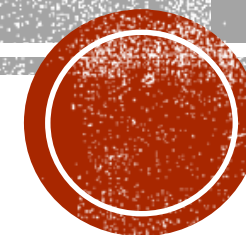


Monthly Review of the Economy

December 2023



Comments are welcome at directorgeneral@ncaer.org. The findings, interpretations, and conclusions expressed are those of the authors and do not necessarily reflect the views of the Governing Body or Management of NCAER.

Monthly highlights

- The Federal Open Market Committee (FOMC) in its meeting from 12-13 December 2023, kept the policy rate unchanged at 5.50 percent (with the target range of 5.25 to 5.50 percent).
- Although inflation in the US, UK and Japan decelerated further, it remained above the target rate of 2 percent.
- The Monetary Policy Committee (MPC) decided to keep the policy rate unchanged at 6.5 percent. The RBI raised its projection for India's real GDP growth for FY2023-24 to 7.0 percent from its previous forecast of 6.5 percent, released in October 2023. The CPI Inflation projection for the FY2023-24 remained at 5.4 percent in line with its earlier projection.
- The Asian Development Bank (ADB) raised India's real GDP growth projection for FY2023-24 from 6.3 to 6.7 percent. The International Monetary Fund (IMF) in its Article IV Mission Report for India, published in December 2023, kept the real GDP growth projection for the Indian economy for FY2023-24 unchanged at 6.3 percent, remaining in line with the projection released in World Economic Outlook (WEO), October 2023.
- High-frequency indicators reveal that the domestic economy has remained resilient. The Purchasing Manager's Index (PMI) for manufacturing activity regained momentum, PMI for services slowed down sequentially, but both continued to reflect an expansionary momentum; IIP registered high growth on a year-over-year basis; GST collections registered a year-over-year growth of 15.1 percent in November 2023, but collections declined on a sequential basis. Inflationary pressure increased in November 2023; food inflation and Wholesale Price Index based inflation increased sharply.
- India's foreign exchange reserves increased sequentially; the rupee remained flat against the US dollar. The merchandise trade deficit narrowed, and the services trade surplus increased sequentially. The Current Account Deficit for Q2 FY2023-24 narrowed on a year-over-year basis. , remittances flow remained high.
- Employment indicators showed mixed trends—the number of net new subscribers under EPFO increased on a year-over-year basis, but softened sequentially; online hiring, as per the Naukri JobSpeak Index decreased by 23.0 percent on year-over-year basis but IT and Software showed a sequential increase in hiring. Work demand under MGNREGA increased year-over-year, but it moderated on a sequential basis.
- Yields on 5-year Indian government securities decreased marginally, and 10-year benchmark remained flat; net foreign portfolio investments increased sharply; equity markets for the world and India, increased sequentially and, for emerging markets it remained flat.

- Federal Open Market Committee (FOMC) kept the policy rate unchanged (with a target rate range of 5.25-5.50 percent). The average (median) growth projections for 2023, 2024, 2025 and beyond 2025 are reported in Table 1. [Federal Reserve Press Release, 13 December 2023](#)
- [Inflation in the US decelerated marginally to 3.1 percent in November 2023](#) against 3.2 percent in October 2023. [Inflation in the UK decelerated to 3.9 percent in November 2023](#) from 4.6 percent in October 2023. [Inflation in Japan decelerated to 2.8 percent in November 2023](#) from 3.3 percent in October 2023 (Figure 1).
- The Asian Development Bank (ADB) raised its projection for India’s real GDP growth for FY2023-24 to [6.7 percent in its latest Asian Development Outlook, December 2023](#), from its [previous projection of 6.3 percent released in September 2023](#).
- The International Monetary Fund (IMF) in its [Article IV Mission Report for India, published in December 2023](#), kept the real GDP growth projection for the Indian economy for FY2023-24 unchanged at 6.3 percent, remaining in line with the projection released in [World Economic Outlook \(WEO\) in October 2023](#). The projection was revised upwards from 6.1 percent published in [Article IV Mission Report for India 2022](#).

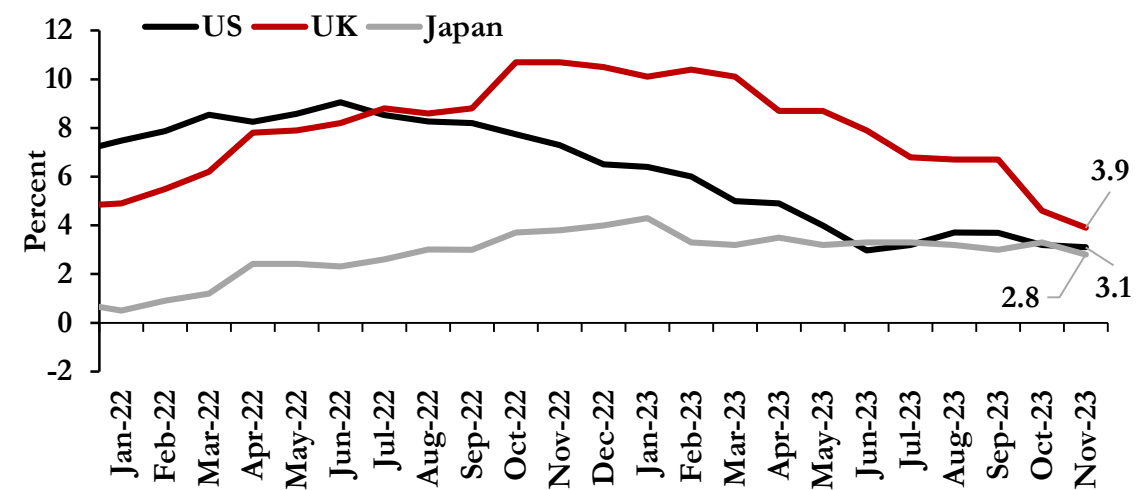
Table 1: FOMC Projections

Variables	Median Projections			
	2023	2024	2025	Long-run
Real GDP (% change)	2.6	1.4	1.8	1.8
Unemployment Rate (%)	3.8	4.1	4.1	4.1
PCE inflation	2.8	2.4	2.1	2.0
Core PCE inflation	3.2	2.4	2.2	-
Fund rate (%)	5.4	4.6	3.6	2.5

Source: [FOMC Meeting Statement \(December 12-13, 2023\)](#)

Note: The Personal Consumption Expenditures (PCE) price index includes consumer-related expenditures like employer-sponsored health insurance or government assistance programs. To take account of substitution, the commodities and services that make up the PCE basket are frequently updated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Longer-run projections for core PCE inflation are not given by the FOMC.

Figure 1: Headline Inflation in Advanced Economies



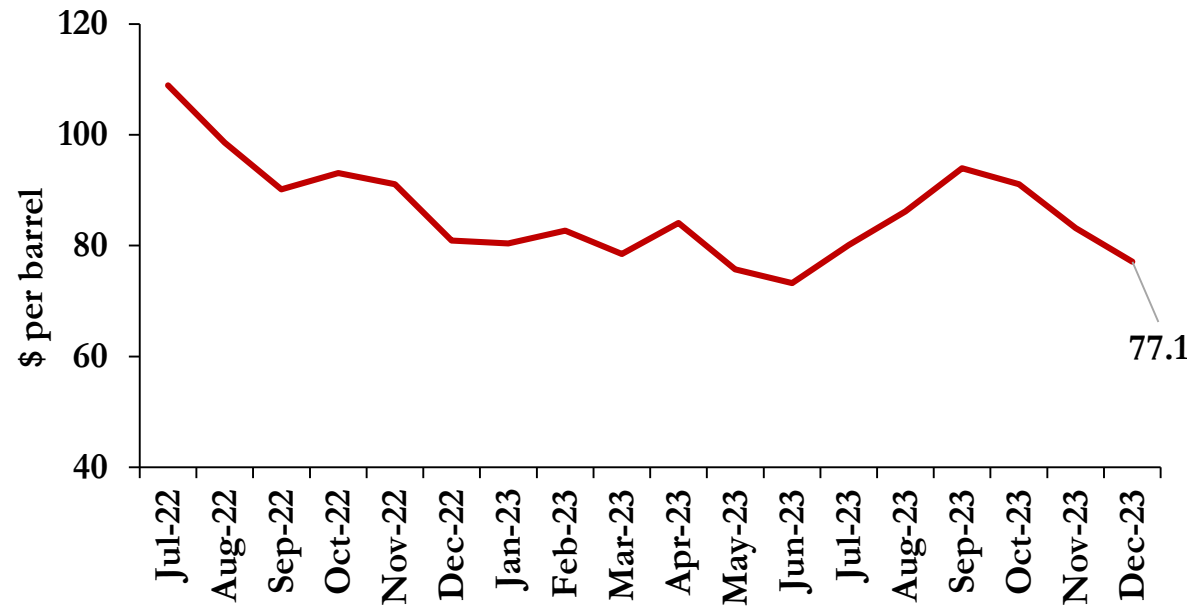
Source: US Bureau of Labor Statistics; Office for National Statistics; Statistics Bureau, UK and The Bank of Japan (Figure 1).

Oil prices declined further; Equity markets (MSCI Index) for the world and India increased sequentially however it remained flat for emerging markets

Global

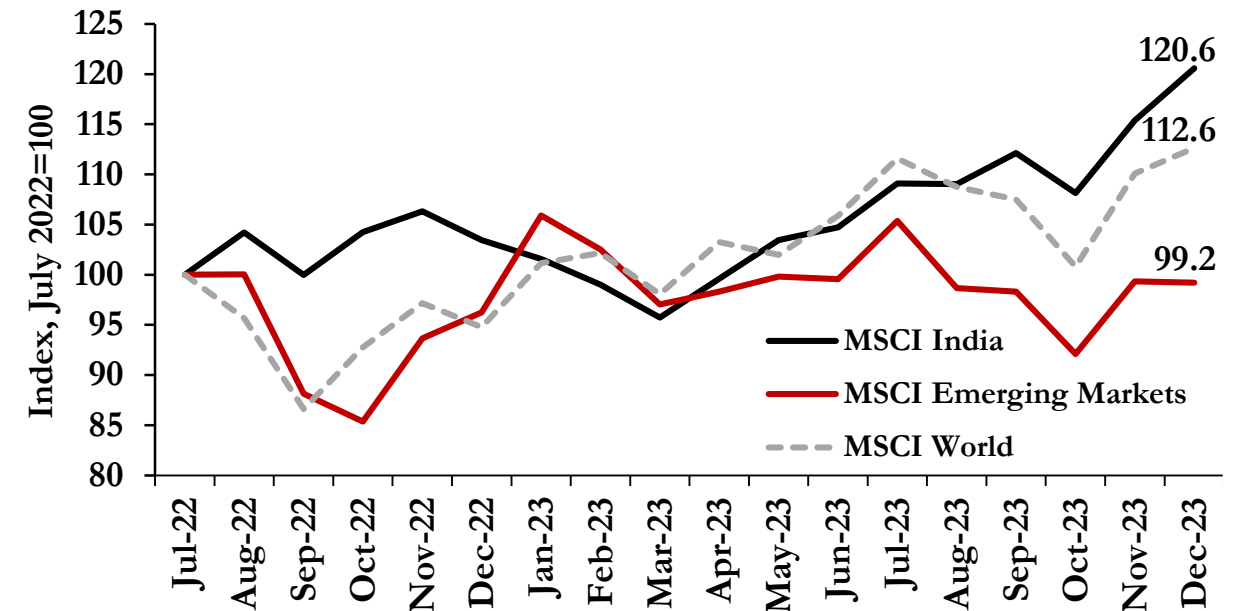
- The Brent crude oil price declined to USD 77.1 per barrel (as of 26 December 2023), compared to the corresponding price of USD 83.2 per barrel at end-November 2023 (Figure 2).
- As of 26 December 2023, the Morgan Stanley Capital International (MSCI) Index for the world and India showed an increase of 2.3 and 4.5 percent, respectively. It remained flat sequentially for emerging markets compared to end-November 2023 (Figure 3).

Figure 2: Brent Crude Oil Price



Source: World Bank Pink Sheet (Figure 2).

Figure 3: Equity Markets

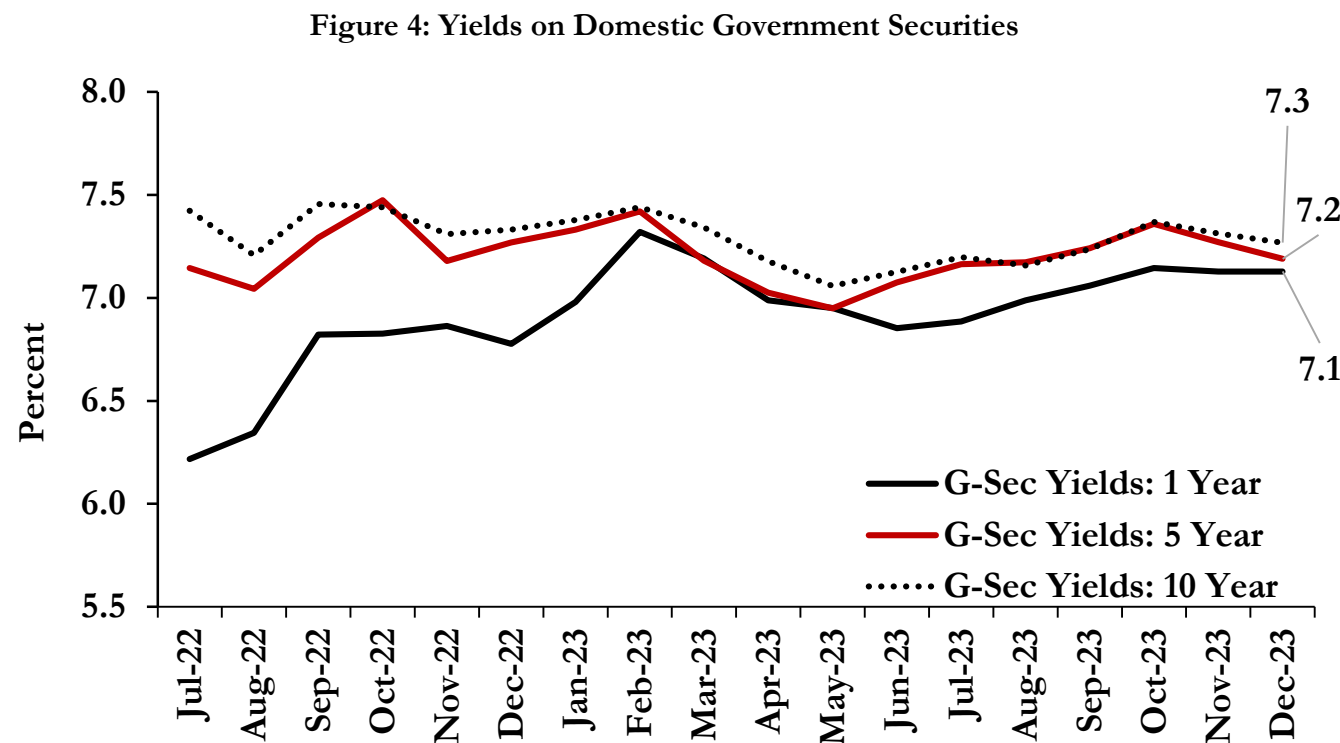


Source: Investing.com (Figure 3).

Note: The data for Figure 2 has been taken from the World Bank Pink Sheet for the period July 2022 until November 2023, and from [NASDAQ](#) for the month of December 2023, as of 26 December 2023. Figure 3 is indexed from July 2022, July 2022=100, data for Figure 3 is reported until 26 December 2023. The average of daily values was taken to create the monthly value for December 2023.

Yield on Indian Government debt decreased marginally for the 5-year benchmark, and remained flat for the 1-year and 10-year benchmarks

- As of 26 December 2023, the yields for 1-year and 10-year benchmark government securities remained flat at 7.1 percent and 7.3 percent, respectively, in line with the corresponding figures for November 2023. The yield for 5-year benchmark government securities decreased marginally to 7.2 in December 2023 from 7.3 percent in November 2023 (Figure 4).



Source: Clearing Corporation of India Ltd (Figure 4).

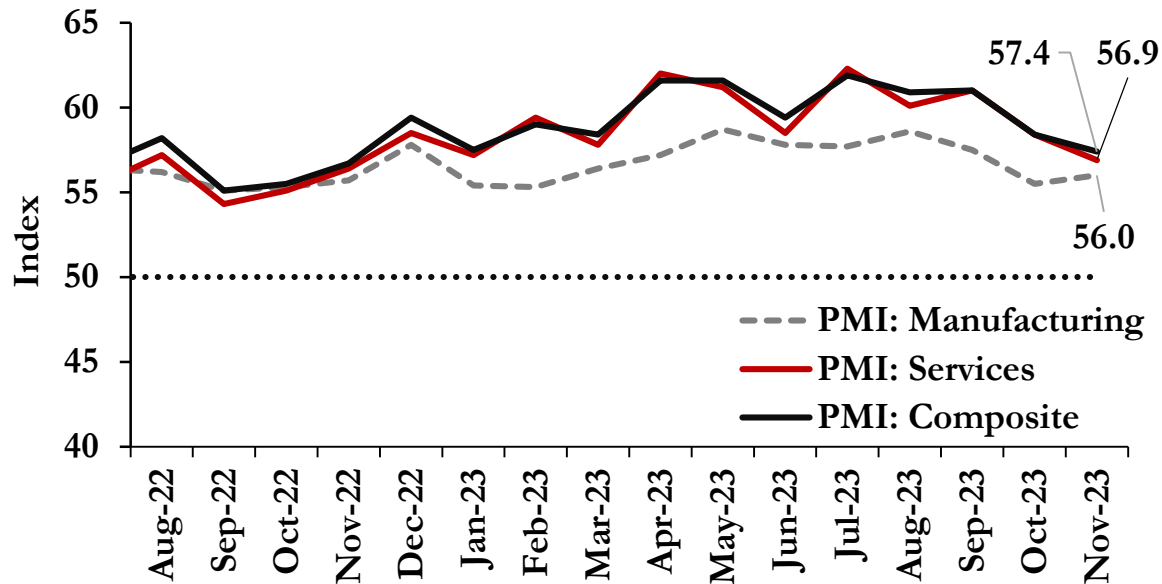
Note: In Figure 4, for the month of December, data is reported until 26 December 2023. The average of daily values is taken to create the monthly value for December 2023.

PMI for manufacturing regained momentum, PMI services slowed; IIP registered growth on a year-over-year basis

Real Sector

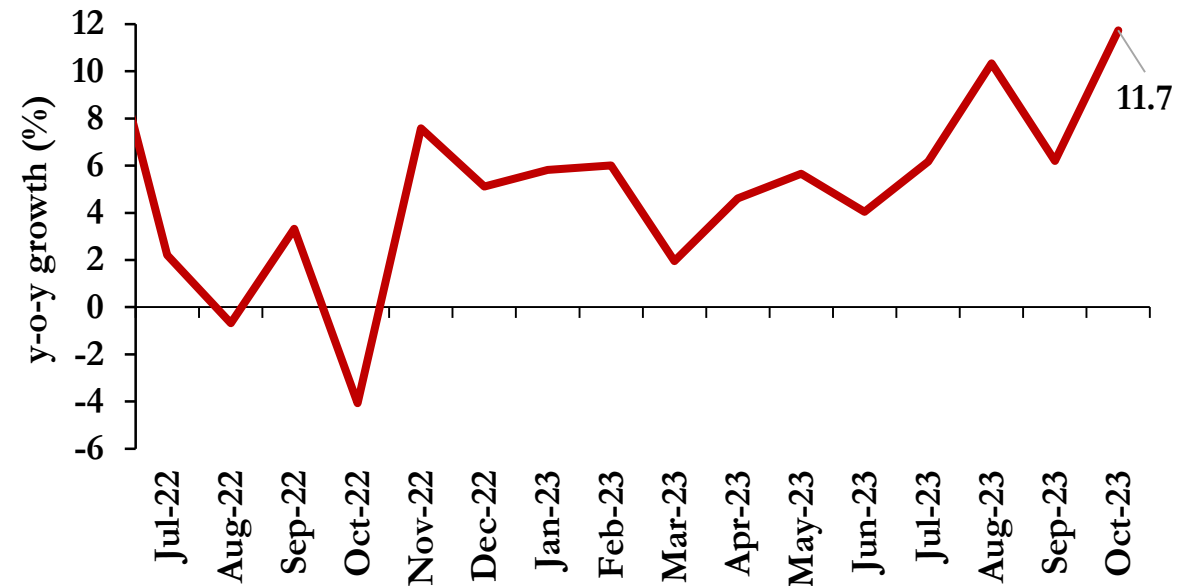
- The Purchasing Manager's Index (PMI) for manufacturing activity increased to [56.0 in November 2023](#) from a value of 55.5 in October 2023. The PMI for services decreased to a value of [56.9 in November 2023](#) from 58.4 in October 2023. The composite PMI decreased to 57.4 in November 2023 from the value of 58.4 in October 2023 (Figure 5).
- The Index of Industrial Production (IIP) registered a growth of 11.7 percent (Provisional Estimates) in October 2023 on a year-over-year basis (Figure 6). [IIP Press Release dated 12th Dec'23](#)

Figure 5: PMI Indices



Source: IHS Markit (Figure 5).

Figure 6: Index of Industrial Production (IIP)



Source: Ministry of Statistics and Programme Implementation (Figure 6).

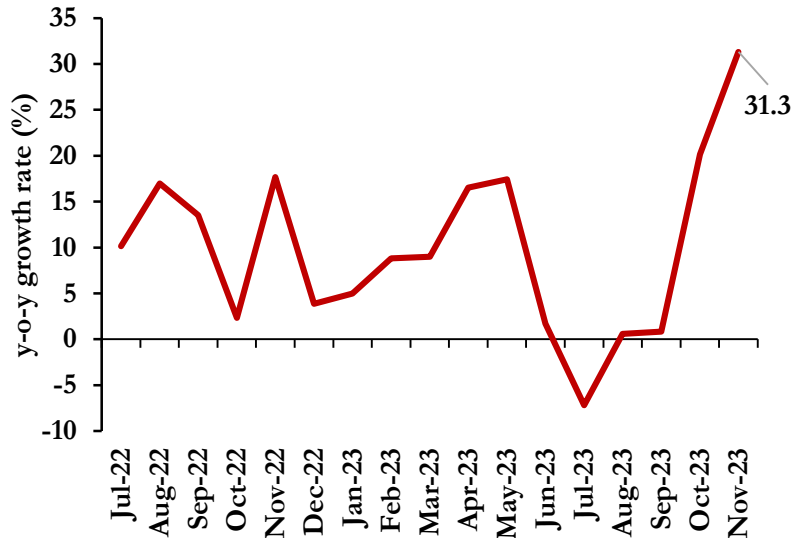
Note: PMI value ranges from 0 to 100. Any value under 50 represents a contraction, a reading at 50 indicates no change and a reading above 50 indicates expansion. The further away from 50 is the reading, the greater is the level of change.

Sales of automobiles (non-EV two-wheelers) registered year-over-year growth; EVs sales remained strong sequentially; digital toll collection remained strong year-over-year

Real Sector

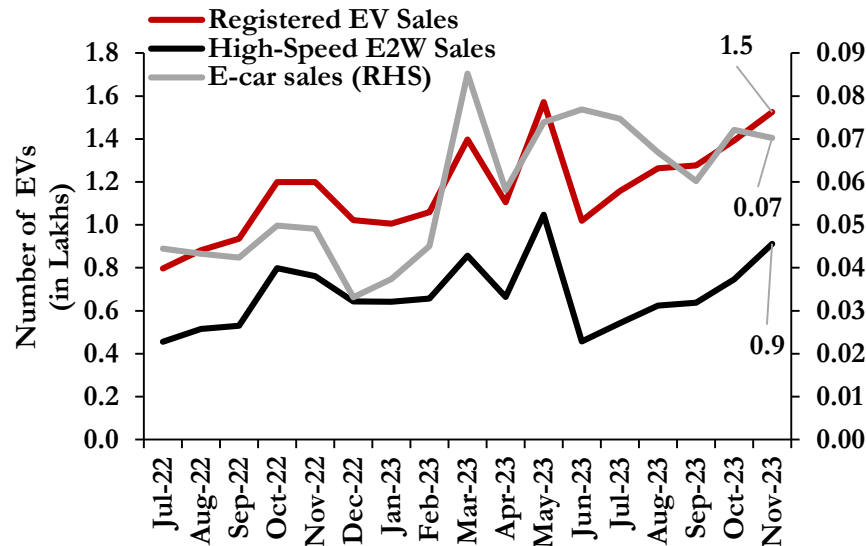
- The sales of two-wheelers (non-Electric Vehicles [EVs]) increased by 31.3 percent in November 2023 on a year-over-year basis. However, sales of two-wheelers declined by 14.4 percent on a sequential basis (Figure 7).
- As per the Vahan Dashboard of the Government of India, the overall registered EV sales reached 1.5 lakh units in November 2023, registering a sequential growth of 9.5 percent. Sales among different categories for EVs like High-speed Electric Two-wheelers (HS E2Ws) stood at 0.9 lakh units, marking a sequential increase of 22.2 percent. However, the total sales of E-cars, registered a sequential decline of 2.6 percent, reaching 0.07 lakh units (Figure 8). [\[Monthly EV Update – November 2023 \(https://jmkresearch.com/\)\]](https://jmkresearch.com/)
- The National Electronic Toll Collection (NETC) recorded 320.8 million transactions in November 2023, and registered a growth of 12.3 percent on a year-over-year basis in terms of the volume of transactions (Figure 9).

Figure 7: Automobile (non-EV Two-wheeler) Sales



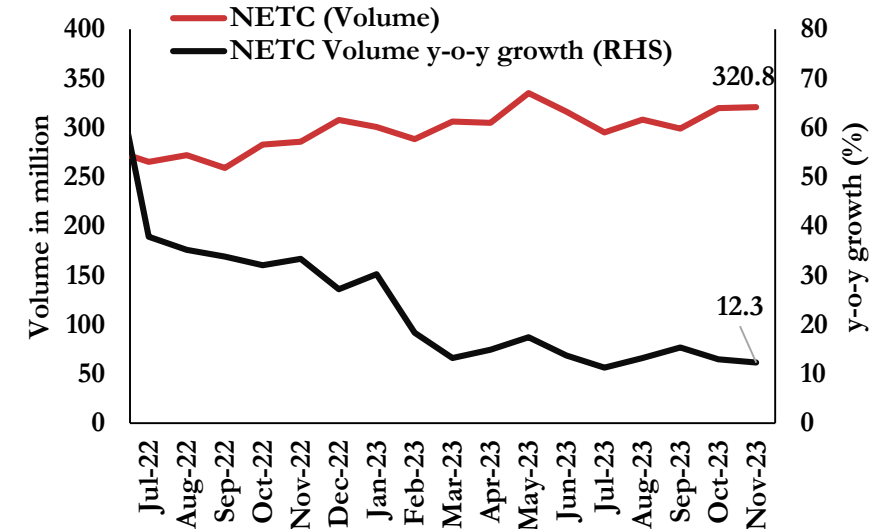
Source: CEIC Estimates, Society of Indian Automobile Manufacturers (Figure 7).

Figure 8: Electric Vehicles Sales- by Categories



Source: JMK Research and Analytics, Vahan Dashboard (Figure 8).

Figure 9: Digital Payments: NETC Volume and Growth Rates



Source: National Payments Corporation of India (NPCI) (Figure 9).

UPI transactions recorded 11.2 billion transactions in November 2023; IMPS registered growth on a year-over-year basis

Real Sector

- The Unified Payments Interface (UPI), India's leading digital payment system, recorded 11.2 billion transactions in November 2023, and registered a growth of 53.7 percent in November 2023 on a year-over-year basis. However, transactions under UPI registered a sequential decline of 1.5 percent (Figures 10 and 11).
- The digital payments system, Immediate Payment Service (IMPS), recorded 472.4 million transactions in November 2023, registering a growth of 1.9 percent on a year-over-year basis. However, transactions under IMPS registered a sequential decline of 4.3 percent (Figures 10 and 11).

Figure 10: Unified Payments Interface (UPI) and Immediate Payment Service (IMPS) Transactions

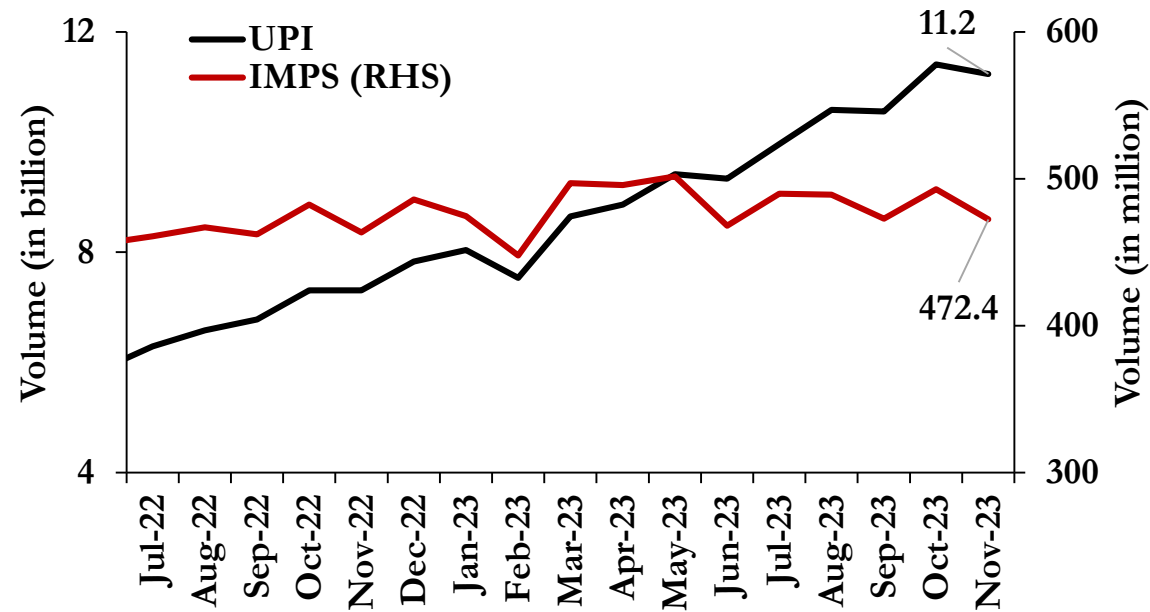
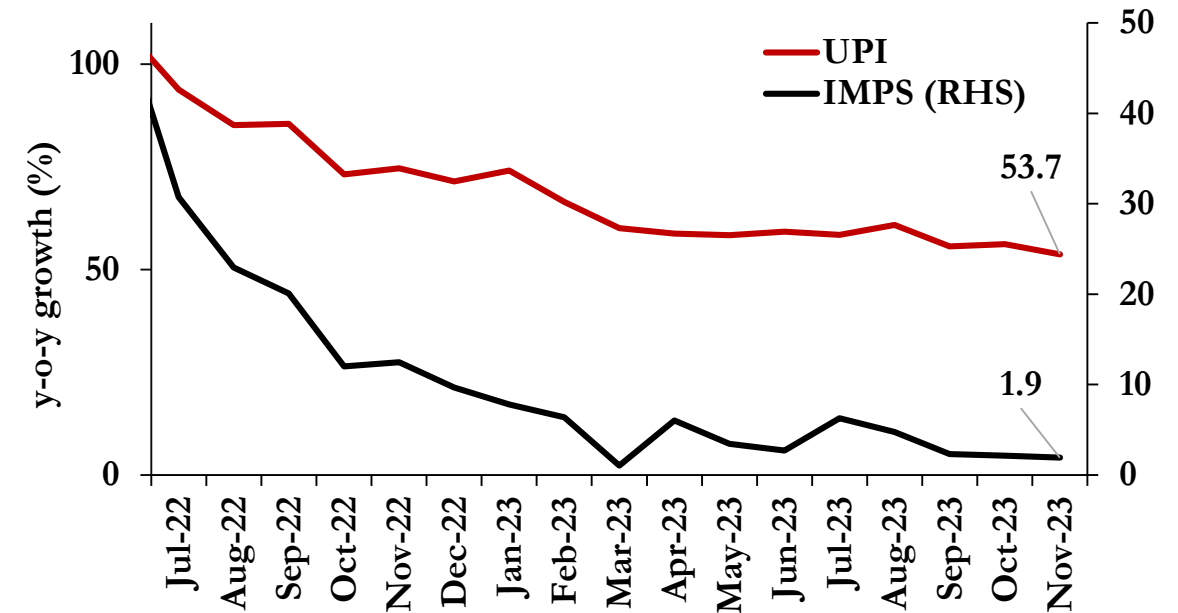


Figure 11: UPI and IMPS Growth in Transactions



Source: National Payments Corporation of India (NPCI) (Figures 10 and 11).

Fiscal deficit of the Centre reached 45.0 percent of BE for FY2023-24 in October 2023

Fiscal Developments

- As of October 2023, the fiscal deficit reached 45.0 percent of the Budget Estimate (BE) for FY2023-24, as compared to 45.6 percent of the BE for FY2022-23, as of October 2022 (Figure 12).
- Revenue inflows reached 59.6 percent of the budget projection as of October 2023, for FY2023-24, as compared to 61.2 percent of the BE for FY2022-23, as of October 2022 (Figure 13).
- The total expenditure reached 53.2 percent of the overall BE for FY23-24, as of October 2023, as compared to 54.3 percent of the BE for FY2022-23, as of October 2022 (Figure 14).

Figure 12: Fiscal Deficit

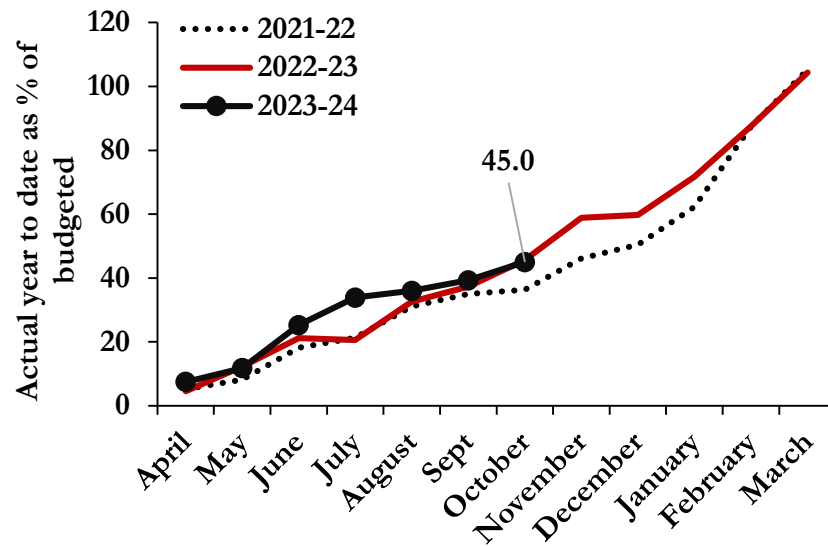


Figure 13: Revenue Receipts

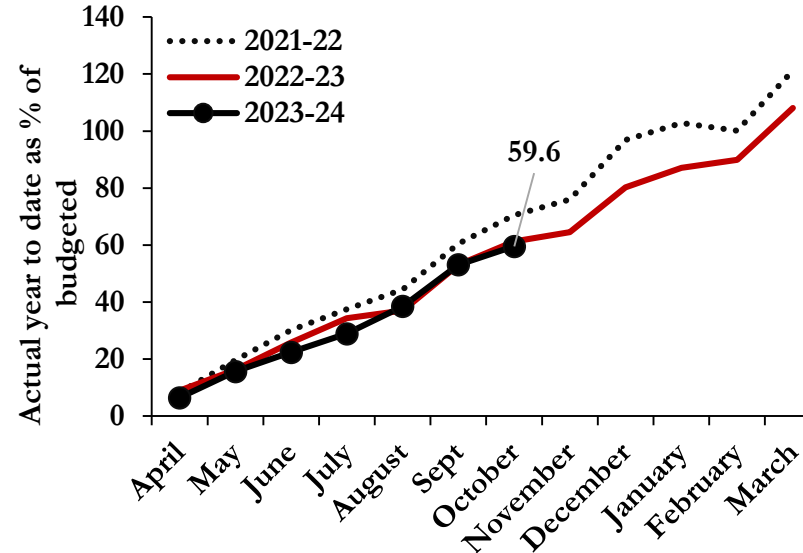
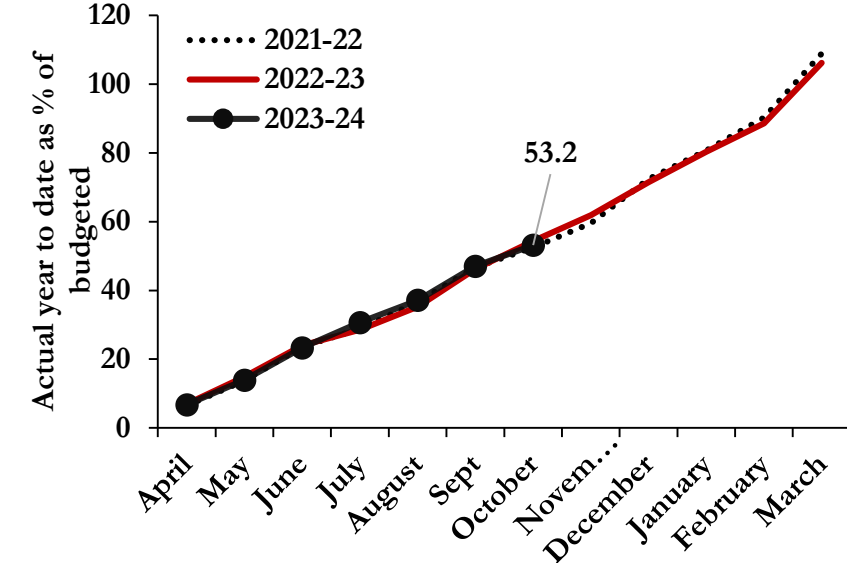


Figure 14: Total Expenditure

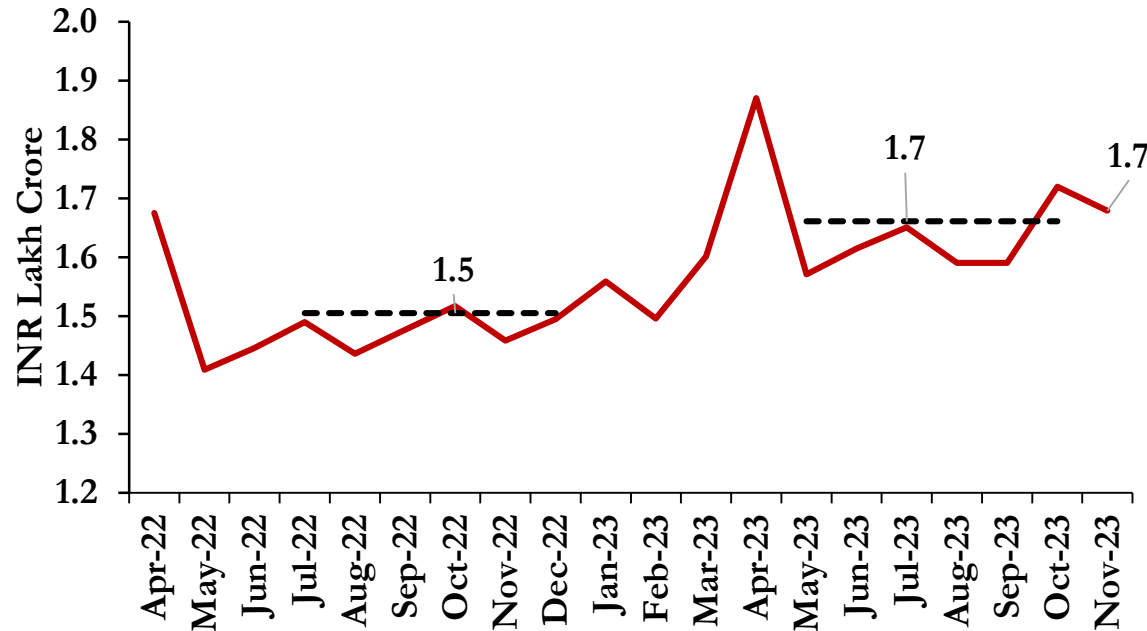


Source: [Controller General of Accounts](#) (Figures 12, 13 and 14).

GST revenue collections and E-way bills generation registered year-over-year growth

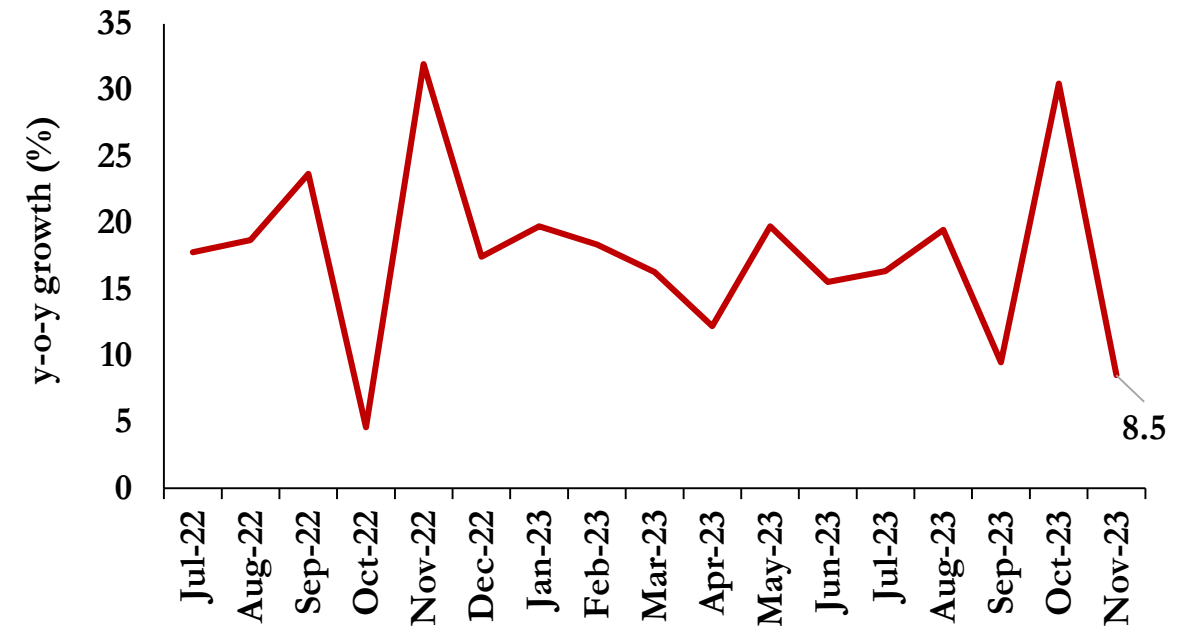
- Goods and Services Tax (GST) collections reached a value of Rs. 1.7 lakh crore in November 2023, registered year-over-year growth of 15.1 percent. However, collections of GST revenue declined by 2.4 percent on a sequential basis (Figure 15). [GST Revenue Press Release dated 1st Dec'23](#)
- The value of GST E-way marked year-over-year growth of 8.5 percent in November 2023. However, collections of GST E-way declined by 12.7 percent on a sequential basis (Figure 16).

Figure 15: GST Revenue



Source: Ministry of Finance (Figure 15).

Figure 16: GST E-Way Bills



Source: Goods and Services Tax Network (Figure 16).

Note: For Figure 15, dashed horizontal lines depict yearly averages of FY2022-23 and FY2023-24 (until November 2023), respectively.

MPC kept policy rates unchanged; raised real GDP growth projection for FY2023-24 and kept CPI inflation projection unchanged for FY2023-24

- In its meeting from 6-8 December 2023, the Monetary Policy Committee (MPC) decided to keep the policy repo rate under the Liquidity Adjustment Facility (LAF) unchanged at 6.50 percent. Accordingly, the Standing Deposit Facility (SDF) remained unchanged at 6.25 percent and the Marginal Standing Facility (MSF) rate and the Bank Rate remained at 6.75 percent, respectively (Figure 17). [Reserve Bank of India - Press Releases dated 8th Dec'23](#)
- The projection for India's real GDP growth for FY23-24 was raised to 7.0 percent from its previous forecast of 6.5 percent released in October 2023. Quarterly GDP growth projections for Q3 and Q4 FY2023-24 were raised to 6.5 and 6.0 percent, respectively, from its previous forecast 6.0 and 5.7 percent. Additionally, the projection for Q1 FY2024-25 was raised marginally to 6.7 percent from its previous forecast 6.6 percent. RBI has projected the quarterly GDP growth for Q2 and Q3 FY2024-25 at 6.5 and 6.4 percent, respectively (Table 2).
- The CPI Inflation projection for the FY2023-24 remained unchanged at 5.4 percent in line with its projection in October 2023 (Table 2).

Figure 17: RBI Rates

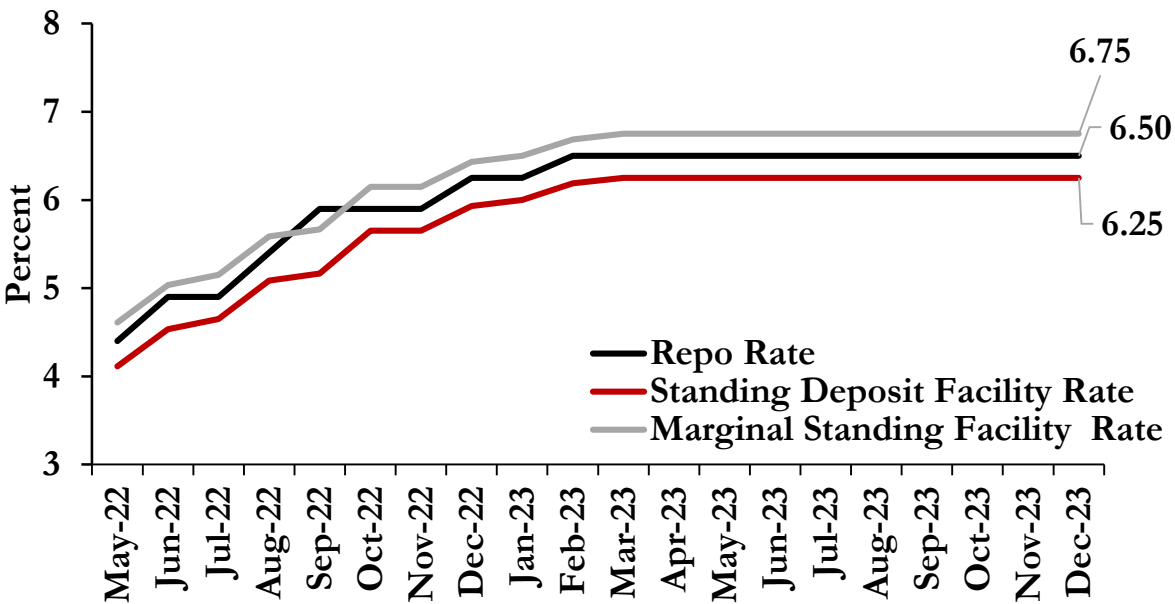


Table 2: RBI Projections

Real GDP Growth (%)	FY 2023-24	FY2023-24		FY2024-25		
		Q3	Q4	Q1	Q2	Q3
Dec-23	7.0	6.5	6.0	6.7	6.5	6.4
Oct-23	6.5	6.0	5.7	6.6	-	-
Aug-23	6.5	6.0	5.7	6.6	-	-
Jun-23	6.5	6.0	5.7	-	-	-
CPI Inflation (%)						
Dec-23	5.4	5.6	5.2	5.2	4.0	4.7
Oct-23	5.4	5.6	5.2	5.2	-	-
Aug-23	5.4	5.7	5.2	5.2	-	-
Jun-23	5.1	5.4	5.2	-	-	-

Source: Reserve Bank of India (Figure 17 and Table 2).

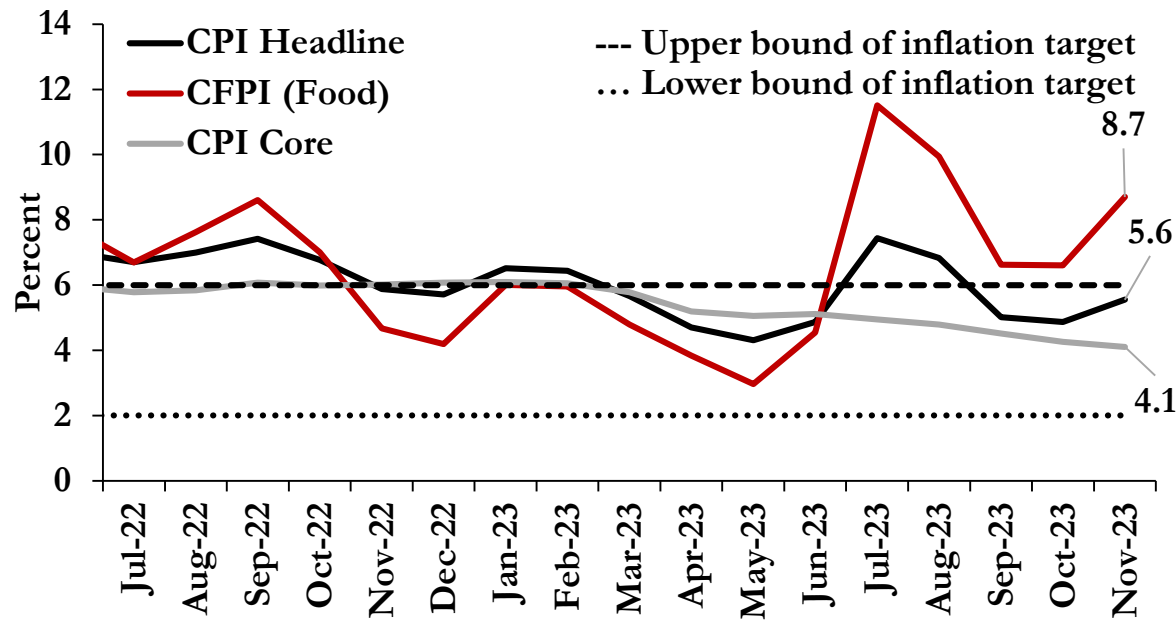
Note: In Table 2, no projections were given by RBI for Real GDP growth and CPI Inflation for Q1 FY2024-25 in June 2023 and for Q2, Q3 FY2024-25 in June, August and October 2023.

CPI headline inflation increased and core inflation declined marginally, food inflation and Wholesale price inflation increased sharply

Inflation and Monetary Policy

- The Consumer Price Index (CPI) headline inflation for November 2023 increased to 5.6 percent from 4.9 percent in October 2023. Core inflation declined marginally to 4.1 percent in November 2023 from 4.3 percent in October 2023 (Figure 18).
- The Consumer Food Price Index (CFPI) inflation increased sharply to 8.7 percent in November 2023 from 6.6 percent in October 2023 (Figure 18).
- The Wholesale Price Index (WPI) inflation increased to 0.3 percent (Provisional Estimates) in November 2023 from (-) 0.5 percent in October 2023 (Figure 19).

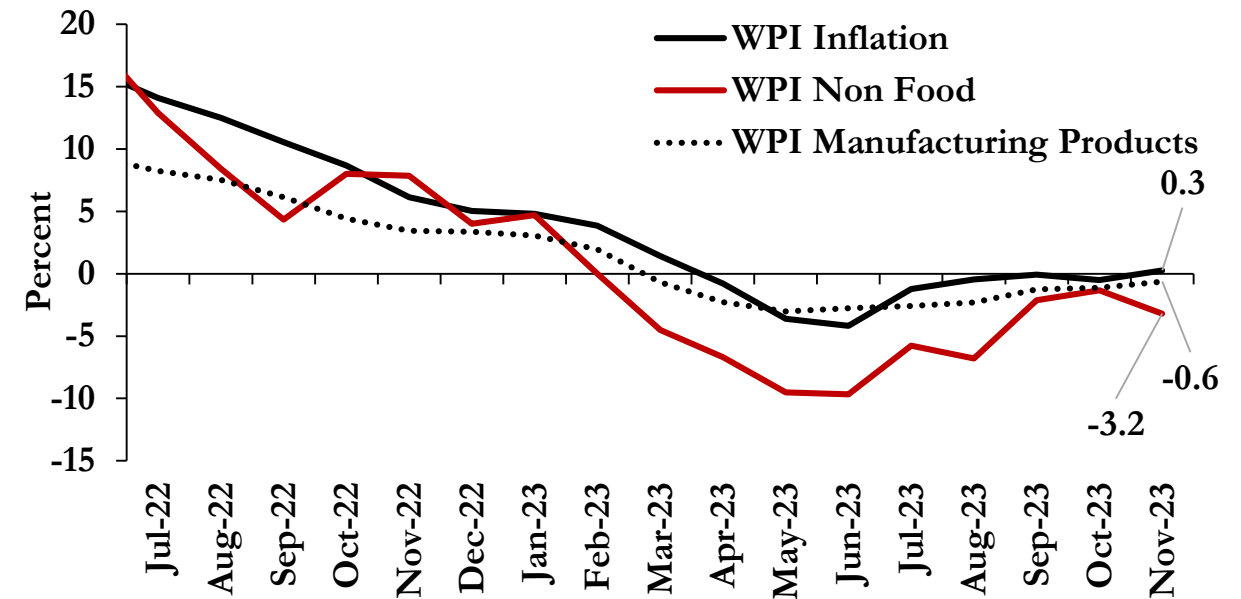
Figure 18: Consumer Price Indices Inflation Rates



Source: [Ministry of Statistics and Programme Implementation](#) (Figure 18).

Note: In Figure 18, CFPI includes the following ten sub-groups- Cereals and Products, Meat and Fish, Eggs, Milk and Products, Oils and Fats, Fruits, Vegetables, Pulses and Products, Sugar and Confectionery; and Spices.

Figure 19: Wholesale Price Indices Inflation Rates



Source: [Ministry of Commerce and Industry, Department for Promotion of Industry and Internal Trade \(DPIIT\), Government of India](#) (Figure 19).

Food inflation contributes significantly to headline inflation; CPI inflation remained elevated across various categories of food

Inflation and Monetary Policy

- In November 2023, core inflation contributed 2.6 percent to headline inflation. Consumer Food Price Inflation (CFPI) contributed 2.2 percent to headline inflation, and beverages contributed 0.4 percent. Fuel and light contributed 0.4 percent to headline inflation (Figure 20).
- The Consumer Price Index (CPI) inflation for vegetables increased to 17.7 percent in November 2023 from 2.8 percent in October 2023 (Figure 21).
- CPI inflation for spices, pulses and products, cereals and products, and fruits remained elevated at 21.5, 20.2, 10.3 and 11.0 percent, respectively, in November 2023 (Figure 21).

Figure 20: Contributions to CPI Headline

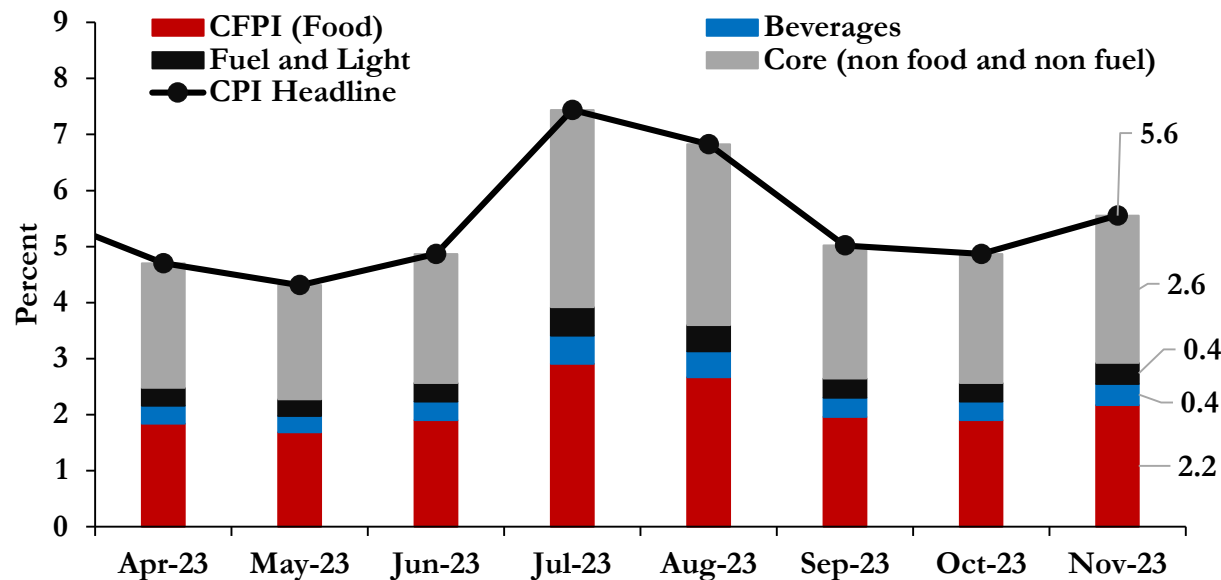
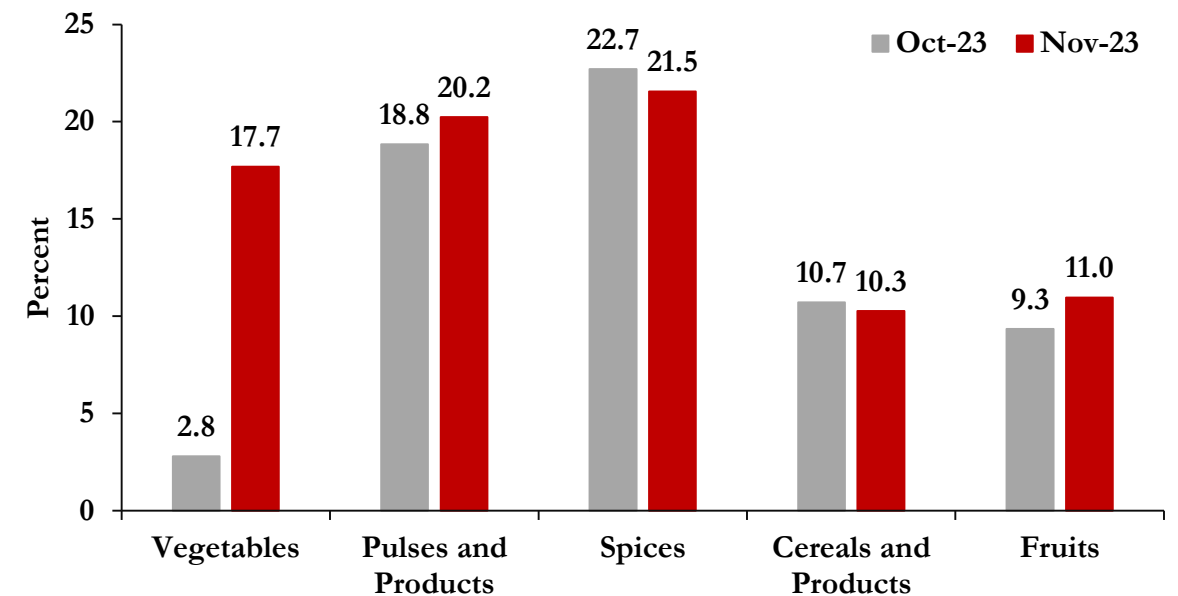


Figure 21: Consumer Price Indices Inflation Rates- Across Food Categories



Source: [Ministry of Statistics and Programme Implementation](#) (Figures 20 and 21).

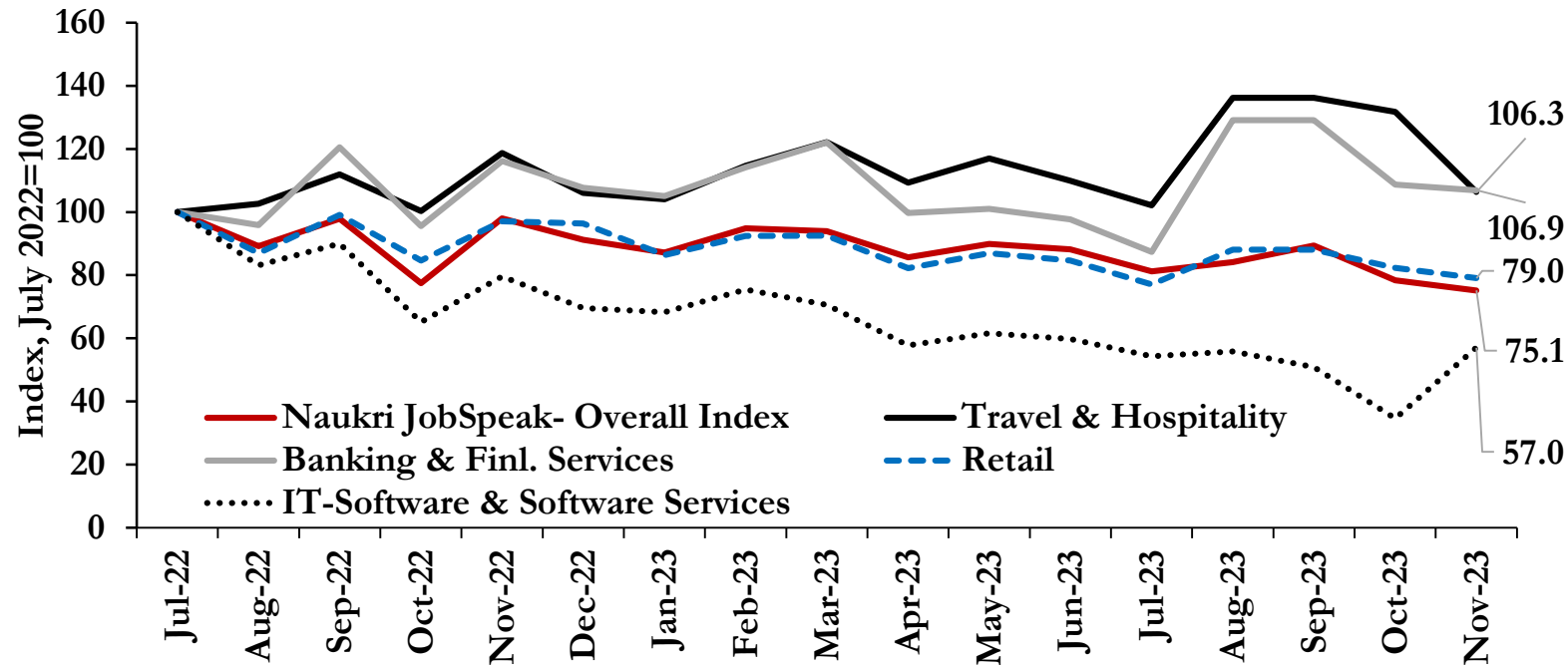
Note: In Figure 20, CFPI includes the following ten sub-groups- Cereals and Products, Meat and Fish, Eggs, Milk and Products, Oils and Fats, Fruits, Vegetables, Pulses and Products, Sugar and Confectionery; and Spices.

Overall online hiring activities softened on a year-over-year basis as per the Naukri JobSpeak Index

Employment

- Online hiring activity in India, reported by the Naukri JobSpeak Index, decreased by 23 percent on a year-over-year basis in November 2023. The Travel and Hospitality sector registered a decline in hiring by 10 percent and the Banking and Financial Services sector witnessed a decline of 8 percent on a year-over-year basis. Retail, and IT and Software services declined by 18.6 percent and 28 percent, respectively, on a year-over-year basis. However, in the IT-Software and Software Services sector, online hiring showed a sequential increase in hiring (Figure 22).

Figure 22: Naukri JobSpeak Index



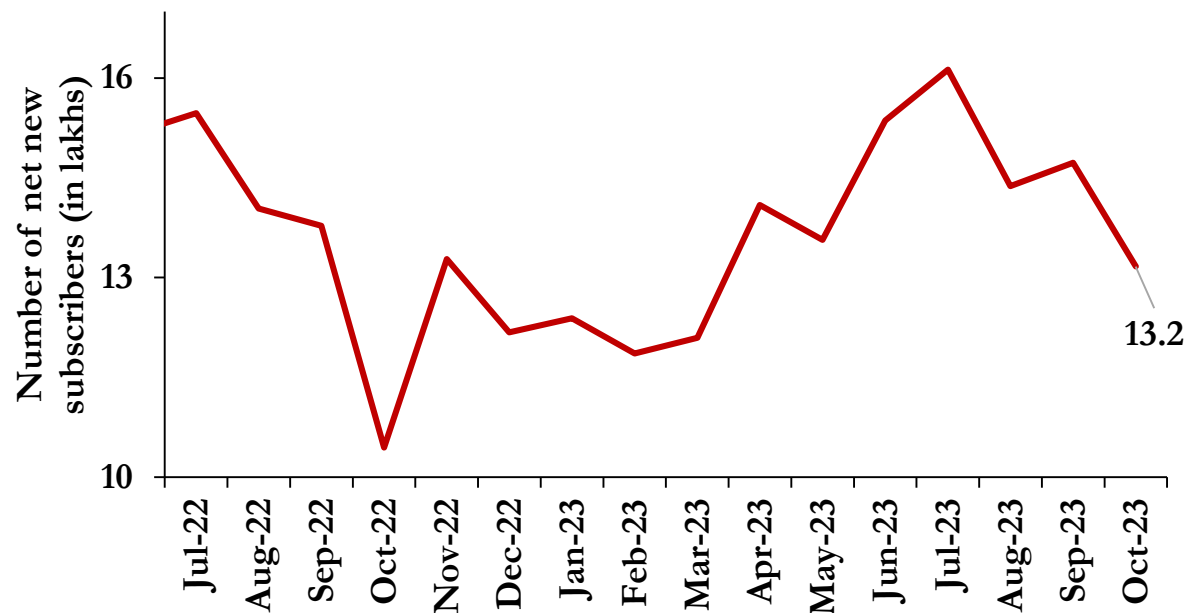
Source: CEIC Estimates (Figure 22).

Net new subscribers under EPFO increased year-over-year; demand for jobs under MGNREGA moderated on a year-over-year basis

Employment

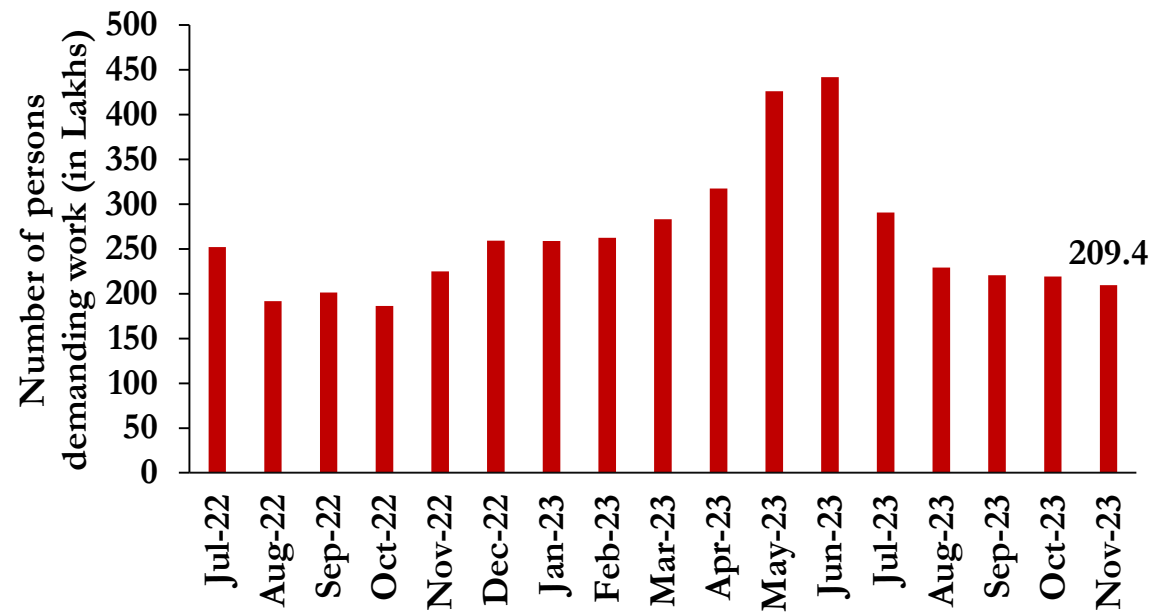
- In October 2023, the net new subscribers in the Employees' Provident Fund Organisation (EPFO) increased by 26.1 percent on a year-over-year basis. The number of subscribers decreased sequentially by 10.3 percent, recording a value of 13.2 lakh (Provisional Estimates) in October 2023, compared to the value of 14.7 lakh (Revised Estimates) net new subscribers in September 2023 (Figure 23).
- The demand for work under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) decreased by 6.9 percent on a year-over-year basis in November 2023. On a sequential basis, the demand for work under MGNREGA moderated by 4.4 percent, recording a value of 209.4 lakh workers (Provisional Estimates) in November 2023 compared to 219.1 lakh (Revised Estimates) workers in October 2023 (Figure 24).

Figure 23: EPFO Net New Subscribers



Source : Employee's Provident Fund Organisation (Figure 23).

Figure 24: Work Demand under MGNREGA



Source : Ministry of Rural Development (Figure 24).

Merchandise trade deficit narrowed and services trade surplus increased on a sequential basis

External Sector

- India's merchandise exports remained flat sequentially at USD 33.9 billion in November 2023 (Provisional Estimates) compared to USD 33.5 billion in October 2023 (Revised Estimates). Merchandise imports decreased sequentially to USD 54.5 billion in November 2023 (Provisional Estimates), compared to USD 63.5 billion in October 2023 (Revised Estimates). The merchandise trade deficit narrowed to USD 20.6 billion in November 2023, compared to USD 29.9 billion in October 2023 (Figure 25).
- Services exports remained flat sequentially at USD 28.7 billion in November 2023 (Provisional Estimates) in line with the corresponding value of USD 28.0 billion in October 2023 (Revised Estimates). The import of services remained flat at USD 13.4 billion in November 2023 (Provisional Estimates) in line with the corresponding value of USD 13.5 billion in October 2023 (Revised Estimates). The services trade surplus increased to USD 15.3 billion in November 2023, compared to USD 14.6 billion in October 2023 (Figure 26).

Figure 25: Merchandise Trade

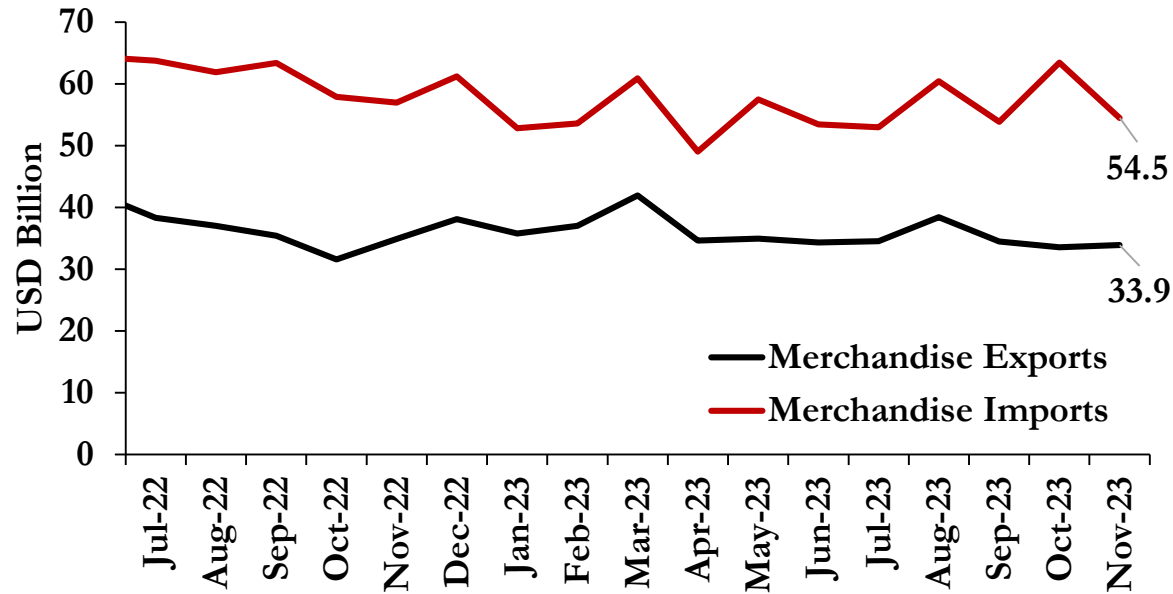
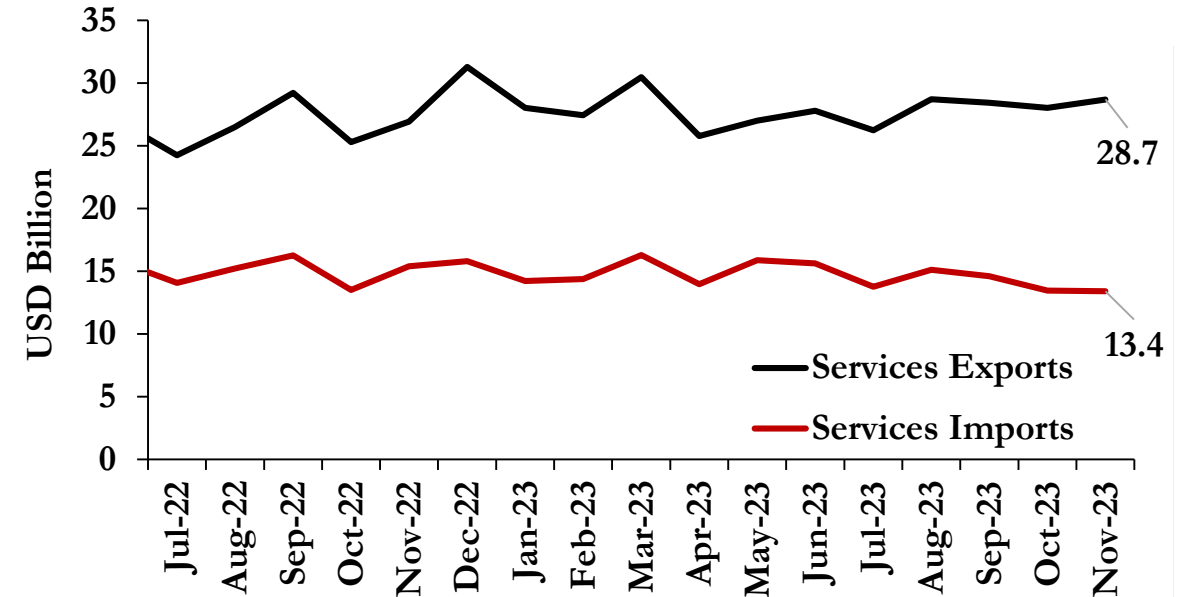


Figure 26: Services Trade



Net inflows of foreign portfolio investments increased sharply in December 2023

External Sector

- As of 26 December 2023, Net foreign portfolio flows totalled to USD 9.5 billion for December 2023, increasing sequentially by USD 6.6 billion compared to USD 2.9 billion in November 2023 (Figure 27).
- The Net Foreign Portfolio Investment (FPI) equity totalled to USD 6.8 billion, as of 26 December 2023, increasing sequentially by USD 5.7 billion compared to USD 1.1 billion at the end of November 2023 (Figure 28).
- The Net FPI debt totalled to USD 2.1 billion, as of 26 December 2023, increasing sequentially by USD 0.3 billion compared to USD 1.8 billion at the end of November 2023 (Figure 29).

Figure 27: Net Foreign Portfolio Investment (FPI)

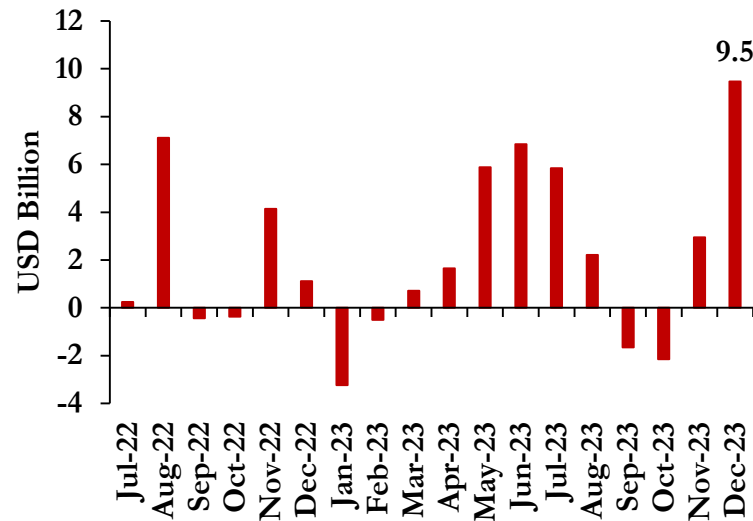


Figure 28: Net Foreign Portfolio Investment (FPI) Equity

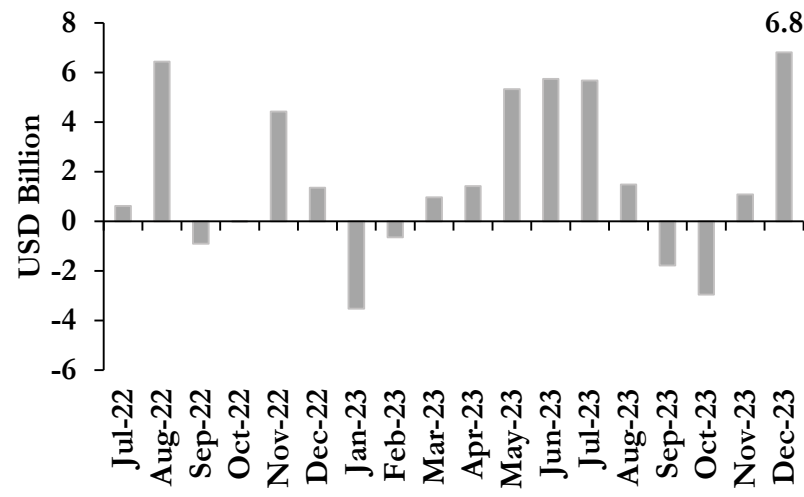
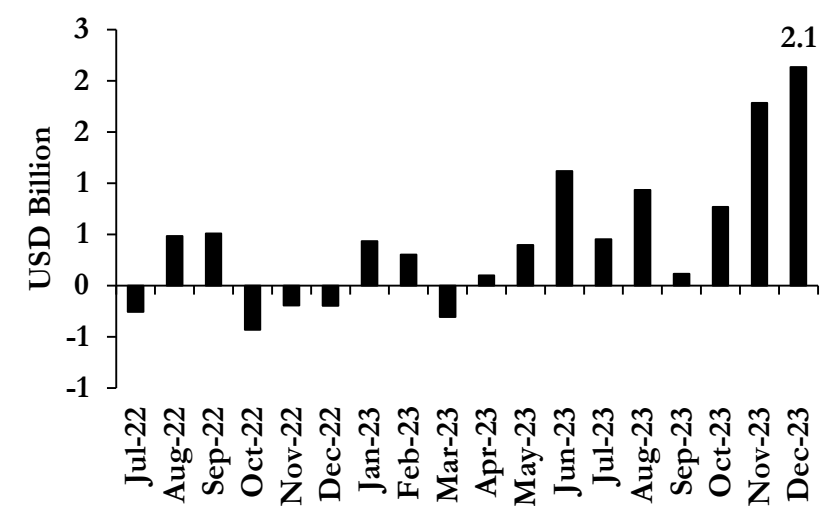


Figure 29: Net Foreign Portfolio Investment (FPI) Debt



Source: CEIC estimates (Figures 27, 28, and 29).

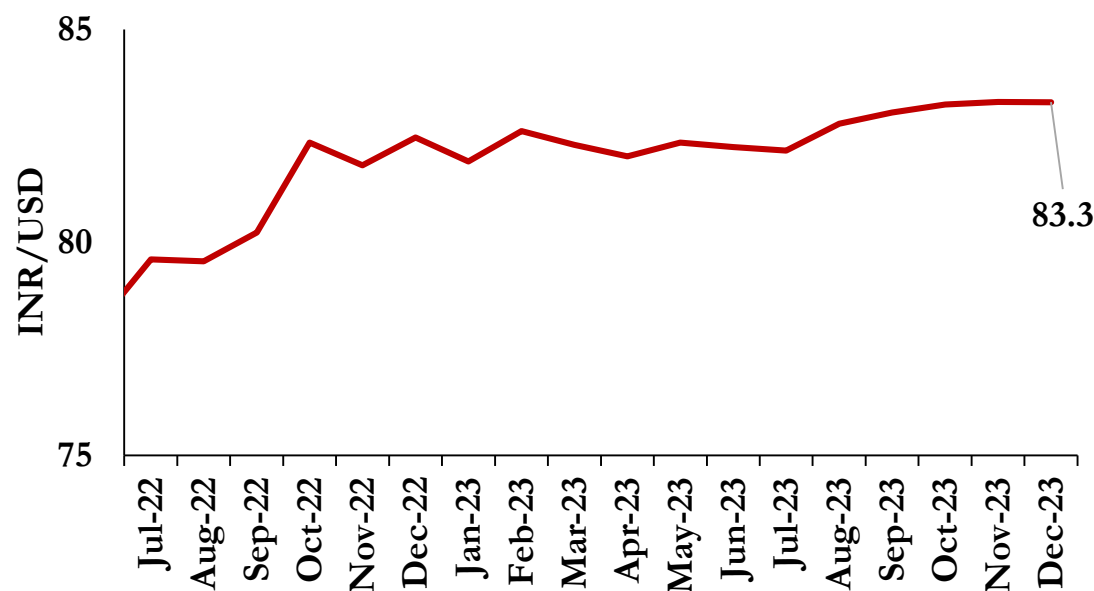
Note: For the month of December 2023, data for Figures 27, 28 and 29 is as of 26 December 2023, monthly values for December have been created by summing up the daily values of Net FPI Equity and Net FPI Debt. For Figure 27, the monthly value for December 2023 has been calculated by taking the sum total of the daily data for Net FPI Equity, Net Debt, Net Debt VRR and Net Hybrid.

The rupee remained flat against the dollar; forex reserves increased sharply

External Sector

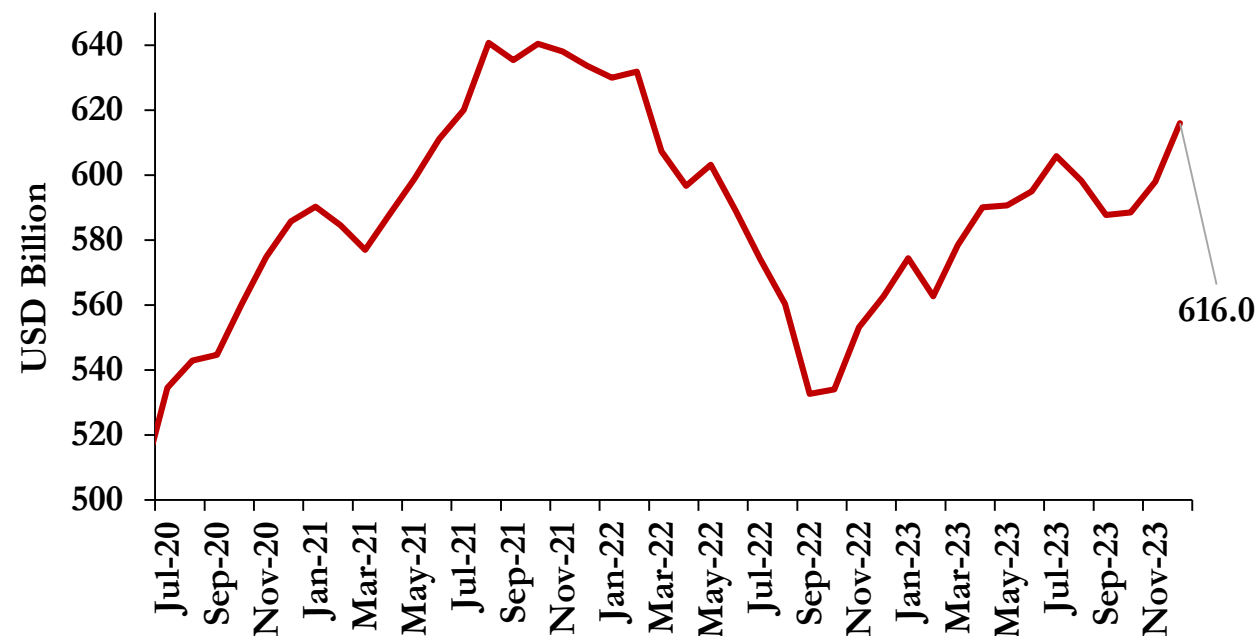
- The rupee remained flat at Rs. 83.3 against the US dollar, as of 26 December 2023 (Figure 30).
- Foreign exchange reserves increased by USD 18.1 billion, reaching a total of USD 616.0 billion, as on 15 December 2023, as compared to USD 597.9 billion at the end of November 2023 (Figure 31). [Reserve Bank of India – Bulletin Weekly Statistical Supplement, Foreign Exchange Reserves Press Release dated 24th Dec'23](#)

Figure 30: Exchange Rate



Source: Reserve Bank of India (Figure 30).

Figure 31: Foreign Exchange Reserves



Source: CEIC estimates (Figure 31).

Note: For the month of December 2023, data for Figure 30 is taken as of 26 December 2023; and data for Figure 31 is taken as on 15 December 2023.

Q2 BOP data release: Current Account Deficit narrowed on a year-over-year basis, remittances flow remained high

External Sector

- The Current Account Deficit (CAD) declined to USD 8.3 billion (1.0 percent of GDP) in Q2 FY2023-24 from USD 30.9 billion (3.8 percent of GDP) in Q1 FY2022-23. CAD declined sequentially in Q2 of FY2023-24 to USD 8.3 billion compared to USD 9.2 billion (1.1 percent of GDP) in Q1 FY2023-24 (Figure 32).
- Remittances added to USD 28.1 billion in Q2 FY2023-24 (Figure 33).
- Net Foreign Direct Investment (FDI) witnessed an outflow of USD 0.3 billion in Q2 of FY2023-24 as against an inflow of USD 6.2 billion in Q2 of FY2022-23. [RBI Press Release dated, 26th December, 2023 Balance of Payment \(2023-2024\) \(rbi.org.in\)](https://www.rbi.org.in/PressReleases/2023/26)

Figure 32: Current Account Balance as a percentage of GDP

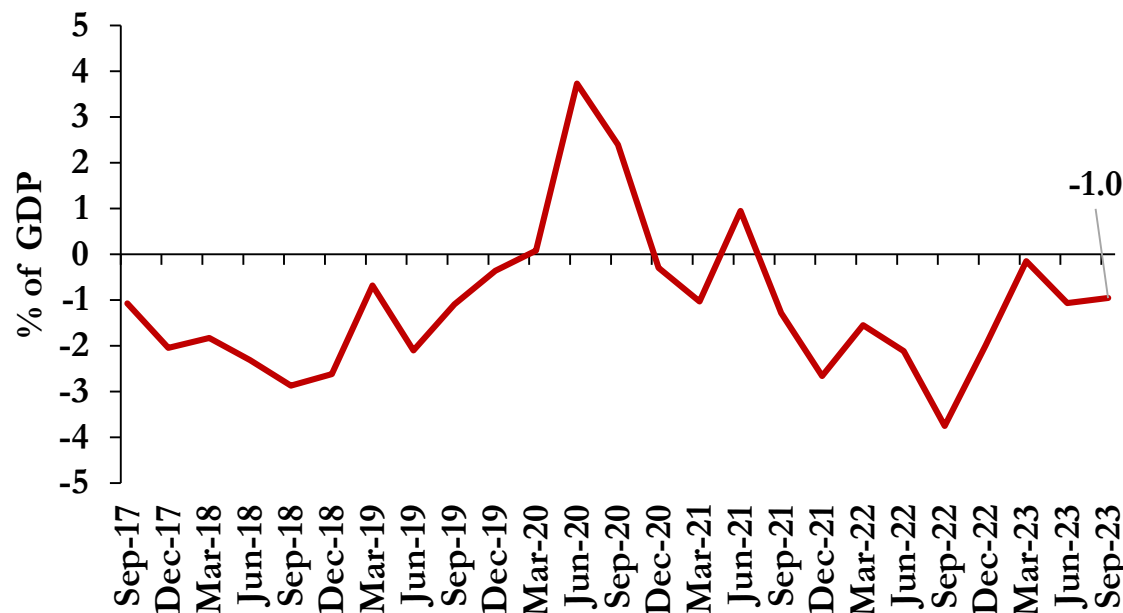
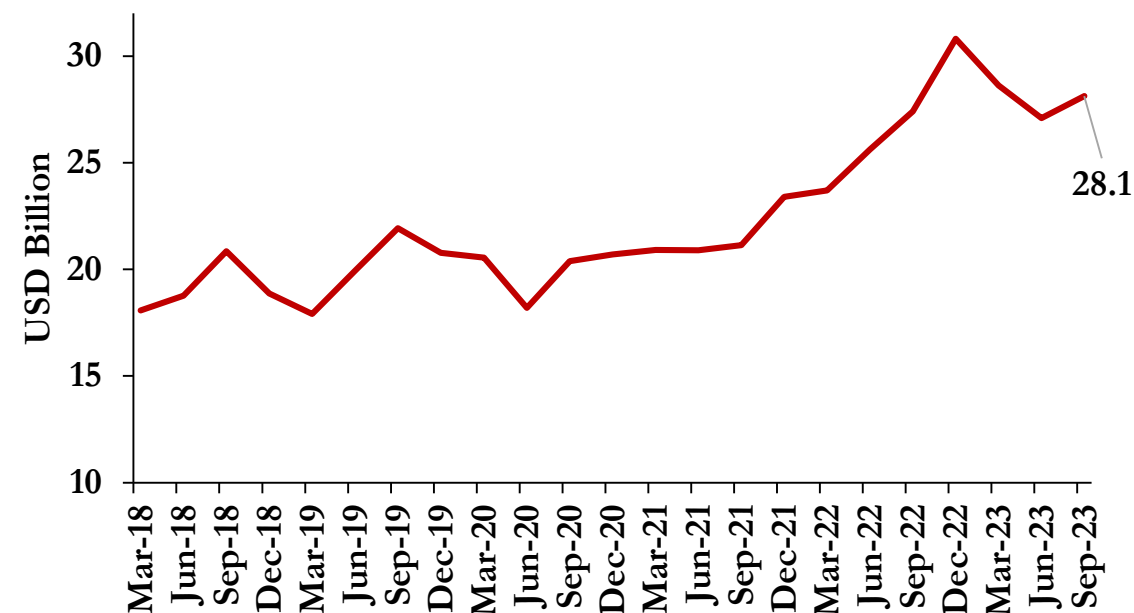


Figure 33: Private Transfer Receipts (Remittances)



Source: Reserve Bank of India (Figures 32 and 33).

Heatmap for high-frequency indicators

Indicators	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23
Agriculture																							
Fertilizer Sales: Urea	0.1	22.7	50.6	64.3	17.3	5.5	14.3	15.0	-3.3	16.5	26.3	2.4	15.1	4.3	-6.1	-16.6	4.3	0.5	-8.5	-2.8	2.2	28.5	
Industry																							
IIP Manufacturing	1.9	0.2	1.4	5.6	20.7	12.9	3.1	-0.5	2.0	-5.8	6.7	3.6	4.5	5.9	1.2	5.2	5.8	3.1	4.6	9.3	4.5	10.4	
IIP Core	4.0	5.9	4.8	9.5	19.3	13.1	4.8	4.2	8.3	0.7	5.7	8.3	9.7	7.4	4.2	4.6	5.0	8.3	8.0	12.5	8.1	12.1	
PMI Manufacturing	54.0	54.9	54.0	54.7	54.6	53.9	56.4	56.2	55.1	55.3	55.7	57.8	55.4	55.3	56.4	57.2	58.7	57.8	57.7	58.6	57.5	55.5	56.0
PMI Services	51.5	51.8	53.6	57.9	58.9	59.2	55.5	57.2	54.3	55.1	56.4	58.5	57.2	59.4	57.8	62.0	61.2	58.5	62.3	60.1	61.0	58.4	56.9
Automobile Sales: 2-wheelers (excluding EVs)	-21.1	-27.3	-20.9	15.4	255.3	24.0	10.2	17.0	13.5	2.3	17.7	3.9	5.0	8.8	9.0	16.5	17.4	1.7	-7.2	0.6	0.8	20.2	31.3
Natural Gas Production	12.2	12.8	7.5	6.6	6.3	1.3	-0.4	-1.0	-1.7	-4.1	-1.0	1.9	4.0	1.9	2.4	-2.9	-0.1	3.4	8.3	9.3	6.1	9.3	
Crude Steel Production	6.4	8.6	6.1	8.8	18.4	5.8	2.9	0.6	1.8	2.6	5.5	1.6	2.6	2.4	2.7	7.7	5.9	13.6	13.7	17.6	18.8	16.3	11.4
Electricity Supply	1.9	4.6	6.5	12.8	24.2	16.4	3.7	2.0	12.9	1.0	11.0	11.7	13.4	9.7	-1.3	0.1	0.9	5.9	12.3	17.5	11.6	23.2	9.4
Services																							
Rail Passenger Traffic	46.3	43.6	52.9	116.1	478.0	237.6	168.6	113.6	87.6	62.2	51.1	40.7	64.5	29.8	20.5	20.2	17.7	12.5	10.3	9.4	3.9	8.5	
Rail Freight	7.7	6.6	6.7	9.4	14.6	11.3	8.3	7.9	9.1	1.4	5.2	3.1	3.9	3.6	3.8	3.5	1.9	-1.9	1.5	6.4	6.7	8.5	
Air Passenger Traffic	-8.7	4.7	44.2	95.3	502.4	288.1	127.4	73.1	61.6	40.0	21.8	23.1	101.0	64.4	27.0	25.5	19.0	20.5	25.8	23.2	19.4	11.9	10.7
Air Cargo	0.5	-2.8	0.3	2.3	13.8	13.9	6.1	-1.2	-0.5	-14.5	-2.3	-5.9	-3.7	2.1	-0.9	0.0	-0.3	-0.8	-1.2	6.9	-0.3	13.1	6.6
Trade																							
Merchandise Export	27.9	34.5	26.4	29.1	20.8	30.1	7.9	10.9	4.7	-11.6	9.7	-3.0	1.6	-0.4	-5.9	-12.7	-10.3	-18.8	-10.0	3.8	-2.7	6.2	-3.8
Services Export	24.5	19.4	29.6	33.2	40.7	32.6	25.3	29.6	35.2	24.2	30.7	20.4	29.6	28.8	13.1	7.2	7.4	3.2	8.1	8.4	-2.7	13.4	6.2
Fiscal																							
Gross Tax Revenue (Centre)	-4.4	17.6	19.8	36.5	20.1	12.8	33.3	-7.7	14.5	20.8	-3.8	0.8	13.5	4.5	16.8	-6.1	4.4	11.3	1.5	95.2	15.9	-1.2	
Goods and Services Tax Revenue	15.5	17.6	14.7	18.5	37.2	55.8	28.0	28.2	26.2	16.6	10.9	15.2	12.7	12.4	12.7	11.6	11.5	11.7	10.8	10.8	10.2	13.4	15.1
Banking																							
SCB bank Credit: Total Outstanding	7.1	8.1	8.6	10.1	11.1	13.3	13.4	14.3	15.3	16.6	16.0	14.9	16.3	15.5	15.0	15.9	15.4	16.2	19.7	19.8	20.0	19.7	
SCB bank Credit Non-food: Personal Loans	12.8	12.5	12.6	14.4	16.3	18.1	18.7	19.4	19.4	20.1	19.6	20.0	20.4	20.4	20.6	19.4	19.2	20.9	31.2	30.8	30.4	29.7	
SCB bank Credit Non-food: Agriculture	10.4	10.5	9.9	10.6	11.7	13.0	13.2	13.4	13.4	13.6	19.0	15.8	14.4	14.9	15.4	16.7	16.0	19.7	16.8	16.6	16.8	17.5	
SCB bank Credit Non-food: Industry	6.9	7.4	7.5	8.0	8.8	9.5	10.5	11.4	12.6	13.6	17.0	13.8	8.7	7.0	5.7	7.0	6.0	8.1	5.8	6.6	7.1	5.9	
SCB bank Credit Non-food: Services	6.0	6.3	8.7	11.2	12.7	12.8	16.5	17.2	20.0	22.5	29.2	26.2	21.5	20.7	19.6	21.6	21.4	26.7	23.1	24.8	25.1	23.6	
Financial Markets																							
NIFTY 50 Index	27.2	15.6	18.9	16.9	6.4	0.4	8.9	3.7	-3.0	1.9	10.5	4.3	1.9	3.0	-0.6	5.6	11.8	21.6	15.1	8.4	14.9	5.9	7.3
BSE SENSEX	25.3	14.6	18.3	17.0	7.0	1.0	9.5	3.4	-2.9	2.4	10.6	4.4	2.6	4.8	0.7	7.1	12.7	22.1	15.6	8.9	14.6	5.1	6.2
Employment and Inflation																							
Naukri JobSpeak Index	41.1	30.5	16.3	38.2	39.9	22.0	20.8	5.8	12.7	-2.7	42.9	50.9	1.7	-2.2	5.2	-5.2	-0.5	-2.9	-18.8	-5.7	-8.6	1.2	-23.3
EPFO Net New Subscribers	17.1	17.6	40.4	46.8	87.4	42.7	25.4	11.7	9.4	1.7	16.2	-2.5	-3.4	-3.2	-11.6	-2.0	-1.6	1.3	4.2	2.4	6.9	26.1	
Consumer Price Inflation	6.0	6.1	7.0	7.8	7.0	7.0	6.7	7.0	7.4	6.8	5.9	5.7	6.5	6.4	5.7	4.7	4.3	4.9	7.4	6.8	5.0	4.9	5.6
Wholesale Price Inflation	13.7	13.4	14.6	15.4	16.6	16.2	14.1	12.5	10.6	8.7	6.1	5.0	4.8	3.9	1.4	-0.8	-3.6	-4.2	-1.4	-0.5	-0.3	-0.5	0.3



Source: NCAER Team's calculation, based on the CEIC database.

Methodology Note: The y-o-y growth (%) has been calculated for all indicators for the period as indicated in the data appendix (except for PMI Manufacturing and PMI Services).

Opinion Articles

[Bhandari, B. & Sahu, A. K. \(2023\). "Designing social welfare systems for gig workers", *The Hindu Business Line*, December 28](#)

[Das, U. \(2023\). "The key to a sovereign's resilience", *OMFIF*, December 21](#)

[Gupta, R. K. \(2023\). "Why mandatory period leave may not work", *Financial Express*, December 27](#)

Research Report

[Munjal, P., and Pohit, S. \(2023\). "Logistics Cost in India: Assessment and Long-term Framework", New Delhi: National Council of Applied Economic Research](#)

Journal

["MARGIN: The Journal of Applied Economic Research", New Delhi: National Council of Applied Economic Research \(2023\).](#)

Recent NCAER publications

Munjal, P., and Pohit, S. (2023). “Logistics Cost in India: Assessment and Long-term Framework”, New Delhi: National Council of Applied Economic Research



- Objective:

- This study aims to provide trends on aggregated estimates of logistics cost as a percentage of GDP, along with recommendations for a long-term logistics cost calculation framework.

- Methodology:

- While the logistics cost for a country can be best estimated through a combination of primary and secondary data research, the present assessment is based on secondary data only, using the country's Supply-Use Tables and the National Accounts Statistics. Since these sources only provide estimates of logistics costs associated with transportation, storage and warehousing components, and some postal and courier services, this assessment also utilized cost analysis of cargo movements along about 50 major Indian trade routes from the NCAER's 2019 study, “Analysis of India's Logistics Costs,” to derive the values of the remaining components of logistics cost.

Source: [Logistics Cost in India: Assessment and Long-term Framework](#)

REPORT ON

LOGISTICS COST IN INDIA

Assessment and Long-term Framework

PROF. POONAM MUNJAL
PROF. SANJIB POHIT

National Council of Applied Economic Research
(NCAER)

December 2023



Table 3: Total Estimated Logistics Costs (including imputed costs of other components)

	Total cost (INR crore)		GDP (INR crore)	Total cost (as % of GDP)	
	Lower Bound	Upper bound		Lower Bound	Upper Bound
2011-12	7617	8640	87363	8.7	9.9
2012-13	8796	9978	99440	8.8	10.0
2013-14	9712	11017	112335	8.6	9.8
2014-15	10343	11732	124680	8.3	9.4
2015-16	11089	12579	137719	8.1	9.1
2016-17	11939	13543	153917	7.8	8.8
2017-18	13579	15403	170900	7.9	9.0
2018-19	15355	17417	188997	8.1	9.2
2021-22	18426	20901	234710	7.8	8.9

Note: Years 2019-20 and 2020-21, being abnormal years, have been excluded from the study.

Sources: NCAER computations based on Supply and Use Tables, various years; 2023 National Accounts Statistics.

Main Findings of the Report:

- The aggregated logistics costs for India fall in the range of 7.8–8.9 percent of GDP for 2021-22.
- Logistics cost as a share of GDP* shows a decline from 2014-15 to 2016-17. Among other reasons, this could be due to a notable year-on-year decline in fuel prices in these years and also because of GDP growth outpacing the increases in logistics cost.

Main Recommendations from the Report:

- The report recommends a hybrid approach using primary and secondary data, as well as real-time Big Data to provide a reliable estimate of logistics cost.
- The origin-destination route primary surveys of selected products can help in obtaining the relevant time and cost of transportation and storage
- The Big Data, like FASTag and E-way bills can provide the measure of time cost and help in identifying the congestion points
- To track the progress of logistics-related interventions, as per National Logistics Policy, the report recommends to estimate these costs on a regular basis

Note: * Logistics cost as a percentage of GDP is calculating logistics cost and taking a ratio (nominal or real) of the GDP. This is not a measure of how much logistics sector contributes to GDP. To evaluate logistics relative to GDP is to determine how much of GDP is consumed by the logistics activities. Cross country comparisons are easiest when using Logistics Costs as Percent of GDP and it can therefore be used as a yardstick to measure the efforts of infrastructure and policy developments towards reduction in logistics cost.

"Empowering economies begins with acknowledging that integrating gender into mainstream macroeconomic policymaking not only reduces disparities but also fuels economic growth and enhances macro-financial stability. Sensitizing both IMF country teams and national authorities to the intricate links between gender disparities, macroeconomic and financial stability, and driving transformative reforms will result in achieving superior macroeconomic and gender outcomes."

-Ratna Sahay (Professor at NCAER)

[Goyal R., & Sahay, R. (2023). "Taking Forward IMF's Gender Mainstreaming Strategy at the Country Level". Working Paper No: WP 149, November 2023]

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