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# India Economic Pulse

Economic Indicators and  
Policy Measures

June 2023



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# 1

## Executive summary





Dear Reader,

We are pleased to present the June 2023 edition of India Economic Pulse, analyzing high frequency economic indicators. The issue highlights the following key aspects:

***Global economies have remained resilient amid an uncertain and volatile economic environment***

IMF projects global growth to decelerate from 3.4% in 2022 to 2.8% in 2023. Advanced economies have been resilient to purchasing managers' index (PMI) for services for all major economies in positive territory. Labour markets are tight. There has been a general pause in the increase in interest rates. However, inflation, though declining, continues to be above target levels. Several factors, such as the impact of increased interest rates on the financial services sector, continuing geo-political conflict and high debt to GDP ratios, make for an uncertain and challenging global economic environment.

***Indian economy grew at 6.1% in Q4 of 2023 and at 7.2% for FY 23.***

India's economic growth that had slowed to 4.4% in the third quarter of FY23, picked up to 6.1% in the last quarter, taking the growth for the full fiscal 2022-23 to 7.2% which is above the 7% projection made by the RBI and Government earlier. The growth has been driven by pick up in private investments, capital spending by the Government and sharp growth in service exports.

Rural economy, as evidenced by growth in agriculture, tractor sales and growth in credit to the agricultural sector, has been steady.

All parts of the services sector, construction and real estate continue to do well. This is also borne out by increased cement and steel sales, an increase in both freight and passenger traffic and IIP numbers for construction and growth in banking credit to the services sector.

The manufacturing sector after contracting in Q2 and Q3 of FY23 grew by 4.5% in Q4, putting the overall growth in positive territory at 1.1% for FY 23. Growth in credit to manufacturing, especially large industry, has reduced sharply since September 2022. However, credit flow to the cement and steel industries is up 20%, reflecting the impact of the enhanced Government spending on infrastructure and strength of the construction and real estate sectors. An important factor to take into account is the absence of any expansion in bank credit within the infrastructure sector.

***Consumer confidence is high***

Private final consumption expenditure (PFCE) grew 7% in FY 23 over FY 22. However, Q4 of FY 23 witnessed a decline in PFCE vis-à-vis Q3 of FY 23. In contrast, RBI's Consumer Confidence Survey, growth in registrations of passenger vehicles and two-wheelers and over 19% growth in personal loans by schedule commercial banks suggests that the consumer confidence is strong.

***External sector is steady with robust growth in service exports***

India's service exports grew at over 28% in FY 23 in dollar terms as against 9% growth for non-oil merchandise exports. Non-oil merchandise exports have contracted over the last 5 months vis-à-vis the previous year. In some months, such as in January and April 2023, service exports have exceeded non-oil merchandise exports, suggesting a structural change in India's export drivers.

There has been a significant drop in commodity prices from the peaks of early 2022. As a result, there has been a fall in India's goods imports. India's foreign exchange reserves, after declining to US\$531b in October 2022, have since risen to nearly US\$600b. US Dollar has traded in a narrow band since October 2022. External sector stability bodes well for attracting foreign capital in the future.



### ***The Government of India's capex continues to be a key growth driver***

Gross fixed capital formation (GFCF) grew 11.4% in FY23 in an overall GDP growth of 7.2%. This was supported by a 24% growth (in nominal terms) in central government's capital expenditure focused on infrastructure. GFCF has increased from 28.9% of the nominal GDP in FY 22 to 29.2% in FY 23. This augurs well for future growth.

### ***Fiscal consolidation is on track***

GST revenues at INR 187,000 crore in April 2023 are the highest ever since GST implementation. In FY 23, the GST revenues were up 22% against a nominal GDP increase of around 16%. Personal income taxes were up 20.1% in FY 23 and corporate income taxes by 16%. Growth in revenues and with only a 5% growth in revenue expenditure has enabled the government to achieve its target fiscal deficit of 6.4% for FY23.

### ***Consumer inflation has moderated with wholesale inflation in negative territory***

Consumer inflation has moderated to 4.7% in April 2023 and WPI to -0.5%. Short-term yields on G Secs have increased significantly due to liquidity tightening, leading to flattening of the yield curve in May 2023. The yield on 10-year Government securities fell from 7.4% in Feb 23 to slightly less than 7%. RBI has since injected liquidity.

### ***Growth for FY 2024 is projected at 6% to 6.5%***

The Government and the RBI have projected the Indian economy to grow by 6.5% in FY 2024. Most agencies have projected the Indian economy to grow at 6 to 6.5%. The PMI for manufacturing and services and business confidence, as per RBI surveys, provide confidence about India's growth prospects.

However, there are many simmering variables as the global geopolitical fragmentation and uncertainties in the global economy continue. FY 2022-23 has witnessed a marginal decline in FDI and a significant reduction in VC/PE investments and money raised from the markets.

### ***Optimism for the medium term***

In terms of medium-term growth, India is well positioned. Macro-economic factors are stable, external sector is steady, NPAs are at an all-time low, corporate balance sheets have been deleveraged, consumption story is intact, service exports are booming, Government expenditure is focused on growth and India is steadily digitizing and transitioning to a greener pathway. With a pickup in the private investment cycle for manufacturing and infrastructure, India could look towards a multi-year growth cycle.

For now, the Indian economy remains poised for growth in an uncertain world.



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# 2

## Global economic outlook



# World Economic Outlook (IMF, April 2023)

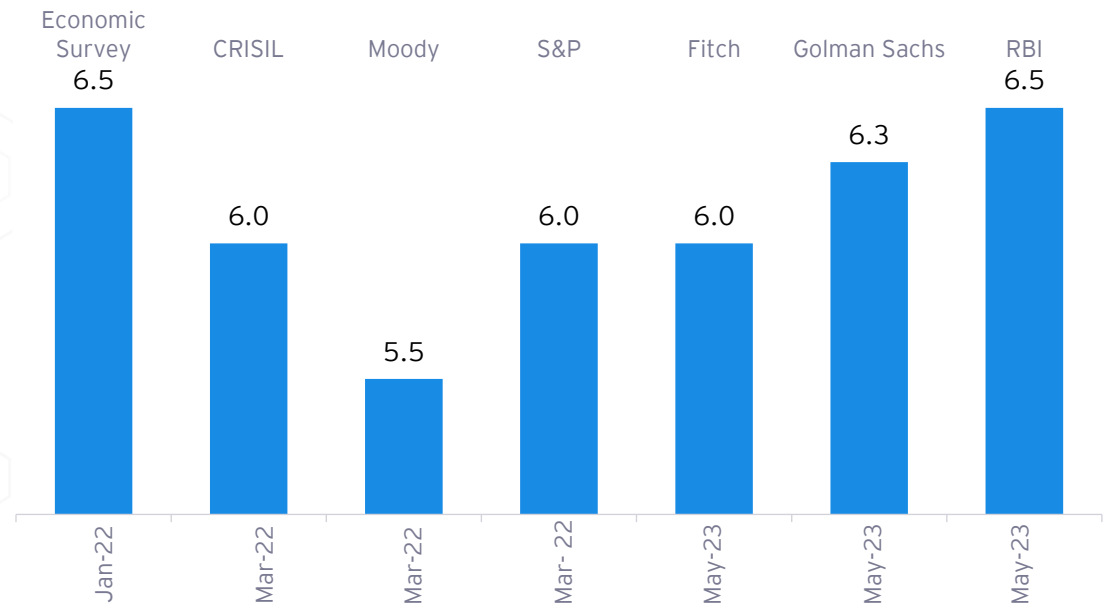
## India continues to be the fastest growing economy

Global economic outlook

World Economic Outlook Projections (%)

Region/country/market	Estimates		Projections	
	2022	2023	2023	2024
World	3.4	2.8	3.0	
Advanced economies	2.7	1.3	1.4	
US	2.1	1.6	1.1	
Euro Area	3.5	0.8	1.4	
Japan	1.1	1.3	1.0	
Emerging markets/ developing economies	4.0	3.9	4.2	
China	3.0	5.2	4.5	
<b>India</b>	<b>6.8</b>	<b>5.9</b>	<b>6.3</b>	
Brazil	2.9	0.9	1.5	
Russia	-2.1	0.7	1.3	

India's GDP forecast for 2023-24 (%)

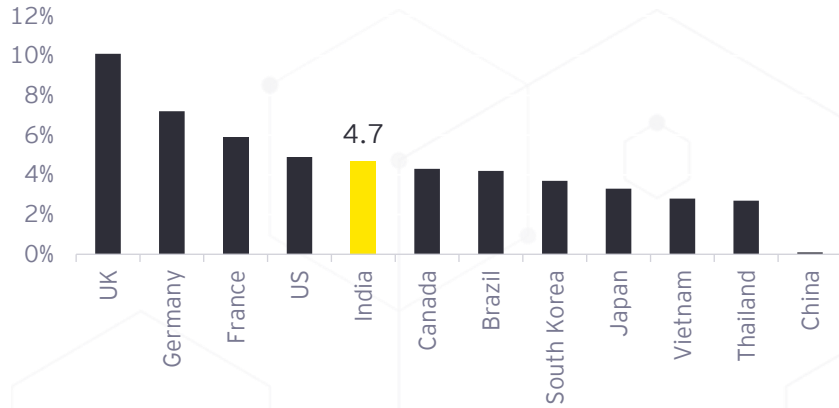


Note: For India, data and forecasts are presented on a fiscal year basis, with FY 2022/23 (starting in April 2022)

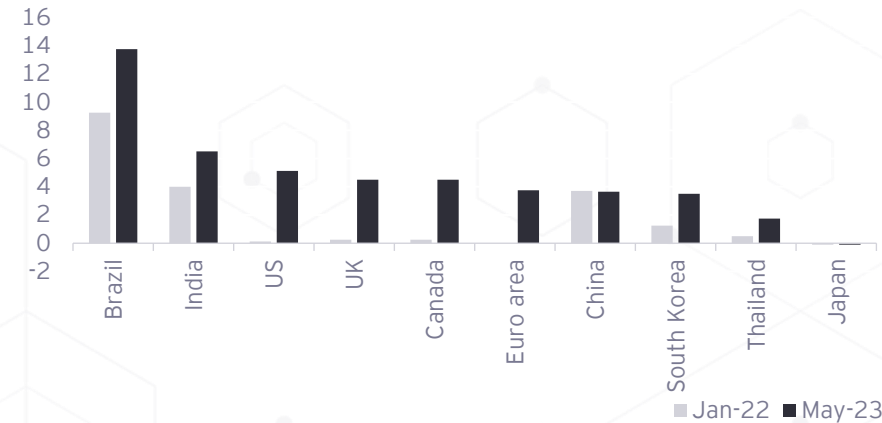
- ▶ Global growth is projected to bottom out at 2.8 percent in 2023 before rising modestly to 3.0 percent in 2024.
- ▶ Impact of the sharp rise in policy rates especially on the banking sector have been in focus and there are fears of contagion across the broader financial sector, including non-bank financial institutions.
- ▶ However, the global economy has demonstrated resilience, though Germany has now gone into recession. Resilience has been driven by services, especially tourism, while manufacturing continues to struggle.
- ▶ Many advanced economies are creating jobs. As an example, in the US, over 250,000 jobs were created in April 2023 (in leisure and hospitality, healthcare and professional and business services). Unemployment is at 3.4%, at the lowest levels over the last 10 years.



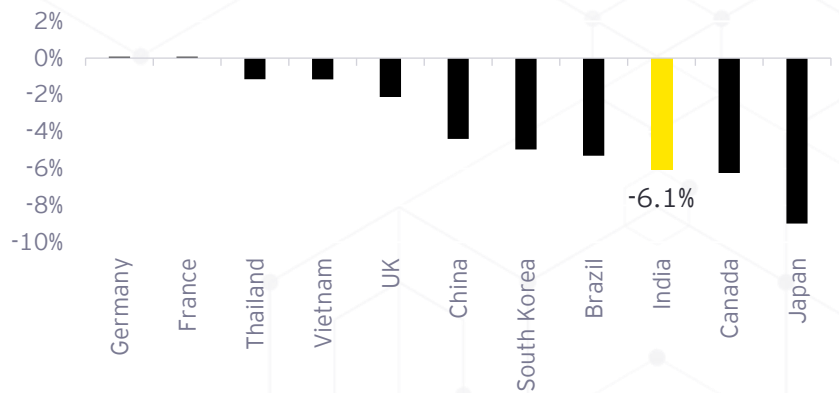
### Consumer inflation rate (%)



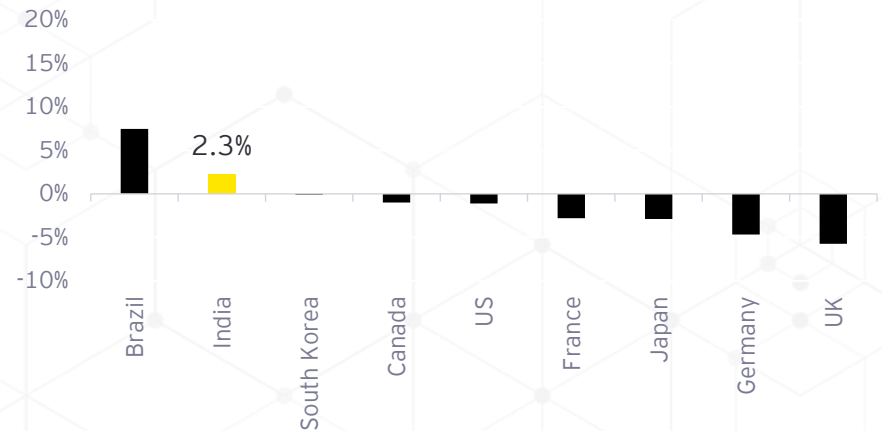
### Central bank policy rate (%)



### Currency performance vis-à-vis US\$ (last 12 months)



### Real yields on G-secs (10 year)\*



## Key findings

- ▶ Inflation has edged down across most advanced economies. In April 2023, the headline CPI inflation in the US eased marginally to 4.9% (the lowest since April 2021) from 5% in March.
- ▶ With inflation moderating globally, central banks have either paused or slowed the pace of rate hikes in the recent months.
  - ▶ However, inflation continues to be higher than the central bank's targets.
- ▶ Emerging economies in South-East Asia have witnessed relatively lower inflation and stability in exchange rates.
- ▶ India is one of the few countries with positive real G-secs yield. However, Indian currency has seen a larger depreciation in the last year vis-à-vis other key economies.

Source: FT, Bloomberg, Google finance: as of 26<sup>th</sup> May 2023, Bank For International Settlements central bank policy rate as of 23<sup>rd</sup> May 2023  
 Real yields have been computed by reducing inflation from the nominal yields  
 Inflation as percentage annual change as of April 2023; Japan, UK and Canada as of March 2023



# PMIs point toward confidence in the Indian economy

## Key findings

- ▶ While there are concerns around the global economy, services activity, as evidenced by their PMIs, has picked up and is in positive territory in all major economies.
- ▶ For both services and manufacturing, outlook in India continues to be optimistic.
- ▶ Services PMI for India continued to remain robust indicating demand resilience. Output rose at the second quickest pace since July 2010.
- ▶ India and Thailand are two major emerging economies that continue to record robustness in manufacturing activity.
- ▶ Manufacturing activity in the US deteriorated in May from April (48.4 vis-à-vis 50.2) renewing concerns about economic health and recession.
- ▶ PMI for Indian manufacturing rose to 58.7 in May, which is the strongest improvement in health of the sector since October 2020, a 31-month high.

Manufacturing PMI	Jan-23	May-23
Thailand	54.5	58.7
India	55.4	58.2
United States	46.9	50.9
Canada	51.0	50.6
Japan	48.9	49.0
China	49.2	48.4
South Korea	48.5	48.4
Australia	50.0	48.4
UK	47.0	47.1
Vietnam	47.4	47.1
France	50.5	45.7
Germany	47.3	45.3
Brazil	47.5	43.2

Services PMI	Jan-23	May-23
India	57.2	61.2
Japan	52.3	57.2
Brazil	50.7	57.1
UK	48.7	55.9
France	49.4	55.2
Germany	50.7	54.9
China	52.9	54.1
Australia	48.6	52.5
United States	46.8	52.1

Note: The Purchasing Managers' Index (PMI) as a leading indicator helps gauge the economic trend through key variables of business activity such as output, new orders, production, input prices, hiring activity etc.  
 A reading above 50 indicating an overall increase/ expansion compared to the previous month, and below 50 an overall decrease/ contraction.  
 Source: World Economic Outlook 2022; S&P IHS Markit, Trading Economics, Secondary research  
 As of May 2023

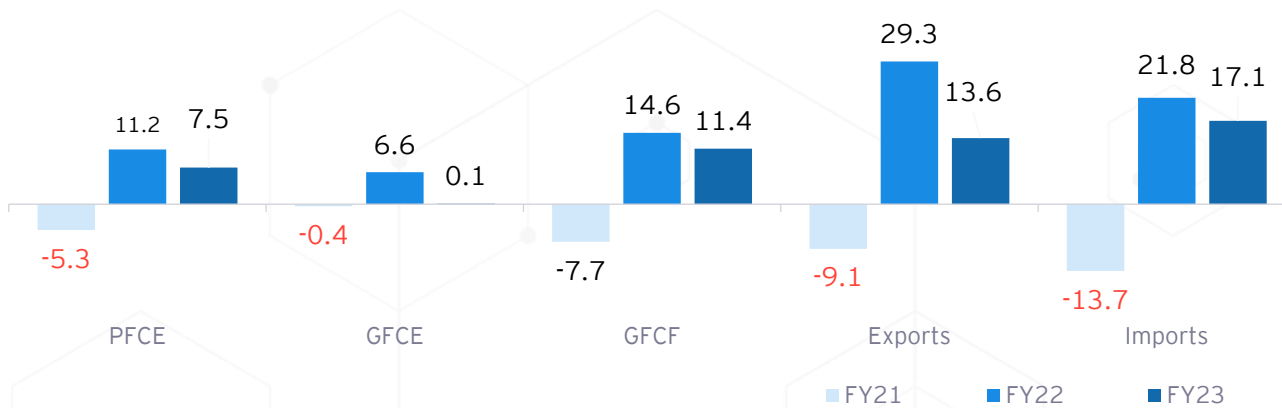
# 3

## Key economic and fiscal indicators

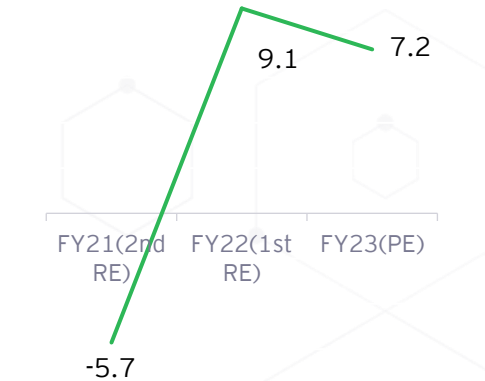


# Indian economic growth stays strong and optimistic

Annual estimates of expenditure on GDP growth (%)

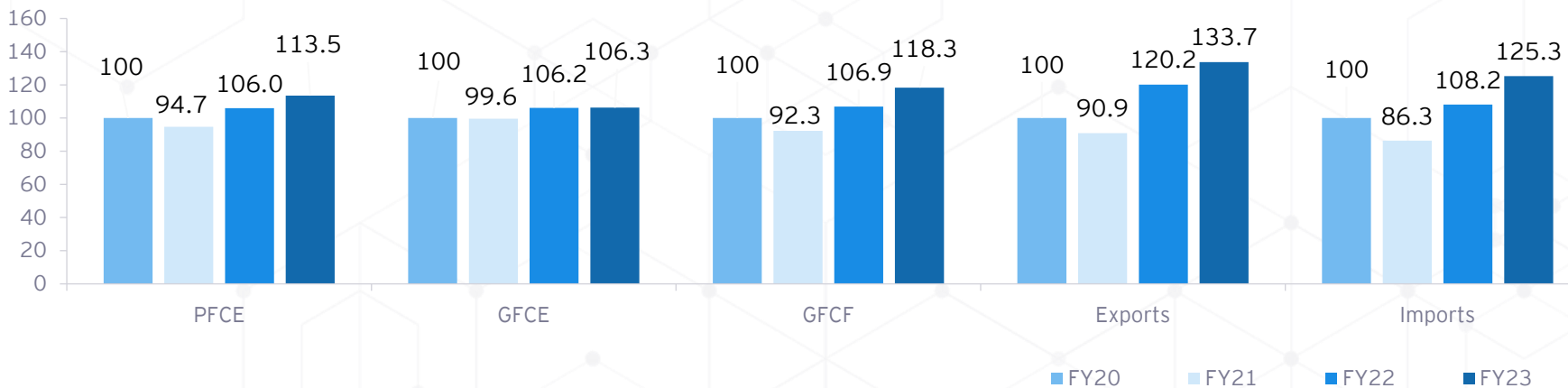


Annual GDP growth (%)



PFCE: Private Final Consumption Expenditure; GFCE: Government Final Consumption Expenditure; GFCF: Gross Fixed Capital Formation;

Annual estimates of expenditure against the base of 2020

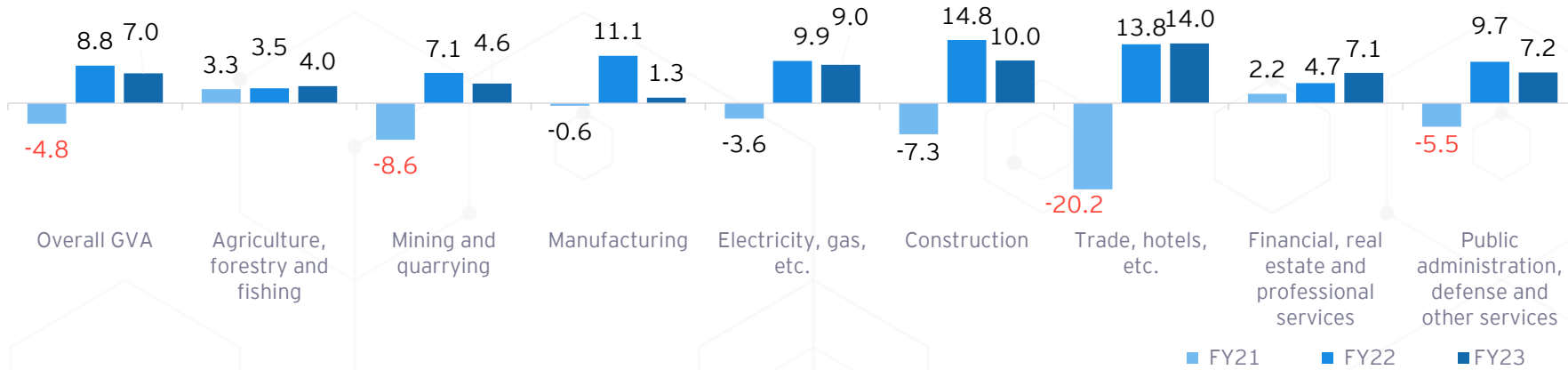


## Key findings

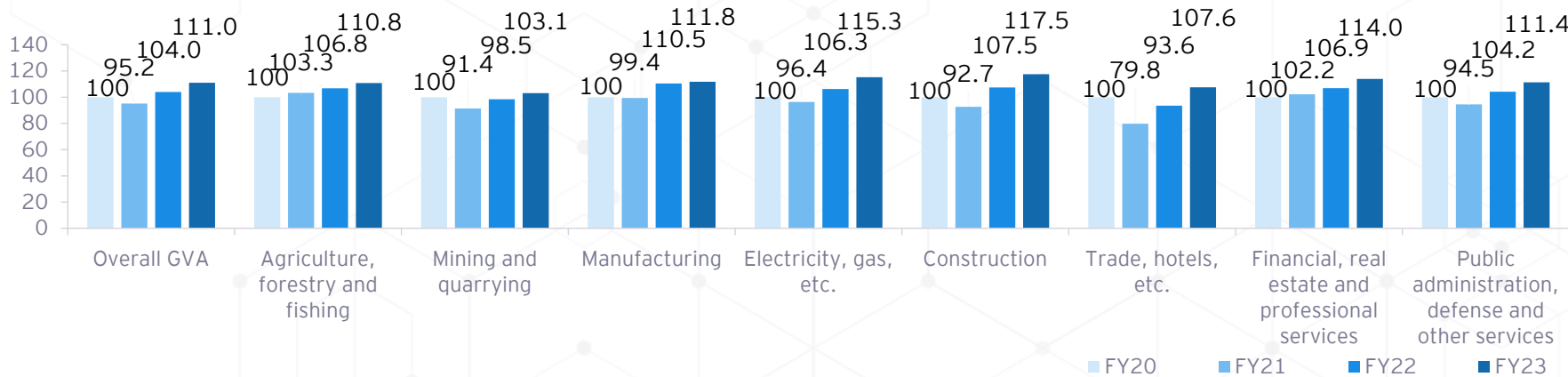
- ▶ India's real GDP growth for FY2022-23 grew at 7.2%, led by strong growth in Q1 and Q4 of the year.
  - ▶ GDP in Q1 FY2022-23 grew by 13.1% which reflects a base effect in the preceding year.
  - ▶ Q4 FY2022-23 growth at 6.1% has exceeded expectations.
  - ▶ During Q2 to Q4, growth averaged at 5.6%, indicating India's resilience
- ▶ In terms of share in GDP, private consumption expenditure for 2022-23 was 58.5%, marginally higher than 58.3% in the previous fiscal. It grew at 7.5% vis-à-vis the previous year.
- ▶ Gross fixed capital formation continues to show robust growth at 11.4% in FY2022-23, driven by government capital expenditure.
- ▶ Overall, the external sector has moderated growth due to the global headwinds. However, there has been a sharp growth in service exports in FY2022-23.



### Annual gross value added (GVA) growth (%): major sectors



### Annual gross value added (GVA) by major sectors against the base in 2020

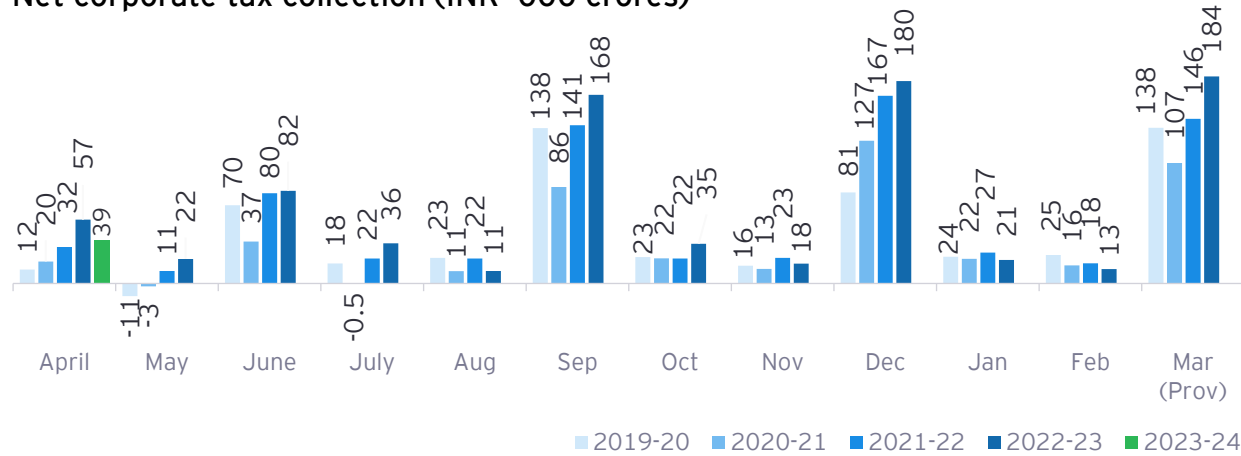


### Key findings

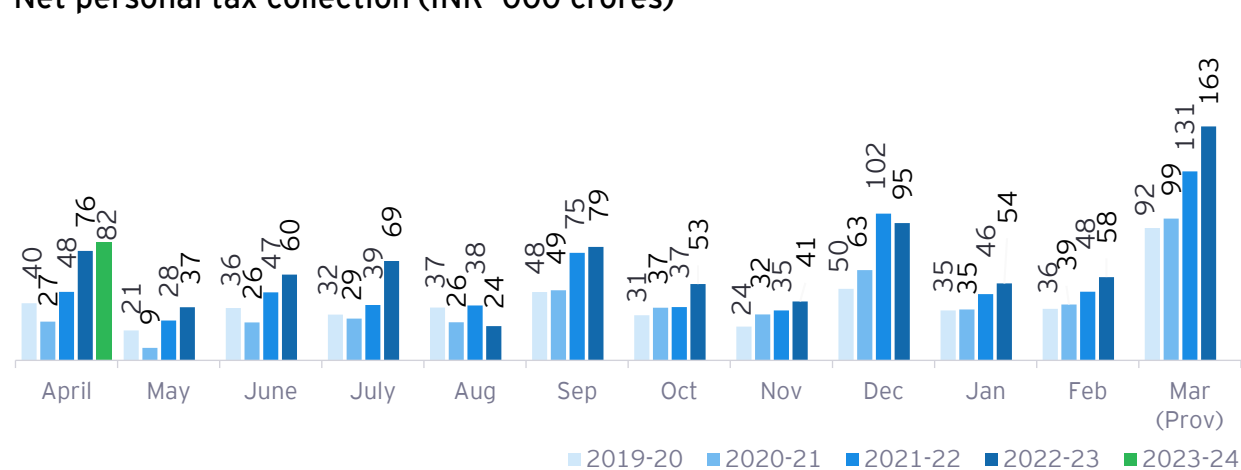
- ▶ During FY2022-23, of all GVA sectors, agriculture has reflected a consistent growth in the last three years.
- ▶ Q4 manufacturing output rose by 4.5% after two quarters of contraction, thus taking the overall manufacturing growth for the year in positive territory. However, concerns about slower global demand remain, which may affect India's manufacturing and export growth.
- ▶ Services growth remained strong, with trade & transport, financial services, and construction activity showing strong growth.
- ▶ Construction sector grew 10.4% in Q4 FY2022-23 as against 4.9% a year ago.
- ▶ Trade, hotels, etc., recorded a growth of 9.1% in Q4 FY 2022-23 as against 5% in Q4 FY 2021-22.
- ▶ Financial sector grew at 7.1% in Q4 FY2022-23 as against 4.6% a year ago.

# Trends in the union government's direct tax collections

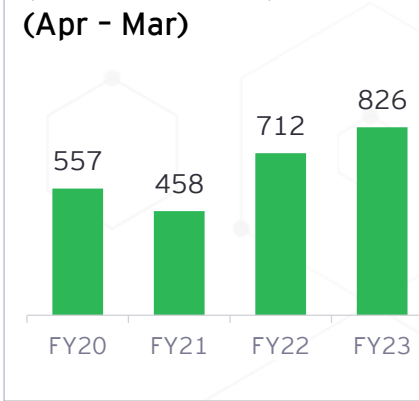
Net corporate tax collection (INR '000 crores)



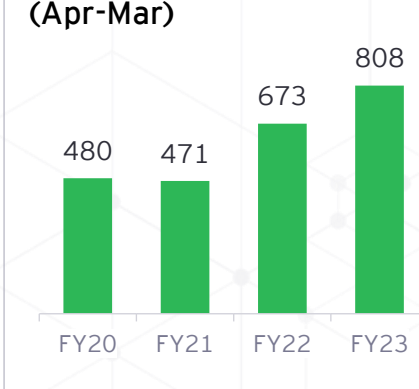
Net personal tax collection (INR '000 crores)



Corporation tax (CIT) (INR '000 crores) (Apr - Mar)



Personal tax (PIT) (INR '000 crores) (Apr-Mar)

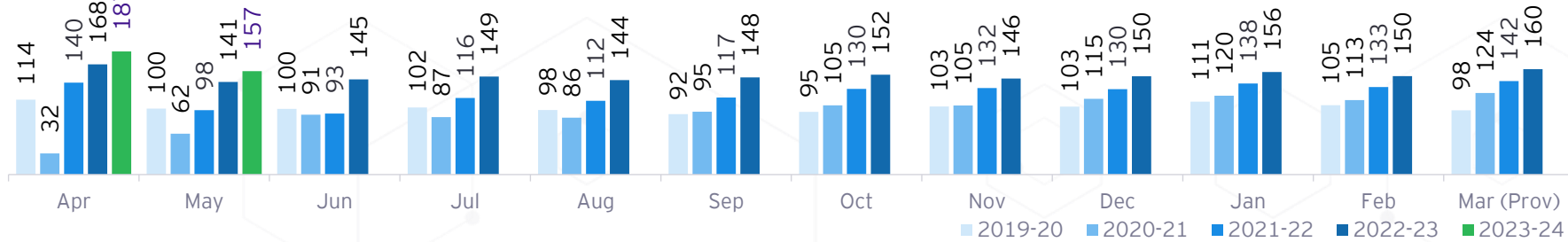


## Key findings

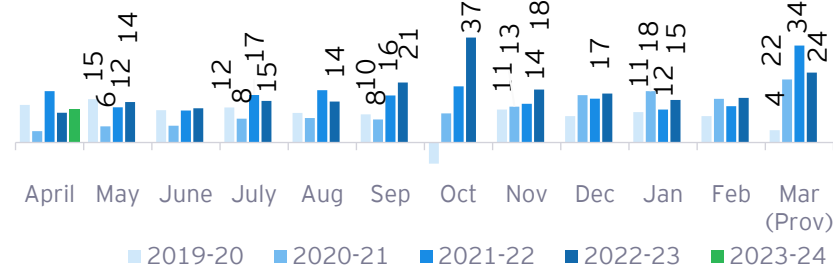
- Total DT collections for FY2022-23 were robust at INR 16.6 lakh crore, an increase of 17% over government's budgeted estimates and 0.6% over revised estimates, thus achieving a buoyancy of 1.1.
- Actual CIT and PIT collections for FY 2022-23 witnessed a growth of 16% and 20.1% respectively vis-à-vis the same period in FY2021-22.
- Robust tax collection could be attributed to a resilient economy as activities further accelerated following the Covid-led crisis in previous years as well as the government's focus on widening the base and plugging leakages.

# Trends in union government's indirect tax collections

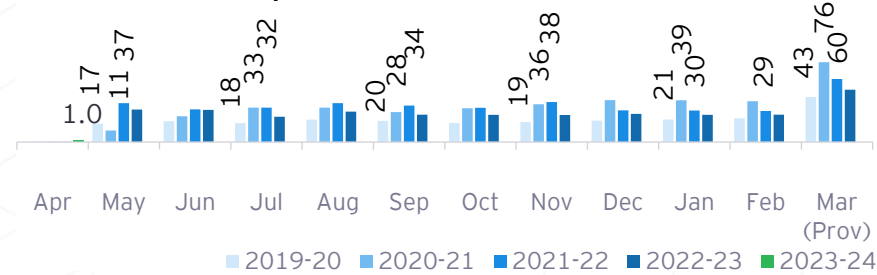
GST Collections (Union + States) (INR '000 crores)



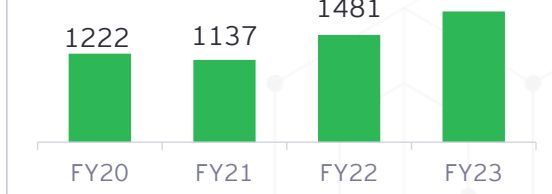
Customs (INR '000 crores)



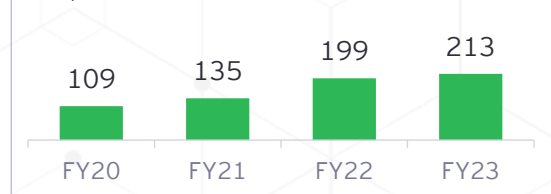
Union excise duty (INR '000 crores)



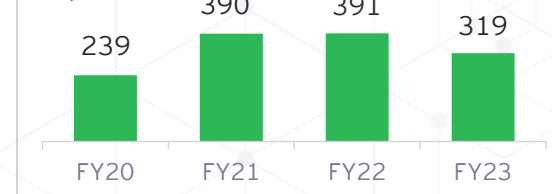
GST (Union + States) (INR '000 crores) (Apr-Mar)



Customs duty (INR '000 crores) (Apr-Mar)



Union Excise Duty (INR '000 crores) (Apr-Mar)



## Key findings

- ▶ GST revenues for FY2022-23 witnessed a robust increase of 22% over the previous fiscal, achieving a buoyancy of 1.3.
- ▶ At INR 1.87 lakh crore, GST collection for April 2023 is the highest since its implementation.
- ▶ For the period FY2022-23, customs duty collections increased by 7%.
- ▶ Excise duty mop up fell by 22.6% during FY2022-23 due to a cut in excise duty rates for petrol and diesel.

#	Particulars	Budget estimate (BE) (2022-23) (INR crores)	Revised estimate (BE) (2022-23) (INR crores)	Actuals (April 2022 - Mar 2023) (INR crores)	Actuals (April 2021 - Mar 2022) (INR crores)	Actuals as % of RE FY 23	Actuals as % of RE FY 22	Average Actuals as % of RE (FY18 - FY22)
1	Tax revenues (net of states' share)	19,34,771	20,86,662	20,97,368	18,20,382	100.5%	102.2%	97.0%
2	Non-tax revenues	2,69,651	2,61,751	2,86,151	3,48,044	109.3%	116.4%	97.1%
3	Revenue receipts (1+2)	22,04,422	23,48,413	23,83,519	21,68,426	101.5%	104.4%	97.0%
4	Other receipts	79,291	83,500	72,187	39,208	86.5%	39.4%	94.2%
5	<b>Total non-debt receipts (3+4)</b>	<b>22,83,713</b>	<b>24,31,913</b>	<b>24,55,706</b>	<b>22,07,634</b>	<b>101.0%</b>	<b>101.4%</b>	<b>96.9%</b>
6	Revenue expenditure other than interest	22,54,606	25,18,813	25,24,094	23,95,983	100.2%	101.8%	98.7%
7	Interest	9,40,651	9,40,651	9,28,424	8,05,390	98.7%	99.0%	98.8%
8	Capital expenditure	7,49,652	7,27,768	7,36,319	5,92,798	101.2%	98.4%	97.0%
9	<b>Total expenditure (6+7+8)</b>	<b>39,44,909</b>	<b>41,87,232</b>	<b>41,88,837</b>	<b>37,94,171</b>	<b>100.0%</b>	<b>100.6%</b>	<b>98.6%</b>
10	<b>Fiscal Deficit (9-5)</b>	<b>16,61,196</b>	<b>17,55,319</b>	<b>17,33,131</b>	<b>15,86,537</b>	<b>98.7%</b>	<b>99.6%</b>	<b>104.3%</b>

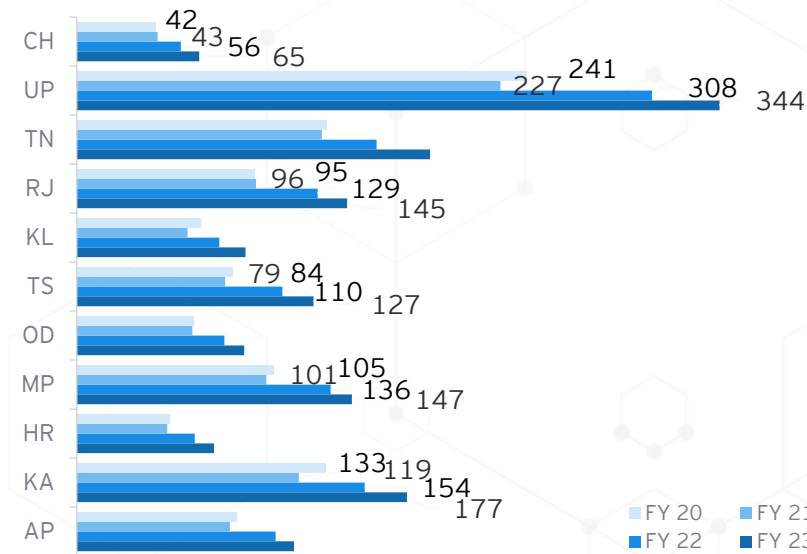
### Key findings

- ▶ Upbeat gross tax collections and thrust on capex, which not only improved quality of expenditure but also has a multiplier effect on economy, are the major highlights of the Union government's fiscal performance during FY2022-23.
- ▶ India has achieved its fiscal deficit target of 6.4% in FY2022-23, aided primarily by strong tax receipts.
  - ▶ Besides growth in revenues, only a 5% growth in revenue expenditure has enabled the government to achieve its target deficit for FY2022-23.
- ▶ The target is to narrow the deficit for FY2023-24 to 5.9% and below 4.5% of the GDP by 2025-26.

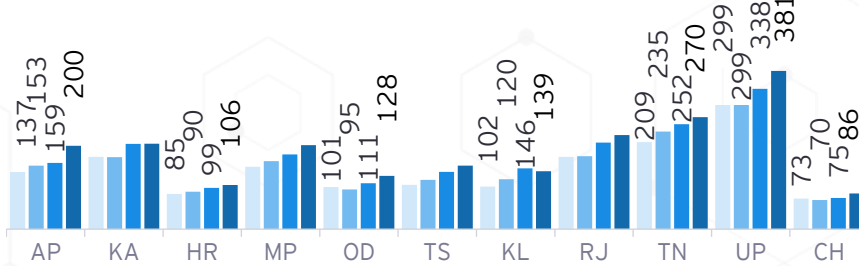
# States' tax revenues rise steadily

## Tax revenue and expenditure for major states for the period (April'22 - March'23)

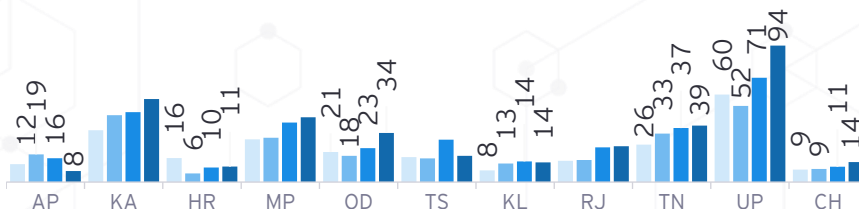
Tax revenue (INR '000 crores)



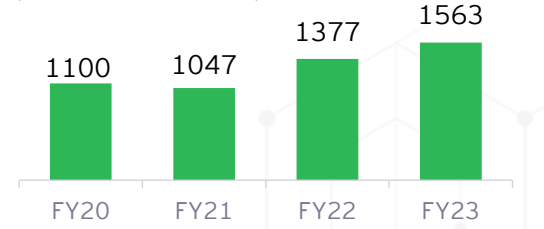
Revenue expenditure (INR '000 crores)



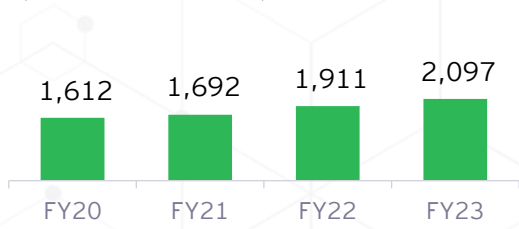
Capital expenditure (INR '000 crores)



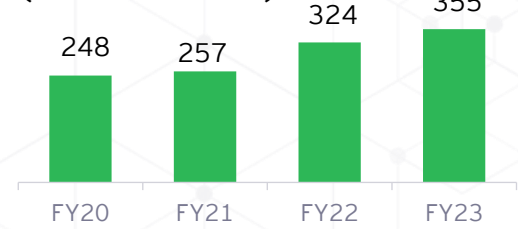
Tax revenue (INR '000 crores)



Revenue expenditure (INR '000 crores)



Capital expenditure (INR '000 crores)



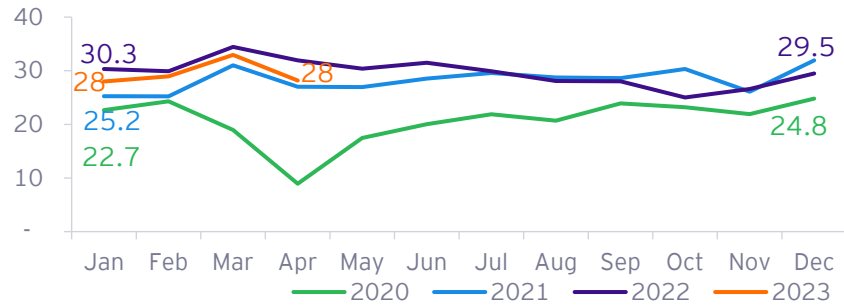
## Key findings

- Overall, in the eleven selected states for which the latest data is available, tax revenues from FY2022-23 have increased by 13.5% vis-à-vis same period FY2021-22.
- During FY2022-23, revenue as well as capital expenditure by the states saw a 9.6% rise vis-à-vis the same period last year.
- At the individual state level, Uttar Pradesh witnessed the highest increase in tax revenues as well as capital expenditure in FY2022-23. This indicates economic activities are gaining momentum in the state now.

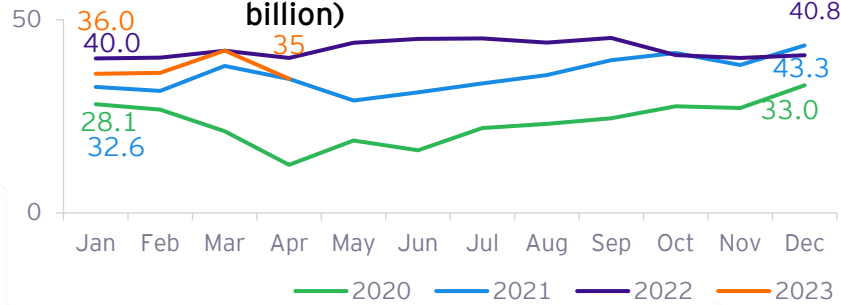
CH: Chhattisgarh; : AP: Andhra Pradesh; HR: Haryana; KA: Karnataka; KL: Kerala; MP: Madhya Pradesh; OR: Odisha; RJ: Rajasthan; TN: Tamil Nadu; TS: Telangana; UP: Uttar Pradesh; UP: Uttar Pradesh; CH: Chattisgarh  
Source: Controller and Auditor General; State Accounts



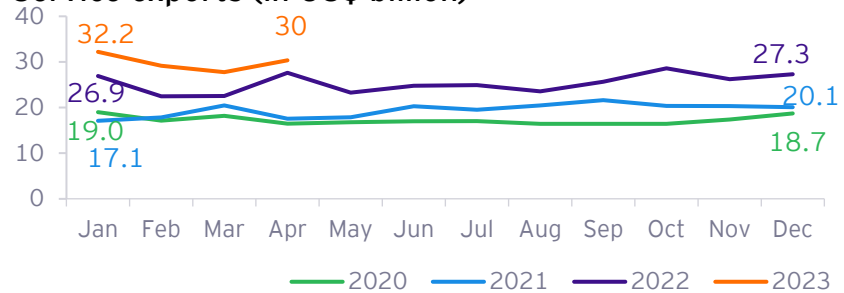
### Non-oil merchandise exports (in US\$ billion)



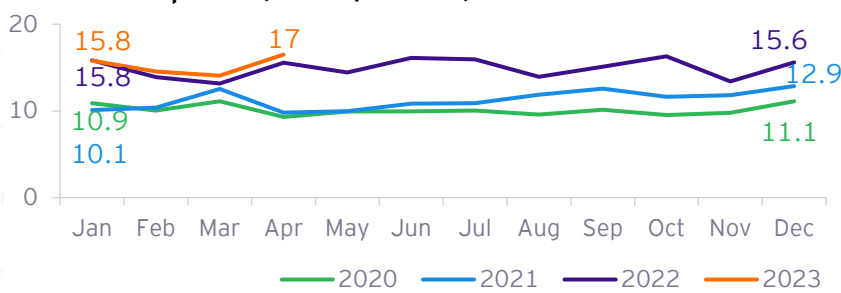
### Non-oil merchandise imports (in US\$ billion)



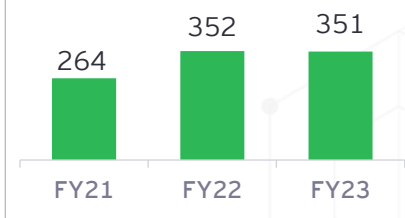
### Service exports (in US\$ billion)



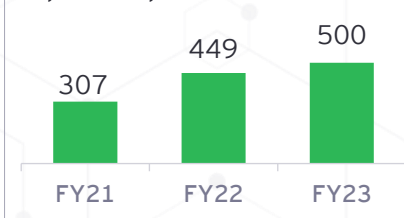
### Service imports (in US\$ billion)



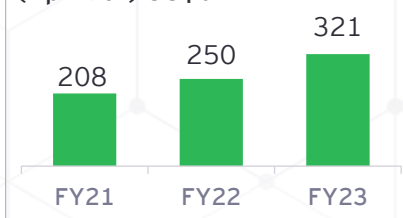
#### Non-Oil Merchandise Exports (Apr-Mar) US\$b



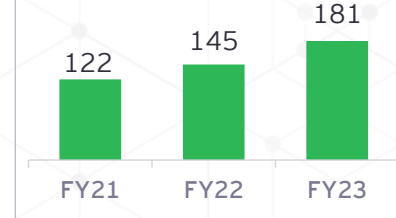
#### Non-Oil Merchandise Imports (Apr-Mar) US\$b



#### Services Exports (Apr-Mar) US\$b



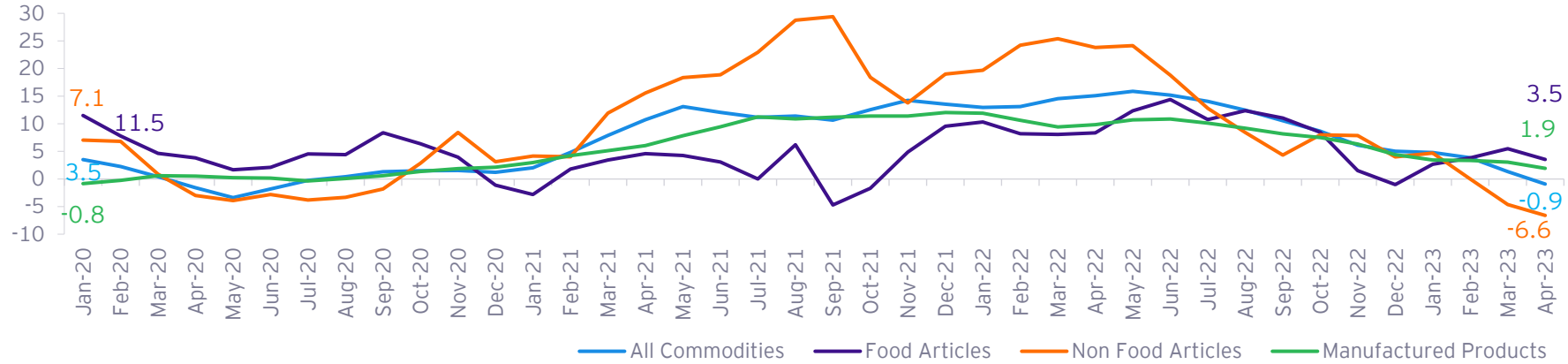
#### Services Imports (Apr-Mar) US\$b



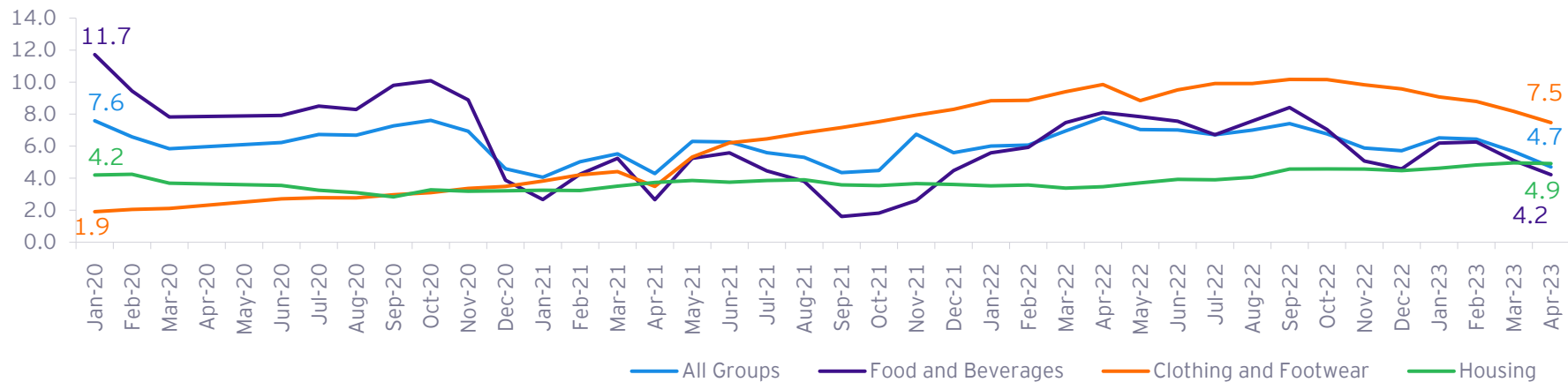
### Key findings

- ▶ Services exports have risen sharply by 28% in FY23 vis-à-vis FY22 while non-oil merchandise exports have remained flat.
- ▶ The strength in services exports is also noted in its sequential expansion of 17% in April 2023. This should provide cushion to net external demand in the near term.
- ▶ India's non-oil merchandise exports registered a contraction of 12% in April 2023, marking the fifth consecutive month of y-o-y since December 2022. This reflects the impact of a slowing global demand.
- ▶ The decline in exports was noted in sectors such as gems and jewelry, engineering goods, ready-made garments, and organic and inorganic chemicals.
- ▶ Merchandise imports increased by only 11% in FY23 over FY22, which can be attributed to ease in global commodity prices and fall in demand for discretionary items.

## WPI inflation (%)



## CPI inflation (%)

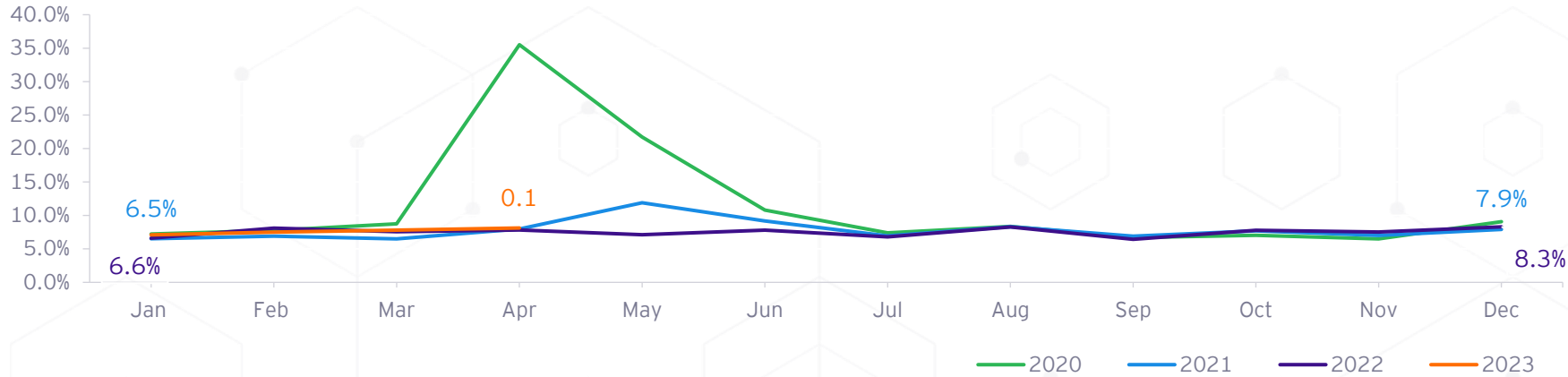


## Key findings

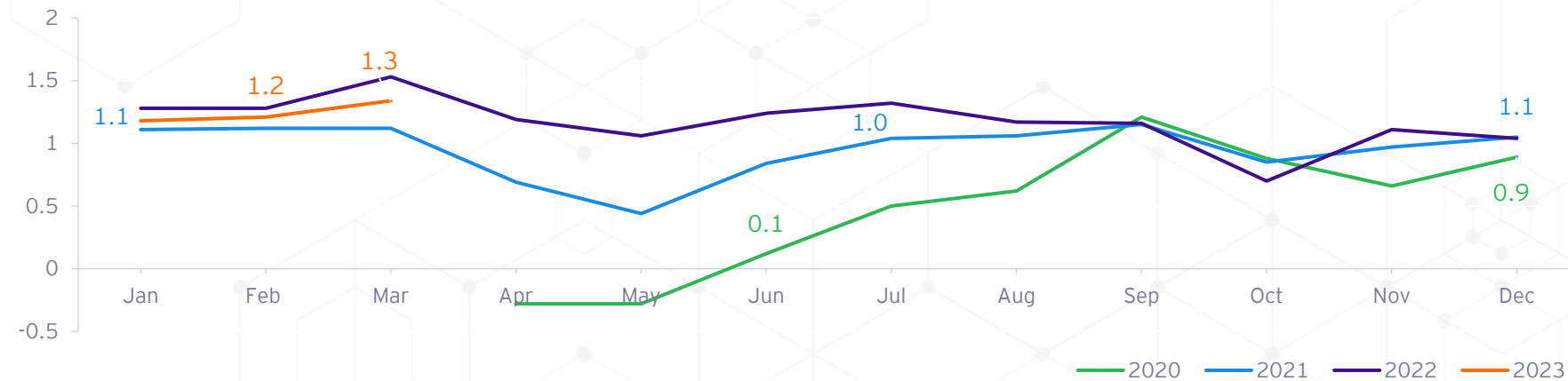
- ▶ Both consumer and wholesale price inflation eased in April 2023.
- ▶ Wholesale Price Index, representing producer prices, has dipped from 15% in April 2022 to -0.92% in April 2023.
- ▶ Consumer price inflation has also eased to 4.7% with broad based reduction in most sub-indices. Headline inflation has moved below 5% for the first time since November 2021.
- ▶ RBI has projected consumer inflation at 5.2% for 2023-24.
- ▶ Monetary policy tightening, supply augmenting measures and favorable base effect supports the moderation in consumer prices.
- ▶ Pass through of deflationary wholesale prices may further soften retail prices.



### Indian Unemployment Rate (%)



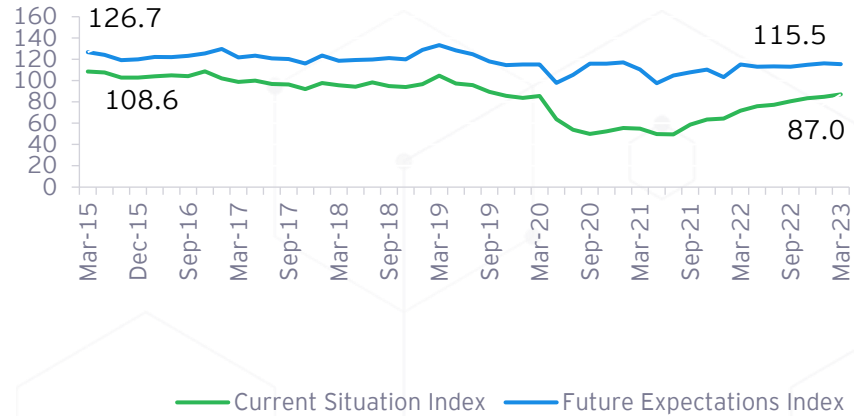
### Net Payroll Data EPFO (in millions)



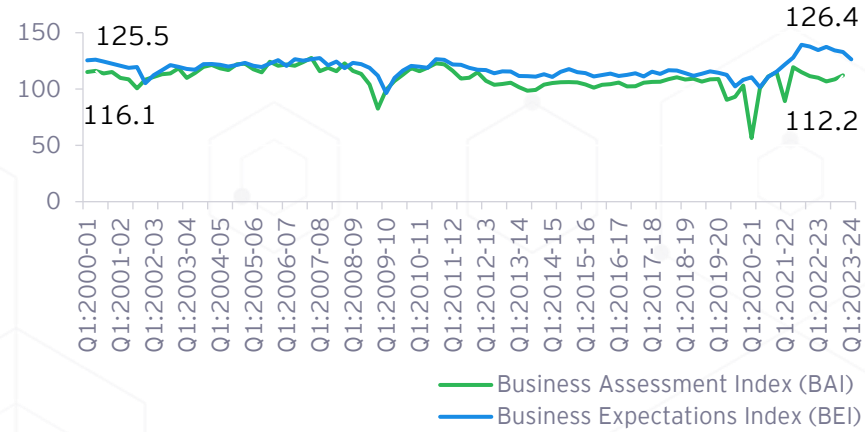
### Key findings

- ▶ Unemployment rate in India has noted an increase, month over month, in 2023. At 8.1% in April 2023, it increased by 30 bps over March 2023
- ▶ Increase in net payroll has also noted an uptick in March 2023 at 1.3 million as against the previous month. This represents sustained formal job creation.
- ▶ However, the growth in net payroll is lower vis a vis levels noted in the previous year.

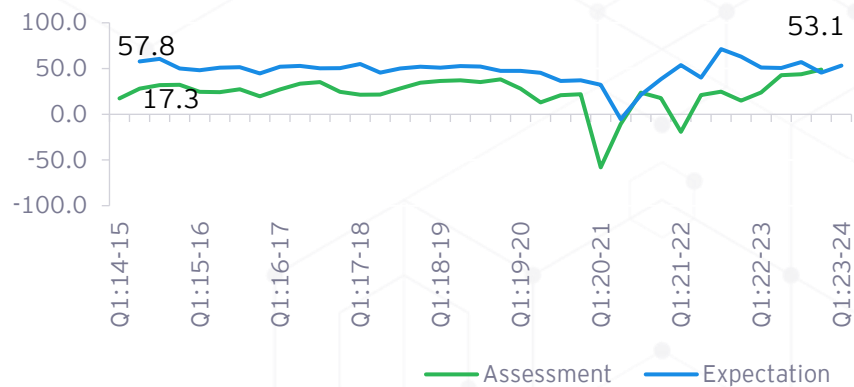
### Consumer confidence indices



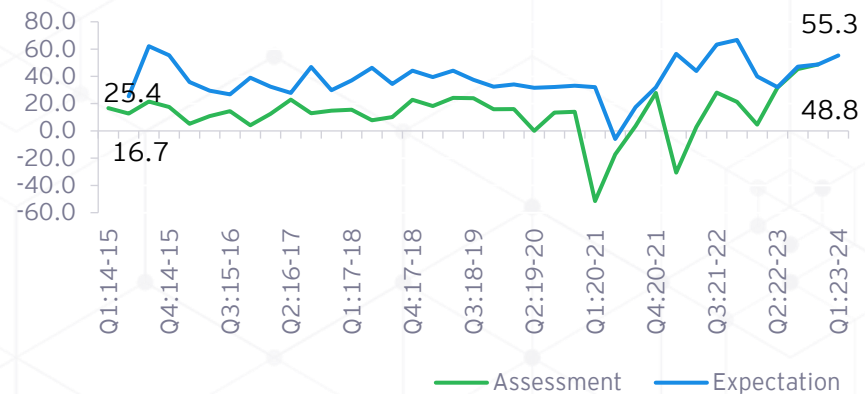
### Business sentiment



### Turnover of services companies (Net response %)



### Turnover of infrastructure companies (Net response %)



### Key findings

- ▶ RBI's consumer's Current Situation Index (CSI) improved in the March 2023 survey vis-à-vis January by 2.2 points. However, the confidence continues to be pessimistic.
- ▶ Meanwhile, households' outlook for the year ahead remained in the positive zone supported by higher spending expectations, with more than a third of the households expecting a rise in non-essential outlay over the next year
- ▶ Both current and future business sentiment remain positive. The future business outlook for Q1:2023-24, however, is lower than previous survey as reflected in lower expectations for production, order books and foreign trade.
- ▶ Both services and infrastructure companies are optimistic about their turnover for Q1 2023-24.

Source: RBI

Note: Net Response (NR) is the difference between the percentage of respondents reporting optimism and those reporting pessimism. It ranges between -100 to 100. Positive value indicates expansion/optimism and negative value indicates contraction/pessimism.

Data as of 6<sup>th</sup> April 2023



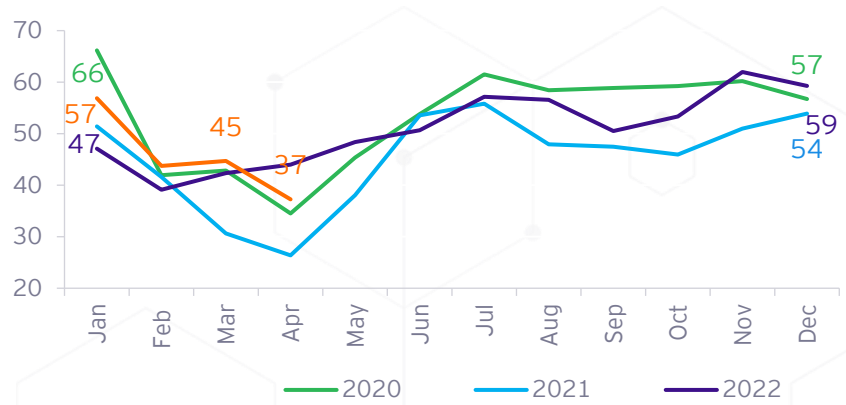
# 4

## Sectoral indicators

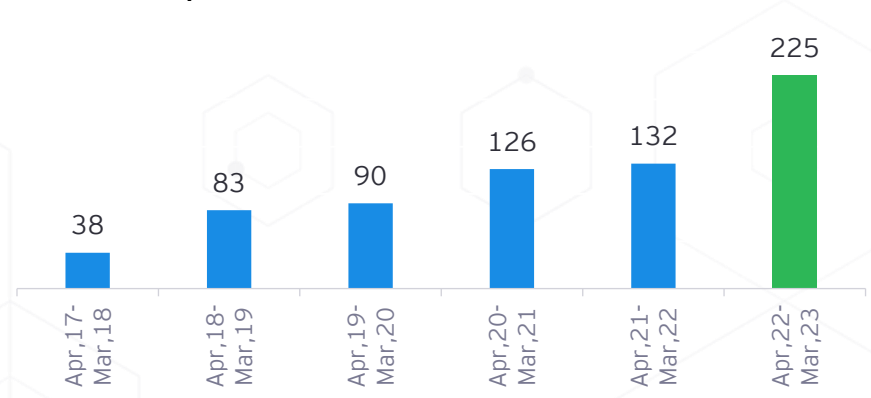




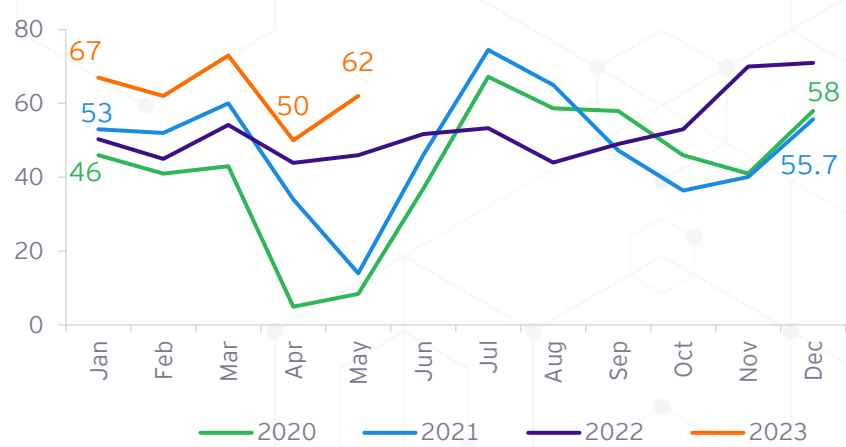
### Fertilizer sales (lacs MT)



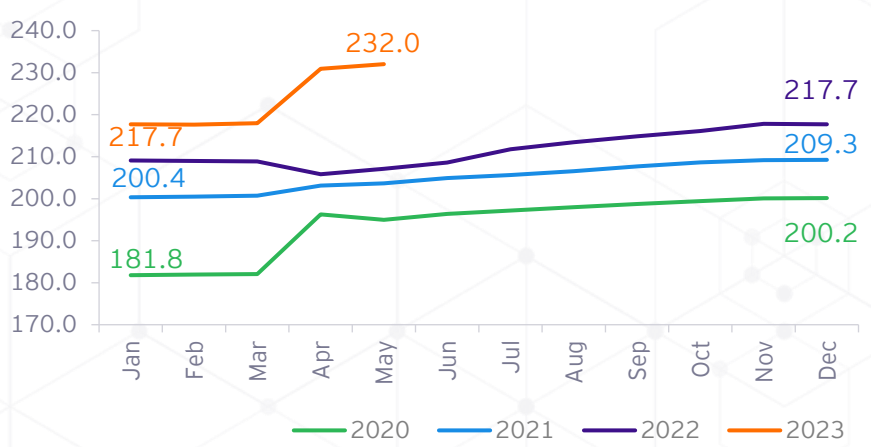
### Change in outstanding agriculture credit advanced by banks (INR '000 Crores)



### Tractor Registration (no. of units in '000)



### Average Wage paid per day per Person (INR)(Nominal)



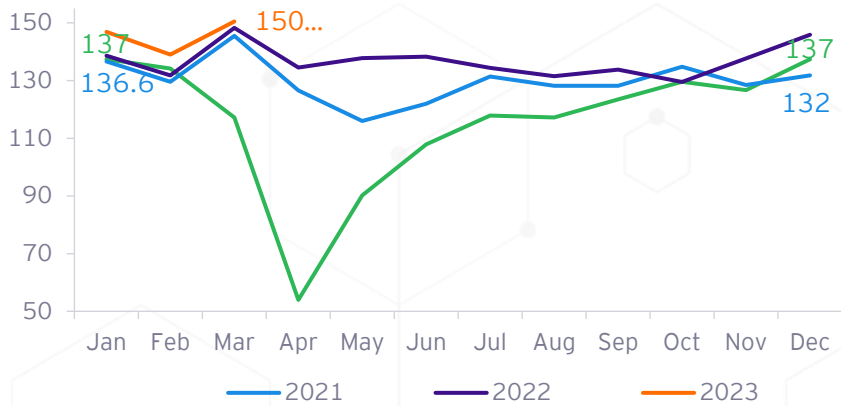
### Key findings

- Fertilizer sales recorded a contraction of 15% in April 2023 over April 2022. The aggregate growth during January to April 2023 is 6% higher than that in the same period in 2022. However, it is still 2% lower than that recorded in the same period in 2020.
- Tractor registrations have recorded strong growth in recent months with a 35% increase in May 2023 over May 2022.
- Credit flow to agriculture and allied activities remained strong in FY23. It rose by 15.4% in March 2023 over March 2022 and additional credit is 70% higher than previous fiscal.
- Average wages paid recorded a 12% increase in May 2023 over May 2022.
- According to the RBI, encouraging developments in both the kharif marketing season of FY23 and rabi marketing season of FY24 should provide support to domestic growth in Q1 FY24.

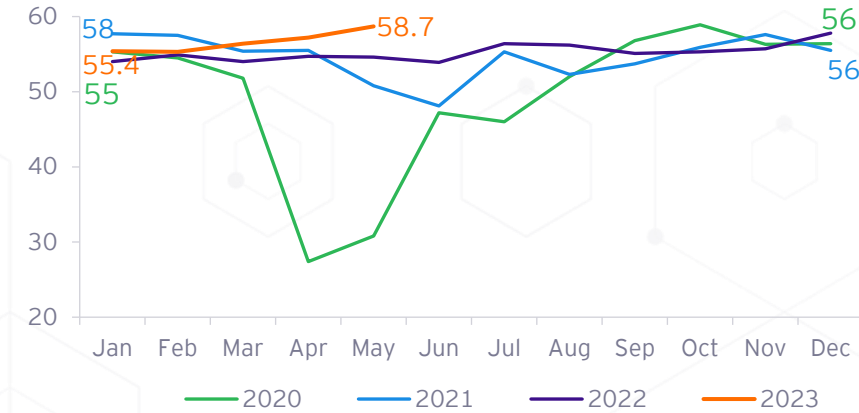
Source: Ministry of Road Transport and Highways, Ministry of Agriculture & Department of Fertilizers, MNREGA, MOSPI, RBI  
 Note: Fertilizer sales comprises of Urea, DAP, MOP and Complexes. Growth rate of bank credit to agriculture and allied activities have been computed based on the change over 12 month period  
 Note: 2017 and 2018 use old reporting format for agriculture credit



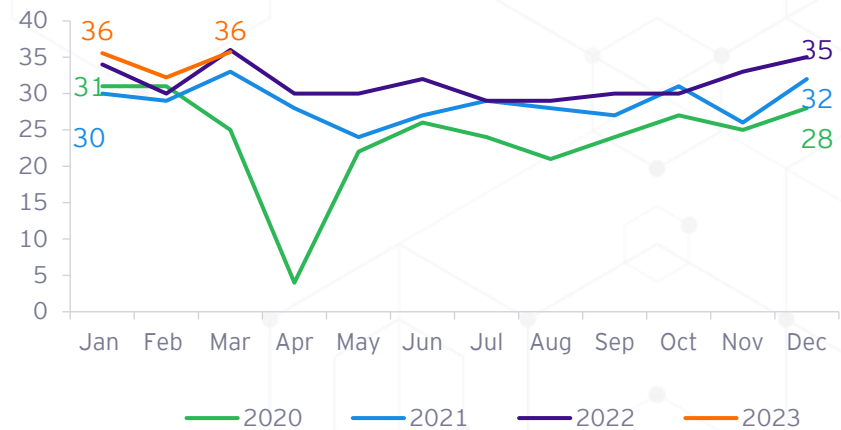
### General index of industrial production



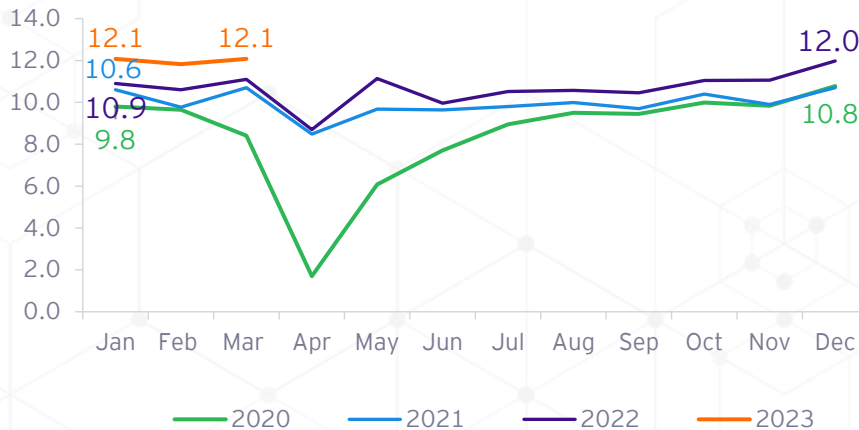
### Manufacturing PMI



### Cement production (million tons)



### Crude steel production (million tons)



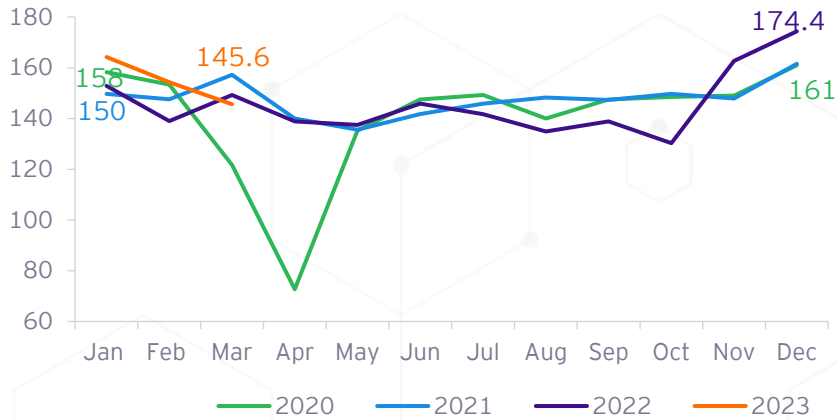
### Key findings

- ▶ Manufacturing high frequency indicators showing mixed signals in economic activity.
- ▶ IIP improved only marginally in March 2023 over March 2022 by 1%. The pace of growth has decelerated from December 2022 onwards.
- ▶ The manufacturing PMI continued to remain in the expansionary territory in 2023, with May at 58.7, recording a 31-month high. The expansion was broad-based in all sub-indices and pointed towards improving supply chain pressures.
- ▶ Among the construction sector indicators, cement production recorded a marginal contraction of 0.8% in March 2023 over March 2022, however it is still higher by 8% in FY23 over the previous fiscal. Steel production is higher by 9% in March 2023 over the last period. However, the pace of growth has decelerated.

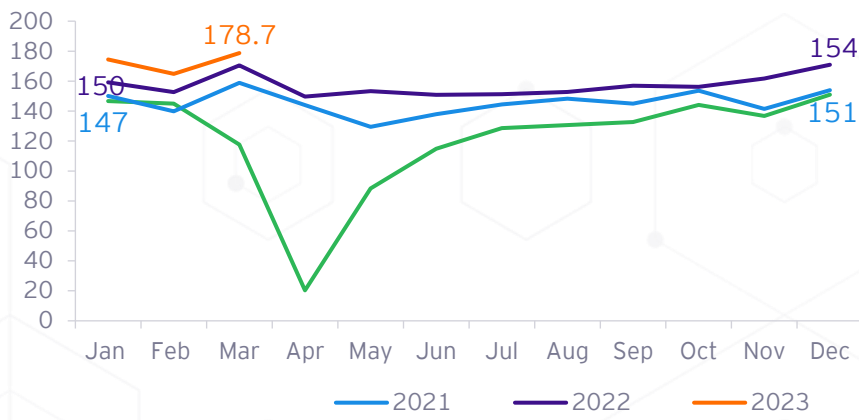
# Manufacturing indices for consumer non-durables, consumer durables, infrastructure and capital goods



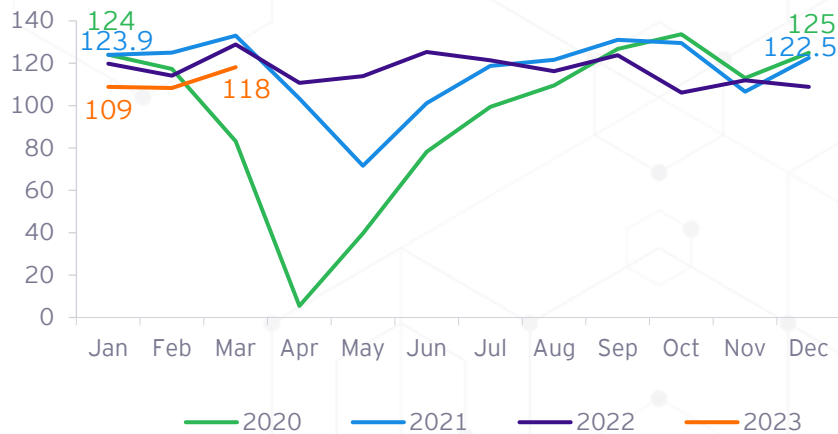
IIP consumer non-durables



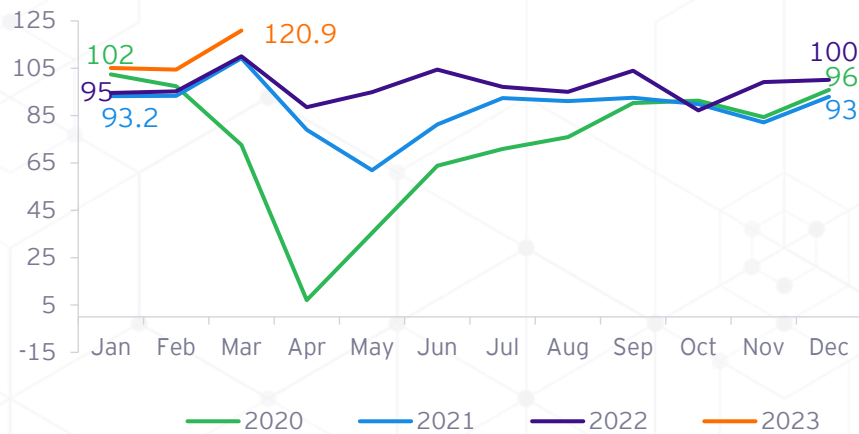
IIP infrastructure/construction goods



IIP consumer durables



IIP capital goods

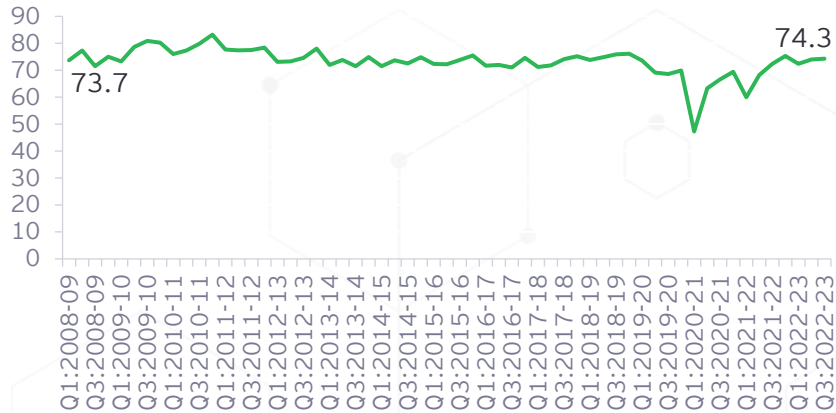


## Key findings

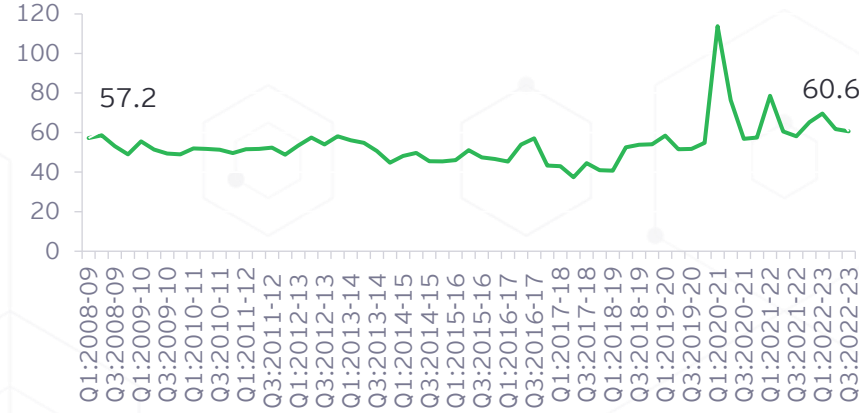
- ▶ As noted in cement and steel production, capital and infrastructure goods have shown strong growth reflecting strength in construction activity.
- ▶ IIP for capital and infrastructure goods increased by 10% and 5% respectively in March 2023 over the previous period. However, the pace of increase has noted moderation in March.
- ▶ Production of both consumer durables and non-durables has noted a slow start in 2023. After recording strong growth in December 2022, production index for non-durables contracted by 2% in March 2023 over March 2022.
- ▶ IIP for consumer durables has continued to remain weak in 2023 with a contraction of 8% in March 2023 over March 2022. It is also lower than March 2021 levels by 11%.



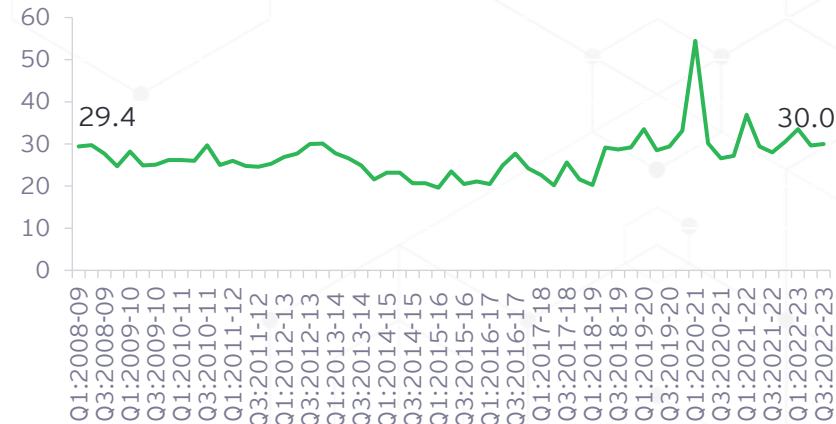
### Capacity utilization (%)



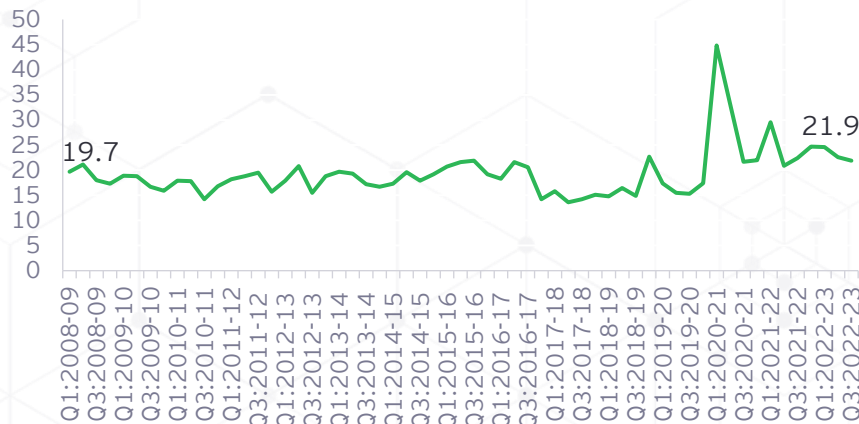
### Total inventory to sales ratio (%)



### Raw material inventory to sales ratio (%)



### Finished goods inventory to sales ratio (%)

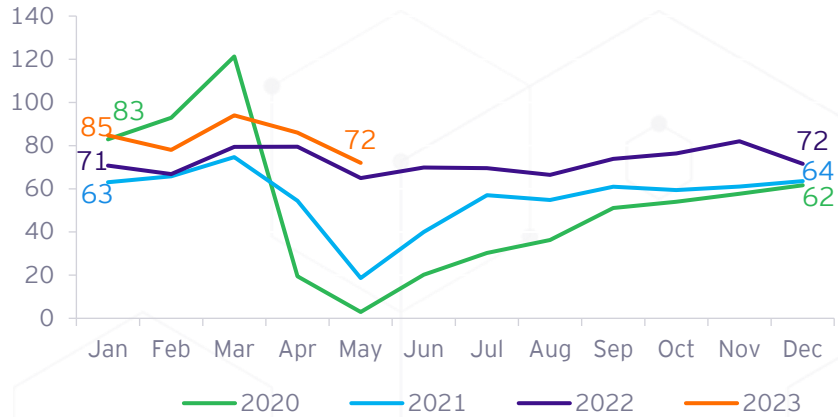


### Key findings

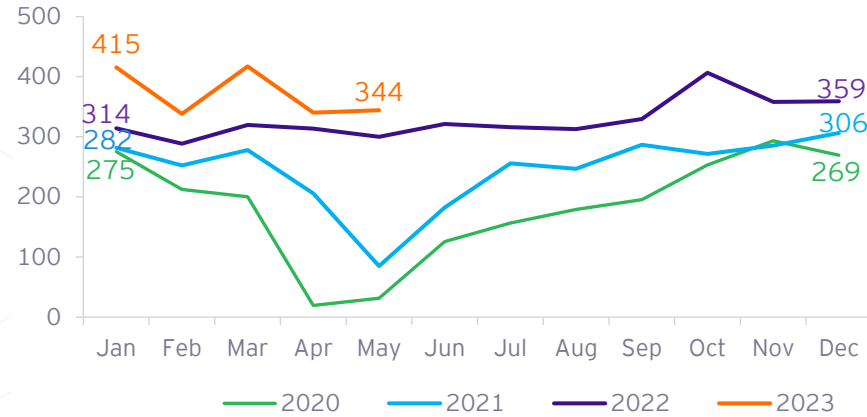
- ▶ Capacity utilization (CU) in the manufacturing sector improved marginally to 74.3% in Q3:2022-23 from 74% recorded in the previous quarter.
- ▶ According to the RBI, the seasonally adjusted CU for Q3:2022-23 declined by 40 basis points (bps) during the quarter and stood at 74.1% in Q3:2022-23.
- ▶ Both raw material and finished goods inventory are close to their levels recorded in the previous quarter.



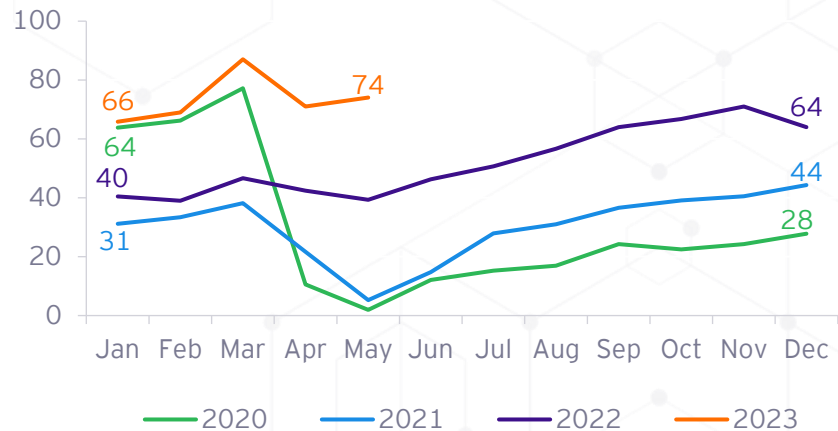
### Commercial vehicles (in '000s)



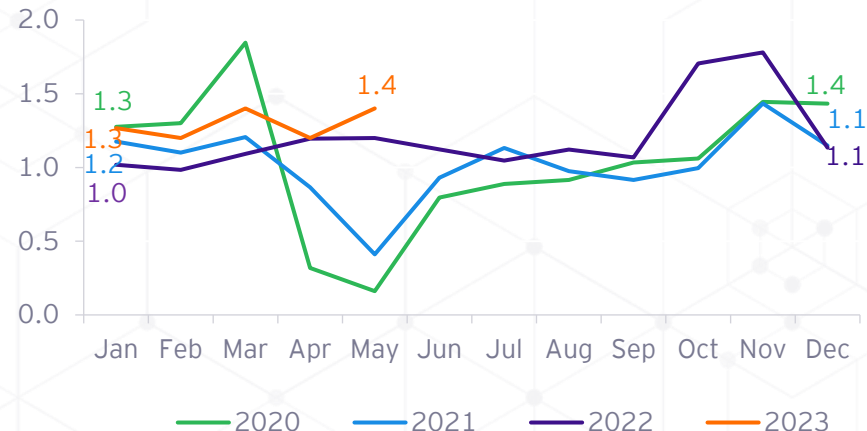
### Passenger vehicles (in '000s)



### Three-wheelers (in '000s)



### Two-wheelers (in millions)



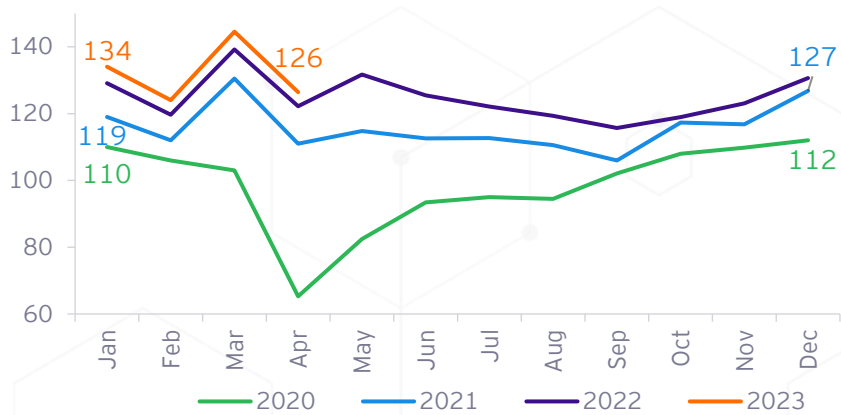
### Key findings

- ▶ Demand for commercial and passenger vehicles remains robust, with 33% and 37% growth in FY23 over previous fiscal.
- ▶ Commercial and passenger vehicle registrations noted 11% and 15% growth respectively in May 2023 over May 2022. The pace of growth however, moderated in April 2023 due to seasonality and higher prices faced by customers on implementation of the second phase of BS VI norms.
- ▶ Three-wheeler and two-wheeler sales have shown 87% and 28% growth in this FY23 over previous fiscal.
- ▶ However, while the sales of two wheelers in FY 23 trailed pre-pandemic levels of FY20 by 9%, three-wheeler sales in FY 23 were only marginally higher than FY20.

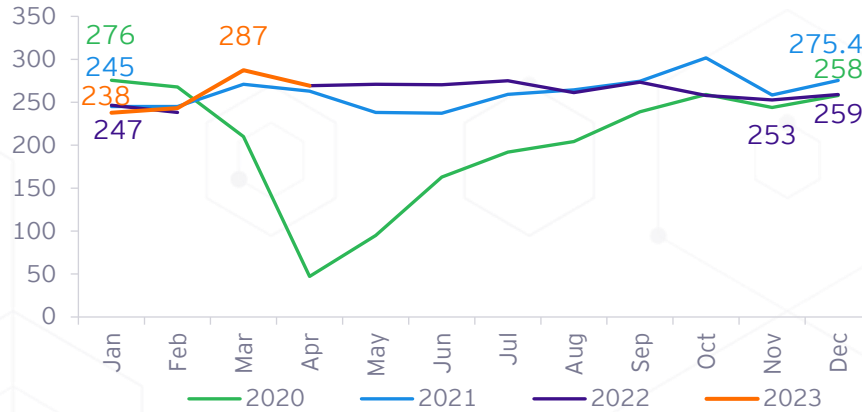
Note: CV include all Heavy, Medium vehicles and light goods vehicles. PV represents Motors Cars data. 2w and 3W include both transport and non-transport. Telangana and Lakshadweep vehicle registrations are not covered under Vahan database. Source: Vahan Database.



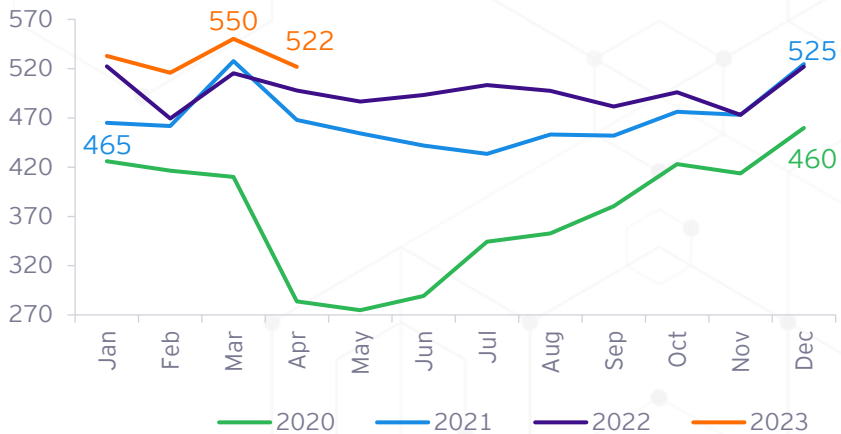
### Railways freight (million tons)



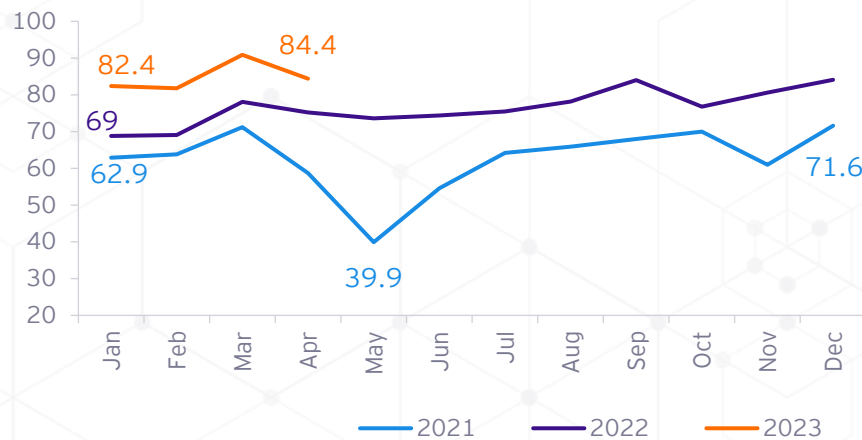
### Air Freight ('000 tons)



### JNPT container traffic ('000 TEUs)



### E-way bills generated (volume in million)

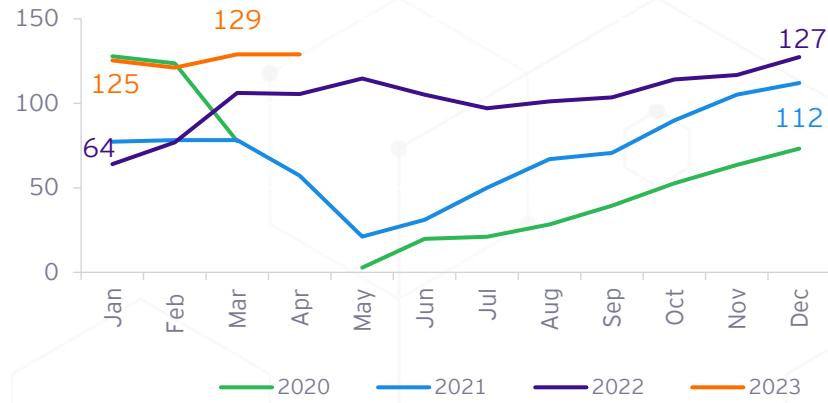


### Key findings

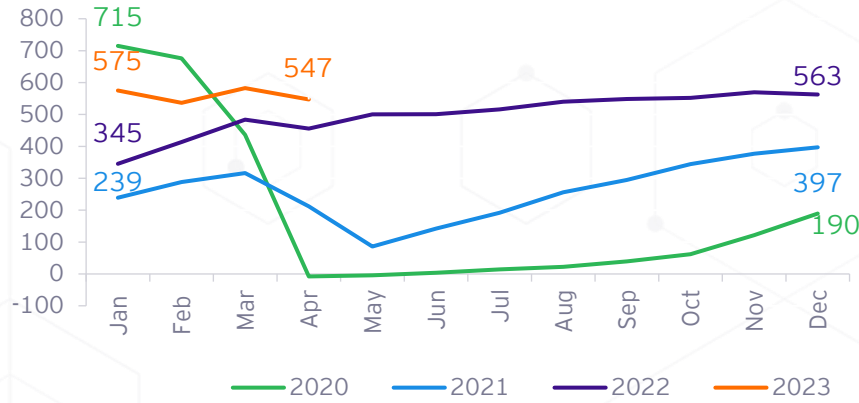
- ▶ Freight transportation sector has continued to grow in 2023 over 2022, indicating a sustained increase in economic activity.
- ▶ Railway freight increased by 7% in FY23 vis-à-vis the same period in FY22. A 4% growth has been noted in January to April 2023 vis-à-vis the same period in 2022.
- ▶ Similarly, shipping freight represented by Jawaharlal Nehru Port Trust (JNPT) container traffic is up by 6% in FY23 vis-à-vis previous fiscal. It reached a four-year high in March 2023 at 550 twenty-foot equivalent units (TEUs).
- ▶ E-way bills recorded multi-year peak in March 2023 at 90.9 million before moderating slightly to 84.4 in April. Volumes in FY23 were up by 24% vis-à-vis FY22.
- ▶ In contrast, air freight growth has been sluggish. In April 2023, it was at similar levels as in April 2021 and 2022.



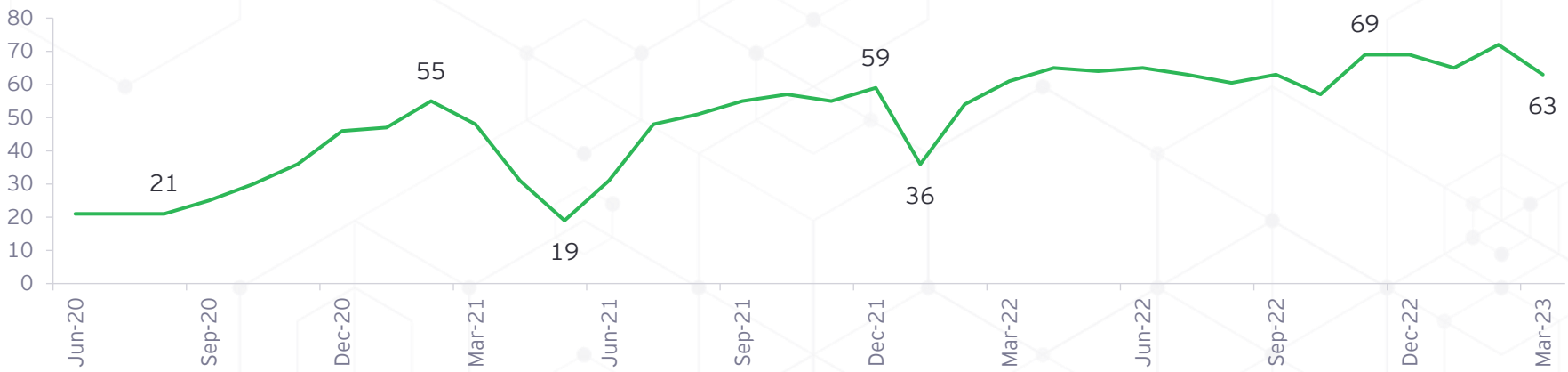
### Passengers carried by domestic airlines (in lacs)



### No. of railway passengers (in millions)



### Occupancy (%) in hotels sector



### Key findings

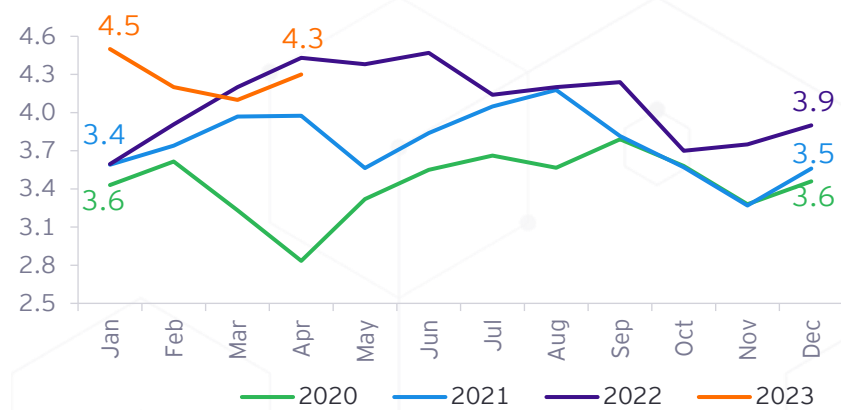
- ▶ Both domestic air and railway passenger traffic noted robust growth in April 2023 over the same period last year.
- ▶ Domestic air passenger traffic increased by 60% in FY23 over FY22. However, it is still 4% below FY20 levels.
- ▶ Passenger traffic on railways increased by 82% in FY23 over FY22. However, it continues to trail pre-pandemic levels by 20% (FY23 vis-à-vis FY20).
- ▶ Hotel occupancy has moderated slightly, recording 63% in March 2023, lower than the peak recorded in Feb 2023 at 72%.

Source: Directorate General of Civil Aviation, Indian Railways, HVS Anarock

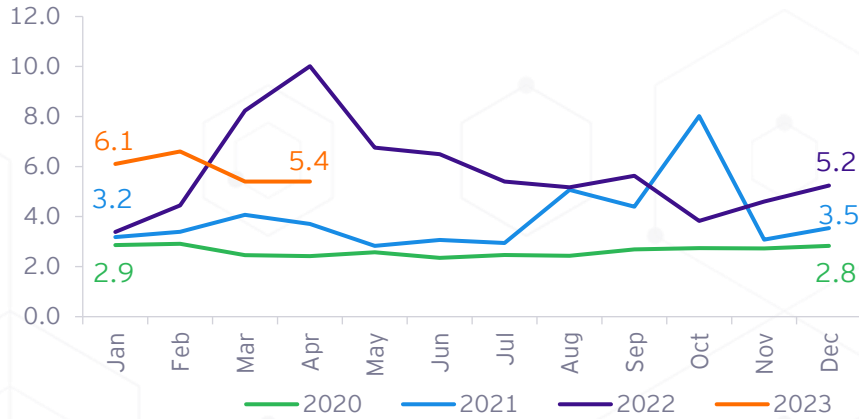




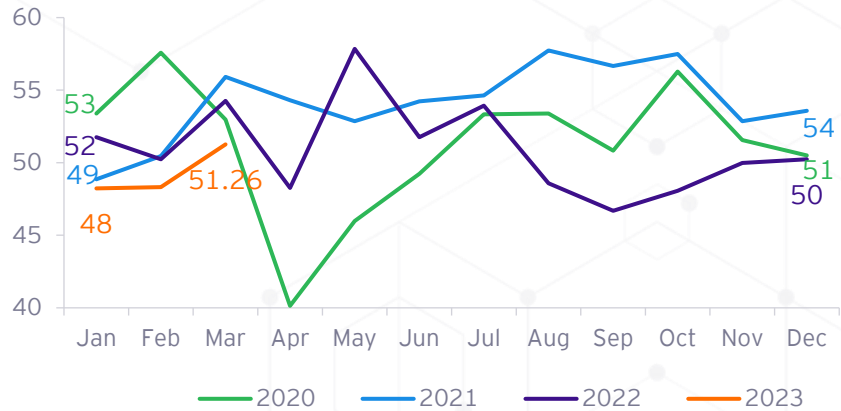
### Average Daily Power consumption (billion units)



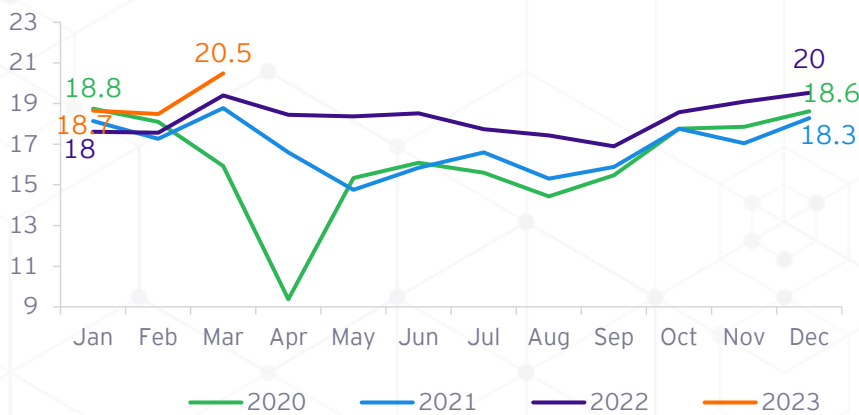
### Power market clearing price (Rs 'per KWh)



### Consumption of natural gas ('00 MMSCM)



### Consumption of petroleum products ('000 metric tons)



### Key findings

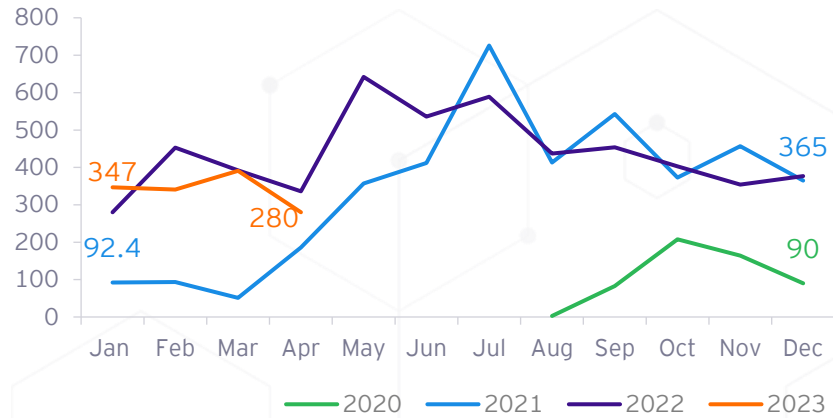
- ▶ In FY 2022-23, India has touched the all-time high-power consumption of 1,500 billion units.
- ▶ Power consumption has increased by 6% during January to April 2023 vis-à-vis 2022.
- ▶ However, in April, average daily power consumption at 4.3 billion units was 3% lower than April 2022. Lower demand is attributed to weather conditions.
- ▶ Similarly, power market clearing prices were 46% lower in April 2023 than April 2022. Besides demand, improved supply situation has impacted price trends.
- ▶ Consumption of natural gas noted an uptick in March. However, it remains below levels recorded in the previous years.
- ▶ Consumption of petroleum products was higher by 10% in FY23 compared to the previous fiscal year.

Note: Power consumption for May'23 data is average of daily data available as on 31<sup>st</sup> May, 2023. Market Clearing Monthly Prices are simple average of non-zero prices in (No of days in a month\*24\*4) no of 15 minutes time block of respective month.

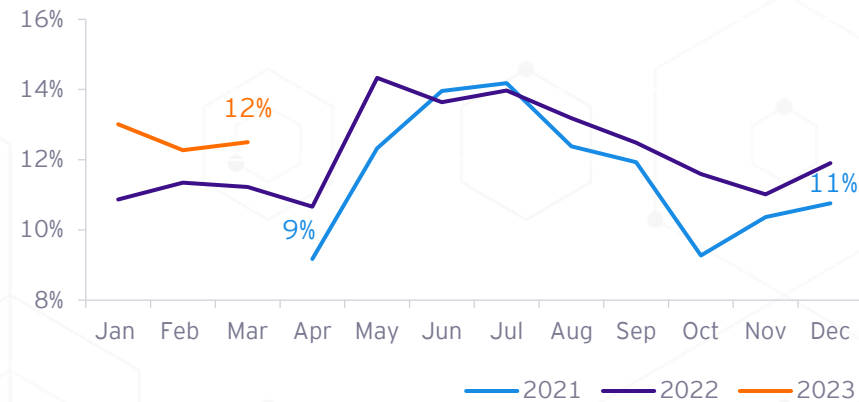
Source: Ministry of Petroleum, Coal & Power and Indian Energy Exchange. MMSCM stand for Million Standard Cubic Metre.



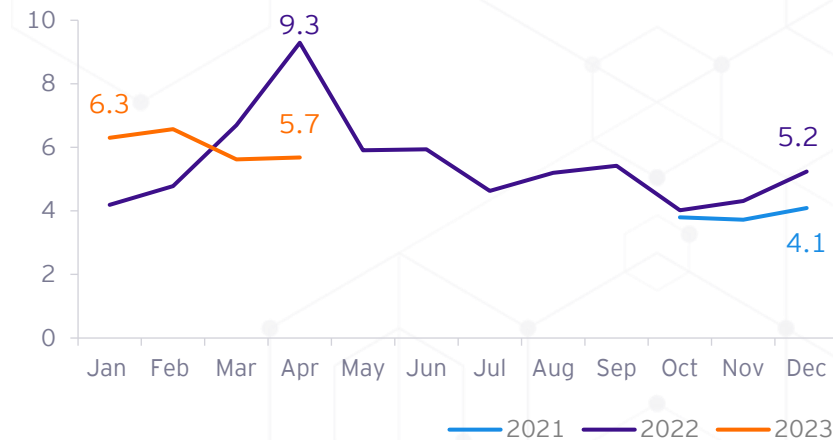
### Green power trade (in MU)



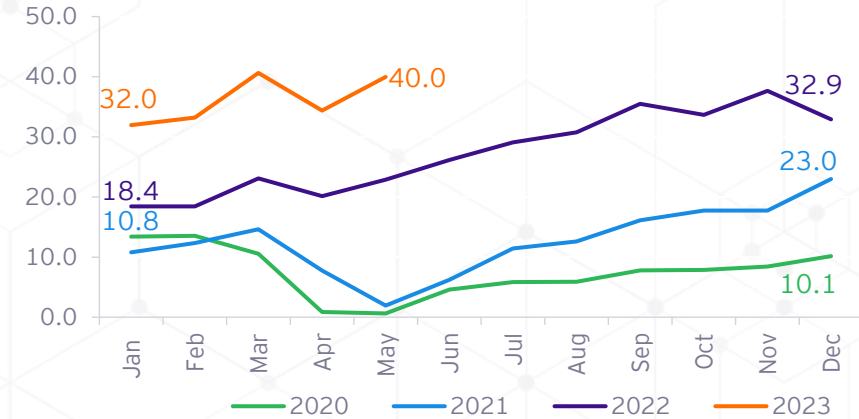
### Renewable energy generation as % of the total power generation



### GDAM price per unit



### Registration of e-Rickshaw vehicles (In 000's)



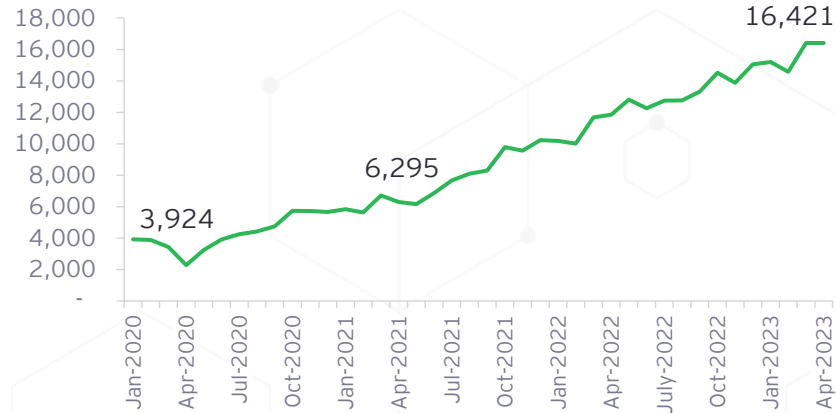
### Key findings

- ▶ All indicators show an increased role of renewable power in India's energy transition, albeit a slight moderation is noted in the near term.
- ▶ Renewable energy reached 12% of total power generation in March 2023 against 11% in March 2022.
- ▶ Due to cloudy weather and unseasonal rainfall, April 2023 has seen a decline in green trade volume by 17% vis-à-vis April 2022. This trend is also noted in green day ahead market prices.
- ▶ Registrations of e-rickshaw has recorded robust growth in 2023, reflecting the increased electrification of the transport fleet. During the period from January to May 2023, it has increased by 75% over the same period last year.

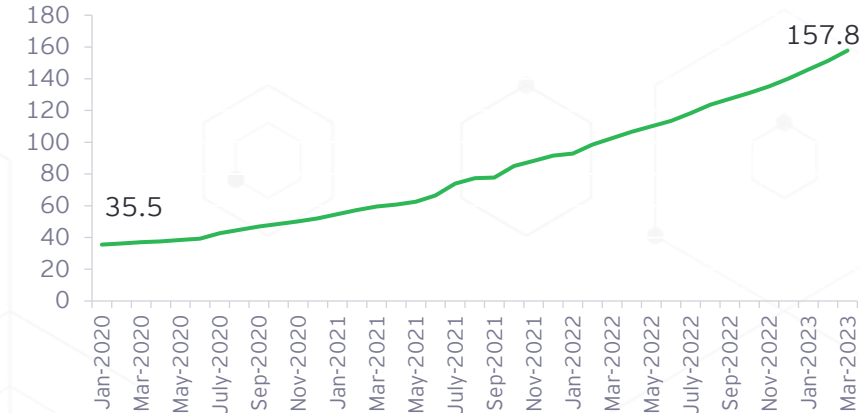
Source: India Energy Exchange Press Release, CEA Dashboard  
 GDAM: Green Day Ahead Market, RE Generation includes-Wind, Solar, Biomass, Bagasse, Small Hydro, others  
 REC Market- In Nov 21, after a gap of 16 months REC market commenced trade, REC Market include values from IEX, PXIL & HPX Exchanges



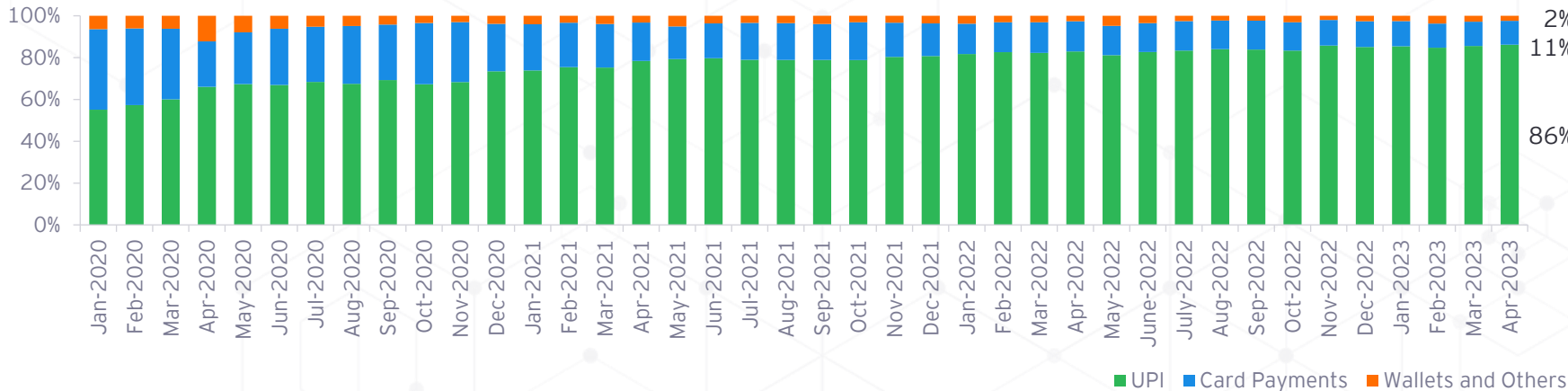
Total digital retail payments (in INR billion)



Cumulative DigiLocker registered users (Million)



Share of different segments in total digital retail payments



### Key findings

- ▶ Growth in digital payments and the number of Digi-Locker users suggests that the Indian economy is digitizing rapidly.
- ▶ Digi-Locker cumulative registrations grew by 55% in Q1 2023 over Q1 2022.
- ▶ UPI's market share continues to increase, though the rate of change in its market share has moderated. On an absolute basis, payments through UPI have grown by over 44% in April 2023, vis-à-vis April 2022.
- ▶ While card payments are losing market share, they are growing on an absolute basis. In April 2023, they grew at 10% over April 2022. However, the pace of annual growth has noted a moderation in the recent months.
- ▶ The recent initiatives with other nations regarding extending the interoperability of UPI with other fast payment systems is expected to further accelerate UPI adoption.

Note: Others include ECS, AEPS, APBS and BHIM  
Source: TRAI, RBI

# 5



## Commodities— markets and investments



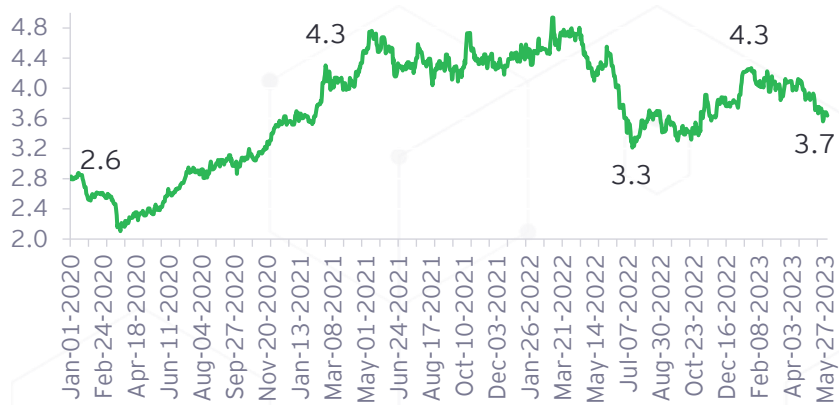


# Trends in commodity prices (metal)

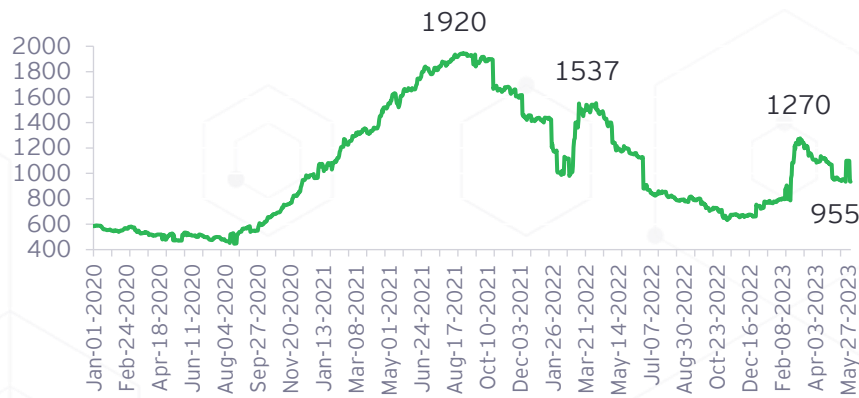
## Commodity and input price trends



**High grade copper prices (US\$ per lb) (COMEX)**



**Hot rolled coil steel prices (US\$ per ton) (NYMEX)**



**Aluminum price per MT (in US\$) (Cash- LME)**



**Nickel per MT price (in '000 US\$) (Cash-LME)**



### Key findings

- ▶ Prices of key metal commodities are lower than the peaks witnessed in 2022 after the commencement of the conflict in Europe. The decrease in prices can also be attributed to slowing demand in China and monetary policy tightening globally.
- ▶ Steel and aluminum prices have declined close to 52% and 41% respectively, from their peak in 2022.
- ▶ Nickel prices have also noted a steep decline from its peak in 2022 by 58% due to higher production and supply.
- ▶ Copper prices have declined 26% from their peak in 2022. Lower decline in copper prices is on account of increased usage of copper as the world electrifies and transitions the energy production.
- ▶ Any upside movement in metal prices are expected to be driven by demand rebound from China and recovery global economic activity or any structural changes as a result of decarbonization.

Note: 1. Data as on 31<sup>st</sup> May 2023; 2. Copper Prices- High Grade, Chicago Mercantile Exchange , Steel Prices- Domestic Hot Rolled Coil, Source: CapitalIQ, MCX

# Trends in commodity prices (energy and gold)

## Commodity and input price trends

Crude oil - Brent price (US\$ per bbl) (NYMEX)



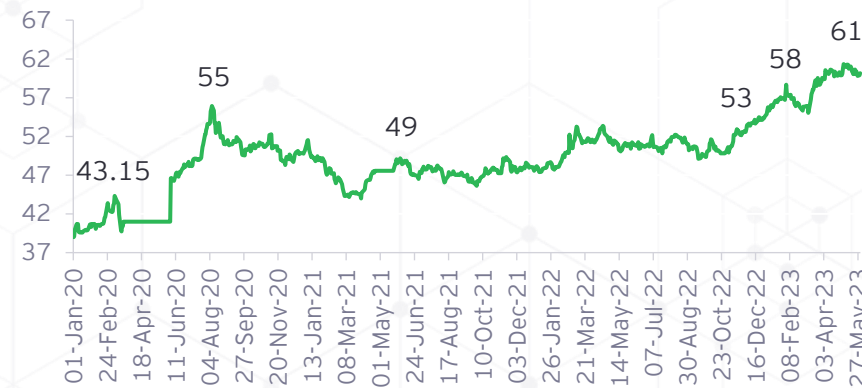
Coal price per ton (in US\$) (Newcastle- ICE)



Natural gas per mm BTU (in US\$) (Henry Hub)



Gold price per 10 grams (in '000 INR)



### Key findings

- ▶ Prices of energy commodities have declined, though by different extent.
- ▶ Thermal coal prices have declined by 70% vis-à-vis their peaks in 2022. The fall is attributed to increased production and lower growth in demand for imported coal.
- ▶ Crude oil prices declined by 15% between January and May 2023 to US\$73 per barrel. While uncertainties remain on the supply side due to sanctions on Russian oil and production cuts by OPEC, the weakened global demand is expected to balance any upside risks in the near term.
- ▶ Decline in natural gas prices is attributed to warmer winter in Europe and buffer stocks built.
- ▶ Gold prices have firmed by 10% between January to May 2023. Globally, central banks have sharply increased their purchase of gold as a strategy to diversify their holdings.

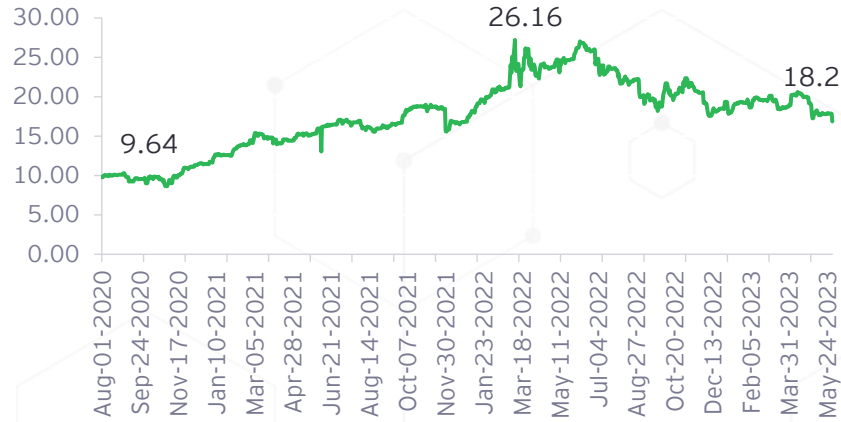
# Trends in commodity prices (agriculture)

## Commodity and input price trends



India Economic Pulse

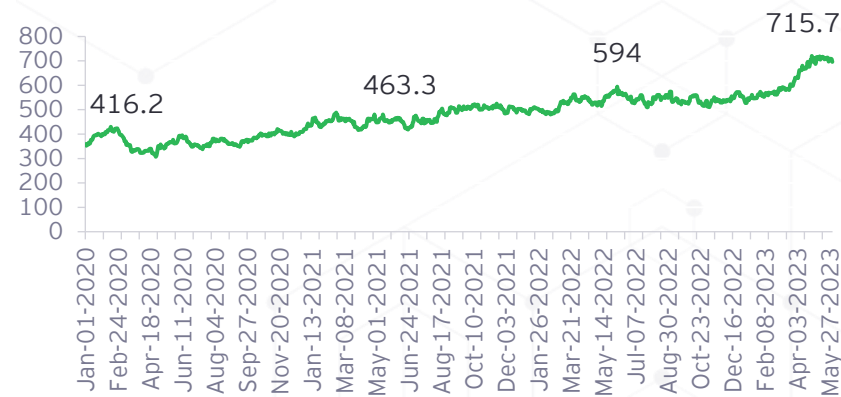
Corn Feed per MT (in INR) (BSE)



Wheat Price per MT (In US\$) (LIFFE)



Sugar - White per MT (In US\$) (LIFFE)



Palm (CPO) oil per 10 kg (in INR)



### Key findings

- ▶ Wheat prices have softened as the Black Sea Grain export corridor continues to facilitate wheat export from Russia and Ukraine. They are down 49% from the peak and 28% from January 2023.
- ▶ Sugar prices have noted a spike in the recent months owing to adverse weather events in key producing nations, including unseasonal rainfall in India.
- ▶ Meanwhile, palm oil prices have continued to ease, marking a 4% decrease from January 2023 and is being reflected in lower domestic inflation.

Note: Data as on 31<sup>st</sup> May 2023  
Source: MCX, CapitalIQ



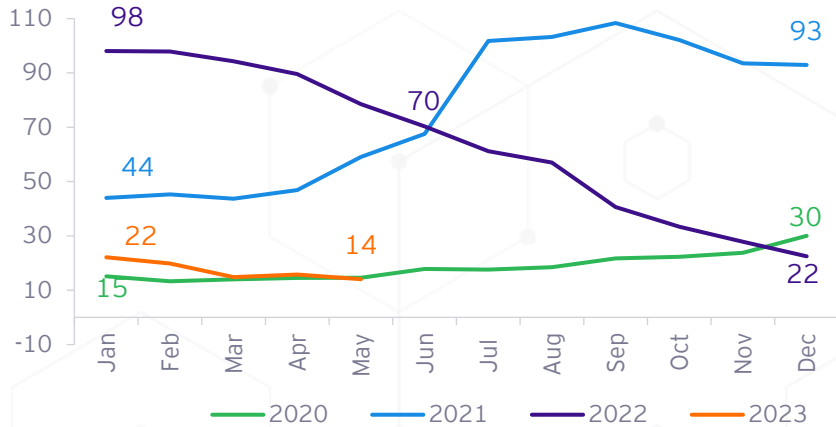
# Global container freight transportation volumes and rates

Commodity and input price trends

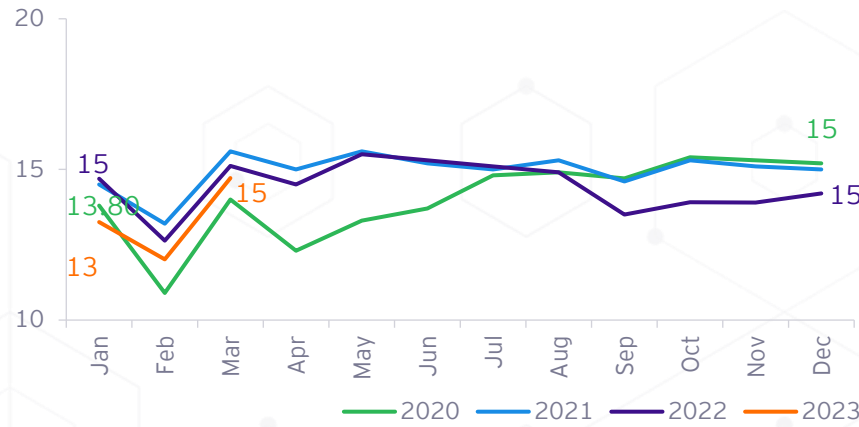


India Economic Pulse

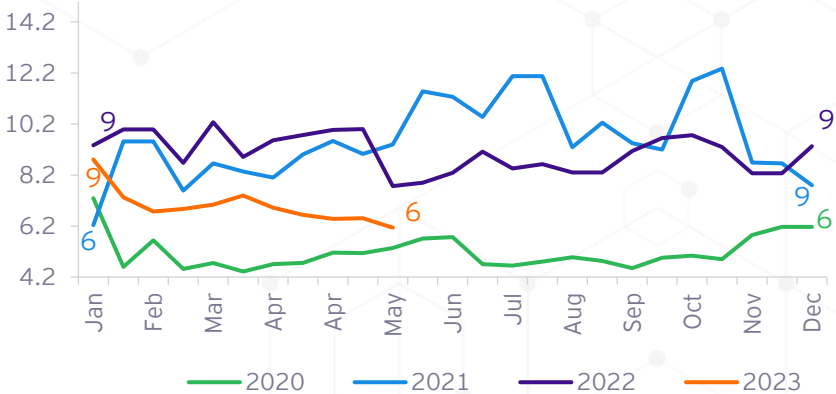
Global container freight index (in '00 US\$)



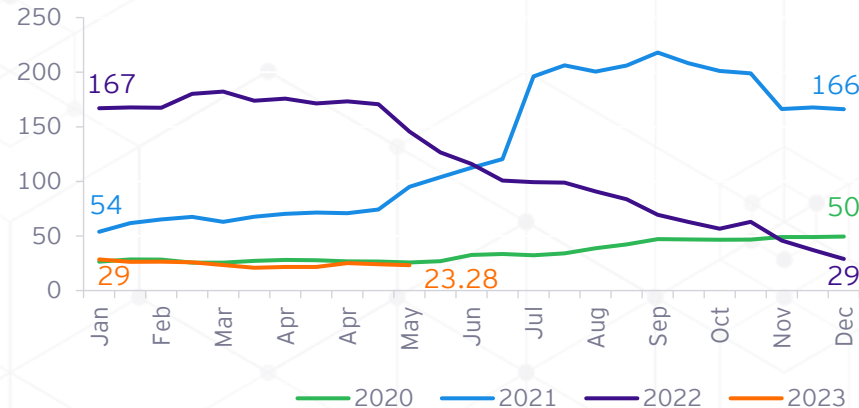
Global container traffic volume (million TEUs)



Container freight prices – North America East Coast to China/East Asia (in '00s US\$)



Container freight prices – China/East Asia to North America East Coast (in '00s US\$)



## Key findings

- ▶ Global container traffic volumes have been moderating since August 2022, indicating a slowdown in global trade
- ▶ The global container freight index has noted a significant decline to about US\$ 1,407 in May 2023, from a peak of US\$ 10,800 in September 2021.
- ▶ There has been a sharp decline in container freight prices from China/ East Asia to North America's East Coast from a peak of US\$ 16,705 to US\$ 2,328 in February 2023
- ▶ The reduction in freight prices reflects both easing of supply chain pressures and moderation in global demand.

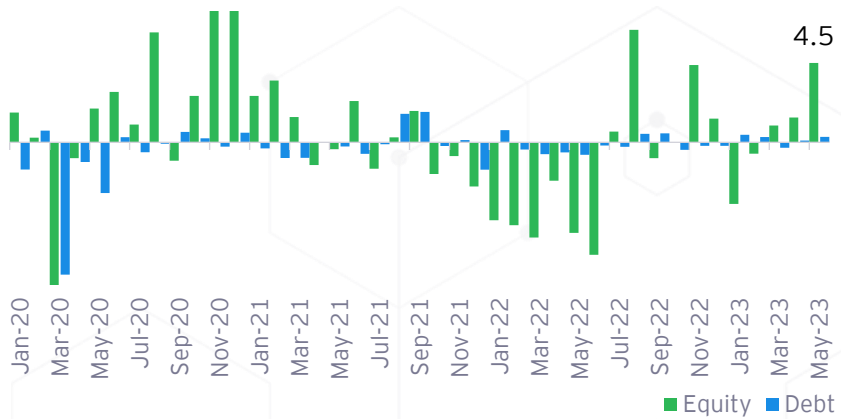
Note: Container freight index and freight prices as of 26th May 2023  
Source: FBX: Global Container Freight Index, Container Statistics



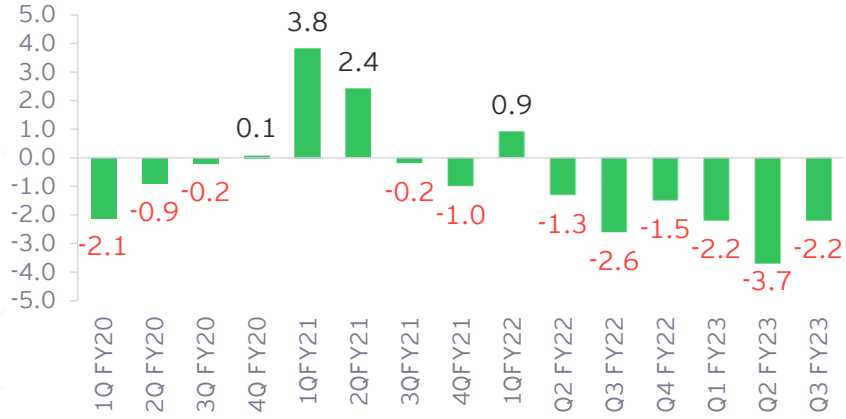
# Foreign capital flows and exchange rate position



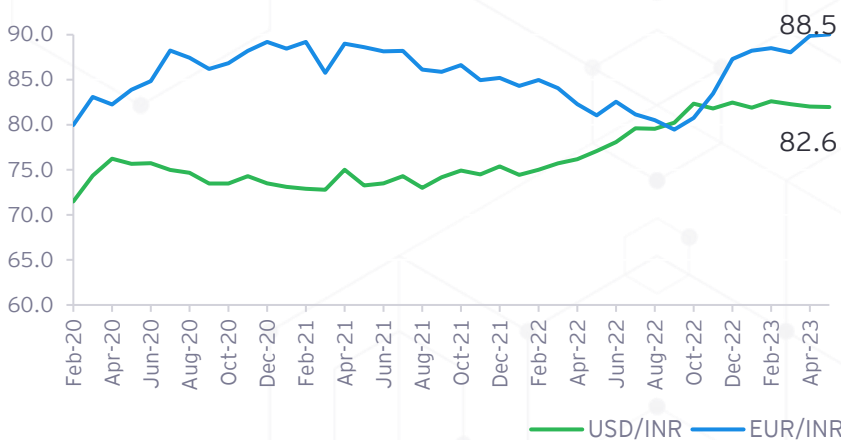
FPI investments (in US\$b)



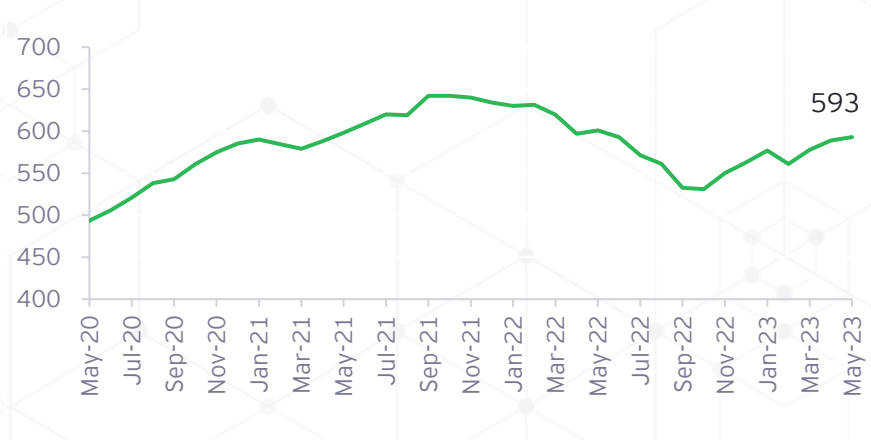
CAD as a % of nominal GDP



Exchange rates



India foreign exchange reserves (in US\$b)



## Key findings

- ▶ Current account deficit as a percentage of nominal GDP narrowed to 2.2% in Q3 FY23.
- ▶ Foreign portfolio investors were net buyers in May 2023 with close to US\$4.5b inflow through the equity market and US\$0.3b through the debt route.
- ▶ Since October 2022, the Dollar-Rupee exchange rate has fluctuated between INR 81 and INR 83. However, in the same period, Rupee depreciated sharply against the Euro largely on account of strengthening of Euro against all currencies.
- ▶ Forex reserves declined in the aftermath of the conflict in Europe from US\$630b to US\$531b in October 2022. They have since risen steadily to US\$593b. The reserves are sufficient to cover ten months of projected imports.
- ▶ Stability in exchange rates and adequate foreign exchange reserves augurs well for attracting a higher level of foreign capital.

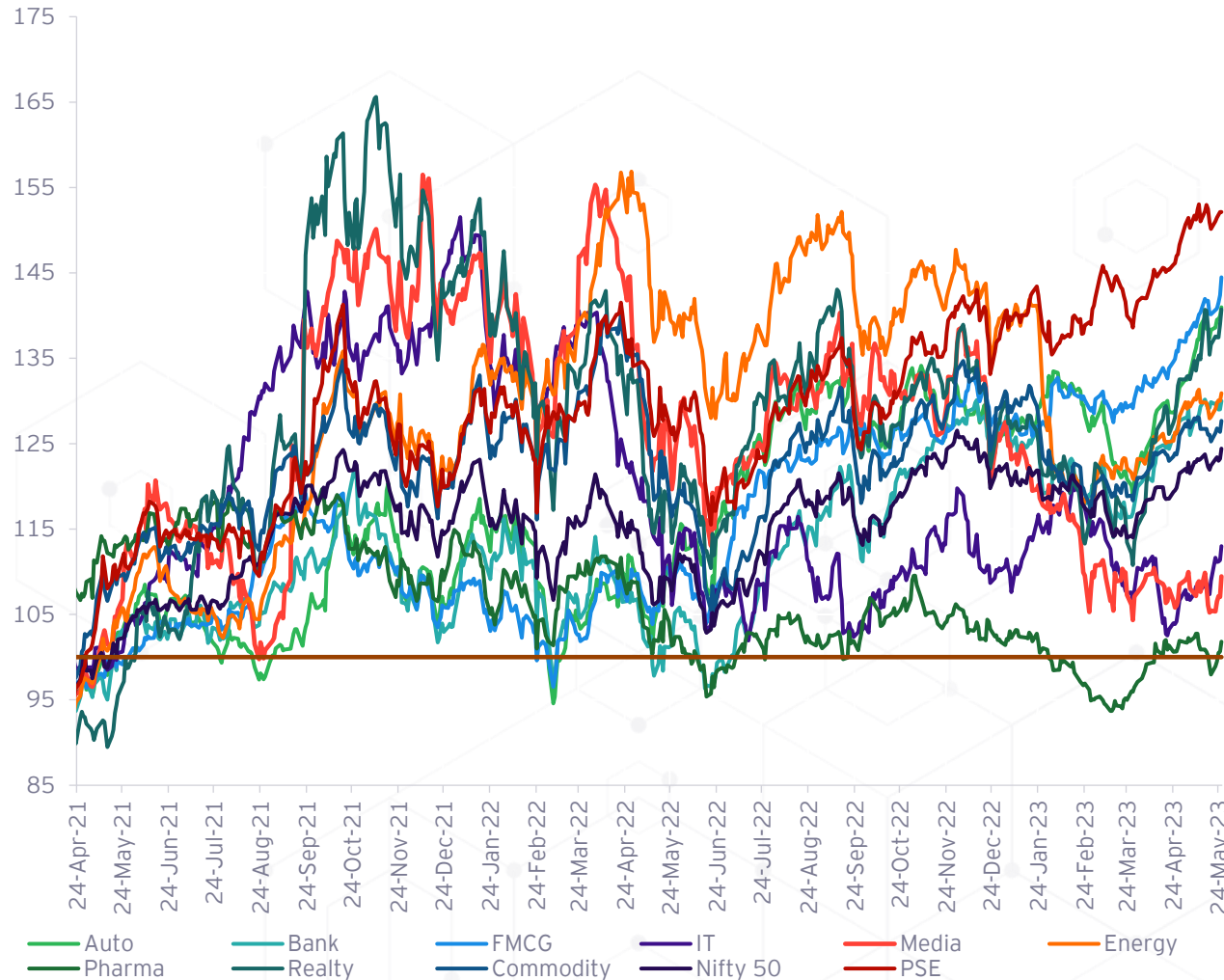
Source: DBIE, RBI, FBIL, NSDL  
All date available as on 28th February 2023



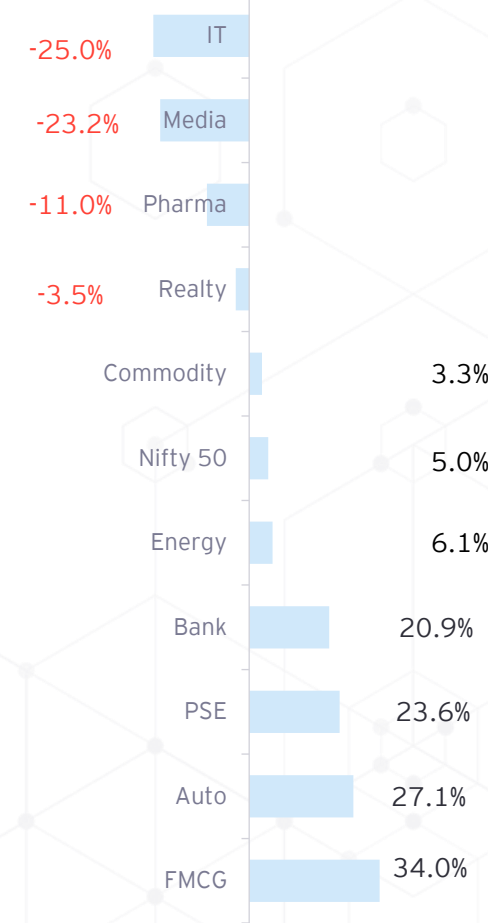
# NSE indices (% change YTD)



India Economic Pulse



## NSE Indices (% change YTD)



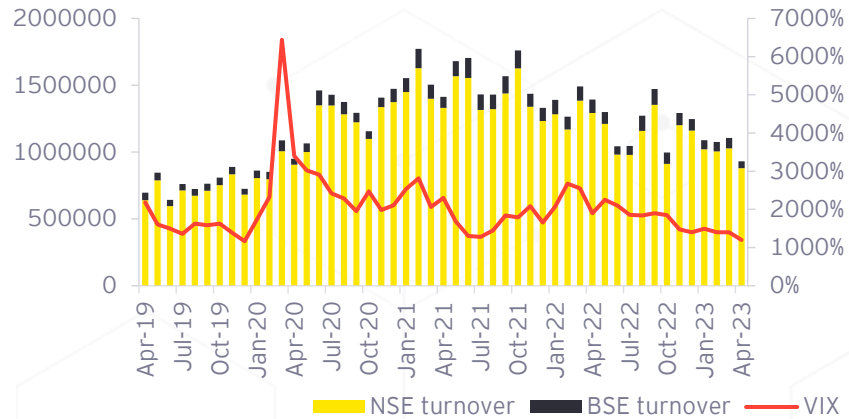
## Key findings

- ▶ After a slow start in 2023, the Indian stock market has picked strength with Nifty 50 up by 5% year to date.
- ▶ The increase is being driven by sectors which have noted high consumer demand (and inflationary pressure) such as FMCG and auto.
- ▶ Bank index is also showing resilience as banks' balance sheets continue to improve with lower NPAs.
- ▶ Meanwhile, the IT sectoral index has seen a significant decline of 25%. This is in line with global trends, where large IT players have announced layoffs and the PE/VC investments (a large portion of which is invested in the IT sector) have declined due to slowdown in advanced economies. The stress may continue with renewed risk of bank failures in the US.

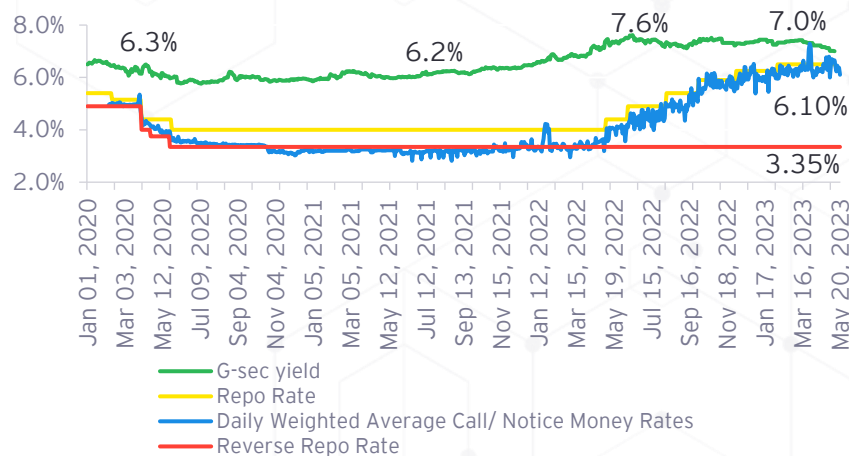
Source: NSE, Bloomberg Quint  
 Data available as on 26th May 2023  
 Base for calculating % change is 3rd January 2022

India Economic Pulse

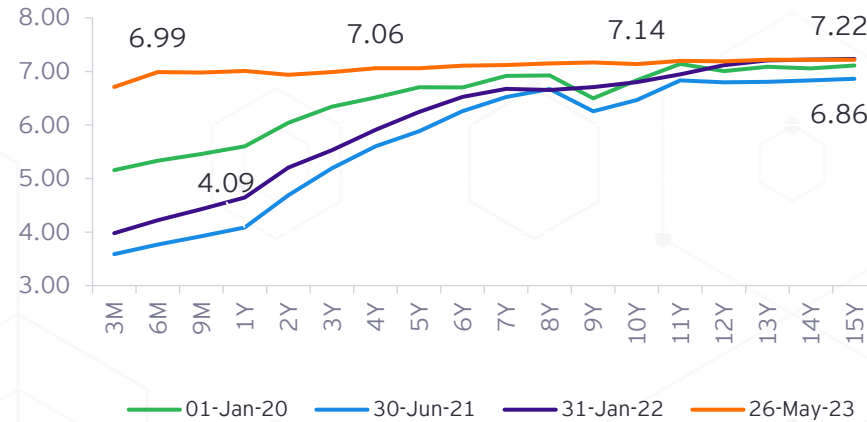
## Stock market turnover and volatility



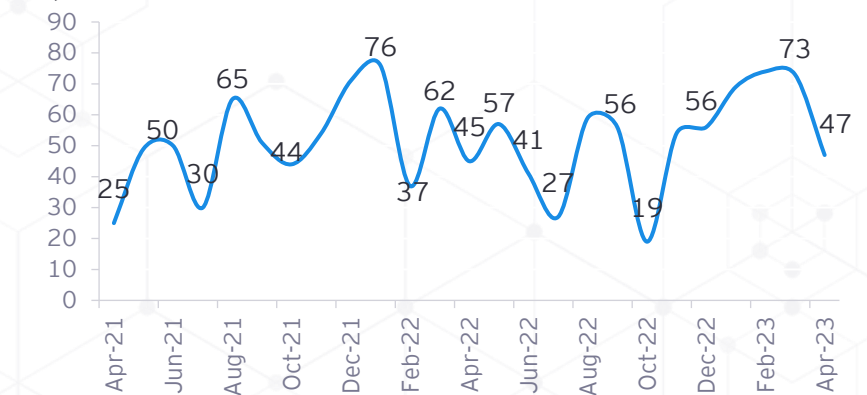
## G-Sec yield (10yr), policy rate and spread



## India sovereign yield curve (Annualized)



## Corporate Bond Spread over G-sec AAA - (bps) -1Yr

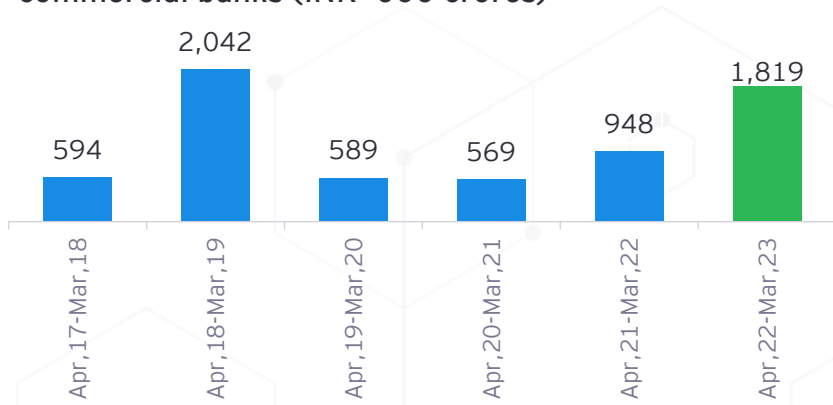


## Key findings

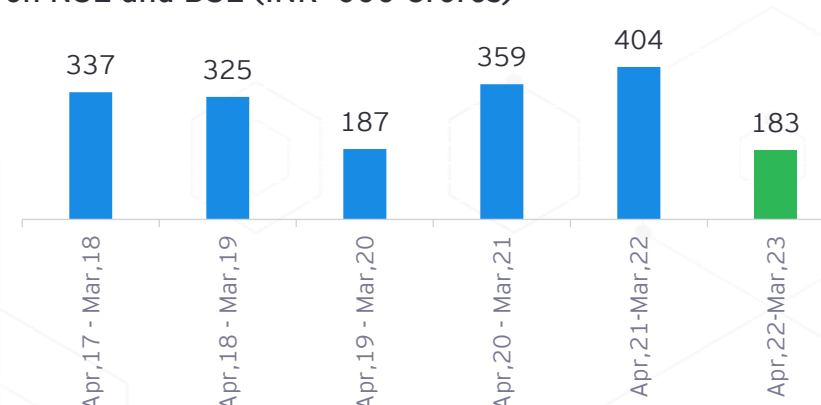
- ▶ Stock market volatility, as indicated by VIX, has decreased to pre-pandemic levels in 2023 after peaking at 64.4 in March 2020.
- ▶ On indications of moderating pace of inflation, the RBI's Monetary Policy Committee decided to keep the policy repo rate unchanged in its April.
- ▶ The pause comes after an increase in the repo rate by 25 bps in February to 6.5%.
- ▶ Yield on 10-year G Secs has eased from 7.4% in Jan 2023 to 7% as of 12th May 2023.
- ▶ Short-term yields on G Secs have increased significantly due to liquidity tightening. Yield differential across various maturities has narrowed as reflected in the relative flat yield curve as on 26 May 2023.
- ▶ In line with this, corporate bond spreads vis-à-vis G secs also decreased in April 2023.

Source: NSE, BSE, CCIL and FBIL. Data available as on 26 May 2023  
 VIX is a volatility index based on the NIFTY Index Option prices. It indicates the expected market volatility over the next 30 calendar day

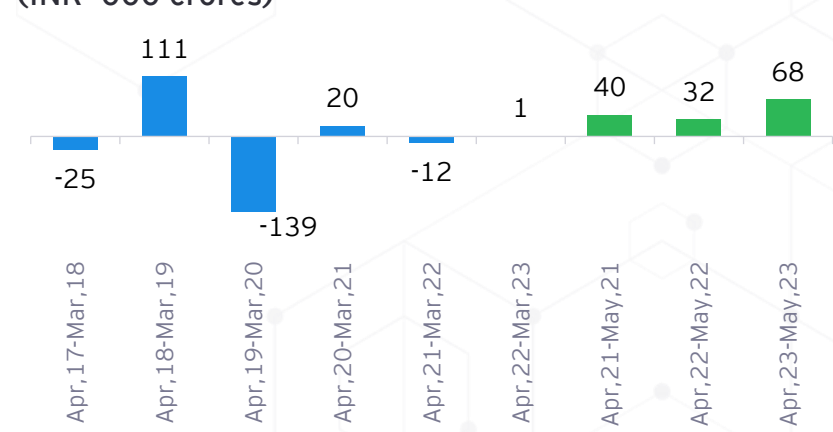
Flow of gross non food credit of scheduled commercial banks (INR '000 crores)



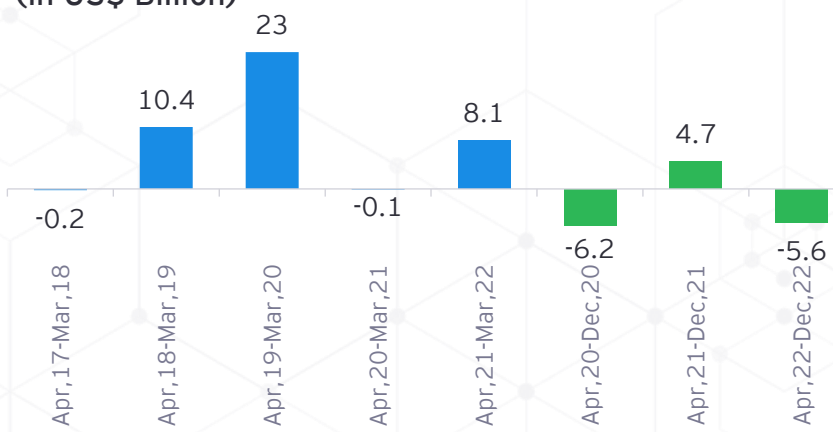
Change in outstanding corporate bonds listed on NSE and BSE (INR '000 Crores)



Change in outstanding commercial paper (INR '000 crores)



Change in external commercial borrowings (in US\$ Billion)



## Key findings

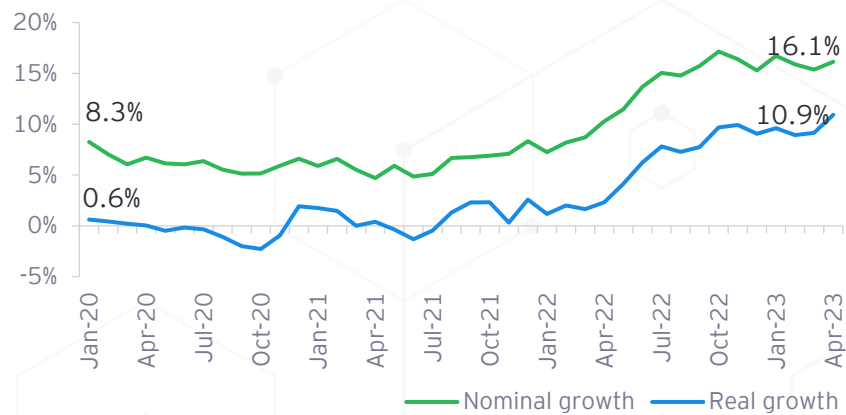
- ▶ There has been a significant growth in uptake of credit from banks. In contrast, an increase in credit from other sources, i.e., corporate bonds and commercial paper, has been low.
- ▶ This can be attributed to volatility in bond markets where the yields had increased in FY23.
- ▶ External commercial borrowings recorded outflows of US\$5.6b between April to December 2022, amid rising global interest rates and higher uptake of domestic credit.

Source: RBI, SEBI  
 Note: Outstanding commercial paper as of 15<sup>th</sup> May  
 Note: March 2017 and 2018 use old reporting format for non food credit

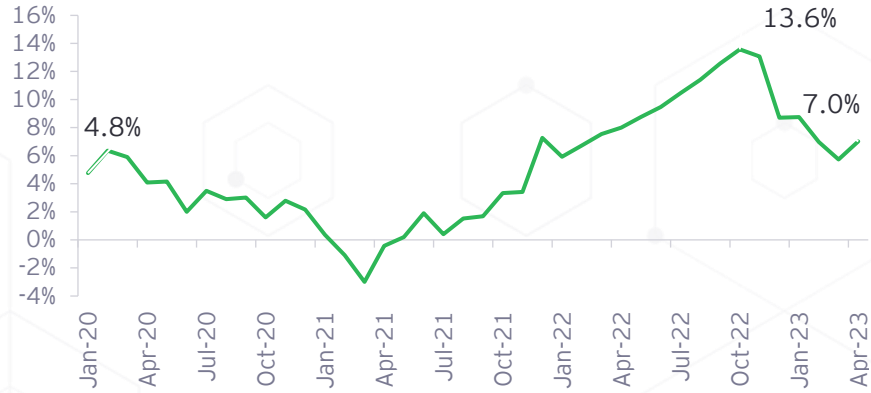




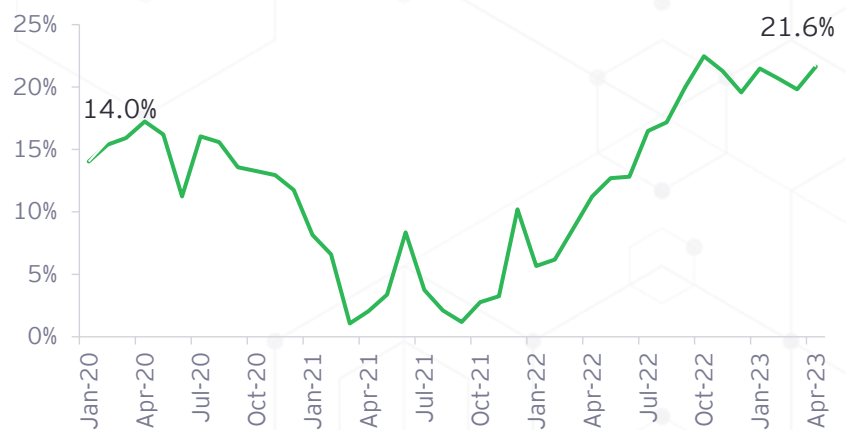
**Growth rate of non-food credit of scheduled commercial banks**



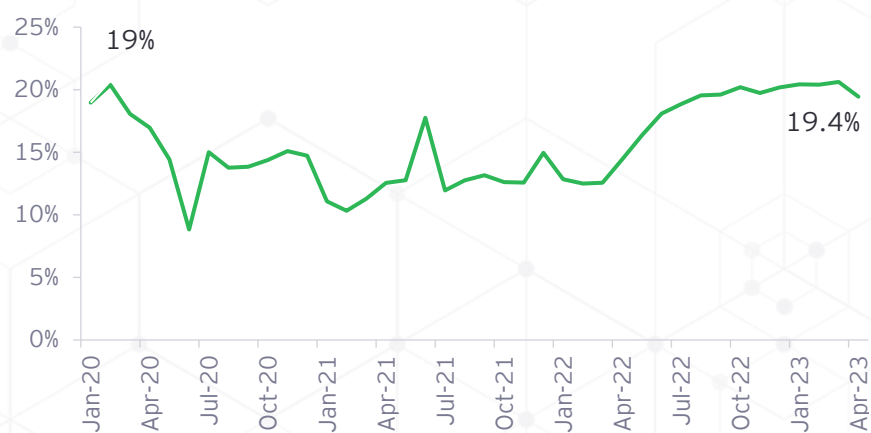
**Growth rate of bank credit to industry**



**Growth rate of bank credit to service sector**



**Growth rate of bank credit to personal loans**



**Key findings**

- ▶ Non-food credit growth remained robust in April at 16.1% in nominal terms and 10.9% in real terms.
- ▶ The credit to industry grew by 7% in April 2023 compared to 8% in April 2022. The pace of growth has been moderating since October 2022, reflecting both a decline in wholesale inflation and muted demand for credit from manufacturing. However, bank credit to cement and steel sector has risen sharply at 21% and 22% respectively.
- ▶ Credit offtake by services and personal loans has recorded strong growth. Credit to services sector has grown at over 21% due to improved credit offtake to NBFCs, trade and aviation.
- ▶ Similarly, personal loans have grown at over 19% reflecting strong consumer confidence.

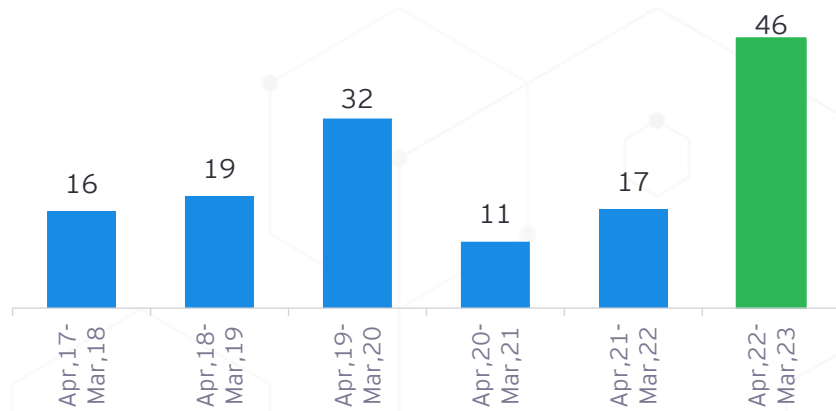
Source: RBI  
 Growth rates have been computed based on the change over 12 month period  
 Apr and May 2020 inflation based on Jan-Mar 2020 average



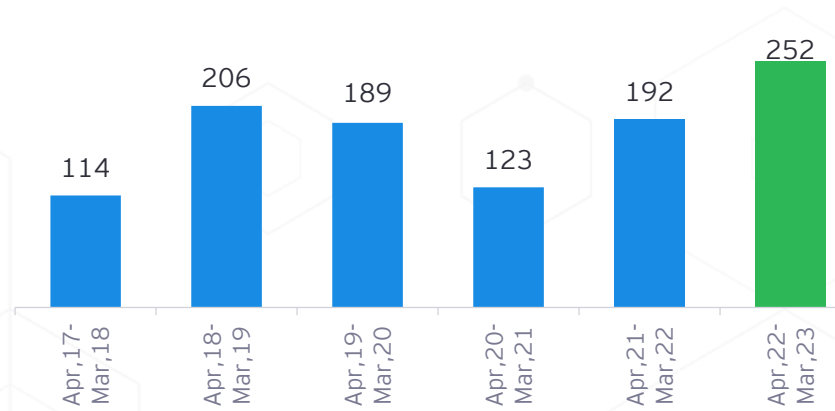
# Change in gross personal loans advanced by banks



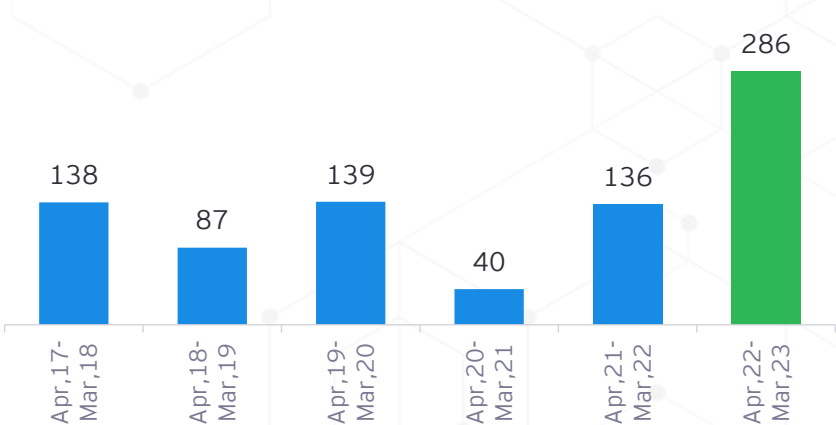
Credit card debt (in INR '000 crores)



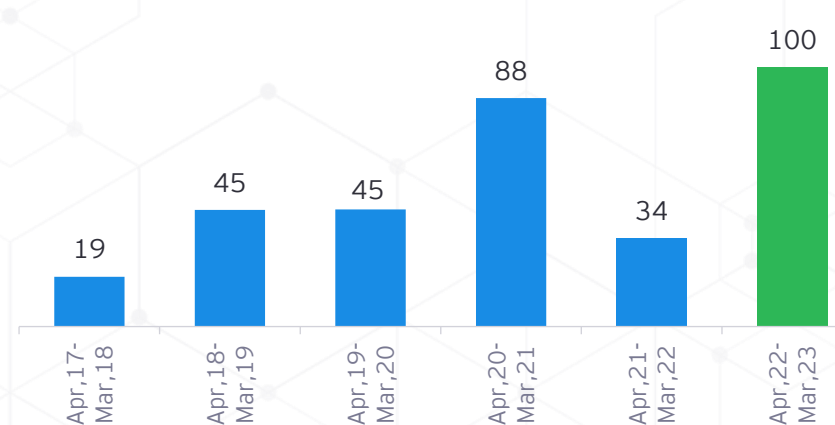
Housing loans (in INR '000 crores)



Other personal loans (in INR. '000 crores)



Vehicle loans (in INR '000 crores)

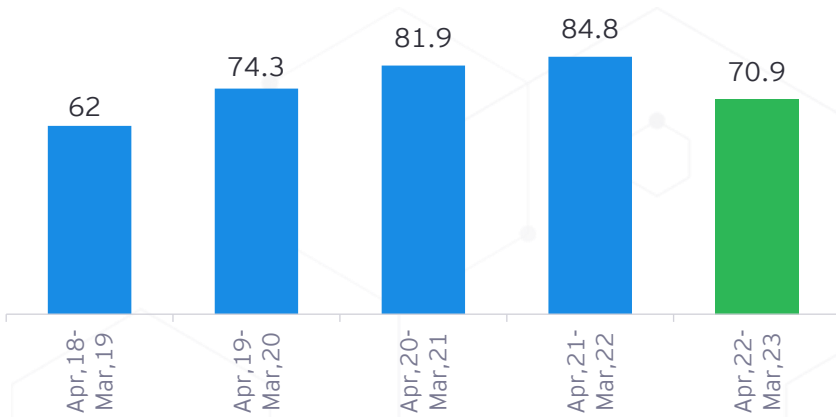


## Key findings

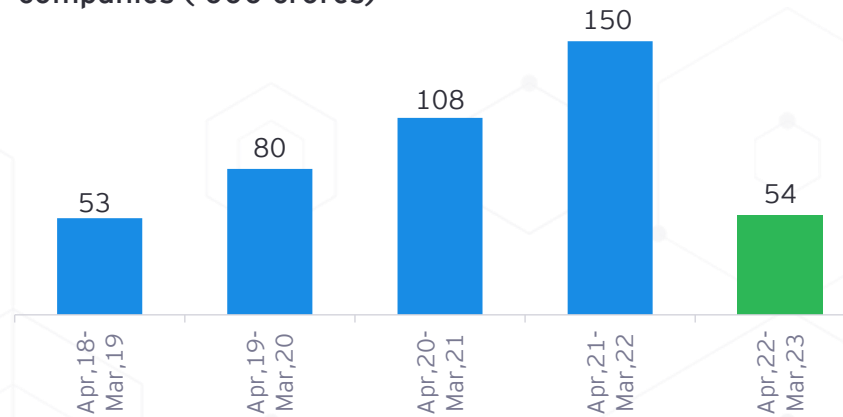
- ▶ All categories of personal loan show robustness, indicating a steady rise in domestic consumer demand.
- ▶ Credit inflow to personal loans recorded a 19.4% increase in April 2023 vis-à-vis April 2022, driven by housing and vehicle loans.
- ▶ Additional credit card loans advanced by banks during FY 23 were higher by 170% vis-à-vis FY22. This reflects the formalization of the economy as well as robustness in consumer spending.
- ▶ Similarly, Indians are borrowing more money to buy houses and automobiles.
- ▶ Increased offtake of personal loans suggests consumer confidence in the future of the Indian economy.

Source: RBI  
Other personal loans include consumer durables, advances to individuals and FDs, education, other personal loans

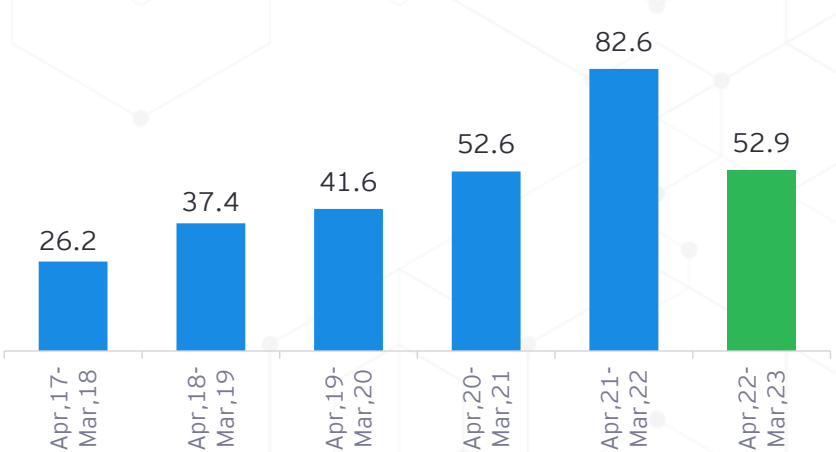
Gross FDI inflows in India (US\$b)



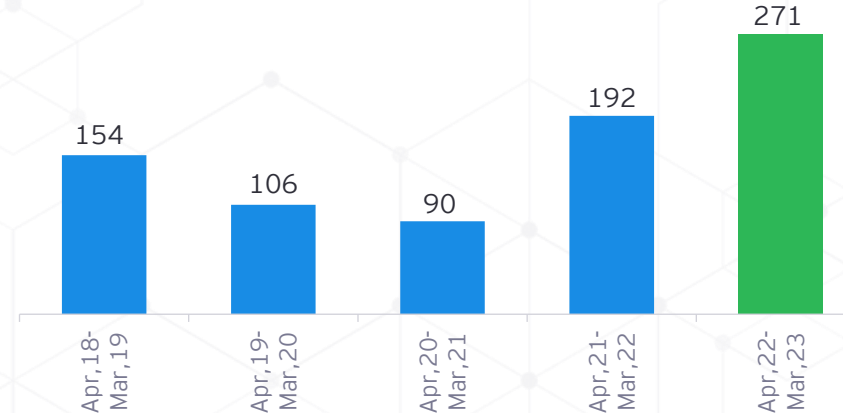
Capital issues by non-governmental companies ('000 crores)



PE/VC investments (US\$b)



No. of capital issues by non-governmental companies



## Key findings

- ▶ There has been a decline in all the fund-raising indicators, i.e., Gross FDI inflows, PE/VC Investments and money raised by non-governmental companies.
- ▶ Gross FDI inflows decreased by 16% in FY23 vis-à-vis FY22. Manufacturing, computer services and communication services recorded the highest decline in inflows compared to the previous year.
- ▶ PE/VC funding has also recorded a substantial decline of 36% in FY23 over FY22.
- ▶ This moderation is on account of an increase in interest rates and slowdown in tech sector investments and valuations as investors turn risk averse.



# 6

## Government's policy thrust areas

### Interest rate

- ▶ RBI kept the repo rate unchanged at 6.5% on 6 April 2023. According to RBI:
  - ▶ Global economic activity remains resilient amidst the persistence of inflation at elevated levels.
  - ▶ Private consumption and public investment were major drivers of growth in FY23.
  - ▶ Domestic economy remained resilient in Q4 FY23 evidenced by:
    - ▶ Services sector posted a healthy growth, reflected in the e-way bills, toll collections, domestic air passenger traffic, port freight traffic.
    - ▶ Acceleration in investment activity- growth in steel consumption and cement output
    - ▶ Contraction in merchandise exports and strong growth in services exports
  - ▶ A good rabi crop to boost rural demand, urban demand to be supported by buoyancy in contact intensive services.
  - ▶ Government's thrust on capital expenditure, higher capacity utilization in manufacturing, high credit growth and moderation of commodity prices expected to bolster manufacturing and investment activity.
- ▶ Continuing uncertainties from geopolitical tensions, tight global financial conditions, global financial market volatility and slowing global trade clouds the future outlook.
- ▶ The Monetary Policy Committee (MPC) was of the view that environment of low and stable prices is necessary for the resilience in domestic economic activity to be sustained. Previous policy rate hikes still working through the system, keeping a strong vigil on evolving inflation and growth outlook.
- ▶ The MPC also decided to remain focused on withdrawal of accommodation to ensure inflation progressively aligns with the target while supporting growth.
- ▶ Consumer price inflation projected at 5.2% for FY24



<b>Draft Carbon Trading Scheme</b>	<ul style="list-style-type: none"><li>▶ Indian Government has proposed a draft Carbon Credit Trading Scheme (CCTS) to establish a framework for Indian Carbon Markets (ICM)</li><li>▶ Government of India has so far defined the role of the institutions and implementing agencies that would be involved in the development of ICM. These include Bureau of Energy Efficiency, Central Electricity Regulatory Commission, Power Exchanges, Governing body, etc.</li><li>▶ However, they are yet to define the procedure for computation of emissions and carbon credits (CCs), validity of CCs, providing cap and floor price for CCs, Monitoring, Reporting and Verification (MRV) process, etc.</li></ul>
<b>FAME India Phase-II</b>	<ul style="list-style-type: none"><li>▶ Government of India has revised the incentives for electric 2-wheeler(e-2W) as under:<ul style="list-style-type: none"><li>▶ Demand Incentive will be @ INR.10,000/- per kWh (reduced from INR 15,000/kWh)</li><li>▶ The cap on incentives will be 15% of the ex-factory price of vehicles (reduced from 40%)</li></ul></li></ul>
<b>Green Energy Open Access Rules, 2022</b>	<ul style="list-style-type: none"><li>▶ The Ministry of Power directed all state regulatory commissions to notify Green Energy Open Regulations in line with the rules set out by the central government</li><li>▶ State Commission should not determine Green Tariff higher than Average Power Purchase Cost of RE + Surcharge @ 20% of ACoS + (say) a reasonable margin of INR 0.25</li></ul>
<b>Extension of wavier in ISTS charges</b>	<ul style="list-style-type: none"><li>▶ Indian Government has extended the waiver of transmission charges for procurement of renewable energy (including battery and pumped storage) in the production of Green Hydrogen and its derivatives till 31 December 2030</li><li>▶ After floating the draft tender for leasing seabed for offshore wind projects, the Government of India has incentivized it by providing wavier in transmission charges for the projects commissioned on or before 31 December 2032. This would eventually reduce offtake cost of power.</li></ul>

# The Indian Space Policy 2023 opens new opportunities for the private sector

## Key Highlights

- ▶ Indian National Space Promotion and Authorisation Centre (IN-SPACe) to provide a **single window for authorization of space related activities** for greater Ease of doing business
- ▶ IN-SPACe to develop a **regulatory framework** to support Non-Government Entities (NGEs) and provide fair competition regarding the utilization of all facilities/ infrastructure
- ▶ Support **easier data dissemination by private sector** – Authorization required only for dissemination of higher resolution remote sensing data (  $\leq 30$  cm).
- ▶ **Enable access to public funded remote sensing data** – Remote sensing data is free for lower resolution (GSD $>5$ M) and for higher resolution data (GSD  $<5$ m), access is priced transparently.
- ▶ **Technology transfer to NGEs** for commercial exploitation – ISRO will share technologies, products, processes, best practices for the same.
- ▶ NGEs will get **equitable access to launch infrastructure** that has been created through public expenditure.
- ▶ NewSpace India Limited (NSIL) to be involved in the **manufacturing, leasing and procurement** of space related technologies, platforms and components, for both the private and public sectors.
- ▶ IN-SPACe will facilitate and incentivize authorized **NGEs to acquire spectrum and orbital resources needed to fulfill missions through ITU filings.**



# Evolving sustainability tax policy

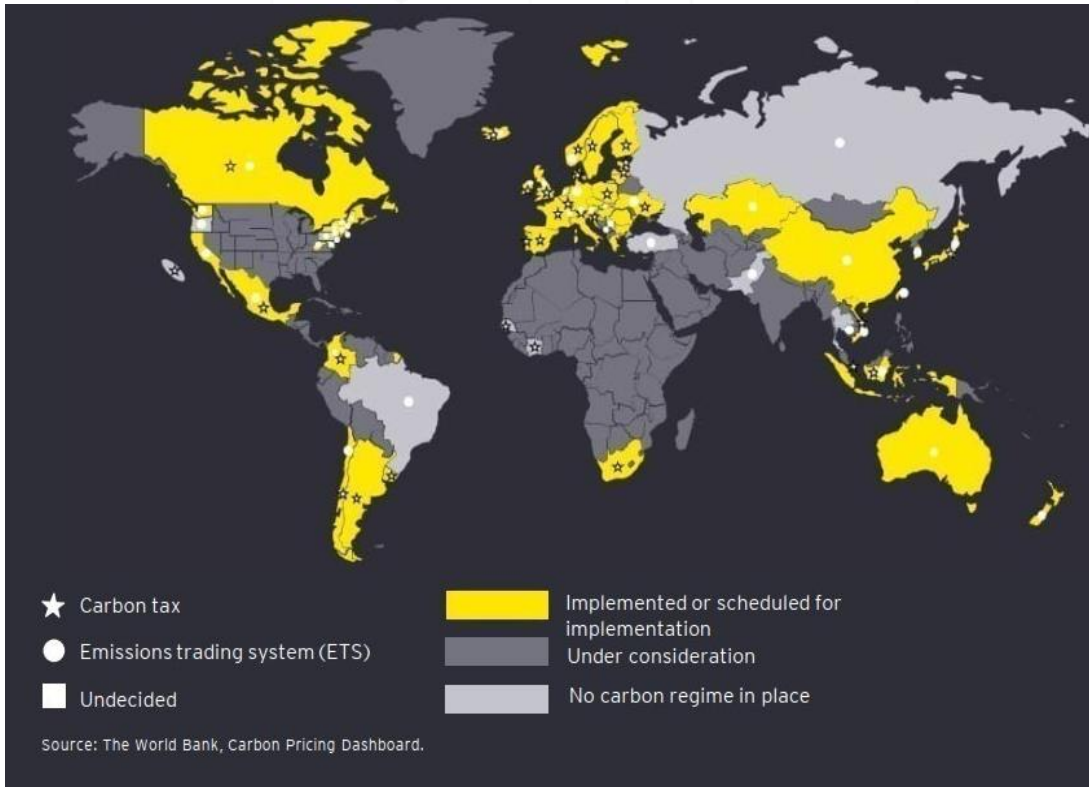
Governments around the world are using policy levers of both incentives and taxes to support green transition



## 83 Carbon regimes



There are **47** national and **36** subnational jurisdiction currently putting a price on carbon



## 1,950 Sustainability incentives\*

1200+ Reduce	800+ Switch	200+ Innovate
Construct or retrofit energy-efficient building	Alternative fuels	Research and development (R&D) credits
Procure energy-efficient process equipment	Renewable energy generation (such as solar, wind, geothermal)	Research funding grants
Apply emission reduction technologies	Qualifying on-site generation	Funding rebates for green job training

## 3000+ Environmental taxes and exemptions\*

- ▶ Fuel taxes
- ▶ Emissions and air pollution charges
- ▶ Plastics and packaging taxes
- ▶ Water, pollution and effluent charges
- ▶ Recycling, waste and landfill fees
- ▶ Electronic waste fees
- ▶ Other taxes, charges and fees

\*Included in the 46 jurisdictions represented in the GTT.



# Sustainability policy approaches

major geographic trends - Government action and societal demand drives increased focus

## Americas - Credits and Incentives

### US

- ▶ Infrastructure Investment and Jobs Act
- ▶ \$50b for climate change protection
- ▶ \$15b for electric vehicles
- ▶ Inflation Reduction Act
- ▶ \$369b in green energy tax incentives

### Canada

- ▶ Clean technology and hydrogen investment credits proposed

### South America - a different approach

- ▶ Plastic and carbon tax in recent Colombia tax reform
- ▶ Carbon pricing in 4 other countries

## Europe - Pricing and regulations

- ▶ Green Deal Industrial Plan for the Net-Zero Age
- ▶ Emissions trading scheme (ETS) and carbon border adjustment mechanism (CBAM) - new regulations
- ▶ Carbon taxes
- ▶ Revised Energy Taxation Directive (2023)
- ▶ Supply chain accountability
- ▶ Plastic packaging regulations - challenging data requirements
- ▶ Deforestation regulation proposal- expansive forest protection scope that may affect industry

## Asia Pacific - Pledges and What's next

- ▶ Realization of global impacts/opportunity
- ▶ Diverse maturity in and approaches to transformation journey
- ▶ Accelerated reduction targets e.g., Indonesia, Singapore
- ▶ New taxes e.g., sugar tax
- ▶ Voluntary carbon schemes
- ▶ Carbon exchange to trade credits e.g., Malaysia, Singapore
- ▶ Focus on incentives (existing and new) and reporting

## Global Drivers

- ▶ UN Climate Conference (COP27 > COP28)
- ▶ National and corporate zero carbon pledges
  - ▶ Drive markets for Authorized and Voluntary Carbon Markets
- ▶ Mandatory reporting requirements
- ▶ Global societal and economic elements drive new government climate policies
  - ▶ Budgetary pressures
- ▶ Demand for sustainable investing
- ▶ Declining price of renewable energy
- ▶ Imperative for multinationals to deal with international climate programs (i.e., border adjustments)
- ▶ Shareholder/stakeholder activism on environmental issues



# EU Carbon Border Adjustment Mechanism (CBAM)

Effective 1 October 2023, CBAM may create financial burden and reporting obligations for businesses across the world

## Product categories

European Commission/ EU Council:

- ▶ Cement
- ▶ Electricity
- ▶ Aluminum
- ▶ Iron & Steel
- ▶ Fertilizers
- ▶ Hydrogen
- ▶ Raw materials and downstream products (tbc).
- ▶ European Parliament suggestion for additional scope after transitional phase:
  - ▶ Organic chemicals
  - ▶ Polymers
- ▶ All products covered by EU-ETS expected to be phased-in (e.g., inorganic chemicals, standard refinery products, others)

## Emissions covered



### Direct & indirect emissions

related to manufacture + electricity

Footprint calculation may at some point be extended to cover further indirect emissions. (e.g., transportation)

## Geographic scope

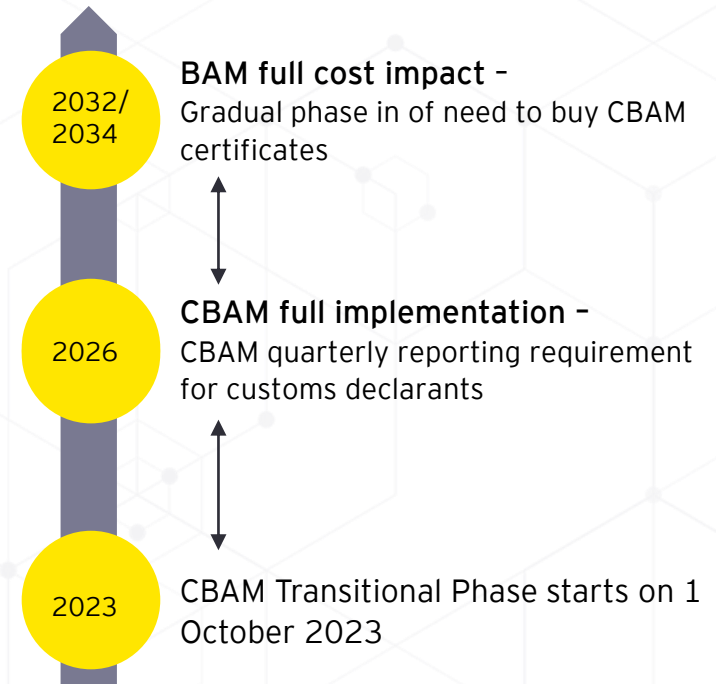


Import from non-EU, except product originating in:

- ▶ Switzerland
- ▶ Norway
- ▶ Iceland
- ▶ Lichtenstein
- ▶ Other jurisdictions may also apply a type of carbon border policy (e.g. ongoing discussions in UK, Switzerland, Japan, Canada and others)

## Application of CBAM

- ▶ CBAM certificate requirement upon:
  - ▶ Release of goods for customs free circulation
  - ▶ Irregularities occurring to goods under customs supervision (non-Union goods)





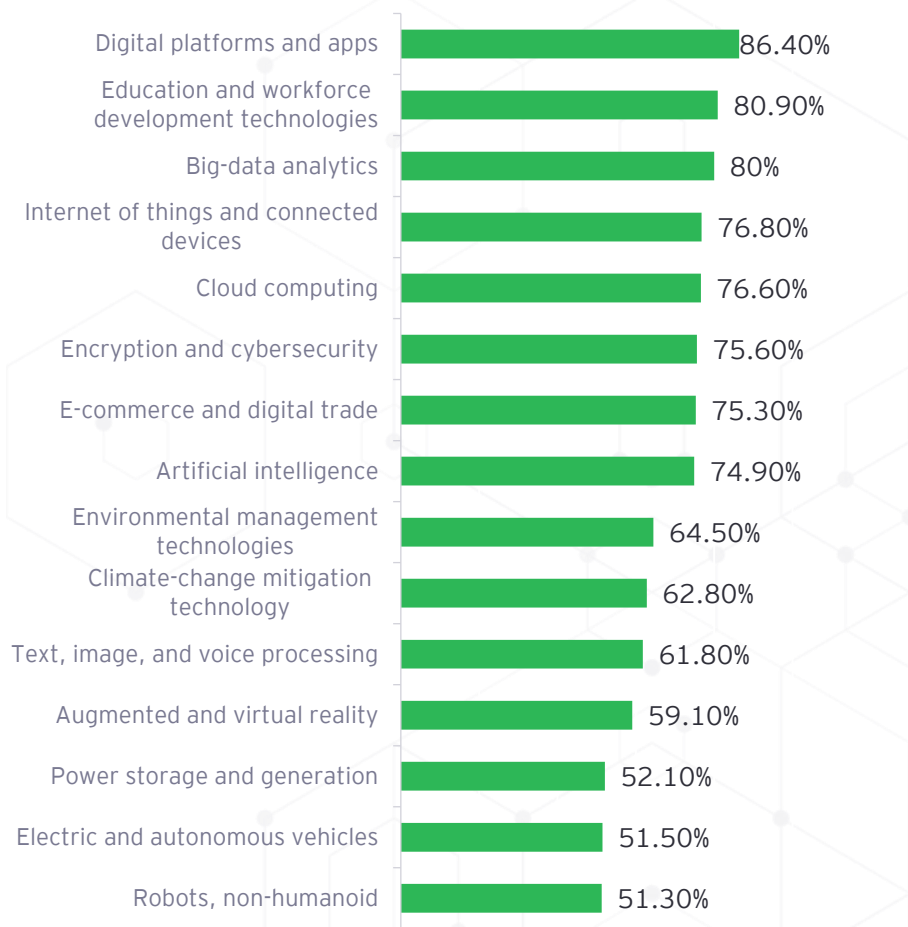
# 7

## Future employment outlook



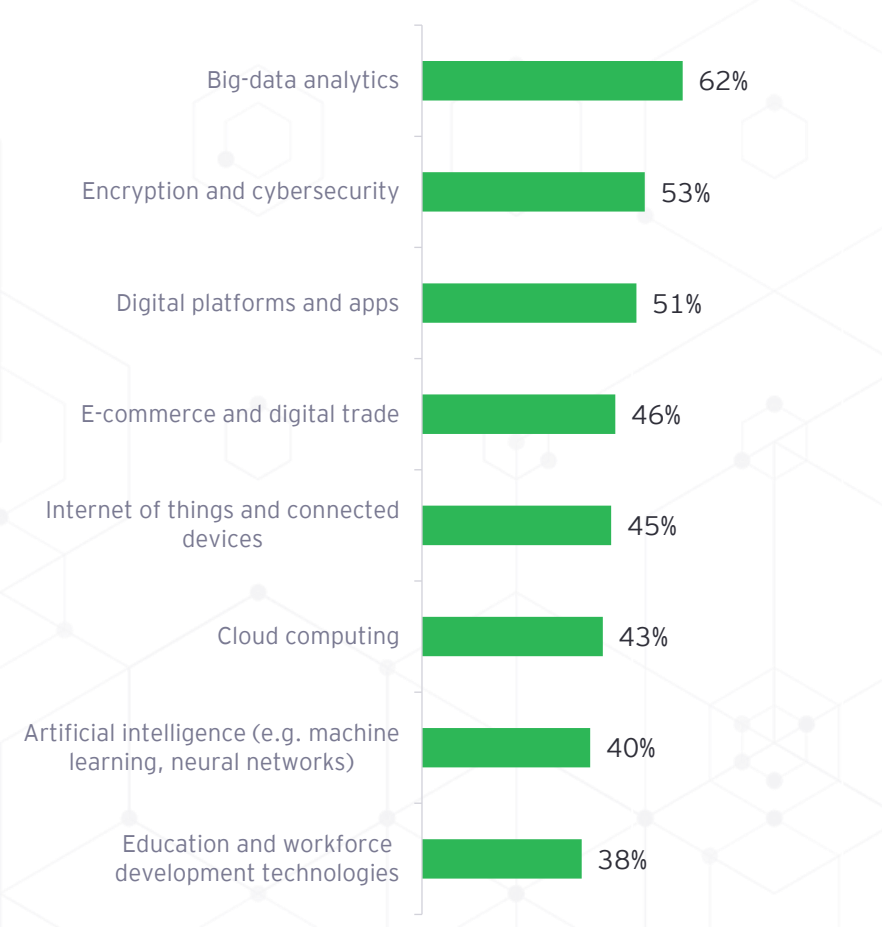
## Technology adoption, 2023-2027- Global

Technologies ranked by the share of organizations surveyed who are likely or highly likely to adopt this technology over the next five years



## Technologies and their impact on job creation- India

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



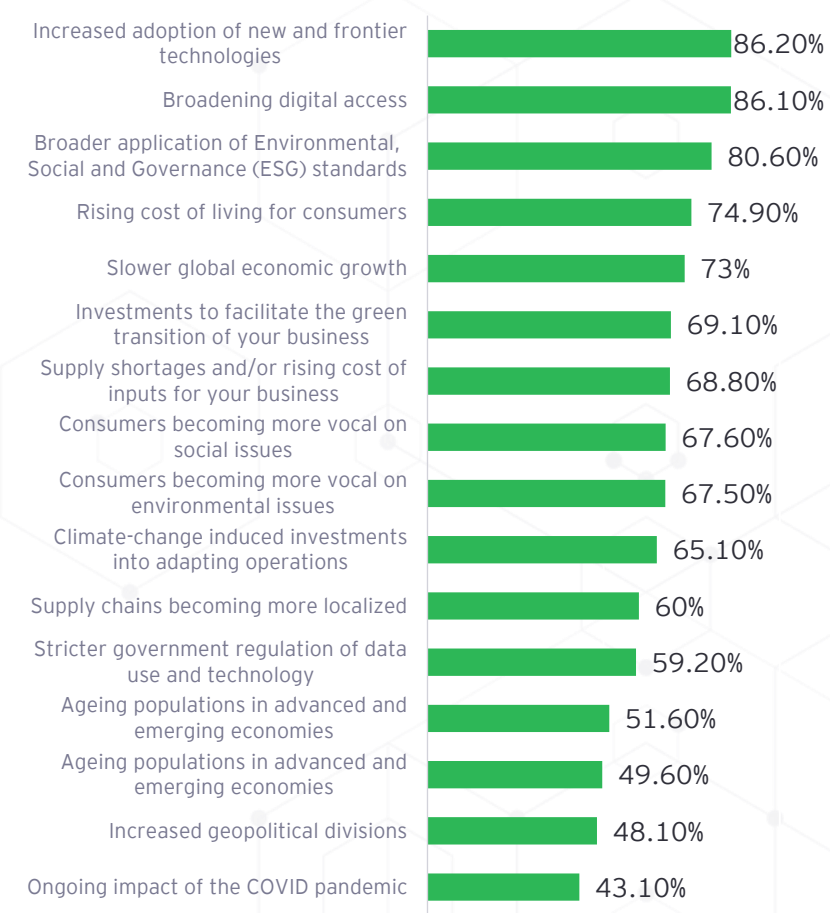
## Key findings

- ▶ 75% of companies surveyed plan to adopt big data, cloud computing, and AI in the next five years. Digital commerce, platforms, apps, e-commerce, and digital trade will be adopted by a majority (86% and 75% respectively). Education and workforce technologies are a priority for 81% of companies by 2027.
- ▶ Indian businesses have similar responses vis-à-vis technologies, with big data analytics and cyber-security being key drivers.
- ▶ India's adoption rates may be lower due to economic and infrastructural factors, emphasizing the need for continued investment in technology and upskilling initiatives to bridge the gap.



## Macrotrends driving business transformation- Global

Trends ranked by share of organizations surveyed that identified this trend as likely or increasingly in the next five years



## Global trends and their impact on job creation - India

Trends most likely to drive industry transformation and their expected impact on job creation, ordered by net effect (share of organizations surveyed)



## Key findings

- ▶ The survey brings out the impact of macro-trends on business transformation
- ▶ Digitization, energy transition, inflation, aging populations and geo-politics will drive the transformation.
- ▶ In line with the organizations globally, organizations in India expect business transformation to be driven by digital and ESG issues mainly.
- ▶ However, in contrast to global organizations, issues like aging populations, geo-politics or reconfiguration of supply chains are not seen as drivers of business transformation by Indian businesses.



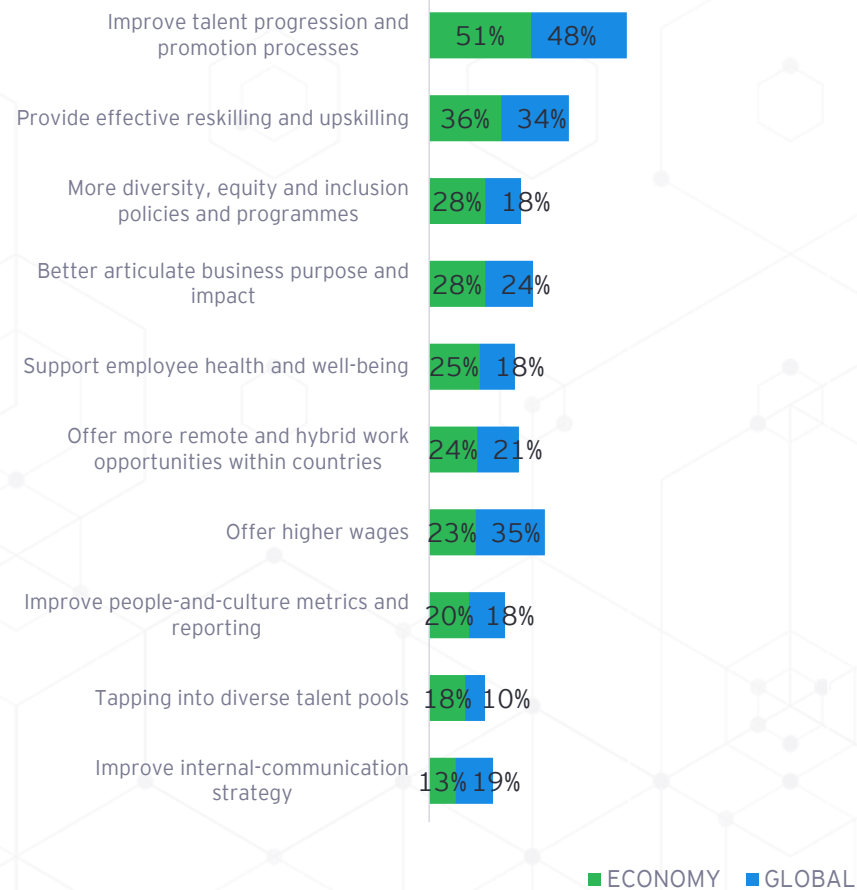
## Business practices to increase talent availability, 2023-2027 - Global

Share of organizations surveyed that identify these business practices as promising ways to increase talent availability in the next five years



## Business practices to improve talent availability - India

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



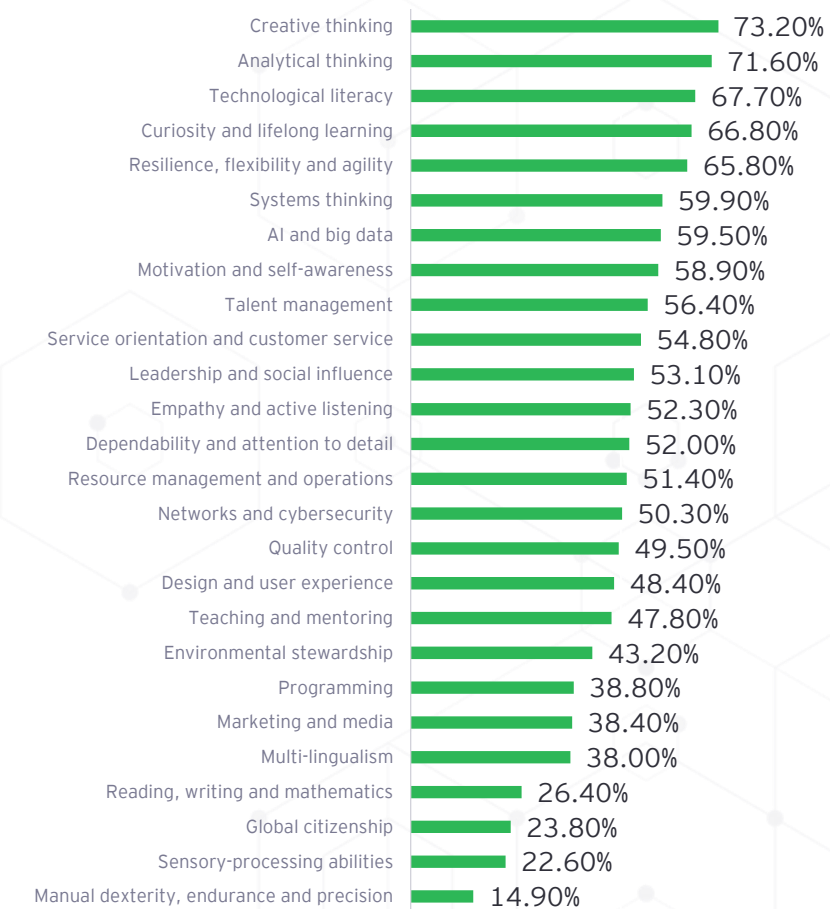
## Key findings

- ▶ Survey shows that businesses prioritize improving talent progression and promotion processes (48%) as the top method to increase talent availability. Offering higher wages (35%) is also considered important, especially in the Government and Public Sector.
- ▶ In the Indian economy, talent progression and promotion processes (51%) and effective reskilling/upskilling (36%) are prioritized, emphasizing internal career development and skill alignment.
- ▶ Remote and hybrid work options are slightly more important in India (24%) than globally (21%), highlighting the growing importance of flexible work arrangements.



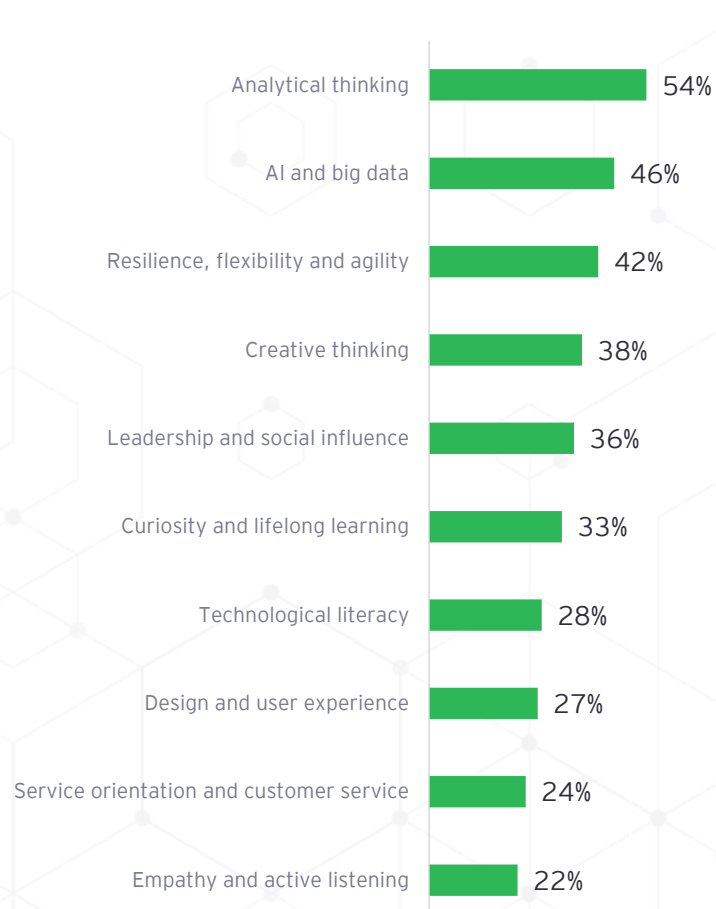
### Skills on the rise - Global

Share of organizations surveyed which consider skills to be increasing or decreasing in importance, ordered by the net difference.



### Reskilling skill focus - India

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Key findings

- ▶ In the next five years, businesses expect cognitive skills to grow most rapidly, reflecting the increasing importance of complex problem-solving in the workplace.
- ▶ Notably, increasing importance is being placed on creative, analytical and technological skills.
- ▶ The reskilling data of India highlights the economic importance of analytical thinking, AI/big data skills, innovation, adaptability, and customer-centricity. Continuous learning and technological literacy are valued.
- ▶ Additionally, customer service and empathy play a vital role. These trends reflect the evolving economic landscape and the need to stay competitive.

## Our team



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