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GOVERNOR'S STATEMENT

*Governor's Statement**

Shaktikanta Das

As we celebrate India's 77th Independence Day in a few days, I am happy to note that the Indian economy is exuding enhanced strength and stability despite the massive shocks to global economy in recent years. Our economy has continued to grow at a reasonable pace, becoming the fifth largest economy in the world[1] and contributing around 15 per cent to global growth. We have also made significant progress towards controlling inflation. Our banks remain healthiest in more than a decade with historically high levels of capital, declining levels of non-performing assets and rising profitability. Corporate balance sheets are robust, with lower leverage, improving debt servicing capacity and strong profitability. Lower current account deficit and ample capital flows have imparted strength to our external sector. The resultant accretion to forex reserves has provided a buffer against external shocks. Overall, India's strong macroeconomic fundamentals have laid the foundations for sustainable growth.

In a moment like this, we need to continue with our efforts to maintain macro-financial stability while pushing our growth frontier further. India is uniquely placed to benefit from the ongoing transformational shifts in global economy in the wake of geopolitical realignments and technological innovations. A large economy marching ahead with vast domestic demand, untapped resources and demographic advantages, India can become the new growth engine for the world.

Decisions and Deliberation of the Monetary Policy Committee (MPC)

The Monetary Policy Committee (MPC) met on 8th, 9th and 10th August 2023. After detailed deliberation on all relevant aspects, it decided unanimously to keep the policy repo rate unchanged at 6.50 per cent. Consequently, the standing deposit facility (SDF) rate remains at 6.25 per cent and the marginal standing facility (MSF) rate and the Bank Rate at 6.75 per cent. The MPC also decided by a majority of 5 out of 6 members to remain focused on withdrawal of accommodation to ensure that inflation progressively aligns with the target, while supporting growth.

Let me now explain the MPC's rationale for these decisions on the policy rate and the stance. Headline inflation, after reaching a low of 4.3 per cent in May 2023, rose in June and is expected to surge during July-August led by vegetable prices. While the vegetable price shock may reverse quickly, possible *El Niño* weather conditions along with global food prices need to be watched closely against the backdrop of a skewed south-west monsoon so far. These developments warrant a heightened vigil on the evolving inflation trajectory. The cumulative rate hike of 250 basis points undertaken by the MPC is working its way into the economy. Nonetheless, domestic economic activity is holding up well and is likely to retain its momentum, despite weak external demand. Considering this confluence of factors, the MPC decided to remain watchful and evaluate the emerging situation. Consequently, the MPC decided to keep the policy repo rate unchanged at 6.50 per cent with preparedness to act, should the situation so warrant. The MPC remains resolute in its commitment to aligning inflation to the 4 per cent target and anchoring inflation expectations.

Further, with monetary transmission still underway[2] and headline inflation remaining higher

* Governor's Statement - August 10, 2023.

[1] In terms of GDP at market exchange rate.

[2] During the accommodative phase of monetary policy, *i.e.*, February 2019 to March 2022, the weighted average domestic term deposit rate (WADTDR) on fresh deposits of scheduled commercial banks and the weighted average lending rate (WALR) on fresh loans had fallen by 259 basis points and 232 basis points, respectively, in response to the repo rate cut of 250 basis points. In the recent tightening phase, *i.e.*, May 2022 to June 2023, the repo rate has increased by 250 basis points, fully offsetting the reduction in the easing phase. However, the increase in the WADTDR on fresh deposits and the WALR on fresh loans at 231 basis points and 169 basis points, respectively, trails the reduction seen in these rates during the accommodative phase.

than the 4 per cent target, the MPC decided to remain focused on withdrawal of accommodation to ensure that inflation progressively aligns with the target, while supporting growth.

Assessment of Growth and Inflation

Global Growth

The global economy continues to face daunting challenges of elevated inflation, high levels of debt, tight and volatile financial conditions, continuing geopolitical tensions, fragmentations and extreme weather conditions. Belying earlier apprehensions, a number of economies have demonstrated remarkable resilience and the grim prospects of hard landing appear to have receded. Nevertheless, global growth is likely to remain low by historical standards in the current year and next few years, despite the upward revision in the global growth forecast for 2023 by the IMF[3]. World merchandise trade volume growth is projected by the WTO to decelerate from 2.7 per cent in 2022 to 1.7 per cent in 2023. Headline inflation is easing unevenly across countries and remains above the target in major economies. While the pace of monetary tightening has been scaled down, policy rates could stay higher for longer. Financial markets, which had been buoyed by expectations of an early end to the cycle of monetary tightening, have turned volatile with sizeable two-way movements in response to recent rating event and incoming data.

Domestic Growth

These external factors are likely to impinge on the growth prospects of most major advanced and emerging economies. India is, however, expected to withstand these external headwinds far better than many other countries.

The momentum of overall economic activity in India continues to be positive. On the supply side, crop sowing has picked up with steady progress in the south-west monsoon.[4] The temporal and spatial distribution of monsoon has, however, been uneven. Industrial activity is holding ground as is evident from the latest data on index of industrial production (IIP), core industries output and purchasing managers' index (PMI) for manufacturing[5]. Buoyant services activity is reflected in healthy expansion in e-way bills, toll collections, railway freight and a sharp jump in services PMI.[6] On the other hand, commercial vehicle sales and domestic air cargo traffic contracted during Q1:2023-24.

Aggregate demand conditions continue to be buoyant. Among urban demand indicators, domestic air passenger traffic, passenger vehicle sales and households' credit are exhibiting sustained growth. In the case of rural demand, tractor and fertiliser sales improved in June while two-wheeler sales moderated. High growth in agricultural credit and improving sales volume of major fast moving consumer goods (FMCG) companies suggest incipient recovery in rural demand, which will be reinforced by improving *kharif* prospects.

Investment activity gained further steam on the back of government capital expenditure[7], rising business optimism and revival in private capex in

[3] According to the IMF, annual average global growth rate during 2000 to 2019 was 3.8 per cent.

[4] The total area sown under *kharif* crops was 0.4 per cent higher than a year ago as on August 4, 2023. Cumulative rainfall during south-west monsoon was the same as the long period average up to August 9, 2023. The storage in major reservoirs on August 3 was at 56 per cent of the full capacity, higher than the decadal average of 50 per cent, but below 60 per cent a year ago.

[5] The index of industrial production (IIP) expanded by 5.2 per cent in May while core infrastructure output rose by 8.2 per cent in June. The purchasing managers' index (PMI) for manufacturing was 57.7 in July.

[6] PMI services rose to 62.3 in July from 58.5 in June led by robust demand and new business gains, signaling the sharpest expansion in output since June 2010.

[7] The capital expenditure by the Central government increased by 59.1 per cent (y-o-y) during Q1:2023-24. Information available for 20 states indicates that their capital expenditure jumped by 74.4 per cent (y-o-y) during Q1:2023-24 as compared with a contraction of 8.7 per cent a year ago.

certain key sectors.[8] Continued increase in import and production of capital goods further reaffirms this trend. Construction activity also remained strong in Q1 as indicated by healthy growth in cement production and steel consumption. Capacity utilisation in the manufacturing sector at 76.3 per cent (and 74.1 per cent on seasonally adjusted basis) remained above the long-term average of 73.7 per cent.[9] The total flow of resources to the commercial sector from banks and other sources taken together has increased by ₹7.5 lakh crore during the financial year 2023-24 so far (up to July 28) as compared with ₹5.7 lakh crore a year ago[10]. On the downside, merchandise exports and non-oil non-gold imports contracted further in June and the growth in services exports decelerated amidst slowing external demand.

Looking ahead, these underlying developments and the upcoming festival season are expected to provide support to private consumption and investment activity. The spillovers emanating from weak external demand and protracted geopolitical tensions, however, pose risks to the outlook. Taking all these factors into consideration, real GDP growth for 2023-24 is projected at 6.5 per cent with Q1 at 8.0 per cent; Q2 at 6.5 per cent; Q3 at 6.0 per cent; and Q4 at 5.7 per cent. Real GDP growth for Q1:2024-25 is projected at 6.6 per cent. The risks are evenly balanced.

Inflation

The moderation in headline inflation to 4.6 per cent in Q1 of 2023-24 was in line with the projections set out in the June MPC meeting. There was a pick-up in headline inflation to 4.8 per cent in June due to an upturn in food inflation. On the positive side, inflation excluding food and fuel (core inflation) has softened by more than 100 basis points from its recent peak in January 2023. The month of July has witnessed accentuation of food inflation, primarily on account of vegetables. The spike in tomato prices and further increase in prices of cereals and pulses have contributed to this. Consequently, a substantial increase in headline inflation would occur in the near-term.

Going by the past trends, vegetable prices may see a significant correction after a few months. The prospects of *kharif* crops have brightened, thanks to improvement in the progress of the monsoon. Uncertainties, however, remain on domestic food price outlook due to sudden weather events and possible *El Niño* conditions in August and beyond. Global food prices are also exhibiting a hardening bias on renewed geopolitical tensions. Crude oil prices have firmed up in recent weeks and its outlook is clouded by demand-supply uncertainties.

Assessment of the future trajectory of inflation is a continuous process. We have a choice to modify our inflation projections in every meeting of MPC, if warranted, in the interest of better guidance; or avoid frequent changes and revise them only on fewer occasions for simplicity of presentation. Given the continuing uncertainties, our latest CPI inflation projections for 2023-24, assuming a normal monsoon, is revised to 5.4 per cent, with Q2 at 6.2 per cent, Q3 at 5.7 per cent and Q4 at 5.2 per cent. CPI inflation for Q1:2024-25 is projected at 5.2 per cent. The risks are evenly balanced.

Headline inflation projection for Q2 of 2023-24 has been revised up substantially, primarily due to the price shock from vegetables. Given the likely short-term nature of these shocks, monetary policy can look through high inflation prints caused by such shocks for some time. The frequent incidences of recurring

[8] Metals, petroleum, automobile, chemicals, iron and steel, cement and food and beverages.

[9] 76.3 per cent pertains to Q4:2022-23; long term average pertains to Q1:2008-09 to Q4:2022-23 excluding Q1:2020-21.

[10] Data on flow of resources exclude the impact of the merger of a non-bank with a bank.

food price shocks, however, pose a risk to anchoring of inflation expectations, which has been underway since September 2022. The role of continued and timely supply side interventions assumes criticality in limiting the severity and duration of such shocks. In such circumstances, it is necessary to be watchful of the emerging trends and risks to price stability. We have to stand in readiness to go beyond keeping Arjuna's eye to deploying policy instruments, if necessary. I reiterate what I said in my June policy statement: bringing headline inflation within the tolerance band is not enough; we need to remain firmly focused on aligning inflation to the target of 4.0 per cent.

Liquidity and Financial Market Conditions

The level of surplus liquidity in the system has gone up in the recent months on the back of return of ₹2000 banknotes to the banking system, RBI's surplus transfer to the government, pick up in government spending and capital inflows. The overall daily absorption under the liquidity adjustment facility (LAF) was ₹1.7 lakh crore in June and ₹1.8 lakh crore in July 2023.

Despite such surplus liquidity, market response to RBI's 14-day variable rate reverse repo (VRRR) auctions was lukewarm; instead, banks preferred to place their surplus liquidity in the less remunerative standing deposit facility (SDF). Although the fine-tuning VRRR auctions of 1-4 days maturity during this period evoked better response from the market[11], this essentially reflects greater risk aversion among banks to park large funds under the main operation. In this context, it is necessary to reiterate that fine-tuning operations (overnight and up to 13 days) are undertaken to deal with special or exceptional situations and cannot become the rule.

In recent years, our stated stance on liquidity is to maintain adequate liquidity in the system to meet the productive requirements of the economy. Excessive liquidity, on the other hand, can pose risks to price stability and also to financial stability. Hence, efficient liquidity management requires continuous assessment of the level of surplus liquidity so that additional measures are taken as and when necessary to impound the element of excess liquidity. Accordingly, it has been decided that with effect from the fortnight beginning August 12, 2023, scheduled banks shall maintain an incremental cash reserve ratio (I-CRR) of 10 per cent on the increase in their net demand and time liabilities (NDTL) between May 19, 2023 and July 28, 2023. This measure is intended to absorb the surplus liquidity generated by various factors referred to earlier including the return of ₹2000 notes to the banking system. This is purely a temporary measure for managing the liquidity overhang. Even after this temporary impounding, there will be adequate liquidity in the system to meet the credit needs of the economy. The I-CRR will be reviewed on September 8, 2023 or earlier with a view to returning the impounded funds to the banking system ahead of the festival season. I must add that the existing cash reserve ratio (CRR) remains unchanged at 4.5 per cent.

Financial Stability

The Indian financial sector has been stable and resilient, as reflected in sustained growth in bank credit, low levels of non-performing assets and adequate capital and liquidity buffers.[12] Macro stress tests for credit risk reveal that scheduled commercial banks (SCBs) would be able to comply

[11] The average bid-cover ratio of five14-day VRRR auctions was 38.4 per cent and that of 11 fine-tuning VRRR auctions of 1-4 days maturity was 46.2 per cent.

[12] The capital to risk-weighted assets ratio (CRAR) and the common equity tier 1 (CET1) capital ratio of SCBs were at historical highs of 17.1 per cent and 13.9 per cent, respectively, in March 2023. SCBs' gross non-performing assets (GNPA) ratio continued downtrend and fell to a 10-year low of 3.9 per cent in March 2023, while the net non-performing assets (NNPA) ratio declined to 1.0 per cent.

with the minimum capital requirements even under severe stress scenarios. There is, however, no room for complacency because it is during tranquil and good times that vulnerabilities may creep in. Hence, buffers are best built up during these periods. A stable financial system is a prerequisite for price stability and sustained growth. This is a shared responsibility in which regulated entities like banks, NBFCs and others are important stakeholders. On its part, the Reserve Bank remains steadfast in its commitment to safeguard the financial system from the emerging and potential challenges. We expect the same from the regulated entities also.

External Sector

India's current account deficit (CAD) was contained at 2.0 per cent of GDP in 2022-23 as compared with 1.2 per cent in 2021-22. Merchandise trade deficit has narrowed in Q1 of 2023-24 with contraction in imports exceeding contraction in exports. Services exports and remittances are, however, expected to provide cushion to the current account deficit. We, therefore, expect CAD to remain eminently manageable during the current financial year also.

On the financing side, foreign portfolio investment (FPI) flows have remained buoyant in 2023-24 so far. Net FPI inflows have been US$ 20.1 billion up to August 8, 2023 which is the highest since 2014-15. In the corresponding period of the previous year, there were net outflows of US$ 12.6 billion. The inflows under external commercial borrowings also witnessed a turnaround, with net inflows of US$ 6.0 billion during April-June 2023 as against net outflows of US$ 2.9 billion a year ago. Net foreign direct investment (FDI) flows to India, on the other hand, fell to US$ 5.5 billion during April-May 2023 from US$ 10.6 billion a year ago, reflecting a global slowdown in FDI flows. Latest available data suggest that India's external debt to GDP ratio improved to 18.9 per cent at end-March 2023 from 20.0 per cent at end-March 2022.

The Indian rupee has remained stable since January 2023. Foreign exchange reserves have crossed US$ 600 billion mark. The umbrella has gathered further strength; and I am not saying this in the context of the monsoon rains![13]

Additional Measures

I shall now announce certain additional measures.

Review of Regulatory Framework for Financial Benchmark Administrators

It has been decided to revise the extant regulations issued in June 2019 and put in place a comprehensive, risk-based framework for administration of financial benchmarks. This will cover all benchmarks related to foreign exchange, interest rates, money markets and government securities. The revised directions will provide greater assurance about the accuracy and integrity of financial benchmarks.

Review of Regulatory Framework for Infrastructure Debt Fund - NBFCs (IDF-NBFCs)

At present, Infrastructure Debt Funds (IDFs) provide refinancing facilities for lenders in the infrastructure sector. The extant regulatory framework for IDFs has been revised. The key changes in the revised framework are: (i) withdrawal of the requirement to have a sponsor for the IDFs; (ii) allowing IDFs to finance toll-operate-transfer (ToT) projects as direct lenders; (iii) permitting IDFs to raise funds through ECBs; and (iv) making tri-partite agreements optional for PPP projects. These changes are expected to further augment the capacity for infrastructure financing in the country.

[13] The forex reserves are accumulated by RBI when the capital inflows are strong. Similarly, when forex outflows cause excessive volatility in the exchange rate of Indian Rupee, the RBI supplies US dollars to the market to curb volatility and to ensure that there is adequate forex liquidity. Thus, forex reserves are like an umbrella to use during rainy days (Please see: "Banking Beyond Tomorrow"; RBI Governor's speech at the Bank of Baroda's Annual Banking Conference, July 2022).

Greater Transparency in Interest Rate Reset of Equated Monthly Instalments (EMI) based Floating Interest Loans

It is proposed to put in place a transparent framework for reset of interest rates on floating interest loans. The framework will require Regulated Entities to (i) clearly communicate with borrowers for resetting the tenor and/or EMI; (ii) provide options for switching to fixed rate loans or foreclosure of loans; (iii) disclose various charges incidental to the exercise of the options; and (iv) ensure proper communication of key information to borrowers. These measures will further strengthen consumer protection.

Consolidation and Harmonisation of Instructions for Supervisory Data Submission

The Reserve Bank has, from time to time, issued several guidelines on submission of supervisory returns by supervised entities. It has been decided to consolidate and harmonise such guidelines into a single Master Direction to reduce compliance burden and to promote greater ease of doing business for supervised entities.

Conversational Payments and Off-line Capability on UPI; Enhancement in Transaction Limit of Small Value Off-line Digital Payments

With the objective of harnessing new technologies for enhancing the digital payments experience for users, it is proposed to (i) enable "Conversational Payments" on UPI, which will enable users to engage in conversation with AI-powered systems to make payments; (ii) introduce offline payments on UPI using Near Field Communication (NFC) technology through 'UPI-Lite' on-device wallet; and (iii) enhance the transaction limit for small value digital payments in off-line mode from ₹200 to ₹500 within the overall limit of ₹2000 per payment instrument. These initiatives will further deepen the reach and use of digital payments in the country.

Public Tech Platform for Frictionless Credit

The Reserve Bank, in association with the Reserve Bank Innovation Hub (RBIH), started a pilot project in September 2022 for frictionless credit delivery through end-to-end digital processes, starting with Kisan Credit Card (KCC) loans. The pilot for KCC loans is currently operational in select districts of Madhya Pradesh, Tamil Nadu, Karnataka, UP and Maharashtra. Recently, dairy loans have been included in the pilot project in select districts of Gujarat. Based on the learnings from the pilots and to expand the scope of end-to-end digital lending processes, a Public Tech Platform for Frictionless Credit delivery is being developed by the RBIH. The Platform is intended to be rolled out as a pilot project in a calibrated manner. It will have an open architecture and open Application Programming Interface (API) and Standards, to which all financial sector players can connect seamlessly. This initiative will accelerate the penetration of credit to hitherto underserved regions and further deepen financial inclusion.

Conclusion

We have made good progress in sustaining India's growth momentum. While inflation has moderated, the job is still not done. Inflationary risks persist amidst volatile international food and energy prices, lingering geopolitical tensions and weather-related uncertainties. In charting the course of monetary policy, we continuously assess the impact of our past actions, the evolving inflation dynamics and the implications of incoming data for the economic outlook. I reiterate our commitment to align CPI inflation to the 4 per cent target on a durable basis. We do look through idiosyncratic shocks, but if such idiosyncrasies show signs of persistence, we have to act. As we prepare to celebrate the Independence Day, the air is filled with hope and promise. Let me end by recalling the prophetic words of Mahatma Gandhi *"…I have no doubt that our country would rise to the greatest height among the nations of the world."*[14]

Thank you. Namaskar.

[14] *The Collected Works of Mahatma Gandhi*, Volume 95: April 30-July 6, 1947.

MONETARY POLICY STATEMENT FOR 2023-24

Resolution of the Monetary Policy Committee (MPC)
August 8-10, 2023

Monetary Policy Statement, 2023-24 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 (August 10, 2023) decided to:

- Keep the policy repo rate under the liquidity adjustment facility (LAF) unchanged at 6.50 per cent.

The standing deposit facility (SDF) rate remains unchanged at 6.25 per cent and the marginal standing facility (MSF) rate and the Bank Rate at 6.75 per cent.

- The MPC also decided to remain focused on withdrawal of accommodation to ensure that inflation progressively aligns with the target, 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. The global economy is slowing and growth trajectories are diverging across regions amidst moderating but above target inflation, tight financial conditions, simmering geopolitical conflicts, and geoeconomic fragmentation. Sovereign bond yields have hardened. The US dollar fell to a 15-month low in mid-July on expectations of an early end to the monetary tightening cycle, although it recouped some of the losses subsequently. Equity markets have gained on expectations of a soft landing for the global economy. For several emerging market economies, weak external demand, elevated debt levels and tight external funding conditions pose risks to their growth prospects.

Domestic Economy

3. Domestic economic activity is maintaining resilience. The cumulative south-west monsoon rainfall was the same as the long period average up to August 9, 2023 although the temporal and spatial distribution has been uneven. The total area sown under *kharif* crops was 0.4 per cent higher than a year ago as on August 4, 2023. The index of industrial production (IIP) expanded by 5.2 per cent in May while core industries output rose by 8.2 per cent in June. Amongst high frequency indicators, e-way bills and toll collections expanded robustly in June-July, while rail freight and port traffic recovered in July after remaining muted in June. The composite purchasing managers' index (PMI) rose to a 13-year high in July.

4. Urban demand remains robust, with domestic air passenger traffic and household credit exhibiting sustained double digit growth. The growth in passenger vehicle sales has, however, moderated. In the case of rural demand, tractor sales improved in June while two-wheeler sales moderated. Cement production and steel consumption recorded robust growth. Import and production of capital goods continued in expansion mode. Merchandise exports and non-oil non-gold imports remained in contraction territory in June. Services exports posted subdued growth amidst slowing external demand.

5. Headline CPI inflation picked up from 4.3 per cent in May to 4.8 per cent in June, driven largely by food group dynamics on the back of higher prices of vegetables, eggs, meat, fish, cereals, pulses and

* Released on August 10, 2023.

spices. Fuel inflation softened during May-June, primarily reflecting the fall in kerosene prices. Core inflation (*i.e.*, CPI excluding food and fuel) was steady in June.

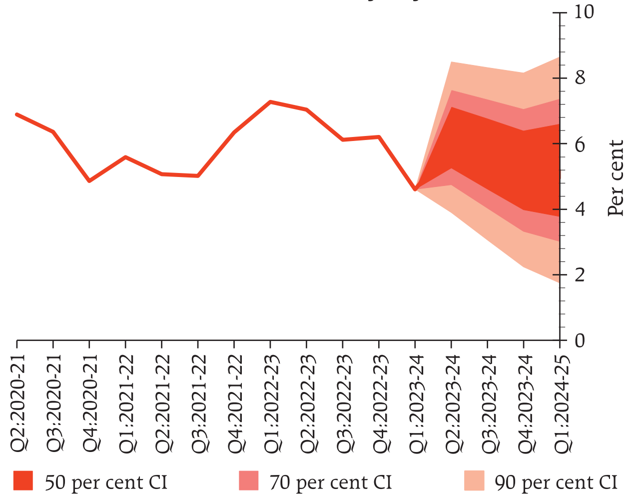
6. The daily absorption of liquidity under the LAF averaged ₹1.8 lakh crore during June-July as compared with ₹1.7 lakh crore in April-May. Money supply (M3) expanded by 10.6 per cent y-o-y as on July 28, 2023 as against 10.1 per cent on May 19, 2023. Bank credit grew by 14.7 per cent y-o-y as on July 28, 2023 as compared with 15.4 per cent on May 19, 2023. India's foreign exchange reserves stood at US$ 601.5 billion as on August 4, 2023.

Outlook

7. Going forward, the spike in vegetable prices, led by tomatoes, would exert sizeable upside pressures on the near-term headline inflation trajectory. This jump is, however, likely to correct with fresh market arrivals. There has been significant improvement in the progress of the monsoon and *kharif* sowing in July; however, the impact of the uneven rainfall distribution warrants careful monitoring. Crude oil prices have firmed up amidst production cuts. Manufacturing, services and infrastructure firms polled in the Reserve Bank's enterprise surveys expect input costs to ease but output prices to harden. Taking into account these factors and assuming a normal monsoon, CPI inflation is projected at 5.4 per cent for 2023-24, with Q2 at 6.2 per cent, Q3 at 5.7 per cent and Q4 at 5.2 per cent, with risks evenly balanced. CPI inflation for Q1:2024-25 is projected at 5.2 per cent (Chart 1).

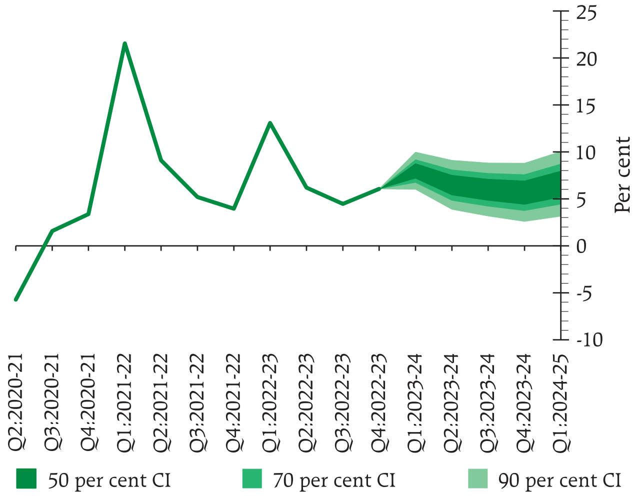
8. Looking ahead, the recovery in *kharif* sowing and rural incomes, the buoyancy in services and consumer optimism should support household consumption. Healthy balance sheets of banks and corporates, supply chain normalisation, business optimism and robust government capital expenditure are favourable for a renewal of the capex cycle which is showing signs of getting broad-based. Headwinds from weak global demand, volatility in global financial markets, geopolitical tensions and geoeconomic fragmentation, however, pose risks to the outlook. Taking all these factors into consideration, real GDP growth for 2023-24 is projected at 6.5 per cent with Q1 at 8.0 per cent; Q2 at 6.5 per cent; Q3 at 6.0 per cent; and Q4 at 5.7 per cent, with risks broadly balanced. Real GDP growth for Q1:2024-25 is projected at 6.6 per cent (Chart 2).

Chart 1: Quarterly Projection of CPI Inflation (y-o-y)



CI - Confidence Interval

Chart 2: Quarterly Projection of Real GDP Growth (y-o-y)



CI - Confidence Interval

9. The headline inflation is likely to witness a spike in the near months on account of supply disruptions due to adverse weather conditions. It is important to be vigilant about these shocks with a readiness to act appropriately so as to ensure that their effects on the general level of prices do not persist. There are risks from the impact of the skewed south-west monsoon so far, a possible *El Niño* event and upward pressures on global food prices due to geopolitical hostilities. Domestic economic activity is holding up well, supported by domestic demand in spite of the drag from weak external demand. With the cumulative rate hike of 250 basis points undertaken by the MPC working its way into the economy, the MPC decided to keep the policy repo rate unchanged at 6.50 per cent, but with preparedness to undertake policy responses, should the situation so warrant. The MPC will maintain a close vigil on the evolving inflation scenario and remain resolute in its commitment to aligning inflation to the target and anchoring inflation expectations. The MPC also decided to remain focused on withdrawal of accommodation to ensure that inflation progressively aligns with the target, while supporting growth.

10. 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 keep the policy repo rate unchanged at 6.50 per cent.

11. Dr. Shashanka Bhide, Dr. Ashima Goyal, Dr. Rajiv Ranjan, Dr. Michael Debabrata Patra and Shri Shaktikanta Das voted to remain focused on withdrawal of accommodation to ensure that inflation progressively aligns with the target, while supporting growth. Prof. Jayanth R. Varma expressed reservations on this part of the resolution.

12. The minutes of the MPC's meeting will be published on August 24, 2023.

13. The next meeting of the MPC is scheduled during October 4-6, 2023.

STATEMENT ON DEVELOPMENTAL AND REGULATORY POLICIES

Statement on Developmental and Regulatory Policies

Statement on Developmental and Regulatory Policies

This Statement sets out various developmental and regulatory policy measures relating to (i) Financial Markets; (ii) Regulation and Supervision; (iii) Payment Systems; and (iv) FinTech.

I. Financial Markets

1. Review of Regulatory framework for Financial Benchmark Administrators

In June 2019, the Reserve Bank issued a regulatory framework on administration of 'significant benchmarks' by benchmark administrators in the financial markets regulated by the Reserve Bank such as the USD/INR Reference Rate, Overnight MIBOR, and valuations of government securities administered by the Financial Benchmarks India Private Limited (FBIL). Considering the evolution of the domestic financial markets since then and global best practices, the regulations for financial benchmarks have been reviewed and it has been decided to put in place a comprehensive, risk-based framework covering administration of all benchmarks related to foreign exchange, interest rates, money markets and government securities such as benchmarks on certificate of deposits (CDs) rates, repo rates, and FX Options Volatility Matrix as well as other benchmarks on government securities. Revised Directions which are being issued separately, envisage regulatory prescriptions for benchmark administrators, encompassing, *inter alia*, governance and oversight arrangements, conflict of interest, controls, and transparency. These Directions will provide greater assurance about the accuracy and integrity of benchmarks.

II. Regulation and Supervision

2. Review of Regulatory Framework for NBFC – Infrastructure Debt Funds (IDF-NBFCs)

Infrastructure Debt Fund was created as a separate category of NBFCs in 2011. To enable the IDFs to play a greater role in financing of the infrastructure sector and to move towards the regulatory objective of harmonisation of regulations applicable to various categories of NBFCs, a review of the extant regulatory framework for IDFs has been undertaken in consultation with the Government of India. The revised framework envisages – (i) withdrawal of the requirement of a sponsor for the IDFs; (ii) permission to finance Toll Operate Transfer projects (ToT) as direct lenders, (iii) access to ECBs; and (iv) making tri-partite agreement optional for PPP projects. Detailed guidelines shall be issued shortly.

3. Responsible Conduct in Lending: Greater transparency in Interest Rate Reset of Equated Monthly Instalments (EMI) based Floating Interest Loans

The supervisory reviews undertaken by the Reserve Bank and the feedback and references from members of public have revealed several instances of unreasonable elongation of tenor of floating rate loans by lenders without proper consent and communication to the borrowers. To address the issue, it is proposed to put in place a proper conduct framework to be implemented by all REs to address the issues faced by the borrowers. The framework envisages that lenders should clearly communicate with the borrowers for resetting the tenor and/or EMI, provide options of switching to fixed rate loans or foreclosure of loans, transparent disclosure of various charges incidental to the exercise of these options, and proper communication of key information to the borrowers. The detailed guidelines in this regard shall be issued shortly.

4. Consolidation and harmonisation of instructions for Supervisory data submission

The Reserve Bank of India has, from time to time, issued several guidelines and instructions to its supervised entities (SEs) *viz.* SCBs, NBFCs, UCBs, AIFIs *etc.* for submission of supervisory returns. Certain issues are being faced by SEs while complying with these instructions due to changes in technology platforms, modes of submission, and variations in the return submission timeframes.

In order to consolidate and harmonise the instructions for submission of applicable Supervisory Returns, provide greater clarity and reduce the compliance burden, it is proposed to consolidate all the existing instructions on submission of data into a single Master Direction which will be a single point of reference for all SEs.

III. Payment Systems

5. Conversational payments in UPI

UPI, with its ease of usage, safety and security, and real-time feature, has transformed the digital payment ecosystem in India. Addition of many new features over time have enabled UPI to facilitate diverse payment needs of the economy. As Artificial Intelligence (AI) is becoming increasingly integrated into the digital economy, conversational instructions hold immense potential in enhancing ease of use, and consequently reach, of the UPI system. It is, therefore, proposed to launch an innovative payment mode *viz.*, "Conversational Payments" on UPI, that will enable users to engage in a conversation with an AI-powered system to initiate and complete transactions in a safe and secure environment. This channel will be made available in both smartphones and feature phones-based UPI channels, thereby helping in the deepening of digital penetration in the country. The facility will, initially, be available in Hindi and English and will subsequently be made available in more Indian languages. Instructions to NPCI will be issued shortly.

6. Offline payments in UPI

To increase the speed of small value transactions on UPI, an on-device wallet called "UPI-Lite" was launched in September 2022 to optimise processing resources for banks, thereby reducing transaction failures. The product has gained traction and currently processes more than ten million transactions a month. To promote the use of UPI-Lite, it is proposed to facilitate offline transaction using Near Field Communication (NFC) technology. This feature will not only enable retail digital payments in situations where internet / telecom connectivity is weak or not available, it will also ensure speed, with minimal transaction declines. Instructions to NPCI will be issued shortly.

7. Enhancing transactions limits for small value digital payments

A limit of ₹200 per transaction and an overall limit of ₹2000 per payment instrument has been prescribed by the Reserve Bank for small value digital payments in offline mode including for National Common Mobility Card (NCMC) and UPI Lite. By removing the need for two-factor authentication for small value transactions, these channels enable faster, reliable, and contactless mode of payments for everyday small value payments, transit payments *etc.* Since then, there have been demands for enhancing these limits. To encourage wider adoption of this mode of payments and bring in more use cases into this mode, it is now proposed to increase the per transaction limit to ₹500. The overall limit is, however, retained at ₹2000 to contain the risks associated with relaxation of two-factor authentication. Instructions in this regard will be issued shortly.

IV. FinTech

8. Public Tech Platform for Frictionless Credit

With rapid progress in digitalisation, India has embraced the concept of digital public infrastructure which encourages FinTech companies and start-ups to create and provide innovative solutions in payments, credit, and other financial activities. For digital credit delivery, the data required for credit appraisal are available with different entities like Central and State governments, account aggregators, banks, credit information companies, digital identity authorities, *etc.* However, they are in separate systems, creating hindrance in frictionless and timely delivery of rule-based lending.

To address this situation, a pilot project for digitalisation of Kisan Credit Card (KCC) loans of less than ₹1.60 lakh was started in September 2022. The pilot tested end-to-end digitalisation of the lending process in a paperless and hassle-free manner. The KCC pilot is currently underway in select districts of Madhya Pradesh, Tamil Nadu, Karnataka, UP, Maharashtra and the initial results are encouraging. The pilot also enables doorstep disbursement of loans in assisted or self-service mode without any paperwork. A similar pilot is being carried out for dairy loans based on milk pouring data with Amul in Gujarat.

Based on the learnings from the above pilots and expand the scope to all types of digital loans, a digital Public Tech Platform is being developed by the Reserve Bank Innovation Hub (RBIH). The Platform would enable delivery of frictionless credit by facilitating seamless flow of required digital information to lenders. The end-to-end digital platform will have an open architecture, open Application Programming Interfaces (APIs) and standards, to which all financial sector players can connect seamlessly in a 'plug and play' model.

The Platform is intended to be rolled out as a pilot project in a calibrated fashion, both in terms of access to information providers and use cases. It shall bring about efficiency in the lending process in terms of reduction of costs, quicker disbursement, and scalability.

SPEECHES

*Global Economy: Challenges, Opportunities and Way Forward**

Shaktikanta Das

Today's seminar on Global Economy: Challenges, Opportunities, and the Way Forward, held as part of the International Financial Architecture (IFA) and Framework Working Groups (FWG) workstreams under India's G20 Presidency, including the three panel discussions have yielded rich and insightful thoughts on (i) financing development and global public goods; (ii) tackling global debt vulnerabilities; and (iii) the key risks to the global economy. All these issues are priorities under India's G20 Presidency. I take this opportunity to thank all the participants for enhancing the quality of discussions during the day.

Today, policy makers across the world are grappling with multifarious and intertwined challenges in ensuring post-pandemic recovery in the face of elevated inflation, financial market vulnerabilities, reduced policy headroom and geopolitical tensions. In this *milieu*, India's G20 Presidency aims at enhancing global cooperation to face such common challenges. This is embodied in the Presidency theme of *Vasudhaiva Kutumbakam* – "One Earth • One Family • One Future". This theme underlines the importance of global public goods for common prosperity of all.

Global Public Goods (GPGs) play a crucial role in shaping developmental strategies and securing human welfare across borders and generations. Financing them has become a critical issue in the wake of the COVID-19 pandemic, the highly unsettled geopolitical environment, climate change, fractures in international supply chains, and tectonic shifts in financial market conditions and global liquidity. Given the confluence of such factors, global financial stability is gaining prominence in the hierarchy of global public goods.

India's experience has shown how Digital Public Infrastructure (DPI) can be utilised for advancing financial inclusion and productivity gains through cost reductions. Our sustained engagement in the India Stack and the Unified Payments Interface (UPI), especially during the pandemic and thereafter, has filled us with the conviction that digital public infrastructure like the UPI can become a critical part of global public goods when scaled up beyond national borders.

While the UPI has been a public sector led initiative, it is not necessary that public goods can only be developed and financed by the public sector. The private sector needs to engage in the provision of GPGs not just because they create an enabling ecosystem for businesses to thrive but also because they would be a commercially viable endeavour. In this regard, it is worthwhile to build innovative design features which private investors find attractive in financing of GPGs. In the investment cascade, keeping in view the very large investment requirements, the trigger financing can come from public investment. This would help in minimising risk and expanding market access. Subsequent financing needs can be met by the private sector. This is where international capital flows and movements assume importance. Hence, risk sharing should be an important design element in fostering private financing for global public goods. In this endeavour, Multilateral Development Banks (MDBs) could catalyse private sector investment through risk sharing mechanisms.

Recent fault lines in global cooperation have led to under-provisioning of global public goods and erosion of economic welfare. Absence of seamless access to

* Closing Remarks by Shri Shaktikanta Das, Governor, RBI at the Seminar on Global Economy: Challenges, Opportunities and Way Forward organised by the Ministry of Finance, Government of India and the Reserve Bank of India, August 11, 2023, Mumbai.

COVID-19 vaccines is a case in point. Similarly, the lack of timely financial support and creditor cooperation can explain, even if partly, the rising debt stress in some developing economies. High and unsustainable debt levels have severely constrained many countries, limiting their fiscal capacity. While the G20-led initiatives such as the Common Framework (CF) for debt treatment and the Debt Service Suspension Initiative (DSSI) have been discussed intensely, significant progress beyond these have to be achieved. I would like to make three specific suggestions in this context.

First, it is essential that Debt Sustainability Analysis (DSA) for countries is realistic on growth and fiscal projections are fully founded on accurate and comprehensive debt data. A global debt data-sharing platform can help in this regard. Establishing such a platform could be very challenging and may take several years. In the interregnum, therefore, we may examine the possibility of constructing suitable proxies for debt flows. Such proxies may be derived from data on capital flows and locational banking statistics from sources such as the Institute of International Finance (IIF) and the Bank for International Settlements (BIS).

Second, a multilateral debt relief program providing targeted assistance to low-income countries with high debt levels needs to be considered on a priority basis. This initiative can be designed with a clear focus on utilisation of debt relief for sustainable development projects and poverty reduction efforts. To this end, instruments such as debt-for-development swaps[1] and green debt relief programs[2] could be employed.

Third, the crucial role of the International Monetary Fund (IMF) and the World Bank in addressing global debt vulnerabilities cannot be overstated. These institutions are at the centre of international monetary and financial system. Hence it is incumbent upon them to do more for countries in debt distress. At present, the IMF's precautionary programmes such as the Precautionary Lending Line are available for countries with sound macro-fundamentals; however, there is little reason for countries with strong macro-fundamentals to seek Precautionary Lines. Further, Stand-By Arrangements (SBAs) are offered for countries with a balance of payments crisis; but SBAs come with performance benchmarks, and the attendant stigma. This is an important issue, as the recent experience shows how the perceived stigma of and/or lack of access to IMF programmes can cause countries to seek support from other lenders rather than the IMF, with debt sustainability consequences. It may be helpful if programs can be designed with less conditionality for countries with macro-fundamentals that are not sound but reasonably resilient, if they are not marred by balance of payments stress.

The key point I am trying to stress is that corrective measures, including financing, should be put in place in a timely, non-stigmatised and more open access basis. For this purpose, a bigger and stronger IMF that is capable of managing the levels of country risk assumes crucial importance. Since the IMF's support is linked to the quota size of countries, the 16th general review of quotas and its attendant requirements, including governance reform, need to be completed expeditiously. Besides enhancing the legitimacy of the IMF in its oversight of the international monetary and financial system, this will increase traction for the IMF's policy advice. We must not allow the burden of debt to stifle the potential for global growth.

In this connection, the panel discussion on key risks to global growth, namely, inflation, financial stability and climate change, assumes topical

1 To support countries transitioning to low-carbon and climate-resilient economies through debt swaps that link debt relief to the implementation of environmentally friendly policies and projects.

2 Creditors offer debt reductions or write-offs in exchange for investments in projects that promote environmental sustainability, social development, and economic growth.

relevance. Even as the global economic outlook is marred by risks to the downside, long-term structural challenges such as climate change must be addressed, through supply of adequate and affordable financing for green transition.

We must, however, be mindful of the potential financial stability implications of green transition. The transition efforts must address both the physical and transition risks of climate change. Smooth and orderly green transition is necessary to avoid disruptions to economic activity and loss of growth potential. While the investment needs for smooth green transition are large, the actual financial flows to green projects are highly skewed and are, by and large, concentrated in Advanced Economies. There is an urgent need to enhance green capital flows to emerging market and development economies (EMDEs). As noted by the IMF in the recent Global Financial Stability Report, the green flows to EMDEs are curtailed by inadequate supply of green rated investment projects. While green flows today are dependent on environmental, social, and governance (ESG) ratings, recent research shows that these ESG ratings do not adequately reflect financial and non-financial materialities of these investments. Therefore, there is a need to ensure that "green ratings" reflect the actual environmental impact of the projects so as to avoid green-washing.

A crucial aspect of this effort is ensuring private financing for climate transition efforts through globally comparable and transparent disclosure norms and taxonomy of green activities. The International Sustainability Standards Board (ISSB) is actively working on these aspects.

While efforts are underway to improve and deepen green financing, it is equally critical to fortify regulatory frameworks that enable the implementation of climate taxonomy across jurisdictions, prevent greenwashing and facilitate sufficient green capital inflows to EMDEs. A comprehensive and collaborative approach involving governments, private sector entities, financial institutions, civil society organisations, and the general public is essential for ensuing a successful transition to a sustainable future.

Let me now conclude by saying that structural challenges such as financing global public goods, managing global debt vulnerabilities and dealing with climate transition are uphill tasks which no country can achieve alone. Recommitting to multilateralism is the need of the hour and this is precisely what the Indian Presidency of G20 is trying to foster. It is also important to take note of people-centric transformative changes taking place in member countries like the UPI and the financial inclusion initiatives in India. Wider adoption of such models would make the world a better place for everyone.

Thank you.

*Climate Implications for Central Banking**

M. Rajeshwar Rao

Good Afternoon, Ladies and Gentlemen,

Thank you for inviting me to participate in this dialogue and the Panel Discussion on 'Climate Implications for Central Banking'. Climate change and its impact on us is no longer a distant threat. Rising global temperatures, extreme weather events, changing weather patterns and the degradation of ecosystems are threatening our lives and livelihoods. We therefore have to face up to the challenge of climate change sooner, not later. Now, it is up to us to deal with this in a calibrated and well-planned manner or deal with it once we are pushed into a corner with little elbow room. Therefore, the timing of this dialogue is quite appropriate and provides an opportunity to discuss and deliberate on this issue.

Climate change poses a threat to our long-term growth and prosperity. It has potential to create shocks to monetary stability, growth, financial stability, the safety and soundness of regulated entities. Therefore, keeping in view the theme of today's discussion, in my remarks I intend to focus on the role of central banks in managing the outcomes from climate change.

A range of factors would influence how things pan out in future, including changes in climate-related policies and regulations, emergence of newer technologies, and behavioural changes in consumers. To ensure a successful transition to a sustainable future, we need a multi-faceted approach that involves governments, private sector entities, financial institutions, civil society organisations and the public.

Central banks, typically, are concerned with the questions of monetary policy and growth, of financial stability and regulation and supervision of financial system. In many countries, including India, the Central Banks are statutorily mandated to pursue a given set of objectives. This means that they should address risks and threats that impact their core mission. Climate change does pose such a risk. They must, therefore, manage outcomes which could affect the stability of the financial system and safety and soundness of the financial entities.

From a banker's perspective Climate risks can impact the macroeconomic outcomes primarily from two channels - *i.e.*, physical risks and transition risks. While physical risks refer to direct outcomes of climatic events, such as wildfires, storms, and floods, the transition risks refer to the risks arising from the process of adjustment towards reducing the emission intensity of the economy. For example, extreme weather events such as storms or floods can disrupt production and supply chains and create shortages of essential goods and services. This could lead to a sudden increase in prices leading to inflationary pressures. Again, in India, rising temperatures, heat waves and changing rainfall patterns can also affect crop yields resulting in higher or, at times lower prices of some of the agriculture produce. This may lead to uncertainty in their prices for both - producers and consumers. Such uncertainties can make measurement and management of inflation and anchoring of inflation expectations difficult.

Another challenge that may arise on account of physical risk dimension of climate change is increased probability of loss to banks and financial institutions. First, the operations of these financial institutions, if concentrated in a vulnerable geographical location, may be vulnerable to losses on account of climate events. Second, the assets which they have financed

* Remarks of Shri M. Rajeshwar Rao, Deputy Governor Panel Discussion on Climate Implications for Central Banking (Organised by the IMF and Center for Social and Economic Forum on Wednesday, July 19, 2023 at New Delhi).

or taken as collateral may become unavailable or lose value due to adverse climate events. Such loans may turn non-performing, impacting bank's capacity to lend further.

The transition risks, if not managed properly, could also lead to sudden fall in asset prices of the carbon-intensive assets or increase in the risk premia, or both, making them unattractive to hold and perhaps creating larger ripples across the financial markets. On the other side, the prices of green assets may rise disproportionately creating a bubble-like situation. Further, increased demand of such assets may give rise to greenwashing concerns. Disorderly transition could create piquant situations where a sector or industry may witness credit withdrawal or restrictive cost without build-up of sufficient and viable alternatives. Such situations may become a limiting factor for production of essential commodities or increase the cost of production.

Central banks are, therefore, beginning to recognise and evaluate risks which climate change may pose to monetary policy, financial stability and regulated entities. More Importantly, the risks arising from climate change transverse geographical boundaries and sectoral segmentations. Therefore, tackling climate change requires global co-ordination and co-operation. Being mindful of these challenges, international organisations such as the IMF and standard-setting bodies such as the BCBS and FSB are stepping up their work on issues relating to climate change.

At the global level, several initiatives are already underway under the aegis of the G-20. Different standard setting bodies are undertaking focused work to address the vulnerabilities arising from climate change. The Financial Stability Board (FSB) had published a "Roadmap for Addressing Financial Risks from Climate Change", which was endorsed by the G20 in July 2021 and has since been updated. The Roadmap sets out a comprehensive and coordinated plan for addressing climate-related financial risks and covers four areas, *i.e.*, firm-level disclosures, data, vulnerabilities, and regulatory and supervisory practices & tools.

The consequences, intensity, severity, and frequency of climate events are hard to measure and difficult to predict. The impact of these events on banks and financial institutions is even more difficult to quantify. Therefore, the first step in managing the risks to which banks and other regulated entities are exposed from climate events, is to measure the amount of exposure at risk. This is only possible if the firms adequately and transparently disclose the carbon intensity of their operations. The data related to exposure of firms, banks and financial institution to climate events is crucial for planning the transition. International Sustainability Standards Board (ISSB) has been working on designing global sustainability-related disclosures. The standards will help improve trust and confidence in sustainability disclosures in companies and also create a common language for disclosure about the effect arising from climate-related risks and opportunities on their prospects.

The next step in this process is ensuring availability of data and identification of vulnerabilities. For this we need time consistent, transparent, standardised, and forward-looking disclosures for identification of vulnerabilities. At a firm-level, the scenario analysis and stress testing would help frame the strategies to manage the risks for individual entities. Central banks across the globe are encouraging banks and other lenders to identify such vulnerabilities. In India, we plan on issuing guidance to banks on the stress testing for climate vulnerability of their credit portfolio soon.

Further, by the virtue of their mandate for regulating and supervising the financial sector, central banks are uniquely placed to influence the behaviour of institutions within the financial system, incentivise climate-friendly investments, and support the mobilisation of capital for sustainable development. Most often, central banks have used positive reinforcement and incentive structure to encourage green finance. Financial markets are also increasingly beginning to integrate climate risks and opportunities into investment decision making. The number of ESG-focused funds is increasing globally. Institutional investors are expecting their investee companies to make detailed climate-related financial disclosures, pursue net-zero goals, declare transition plans and report progress. Green bonds, climate funds, and blended finance mechanisms can attract private investment towards climate projects. However, these developments do also give rise to greenwashing concerns which may require regulatory interventions in future to ensure that what is being projected as 'green' is, in fact, actually 'green'.

At the cost of repetition, let me emphasise that financing the new green ventures alone will not be enough. We would need credible transition plans for existing emitting firms without compromising their output or growth. For this to materialise, central banks can incorporate climate-related risks into their supervisory frameworks and can contribute to the development of frameworks and standards for green finance. These frameworks can help promote transparency, standardisation, and integrity in the green finance market.

Over the years, Reserve Bank, has been taking various policy measures to promote and support green finance initiatives. For example, finance to renewable energy projects have been included as a part of Priority Sector Lending (PSL) portfolio of banks. Earlier this year the Reserve Bank supported Government of India in successfully issuing sovereign green bonds (SGrBs). The proceeds of the SGrBs are intended to be deployed in public sector projects which will help in reducing the carbon intensity of the economy. The issuance of SrGBs would also help in price discovery for other financial instruments and give a fillip to development of a market for green financing ecosystem in the country.

Recognising that climate change can translate into climate-related financial risks for Regulated Entities (REs) and that it can also have broader financial stability implications, the Reserve Bank had brought out a discussion paper in July 2022 to elicit views from all the stakeholders. Based on the feedback and suggestions received, we have issued the instructions for acceptance of 'Green Deposits' while a disclosure framework on 'Climate-related Financial Risks' and guidance on Climate 'Scenario Analysis and Stress Testing' is also under works. The recently released Report on Currency and Finance, 2022-23[1] with the theme 'Towards a Cleaner Greener India', has examined the macro-financial implications of climate change and the possible fiscal, monetary, regulatory, and other policy options for India.

Global understanding of systemic impact of climate change on the economy and the financial system is evolving and, accordingly, the responses of central banks and supervisors around the world have also been developing. We need to undertake a large-scale capacity building effort to equip central banks, financial firms, real economy players to understand, assess and plan for the climate issues and related financial risks. Only then would they be able to innovate, make strategic decisions, mobilise capital and build effective transition plans for achieving sustainability targets. One very important aspect of this capacity building is going to be the handholding of the smaller firms and MSMEs to make it easier for them to navigate the transition.

Another point to note is that we all are in the same boat and action of any one entity will have consequences for all. Therefore, global co-operation and collective efforts are very important. An important

[1] https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/RCF03052023395FAF37181E40188BAD3AFA59BF3907.PDF

factor in finding a solution to manage the climate risk is that it needs to account for emission contributions of countries in the past. When we measure the per capita emission instead of absolute emission or consider consumption-based emissions instead of production-based emissions, the high-income countries stand out for their contribution in global CO2 emissions. Unfortunately, it is also a reality that, while we all face the fury of the climate change, middle and lower income countries bear a disproportionate share of the costs in terms of loss in production capacity, property damage & wealth loss and impact on general health and well-being. Any solution, therefore, must factor the cumulative carbon space used by countries.

On ground, implementation of various climate finance commitments from advanced economies has been far from satisfactory and the gap between what is being done and what needs to be done is only growing. As against the amount of US$ 100 billion pledged by advanced economies, only US$ 83.3 billion has been provided in 2020, an increase of just 4 per cent from 2019. This trend needs to reverse.

To conclude, dealing with climate change is going to be a long haul for all of us. There are going to be situations and circumstances when other issues and concerns may come into focus and get prioritised, but we should not lose sight of long-term goal of planned and coordinated efforts to deal with the impacts of climate change. The earlier we all act, the better the outcome.

Thank you.

ARTICLES

*State of the Economy**

With industrial production and trade weakening, the global recovery is slowing after a robust first quarter performance. In this stressed global environment, the Indian economy is gathering momentum in the second quarter of 2023-24. Domestic drivers such as private consumption and fixed investment are offsetting the drag from the contraction in exports. The uptick in inflation in its June reading mutated in July, with the unprecedented shock to tomato prices spilling over to prices of other vegetables. While core inflation witnessed a moderation, headline inflation is expected to average well above 6 per cent in the second quarter.

Introduction

Global financial markets, which were settling after being stirred up and turning volatile in the wake of the failure of some banks and the debt ceiling imbroglio in the US, were seared by the US sovereign credit rating downgrade in early August. A pall of risk aversion hangs over investor sentiment. This unexpected development overwhelmed recent data arrivals that seemed to suggest that the global economy could avoid a hard landing, including an upward revision in global growth for 2023 in the International Monetary Fund's (IMF's) update of the world economic outlook (WEO) released at the end of July. The US treasuries and the US dollar emerged as safe havens in the tumult of capital fleeing risky assets. Stocks slumped into the red across the Asia-Pacific, including in India, and fear gauges such as the volatility index (VIX) spiked. In one view, "we're experiencing a slow-motion fiscal train wreck, not a soft landing, and it's draining global capital and endangering the dollar."[1] The opposing view is that the decision to downgrade the US is "bizarre and inept"[2], and "puzzling in light of the economic strength of the US".[3] Bond yields were also lifted by the easing of the Bank of Japan's yield curve control policy in response to inflation at a four-decade high. Investors tested its tolerance for higher yields and markets braced up for the possible return of Japanese investors who own over US$ 1 trillion in US treasuries and want to avoid hedging costs.

Overall, the sense is that the global growth is slowing after a robust first quarter performance. Industrial production and trade are both showing weaknesses, reflecting the slowdown in global demand as well as a shift towards domestic services as trade barriers spring up and bite. Geopolitical risks and difficult financial conditions are deterring investment. The demand swing towards services is starting to taper, limiting the boost to growth it had given in preceding quarters. Manufacturing is slowing or contracting across major advanced economies (AEs) and is being pulled down in emerging market economies (EMEs) as well. Accordingly, the IMF in its July 2023 WEO update indicates that "high-frequency indicators for the second quarter point to a broader slowdown in activity". Underlying this shift in gears in the trajectory of the global economy, divergences among countries and regions are becoming starker as growth impulses got stronger on both sides of the Atlantic and China slipped into deflation. Strengthening domestic investment is expected to push up growth in India.

* This article has been prepared by G. V. Nadhanael, Shahbaaz Khan, Yogesh H. C., Kunal Priyadarshi, Rohan Bansal, Ramesh Kumar Gupta, Silu Muduli, Himani Shekhar, Pankaj Kumar, Harendra Behera, Gautam, Anoop K Suresh, Akash Kovuri, Jobin Sebastian, Shelja Bhatia, Shivam, Prashant Kumar, Priyanka Sachdeva, Sakshi Awasthy, Abhinandan Borad, Khushi Sinha, Avnish Kumar, Kartikey Bhargav, Rajendra Nana Chavan, Savita Pareek, Arti Sinha, Asish Thomas George, Joice John, Vineet Kumar Srivastava, Samir Ranjan Behera, Deba Prasad Rath and Michael Debabrata Patra. Views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

[1] Davis Malpass "Fitch Tells the Federal Reserve to Wake Up" https://www.wsj.com/articles/fitch-tells-the-federal-reserve-to-wake-up-bonds-private-sector-rating-116c0231

[2] Lawrence H Summers, https://twitter.com/LHSummers/status/1686491454154125313 .

[3] Remarks by Secretary of the Treasury Janet L. Yellen on Inflation Reduction Act, Progress on Modernizing IRS, August 2, 2023. https://home.treasury.gov/news/press-releases/jy1672

In the EME world, the recent global shocks and spillovers have produced varied outcomes. Some of the constituents have forcefully tightened monetary policy to press down inflation; others have been less aggressive while building up foreign exchange reserves.[4] Some have turned to domestic markets to raise resources for longer maturities. They exorcise the original sin[5] of borrowing in foreign currency and hence currency risk, but expose themselves to duration risk that tends to amplify market disruptions by increasing the sensitivity of the domestic yield curve to global financial conditions.[6] Among those that continue to borrow in foreign currency, bonds issued by countries with credit ratings of triple C and below have delivered an average total return of 27 per cent since the start of 2023. Meanwhile, countries deadlocked in debt distress are making progress in negotiating financial support with the IMF and are pulling back from the brink of default. The upheavals in commodity markets have also separated the fortunes of exporters and importers, and terms of trade have swung both ways. Taken together, however, there is a rising narrative about EMEs' economic resilience. Although financial markets continue to play on the AE-EME dichotomy while chasing returns or bolting from risk, there is a view gathering currency that the EME label should be retired.[7]

Inflation data for July 2023 that have been released in the first half of August indicate that the genie of inflation is still out of the bottle – upticks have flattered to deceive the good feeling of moderation that had just started to set in during May and June. This reversal has endorsed hawkish stances of central banks and strengthened their disinflationary resolve. Core inflation is moderating after a prolonged persistence. The easing of supply chain pressures and slower than anticipated growth in wages are creating conditions for core inflation to soften further, although here too, countries are at different points of the curve. As geopolitical strife intensifies, however, prices of agricultural commodities, metals and energy have picked up steam, bringing back the spectre of food and energy insecurity and potential spillovers to core inflation. The IMF estimates that global headline inflation may yield by close to 2 percentage points in 2023 from a year ago, but this is predicated on declining international commodity prices which is now imperilled. Core inflation is expected to ease by 0.5 percentage points, but about half of the economies are expected to see no decline in core inflation in 2023. Overall, inflation is projected to remain above target in 2023 in 96 per cent of economies with inflation targets. The international inflation environment is rendered fragile again. The question is: will central banks plod on with tightening monetary policy even as the global economy loses momentum? So far, most AEs have raised their policy rates by 25 basis points in their latest meeting while most EMEs kept their policy rates on hold.

July 2023 turned out to be the earth's hottest month on record, with the global average temperature at 16.95 degrees Celsius, a third higher than the previous record set in 2019. Dire consequences have followed, with deadly heat waves in North America, Europe and Asia. *El Nino* conditions are expected to fully emerge in the second half of the year; such events are typically associated with release of energy from the oceans to the atmosphere and an increase in the overall global surface temperature. So, even warmer months are expected to follow right into early 2024. In our part of the world, the connection between rising global temperature and heavier and uneven monsoons is becoming stronger and extreme rain events are likely to increase. It is in this context

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4 Refer to Chart 60b.

5 The term was originally coined by Eichengreen, B. and Hausmann, R. (1999). Exchange Rates and Financial Fragility. NBER Working Paper No. 7418.

6 Robin Wigglesworth "The evolution of original sin". https://www.ft.com/content/ae4db21e-d2a0-458f-a096-96b5d2d19af0

7 The Editorial Board, Financial Times, "Time to retire the 'emerging markets' label", https://www.ft.com/content/1bb0b83f-6b0c-4c1d-9bd0-72a84392e7de

that it has been said: "the era of global warming has ended; the era of global boiling has arrived."[8] Where heat waves lead, food inflation will follow as harvests will likely become smaller, and crop yields, dairy production and soil moisture content lower. As we said in the Report on Currency and Finance for the year 2022-23, the climate is striking back.

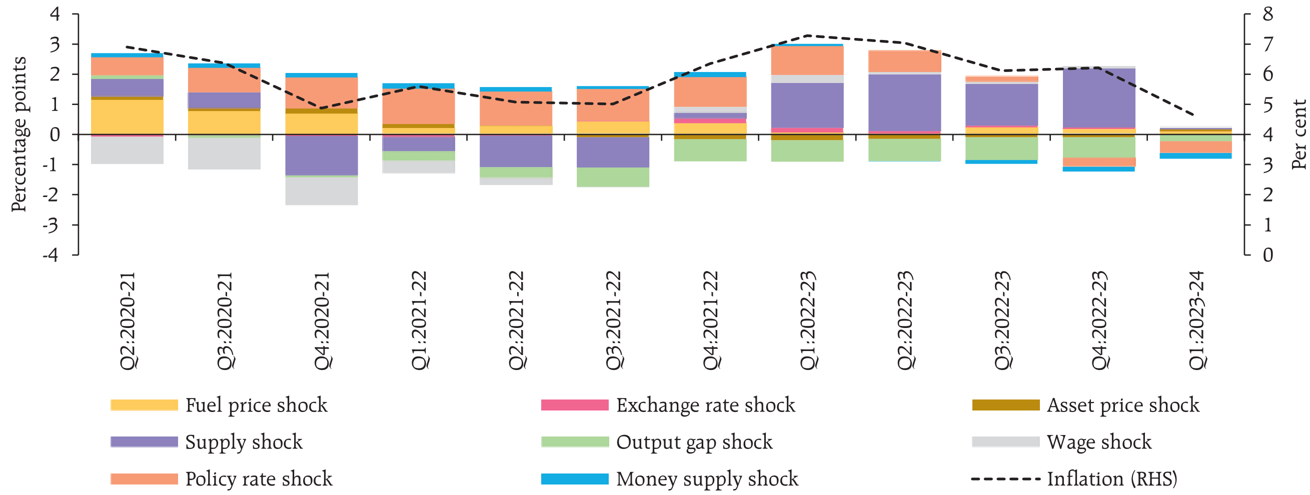
In this stressed global environment, the Indian economy appears poised to regain momentum (on a quarter-on-quarter basis) in the second quarter of 2023-24 after a dip that typically characterises the first quarter. High frequency indicators for July discussed in later sections provide the foundations for our view that this pick-up in momentum should counterbalance unfavourable base effects. The indicators are mostly in the green (Table 1), *i.e.*, in acceleration, that is being driven by domestic drivers such as private consumption and fixed investment, offsetting the drag from the contraction in exports. In a reflection of consumer demand conditions, sales of daily essentials and groceries recorded a sequential recovery in July, with an uptick in rural areas. Home care and packaged food have also gained upside. In urban areas, the revenue growth of fast moving consumer goods (FMCG) has been boosted by digital demand and sales through e commerce.

In terms of the supply response, there is a catch-up underway in farm activity as the monsoon spreads out across the country and especially into the hitherto deficient east and north-east. Survey-based indicators point to industry reviving, led by manufacturing. The RBI's industrial outlook survey polled improved investment sentiment, with demand conditions assessed to improve across sectors and likely to be sustained over the next three quarters. Respondents expressed optimism about the easing of input cost pressures across sectors, although wages are expected to increase in the second quarter. Selling prices are expected to rise and push up profit margins. There is an underlying confidence that employment conditions and the overall business situation will remain upbeat till the end of the year (Annex 1).

An important development that is likely to have a bearing on the national accounts for the first quarter of 2023-24 that will be released at the end of August is the strong but skewed – *i.e.*, tilted towards large companies in a few sectors - improvement in corporate profitability, despite flattening of revenues, except for the consumer goods sector. The key to rising bottom lines is the decline in input costs across several sectors. Downstream oil and gas companies recorded a surge in profits, with the decline in crude oil prices resulting in higher marketing margins. Excluding chemicals and some metal sector related companies, corporates in most other sectors also reported a growth in profitability. This included information technology (IT) companies although sharp downward revisions in forward revenue guidance weighed on sentiment. In contrast to other sectors, auto companies, including two and four-wheeler passenger vehicles and commercial vehicle producers, saw profits being driven up by expansion in sales volume. The construction as well as construction materials and capital goods sector companies also registered sharp business growth, reflective of the underlying strength of domestic demand conditions. Chemicals sector companies, however, faced headwinds during the quarter in the face of subdued demand and pricing pressures in various segments. Banking and financial sector companies registered another quarter of stellar performance on the back of robust demand conditions and stable asset quality. Treasury incomes rose strongly due to a pullback in bond yields, allowing them to grow their core net interest income and other income. The profit surge has been led by public sector banks. In turn, profitability is boosting equity valuations of all listed corporates.

[8] Antonio Guterres, UN Secretary General, Opening remarks at press conference on climate https://www.un.org/sg/en/content/sg/speeches/2023-07-27/secretary-generals-opening-remarks-press-conference-climate

Chart 1: Historical Decomposition of Inflation



Note: Estimated using a Vector Auto Regression with the following variables: crude oil price, exchange rate, asset price, inflation, output gap, rural wages, policy repo rate, and money supply.
Source: Patra *et al.* (2023), Understanding Recent Inflation Dynamics in India, *mimeo.*

Inflation fell from its peak of 7.3 per cent in Q1:2022-23 to 4.6 per cent in Q1:2023-24. This 270 basis points (bps) decline in inflation was mainly due to the waning of supply shocks. The impact of monetary policy actions is gathering potency, accounting for around 130 bps of the decline of inflation. The contributions of other factors more or less offset each other (Chart 1).

The uptick in inflation in its June reading mutated in July, with the unprecedented shock to tomato prices spilling over to prices of other vegetables. In the event, headline inflation surged to a 15-month high in July, exacerbated by a month-on-month (m-o-m) increase of 4.3 per cent in electricity prices. Notably, however, core inflation eased in July, extending a softening bias that set in from February 2023. The incidence of supply shocks is not over - elevation in vegetable prices has extended into the first half of August. Accordingly, headline inflation is expected to average well above 6 per cent in the second quarter. The vulnerability of the economy to recurring incidence of vegetable price shocks, especially ahead of and during the monsoon, warrants major reforms in perishable supply chains covering transportation networks, warehousing and storage technologies, and value addition processes that damp the amplitude of these swings. Stable prices for consumers, assured supplies and remunerative proceeds for farmers will follow when these reforms lead to efficiency and productivity gains while preserving the quality of output and building up insulation against food inflation from climatic events.

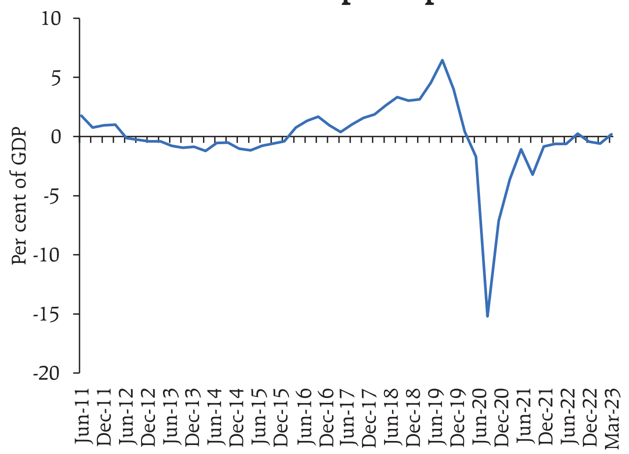
The shadow of *El Nino* looms over the second half of the year and the outcome for food inflation in the *rabi* season. Yet another upside risk is the outlook on crude oil prices that is marred by 'engineered' supply shortfalls.[9] There is a diminishing probability of crude price pressures easing over the rest of the year. This bodes ill for net energy importers like India. It is heartening to note that demand restraint exercised by monetary policy and supply augmenting measures are offsetting these price pressures considerably. In the absence of these policy responses, the inflation

[9] Please refer to footnote no. 12 relating to production cuts by key suppliers.

outlook would have been far more adverse. The commitment to remain anti-inflationary should quell threats to macroeconomic stability and help anchor expectations. In fact, households expect inflation to edge down over the year ahead. This is also reflected in the latest round of the consumer confidence survey with regard to the price situation.

On balance, our assessment of the Indian economy in terms of its position in the business cycle is that the slack imposed by the pandemic has been pulled in. The output gap, which was mostly negative since the fourth quarter of 2019-20 has turned positive during January-March 2023 (Chart 2). Investors are ebullient about India's growth prospects at a time when the rest of the world is slowing down. They look at industrials, financials and consumer discretionary stocks as major beneficiaries of India's ongoing structural transformation.[10] Credit raters are watching India as it sets ambitious targets for itself and for the world under its G20 presidency.[11] The challenge in the decade ahead will be to achieve sustained high, stable and inclusive growth, the core of the G20's vision. The global south will be watching as India balances the goals of achieving high growth and reducing the carbon intensity as it aspires to become a global manufacturing hub while harnessing the power of its demographic dividend and digital revolution. In the words of Shri Shaktikanta Das, Governor, RBI, "India is uniquely placed to benefit from the ongoing transformational shifts in global economy in the wake of geopolitical realignments and technological innovations. A large economy marching ahead with vast domestic demand, untapped resources and demographic advantages, India can become the new growth engine for the world" (Governors' Statement, August 10, 2023).

Chart 2: Output Gap



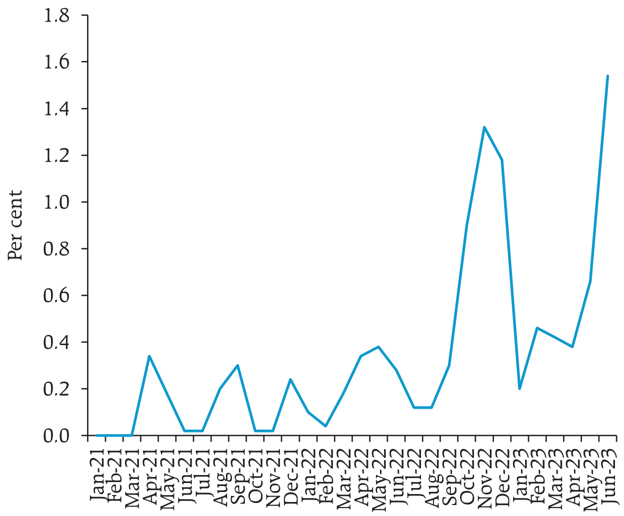
Note: Output gap estimates are obtained by using multivariate Kalman filter, Hodrick-Prescott filter, and Band-pass filters after adjusting for the pandemic effects

Sources: Updated from *Patra et al* (2021) Is the Phillips Curve in India Dead, Inert and Stirring to Life or Alive and Well?, RBI Bulletin, November; and RBI staff estimates.

Global Setting

Global growth was restrained by lacklustre activity in manufacturing and trade in Q2:2023 although the performance of the services sector remained resilient. The cumulative effects of monetary policy tightening are beginning to show up in credit and labour market conditions across advanced economies (AEs). Recession probabilities for the US rose to their highest in June 2023 since 2021 (Chart 3).

Chart 3: Recession Probabilities in the US



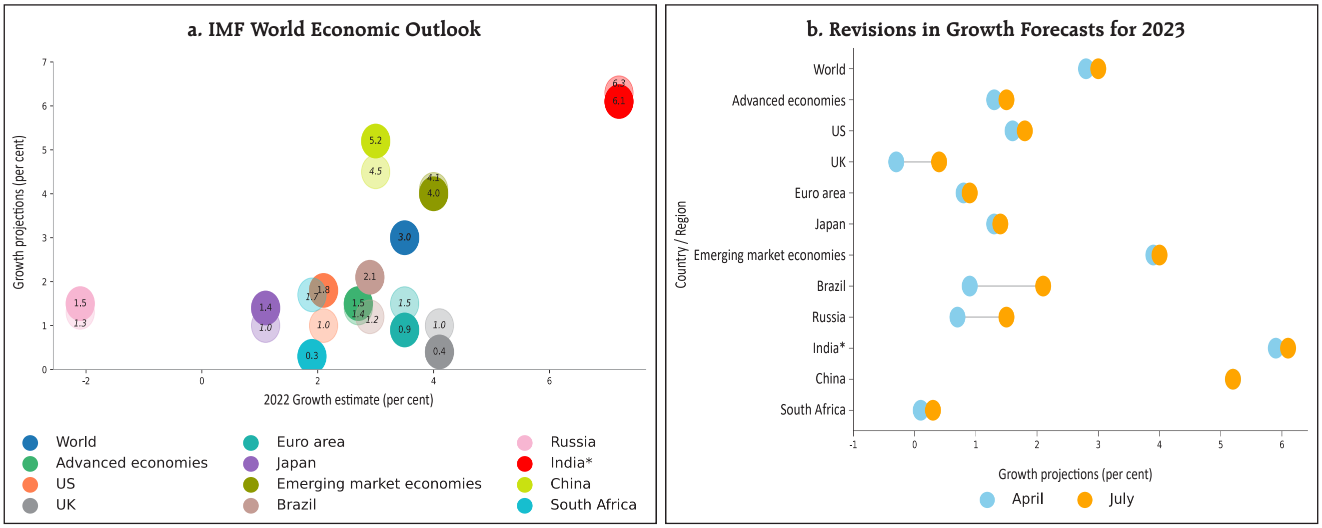
Note: Data accessed on August 14, 2023.

Source: FRED.

[10] Morgan Stanley Investor Presentation: Market Allocation – Major Changes.

[11] 'Morgan Stanley upgrades India, downgrades China', Economic Times, August 4, 2023.

Chart 4: Global Growth Projections



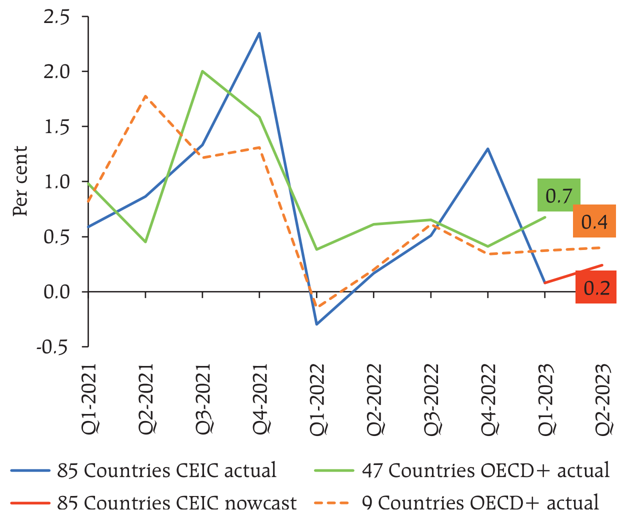
Notes: 1. *: Data for India are on a fiscal-year basis.
2. Darker (lighter) shaded circles pertain to 2023 (2024) forecasts in chart 4a.
Source: IMF.

In its July 2023 update of the World Economic Outlook (WEO), the International Monetary Fund (IMF) revised its global growth forecast for 2023 marginally upwards to 3.0 per cent from its April projection of 2.8 per cent (Chart 4a). Much of the revision was in the AE group (0.2 percentage points), following better than expected H1:2023 performance (Chart 4b). Global growth for 2023 is, nonetheless, expected to trail below its 2022 level (3.5 per cent) as well as historical (2000-19) average of 3.8 per cent.

Incoming data across geographies point towards a mixed picture. GDP growth in the US, the UK and the Euro area accelerated in Q2:2023, although in the case of the latter, Germany's economy stagnated and Italy unexpectedly experienced a contraction. In China, GDP growth decelerated sharply in Q2 as pent-up demand waned after the rebound in late 2022. Our model-based nowcast for global GDP growth points towards a positive momentum in Q2:2023 (Chart 5).

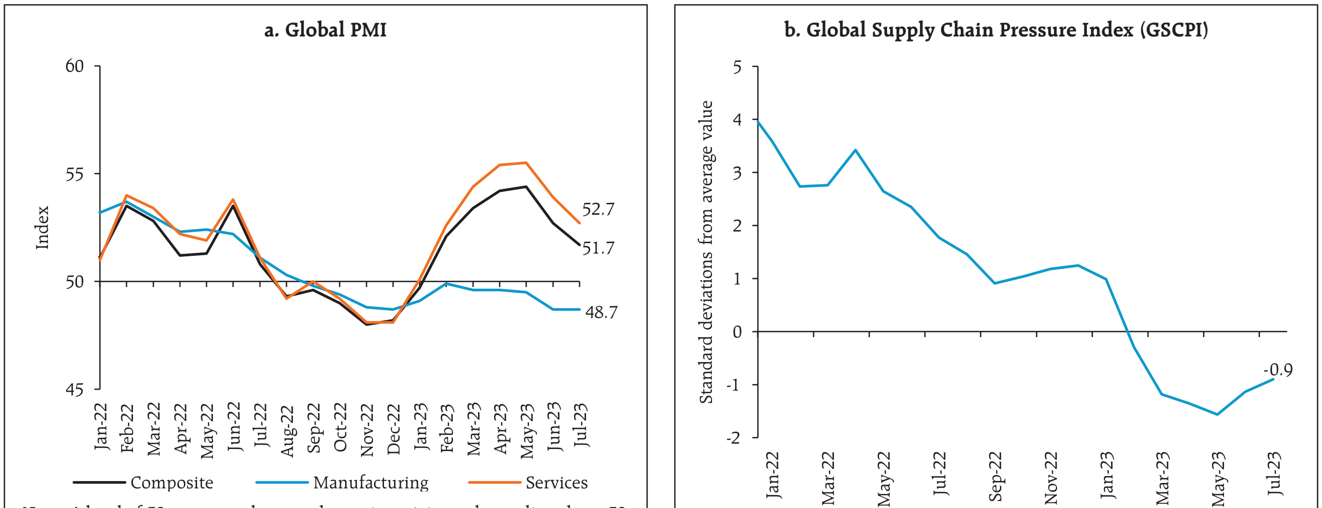
The global composite purchasing managers' index (PMI) – a high frequency indicator of global economic activity – declined to its lowest reading since January 2023 (Chart 6a). The global services PMI moderated sequentially for the second consecutive month, although it remained in the expansionary zone. Financial services, barring banks and real estate bucked the trend, however, and registered robust activity. On the other hand, the global manufacturing PMI's downturn persisted in July as output and new orders fell at faster rates, particularly in the basic

Chart 5: Global GDP Growth Nowcast (Adjusted Series, Q-o-Q)



Sources: CEIC; OECD; and RBI staff estimates.

Chart 6: Global Business Conditions



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

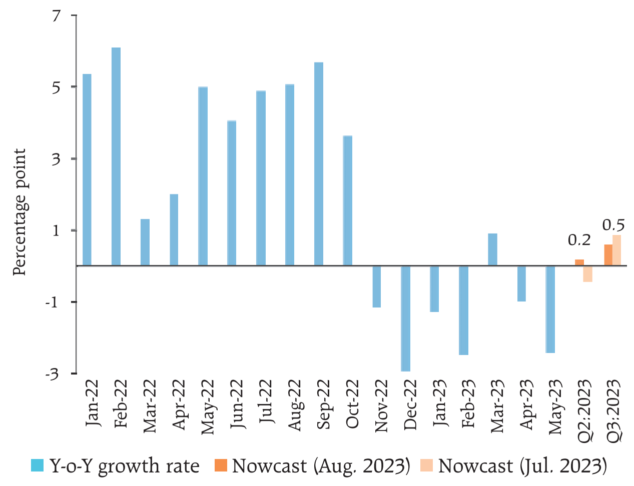
Note: GSCPI reflects data on transportation costs and manufacturing indicators.
Source: Federal Reserve Bank of New York.

materials and construction sector. Global supply chain pressures remained below historical averages despite a sequential pick-up in June and July (Chart 6b).

In its latest release on August 8, 2023, the United Nations Conference on Trade and Development (UNCTAD) revised its nowcast of merchandise trade volume downwards; world trade growth is nowcast at 0.47 per cent for Q3:2023, up from 0.19 per cent in Q2:2023 (Chart 7). The growth in services trade is nowcast at 1.78 per cent for Q2:2023 and 0.65 per cent for Q3:2023.

Global commodity prices hardened in July (Chart 8a). Brent crude oil prices rose sharply in July to an average of US$ 80.1 per barrel from US$ 74.9 per barrel in June, driven by a sharp drop in US crude oil stocks and deeper supply cuts[12] from OPEC+ (Chart 8b). Gold prices marginally rose in July as weaker than expected US jobs pushed the US dollar and Treasury yields lower; subsequently, however, gold prices moderated as the US dollar strengthened in early August (Chart 8c). Prices of food grains surged after Russia pulled out of the Black Sea Grain deal but retreated from end-July. The Food and Agriculture Organization (FAO) food price index increased by

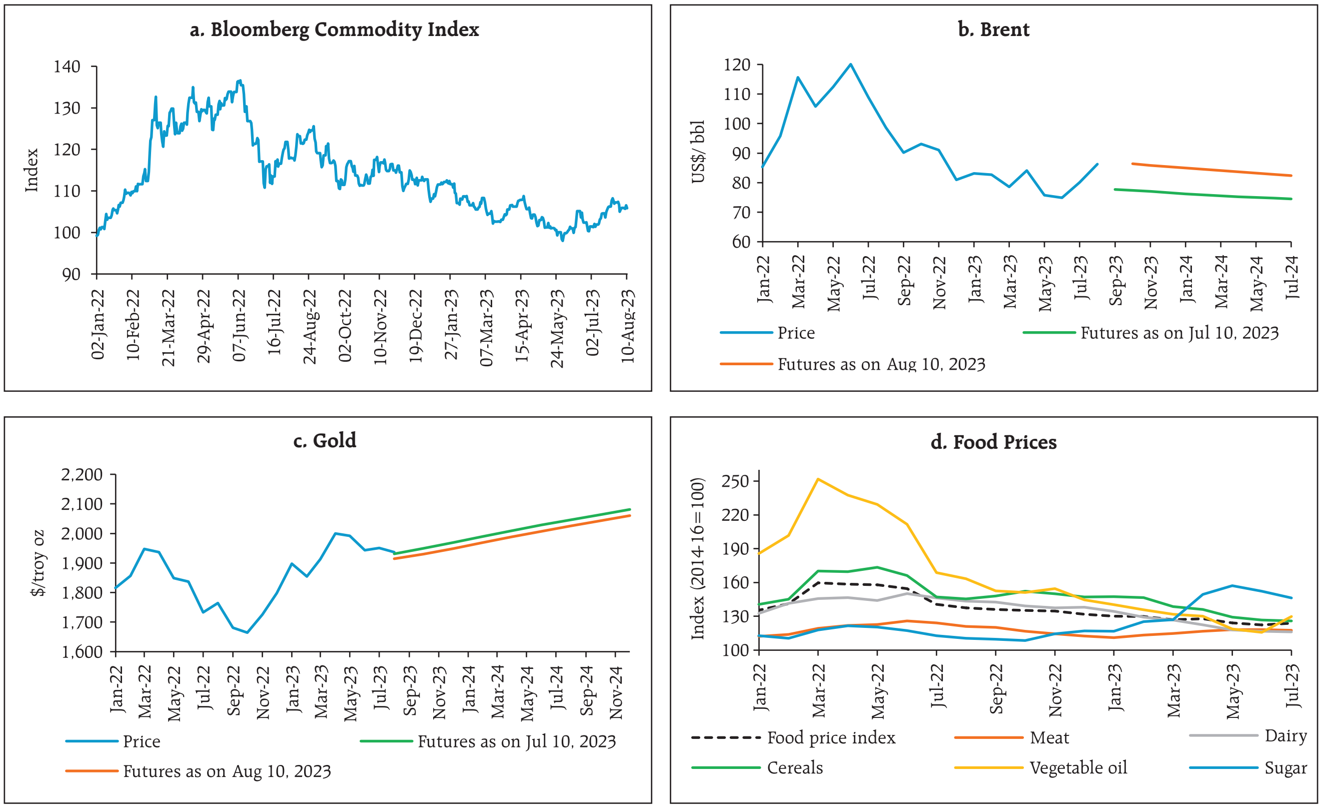
Chart 7: Growth in World Merchandise Trade Volume



Note: Nowcasts pertain to q-o-q growth.
Sources: CPB Netherlands; UNCTAD; and RBI staff estimates.

[12] Saudi Arabia's decision to extend its supply cut of one million barrels per day (bpd) through September and Russia's announcement on August 3rd to curb exports by 300,000 bpd in September propelled prices even higher in early August.

Chart 8: Commodity and Food Prices



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

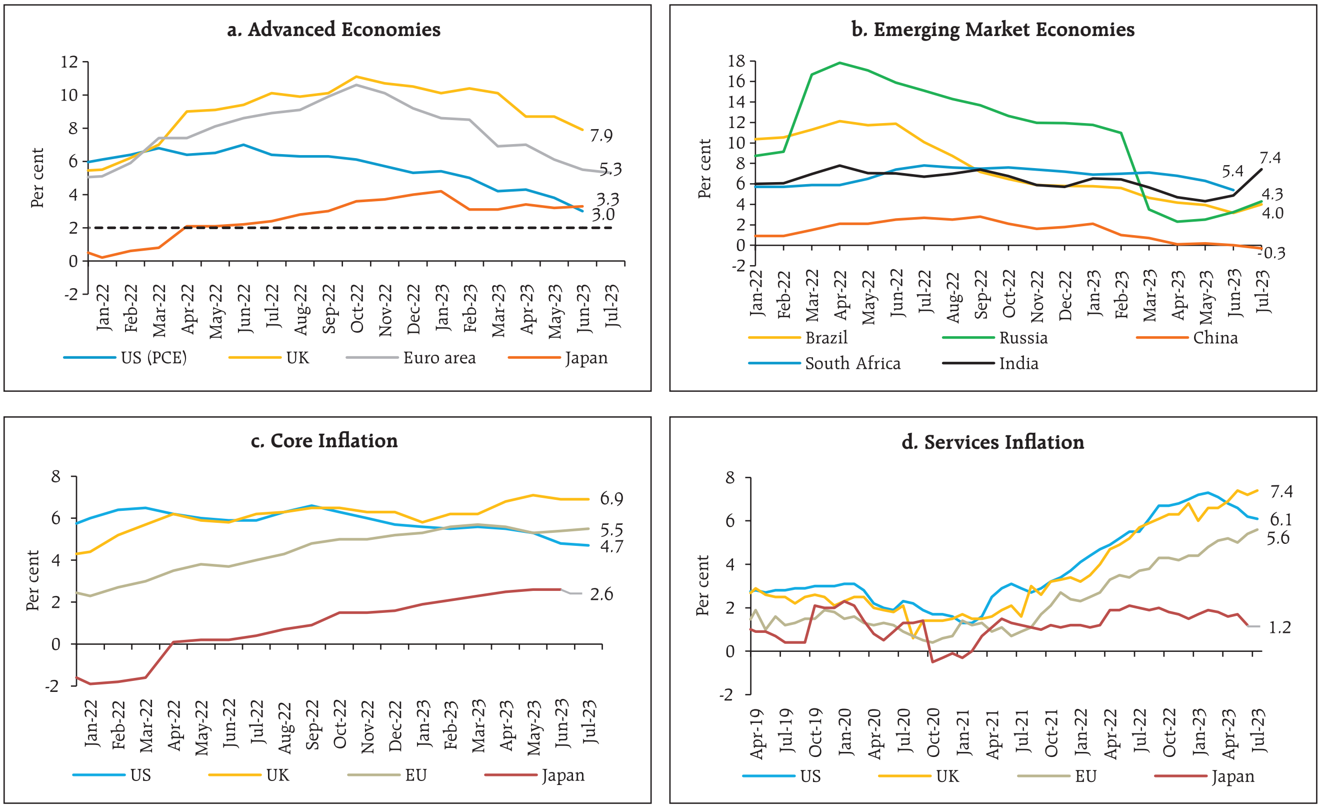
1.3 per cent (m-o-m) in July due to a sharp rise in prices of vegetable oils, partially offset by a decline in the prices of sugar, cereals, dairy and meat (Chart 8d).

Headline inflation moderated across most economies. As per flash estimates, inflation in the Euro area further moderated to 5.3 per cent in July 2023, its lowest level since January 2022 (Chart 9a). In the US, CPI inflation edged up to 3.2 per cent in July from 3.0 per cent last month. Inflation based on the personal consumption expenditure (PCE) index also stood at 3.0 per cent in June 2023, the lowest reading since April 2021. In the UK, CPI inflation eased to 7.9 per cent in June while Japan's CPI (all items less fresh food) inflation edged up marginally to 3.3 per cent in June (3.2 per cent in May). Among the EMEs, inflation edged up sharply in Brazil and Russia in July, while China registered a deflation of 0.3 per cent. Inflation in South Africa moderated in June (Chart 9b). Core and services inflation are exhibiting incipient signs of moderation but continue to remain above the headline in most regions (Chart 9c and 9d).

Global equity indices edged up in July with gains across AEs and EMEs as investors priced in improving prospects of a soft landing due to lower than expected inflation prints (Chart 10a). Bond yields hardened following the policy rate hike by the US Federal Reserve and a hawkish policy stance. Yield curve inversion in the US has continued for a year now (Chart 10b).

In early August, global stocks declined while treasury yields edged up following an announcement of large debt issuance by the US Treasury. This was exacerbated with the Fitch Ratings' downgrading the long-term foreign currency issuer default rating for

Chart 9: Inflation



Sources: Bloomberg; and OECD.

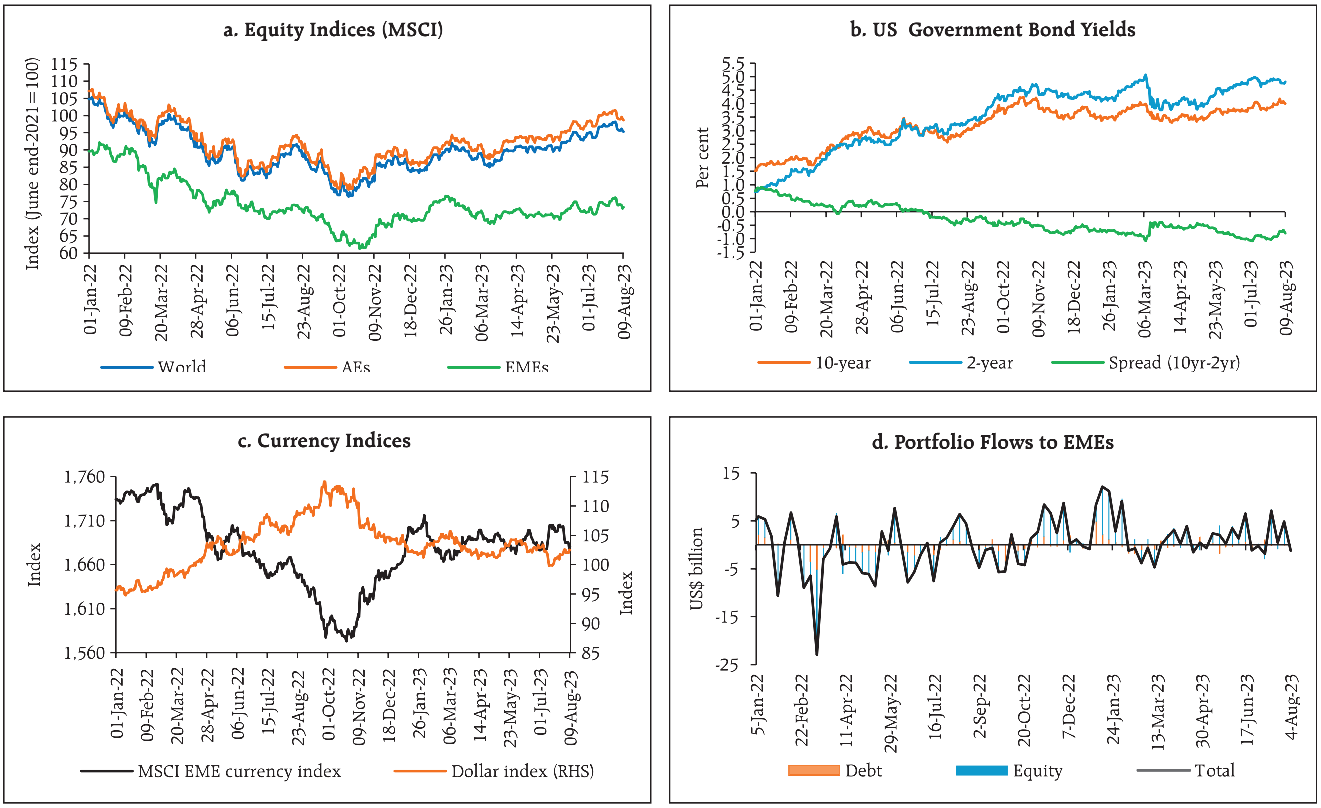
the US. Yields softened after non-farm payroll data released on August 4 showed signs of the labour market cooling. Also, ratings agency Moody's downgraded the credit ratings of 10 small and midsized banks in the US on August 7 which led to a fall in banking stocks and broader stock market indices.

In the currency markets, the US dollar depreciated in July by around 1.6 per cent, touching a 15-month low in mid-July on expectations of an early end to monetary policy tightening. Towards end-July, however, the US dollar recouped some of its losses after better than expected US economic data defied investors' expectations about the policy rate hike cycle ending. In early August, the US dollar appreciated on fresh concerns about the US banking sector and economic uncertainties in China which drove up safe-haven demand for the currency. Concomitantly, the Morgan Stanley Capital International (MSCI) currency index for EMEs gained marginally in July and capital flows to EMEs remained positive (Chart 10c and 10d). The MSCI currency index for EMEs declined in early August due to capital outflows.

Financial conditions have come under pressure, especially in the Euro area, driven by credit tightening (Chart 11a). Weakness in the global housing sector amidst rising interest rates is also exacerbating financial conditions (Chart 11b).

Among the major AE central banks, the US Federal Open Market Committee (FOMC), the European Central Bank (ECB) and the Bank of Canada raised their policy rates by 25 bps each in July, and the Bank of England raised its key rate by 25 bps in

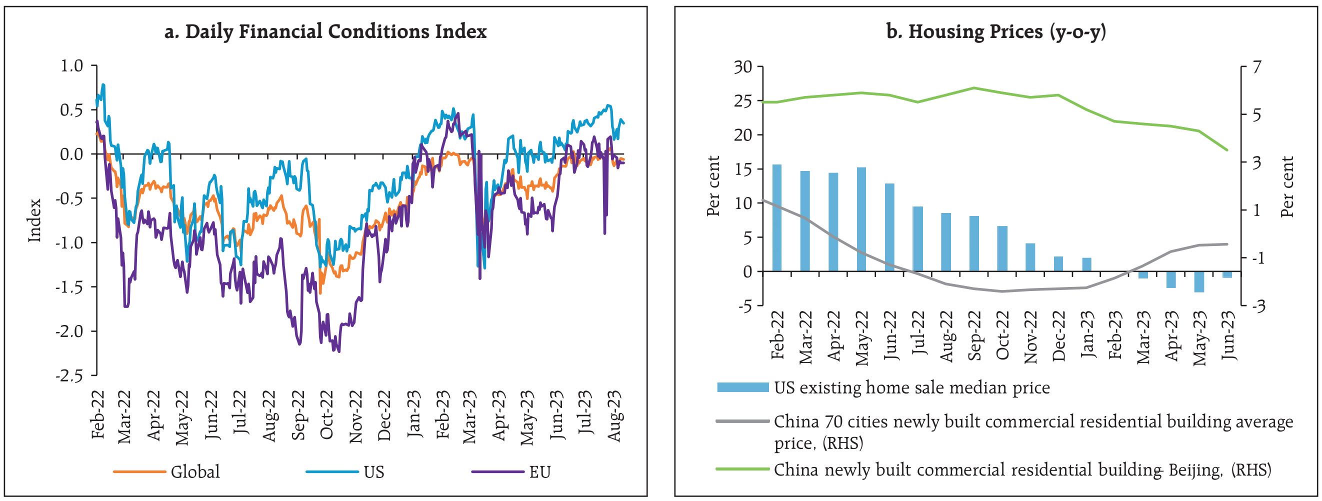
Chart 10: Global Financial Markets



Sources: Bloomberg; and IIF.

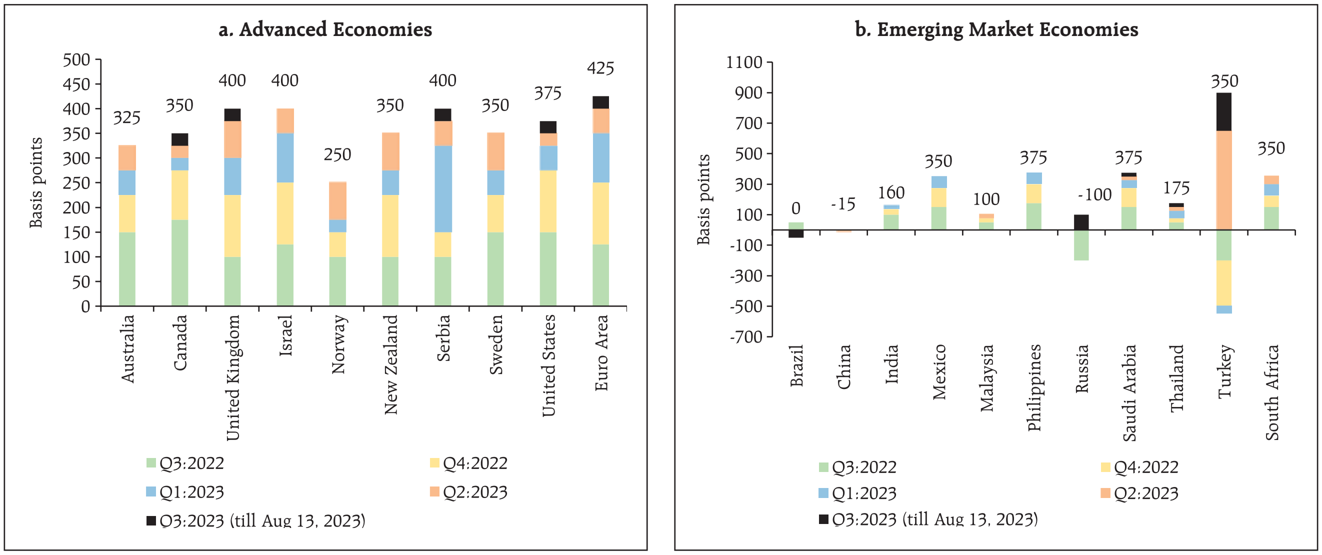
August (Chart 12a). The Bank of Japan maintained its policy rate at (-) 0.1 per cent in August but amended its conduct of yield curve control (YCC) to incorporate greater flexibility in the range of yield movement.

Chart 11: Global Financial Condition and Housing Sector Developments



Note: Bloomberg Daily Financial Conditions Index is a Z-score tracking the overall level of financial stress in the money, bond, and equity markets to assess the availability and cost of credit. Positive value indicates easy financial conditions, while negative value indicates tighter financial conditions relative to the pre-2008 crisis levels.
Source: Bloomberg.

Chart 12: Monetary Policy Actions



Source: Bloomberg.

Within the few EME central banks which changed their policy rates, the Bank of Russia and the Central Bank of Turkey raised their policy rates by 100 bps and 250 bps, respectively, in July. Banco Central do Brasil (Brazil), however, cut its policy rate by 50 bps in August (Chart 12b). While the Bank of Russia in an emergency meeting in August hiked their policy rate further by 350 bps. People's Bank of China cuts its medium term lending facility (MTF) by 15 bps and short term funding rates by 10 bps in August.

III. Domestic Developments

In its July 2023 update referred to earlier, the IMF revised India's growth upwards to 6.1 per cent for 2023-24. We maintain our view[13] that this projection may be surprised on the upside even with this upgrade. The index of supply chain pressure for India (ISPI), remains below its historical average, supporting growth impulses (Chart 13a). As alluded above, business sentiments remain positive about robust demand conditions (Annex 1). Over the year ahead, consumer confidence remains strong (Chart 13b). Our economic activity index (EAI) nowcasts GDP growth for Q1:2023-24 at 7.8 per cent (Chart 13c and 13d).

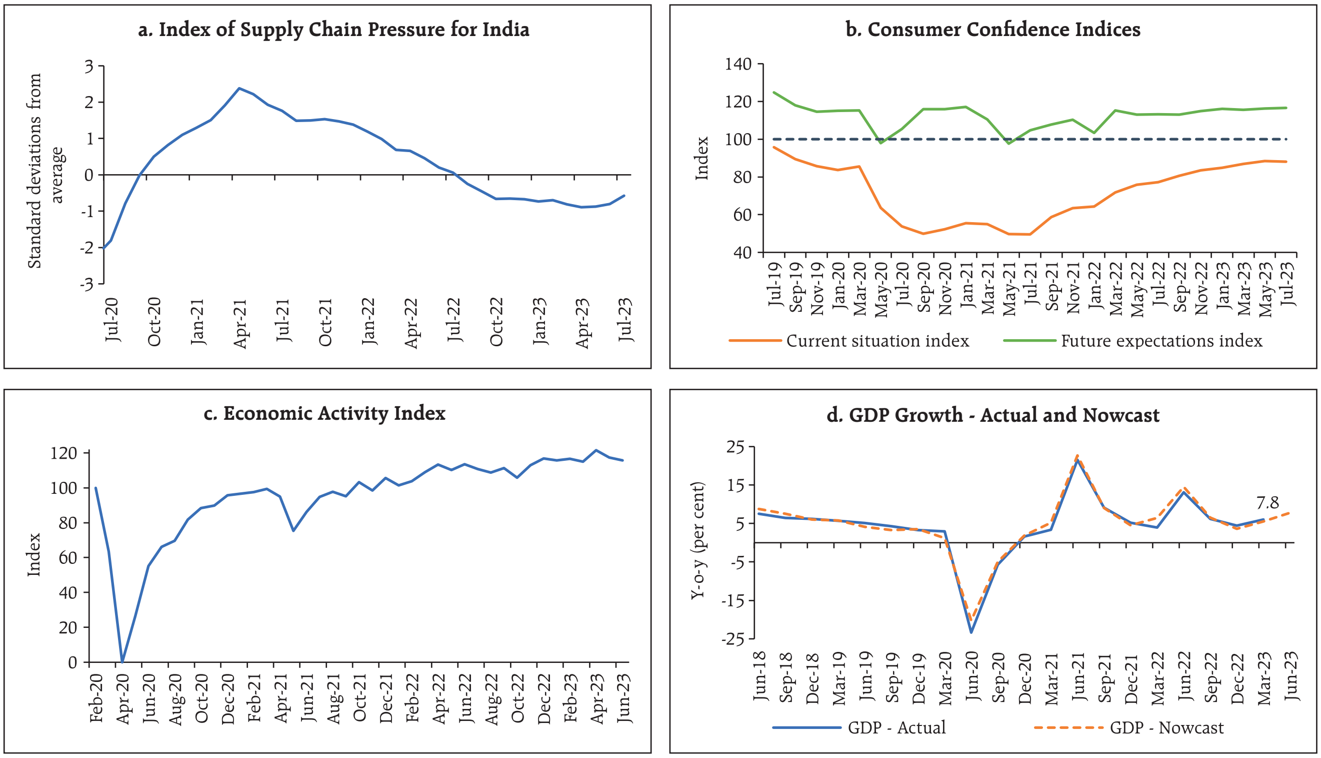
Aggregate Demand

Among lead indicators of demand conditions, E-way bill volumes registered a sequential pick up in July with a strong double digit y-o-y growth, indicating robust trade activity (Chart 14a). Toll collections remained higher than a year ago, *albeit* with a sequential moderation due to lower mobility with the onset of the south-west monsoon (SWM) [Chart 14b].

Automobile sales recorded a y-o-y contraction of (-) 3.9 per cent in July 2023 (Chart 15a). Except for three-wheelers, sales moderated in all the major categories (Chart 15b). Two-wheeler sales, which account for more than three-fourth of total sales, were dragged down by motorcycles sales and contracted for the first time in sixteen months. Passenger vehicles recorded their highest ever sales for the month of July, driven by increased demand for sports utility vehicles (SUVs). Vehicle registrations moderated sequentially, although they maintained a strong y-o-y growth of 9.8 per cent (Chart 15c). The daily average

[13] State of the Economy, April 2023.

Chart 13: Economic Activity and GDP Growth Nowcast

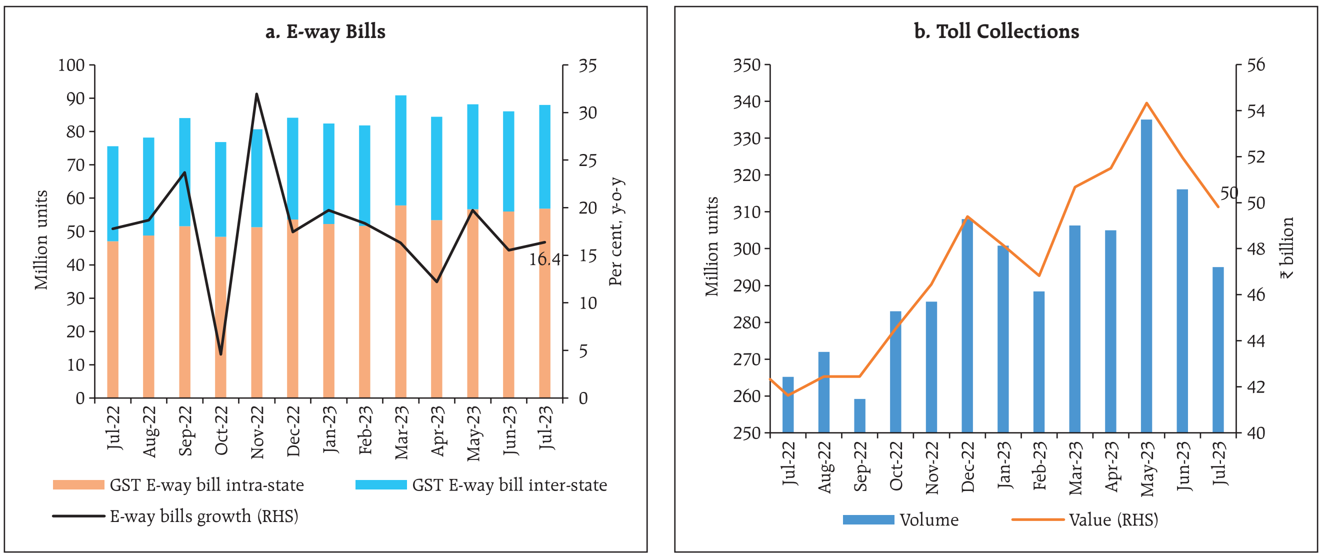


Note: The economic activity index (EAI) is constructed by extracting the common trend underlying twenty-seven high frequency indicators of economic activity using a Dynamic Factor Model. EAI is scaled to 100 in February 2020 and 0 in April 2020, the worst affected month due to mobility restrictions.

Sources: National Statistical Office (NSO); Consumer Confidence Survey, RBI; and RBI staff estimates.

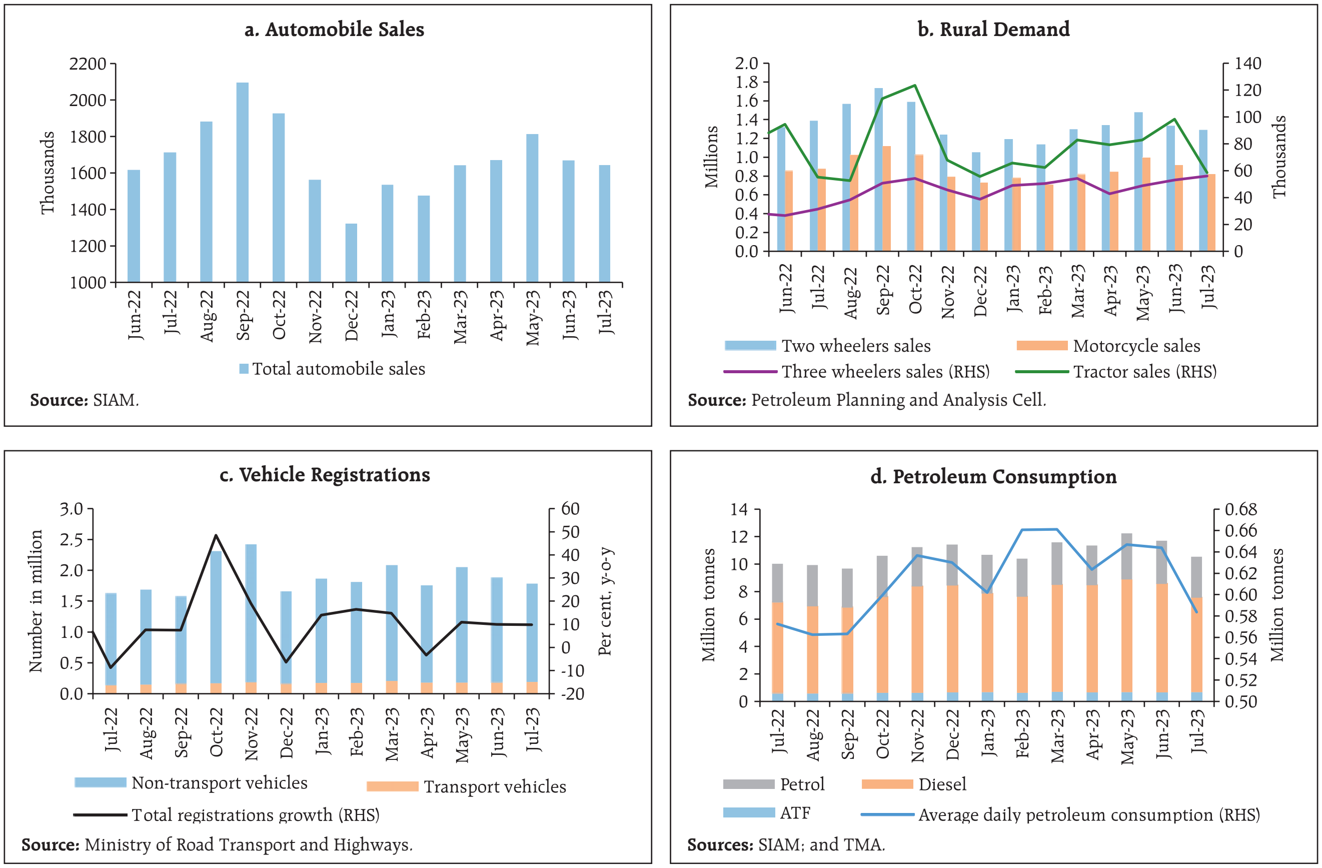
consumption of petroleum products declined by 9.4 per cent m-o-m in July due to lower demand for transportation fuels on account of reduced mobility during monsoons (Chart 15d).

Chart 14: E-way Bills and Toll Collections



Sources: GSTN; RBI; and RBI staff estimates.

Chart 15: Automobile Sector Indicators



Sales of FMCG improved sequentially in July[14] as retailers prepared for the upcoming festival season.[15]

The all-India unemployment rate (UR)[16] fell to 7.95 per cent in July 2023 on account of lower UR in rural areas (Chart 16a). Both the labour force participation rate and the employment rate recorded a marginal decline in July, led by a fall in employment in the services sector (Chart 16b). The employment outlook in the organised sector, as polled by the PMI for manufacturing and services, remained in the expansionary zone (Chart 17).

The demand for work under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) went into a decline in July by 30.3 per cent (m-o-m), as *kharif* sowing operations picked up (Chart 18). Despite the sequential fall, it recorded a y-o-y growth of 15.2 per cent.

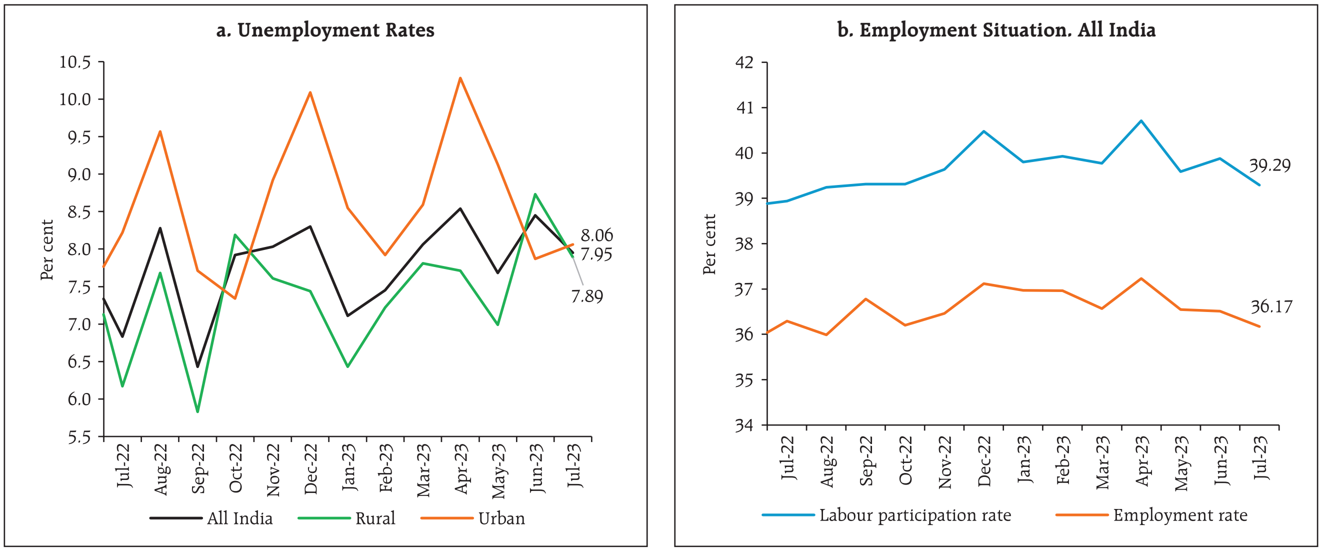
India's merchandise exports registered contraction for the sixth consecutive month in July 2023, declining by 15.9 per cent (y-o-y) due to negative momentum (Chart 19). The contraction in exports was broad-based, with more than two-third of the export basket (19 out of 30 major commodities) registering a y-o-y decline.

14 As per Bizom, a retail intelligence platform.

15 'FMCG sales rise as shops stock up ahead of festivals', The Economic Times, August 3, 2023.

16 Source: Centre for Monitoring Indian Economy (CMIE)

Chart 16: Labour Market Conditions

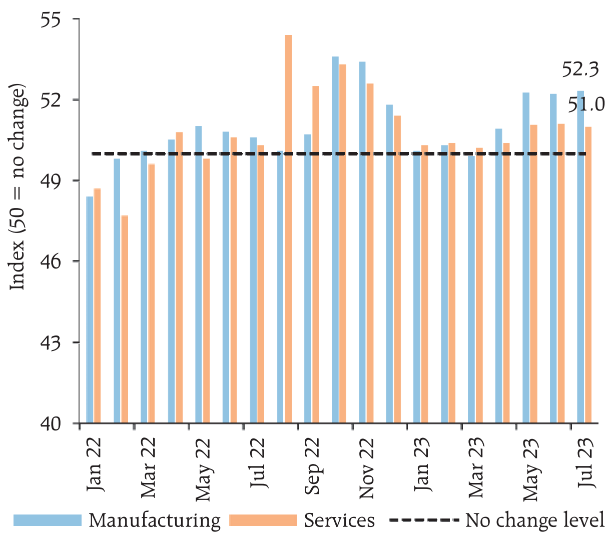


Source: CMIE.

The largest drag on exports was from petroleum exports, which fell to an 18-month low of US$ 4.6 billion and registered a y-o-y contraction of 43.7 per cent – the fifth consecutive month of decline. Gems and jewellery and engineering goods were the other major drags. Electronic goods, iron ore, ceramic products and glassware contributed positively to overall export growth during the month (Chart 20). Notably, rice also had a positive contribution to export growth in July 2023.

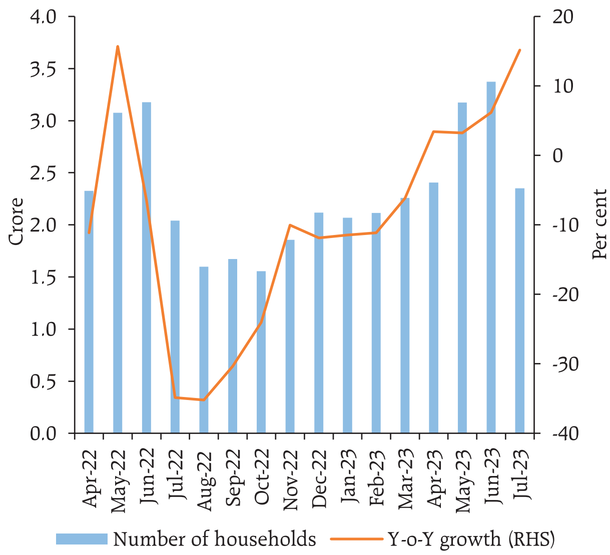
Trade restrictions on rice exports in September 2022 included prohibition of exports of broken rice and a 20 per cent cess on exports of all other rice varieties except parboiled and basmati. Despite

Chart 17: PMI Employment Indices



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

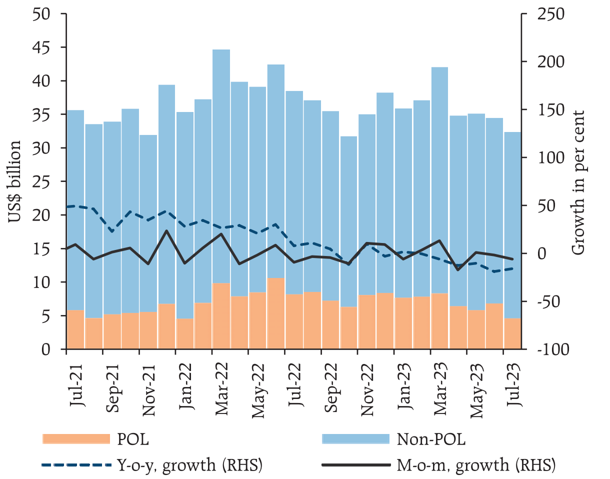
Chart 18: Demand for Work under MGNREGS



Source: Ministry of Rural Development.

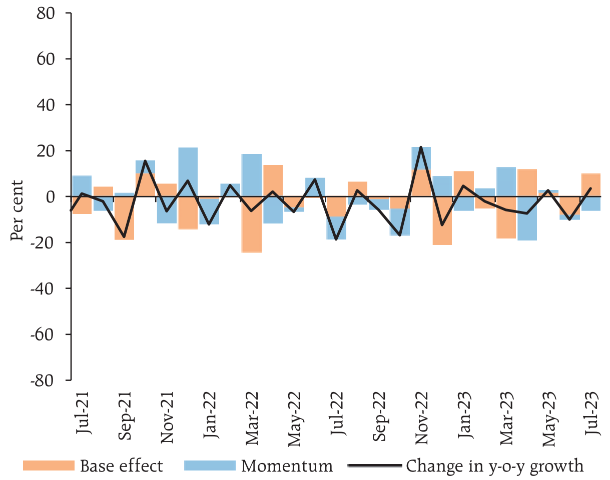
Chart 19: India's Merchandise Exports

a. Trend in Exports



Sources: PIB; and DGCI&S.

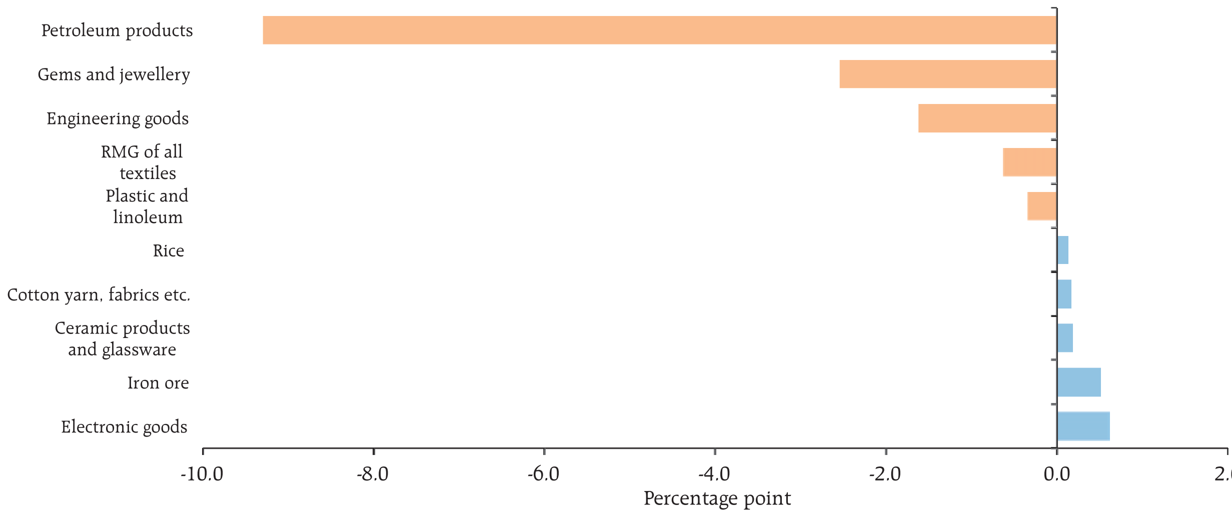
b. Decomposition of Sequential Change in Export Growth (y-o-y)



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

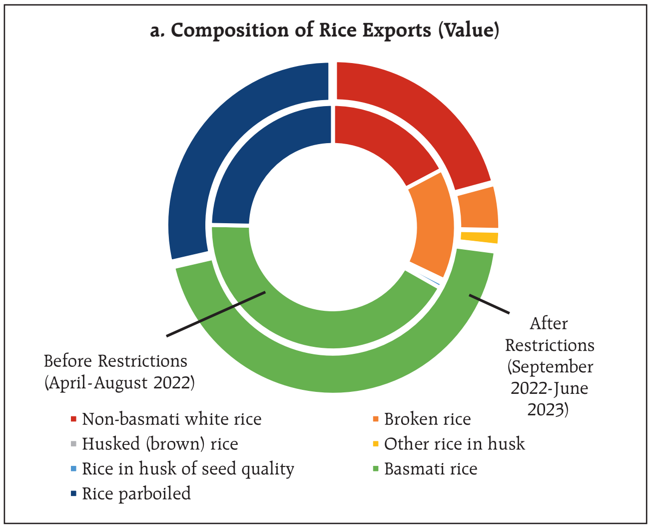
the imposition of the duty, exports of non-basmati white rice continued to increase. This category accounted for 20.8 per cent of India's rice exports by value during September 2022 to June 2023 (Chart 21a). To increase the domestic availability and contain inflation, exports of non-basmati white rice were prohibited with effect from July 20, 2023. Globally, prices of this variety surged after the export ban (Chart 21b). India remained the world's largest rice exporter, with its share in global exports increasing from 35.7 per cent in 2021 to 36.8 per cent in 2022.

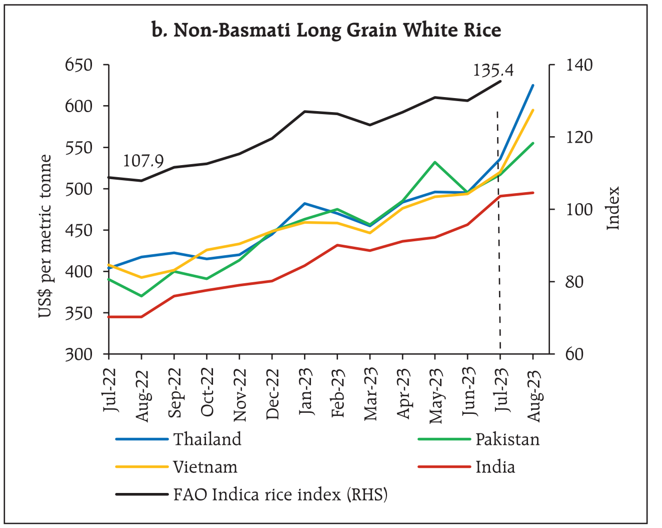
Chart 20: India's Merchandise Exports – Relative Contribution (July 2023 over July 2022)



Sources: PIB; and RBI staff estimates.

Chart 21: India's Rice Exports





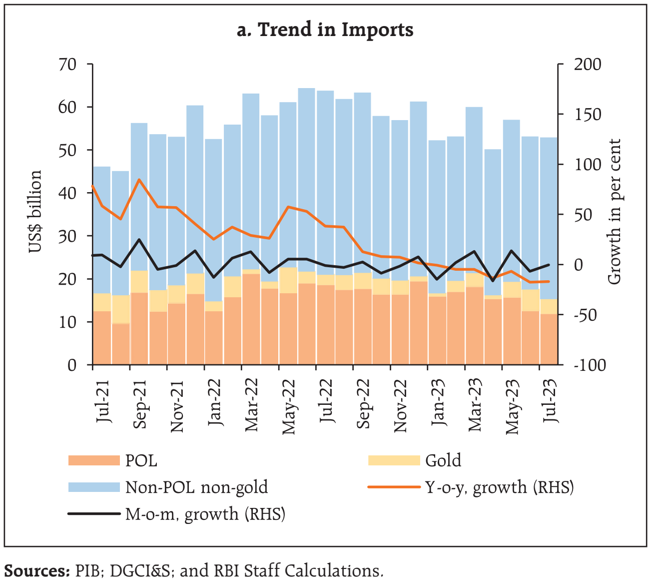
Note: Price data in chart 21(b) is up to August 4.
Sources: DGCI&S; ITC Trade Map; FAO; and Refinitiv Eikon.

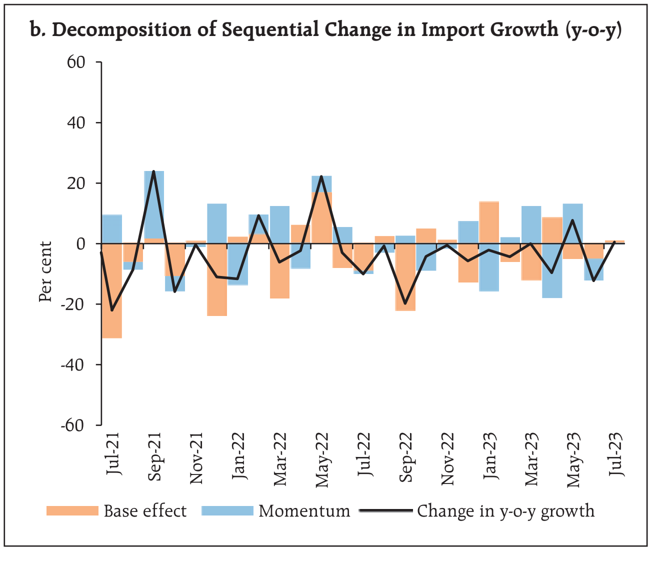
Merchandise imports at US$ 52.9 billion declined by 17.0 per cent (y-o-y) in July 2023, the seventh consecutive month of contraction (Chart 22), with 48 per cent of the import basket (16 out of 30 major commodities) declining on a y-o-y basis.

Petroleum, oil and lubricants (POL), coal, pearls, precious and semi-precious stones were the main items that dragged imports down while gold, electronic goods, and machinery contributed positively in July 2023 (Chart 23).

In the electronics segment, India has announced licensing requirements for import of laptops, tablets, all-in-one personal computers and ultra-small computers and servers with effect from November 1,

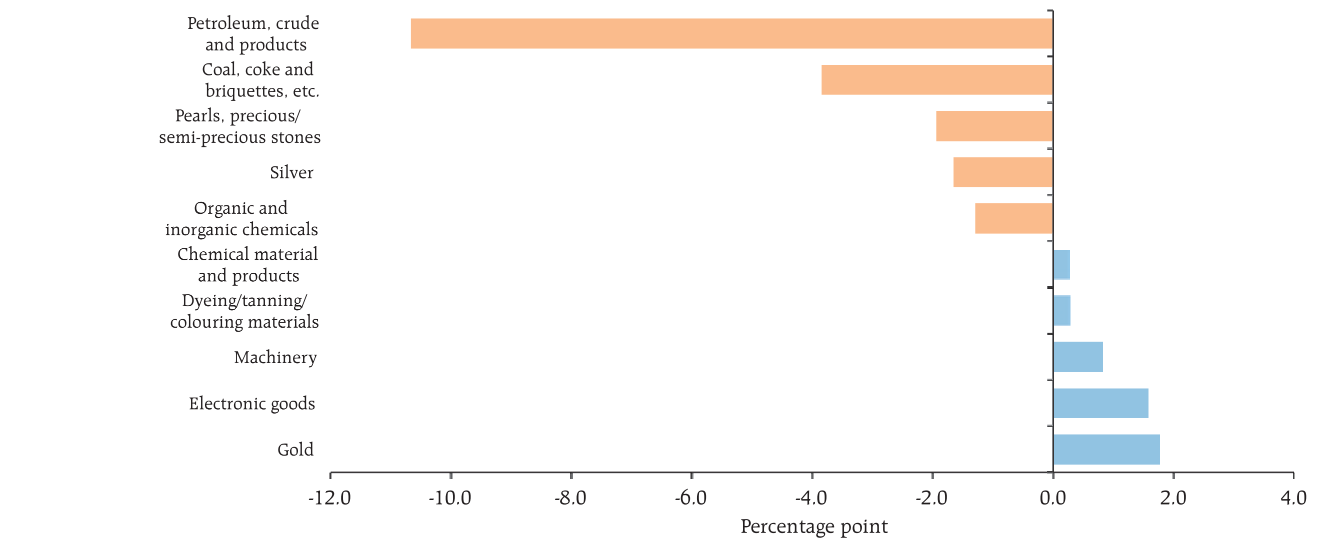
Chart 22: India's Merchandise Imports





Sources: PIB; DGCI&S; and RBI Staff Calculations.

Chart 23: India's Merchandise Imports – Relative Contribution (July 2023 over July 2022)



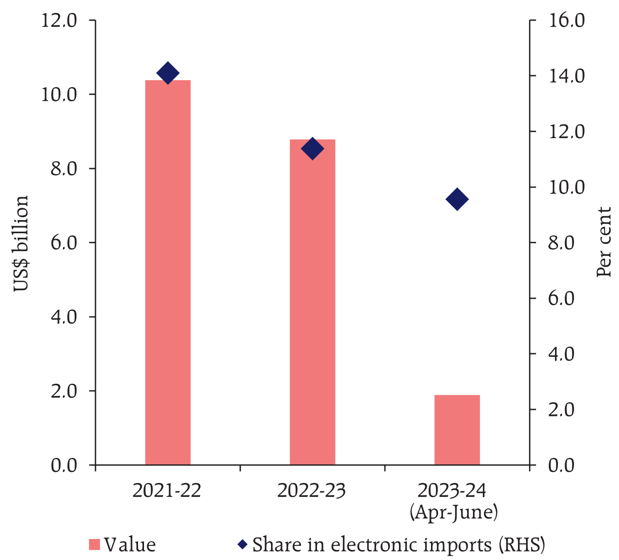
Sources: PIB; and RBI Staff Calculations.

2023. The restricted items constitute around 10 per cent of India's electronic imports (Chart 24).

With both exports and imports declining, the merchandise trade deficit in July increased by US$ 1.9 billion on a sequential basis to US$ 20.7 billion. The oil deficit also widened sequentially and accounted for more than a third of the overall merchandise trade deficit in July (Chart 25).

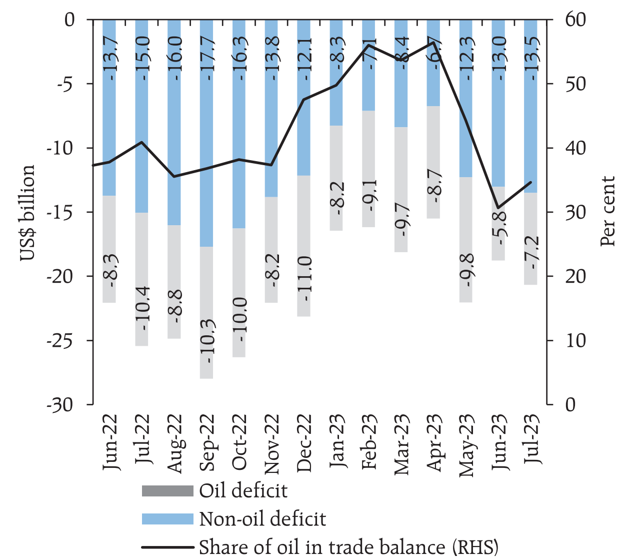
During April-July 2023, India's merchandise exports at US$ 136.2 billion contracted by 14.5 per cent (y-o-y). The decline in exports was primarily led by petroleum products, gems and jewellery and

Chart 24: Imports of Restricted Electronic Items



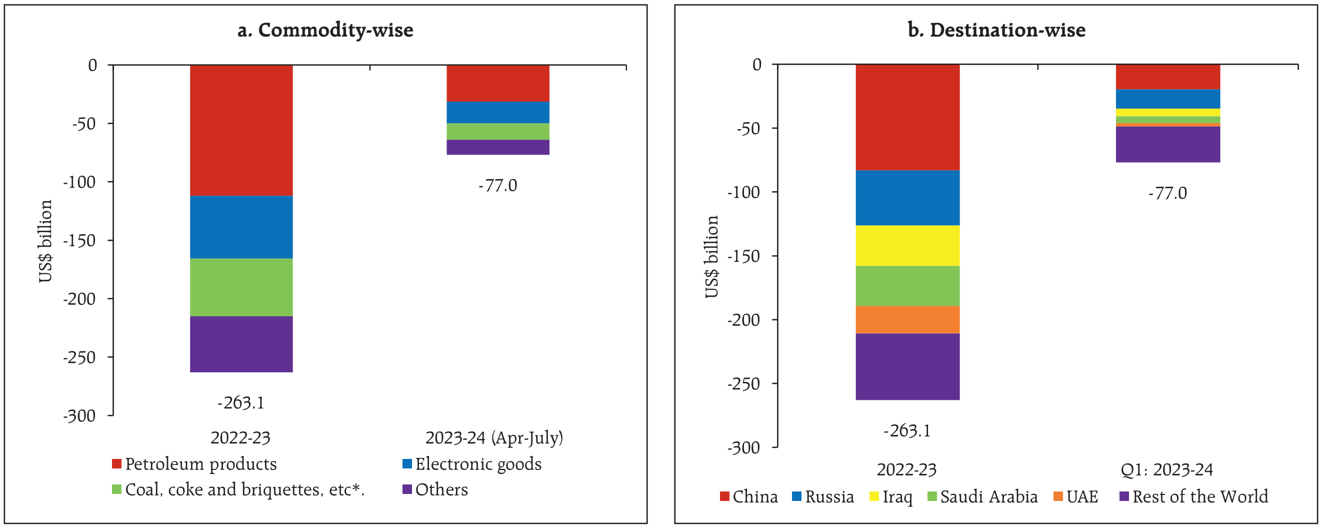
Source: DGCI&S.

Chart 25: Decomposition of India's Trade Deficit



Sources: DGCI&S and PIB.

Chart 26: Analysis of Merchandise Trade Deficit



*: Export value of Coal, coke and briquettes for July 2023 is taken same as June 2023.
Sources: PIB; DGCI&S; and RBI Staff Calculations.

engineering goods, while electronic goods, iron ore and drugs and pharmaceuticals contributed positively during April-July 2023. The merchandise imports at US$ 213.2 billion declined by 13.8 per cent (y-o-y) during April-July 2023. POL, coal, pearls, precious and semi-precious stones contributed negatively to import growth during April-July 2023, whereas gold, electronic goods and machinery supported import growth during this period. Higher contraction in imports than exports led to merchandise trade deficit narrowing to US$ 77.0 billion during April-July 2023 compared to US$ 88.0 billion during the corresponding period a year ago. Petroleum products continue to be major source of trade deficit, followed by electronic goods in 2023-24 so far (Chart 26a). Following the pattern of 2022-23, China and Russia are major sources of trade deficit in 2023-24 also (Chart 26b).

As per the Controller General of Accounts (CGA), the gross fiscal deficit (GFD) of the Central government during Q1:2023-24 stood at 25.3 per cent of the budget estimates (BE) for 2023-24, higher than 21.2 per cent of BE during the corresponding period of 2022-23. This is attributable to an increase in capital expenditure by 59.1 per cent (y-o-y) while revenue expenditure growth remained flat, and total expenditure increased by 10.8 per cent (y-o-y). Capital outlay recorded an increase of 45.3 per cent resulting in a marked improvement in the quality of spending (Chart 27).

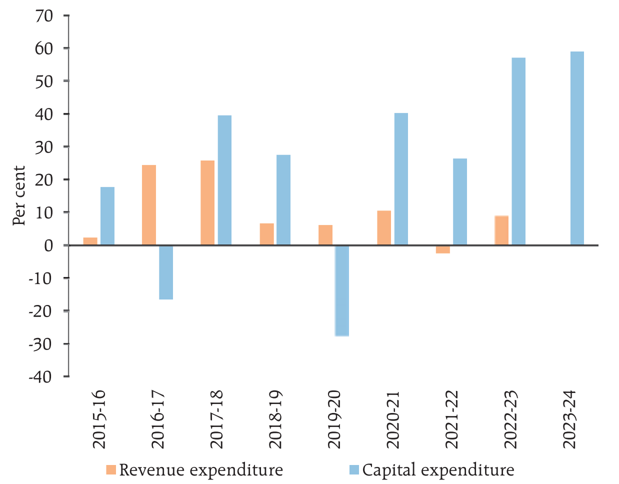
On the receipts side, direct tax collections contracted by 1.8 per cent (y-o-y) owing to a 13.9 per cent decline in corporate tax collections, while income tax receipts recorded a growth of 11.0 per cent. Indirect tax collections grew by 8.8 per cent (y-o-y), the growth in goods and services tax (GST) and customs revenues outweighing the contraction in excise duties.[17] While gross tax revenue grew by 3.3 per cent (y-o-y), net tax revenue contracted by 14.3 per cent due to higher tax devolution to State governments[18] with the release of one advance instalment of tax devolution to States in June 2023 to enable them to expedite capital spending (Chart 28).

[17] The contraction in union excise duties during Q1: 2023-24 is primarily attributable to reduction in duties on fuel (*viz.*, petrol and diesel) in May 2022. The excise duty was cut by ₹8 per litre and ₹6 per litre, for petrol and diesel, respectively, effective from May 22, 2022.

[18] The Union government has released 3rd instalment of tax devolution to State governments amounting to ₹1,18,280 crore on June 12, 2023, as against normal monthly devolution of ₹59,140 crore.

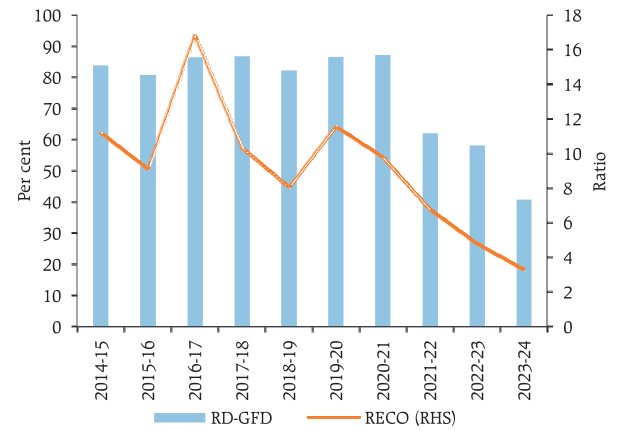
Chart 27: Government Expenditure

a. Expenditure Growth during April-June



Source: CGA.

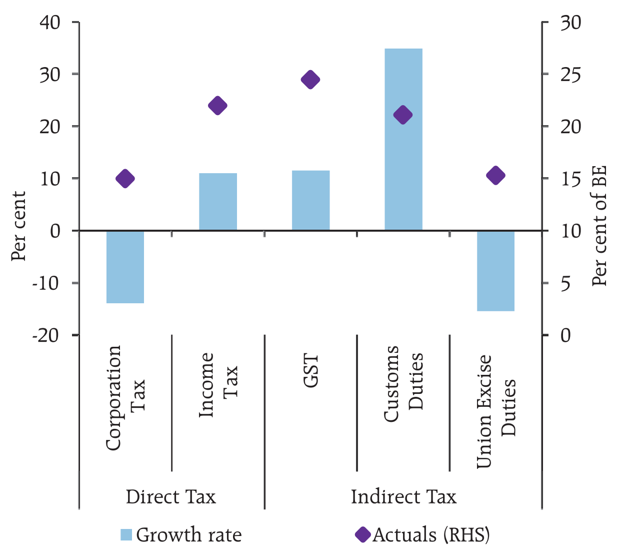
b. Quality of Expenditure during April-June



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

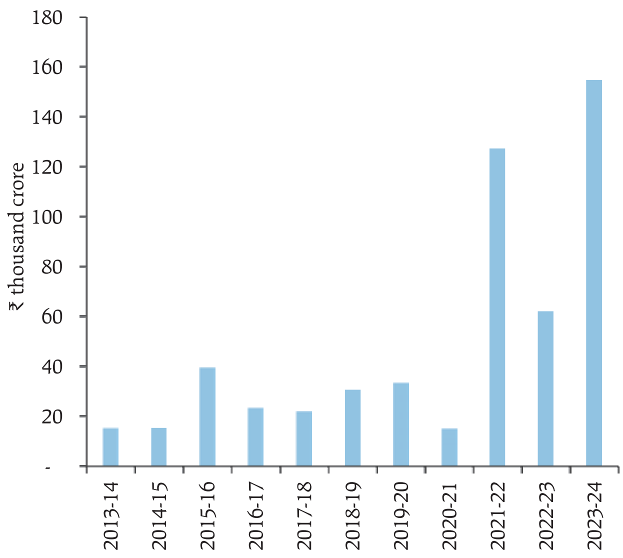
Non-tax revenue collection grew by 149.3 per cent (y-o-y) on account of more than budgeted surplus transfer from the Reserve Bank[19], compensating for sub-par tax collections and non-debt capital receipts[20] (Chart 29). Consequently, total receipts recorded a growth of 0.5 per cent on a y-o-y basis.

Chart 28: Tax Revenue during April-June 2023



Sources: CGA; and Union budget documents.

Chart 29: Non-Tax Revenue during April-June



Source: CGA.

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

[20] During Q1:2023-24, the government mobilised ₹4,235 crore as disinvestment receipts as compared with ₹24,559 crore during the corresponding period last year.

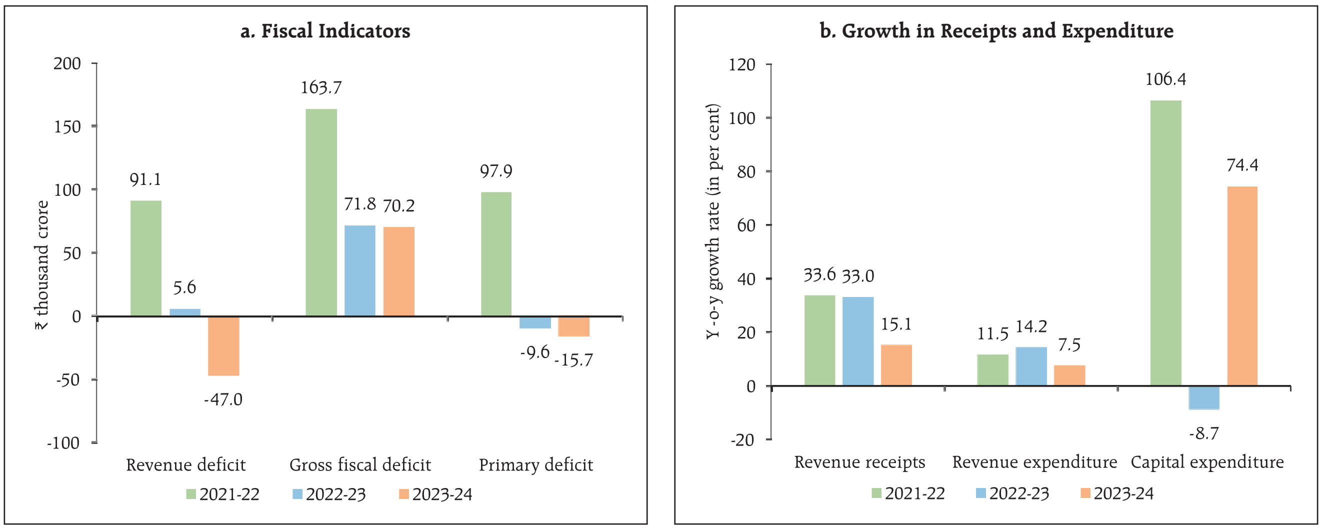
GST collections (Centre *plus* States) grew by 10.8 per cent (y-o-y) to record ₹1.65 lakh crore in July 2023, the third highest monthly collection since the inception of GST in July 2017. The average monthly gross GST collection during April-July 2023-24 stood at ₹1.68 lakh crore, up from ₹1.51 lakh crore during the same period of the previous fiscal year.

Key fiscal indicators of States[21] improved during Q1:2023-24 (Chart 30a). A slower growth in revenue expenditure *vis-à-vis* revenue receipts resulted in a surplus in the revenue account (Chart 30b). The capital expenditure of states increased by 74.4 per cent during Q1:2023-24, aided by the Union Government's 'Scheme for Special Assistance to States for Capital Investment'. By July 25, 2023 the Union government had approved expenditure amounting to ₹84,884 crore (accounting for 65.3 per cent of the ₹1.3 lakh crore budgeted for 2023-24) under the scheme, out of which ₹29,518 crore has already been disbursed to the States.

Aggregate Supply

The south-west monsoon (SWM), recovered from high deficiency in early June 2023 – the cumulative rainfall reached 99 per cent of the long period average (LPA) as on August 11, 2023.[22] The production weighted rainfall index[23] (PRN) was 2 per cent below the LPA (Chart 31). Nevertheless, uneven spatial distribution of rainfall persists as the eastern and north-eastern regions registered a 25 per cent rainfall deficit (Chart 32a). The sub-divisions adjoining the Himalayas and the eastern region are expected to receive normal/ above normal rainfall in the second half of the SWM season (August-September), which could help improve the *kharif* sowing in these regions (Chart 32b). The reservoir position (as of August 10, 2023) remains

Chart 30: States' Fiscal Indicators during April-June



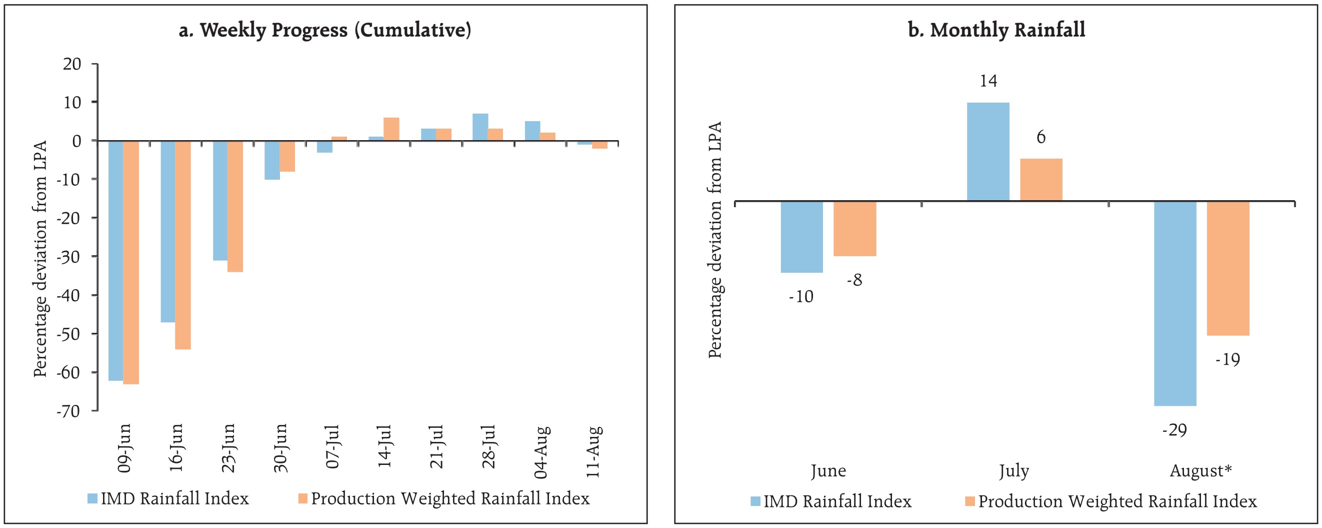
Note: Data pertain to 20 states.
Source: CAG.

21 Data pertain to 20 States.

22 Source: India Meteorological Department (IMD).

23 PRN is calculated by using contribution of food grains production by each state.

Chart 31: SWM Rainfall in 2023



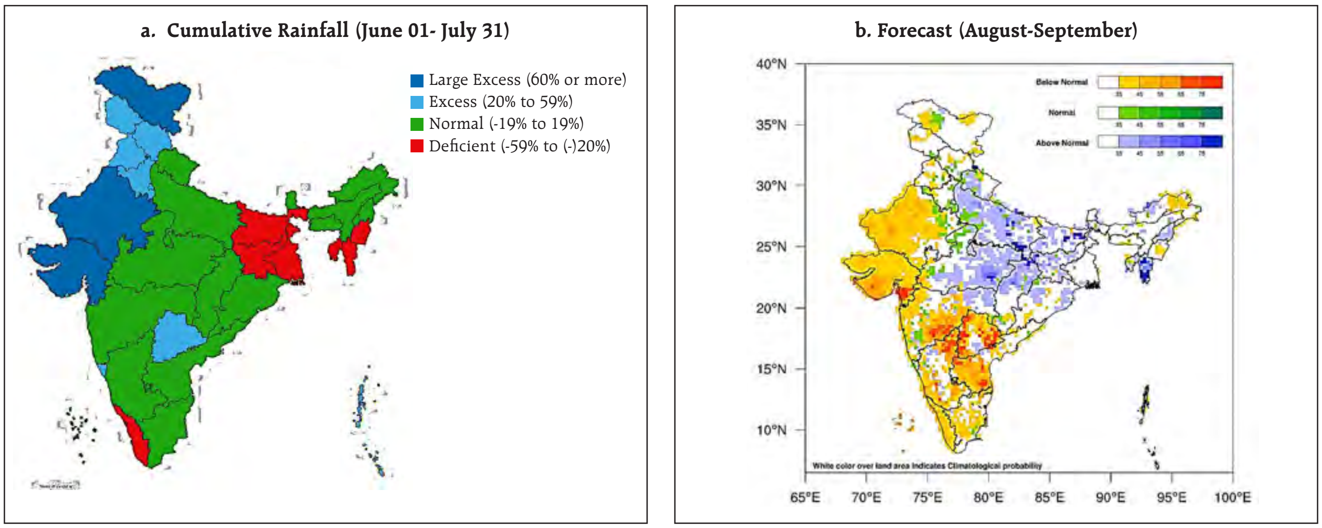
*: Data upto August 11, 2023.
Sources: IMD; and RBI staff estimates.

comfortable at levels much above the decadal average (Chart 33).

The total *kharif* sown area touched 979.9 lakh hectares as on August 11, 2023 marginally (0.8 per cent) higher than in the corresponding period of the previous year.[24] *Kharif* acreage improved over successive weeks as the deficiency in SWM dissipated (Chart 34).

As on August 11, 2023, 89.8 per cent of the full season normal area for *kharif* crops has been

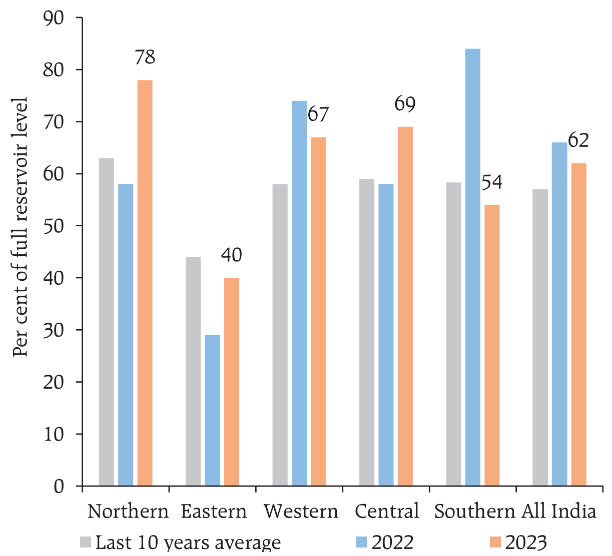
Chart 32: State-wise SWM - 2023



Note: 1. Numbers in the legend of Chart 32a denote deviation from LPA.
2. Maps are for illustrative purpose only.
Source: IMD.

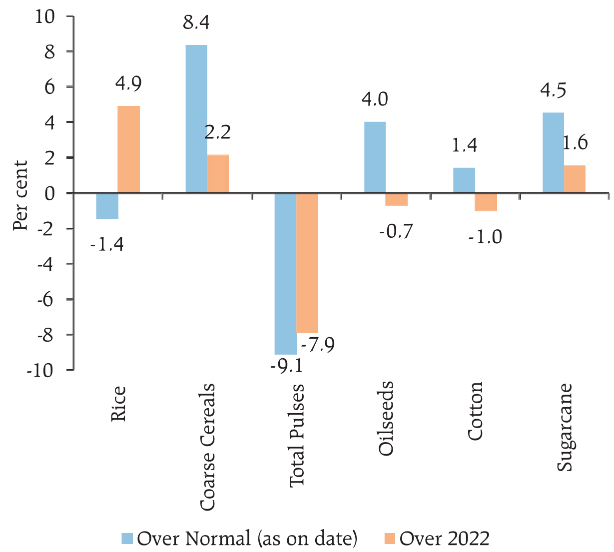
[24] Source: Ministry of Agriculture and Farmers Welfare.

Chart 33: Reservoir Level (as on August 10, 2023)



Source: Central Water Commission (CWC).

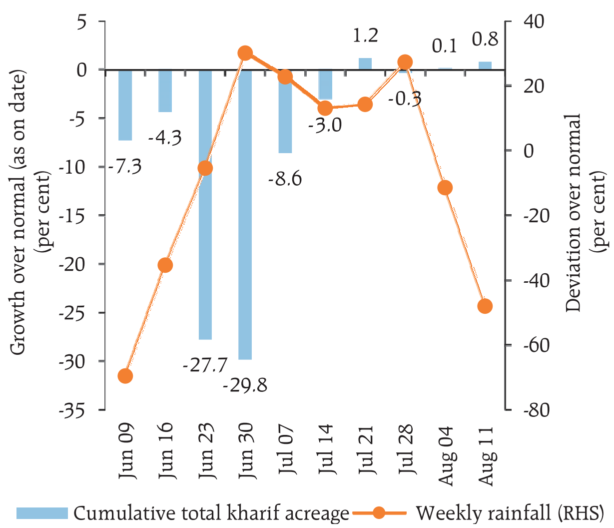
Chart 35: *Kharif* Sown Area (As on Aug 11, 2023)



Source: Ministry of Agriculture and Farmers Welfare.

sown, aided by considerable progress of rice sowing (which alone accounts for 37 per cent of the total normal area) in July. Deficient rainfall in eastern and north-eastern states, that account for approximately 29 per cent of the total *kharif* rice sown area, has kept overall sown area under rice below normal (Chart 35). Acreage under all major pulses also remain

Chart 34: Weekly Progress of *Kharif* Acreage *vis-a-vis* SWM



Sources: IMD; and Ministry of Agriculture and Farmers Welfare.

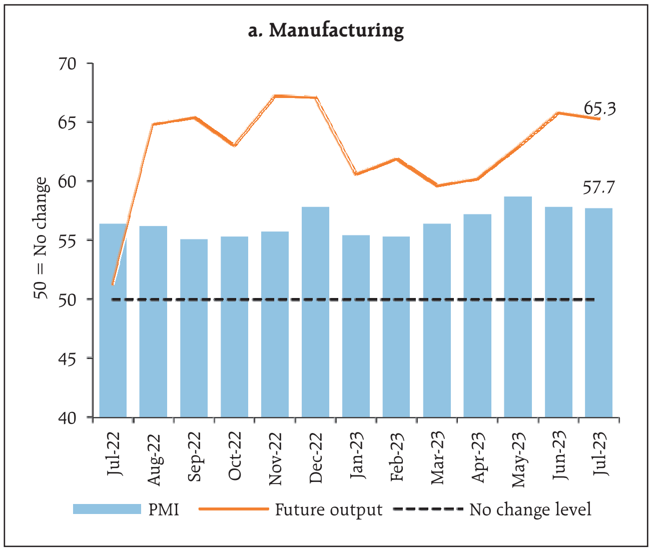
low on account of sluggish sowing progress in the three prime producing States *viz.*, Madhya Pradesh [(-) 10.6 per cent], Maharashtra [(-) 14.6 per cent] and Karnataka [(-) 17.0 per cent] where the SWM has been erratic.

The headline PMI for manufacturing sector recorded a sequential moderation due to a fall in output, suppliers' delivery times and stock of purchases, although the overall index remains in the expansionary zone and the output prospects are assessed to be strong (Chart 36a). The PMI services recorded its sharpest increase in over 13 years, led by robust demand and new business gains (Chart 36b).

Transport indicators sustained momentum in July 2023. Cargo traffic at major ports improved in July, aided by growth across all categories barring thermal coal (Chart 37a). Railway freight traffic picked up moderately in July, led by increases in freight of iron ore and containerised cargo (Chart 37b).

Coincident indicators of the construction sector remained buoyant on the back of continued impetus from the Government's infrastructure spending. Steel consumption increased by 11.8 per cent (y-o-y) in July

Chart 36: Purchasing Managers' Index (PMI)



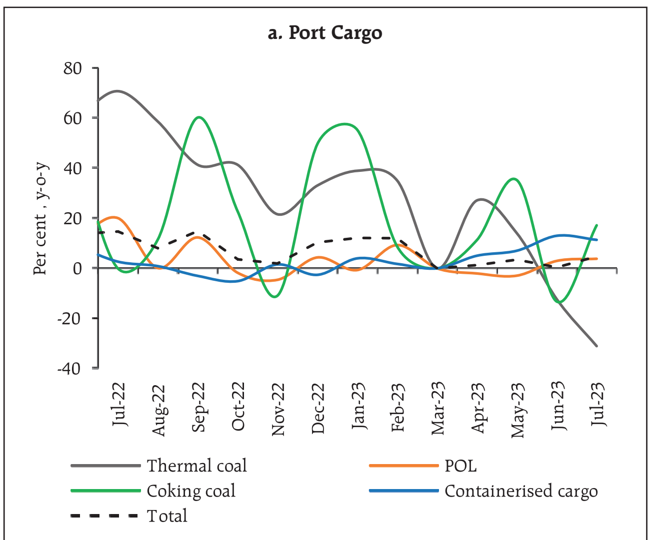
Source: S&P Global.

2023 while cement production increased by 9.4 per cent y-o-y in June 2023 (Chart 38).

High-frequency indicators for the services sector showed resilience in overall economic activity in July 2023 (Table 1).

In terms of regional policy initiatives, Karnataka launched the '*Yuvanidhi* Scheme' to provide unemployment allowances of ₹1,500 and ₹3,000 per month to diploma and degree holders, respectively (who graduated in 2023) for a maximum duration of two years or until employment is secured, whichever is earlier. The Rajasthan Minimum Guaranteed Income Bill, 2023 ensures a minimum guaranteed income and at least 125 days of employment at the

Chart 37: Railway and Port Cargo Traffic



Source: Indian Ports Association.

Source: Rail Drishti.

Table 1: High Frequency Indicators – Services

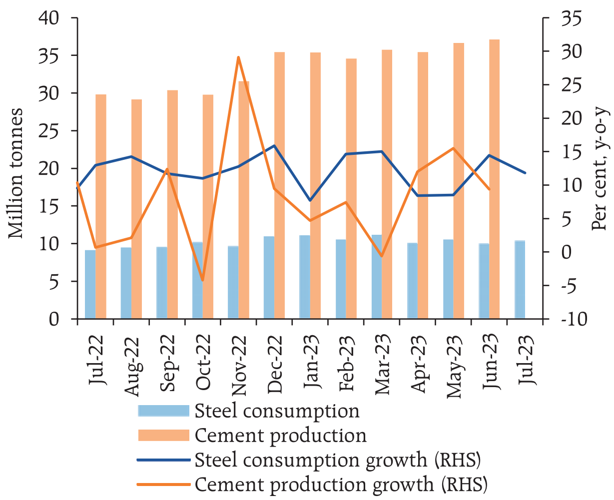
Growth (y-o-y, per cent)

Sector	Indicator	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23
Urban Demand	Passenger Vehicles Sales	17.2	11.0	4.5	31.6078	33.1	18.7	2.9
Rural Demand	Two Wheeler Sales	5.0	7.6	7.7	15.1	17.4	1.7	-7.2
	Three Wheeler Sales	103.0	86.1	69.2	104.2	70.4	98.6	78.9
	Tractor Sales	24.4	20.0	13.7	-11.1	1.2	4.2	6.1
Trade, hotels, transport, communication	Commercial Vehicles Sales			7.1			-5.1	
	Railway Freight Traffic	3.8	3.6	3.8	3.5	1.9	-1.9	1.51
	Port Cargo Traffic	12.2	12.0		1.3	3.4	0.43	4.27
	Domestic Air Cargo Traffic*	-7.5	0.0	-4.4	-1.7	-12.7	-12.2	
	International Air Cargo Traffic*	-4.3	-8.1	0.8	-3.0	-0.5	5.8	
	Domestic Air Passenger Traffic *	95.3	50.2	22.9	23.2	15.9	21.1	
	International Air Passenger Traffic *	115.1	98.0	62.4	43.9	35.8	24.1	
	GST E-way Bills (Total)	19.7	18.4	16.3	12.2	19.7	15.5	16.4
	GST E-way Bills (Intra State)	24.1	22.2	20.7	16.2	23.0	18.8	20.8
	GST E-way Bills (Inter State)	12.8	12.4	9.3	5.9	14.3	9.9	9.1
	Hotel occupancy rate	81.9	32.2	3.0	-2.4	-3.4	-1.8	
	Average revenue per room	53.1	62.0	39.6	21.2	15.8	14.0	
	Tourist Arrivals	330.8	259.4	132.5	53.7			
Construction	Steel Consumption	7.7	14.6	15.0	8.5	8.5	13.8	11.8
	Cement Production	4.7	7.4	-0.6	12.0	15.3	9.4	
PMI Index#	Services	57.2	59.4	57.8	62.0	61.2	58.5	62.3

Note: #: Data in levels. *: Data is based on the monthly average of daily figures.
Sources: CMIE; CEIC data; IHS Markit; SIAM; Airports Authority of India; and Joint Plant Committee.

minimum wage per financial year for all adult citizens in both urban and rural parts of the state.

Chart 38: Steel Consumption and Cement Production



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

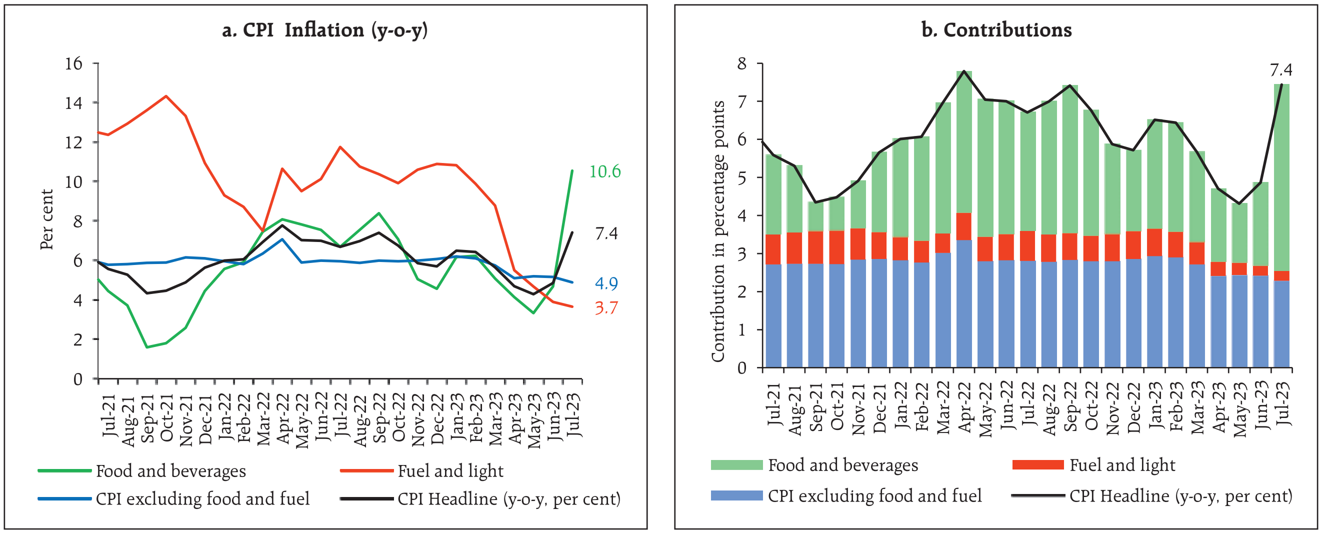
Inflation

Headline inflation, as measured by y-o-y changes in the all-India consumer price index (CPI)[25], surged to 7.4 per cent in July 2023 from 4.9 per cent in June 2023 (Chart 39). Positive momentum of about 290 bps – the highest in the current CPI series so far – was partly offset by the favourable base effect of 45 bps. The m-o-m increase in food prices was about 570 bps, at about 180 bps in fuel prices, and about 35 bps in the core group (*i.e.*, excluding food and fuel).

Inflation in the food and beverages group more than doubled to 10.6 per cent in July from 4.7 per cent in June, driven by a jump in momentum (5.7 per cent in July – the steepest increase in the CPI series so far *vis-à-vis* 2.2 per cent in June). This was driven

[25] As per the provisional data released by the National Statistical Office (NSO) on August 14, 2023.

Chart 39: Trends and Drivers of CPI Inflation



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

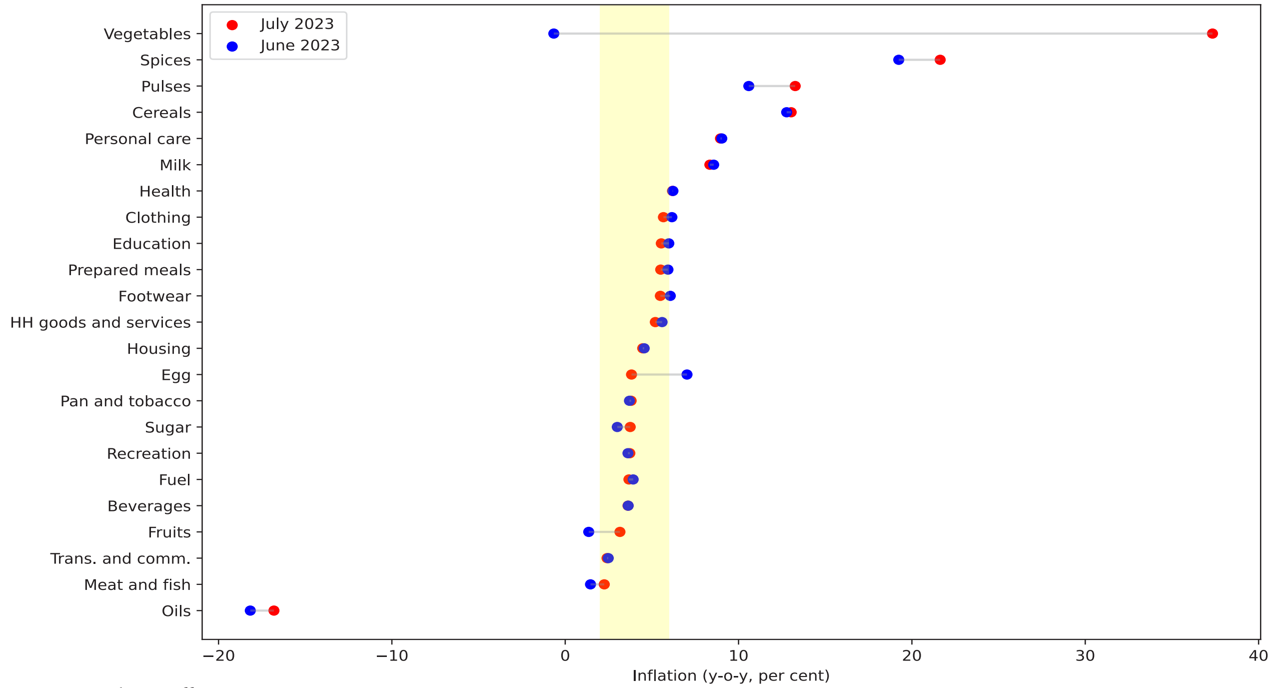
primarily by the vegetables sub-group, which emerged out of deflationary territory over the last 8 months to register a y-o-y increase of 37.3 per cent in July. Inflation also edged up in cereals, meat and fish, fruits, pulses, sugar and spices. On the other hand, inflation in eggs, milk and prepared meals softened while the rate of deflation in edible oils eased (Chart 40).

A number of measures were undertaken to arrest the price spike by improving the supply of key food items. The National Agricultural Cooperative Marketing Federation (NAFED) and National Cooperative Consumers Federation (NCCF) were directed to procure tomatoes from *mandis* in Andhra Pradesh, Karnataka, and Maharashtra for simultaneous distribution at discounted prices in major consumption centres where retail prices recorded maximum increases. Under the recently launched brand *'Bharat Dal'*, the sale of subsidised *Chana dal* (₹60 per kg for a one kg pack and ₹55 per kg for a 30 kg pack) from the government's stock is intended to meet consumer demand at affordable prices. In response to high cereal inflation, the government has undertaken seven e-auctions under the Open Market Sale Scheme – Domestic [OMSS (D)], with a total sale around 8.2 lakh tonnes of wheat and 1,995 tonnes of rice (as on August 09). The Government has also ceased the diversion of subsidised rice to distilleries for ethanol production under the ethanol blending programme (EBP). Additionally, export of non-basmati white rice (semi-milled or wholly milled rice) and de-oiled rice bran (mainly used as fodder) was restricted with effect from July 20 and July 28, 2023, respectively. The stock levels for both rice and wheat stood at 2.8 and 1.0 times their respective quarterly buffer norms (as of August 01, 2023) which provides a cushion to address supply concerns.

Inflation in the fuel and light group softened to 3.7 per cent in July from 3.9 per cent in June, mainly driven by a steep moderation in inflation in LPG prices and a sharper deflation in kerosene (PDS) prices. Electricity prices, however, went through a further increase (4.3 per cent m-o-m).

Core inflation declined to 4.9 per cent in July from 5.2 per cent in June, softening in most of the sub-groups (*i.e.*, clothing and footwear; housing; household goods and services; transportation and communication; and

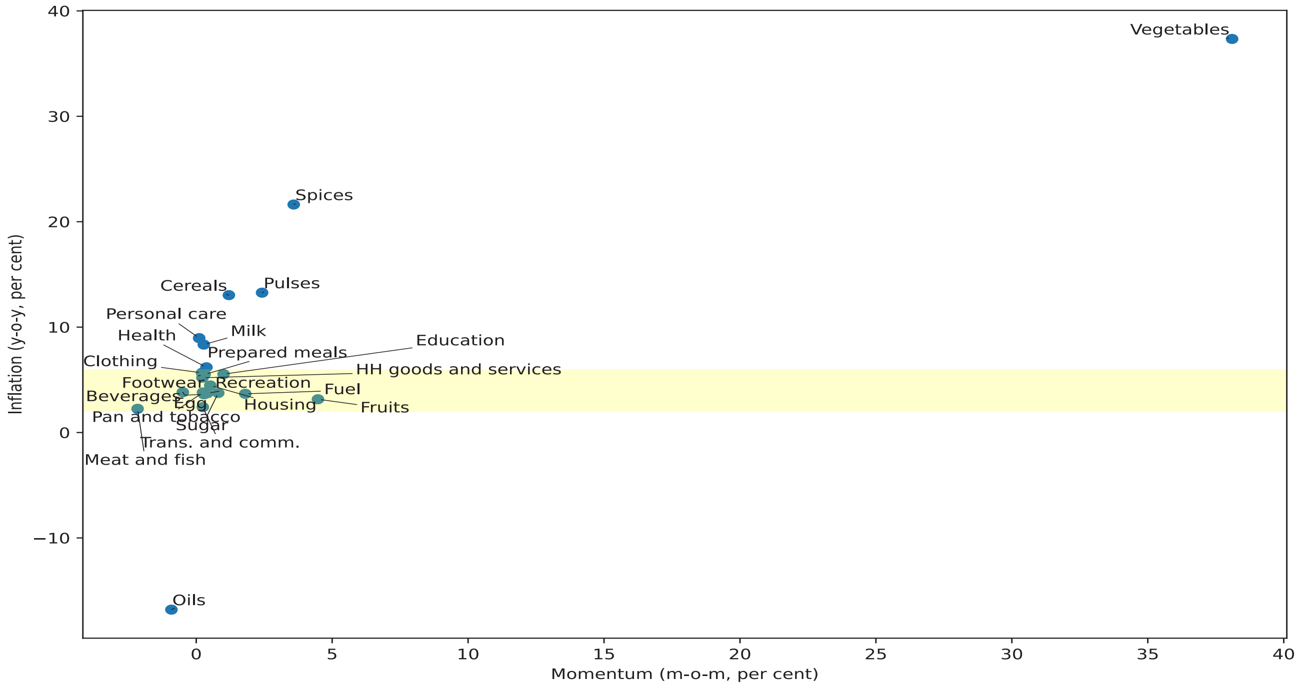
Chart 40: Annual Inflation across Sub-groups (July 2023 versus June 2023)



Sources: NSO; and RBI staff estimates.

education). Inflation remained steady for sub-groups such as personal care and effects, and health, while it increased in respect of recreation and amusement (Chart 41).

Chart 41: Annual Inflation (y-o-y) and Momentum (m-o-m) across Sub-groups



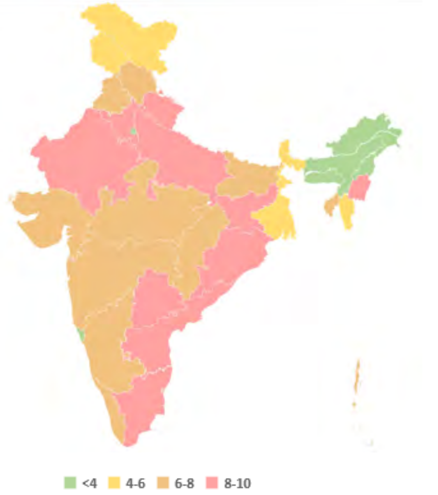
Sources: NSO; and RBI staff estimates.

In terms of regional distribution, rural inflation at 7.6 per cent was higher than urban inflation at 7.2 per cent. Majority of the states registered inflation in the range of 6-8 per cent (Chart 42)

High frequency food price data for August so far (up to 14th) show that prices of cereals and pulses continued to increase in August. Edible oil prices continued to decline in July-August (Chart 43). Tomato prices, on an average, registered a further increase in August so far, although more recent data indicate some pullback in prices. Onion and potato prices also registered sequential upticks.

Retail selling prices of petrol and diesel in the four major metros remained steady in August so far (up to 14th). While kerosene prices increased sharply, LPG prices have been kept unchanged in August so far (Table 2).

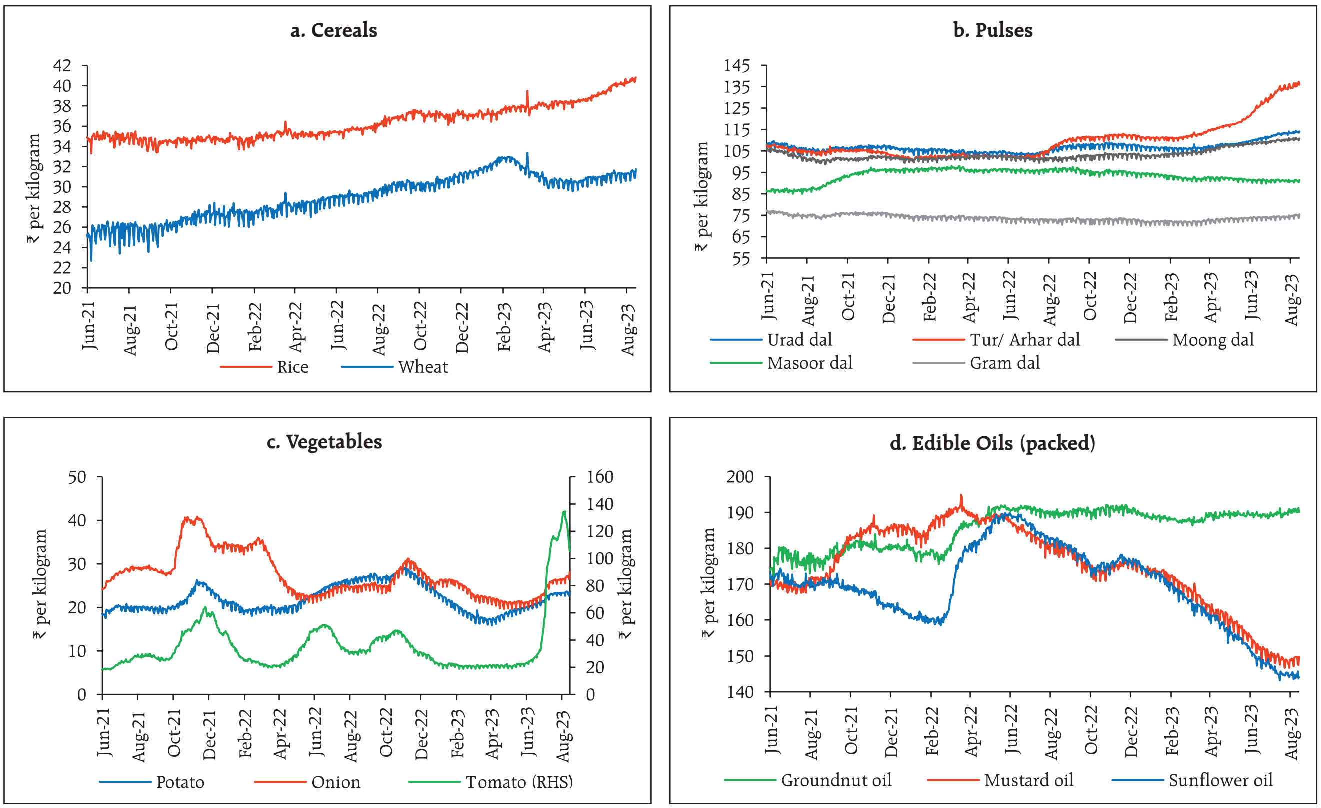
Chart 42: Spatial Distribution of Inflation July 2023 (CPI Combined, y-o-y), (per cent)



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

Input cost inflation based on the wholesale price index (WPI) for industrial inputs and

Chart 43: DCA Essential Commodity Prices



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

Table 2: Petroleum Products Prices

Item	Unit	Domestic Prices			Month-over-month (per cent)	
		Aug-22	Jul-23	Aug-23^	Jul-23	Aug-23^
Petrol	₹/litre	102.92	102.92	102.92	0.0	0.0
Diesel	₹/litre	92.72	92.72	92.72	0.0	0.0
Kerosene (subsidised)	₹/litre	62.73	44.23	47.65	0.2	7.7
LPG (non-subsidised)	₹/cylinder	1063.25	1113.25	1113.25	0.0	0.0

^: For the period August 1-14, 2023.

Note: Other than kerosene, prices represent the average Indian Oil Corporation Limited (IOCL) prices in four major metros (Delhi, Kolkata, Mumbai and Chennai). For kerosene, prices denote the average of the subsidised prices in Kolkata, Mumbai and Chennai.

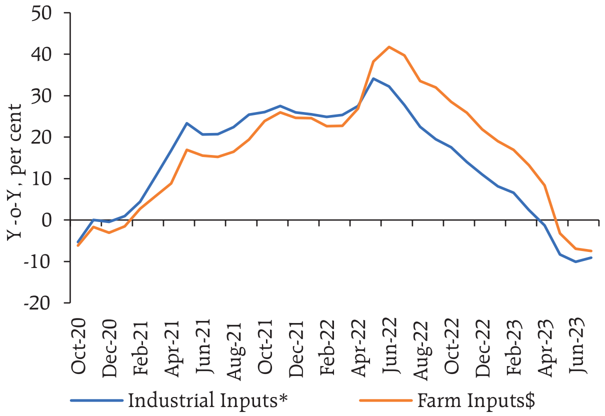
Sources: IOCL; Petroleum Planning and Analysis Cell (PPAC); and RBI staff estimates.

farm inputs remained in deflation in July 2023 (Chart 44).

Inflation expectations of households moderated by 10 basis points each over the three months ahead and one year ahead horizons in July 2023 as compared with the May 2023 round of the survey. Since September 2022, three months and one year ahead inflation expectations have recorded cumulative moderation of 80 bps and 70 bps, respectively (Chart 45).

It is noteworthy that despite the sharp pick-up in inflation, the risk of stagflation remains low at the current juncture (Box 1).

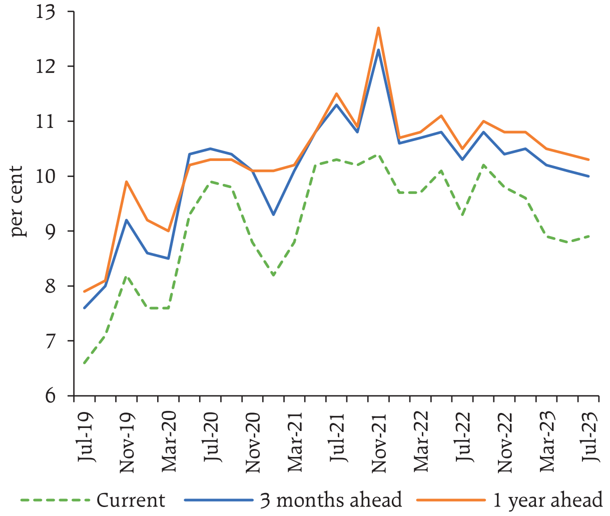
Chart 44: Input Cost Inflation



Note: * Comprising primary non-food articles, minerals, coal, aviation turbine fuel, high speed diesel, naphtha, bitumen, furnace oil, lube oil,petroleum coke, electricity , cotton yarn and paper & pulp from WPI.
$ Comprising high speed diesel, fodder, electricity, fertilizers, pesticides and agricultural & forestry machinery from WPI.

Sources: Office of the Economic Adviser, Department for Promotion of Industry and Internal Trade; and RBI staff estimates.

Chart 45: Households' Median Inflation Expectations



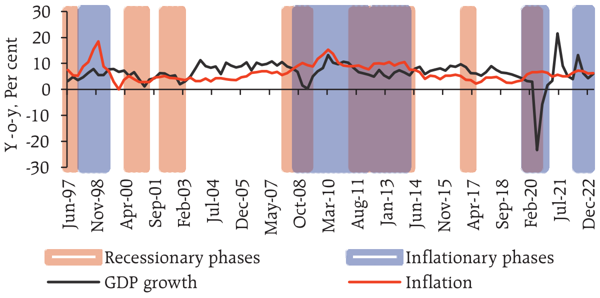
Source: IESH, RBI.

Box 1: Stagflation Risk Low in India

The COVID-19 pandemic followed by the war in Ukraine rekindled concerns about stagflation - a combination of economic stagnation with high inflation (World Bank, 2022). Weaker long-term global growth prospects and persistent inflation have intensified this risk more recently. Evidence from 22 economies, particularly those heavily reliant on non-commodity exports, indicates that higher commodity prices and US dollar appreciation are key factors contributing to the risk of weak economic growth and high inflation, particularly in emerging market economies (EMEs) (Hofmann *et al*., 2023). India has historically faced multiple episodes of simultaneous occurrence of high inflation and low growth (Chart B1).

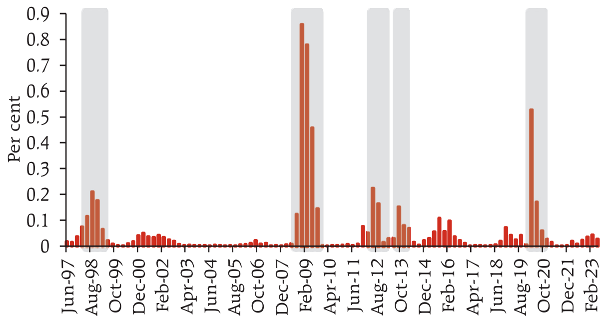
(Contd.)

Chart B1. Inflationary and Recessionary Phases in India



Note: Recessionary phases are identified based on the Harding and Pagan (2006) methodology. Inflationary phases are those phases in which inflation lies in the 4th quartile of the historical distribution of inflation.
Source: RBI staff estimates.

Chart B2. Probability of a Stagflationary Situation



Note: Shaded regions represent episodes with relatively higher probability of stagflation.
Source: RBI staff estimates.

This analysis employs "at risk" framework, utilising quantile regression to estimate the likelihood of stagflation in historical and current contexts. The Inflation at Risk (IaR) and Growth at Risk (GaR) frameworks consider several factors to assess the stagflation risk (Adrian *et al.*, 2019; Muduli and Shekhar, 2023). IaR incorporates the output gap, crude oil prices, and the INR/USD exchange rate, while GaR considers leading economic indicators, financial conditions, the credit-GDP ratio and real US GDP growth. Stagflation is defined as the 95th percentile in IaR (indicating upside risk to inflation) in the fourth quartile, and the 5th percentile in GaR (indicating downside risk to growth) in the first quartile. A stagflation dummy is generated that assumes a value of 1 during periods of stagflation, and 0 otherwise. A Probit model with stagflation dummy using quarterly data from June 1996 to March 2023 estimates stagflation risk based on financial conditions, exchange rate and crude oil prices. Tighter financial conditions and exchange rate depreciation increase the risk of stagflation, while crude oil price shocks have a limited impact reflecting weak pass-through of global prices to domestic petrol and diesel prices during certain phases (Table B1).

Table B1: Probit Model Results

Dependent Variable - Stagflation Dummy			
Explanatory Variable	**Model 1**	**Model 2**	**Model 3**
Citi India FCI$_t$	0.414** (0.168)	0.243 (0.207)	0.238 (0.218)
Exchange rate$_t$		0.0912*** (0.0275)	0.116*** (0.0335)
Crude oil price$_t$			0.00845 (0.00543)
Constant	-1.187*** (0.165)	-1.708*** (0.261)	-1.960*** (0.331)
No. of observations	104	104	104
Pseudo R^2	0.08	0.25	0.32

Note: 1. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.
2. Stagflation dummy refers to a binary variable that takes a value of 1 if the economy is in a stagflationary phase, indicating both high inflation and stagnant economic growth, and 0 otherwise.

Historical analysis shows that high stagflation risks were encountered during certain periods such as the Asian Crisis (1997-98), the Global Financial Crisis (2007-09), the taper tantrum (2013), and the COVID-19 pandemic (Chart B2). Currently, however, stagflation risk remains low for India with a probability of only 3 per cent with easing of financial conditions, stability of the INR/USD exchange rate and steady domestic fuel prices.

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IV. Financial Conditions

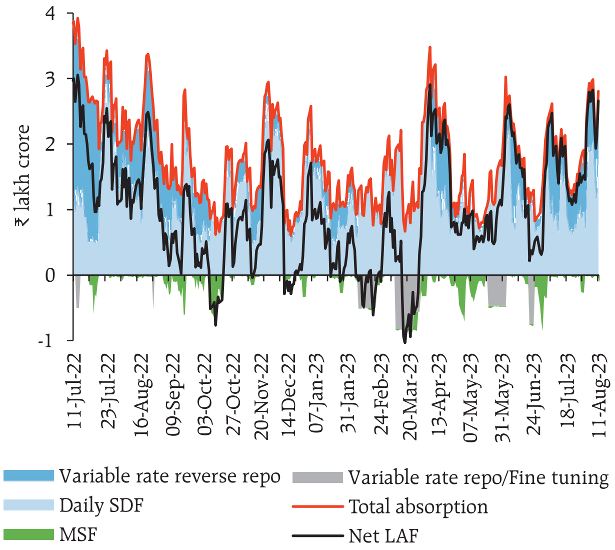
In view of the liquidity overhang engendered by the depositing of ₹2,000 banknotes with the banking system, the Reserve Bank announced an incremental cash reserve ratio (I-CRR) of 10 per cent in its third bi-monthly policy announcement on August 10, 2023. The I-CRR will be levied on the increase in scheduled banks' net demand and time liabilities (NDTL) between May 19, 2023 and July 28, 2023 and will be effective from the fortnight beginning August 12, 2023. The ICRR will be reviewed on September 8, 2023 or earlier, well ahead of the festival season.

During July 16 to August 11, 2023 liquidity conditions remained largely comfortable, with the average total absorption under the Liquidity Adjustment Facility (LAF) at ₹2.0 lakh crore (₹1.6 lakh crore during June 16 - July 15). The surplus was moderated by tax payments and GST related outflows. Of the total average surplus liquidity, the placement of funds under the standing deposit facility (SDF) averaged ₹1.2 lakh crore during July 16-August 11, 2023 while the remaining was mopped up through variable rate reverse repo (VRRR) operations. With liquidity conditions remaining easy, average recourse to the marginal standing facility (MSF) was lower at ₹0.05 lakh crore during July 16-August 11, 2023 (₹0.16 lakh crore during June 16 - July 15). Consequently, net absorptions under the LAF increased to ₹1.8 lakh crore during July 16 - August 11, 2023 from ₹1.3 lakh crore during June 16-July 15, 2023 (Chart 46).

The weighted average call rate (WACR) traded with an easing bias. On an average basis, the WACR, triparty rate and market repo rates ruled 5 bps, 15 bps and 11 bps, respectively, below the policy repo rate during July 17 to August 11, 2023 (Chart 47a).

Across the term money segment, the yield on 3-month certificates of deposit (CDs) and commercial paper (CP) for non-banking financial companies

Chart 46: Liquidity Operations

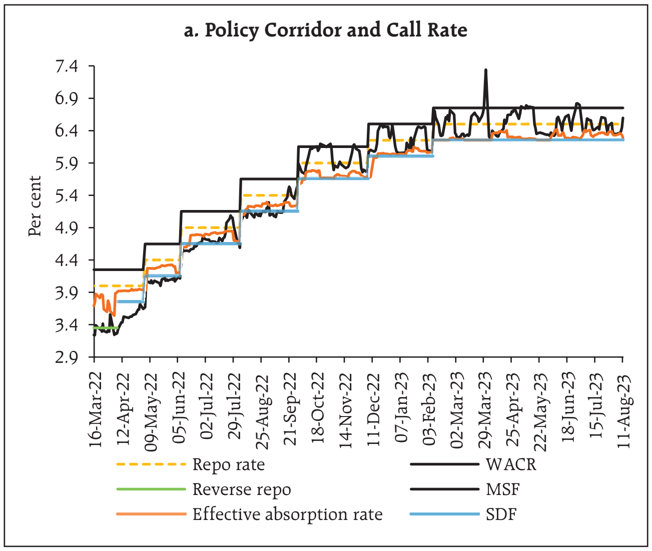


Source: RBI.

(NBFCs) remained largely stable above the upper band of the LAF corridor, while the yield on 3-month treasury bills (T-bills) was broadly aligned with the MSF rate (Chart 47b). In the primary market, fund mobilisation through issuances of CDs remained at ₹1.89 lakh crore during 2023-24 (up to July 28), marginally lower than ₹2.04 lakh crore in the corresponding period of the previous year. Strong credit growth and relatively lagging deposit growth have sustained CD issuances during the current year. On the other hand, CP issuances at ₹4.72 lakh crore (up to July 31) were higher than ₹4.43 lakh crore in the corresponding period of the previous year reflecting competitive rates for the corporates as well as large investments by the mutual funds due to availability of liquid funds.

Domestic bond yields hardened in tandem with US treasury yields; the yield on the 10-year US treasury rose to a high of 4.18 per cent on August 3, its peak since November 7, 2022 on the back of stronger than expected US Q2:2023 GDP data and the downgrade of US credit rating by Fitch. The yield on the 10-year benchmark G-sec (7.26 per cent GS 2033)

Chart 47: Policy Corridor and Money Market Rates

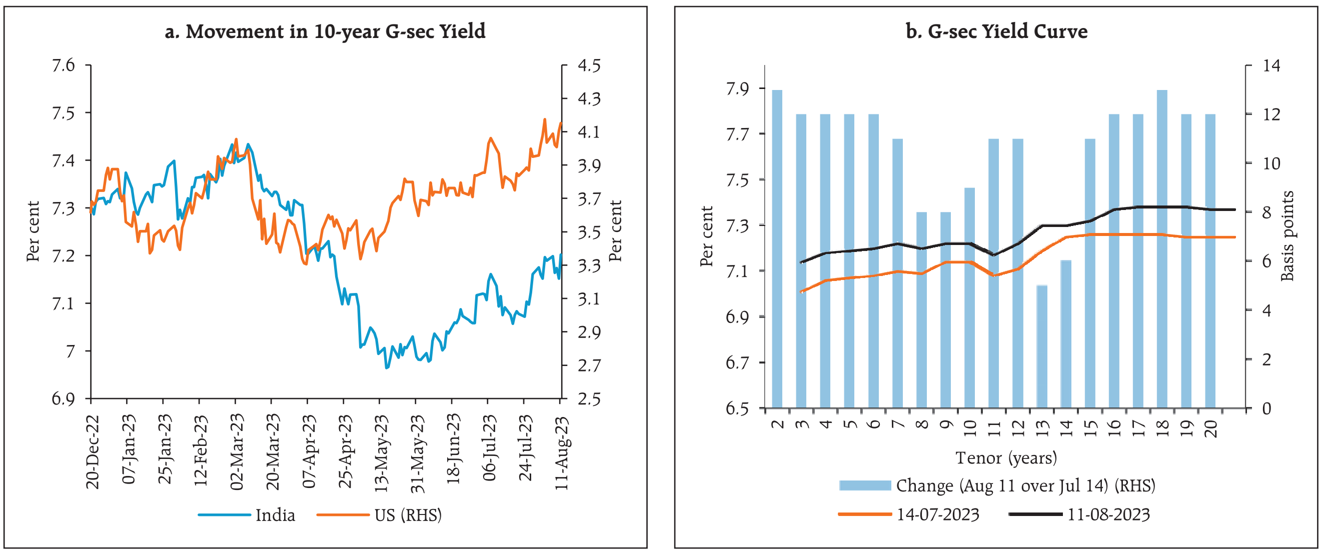


Sources: RBI; Bloomberg; and RBI staff estimates.

closed higher at 7.20 per cent on August 11, 2023 as compared with 7.09 per cent on July 14 (Chart 48a). The Reserve Bank's monetary policy announcement on August 10 was largely anticipated by the market. Overall, the rise in domestic bond yields across the term structure was manifested in an upward shift of the yield curve (Chart 48b).

In contrast to firmer G-sec yields, corporate bond yields and associated risk premia declined during this period. The average risk premia in the bond market (5-year AAA *minus* 5 year G-sec) declined by 9 bps (Table 3). Funds mobilised through corporate bond issuances increased to ₹0.8 lakh crore during June 2023 from ₹0.7 lakh crore in July of the preceding

Chart 48: Developments in the G-sec Market



Sources: Bloomberg; CCIL; and RBI staff estimates.

Table 3: Corporate Bonds - Rates and Spread

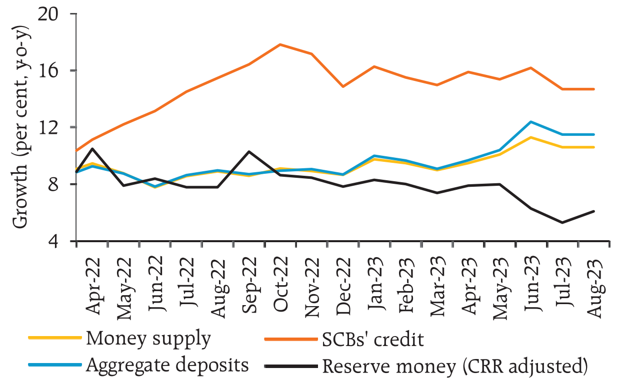
Instrument	Interest Rates (per cent)			Spread (basis points) (Over Corresponding Risk-free Rate)		
	Jun 16, 2023 – Jul 14, 2023	Jul 17, 2023 – Aug 11, 2023	Variation	Jun 16, 2023 – Jul 14, 2023	Jul 17, 2023 – Aug 11, 2023	Variation
1	2	3	(4 = 3-2)	5	6	(7 = 6-5)
Corporate Bonds						
(i) AAA (1-year)	7.54	7.57	3	56	56	0
(ii) AAA (3-year)	7.84	7.79	-5	69	56	-13
(iii) AAA (5-year)	7.73	7.69	-4	54	44	-10
(iv) AA (3-year)	8.49	8.39	-10	133	117	-16
(v) BBB-(3-year)	12.12	12.00	-12	497	478	-19

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

year. Favourable market conditions engendered by stable long term yields and a cost advantage over bank loans has increased the preference for corporate bonds. Overall, corporate bond issuances during 2023-24 (up to July) amounted to ₹3.2 lakh crore, higher than ₹1.5 lakh crore during the same period in the previous year.

Reserve money (RM), excluding the first-round impact of change in the cash reserve ratio (CRR), grew by 6.1 per cent (y-o-y) as on August 4, 2023 (8.1 per cent a year ago) [Chart 49]. Currency in circulation (CiC), the largest component of RM, decelerated to 4.2 per cent from 8.2 per cent a year ago, with 88 per cent of the ₹2000 banknotes in circulation as on May 19, 2023 (announcement date) being returned as on July 31, 2023. Excluding the impact of the merger of a non-bank with a bank (with effect from July 1, 2023), money supply (M_3) growth, as on July 28, 2023 was higher at 10.6 per cent (y-o-y) than 8.6 per cent in the corresponding period of last year. Aggregate deposits with banks, the largest component of M_3, increased by 11.5 per cent (8.6 per cent a year ago).

Chart 49: Monetary and Credit Aggregates

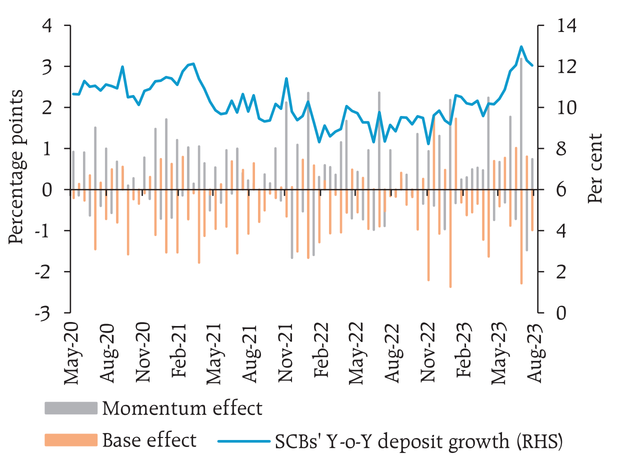


Note: 1. Data pertain to last reporting Friday of every month for money supply, aggregate deposits, and bank credit; and last Friday of every month for reserve money.
2. Latest data for reserve money pertain to August 4, 2023, and money supply pertain to July 28, 2023.
3. Data since July 14, 2023 exclude the impact of the merger of a non-bank with a bank.

Source: RBI.

Scheduled commercial banks' (SCBs') credit, excluding the impact of the merger of a non-bank with a bank, moderated to 14.7 per cent as on July 28, 2023 due to an unfavourable base effect and tapering of the momentum of credit offtake by industry. Despite a marginal dip , SCBs' deposit growth remained strong at 12.0 per cent (excluding the impact of merger) as on July 28, 2023 as compared with 9.2 per cent a year ago (Chart 50).

Chart 50: Aggregate Deposit of SCBs - Base and Momentum Effect



Note: 1. Latest data pertain to July 28, 2023.
2. Data since July 14, 2023 exclude the impact of the merger of a non-bank with a bank.

Source: RBI.

Table 4: Transmission to Banks' Deposit and Lending Rates

(Variation in basis points)

Period	Repo Rate (bps)	Term Deposit Rates (bps)		Lending Rates (bps)			
		WADTDR - Fresh Deposits	WADTDR- Outstanding Deposits	EBLR	1-Yr. MCLR (Median)	WALR - Fresh Rupee Loans	WALR- Outstanding Rupee Loans
Easing Phase Feb 2019 to Mar 2022	-250	-259	-188	-250	-155	-232	-150
Tightening Period May 2022 to June 2023*	+250	231	144	250	155	169	110

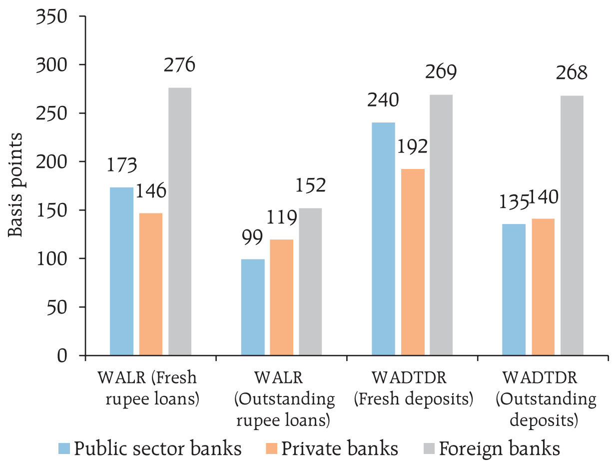
Note: 1. Data on EBLR pertain to 32 domestic banks.
2. *: Data on MCLR pertain to May 2022 to July 2023.
WALR: Weighted Average Lending Rate; WADTDR: Weighted Average Domestic Term Deposit Rate;
MCLR: Marginal Cost of Funds-based Lending Rate; EBLR: External Benchmark-based Lending Rate.
Source: RBI.

SCBs have increased their 1-year median marginal cost of funds-based lending rate (MCLR) by 155 bps during May 2022 to July 2023. Banks have completely passed on the repo rate hikes to their external benchmark-based lending rates (EBLRs). Consequently, the weighted average lending rates (WALRs) on fresh and outstanding rupee loans have increased by 169 bps and 110 bps, respectively during May 2022 to June 2023. Amidst robust credit demand, the weighted average domestic term deposit rates (WADTDRs) on fresh and outstanding deposits increased by 231 bps and 144 bps, respectively, during May 2022 to June 2023 (Table 4).

Transmission across bank groups during May 2022 to June 2023 has been uneven. The increases in the WADTDR on fresh rupee deposits and WALR on fresh rupee loans were higher in the case of public sector banks, while the increases in WADTDR on outstanding deposits and WALR on outstanding loans were higher for private banks (Chart 51).

Sales growth of private non-financial companies decelerated as suggested by the early results of listed companies for Q1:2023-24[26] (Chart 52a). The manufacturing sector's sales remained steady *vis-a-vis* the levels recorded a year ago, offset by a decline in sales in the petroleum sector. Real sales, however, expanded by 7.1 per cent (Chart 52b). Despite some relief from input cost pressures, increased staff costs and other expenses pulled down the operating profit margin of manufacturing companies on a sequential basis.

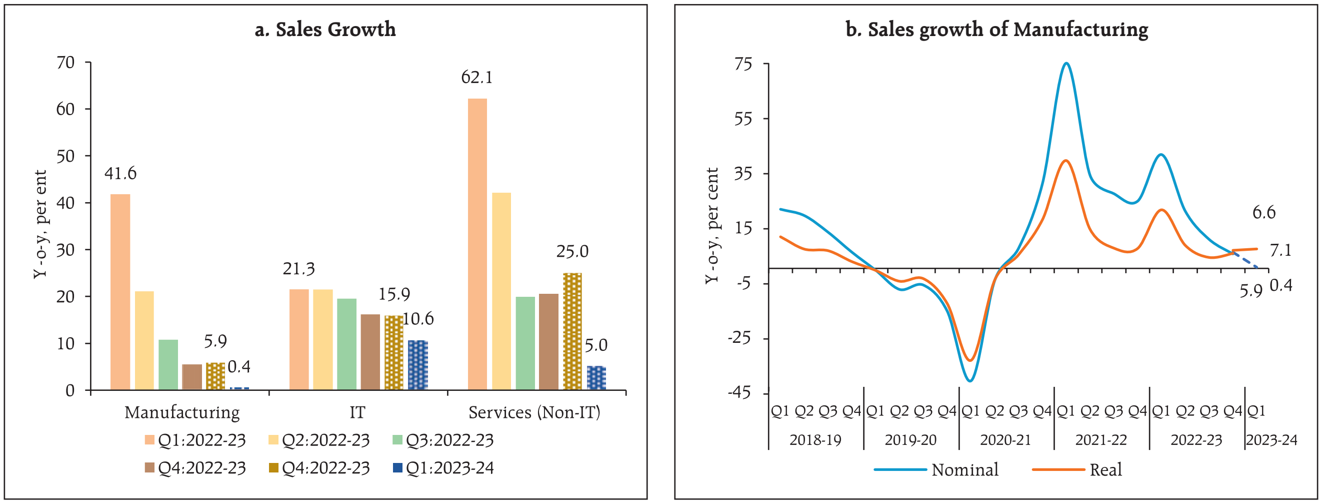
Chart 51: Transmission to Lending and Deposit Rates across Bank Groups (May 2022 to June 2023)



Source: RBI.

[26] The early results have a sample coverage of 79 per cent (by sales share).

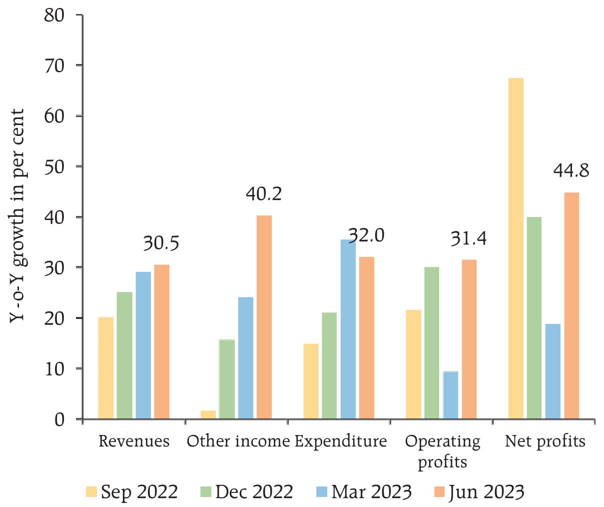
Chart 52: Trend in Sales



Note: 1. Results are based on 755 listed private manufacturing companies for Q4:2022-23 and Q1:2023-24.
2. Shaded bar indicated growth of common companies in Q4:2022-23 and Q1:2023-24.
Sources: Capitaline database; and RBI staff estimates.

Banking and financial sector companies[27] registered an impressive performance for another successive quarter. Robust demand conditions led to an acceleration in top-line growth (Chart 53).

Chart 53: Performance of Listed Financial Companies



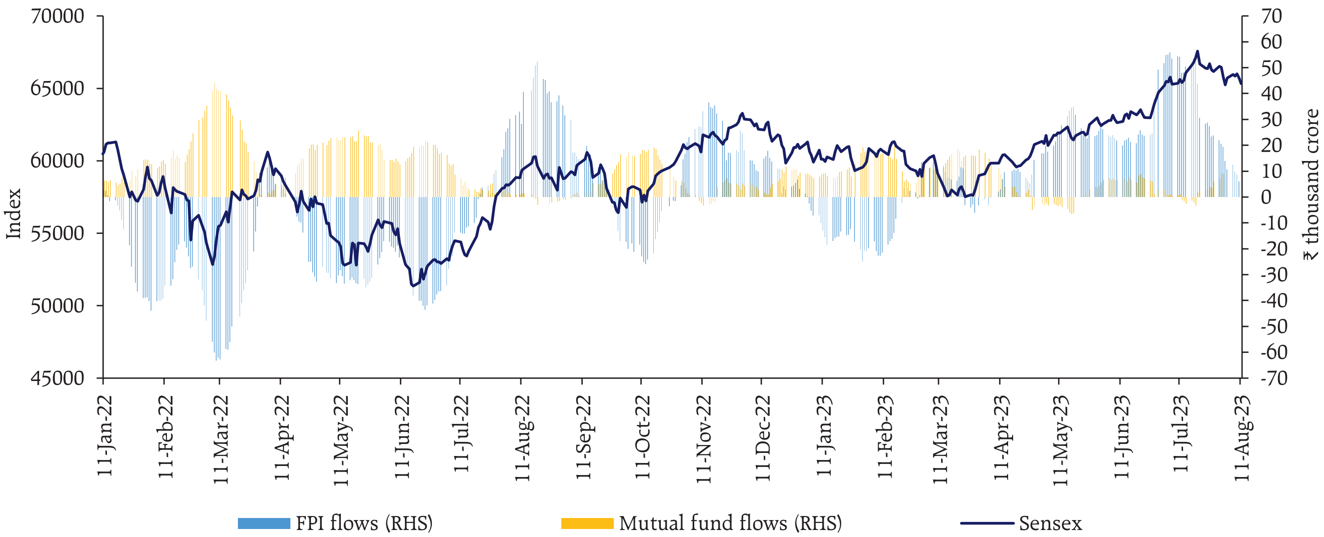
Sources: CMIE Prowess; and RBI staff estimates.

Equity markets scaled new highs in the second half of July 2023, aided by robust Q1:2023-24 corporate earnings and positive global cues (Chart 54). In early August 2023, equity markets registered some correction on general risk-off sentiment emanating from the sovereign rating downgrade of the US by Fitch and weak economic data releases from China and Europe. Closing at 65,323 on August 11, 2023 the BSE Sensex declined by 1.8 per cent in August so far, following gains of 2.8 per cent in July 2023.

During Q1:2023-24, moderation in gross inward foreign direct investment (FDI), coupled with a rise in repatriation of FDI from India resulted in a decline in net FDI (Chart 55a). Manufacturing, financial services, business services, computer services, electricity, and other energy sectors received most of the investment and accounted for more than two-thirds of the fresh equity flows during this period. Singapore, followed by the Netherlands, Japan, the US, and Mauritius were major source countries for FDI during the same

[27] Based on 303 companies, representing around 75 per cent of market capitalisation of all the listed banking and financial sector companies.

Chart 54: BSE Sensex and Institutional Flows

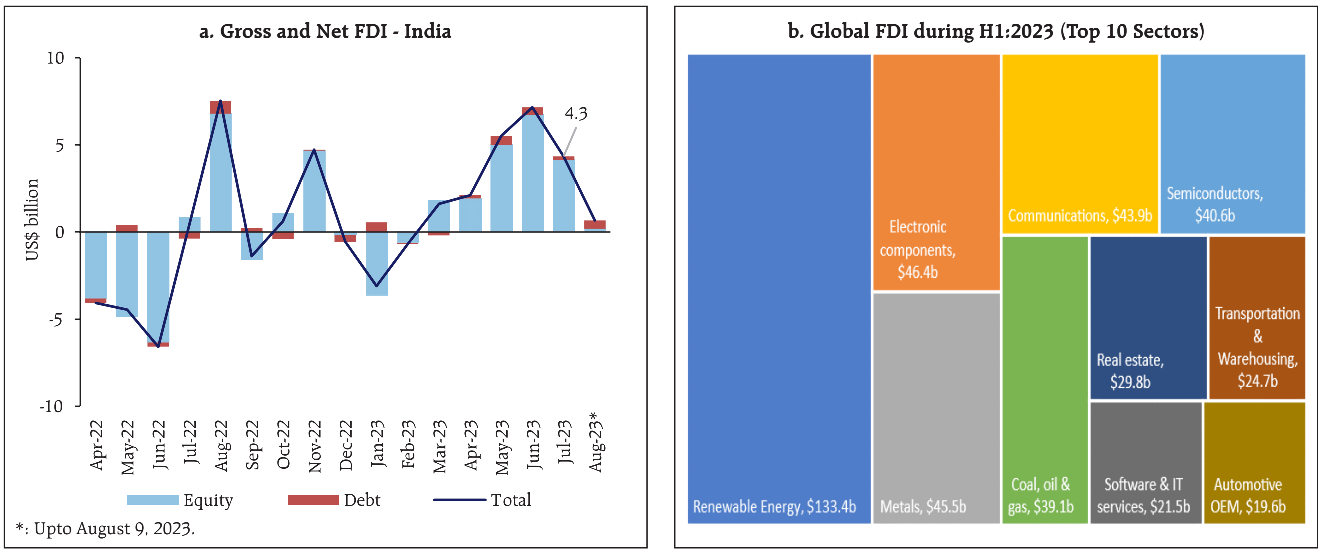


Note: FPI and MF flows are represented on 15-days rolling sum basis.
Source: Bloomberg.

period. According to fDi Intelligence[28], major globally announced FDI projects during H1:2023 were led by green energy transition and digitalisation (Chart 55b).

Foreign portfolio investors (FPIs) remained net buyers for the fifth consecutive month in July 2023 (US$ 4.3 billion) [Chart 56a]. Country-wise FPI investments reveal that Indian equities remain attractive among emerging market peers (Chart 56b). FPIs invested US$ 0.7 billion in domestic markets during August 2023 (up to 11th).

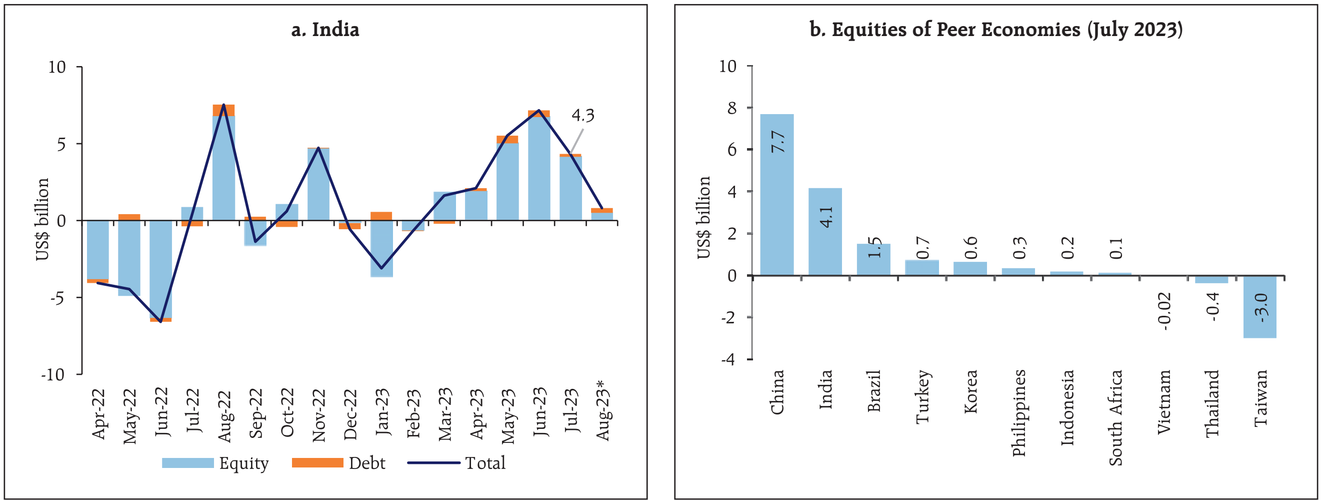
Chart 55: Foreign Direct Investment Flows to India



Sources: RBI; and fDi Intelligence.

[28] A specialist division from the Financial Times that provides a comprehensive offering of services related to foreign direct investment.

Chart 56: Net Portfolio Investments



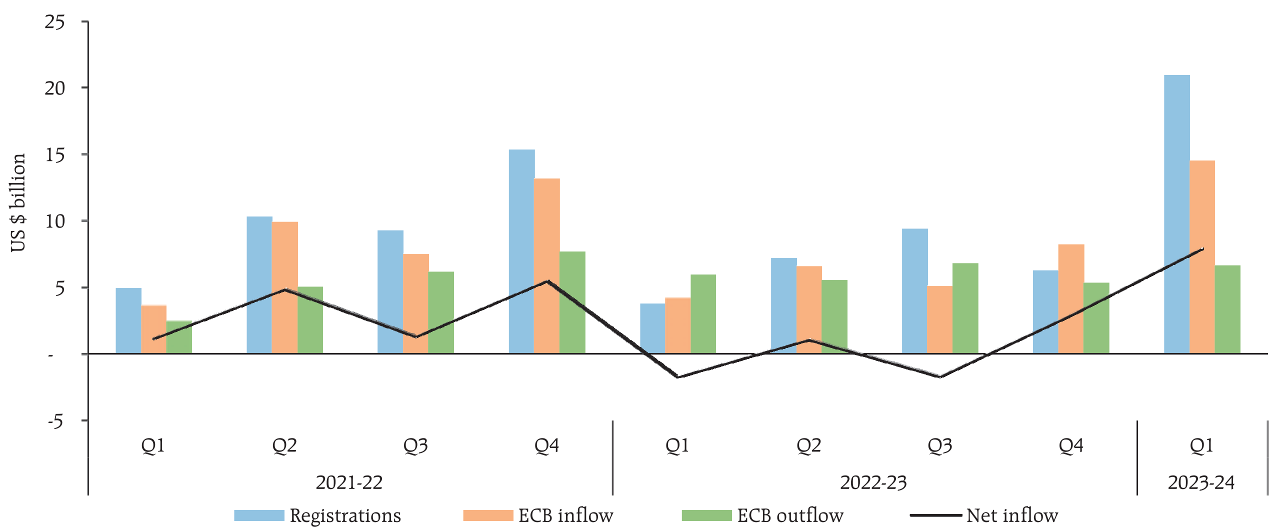
Note: 1. Debt includes investments under the voluntary retention route and hybrid instruments.
2. *: Data for August 2023 is up to August 11, 2023.

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

External commercial borrowing (ECB) registrations recorded a five-fold increase (y-o-y) during Q1:2023-24 (US$ 21.0 billion) as large corporations supplemented their local sources of financing with foreign funding (Chart 57). Rising investment demand, particularly in the infrastructure and services space, bolstered the appetite for external funds. On a net basis, ECB inflows of US$ 14.5 billion during the quarter far exceeded the net inflows of US$ 4.0 billion in Q1:2022-23.

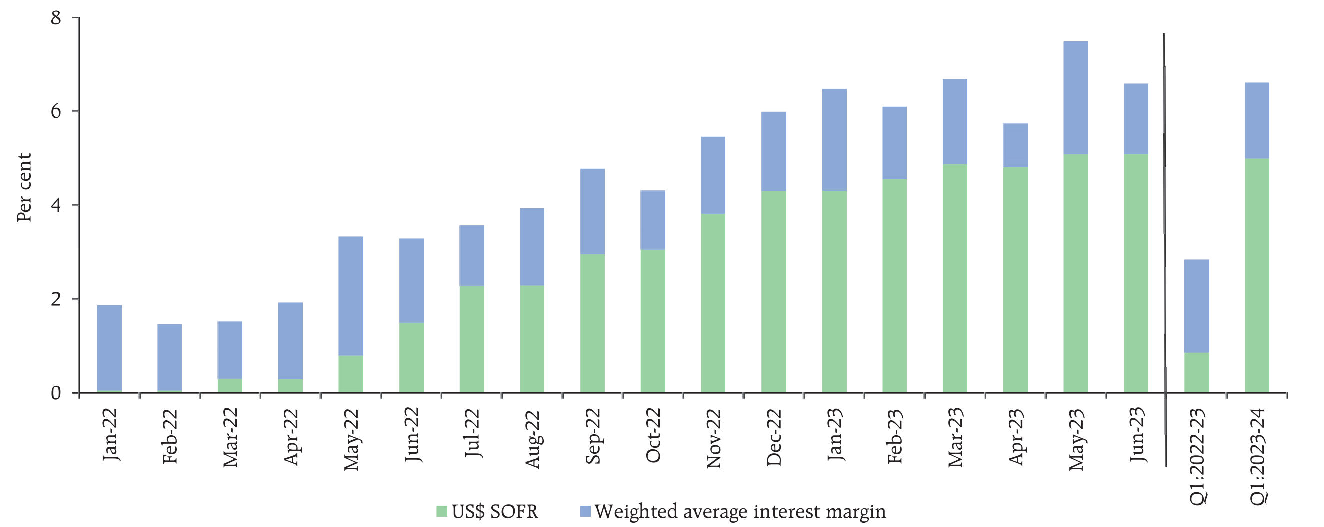
A significant rise in global interest benchmark rates, such as the Secured Overnight Financing Rate (SOFR), resulted in rise in the overall cost of ECB loans since March 2022, a relatively small part of which was offset by reduction in margin over the benchmark. The

Chart 57: ECB - Registrations, Inflow and Outflow



Source: RBI.

Chart 58: Overall Cost of ECBs



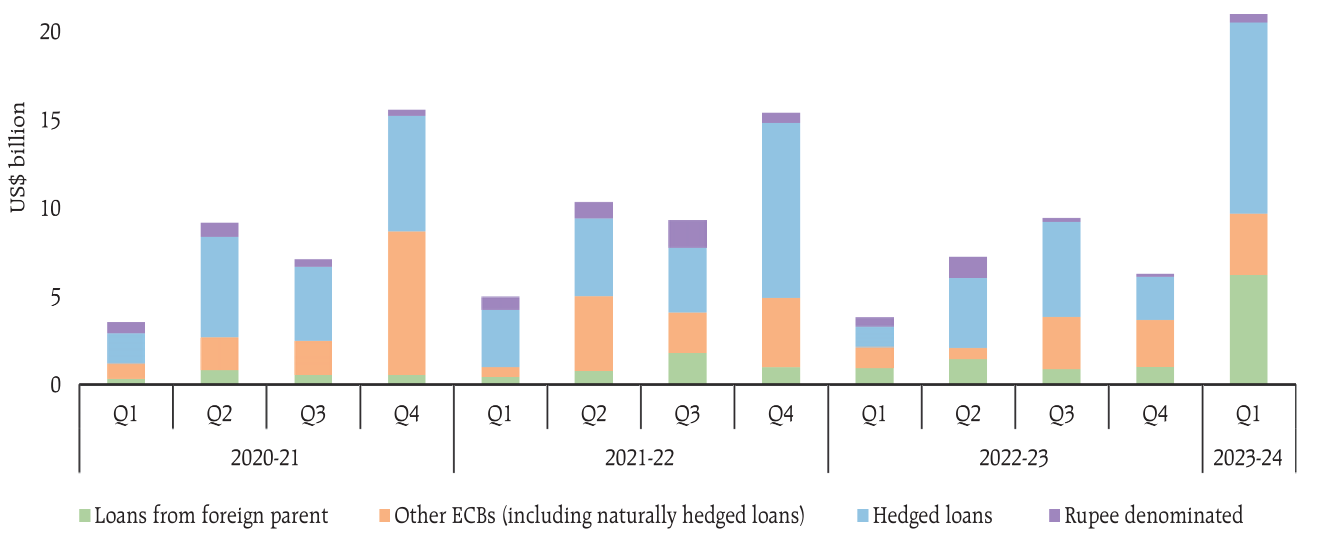
Source: RBI.

weighted average interest margin of 161 basis points (bps) during Q1:2023-24 stood lower than a year ago (197 bps) (Chart 58).

Over three-fourth of the ECB agreement amounts during April-June 2023 was effectively hedged in terms of explicit hedging, rupee denominated loans and loans from foreign parents, which considerably offsets the exchange rate sensitivity of such exposures (Chart 59).

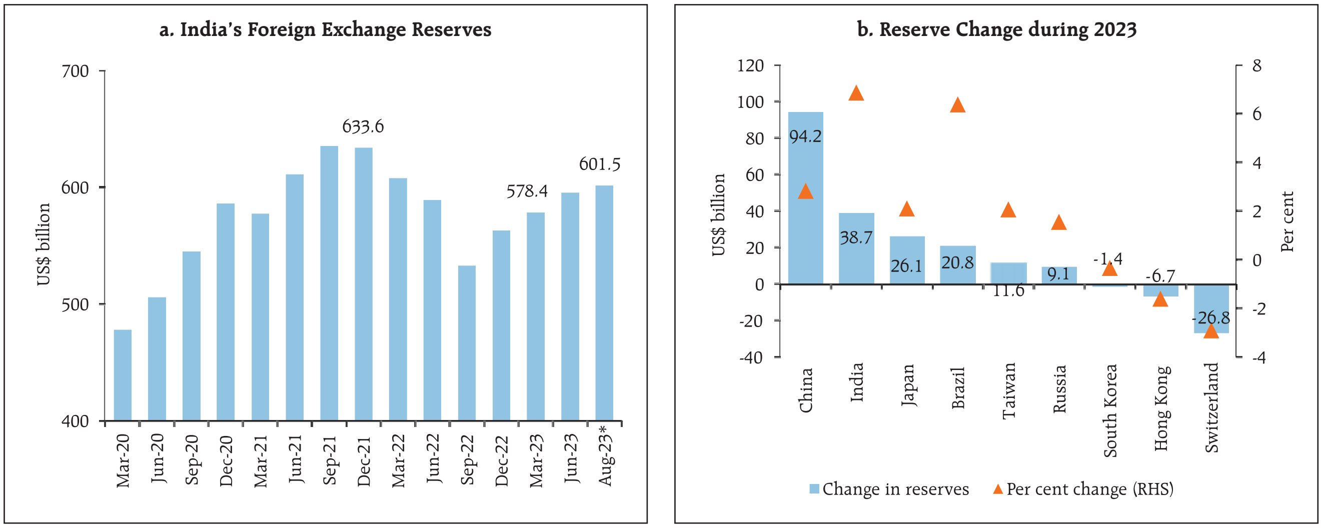
The foreign exchange reserves stood at US$ 601.5 billion on August 4, 2023, enough to cover about 10 months of imports projected for 2023-24 or 96 per cent of total external debt outstanding at end-March 2023 (Chart 60a). Reserves increased by 6.9 per cent

Chart 59: ECB Agreements - Hedging Position



Source: RBI.

Chart 60: Foreign Exchange Reserves



Note: Data pertains to August 4, 2023 for India and Russia , June for Hong Kong and Switzerland and July for the remaining countries.
Sources: RBI; and respective central bank websites.

(US$ 38.7 billion) during the calendar year 2023, the largest among major foreign exchange reserves holding countries (Chart 60b).

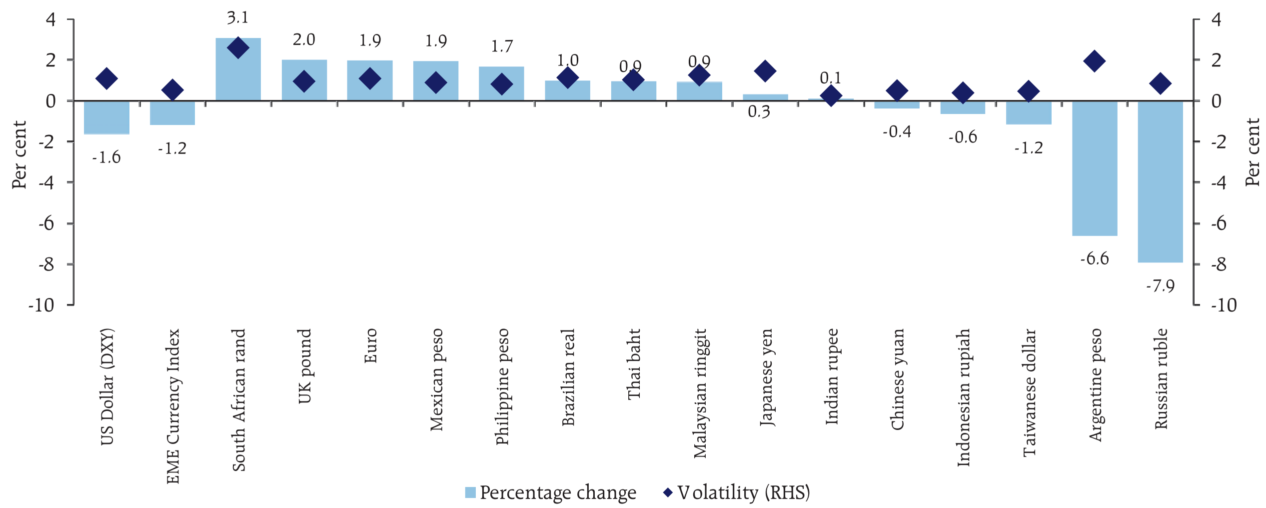
The Indian rupee (INR) appreciated by 0.1 per cent (m-o-m) *vis-à-vis* the US dollar in July 2023 and remained one of the least volatile currency among major currencies (Chart 61).

In terms of the 40-currency real effective exchange rate (REER), the INR appreciated by 3.0 per cent (m-o-m) in July 2023 (Chart 62).

Payment Systems

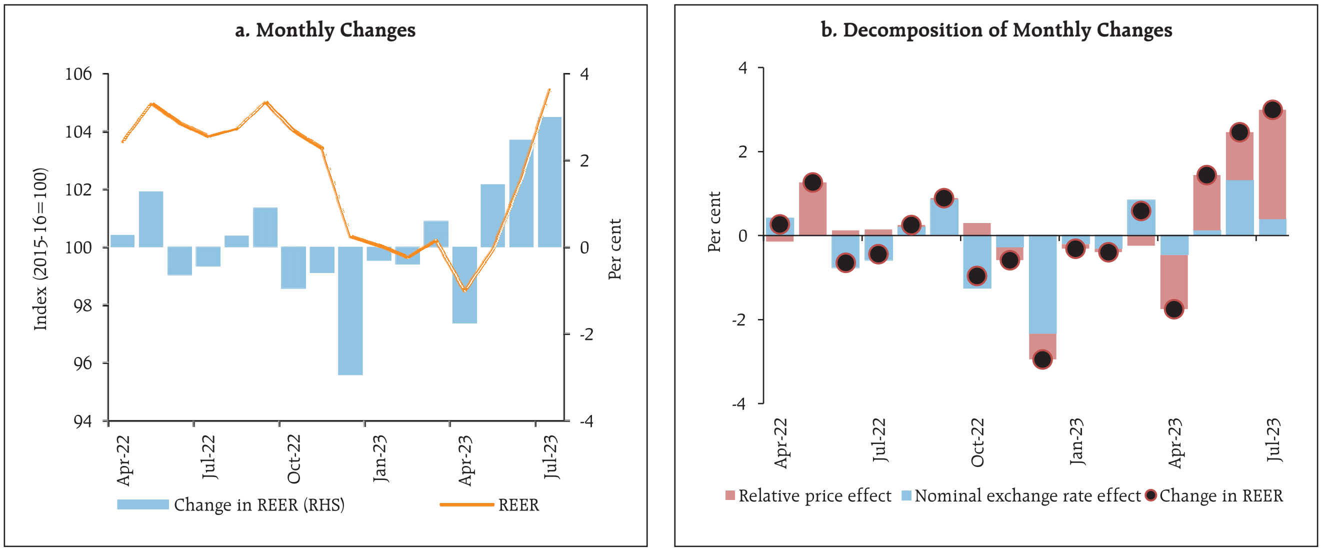
Digital transactions sustained expansion (y-o-y) across major payment modes in July and August 2023 (up till 11th) (Table 5). There were 996 crore

Chart 61: Movements of the Indian Rupee and Major Currencies against the US Dollar



Note: Data represents m-o-m change (July 2023 over June 2023).
Sources: FBIL; Thomson Reuters; and RBI staff estimates.

Chart 62: Movements in the 40-Currency Real Effective Exchange Rate



Source: RBI.

Unified Payments Interface (UPI) transactions in July, totalling over ₹15 lakh crore in value. Among the various prepayment options for online purchases, the UPI stands out as the most favoured mode (57 per cent), followed by credit cards (31 per cent), and other payment options such as wallets, net banking, and debit cards (12 per cent).[29] Notably, the average transaction size for e-commerce payments using debit cards has risen by 50 per cent (y-o-y) in July.[30] The disbursal of welfare payments under the PM *Kisan Samman Nidhi* (PM-KISAN) scheme induced an uptick (y-o-y) in transaction volumes for the National Automated Clearing House (NACH) in the month. The Reserve Bank's recently released Digital Payments Index (DPI)[31], a measure of the extent of digitalisation of the payment ecosystem, has been

Table 5: Growth in Select Payment Systems

(y-o-y in per cent)

Payment System Indicators	Transaction Volume				Transaction Value			
	Jun-22	Jun-23	Jul-22	Jul-23	Jun-22	Jun-23	Jul-22	Jul-23
RTGS	26.1	9.2	12.9	12.0	21.2	16.0	7.5	13.6
NEFT	37.6	26.7	26.8	36.3	29.5	11.9	19.2	16.1
UPI	108.8	59.2	93.8	58.4	85.3	45.5	75.5	44.2
IMPS	50.0	2.7	30.7	6.3	56.2	12.8	42.8	15.2
NACH	6.7	18.8	36.4	30.3	19.5	18.7	29.4	23.3
NETC	76.1	13.7	37.9	11.3	67.0	20.8	39.8	19.7
BBPS	80.6	24.8	67.9	25.9	91.0	41.6	68.7	46.0

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

29 Shiprocket Report, 2023. *eCommerce in the New Bharat and its Future.*

30 Based on provisional data available for July 2023.

31 The index measures deepening and penetration of digital payments across 5 broad parameters. The 5 parameters are – Payment Enablers (weight of 25 per cent), Payment Infrastructure - Demand Side Factors (10 per cent) and Supply side factors (15 per cent), Payment Performance (45 per cent), and Consumer Centricity (5 per cent).

on a steady ascent, growing by 13.2 per cent in 2022-23.[32]

On the policy front, the Reserve Bank and the Central Bank of United Arab Emirates (UAE) signed two Memorandums of Understanding.[33] First, a Local Currency Settlement System (LCSS) is proposed to be established to promote the use of the INR and the UAE Dirham (AED) for cross-border transactions between nations. Second, the two central banks agreed to (a) integrate their fast payment systems - India's UPI with the Instant Payment Platform (IPP) of the UAE; (b) link the respective card switches (RuPay switch and UAESWITCH); and (c) explore the linking of payment messaging systems *i.e.*, Structured Financial Messaging System (SFMS) of India with its counterpart in the UAE. These initiatives are anticipated to enable seamless cross-border fund transfers, facilitate mutual acceptance of domestic cards and foster the bilateral exchange of financial messages between the two countries.

In the Statement on Developmental and Regulatory Policies dated August 10, 2023, the Reserve Bank has proposed a series of measures to bolster the uptake of digital payments, including an innovative payment mode, *viz.*, "Conversational Payments" on the UPI that will enable users to interact with an artificial intelligence-powered system to initiate and complete transactions; facilitation of offline transactions under the on-device wallet UPI-Lite using Near Field Communication (NFC) technology; and increase in the per-transaction limit for small-value digital payments in offline mode to ₹500 from ₹200. In the FinTech space, a digital Public Tech Platform is being developed by the Reserve Bank Innovation Hub (RBIH) to enable the delivery of frictionless credit by facilitating a seamless flow of required digital information to lenders.

V. Conclusion

In this environment, the monetary policy committee (MPC) evaluated current and evolving macroeconomic and financial conditions in its meetings during August 8-10, 2023 and voted to maintain *status quo* on the policy rate and to stay committed to its stance of withdrawal of accommodation with the objective of aligning inflation with the target of 4 per cent. The MPC retained its forecast of growth at 6.5 per cent for 2023-24, noting that domestic economic activity is holding up well, supported by domestic demand in spite of the drag from weak external demand. The MPC revised upwards its projection of inflation taking into account the recent price surges in the food category of the CPI. The main revisions relate to the projections for the second and third quarters, with the forecast for the fourth quarter unchanged. This implies that the MPC expects these large shocks on account of supply disruptions due to adverse weather conditions to dissipate over the next six months. The Committee expressed "a readiness to act appropriately so as to ensure that their effects on the general level of prices do not persist."[34]

Recent developments, including the return of ₹2000 banknotes overwhelmingly in the form of deposits, have expanded liquidity disproportionately. This has caused some dissonance with the disinflationary stance of monetary policy, while impeding transmission of policy impulses across the term structure of interest rates. The slosh of liquidity also has implications for financial stability in the form of potential asset price bubbles and weakening of lending standards. As the banking system engages in absorbing this excess liquidity into prudent credit expansion, it is necessary to temporarily pre-empt the surplus liquidity from getting into the cracks. Accordingly, the RBI announced an incremental cash

[32] The latest RBI-DPI available for March 2023 was released on July 27, 2023

[33] RBI. Press Release. July 15, 2023.

[34] Monetary Policy Statement, 2023-24 Resolution of the Monetary Policy Committee (MPC) August 8-10, 2023.

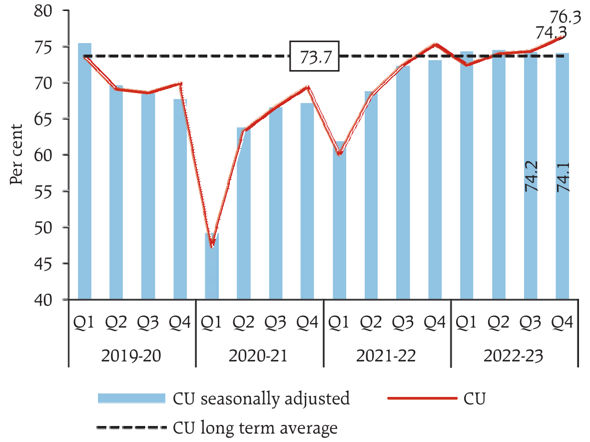
reserve ratio (I-CRR) of 10 per cent on the increase in their net demand and time liabilities (NDTL) between May 19, 2023 and July 28, 2023. It would impound some of the surplus while leaving adequate liquidity in the system for normal banking business. The operative term is 'temporary' – the intent is to return the impounded funds ahead of advance tax outflows from the banking system and well before the pick-up in the demand for bank credit that typically characterises the second half of the year. The stance of monetary policy is best described in the Governor's monetary policy statement: "In charting the course of monetary policy, we continuously assess the impact of our past actions, the evolving inflation dynamics and the implications of incoming data for the economic outlook. I reiterate our commitment to align CPI inflation to the 4 per cent target on a durable basis. We do look through idiosyncratic shocks, but if such idiosyncrasies show signs of persistence, we have to act."

Annex 1: Reserve Bank's Quarterly Enterprise Surveys Q1:2023-24

Key takeaways from the Reserve Bank's quarterly enterprise surveys conducted during Q1:2023-24 are:

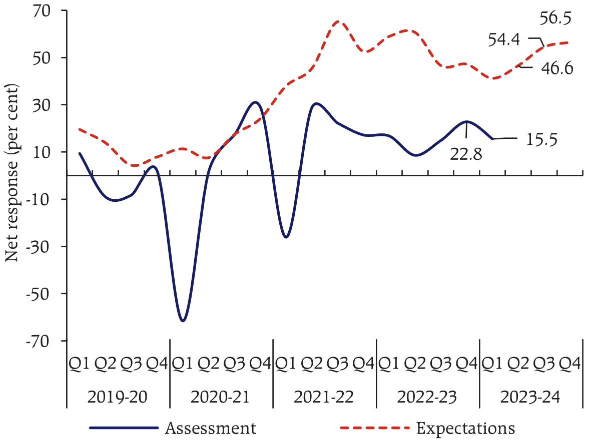
- Capacity utilisation (CU) in the manufacturing sector remained above its long-term average, both on seasonally adjusted and unadjusted bases, in Q4:2022-23; manufacturers' optimism on demand conditions is expected to support high CU in the ensuing quarters (Charts A1, A2).
- Overall business sentiment in the manufacturing, services and infrastructure sectors remained positive for the rest of the current financial year (Charts A3, A4).

Chart A1: Capacity Utilisation in Manufacturing Sector



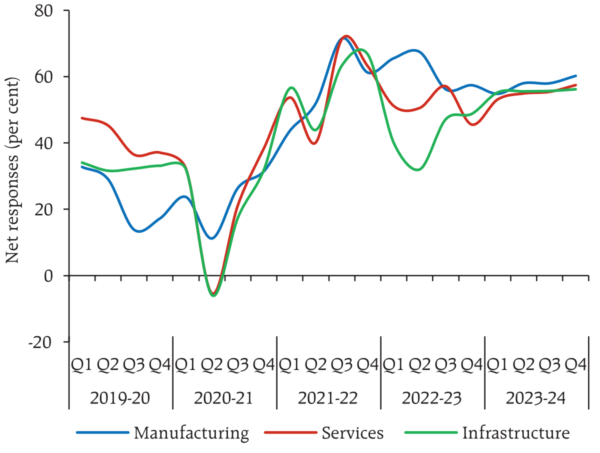
Source: Order Books, Inventories and Capacity Utilisation Survey, RBI.

Chart A2: Manufacturers' Sentiments on Capacity Utilisation



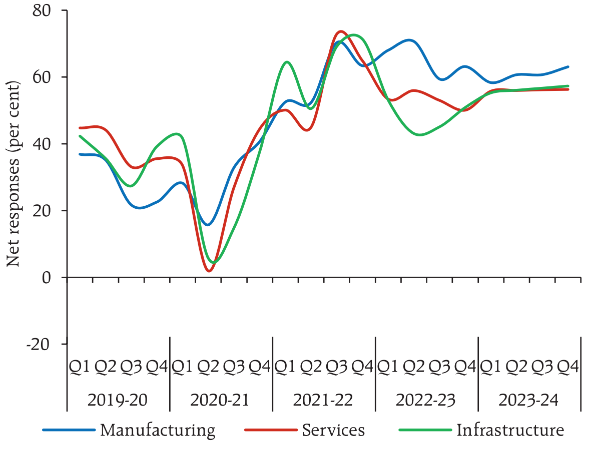
Source: Industrial Outlook Survey, RBI.

Chart A3: Sentiments on Production/Turnover



Sources: Industrial Outlook Survey; and Services and Infrastructure Outlook Survey, RBI.

Chart A4: Sentiments on Overall Business Situation

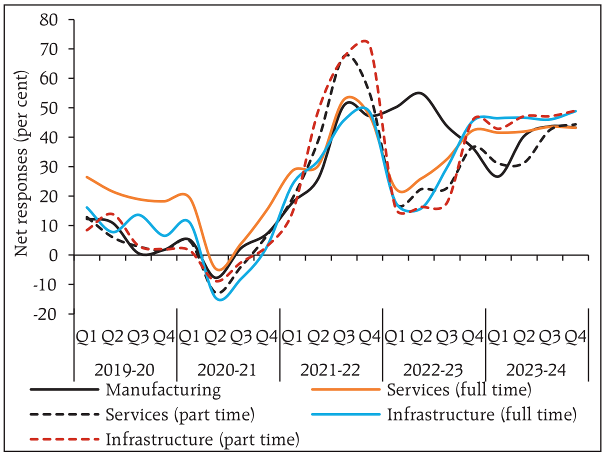


Sources: IOS; and SIOS, RBI.

(Contd..)

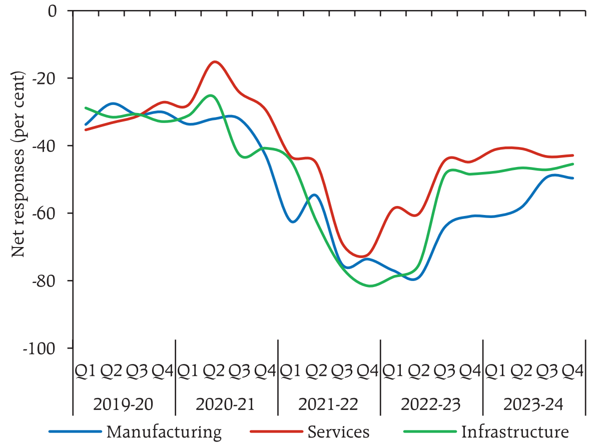
Annex 1: Reserve Bank's Quarterly Enterprise Surveys Q1:2023-24 *(Concld.)*

Chart A5: Sentiments on Employment Situation



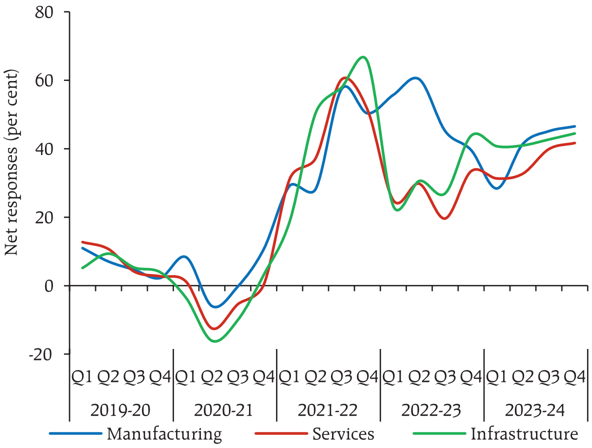
Sources: IOS; and SIOS, RBI.

Chart A6: Sentiments on Input Cost



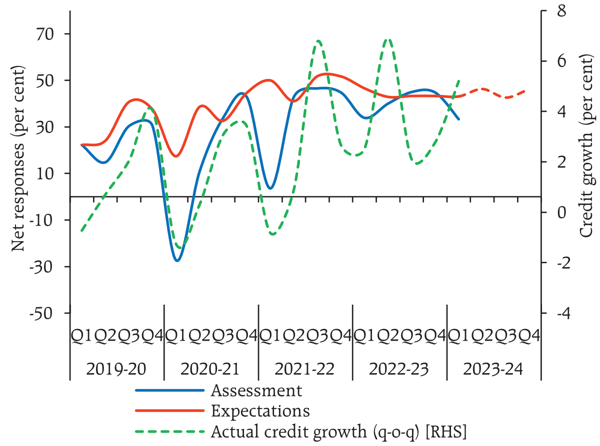
Sources: IOS; and SIOS, RBI.

Chart A7: Sentiments on Selling Price



Sources: IOS; and SIOS, RBI.

Chart A8: Senior Loan Officers' Expectations on Credit Demand



Source: Bank Lending Survey, RBI.

Note: The increase option (I) is an optimistic response for all parameters, except the cost related parameters, such as cost of raw materials, *etc.*, where the decrease option (D) signifies optimism from the viewpoint of a respondent company. The 'net response' is calculated as the difference between the percentage of respondents reporting optimism and those reporting pessimism.

- Job prospects are perceived to improve amidst high optimism about employment conditions across all three sectors for the remaining part of the year (Chart A5).
- Input cost pressures in the manufacturing sector continue to persist, *albeit* at a lower rate. A majority of respondents expect increases in cost of finance, wage bill and selling prices (Charts A6, A7).
- Senior loan officers anticipate strong demand for bank loans in the remaining part of 2023-24 (Chart A8).

Shifting Tides: Growing Influence of Non-Bank Investors in G-Sec Market in India

*by Amit Pawar, Mayank Gupta, Abhinandan Borad, Subrat Kumar Seet and Deba Prasad Rath^*

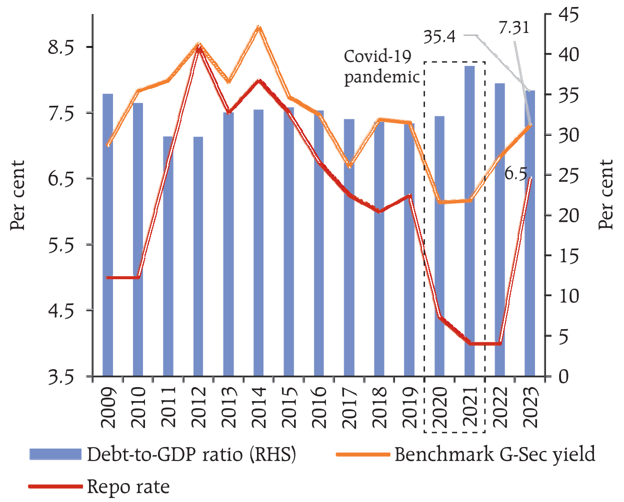
Non-bank entities absorbed a significant portion of newly issued sovereign debt during the Covid-19 pandemic. Nonetheless, banks still dominate the ownership of GoI dated securities in India. The study reveals that non-banks are more responsive to changes in G-Sec yields than banks. Overall, a one per cent increase in G-Sec supply is found to be associated with a 9.5 to 10 basis points increase in long term yields. Scenario analysis indicates shallower increase in borrowing costs when non-banks absorb all new government debt compared to when it is absorbed entirely by banks, highlighting that RBI's continued efforts to diversify the investor pool for G-Secs are well calibrated.

Introduction

Global sovereign debt surged in the aftermath of Covid-19 pandemic as governments across geographies extended wide ranging fiscal support to revitalize economic growth and safeguard social welfare (Gasper *et. al*, 2021). Globally, sovereign bond yields also increased in response to higher government borrowings. In India, total outstanding Government of India (GoI) dated securities as a percentage of nominal GDP expanded from 32.3 per cent at end-March 2020 to 38.5 per cent at end-March 2021 (Chart 1). Theoretically, the surge in government debt levels can lead to an increase in G-Sec yields as investors perceive a higher level of risk associated with the rise in debt. However, during the same period, the yields on benchmark 10-year G-Sec increased marginally from 6.14 per cent to 6.17 per cent. Timely policy measures by the Reserve Bank of India (RBI), including asset-purchase programmes and accommodative monetary policy during Covid-19 helped in orderly evolution of long-term yields (Patra *et al.*, 2022).

For advanced economies, debt-to-GDP ratio and potential growth are considered as long-run determinants of sovereign bond yields while inflation, short-term interest rates, and changes in output growth among others are regarded as short-run determinants (Poghosyan, 2014). In the Indian context, in addition to size of sovereign borrowing, G-Sec yields have also been found to be influenced by various factors such as inflation, economic growth, short-term interest rates, domestic liquidity conditions, and investor risk appetite among others (Dua *et al.*, 2014; Akram, 2019). However, the existing empirical works for India focuses mostly only on the association between bond yields and macroeconomic determinants, without differentiating between long-run and short-run determinants of sovereign bond yields.

Chart 1: Movements in Benchmark G-Sec Yield



Note: Debt-to-GDP ratio is calculated as the ratio between the total outstanding GoI-dated securities and nominal GDP.
Sources: RBI; and Bloomberg.

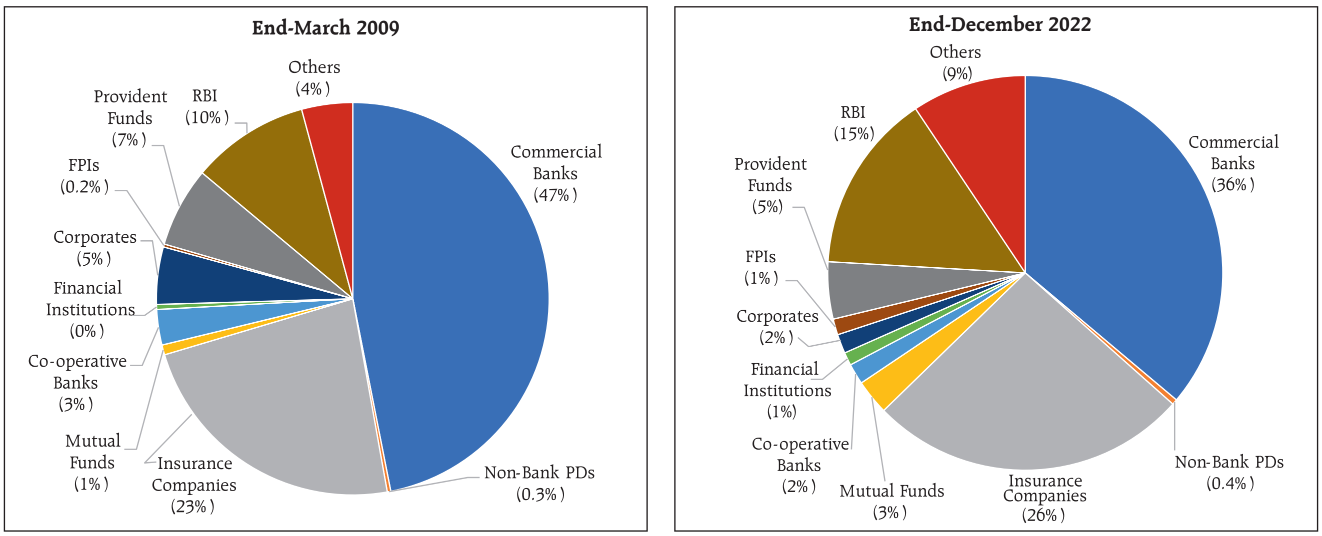
^ The authors are from the Department of Economic and Policy Research. The views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

Notwithstanding the existing literature on government bond yields, the debate on short-run and long-run determinants of bond yields as well as their significant key drivers remains unsettled, especially in emerging market economies like India. Further, the impact of evolving ownership trends on sovereign borrowing cost also remains unexplored.

With growing economy and evolving financial markets in India, the investor composition, *i.e.*, the types of investors that trade, invest, and hold G-Secs, is also undergoing a change. The outstanding stock of GoI dated securities increased from ₹19.3 lakh crore (35 per cent of GDP at current prices) at end-March 2009 to ₹93.7 lakh crore (35.3 per cent of GDP at current prices) at end-December 2022. The relative holdings of investors as measured through share in the total outstanding has also undergone changes over the years. For instance, in response to nearly five-fold increase in total outstanding GoI dated securities, holdings of commercial banks increased less than four-fold from ₹9.4 lakh crore at end-March 2009 to ₹33.9 lakh crore at end-December 2022 with their share in the total outstanding declining from 46.9 per cent to 36.1 per cent during this period (Chart 2). Further, the share of insurance companies increased from 23.2 per cent at end-March 2009 to 26.1 per cent at end-December 2022. Amongst other non-bank investors, the shares of mutual funds, foreign portfolio investors (FPI) and others[1] have increased, while the share of provident funds has declined during the same period.

A strand of recent cross-country literature highlights the influence of investor composition on cost of sovereign borrowings especially in the context of active participation of non-bank investors in Emerging Market (EM) sovereign debt. These studies highlight that governments can secure loans at a lower cost/yield when the presence of non-bank investors is high, other things remaining constant (Fang *et al.*, 2023). The investor base in sovereign debt market may also matter for financial stability - countries where investor base is well diversified, high debt-to-GDP ratio may matter less, and subsequently the likelihood of sudden stops/reversals in sovereign debt market is also less (Arslanalp *et al.*, 2013).

Chart 2: Ownership Pattern of GoI Dated Securities



Note: Figures in parentheses represent percentage holdings of respective investor types.
Source: RBI.

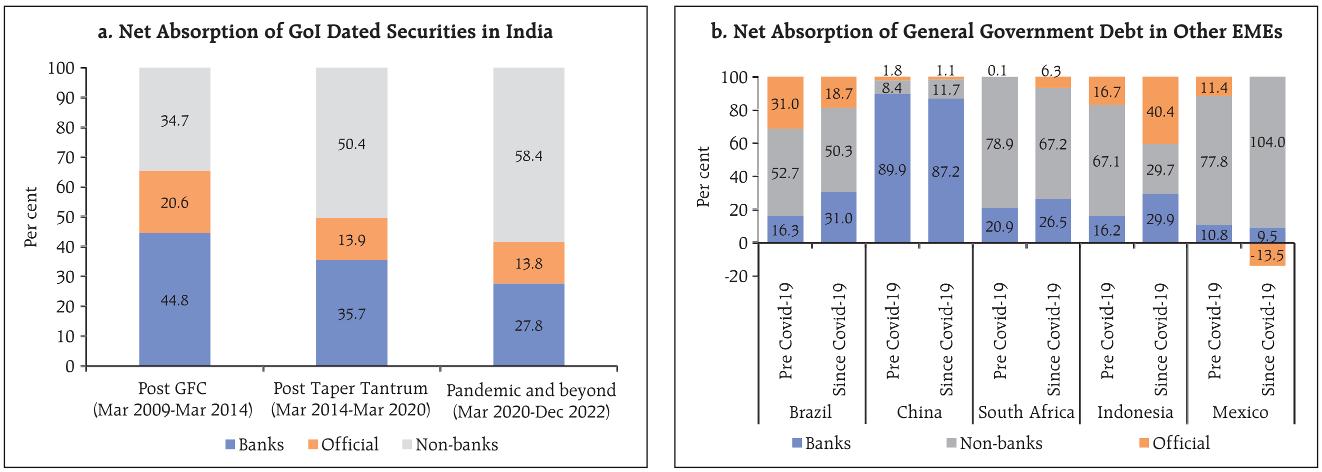
1 Includes State governments, pension funds, PSUs, trusts and HUF/individuals among others.

Policy measures have been undertaken in several EMEs to widen the investor base for sovereign bonds (ADB, 2013). In India, the Reserve Bank (RBI) also strove to widen the investor base for G-Sec through several measures (see Table 1 Annex A). It is apparent that such measures have begun to bear fruit especially in the Indian context. In the period spanning between the Global Financial Crisis (GFC) and the Taper Tantrum, banks remained the major players in the G-Secs market absorbing 44.8 per cent of net debt issuances. However, since the Taper Tantrum, non-bank investors have absorbed much of the issuance of new debt, which further gained strength during the Covid-19 pandemic since March 2020 when non-banks absorbed around 58.4 per cent of net debt issuances (Chart 3a). This is in contrast with other EMEs where banks' exposure to sovereign debt has increased during the Covid-19 period (IMF, 2022 and Chart 3b). The 'sovereign-bank nexus' literature highlights macro-financial stability risks emanating from high exposure of banks to sovereign debt (Deghi *et al.*, 2022).

Against this background, this study aims to investigate the investor base of outstanding G-secs and its impact on sovereign yield. Cross-country research has examined the changes in the composition of government debt holders and the marginal response of each investor group to changes in outstanding government debt (Fang *et al.*, 2023; Eren *et al.*, 2023). However, in the Indian context, there is a notable gap in the existing literature on the analysis of ownership patterns and the cost of borrowing. The present study fills this gap on several dimensions: first, an analysis of the recent trends in the ownership pattern of G-Secs is conducted. Second, the paper estimates the absorption of new debt by major investor groups, *viz.*, banks, non-banks, and official (RBI), with a special focus on the Covid-19 pandemic. Third, we show that sovereign debt demand of non-bank investors is more sensitive to yield changes compared to banks. Finally, the study estimates the sensitivity of Indian government bond yields with a rise in supply of total debt and how these estimates change under alternative absorption scenarios.

This article is divided into five sections. Section II profiles the changing ownership of investors in the GoI dated securities market. Section III provides an

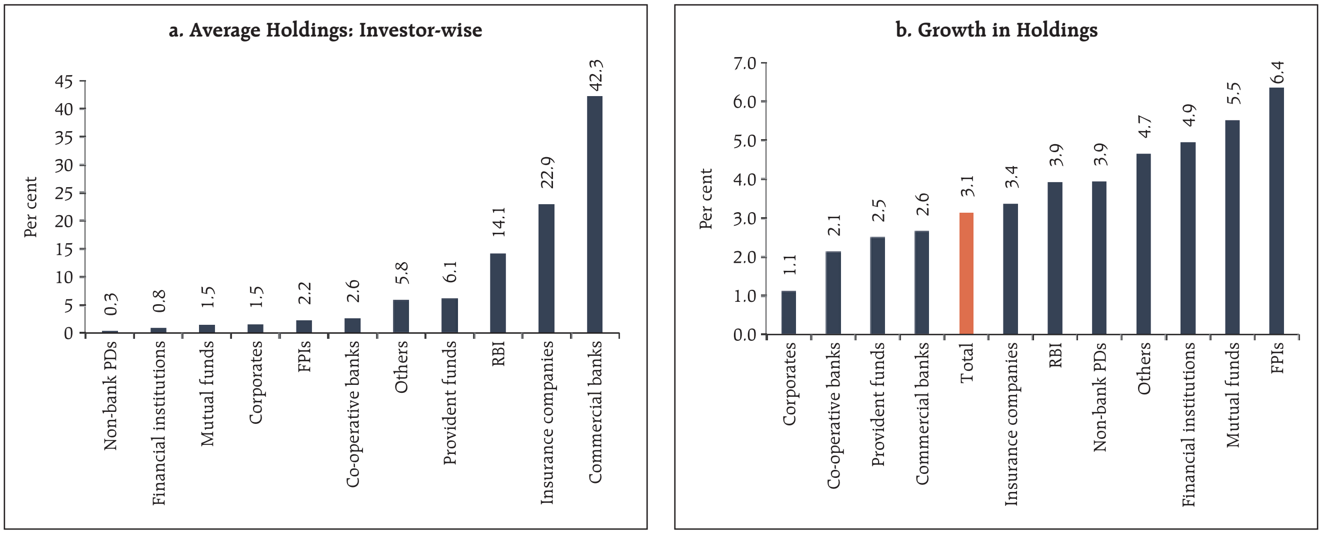
Chart 3: Net Absorption of Government Debt in India and Other EMEs



Note: (i) In Chart 3a, 'Banks' include holdings of commercial banks and cooperative banks; 'Official' refers to holdings of the RBI; 'Non-bank' refers to holdings of all other investors in GoI dated securities including insurance companies, provident funds, mutual funds, corporates, foreign portfolio investors, financial institutions, Non-Bank primary dealers (PD's) and others (Others comprise State governments, pension funds, PSUs, trusts, HUF/Individuals among others).
(ii) In Chart 3b, Pre Covid-19 includes period from Q4:2013 through Q1:2020; and since Covid-19 includes period from Q1:2020 through Q4:2022.

Sources: RBI; and Sovereign investor base estimates by Arslanalp et al. (2014) [Dataset Version: June 12, 2023].

Chart 4: Investor Composition of GoI Dated Securities



Note: The time period is March 2009 – December 2022; Growth rate in Chart 4b refers to the coumpounded quarterly growth rate.
Sources: RBI; and Authors' calculations.

overview of the related extant literature. Section IV discusses the data, methodology adopted and results. Finally, Section V concludes the study.

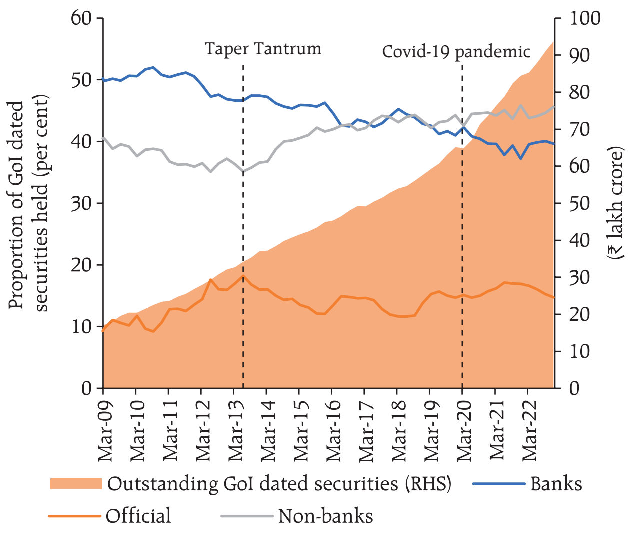
II. Investor Groups - Changing Contour of Ownership

Major holders of GoI dated securities at end-December 2022 include scheduled commercial banks (₹33.9 lakh crore), insurance companies (₹24.5 lakh crore), Reserve Bank of India (₹13.8 lakh crore), provident funds (₹4.4 lakh crore), pension funds (₹3.7 lakh crore), mutual funds (₹2.7 lakh crore), *among others.*

Commercial banks, insurance companies and the Reserve Bank have remained the largest holders of GoI dated securities (Chart 4a). Over time there has been a commensurate increase in holdings of different investor group with overall increase in outstanding marketable debt securities. However, investors such as FPIs and mutual funds, have experienced a faster growth in their holdings compared to the growth of the total outstanding debt. On the other hand, some investors such as corporates and cooperative banks have grown at a slower pace (Chart 4b).

Banks' holdings of GoI dated securities have exhibited a secular decline from around 50 per cent in March 2009 to under 40 per cent in December 2022, while the holdings of non-banks have gradually increased over this period and surpassed banks as the largest holders of GoI dated securities around March 2019 highlighting the growing diversification of government debt holders (Chart 5). On the other

Chart 5: Trends in the Holdings of Banks, Non-Banks and Official Groups



Sources: RBI; and Authors' calculations.

hand, holdings of the RBI increased post GFC since March 2009 up to the Taper Tantrum but declined thereafter to remain range bound for the rest of the sample period.

III. Survey of Extant Literature

Demand and ownership of government debt and its implications for long-term yields has remained an active line of inquiry in the macro-finance literature. It is argued that tracking ownership of government debt can shed light on the potential risks in government debt markets and highlights upside risks to cost of borrowing for countries with higher share of foreign private investors as they are more vulnerable to global spillovers (Arslanalp *et al.*, 2013). However, in the case of India, the sovereign debt is rupee-denominated and foreign investors hold relatively smaller proportion of sovereign debt.

Additionally, increase in demand for sovereign debt leads to a decline in sovereign bond yields which several studies have attributed to low risk premia on government bonds (ECB, 2007). For instance, increased demand for bonds from institutional investors has been found to be associated with lower long term bond yields in Euro area (ECB, 2007) and G-20 economies (Andritzky, 2012). Further, Andritzky (2012) also reveals that a 10 per cent increase in institutional investor holdings corresponds to a reduction in yield ranging from 25 to 40 basis points. In a similar study, Poghosyan (2014) states that in the long run, government bond yields in advanced economics increase by two basis points in response to a one percentage point increase in debt-to-GDP ratio. Fang *et al.* (2023) suggests that non-bank private investors absorb disproportionately more sovereign debt supply than other investors. The authors note that non-bank private investors are found to be most sensitive as compared to banks and central banks. Further, for EMEs on average, a one per cent increase in debt leads to a six basis points increase in the cost of borrowings. Eren *et. al.* (2023) documents the sectoral composition of US government debt as evolving over time and estimates the yield elasticity of demand for sovereign debt using monetary policy surprises as an instrumental variable. The authors suggest that a one per cent increase in long-term yield results in an 11 per cent increase in demand for sovereign debt among non-bank players.

In the Indian context, literature exists on the determinants of long-term yields namely, Akram *et. al.* (2019); Dua *et. al.* (2014). Additionally, Mishra *et al.* (2022) document the rising trend in sovereign debt in India and its macroeconomic implications.

IV. Data, Methodology and Results

The study uses quarterly data on ownership pattern of GoI dated securities (G-Sec) from March 2009 till December 2022. Sources of quarterly data on control variables are detailed in Table 2 of Annex A. Going forward, unless stated otherwise debt refers to outstanding stock of GoI dated securities.

This section focuses on investor-wise absorption of new debt, sensitivity of investor holdings to changes in nominal G-Sec yields and finally the sensitivity of yields to a given increase in supply of total debt by the sovereign. To conduct the empirical analysis, taking cue from the approach used by Fang *et al.* (2023), referred to as FHL (2023) hereafter, with certain modifications[2], ownership of different investor groups is combined into three broad categories: Banks, Non-banks, and Official holdings (Table 1).

Against the backdrop of the evolving investor trends as alluded to in the Section II, we first shed light on marginal absorption of new debt (net). Marginal absorption of new debt refers to how much of the new

[2] As per FHL (2023), State governments' holdings should be classified within the Official category. But the bifurcation of State governments' holdings within the category 'Others' is only available from June 2015 as per RBIs database on Indian economy (DBIE); therefore, it has been included into non-banks.

Table 1: Ownership Groups

Banks	Non-Banks	Official
Commercial Banks	Insurance Companies	RBI
Co-operative banks	Others (including State governments and pension funds)	
	Provident Funds	
	Mutual Funds	
	Corporates	
	Foreign Portfolio Investors	
	Financial Institutions	
	Non-Bank PDs	

Note: Investors are ordered in descending order of their holdings within each group as per latest data.

Source: Compiled by Authors.

supply of debt is absorbed by banks, non-banks, and official investors.

We define the book value of sovereign debt held by each investor group i, as H_i. Then, the holdings can be aggregated to arrive at the total debt D such that:

$$D = \sum_{i=1}^{I} H_i \qquad \dots (1)$$

In equation (1), I is the number of investor groups, which is three in our case. Next, we use a simple model to estimate how much each investors' holdings change in response to the changes in total debt. The following equation is estimated for each investor:

$$\frac{(H_{i,t} - H_{i,t-1})}{D_{t-1}} = a_i + \beta_i \frac{(D_t - D_{t-1})}{D_{t-1}} + e_{i,t} \qquad \dots (2)$$

where subscript 't' denotes time. The coefficients β_i's give the proportion of debt absorbed. The β_i's sum to one since all the new debt will be absorbed by some investor. Results suggest that for every additional unit of debt supplied, 49.8 per cent is absorbed by banks while 45.7 per cent is absorbed by non-banks (Table 2). The estimated share of the official group is estimated to be 4.5 per cent; however, it is not found to be statistically significant. These finding highlights that the central bank is not systematically increasing debt holdings but only participates in the G-Sec market on discretion and as a matter of policy choice. Panel B in Table 2 also reports the investor-wise average

Table 2: Absorption of Sovereign Debt

Coefficient	Banks (1)	Non-Banks (2)	Official (3)
Panel A: Absorption of New Debt			
Intercept	-0.004	-0.000	0.004
	(0.002)	(0.003)	(0.003)
Marginal Absorption	0.498***	0.457***	0.045
	(0.077)	(0.076)	(0.091)
Observations	55	55	55
R^2 (per cent)	43.2	35.5	0.5
Panel B: Average Shares			
	0.45	0.41	0.14

Notes: i) Panel A of the table reports the results of regressions as per equation (2) for each of the investor group. Newey West errors corrected for up to 4 lags are reported in parentheses. Panel B reports the average share of the investor groups.
ii) Significance level: *p<0.1; **p<0.05; ***p<0.01.

Source: Authors' calculations.

holdings of G-Secs.

While the above analysis suggests how much of the additional debt is absorbed by each investor over the entire sample, it would be interesting to know if these absorptions vary across time. Particularly, it is hypothesized that marginal responses across investor groups varied during the Covid-19 pandemic as compared to the pre-pandemic sample. To test this, time interaction dummies are introduced in equation (3) as below:

$$\frac{(H_{i,t} - H_{i,t-1})}{D_{t-1}} = a_i + (\beta_i^{c} \times \mathbf{1}_c + \beta_i^{pc} \times \mathbf{1}_{pc}) \frac{(D_t - D_{t-1})}{D_{t-1}} + e_{i,t} \qquad \dots (3)$$

where $\mathbf{1_c}$ and $\mathbf{1_{pc}}$ are dummy variables which take value 1 in Covid-19 period (since March 2020) and pre-Covid period, respectively.

It is evident that the marginal response of banks during the Covid-19 declined while that of non-banks increased, possibly chasing the relative safety of sovereign bonds amid pandemic induced uncertainty. In fact, non-banks absorbed more than half of the new debt during the Covid-19 period[3]. Additionally, the central bank's response remains statistically insignificant as before, despite a slew of

[3] Mutual funds which are part of non-bank investors were also affected by a regulatory change by the SEBI in November 2020 mandating specified open ended debt schemes to hold atleast 10 per cent of their net assets in liquid assets such as cash, G-Sec, T-bills and Repo on G-Sec.

Table 3: Absorption of Sovereign Debt: Covid-19 Pandemic

Coefficient	Banks (1)	Non-Banks (2)	Official (3)
Intercept	-0.004 (0.002)	-0.001 (0.003)	0.004 (0.003)
Marginal Absorption (Pre Covid-19)	0.526*** (0.067)	0.436*** (0.101)	0.037 (0.094)
Marginal Absorption (Covid-19)	0.389*** (0.087)	0.542*** (0.073)	0.069 (0.097)
Observations	54	54	54
R^2 (per cent)	45.8	35.5	0.5

Notes: i) Table reports the results of regressions as per (3) for each of the investor group. Newey West errors corrected for up to 4 lags are reported in parentheses.
ii) Significance level: *p<0.1; **p<0.05; ***p<0.01

Source: Authors' calculations.

unconventional policy measures aimed at orderly evolution of the yield curve (Table 3).

To examine investor-wise sensitivity to changes in yield, we use a framework that relates debt funding of sovereign to its creditor holdings and then use this structure to extract each creditor's sensitivity to changes in yield. This approach closely follows FHL (2023), suitably adjusting it, wherever necessary (Refer Annex B for details).

An empirical regression equation is specified for investor i's holding share of debt-to-GDP as:

$$\ln h_{i,t}^{m} = \alpha_0 + \beta_{1,i} r_t + \boldsymbol{\beta}'_{2,i} \boldsymbol{x}_t + \varepsilon_{i,t} \qquad \ldots (4)$$

where $h_{i,t}^{m}$ is the market value of the investor i's share in the debt-to-GDP ratio, $\beta_{1,i}$ estimates the sensitivity of investor i's holding share of debt-to-GDP to changes in yields and $\varepsilon_{i,t}$ is latent demand of investor i's for country's debt[4]. Further, $\boldsymbol{x}_t$ is a set of macroeconomic control variables. We estimate equation (4) using an increasingly larger group of macroeconomic controls to check the robustness of our estimates. However, estimating equation (4) presents identification issues. Since the nominal yield on debt is determined in equilibrium by equating demand and supply, latent demand ($\varepsilon_{i,t}$) may be correlated with the yield, r_t. Therefore, we need a proxy for yield that is uncorrelated with latent demand. We estimate a hypothetical yield by specifying a market clearing condition (Refer Annex B for details), which is then employed in regression based on (4). The results for the estimation of equation (4) are presented in Table 4 and 5 separately for banks and non-banks.

We employ a large set of control variables across specifications for checking the robustness of our estimates. Prevailing economic conditions (real GDP growth, inflation and short-term interest rates) can impact the demand for sovereign debt. Risk-return profile of investment substitutes such as equity (Nifty returns and volatility) may also impact the demand for sovereign debt. Non-resident demand for government bonds can also be driven by a flight-to-quality phenomenon, which refers to the behaviour of investors to shift their asset allocation away from riskier investments and into safer ones during financial downturns or bear markets (US 10-year treasury).

The findings suggest that as yields rise, the demand for debt rises among both banks and non-banks. However, non-banks exhibit slightly greater sensitivity to yield changes compared to banks. Specifically, the sensitivity estimates of non-banks surpass those of banks by approximately 5-10 per cent, depending on the specification employed.

It is evident that a one per cent increase in bond yield leads to a notable response from both banks and non-banks. Specifically, domestic banks increase their debt holdings by 9.8 to 10.2 per cent, while non-banks exhibit a higher response, increasing their holdings by 10.8 to 11.1 per cent. This divergence reflects the different regulatory environments for banks *vis-à-vis* non-banks. For instance, changing bond yields can have a differential impact on portfolio valuation of

[4] Parameters in bold face are vectors.

Table 4: Funding Equation: Banks

Coefficient	Baseline (1)	(2)	(3)	(4)
Intercept	-0.007* (0.004)	-0.007* (0.004)	-0.006** (0.003)	-0.007** (0.003)
Bond Yield	10.016*** (0.922)	9.832*** (1.013)	9.818*** (1.034)	10.173*** (1.101)
Inflation	-0.027 (0.004)	-0.022** (0.004)	-0.020*** (0.004)	-0.021*** (0.004)
Real GDP growth	-0.009*** (0.001)	-0.005*** (0.001)	-0.004*** (0.001)	-0.004*** (0.001)
Annualized NIFTY Volatility	0.002*** (0.001)	0.002** (0.001)	-0.002*** (0.001)	-0.002** (0.001)
US 10 Year Treasury Yield		-0.070*** (0.011)	-0.055*** (0.014)	-0.055*** (0.015)
India 3-month T-bill Rate			-0.074*** (0.014)	-0.075*** (0.014)
Nifty Returns				0.000 (0.001)
Adjusted R^2 (%)	72.7	72.5	74.9	74.5
Observations	54	54	54	54

Notes: i) This table reports the estimates as per equation (4) for Banks. Columns 1-4 report the results for different sets of control variables. The dependent variable is the Banks' share in funding. The sample spans the period June 2009 – December 2022. All the variables are in first differences. Newey West errors corrected for up to 4 lags are reported in parentheses.
ii) Significance level: *p<0.1; **p<0.05; ***p<0.01.

Source: Authors' calculations.

both groups. As per RBI regulations, the investment portfolio of banks is classified under three categories, *viz.*, 'Held to Maturity (HTM)', 'Available for Sale (AFS)' and 'Held for Trading (HFT)'. Among these, only AFS and HFT categories of investments are subject to mark-to-market valuation. Banks' investments held under HTM category are not subject to mark-to-market valuation and thus provide a cushion for banks from valuation changes[5]. In contrast, the investments held by non-banks are generally valued at mark-to-market.

Response to inflation by non-banks is also higher in magnitude as compared with banks. As higher inflation erodes the value of long-term securities, the demand for long term sovereign securities will decline. Both banks and non-banks exhibit this negative relationship. The reaction to real GDP growth[6] is similar as response to inflation. A possible explanation for a negative sign is that higher growth could lead to better returns in alternative investment options like equities. As a result, there might be a reduced demand for sovereign debt. Banks are found to react to equity volatility, but non-banks exhibit significant coefficients only under one specification. However, the magnitude of coefficients is negligible in both cases. Non-banks respond more strongly to

Table 5: Funding Equation: Non-Banks

Coefficient	Baseline (1)	(2)	(3)	(4)
Intercept	0.001 (0.006)	0.001 (0.006)	0.002 (0.004)	0.002 (0.004)
Bond Yield	11.116*** (0.701)	10.750*** (0.669)	10.741*** (0.723)	10.809*** (0.851)
Inflation	-0.033*** (0.004)	-0.026*** (0.004)	-0.024*** (0.004)	-0.025*** (0.005)
Real GDP growth	-0.009*** (0.001)	-0.005*** (0.001)	-0.004*** (0.001)	-0.003*** (0.001)
Annualized NIFTY Volatility	0.001 (0.001)	0.000 (0.002)	-0.004 (0.001)	-0.003** (0.001)
US 10 Year Treasury Yield		-0.083*** (0.012)	-0.067*** (0.013)	-0.069*** (0.012)
India 3-month T-bill Rate			-0.080*** (0.011)	-0.079*** (0.010)
Nifty Returns				0.001 (0.001)
Adjusted R^2 (%)	72.3	72.3	74.6	73.8
Observations	54	54	54	54

Notes: i) This table reports the estimates as per equation (4) for non-Banks. Columns 1-4 report the results for different sets of control variables. The dependent variable is the Non-Banks' share in funding. The sample spans the period June 2009 – December 2022. All the variables are in first differences. Newey West errors corrected for up to 4 lags are reported in parentheses.
ii) Significance level: *p<0.1; **p<0.05; ***p<0.01.

Source: Authors' calculations.

[5] Bank's investments under HTM category is limited to 25 per cent of total investments. However, it can exceed 25 per cent if (i) the excess comprises of SLR securities and (ii) total SLR in HTM does not exceed a certain percentage (currently 23 per cent) of net demand and time liabilities (FSR, 2023).

[6] Economic theory suggests government bond yields are also affected by potential growth (Poghosyan, 2014). Instead of Real GDP growth, potential growth rate is employed for robustness. The results broadly remain similar.

changes in external financial conditions as compared to banks as seen from significant coefficients on the 10-year US treasury. Domestic monetary policy also affects the demand for sovereign debt by both banks and non-banks. Varied business models, risk profiles and regulatory environments are possible reasons for the differential impact of various macroeconomic factors on demand for sovereign debt by banks and non-banks.

Next, we examine the yield sensitivity to increase in supply of total debt. Investor pool for sovereign debt has diversified in India, so it becomes paramount to understand its impact on yield sensitivity. Therefore, we use a measure of yield sensitivity as derived by FHL (2023). This measure conveys what would happen to bond yields when the government wants to increase the debt by one per cent keeping all else constant.

$$\xi = \frac{dy}{dlnD^m} = \frac{\sum_{i=1}^{I} \frac{a_i}{T+\eta_i}}{\sum_{i=1}^{I} \frac{a_i \eta_i}{T+\eta_i}} \quad \text{...(5)}$$

where η_i is the yield elasticity of demand by each investor group 'i' as estimated in the Table 4 & 5 while a_i is the change in book value holdings by investor 'i' in response to changes in total debt or marginal absorptions as estimated in Table 2. 'T' is the maturity on debt which is 10 in our case In this section, we estimate the measure ξ using only the holdings of banks and non-banks, as it is assumed that the changes in holdings of central bank in response to change in yield is more a policy choice rather than market behavior.

Additionally, a scenario analysis is conducted to arrive at alternative measures of ξ for different investor compositions by varying the marginal absorption shares across investor groups.

Table 6: Yield Sensitivity to Debt Increase

	Sensitivity (bps)
Actual	9.5-10
No Banks	9-9.6
No Non-banks	9.8-10.3

Note: The table reports the borrowing cost sensitivity as in (5).
Source: Authors' calculations.

The estimated marginal absorptions a_i from Table 2 and η's from Table 4 and 5 show that with one per cent increase in sovereign debt supply, the cost of financing, which is the yield, will increase between 9.5 to 10 basis points (Table 6).

Further, another finding relates to shift in sensitivity when considering changes in the investor base. To explore this, two scenarios are examined, one where all new debt is taken up by non-banks ("No Banks" row), and another where all new debt is absorbed by banks ("No Non-banks" row). The results reveal an interesting contrast - when all the new debt is assumed to be absorbed by banks, the increase in yields is on average 8.1 per cent higher compared to the scenario where all the debt is assumed to be absorbed by non-banks, which suggests that the impact of yield changes is less pronounced when non-banks are the primary investors, as opposed to banks.

V. Conclusion

In the backdrop of rising sovereign debt coupled with the increasing participation of non-banks in the ownership of G-Secs, this study assesses the impact of diversification of investor base for G-Secs on the sovereign's cost of borrowing. Although the average ownership of banks has been historically higher compared to other investor groups, lately there has been an increasing uptake of government securities by non-bank investors. This trend was amplified during the Covid-19 period.

The study finds that as compared to banks, non-bank investors are more sensitive to changes in G-Sec yields – for a 1 percentage point increase in yields, domestic banks increase their debt holdings by 9.8 to 10.2 per cent, while non-banks exhibit a higher response, increasing their holdings by 10.8 to 11.1 per cent. Different regulatory directions, idiosyncratic business models and distinctive holding objectives are probable reasons for such deviation. The study finds that a one per cent increase in supply of new debt would lead to a 9.5 to 10 basis points increase in the G-Sec yield. Further, while conducting a scenario analysis to understand the impact of changing ownership pattern on cost of borrowing, it is observed that when all the new debt is absorbed by banks, the increase in yield, is on average 8.1 per cent higher compared to the scenario where all the debt is assumed to be absorbed by non-banks. These findings highlight that the Reserve Bank's sustained measures aimed at diversifying the investor pool for G-Secs are well calibrated and aligned with debt management objectives of cost optimisation, risk mitigation and market development.

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Annex A

Table 1: Major Policy Measures Undertaken to Widen the Investor Base in Government Securities Market by RBI

Policy Date	Policy Measure
December 8, 2001	Non-competitive bidding up to 5 percent of the notified amount in auctions of specified GoI dated securities for retail investors.
January 16, 2003	Buying and selling of Government securities through the stock exchanges.
May 21, 2007	Odd lot trading commenced on NDS-OM to encourage retail trading.
September 29, 2015	Medium term framework (MTF) for FPI limits in debt securities is announced.
November 23, 2017	Specified stock exchanges were permitted to act as aggregators/facilitators for submitting investor bids in the non-competitive segment of primary auction.
March 1, 2019	Voluntary Retention Route (VRR) was introduced for FPIs.
March 30, 2020	Fully accessible route (FAR) for investment by non-residents was introduced.
November 12, 2021	Retail Direct Scheme was introduced.

Sources: Compiled by Authors; RBI's Annual Report (several editions) and press releases.

Table 2: Data Sources

Variable	Source
Ownership pattern of GoI dated securities	DBIE, RBI; CCIL
10-year G-Sec yield	Bloomberg
Real GDP growth	DBIE, RBI
Inflation	DBIE, RBI
3-month T-Bill rate	Bloomberg
Nifty Volatility	Bloomberg
Nifty Returns	Bloomberg
10-year US treasury yield	Bloomberg

Source: Compiled by Authors.

Annex B

B.1 Model Setup and Notation

Book value of debt as a share of GDP is defined as $d = D/Y$, where Y is the nominal GDP level of the country. We assume that the debt supply is a function of a set of macroeconomic controls and its own lag such as $d_t = f(\boldsymbol{x}_t, d_{t-1})$, where $\boldsymbol{x}_t$ is a vector of macroeconomic controls[7]. Under the functional form as suggested in Fang *et al.* (2023), the newly issued debt will depend only on $\boldsymbol{x}_t$.

$$\frac{D_t - \gamma_0 D_{t-1}}{Y_t} \equiv d_t - \gamma_0 d_{t-1}\, g_t^{-1} = f(\boldsymbol{x}_t) \qquad \ldots (1)$$

where γ_0 is the legacy debt that has not matured and $g_t = Y_t/Y_{t-1}$ is the GDP growth rate. Given a desired supply of debt, the government can raise the money based on willingness of investors to fund the new debt, which in equilibrium will arrive at the price of debt. Let P_t be the price of government debt at time t, then the share of i^{th} investor in the debt-to-GDP ratio will be:

$$h_{i,t} = \frac{H_{i,t}}{D_t} d_t \qquad \ldots (2)$$

Then the market value of this share can be written as: $h_{i,t}^m \equiv P_t h_{i,t}$. Investor $i's$ holdings are assumed to depend on the price of debt, P_t, and other macroeconomic variables $\boldsymbol{x}_t$ *i.e.*, $h_{i,t}^m = f(P_t, \boldsymbol{x}_t)$ The market clearing condition would be:

$$P_t d_t = \sum_{i=1}^{I} f_i(P_t, \boldsymbol{x}_t) \qquad \ldots (3)$$

This implies that the equilibrium P_t is a function of book value of debt-to-GDP ratio, d_t, and the propensity for investors to fund debt depending on the macroeconomic variables, $\boldsymbol{x}_t$. As the data on coupon payments and debt maturity for total debt cannot be estimated trivially, we assume that the annualized cost per period is proxied by the yield to maturity on a pure discount government bond. Then, the price of debt is:

$$P_t = (1 + r_t)^{-T} \qquad \ldots (4)$$

where r_t is the yield on zero coupon G-Sec bond maturing in T years (Here, we take T = 10 years).

Next, an empirical regression equation is specified for investor $i's$ holding share of debt-to-GDP as:

$$\ln h_{i,t}^m = \alpha_0 + \beta_{1,i} r_t + \boldsymbol{\beta}'_{2,i} \boldsymbol{x}_t + \varepsilon_{i,t} \qquad \ldots (5)$$

where $\beta_{1,\,i}$ estimates the sensitivity of investor i's holding shares of total debt-to-GDP and $\varepsilon_{i,t}$ is latent demand of investor I's for country's debt[8].

B.2 Identification Issues

Estimating equation (5) presents identification issues. Since the nominal yield on debt is determined in equilibrium by equating demand and supply, latent demand ($\varepsilon_{i,t}$) may be correlated with the yield, r_t. Therefore, we need a proxy for yield. To do this, first, the market value of investor holdings is calculated as the fitted values of the following regression.

$$\ln h_{i,t}^m = \alpha'_{0,i} + \alpha'_{1,i} \boldsymbol{x}_t + u_{i,t} \qquad \ldots (6)$$

The fitted values are extracted as $h_{i,t}^m = \exp\,(\widehat{\alpha'_{0,i}} + \widehat{\alpha'_{1,i}} \boldsymbol{x}_t)$. Next, we project current debt-to-GDP ratio on $\boldsymbol{x}_t$ and lagged debt as in (1) in the following regression:

$$d_t = \alpha_0 + \gamma_0 d_{t-1} g_t^{-1} + \boldsymbol{\gamma}_1 \boldsymbol{x}_t + e_t \qquad \ldots (7)$$

Substituting the fitted values of equation (6) and (7) into the market clearing equation (8) below gives us an estimate of a hypothetical yield, which will be used as a proxy for actual nominal yield in equation (5) to get unbiased estimates of the investor-wise yield sensitivities.

$$\widehat{d_t}(1 + \tilde{r}_t)^{-T} = \sum_{i=1}^{I} \widehat{h_{i,t}^m} \qquad \ldots (8)$$

[7] As in FHL (2023), we replace P_t with r_t since the P_t is a monotonic transformation of r_t.

[8] Parameters in bold face are vectors.

Exogenous Shocks and India's Growth Performance Post COVID-19

*by Amit Kumar^, Chaitali Bhowmick^, Kaustav K. Sarkar^, Kunal Priyadarshi^, Sapna Goel^ and Satyananda Sahoo^*

This study attempts to discern broad trends and underlying nuances of the recovery path of the Indian economy in the aftermath of the COVID-19 pandemic. The Engel curve finds a shift of consumer preferences towards services and high-value products even before the pandemic. A significant positive relationship between growth of non-food credit and fixed investment confirms the supply-leading process of bank intermediation. Average rainfall deviation during El Niño years may adversely impact agricultural GVA growth in 2023-24. The adverse impact of energy price shock on manufacturing output has been dissipating. Private consumption and fixed investment remained resilient in Q1:2023-24, boding well for the economy going forward.

Introduction

The National Statistical Office (NSO) released its provisional estimates (PE) of national income for 2022-23 along with quarterly estimates of gross domestic product (GDP) on May 31, 2023.[1] The National Accounts Statistics (NAS) 2023 comprising a detailed and disaggregated information on national income aggregates till 2021-22 was released earlier on April 27, 2023. This article analyses these new data releases against the backdrop of unfolding of three large exogenous shocks – the pandemic, the war in Ukraine and the synchronised global tightening of monetary policy – all in the span of three years.[2] The first two factors led to supply chain disruptions, accentuation of commodity prices and intensification of inflationary pressures at a global level, prompting central banks to tighten monetary policy at the fastest pace in the last four decades.

Historically, India has exhibited fortitude during periods of global slowdown and managed to maintain a relatively steady GDP growth rate. During the global financial crisis (GFC) of 2008-09, while many countries experienced recession, India managed to record a growth of 3.1 per cent (Annex Table 1 and Annex Table 2). India's perseverance during this challenging period can be attributed to prudent fiscal and monetary management and buoyancy in domestic demand, especially private consumption. The atypical nature of COVID-19, however, resulted in a protracted revival of private consumption as a full-fledged normalisation of activity and restoration of consumer confidence took place only after the receding of the Omicron wave in early 2022. The government's commitment to upscale infrastructure development facilitated an impressive rebound of gross capital formation (GCF).

Following COVID-19, the Indian economy registered a 'V-shaped' recovery on the back of a series of recent reforms, and pertinent policy support from the Government of India (GoI) and the Reserve Bank. As the Indian economy aspires to become a developed economy going forward,[3] a holistic appraisal of the current macroeconomy is warranted to identify the bright spots and the weak points.

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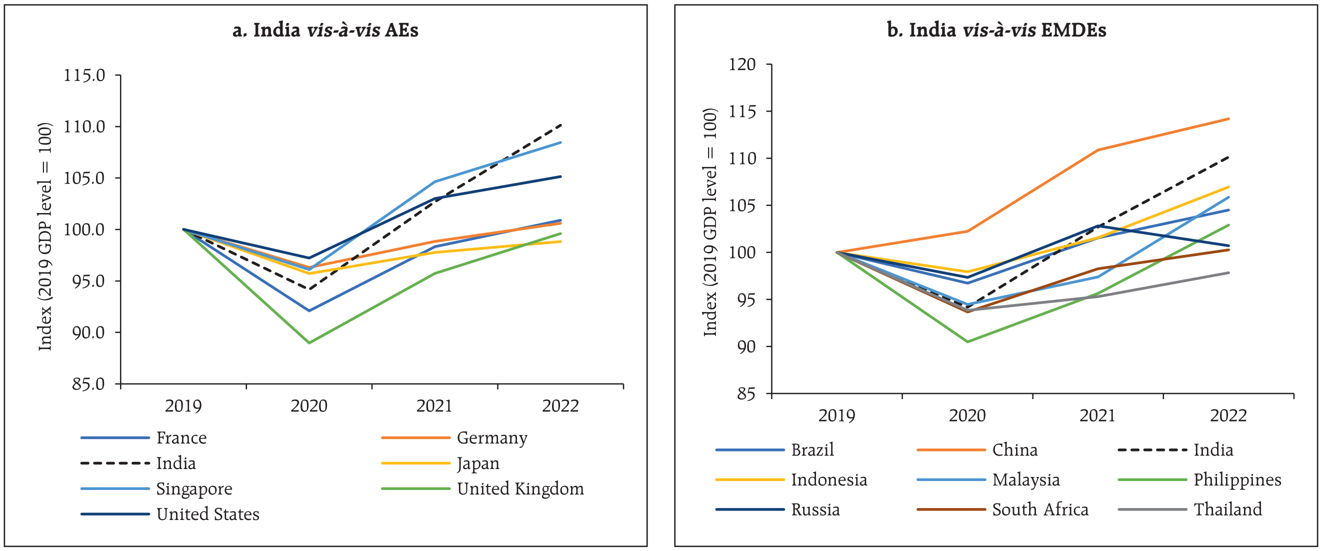
[1] Provisional Estimates of National Income 2022-23 and Quarterly Estimates of Gross Domestic Product for the Fourth Quarter (Q4) of 2022-23, May 31, 2023, National Statistical Office, Government of India.

[2] 'Central Banking in Uncertain Times: The Indian Experience', Opening Plenary Address delivered by Shri Shaktikanta Das at the Summer Meetings organised by Central Banking, London, June 13, 2023.

[3] Address by Hon'ble Prime Minister Shri Narendra Modi on 76th Independence Day on August 15, 2022. https://pib.gov.in/PressReleasePage.aspx?PRID=1852024

Chart 1: Recovery from the Pandemic



Sources: World Economic Outlook April 2023, IMF; NSO; and Authors' calculations.

Against this backdrop, this article attempts to discern the broad trends and underlying nuances of the recovery path of the Indian economy in the aftermath of the pandemic. The macro-level assessment has been supplemented by granular level analyses, using household survey, industry-wise data and high frequency indicators (HFIs) for drawing deeper insights. The remainder of the article is organised along the following lines. Section II presents broad trends of the Indian economy. It is followed by an assessment of drivers of aggregate demand in Section III and that of supply-side constituents in Section IV. An assessment of Q1:2023-24 using HFIs of economic activity is presented in Section V. Section VI offers concluding observations.

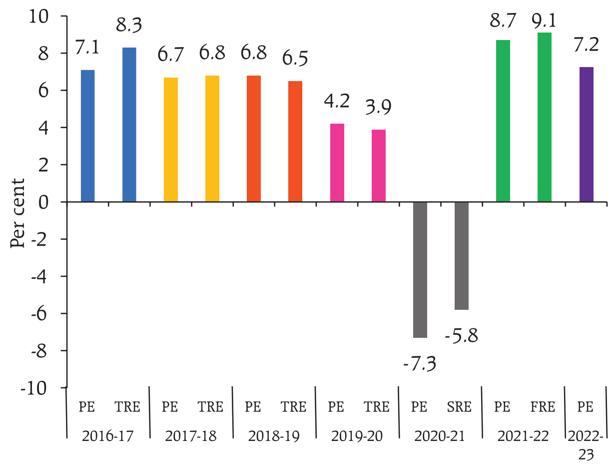
II. Broad Trends

In the years following the COVID-19 outbreak, India emerged as one of the fastest growing major economies in the world. With PE for 2022-23 placing real GDP growth at 7.2 per cent, GDP in level terms stood at 10.1 per cent above the pre-pandemic level of 2019-20. When compared with the group of advanced economies (AEs) and emerging and developing market economies (EMDEs), *vis-à-vis* their respective GDP levels of 2019, India staged the fastest turnaround in GDP, next only to China (Chart 1a and 1b).

The Indian economy proved to be more resilient to the pandemic aberrations than perceived initially based on the available coincident indicators. This is evident in the sharp upward revision in GDP figures for both 2020-21 and 2021-22 in their revised estimates compiled using firmer data with detailed coverage (Chart 2).

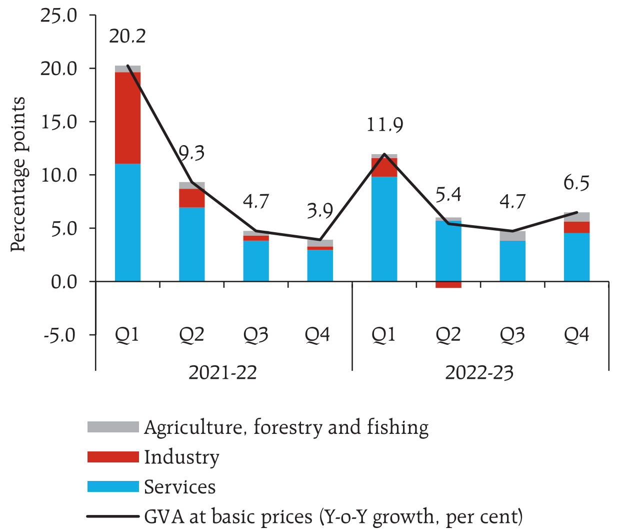
Buoyant domestic demand consolidated India's GDP growth in 2022-23 amidst a slowing global economy and heightened geopolitical tensions. The recovery was anchored by an impressive turnaround in private final consumption expenditure (PFCE), more pronounced in first half of the year, aided by a revival in contact-intensive services and release of pent-up demand. It, however, lost steam in the second half of 2022-23, partly on account of accentuated inflationary pressures squeezing disposable income of households. Gross fixed capital formation (GFCF)

Chart 2: GDP Growth Revisions



Note: PE: Provisional estimates; TRE: Third revised estimates; SRE: Second revised estimates; and FRE: First revised estimates.
Source: NSO.

Chart 4: Weighted Contribution to GVA Growth

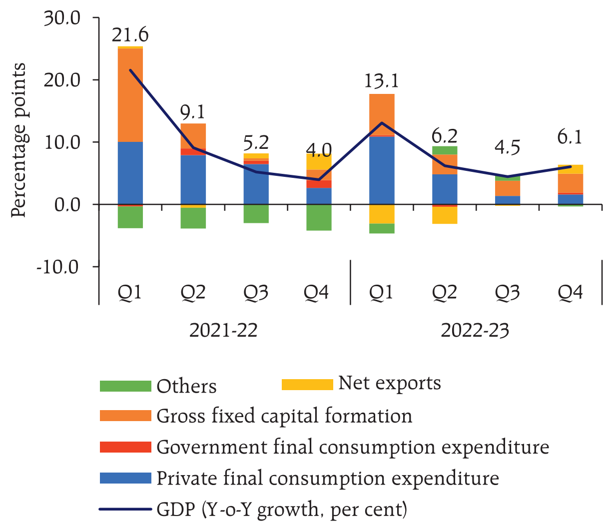


Sources: NSO; and Authors' calculations.

surged on the back of government's thrust to infrastructure development (Chart 3). Government final consumption expenditure (GFCE), on the other hand, remained muted as the government continued on a path of consolidation while scaling up its capital expenditure.

Gross value added (GVA) at basic prices expanded by 7.0 per cent in 2022-23, driven by resilience in

Chart 3: Weighted Contribution to GDP Growth



Note: Others include change in stocks, valuables and statistical discrepancies.
Sources: NSO; and Authors' calculations.

agriculture and allied activity and recovery in the services sector, while growth in the industrial sector remained tepid (Chart 4).

Regarding quarterly trajectory, an acceleration in GDP growth to 6.1 per cent in Q4:2022-23 from 4.5 per cent in the preceding quarter provided a major boost to overall growth. While PFCE remained subdued, GFCE picked up and fixed investment remained strong in Q4:2022-23. Net exports contributed positively to GDP growth in Q4 as exports, primarily services, remained robust whereas imports moderated sharply (Table 1).

Real GVA growth accelerated to 6.5 per cent in Q4:2022-23. Disaggregated data suggest a healthy growth momentum across most sectors. The agricultural sector grew at a robust 5.5 per cent in Q4:2022-23 owing to impressive production of wheat, rice and coarse cereals as per the third advance estimates of crop production for 2022-23. Manufacturing GVA rebounded in Q4:2022-23 after two consecutive quarters of contraction, as easing of input costs facilitated an improvement in profit margin of listed manufacturing companies. Within

Table 1: Component-wise Growth of GDP (At 2011-12 Prices)

(Per cent)

Components		2021-22				2022-23			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1		2	3	4	5	6	7	8	9
I.	**Total Consumption Expenditure**	**13.5**	**13.9**	**10.2**	**5.8**	**16.5**	**6.6**	**1.8**	**2.7**
	Private	17.6	14.2	10.8	4.7	19.8	8.3	2.2	2.8
	Government	-2.1	11.7	5.8	11.8	1.8	-4.1	-0.6	2.3
II.	**Gross Capital Formation**	**67.0**	**21.4**	**5.1**	**3.0**	**20.8**	**6.5**	**5.2**	**7.8**
	Gross Fixed Capital Formation	61.0	12.4	1.2	4.9	20.4	9.6	8.0	8.9
	Change in Stocks	974.6	655.9	618.9	613.8	7.5	-2.6	-0.1	5.9
	Valuables	481.3	156.6	44.5	-51.7	58.7	-19.5	-38.0	-23.4
III.	**Net Exports**								
	Exports	46.1	25.1	27.8	22.4	19.6	12.2	11.1	11.9
	Imports	44.8	26.6	19.7	6.7	33.6	23.1	10.7	4.9
IV.	**GDP**	**21.6**	**9.1**	**5.2**	**4.0**	**13.1**	**6.2**	**4.5**	**6.1**

Sources: NSO; and Authors' calculations.

the services sector, a broad-based resurgence was recorded in construction, financial, real estate and professional services, and public administration, defence and other services (PADO) in Q4:2022-23 as compared with Q3:2022-23 (Table 2).

Following a moderation in Q3:2022-23, the seasonally adjusted annualised rate (SAAR) of real GDP and GVA at basic prices at 5.5 per cent and 8.1 per cent, respectively, for Q4:2022-23, exhibited an upsurge in momentum (Charts 5a and 5b).

GDP deflator inflation – a measure of implied inflation – touched its highest level in 2021-22 since 2011-12 and remained elevated in 2022-23. Since GDP deflator is based on a combination of the wholesale price index (WPI) and the consumer price index (CPI) for respective sectors, GDP deflator inflation tends

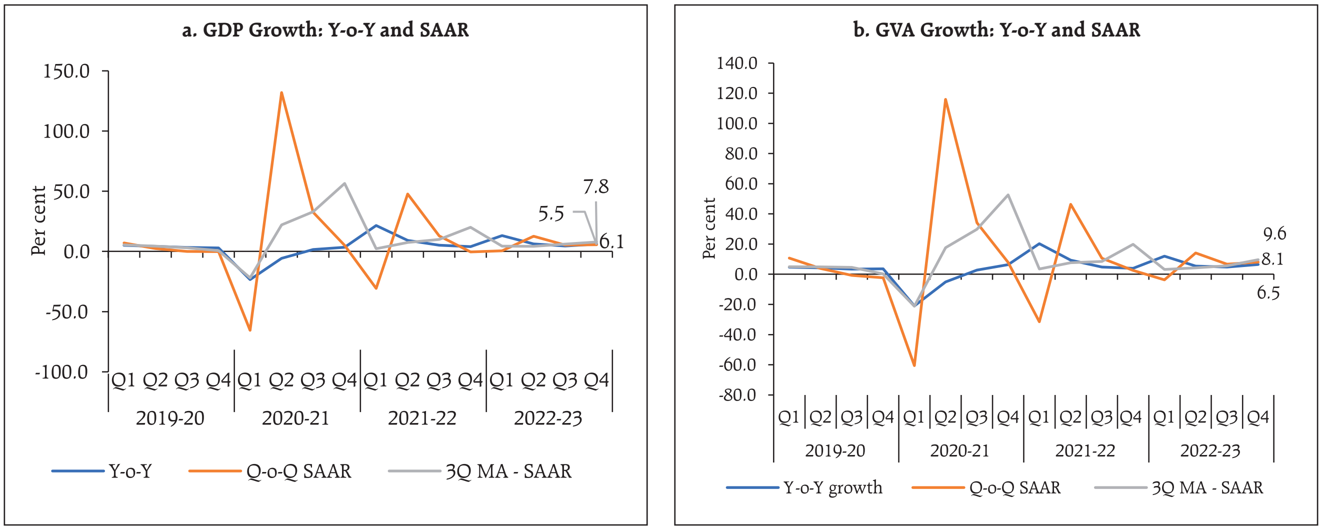
Table 2: Sectoral Growth of Gross Value Added at Basic Prices (At 2011-12 Prices)

(Per cent)

Sectors			2021-22				2022-23			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1			2	3	4	5	6	7	8	9
I.	**Agriculture, Forestry and Fishing**		**3.4**	**4.8**	**2.3**	**4.1**	**2.4**	**2.5**	**4.7**	**5.5**
II.	**Industry**		**42.1**	**7.3**	**2.2**	**1.3**	**7.3**	**-2.5**	**0.1**	**4.7**
	II.1	Mining and Quarrying	12.2	10.6	5.4	2.3	9.5	-0.1	4.1	4.3
	II.2	Manufacturing	51.5	6.6	1.3	0.6	6.1	-3.8	-1.4	4.5
	II.3	Electricity, Gas, Water Supply and Other Utility Services	16.3	10.8	6.0	6.7	14.9	6.0	8.2	6.9
III.	**Services**		**17.9**	**11.0**	**6.5**	**4.9**	**16.3**	**8.9**	**6.4**	**7.4**
	III.1	Construction	77.0	10.8	0.2	4.9	16.0	5.7	8.3	10.4
	III.2	Trade, Hotels, Transport, Communication and Services related to Broadcasting	41.4	13.1	9.2	5.0	25.7	15.6	9.6	9.1
	III.3	Financial, Real Estate and Professional Services	2.8	7.0	4.3	4.6	8.5	7.1	5.7	7.1
	III.4	Public Administration, Defence and Other Services	6.5	16.8	10.6	5.2	21.3	5.6	2.0	3.1
IV.	**GVA at Basic Prices**		**20.2**	**9.3**	**4.7**	**3.9**	**11.9**	**5.4**	**4.7**	**6.5**

Sources: NSO; and Authors' calculations.

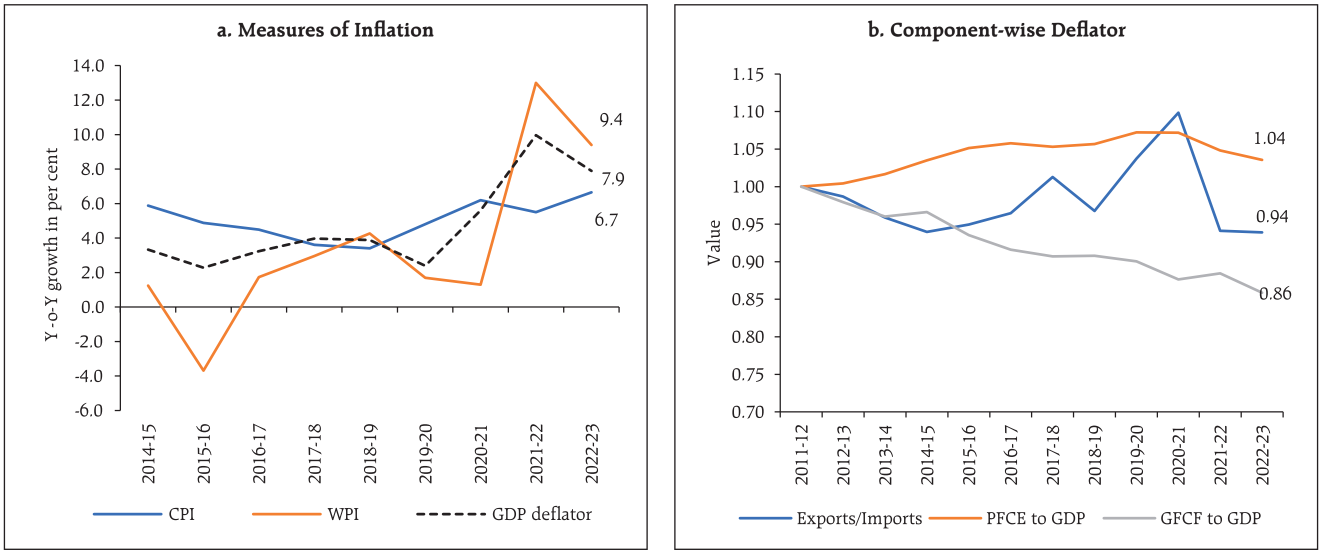
Chart 5: Seasonally Adjusted Annualised Rate (SAAR) of Real GDP and GVA



Note: MA: Moving average.
Sources: NSO; and Authors' calculations.

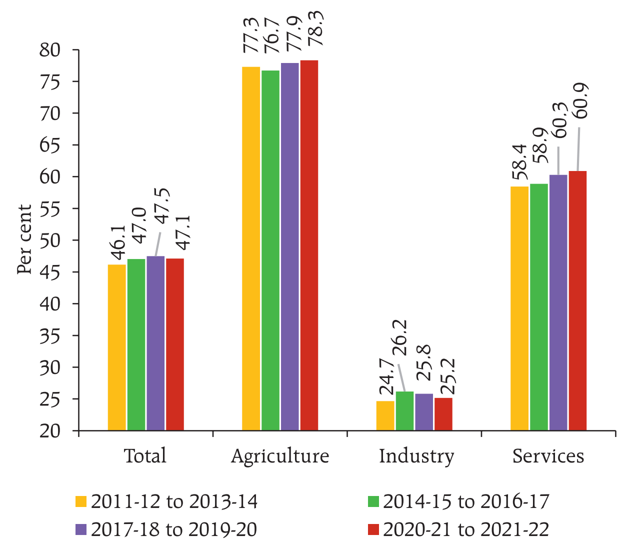
to lie between the two. It, however, depicts a higher correlation with WPI inflation (0.90) than CPI inflation (0.49), primarily due to higher weight of the former. Among the components, while the ratio of PFCE deflator to GDP deflator displayed an upward trend except for the pandemic years (2020-2022), that of GFCF deflator to GDP deflator has declined steadily, reflecting a rise in relative price of consumer goods *vis-à-vis* investment goods. The ratio of exports deflator to imports deflator, a metric of terms of trade pertaining to the external sector, declined in early 2010s but increased in the subsequent years and turned volatile (Chart 6).

Chart 6: GDP Deflator



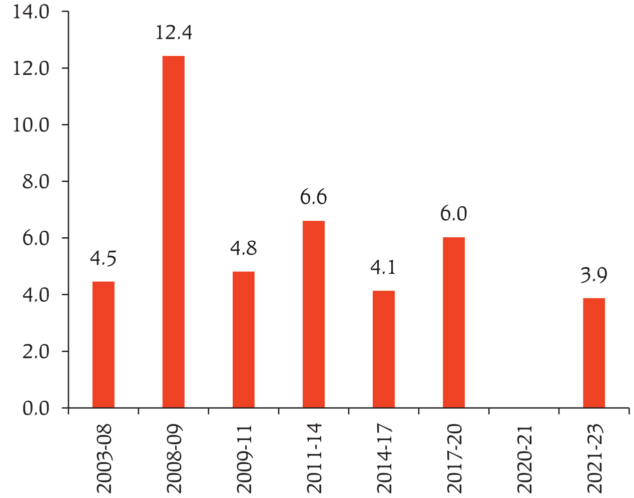
Sources: NSO; Office of Economic Adviser; and Authors' calculations.

Chart 7: Share of GVA to Output



Sources: NSO; and Authors' calculations.

Chart 8: ICOR



Note: Datum for 2020-21 was impacted by the pandemic, therefore, ICOR for 2020-21 is not reported in the chart.
Sources: NSO; and Authors' calculations.

In the last decade, efficiency gains at the aggregate level have been underway in the Indian economy as corroborated by the share of GVA to gross value of output (GVO)[4]. The ratio of GVA to GVO has improved over time, *albeit* variations among sectors, signifying an improvement in efficiency of the value chain. The ratio is the highest for agriculture, forestry and fishing, and has been growing over time. On the other hand, the ratio is lower in industrial activity signifying that the sector creates substantial backward linkages by creating demand for the output of other sectors (Chart 7).

Secondly, the incremental capital output ratio (ICOR) for India declined till 2016-17 reflecting growing efficiency in the process of capital accumulation. The ratio was, however, on an upward trend prior to the pandemic, before improving in 2021-23 (Chart 8).

In a nutshell, the Indian economy gained traction, shrugging off the debilitating impact of the pandemic. Growth impulses remained tenacious amidst global headwinds. The innate strength of the macroeconomic fundamentals and efficiency gains helped India to stay ahead of its peers in the recovery process.

III. Drivers of Aggregate Demand

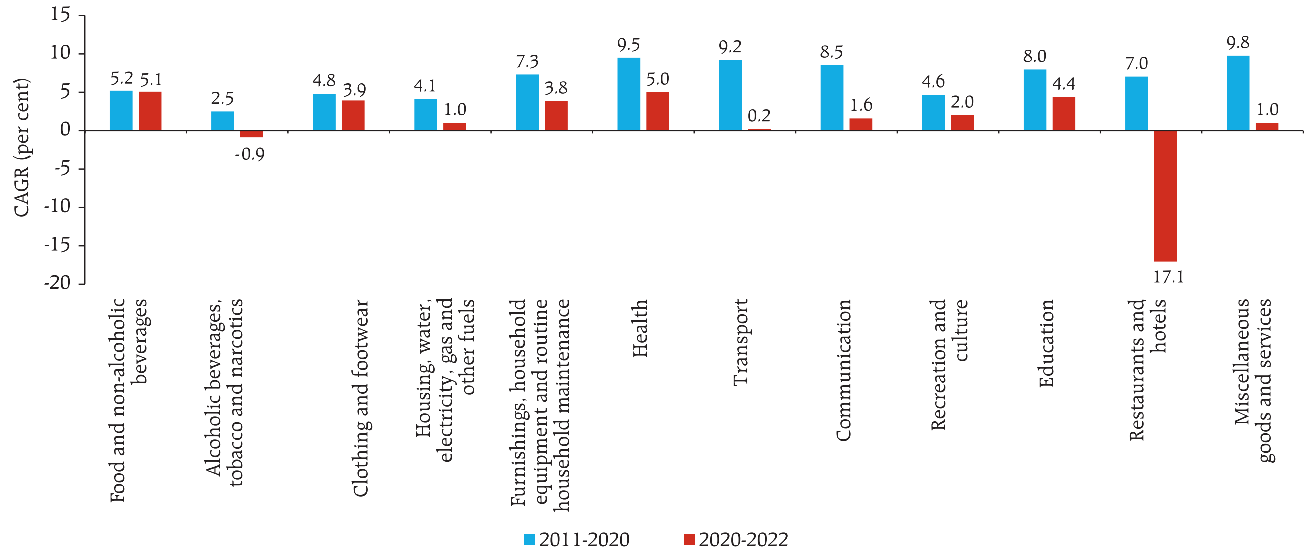
Private consumption and fixed investment account for roughly 90 per cent of the aggregate demand. While private consumption is a relatively stable component, investment is highly cyclical in nature. While fixed investment staged a V-shaped recovery and rose by 18.3 per cent above its pre-pandemic level in 2022-23, private consumption rebounded in a staggered manner, with a delayed catch up of contact-intensive services and discretionary spending. With growth in private consumption slackening to a modest 2.5 per cent in H2:2022-23, recent debate centres around whether or how quickly there will be a turnaround in private consumption demand. In view of the above, this section takes a deep dive into various aspects of these two components of aggregate demand.

Private Consumption

Following the pandemic, PFCE resuscitated to a growth of 7.5 per cent in 2022-23, expanding its share in GDP to 58.5 per cent – the highest since 2011-12. An item-wise analysis of consumption expenditure in terms of compound annual growth rate (CAGR) in pre

[4] GVO is the sum of GVA and intermediate consumption.

Chart 9: Category-wise Consumption Expenditure

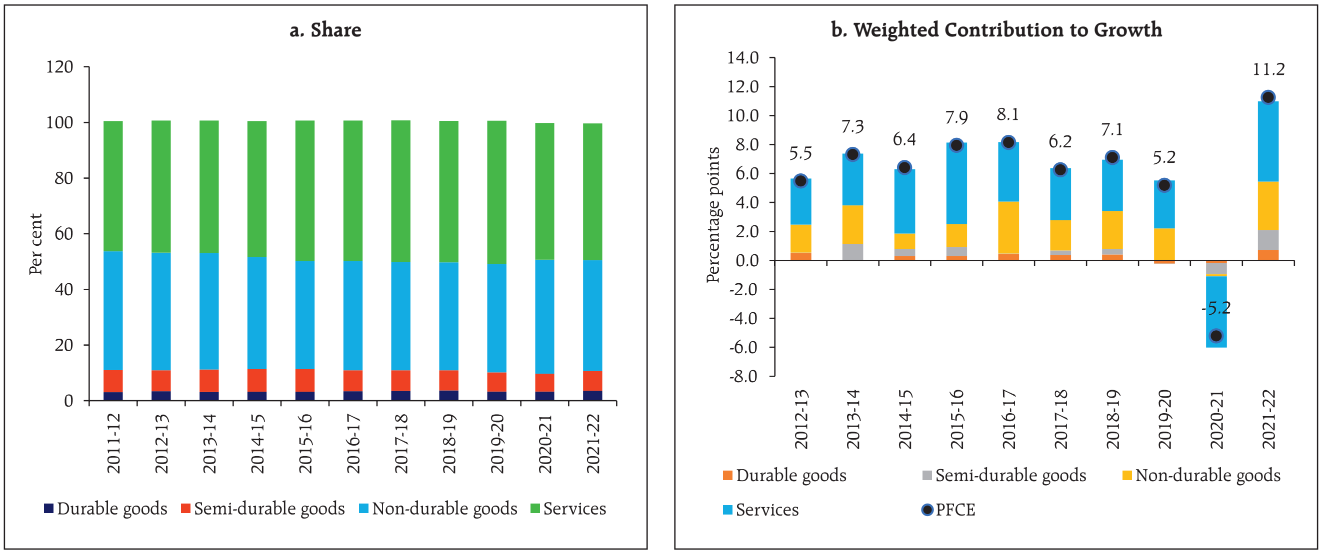


Sources: NSO; and Authors' calculations.

and post COVID times suggests that the brunt of the pandemic was divergent across sub-sectors (Chart 9). During the pandemic, consumption of necessary items like food and beverages remained intact; expenditure on clothing and footwear, health and education moderated to a limited extent, while consumption of services such as transport, communication, hotel and restaurants was the worst affected.

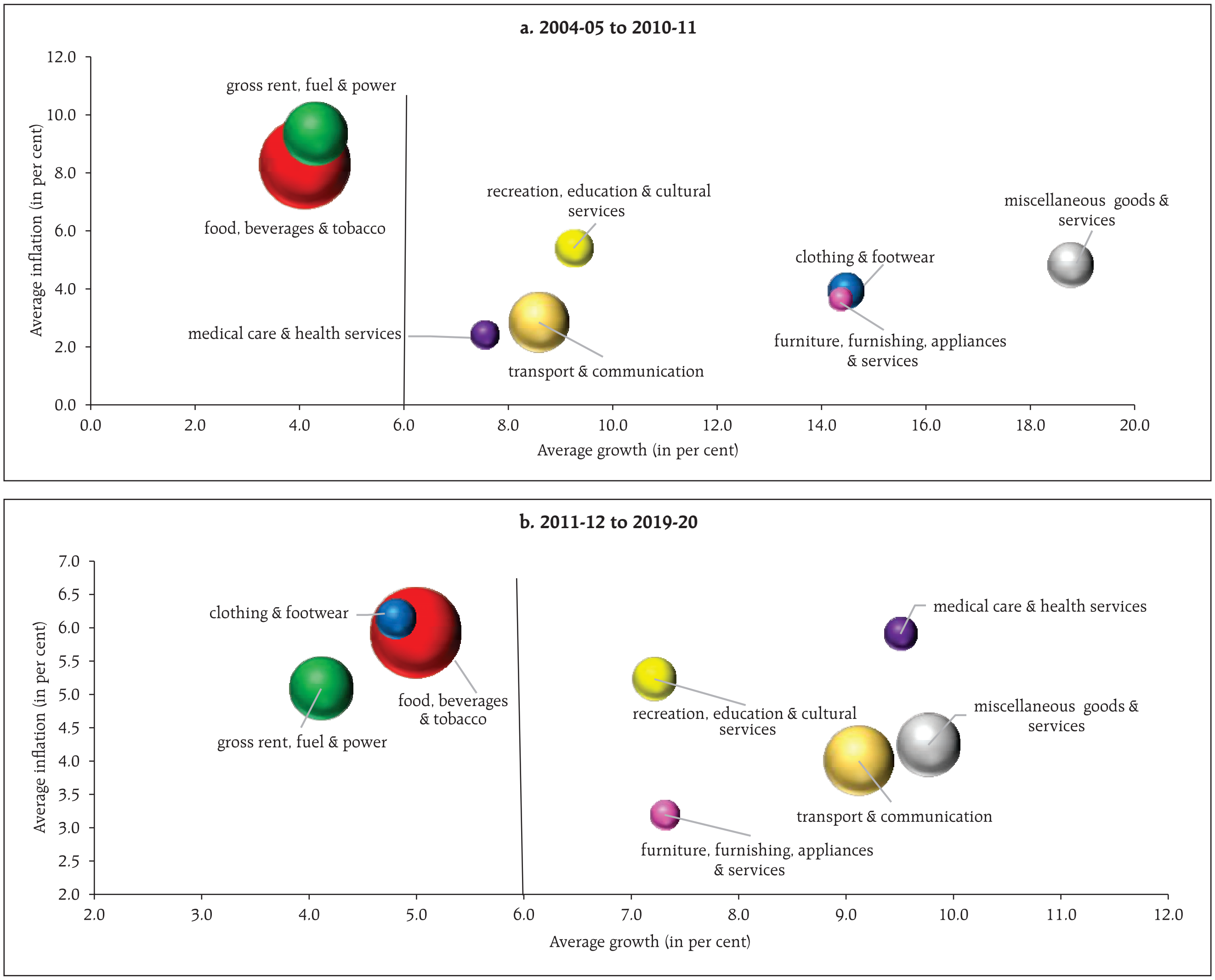
Furthermore, over the last two decades, there has been a structural shift in consumers' preference from consumption of necessary and subsistence items to high-valued durable goods and services consumption. Barring the pandemic years, the share and contribution of services consumption has been steadily increasing, primarily at the cost of non-durables and semi-durable goods, while consumption of durables is also gaining share (Chart 10).

Chart 10: Durability-wise Consumption Expenditure



Sources: NSO; and Authors' calculations.

Chart 11: Consumption Preferences



Note: The size of the bubbles represents average share of the item-category in total PFCE between 2004-05 to 2010-11, and 2011-12 to 2019-20 in chart a and chart b, respectively.
Sources: NSO; and Authors' calculations.

A comparison of PFCE for the two-time periods 2004-05 to 2010-11 and 2011-12 to 2019-20 endorse the shift in consumers' preferences towards services in the later period (Chart 11). In categories like food, beverages, and tobacco; gross rent, fuel, and power, consumption growth remained subdued notwithstanding moderation in inflation in the later period. Expenditure on clothing and footwear moderated sharply in the later period as average inflation had surged. In contrast, average growth in health expenditure accelerated despite higher inflation during the same period (2011-20). Overall, consumption growth has moderated across all categories of services in the later period, but higher growth in services relative to goods led to increased share of services in total consumption.

A commodity level analysis of Engel curve relationship in the Indian context based on survey-based household-level data also portrays that the income elasticity of various consumption items remained higher for services related items (Box 1).

Box 1: Estimation of Engel Curve for India

In view of the changing dynamics of consumer preferences observed in aggregate data, an item-level analysis of Engel curve relationship has been explored using household-level data from Centre for Monitoring Indian Economy (CMIE) consumer pyramid for the period 2013-14 to 2022-23. Engel curve entails the expenditure elasticity with respect to income, *ceteris paribus.* Empirically, the elasticities are estimated using ordinary least squares (OLS) regression of the following specification (Ebru and Melek, 2012):

$$ln\ C_i = \alpha + \beta * ln\ Y_i + \varepsilon_i$$

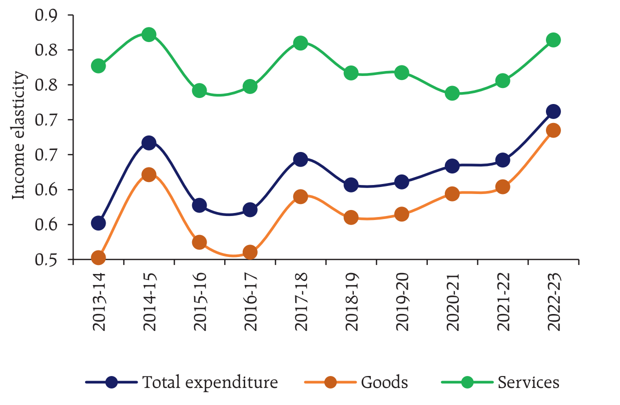
where, $ln\ C_i$ denotes natural logarithm of real consumption expenditure of i-th household and $ln\ Y_i$ denotes natural logarithm of real income of the i-th household and ε_i is the error term with usual OLS properties.[5] β coefficient from the above specification, therefore, provides the direct estimate of income elasticity of consumption expenditure.

The CMIE consumer pyramid contains monthly data on detailed item-level consumption of goods and services by households, collected over three waves during a particular year. In this exercise, income elasticities are estimated on an annual basis by aggregating monthly data on consumption and income for each sample household. Furthermore, expenditure elasticities have been estimated for overall consumption as well as at disaggregated level for various categories of goods and services, pre-defined in the consumer pyramid data.

According to the literature, the Engel curve, based on the value of elasticity, is used to classify items as necessary, luxury or inferior, if income elasticity is less than one, greater than one or less than zero, respectively. In this exercise, elasticities are estimated for six different groups under goods category such as food, clothing and footwear and eight groups under services category such as transport, health and education. Each group, in turn, consists of individual items which could be either necessary, luxury or inferior in nature. Therefore, the classification for commodity or services groups is done on a relative basis – closer the income elasticity to 1 (0) implies it is dominated by luxurious items (necessary items).

A comparison of expenditure elasticity suggests that overall consumption expenditure tends to become more

Chart 1: Income Elasticity: Total, Goods and Services



Sources: CMIE; and Authors' calculations.

income sensitive with time as implied by a rising trend in elasticities. The elasticity of overall goods category is lower as compared to that of services category signifying that necessary expenses consist more of goods than services and individuals tend to shift more towards services consumption with an increase in income (Chart 1).

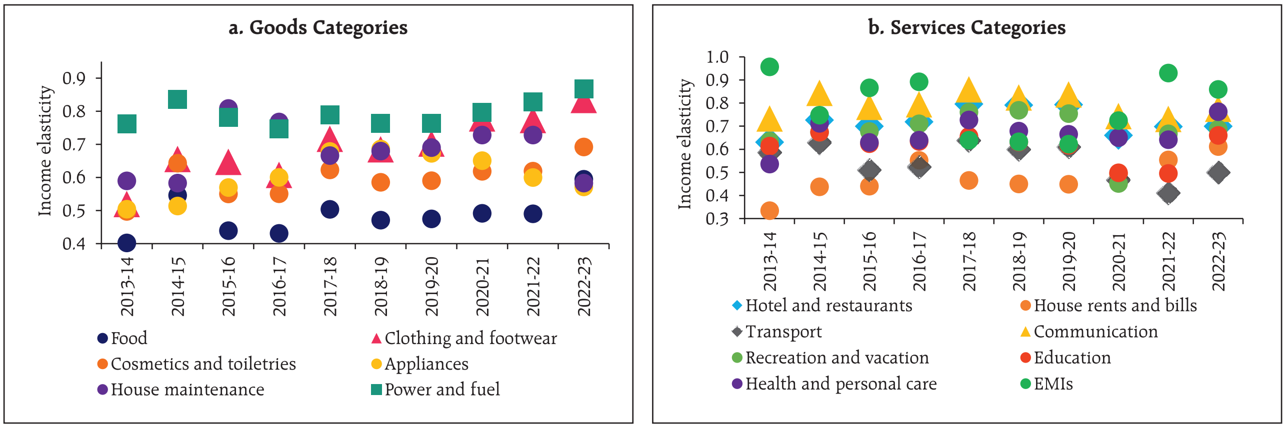
Within the goods category, food; and cosmetics and toiletries which constitute a major share of necessary consumption have the lowest income sensitivity. Fuel and power; and clothing and footwear have the highest income elasticities, possibly because these groups include consumption of various high-value products *viz.,* luxury brands of clothing, footwear, vehicles, two-wheelers, electronic goods and appliances. An increase in income elasticity of these two categories overtime also suggests a shift of preference towards high value products among high-income households (Chart 2a).

Among the services category, expenditure elasticity is the lowest for indispensable consumption like house rent and utility bills. Expenditure on health and education depicts a rising trend. In contrast, there has been a sharp drop in income elasticity of expenses on equated monthly installments (EMIs) indicating that the purchase of goods using external finance has become broad-based across

(Contd.)

5 CMIE Household Pyramid data reports consumption expenditure and income data in nominal terms which are deflated using item-wise PFCE deflator and GDP deflator, respectively, from the NAS. Wherever the mapping of consumption categories is not possible, deflators for either overall goods category or services category have been applied for arriving estimates in real terms.

Chart 2: Income Elasticity across Product Groups



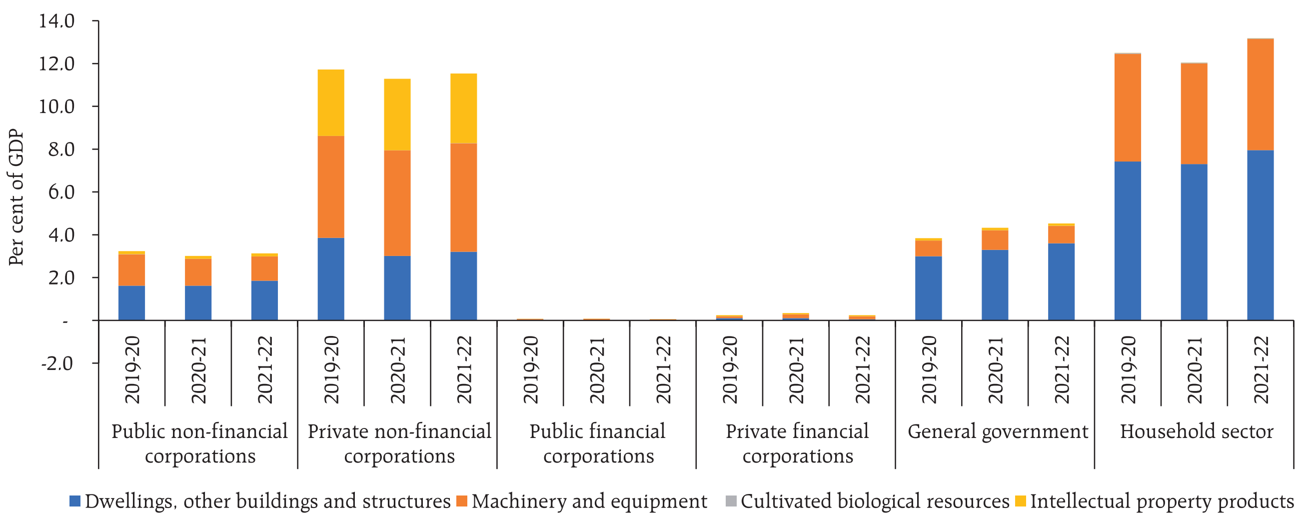
Sources: CMIE; and Authors' calculations.

all income class of households. Moreover, an abrupt dip in income elasticities in categories such as hotel and restaurants; transport; communication; recreation and vacation; and education also reveal that consumption in these categories were faced with larger hiatus during the pandemic affected years of 2020-21 and 2021-22. However, in 2022-23, income elasticities of the respective categories returned in the vicinity of their pre-pandemic levels, indicating a turnaround in consumption of these services (Chart 2b).

Gross Fixed Capital Formation

GFCF, contributing around 34 per cent to GDP – accelerated by 11.4 per cent in 2022-23. Strong performance of capital goods and infrastructure segments, as indicated by the index of industrial production (IIP), provided impetus to growth. Sector-wise, investment in dwellings, other buildings and structures comprise majority of fixed investment by the government and household sectors, while machinery and equipment and intellectual property products have a large and growing share of private non-financial corporations in GFCF (Chart 12).

Chart 12: Sectoral Composition of Gross Fixed Capital Formation



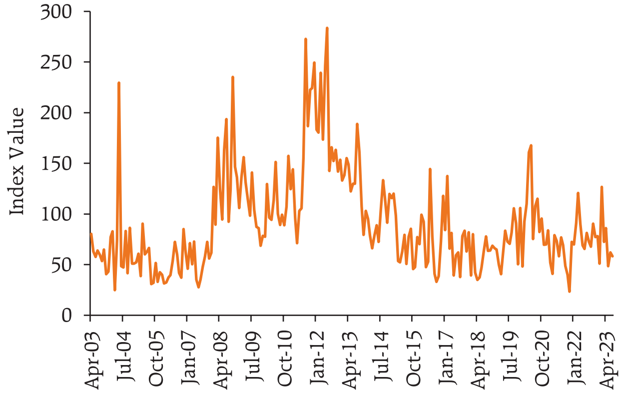
Sources: NSO; and Authors' calculations.

The revival in fixed investment assumes paramount importance to sustain high growth trajectory in the medium-term as it increases the productive capacity of the economy. India's high-growth phase of 2003-04 to 2007-08 at an average growth of 7.9 per cent was largely led by investment. Investment activity moderated between 2012-13 and 2020-21 owing to a confluence of factors, *viz.*, weakening of balance sheets of the financial institutions, overleveraged corporate sector and trade related uncertainties. Since 2021-22, however, fixed investment has exhibited revival led by GoI's thrust on infrastructure. In 2022-23, real estate activity exhibited exuberance leading to the highest ever launches and sales of residential units recorded in Q4:2022-23.[6] Consequently, the share of real GFCF in overall GDP surged to 35.3 per cent of GDP in Q4:2022-23 from 24.6 per cent in Q1:2020-21. New launches and sales of residential units, however, have slowed in Q1:2023:24, with inventory overhang inching up.

To explore the various determinants of fixed investment in the Indian economy, an equation for real investment has been estimated using OLS method with due care for stationarity properties. The factors that impact the investment climate include real GDP growth rate, weighted average call money rate (WACMR)[7] adjusted for GDP deflator inflation, India policy uncertainty index (Chart 13) and growth of non-food credit adjusted for GDP deflator inflation (Table 3). Quarterly data from Q1:2004-05 to Q4:2019-20 have been used, thereby excluding the COVID-19 period from the estimation.

Regression results suggest that higher growth of aggregate demand has a positive impact on investments, though the coefficient is statistically insignificant. The real WACMR, a proxy for borrowing costs in the economy, has a negative impact on investment activity. Furthermore, uncertainty increases the systematic risk, and thereby the cost of capital in the economy, which results in reduced investment (GoI, 2019). Higher uncertainty dampens animal spirits, which impedes investment. A significant relationship between growth of non-food credit and fixed investment confirms the supply-leading process

Chart 13: Economic Policy Uncertainty Index - India



Note: Economic policy uncertainty for India is constructed on a monthly basis based on newspaper articles regarding policy uncertainty from seven select Indian newspapers. For each newspaper, the number of news articles containing at least one term from each of three term sets regarding 'uncertainty', 'economy' and 'policy' are counted for construction of the index.
Sources: Baker *et.al* (2016). www.PolicyUncertainty.com

Table 3: Determinants of Real Investment

Dependent variable	Growth in real GFCF (y-o-y)
Factors	**Estimated Coefficients**
Intercept	2.27 (3.42)
GFCF growth (one lag)	0.42*** (0.15)
GDP growth (one lag)	0.54 (0.40)
Real WACMR	-0.43* (0.24)
India policy uncertainty index	-0.02* (0.01)
Real non-food credit growth (two lags)	0.15* (0.09)
GFC Dummy	-9.62*** (1.85)
R-squared	0.68

Note: 1. All variables, barring NFC, are found to be stationary using Augmented Dickey-Fuller test (ADF); while NFC is trend stationary using the ADF and Phillips-Perron tests.
2. Figures in parentheses are estimated Newsey-West standard errors.
3. ***; **; *: indicate the statistical significance at 1 per cent, 5 per cent and 10 per cent, respectively.
4. Residuals have been tested for serial correlation using the Breusch-Godfrey serial correlation Lagrange multiplier (LM) test. The hypothesis of no serial correlation was not rejected.
5. Residuals have also been tested for stationarity and normality (Jarque-Bera statistic is 5.39, statistically significant at 10 per cent). We have also tested for stability of coefficients using cumulative sum (CUSUM) and CUSUM of squares (CUSUMSQ) tests.

Source: Authors' calculations.

[6] PropTiger.

[7] WACMR – which represents the unsecured segment of the overnight money market– is the operating target of monetary policy in India.

of bank intermediation. Finally, significant GFC period dummy confirms its debilitating impact on the economy. With the lagged dependent variable being statistically significant and positive, it reflects the persistence in the progress of investment activity. It is evident that results are consistent with empirical literature (RBI, 2018; Raj *et al.*, 2018; and Shukla and Shaw, 2021).

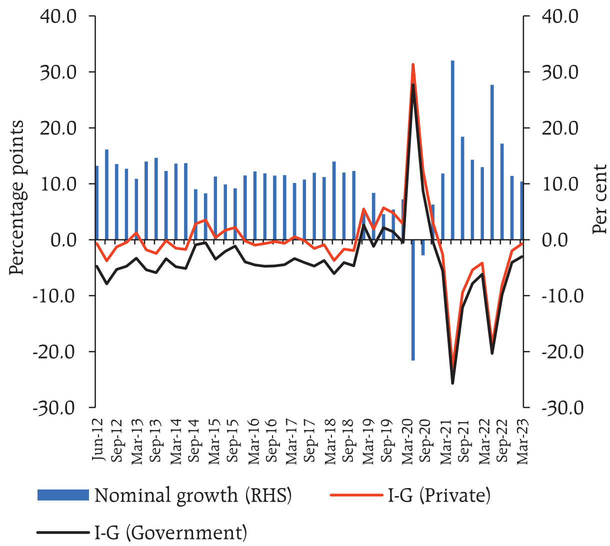
Subramanian and Felman (2019) had discussed about the interest-growth pincer which had pushed the economy into a downward spiral. In the current scenario, these dynamics have turned favourable for India's growth. In Q4:2022-23, while nominal GDP growth stood at 10.4 per cent, weighted average lending rate for outstanding loans by scheduled commercial banks – proxy for cost of borrowing of the private sector – stood at 9.7 per cent, thereby implying that with (i-g) in negative territory, leverage of the corporate sector is insouciant (Chart 14). On a similar note, average 10-year G-sec yield remained flat at 7.4 per cent – 3.0 percentage points lower than the nominal growth, reflecting sustainability of government debt dynamics.

With regard to availability of resources, financial saving of the household sector in 2022-23 has tapered as credit inched up. On the other hand, flows from the external sector increased with the current account deficit (CAD) at 2.0 per cent of GDP during 2022-23 as compared with 1.2 per cent during the preceding year. Furthermore, with deficit of the central government moderating, the availability of resources has not been a concern for the private corporate sector in 2022-23.

IV. Aggregate Supply

From the supply side, economic activity in the non-agriculture sector suffered the brunt of pandemic while agriculture sector, which was exempted from lockdown, cushioned overall GVA. The economy was subject to a cyclical downturn even before COVID-19, induced by slowdown in mining and manufacturing. Industrial GVA growth decelerated to 0.7 per cent on average during 2017-18 to 2019-20. Amidst an industrial slowdown from 2017-18 onwards, the

Chart 14: Interest and Growth Rate Differential

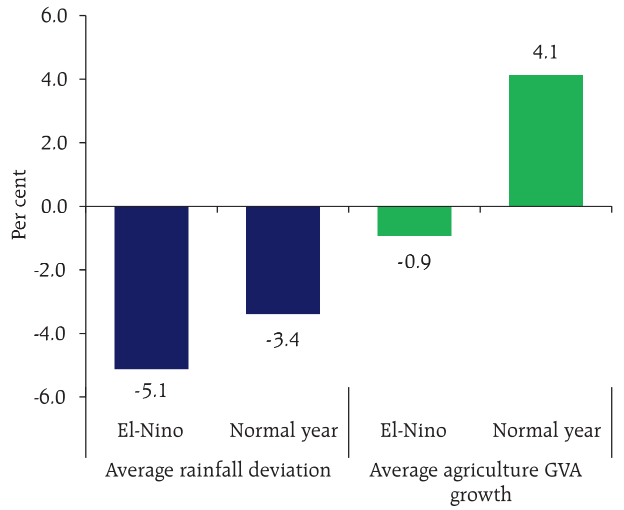


Sources: NSO; CEIC; and Authors' calculations.

Indian economy was bolstered by steady growth in the services sector. Following two back to back drought years in 2014-15 and 2015-16, agriculture recovered showcasing resillience with an average growth of 4.7 per cent between 2016-17 to 2022-23.

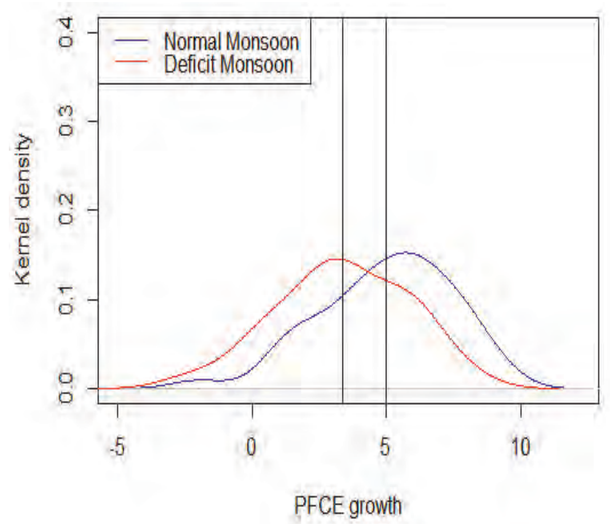
During 2023-24, the agriculture sector may be riddled with weather-related uncertainities. The south-west monsoon (SWM) – rainfall between the months of June to September – is a principal determinant of *kharif* crop in India and also impacts *rabi* crop indirectly through soil-moisture and reservoir levels. There is a forecast of normal SWM for 2023 by the India Meteorological Department (IMD). The actual performance of the SWM rainfall would depend on the interplay of an *El Niño* event and the counterbalancing effects of events such as a positive Indian Ocean Dipole. Average rainfall during *El Niño* years tends to be below normal which can have some adverse impact on the agricultural GVA growth (Chart 15). Up to August 9, 2023, the cumulative seasonal rainfall reached at the same level as the long period average (LPA) owing to a sharp catchup in July. East and north-east India, however, is facing deficient rainfall, which could impede *kharif* sowing. As on August 4, 2023, total *kharif* sowing stood at 0.4 per cent higher

Chart 15: *El-Niño vis-à-vis* Normal Year - Rainfall Deviation and Agriculture GVA Growth



Sources: IMD; NSO; and Authors' calculations.

Chart 16: Kernel Density Estimates of PFCE



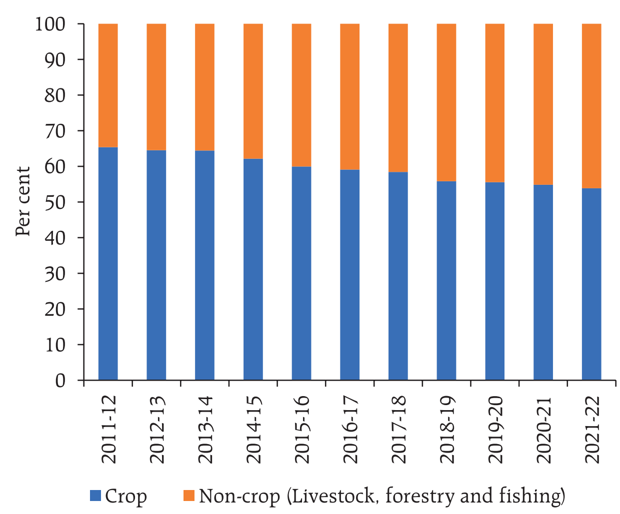
Sources: IMD; NSO; and Authors' calculations.

than the last year on account of higher sowing in rice, oilseeds, sugarcane and coarse cereals. Although the contribution of agriculture to overall GVA has reduced to less than one-fifth, it still provides livelihood for a majority of the population, and therefore, strongly influences aggregate demand. The Kernel density estimates of growth in PFCE exhibit higher mean PFCE growth during normal monsoon years compared to that during the deficit monsoon years (Chart 16).

Notwithstanding the monsoon precariousness, prospects of the agriculture sector are expected to remain bright in 2023. The growing share of non-crop allied activity, which is less impacted by rainfall, imparts resilience to overall agriculture output (Chart 17). Second, yield losses appear to have declined, in absolute as well as relative terms, under both moderate and severe drought conditions (Birthal *et al.*, 2015).

The industrial sector recorded the fastest turnaround from COVID-19 with its weighted contribution in overall GVA growth in 2021-22 being the highest since 2015-16. A deleveraged corporate sector balance sheet, benefit from corporate tax cut (RBI, 2022) just before the pandemic and government's thrust to capital expenditure spearheaded manufacturing sector to register a robust post-COVID recovery. An upsurge in input cost pressures following the Russia-Ukraine war and synchronised tightening of monetary policy, however, impinged on corporate profitability and output during Q3:2022-23 (Box 2), which improved in the subsequent quarters.

Chart 17: Share in Agriculture, Forestry and Fishing GVA

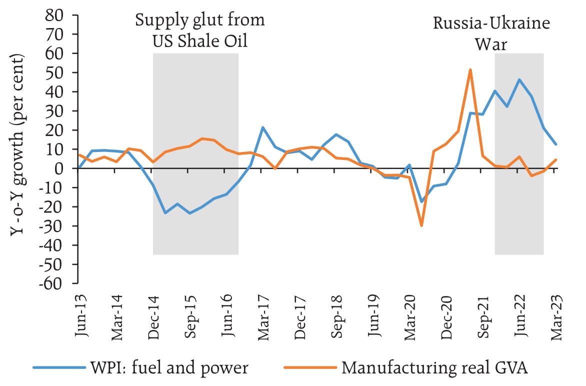


Source: NSO.

Box 2: Impact of Energy Prices on Indian Manufacturing

The rise in energy costs of manufacturing firms – power and fuel expenses – one of the key operating expenses, affect their profitability, investment-related decisions, employability and research and development expenditure either directly or indirectly. During normal business cycles, the fuel and power component of wholesale price index (WPI_f) and GVA of the manufacturing sector are positively correlated as the relation is primarily driven by demand side factors (Chiacchio *et al.*, 2023). During the periods of adverse energy supply related shocks, however, the relationship between the two breaks down (Chart 1).

Chart 1: Trends in Energy Prices and Manufacturing GVA



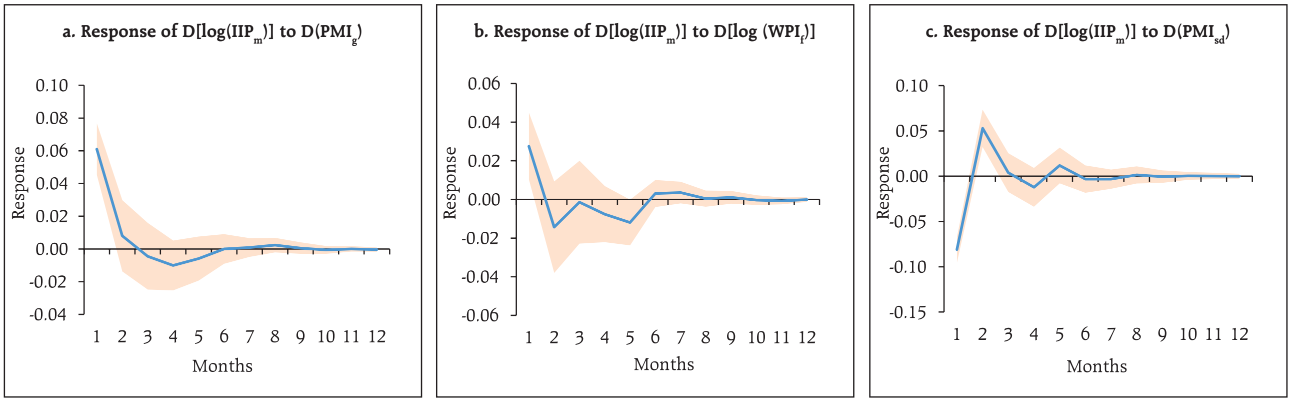
Sources: CEIC; and NSO.

During the recent episode of intensification of Russia-Ukraine war, global energy prices surged, leading to an anomalous increase in energy prices in India and consequential impact on aggregate industrial production. Between February 2022 and December 2022, average WPI_f increased by 34.3 per cent. During the same period, index of industrial production for manufacturing (IIP_m) slowed to an average growth of 4.5 per cent, while non-oil imports in real terms[8] increased by 18.0 per cent.

Notwithstanding energy cost pressures, other factors such as global demand conditions, supply chain disruptions, import competitiveness also affected the IIP_m. Against this backdrop, a five-variable structural vector autoregressive (SVAR) model is estimated to study the differentiated impact of the factors on IIP_m. The variables include: (i) global composite purchasing managers' index (PMI_g) representing overall demand shock; (ii) WPI_f as a proxy for energy supply related shock; (iii) India's PMI manufacturing suppliers' delivery time (PMI_{sd})[9] to account for supply chain disruption shock; (iv) IIP_m indicating other supply side related shocks; and (v) non-oil imports (NM) signifying foreign competition shock to domestic production.

The SVAR model is estimated for the period April 2013 to March 2023, controlling for COVID-19 shock through a dummy variable for the period Q1:2020-21, Q1:2021-22 and Q1:2022-23. The generalised impulse response

Chart 2: Impulse Response of Manufacturing Production to One Standard Deviation Innovation (+- 2 analytic asymptotic S.E.s) *(Contd.)*

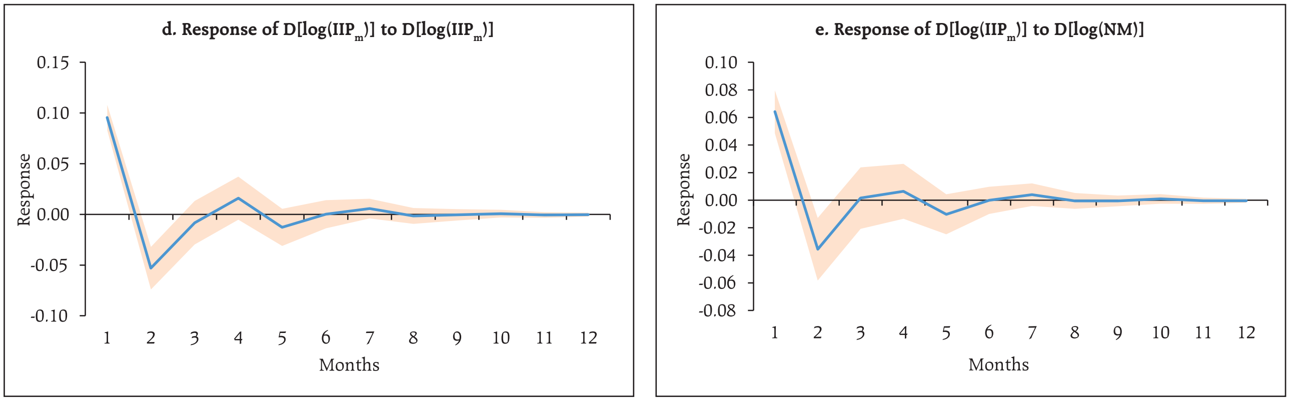


(Contd.)

8 The nominal non-oil imports have been deflated using WPI (excluding crude, petroleum and natural gas and fuel and power).

9 Inverted PMI_{sd} is taken indicating that higher value of the index indicates increase in delivery time and *vice-versa.*

Chart 2: Impulse Response of Manufacturing Production to One Standard Deviation Innovation (+- 2 analytic asymptotic S.E.s) *(Concld.)*



Note: 1. Variables IIP$_m$, WPI$_f$ and NM have been log transformed. All the variables have been considered at first difference. The SVAR model is estimated with a lag order 2.

2. The SVAR estimates are stable, and the residuals satisfy the properties of autocorrelation and homoscedasticity.

Sources: S&P Global; NSO; CMIE; and Authors' calculations.

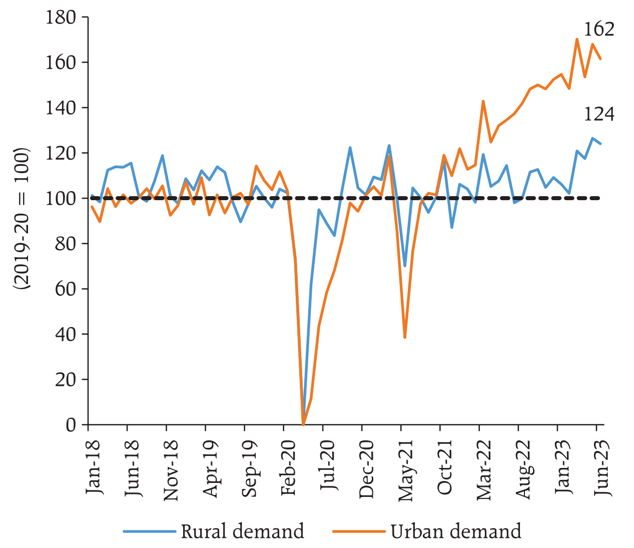
results suggest lack of tenacious impact of energy prices on manufacturing as the effect gradually weakens in 6 months. The effect of one standard deviation shocks relating to overall demand, own supply and increased foreign competitiveness are on expected lines resulting in a fall in the manufacturing output in the initial period. The supply chain disruption shock, however, has a fluctuating trend for the period under consideration (Chart 2).

The findings suggest that though manufacturing production decelerated, it remained resilient to increased energy prices. With production volumes and sales remaining intact, the firms are anticipated to have taken a bearing on their higher profitability margins by not effecting a complete pass-through of higher input costs on consumers.

A steady improvement in capacity utilisation surpassing its long-run average as per the last few rounds of Reserve Bank's Order Book, Investment and Capacity Utilisation Survey (OBICUS) of the manufacturing sector present green shoots of revival in private sector capex cycle (RBI, 2023). According to the 102nd round of the quarterly Industrial Outlook Survey (IOS), manufacturing firms exude positive sentiments on production, order books, employment conditions and capacity utilisation for the second half of the financial year with some easing in input cost pressures.

One of the distinctive features of India's growth trajectory has been that the services sector has remained the prime mover of the economy over the last three decades (RBI, 2020). The services sector plummeted during the pandemic as lockdowns restricted mobility and dented confidence and income of consumers. In 2022-23, the services sector convalesced from the enervating impact of the pandemic, recording a growth of 9.5 per cent and contributing five-sixth to overall growth. Going forward, the continued buoyancy in the services sector is expected to drive growth. Firms in the services sector exuded optimism in the 37th round of the Reserve Bank's Services and Infrastructure Outlook Survey (SIOS), with demand for services projected to grow sequentially throughout 2023-24. For Q1:2023-24, firms in the infrastructure sector expect job landscape to improve further *albeit* marginal waning of optimism in overall business situation. For the three subsequent quarters, *i.e.*, Q2:2023-24, Q3:2023-24 and Q4:2023-24, overall business situation, turnover

Chart 18: Demand Indices



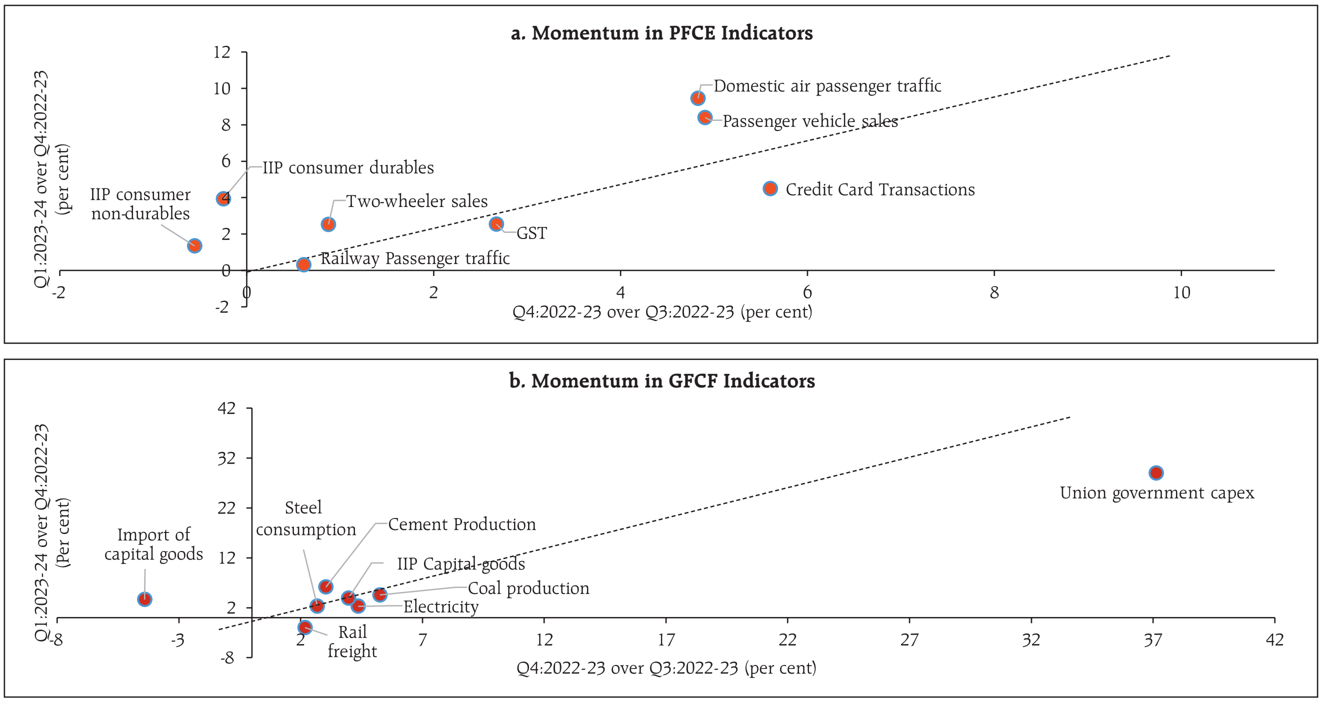
Source: Authors' calculations.

and employment conditions are anticipated to improve.

V. Recent Developments

Beyond the official release, the trajectory of economic activity for Q1:2023-24 is captured in terms of various HFIs. The monthly activity indices for both urban[10] and rural[11] demand, constructed using principal component analysis (PCA), showed that urban demand continues to move on an upward trajectory despite oscillations in recent months. Rural demand, after staying subdued throughout 2022, has reflected a sustained uptick during March-June 2023 (Chart 18). Along with resilient urban demand, sustained momentum in rural consumption is essential to provide a major thrust to aggregate demand going forward. In the July 2023 round of Consumer Confidence Survey (CCS), while consumer confidence stood marginally lower than the previous round, sentiments on current income improved and

Chart 19: High Frequency Indicators – Momentum



Note: Indicators above the origin line indicate acceleration in the momentum in Q1:2023-24 over Q4:2022-23 and *vice-versa*.
Sources: CMIE; CEIC; NSO; and Authors' calculations.

[10] The urban index consists of 10 indicators – CMIE urban employment rate, domestic air passenger traffic, domestic passenger vehicle and scooter sales, railway passenger bookings – suburban, petroleum consumption (motor spirit and LPG), NEFT, RTGS and mobile volume transactions.

[11] The rural index consists of 7 indicators – domestic tractor sales, domestic motorcycle sales, CMIE rural employment rate, diesel consumption (high speed and low diesel oil), fertiliser production, and MGNREGA work demand persons.

moved to optimistic zone for the first time in four years.

Momentum measured in terms of seasonally adjusted q-o-q growth in HFIs pertaining to private consumption and fixed investment remained resilient in Q1:2023-24. PFCE appeared to have gathered traction in Q1:2023-24 from the preceding quarter, with traction from passenger vehicle sales, consumer durables and non-durables, two-wheeler sales and domestic air passenger traffic (Chart 19a). With regard to HFIs pertaining to fixed investment, momentum tapered slightly in Q1 in case of rail freight and electricity production (Chart 19b). In contrast, cement production recorded an acceleration while coal production and steel consumption remained robust in Q1:2023-24 *vis-à-vis* the previous quarter. Central government capex sustained its spectacular growth in Q1:2023-24. Import of capital goods recorded a robust recovery in Q1:2023-24 from a contraction in momentum in the preceding quarter.

VI. Conclusion

In the light of recent data releases of national accounts, this study presents an appraisal of India's growth dynamics. India emerged as one of the fastest growing major economies in the post pandemic world on the back of resilience in domestic demand, supported by proactive and coordinated response of fiscal and monetary policies that nurtured a quick recovery. A swathe of structural reforms undertaken related to banking, digitalisation, taxation, manufacturing and labour, have laid the foundation for strong and sustainable growth over the medium and long term.[12]

The revival in contact-intensive activity anchored an impressive revival in private consumption in 2022-23, while turnaround in GFCF took place from 2021-22 and remained robust throughout 2022-23. A compositional shift in private consumption has been underway in the Indian economy much before the pandemic as reflected in a sustained increase in the share of services over goods in total consumption. The empirical exercise on determinants of fixed investment in India infers that higher growth in GDP and real non-food credit have a positive and significant impact on investment activity, while economic policy uncertainty adversely impacts investment.

The year 2022-23 ended with a broad-based acceleration in momentum in economic activity across sectors. The agriculture sector is expected to remain resilient amidst monsoon related uncertainties, cushioned by buoyant allied sector activity and improved drought resilience of crops. The adverse impact of energy price shock on manufacturing output has been dissipating. The buoyancy in the services sector activity is expected to sustain going forward. Moreover, with regard to some important catalysts for India's growth going forward, "*the demographic dividend in India that set in from 2018 is regarded as an asset and an opportunity in a world where many countries are confronting ageing and declining populations. The upgradation of physical infrastructure and the digital payments revolution provide tailwinds to India's growth prospects*".[13]

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Annex Table 1: Average GDP Growth over Boosts and Bumps

(per cent)

Components	2003-08	2008-09	2009-11	2011-14	2014-17	2017-20	2020-21	2021-23
I. Total Consumption Expenditure	6.1	5.5	6.5	6.1	7.4	6.4	-4.6	8.4
Private	6.2	4.5	5.9	6.7	7.5	6.2	-5.2	9.4
Government	5.8	11.4	9.7	2.6	7.0	7.5	-0.9	3.3
II. Gross Capital Formation	15.3	-2.6	14.5	2.0	5.4	6.4	-7.9	13.7
Fixed investment	12.6	3.2	9.4	6.2	5.9	6.7	-7.3	13.0
Change in stocks	73.5	-51.4	56.2	-27.4	16.7	12.3	-85.5	345.2
Valuables	27.8	26.9	45.0	-11.1	2.2	5.4	26.4	7.6
III. Net Exports								
Exports	17.8	14.8	7.3	10.0	0.4	4.4	-9.1	21.4
Imports	20.0	22.4	6.9	6.1	-0.2	8.5	-13.7	19.5
IV. GDP	**7.9**	**3.1**	**8.2**	**5.7**	**7.9**	**5.7**	**-5.8**	**8.1**

Sources: NSO; and Authors' calculations.

Annex Table 2: Average GVA Growth over Boosts and Bumps

(per cent)

Sectors	2003-08	2008-09	2009-11	2011-14	2014-17	2017-20	2020-21	2021-23
I. Agriculture, forestry and fishing	4.5	-0.2	4.0	4.5	2.4	5.0	4.1	3.7
II. Industry	8.4	3.4	9.1	2.9	9.4	2.8	0.9	6.5
Mining and Quarrying	5.2	-2.5	9.7	-5.6	9.9	-3.1	-8.6	5.8
Manufacturing	9.6	4.7	9.3	4.5	9.6	3.3	2.9	6.2
Electricity, gas, water supply and other utility services	7.1	4.9	6.5	5.1	7.3	6.9	-4.3	9.4
III. Services	8.6	6.4	8.0	7.0	8.6	6.4	-7.9	9.6
Construction	12.8	5.6	6.4	5.4	4.6	4.4	-5.7	12.4
Trade, hotels, transport, communication and services related to broadcasting	9.4	2.4	9.0	7.5	9.1	7.8	-19.7	13.9
Financial, real estate and professional services	7.6	5.2	5.6	8.5	10.1	5.2	2.1	5.9
Public administration, defence and other services	6.3	15.8	11.8	5.1	7.9	7.5	-7.6	8.4
IV. GVA at basic prices	**7.7**	**4.3**	**7.4**	**5.6**	**7.7**	**5.3**	**-4.2**	**7.9**

Sources: NSO; and Authors' calculations.

Agriculture's Dependency on Monsoon Rainfall in India

*by Kashyap Gupta, Sunil Kumar, and Sarthak Gulati^*

South-west monsoon (SWM) remains important for foodgrains production. Given the El Nino concerns, this study empirically investigates the significance of SWM for kharif crops production amidst an improvement in irrigation infrastructure. The results indicate that while the impact of SWM rainfall is statistically significant, it has come down in the recent period. Furthermore, the impact is found relatively less pronounced in periods with more irrigation vis-à-vis less irrigation, indicating irrigation mitigates the adverse consequences of monsoon deficiency on agricultural production.

The agriculture sector in India remains dependent on monsoon rainfall, especially on south-west monsoons (SWM). The average annual precipitation in India is estimated to be 4,000 billion cubic meter (BCM), with the average precipitation during SWM (June-September) at 3,000 BCM contributing about 80 per cent of the annual precipitation (State of Indian Agriculture, Government of India, 2017). There has been some shift in spatial distribution of SWM reflecting climate change. In this regard, Bhatla *et al.* (2022) report the western shift of Indian summer monsoon rainfall (ISMR) in changing climate with an enhancement of ISMR over Western India whereas a substantial decline over the Northeast Indian region. The precipitation during SWM remains critical for agriculture production during *kharif* season; however, with increasing irrigation facilities both in terms of quantity and reach, and adoption of water-efficient irrigation techniques, the dependency of Indian agriculture on monsoon rainfalls is reducing. For instance, SWM was 0.7 per cent below the long-period average (LPA) at all India level in 2021 and *kharif* foodgrains production increased by 3.2 per cent during the year. The SWM is impacted by a number of factors, notably the *El Nino* which results due to the buildup of warm water along the equator in the eastern Pacific. The warm ocean surface warms the atmosphere, which allows moisture-rich air to rise and develop into rainstorms. Although 2023 is an *El Nino* year, the Indian Meteorological Department (IMD) has forecast a normal SWM during 2023 as positive "Indian Ocean Dipole (IOD)" conditions (another weather effect) are likely to develop during SWM period and contain the impact of *El Nino*.

SWM remains important not only for *kharif* foodgrains production but also for *rabi* foodgrains as they help the latter by improving moisture levels and augmenting reservoir levels. A recent study by Ghosh *et al.* (2023) also finds a positive and statistically significant relationship between annual rainfall growth and growth in agriculture GVA for the entire country. Against this backdrop and given El Nino concerns, this study focuses on examining the sensitivity of crops production to rainfall using state-wise[1] annual data of SWM rainfall, irrigation and *kharif* crops production from 1988-89 to 2021-22 in a panel cointegration framework. The empirical analysis indicates that the elasticity of agricultural production to SWM has come down in the recent period, suggesting an increase in agriculture's resilience to monsoon shocks. Furthermore, the impact of SWM is found relatively less pronounced with rising irrigation. The structure of the remaining study is as follows: Section II delves into the trends in SWM and foodgrains production;

^ The authors are from the Monetary Policy Department. The views are personal and do not represent the views of the Reserve Bank of India. The authors are thankful to Shri. Muneesh Kapur for his valuable guidance and suggestions. Authors acknowledge the valuable contribution of Pranjali Anandrao Duratkar for data assistance.

[1] To maintain a consistent time series starting from 1988-89, rainfall deviation, crop production and irrigation data has been aggregated for the following states: Andhra Pradesh and Telengana ; Bihar and Jharkhand; Madhya Pradesh and Chattisgarh; and Uttar Pradesh and Uttarakhand. To aggregate rainfall, weighted average rainfall data has been used with weights as area of the states.

Table 1: Trends in SWM and *Kharif* Crop Production

(Production Growth in per cent and Rainfall Deviation in per cent)

Year	Rainfall Deviation	Foodgrains production	Rice production	Coarse Cereals Production	Pulses production	Oilseeds production	Year	Rainfall Deviation	Foodgrains production	Rice production	Coarse Cereals Production	Pulses production	Oilseeds production
1990	8.3	-1.2	0.7	-6.4	2.0	1.9	2006	4.0	0.7	2.4	-4.2	-1.4	-16.4
1991	-2.1	-7.2	0.1	-21.0	-19.9	-4.9	2007	8.6	9.3	3.2	24.3	33.5	47.9
1992	-4.9	10.2	-1.7	39.7	31.7	29.1	2008	0.0	-2.3	2.7	-10.6	-26.8	-14.0
1993	-0.2	-1.6	8.4	-20.6	-9.3	2.7	2009	-21.4	-12.0	-10.6	-16.7	-10.3	-11.7
1994	10.8	0.5	2.7	-2.0	-11.1	-3.2	2010	2.0	16.7	6.1	41.5	69.4	39.4
1995	2.6	-6.0	-6.5	-4.8	-4.4	9.6	2011	1.6	8.6	15.1	-1.9	-14.9	-5.6
1996	-0.6	6.4	5.1	18.0	-19.2	4.2	2012	-7.1	-2.4	-0.4	-8.1	-2.4	0.5
1997	-2.8	-2.2	1.7	-9.1	-20.4	3.5	2013	5.7	0.5	-0.9	4.7	1.4	8.8
1998	-1.0	1.3	0.3	1.0	19.9	11.8	2014	-11.9	-0.5	-0.1	-0.8	-4.4	-15.0
1999	-7.1	2.6	6.6	-7.3	-6.3	-21.0	2015	-13.7	-2.3	0.0	-9.0	-3.5	-13.2
2000	-10.5	-3.1	-6.1	7.8	-7.6	-4.4	2016	-2.6	10.6	5.4	15.3	73.3	29.0
2001	-9.0	9.8	10.6	7.6	8.8	10.7	2017	-4.7	1.6	0.9	4.9	-2.9	-2.4
2002	-22.1	-22.2	-21.7	-25.4	-14.2	-32.1	2018	-9.4	0.8	5.1	-7.8	-13.1	-1.6
2003	1.3	34.1	24.6	61.6	48.5	85.8	2019	10.4	1.6	0.2	7.1	-2.1	7.6
2004	-11.4	-11.7	-8.1	-18.3	-23.5	-15.1	2020	9.2	4.7	2.9	9.3	8.8	6.6
2005	-1.4	6.3	8.4	1.2	3.1	18.5	2021	-0.7	3.2	5.5	-1.7	-4.5	1.1

Note: Rainfall Deviation refers to deviation of actual rainfall over long-period average.
Sources: India Meteorological Department and Ministry of Agriculture and Farmers Welfare.

empirical findings are elaborated in Section III, and Section IV contains main conclusions.

II: Trends in SWM and *Kharif* Crop Production

SWM remains a function of several atmospheric and oceanic phenomenon which can lead to its volatility. This volatility has inched up with increased climatic variations and rising extreme weather events, which in turns affects the availability of water for Indian agriculture. In this context, Table 1 highlights the SWM rainfall deviation over the last 30 years and corresponding year-on-year (yoy) growth in production of major *kharif* crops.

Chart 1a. Rainfall Deviation and Foodgrains Production Growth

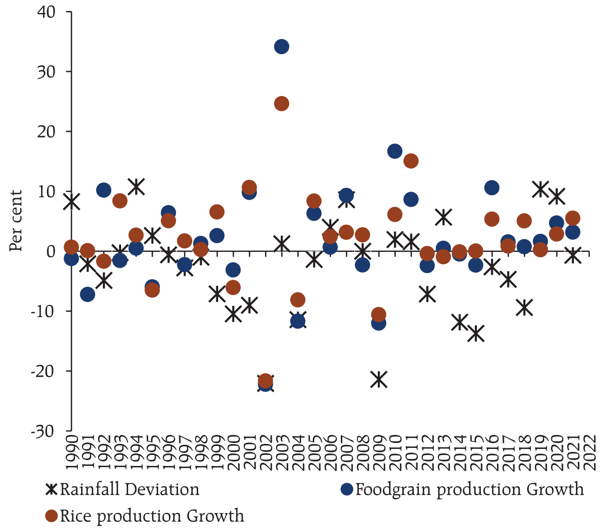
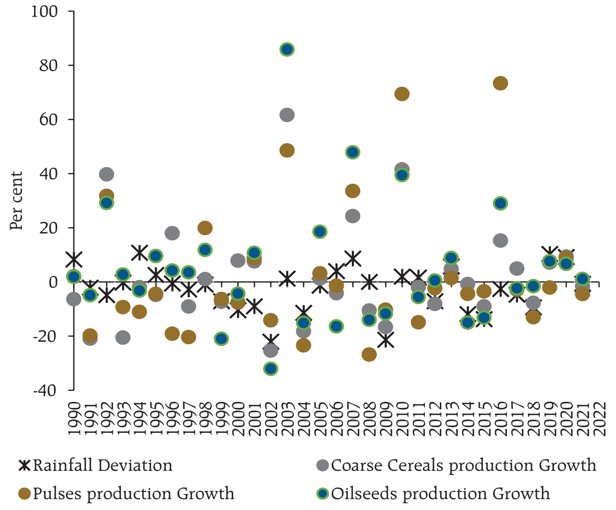
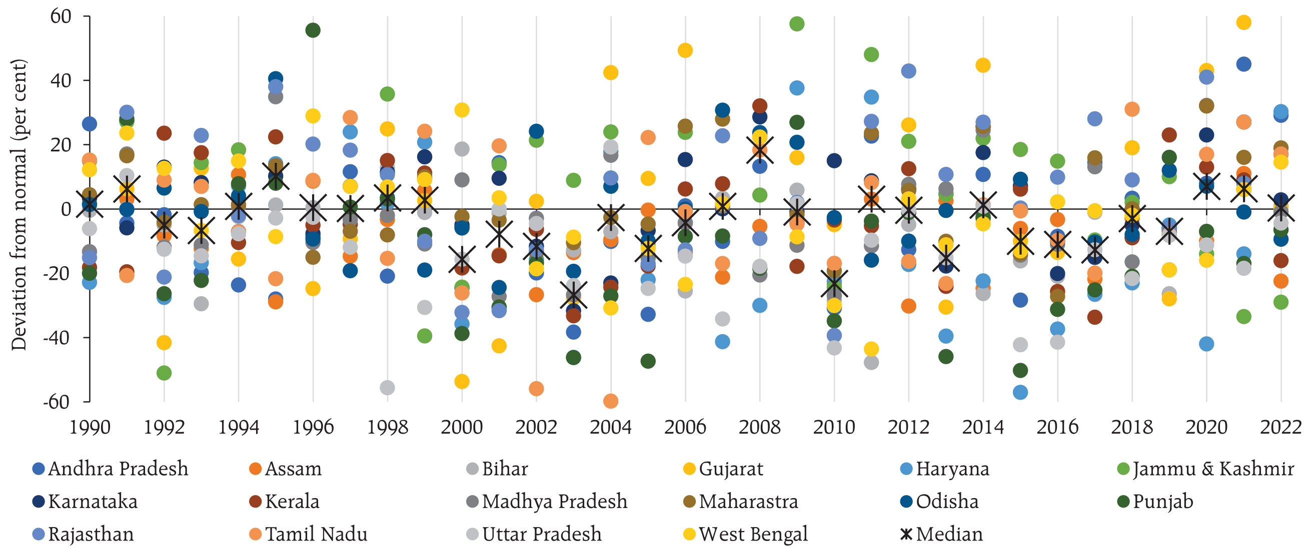


Chart 1b. Rainfall Deviation and Production of Coarse cereals, pulses and oilseeds



Sources: India Meteorological Department and Ministry of Agriculture and Farmers Welfare.

Chart 2: Geospatial Variation of Rainfall



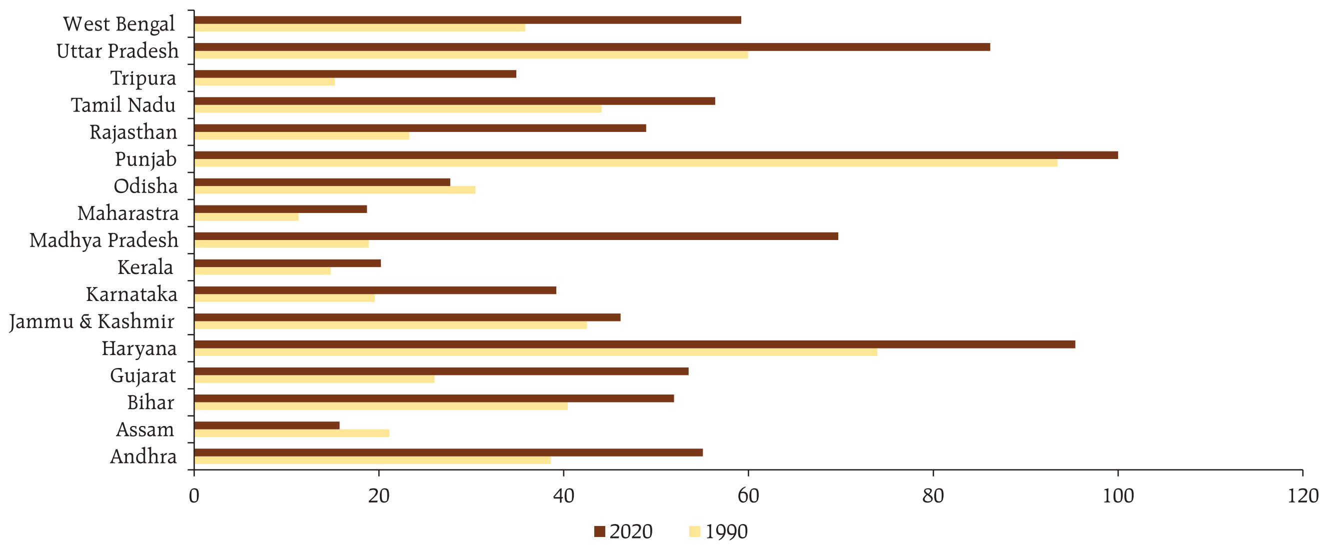
Sources: India Meteorological Department and Ministry of Agriculture and Farmers Welfare.

Since 2016, overall foodgrains and rice production have continued to expand every year despite lower than normal rainfall in 4 out of last 6 years (Chart 1a). However, coarse grains, pulses and oilseeds production remained volatile during this period (Chart 1b).

Further, spatial distribution of monsoon remains uneven which contributes to the volatility in crops production also. Chart 2 shows the state-wise deviation of rainfall from normal over the last three decades.

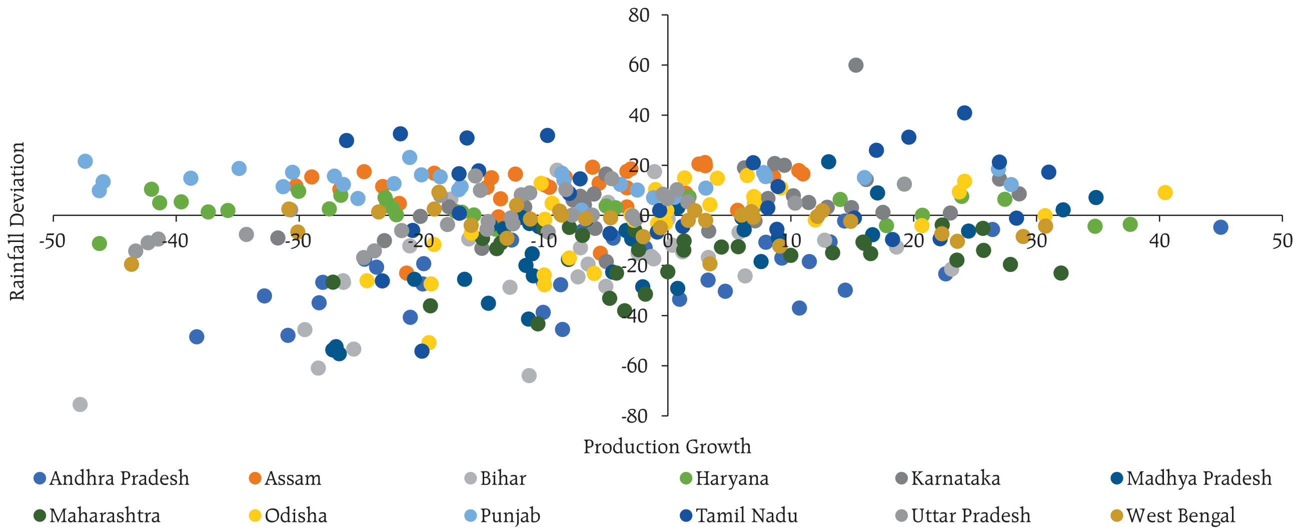
While the states remain vulnerable to rainfall volatility, they have built up irrigation facilities to reduce their dependence on SWM. As per the study on State of Indian Agriculture (2017), the total annual utilizable water resource through rivers and groundwater in the country is estimated to be 1,121

Chart 3: Irrigation Growth in States- Per cent net sown area irrigated



Source: Ministry of Agriculture and Farmers Welfare.

Chart 4: Relationship between Rainfall Deviation and Rice Production

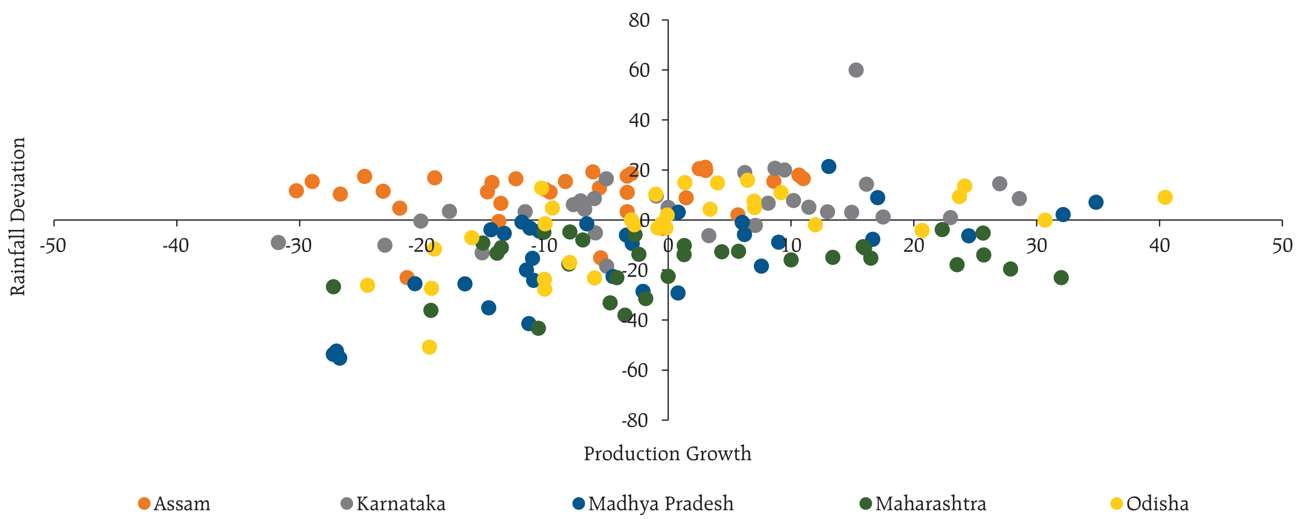


Sources: India Meteorological Department and Ministry of Agriculture and Farmers Welfare.

BCM. Almost all states have seen an increase in their net sown area irrigated over the last three decades. Among 17 major states, 9 states have over 50 per cent of their net sown area irrigated as compared to only 3 states during 1990 (Chart 3).

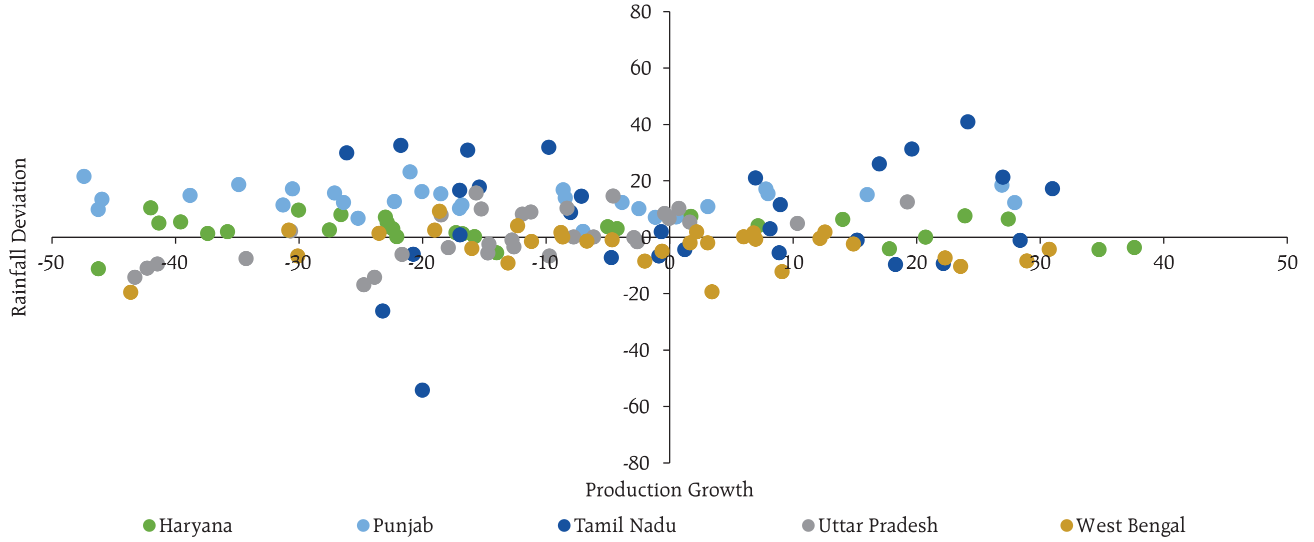
With improvement in irrigation facilities/ infrastructure, the relationship between rainfall deviation and production of major crops does not appear to be direct. Chart 4 depicts the trends in deviation of rainfall from normal and growth in rice production across states during the last three decades. It could be seen that several states recorded expansion in rice production even during the years of deficient rainfalls and similarly, there have been several

Chart 5: Relationship between Rainfall Deviation and Rice Grains Production in Less Irrigated States



Sources: India Meteorological Department and Ministry of Agriculture and Farmers Welfare.

Chart 6: Relationship between Rainfall Deviation and Rice Grains Production in More Irrigated States

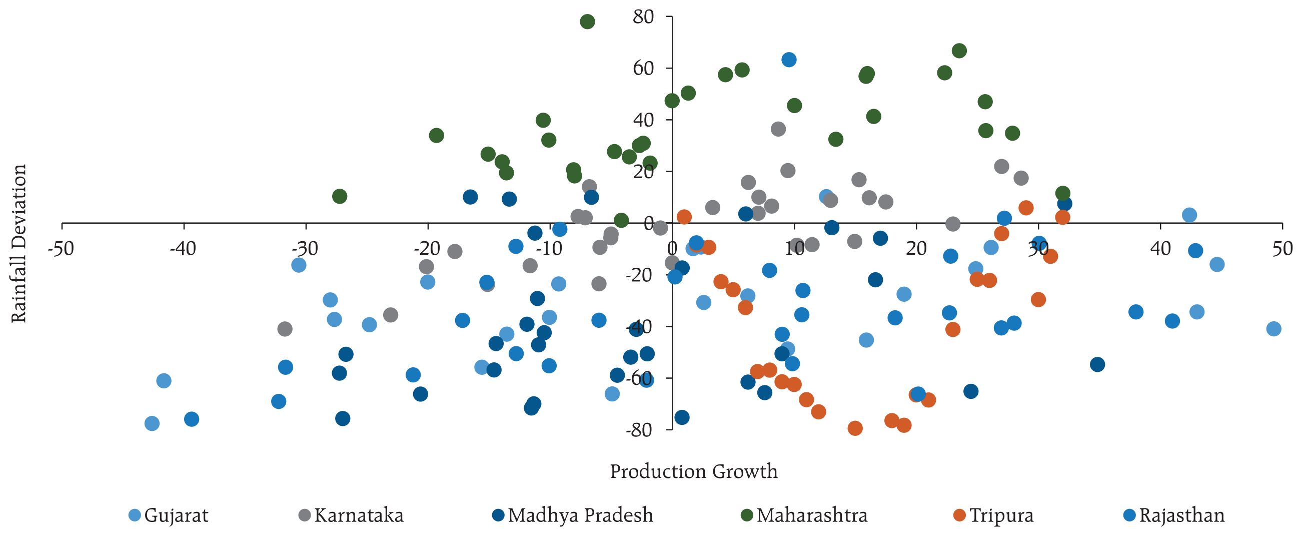


Sources: India Meteorological Department and Ministry of Agriculture and Farmers Welfare.

instances when rainfall is surplus but rice production declined.

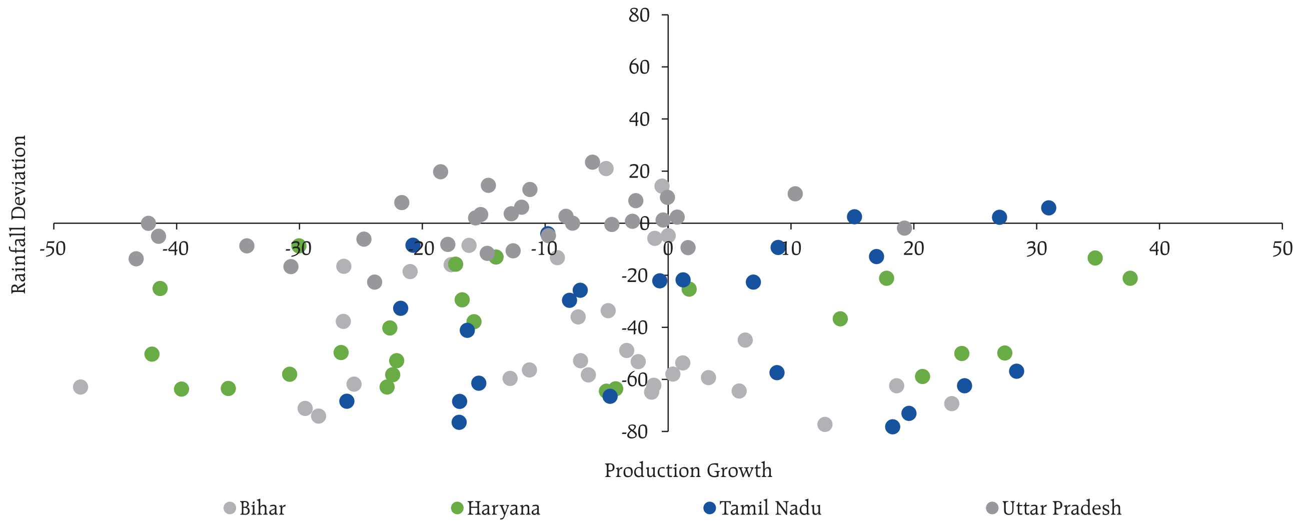
Chart 5 and Chart 6 highlight the relationship among two categories of states based on proportion of their net sown area being irrigated. In less irrigated states (defined as net irrigated area as per cent of net sown area less than 40 per cent), rice production declined during majority times when rainfall was deficient. On the other hand, rice production recorded expansion during large number of rainfall deficient times in many states with high coverage of irrigation (defined as net irrigated area as per cent of net sown area more than 40 per cent). This trend suggests that

Chart 7: Relationship between Rainfall Deviation and Coarse Grains Production in Less Irrigated States



Sources: India Meteorological Department and Ministry of Agriculture and Farmers Welfare.

Chart 8: Relationship between Rainfall Deviation and Coarse Grains Production in More Irrigated States



Sources: India Meteorological Department and Ministry of Agriculture and Farmers Welfare.

higher irrigation coverage can contain the impact of rainfall deficiency to some extent.

Similar relationship between rainfall deviation and coarse grains production is examined over the last three decades in Charts 7 and 8. In case of coarse grains production also, several states with lower irrigation coverage posted decline during large number of times when rainfall was deficient. However, for the more irrigated states, coarse grains production has continued to decline over the years, notwithstanding deficient and surplus rainfalls possibly owing to substitution of crops.

III: Empirical Findings

Data & Model Specifications

To empirically investigate the impact of SWM on agriculture production, this study considers state-wise annual data for the period 1988-89 to 2021-22 on crop production and gross sown area of four primary group of crops in the *kharif* season (namely rice, coarse cereals, pulses and major oilseeds); SWM rainfall published by the Indian Meteorological Department (IMD)[2]; and net irrigated area[3] for eighteen major *kharif* crop producing states. Overall, the analysis is done using data for eighteen states and four crops, covering 1988-89 to 2021-22 (providing 1,768 observations). The full sample period (1988-89 to 2021-22) is also divided into three sub-periods: sub-period I (1988-89 to 1999-2000), sub-period II (2000-01 to 2010-11), and sub-period III (2011-12 to 2021-22) to analyse the changing impact of SWM rainfall on agriculture production.

For the empirical analysis, a state grouped by crop - level cointegration panel analysis is performed incorporating long run dependence of production on area sown. Panel unit root results (Im, Pesaran and Shin and Levin, Lin and Chu) suggest the presence of unit root in both production and sowing rendering them non-stationary (Annex Table 1). Further, Pedroni's panel cointegration test indicates strong

[2] Rainfall data for the SWM season is not available for the states corresponding to the year 2011, accordingly weekly rainfall data for the months June to September 2011 has been aggregated for the financial year 2011-12.

[3] To maintain a consistent time series starting from 1988-89, crop production and irrigation data has been aggregated for the following states: Andhra Pradesh and Telengana; Bihar and Jharkhand; Madhya Pradesh and Chattisgarh; and Uttar Pradesh and Uttarakhand. To aggregate rainfall, weighted average rainfall data has been used with weights as area of the states.

presence of cointegration between the two variables. Kao's cointegration test based on Augmented Dickey Fuller (ADF) test statistic also points towards a long run cointegrating relationship (Annex Table 2).

Accordingly, panel cointegration approach is used for the estimation and the long and short-run dynamics are examined on the basis of the Pooled Mean Group (PMG) estimator (Pesaran *et al.*, 1999). In the short-run dynamics, the main explanatory variable SWM rainfall (SWMR) is considered in the regressions in different forms: log of actual SWM rainfall, rainfall deviation (in per cent) from the long period average (LPA) and absolute value of the rainfall deviation to determine the non-linear impact. The absolute deviation in rainfall (*i.e.*, ignore the sign of deviation) is used to assess the hypothesis that deviations on either side will have a negative impact on crop production. Since deficient rainfall is expected to have a more adverse impact on agricultural production, the panel cointegration model is estimated with a dummy variable corresponding to rainfall deviation of less than -19 per cent (as per deficient rainfall classification used by IMD). This dummy variable is also interacted with absolute value of rainfall deviation to capture the additional adverse impact of rainfall deviation in large deficient periods. To control for irrigation, net irrigated area as per cent of net sown area is used throughout the specifications. For robustness, the empirical analysis is also performed separately for the crops considered in the study. Finally, the analysis is done for the three sub-periods mentioned earlier to gauge the relative importance of the rainfall activity over time.

Empirical results

The panel cointegration results of all crops are furnished in Table 2. The long run coefficients of sowing are found to be high ranging from 0.76 to 0.86 indicating high proportional increase in production in

Table 2: Panel Cointegration Results - All Crops

Long run equation: log(production) = a x log(sowing) + ECT

	(1)	(2)	(3)	(4)	(5)
a	0.757*** (0.0404)	0.770*** (0.0406)	0.832*** (0.0407)	0.856*** (0.0423)	0.792*** (0.0398)
Short run equations					
ECT	-0.583*** (0.0512)	-0.589*** (0.0519)	-0.590*** (0.0517)	-0.603*** (0.0548)	-0.591*** (0.0520)
Δlog(production)(-1)	-0.0742*** (0.0279)	-0.0720** (0.0282)	-0.0786*** (0.0281)	-0.0747** (0.0299)	-0.0705** (0.0291)
Δlog(sowing)	0.777*** (0.0970)	0.792*** (0.0994)	0.725*** (0.0929)	0.814*** (0.104)	0.770*** (0.0975)
Net Irrigated area as per cent of net sown area	0.0130*** (0.00233)	0.0133*** (0.00237)	0.0145*** (0.00283)	0.0167*** (0.00268)	0.0144*** (0.00272)
log(SWM Rainfall)	0.210*** (0.0436)				
SWM Deviation		0.00195*** (0.000460)			
Deficient Dummy			-0.154*** (0.0265)		
Absolute (SWM Deviation)				-0.00265*** (0.000457)	-0.000664 (0.000683)
Absolute (SWM Deviation)*Deficient Dummy					-0.00483*** (0.00106)
Constant	-0.771*** (0.296)	0.549*** (0.0987)	0.293*** (0.0831)	0.137 (0.0833)	0.458*** (0.0899)

Notes: ***, ** and * indicate statistical significance at 1 per cent, 5 per cent and 10 per cent, respectively. Figures in parenthesis denote standard errors.
Source RBI Staff estimates.

response to area sown. In case of short-run dynamics, the error correction terms (ECT) are significant and high indicating production quickly adjusts to the long run levels in case of any shocks. The coefficients of sowing and irrigation are both positive and significant as per expectations. Turning to the impact of SWMR, all the measures are found to be statistically significant with expected signs. Rainfall level and deviation positively impacts production, on the other hand, absolute deviation, deficient dummy and the interaction of deficient dummy and absolute deviation adversely impacts agricultural production.

Similar direction and sign are found for crop-wise regression results furnished in Annex Tables 3 to 6. The estimations also suggest that rice production is relatively less dependent on rainfall in comparison with the other three crops. This may be due to the fact that rice is primarily sown on irrigated areas. Pulses and oilseeds production are found to be heavily dependent on rainfall.

In case of regression across subperiods, the estimated results show that the elasticity of rainfall has come down in the 2011-12 to 2021-22 period compared with 2000-01 to 2010-11 both for actual rainfall and deviation. The coefficient of the rainfall deficient dummy is negative as expected, and the negative impact of the deficient dummy is also coming down. In case of absolute deviation, the impact is more or less similar in sub-period III compared with sub-period II; however, when a deficient dummy is included in the regressions along with its interaction with absolute deviation, the impact of absolute deviation when rainfall is deficient is found to be less negative. Results for the different crops are found in similar lines (Table 3). Since PMG estimation results for sub-periods may suffer from loss of degrees of freedom due to availability of a smaller number of time periods, the sub-period results using a fixed effects panel specification is also produced in Annex (Annexure Table 7). The fixed effects panel estimation

Table 3: Elasticity of SWM rainfall variables

	All Crops				
	SWM Rainfall	**SWM Deviation**	**Deficient Dummy**	**Absolute (SWM Deviation)**	**Absolute (SWM Deviation) if Deficient**
Sub-period I	0.1275	0.0014	-0.0800	-0.0005	-0.0021
Sub-Period II	0.3075	0.0032	-0.1942	-0.0030	-0.0056
Sub-Period III	0.1718	0.0019	-0.0770	-0.0031	-0.0043
	Rice				
Sub-period I	0.0442	0.0004	-0.0436	0.0021	0.0003
Sub-Period II	0.2001	0.0016	-0.1422	-0.0010	-0.0042
Sub-Period III	0.1188	0.0012	-0.0176	-0.0028	-0.0018
	Coarse Cereals				
Sub-period I	-0.1187	-0.0014	-0.0186	-0.0007	-0.0001
Sub-Period II	0.3238	0.0033	-0.1529	-0.0043	-0.0060
Sub-Period III	0.1115	0.0015	-0.0598	-0.0033	-0.0039
	Pulses				
Sub-period I	0.6318	0.0078	-0.1613	-0.0016	-0.0014
Sub-Period II	0.4135	0.0048	-0.1950	-0.0022	-0.0019
Sub-Period III	0.2109	0.0025	-0.1726	-0.0020	-0.0072
	Oilseeds				
Sub-period I	0.1759	0.0014	-0.1136	-0.0055	-0.0092
Sub-Period II	0.4013	0.0042	-0.3308	-0.0053	-0.0118
Sub-Period III	0.2329	0.0023	-0.1145	-0.0041	-0.0059

Source: RBI Staff estimates.

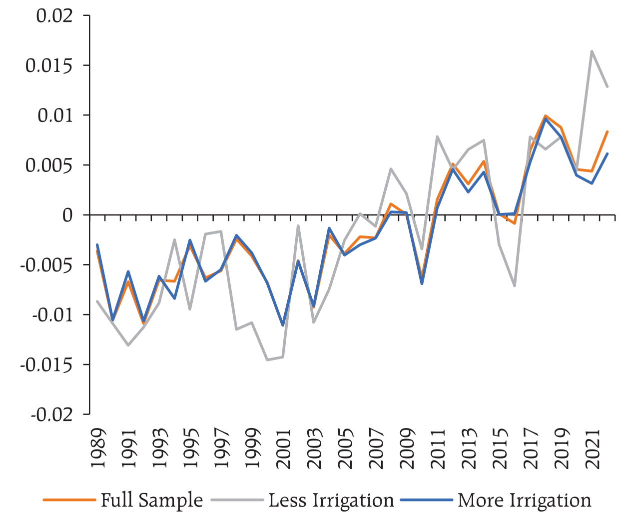
results also confirm less impact of rainfall in the recent sub-period variables except for oilseeds.

Taking the empirical investigation further, in order to determine the role played by irrigation in resilience of crop production to monsoon, a fixed effects panel specification is estimated. In this specification, separate fixed effects of states and crops have been included to control for heterogeneity pertaining to states and crops, and accordingly, the following fixed effects model has been estimated:

$$\log(P_{ijt}) = \alpha + \beta \log(S_{ijt}) + \varphi X_{it} + \theta_i + \gamma_j + \delta_t + \varepsilon_{ijt}$$

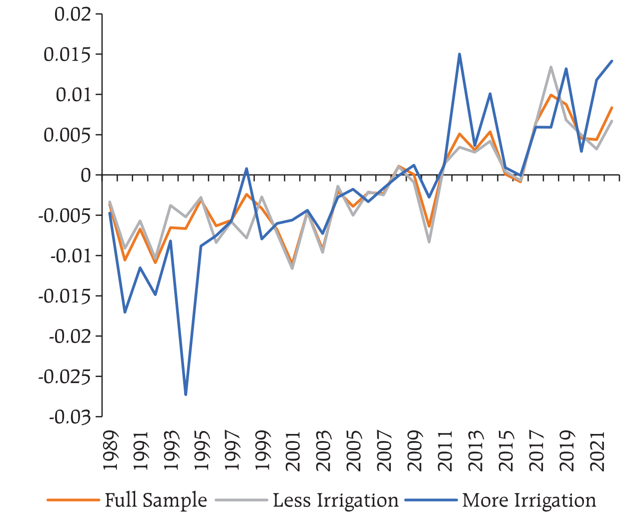
where P_{ijt} and S_{ijt} are production and sowing respectively corresponding to state i of crop j in year t. X_{it} are absolute value of rainfall deviation and net irrigated area as per cent of net sown for state i in year t. Fixed effects θ_i , γ_j and δ_t are used to control for unobserved heterogeneity in production across

Chart 9: Elasticity of Absolute Deviation - 25th quantile



Source: RBI Staff estimates.

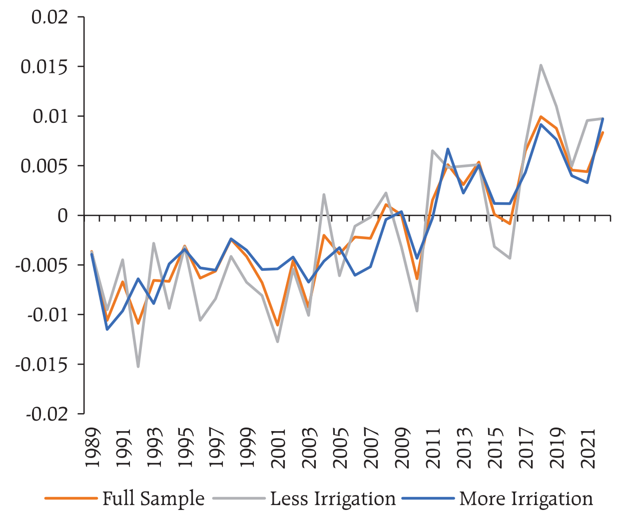
Chart 11: Elasticity of Absolute Deviation - 75th quantile



Source: RBI Staff estimates.

states, crops and time. Classification of less irrigated and more irrigated of each state in every year is made based on net irrigated area as per cent of net sown area (NIA), specifically, NIA observations below year-wise 25th quantile, median and 75th quantile of NIA are used as proxy for low irrigation, and thereafter, estimate different regressions on data partitioned based on low and high irrigation proxies to investigate whether

Chart 10: Elasticity of Absolute Deviation - Median



Source: RBI Staff estimates.

rainfall has less impact when irrigation is high *vis-a-vis* low. The coefficients of absolute rainfall deviation while interacting with time dummies over the sample period clearly indicate that the negative impact of absolute deviation on agricultural production is waning over the years, suggesting increasing agriculture's resilience to monsoon shocks. Furthermore, the impact of monsoon is found relatively less pronounced in periods with more irrigation *vis-à-vis* less irrigation, indicating that higher irrigation imparts resilience to agriculture production against the monsoon shortfalls (Chart 9,10 and 11).

IV: Concluding Observations

SWM remains important for *kharif* as well as *rabi* foodgrains. Given the El Nino concerns, this study empirically investigates the significance of SWM for *kharif* crop production amidst an improvement in irrigation infrastructure. The results indicate that while the impact of SWM rainfall is statistically significant, it has come down in the recent period. Furthermore, the impact is found relatively less pronounced in periods with more irrigation *vis-à-vis* less irrigation, indicating irrigation mitigates the adverse consequences of monsoon deficiency on agricultural production. With improving irrigation infrastructure, crops production is able to weather much better the negative shock to SWM rainfalls. Enhanced public spending on irrigation, therefore, can provide more strength to domestic agricultural production against the monsoon vagaries.

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Annex Table 1: Panel Unit Root Test Results

			log(Production)	log(Sowing)
Im, Pesaran and Shin	Intercept	ADF test statistic	1.46	-0.74
		pvalue	0.93	0.23
	Intercept and trend	ADF test statistic	-0.13	1.18
		pvalue	0.44	0.88
Levin, Lin and Chu	Intercept	ADF test statistic	1.04	-2.27
		pvalue	0.85	0.02
	Intercept and trend	ADF test statistic	4.63	3.14
		pvalue	1.00	0.99

Source: RBI Staff estimates.

Annex Table 2: Estimation Results: Pedroni and Kao Cointegration Test

Pedroni Cointegration Test		
Panel specific AR coefficients		
	test statistic	**pvalue**
Modified Philips Perron	-14.74	0
Philips Perron	-17.91	0
ADF	-18.54	0
Panel specific AR coefficients with time trend		
	test statistic	**pvalue**
Modified Philips Perron	-15.32	0
Philips Perron	-27.15	0
ADF	-26.78	0
Common AR coefficients		
	test statistic	**pvalue**
Modified variance ratio	-0.96	0.168
Group rho-Statistic	-20.63	0.001
Group PP-Statistic	-26.69	0
Group ADF-Statistic	-26.76	0
Panel specific AR coefficients		
Statistics	**test statistic**	**pvalue**
ADF	6.43	0

Source: RBI Staff estimates.

Annex Table 3: Panel Cointegration Results - Rice

Long run equation: log(production) = a x log(sowing) + ECT					
	(1)	(2)	(3)	(4)	(5)
a	0.723*** (0.0649)	0.726*** (0.0653)	0.738*** (0.0700)	0.758*** (0.0755)	0.725*** (0.0710)
Short run equations					
ECT	-0.490*** (0.0813)	-0.494*** (0.0831)	-0.495*** (0.0848)	-0.489*** (0.0872)	-0.484*** (0.0824)
Δlog(production)(-1)	-0.119** (0.0547)	-0.118** (0.0549)	-0.118** (0.0566)	-0.141** (0.0601)	-0.118** (0.0587)
Δlog(sowing)	1.038*** (0.190)	1.068*** (0.197)	0.983*** (0.174)	1.147*** (0.211)	1.043*** (0.203)
Net Irrigated area as per cent of net sown area	0.00989*** (0.00254)	0.0101*** (0.00258)	0.00972*** (0.00242)	0.0112*** (0.00240)	0.00901*** (0.00250)
log(SWM Rainfall)	0.117** (0.0459)				
SWM Deviation		0.000980** (0.000453)			
Deficient Dummy			-0.0905*** (0.0273)		
Absolute (SWM Deviation)				-0.00119*** (0.000333)	0.000291 (0.000631)
Absolute (SWM Deviation)*Deficient Dummy					-0.00359*** (0.00138)
Constant	0.0867 (0.320)	0.880*** (0.213)	0.882*** (0.211)	0.754*** (0.198)	0.927*** (0.214)

Notes: ***, ** and * indicate statistical significance at 1 per cent, 5 per cent and 10 per cent, respectively. Figures in parenthesis denote standard errors. Source: RBI Staff estimates.

Annex Table 4: Panel Cointegration Results - Coarse Cereals

Long run equation: log(production) = a x log(sowing) + ECT					
	(1)	(2)	(3)	(4)	(5)
a	0.586*** (0.0890)	0.603*** (0.0892)	0.541*** (0.0842)	0.539*** (0.0812)	0.487*** (0.0833)
Short run equations					
ECT	-0.529*** (0.0967)	-0.532*** (0.0976)	-0.551*** (0.100)	-0.554*** (0.104)	-0.555*** (0.101)
Δlog(production)(-1)	-0.0830* (0.0496)	-0.0817 (0.0506)	-0.0784 (0.0487)	-0.0793 (0.0492)	-0.0814* (0.0473)
Δlog(sowing)	1.008*** (0.175)	1.020*** (0.177)	0.978*** (0.175)	1.062*** (0.180)	1.014*** (0.165)
Net Irrigated area as per cent of net sown area	0.0102*** (0.00339)	0.0104*** (0.00327)	0.00908*** (0.00337)	0.0103*** (0.00343)	0.00956*** (0.00358)
log(SWM Rainfall)	0.109** (0.0555)				
SWM Deviation		0.000854 (0.000598)			
Deficient Dummy			-0.116*** (0.0302)		
Absolute (SWM Deviation)				-0.00435*** (0.000622)	-0.00348*** (0.00109)
Absolute (SWM Deviation)*Deficient Dummy					-0.00201 (0.00127)
Constant	0.592* (0.329)	1.219*** (0.337)	1.566*** (0.393)	1.593*** (0.413)	1.804*** (0.443)

Notes: ***, ** and * indicate statistical significance at 1 per cent, 5 per cent and 10 per cent, respectively. Figures in parenthesis denote standard errors. Source: RBI Staff estimates.

Annex Table 5: Panel Cointegration Results - Pulses

Long run equation: log(production) = a x log(sowing) + ECT					
	(1)	(2)	(3)	(4)	(5)
a	0.981*** (0.0719)	0.998*** (0.0720)	1.012*** (0.0666)	1.153*** (0.0683)	0.963*** (0.0687)
Short run equations					
ECT	-0.744*** (0.143)	-0.743*** (0.141)	-0.758*** (0.139)	-0.767*** (0.154)	-0.755*** (0.138)
Δlog(production)(-1)	0.0452 (0.0522)	0.0432 (0.0527)	0.0441 (0.0500)	0.0442 (0.0603)	0.0596 (0.0555)
Δlog(sowing)	0.368** (0.158)	0.374** (0.159)	0.359** (0.142)	0.315* (0.164)	0.376*** (0.141)
Net Irrigated area as per cent of net sown area	0.0188** (0.00828)	0.0187** (0.00839)	0.0199** (0.00944)	0.0258** (0.0107)	0.0189** (0.00847)
log(SWM Rainfall)	0.369*** (0.128)				
SWM Deviation		0.00385*** (0.00140)			
Deficient Dummy			-0.242*** (0.0912)		
Absolute (SWM Deviation)				-0.00234 (0.00159)	0.00250 (0.00159)
Absolute (SWM Deviation)*Deficient Dummy					-0.00928*** (0.00279)
Constant	-3.358*** (1.087)	-1.058*** (0.338)	-1.132*** (0.342)	-2.129*** (0.556)	-0.888*** (0.318)

Notes: ***, ** and * indicate statistical significance at 1 per cent, 5 per cent and 10 per cent, respectively. Figures in parenthesis denote standard errors. Source: RBI Staff estimates.

Annex Table 6: Panel Cointegration Results - Oilseeds

Long run equation: log(production) = a x log(sowing) + ECT					
	(1)	(2)	(3)	(4)	(5)
a	0.776*** (0.0777)	0.794*** (0.0758)	0.984*** (0.0631)	0.919*** (0.0693)	0.944*** (0.0610)
Short run equations					
ECT	-0.726*** (0.110)	-0.745*** (0.114)	-0.740*** (0.109)	-0.808*** (0.128)	-0.759*** (0.109)
Δlog(production)(-1)	-0.0897 (0.0634)	-0.0792 (0.0652)	-0.103* (0.0591)	-0.0469 (0.0615)	-0.0746 (0.0602)
Δlog(sowing)	0.321** (0.140)	0.319** (0.145)	0.221 (0.149)	0.298** (0.137)	0.271** (0.134)
Net Irrigated area as per cent of net sown area	0.0186** (0.00924)	0.0194** (0.00947)	0.0216* (0.0111)	0.0256** (0.0103)	0.0234** (0.0110)
log(SWM Rainfall)	0.323*** (0.114)				
SWM Deviation		0.00294*** (0.00112)			
Deficient Dummy			-0.235*** (0.0650)		
Absolute (SWM Deviation)				-0.00360*** (0.00131)	-0.00206 (0.00200)
Absolute (SWM Deviation)*Deficient Dummy					-0.00656** (0.00320)
Constant	-1.587** (0.806)	0.441** (0.179)	-0.591** (0.232)	-0.349* (0.186)	-0.426** (0.214)

Notes: ***, ** and * indicate statistical significance at 1 per cent, 5 per cent and 10 per cent, respectively. Figures in parenthesis denote standard errors. Source: RBI Staff estimates.

Annex Table 7: Elasticity of rainfall variables using Fixed effects panel regression

	All Crops				
	SWM Rainfall	SWM Deviation	Deficient Dummy	Absolute (SWM Deviation)	Absolute (SWM Deviation) if Deficient
Sub-period I	0.1244	0.0011	-0.1167	-0.0020	-0.0036
Sub-Period II	0.2717	0.0027	-0.1504	-0.0025	-0.0045
Sub-Period III	0.1510	0.0013	-0.0980	-0.0023	-0.0034
	Rice				
Sub-period I	0.0367	0.0003	-0.0522	-0.0008	-0.0015
Sub-Period II	0.1340	0.0014	-0.0862	-0.0005	-0.0019
Sub-Period III	0.0762	0.0006	-0.0662	-0.0023	-0.0026
	Coarse Cereals				
Sub-period I	-0.0522	-0.0007	-0.0300	-0.0018	-0.0015
Sub-Period II	0.2114	0.0015	-0.1453	-0.0034	-0.0051
Sub-Period III	-0.0255	-0.0005	-0.0273	-0.0018	-0.0015
	Pulses				
Sub-period I	0.3079	0.0032	-0.1971	-0.0023	-0.0050
Sub-Period II	0.4516	0.0052	-0.2534	-0.0048	-0.0072
Sub-Period III	0.2304	0.0019	-0.1640	-0.0020	-0.0055
	Oilseeds				
Sub-period I	0.4397	0.0045	-0.2839	-0.0036	-0.0080
Sub-Period II	0.3057	0.0038	-0.1576	-0.0018	-0.0037
Sub-Period III	0.4823	0.0044	-0.2094	-0.0020	-0.0069

Source: RBI Staff estimates.

Private Corporate Investment: Performance and Near-term Outlook

*by Shreya Bhan^, Rajendra N Chavhan^ and Rajesh B Kavediya^*

The near-term outlook for private investment activity in India is gauged from project investment proposals of the private corporate sector. A sustained pick-up in bank credit in recent period, rising capacity utilisation, improved business outlook and demand conditions and various government policy initiatives to support investment activities provided a conducive environment for the private corporates to undertake fresh capital all-India investment. The envisaged total cost of the projects financed by banks/financial institutions reached a new peak during 2022-23 since 2014-15. Of the total capital investment during 2022-23, about 40 per cent is expected to be spent in 2023-24. A long-term analysis points to the usefulness of investment intentions of private corporates as an early indicator of the assessment of private capex.

Introduction

Generally, investment and consumption remained the major drivers of India's growth story. After experiencing a slowdown in investment since 2013-14, early signs of revival in the capex cycle, particularly of the private corporate sector, was seen since 2021-22, supported by the capital expenditure push by the Government. The improvement in capacity utilisation of the manufacturing sector, pick-up in credit demand, improving demand conditions and consumer sentiment bode well for the capex cycle. Cleaning up of balance sheets by both corporates and banks provides scope to increase lending activities. Capital expenditure (capex) of the private corporate sector serves as a leading indicator that reflects the investment climate within the economy. This underscores the importance to evaluate the potential for economic expansion by conducting a thorough analysis of the private investment outlook. Given the time lag in releasing the yearly financial statements by corporations, relying solely on a balance sheet-based investment assessment may not be an effective approach for setting up a forward-looking investment outlook for prospective planning. In many economies, survey-based approach is commonly employed as an alternative source to gather data on intended corporate investment plans and investment sentiment. These surveys provide valuable insights into the current investment climate and the anticipated investment intentions that are expected to materialise in the near to medium-term.

India too, since the late 1980s, regularly collects the information on project finance data of private corporates from the select banks/financial institutions (FIs)[1] for the assessment and forecasting/nowcasting of private investment. The Reserve Bank has been tracking capex plans of the private corporate sector through the projects that are funded by banks/FIs for providing an outlook on investment[2].

The article is structured into six sections. Section II sets out the methodology and its limitations. Important features of projects sanctioned or contracted during the period of review (*i.e.*, 2022-23), funding thereof, and distributional aspects in terms of regions and industries are presented in Section III. Section IV deals with the phasing profile of the sanctioned/contracted loans/financing and estimates

^ The authors are from the Department of Statistics and Information Management. The views expressed in the article are those of the authors and do not represent the views of the Reserve Bank of India. The previous article in the series " Private Corporate Investment: Growth in 2021-22 and Outlook for 2022-23" was published in the August 2022 issue of the Reserve Bank of India Bulletin.

1 Includes all public sector banks, major private sector and foreign banks, and financial institutions which are actively involved in project financing namely, Industrial Financial Corporation of India (IFCI), Life Insurance Corporation (LIC), Power Finance Corporation (PFC), Rural Electrification Corporation of India (REC) and Export-Import Bank of India (EXIM).

2 Analysis of investment outlook of private corporates are regularly released in the form of articles, initially in the Economic and Political Weekly and, since 1989, in the RBI Bulletin.

growth of corporate investment. Analysis of envisaged capital expenditure and gross fixed capital formation of private corporates is presented in section V, while section VI concludes the study.

II. Methodology and Limitations

For the assessment of the near-term outlook of investment activity of private corporates, the methodology proposed by Rangarajan (1970)[3] has been adopted. For this purpose, data on investment intentions were gathered through three different sources, *viz.*, (i) banks and FIs which are involved in the business of project finance to private corporates, (ii) finances raised for capex purpose through the external commercial borrowings (ECBs) [including issuance of foreign currency convertible bonds (FCCBs)), rupee denominated bonds (RDBs)], and (iii) initial public offerings (IPOs), follow-on public offerings (FPOs) and rights issues during a year by the private corporates for capex purpose.

To avoid double counting and consequent overestimation of capital investment, meticulous efforts have been made to ensure that each project is included in the dataset only once. This is achieved by utilising internal databases of the Reserve Bank and incorporating information supplied by the Securities and Exchange Board of India (SEBI), even when a project is funded through multiple sources. This study focuses exclusively on projects that receive funding from the aforementioned sources, having a project cost exceeding ₹10 crore, and majority ownership stake of project with private corporates. Projects having majority stakeholding with the Central and/or State governments, and projects initiated by trusts and educational institutions are excluded from the scope of this study.

[3] The methodology was published on 19th December, 1970 in the article "Forecasting Capital Expenditure in the Corporate Sector" authored by Dr. C Rangarajan in the Economic and Political Weekly (EPW), Volume No. 5, Issue No. 51, Page 2049-2051.

The estimates are derived under the assumption that companies adhere to their ex-ante capital expenditure plans. However, it is important to note that these estimates differ from the actual private corporates fixed investment figures reported in the National Accounts Statistics (NAS), as some planned intentions may not materialise into realised investments in terms of their amount and timing, and that certain projects may be funded through internal resources as well as through the fund raised from capital market/ bond financing and foreign direct investment (FDI), which are not being captured in the project finance data collected by the RBI.

III. Characteristics of Projects Sanctioned/Contracted

The investment outlook of private corporates, as reflected in terms of the total number of projects as well as the total project cost, which got sanctioned by banks/FIs, continued to show improvement during 2022-23. About 547 projects got assistance from banks/FIs during 2022-23 with a record high total project cost of ₹2,66,547 crore, compared to 401 projects having a total project cost of ₹1,41,976 crore during 2021-22 (Annex Table A1).

During 2022-23, 393 companies, which did not avail of any financing from banks/FIs for capex projects, raised ₹82,448 crore through ECBs, while 42 other companies raised ₹3,629 crore through domestic equity issues under the IPO route for funding their capex needs. Overall, investment plans of 982 projects were made during 2022-23, with record capital outlay of ₹3,52,624 crore – higher than the level seen since 2014-15, as against 791 projects in 2021-22 with investment intentions of ₹1,96,445 crore (Annex Table A1-A4).

i) Size-wise

The size-wise distribution of projects showed a noticeable increase in the number of projects across various sizes. There were eight mega projects (with project cost ₹5,000 crore & above) and 68 large projects

(₹1000 crore-₹5000 crore), sanctioned by banks/FIs during 2022-23, having share of 27.1 per cent and 41.3 per cent of total project costs, respectively. The phasing plan of mega/large projects may have a bearing on the capex in the longer-term (Annex Table A5).

ii) Purpose-wise

Purpose-wise pattern of projects indicates that investment in green field (new) projects accounted for the largest share of 93.1 per cent in the total cost of projects financed by banks/FIs during 2022-23, in line with the trend seen in the past. A marginal share of 6.1 per cent of total project cost was directed towards expansion and modernisation (Annex Table A6).

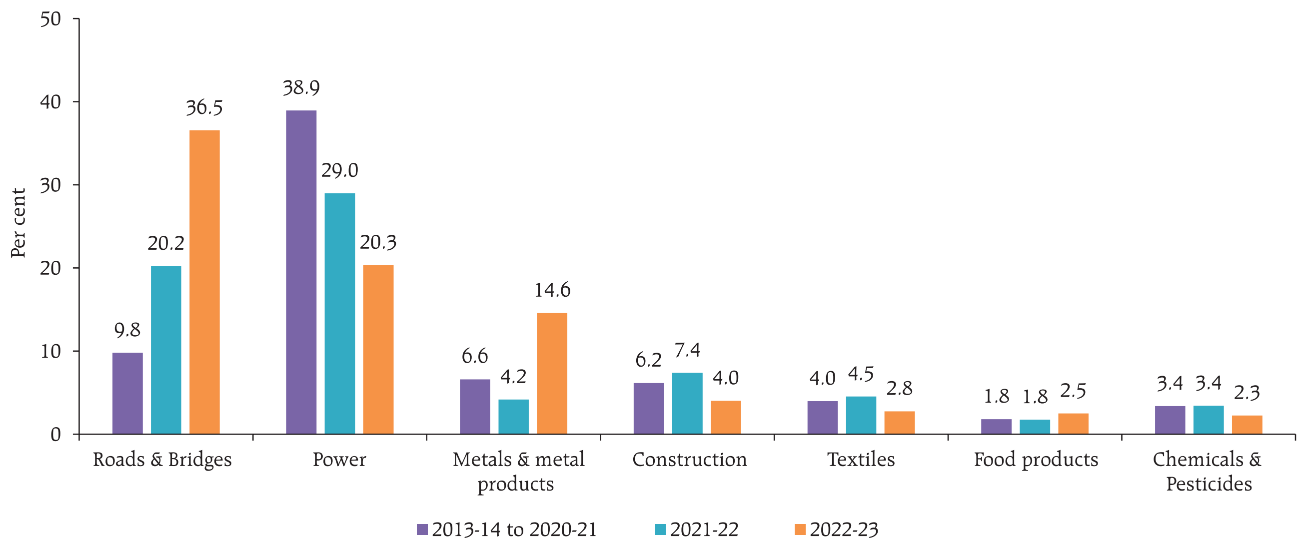
iii) Industry-wise

The infrastructure sector, comprising (a) power, (b) telecom, (c) ports and airports, (d) storage and water management, (e) special economic zone (SEZ), industrial, biotech and IT park, and (f) roads & bridges, remained the major sector accounting for 60 per cent share in the total cost of projects during 2022-23 (Annex Table A7). Within the infrastructure sector, roads & bridges held a significant share in the total project cost, supported by government's push towards infrastructure projects through "Bharatmala[4]" initiative. Besides the infrastructure sector, major industries like metal & metal products, construction, textile, and food products accounted for the sizable share in the total cost of projects envisaged during 2022-23, with a notable increase in its share by metal & metal products as compared with the previous year (Chart 1).

iv) State-wise

The location of projects depends upon a range of factors, including the accessibility to raw materials, the nature of the project, the availability of skilled labour, the presence of adequate infrastructure, the size of the market, the growth potential, the availability of suppliers, and the demand for the products. For the analysis purpose, in this article, the projects which are spread across multiple states have been classified

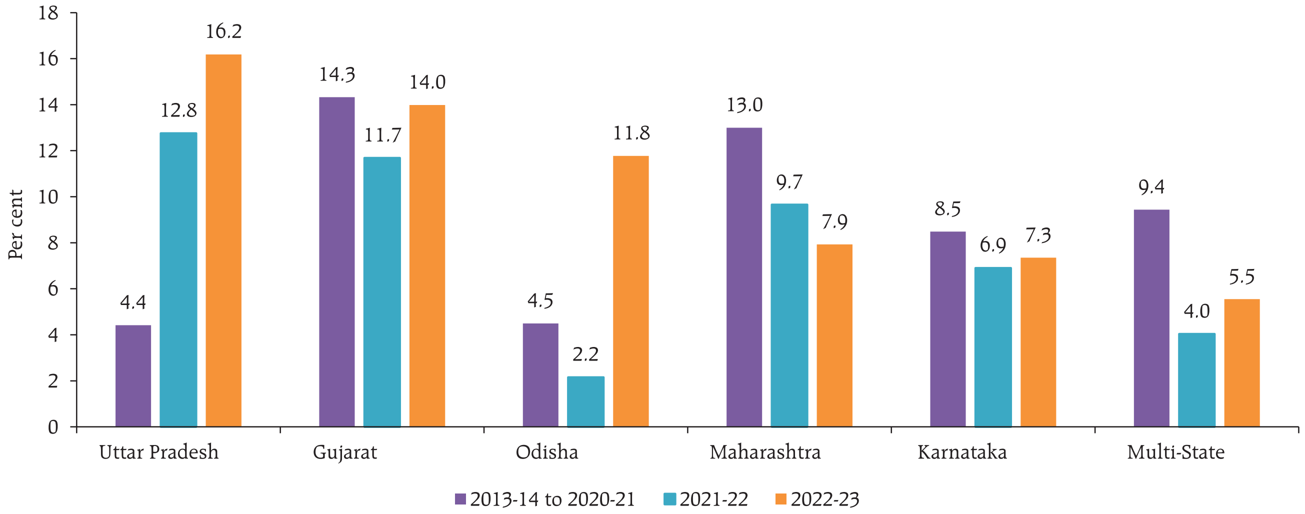
Chart 1: Share of Major Industries in Aggregate Cost of Projects Sanctioned by Banks/FIs



Source: Data on project finance gathered from banks/FIs and Authors' calculation.

4 Bharatmala, under Ministry of Road Transport and Highways, Government of India, is an umbrella programme for the highways sector in India that focuses on optimising efficiency of freight & passenger movement across the country by bridging critical infrastructure gaps.

Chart 2: Share of Major States in Aggregate Cost of Projects Sanctioned by Banks/FIs



Note: Multi-State refers to projects spread over more than one state.
Source: Data on project finance gathered from banks/FIs; and Authors' calculation.

as "multi-state" projects. The state-wise distribution revealed that the top five states *viz.*, Uttar Pradesh, Gujarat, Odisha, Maharashtra and Karnataka, together account for 57.2 per cent share in total project cost during 2022-23, higher than 43.2 per cent share during 2021-22 (Chart 2 and Annex Table A8). In 2022-23, Uttar Pradesh accounted for the highest share (16.2 per cent) in the total cost of projects sanctioned by banks/FIs, followed by Gujarat, Odisha, Maharashtra and Karnataka. The share of Uttar Pradesh and Odisha in the total cost of projects improved significantly from the previous year as well as the average share recorded during the period 2013-14 to 2020-21.

IV. Phasing Profile of Investment Intentions

Phasing profile of capital expenditure of projects sanctioned by banks/FIs during the current year and the previous years provides near-term (one year ahead) investment outlook of private corporates. The phasing from the cohort of projects in 2022-23 indicates that about 33.0 per cent (₹87,997 crore) of the total proposed capital expenditure was expected to be spent in the same year, while 34.7 per cent (₹92,539 crore) is likely to be spent in 2023-24 and another 24.8 per cent (₹66,071 crore) in the subsequent period. Of the total cost of projects sanctioned in 2022-23, 7.5 per cent of the amount was already spent prior to 2022-23. From the planned capital expenditure based on the projects sanctioned by banks/FIs till 2022-23, the capex envisaged in 2022-23 recorded an increase of 9.8 per cent to ₹1,58,903 crore during 2022-23 over the previous year (Annex Table A1).

Resources raised through the ECB and IPO route by private corporates supplement the financing of their investment activities. From the fund raised through ECB route for capex purpose, capital expenditure planned to be incurred during 2022-23 declined by 3.0 per cent over the previous year to ₹58,186 crore. The capital market (equity route) enabled the financing of envisaged capex of ₹2,560 crore in 2022-23, higher than the previous year (Annex Tables A2 and A3), though its share in total envisaged capital expenditure remained miniscule.

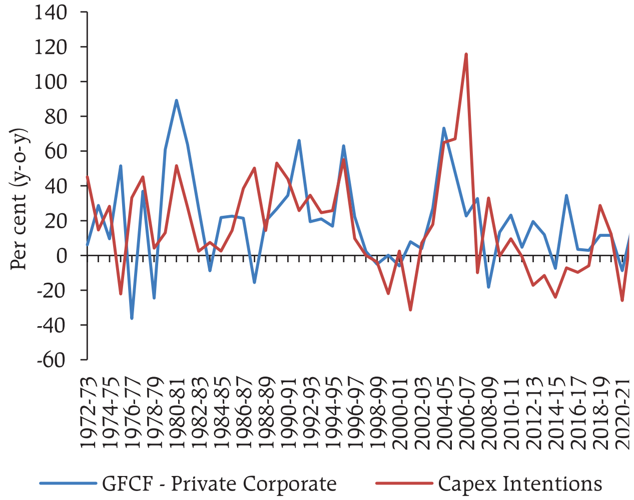
Overall, a total capital investment of ₹2,19,649 crore through the various channels of funding, as alluded to earlier, was expected to be made by the private corporate sector in 2022-23, recording an increase of 6.7 per cent from the planned phasing of the previous year, primarily led by a rise in capex projects financed by banks/FIs more than offsetting the decline in capital investment through ECB. The phasing profile of the envisaged capex, based on the pipeline projects[5] sanctioned by the banks/ FIs in the previous years prior to the reference year, increased from ₹70,906 crore in 2022-23 to ₹1,17,182 crore in 2023-24; while based on all channels of financing together, it stood at ₹1,71,568 crore in 2023-24 as against ₹94,876 crore in 2022-23 (Annex Tables A1 and A4).

V. Investment Intentions and GFCF of Private Corporates

Envisaged capital investment, based on the project finance data through all sources, tracks the growth of gross fixed capital formation (GFCF) at current prices by private corporates well, barring episodic occasions of divergence in direction (Chart 3).

However, over the period, the ratio of envisaged capex to GFCF of private corporates (as per NAS data) declined significantly - the average share declined from 40.5 per cent during 1971-72 to 2010-11 to 15.5 per cent during 2011-12 to 2021-22. Deleveraging of corporate balance sheet, rising use of internal sources of funds and funds raised through other sources such as FDI, resulted in lower dependence of private

Chart 3: Investment Intentions and GFCF of Private Corporates



Sources: NSO; Data on project finance gathered from banks/FIs; and Authors' calculations.

Box 1: Envisaged Capex and GFCF of Private Corporates

To study empirically the existence of a long-run relationship as well as the short-run dynamics between the envisaged capital investment (based on project finance data) and GFCF of private corporates (based on NAS data), Autoregressive Distributed Lag (ARDL) approach (Pesaran and Shin,1998[6]) to cointegration is employed. Lagged gross value added (GVA) growth is used to control the acceleration effect. Besides, other macro variables such as non-food bank credit growth and weighted average lending rate were also used in the estimation framework.

Bound test confirmed the existence of a long-term relationship between the envisaged capital investment and GFCF of private corporates. The long-term relationship suggests that a one per cent increase in investment intentions may lead to 48 bps increase in the

Table 1: Envisaged Capex and GFCF of Private Corporates

	Coefficient	t-stat	p-value
Selected Model* ARDL(1,3,3,1,0)			
Long-term relationship: Dependent variable – Growth in GFCF of private corporates			
Envisaged Capex	0.48	3.74	0.00
GVA growth	2.98	3.96	
Non-food credit growth	0.82	2.23	0.04
Real WALR#	-0.83	-0.93	0.37
constant	-35.6	-2.36	0.03
Error Correction (-1)	-1.24	-12.68	0.00
Adj R^2	0.89		
Bound test (F stat)	20.71		
Lower and Upper Bound Critical Values	10% [2.46, 3.46]	5% [2.95, 4.09]	1% [4.09, 5.53]
Serial correlation LM-test F-stat (p-value) 2.21 (0.14)		J-B statistics 0.85 (0.65)	Heteroskedasticity-BPG test F-stat (p-value) 0.72 (0.73)

*: lag length is selected using Schwarz criterion.
#: Adjusted with WPI inflation.

(Contd.)

5 Pipeline projects are those projects which are already undertaken for implementation. Capex from pipeline projects are envisaged amounts for a given year, which got sanctioned prior to that given year.

6 M.H. Pesaran, Y. Shin (1998), "An autoregressive distributed lag Modelling approach to cointegration analysis", S. Strøm (Ed.), Econometrics and Economic Theory in The Twentieth Century: The Ragnar Frisch Centennial Symposium, Cambridge University Press, Cambridge, UK (1998), pp. 371-413.

GFCF of private corporates. Additionally, the coefficient of error correction term – the speed of adjustment or convergence towards long-run equilibrium – suggests that disequilibrium from the past year will be corrected at a faster speed, but in an oscillating manner.

Despite a decline in the ratio of envisaged capex, as gathered from the project finance data, empirical analysis still suggests that it provides the early indication about the private capex cycle.

corporates on banks/FIs for funding their capital investment, which has been mirrored in the decline in the ratio of envisaged capex to GFCF of private corporates. Despite a decline in the ratio, envisaged capital investment still remains useful as an early indicator for assessing private capital investment cycle (Box 1).

VI. Conclusion

The Government's thrust on capex, besides various policy initiatives to revive the investment cycle, and improved economic outlook provided a conducive environment for the private corporates to undertake fresh capital investment. The envisaged capital investments of private corporates, based on the projects sanctioned by banks/FIs, increased for the second consecutive year after remaining subdued during 2019-20 and 2020-21. The total cost of projects sanctioned by banks/FIs during 2022-23 increased to a record high of ₹2,66,547 crore. The infrastructure sector continued to attract maximum capex projects, led by 'Road & Bridges' and 'Power' sectors, reflecting the Government's push towards infrastructure development. Of the total cost of projects, around 35 per cent is likely to be spent during 2023-24 and about 25 per cent in the subsequent period. The phasing profile of the envisaged capex, based on the pipeline projects finance through all three channels, suggests that the envisaged capex increased significantly to ₹1,71,568 crore in 2023-24 as against ₹94,876 crore in 2022-23. Further, empirical analysis underscored the usefulness of envisaged capital investment (*ex-ante* phasing plan) as an early indicator for assessing the near-term private corporate investment outlook.

Improved capacity utilisation, pick-up in credit demand, and improved business expectations, as reflected in forward-looking enterprise surveys conducted by the RBI and also by other agencies, are pointing towards reinvigoration of investment activity in the Indian economy in the period ahead.

On the downside, the higher cost of capital owing to tightening of monetary policy by various central banks including India, global uncertainty led by geo-political tensions, and risk of slowdown in major advanced economies could hamper investment activities. Overall, the investment cycle appears to be poised to gain momentum going ahead, but, its sustainability needs to be watched closely.

Table A1: Phasing of Capex of Projects Sanctioned by Banks/FIs

Year of sanction ↓	No of Projects	Project Cost in the Year of Sanction (in ₹ crore)	Project Cost due to Revision/ Cancellation^ (in ₹ crore)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Beyond 2023-24
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
upto 2013-14				1,70,603	93,658	34,172	14,421	4,722	1,472						
2014-15	326	87,601	87,253 (0.4)	14,822	34,589	25,765	9,535	1,246	162	1,036					
2015-16	346	95,371	91,781 (3.8)	3,787	7,434	37,517	28,628	8,079	4,964	1,152	220				
2016-17	541	1,82,807	1,79,249 (2.0)	1,352	3,952	25,388	71,186	41,075	21,643	8,566	4,001	2,086			
2017-18	485	1,72,831	1,68,239 (2.6)		620	15,184	12,445	63,001	41,436	22,767	10,202	2,342	242		
2018-19	409	1,76,581	1,59,189 (9.8)			569	6,862	11,000	59,973	47,080	21,248	9,759	2,663	35	
2019-20	320	2,00,038	1,75,830 (12.1)					4,049	14,524	53,978	58,556	28,116	14,114	2,299	194
2020-21	220	75,558	75,558 (0.0)						2,491	3,709	29,013	26,166	9,711	3,867	601
2021-22	401	1,43,314	1,41,976 (0.9)							3,610	10,543	59,622	44,176	18,442	5,583
2022-23	547	2,66,547								1,127	2,150	16,663	87,997	92,539	66,071
Grand Total&				**1,90,564**	**1,40,253**	**1,38,595**	**1,43,077**	**1,33,172**	**1,46,665**	**1,43,025**	**1,35,933**	**1,44,754**	**1,58,903**	**1,17,182**	**72,449**
Percentage change					**-26.4**	**-1.2**	**3.2**	**-6.9**	**10.1**	**-2.5**	**-5.0**	**6.5**	**9.8**	**#**	

&: Column totals indicate envisaged capex in a particular year covering the projects which received financial assistance in various years. The estimate is ex ante incorporating only envisaged investments. They are different from those actually realised/utilised.
#: Per cent change for 2023-24 is not worked out as capex from proposal that are likely to be sanctioned in 2023-24 is not fully available.
^: Figures in bracket are percentage of revision/cancellation.

Table A2: Phasing of Capex Projects* Funded Through ECBs/ FCCBs/RDBs**

Loans contracted in ↓	No of LRNs issued	Total loan contracted (₹ crore)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Beyond 2023-24
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
upto 2013-14			78,864	27,376	4,896									
2014-15	478	57,327		36,791	16,806	3,151	575	2	2					
2015-16	314	38,885			28,998	7,311	2,572	4						
2016-17	346	22,154				14,953	6,005	1,192	2	2				
2017-18	419	37,896					17,822	13,054	6,484	529	7			
2018-19	515	72,490						46,221	17,725	1,236	5,398	1,844	66	
2019-20	495	95,491							65,367	17,157	11,717	965	285	
2020-21	362	40,564								21,865	13,574	3,219	1,675	231
2021-22	363	51,059								13	29,315	16,554	5,089	88
2022-23	393	82,448										35,604	44,132	2,712
Total&			**78,864**	**64,167**	**50,700**	**25,415**	**26,974**	**60,473**	**89,580**	**40,802**	**60,011**	**58,186**	**51,247**	**3,031**
Percentage change				**-18.6**	**-21.0**	**-49.9**	**6.1**	**124.2**	**48.1**	**-54.5**	**47.1**	**-3.0**	**#**	

*:Projects which did not receive assistance from banks/FIs.
**:Rupee Denominated Bonds (RDBs) have been included since 2016-17.
#:Percent change for 2023-24 is not worked out as capex from proposals that are likely to be drawn in 2023-24 is not fully available.
&: The estimate is ex ante incorporating only envisaged investment. They are different from those actually realised/utilised.
LRN: Loan registration number

Table A3: Phasing of Capex of Projects Funded Through Equity Issues*

Equity issued during ↓	No. of Companies	Capex Envisaged (₹ crore)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Beyond 2023-24
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Up to 2013-14			494	492	70									
2014-15	24	1,078		189	557	332								
2015-16	40	4,511		11	644	2753	849	183	71					
2016-17	29	1,159			14	471	368	163	143					
2017-18	51	1,538					419	327	787	5				
2018-19	39	609						506	90	13				
2019-20	12	53						2	49	2				
2020-21	12	663								139	421	84	19	
2021-22	27	3,410								10	757	1,304	939	400
2022-23	42	3,629										1,172	2,181	276
Total[&]			**494**	**692**	**1,285**	**3,556**	**1,636**	**1,181**	**1,140**	**169**	**1,178**	**2,560**	**3,139**	**676**
Percentage change				**40.1**	**85.7**	**176.7**	**-54**	**-27.8**	**-3.5**	**-85.2**	**597**	**117.3**	**#**	

*: Projects which did not receive assistance from banks/FIs/ECBs/FCCBs/RDBs.
#: Per cent change for 2023-24 is not worked out as capex from proposals that are likely to be implemented in 2023-24 is not fully available.
&: The estimate is ex ante incorporating only envisaged investment, they are different from those actually realised/utilised.

Table A4: Phasing of Capex of Projects Funded Through Banks/FIs/IPOs/ECBs/FCCBs/RDBs*/IPOs

Year of sanction↓	No. of Companies Banks/FIs/ ECBs/ FCCBs/ RDBs/IPOs	Project Cost (₹ crore)	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Beyond 2023-24
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
upto 2013-14			2,49,961	1,21,526	39,138	14,421	4,722	1,472						
2014-15	828	1,45,658	14,822	71,569	43,128	13,018	1,821	164	1,038					
2015-16	700	1,35,177	3,787	7,445	67,159	38,692	11,500	5,151	1,223	220				
2016-17	916	2,02,562	1,352	3,952	25,402	86,610	47,448	22,998	8,711	4,003	2,086			
2017-18	955	2,07,673		620	15,184	12,445	81,242	54,817	30,038	10,736	2,349	242		
2018-19	963	2,32,288					11,000	1,06,700	64,895	22,497	15,157	4,507	101	
2019-20	827	2,71,374					4,049	14,526	1,19,394	75,715	39,833	15,079	2,584	194
2020-21	594	1,16,785						2,491	3,709	51,017	40,161	13,014	5,561	832
2021-22	791	1,96,445							3,610	10,566	89,694	62,034	24,470	6,071
2022-23	982	3,52,624							1,127	2,150	16,663	1,24,773	1,38,852	69,059
Total[&]			**2,69,922**	**2,05,112**	**1,90,580**	**1,72,048**	**1,61,782**	**2,08,319**	**2,33,745**	**1,76,904**	**2,05,943**	**2,19,649**	**1,71,568**	**76,156**
Percentage Change				**-24.0**	**-7.1**	**-9.7**	**-6.0**	**28.8**	**12.2**	**-24.3**	**16.4**	**6.7**	**#**	

*: Rupee Denominated Bonds (RDBs) have been included since 2016-17.
#: Per cent change for 2023-24 is not worked out as capex from proposals that are likely to be sanctioned in 2023-24 is not fully available.
&: The estimate is ex ante incorporating only envisaged investment, they are different from those actually realised/utilised.

Table A5: Size-wise Distribution of Projects Sanctioned by Banks/FIs: 2013-14 to 2022-23

Period	**Number and Share of Projects**	**Less than ₹100 crore**	**₹100 crore to ₹500 crore**	**₹500 crore to ₹1000 crore**	**₹1000 crore to ₹5000 crore**	**₹5000 crore & above**	**Total**
2013-14	No. of Projects	306	115	25	21	5	**472**
	Per cent Share	8.3	20.0	13.9	29.1	28.7	**100 (1,27,328)**
2014-15	No. of Projects	223	65	18	19	1	**326**
	Per cent Share	9.0	16.6	14.6	47.8	12.0	**100 (87,253)**
2015-16	No. of Projects	214	76	34	21	1	**346**
	Per cent Share	8.6	20.9	26.0	38.5	5.9	**100 (91,781)**
2016-17	No. of Projects	287	180	29	40	5	**541**
	Per cent Share	5.8	23.3	11.9	41.7	17.4	**100 (1,79,239)**
2017-18	No. of Projects	263	149	28	42	3	**485**
	Per cent Share	5.2	21.0	10.8	43.8	19.1	**100 (1,68,239)**
2018-19	No. of Projects	220	110	39	36	4	**409**
	Per cent Share	4.8	17.0	17.0	39.6	21.6	**100 (1,59,189)**
2019-20	No. of Projects	150	84	45	36	5	**320**
	Per cent Share	3.3	11.9	18.6	37.4	28.8	**100 (1,75,830)**
2020-21	No. of Projects	128	52	15	24	1	**220**
	Per cent Share	5.5	16.8	14.2	53.5	10.0	**100 (75,558)**
2021-22	No. of Projects	200	127	36	36	2	**401**
	Per cent Share	5.6	20.0	19.6	46.9	7.9	**100 (1,41,976)**
2022-23	No. of Projects	264	156	51	68	8	**547**
	Per cent Share	3.9	13.6	14.1	41.3	27.1	**100 (2,66,547)**

Note: i. Figures in brackets are total cost of projects in ₹ crore.
ii. Per cent share is the share in total cost of projects. Percentages may not total 100 due to rounding.

Table A6: Purpose-wise Distribution of Projects Sanctioned by Banks/FIs during 2013-14 to 2022-23

Period	Number and Share of Projects	New	Expansion & Modernisation	Diversification	Others	Total
2013-14	No. of Projects	361	95	2	14	**472**
	Percent Share	65.2	20.1	-	14.7	**100 (1,27,328)**
2014-15	No. of Projects	203	92	2	29	**326**
	Percent Share	39.4	14.7	0.2	45.7	**100 (87,253)**
2015-16	No. of Projects	260	64	3	19	**346**
	Percent Share	73.6	14.3	0.1	12.0	**100 (91,781)**
2016-17	No. of Projects	429	97	4	11	**541**
	Percent Share	78.6	9.9	0.1	11.3	**100 (1,79,249)**
2017-18	No. of Projects	396	80	2	7	**485**
	Percent Share	89.0	9.5	0.1	1.5	**100 (1,68,239)**
2018-19	No. of Projects	309	80	-	20	**409**
	Percent Share	76.8	19.3	-	3.9	**100 (1,59,189)**
2019-20	No. of Projects	262	37	1	20	**320**
	Percent Share	79.8	13.7	-	6.4	**100 (1,75,830)**
2020-21	No. of Projects	181	38	1	-	**220**
	Percent Share	94.1	5.9	-	-	**100 (75,558)**
2021-22	No. of Projects	312	88	1	-	**401**
	Percent Share	89.1	10.8	0.1	-	**100 (1,41,976)**
2022-23	No. of Projects	440	101	-	6	**547**
	Percent Share	93.1	6.1	-	0.8	**100 (2,66,547)**

Note: i. Figures in brackets are total cost of projects in ₹ crore.
ii. Per cent share is the share in total cost of projects. Percentages may not total 100 due to rounding.
iii. -: Nil/ Negligible.

Table A7: Industry-wise Distribution of Projects Sanctioned by Banks/FIs: 2013-14 to 2022-23

Industry	2013-14		2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22		2022-23	
	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share
Infrastructure	87	39.7	74	48.9	108	72.0	204	62.5	150	51.7	122	60.3	99	61.5	63	74.3	95	56.4	135	59.9
i) Power	70	35.1	65	42.2	92	57.1	170	45.4	117	36.5	78	26.8	47	32.9	35	49.3	58	29.0	53	20.3
ii) Telecom	1	-	1	4.9	1	0.3	1	-	-	-	-	-	-	-	-	-	-	-	-	-
iii) Ports & Airports	1	0.8	-	-	3	2.4	8	5.7	6	3.1	4	14.2	4	8.4	1	0.1	2	5.9	2	0.4
iv) Storage & Water Management	5	1.1	2	0.6	4	4.2	6	3.7	2	0.4	13	5.7	4	0.4	5	1.2	2	0.2	3	0.8
v) SEZ, Industrial, Biotech and IT Park	8	1.5	3	0.9	1	0.4	2	0.4	9	1.6	11	3.2	8	1.3	5	2.2	3	1.1	8	1.9
vi) Roads & Bridges	2	1.2	3	0.3	7	7.6	17	7.3	16	10.1	16	10.4	36	18.5	17	21.5	30	20.2	69	36.5
Metal & Metal Products	44	17.4	17	17.4	14	1.5	23	4.9	21	9.7	16	3.0	14	0.8	6	0.8	27	4.2	60	14.6
Construction	27	2.1	29	4.0	26	1.8	60	12.0	39	5.3	26	2.3	44	11.4	27	4.8	22	7.4	35	4.0
Textiles	58	10.3	50	4.1	49	4.8	57	4.1	54	3.7	27	3.4	11	0.5	15	1.8	56	4.5	42	2.8
Food Products	43	1.8	34	2.9	26	1.8	38	0.9	47	2.8	28	1.4	32	1.9	20	1.5	25	1.8	40	2.5
Chemicals & Pesticides	15	1.0	7	2.6	11	1.6	10	2.1	23	11.4	19	2.9	12	1.3	9	1.6	20	3.4	16	2.3
Pharmaceuticals	19	1.3	9	1.5	11	0.3	12	1.1	15	0.6	23	1.6	9	0.6	7	0.5	20	1.3	30	2.1
Mining and quarrying	1	0.6	2	0.1	10	2.7	4	0.4	1	-	-	-	-	-	-	-	1	0.1	7	1.8
IT Software	3	0.1	1	-	1	-	-	-	1	-	2	0.7	1	-	-	-	2	0.6	4	1.2
Electrical Equipments & Electronics	9	2.0	7	0.2	2	0.2	9	0.2	6	0.2	1	0.1	4	-	1	0.1	5	4.0	9	1.1
Hospitals & Health services	10	0.7	2	0.1	1	-	22	1.1	18	1.8	15	2.6	12	0.7	7	0.3	19	2.3	20	1.1
Coke and Petroleum Products	1	0.5	1	3.4	2	2.0	2	0.5	1	0.4	-	-	3	8.0	-	-	7	1.0	17	1.1
Glass & Pottery	11	0.3	19	0.7	8	0.5	19	0.6	20	0.8	2	-	-	-	12	0.6	8	0.7	5	1.0
Rubber & Plastic products	9	0.3	8	0.8	4	0.5	8	0.2	10	2.5	5	0.5	5	0.3	17	2.1	12	0.8	13	0.8
Cement	12	7.1	7	3.8	5	1.9	5	2.3	3	0.6	10	5.1	2	0.1	5	1.3	3	3.3	2	0.8
Others*	123	15.3	59	9.5	68	8.4	68	7.2	76	8.5	113	16.0	72	12.9	31	10.3	79	8.2	112	3.0
Total	**472**	**100**	**326**	**100**	**346**	**100**	**541**	**100**	**485**	**100**	**409**	**100**	**320**	**100**	**220**	**100**	**401**	**100**	**547**	**100**
Total project cost in ₹ crore	**1,27,328**		**87,253**		**91,781**		**1,79,249**		**1,68,239**		**1,59,189**		**1,75,730**		**75,558**		**1,41,976**		**2,66,547**	

*: Comprise industries like Transport Services, Transport Equipment, Hotel & Restaurants, Paper & Paper Products, Agricultural & Related Activities, Manufacturing of electric and non-electric machinery, Sugar and allied products, Entertainment, Trading of services, Printing & Publishing, other manufacturing and other services.

Note: i. Per cent share is the share in total cost of project. Percentages may not total 100 due to rounding.
ii. -: Nil/Negligible.

Table A8: State-wise Distribution of Projects Sanctioned by Banks/FIs: 2013-14 to 2020-21

State	2013-14		2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22		2022-23	
	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share	No. of Projects	Per cent Share
Uttar Pradesh	21	1.1	20	5.4	15	2.5	22	3.7	30	2.4	28	4.8	24	5.4	30	13.7	33	12.8	45	16.2
Gujarat	66	14.5	71	9.5	61	15.1	102	23.0	71	8.0	56	11.1	47	15.1	54	17.1	82	11.7	82	14.0
Odisha	10	11.7	5	15.9	6	3.1	6	3.1	5	3.0	9	1.4	6	1.9	2	0.1	9	2.2	12	11.8
Maharashtra	76	19.7	38	14.8	36	9.4	57	8.8	65	23.3	34	11.5	41	6.9	13	8.5	44	9.7	48	7.9
Karnataka	39	6.2	27	5.4	21	6.2	52	6.8	64	9.6	34	5.7	33	17.2	11	6.1	24	6.9	37	7.3
Madhya Pradesh	30	6.1	14	3.9	21	7	18	7.5	10	0.7	12	1.6	10	1.2	19	2.8	18	4.2	35	5.0
Tamil Nadu	33	5.4	27	2.9	26	9.3	23	4.4	28	6.6	32	12.8	28	8.3	7	0.7	40	8.8	44	4.8
Andhra Pradesh	37	4.0	24	8.1	33	12.3	47	8.0	22	9.9	29	11.1	12	4.0	7	15.0	11	2.1	27	4.4
Jammu & Kashmir	10	5.2	2	0.1	9	0.2	3	0.1	8	2.0	11	0.4	3	0.3	5	0.2	5	0.2	23	3.1
Rajasthan	24	1.4	29	11.1	10	0.9	23	2.8	33	6.3	21	7.7	23	3.8	21	17.1	32	12.6	22	3.1
Punjab	28	1.5	6	0.3	11	1.7	29	2.1	31	2.2	15	1.9	9	0.8	4	0.7	15	2.1	21	2.5
Himachal Pradesh	3	1.8	3	0.1	8	1.4	1	-	8	2.3	7	0.3	6	0.1	4	0.2	7	1.2	11	2.2
Telangana	-	-	-	-	10	3.8	51	5.5	17	1.9	26	9.1	12	4.0	9	1.9	16	3.4	30	1.9
Jharkhand	4	0.3	2	0.7	5	0.3	1	-	3	0.3	2	0.5	4	9.4	1	0.2	6	0.8	12	1.9
Bihar	6	0.2	4	0.1	6	0.2	4	0.2	3	0.1	6	0.4	6	3.4	1	-	5	3.4	6	1.6
Chhattisgarh	16	10.7	8	7.4	8	4.6	15	4.0	7	4.8	6	0.9	6	0.2	3	1.2	4	0.8	8	1.4
West Bengal	12	1.2	9	1.3	14	3.1	18	1.7	14	1.8	13	1.1	7	0.9	3	0.4	11	2.6	16	1.0
Haryana	15	1.1	11	1.9	16	3.6	13	1.6	21	0.5	18	1.7	20	3.4	15	7.8	14	2.0	14	1.0
Kerala	3	-	4	0.2	4	0.1	6	2.7	3	0.1	6	0.9	3	1.0	-	-	5	4.2	12	0.9
Goa	-	-	-	-	1	-	3	0.6	2	1.9	3	1.8	2	0.1	-	-	3	3.0	3	0.8
Assam	4	0.3	2	0.2	4	0.4	10	0.6	5	0.8	4	0.2	1	0.3	3	4.4	2	-	6	0.7
Multi-State #	21	6.9	10	9.5	13	13.5	17	11.8	16	7.5	15	9.8	8	11.7	2	1.4	7	4.0	10	5.5
others*	14	0.7	10	1.2	8	1.3	20	1.0	19	4.0	22	3.3	9	0.6	6	0.5	8	1.3	23	0.9
Total	472	100	326	100	346	100	541	100	485	100	409	100	320	100	220	100	401	100	547	100
Total Cost of Projects (in ₹ crore)	**1,27,328**		**87,253**		**91,781**		**1,79,249**		**1,68,239**		**1,59,189**		**1,75,830**		**75,558**		**1,41,976**		**2,66,547**	

#: Comprise projects over several states.

*: Comprise remaining states/union territories.

Note: i. Per cent share is the share in total cost of project. Percentages may not total 100 due to rounding.

ii. -: Nil/Negligible.

CURRENT STATISTICS

Select Economic Indicators

Reserve Bank of India

Money and Banking

Prices and Production

Government Accounts and Treasury Bills

Financial Markets

External Sector

Payment and Settlement Systems

Occasional Series

Contents

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

No. 1: Select Economic Indicators

Item	2022-23	2021-22		2022-23	
		Q3	Q4	Q3	Q4
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	7.0	4.7	3.9	4.7	6.5
1.1.1 Agriculture	4.0	2.3	4.1	4.7	5.5
1.1.2 Industry	2.4	2.2	1.3	0.1	4.7
1.1.3 Services	9.5	6.5	4.9	6.4	7.4
1.1a Final Consumption Expenditure	6.4	10.2	5.8	1.8	2.7
1.1b Gross Fixed Capital Formation	11.4	1.2	4.9	8.0	8.9

	2022-23	2022		2023	
		May.	Jun.	May.	Jun.
	1	2	3	4	5
1.2 Index of Industrial Production	5.2	19.7	12.6	5.3	3.7
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	9.6	8.8	8.6	11.4	12.9
2.1.2 Credit #	15.0	12.5	13.4	15.3	16.2
2.1.2.1 Non-food Credit #	15.4	13.0	13.9	15.5	16.3
2.1.3 Investment in Govt. Securities	14.5	6.0	6.2	14.8	14.3
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	7.8	10.4	10.9	8.1	6.5
2.2.2 Broad Money (M3)	9.0	8.8	7.8	10.4	13.4
3 Ratios (%)					
3.1 Cash Reserve Ratio	4.50	4.50	4.50	4.50	4.50
3.2 Statutory Liquidity Ratio	18.00	18.00	18.00	18.00	18.00
3.3 Cash-Deposit Ratio	5.0	5.2	5.3	5.2	5.1
3.4 Credit-Deposit Ratio	75.8	72.7	73.5	75.2	75.1
3.5 Incremental Credit-Deposit Ratio#	113.0	129.9	235.9	50.4	64.5
3.6 Investment-Deposit Ratio	30.0	29.1	29.5	30.0	29.6
3.7 Incremental Investment-Deposit Ratio	43.5	76.9	124.8	28.5	23.0
4 Interest Rates (%)					
4.1 Policy Repo Rate	6.50	4.40	4.90	6.50	6.50
4.2 Fixed Reverse Repo Rate	3.35	3.35	3.35	3.35	3.35
4.3 Standing Deposit Facility (SDF) Rate *	6.25	4.15	4.65	6.25	6.25
4.4 Marginal Standing Facility (MSF) Rate	6.75	4.65	5.15	6.75	6.75
4.5 Bank Rate	6.75	4.65	5.15	6.75	6.75
4.6 Base Rate	8.65/10.10	7.25/8.80	7.25/8.80	8.75/10.10	8.75/10.10
4.7 MCLR (Overnight)	7.50/8.50	6.60/7.00	6.70/7.30	7.90/8.50	7.95/8.35
4.8 Term Deposit Rate >1 Year	6.00/7.25	5.00/5.75	5.00/5.75	6.00/7.25	6.00/7.25
4.9 Savings Deposit Rate	2.70/3.00	2.70/3.00	2.70/3.00	2.70/3.00	2.70/3.00
4.10 Call Money Rate (Weighted Average)	6.78	4.09	4.61	6.36	6.79
4.11 91-Day Treasury Bill (Primary) Yield	-	4.89	5.16	6.78	6.76
4.12 182-Day Treasury Bill (Primary) Yield	7.28	5.43	5.79	6.90	6.87
4.13 364-Day Treasury Bill (Primary) Yield	7.31	5.91	6.29	6.89	6.87
4.14 10-Year G-Sec Par Yield (FBIL)	7.31	7.43	7.50	7.05	7.10
5 Reference Rate and Forward Premia					
5.1 INR-US$ Spot Rate (Rs. Per Foreign Currency)	82.22	77.66	78.33	82.72	82.04
5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency)	89.61	83.49	82.56	88.79	89.13
5.3 Forward Premia of US$ 1-month (%)	2.41	3.55	2.76	1.45	1.39
3-month (%)	2.19	3.63	2.86	1.55	1.32
6-month (%)	2.31	3.66	2.89	1.62	1.38
6 Inflation (%)					
6.1 All India Consumer Price Index	6.7	7.0	7.0	4.3	4.9
6.2 Consumer Price Index for Industrial Workers	6.1	7.0	6.2	4.4	5.6
6.3 Wholesale Price Index	9.6	16.6	16.2	-3.6	-4.1
6.3.1 Primary Articles	10.3	18.8	18.6	-1.9	-2.9
6.3.2 Fuel and Power	29.4	49.0	50.9	-9.2	-12.6
6.3.3 Manufactured Products	5.7	10.3	9.3	-3.0	-2.7
7 Foreign Trade (% Change)					
7.1 Imports	25.4	66.1	62.2	-0.7	-13.1
7.2 Exports	15.0	27.4	38.1	-4.5	-14.5

Note : Financial Benchmark India Pvt. Ltd. (FBIL) has commenced publication of the G-Sec benchmarks with effect from March 31, 2018 as per RBI circularFMRD.DIRD.7/14.03.025/2017-18 dated March 31, 2018. FBIL has started dissemination of reference rates w.e.f. July 10, 2018.
*: As per Press Release No. 2022-2023/41 dated April 08, 2022
#: Bank credit growth and related ratios for all fortnights from December 3, 2021 to November 18, 2022 are adjusted for past reporting errors by select scheduled commercial banks (SCBs)

Reserve Bank of India

No. 2: RBI - Liabilities and Assets *

(₹ Crore)

Item	As on the Last Friday/ Friday						
	2022-23	2022	2023				
		Jul.	Jun. 30	Jul. 07	Jul. 14	Jul. 21	Jul. 28
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	3348235	3156104	3329493	3334881	3321369	3308290	3293414
1.1.2 Notes Held in Banking Department	9	10	12	12	12	13	12
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	**3348245**	**3156114**	**3329505**	**3334893**	**3321381**	**3308303**	**3293426**
1.2 Assets							
1.2.1 Gold	140766	119129	135772	137732	140302	141246	139545
1.2.2 Foreign Securities	3207202	3036520	3193298	3196771	3180726	3166747	3153606
1.2.3 Rupee Coin	277	465	435	390	353	310	276
1.2.4 Government of India Rupee Securities	-	-	-	-	-	-	-
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	1354217	1543010	1468566	1477164	1488818	1512434	1556122
2.1.1.1 Central Government	5001	101	101	100	100	101	100
2.1.1.2 Market Stabilisation Scheme							
2.1.1.3 State Governments	42	42	42	42	42	42	42
2.1.1.4 Scheduled Commercial Banks	868940	834457	871167	864390	866893	872643	899279
2.1.1.5 Scheduled State Co-operative Banks	8100	8140	9040	8373	9129	8508	8475
2.1.1.6 Non-Scheduled State Co-operative Banks	5177	4384	4436	4594	4775	4528	4675
2.1.1.7 Other Banks	48260	45065	46583	46272	46167	46868	47209
2.1.1.8 Others	316490	600009	450334	452925	452825	466421	472703
2.1.1.9 Financial Institution Outside India	102207	50814	86862	100466	108886	113323	123638
2.1.2 Other Liabilities	1642294	1336039	1484223	1516286	1591373	1553226	1547468
2.1/2.2 Total Liabilities or Assets	**2996512**	**2879049**	**2952789**	**2993449**	**3080192**	**3065660**	**3103589**
2.2 Assets							
2.2.1 Notes and Coins	9	10	12	12	12	13	12
2.2.2 Balances Held Abroad	1008993	1042764	1165073	1207202	1284777	1267935	1277030
2.2.3 Loans and Advances							
2.2.3.1 Central Government	48677	-	-	-	-	-	-
2.2.3.2 State Governments	792	6083	9835	25446	17596	12928	13909
2.2.3.3 Scheduled Commercial Banks	112731	94387	50867	22053	21447	21986	45028
2.2.3.4 Scheduled State Co-op.Banks	-	-	-	-	-	-	-
2.2.3.5 Industrial Dev. Bank of India	-	-	-	-	-	-	-
2.2.3.6 NABARD	-	9668	-	-	-	-	-
2.2.3.7 EXIM Bank	-	-	-	-	-	-	-
2.2.3.8 Others	24485	32683	3319	2180	2180	2605	3082
2.2.3.9 Financial Institution Outside India	102128	50932	86409	99850	108193	113169	123608
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	-	-	-	-	-	-	-
2.2.4.2 Government Treasury Bills	-	-	-	-	-	-	-
2.2.5 Investments	1408486	1439687	1406348	1402835	1407449	1406783	1402884
2.2.6 Other Assets	290209	202834	230926	233870	238538	240241	238037
2.2.6.1 Gold	230734	195144	223813	226829	231062	232616	229814

* Data are provisional.

No. 3: Liquidity Operations by RBI

(₹ Crore)

Date	Liquidity Adjustment Facility						Standing Liquidity Facilities	OMO (Outright)		Net Injection (+)/ Absorption (-) (1+3+5+7+9-2-4-6 -8)
	Repo	Reverse Repo	Variable Rate Repo	Variable Rate Reverse Repo	MSF	SDF		Sale	Purchase	
	1	2	3	4	5	6	7	8	9	10
Jun. 1, 2023	-	-	-	-	1719	302423	-	-	-	-300704
Jun. 2, 2023	-	-	-	50868	1128	201902	-	-	-	-251642
Jun. 3, 2023	-	-	-	-	302	17611	-	-	-	-17309
Jun. 4, 2023	-	-	-	-	148	3631	-	-	-	-3483
Jun. 5, 2023	-	-	-	66640	1378	123599	-	-	-	-188861
Jun. 6, 2023	-	-	-	32375	3821	78314	-	-	-	-106868
Jun. 7, 2023	-	-	-	1850	1607	79521	-	-	-	-79764
Jun. 8, 2023	-	-	-	-	2451	65240	-	-	-	-62789
Jun. 9, 2023	-	-	-	5780	806	127085	604	-	-	-131455
Jun. 10, 2023	-	-	-	-	11	10501	-	-	-	-10490
Jun. 11, 2023	-	-	-	-	23	2952	-	-	-	-2929
Jun. 12, 2023	-	-	-	-	1501	120546	308	-	-	-118737
Jun. 13, 2023	-	-	-	29231	1547	96637	3	-	-	-124318
Jun. 14, 2023	-	-	-	-	2670	84344	177	-	-	-81497
Jun. 15, 2023	-	-	-	-	5598	128184	67	-	-	-122519
Jun. 16, 2023	-	-	-	16331	13811	97901	-5	-	-	-100426
Jun. 17, 2023	-	-	-	-	335	14943	-	-	-	-14608
Jun. 18, 2023	-	-	-	-	61	3587	-	-	-	-3526
Jun. 19, 2023	-	-	75004	-	1372	93644	-	-	-	-17268
Jun. 20, 2023	-	-	-	-	1165	109623	-	-	-	-108458
Jun. 21, 2023	-	-	-	-	2885	105583	-	-	-	-102698
Jun. 22, 2023	-	-	-	-	1878	113279	-	-	-	-111401
Jun. 23, 2023	-	-	-	-	18159	65896	327	10	10	-47410
Jun. 24, 2023	-	-	-	-	112	3994	-	-	-	-3882
Jun. 25, 2023	-	-	-	-	32	2696	-	-	-	-2664
Jun. 26, 2023	-	-	-	-	34684	75745	150	-	-	-40911
Jun. 27, 2023	-	-	-	-	48323	79088	-	-	-	-30765
Jun. 28, 2023	-	-	-	-	71050	97971	-	-	-	-26921
Jun. 29, 2023	-	-	-	-	14471	21790	-	-	-	-7319
Jun. 30, 2023	-	-	-	11789	31256	160761	-	-	-	-141294

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

i) Operations in onshore / offshore OTC segment

Item	2022-23	2022	2023	
		Jun.	May	Jun.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1-1.2)	-25516	-3719	7371	4504
1.1 Purchase (+)	187054	18960	7371	7785
1.2 Sale (–)	212570	22679	0	3281
2 ₹ equivalent at contract rate (₹ Crores)	-217259	-29401	60342	37063
3 Cumulative (over end-March) (US $ Million)	-25516	247	15075	19579
(₹ Crore)	-217259	-551	123675	160738
4 Outstanding Net Forward Sales (-)/ Purchase (+) at the end of month (US $ Million)	23600	30856	19268	19468

ii) Operations in currency futures segment

Item	2022-23	2022	2023	
		Jun.	May	Jun.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1-1.2)	0	0	0	0
1.1 Purchase (+)	10930	3570	0	0
1.2 Sale (–)	10930	3570	0	0
2 Outstanding Net Currency Futures Sales (-)/ Purchase (+) at the end of month (US $ Million)	0	-2406	0	0

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

Item	As on June 30 , 2023		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	1843	365	1478
2. More than 1 month and upto 3 months	757	881	-124
3. More than 3 months and upto 1 year	18114	0	18114
4. More than 1 year	0	0	0
Total (1+2+3+4)	**20714**	**1246**	**19468**

No. 5: RBI's Standing Facilities

(₹ Crore)

Item	As on the Last Reporting Friday							
	2022-23	2022	2023					
		Jul. 29	Feb. 24	Mar. 24	Apr. 21	May. 19	Jun. 30	Jul. 28
	1	2	3	4	5	6	7	8
1 MSF	28388	139	15233	28388	16945	3326	31256	25417
2 Export Credit Refinance for Scheduled Banks								
2.1 Limit		-	-	-	-	-		-
2.2 Outstanding		-	-	-	-	-		-
3 Liquidity Facility for PDs								
3.1 Limit	4900	4900	4900	4900	4900	4900	4900	4900
3.2 Outstanding	2442	1655	2107	2442	3719	3800	3319	3082
4 Others								
4.1 Limit	76000	76000	76000	76000	76000	76000	76000	76000
4.2 Outstanding	15900	40314	8350	15900	15900			
5 Total Outstanding (1+2.2+3.2+4.2)	46730	42108	25690	46730	36564	7126	34575	28499

Money and Banking

No. 6: Money Stock Measures

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/ reporting Fridays				
	2022-23	2022	2023		
		Jun. 17	Jun. 02	Jun. 16	Jun. 30
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	3276436	3104151	3282781	3269646	3234636
1.1 Notes in Circulation	3348219	3198495	3384155	3356904	3329414
1.2 Circulation of Rupee Coin	29542	27550	29949	29949	30182
1.3 Circulation of Small Coins	743	743	743	743	743
1.4 Cash on Hand with Banks	102085	122637	132140	118023	125781
2 Deposit Money of the Public	2398359	2141695	2392904	2367998	2667476
2.1 Demand Deposits with Banks	2320598	2087340	2323736	2299247	2588795
2.2 'Other' Deposits with Reserve Bank	77761	54355	69168	68751	78680
3 M1 (1 + 2)	**5674795**	**5245846**	**5675685**	**5637644**	**5902112**
4 Post Office Saving Bank Deposits	200257	193247	200257	200257	200257
5 M2 (3 + 4)	**5875052**	**5439093**	**5875942**	**5837901**	**6102369**
6 Time Deposits with Banks	16668966	15417971	17332965	17220682	17521249
7 M3 (3 + 6)	**22343760**	**20663817**	**23008650**	**22858326**	**23423360**
8 Total Post Office Deposits	1113230	1044441	1113230	1113230	1113230
9 M4 (7 + 8)	**23456990**	**21708258**	**24121880**	**23971556**	**24536590**

No. 7: Sources of Money Stock (M_3)

(₹ Crore)

Sources	Outstanding as on March 31/last reporting Fridays of the month/ reporting Fridays				
	2022-23	2022	2023		
		Jun. 17	Jun. 02	Jun. 16	Jun. 30
	1	2	3	4	5
1 Net Bank Credit to Government	**7165533**	**6263059**	**7314581**	**7166975**	**7190341**
1.1 RBI's net credit to Government (1.1.1–1.1.2)	1451126	1081805	1406509	1223323	1220251
1.1.1 Claims on Government	1456169	1434456	1429113	1416519	1414555
1.1.1.1 Central Government	1455377	1426587	1413065	1409039	1404719
1.1.1.2 State Governments	792	7869	16049	7480	9835
1.1.2 Government deposits with RBI	5043	352651	22605	193196	194303
1.1.2.1 Central Government	5001	352608	22562	193154	194261
1.1.2.2 State Governments	42	42	42	42	42
1.2 Other Banks' Credit to Government	5714407	5181254	5908072	5943652	5970090
2 Bank Credit to Commercial Sector	**14429636**	**12892034**	**14747582**	**14762836**	**15131380**
2.1 RBI's credit to commercial sector	26549	29081	3752	4865	5383
2.2 Other banks' credit to commercial sector	14403087	12862953	14743830	14757971	15125997
2.2.1 Bank credit by commercial banks	13675235	12150353	14009695	14023487	14391695
2.2.2 Bank credit by co-operative banks	710187	695940	717414	717072	717536
2.2.3 Investments by commercial and co-operative banks in other securities	17665	16660	16721	17412	16766
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	**4845307**	**4713559**	**4989568**	**4976782**	**4975197**
3.1 RBI's net foreign exchange assets (3.1.1–3.1.2)	4587355	4457966	4731617	4718831	4717246
3.1.1 Gross foreign assets	4587616	4458204	4731877	4719091	4717503
3.1.2 Foreign liabilities	260	238	260	260	257
3.2 Other banks' net foreign exchange assets	257951	255593	257951	257951	257951
4 Government's Currency Liabilities to the Public	**30285**	**28293**	**30692**	**30692**	**30925**
5 Banking Sector's Net Non-monetary Liabilities	**4127000**	**3233128**	**4073773**	**4078959**	**3904483**
5.1 Net non-monetary liabilities of RBI	1587565	1212556	1544332	1528412	1481797
5.2 Net non-monetary liabilities of other banks (residual)	2539436	2020572	2529441	2550548	2422685
M_3(1+2+3+4–5)	**22343760**	**20663817**	**23008650**	**22858326**	**23423360**

No. 8: Monetary Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays				
	2022-23	2022	2023		
		Jun. 17	Jun. 02	Jun. 16	Jun. 30
	1	2	3	4	5
Monetary Aggregates					
NM_1 (1.1+1.2.1+1.3)	5674795	5245846	5679454	5637644	5902112
NM_2 (NM_1 + 1.2.2.1)	13103414	12126456	13402869	13308781	13707800
NM_3 (NM_2 +1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	22628166	20907432	23325115	23189877	23723089
1 Components					
1.1 Currency with the Public	3276436	3104151	3288153	3269646	3234636
1.2 Aggregate Deposits of Residents	18828640	17377585	19485275	19346220	19934769
1.2.1 Demand Deposits	2320598	2087340	2322133	2299247	2588795
1.2.2 Time Deposits of Residents	16508042	15290244	17163143	17046973	17345973
1.2.2.1 Short-term Time Deposits	7428619	6880610	7723414	7671138	7805688
1.2.2.1.1 Certificates of Deposits (CDs)	304088	178170	311367	286405	283125
1.2.2.2 Long-term Time Deposits	9079423	8409634	9439729	9375835	9540285
1.3 'Other' Deposits with RBI	77761	54355	69168	68751	78680
1.4 Call/Term Funding from Financial Institutions	445329	371342	482517	505260	475004
2 Sources					
2.1 Domestic Credit	22710664	20241203	23188651	23078006	23405785
2.1.1 Net Bank Credit to the Government	7165533	6263059	7314578	7166975	7190341
2.1.1.1 Net RBI credit to the Government	1451126	1081805	1406509	1223323	1220251
2.1.1.2 Credit to the Government by the Banking System	5714407	5181254	5908069	5943652	5970090
2.1.2 Bank Credit to the Commercial Sector	15545132	13978144	15874073	15911031	16215444
2.1.2.1 RBI Credit to the Commercial Sector	26549	52248	3752	4865	5383
2.1.2.2 Credit to the Commercial Sector by the Banking System	15518583	13925896	15870321	15906166	16210061
2.1.2.2.1 Other Investments (Non-SLR Securities)	1096267	1046526	1110042	1129435	1069467
2.2 Government's Currency Liabilities to the Public	30285	28293	30482	30692	30925
2.3 Net Foreign Exchange Assets of the Banking Sector	4702285	4599884	4802080	4751864	4751750
2.3.1 Net Foreign Exchange Assets of the RBI	4587355	4457966	4731617	4718831	4717246
2.3.2 Net Foreign Currency Assets of the Banking System	114930	141918	70463	33033	34504
2.4 Capital Account	3446793	3257733	3786840	3796089	3771997
2.5 Other items (net)	1368276	704214	909257	874597	693374

No. 9: Liquidity Aggregates

(₹ Crore)

Aggregates	2022-23	2022	2023		
		Jun.	Apr.	May	Jun.
	1	2	3	4	5
1 NM_3	**22617633**	**20907432**	**22074234**	**23048311**	**23723089**
2 Postal Deposits	668887	616787	656356	656356	656356
3 L_1 (1 + 2)	**23286520**	**21524219**	**22730590**	**23704667**	**24379445**
4 Liabilities of Financial Institutions	54724	51690	69591	65082	73056
4.1 Term Money Borrowings	1692	2136	1811	1802	1164
4.2 Certificates of Deposit	46407	41045	57985	53485	62185
4.3 Term Deposits	6625	8509	9795	9795	9707
5 L_2 (3 + 4)	**23341244**	**21575909**	**22800181**	**23769749**	**24452502**
6 Public Deposits with Non-Banking Financial Companies	78061	74794	..	..	78061
7 L_3 (5 + 6)	**23419305**	**21650703**	**..**	**..**	**24530563**

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

No. 10: Reserve Bank of India Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fridays of the month/ reporting Fridays				
	2022-23	2022	2023		
		Jun. 17	Jun. 2	Jun. 16	Jun. 30
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	3378521	3226788	3414710	3387669	3360417
1.2 Bankers' Deposits with the RBI	930477	856083	912193	912186	931226
1.2.1 Scheduled Commercial Banks	868940	800142	852243	852858	871167
1.3 'Other' Deposits with the RBI	77761	54355	69168	68751	78680
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	4386759	4137226	4396072	4368606	4370324
2 Sources					
2.1 RBI's Domestic Credit	1356683	863522	1178305	1147494	1103951
2.1.1 Net RBI credit to the Government	1451126	1081805	1406509	1223323	1220251
2.1.1.1 Net RBI credit to the Central Government (2.1.1.1.1 + 2.1.1.1.2 + 2.1.1.1.3 + 2.1.1.1.4 – 2.1.1.1.5)	1450376	1073979	1390503	1215885	1210459
2.1.1.1.1 Loans and Advances to the Central Government	48677	-	-	-	-
2.1.1.1.2 Investments in Treasury Bills	-	-	-	-	-
2.1.1.1.3 Investments in dated Government Securities	1406423	1426161	1412693	1408735	1404284
2.1.1.1.3.1 Central Government Securities	1406423	1426161	1412693	1408735	1404284
2.1.1.1.4 Rupee Coins	277	426	372	304	435
2.1.1.1.5 Deposits of the Central Government	5001	352608	22562	193154	194261
2.1.1.2 Net RBI credit to State Governments	749	7826	16006	7438	9793
2.1.2 RBI's Claims on Banks	-120992	-270530	-231955	-80694	-121683
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	-120992	-247364	-231955	-80694	-121683
2.1.3 RBI's Credit to Commercial Sector	26549	52248	3752	4865	5383
2.1.3.1 Loans and Advances to Primary Dealers	8476	-	1688	2842	3319
2.1.3.2 Loans and Advances to NABARD	-	23167	-	-	-
2.2 Government's Currency Liabilities to the Public	30285	28293	30482	30692	30925
2.3 Net Foreign Exchange Assets of the RBI	4587355	4457966	4731617	4718831	4717246
2.3.1 Gold	371500	316922	374926	369128	359585
2.3.2 Foreign Currency Assets	4215873	4141062	4356709	4349721	4357678
2.4 Capital Account	1505657	1359593	1671365	1676782	1636418
2.5 Other Items (net)	81908	-147037	-127033	-148371	-154620

No. 11: Reserve Money - Components and Sources

(₹ Crore)

Item	2022-23	Outstanding as on March 31/last Fridays of the month/Fridays					
		2022	2023				
		Jun. 24	Jun. 2	Jun. 9	Jun. 16	Jun. 23	Jun. 30
	1	2	3	4	5	6	7
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 + 2.4 + 2.5 – 2.6)	4386759	4104025	4396282	4385311	4368606	4338437	4370324
1 Components							
1.1 Currency in Circulation	3378521	3217603	3414920	3408856	3387669	3372147	3360417
1.2 Bankers' Deposits with RBI	930477	831996	912193	908109	912186	897382	931226
1.3 'Other' Deposits with RBI	77761	54425	69168	68346	68751	68908	78680
2 Sources							
2.1 Net Reserve Bank Credit to Government	1451126	1028590	1406509	1322307	1223323	1157834	1220251
2.2 Reserve Bank Credit to Banks	-120992	-222543	-231955	-163240	-80694	-44468	-121683
2.3 Reserve Bank Credit to Commercial Sector	26549	32581	3752	4355	4865	5232	5383
2.4 Net Foreign Exchange Assets of RBI	4587355	4493097	4731617	4730323	4718831	4700450	4717246
2.5 Government's Currency Liabilities to the Public	30285	28451	30692	30692	30692	30692	30925
2.6 Net Non- Monetary Liabilities of RBI	1587565	1256151	1544332	1539125	1528412	1511303	1481797

No. 12: Commercial Bank Survey

(₹ Crore)

Item	Outstanding as on last reporting Fridays of the month/ reporting Fridays of the month				
	2022-23	2022	2023		
		Jun. 17	Jun. 2	Jun. 16	Jun. 30
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	17882990	16441590	18532009	18394191	18979328
1.1.1 Demand Deposits	2180431	1946298	2181960	2159510	2447471
1.1.2 Time Deposits of Residents	15702560	14495293	16350049	16234680	16531857
1.1.2.1 Short-term Time Deposits	7066152	6522882	7357522	7305606	7439336
1.1.2.1.1 Certificates of Deposits (CDs)	304088	178170	311367	286405	283125
1.1.2.2 Long-term Time Deposits	8636408	7972411	8992527	8929074	9092521
1.2 Call/Term Funding from Financial Institutions	445329	371342	482517	505260	475004
2 Sources					
2.1 Domestic Credit	20197180	18086173	20735236	20806612	21137680
2.1.1 Credit to the Government	5414322	4880840	5606935	5642814	5669865
2.1.2 Credit to the Commercial Sector	14782858	13205334	15128301	15163798	15467815
2.1.2.1 Bank Credit	13675235	12150353	14008597	14023487	14391695
2.1.2.1.1 Non-food Credit	13655330	12106795	13971844	13994754	14363789
2.1.2.2 Net Credit to Primary Dealers	19491	16680	17810	19023	14859
2.1.2.3 Investments in Other Approved Securities	826	736	814	815	756
2.1.2.4 Other Investments (in non-SLR Securities)	1087305	1037564	1101079	1120473	1060505
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1-2.2.2-2.2.3)	114930	141918	70463	33033	34504
2.2.1 Foreign Currency Assets	353850	337886	320417	293898	296323
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	160923	127727	170530	173709	175275
2.2.3 Overseas Foreign Currency Borrowings	77997	68242	79425	87156	86544
2.3 Net Bank Reserves (2.3.1+2.3.2-2.3.3)	833002	1157694	1198505	1039490	1106704
2.3.1 Balances with the RBI	809907	800142	852243	852858	871167
2.3.2 Cash in Hand	90263	110189	114307	105937	113854
2.3.3 Loans and Advances from the RBI	67168	-247364	-231955	-80694	-121683
2.4 Capital Account	1916966	1873970	2091305	2095136	2111408
2.5 Other items (net) (2.1+2.2+2.3-2.4-1.1-1.2)	899827	698883	898373	884548	713148
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	711654	598532	739939	718037	741104
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	44733	14199	37083	45835	37768

No. 13: Scheduled Commercial Banks' Investments

(₹ Crore)

Item	As on March 24, 2023	2022	2023		
		Jun. 17	May 19	Jun. 16	Jun. 30
	1	2	3	4	5
1 SLR Securities	5415148	4881576	5551328	5644284	5670621
2 Other Government Securities (Non-SLR)	182265	155014	181210	180927	180605
3 Commercial Paper	65058	61302	60463	59104	59999
4 Shares issued by					
4.1 PSUs	9736	10495	9618	9585	9623
4.2 Private Corporate Sector	71099	69429	71151	71636	71945
4.3 Others	4500	5052	4640	17688	4671
5 Bonds/Debentures issued by					
5.1 PSUs	92304	95982	86545	86797	89741
5.2 Private Corporate Sector	325035	304876	298605	299418	298047
5.3 Others	99384	94194	106619	111055	112399
6 Instruments issued by					
6.1 Mutual funds	48810	53426	83743	89185	42908
6.2 Financial institutions	189180	187793	184627	193861	190568

No. 14: Business in India - All Scheduled Banks and All Scheduled Commercial Banks

(₹ Crore)

Item	As on the Last Reporting Friday (in case of March)/ Last Friday							
	All Scheduled Banks				All Scheduled Commercial Banks			
	2022-23	2022	2023		2022-23	2022	2023	
		Jun.	May	Jun.		Jun.	May	Jun.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	212	212	211	211	137	136	136	136
1 Liabilities to the Banking System	**355252**	**285295**	**368137**	**362072**	**351843**	**281448**	**364828**	**358856**
1.1 Demand and Time Deposits from Banks	228517	192746	252104	260025	226119	189411	249575	257613
1.2 Borrowings from Banks	67566	52754	55182	39869	67199	52745	55063	39739
1.3 Other Demand and Time Liabilities	59170	39794	60851	62178	58524	39291	60190	61504
2 Liabilities to Others	**19730504**	**18047818**	**20190454**	**20918479**	**19278894**	**17603893**	**19733714**	**20457255**
2.1 Aggregate Deposits	18477677	17018078	18932570	19596821	18043914	16592098	18494388	19154603
2.1.1 Demand	2225416	2000093	2227143	2493463	2180431	1953690	2182711	2447471
2.1.2 Time	16252261	15017985	16705427	17103358	15863483	14638408	16311677	16707132
2.2 Borrowings	449945	377078	461474	480440	445329	371389	456685	475004
2.3 Other Demand and Time Liabilities	802881	652663	796410	841218	789651	640406	782642	827648
3 Borrowings from Reserve Bank	**165085**	**94514**	**67278**	**50867**	**165085**	**94514**	**67278**	**50867**
3.1 Against Usance Bills /Promissory Notes	-	-	-	-	-	-	-	-
3.2 Others	165085	94514	67278	50867	165085	94514	67278	50867
4 Cash in Hand and Balances with Reserve Bank	920953	900326	992732	1008049	900170	878046	970799	985021
4.1 Cash in Hand	92788	105079	121620	116485	90263	101525	118608	113854
4.2 Balances with Reserve Bank	828165	795246	871113	891564	809907	776521	852191	871167
5 Assets with the Banking System	**397974**	**351706**	**397181**	**399952**	**326601**	**290692**	**331007**	**335947**
5.1 Balances with Other Banks	232378	227191	240749	241970	193422	192665	197927	199011
5.1.1 In Current Account	18939	16502	17218	19612	15528	13393	12803	15108
5.1.2 In Other Accounts	213440	210689	223532	222357	177894	179272	185124	183903
5.2 Money at Call and Short Notice	49763	39869	36430	45583	24864	18581	18894	29759
5.3 Advances to Banks	45330	28852	40670	28213	41184	27413	38116	26301
5.4 Other Assets	70503	55793	79331	84186	67130	52032	76070	80876
6 Investment	**5560664**	**5031395**	**5688037**	**5815458**	**5415148**	**4887253**	**5543545**	**5670621**
6.1 Government Securities	5553702	5025387	5682020	5809394	5414322	4886445	5542758	5669865
6.2 Other Approved Securities	6963	6008	6016	6064	826	807	787	756
7 Bank Credit	**14078261**	**12558493**	**14305765**	**14795092**	**13675235**	**12190429**	**13902450**	**14391695**
7a Food Credit	65622	86635	85546	79878	19906	40915	33571	27906
7.1 Loans, Cash-credits and Overdrafts	13824693	12324519	14046367	14529243	13424906	11959103	13646019	14128898
7.2 Inland Bills-Purchased	39446	32204	42089	43760	39435	32188	42075	43747
7.3 Inland Bills-Discounted	165428	151304	172767	176390	162910	149482	170441	174035
7.4 Foreign Bills-Purchased	19758	19739	18105	19480	19545	19518	17930	19264
7.5 Foreign Bills-Discounted	28936	30727	26437	26219	28439	30138	25985	25751

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

(₹ Crore)

Sector	Outstanding as on				Growth(%)	
	Mar. 24, 2023	2022	2023		Financial year so far	Y-o-Y
		Jun. 17	May 19	Jun. 30	2023-24	2023
	1	2	3	4	%	%
I. Bank Credit (II+III)	**13675235**	**12382792**	**13893871**	**14391693**	**5.2**	**16.2**
II. Food Credit	**19906**	**37417**	**36350**	**27906**	**40.2**	**-25.4**
III. Non-food Credit	**13655330**	**12345375**	**13857522**	**14363787**	**5.2**	**16.3**
1. Agriculture & Allied Activities	**1687191**	**1500875**	**1719260**	**1796968**	**6.5**	**19.7**
2. Industry (Micro and Small, Medium and Large)	**3336722**	**3168168**	**3354988**	**3424114**	**2.6**	**8.1**
2.1 Micro and Small	598390	553675	603217	625625	4.6	13.0
2.2 Medium	253384	232776	255858	263440	4.0	13.2
2.3 Large	2484949	2381716	2495913	2535049	2.0	6.4
3. Services	**3608574**	**3066088**	**3682532**	**3885038**	**7.7**	**26.7**
3.1 Transport Operators	176239	152045	180525	188084	6.7	23.7
3.2 Computer Software	21559	19687	21525	22867	6.1	16.1
3.3 Tourism, Hotels & Restaurants	66466	63973	66429	68408	2.9	6.9
3.4 Shipping	6677	7205	6224	6023	-9.8	-16.4
3.5 Aviation	28330	21733	31628	42033	48.4	93.4
3.6 Professional Services	134661	120107	136103	145318	7.9	21.0
3.7 Trade	819921	733416	837821	860316	4.9	17.3
3.7.1. Wholesale Trade[1]	396631	384026	419081	429403	8.3	11.8
3.7.2 Retail Trade	423291	349390	418739	430913	1.8	23.3
3.8 Commercial Real Estate	314604	298732	321149	332373	5.6	11.3
3.9 Non-Banking Financial Companies (NBFCs)[2] of which,	1331097	1054520	1339615	1424134	7.0	35.1
3.9.1 Housing Finance Companies (HFCs)	314678	289892	315109	330186	4.9	13.9
3.9.2 Public Financial Institutions (PFIs)	175614	129269	175566	192634	9.7	49.0
3.10 Other Services[3]	709020	594670	741512	795481	12.2	33.8
4. Personal Loans	**4085168**	**3524512**	**4137821**	**4260984**	**4.3**	**20.9**
4.1 Consumer Durables	20044	18290	20542	21431	6.9	17.2
4.2 Housing	1936428	1739320	1956438	1999959	3.3	15.0
4.3 Advances against Fixed Deposits	121897	82252	110583	120427	-1.2	46.4
4.4 Advances to Individuals against share & bonds	6778	6547	6791	6934	2.3	5.9
4.5 Credit Card Outstanding	194282	153912	201131	209376	7.8	36.0
4.6 Education	96847	85263	97756	101839	5.2	19.4
4.7 Vehicle Loans	500299	425765	509022	523441	4.6	22.9
4.8 Loan against gold jewellery	88428	75659	90697	95347	7.8	26.0
4.9 Other Personal Loans	1120165	937504	1144860	1182231	5.5	26.1
5. Priority Sector (Memo)						
(i) Agriculture & Allied Activities[4]	1708951	1450586	1657924	1818840	6.4	25.4
(ii) Micro & Small Enterprises[5]	1570231	1425166	1617667	1695875	8.0	19.0
(iii) Medium Enterprises[6]	399260	363489	402915	418510	4.8	15.1
(iv) Housing	621376	616839	622834	630615	1.5	2.2
(v) Education Loans	59507	57931	59466	59873	0.6	3.4
(vi) Renewable Energy	4656	3868	4752	4568	-1.9	18.1
(vii) Social Infrastructure	2464	2586	2607	2653	7.7	2.6
(viii) Export Credit	15424	19810	12234	9745	-36.8	-50.8
(ix) Others	59659	51050	62878	68338	14.5	33.9
(x) Weaker Sections including net PSLC- SF/MF	1384249	1175464	1309907	1405132	1.5	19.5

Note 1: Data are provisional. Bank credit, Food credit and Non-food credit data are based on Section-42 return, which covers all scheduled commercial banks (SCBs), while sectoral non-food credit data are based on sector-wise and industry-wise bank credit (SIBC) return, which covers select banks accounting for about 93 per cent of total non-food credit extended by all SCBs .
Note 2: Credit data are adjusted for past reporting errors by select SCBs from December 2021 onwards.
Note 3: For the serial numbers I, II and III, Y-o-Y growth rates were calculated based on the outstanding credit as on June 30, 2023, over July 1, 2022.
1 Wholesale trade includes food procurement credit outside the food credit consortium.
2 NBFCs include HFCs, PFIs, Microfinance Institutions (MFIs), NBFCs engaged in gold loan and others.
3 “Other Services” include Mutual Fund (MFs), Banking and Finance other than NBFCs and MFs and other services which are not indicated elsewhere under services.
4 “Agriculture and Allied Activities” under the priority sector also include priority sector lending certificates (PSLCs).
5 “Micro and Small Enterprises” under the priority sector include credit to micro and small enterprises in industry and services sectors and also include PSLCs.
6 “Medium Enterprises” under the priority sector include credit to medium enterprises in industry and services sectors.

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

(₹ Crore)

Industry	Outstanding as on				Growth(%)	
	Mar. 24, 2023	2022	2023		Financial year so far	Y-o-Y
		Jun 17	May 19	Jun 30	2023-24	2023
	1	2	3	4	%	%
2 Industries (2.1 to 2.19)	3336722	3168168	3354988	3424114	2.6	8.1
2.1 Mining & Quarrying (incl. Coal)	58812	48459	55317	52875	-10.1	9.1
2.2 Food Processing	182878	175631	181879	187229	2.4	6.6
2.2.1 Sugar	22867	24107	22798	22160	-3.1	-8.1
2.2.2 Edible Oils & Vanaspati	19737	18321	18971	19723	-0.1	7.6
2.2.3 Tea	5162	6382	5354	5549	7.5	-13.1
2.2.4 Others	135112	126820	134755	139797	3.5	10.2
2.3 Beverage & Tobacco	23362	17471	22951	22368	-4.3	28.0
2.4 Textiles	227843	218393	231066	237574	4.3	8.8
2.4.1 Cotton Textiles	91095	86492	92592	93766	2.9	8.4
2.4.2 Jute Textiles	3867	3582	3966	3948	2.1	10.2
2.4.3 Man-Made Textiles	40354	38363	39614	42011	4.1	9.5
2.4.4 Other Textiles	92527	89955	94894	97849	5.8	8.8
2.5 Leather & Leather Products	11675	11349	11677	11960	2.4	5.4
2.6 Wood & Wood Products	19963	16658	20025	20763	4.0	24.6
2.7 Paper & Paper Products	43010	40885	42445	43387	0.9	6.1
2.8 Petroleum, Coal Products & Nuclear Fuels	149363	102685	137232	130273	-12.8	26.9
2.9 Chemicals & Chemical Products	216481	207155	218286	220108	1.7	6.3
2.9.1 Fertiliser	33805	34780	38102	37462	10.8	7.7
2.9.2 Drugs & Pharmaceuticals	67130	63009	66882	69840	4.0	10.8
2.9.3 Petro Chemicals	20661	20896	21572	21201	2.6	1.5
2.9.4 Others	94885	88470	91731	91605	-3.5	3.5
2.10 Rubber, Plastic & their Products	79037	72228	78382	79215	0.2	9.7
2.11 Glass & Glassware	8100	5916	7770	8278	2.2	39.9
2.12 Cement & Cement Products	56592	48310	54070	56702	0.2	17.4
2.13 Basic Metal & Metal Product	343507	292613	340208	355670	3.5	21.5
2.13.1 Iron & Steel	228860	187121	224255	235577	2.9	25.9
2.13.2 Other Metal & Metal Product	114646	105492	115953	120093	4.8	13.8
2.14 All Engineering	175260	166937	177390	185058	5.6	10.9
2.14.1 Electronics	41781	39191	43410	44212	5.8	12.8
2.14.2 Others	133479	127746	133980	140846	5.5	10.3
2.15 Vehicles, Vehicle Parts & Transport Equipment	96603	91996	97735	101817	5.4	10.7
2.16 Gems & Jewellery	77718	73082	77213	80249	3.3	9.8
2.17 Construction	122880	117986	123807	130332	6.1	10.5
2.18 Infrastructure	1201983	1211341	1222702	1232460	2.5	1.7
2.18.1 Power	620425	620478	617235	624567	0.7	0.7
2.18.2 Telecommunications	111334	131922	128229	124439	11.8	-5.7
2.18.3 Roads	284793	278364	289655	293771	3.2	5.5
2.18.4 Airports	9492	6793	7726	7579	-20.2	11.6
2.18.5 Ports	8175	7954	7724	8954	9.5	12.6
2.18.6 Railways	11169	11494	11378	12082	8.2	5.1
2.18.7 Other Infrastructure	156593	154335	160755	161067	2.9	4.4
2.19 Other Industries	241656	249073	254832	267799	10.8	7.5

Note : With effect from January 2019, 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								
	2022-23	2022	2023						
		May 27	Mar, 31	Apr, 07	Apr, 21	Apr, 28	May 05	May 19	May 26
	1	2	3	4	5	6	7	8	9
Number of Reporting Banks	33	32	33	33	33	33	33	33	33
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	**144701.9**	**126958.1**	**144701.9**	**142784.6**	**143333.9**	**135132.5**	**140169.0**	**139189.0**	**138906.0**
2 Demand and Time Liabilities									
2.1 Demand Liabilities	**30241.2**	**24062.9**	**30241.2**	**29179.3**	**29312.2**	**27666.5**	**29397.0**	**28216.0**	**27948.0**
2.1.1 Deposits									
2.1.1.1 Inter-Bank	6893.3	5845.9	6893.3	7112.1	6127.9	8403.6	9132.0	6199.7	6050.4
2.1.1.2 Others	18195.4	12752.4	18195.4	16484.1	18115.0	14616.2	15282.0	15219.4	15165.1
2.1.2 Borrowings from Banks	0.0	619.8							
2.1.3 Other Demand Liabilities	5152.4	4844.8	5152.4	5583.1	5069.3	4646.7	4982.5	6797.3	6732.0
2.2 Time Liabilities	**194129.9**	**183687.5**	**194129.9**	**192231.9**	**189369.3**	**175563.3**	**184464.0**	**183196.0**	**182295.0**
2.2.1 Deposits									
2.2.1.1 Inter-Bank	65875.0	66131.9	65875.0	64177.9	62407.9	53288.9	57778.7	57475.0	56779.6
2.2.1.2 Others	126506.5	114205.7	126506.5	126300.5	125218.9	120516.3	124887.3	123969.4	123740.9
2.2.2 Borrowings from Banks	845.8	1024.3	845.8	843.2	843.2	843.1	843.1	842.0	841.5
2.2.3 Other Time Liabilities	902.6	2325.6	902.6	910.4	899.4	915.1	954.4	909.9	933.4
3 Borrowing from Reserve Bank	0.0						26.0		
4 Borrowings from a notified bank / Government	84382.5	61247.8	84382.5	81230.2	78216.5	72437.7	78657.0	77945.0	76779.0
4.1 Demand	20545.9	13228.8	20545.9	19755.9	19076.4	19096.3	18565.9	17930.9	16752.6
4.2 Time	63836.7	48019.0	63836.7	61474.4	59140.2	53341.1	60091.5	60014.4	60026.4
5 Cash in Hand and Balances with Reserve Bank	**12386.8**	**10695.3**	**12386.8**	**12782.0**	**11215.0**	**11764.2**	**11900.0**	**11433.0**	**11133.0**
5.1 Cash in Hand	1540.1	798.5	1540.1	1139.0	746.2	763.2	920.6	812.6	842.0
5.2 Balance with Reserve Bank	10846.7	9896.9	10846.7	11643.0	10468.8	11001.0	10979.8	10620.1	10291.0
6 Balances with Other Banks in Current Account	**3500.7**	**1227.5**	**3500.7**	**4901.5**	**2908.4**	**2745.1**	**2781.8**	**2660.8**	**2848.2**
7 Investments in Government Securities	**80906.4**	**71631.0**	**80906.4**	**72785.8**	**74705.2**	**74288.0**	**75413.4**	**72927.0**	**72717.9**
8 Money at Call and Short Notice	**34771.6**	**26130.0**	**34771.6**	**37844.5**	**26227.7**	**22225.7**	**22396.1**	**21362.0**	**21303.2**
9 Bank Credit (10.1+11)	**124978.1**	**119819.7**	**124978.1**	**124079.1**	**125254.9**	**121128.0**	**127234.0**	**127600.0**	**128078.0**
10 Advances									
10.1 Loans, Cash-Credits and Overdrafts	**124928.2**	**119798.9**	**124928.2**	**124025.9**	**125191.6**	**121063.0**	**127164.9**	**127531.0**	**128009.3**
10.2 Due from Banks	131095.9	105636.7	131095.9	128373.0	125908.8	121140.9	124984.8	123369.8	121063.9
11 Bills Purchased and Discounted	49.9	20.9	49.9	53.3	63.3	65.0	69.0	68.6	68.5

Prices and Production

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

Group/Sub group	2022-23			Rural			Urban			Combined		
	Rural	Urban	Combined	Jul.22	Jun.23	Jul.23 (P)	Jul.22	Jun.23	Jul.23 (P)	Jul.22	Jun.23	Jul.23 (P)
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	**173.9**	**179.7**	**176.0**	**172.5**	**180.5**	**190.0**	**179.4**	**187.6**	**199.4**	**175.0**	**183.1**	**193.5**
1.1 Cereals and products	163.3	165.3	164.0	155.2	174.4	176.5	159.3	175.7	177.7	156.5	174.8	176.9
1.2 Meat and fish	208.7	215.2	211.0	210.8	220.4	215.6	217.1	226.6	221.9	213.0	222.6	217.8
1.3 Egg	174.7	177.1	175.6	174.3	181.1	180.0	176.6	185.4	184.8	175.2	182.8	181.9
1.4 Milk and products	170.1	170.7	170.3	166.3	180.1	180.6	167.1	179.8	180.3	166.6	180.0	180.5
1.5 Oils and fats	197.0	181.1	191.2	202.2	167.2	165.3	184.8	159.7	158.7	195.8	164.4	162.9
1.6 Fruits	164.1	169.6	166.7	169.6	167.0	173.5	179.5	177.8	186.7	174.2	172.0	179.7
1.7 Vegetables	160.8	198.7	173.6	168.6	165.9	227.0	208.5	210.8	295.2	182.1	181.1	250.1
1.8 Pulses and products	168.1	168.2	168.2	164.4	180.9	185.2	164.0	183.2	187.9	164.3	181.7	186.1
1.9 Sugar and confectionery	119.9	122.2	120.7	119.2	122.8	123.8	121.5	124.9	125.8	120.0	123.5	124.5
1.10 Spices	199.4	193.5	197.5	191.8	226.3	234.4	186.3	216.8	224.5	190.0	223.1	231.1
1.11 Non-alcoholic beverages	175.4	161.3	169.6	174.5	179.2	179.6	159.8	166.7	167.4	168.4	174.0	174.5
1.12 Prepared meals, snacks, sweets	185.1	190.4	187.6	183.1	191.6	192.0	187.7	198.4	199.3	185.2	194.8	195.4
2 Pan, tobacco and intoxicants	**195.0**	**199.9**	**196.3**	**193.2**	**200.4**	**200.9**	**198.6**	**204.6**	**205.2**	**194.6**	**201.5**	**202.0**
3 Clothing and footwear	**184.5**	**172.9**	**179.9**	**181.7**	**191.4**	**191.9**	**170.6**	**179.9**	**180.2**	**177.3**	**186.8**	**187.3**
3.1 Clothing	184.8	175.0	180.9	182.0	191.9	192.4	172.7	182.0	182.2	178.3	188.0	188.4
3.2 Footwear	182.7	161.4	173.9	180.3	188.5	189.0	158.7	168.5	169.0	171.3	180.2	180.7
4 Housing	--	**170.0**	**170.0**	--	--	--	**167.8**	**174.4**	**175.3**	**167.8**	**174.4**	**175.3**
5 Fuel and light	**179.7**	**178.4**	**179.2**	**179.6**	**181.8**	**185.5**	**179.5**	**184.7**	**187.4**	**179.6**	**182.9**	**186.2**
6 Miscellaneous	**173.8**	**166.5**	**170.3**	**171.8**	**180.0**	**180.7**	**164.7**	**172.2**	**172.9**	**168.4**	**176.2**	**176.9**
6.1 Household goods and services	173.7	165.1	169.6	171.3	180.4	180.9	163.1	170.4	170.8	167.4	175.7	176.1
6.2 Health	181.3	174.6	178.7	178.8	188.5	189.1	171.7	182.8	183.5	176.1	186.3	187.0
6.3 Transport and communication	167.3	158.8	162.8	166.3	169.9	170.5	157.4	160.8	161.0	161.6	165.1	165.5
6.4 Recreation and amusement	170.0	165.8	167.6	168.6	174.3	175.0	164.6	169.8	170.5	166.3	171.8	172.5
6.5 Education	175.6	169.7	172.2	174.7	181.9	183.8	169.1	177.1	178.8	171.4	179.1	180.9
6.6 Personal care and effects	173.2	173.4	173.3	169.7	184.4	184.5	169.8	185.2	185.4	169.7	184.7	184.9
General Index (All Groups)	**175.8**	**173.5**	**174.7**	**174.3**	**181.9**	**187.6**	**172.3**	**179.9**	**184.7**	**173.4**	**181.0**	**186.3**

Source: National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India.
P: Provisional

No. 19: Other Consumer Price Indices

Item	Base Year	Linking Factor	2022-23	2022	2023	
				Jun.	May.	Jun.
	1	2	3	4	5	6
1 Consumer Price Index for Industrial Workers	2016	2.88	131.1	129.2	134.7	136.4
2 Consumer Price Index for Agricultural Labourers	1986-87	5.89	1148	1125	1186	1196
3 Consumer Price Index for Rural Labourers	1986-87	-	1160	1137	1197	1207

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

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

Item	2022-23	2022	2023	
		Jun.	May	Jun.
	1	2	3	4
1 Standard Gold (₹ per 10 grams)	52731	50804	60583	59056
2 Silver (₹ per kilogram)	61991	60936	73015	71190

Source: India Bullion & Jewellers Association Ltd., Mumbai for Gold and Silver prices in Mumbai.

No. 21: Wholesale Price Index

(Base: 2011-12 = 100)

Commodities	Weight	2022-23	2022	2023		
			Jul.	May.	Jun.(P)	Jul.(P)
	1	2	3	4	5	6
1 ALL COMMODITIES	**100.000**	**152.5**	**154.0**	**149.4**	**149.0**	**151.9**
1.1 PRIMARY ARTICLES	**22.618**	**176.8**	**177.1**	**175.1**	**176.3**	**190.5**
1.1.1 FOOD ARTICLES	**15.256**	**179.5**	**178.9**	**181.3**	**184.9**	**204.4**
1.1.1.1 Food Grains (Cereals+Pulses)	3.462	178.6	172.6	183.2	185.2	187.4
1.1.1.2 Fruits & Vegetables	3.475	200.6	209.0	184.2	194.3	277.1
1.1.1.3 Milk	4.440	167.8	164.4	177.3	178.3	177.8
1.1.1.4 Eggs,Meat & Fish	2.402	170.6	173.1	177.2	180.1	176.2
1.1.1.5 Condiments & Spices	0.529	187.2	182.9	203.5	209.7	234.5
1.1.1.6 Other Food Articles	0.948	178.1	172.5	180.8	178.8	179.5
1.1.2 NON-FOOD ARTICLES	**4.119**	**172.1**	**171.8**	**162.8**	**158.8**	**162.4**
1.1.2.1 Fibres	0.839	203.0	208.6	175.3	169.4	168.4
1.1.2.2 Oil Seeds	1.115	205.2	208.1	188.8	186.2	188.1
1.1.2.3 Other non-food Articles	1.960	131.2	129.8	133.5	132.0	134.8
1.1.2.4 Floriculture	0.204	257.4	225.5	250.3	223.3	262.4
1.1.3 MINERALS	**0.833**	**203.5**	**197.7**	**214.8**	**214.8**	**208.0**
1.1.3.1 Metallic Minerals	0.648	191.7	184.4	203.9	203.9	193.3
1.1.3.2 Other Minerals	0.185	245.2	244.4	252.9	252.9	259.7
1.1.4 CRUDE PETROLEUM & NATURAL GAS	**2.410**	**158.4**	**167.6**	**142.9**	**138.6**	**144.7**
1.2 FUEL & POWER	**13.152**	**159.5**	**166.6**	**148.6**	**146.0**	**145.3**
1.2.1 COAL	**2.138**	**133.3**	**130.9**	**134.2**	**137.5**	**137.6**
1.2.1.1 Coking Coal	0.647	143.4	143.4	143.4	143.4	143.4
1.2.1.2 Non-Coking Coal	1.401	119.8	119.8	119.8	125.6	125.8
1.2.1.3 Lignite	0.090	271.1	212.6	292.1	279.8	279.8
1.2.2 MINERAL OILS	**7.950**	**172.9**	**188.9**	**156.4**	**152.8**	**151.8**
1.2.3 ELECTRICITY	**3.064**	**143.3**	**133.8**	**138.4**	**134.5**	**133.9**
1.3 MANUFACTURED PRODUCTS	**64.231**	**142.6**	**143.2**	**140.6**	**140.0**	**139.6**
1.3.1 MANUFACTURE OF FOOD PRODUCTS	**9.122**	**165.3**	**166.3**	**158.9**	**158.9**	**159.7**
1.3.1.1 Processing and Preserving of meat	0.134	143.7	146.2	146.2	145.9	144.6
1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof	0.204	144.9	148.7	138.7	144.1	140.2
1.3.1.3 Processing and Preserving of fruit and Vegetables	0.138	125.8	124.8	129.6	129.5	128.7
1.3.1.4 Vegetable and Animal oils and Fats	2.643	181.9	190.3	149.7	145.8	147.3
1.3.1.5 Dairy products	1.165	167.0	162.4	178.0	178.6	179.0
1.3.1.6 Grain mill products	2.010	162.1	156.7	166.7	168.7	170.0
1.3.1.7 Starches and Starch products	0.110	158.9	158.8	154.3	150.9	150.9
1.3.1.8 Bakery products	0.215	163.0	163.3	164.0	165.0	164.9
1.3.1.9 Sugar, Molasses & honey	1.163	126.8	125.8	130.1	131.0	131.3
1.3.1.10 Cocoa, Chocolate and Sugar confectionery	0.175	135.9	134.4	138.1	138.9	138.3
1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products	0.026	155.8	160.7	148.3	149.4	148.3
1.3.1.12 Tea & Coffee products	0.371	178.2	190.2	182.8	186.6	189.7
1.3.1.13 Processed condiments & salt	0.163	176.5	172.5	183.8	186.9	188.5
1.3.1.14 Processed ready to eat food	0.024	141.2	141.5	143.8	144.0	144.6
1.3.1.15 Health supplements	0.225	179.4	177.5	180.0	183.1	177.3
1.3.1.16 Prepared animal feeds	0.356	208.8	206.9	204.3	205.5	207.8
1.3.2 MANUFACTURE OF BEVERAGES	**0.909**	**128.9**	**128.0**	**130.6**	**130.9**	**131.1**
1.3.2.1 Wines & spirits	0.408	129.3	127.5	132.1	132.4	132.2
1.3.2.2 Malt liquors and Malt	0.225	134.5	135.1	134.5	134.5	135.3
1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters	0.275	123.7	122.9	125.2	125.6	125.8

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2022-23	2022	2023		
			Jul.	May.	Jun.(P)	Jul.(P)
	1	2	3	4	5	6
1.3.3 MANUFACTURE OF TOBACCO PRODUCTS	**0.514**	**165.3**	**165.9**	**171.4**	**173.1**	**171.5**
1.3.3.1 Tobacco products	0.514	165.3	165.9	171.4	173.1	171.5
1.3.4 MANUFACTURE OF TEXTILES	**4.881**	**142.7**	**147.3**	**135.9**	**135.1**	**134.1**
1.3.4.1 Preparation and Spinning of textile fibres	2.582	133.2	140.5	121.5	120.5	119.1
1.3.4.2 Weaving & Finishing of textiles	1.509	158.9	159.8	159.1	158.3	157.9
1.3.4.3 Knitted and Crocheted fabrics	0.193	129.9	132.6	121.3	120.1	119.3
1.3.4.4 Made-up textile articles, Except apparel	0.299	153.6	155.1	154.7	156.0	156.6
1.3.4.5 Cordage, Rope, Twine and Netting	0.098	156.8	161.6	140.2	139.8	139.9
1.3.4.6 Other textiles	0.201	132.2	136.0	130.3	129.5	127.3
1.3.5 MANUFACTURE OF WEARING APPAREL	**0.814**	**148.7**	**147.8**	**150.0**	**149.3**	**149.5**
1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel	0.593	147.3	146.6	148.4	149.3	148.3
1.3.5.2 Knitted and Crocheted apparel	0.221	152.2	150.9	154.4	149.5	152.6
1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS	**0.535**	**122.2**	**123.2**	**123.5**	**124.1**	**125.3**
1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur	0.142	105.6	107.7	107.8	108.6	111.3
1.3.6.2 Luggage, HandbAgs, Saddlery and Harness	0.075	141.0	141.5	139.3	142.5	141.6
1.3.6.3 Footwear	0.318	125.2	125.8	126.8	126.6	127.7
1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK	**0.772**	**143.2**	**143.2**	**145.0**	**145.1**	**144.6**
1.3.7.1 Saw milling and Planing of wood	0.124	137.6	136.0	137.9	138.2	137.9
1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards	0.493	141.8	142.4	143.5	143.3	143.5
1.3.7.3 Builder's carpentry and Joinery	0.036	204.0	203.2	206.2	206.9	201.8
1.3.7.4 Wooden containers	0.119	136.7	135.9	140.4	141.6	139.1
1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS	**1.113**	**152.0**	**154.4**	**146.0**	**144.3**	**141.6**
1.3.8.1 Pulp, Paper and Paperboard	0.493	158.4	159.2	154.2	151.9	147.8
1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard	0.314	148.3	150.1	140.4	139.2	140.2
1.3.8.3 Other articles of paper and Paperboard	0.306	145.6	151.3	138.6	137.1	133.1
1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA	**0.676**	**172.5**	**166.5**	**176.6**	**179.3**	**180.4**
1.3.9.1 Printing	0.676	172.5	166.5	176.6	179.3	180.4
1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	**6.465**	**145.4**	**147.8**	**139.6**	**138.3**	**137.3**
1.3.10.1 Basic chemicals	1.433	159.2	165.7	145.4	143.1	139.7
1.3.10.2 Fertilizers and Nitrogen compounds	1.485	144.8	144.5	144.5	144.2	143.6
1.3.10.3 Plastic and Synthetic rubber in primary form	1.001	143.2	146.2	135.4	133.1	133.0
1.3.10.4 Pesticides and Other agrochemical products	0.454	143.4	145.4	135.8	134.7	134.3
1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics	0.491	145.0	144.1	143.6	143.2	143.3
1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations	0.612	140.8	140.5	141.0	140.5	140.6
1.3.10.7 Other chemical products	0.692	142.1	144.9	136.5	135.3	134.3
1.3.10.8 Man-made fibres	0.296	110.7	115.5	105.8	104.1	102.9
1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS	**1.993**	**140.9**	**140.0**	**142.9**	**143.2**	**142.4**
1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products	1.993	140.9	140.0	142.9	143.2	142.4
1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	**2.299**	**129.7**	**131.1**	**127.6**	**127.1**	**126.8**
1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	0.609	111.8	111.7	114.3	113.6	112.7
1.3.12.2 Other Rubber Products	0.272	106.4	107.1	107.3	106.6	107.3
1.3.12.3 Plastics products	1.418	141.8	144.0	137.2	136.8	136.6

No. 21: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2022-23	2022	2023		
			Jul.	May.	Jun.(P)	Jul.(P)
	1	2	3	4	5	6
1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	**3.202**	**133.7**	**133.7**	**134.7**	**134.6**	**134.9**
1.3.13.1 Glass and Glass products	0.295	158.1	155.7	163.5	163.2	164.3
1.3.13.2 Refractory products	0.223	119.0	118.9	120.2	119.0	119.0
1.3.13.3 Clay Building Materials	0.121	135.3	138.6	129.5	130.0	123.9
1.3.13.4 Other Porcelain and Ceramic Products	0.222	118.0	117.9	120.9	121.3	121.4
1.3.13.5 Cement, Lime and Plaster	1.645	137.2	137.4	137.3	137.3	137.7
1.3.13.6 Articles of Concrete, Cement and Plaster	0.292	134.4	134.3	137.5	137.4	138.4
1.3.13.7 Cutting, Shaping and Finishing of Stone	0.234	125.6	125.8	126.7	127.3	130.0
1.3.13.8 Other Non-Metallic Mineral Products	0.169	105.9	105.5	105.3	105.2	103.1
1.3.14 MANUFACTURE OF BASIC METALS	**9.646**	**148.7**	**149.4**	**143.6**	**141.7**	**140.3**
1.3.14.1 Inputs into steel making	1.411	159.7	161.4	147.7	142.0	136.7
1.3.14.2 Metallic Iron	0.653	165.9	169.1	157.6	156.3	155.5
1.3.14.3 Mild Steel - Semi Finished Steel	1.274	127.0	128.3	122.4	121.7	122.3
1.3.14.4 Mild Steel -Long Products	1.081	149.7	149.9	144.4	141.9	139.4
1.3.14.5 Mild Steel - Flat products	1.144	155.0	156.6	147.7	145.0	143.2
1.3.14.6 Alloy steel other than Stainless Steel- Shapes	0.067	146.9	147.4	142.5	142.9	136.1
1.3.14.7 Stainless Steel - Semi Finished	0.924	151.9	156.9	141.8	142.3	136.7
1.3.14.8 Pipes & tubes	0.205	175.4	174.0	170.3	169.9	169.0
1.3.14.9 Non-ferrous metals incl. precious metals	1.693	145.9	144.3	146.0	143.9	144.3
1.3.14.10 Castings	0.925	130.7	127.5	133.6	133.9	138.2
1.3.14.11 Forgings of steel	0.271	172.4	168.5	173.5	172.2	173.0
1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	**3.155**	**139.0**	**139.4**	**139.7**	**139.5**	**138.6**
1.3.15.1 Structural Metal Products	1.031	132.7	132.4	133.0	132.6	131.6
1.3.15.2 Tanks, Reservoirs and Containers of Metal	0.660	161.1	163.7	161.3	160.4	159.0
1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers	0.145	100.5	99.1	108.1	105.4	105.8
1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	0.383	135.2	135.2	139.2	140.3	139.4
1.3.15.5 Cutlery, Hand Tools and General Hardware	0.208	112.2	112.3	108.8	110.7	108.7
1.3.15.6 Other Fabricated Metal Products	0.728	145.0	145.4	144.9	144.9	144.5
1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS	**2.009**	**116.6**	**115.9**	**118.3**	**117.8**	**118.5**
1.3.16.1 Electronic Components	0.402	115.0	116.0	114.1	114.1	116.1
1.3.16.2 Computers and Peripheral Equipment	0.336	135.0	134.9	135.1	135.1	135.1
1.3.16.3 Communication Equipment	0.310	129.4	128.6	131.0	131.5	131.5
1.3.16.4 Consumer Electronics	0.641	99.7	97.8	104.9	102.8	103.5
1.3.16.5 Measuring, Testing, Navigating and Control equipment	0.181	112.8	112.9	111.7	111.6	111.6
1.3.16.6 Watches and Clocks	0.076	151.2	149.6	153.7	154.1	155.4
1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment	0.055	108.9	107.0	106.4	109.8	109.9
1.3.16.8 Optical instruments and Photographic equipment	0.008	100.5	99.0	103.6	103.6	103.6
1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT	**2.930**	**128.8**	**127.4**	**130.5**	**130.2**	**130.5**
1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus	1.298	126.3	124.3	128.3	127.7	128.0

No. 21: Wholesale Price Index (Concld.)

(Base: 2011-12 = 100)

Commodities	Weight	2022-23	2022	2023		
			Jul.	May.	Jun.(P)	Jul.(P)
	1	2	3	4	5	6
1.3.17.2 Batteries and Accumulators	0.236	131.9	132.2	136.1	136.8	136.9
1.3.17.3 Fibre optic cables for data transmission or live transmission of images	0.133	116.6	113.8	123.0	123.7	123.7
1.3.17.4 Other electronic and Electric wires and Cables	0.428	146.3	144.1	146.4	145.6	146.2
1.3.17.5 Wiring devices, Electric lighting & display equipment	0.263	117.2	117.0	116.8	116.9	115.8
1.3.17.6 Domestic appliances	0.366	134.1	134.5	134.0	134.0	134.8
1.3.17.7 Other electrical equipment	0.206	117.4	115.6	121.2	120.9	121.6
1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT	**4.789**	**126.2**	**125.8**	**128.5**	**128.1**	**128.5**
1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines	0.638	126.9	125.9	127.9	127.2	126.9
1.3.18.2 Fluid power equipment	0.162	128.4	128.2	132.4	132.0	131.0
1.3.18.3 Other pumps, Compressors, Taps and Valves	0.552	117.6	118.1	118.0	118.1	117.1
1.3.18.4 Bearings, Gears, Gearing and Driving elements	0.340	124.2	124.7	126.7	126.5	126.4
1.3.18.5 Ovens, Furnaces and Furnace burners	0.008	79.8	78.3	81.6	83.1	83.5
1.3.18.6 Lifting and Handling equipment	0.285	126.3	126.6	127.6	127.7	127.9
1.3.18.7 Office machinery and Equipment	0.006	130.2	130.2	130.2	130.2	130.2
1.3.18.8 Other general-purpose machinery	0.437	143.0	144.3	146.1	144.0	146.0
1.3.18.9 Agricultural and Forestry machinery	0.833	137.2	136.6	141.0	141.4	141.1
1.3.18.10 Metal-forming machinery and Machine tools	0.224	120.5	119.6	122.2	121.8	121.9
1.3.18.11 Machinery for mining, Quarrying and Construction	0.371	84.9	83.9	87.2	87.5	89.1
1.3.18.12 Machinery for food, Beverage and Tobacco processing	0.228	127.7	127.7	124.8	124.9	124.9
1.3.18.13 Machinery for textile, Apparel and Leather production	0.192	130.0	126.7	136.6	134.7	136.4
1.3.18.14 Other special-purpose machinery	0.468	140.6	139.0	144.4	142.9	145.0
1.3.18.15 Renewable electricity generating equipment	0.046	69.2	68.6	71.5	71.5	71.5
1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	**4.969**	**127.6**	**128.1**	**128.1**	**128.0**	**128.0**
1.3.19.1 Motor vehicles	2.600	126.0	127.3	127.5	127.7	127.6
1.3.19.2 Parts and Accessories for motor vehicles	2.368	129.3	129.0	128.8	128.4	128.4
1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	**1.648**	**137.4**	**136.2**	**142.0**	**142.1**	**142.4**
1.3.20.1 Building of ships and Floating structures	0.117	162.5	163.5	163.6	163.7	163.7
1.3.20.2 Railway locomotives and Rolling stock	0.110	105.5	104.0	104.8	105.9	105.9
1.3.20.3 Motor cycles	1.302	137.6	136.0	143.6	143.6	143.9
1.3.20.4 Bicycles and Invalid carriages	0.117	139.8	140.8	137.1	136.9	138.6
1.3.20.5 Other transport equipment	0.002	152.5	149.2	158.0	158.1	155.2
1.3.21 MANUFACTURE OF FURNITURE	**0.727**	**157.2**	**157.4**	**160.0**	**160.0**	**160.2**
1.3.21.1 Furniture	0.727	157.2	157.4	160.0	160.0	160.2
1.3.22 OTHER MANUFACTURING	**1.064**	**147.7**	**144.3**	**157.9**	**157.4**	**152.3**
1.3.22.1 Jewellery and Related articles	0.996	146.5	142.7	157.6	157.0	151.5
1.3.22.2 Musical instruments	0.001	189.3	195.2	187.7	181.1	193.1
1.3.22.3 Sports goods	0.012	150.5	149.0	155.7	154.8	155.3
1.3.22.4 Games and Toys	0.005	159.0	160.7	158.9	159.7	159.7
1.3.22.5 Medical and Dental instruments and Supplies	0.049	170.4	171.3	163.6	164.5	164.5
2 FOOD INDEX	**24.378**	**174.2**	**174.2**	**172.9**	**175.2**	**187.7**

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

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

Industry	Weight	2021-22	2022-23	April-June		June	
				2022-23	2023-24	2022	2023
	1	2	3	4	5	6	7
General Index	100.00	131.6	138.5	136.9	143.0	138.3	143.4
1 Sectoral Classification							
1.1 Mining	14.37	113.3	119.9	116.9	124.3	113.7	122.3
1.2 Manufacturing	77.63	131.0	137.1	134.3	140.6	136.8	141.0
1.3 Electricity	7.99	170.1	185.2	197.1	199.7	196.9	205.2
2 Use-Based Classification							
2.1 Primary Goods	34.05	129.5	139.2	141.2	146.2	139.3	146.6
2.2 Capital Goods	8.22	88.7	100.3	95.9	100.6	104.4	106.7
2.3 Intermediate Goods	17.22	143.9	149.4	149.3	153.2	146.6	153.2
2.4 Infrastructure/ Construction Goods	12.34	148.2	160.7	151.3	170.2	150.8	167.8
2.5 Consumer Durables	12.84	113.8	114.5	116.6	113.3	125.3	116.7
Consumer non-durables	15.33	146.7	147.7	140.8	150.2	145.9	147.7

Source : Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India.

Government Accounts and Treasury Bills

No. 23: Union Government Accounts at a Glance

(Amount in ₹ Crore)

Item	Financial Year	April – June			
	2023-24 (Budget Estimates)	2023-24 (Actuals)	2022-23 (Actuals)	Percentage to Budget Estimates	
				2023-24	2022-23
	1	2	3	4	5
1 Revenue Receipts	**2632281**	**588588**	**568058**	**22.4**	**25.8**
1.1 Tax Revenue (Net)	2330631	433620	505898	18.6	26.1
1.2 Non-Tax Revenue	301650	154968	62160	51.4	23.1
2 Non Debt Capital Receipt	**84000**	**10703**	**27982**	**12.7**	**35.3**
2.1 Recovery of Loans	23000	6468	3423	28.1	24.0
2.2 Other Receipts	61000	4235	24559	6.9	37.8
3 Total Receipts (excluding borrowings) (1+2)	**2716281**	**599291**	**596040**	**22.1**	**26.1**
4 Revenue Expenditure of which :	3502136	772181	772847	22.0	24.2
4.1 Interest Payments	1079971	243705	228595	22.6	24.3
5 Capital Expenditure	1000961	278480	175064	27.8	23.3
6 Total Expenditure (4+5)	**4503097**	**1050661**	**947911**	**23.3**	**24.0**
7 Revenue Deficit (4-1)	**869855**	**183593**	**204789**	**21.1**	**20.7**
8 Fiscal Deficit (6-3)	**1786816**	**451370**	**351871**	**25.3**	**21.2**
9 Gross Primary Deficit (8-4.1)	**706845**	**207665**	**123276**	**29.4**	**17.1**

Source: Controller General of Accounts (CGA), Ministry of Finance, Government of India and Union Budget 2023-24

No. 24: Treasury Bills – Ownership Pattern

(₹ Crore)

Item	2022-23	2022	2023					
		Jul. 1	May 26	Jun. 2	Jun. 9	Jun. 16	Jun. 23	Jun. 30
	1	2	3	4	5	6	7	8
1 91-day								
1.1 Banks	6191	8201	8585	9503	9141	10901	13055	20917
1.2 Primary Dealers	20071	29426	28872	27226	25121	23315	20369	22503
1.3 State Governments	8038	56300	28041	28041	28041	29041	34098	35098
1.4 Others	80638	147082	110243	113971	119438	122484	125276	128280
2 182-day								
2.1 Banks	53154	88320	56574	64795	65100	66804	69623	72494
2.2 Primary Dealers	97274	109413	132394	130977	131774	131794	131033	131141
2.3 State Governments	2592	28218	15929	15929	15929	17634	17634	18791
2.4 Others	110072	116267	120032	119228	124126	128402	132344	135365
3 364-day								
3.1 Banks	101834	104403	95766	92279	89541	90920	83513	78636
3.2 Primary Dealers	146080	174254	153147	149673	155127	153216	159693	173343
3.3 State Governments	48284	27825	47090	47090	47248	52158	51846	50712
3.4 Others	149086	132343	148087	155048	152332	152864	153794	145021
4 14-day Intermediate								
4.1 Banks								
4.2 Primary Dealers								
4.3 State Governments	212758	156291	132454	92562	69715	160029	179213	171431
4.4 Others	926	854	1183	928	920	468	1802	956
Total Treasury Bills (Excluding 14 day Intermediate T Bills) #	823313	1022052	944760	953759	962917	979533	992279	1012301

14D intermediate T-Bills are non-marketable unlike 91D, 182D and 364D T-Bills. These bills are 'intermediate' by nature as these are liquidated to replenish shortfall in the daily minimum cash balances of State Governments

Note: Primary Dealers (PDs) include banks undertaking PD business.

No. 25: Auctions of Treasury Bills

(Amount in ₹ Crore)

Date of Auction	Notified Amount	Bids Received			Bids Accepted			Total Issue (6+7)	Cut-off Price (₹)	Implicit Yield at Cut-off Price (per cent)
		Number	Total Face Value		Number	Total Face Value				
			Competitive	Non-Competitive		Competitive	Non-Competitive			
	1	2	3	4	5	6	7	8	9	10
91-day Treasury Bills										
2023-24										
May. 31	12000	141	29327	1534	87	11966	1534	13500	98.34	6.7839
Jun. 7	12000	117	29579	1085	60	11915	1085	13000	98.34	6.7545
Jun. 14	12000	180	51691	3232	31	11968	3232	15200	98.34	6.7876
Jun. 21	12000	162	58616	5607	16	11967	5607	17574	98.35	6.7370
Jun. 28	12000	147	39355	2045	37	11955	2045	14000	98.34	6.7599
182-day Treasury Bills										
2023-24										
May. 31	12000	169	29885	25	77	11975	25	12000	96.68	6.8963
Jun. 7	12000	202	35036	97	31	11903	97	12000	96.69	6.8588
Jun. 14	12000	189	30669	2091	78	11965	2091	14056	96.67	6.9098
Jun. 21	12000	201	35215	28	70	11972	28	12000	96.67	6.8989
Jun. 28	12000	189	42575	1173	19	11984	1173	13156	96.69	6.8684
364-day Treasury Bills										
2023-24										
May. 31	8000	131	19555	11	56	7989	11	8000	93.57	6.8941
Jun. 7	8000	128	25690	174	19	7983	174	8157	93.60	6.8570
Jun. 14	8000	127	20614	4921	64	7989	4921	12910	93.56	6.9051
Jun. 21	8000	127	23072	90	15	7988	90	8078	93.57	6.8901
Jun. 28	8000	101	23579	17	14	7988	17	8005	93.59	6.8685

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
June 01 ,2023	5.15-6.40	6.32
June 02 ,2023	5.20-6.46	6.37
June 03 ,2023	5.70-6.40	6.28
June 05 ,2023	5.30-6.45	6.32
June 06 ,2023	4.90-6.40	6.34
June 07 ,2023	4.90-6.50	6.43
June 08 ,2023	4.90-7.00	6.59
June 09 ,2023	4.90-6.75	6.61
June 12 ,2023	5.00-6.55	6.47
June 13 ,2023	5.00-6.50	6.40
June 14 ,2023	5.00-6.75	6.54
June 15 ,2023	5.00-6.70	6.57
June 16 ,2023	5.00-6.75	6.62
June 17 ,2023	5.70-6.60	6.18
June 19 ,2023	5.00-6.85	6.64
June 20 ,2023	5.00-6.65	6.55
June 21 ,2023	5.00-6.55	6.46
June 22 ,2023	5.00-6.50	6.40
June 23 ,2023	5.00-6.75	6.56
June 26 ,2023	5.00-6.90	6.73
June 27 ,2023	5.00-6.95	6.82
June 28 ,2023	5.00-7.00	6.81
June 30 ,2023	5.00-7.00	6.79
July 01 ,2023	5.75-6.20	5.94
July 03 ,2023	5.40-6.75	6.39
July 04 ,2023	5.00-6.50	6.38
July 05 ,2023	5.00-6.50	6.41
July 06 ,2023	5.00-6.55	6.44
July 07 ,2023	5.00-6.65	6.59
July 10 ,2023	5.00-6.85	6.56
July 11 ,2023	5.00-6.65	6.56
July 12 ,2023	5.00-6.50	6.45
July 13 ,2023	5.00-6.50	6.41
July 14 ,2023	5.40-6.45	6.41
July 15 ,2023	5.75-6.60	6.10

Note: Includes Notice Money.

No. 27: Certificates of Deposit

Item	2023			
	May. 19	Jun. 2	Jun. 16	Jun. 30
	1	2	3	4
1 Amount Outstanding (₹ Crore)	302117.26	312416.22	287339.03	287157.00
1.1 Issued during the fortnight (₹ Crore)	41744.11	26518.56	29746.39	20253.00
2 Rate of Interest (per cent)	6.76-7.32	6.69-7.83	6.72-7.88	6.76-7.88

No. 28: Commercial Paper

Item	2022	2023			
	Jun. 30	May 15	May 31	Jun. 15	Jun. 30
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	372542.35	421454.40	433543.35	446509.90	433212.15
1.1 Reported during the fortnight (₹ Crore)	67595.30	37178.35	81179.55	83468.30	67287.35
2 Rate of Interest (per cent)	4.88-12.38	7.01-13.84	6.73-16.31	6.71-11.80	6.77-12.37

No. 29: Average Daily Turnover in Select Financial Markets

(₹ Crore)

Item	2022-23	2022	2023					
		Jul. 1	May 26	Jun. 2	Jun. 9	Jun. 16	Jun. 23	Jun. 30
	1	2	3	4	5	6	7	8
1 Call Money	19987	25106	18453	16577	16932	15773	16547	18286
2 Notice Money	2605	5655	306	3881	242	4312	223	4366
3 Term Money	612	577	725	627	718	1209	549	1140
4 Triparty Repo	697245	779612	500008	606129	483939	633008	564438	652452
5 Market Repo	504418	588716	571417	697265	605255	690281	578936	655035
6 Repo in Corporate Bond	2085	100	822	314	3153	5454	3240	285
7 Forex (US $ million)	89155	105754	87835	98063	81257	91938	94474	107572
8 Govt. of India Dated Securities	66200	49175	101929	97132	89594	80376	100011	99704
9 State Govt. Securities	5450	5785	6122	5212	5492	4600	5399	4202
10 Treasury Bills								
10.1 91-Day	4380	8629	5468	9419	5986	6501	2275	6688
10.2 182-Day	4480	5815	6539	7717	5620	10972	10386	17354
10.3 364-Day	2900	4023	2960	4183	3620	4403	11673	16258
10.4 Cash Management Bills								
11 Total Govt. Securities (8+9+10)	83410	73427	123018	123662	110312	106851	129744	144205
11.1 RBI	660	24	942	162	184	352	299	42

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

(Amount in ₹ Crore)

Security & Type of Issue	2022-23		2022-23 (Apr.-Jun.)		2023-24 (Apr.-Jun.) *		Jun. 2022		Jun. 2023 *	
	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount
	1	2	3	4	5	6	7	8	9	10
1 Equity Shares	**237**	**45266**	**45**	**18188**	**52**	**10733**	**12**	**1469**	**24**	**1478**
1A Premium	218	42408	42	17384	47	10247	11	1347	22	1294
1.1 Public	164	38515	31	16993	36	6881	8	1344	18	1287
1.1.1 Premium	161	37158	30	16441	36	6739	8	1303	18	1213
1.2 Rights	73	6751	14	1195	16	3853	4	125	6	192
1.2.1 Premium	57	5250	12	943	11	3508	3	44	4	81
2 Preference Shares	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2.1 Public	-	-	-	-	-	-	-	-	-	-
2.2 Rights	-	-	-	-	-	-	-	-	-	-
3 Bonds & Debentures	**34**	**9221**	**11**	**2525**	**9**	**2575**	**3**	**842**	**2**	**539**
3.1 Convertible	-	-	-	-	-	-	-	-	-	-
3.1.1 Public	-	-	-	-	-	-	-	-	-	-
3.1.2 Rights	-	-	-	-	-	-	-	-	-	-
3.2 Non-Convertible	34	9221	11	2525	9	2575	3	842	2	539
3.2.1 Public	34	9221	11	2525	9	2575	3	842	2	539
3.2.2 Rights	-	-	-	-	-	-	-	-	-	-
4 Total (1+2+3)	**271**	**54487**	**56**	**20713**	**61**	**13308**	**15**	**2311**	**26**	**2018**
4.1 Public	198	47736	42	19518	45	9456	11	2186	20	1826
4.2 Rights	73	6751	14	1195	16	3853	4	125	6	192

Note : 1. Since April 2020, monthly data on equity issues is compiled on the basis of their listing date.
2. Figures in the columns might not add up to the total due to rounding off numbers.

Source : Securities and Exchange Board of India.

* : Data is Provisional.

External Sector

No. 31: Foreign Trade

Item	Unit	2022-23	2022	2023				
			Jun.	Feb.	Mar.	Apr.	May	Jun.
		1	2	3	4	5	6	7
1 Exports	₹ Crore	3620631	330096	305610	344781	284244	288051	282286
	US $ Million	450958	42280	36995	41899	34655	34982	34327
1.1 Oil	₹ Crore	781744	82711	64688	68347	52741	48287	55788
	US $ Million	97401	10594	7831	8306	6430	5864	6784
1.2 Non-oil	₹ Crore	2838887	247385	240921	276434	231503	239764	226498
	US $ Million	353558	31686	29164	33593	28225	29118	27543
2 Imports	₹ Crore	5733959	502432	439144	493854	411293	469546	436731
	US $ Million	714042	64353	53160	60015	50145	57023	53109
2.1 Oil	₹ Crore	1682475	147853	139479	148300	124431	128649	103134
	US $ Million	209418	18937	16884	18022	15171	15623	12542
2.2 Non-oil	₹ Crore	4051483	354579	299665	345554	286861	340897	333597
	US $ Million	504624	45415	36275	41993	34974	41399	40567
3 Trade Balance	₹ Crore	-2113328	-172336	-133534	-149073	-127048	-181495	-154445
	US $ Million	-263084	-22073	-16165	-18116	-15490	-22041	-18781
3.1 Oil	₹ Crore	-900731	-65142	-74791	-79953	-71690	-80362	-47346
	US $ Million	-112018	-8344	-9054	-9716	-8740	-9759	-5757
3.2 Non-oil	₹ Crore	-1212596	-107194	-58744	-69120	-55358	-101133	-107099
	US $ Million	-151066	-13730	-7111	-8400	-6749	-12282	-13024

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

No. 32: Foreign Exchange Reserves

Item	Unit	2022	2023					
		Aug. 05	Jun. 23	Jun. 30	Jul. 07	Jul. 14	Jul. 21	Jul. 28
		1	2	3	4	5	6	7
1 Total Reserves	**₹ Crore**	**4542615**	**4866441**	**4881602**	**4933658**	**5004017**	**4975431**	**4967138**
	US $ Million	**572978**	**593198**	**595051**	**596280**	**609022**	**607035**	**603870**
1.1 Foreign Currency Assets	₹ Crore	4040594	4310564	4331357	4376744	4438291	4407539	4403421
	US $ Million	509646	525440	527979	528968	540166	537752	535337
1.2 Gold	₹ Crore	319613	363459	359585	364561	371364	373862	369359
	US $ Million	40313	44304	43832	44060	45197	45614	44904
	Volume (Metric Tonnes)	781.29	797.44	797.44	797.72	797.72	797.72	797.72
1.3 SDRs	SDRs Million	13657	13674	13674	13674	13674	13674	13674
	₹ Crore	142952	150408	149626	150875	151878	151414	151715
	US $ Million	18031	18334	18239	18235	18484	18474	18444
1.4 Reserve Tranche Position in IMF	₹ Crore	39456	42010	41035	41479	42484	42616	42642
	US $ Million	4987	5120	5002	5017	5175	5196	5185

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

No. 33: Non-Resident Deposits

(US $ Million)

Scheme	Outstanding					Flows	
	2022-23	2022	2023			2022-23	2023-24
		Jun.	Apr.	May.	Jun. (P)	Apr.-Jun.	Apr.-Jun.(P)
	1	2	3	4	5	6	7
1 NRI Deposits	**138879**	**135977**	**139355**	**138779**	**141283**	**349**	**2146**
1.1 FCNR(B)	19363	15681	19687	19887	20482	-1237	1119
1.2 NR(E)RA	95817	98982	95978	95228	96505	981	482
1.3 NRO	23699	21314	23690	23664	24296	606	545

P: Provisional.

No. 34: Foreign Investment Inflows

(US $ Million)

Item	2022-23	2022-23	2023-24	2022	2023	
		Apr.-Jun.	Apr.-Jun.	Jun.	May.	Jun.
	1	2	3	4	5	6
1.1 Net Foreign Direct Investment (1.1.1-1.1.2)	**27986**	**13392**	**4999**	**2755**	**2707**	**-512**
1.1.1 Direct Investment to India (1.1.1.1-1.1.1.2)	**42006**	**16263**	**7134**	**3869**	**2911**	**205**
1.1.1.1 Gross Inflows/Gross Investments	**71355**	**22474**	**17567**	**5940**	**5306**	**5330**
1.1.1.1.1 Equity	47600	16948	11304	4098	2798	3281
1.1.1.1.1.1 Government (SIA/FIPB)	692	379	45	113	15	5
1.1.1.1.1.2 RBI	37097	12405	9264	2285	2120	2519
1.1.1.1.1.3 Acquisition of shares	8245	3805	1637	1580	543	638
1.1.1.1.1.4 Equity capital of unincorporated bodies	1566	358	358	119	119	119
1.1.1.1.2 Reinvested earnings	19105	4390	4390	1463	1463	1463
1.1.1.1.3 Other capital	4650	1136	1873	379	1045	586
1.1.1.2 Repatriation/Disinvestment	**29349**	**6211**	**10433**	**2070**	**2395**	**5125**
1.1.1.2.1 Equity	27094	5797	9356	1932	2364	5072
1.1.1.2.2 Other capital	2255	415	1077	138	31	53
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3-1.1.2.4)	**14020**	**2870**	**2135**	**1114**	**205**	**718**
1.1.2.1 Equity capital	8771	1254	1704	443	566	422
1.1.2.2 Reinvested Earnings	4412	1103	1103	368	368	368
1.1.2.3 Other Capital	4714	1065	816	487	222	201
1.1.2.4 Repatriation/Disinvestment	3877	552	1489	184	951	272
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3-1.2.4)	**-5152**	**-14630**	**14621**	**-6062**	**5474**	**7103**
1.2.1 GDRs/ADRs	-	-	-	-	-	-
1.2.2 FIIs	-4828	-14659	14794	-6072	5519	7164
1.2.3 Offshore funds and others	-	-	-	-	-	-
1.2.4 Portfolio investment by India	324	-29	173	-10	46	62
1 Foreign Investment Inflows	**22834**	**-1238**	**19620**	**-3307**	**8180**	**6590**

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

(US $ Million)

Item	2022-23	2022	2023		
		Jun.	Apr.	May.	Jun.
	1	2	3	4	5
1 Outward Remittances under the LRS	**27140.65**	**1984.68**	**2332.08**	**2887.80**	**3890.83**
1.1 Deposit	1011.07	72.49	103.47	99.89	227.23
1.2 Purchase of immovable property	188.73	14.54	22.87	21.22	45.85
1.3 Investment in equity/debt	1256.15	65.03	82.19	106.81	314.73
1.4 Gift	3005.27	222.77	339.79	390.72	643.95
1.5 Donations	12.78	1.12	0.94	0.98	2.22
1.6 Travel	13662.15	1043.08	1099.85	1495.35	1482.81
1.7 Maintenance of close relatives	4174.06	304.85	449.38	490.73	890.89
1.8 Medical Treatment	55.74	4.39	4.22	5.19	7.64
1.9 Studies Abroad	3427.81	240.86	209.76	247.33	237.32
1.10 Others	346.89	15.55	19.60	29.59	38.20

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

Item	2021-22	2022-23	2022	2023	
			Jul.	Jun	Jul.
	1	2	3	4	5
40-Currency Basket (Base: 2015-16=100)					
1 Trade-Weighted					
1.1 NEER	93.13	91.27	91.86	90.42	90.77
1.2 REER	104.66	102.80	103.83	102.36	105.43
2 Export-Weighted					
2.1 NEER	93.55	93.03	93.79	92.21	92.58
2.2 REER	103.47	101.05	102.34	99.95	102.81
6-Currency Basket (Trade-weighted)					
1 Base : 2015-16 =100					
1.1 NEER	87.04	85.93	86.81	84.12	83.75
1.2 REER	102.22	101.90	102.80	101.27	103.81
2 Base : 2021-22 =100					
2.1 NEER	100.00	98.72	99.73	96.64	96.22
2.2 REER	100.00	99.69	100.57	99.08	101.56

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

(Amount in US $ Million)

Item	2022-23	2022	2023	
		Jun	May	Jun
	1	2	3	4
1 Automatic Route				
1.1 Number	1093	109	129	138
1.2 Amount	24156	1789	2648	5885
2 Approval Route				
2.1 Number	9	1	1	3
2.2 Amount	2473	100	5000	2074
3 Total (1+2)				
3.1 Number	1102	110	130	141
3.2 Amount	26629	1889	7648	7959
4 Weighted Average Maturity (in years)	5.72	5.50	6.90	5.30
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans	1.68	1.77	2.41	1.49
5.2 Interest rate range for Fixed Rate Loans	0.00-11.80	0.00-10.37	0.00-12.00	0.00-11.67
Borrower Category				
I. Corporate Manufacturing	6925	389	5570	4820
II. Corporate-Infrastructure	8396	131	924	2116
a.) Transport	333	0	97	14
b.) Energy	2235	125	96	0
c.) Water and Sanitation	32	0	0	27
d.) Communication	1538	0	170	1750
e.) Social and Commercial Infrastructure	530	0	0	3
f.) Exploration,Mining and Refinery	2085	5	300	30
g.) Other Sub-Sectors	1643	1	261	292
III. Corporate Service-Sector	1773	661	47	10
IV. Other Entities	1805	300	0	0
a.) units in SEZ	6	0	0	0
b.) SIDBI	0	0	0	0
c.) Exim Bank	1800	300	0	0
V. Banks	0	0	0	0
VI. Financial Institution (Other than NBFC)	0	0	0	0
VII. NBFCs	7540	406	1078	905
a). NBFC- IFC/AFC	3031	0	150	332
b). NBFC-MFI	313	6	39	288
c). NBFC-Others	4196	400	889	285
VIII. Non-Government Organization (NGO)	0	0	0	0
IX. Micro Finance Institution (MFI)	0	0	0	0
X. Others	189	2	29	108

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

No. 38: India's Overall Balance of Payments

(US$ Million)

Item	Jan-Mar 2022			Jan-Mar 2023 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance Of Payments (1+2+3)	**384903**	**400927**	**-16024**	**391827**	**386248**	**5579**
1 Current Account (1.1+ 1.2)	**218823**	**232247**	**-13424**	**238010**	**239366**	**-1356**
1.1 Merchandise	**118020**	**172503**	**-54483**	**115821**	**168408**	**-52587**
1.2 Invisibles (1.2.1+1.2.2+1.2.3)	**100803**	**59744**	**41059**	**122189**	**70959**	**51231**
1.2.1 Services	69876	41557	28319	85833	46758	39075
1.2.1.1 Travel	2757	5133	-2376	8445	7698	747
1.2.1.2 Transportation	9398	11002	-1604	7956	8091	-135
1.2.1.3 Insurance	904	428	476	824	455	369
1.2.1.4 G.n.i.e.	160	271	-111	144	307	-163
1.2.1.5 Miscellaneous	56657	24723	31934	68464	30207	38256
1.2.1.5.1 Software Services	32786	3520	29266	38473	4103	34370
1.2.1.5.2 Business Services	16835	13867	2968	22260	16314	5945
1.2.1.5.3 Financial Services	1615	1504	111	2093	1303	790
1.2.1.5.4 Communication Services	763	269	494	2558	2217	341
1.2.2 Transfers	23723	2591	21132	28650	3888	24762
1.2.2.1 Official	21	239	-218	24	342	-318
1.2.2.2 Private	23702	2353	21350	28627	3547	25080
1.2.3 Income	7204	15596	-8392	7706	20312	-12606
1.2.3.1 Investment Income	5589	14792	-9202	6010	19395	-13385
1.2.3.2 Compensation of Employees	1614	804	810	1695	917	778
2 Capital Account (2.1+2.2+2.3+2.4+2.5)	**166081**	**167787**	**-1707**	**153422**	**146882**	**6540**
2.1 Foreign Investment (2.1.1+2.1.2)	**95111**	**96550**	**-1439**	**83781**	**79091**	**4691**
2.1.1 Foreign Direct Investment	24396	10620	13777	17084	10730	6355
2.1.1.1 In India	23281	6028	17253	15858	6538	9319
2.1.1.1.1 Equity	15845	5177	10669	9708	6254	3454
2.1.1.1.2 Reinvested Earnings	5229		5229	4976		4976
2.1.1.1.3 Other Capital	2207	851	1356	1173	284	889
2.1.1.2 Abroad	1115	4592	-3477	1227	4191	-2964
2.1.1.2.1 Equity	1115	2132	-1017	1227	2123	-896
2.1.1.2.2 Reinvested Earnings	0	845	-845	0	1103	-1103
2.1.1.2.3 Other Capital	0	1615	-1615	0	965	-965
2.1.2 Portfolio Investment	70715	85930	-15215	66697	68361	-1664
2.1.2.1 In India	70254	84543	-14289	66117	67704	-1588
2.1.2.1.1 FIIs	70254	84543	-14289	66117	67704	-1588
2.1.2.1.1.1 Equity	62553	75636	-13083	57476	59959	-2483
2.1.2.1.1.2 Debt	7701	8907	-1206	8640	7745	895
2.1.2.1.2 ADR/GDRs	0		0	0		0
2.1.2.2 Abroad	461	1387	-926	580	657	-77
2.2 Loans (2.2.1+2.2.2+2.2.3)	**33737**	**20826**	**12911**	**26512**	**23457**	**3055**
2.2.1 External Assistance	3988	1331	2657	3240	1522	1718
2.2.1.1 By India	13	16	-3	8	22	-14
2.2.1.2 To India	3976	1315	2661	3232	1500	1732
2.2.2 Commercial Borrowings	11346	7913	3433	7323	5698	1624
2.2.2.1 By India	514	373	141	272	382	-110
2.2.2.2 To India	10832	7540	3292	7051	5316	1735
2.2.3 Short Term to India	18403	11582	6821	15950	16237	-287
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	14571	11582	2988	15950	13646	2305
2.2.3.2 Suppliers' Credit up to 180 days	3833	0	3833	0	2592	-2592
2.3 Banking Capital (2.3.1+2.3.2)	**27241**	**33202**	**-5961**	**27997**	**32047**	**-4050**
2.3.1 Commercial Banks	27195	32602	-5407	27922	32047	-4125
2.3.1.1 Assets	13120	17970	-4850	4274	13260	-8986
2.3.1.2 Liabilities	14075	14632	-557	23648	18787	4861
2.3.1.2.1 Non-Resident Deposits	13468	13309	159	21066	17485	3581
2.3.2 Others	46	600	-554	75	0	75
2.4 Rupee Debt Service	**0**	**12**	**-12**		**7**	**-7**
2.5 Other Capital	**9991**	**17196**	**-7205**	**15131**	**12280**	**2852**
3 Errors & Omissions	**0**	**893**	**-893**	**395**	**0**	**395**
4 Monetary Movements (4.1+ 4.2)	**16024**	**0**	**16024**	**0**	**5579**	**-5579**
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	16024	0	16024	0	5579	-5579

Note: P: Preliminary.

No. 39: India's Overall Balance of Payments

(₹ Crore)

Item	Jan-Mar 2022			Jan-Mar 2023 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance Of Payments (1+2+3)	**2895618**	**3016163**	**-120545**	**3223390**	**3177490**	**45899**
1 Current Account (1.1+ 1.2)	**1646199**	**1747190**	**-100991**	**1958005**	**1969160**	**-11155**
1.1 Merchandise	**887863**	**1297738**	**-409875**	**952809**	**1385415**	**-432606**
1.2 Invisibles (1.2.1+1.2.2+1.2.3)	**758336**	**449452**	**308883**	**1005196**	**583745**	**421451**
1.2.1 Services	525672	312631	213042	706112	384660	321451
1.2.1.1 Travel	20740	38617	-17877	69476	63331	6145
1.2.1.2 Transportation	70702	82770	-12068	65454	66565	-1111
1.2.1.3 Insurance	6801	3218	3583	6777	3740	3037
1.2.1.4 G.n.i.e.	1201	2035	-834	1185	2525	-1339
1.2.1.5 Miscellaneous	426228	185990	240238	563219	248500	314719
1.2.1.5.1 Software Services	246649	26481	220167	316497	33753	282744
1.2.1.5.2 Business Services	126651	104321	22330	183122	134212	48910
1.2.1.5.3 Financial Services	12147	11313	834	17215	10718	6497
1.2.1.5.4 Communication Services	5742	2024	3718	21041	18237	2804
1.2.2 Transfers	178471	19496	158975	235693	31986	203706
1.2.2.1 Official	158	1796	-1638	194	2810	-2616
1.2.2.2 Private	178313	17700	160613	235499	29176	206322
1.2.3 Income	54193	117326	-63133	63392	167098	-103707
1.2.3.1 Investment Income	42047	111277	-69230	49444	159555	-110111
1.2.3.2 Compensation of Employees	12145	6049	6096	13948	7544	6404
2 Capital Account (2.1+2.2+2.3+2.4+2.5)	**1249419**	**1262257**	**-12838**	**1262134**	**1208330**	**53804**
2.1 Foreign Investment (2.1.1+2.1.2)	**715520**	**726343**	**-10823**	**689231**	**650644**	**38587**
2.1.1 Foreign Direct Investment	183534	79893	103640	140546	88268	52278
2.1.1.1 In India	175144	45346	129797	130453	53788	76665
2.1.1.1.1 Equity	119205	38945	80260	79863	51450	28413
2.1.1.1.2 Reinvested Earnings	39334	0	39334	40937	0	40937
2.1.1.1.3 Other Capital	16605	6401	10203	9652	2338	7315
2.1.1.2 Abroad	8390	34547	-26157	10093	34480	-24387
2.1.1.2.1 Equity	8390	16040	-7650	10093	17465	-7372
2.1.1.2.2 Reinvested Earnings	0	6355	-6355	0	9073	-9073
2.1.1.2.3 Other Capital	0	12153	-12153	0	7941	-7941
2.1.2 Portfolio Investment	531986	646450	-114463	548685	562376	-13691
2.1.2.1 In India	528521	636017	-107496	543912	556972	-13060
2.1.2.1.1 FIIs	528521	636017	-107496	543912	556972	-13060
2.1.2.1.1.1 Equity	470586	569008	-98422	472831	493254	-20423
2.1.2.1.1.2 Debt	57935	67009	-9074	71080	63718	7363
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	3465	10433	-6968	4774	5404	-631
2.2 Loans (2.2.1+2.2.2+2.2.3)	**253804**	**156675**	**97128**	**218106**	**192973**	**25133**
2.2.1 External Assistance	30003	10013	19989	26652	12519	14133
2.2.1.1 By India	95	120	-26	63	180	-117
2.2.1.2 To India	29908	9893	20015	26589	12339	14250
2.2.2 Commercial Borrowings	85354	59528	25826	60240	46876	13363
2.2.2.1 By India	3867	2804	1062	2237	3144	-907
2.2.2.2 To India	81487	56723	24764	58003	43732	14271
2.2.3 Short Term to India	138447	87134	51313	131214	133577	-2364
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	109614	87134	22479	131214	112256	18958
2.2.3.2 Suppliers' Credit up to 180 days	28833	0	28833	0	21322	-21322
2.3 Banking Capital (2.3.1+2.3.2)	**204931**	**249778**	**-44847**	**230320**	**263635**	**-33315**
2.3.1 Commercial Banks	204584	245264	-40680	229701	263635	-33934
2.3.1.1 Assets	98701	135191	-36490	35162	109084	-73921
2.3.1.2 Liabilities	105884	110073	-4190	194539	154551	39988
2.3.1.2.1 Non-Resident Deposits	101318	100121	1197	173302	143842	29461
2.3.2 Others	347	4514	-4167	619	0	619
2.4 Rupee Debt Service	**0**	**93**	**-93**	**0**	**60**	**-60**
2.5 Other Capital	**75165**	**129368**	**-54203**	**124477**	**101018**	**23459**
3 Errors & Omissions	**0**	**6716**	**-6716**	**3250**	**0**	**3250**
4 Monetary Movements (4.1+ 4.2)	**120545**	**0**	**120545**	**0**	**45899**	**-45899**
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	120545	0	120545	0	45899	-45899

Note: P: Preliminary.

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

(US$ Million)

Item	Jan-Mar 2022			Jan-Mar 2023 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**218822**	**232225**	**-13404**	**238010**	**239346**	**-1336**
1.A Goods and Services (1.A.a+1.A.b)	**187896**	**214060**	**-26164**	**201654**	**215166**	**-13512**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**118020**	**172503**	**-54483**	**115821**	**168408**	**-52587**
1.A.a.1 General merchandise on a BOP basis	118046	164299	-46253	115268	161779	-46511
1.A.a.2 Net exports of goods under merchanting	-26	0	-26	553	0	553
1.A.a.3 Nonmonetary gold		8204	-8204	0	6629	-6629
1.A.b Services (1.A.b.1 to 1.A.b.13)	**69876**	**41557**	**28319**	**85833**	**46758**	**39075**
1.A.b.1 Manufacturing services on physical inputs owned by others	214	24	190	327	52	275
1.A.b.2 Maintenance and repair services n.i.e.	44	440	-397	56	644	-587
1.A.b.3 Transport	9398	11002	-1604	7956	8091	-135
1.A.b.4 Travel	2757	5133	-2376	8445	7698	747
1.A.b.5 Construction	596	720	-124	1099	705	394
1.A.b.6 Insurance and pension services	904	428	476	824	455	369
1.A.b.7 Financial services	1615	1504	111	2093	1303	790
1.A.b.8 Charges for the use of intellectual property n.i.e.	193	2518	-2325	290	2729	-2438
1.A.b.9 Telecommunications, computer, and information services	33629	4009	29620	41116	6606	34509
1.A.b.10 Other business services	16835	13867	2968	22260	16314	5945
1.A.b.11 Personal, cultural, and recreational services	970	1224	-253	1045	1390	-346
1.A.b.12 Government goods and services n.i.e.	160	271	-111	144	307	-163
1.A.b.13 Others n.i.e.	2560	416	2145	178	464	-286
1.B Primary Income (1.B.1 to 1.B.3)	**7204**	**15596**	**-8392**	**7706**	**20312**	**-12606**
1.B.1 Compensation of employees	1614	804	810	1695	917	778
1.B.2 Investment income	4303	13417	-9113	4839	18772	-13934
1.B.2.1 Direct investment	3206	8193	-4987	2156	10609	-8453
1.B.2.2 Portfolio investment	80	1591	-1511	78	2755	-2676
1.B.2.3 Other investment	96	3629	-3533	210	5246	-5035
1.B.2.4 Reserve assets	922	4	918	2393	163	2231
1.B.3 Other primary income	1286	1375	-89	1172	623	549
1.C Secondary Income (1.C.1+1.C.2)	**23722**	**2570**	**21153**	**28650**	**3868**	**24782**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	23702	2353	21350	28627	3547	25080
1.C.1.1 Personal transfers (Current transfers between resident and/non-resident households)	22943	1677	21267	27984	2631	25352
1.C.1.2 Other current transfers	759	676	83	643	915	-272
1.C.2 General government	20	217	-197	23	321	-298
2 Capital Account (2.1+2.2)	**244**	**173**	**71**	**272**	**260**	**12**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	117	29	88	120	35	85
2.2 Capital transfers	127	144	-17	152	225	-73
3 Financial Account (3.1 to 3.5)	**181861**	**167636**	**14226**	**153151**	**152222**	**929**
3.1 Direct Investment (3.1A+3.1B)	**24396**	**10620**	**13777**	**17084**	**10730**	**6355**
3.1.A Direct Investment in India	23281	6028	17253	15858	6538	9319
3.1.A.1 Equity and investment fund shares	21074	5177	15897	14684	6254	8430
3.1.A.1.1 Equity other than reinvestment of earnings	15845	5177	10669	9708	6254	3454
3.1.A.1.2 Reinvestment of earnings	5229		5229	4976	0	4976
3.1.A.2 Debt instruments	2207	851	1356	1173	284	889
3.1.A.2.1 Direct investor in direct investment enterprises	2207	851	1356	1173	284	889
3.1.B Direct Investment by India	1115	4592	-3477	1227	4191	-2964
3.1.B.1 Equity and investment fund shares	1115	2977	-1862	1227	3226	-1999
3.1.B.1.1 Equity other than reinvestment of earnings	1115	2132	-1017	1227	2123	-896
3.1.B.1.2 Reinvestment of earnings		845	-845	0	1103	-1103
3.1.B.2 Debt instruments	0	1615	-1615	0	965	-965
3.1.B.2.1 Direct investor in direct investment enterprises		1615	-1615	0	965	-965
3.2 Portfolio Investment	**70715**	**85930**	**-15215**	**66697**	**68361**	**-1664**
3.2.A Portfolio Investment in India	70254	84543	-14289	66117	67704	-1588
3.2.1 Equity and investment fund shares	62553	75636	-13083	57476	59959	-2483
3.2.2 Debt securities	7701	8907	-1206	8640	7745	895
3.2.B Portfolio Investment by India	461	1387	-926	580	657	-77
3.3 Financial derivatives (other than reserves) and employee stock options	**4629**	**7403**	**-2774**	**3661**	**6332**	**-2671**
3.4 Other investment	**66098**	**63683**	**2415**	**65708**	**61219**	**4489**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	13514	13909	-395	21141	17485	3656
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	46	600	-554	75	0	75
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	13468	13309	159	21066	17485	3581
3.4.2.3 General government	0	0	0	0	0	0
3.4.2.4 Other sectors	0	0	0	0	0	0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	29061	28537	524	17418	21782	-4364
3.4.3.A Loans to India	28534	28148	386	17139	21378	-4239
3.4.3.B Loans by India	527	389	138	280	404	-125
3.4.4 Insurance, pension, and standardized guarantee schemes	40	17	22	41	30	11
3.4.5 Trade credit and advances	18403	11582	6821	15950	16237	-287
3.4.6 Other accounts receivable/payable - other	5080	9637	-4557	11157	5685	5472
3.4.7 Special drawing rights	0	0	0	0	0	0
3.5 Reserve assets	**16024**	**0**	**16024**	**0**	**5579**	**-5579**
3.5.1 Monetary gold	0	0	0	0	0	0
3.5.2 Special drawing rights n.a.	0	0	0	0	0	0
3.5.3 Reserve position in the IMF n.a.	0	0	0	0	0	0
3.5.4 Other reserve assets (Foreign Currency Assets)	16024	0	16024	0	5579	-5579
4 Total assets/liabilities	**181861**	**167636**	**14226**	**153151**	**152222**	**929**
4.1 Equity and investment fund shares	89872	92596	-2725	77670	76458	1212
4.2 Debt instruments	70886	65402	5484	64323	64499	-176
4.3 Other financial assets and liabilities	21104	9637	11466	11157	11265	-107
5 Net errors and omissions		**893**	**-893**	**395**	**0**	**395**

Note: P: Preliminary.

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

(₹ Crore)

Item	Jan-Mar 2022			Jan-Mar 2023 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**1646190**	**1747025**	**-100835**	**1958000**	**1968993**	**-10992**
1.A Goods and Services (1.A.a+1.A.b)	**1413535**	**1610368**	**-196833**	**1658921**	**1770076**	**-111155**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**887863**	**1297738**	**-409875**	**952809**	**1385415**	**-432606**
1.A.a.1 General merchandise on a BOP basis	888059	1236020	-347961	948262	1330884	-382622
1.A.a.2 Net exports of goods under merchanting	-196	0	-196	4548	0	4548
1.A.a.3 Nonmonetary gold	0	61718	-61718	0	54532	-54532
1.A.b Services (1.A.b.1 to 1.A.b.13)	**525672**	**312631**	**213042**	**706112**	**384660**	**321451**
1.A.b.1 Manufacturing services on physical inputs owned by others	1613	184	1429	2689	425	2264
1.A.b.2 Maintenance and repair services n.i.e.	329	3313	-2984	464	5295	-4831
1.A.b.3 Transport	70702	82770	-12068	65454	66565	-1111
1.A.b.4 Travel	20740	38617	-17877	69476	63331	6145
1.A.b.5 Construction	4482	5418	-937	9040	5797	3244
1.A.b.6 Insurance and pension services	6801	3218	3583	6777	3740	3037
1.A.b.7 Financial services	12147	11313	834	17215	10718	6497
1.A.b.8 Charges for the use of intellectual property n.i.e.	1454	18944	-17489	2389	22449	-20059
1.A.b.9 Telecommunications, computer, and information services	252989	30162	222827	338240	54349	283891
1.A.b.10 Other business services	126651	104321	22330	183122	134212	48910
1.A.b.11 Personal, cultural, and recreational services	7300	9206	-1906	8596	11438	-2842
1.A.b.12 Government goods and services n.i.e.	1201	2035	-834	1185	2525	-1339
1.A.b.13 Others n.i.e.	19262	3129	16133	1463	3817	-2354
1.B Primary Income (1.B.1 to 1.B.3)	**54193**	**117326**	**-63133**	**63392**	**167098**	**-103707**
1.B.1 Compensation of employees	12145	6049	6096	13948	7544	6404
1.B.2 Investment income	32373	100933	-68559	39805	154433	-114627
1.B.2.1 Direct investment	24116	61632	-37516	17740	87278	-69538
1.B.2.2 Portfolio investment	602	11973	-11371	644	22661	-22016
1.B.2.3 Other investment	721	27299	-26578	1731	43156	-41425
1.B.2.4 Reserve assets	6935	29	6906	19690	1338	18352
1.B.3 Other primary income	9674	10344	-670	9638	5122	4516
1.C Secondary Income (1.C.1+1.C.2)	**178462**	**19331**	**159131**	**235688**	**31819**	**203869**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	178313	17700	160613	235499	29176	206322
1.C.1.1 Personal transfers (Current transfers between resident and/non-resident households)	172602	12613	159989	230210	21647	208563
1.C.1.2 Other current transfers	5711	5086	624	5288	7529	-2241
1.C.2 General government	149	1631	-1482	189	2642	-2453
2 Capital Account (2.1+2.2)	**1836**	**1303**	**533**	**2237**	**2137**	**100**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	879	220	660	986	288	698
2.2 Capital transfers	957	1084	-127	1250	1849	-599
3 Financial Account (3.1 to 3.5)	**1368137**	**1261119**	**107018**	**1259902**	**1252260**	**7643**
3.1 Direct Investment (3.1A+3.1B)	**183534**	**79893**	**103640**	**140546**	**88268**	**52278**
3.1.A Direct Investment in India	175144	45346	129797	130453	53788	76665
3.1.A.1 Equity and investment fund shares	158539	38945	119594	120800	51450	69350
3.1.A.1.1 Equity other than reinvestment of earnings	119205	38945	80260	79863	51450	28413
3.1.A.1.2 Reinvestment of earnings	39334	0	39334	40937	0	40937
3.1.A.2 Debt instruments	16605	6401	10203	9652	2338	7315
3.1.A.2.1 Direct investor in direct investment enterprises	16605	6401	10203	9652	2338	7315
3.1.B Direct Investment by India	8390	34547	-26157	10093	34480	-24387
3.1.B.1 Equity and investment fund shares	8390	22395	-14005	10093	26539	-16446
3.1.B.1.1 Equity other than reinvestment of earnings	8390	16040	-7650	10093	17465	-7372
3.1.B.1.2 Reinvestment of earnings	0	6355	-6355	0	9073	-9073
3.1.B.2 Debt instruments	0	12153	-12153	0	7941	-7941
3.1.B.2.1 Direct investor in direct investment enterprises	0	12153	-12153	0	7941	-7941
3.2 Portfolio Investment	**531986**	**646450**	**-114463**	**548685**	**562376**	**-13691**
3.2.A Portfolio Investment in India	528521	636017	-107496	543912	556972	-13060
3.2.1 Equity and investment fund shares	470586	569008	-98422	472831	493254	-20423
3.2.2 Debt securities	57935	67009	-9074	71080	63718	7363
3.2.B Portfolio Investment by India	3465	10433	-6968	4774	5404	-631
3.3 Financial derivatives (other than reserves) and employee stock options	**34822**	**55690**	**-20868**	**30121**	**52094**	**-21973**
3.4 Other investment	**497250**	**479086**	**18164**	**540550**	**503623**	**36927**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	101664	104634	-2970	173921	143842	30080
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	347	4514	-4167	619	0	619
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	101318	100121	1197	173302	143842	29461
3.4.2.3 General government	0	0	0	0	0	0
3.4.2.4 Other sectors	0	0	0	0	0	0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	218623	214684	3939	143291	179189	-35898
3.4.3.A Loans to India	214662	211760	2902	140991	175865	-34873
3.4.3.B Loans by India	3961	2925	1037	2300	3324	-1024
3.4.4 Insurance, pension, and standardized guarantee schemes	300	131	169	337	245	92
3.4.5 Trade credit and advances	138447	87134	51313	131214	133577	-2364
3.4.6 Other accounts receivable/payable - other	38216	72502	-34286	91787	46770	45017
3.4.7 Special drawing rights	0	0	0	0	0	0
3.5 Reserve assets	**120545**	**0**	**120545**	**0**	**45899**	**-45899**
3.5.1 Monetary gold	0	0	0	0	0	0
3.5.2 Special drawing rights n.a.	0	0	0	0	0	0
3.5.3 Reserve position in the IMF n.a.	0	0	0	0	0	0
3.5.4 Other reserve assets (Foreign Currency Assets)	120545	0	120545	0	45899	-45899
4 Total assets/liabilities	**1368137**	**1261119**	**107018**	**1259902**	**1252260**	**7643**
4.1 Equity and investment fund shares	676102	696601	-20499	638957	628987	9970
4.2 Debt instruments	533274	492016	41258	529159	530604	-1445
4.3 Other financial assets and liabilities	158761	72502	86259	91787	92669	-883
5 Net errors and omissions	**0**	**6716**	**-6716**	**3250**	**0**	**3250**

Note: P: Preliminary.

No. 42: India's International Investment Position

(US $ Million)

Item	As on Financial Year/Quarter End							
	2022-23		2022				2023	
			Mar.		Dec.		Mar.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8
1. Direct investment Abroad/in India	225592	523335	211573	521653	222628	510748	225592	523335
1.1 Equity Capital*	142071	493896	132765	493987	140072	482123	142071	493896
1.2 Other Capital	83521	29439	78807	27666	82556	28626	83521	29439
2. Portfolio investment	10966	243351	10642	268635	10890	243885	10966	243351
2.1 Equity	4958	138958	1110	156381	8624	140469	4958	138958
2.2 Debt	6008	104393	9533	112253	2266	103416	6008	104393
3. Other investment	87717	503891	90974	488484	79507	494503	87717	503891
3.1 Trade credit	27507	124301	18561	117788	26063	124588	27507	124301
3.2 Loan	10714	203127	10474	197498	8628	197219	10714	203127
3.3 Currency and Deposits	30526	141133	42081	140994	27093	136132	30526	141133
3.4 Other Assets/Liabilities	18970	35330	19858	32203	17723	36564	18970	35330
4. Reserves	578449		607309		562721		578449	
5. Total Assets/ Liabilities	902725	1270577	920498	1278772	875745	1249136	902725	1270577
6. Net IIP (Assets - Liabilities)	-367852		-358274		-373391		-367852	

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

Payment and Settlement Systems

No.43: Payment System Indicators

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

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2022-23	2022	2023		FY 2022-23	2022	2023	
		Jun.	May.	Jun.		Jun.	May.	Jun.
	1	2	3	4	5	6	7	8
A. Settlement Systems								
Financial Market Infrastructures (FMIs)								
1 CCIL Operated Systems (1.1 to 1.3)	41.44	3.42	4.03	3.81	258797336	22912930	22537634	22638088
1.1 Govt. Securities Clearing (1.1.1 to 1.1.3)	15.00	1.32	1.63	1.54	172251292	15445511	15227196	15259736
1.1.1 Outright	7.99	0.68	0.98	0.88	10090700	844409	1326724	1299039
1.1.2 Repo	4.07	0.34	0.45	0.45	68032487	5627915	7732270	7312076
1.1.3 Tri-party Repo	2.94	0.30	0.20	0.21	94128105	8973188	6168201	6648621
1.2 Forex Clearing	25.16	1.97	2.23	2.17	78932050	6778125	6189356	6854522
1.3 Rupee Derivatives @	1.27	0.13	0.17	0.10	7613994	689294	1121082	523830
B. Payment Systems								
I Financial Market Infrastructures (FMIs)	-	-	-	-	-	-	-	-
1 Credit Transfers - RTGS (1.1 to 1.2)	2425.62	194.42	220.46	212.30	149946286	12356054	12882587	14336617
1.1 Customer Transactions	2411.19	193.18	219.21	211.10	131667176	10840909	11413321	12739932
1.2 Interbank Transactions	14.43	1.24	1.25	1.20	18279111	1515145	1469266	1596685
II Retail								
2 Credit Transfers - Retail (2.1 to 2.6)	983620.84	69921.27	107130.93	106299.38	55009620	4298158	5196720	5151213
2.1 AePS (Fund Transfers) @	5.90	0.62	0.34	0.30	356	37	23	20
2.2 APBS $	17833.95	1222.24	1838.94	1875.41	247535	23010	31424	25772
2.3 IMPS	56532.64	4557.01	5015.49	4681.02	5585441	443776	527558	500482
2.4 NACH Cr $	19257.19	1489.99	1227.66	1294.91	1541815	100909	122239	109983
2.5 NEFT	52847.43	4022.33	4896.66	5097.12	33719541	2716013	3026331	3039491
2.6 UPI @	837143.73	58629.08	94151.85	93350.61	13914932	1014413	1489145	1475464
2.6.1 of which USSD @	17.21	0.99	1.75	2.18	197	12	21	30
3 Debit Transfers and Direct Debits (3.1 to 3.3)	15343.05	1225.96	1457.43	1453.92	1289611	100325	125654	129549
3.1 BHIM Aadhaar Pay @	214.22	39.82	15.45	14.83	6791	1049	535	487
3.2 NACH Dr $	13502.52	1048.14	1288.88	1296.38	1280219	99060	124864	128819
3.3 NETC (linked to bank account) @	1626.31	138.00	153.10	142.71	2601	216	256	243
4 Card Payments (4.1 to 4.2)	63337.24	5376.24	4974.51	4731.29	2152418	169669	193436	188284
4.1 Credit Cards (4.1.1 to 4.1.2)	29145.25	2279.46	2734.74	2629.05	1432255	108752	140660	137234
4.1.1 PoS based $	15598.70	1210.51	1419.98	1378.71	541944	40466	50811	48854
4.1.2 Others $	13546.54	1068.95	1314.76	1250.34	890311	68286	89849	88380
4.2 Debit Cards (4.2.1 to 4.2.1)	34192.00	3096.79	2239.77	2102.24	720163	60917	52776	51049
4.2.1 PoS based $	22917.38	2012.90	1592.87	1499.66	476693	39877	35589	33778
4.2.2 Others $	11274.61	1083.89	646.89	602.58	243470	21040	17187	17271
5 Prepaid Payment Instruments (5.1 to 5.2)	74667.44	6258.03	6872.86	6464.03	287111	24738	23967	23114
5.1 Wallets	59112.76	4979.19	5660.41	5294.78	221896	18488	20344	19767
5.2 Cards (5.2.1 to 5.2.2)	15554.69	1278.83	1212.46	1169.24	65215	6250	3624	3347
5.2.1 PoS based $	1013.09	87.22	721.33	681.07	14777	1301	1190	1016
5.2.2 Others $	14541.60	1191.62	491.13	488.17	50438	4949	2434	2331
6 Paper-based Instruments (6.1 to 6.2)	7102.88	593.72	572.39	539.37	7173581	599196	627772	578306
6.1 CTS (NPCI Managed)	7102.88	593.72	572.39	539.37	7173581	599196	627772	578306
6.2 Others	0.00	–	–	–	–	–	–	–
Total - Retail Payments (2+3+4+5+6)	1144071.46	83375.21	121008.13	119487.97	65912340	5192086	6167549	6070466
Total Payments (1+2+3+4+5+6)	1144072.73	83569.63	121008.30	119700.28	73526334	17548140	7288631	20407083
Total Digital Payments (1+2+3+4+5)	1136969.85	82975.91	120435.91	119160.91	66352754	16948944	6660859	19828777

PART II - Payment Modes and Channels

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2022-23	2022	2023		FY 2022-23	2022	2023	
		Jun.	May.	Jun.		Jun.	May.	Jun.
	1	2	3	4	5	6	7	8
A. Other Payment Channels								
1 Mobile Payments (mobile app based) (1.1 to 1.2)	806541.16	62583.88	87374.84	88411.48	22031617	1716565	2268476	2243149
1.1 Intra-bank $	62306.61	4309.58	6127.73	6145.85	4191430	305197	424314	416271
1.2 Inter-bank $	744234.54	58274.29	81247.11	82265.63	17840187	1411368	1844163	1826878
2 Internet Payments (Netbanking / Internet Browser Based) @ (2.1 to 2.2)	42630.64	3572.22	3597.97	3564.77	91539296	8264386	7800705	8354438
2.1 Intra-bank @	10703.78	870.16	916.90	929.63	53506133	5147947	4116658	4456179
2.2 Inter-bank @	31926.86	2702.06	2681.08	2635.13	38033163	3116439	3684047	3898259
B. ATMs								
3 Cash Withdrawal at ATMs $ (3.1 to 3.3)	69465.15	5730.78	5694.70	5398.31	3305007	271367	279622	268351
3.1 Using Credit Cards $	88.37	6.79	7.73	7.43	4296	336	366	352
3.2 Using Debit Cards $	68971.46	5690.79	5655.91	5361.29	3286748	269935	278080	266925
3.3 Using Pre-paid Cards $	405.32	33.20	31.07	29.58	13963	1096	1175	1074
4 Cash Withdrawal at PoS $ (4.1 to 4.2)	27.73	2.30	2.33	2.29	278	22	23	23
4.1 Using Debit Cards $	27.41	2.27	2.31	2.29	276	22	23	23
4.2 Using Pre-paid Cards $	0.33	0.03	0.02	0.01	2	0	0	0
5 Cash Withrawal at Micro ATMs @	12375.16	1167.16	979.64	943.77	333966	31318	27469	25991
5.1 AePS @	12375.16	1167.16	979.64	943.77	333966	31318	27469	25991

PART III - Payment Infrastructures (Lakh)

System	As on March 2023	2022	2023	
		Jun.	May.	Jun.
	1	2	3	4
Payment System Infrastructures				
1 Number of Cards (1.1 to 1.2)	10465.62	10000.22	10616.74	10645.15
1.1 Credit Cards	853.03	787.23	877.47	886.82
1.2 Debit Cards	9612.59	9212.99	9739.26	9758.33
2 Number of PPIs @ (2.1 to 2.2)	16185.22	15571.12	16455.95	16530.36
2.1 Wallets @	13384.65	12932.46	13372.11	13409.19
2.2 Cards @	2800.57	2638.66	3083.84	3121.17
3 Number of ATMs (3.1 to 3.2)	2.59	2.53	2.56	2.59
3.1 Bank owned ATMs $	2.23	2.20	2.20	2.23
3.2 White Label ATMs $	0.36	0.33	0.36	0.36
4 Number of Micro ATMs @	16.11	10.72	14.66	14.96
5 Number of PoS Terminals	77.90	65.91	79.61	80.94
6 Bharat QR @	53.82	42.80	55.45	56.88
7 UPI QR *	2563.77	1952.91	2667.57	2720.15

@: New inclusion w.e.f. November 2019
#: Data reported by Co-operative Banks, LABs and RRBs included with effect from December 2021.
$: Inclusion separately initiated from November 2019 - would have been part of other items hitherto.
*: New inclusion w.e.f. September 2020; Includes only static UPI QR Code
Note : 1. Data is provisional.
2. ECS (Debit and Credit) has been merged with NACH with effect from January 31, 2020.
3. The data from November 2019 onwards for card payments (Debit/Credit cards) and Prepaid Payment Instruments (PPIs) may not be comparable with earlier months/ periods, as more granular data is being published along with revision in data definitions.
4. Only domestic financial transactions are considered. The new format captures e-commerce transactions; transactions using FASTags, digital bill payments and card-to-card transfer through ATMs, etc.. Also, failed transactions, chargebacks, reversals, expired cards/ wallets, are excluded.
Part I-A. Settlement systems
1.1.3: Tri- party Repo under the securities segment has been operationalised from November 05, 2018.
Part I-B. Payments systems
4.1.2: 'Others' includes e-commerce transactions and digital bill payments through ATMs, etc.
4.2.2: 'Others' includes e-commerce transactions, card to card transfers and digital bill payments through ATMs, etc.
5: Available from December 2010.
5.1: includes purchase of goods and services and fund transfer through wallets.
5.2.2: includes usage of PPI Cards for online transactions and other transactions.
6.1: Pertain to three grids – Mumbai, New Delhi and Chennai.
6.2: 'Others' comprises of Non-MICR transactions which pertains to clearing houses managed by 21 banks.
Part II-A. Other payment channels
1: Mobile Payments –
o Include transactions done through mobile apps of banks and UPI apps.
o The data from July 2017 includes only individual payments and corporate payments initiated, processed, and authorised using mobile device. Other corporate payments which are not initiated, processed, and authorised using mobile device are excluded.
2: Internet Payments – includes only e-commerce transactions through 'netbanking' and any financial transaction using internet banking website of the bank.
Part II-B. ATMs
3.3 and 4.2: only relates to transactions using bank issued PPIs.
Part III. Payment systems infrastructure
3: Includes ATMs deployed by Scheduled Commercial Banks (SCBs) and White Label ATM Operators (WLAOs). WLAs are included from April 2014 onwards.

Occasional Series

No. 44: Small Savings

(₹ Crore)

Scheme		2021-22	2021	2022		
			Dec.	Oct.	Nov.	Dec.
		1	2	3	4	5
1 Small Savings	**Receipts**	**203175**	**18175**	**10387**	**9057**	**11632**
	Outstanding	**1463777**	**1397878**	**1556375**	**1565352**	**1576921**
1.1 Total Deposits	**Receipts**	**144749**	**13855**	**7696**	**6204**	**9136**
	Outstanding	**1012241**	**969847**	**1082284**	**1088482**	**1097617**
1.1.1 Post Office Saving Bank Deposits	Receipts	17581	2630	6	-393	3806
	Outstanding	188433	179437	196446	196053	199859
1.1.2 Sukanya Samriddhi Yojna	Receipts	23748	1845	1394	1597	1890
	Outstanding	58783	47264	70176	71773	73663
1.1.3 National Saving Scheme, 1987	Receipts	-1524	-366	-20	-20	-22
	Outstanding	1894	3200	1701	1680	1659
1.1.4 National Saving Scheme, 1992	Receipts	-352	2	-2	-2	-2
	Outstanding	-177	150	-195	-198	-200
1.1.5 Monthly Income Scheme	Receipts	14441	1228	506	275	-125
	Outstanding	235820	232747	240671	240946	240821
1.1.6 Senior Citizen Scheme 2004	Receipts	22281	1929	1491	1256	935
	Outstanding	119333	114134	130652	131908	132843
1.1.7 Post Office Time Deposits	Receipts	43725	3926	1900	1547	527
	Outstanding	251282	241034	272186	273732	274259
1.1.7.1 1 year Time Deposits	Outstanding	118282	116043	124019	124073	123599
1.1.7.2 2 year Time Deposits	Outstanding	8008	7931	8553	8686	8765
1.1.7.3 3 year Time Deposits	Outstanding	6918	6983	6879	6913	6938
1.1.7.4 5 year Time Deposits	Outstanding	118074	110077	132735	134060	134957
1.1.8 Post Office Recurring Deposits	Receipts	24840	2662	2421	1941	2125
	Outstanding	156869	151885	170550	172491	174616
1.1.9 Post Office Cumulative Time Deposits	Receipts	7	-1	0	0	0
	Outstanding	-19	-25	-19	-19	-19
1.1.10 Other Deposits	Receipts	2	0	0	0	0
	Outstanding	23	21	22	22	22
1.1.11 PM Care for children	Receipts			0	3	2
	Outstanding			94	94	94
1.2 Saving Certificates	**Receipts**	**45307**	**3978**	**2545**	**2564**	**2115**
	Outstanding	**333189**	**321027**	**353818**	**356308**	**358362**
1.2.1 National Savings Certificate VIII issue	Receipts	19696	1860	791	627	446
	Outstanding	155043	150513	162152	162779	163224
1.2.2 Indira Vikas Patras	Receipts	-16	0	0	0	0
	Outstanding	143	158	142	142	142
1.2.3 Kisan Vikas Patras	Receipts	-1115	-426	-134	-165	-238
	Outstanding	-7891	-8455	-9302	-9466	-9704
1.2.4 Kisan Vikas Patras - 2014	Receipts	26619	2544	1888	2102	1907
	Outstanding	174560	168720	189654	191756	193663
1.2.5 National Saving Certificate VI issue	Receipts	92	0	0	0	0
	Outstanding	-22	-114	-22	-22	-22
1.2.6 National Saving Certificate VII issue	Receipts	31	0	0	0	0
	Outstanding	-44	-74	-44	-44	-44
1.2.7 Other Certificates	Outstanding	11400	10279	11238	11163	11103
1.3 Public Provident Fund	**Receipts**	**13119**	**342**	**146**	**289**	**381**
	Outstanding	**118347**	**107004**	**120273**	**120562**	**120942**

Note : Data on receipts from April 2017 are net receipts, *i.e.,* gross receipt *minus* gross payment.
Source: Accountant General, Post and Telegraphs.

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

(Per cent)

Central Government Dated Securities

Category	2022 Mar.	2022 Jun.	2022 Sep.	2022 Dec.	2023 Mar.
	1	2	3	4	5
(A) Total (in ₹. Crore)	**8529036**	**8784931**	**9098788**	**9373372**	**9645776**
1 Commercial Banks	35.93	36.16	36.44	36.13	36.61
2 Co-operative Banks	1.81	1.84	1.80	1.70	1.64
3 Non-Bank PDs	0.29	0.33	0.38	0.44	0.49
4 Insurance Companies	25.89	26.34	25.94	26.14	25.97
5 Mutual Funds	2.91	2.32	2.58	2.87	2.81
6 Provident Funds	4.60	4.77	4.66	4.67	4.71
7 Pension Funds	3.50	3.61	3.84	3.91	3.98
8 Financial Institutions	0.94	1.09	0.98	1.07	0.98
9 Corporates	1.47	1.52	1.58	1.57	1.62
10 Foreign Portfolio Investors	1.56	1.43	1.38	1.31	1.36
11 RBI	16.62	16.06	15.28	14.73	14.26
12 Others	4.46	4.57	5.14	5.45	5.57
12.1 State Governments	1.82	1.84	1.83	1.88	2.03

State Governments Securities

Category	2022 Mar.	2022 Jun.	2022 Sep.	2022 Dec.	2023 Mar.
	1	2	3	4	5
(B) Total (in ₹. Crore)	**4410250**	**4472011**	**4589128**	**4712902**	**4929079**
1 Commercial Banks	34.39	34.22	34.37	34.34	33.91
2 Co-operative Banks	4.04	4.06	3.89	3.80	3.64
3 Non-Bank PDs	0.38	0.41	0.36	0.44	0.62
4 Insurance Companies	28.42	28.39	27.71	27.42	26.80
5 Mutual Funds	1.82	1.89	2.08	2.02	1.94
6 Provident Funds	20.79	20.52	20.18	20.31	21.29
7 Pension Funds	4.32	4.43	4.73	4.74	4.81
8 Financial Institutions	1.72	1.73	1.71	1.77	1.84
9 Corporates	1.82	1.98	1.85	1.94	2.00
10 Foreign Portfolio Investors	0.02	0.02	0.02	0.02	0.02
11 RBI	0.80	0.79	0.79	0.75	0.72
12 Others	1.48	1.56	2.32	2.45	2.42
12.1 State Governments	0.20	0.21	0.21	0.24	0.27

Treasury Bills

Category	2022 Mar.	2022 Jun.	2022 Sep.	2022 Dec.	2023 Mar.
	1	2	3	4	5
(C) Total (in ₹. Crore)	**757198**	**1022053**	**920205**	**839931**	**823313**
1 Commercial Banks	49.04	51.37	50.91	49.15	53.92
2 Co-operative Banks	1.79	1.34	1.48	1.27	1.29
3 Non-Bank PDs	4.20	2.49	2.12	2.17	2.85
4 Insurance Companies	6.58	5.34	5.46	5.81	6.11
5 Mutual Funds	14.01	14.86	11.98	14.23	15.30
6 Provident Funds	0.21	1.70	3.21	1.37	0.10
7 Pension Funds	0.03	0.05	0.02	0.02	0.07
8 Financial Institutions	3.53	3.73	4.17	4.52	3.72
9 Corporates	3.47	4.27	3.86	3.59	4.99
10 Foreign Portfolio Investors	0.49	0.40	0.53	0.50	0.40
11 RBI	0.00	0.00	0.00	0.00	0.00
12 Others	16.66	14.45	16.25	17.37	11.25
12.1 State Governments	11.54	10.99	12.27	13.38	7.16

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

(₹ Crore)

Item	2017-18	2018-19	2019-20	2020-21	2021-22 RE	2022-23 BE
	1	2	3	4	5	6
1 Total Disbursements	**4515946**	**5040747**	**5410887**	**6353359**	**7453320**	**8008684**
1.1 Developmental	2635110	2882758	3074492	3823423	4489442	4761567
1.1.1 Revenue	2029044	2224367	2446605	3150221	3444624	3536719
1.1.2 Capital	519356	596774	588233	550358	963856	1144725
1.1.3 Loans	86710	61617	39654	122844	80962	80123
1.2 Non-Developmental	1812455	2078276	2253027	2442941	2864084	3140466
1.2.1 Revenue	1741432	1965907	2109629	2271637	2653832	2928102
1.2.1.1 Interest Payments	814757	894520	955801	1060602	1244104	1408929
1.2.2 Capital	69370	111029	141457	169155	178038	209892
1.2.3 Loans	1654	1340	1941	2148	32214	2472
1.3 Others	68381	79713	83368	86995	99794	106652
2 Total Receipts	**4528422**	**5023352**	**5734166**	**6397162**	**7193029**	**7944834**
2.1 Revenue Receipts	3376416	3797731	3851563	3688030	4894050	5497245
2.1.1 Tax Receipts	2978134	3278947	3231582	3193390	4026487	4551271
2.1.1.1 Taxes on commodities and services	1853859	2030050	2012578	2076013	2608666	2904479
2.1.1.2 Taxes on Income and Property	1121189	1246083	1216203	1114805	1414088	1642678
2.1.1.3 Taxes of Union Territories (Without Legislature)	3086	2814	2800	2572	3732	4115
2.1.2 Non-Tax Receipts	398282	518783	619981	494640	867564	945974
2.1.2.1 Interest Receipts	34224	36273	31137	33448	40481	46552
2.2 Non-debt Capital Receipts	142433	140287	110094	64994	117937	90824
2.2.1 Recovery of Loans & Advances	42213	44667	59515	16951	33188	19835
2.2.2 Disinvestment proceeds	100219	95621	50578	48044	84748	70989
3 Gross Fiscal Deficit [1 - (2.1 + 2.2)]	**997097**	**1102729**	**1449230**	**2600335**	**2441333**	**2420614**
3A Sources of Financing: Institution-wise						
3A.1 Domestic Financing	989167	1097210	1440548	2530155	2421587	2401363
3A.1.1 Net Bank Credit to Government	144792	387091	571872	890012	627255	-----
3A.1.1.1 Net RBI Credit to Government	-144847	325987	190241	107493	350911	-----
3A.1.2 Non-Bank Credit to Government	844375	710119	868676	1640143	1794332	2401363
3A.2 External Financing	7931	5519	8682	70180	19746	19251
3B Sources of Financing: Instrument-wise						
3B.1 Domestic Financing	989167	1097210	1440548	2530155	2421587	2401363
3B.1.1 Market Borrowings (net)	794856	795845	971378	1696012	1377060	1808401
3B.1.2 Small Savings (net)	71222	88961	209232	458801	565522	398870
3B.1.3 State Provident Funds (net)	42351	51004	38280	41273	45133	44731
3B.1.4 Reserve Funds	18423	-18298	10411	4545	-1675	5824
3B.1.5 Deposits and Advances	25138	66289	-14227	25682	32945	34029
3B.1.6 Cash Balances	-12476	17395	-323279	-43802	260291	63850
3B.1.7 Others	49653	96014	548753	347643	142310	45659
3B.2 External Financing	7931	5519	8682	70180	19746	19251
4 Total Disbursements as per cent of GDP	*26.4*	*26.7*	*27.0*	*32.1*	*31.5*	*31.0*
5 Total Receipts as per cent of GDP	*26.5*	*26.6*	*28.6*	*32.3*	*30.4*	*30.8*
6 Revenue Receipts as per cent of GDP	*19.8*	*20.1*	*19.2*	*18.6*	*20.7*	*21.3*
7 Tax Receipts as per cent of GDP	*17.4*	*17.3*	*16.1*	*16.1*	*17.0*	*17.6*
8 Gross Fiscal Deficit as per cent of GDP	*5.8*	*5.8*	*7.2*	*13.1*	*10.3*	*9.4*

…: 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 June-2023					
		Special Drawing Facility (SDF)		Ways and Means Advances (WMA)		Overdraft (OD)	
		Average amount availed	Number of days availed	Average amount availed	Number of days availed	Average amount availed	Number of days availed
	1	2	3	4	5	6	7
1	Andhra Pradesh	557.29	29	1524.06	26	776.22	7
2	Arunachal Pradesh	-	-	-	-	-	-
3	Assam	1030.17	11	-	-	-	-
4	Bihar	-	-	-	-	-	-
5	Chhattisgarh	3059.85	11	-	-	-	-
6	Goa	31.15	1	-	-	-	-
7	Gujarat	-	-	-	-	-	-
8	Haryana	196.25	6	468.57	2	-	-
9	Himachal Pradesh	-	-	396.01	4	325.33	1
10	Jammu & Kashmir UT	-	-	820.76	28	234.64	12
11	Jharkhand	-	-	-	-	-	-
12	Karnataka	-	-	-	-	-	-
13	Kerala	148.96	21	967.44	21	104.90	2
14	Madhya Pradesh	-	-	-	-	-	-
15	Maharashtra	-	-	-	-	-	-
16	Manipur	-	-	172.31	26	74.59	7
17	Meghalaya	141.49	10	165.47	10	-	-
18	Mizoram	-	-	144.77	14	45.96	8
19	Nagaland	-	-	228.35	5	8.96	3
20	Odisha	-	-	-	-	-	-
21	Puducherry	-	-	-	-	-	-
22	Punjab	1952.57	27	105.72	4	-	-
23	Rajasthan	3017.34	27	-	-	-	-
24	Tamil Nadu	-	-	-	-	-	-
25	Telangana	832.63	30	1254.36	26	1101.47	9
26	Tripura	-	-	-	-	-	-
27	Uttar Pradesh	-	-	-	-	-	-
28	Uttarakhand	402.04	11	309.67	11	-	-
29	West Bengal	-	-	-	-	-	-

Notes: 1. SDF is availed by State Governments against the collateral of Consolidated Sinking Fund (CSF), Guarantee Redemption Fund (GRF) & Auction Treasury Bills (ATBs) balances and other investments in government securities.
2. WMA is advance by Reserve Bank of India to State Governments for meeting temporary cash mismatches.
3. OD is advanced to State Governments beyond their WMA limits.
4. Average amount availed is the total accommodation (SDF/WMA/OD) availed divided by number of days for which accommodation was extended during the month.
5. - : Nil.

Source: Reserve Bank of India.

No. 48: Investments by State Governments

(₹ Crore)

Sr. No	State/Union Territory	As on end of June 2023			
		Consolidated Sinking Fund (CSF)	Guarantee Redemption Fund (GRF)	Government Securities	Auction Treasury Bills (ATBs)
	1	2	3	4	5
1	Andhra Pradesh	10275	1014	0	0
2	Arunachal Pradesh	2296	4	0	1250
3	Assam	5637	79	0	0
4	Bihar	8305	-	0	0
5	Chhattisgarh	6536	5	1	3800
6	Goa	846	408	0	0
7	Gujarat	10968	595	0	17000
8	Haryana	1814	1514	0	0
9	Himachal Pradesh	-	-	0	0
10	Jammu & Kashmir UT	-	-	0	0
11	Jharkhand	1604	-	0	0
12	Karnataka	14414	322	0	38677
13	Kerala	2723	-	0	0
14	Madhya Pradesh	-	1138	0	0
15	Maharashtra	59441	1252	0	4000
16	Manipur	62	125	0	0
17	Meghalaya	1052	83	8	0
18	Mizoram	378	44	0	0
19	Nagaland	1586	41	0	0
20	Odisha	16217	1817	104	22023
21	Puducherry	480	-	0	1250
22	Punjab	7034	0	0	0
23	Rajasthan	-	-	129	12900
24	Tamil Nadu	8299	-	0	2676
25	Telangana	7029	1533	0	0
26	Tripura	998	21	0	1025
27	Uttarakhand	4478	189	0	0
28	Uttar Pradesh	5856	-	89	0
29	West Bengal	11399	827	239	0
	Total	**189728**	**11010**	**570**	**104601**

Notes: 1. CSF and GRF are reserve funds maintained by some State Governments with the Reserve Bank of India.
2. ATBs include Treasury bills of 91 days, 182 days and 364 days invested by State Governments in the primary market.
3. - : Not Applicable (not a member of the scheme).

No. 49: Market Borrowings of State Governments

(₹ Crore)

Sr. No.	State	2021-22		2022-23		2023-24						Total amount raised, so far in 2023-24	
						April		May		June			
		Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross	Net
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Andhra Pradesh	46443	36103	57478	45814	6000	5417	9500	8917	7000	7000	22500	21334
2	Arunachal Pradesh	563	530	559	389	-	-	-	-	-	-	-	-
3	Assam	12753	10753	17100	16105	1000	1000	3000	3000	1000	1000	5000	5000
4	Bihar	28489	24334	36800	27467	-	-	-	-	-	-	-	-
5	Chhattisgarh	4000	913	2000	-2287	-	-	-	-800	3000	3000	3000	2200
6	Goa	2000	1450	1350	500	-	-	-	-200	200	200	200	-
7	Gujarat	31054	13554	43000	28300	1000	-	1500	1500	3000	1000	5500	2500
8	Haryana	30500	20683	45158	28638	2000	1337	4500	3500	3500	1925	10000	6762
9	Himachal Pradesh	4000	1875	14000	11941	-	-250	-	-	800	200	800	-50
10	Jammu & Kashmir UT	8562	5373	8473	5969	-	-200	800	600	1500	1200	2300	1600
11	Jharkhand	5000	3191	4000	-155	-	-	-	-	-	-	-	-
12	Karnataka	59000	49000	36000	26000	-	-	-	-	-	-	-	-
13	Kerala	27000	18120	30839	15620	-	-1000	4000	2500	3000	2000	7000	3500
14	Madhya Pradesh	22000	13900	40158	26849	-	-500	2000	2000	4000	4000	6000	5500
15	Maharashtra	68750	40790	72000	42815	3000	3000	12000	12000	10000	8500	25000	23500
16	Manipur	1476	1326	1422	1147	-	-	350	350	-	-	350	350
17	Meghalaya	1608	1298	1753	1356	-	-100	150	150	350	350	500	400
18	Mizoram	747	447	1315	1129	-	-80	250	250	100	50	350	220
19	Nagaland	1727	1222	1854	1199	300	180	450	370	150	150	900	700
20	Odisha	0	-6473	0	-7500	-	-	-	-500	-	-	-	-500
21	Puducherry	1374	841	1200	698	-	-	-	-	-	-	-	-
22	Punjab	25814	12428	45500	33660	2500	500	6700	5300	4300	2558	13500	8358
23	Rajasthan	51149	38243	46057	30110	4500	3000	8000	7000	3500	-312	16000	9688
24	Sikkim	1511	1471	1414	1320	-	-	300	300	-	-	300	300
25	Tamil Nadu	87000	72500	87000	65722	-	-3000	11000	8000	14000	12000	25000	17000
26	Telangana	45716	39256	40150	30922	2000	1583	4000	3583	6000	6000	12000	11166
27	Tripura	300	0	0	-645	-	-	-	-	-	-	-	-
28	Uttar Pradesh	62500	42355	55612	41797	-	-	4000	2000	2500	-733	6500	1267
29	Uttarakhand	3200	1800	3200	1450	-	-	-	-	-	-	-	-
30	West Bengal	67390	45199	63000	42500	-	-1000	5000	4000	-	-2000	5000	1000
	Grand Total	701626	492483	758392	518829	22300	9887	77500	63820	67900	48088	167700	121795

- : Nil.

Note: The State of J&K has ceased to exist constitutionally from October 31, 2019 and the liabilities of the State continue to remain as liabilities of the new UT of Jammu and Kashmir.

Source: Reserve Bank of India.

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

(Amount in ₹ Crore)

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

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

(Amount in ₹ Crore)

Item	2020-21				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	**600422.5**	**573643.2**	**481433.5**	**719844.5**	**2375343.7**
Per cent of GDP	*15.5*	*12.1*	*8.8*	*12.5*	*12.0*
I. Financial Assets	**805869.5**	**612224.3**	**651241.3**	**1092617.4**	**3161952.5**
Per cent of GDP	*20.8*	*13.0*	*12.0*	*19.0*	*16.0*
of which:					
1.Total Deposits (a+b)	297412.4	278631.7	158172.2	525550.7	1259767.1
(a) Bank Deposits	281191.3	264565.3	147096.0	527056.7	1219909.2
i. Commercial Banks	279010.5	262033.7	143558.6	471730.9	1156333.7
ii. Co-operative Banks	2180.8	2531.6	3537.3	55325.8	63575.6
(b) Non-Bank Deposits	16221.1	14066.4	11076.3	-1506.0	39857.9
2. Life Insurance Funds	123291.4	142365.7	156438.6	141120.0	563215.8
3. Provident and Pension Funds (including PPF)	119666.9	110916.6	108512.2	207604.5	546700.1
4. Currency	202432.7	21286.9	91456.0	66800.5	381976.1
5. Investments	6249.8	-12956.4	67659.3	63624.0	124576.7
of which:					
(a) Mutual Funds	-16021.0	-28837.7	57675.4	51267.0	64083.8
(b) Equity	18599.4	8291.5	5307.1	6333.3	38531.2
6. Small Savings (excluding PPF)	55760.7	70924.2	67947.4	86862.2	281494.6
II. Financial Liabilities	**205447.0**	**38581.1**	**169807.8**	**372772.9**	**786608.8**
Per cent of GDP	*5.3*	*0.8*	*3.1*	*6.5*	*4.0*
Loans (Borrowings) from					
1. Financial Corporations (a+b)	205490.3	38624.3	169851.0	372816.9	786782.5
(a) Banking Sector	211058.8	13213.0	139622.0	284732.6	648626.4
of which:					
Commercial Banks	211259.3	13213.8	140514.3	242476.0	607463.5
(b) Other Financial Institutions	-5568.6	25411.3	30229.0	88084.4	138156.1
i. Non-Banking Financial Companies	-15450.4	21627.1	15921.2	61326.1	83424.0
ii. Housing Finance Companies	10516.6	2875.1	13048.5	25336.1	51776.2
iii. Insurance Companies	-634.8	909.2	1259.3	1422.2	2955.9
2. Non-Financial Corporations (Private Corporate Business)	33.8	33.8	33.8	33.0	134.4
3. General Government	-77.0	-77.0	-77.0	-77.0	-308.0

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

(Amount in ₹ Crore)

Item	2021-22				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	**519781.2**	**358325.2**	**453302.7**	**636259.8**	**1967668.9**
Per cent of GDP	*10.1*	*6.4*	*7.2*	*9.6*	*8.3*
I. Financial Assets	**382780.7**	**547346.2**	**834009.6**	**796341.7**	**2560478.2**
Per cent of GDP	*7.5*	*9.7*	*13.2*	*12.0*	*10.8*
of which:					
1.Total Deposits (a+b)	-84377.1	202652.1	425821.4	151374.9	695471.4
(a) Bank Deposits	-106507.3	197301.2	422819.5	140297.2	653910.7
i. Commercial Banks	-108037.7	195617.4	418642.9	145510.5	651733.1
ii. Co-operative Banks	1530.4	1683.8	4176.7	-5213.3	2177.6
(b) Non-Bank Deposits	22130.2	5350.9	3001.9	11077.7	41560.7
2. Life Insurance Funds	114617.8	127356.0	103154.9	95681.7	440810.4
3. Provident and Pension Funds (including PPF)	126469.7	108777.0	91543.9	254877.2	581667.9
4. Currency	128660.2	-68631.2	62793.3	146845.0	269667.4
5. Investments	24929.6	82305.4	69760.9	50980.8	227976.7
of which:					
(a) Mutual Funds	14573.0	63151.3	37912.2	44963.7	160600.1
(b) Equity	4502.5	13218.5	27808.2	3084.1	48613.3
6. Small Savings (excluding PPF)	71423.1	93829.6	79877.9	95524.7	340655.3
II. Financial Liabilities	**-137000.5**	**189021.0**	**380706.9**	**160081.8**	**592809.2**
Per cent of GDP	*-2.7*	*3.4*	*6.0*	*2.4*	*2.5*
Loans (Borrowings) from					
1. Financial Corporations (a+b)	-137021.8	188999.7	380685.6	160060.6	592724.1
(a) Banking Sector	-113662.5	134166.1	320160.2	153323.3	493987.0
of which:					
Commercial Banks	-108061.2	135728.8	317452.5	152364.2	497484.4
(b) Other Financial Institutions	-23359.3	54833.7	60525.5	6737.3	98737.1
i. Non-Banking Financial Companies	-31118.4	28880.1	29479.8	-31016.3	-3774.8
ii. Housing Finance Companies	7132.0	24403.8	29494.8	37436.2	98466.8
iii. Insurance Companies	627.1	1549.8	1550.9	317.4	4045.2
2. Non-Financial Corporations (Private Corporate Business)	33.8	33.8	33.8	33.8	135.1
3. General Government	-12.5	-12.5	-12.5	-12.5	-50.0

Notes:
1. Net Financial Savings of households refer to the flow of net financial assets, which represents change in financial assets held by households minus change in their financial liabilities.
2. Revisions in small savings and PPF are mainly on account of quarterly figures being derived from monthly receipts data sourced from Controller General of Accounts, Government of India.
3. Revisions in bank deposits for 2021-22 are attributed to the lower share of households in total deposits as per BSR-2.
4. Data as ratios to GDP have been calculated based on the Provisional Estimates of National Income 2021-22 released on May 31, 2022.
5. Figures in the columns may not add up to the total due to rounding off.

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

(Amount in ₹ Crore)

Item	Jun-2019	Sep-2019	Dec-2019	Mar-2020
Financial Assets (a+b+c+d)	**16315506.3**	**16632816.5**	**17010694.5**	**17180616.2**
Per cent of GDP	*84.7*	*85.4*	*86.2*	*85.6*
(a) Bank Deposits (i+ii)	8858293.4	9136417.9	9252629.8	9696674.3
i. Commercial Banks	8131543.2	8401018.6	8467685.3	8913692.0
ii. Co-operative Banks	726750.2	735399.2	784944.4	782982.3
(b) Life Insurance Funds	3883609.7	3930727.6	4049902.5	3884771.5
(c) Currency	2010842.9	1984738.1	2071570.7	2232261.0
(d) Mutual Funds	1404631.5	1412654.1	1468727.6	1197092.9
Financial Liabilities (a+b)	**6370092.6**	**6461087.5**	**6591954.6**	**6985220.6**
Per cent of GDP	*33.1*	*33.2*	*33.4*	*34.8*
Loans (Borrowings) from				
(a) Banking Sector	5148115.0	5206189.4	5321095.3	5517676.4
of which:				
i. Commercial Banks	4668496.4	4725631.3	4813008.7	5015222.9
ii. Co-operative Banks	478956.2	479656.9	506946.6	501074.8
(b) Other Financial Institutions	1221977.5	1254898.1	1270859.3	1467544.1
of which:				
i. Non-Banking Financial Companies	451922.3	474899.0	504829.7	703094.0
ii. Housing Finance Companies	673312.1	681405.2	665694.8	662601.7

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

(Amount in ₹ Crore)

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

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

(Amount in ₹ Crore)

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

Notes:
1. Data have been compiled for select financial instruments only (loans from Banking Sector, NBFCs and HFCs) for which data are available.
2. Data as ratios to GDP have been calculated based on the Provisional Estimates of National Income 2021-22 released on May 31, 2022.
3. Figures in the columns may not add up to the total due to rounding off.

Explanatory Notes to the Current Statistics

Table No. 1

1.2& 6: Annual data are average of months.
3.5 & 3.7: Relate to ratios of increments over financial year so far.
4.1 to 4.4, 4.8,4.9 &5: Relate to the last friday of the month/financial year.
4.5, 4.6 & 4.7: Relate to five major banks on the last Friday of the month/financial year.
4.10 to 4.12: Relate to the last auction day of the month/financial year.
4.13: Relate to last day of the month/ financial year
7.1&7.2: Relate to Foreign trade in US Dollar.

Table No. 2

2.1.2: Include paid-up capital, reserve fund and Long-Term Operations Funds.
2.2.2: Include cash, fixed deposits and short-term securities/bonds, e.g., issued by IIFC (UK).

Table No. 4

Maturity-wise position of outstanding forward contracts is available at http://nsdp.rbi.org.in under ''Reserves Template''.

Table No. 5

Special refinance facility to Others, *i.e.* to the EXIM Bank, is closed since March 31, 2013.

Table No. 6

For scheduled banks, March-end data pertain to the last reporting Friday.
2.2: Exclude balances held in IMF Account No.1, RBI employees' provident fund, pension fund, gratuity and superannuation fund.

Table Nos. 7 & 11

3.1 in Table 7 and 2.4 in Table 11: Include foreign currency denominated bonds issued by IIFC (UK).

Table No. 8

NM_2 and NM_3 do not include FCNR (B) deposits.
2.4: Consist of paid-up capital and reserves.
2.5: includes other demand and time liabilities of the banking system.

Table No. 9

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

Table No. 13

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

Table No. 14

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

Table No. 17

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

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

4: Include borrowings from IDBI and NABARD.

Table No. 24

Primary Dealers (PDs) include banks undertaking PD business.

Table No. 30

Exclude private placement and offer for sale.

1: Exclude bonus shares.

2: Include cumulative convertible preference shares and equi-preference shares.

Table No. 32

Exclude investment in foreign currency denominated bonds issued by IIFC (UK), SDRs transferred by Government of India to RBI and foreign currency received under SAARC SWAP arrangement. Foreign currency assets in US dollar take into account appreciation/depreciation of non-US currencies (such as Euro, Sterling, Yen and Australian Dollar) held in reserves. Foreign exchange holdings are converted into rupees at rupee-US dollar RBI holding rates.

Table No. 34

1.1.1.1.2 & 1.1.1.1.1.4: Estimates.

1.1.1.2: Estimates for latest months.

'Other capital' pertains to debt transactions between parent and subsidiaries/branches of FDI enterprises.

Data may not tally with the BoP data due to lag in reporting.

Table No. 35

1.10: Include items such as subscription to journals, maintenance of investment abroad, student loan repayments and credit card payments.

Table No. 36

Increase in indices indicates appreciation of rupee and *vice versa.* For 6-Currency index, base year 2021-22 is a moving one, which gets updated every year. REER figures are based on Consumer Price Index (combined). The details on methodology used for compilation of NEER/REER indices are available in December 2005, April 2014 and January 2021 issues of the RBI Bulletin.

Table No. 37

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

Table Nos. 38, 39, 40 & 41

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

Table No. 43

Part I-A. Settlement systems

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

Part I-B. Payments systems

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

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

5: Available from December 2010.

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

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

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

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

Part II-A. Other payment channels

1: Mobile Payments –

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

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

Part II-B. ATMs

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

Part III. Payment systems infrastructure

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

Table No. 45

(-) represents nil or negligible

The table format is revised since June 2023 issue of the bulletin.

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

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

The category 'Others' comprises State Governments, DICGC, PSUs, Trusts, Foreign Central Banks, HUF/ Individuals *etc.*

Table No. 46

GDP data is based on 2011-12 base. GDP for 2022-23 is from Union Budget 2022-23.

Data pertains to all States and Union Territories.

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

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

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

3A.1.1: Data as per RBI records.

3B.1.1: Borrowings through dated securities.

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

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

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

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

Table No. 47

SDF is availed by State Governments against the collateral of Consolidated Sinking Fund (CSF), Guarantee Redemption Fund (GRF) & Auction Treasury Bills (ATBs) balances and other investments in government securities.

WMA is advance by Reserve Bank of India to State Governments for meeting temporary cash mismatches.

OD is advanced to State Governments beyond their WMA limits.

Average amount Availed is the total accommodation (SDF/WMA/OD) availed divided by number of days for which accommodation was extended during the month.

- : Nil.

Table No. 48

CSF and GRF are reserve funds maintained by some State Governments with the Reserve Bank of India.

ATBs include Treasury bills of 91 days, 182 days and 364 days invested by State Governments in the primary market.

--: Not Applicable (not a member of the scheme).

The concepts and methodologies for Current Statistics are available in Comprehensive Guide for Current Statistics of the RBI Monthly Bulletin **(https://rbi.org.in/Scripts/PublicationsView.aspx?id=17618)**

Time series data of 'Current Statistics' is available at https://dbie.rbi.org.in.

Detailed explanatory notes are available in the relevant press releases issued by RBI and other publications/releases of the Bank such as **Handbook of Statistics on the Indian Economy**.

Recent Publications of the Reserve Bank of India

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1. Reserve Bank of India Bulletin 2023	₹350 per copy ₹250 per copy (concessional rate*) ₹4,000 (one year subscription) ₹3,000 (one year concessional rate*)	US$ 15 per copy US$ 150 (one-year subscription) (inclusive of air mail courier charges)
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10. Reserve Bank of India Occasional Papers Vol. 43, No. 1, 2022	₹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. 2, 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)
13. Report on Municipal Finances	₹300 per copy (over the counter) ₹350 per copy (inclusive of postal charges)	US$ 16 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.

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

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