (4.1 to 4.2)	92	22.38	2.46	2.79	793	119	39	57		
4.1 Using Debit Cards \$	79	19.49	2.15	2.21	557	114	20	21		
4.2 Using Pre-paid Cards \$	12	2.90	0.32	0.57	236	5	19	36		
5 Cash Withdrawal at Micro ATMs @	11126	763.86	928.46	1032.68	299776	22276	24975	28479		
5.1 AePS @	11126	763.86	928.46	1032.68	299776	22276	24975	28479		

PART III - Payment Infrastructures (Lakh)

System	FY 2021-22	2021		2022			
		Mar.	2022				
			Mar.	Feb.	Mar.		
1	2	3	4				
Payment System Infrastructures							
1 Number of Cards (1.1 to 1.2)	118458.27	9602.51	10067.74	9912.93			
1.1 Credit Cards	7983.22	620.49	717.08	736.27			
1.2 Debit Cards	110475.05	8982.02	9350.66	9176.66			
2 Number of PPIs @ (2.1 to 2.2)	296736.79	21952.60	27320.10	27408.39			
2.1 Wallets @	268372.27	20052.10	24605.03	24645.40			
2.2 Cards @	28364.52	1900.51	2715.07	2762.98			
3 Number of ATMs and CRMs (3.1 to 3.2)	29.21	2.39	2.47	2.48			
3.1 Bank owned ATMs \$ and CRMs #	25.82	2.14	2.16	2.17			
3.2 White Label ATMs \$	3.39	0.25	0.31	0.32			
4 Number of Micro ATMs @	65.95	4.04	7.16	7.81			
5 Number of PoS Terminals	615.09	47.20	58.34	60.70			
6 Bharat QR @	575.98	35.70	48.27	49.72			
7 UPI QR *	15324.59	925.22	1600.19	1727.34			

@: New inclusion w.e.f. November 2019.

#: Data reported by Co-operative Banks, LABs and RRBs included with effect from Dec 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	2020		2021	
			Mar.		Jan.	Feb.
			1	2	3	Mar.
1 Small Savings			Receipts	181237	32210	14261
			Outstanding	1259585	1078535	1210379
1.1 Total Deposits			Receipts	132687	18444	9820
			Outstanding	867494	734807	836976
1.1.1 Post Office Saving Bank Deposits			Receipts	39748	9882	2049
			Outstanding	205888	166140	192486
1.1.2 MGNREG			Receipts			
			Outstanding			
1.1.3 National Saving Scheme, 1987			Receipts	276	204	-26
			Outstanding	3419	3143	3060
1.1.4 National Saving Scheme, 1992			Receipts	166	32	0
			Outstanding	175	9	-17
1.1.5 Monthly Income Scheme			Receipts	12211	2109	1162
			Outstanding	221379	209168	219142
1.1.6 Senior Citizen Scheme 2004			Receipts	21009	2314	1886
			Outstanding	97051	76042	92800
1.1.7 Post Office Time Deposits			Receipts	41470	4972	3952
			Outstanding	207557	166087	199799
1.1.7.1 1 year Time Deposits			Outstanding	108205	92618	105928
1.1.7.2 2 year Time Deposits			Outstanding	7473	7097	7375
1.1.7.3 3 year Time Deposits			Outstanding	7227	7536	7285
1.1.7.4 5 year Time Deposits			Outstanding	84652	58836	79211
1.1.8 Post Office Recurring Deposits			Receipts	17807	-1069	797
			Outstanding	132029	114222	129709
1.1.9 Post Office Cumulative Time Deposits			Receipts	0	0	0
			Outstanding	-25	-25	-24
1.1.10 Other Deposits			Receipts	0	0	0
			Outstanding	21	21	21
1.2 Saving Certificates			Receipts	34860	4609	3909
			Outstanding	286863	252190	278848
1.2.1 National Savings Certificate VIII issue			Receipts	17361	2860	1903
			Outstanding	135348	117987	131173
1.2.2 Indira Vikas Patras			Receipts	-3	450	-1
			Outstanding	159	162	157
1.2.3 Kisan Vikas Patras			Receipts	-7911	-2814	-603
			Outstanding	-6776	1135	-5724
1.2.4 Kisan Vikas Patras - 2014			Receipts	25340	4095	2610
			Outstanding	147942	122602	143148
1.2.5 National Saving Certificate VI issue			Receipts	41	25	0
			Outstanding	-114	-155	-147
1.2.6 National Saving Certificate VII issue			Receipts	32	-7	0
			Outstanding	-74	-106	-103
1.2.7 Other Certificates			Outstanding	10378	10565	10344
1.3 Public Provident Fund			Receipts	13690	9157	532
			Outstanding	105228	91538	94555
						95170
						105228

Note : Data on receipts from April 2017 are net receipts, i.e., gross receipt minus gross payment.

Source: Accountant General, Post and Telegraphs.

No. 45 : Ownership Pattern of Central and State Governments Securities

(Per cent)

Category	Central Government Dated Securities				
	2020		2021		
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(A) Total (in ₹. Crore)	7357111	7635902	7882533	8235318	8439811
1 Commercial Banks	37.81	37.77	35.99	37.82	35.40
2 Non-Bank PDs	0.25	0.27	0.34	0.35	0.27
3 Insurance Companies	25.64	25.30	25.83	24.18	25.74
4 Mutual Funds	2.62	2.94	2.82	2.91	3.08
5 Co-operative Banks	1.83	1.82	1.82	1.50	1.82
6 Financial Institutions	1.00	1.00	1.43	1.17	1.69
7 Corporates	1.05	1.06	1.39	0.72	1.37
8 Foreign Portfolio Investors	2.10	1.87	1.79	1.81	1.66
9 Provident Funds	4.61	4.44	4.04	3.77	4.33
10 RBI	15.71	16.20	17.11	16.98	16.92
11. Others	7.37	7.33	7.43	8.79	7.73
11.1 State Governments	1.76	1.69	1.67	1.67	1.69

Category	State Governments Securities				
	2020		2021		
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(B) Total (in ₹. Crore)	3721573	3879982	4028849	4153508	4257578
1 Commercial Banks	34.19	33.69	33.75	35.94	34.41
2 Non-Bank PDs	0.36	0.48	0.39	0.44	0.40
3 Insurance Companies	30.25	30.04	29.67	27.50	28.85
4 Mutual Funds	1.92	1.82	1.74	1.97	1.91
5 Co-operative Banks	4.11	4.05	4.12	3.60	4.07
6 Financial Institutions	1.88	1.86	1.79	1.72	1.73
7 Corporates	0.45	0.49	1.45	1.32	1.70
8 Foreign Portfolio Investors	0.02	0.02	0.02	0.03	0.02
9 Provident Funds	21.20	22.00	21.09	18.27	20.66
10 RBI	0.81	0.77	0.88	0.85	0.83
11. Others	4.82	4.77	5.10	8.38	5.40
11.1 State Governments	0.18	0.18	0.18	0.18	0.19

Category	Treasury Bills				
	2020		2021		
	Dec.	Mar.	Jun.	Sep.	Dec.
	1	2	3	4	5
(C) Total (in ₹. Crore)	839729	690646	901327	763582	692869
1 Commercial Banks	54.75	55.54	52.25	50.22	47.01
2 Non-Bank PDs	1.65	2.82	1.82	1.33	1.53
3 Insurance Companies	4.50	5.61	4.75	4.12	6.29
4 Mutual Funds	18.98	17.80	19.93	17.72	13.72
5 Co-operative Banks	1.61	2.43	1.60	1.32	1.49
6 Financial Institutions	1.11	1.24	2.56	2.12	2.36
7 Corporates	2.01	3.16	3.00	2.40	3.13
8 Foreign Portfolio Investors	0.00	0.00	0.00	0.15	0.72
9 Provident Funds	0.09	0.22	0.10	0.37	0.85
10 RBI	0.68	0.49	2.58	2.63	0.00
11. Others	14.63	10.70	11.42	17.62	22.89
11.1 State Governments	13.27	5.98	7.97	12.64	18.92

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 March-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	391	23	1261	23	1040	2
2	Arunachal Pradesh	-	-	-	-	-	-
3	Assam	-	-	-	-	-	-
4	Bihar	-	-	-	-	-	-
5	Chhattisgarh	-	-	-	-	-	-
6	Goa	-	-	-	-	-	-
7	Gujarat	-	-	-	-	-	-
8	Haryana	72	4	926	4	23	1
9	Himachal Pradesh	-	-	-	-	-	-
10	Jammu & Kashmir UT	-	-	980	14	545	6
11	Jharkhand	-	-	-	-	-	-
12	Karnataka	-	-	-	-	-	-
13	Kerala	79	4	496	4	-	-
14	Madhya Pradesh	-	-	-	-	-	-
15	Maharashtra	-	-	-	-	-	-
16	Manipur	9	16	276	30	146	12
17	Meghalaya	-	-	-	-	-	-
18	Mizoram	-	-	-	-	-	-
19	Nagaland	33	5	39	2	-	-
20	Odisha	-	-	-	-	-	-
21	Puducherry	-	-	-	-	-	-
22	Punjab	-	-	-	-	-	-
23	Rajasthan	-	-	-	-	-	-
24	Tamil Nadu	-	-	-	-	-	-
25	Telangana	487	22	913	17	539	1
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 March 2022			
		Consolidated Sinking Fund (CSF)	Guarantee Redemption Fund (GRF)	Government Securities	Auction Treasury Bills (ATBs)
		1	2	3	4
1	Andhra Pradesh	9360	922	--	-
2	Arunachal Pradesh	2027	3	--	-
3	Assam	2886	71	--	-
4	Bihar	6299	--	--	-
5	Chhattisgarh	5578	--	1	4300
6	Goa	712	350	--	-
7	Gujarat	7033	539	--	-
8	Haryana	1363	1364	--	-
9	Himachal Pradesh	--	--	--	-
10	Jammu & Kashmir UT	--	--	--	-
11	Jharkhand	506	--	--	-
12	Karnataka	10393	--	--	20000
13	Kerala	2425	--	--	-
14	Madhya Pradesh	--	1035	--	-
15	Maharashtra	52606	929	--	12000
16	Manipur	174	113	--	-
17	Meghalaya	882	62	9	-
18	Mizoram	440	53	--	-
19	Nagaland	1863	38	--	-
20	Odisha	14682	1646	95	28573
21	Puducherry	381	--	--	861
22	Punjab	3027	--	8	-
23	Rajasthan	--	--	129	7100
24	Tamil Nadu	7492	--	40	13166
25	Telangana	6389	1397	--	-
26	Tripura	684	15	--	1400
27	Uttar Pradesh	3018	--	180	-
28	Uttarakhand	3889	154	--	-
29	West Bengal	10145	708	214	-
	Total	154255	9399	675	87400

No. 49: Market Borrowings of State Governments

(₹ Crore)

Sr. No.	State	2019-20		2020-21		2021-22						Total amount raised, so far in 2021-22	
						January		February		March			
		Gross Amount Raised	Net Amount Raised	Gross	Net								
1	2	3	4	5	6	7	8	9	10	11	12	13	
1	Andhra Pradesh	42415	33444	50896	41915	2500	1920	4000	3420	3943	3363	46443	36692
2	Arunachal Pradesh	1366	1287	767	767	163	163	-	-	-	-33	563	530
3	Assam	12906	10996	15030	14230	653	153	2200	2200	600	600	12753	10753
4	Bihar	25601	22601	27285	24685	2000	719	2000	2000	1489	334	28489	24334
5	Chhattisgarh	11680	10980	13000	10500	-	-	-	-	-	-1587	4000	913
6	Goa	2600	2000	3354	3054	100	100	-	-	200	150	2000	1450
7	Gujarat	38900	28600	44780	33280	4500	4500	4000	2500	5000	500	31054	13554
8	Haryana	24677	20677	30000	25550	1500	750	2500	2055	10000	5678	30500	20683
9	Himachal Pradesh	6580	4460	6000	3755	-	-250	-	-660	-	-710	4000	1875
10	Jammu & Kashmir UT	7869	6760	9328	6020	-	-	600	600	1562	-52	8562	5373
11	Jharkhand	7500	5656	9400	8900	-	-	-	-	3500	2691	5000	3191
12	Karnataka	48500	42500	69000	61900	20000	17500	17000	15000	-	-1500	59000	49000
13	Kerala	18073	12617	28566	23066	-	-1380	-	-1400	7000	5900	27000	18120
14	Madhya Pradesh	22371	16550	45573	38773	4000	1500	-	-	4000	1400	22000	13900
15	Maharashtra	48498	32998	69000	50022	5500	-500	4500	-2960	4000	1500	68750	40790
16	Manipur	1757	1254	1302	1044	59	59	60	60	180	180	1476	1326
17	Meghalaya	1344	1070	1777	1587	200	100	-	-	80	80	1608	1298
18	Mizoram	900	745	944	677	150	150	73	73	90	40	747	447
19	Nagaland	1000	423	1721	1366	-	-	-	-	440	185	1727	1222
20	Odisha	7500	6500	3000	500	-	-	-	-1000	-	-1500	-	-6473
21	Puducherry	970	470	1390	790	390	390	185	-215	300	167	1374	841
22	Punjab	27355	18470	32995	23467	4532	3932	1000	317	6500	4497	25814	12428
23	Rajasthan	39092	24686	57359	44273	4500	3883	3500	3326	7380	2730	51149	38243
24	Sikkim	809	481	1292	1292	201	201	-	-	382	382	1511	1471
25	Tamil Nadu	62425	49826	87977	76796	2900	-300	7500	4500	24600	23300	87000	72500
26	Telangana	37109	30697	43784	37365	6187	5767	3000	2580	3029	2609	45716	38667
27	Tripura	2928	2578	1916	1631	-	-50	-	-	-	-100	300	-
28	Uttar Pradesh	69703	52744	75500	59185	12500	11500	-	-1000	5000	2142	62500	42355
29	Uttarakhand	5100	4500	6200	5208	500	400	-	-	1000	700	3200	1800
30	West Bengal	56992	40882	59680	50180	6500	4700	-	-1000	13390	12722	67390	45199
	Grand Total	634521	487454	798816	651777	79535	55907	52118	30396	103665	66368	701626	492483

- : 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)	252658.0	513118.4	400437.3	446254.3	1612468.0
<i>Per cent of GDP</i>	5.1	10.6	7.8	8.7	8.0
I. Financial Assets	413192.2	604322.7	538186.1	843385.9	2399086.9
<i>Per cent of GDP</i>	8.4	12.4	10.5	16.4	12.0
of which:					
1. Total Deposits (a+b)	13020.4	299089.8	138131.8	473183.4	923425.5
(a) Bank Deposits	-9769.4	280588.7	130328.0	465529.7	866677.0
i. Commercial Banks	-13293.8	269475.4	66666.7	446006.7	768855.0
ii. Co-operative Banks	3524.4	11113.2	63661.3	19523.0	97822.0
(b) Non-Bank Deposits	22789.9	18501.2	7803.7	7653.7	56748.5
2. Life Insurance Funds	117394.9	107731.0	109895.6	37236.1	372257.5
3. Provident and Pension Funds (including PPF)	110601.0	113593.0	113676.0	117235.0	455104.9
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)	65930.8	65930.8	65930.8	65930.8	263723.4
II. Financial Liabilities	160534.2	91204.3	137748.8	397131.6	786618.9
<i>Per cent of GDP</i>	3.2	1.9	2.7	7.7	3.9
Loans (Borrowings) from					
1. Financial Corporations (a+b)	160500.7	91170.8	137715.2	397098.1	786484.7
(a) Banking Sector	141332.5	58250.2	121754.0	200413.2	521749.9
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)	623053.8	592327.3	506558.3	581769.1	2303708.6
<i>Per cent of GDP</i>	16.1	12.5	9.3	10.1	11.6
I. Financial Assets	828447.4	630907.1	676131.6	973510.9	3108997.0
<i>Per cent of GDP</i>	21.4	13.4	12.4	16.9	15.7
of which:					
1. Total Deposits (a+b)	297376.2	278589.7	158113.5	533651.5	1267730.9
(a) Bank Deposits	281155.1	264523.3	147037.2	535157.5	1227873.0
i. Commercial Banks	279010.5	262033.7	143558.6	471730.9	1156333.7
ii. Co-operative Banks	2144.6	2489.6	3478.6	63426.6	71539.3
(b) Non-Bank Deposits	16221.1	14066.4	11076.3	-1506.0	39857.9
2. Life Insurance Funds	122369.1	141443.4	155516.3	100812.3	520141.0
3. Provident and Pension Funds (including PPF)	121582.5	124106.5	124949.5	130185.5	500824.0
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)	77381.6	77381.6	77381.6	77381.6	309526.3
II. Financial Liabilities	205393.5	38579.8	169573.3	391741.8	805288.5
<i>Per cent of GDP</i>	5.3	0.8	3.1	6.8	4.1
Loans (Borrowings) from					
1. Financial Corporations (a+b)	205436.7	38623.0	169616.5	391785.8	805462.1
(a) Banking Sector	211005.3	13211.7	139387.5	304100.8	667705.3
of which:					
Commercial Banks	211259.3	13213.8	140514.3	242476.0	607463.5
(b) Other Financial Institutions	-5568.6	25411.3	30229.0	87685.1	137756.8
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	1022.9	2556.6
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 (Concl.)

Item	(Amount in ₹ Crore)	
	2021-22	
	Q1	Q2
Net Financial Assets (I-II)	760273.0	388307.9
<i>Per cent of GDP</i>	14.8	6.9
I. Financial Assets	631184.5	567403.7
<i>Per cent of GDP</i>	12.3	10.1
of which:		
1. Total Deposits (a+b)	146933.8	207184.4
(a) Bank Deposits	124803.6	201833.5
i. Commercial Banks	123282.3	200159.7
ii. Co-operative Banks	1521.3	1673.8
(b) Non-Bank Deposits	22130.2	5350.9
2. Life Insurance Funds	114617.8	127356.0
3. Provident and Pension Funds (including PPF)	129821.9	132967.9
4. Currency	128660.2	-68631.2
5. Investments	24929.6	82305.4
of which:		
(a) Mutual Funds	14573.0	63151.3
(b) Equity	4502.5	13218.5
6. Small Savings (excluding PPF)	85163.8	85163.8
II. Financial Liabilities	-129088.5	179095.8
<i>Per cent of GDP</i>	-2.5	3.2
Loans (Borrowings) from		
1. Financial Corporations (a+b)	-129109.8	179074.5
(a) Banking Sector	-105750.5	124240.8
of which:		
Commercial Banks	-98583.4	126251.1
(b) Other Financial Institutions	-23359.3	54833.7
i. Non-Banking Financial Companies	-31118.4	28880.1
ii. Housing Finance Companies	7132.0	24403.8
iii. Insurance Companies	627.1	1549.8
2. Non-Financial Corporations (Private Corporate Business)	33.8	33.8
3. General Government	-12.5	-12.5

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. Data as ratios to GDP have been calculated based on the Second Advance Estimates of National Income 2021-22 released on February 28, 2022.

3. Figures in the columns may not add up to the total due to rounding off.

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

Item	Jun-2019	Sep-2019	Dec-2019	Mar-2020
Financial Assets (a+b+c+d)	16130869.8	16439609.3	16829228.1	17002698.8
<i>Per cent of GDP</i>	83.7	84.4	85.3	84.7
(a) Bank Deposits (i+ii)	8831785.7	9111489.5	9239027.3	9688573.4
i. Commercial Banks	8131543.2	8401018.6	8467685.3	8913692.0
ii. Co-operative Banks	700242.5	710470.8	771341.9	774881.4
(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)	6490282.2	6581453.0	6719168.2	7116266.3
<i>Per cent of GDP</i>	33.7	33.8	34.0	35.4
Loans (Borrowings) from				
(a) Banking Sector	5268304.7	5326554.9	5448308.9	5648722.1
of which:				
i. Commercial Banks	4668496.4	4725631.3	4813008.7	5015222.9
ii. Co-operative Banks	513013.7	513764.2	542994.4	529720.6
(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)	17850174.9	18408441.6	19129606.6	19979862.7
<i>Per cent of GDP</i>	93.9	97.6	99.7	100.9
(a) Bank Deposits (i+ii)	9969728.5	10234251.8	10381289.0	10916446.4
i. Commercial Banks	9192702.5	9454736.2	9598294.8	10070025.7
ii. Co-operative Banks	777026.0	779515.6	782994.2	846420.7
(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)	7321703.0	7360326.0	7529942.6	7921728.4
<i>Per cent of GDP</i>	38.5	39.0	39.3	40.0
Loans (Borrowings) from				
(a) Banking Sector	5859727.5	5872939.2	6012326.7	6316427.4
of which:				
i. Commercial Banks	5226482.2	5239696.0	5380210.4	5622686.4
ii. Co-operative Banks	558551.1	558545.6	557545.8	608703.4
(b) Other Financial Institutions	1461975.5	1487386.9	1517615.9	1605301.0
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 (Concl.)

(Amount in ₹ Crore)

Item	Jun-2021	Sep-2021
Financial Assets (a+b+c+d)	20533386.0	21086975.2
<i>Per cent of GDP</i>	97.4	98.1
(a) Bank Deposits (i+ii)	11041250.0	11243083.5
i. Commercial Banks	10193308.0	10393467.7
ii. Co-operative Banks	847942.1	849615.9
(b) Life Insurance Funds	4894238.5	5105262.1
(c) Currency	2742897.3	2674266.1
(d) Mutual funds	1855000.1	2064363.5
Financial Liabilities (a+b)	7793017.9	7972092.4
<i>Per cent of GDP</i>	37.0	37.1
Loans (Borrowings) from		
(a) Banking Sector	6210676.9	6334917.7
of which:		
i. Commercial Banks	5524103.0	5650354.1
ii. Co-operative Banks	596687.9	603180.5
(b) Other Financial Institutions	1582341.0	1637174.6
of which:		
i. Non-Banking Financial Companies	755399.6	784279.7
ii. Housing Finance Companies	721510.0	745913.7

- 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 Second Advance Estimates of National Income 2021-22 released on February 28, 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

- NM₂ and NM₃ 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.
L₁ and L₂ are compiled monthly and L₃ 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 & 1.1.1.1.4: 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 (WLAs). 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**.

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Name of Publication	Price	
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2. Handbook of Statistics on the Indian States 2020-21	₹550 (Normal) ₹600 (inclusive of postage)	US\$ 24 (inclusive of air mail courier charges)
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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)
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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.
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