

Market Pulse

A review of Indian economy and markets



Annual Edition

Market Pulse

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This review of the economy and financial markets is issued monthly by the Economic Policy and Research (EPR) department of the National Stock Exchange of India Limited. It also contains relevant market data and insights from cited academic research papers and topical research articles.

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Market Pulse

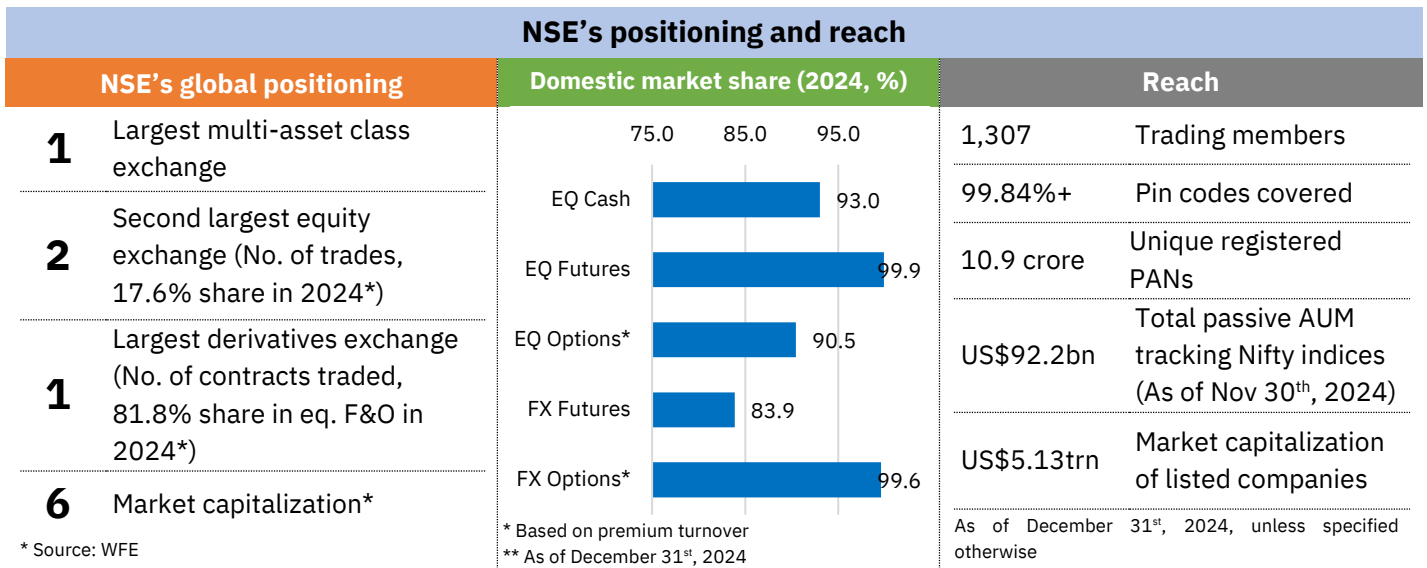
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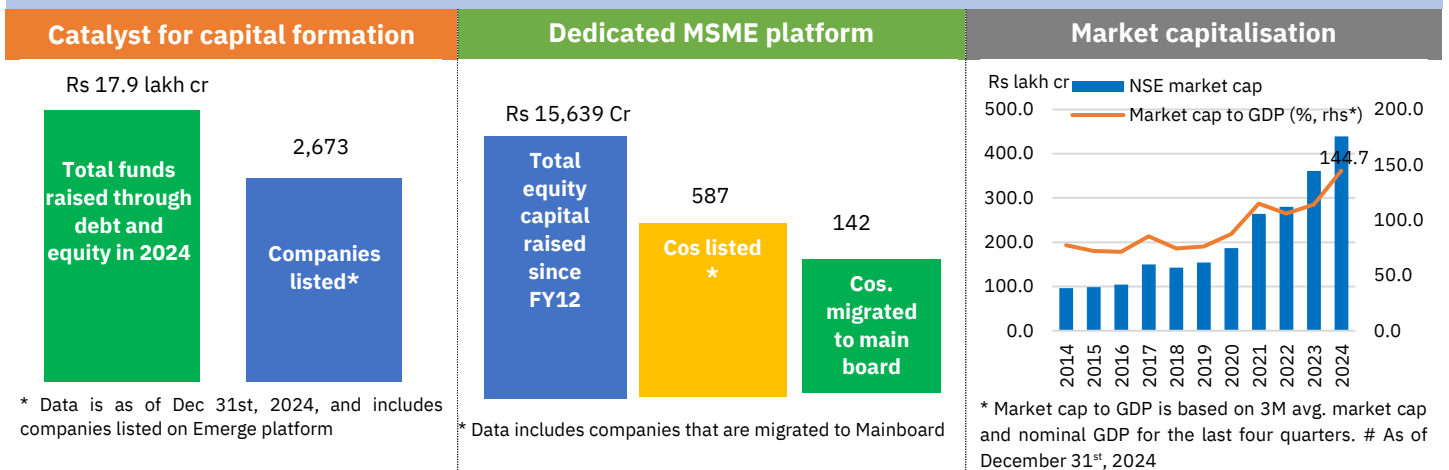
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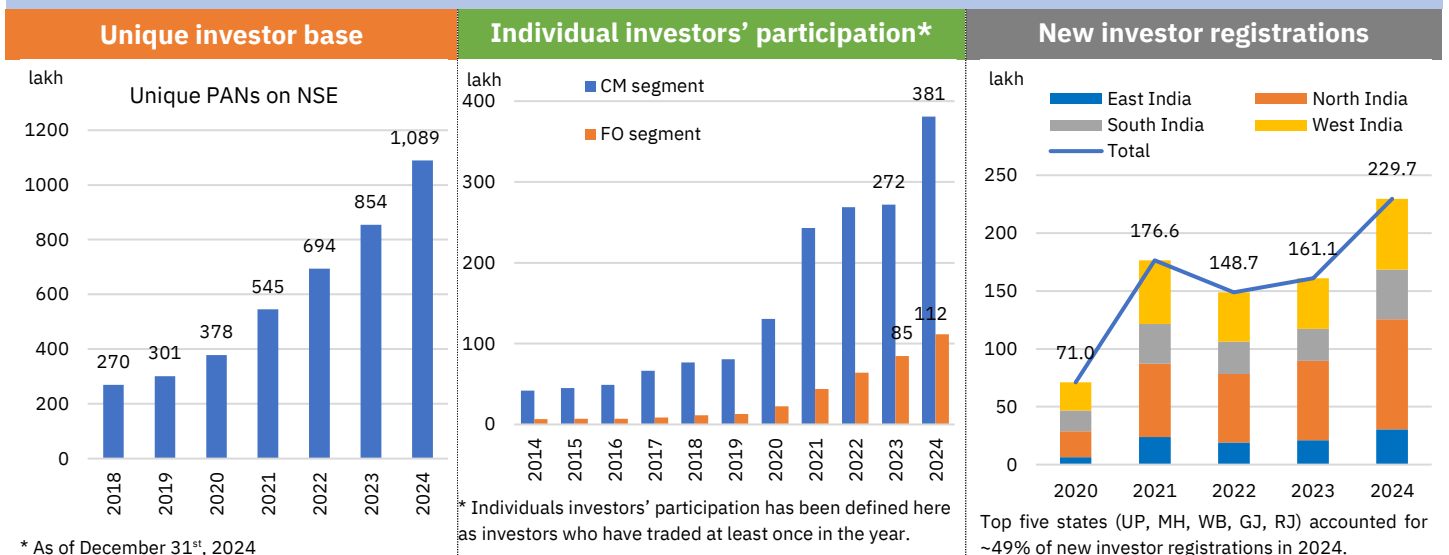
NSE at a glance



NSE's contribution to the economy



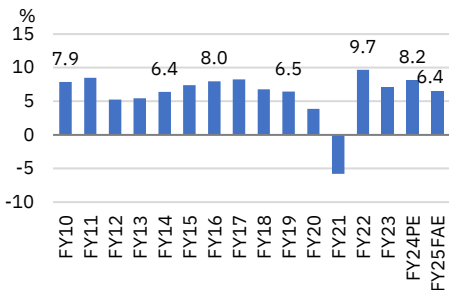
Investor growth



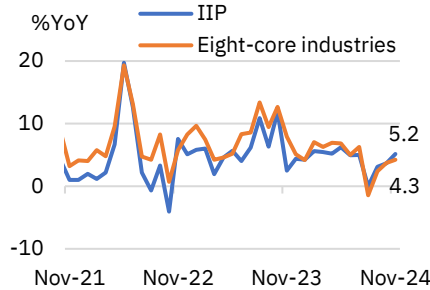
Key macro charts

Growth outlook robust

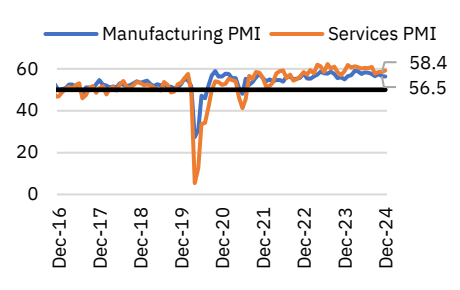
Annual GDP growth



Industrial activity rebounds

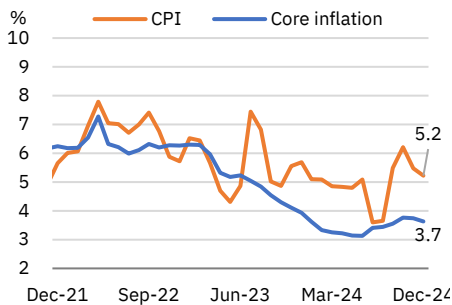


PMI in the expansion zone

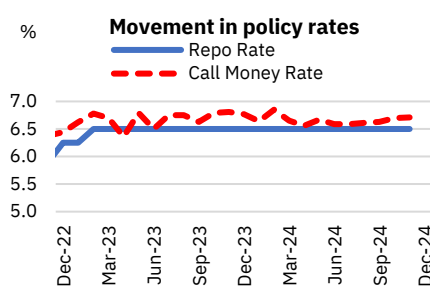


Inflation moderates; policy options equally balanced

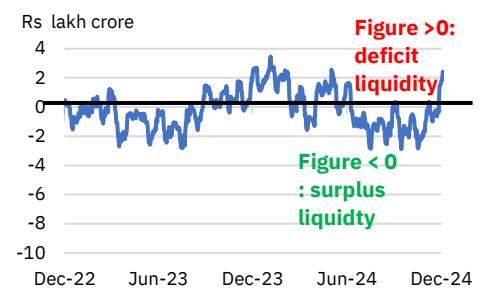
Inflation within RBI's target



Money market rates steady

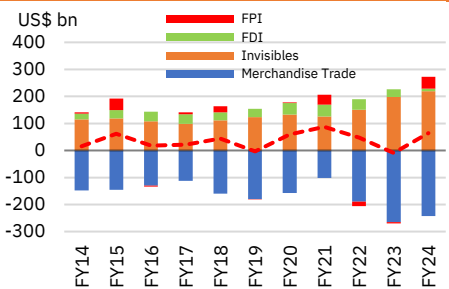


Liquidity moves back to deficit

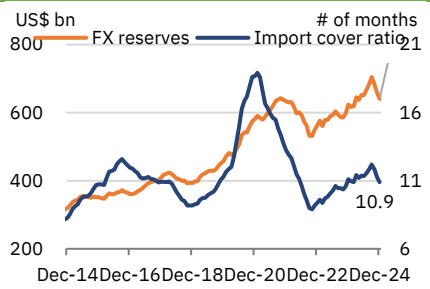


External situation comfortable; rupee depreciates but volatility contained

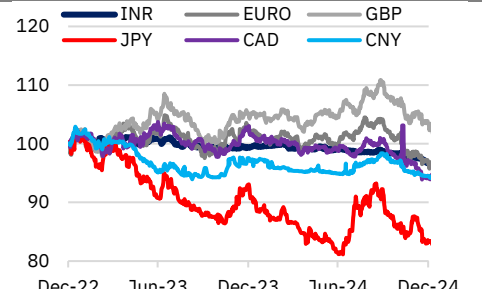
Overall BOP



Forex reserves

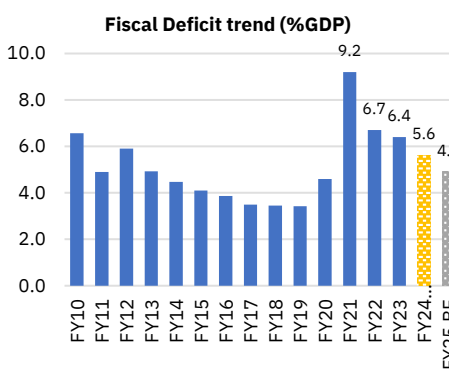


Currency movement

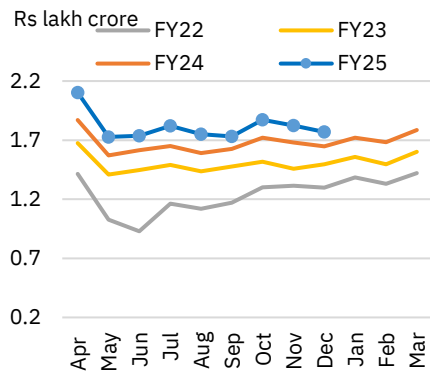


Fiscal prudence but with higher capex

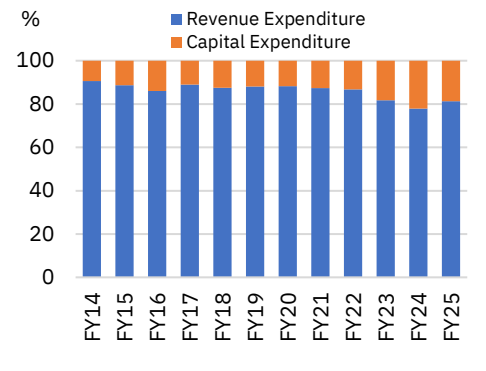
Fiscal consolidation underway



GST collections robust

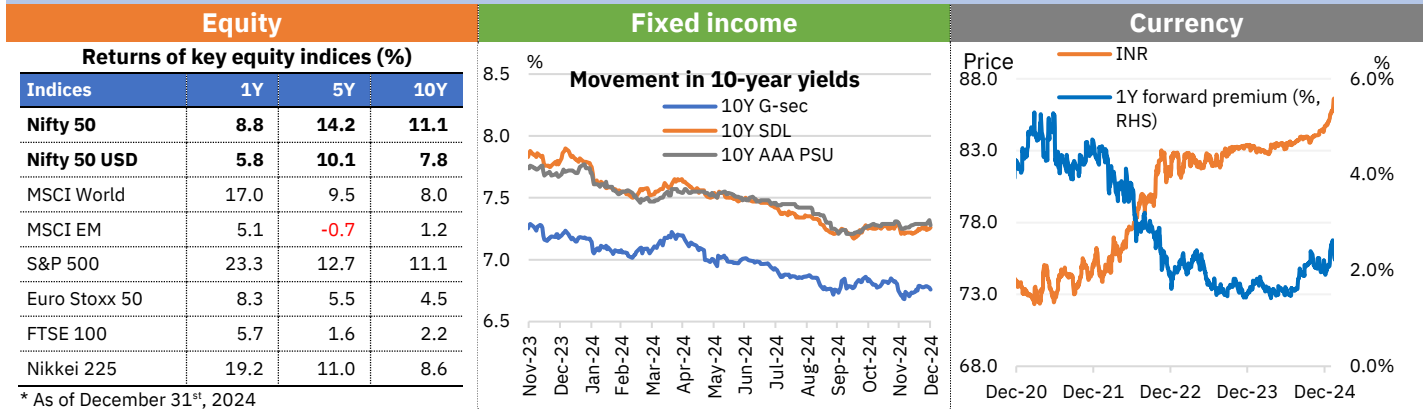


Share of capex rising

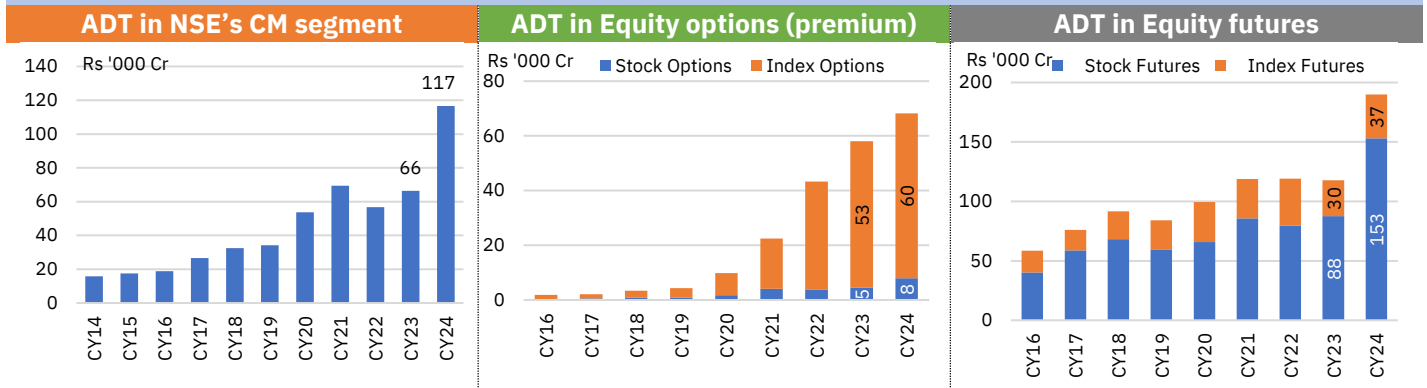


Key market charts

Performance across asset classes



Segment-wise turnover trend



Market activity

Category-wise gross turnover and share in 2024							Average open interest				
Client category	CM		Equity options#		Equity futures		Instruments	2024		2023	
	Value (Rs '000 Cr)	Share (%)	Value (Rs '000 Cr)	Share (%)	Value (Rs '000 Cr)	Share (%)		Contracts ('000)	Value (Rs crore)	Contracts ('000)	Value (Rs crore)
Corporates	2,906	5%	1,313	4%	7,920	8%	Index Futures	728	51,417	401	36,011
DIIs	6,713	12%	32	0%	7,694	8%	Stock Futures	5,151	3,88,720	3,194	2,30,875
FIs	8,535	15%	3,440	10%	23,261	25%	Index Options	17,760	12,67,441	11,791	10,29,849
Individuals	20,352	35%	11,659	34%	17,926	19%	Stock Options	3,747	2,87,610	2,482	1,79,139
Others	2,724	5%	1,068	3%	5,115	5%					
Prop	16,796	29%	16,491	48%	32,675	35%					

Note: Notional value is presented here.

Category-wise net inflows into Indian equities

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
In Rs cr													
FIIIs	1,28,361	1,13,136	97,069	17,946	20,493	49,234	-34,252	1,01,111	1,70,260	24,004	-1,21,439	1,71,107	427
DIIs	-55,800	-73,052	-28,557	67,587	35,363	90,738	1,09,662	42,257	-35,663	94,846	2,75,726	1,81,482	5,27,438
Individuals#	-24,900	-22,000	-30,100	-8,243	-26,382	-37,988	-8,523	-25,280	52,897	1,42,755	88,376	5,243	1,65,810
In US\$bn													
FIIIs	24.4	20.1	16.1	3.2	3.2	7.5	-4.6	14.4	23	3.8	-16.5	20.7	0.1
DIIs	-10.6	-12.8	-4.8	10.4	5.2	14	16	6	-4.8	12.6	35.7	22	63.0
Individuals#	-4.7	-3.8	-4.9	-1.3	-3.9	-5.8	-1.4	-3.6	7.1	19.3	11.7	0.6	19.8

Data pertaining to individuals include net flows on the NSE in the secondary market only. Individuals include individual /proprietorship firms, HUF and NRI.

Executive Summary

Trump 2.0 in novo anno

Two months after he got elected in November 2024, our annual edition of the Market Pulse finds US President Donald Trump to be a man on a mission as a befuddled world tries to make sense. To sample a few of the 'America First' policies that could have a global impact directly or indirectly, the US is no longer in the WHO or the Paris Accord, has initiated reviews on trade agreements with Mexico and Canada, and has threatened tariffs against multiple countries. The pressure felt by trading partners and the increased price levels would make it tougher for the Fed to bestow rate cuts on a slowing economy. To be sure, the long-term problems faced by the US economy are real enough. Corporate earnings have benefitted from the fiscal gap, but public debt has also risen significantly. Despite the strong growth trajectory since the pandemic, medium-term concerns on Chinese competition, reviving domestic manufacturing and blue-collar employment remain. The long-term impact of Shri Trump's focus on aggressive protectionism using tariffs and other measures to reduce trade deficits, protect domestic industries and the resulting disruptions on the US economy remain uncertain, as does the response function of countries affected by them. Policy uncertainty is likely to be a recurrent theme in 2025.

All said and done, the US economy continues to differentiate itself from the rest of the developed world in terms of its growth trajectory for now, with a 2.7% growth rate in the third quarter of 2024. The IMF expects global growth to be 3.3% in 2025 and 2026, albeit with accommodative financial conditions and rising economic policy uncertainty.

Global equity markets overcame geopolitical tensions and high bond yields, delivering gains for the second straight year. The US led the way, with the S&P 500 rising 23.3% after a 24% gain the previous year, buoyed by economic strength and AI optimism. Japan ranked as the second-best performer among large markets globally (+19.2%), supported by a weaker yen. Other developed markets, while positive, lagged US markets due to trade and political uncertainties. Overall, developed equities (MSCI World Index) rose 16.7% in 2024, following a 21.8% return in 2023, with optimism continuing into 2025 (+4% YTD as of January 24th, 2025). Emerging markets (EMs) faced headwinds from a strong dollar and trade issues after Donald Trump's win but saw a 5.1% gain, mainly from China's late-2024 rebound, with another 1.5% YTD gain in 2025. Global fixed income markets struggled in 2024 with fluctuating rate-cut expectations shaped by geopolitical risks, inflation swings, and central bank policies. The US 10-year Treasury yield rose 71 bps to end at 4.6%, mirroring trends in the UK, EU, and Japan.

The year also saw Indian markets rise (+8.8% for the Nifty 50) for the 9th time in a decade, with market capitalisation at Rs439 lakh crore (US\$5.13trn) on December 31st, 2024, up 21.5% in a year. This resilience, despite Q4 sell-offs and global challenges, was driven by strong fundamentals, policy continuity after the NDA's third-term win, and domestic investor inflows offsetting significant foreign outflows. The Nifty 50 Index gained 8.8%, achieving an 11.1% annualized return over a decade, beating MSCI World (8.0%) and EM (1.2%) indices, but started 2025 on a weaker note (YTD: -2.3%). Mid- and small-cap indices excelled, with 21.5% and 25.3% returns, respectively. Indian bond markets remained resilient, aided by sovereign bond inclusion, falling inflation, and proactive RBI steps, with the 10-year G-sec yield closing 42 bps lower at 6.76%.

The FPI selling that began in the 4th quarter on valuation and growth concerns has crossed levels seen in the first phase of the pandemic and continues for now, as growth indicators tapered in the second half of the year. Domestic investors on the other hand continued to buy the India story, with greater participation and capital investment through direct and indirect channels. Indian households saw their equity wealth across these channels rise by Rs 13 lakh crore in the year to Rs 77 lakh crore, as of December 2024. The last five years have been a total increase of Rs 43 lakh crore in household equity wealth.

The Indian economy stands at a crucial juncture entering 2025. Despite global issues like persistent geopolitical tensions, monetary shifts, and regional economic divergences, India remains resilient and retains its title as the fastest-growing major economy. Economic growth is forecasted at 6.4% for FY25 (FAE), with multilateral agencies projecting a similar pace in FY26, between 6.5% and 6.9%. However, the first half of FY25 witnessed sharper-than-expected growth deceleration, driven by weakened industrial activity, muted government spending, and slower

recovery in private investments. Following a challenging year, India's economic outlook for the remainder of FY25 and FY26 hinges on recovering private consumption, delayed government expenditure, strong services exports, and a revival in private investments. Yet, uncertainties persist, including global volatility, precarious trade policies, intensifying climate risks, and rising input cost pressures. Our Story of the Month this time takes a detailed look at the macro and market trends in 2024, juxtaposing them with the past.

Household interest in equity in the post-pandemic era has steadily led to a rise in supply. Primary markets in India had a record year in more ways than one. A total of 301 listings raised Rs 1.67 lakh crore in IPOs—over 3x that of 2023—of which 90 were on the mainboard (avg. size Rs1772 crore), 178 SMEs (avg. size 41 crore) and another 33 direct listings. Hyundai Motor's Rs27,859 crore IPO was the largest ever in India and the second largest in the world last year. Adding Follow-on issues, total equity raised was Rs4.27 lakh crore, significantly higher than the Rs1.85 lakh crore raised in 2023. Combining debt, equity and trusts, the total capital raised in 2024 of Rs 17.92 lakh crore was 32% higher than in 2023. The number of mutual fund holders crossed 5 crore in the year, with SIPs totaling over Rs25,000 crore in many months of 2024; equity AUM of domestic mutual funds crossing Rs 39 lakh crore, ~20% of it passively managed.

The number of unique investors at the NSE rose to 11 crore earlier this month, marking a seven-fold increase in the last decade, with over 21 crore accounts and over 18 crore demat accounts. The last two crore members of the investor community came in just over five months for each crore. 2024 saw 2.32 crore new investors, the highest ever.

A fifth of Indian households have a link to the markets, today, as the market capitalisation of Indian companies has increased 6x in this period. The median age of the Indian investor is 32 years, with over 40% of them under the age of 30, and one in four investors today is a woman. State-wise, Uttar Pradesh surpassed Maharashtra in new registrations last year, adding 33 lakh (+14.4%) investors; both remain the only states with over a crore investors.

Our Insights section this time has seven papers. The first paper examines human-machine interactions using experimental methods, revealing that humans show fewer emotional and social responses to automated agents (AAs). The second paper investigates the relationship between options trading by firms and managerial risk-taking, finding that increased trading leads to more trademark introductions. The third paper explores disparities in Paycheck Protection Program (PPP) loans between minority- and white-owned firms. The fourth paper analyses how pre-open auction affects price discovery, showing that offer-to-first-quote returns explain IPO initial returns, while illiquidity decreased after the auction's introduction. The fifth paper studies the effect of CSR regulations on Foreign Institutional Investor (FII) holdings, revealing an increase in FII holdings, particularly from civil law countries. The sixth paper delves into insider trading in the early 18th-century London stock market using unique hand-collected data. Lastly, the seventh paper links Federal Funds Target rate (FFTar) increases to corporate bond mutual fund outflows, showing that NAVs adjust slowly to new information, causing temporary overpricing.

Peter Drucker once said, "Culture eats strategy for breakfast." We have written earlier about a similar relationship between geopolitics and macroeconomics. As we enter 2025, the war in Gaza has seen a ceasefire after more than a year, with a substantial change in the balance of power in the Middle East. The Russia-Ukraine war goes on for now and among the numerous points made by the US recently is an offer for Canada to become the 51st state, and a serious demand for the Panama Canal and Greenland. Global markets in the new year must contend with a US President determined to make the most of the majority his party currently enjoys. Indian markets have potentially slowed growth to add to the global uncertainties, even as it remains the fastest-growing large economy. The IMF lists economic (trade, fiscal) policy uncertainty as one of the risks in 2025, in its latest World Economic Outlook.

On that note, we present the annual edition of the Market Pulse. As always, we look forward to your comments and suggestions.

Tirthankar Patnaik

Chief Economist

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Story of the month

The year that was: India steering through global uncertainty

The year 2024 defied expectations, and displayed resilience, with the global economy growing at a steady 3.2% in 2024, primarily led by the US. Expectations for the next two years remain strong, with the IMF projecting growth to improve marginally to 3.3% in 2025/26. Inflation eased globally, and trade rebounded, though risks like trade protectionism and market volatility persist. This resilience was reflected in strong global equity market performance, that ended in green for the second year in a row.

India, with a GDP growth of 6.4% in FY25, remained the fastest-growing major economy, with the IMF expecting 6.5% average growth over the next two years. Strong economic fundamentals, coupled with political stability, supported Indian equity markets, with the Nifty 50 Index registering an 8.8% return in 2024, marking the ninth consecutive year of gains. Robust domestic participation offset heavy FPI outflows in Q4, with individual investors and DIIs contributing a record Rs 1.7 lakh crore and Rs 5.3 lakh crore in 2024, respectively. Our estimates suggest that household wealth in Indian equities expanded by Rs 28 lakh crore in the last two years. Meanwhile, India's debt markets remained stable despite heightened volatility in global bond yields, aided by inclusion of Indian sovereign debt in global indices, easing inflation and efficient liquidity management by the RBI.

Fund mobilization at NSE hit a record Rs 17.9 lakh crore in 2024, with India leading global IPO activity, accounting for 23% of global listings. The unique investor base touched 11 crore on January 20th, with the year 2024 seeing record 2.32 registrations. Women's share in the registered investor base at NSE rose to 24.1% from 22% in the previous year, while the median investor age dropped to 32 years, reflecting India's evolving and inclusive investment landscape.

Macro update and outlook

- **Global economy to remain stable...:** Despite heightened geopolitical tensions and synchronized tightening by global central banks, global growth remained steady at 3.2% in 2024 and is projected to rise marginally to 3.3% in 2025/26, according to the IMF World Economic Outlook (January 2025). Trend growth over the next five years is expected to average 3%. Headline inflation is forecast to decline from 6.7% in 2023 to 5.7% in 2024, reaching 4.2%/3.5% in 2025/2026. Global trade rebounded sharply, growing 3.4% in 2024 (vs. 0.7% in 2023) and is expected to sustain growth of 3.2%/3.3% in 2025/2026. Near-term risks include geopolitical tensions, trade protectionism, elevated public debt, and financial market volatility, though easy US fiscal policy could provide an upside boost.
- **...even as regional disparities remain:** The global outlook masks divergent trends across regions. The US economy grew 2.8% in 2024, exceeding expectations due to resilient consumption and a less restrictive monetary stance, with growth projected to taper to 2.7% in 2025 and 2.1% in 2026. The Euro area, led by Germany (-0.2%), along with the UK (0.9%) and Japan (-0.2%), saw subdued growth in 2024, with modest recovery expected in 2025 and 2026. Emerging markets are set to sustain 4.2% growth through 2025–26. China grew 4.8% in 2024, helped by policy support, but is forecast to slow to 4.6% in 2025 and 4.5% in 2026 due to trade uncertainties and property market challenges.
- **India to remain the fastest growing major economy:** Despite a slowdown in economic growth, driven by a deceleration in industrial activity, the Indian economy is projected to grow at a robust 6.5% annually during FY25–FY27, maintaining its position as the world's fastest-growing major economy. The NSO's first advance estimates peg FY25 growth at 6.4%, with the second half supported by strong private consumption, deferred government expenditure, and resilient

services exports. While the RBI trimmed its FY25 GDP forecast by 60 bps to 6.6%, it remains cautiously optimistic, projecting 6.7% growth for FY26. Major institutions like the World Bank, OECD, and United Nations project India's growth to remain resilient, ranging between 6.5% and 6.9% in FY26.

- **...With easing headline inflation paving way for rate cuts:** Global disinflation is broadly on track, though recent signs suggest progress is stalling. Idiosyncratic factors, particularly services inflation in the US and Euro area, continue to keep headline inflation slightly above country-specific targets. Advanced economies are expected to achieve inflation targets (2.1% by 2025) sooner than EMDEs (5.6%). In India, headline CPI inflation has averaged 4.9% YoY in FY25TD (April–December) from 5.4% in FY24, driven by broad-based softening in food, fuel, and core components. With inflation projected to decline to 3.8% in FY26, there is potential for policy rate cuts, though risks from rupee depreciation, geopolitical tensions, and elevated food inflation could delay the RBI's action.
- **External sector remains manageable...:** India's current account deficit (CAD) has remained broadly manageable since the pandemic, with a surplus of 1% of GDP in FY21, followed by a manageable deficit in the subsequent years. In H1 FY25, the CAD stood at 1.2% of GDP and is projected to hover around 1% in FY25 and FY26, according to the Survey of Professional Forecasters. However, Q3 FY25 saw external sector challenges, including a wider merchandise trade deficit, FPI equity outflows, rupee depreciation, and decline in forex reserves (US\$ 624bn as of January 17th, 2025). As such, the balance of payments surplus, that stood at US\$23.8bn in H1FY25, may face pressures in H2.
- **...While fiscal consolidation is underway:** Fiscal consolidation remains on track, with the Centre targeting a fiscal deficit of 4.9% of GDP for FY25 and 4.5% for FY26. Monthly accounts indicate the FY25 deficit may fall below the target, supported by buoyant tax collections, strong non-tax revenues (including the RBI dividend), and moderate expenditure growth, particularly in capital spending. State governments' fiscal deficit has eased to 3.2% of GDP, though it remains above the Fiscal Responsibility Legislation (FRL) target of 3%. However, the General Govt.'s debt remains elevated at ~85% of GDP (Centre: ~56%; States: ~29%), underscoring the need for sustained measures to reduce liabilities.
- **Major trends to watch out for in 2025:** a) Rising US trade protectionism and retaliatory tariffs and the consequent impact on global trade and inflation. b) Increased spending on AI driving innovation and improving productivity and competitiveness but faces uncertainties around adoption and regulation. c) Despite 7% strengthening in 2024, the US dollar's upside may be capped, though fiscal policy and economic growth may support near-term gains. d) Intensifying climate disruptions threaten global economic stability and supply chains. e) Structural challenges like slowing productivity, aging populations, and the green energy transition continue to hinder medium-term growth.

Primary market performance

- **Fund mobilization hit a record high in 2024; positive outlook ahead:** In 2024, fund mobilization at NSE reached a record Rs 17.9 lakh crore across equity and debt markets, more than double the banking sector's disbursement¹ to Industries

¹ Calculated as the difference between outstanding credit of scheduled commercial banks to Industry and Services between November 2024 and November 2023.

and Services, significantly boosting capital formation. Debt markets raised Rs 13.4 lakh crore (+16% YoY), while equity fund mobilization soared 131% to Rs 4.3 lakh crore. NSE saw a record 268 IPOs, raising Rs 1.7 lakh crore, with 57% from offer-for-sale. By year-end, 2,673 companies, including 587 SMEs, were listed on NSE. India led globally in IPOs, capturing 23% of total listings (1,145), outpacing major Asian exchanges, and its ecosystem of 125,000 startups and 130 unicorns offers strong future potential.

- **SME listings surged to record high in 2024:** In 2024, NSE's SME platform, SME Emerge, achieved a record 178 listings, raising Rs 7,348 crore through IPOs, averaging Rs 41 crore per offering. Since inception, it has facilitated 587 SME listings, mobilizing Rs 15,638 crore and reaching a market cap of Rs 2.2 lakh crore by Dec'24. Notably, 142 SMEs have migrated to the Main Board, underscoring the platform's role in supporting SME growth and integration into larger markets.

Secondary market performance

- **Global markets ended 2024 in green:** Global equity markets ended 2024 in the green for the second straight year, despite geopolitical tensions and elevated yields. The US led the gains, with the S&P 500 rising 23.3%, driven by economic resilience and AI-driven growth, while the 'Magnificent Seven' tech stocks delivered returns of 12%-172%. European equities posted modest gains (Eurostoxx: 8.3%), with Germany's DAX (+18.9%) outperforming France's CAC (-2.2%) amid economic and political challenges. The UK's FTSE 100 rose 5.7%, lagging behind. Japan was a standout, gaining 19.2%, supported by a weaker yen. Emerging markets struggled with a strong dollar and trade uncertainties, though the MSCI EM Index gained 5.1%, boosted by a late-year rally in Chinese equities.
- **Indian equities outperformed the broader EM pack...:** Despite a sell-off in the fourth quarter, Indian equity markets ended 2024 in the green for the ninth consecutive year, outperforming the broader EM pack. Resilience was driven by strong economic fundamentals, policy stability after the NDA's third-term win, and robust domestic investor inflows that offset significant foreign outflows. The Nifty 50 Index returned 8.8% for the year, with an 11.1% annualized return over the decade, outperforming the MSCI World (8.0%) and EM (1.2%) indices. Mid- and small-cap indices outperformed, with returns of 21.5% and 25.3%, respectively. With a market cap of US\$5.1tn, India remained the fourth-largest equity market globally, nearly 1.7 times the size of its banking sector.
- **...Aided by strong domestic participation amid volatile FPI flows:** Indian equities saw significant FPI outflows in Q4 2024, with a record US\$11.2bn withdrawn in October (2024 total: US\$124m). However, strong domestic investor participation—institutional and individual—helped limit market losses. Individual investors invested a record net amount of Rs 1.7 lakh crore (US\$ 19.8bn) in 2024. Net DII inflows also surged, reaching a record-high of Rs 5.3 lakh crore (US\$63bn) in 2024, surpassing the combined net inflows of the previous two years. This is attributed to continued indirect participation by individuals via SIPs. Monthly SIP inflows averaged Rs 22,360 crore in 2024 vs. Rs 15,312 crore in 2023.
- **Individuals own 17.6% of the Indian markets today:** Despite market volatility, individuals' participation in Indian equities, both direct and indirect (via mutual funds), has remained strong. As of September 2024, individuals hold 17.6% of

the Indian market, nearly matching the share of FPIs—a significant improvement from a 7.1pp gap in FY21. Estimates suggest that the household wealth in Indian equities has increased by over Rs 40 lakh crore in the last five years, and over Rs 28 lakh crore in the last three years. In 2024 alone, household investors saw a wealth increase of approximately Rs 13.2 lakh crore.

- **Domestic debt market remained stable despite volatile global bond yields:** Global fixed income markets struggled in 2024 as shifting rate cut expectations, driven by geopolitical tensions, central bank policies, and inflation volatility, weighed on sentiment. The US 10-year Treasury yield peaked at 4.7% in April, dropped to 3.6% by mid-Sep after rate cuts, but rebounded to 4.6% by year-end as Trump's victory dampened rate cut hopes. Other developed markets saw similar trends, with 10-year yields rising by 103 bps in the UK and 46 bps in both the EU and Japan. In contrast, Indian debt markets remained stable, supported by sovereign bond inclusion in global indices, easing inflation, and proactive RBI measures. The 10-year G-sec yield ended the year 42 bps lower at 6.76%.

Market activity and investor growth

- **Activity across equity cash and derivatives picked up in 2024:** Despite a slower market activity in Q4, driven by FPI outflows and regulatory measures, turnover in the equity cash and derivatives segments saw substantial growth in 2024. The average daily turnover (ADT) in the equity cash segment surged 75.3% YoY to Rs 1.17 lakh crore. The equity options segment posted a 17.7% rise in ADT (premium) to Rs 68,280 crore, while the equity futures segment recorded robust growth of 61.3%, reaching Rs 1.9 lakh crore. In 2024, NSE retained its dominant position across equity markets, capturing a 93% market share in the cash segment, 99.9% in equity futures, and 90.5% in equity options.
- **Investor registrations in 2024 were the highest in a year:** The unique investor base at NSE reached 10.9 crore by the end of 2024, surpassing the 11-crore mark on January 20th, 2025, with the last one crore investors added in just five months. Despite a volatile year, new investor registrations soared to a record 2.32 crore in 2024, significantly higher than the 1.6 crore added in 2023. New account additions (with investors often holding multiple accounts) totaled 5.56 crore, bringing the total to over 21 crore, with 75% of these accounts added in the past five years. This rapid growth highlights India's deepening retail participation in capital markets and its evolving investment landscape.
- **Investor demographics changing rapidly:** In 2024, Uttar Pradesh became the second state after Maharashtra to surpass 1 crore investors, adding 33 lakh new investors during the year and accounting for 14.4% of total registrations. Uttar Pradesh's share of the investor base has grown significantly, from 7.3% in 2019 to 11.3% in 2024. Among other states that are fast catching up, Bihar has risen to the top 10 states from 15th in 2019, while Assam now hold 2.3% of the investor base, up from 0.7% in 2019. District-wise, six out of the top 10 districts were from Maharashtra and Gujarat. Districts beyond the top 50 contributed 65.2% of new investor additions in 2024, up from 61% in 2023. Today, we have investors from 99.84% of the pin codes in the country. Women investors accounted for 24.1% of the base, up from 22.8% in 2023, while the median age dropped to 32 years, with 40% of investors now under 30, compared to 23.5% in March 2020.

Global macroeconomic update and outlook

Global economic performance exhibits resilience but shows diverging trends in 2024:

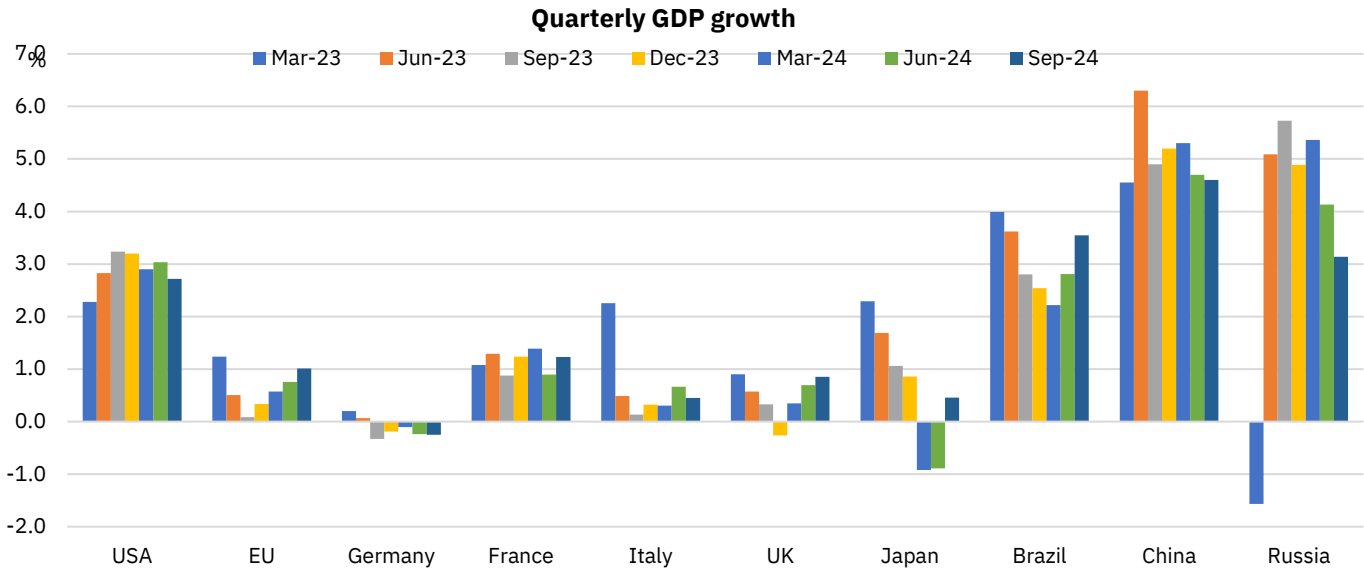
Contrary to expectations in the beginning of last year, global economic growth remained resilient in 2024, navigating heightened global uncertainty due to accentuated geopolitical tensions, shifting interest rate expectations and election-led uncertainty in major economies. According to the IMF's World Economic Outlook released this month, the global economy is expected to have grown at 3.2% in 2024 (vs. 3.1% expected in the beginning of the year), with growth projected to improve marginally to 3.3% each in 2025 and 2026, even as it is below the historical average of 3.7% during 2000-2019. Advanced economies are projected to expand by 1.9%/1.8% in 2025/2026, with the resilient growth in the US economy partly offset by modest recovery in the Euro Area (1%/1.4%), UK (1.6%/1.5%) and Japan (1.1%/0.8%). The US economy has been outperforming, with the IMF's growth forecast for 2025 revised higher by 50 bps to 2.7%, reflecting resilient consumer demand, less restrictive monetary policy and expectation of looser fiscal policy under the new administration. Growth performance of the EMDEs is expected to broadly be in line with the 2024 growth of 4.2%, with solid growth of 6.5% in India. China, on the other hand, is expected to grow at a marginally slower pace of 4.6%/4.5% in 2025/2026 as the fiscal and monetary policy support is likely to be offset by heightened trade uncertainty and concerns in the property market.

Key downside risks to the global economic outlook stem from a) intensification of protectionist trade policies and retaliatory tariffs, b) looser fiscal policy in the US leading to higher interest rates and dampened economic activities, c) renewed inflationary pressures owing to adverse trade policies, leading to policy tightening and higher policy divergence, d) financial market uncertainty and e) persistent geopolitical tensions.

Table 1: Annual GDP forecast for major economies

%	2023	2024	2025	2026
World	3.3	3.2	3.3	3.3
Advanced	1.7	1.8	1.9	1.8
United States	2.9	2.8	2.7	2.1
Euro Area	0.4	0.8	1.0	1.4
Germany	-0.3	-0.2	0.3	1.1
France	1.1	1.1	0.8	1.1
Italy	0.7	0.6	0.7	0.9
Spain	2.7	3.1	2.3	1.8
Japan	1.7	-0.2	1.1	0.8
United Kingdom	0.3	0.9	1.6	1.5
Emerging Market and Developing Economies	4.4	4.2	4.2	4.3
China	5.2	4.8	4.6	4.5
India	8.2	6.5	6.5	6.5
Russia	3.6	3.8	1.4	1.2
Brazil	2.9	3.7	2.2	2.2

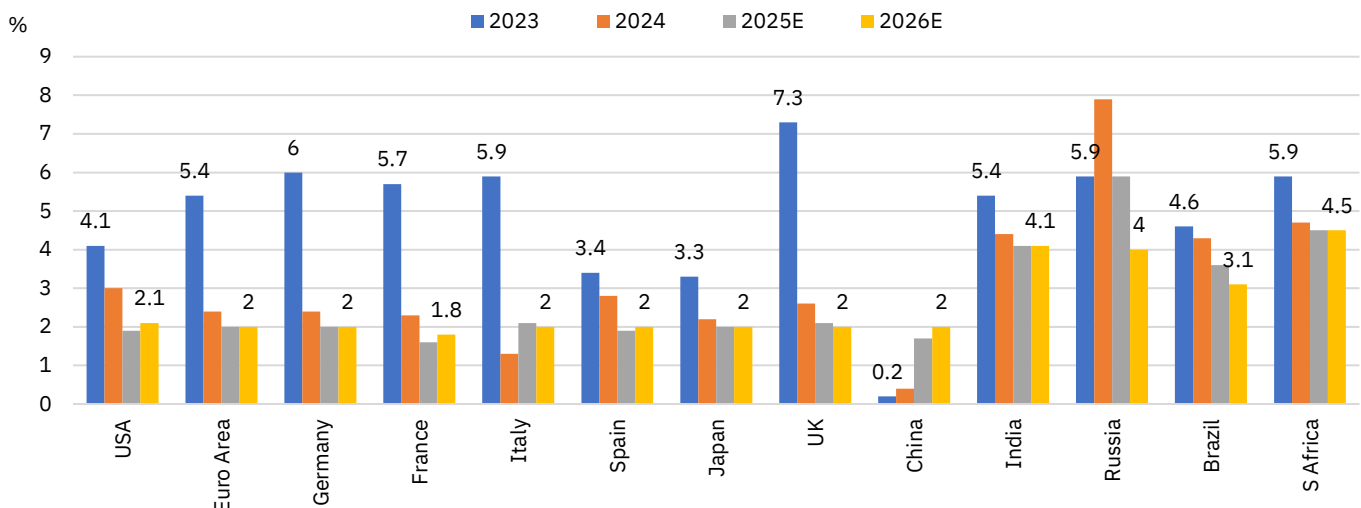
Source: IMF World Economic Outlook, NSE EPR. Note: For India, data for 2024 and forecasts for 2025 and 2026 are presented on fiscal year basis

Figure 1: Quarterly GDP growth across major economies


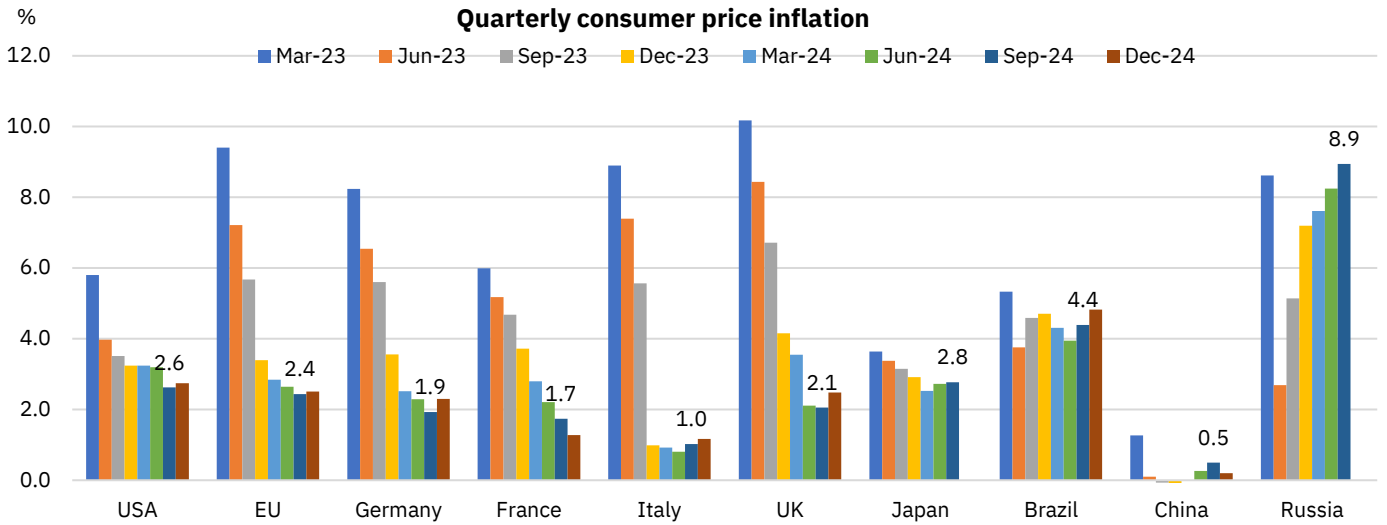
Source: CEIC, NSE EPR.

Global inflation gradually inching towards target levels across major advanced economies:

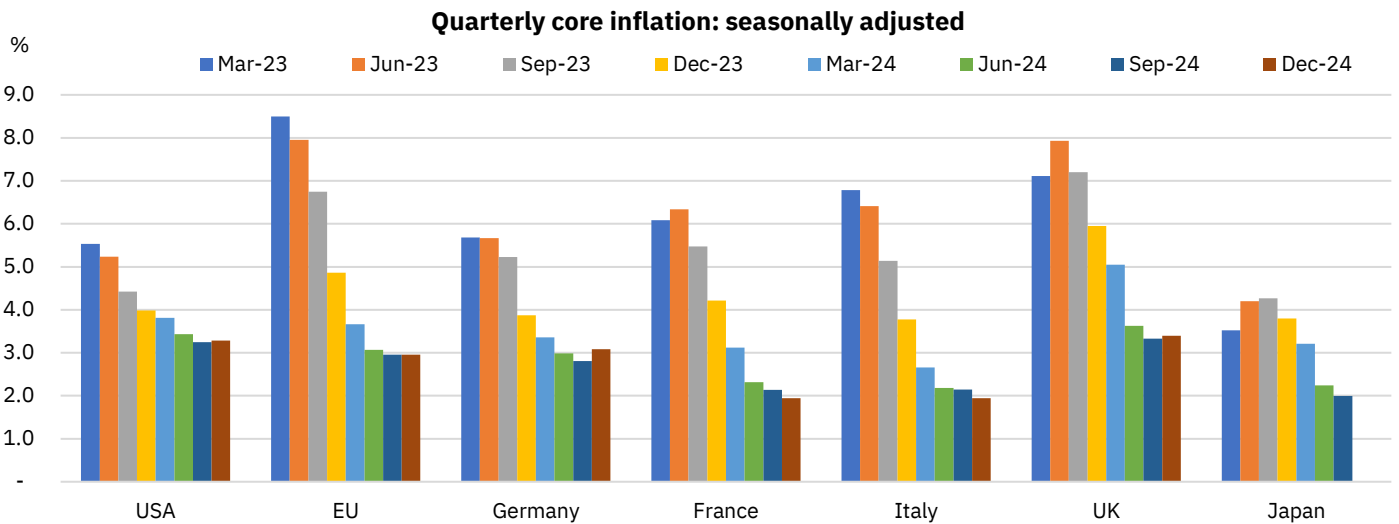
Global headline inflation has eased considerably over much of 2024 to reach closer to the targets in major economies. This has allowed the central banks in both advanced and emerging economies (barring India, Australia, Malaysia) to employ accommodative monetary policy and slash policy rates to support economic growth. The progress of disinflation is likely to continue, albeit at a much gradual pace with headline global inflation pegged at 4.2% and 3.5% in 2025 and 2026 respectively, slowing from an average of 6.7%/5.7% in 2023/2024. Region-wise data depicts that inflation is likely to converge to the target faster in advanced economies (2.1%/2% in 2025/2026) than in EMDEs (5.6%/4.5%). Supported by the gradual cooling of the labour markets and benign energy prices, headline inflation is projected to converge to the inflation targets of respective economies. That said, stickiness in services inflation, alongside implications of renewed tariffs on imported inflation could impede this progress and could complicate monetary policy actions.

Figure 2: Annual average consumer price inflation across major economies


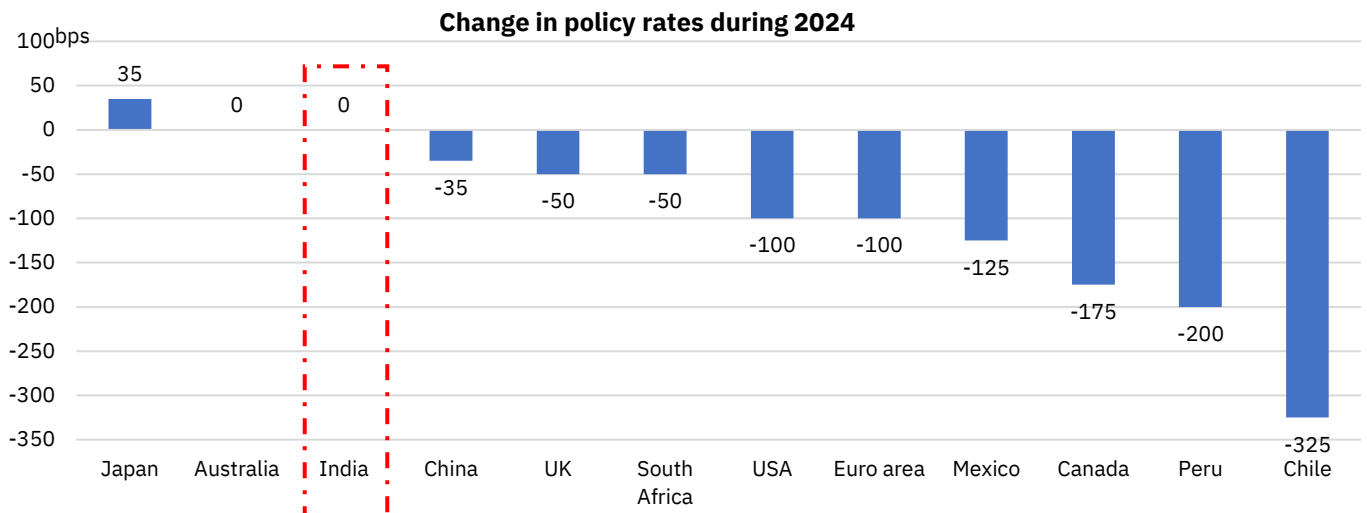
Source: IMF WEO, NSE EPR. 2025E and 2026E are annual inflation estimates for respective years

Figure 3: Quarterly average consumer price inflation across major economies


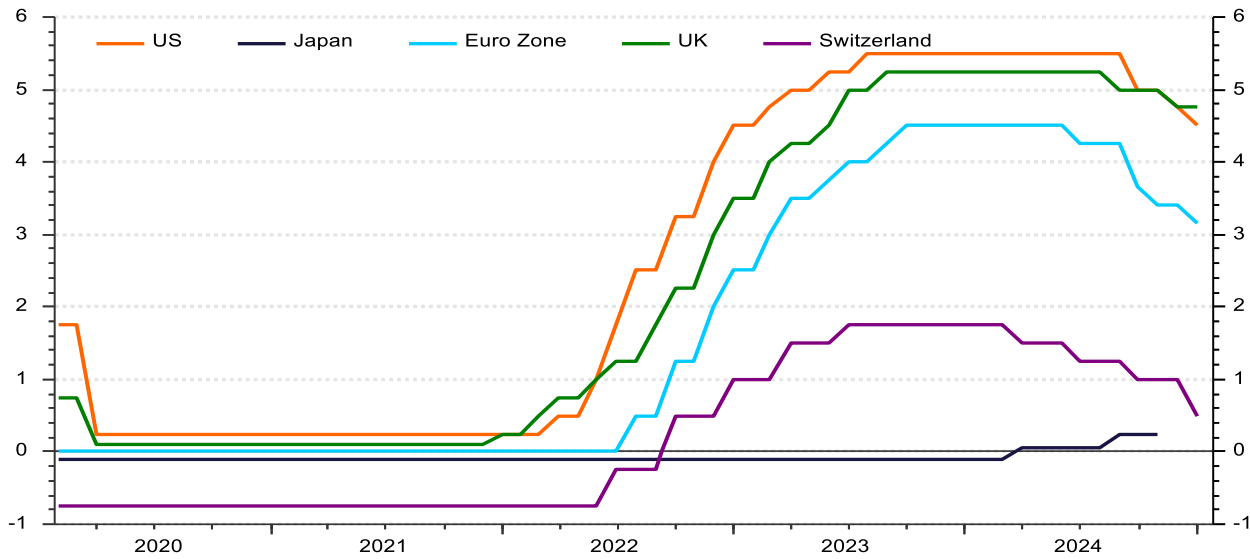
Source: CEIC, NSE EPR.

Figure 4: Quarterly average core inflation across major economies


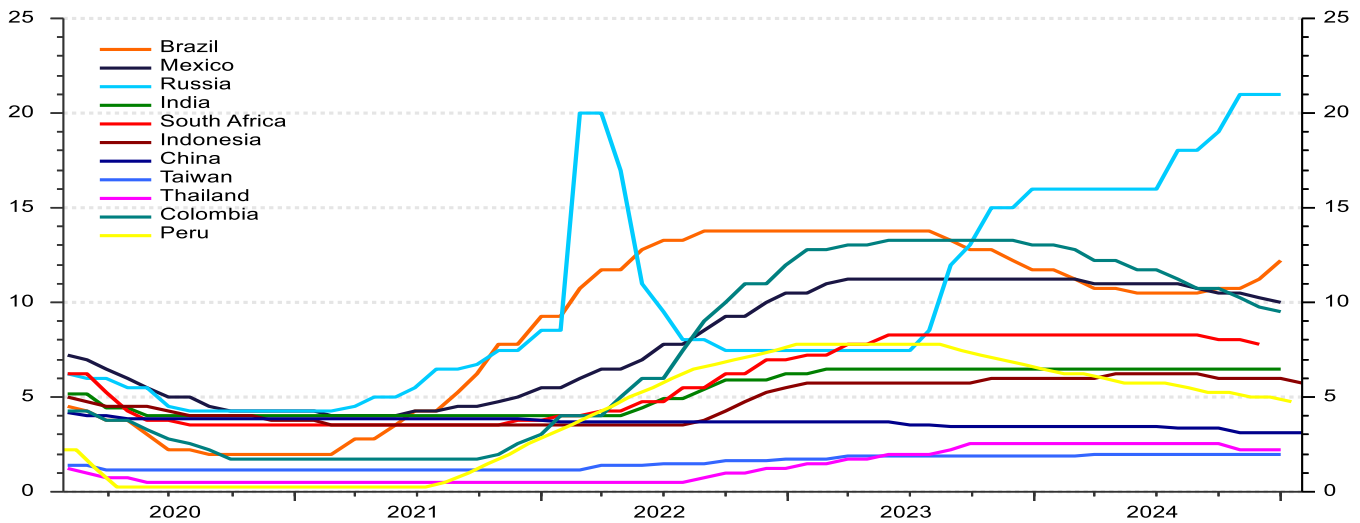
Source: CEIC, NSE EPR.

Figure 5: Change in monetary policy rates in major economies during 2024


Source: RBI Bulletin, NSE EPR.

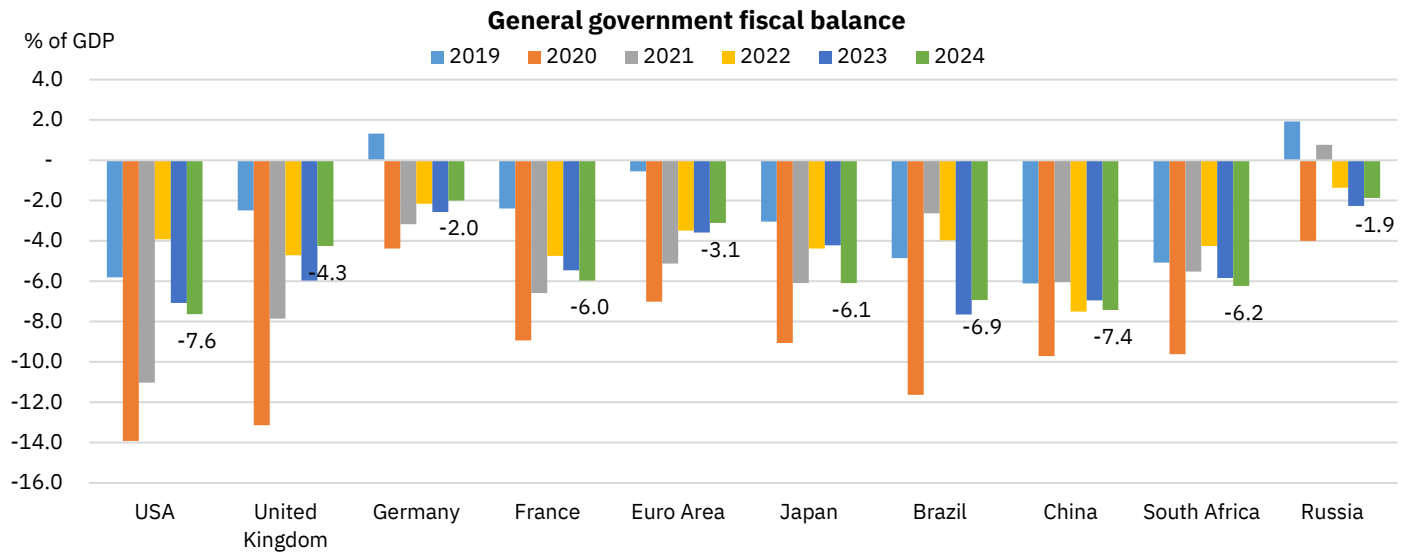
Figure 6: Policy rates across AE central banks


Source: LSEG Datastream, NSE EPR.

Figure 7: Policy rates across emerging markets central banks


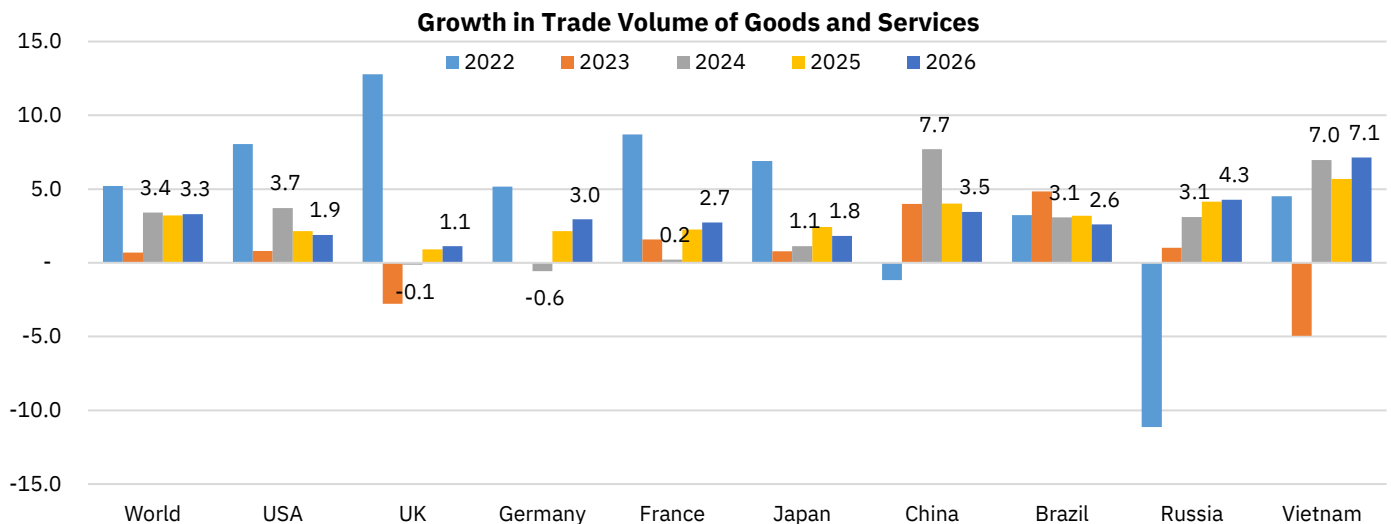
Source: LSEG Datastream, NSE EPR.

Governments curb deficits...but still have a long way to go: The global fiscal policy, in both advanced and EMDEs, has undergone a notable shift from unprecedented expansion during COVID-19 pandemic to a more measured trajectory of fiscal consolidation in 2024. Despite these consolidation efforts, the General Government's fiscal deficit to GDP ratio continues to remain elevated and has not reverted to pre-pandemic levels for major economies. The US has maintained robust expansionary support, reflected in a fiscal deficit-to-GDP ratio of 7.6%, more than double that of the Euro Area at 3.1%. This substantial fiscal stimulus has underpinned stronger economic growth in the US, while the Euro Area's comparatively restrained fiscal approach has resulted in more subdued growth outcomes. Sustained expansionary fiscal policy in the US, with an expectation of tax cuts in the new regime, could further boost near-term economic activity. That said, this could increase the demand for capital globally with a potential implication of higher interest rates.

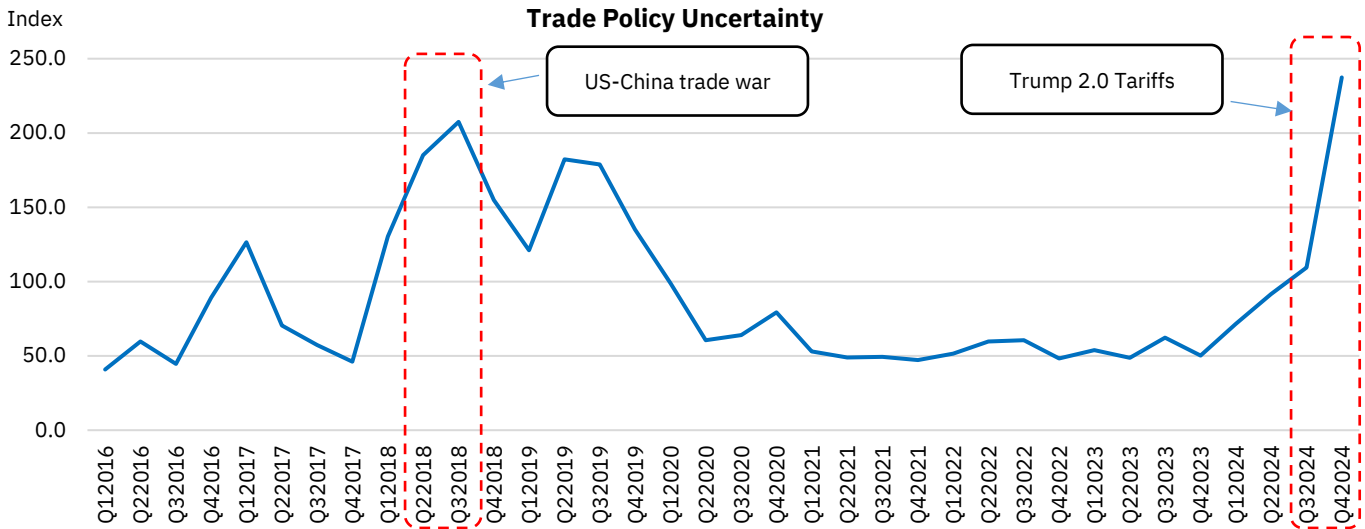
Figure 8: General government fiscal balance (% of GDP) for major economies


Source: IMF, NSE EPR. (+/- stands for surplus/deficit respectively)

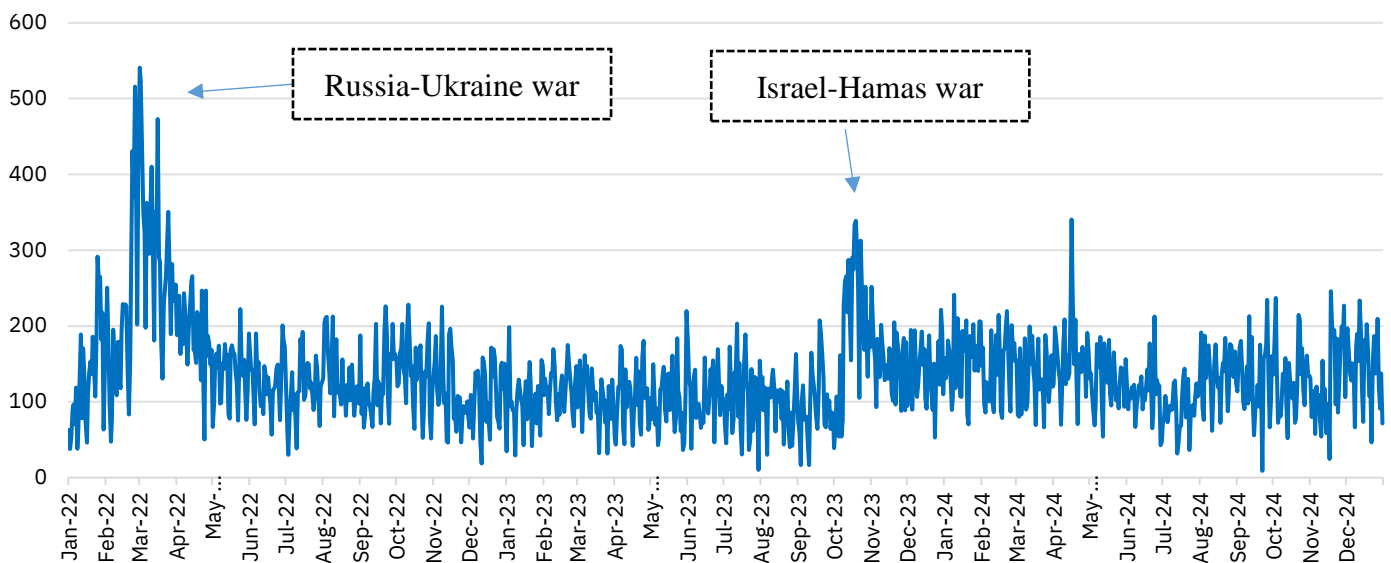
Global trade rebounds amid persistent challenges and uncertainty: World trade volume (goods and services) is projected to grow by 3.2% and 3.3% in 2025 and 2026, respectively, as per the IMF, in line with the growth of 3.4% registered in 2024 and reversing the lacklustre growth of 0.7% experienced in 2023. The heightened trade uncertainty, as evidenced in IMF's trade policy uncertainty index, escalation of retaliatory tariffs, lingering geopolitical tensions and its heightened risk of energy supply disruptions are likely to weigh on overall trade growth. World merchandise trade volume is projected to expand by 3% (based on WTO's estimate) in 2025, marginally higher than 2.7% in 2024. Trade volume growth of goods and services in 2024 has been primarily driven by China (+7.7%), Vietnam (+7%) and USA (+3.7%), while the trade growth in European countries have been subdued. China's trade volume growth in 2025 and 2026 is projected to significantly moderate to 4% and 3.5% respectively amidst expectation of heightened trade uncertainty and tariff wars with its major trading partner. The trade volume growth in advanced economies is expected to witness a modest uptick in the next two years while EMDEs are projected to see a deceleration in trade volume growth.

Figure 9: Trade volume growth of goods and services for major economies


Source: IMF World Economic Outlook, NSE EPR. Trade Volume growth is defined as the simple average of the growth rates for exports and imports

Figure 10: Trade policy Uncertainty Index


Source: IMF World Economic Outlook.

Figure 11: Daily Geopolitical Risk Index


Source: Caldara, Dario and Matteo Iacoviello (2022).

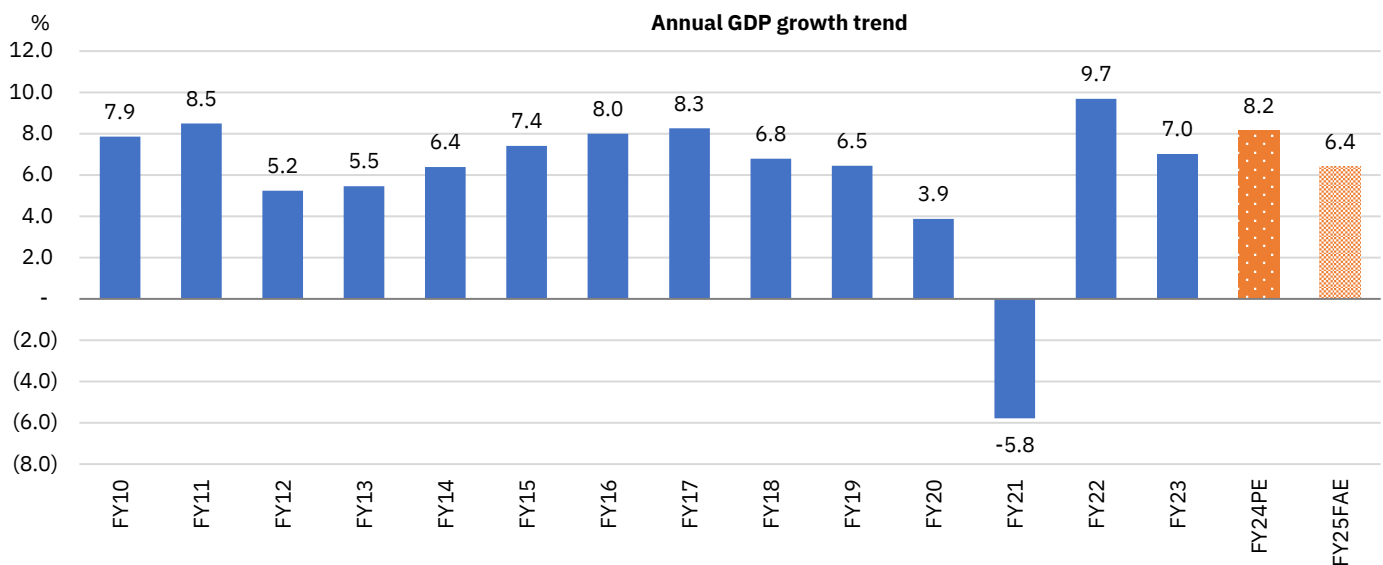
India macroeconomic update and outlook

Domestic Economy: Cautious optimism for the fastest growing major economy

India is set to remain the fastest-growing major economy, with a solid growth trajectory projected at 6.5% annually during FY25-FY27 (as per IMF's forecast). Despite a sharper-than-expected moderation in recent economic activity, the Indian economy remains resilient. The first advance estimates (FAE) of national income released by the CSO peg India's GDP growth at a four-year low of 6.4% in FY25, with an expected rebound in the second half of the fiscal likely to be driven by robust private consumption— particularly strengthened rural consumption amid bright agriculture prospects, deferred government expenditure, and resilient services exports. Notably, Private Final Consumption Expenditure (PFCE) is estimated to grow by 7.3% in FY25, marking a three-year high and

significantly higher than 4% in FY24. That said, the share of PFCE in GDP (constant prices) is projected at 56.3%, aligning closely with the pre-COVID level of 56.1% in FY19. Contrary to PFCE, the investment rate (calculated in constant prices) is expected to reach a 12-year high of 33.5% in FY25FAE, driven by sustained government capital expenditure and emerging signs of a private investment revival. Nominal GDP is estimated at Rs 324.1 lakh crore for FY25, marginally lower than the Rs 326 lakh crore projected in the Union Budget (July'24). Nominal growth is pegged at 9.7%, marking the second consecutive year of single-digit growth.

Figure 12: India's annual GDP growth trend



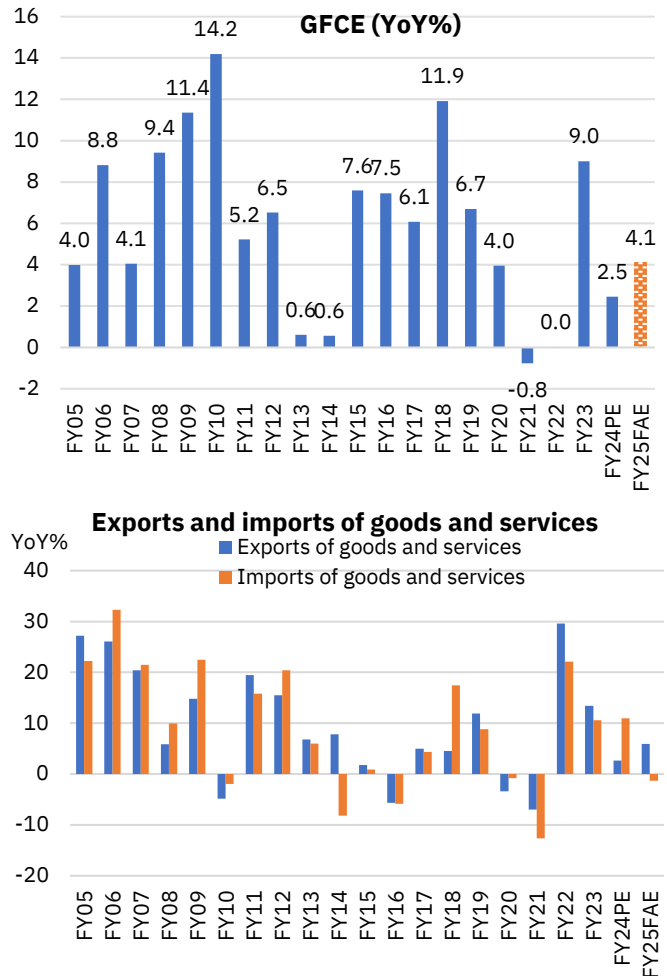
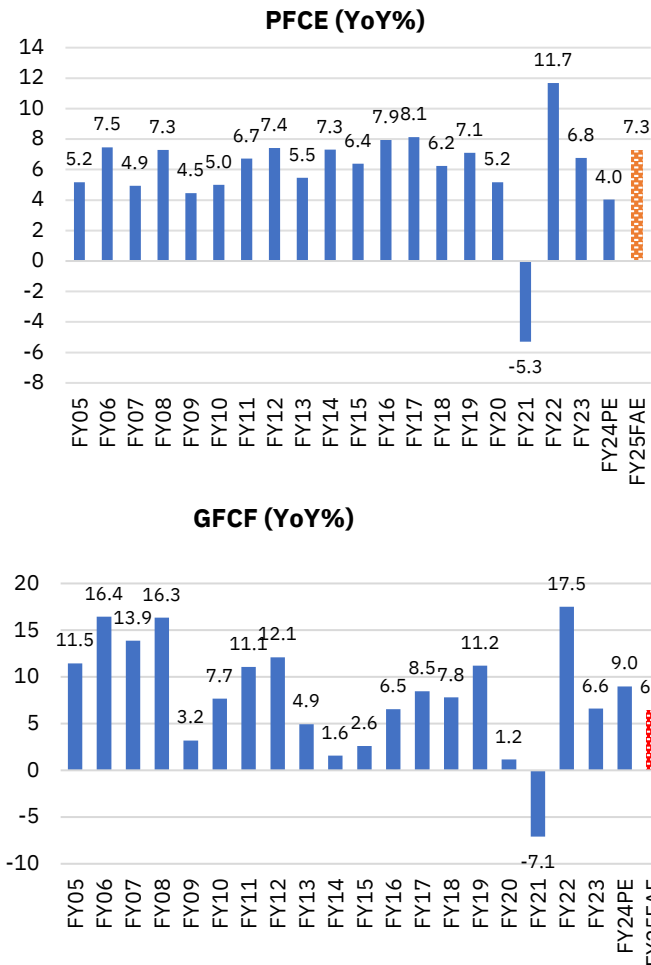
Source: CMIE Economic Outlook, CSO; PE: Provisional Estimates; FAE: First Advance Estimates.

Table 2: Annual real GDP and GVA growth trend (YoY%)

% YoY	FY20	FY21	FY22	FY23	FY24PE	FY25FAE	H1-FY25	Implied H2-FY25
Gross Domestic Product (GDP)	3.9	-5.8	9.7	7.0	8.2	6.4	6.0	6.7
Private Consumption	5.2	-5.3	11.7	6.8	4.0	7.3	6.7	7.8
Government Consumption	3.9	-0.8	0.0	9.0	2.5	4.1	2.0	6.1
Gross capital formation	-2.6	-7.4	21.1	5.5	9.4	6.1	6.5	5.8
Gross Fixed Capital Formation	1.1	-7.1	17.5	6.6	9.0	6.4	6.4	6.4
Exports of goods & services	-3.4	-7.0	29.6	13.4	2.6	5.9	5.6	6.2
Imports of goods & services	-0.8	-12.6	22.1	10.6	10.9	-1.3	0.7	-3.5
Gross Value Added (GVA)	3.9	-4.1	9.4	6.7	7.2	6.4	6.2	6.6
Agriculture	6.2	4.0	4.6	4.7	1.4	3.8	2.7	4.5
Industry	-1.4	-0.4	12.2	2.1	9.5	6.2	6.0	6.5
Mining and Quarrying	-3.0	-8.2	6.3	1.9	7.1	2.9	3.9	2.0
Manufacturing	-3.0	3.1	10.0	-2.2	9.9	5.3	4.5	6.1
Electricity	2.3	-4.2	10.3	9.4	7.5	6.8	6.8	6.9
Construction	1.6	-4.6	19.9	9.4	9.9	8.6	9.1	8.1
Services	6.4	-8.4	9.2	10.0	7.6	7.2	7.1	7.3
Trade, Hotels, Transport, Storage, Comm.	6.0	-19.9	15.2	12.0	6.4	5.8	5.9	5.8
Fin. Svcs, Real Estate & Business Svcs.	6.8	1.9	5.7	9.1	8.4	7.3	6.9	7.7
Public administration, defence and other services	6.6	-7.6	7.5	8.9	7.8	9.1	9.3	8.9

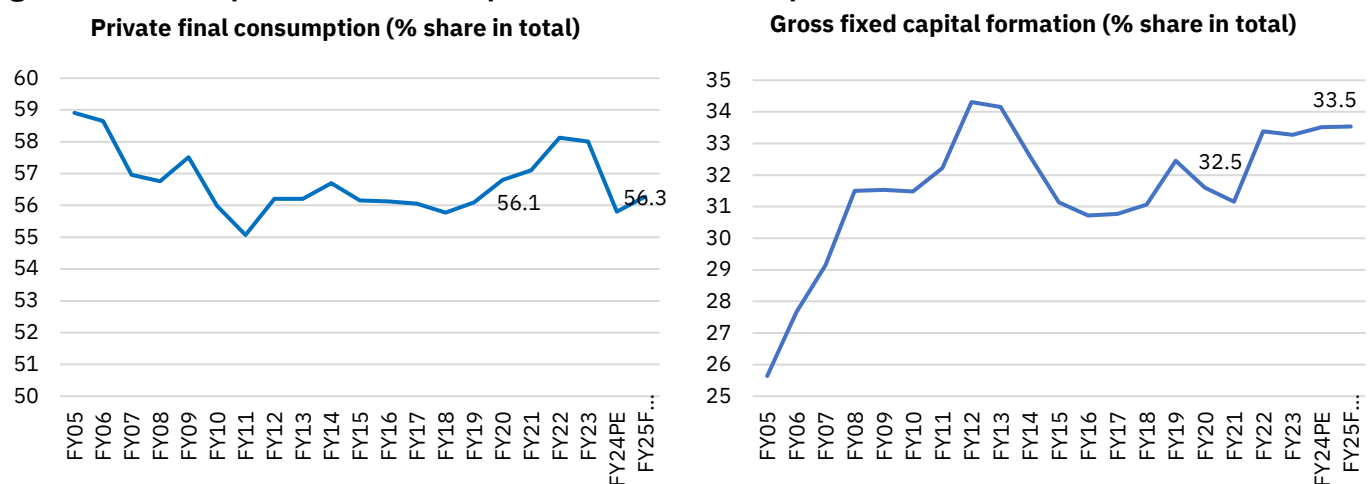
Source: CMIE Economic Outlook, CSO; PE: Provisional Estimates; FAE: First Advance Estimates

Figure 13: Real growth in GDP components

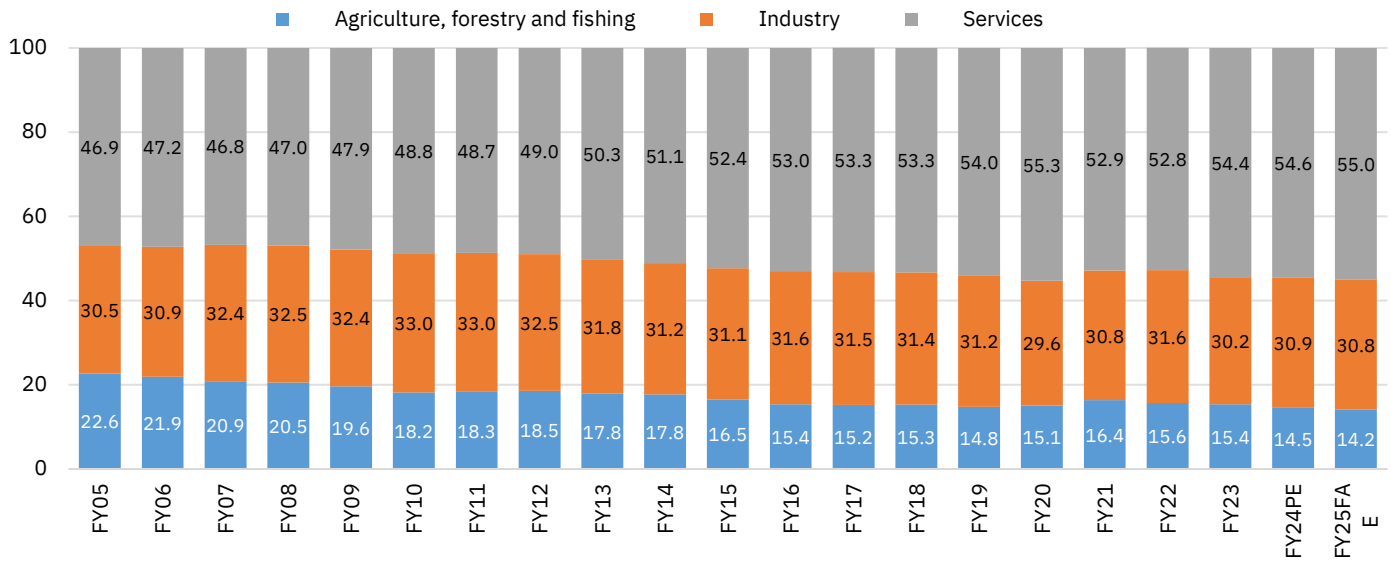


Source: CMIE Economic Outlook, CSO, NSE EPR. PE: Provisional Estimates; FAE: First Advance Estimates.

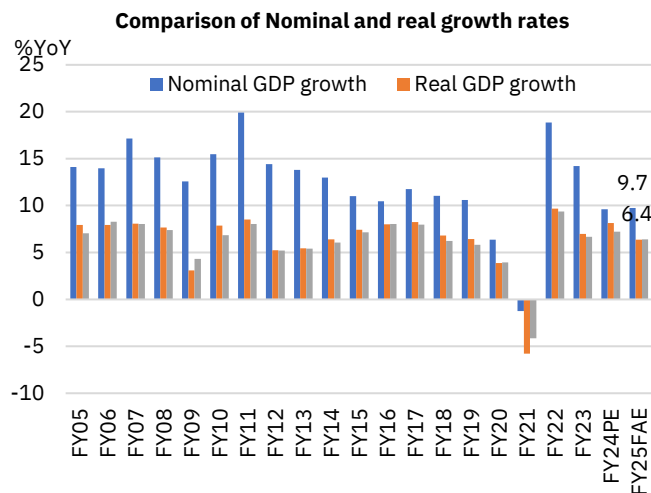
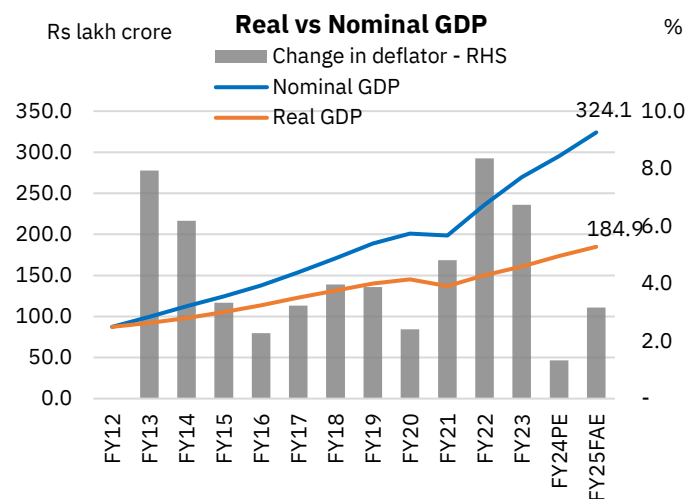
Figure 14: Share of private final consumption and investment expenditure in GDP



Source: CMIE Economic Outlook, CSO; PE: Provisional Estimates; FAE: First Advance Estimates

Figure 15: Share of agriculture, industry and services in GVA


Source: CMIE Economic Outlook, CSO, NSE EPR. Note: FY24 numbers are provisional and FY25 numbers are first advance estimates.

Figure 16: Nominal and real GDP growth

Figure 17: Nominal and real GDP


Source: CMIE Economic Outlook, CSO; FY24 numbers are provisional and FY25 numbers are first advance estimates

While the RBI has trimmed its GDP growth forecast for FY25 by 60 bps to 6.6%, it remains cautiously optimistic, projecting real GDP growth at 6.7% for FY26 (RBI's December bulletin). Global institutions like the World Bank, OECD, and the United Nations share this optimism, projecting India's growth to range between 6.5% and 6.9% in FY26.

Table 3: GDP growth and inflation forecast in FY26 for India by major domestic and global institutions

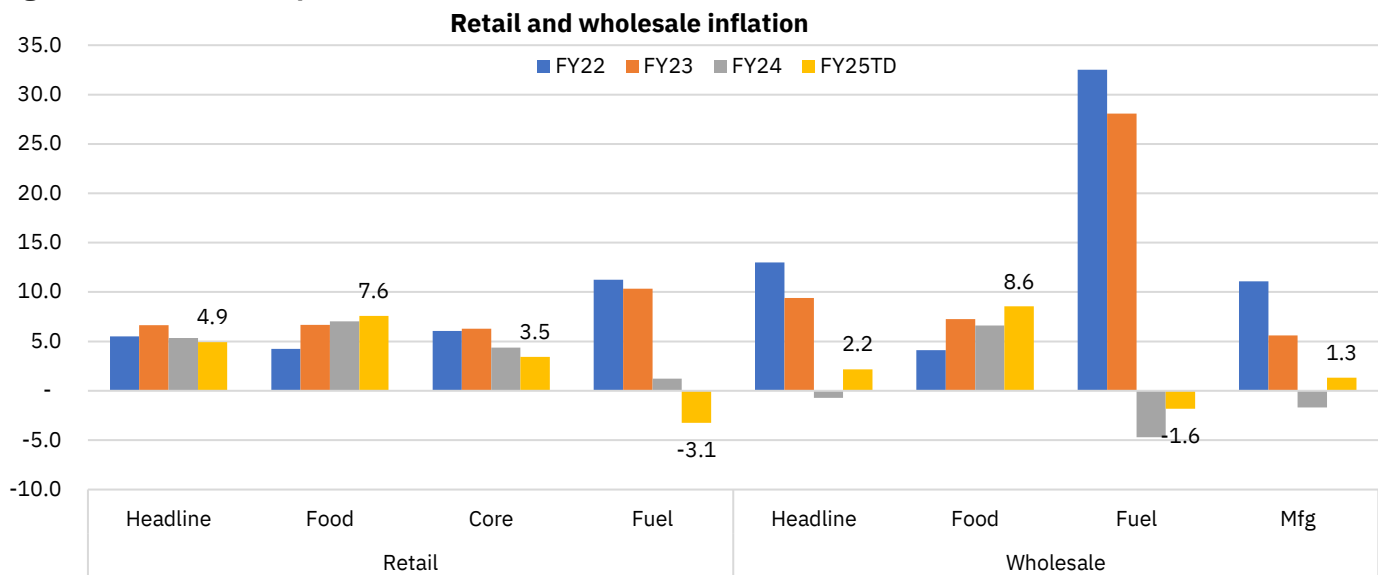
Institution	GDP Growth (%)	CPI inflation (%)
RBI*	6.7	3.8
IMF	6.5	4.1
World Bank	6.7	4.1
OECD	6.9	4.2
United Nations	6.6	4.3
Asian Development Bank+	7.0	4.3
Fitch Ratings	6.5	4.4
HSBC	6.5	-

Source: IMF, World Bank, OECD, United Nations, RBI, HSBC, Moody's Analytics; *Sourced from RBI's Monthly Bulletin (December 2024); +Pertains to December 2025

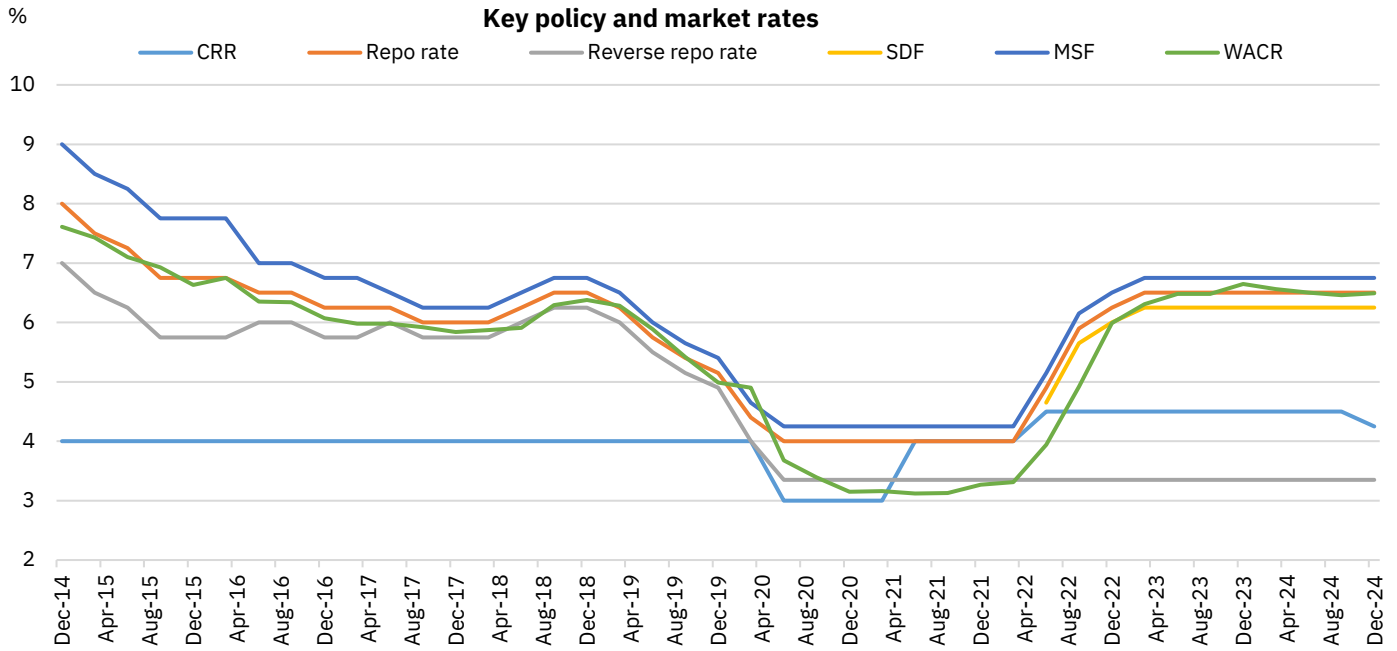
Retail inflation moderating; room for rate cut to open in 2025: CPI inflation during the current and the previous fiscal year has remained elevated, albeit within RBI’s flexible inflation target, with the headline inflation exceeding 6% in 17 months between FY22 and FY25TD (April-December 2024). Only two months during this period recorded inflation below 4%. Persistent food inflationary pressures (average: 7.1% during FY23-FY25TD) have been the key factor driving the headline retail inflation higher, while core inflation has remained benign alongside deflationary trends in fuel components. Conversely, wholesale inflation has been more volatile, with double-digit inflation in FY22 and deflation in FY24. In FY25TD, WPI remained subdued at 2.2%, aided by deflation in fuel component and tepid manufacturing inflation.

The elevated headline retail inflation amid sticky food prices has impeded the RBI from adopting a relatively dovish monetary policy since February 2023. The recent improvement in headline retail inflation with an expected downward trajectory ahead, coupled with tightening of banking system liquidity, is likely to result in implementation of more liquidity easing measures such as CRR cut, OMO (Open Market Operations) purchases and sell-buy swaps in the near term, followed by cut in the policy rate. In FY25TD, the RBI has not only shifted from a “withdrawal of accommodation” to a “neutral” stance but also reduced the Cash Reserve Ratio (CRR) by 50bps to 4%, ensuring liquidity support to the banking system. While deposit rate transmission is complete, lending rate transmission remains incomplete.

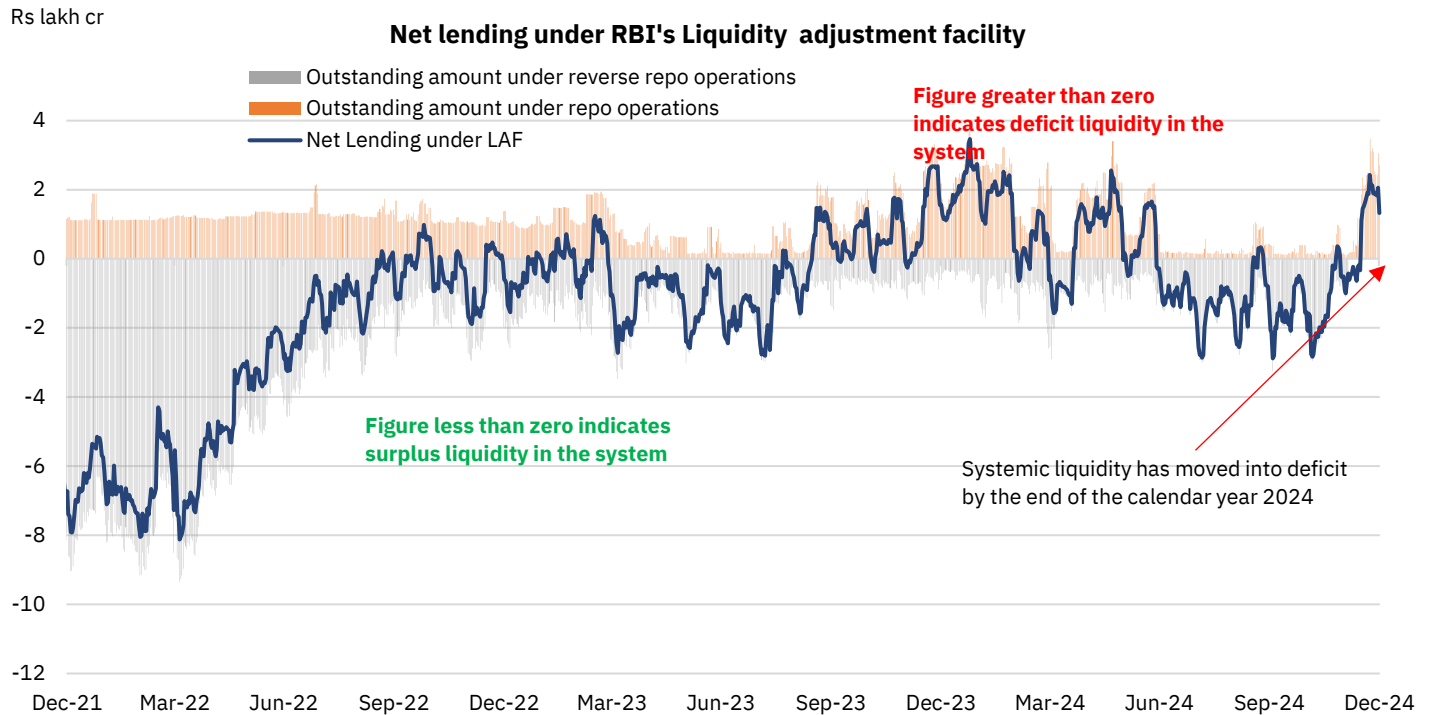
Figure 18: Trend of component-wise retail and wholesale inflation



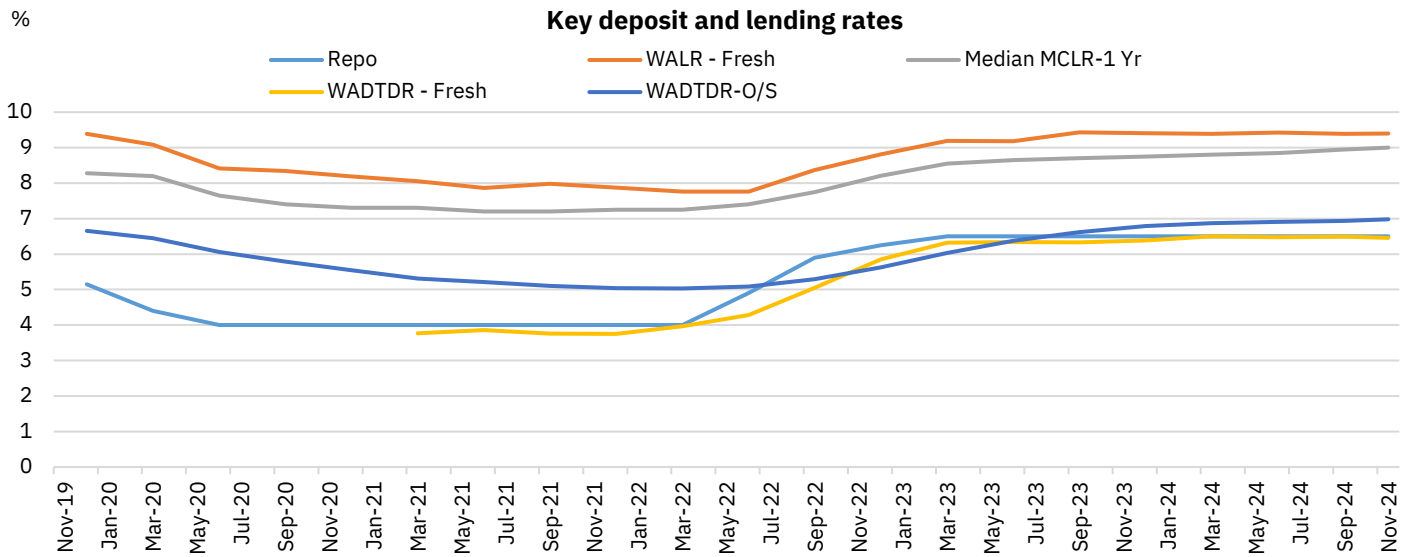
Source: CMIE Economic Outlook, NSE EPR. FY25TD is average inflation during the period April-December 2024.

Figure 19: Trend in key policy and short-term rates


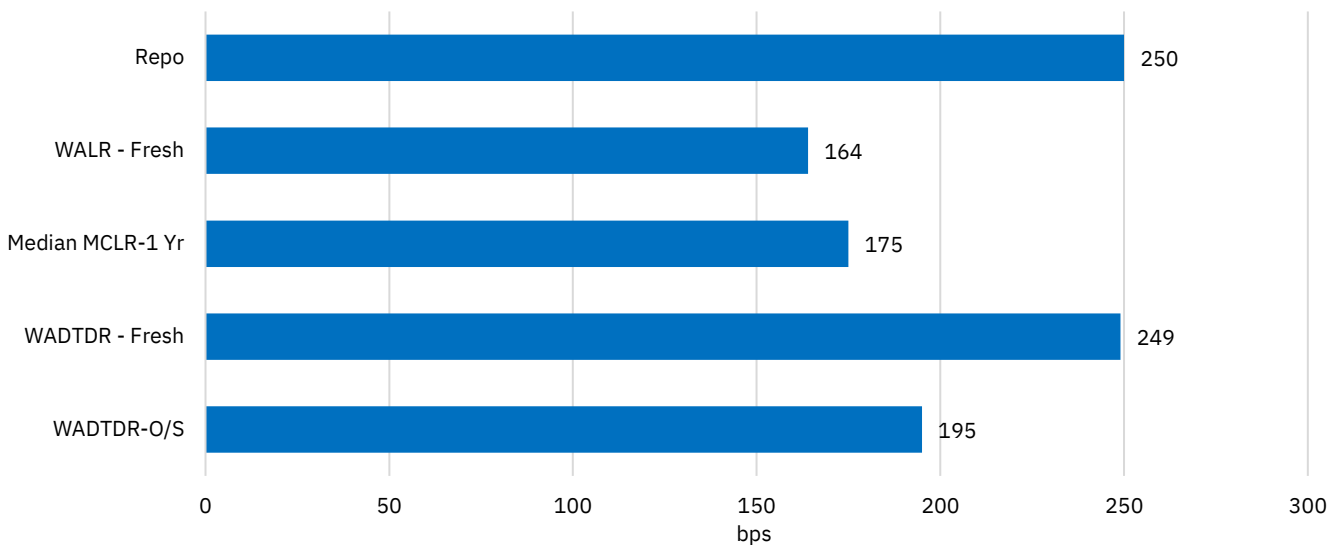
Source: CMIE Economic Outlook, NSE EPR.

Figure 20: Banking system liquidity


Source: CMIE Economic Outlook, NSE EPR.

Figure 21: Average deposit and lending rates for all scheduled commercial banks


Source: CMIE Economic Outlook, NSE EPR.

Figure 22: Change in deposit and lending rates vs. policy repo rate since March 2022
Change in deposit and lending rates vs. policy rate since March 2022


Source: CMIE Economic Outlook, NSE EPR.

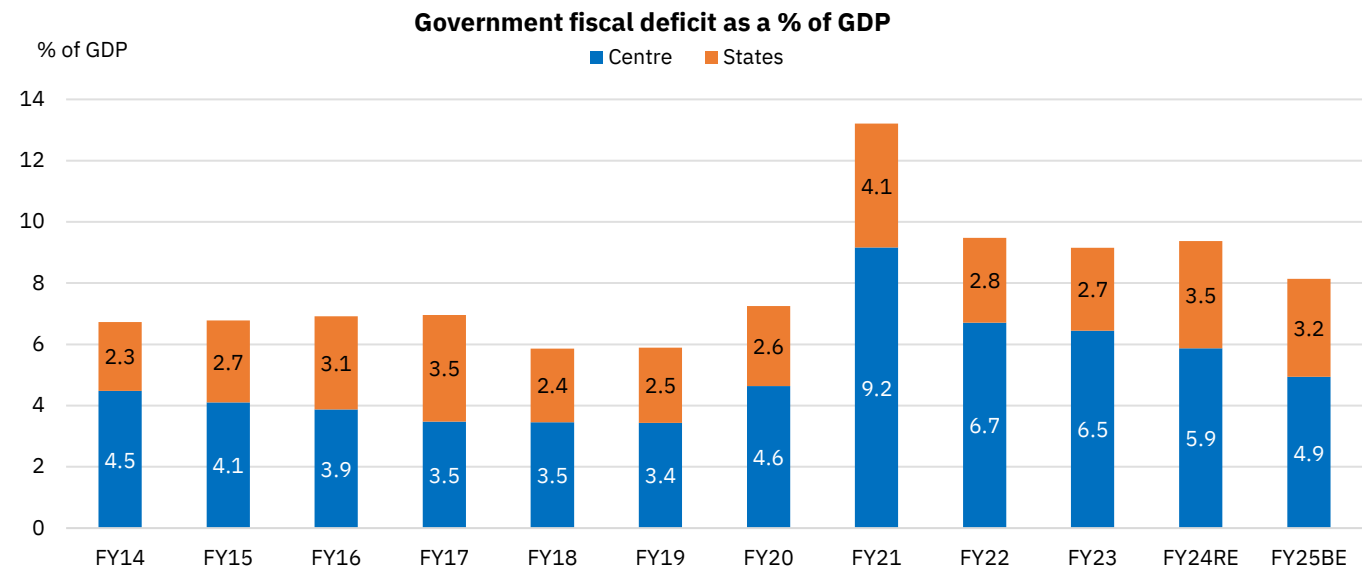
Government on track to achieve the fiscal deficit target; debt to GDP remains elevated: The Union government's fiscal consolidation efforts are underway, with the fiscal deficit to GDP ratio budgeted at 4.9% in FY25. However, it remains notably above the pre-pandemic level of 3.4% in FY19. After peaking at 9.2% in FY21 due to weakening revenues, higher expenditure to ameliorate pandemic-related challenges and a contraction in nominal GDP, consistent efforts have been made to steer the deficit towards the target of 4.5% by FY26.

The quality of government expenditure has improved, with capital expenditure now accounting for 23.1% of the total budget (vs. 13.2% during FY15-FY19). However, in an election-focused fiscal year FY25, capex spending has slowed, with actual spending so far at 46.2% of FY25BE. On the revenue front, both direct taxes (FY23-FY25 average growth: 16.3%) and GST collections (average growth: 15.1%) have shown marked

improvements, driven by greater formalization, easier compliance processes, and robust economic activity.

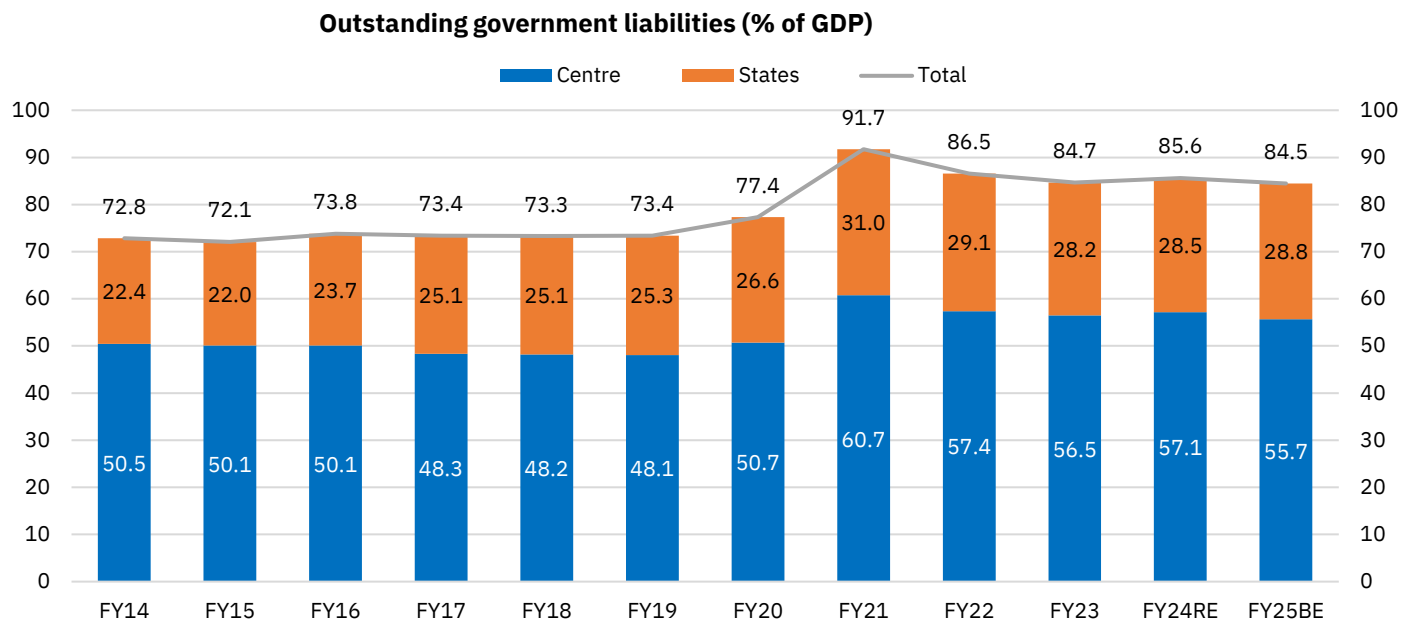
At the general government level (Centre and States combined), the fiscal deficit is budgeted at 8.1% of GDP for FY25, a significant decline from 13.2% in FY21 but still above the pre-pandemic average of 6.5% during FY14–FY19. Consequently, general government outstanding liabilities, which hovered around 73–74% of GDP during FY14–FY19, surged to 91.7% in FY21. While it has gradually declined, it remains elevated at 84.5% in FY25BE, comprising 55.7% at the Centre and 28.8% at the State level.

Figure 23: Trend of General Government’s fiscal deficit as a % of GDP



Source: CMIE Economic Outlook, NSE EPR.

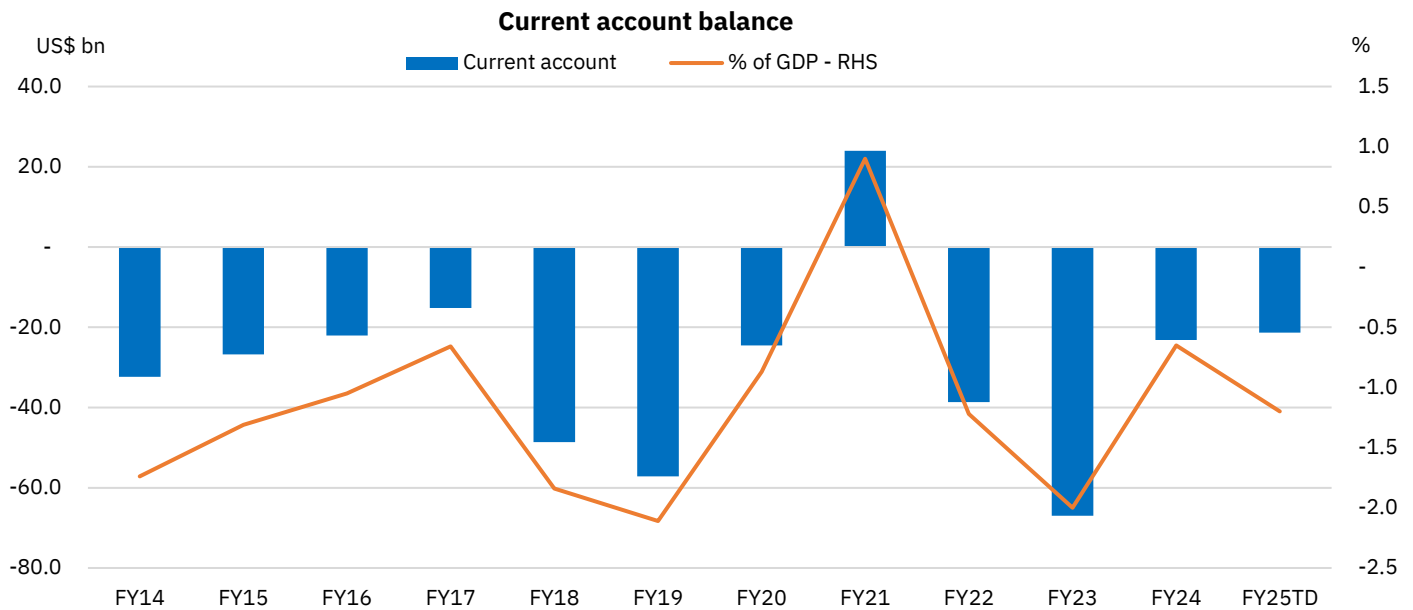
Figure 24: Trend of General Government’s outstanding liabilities as a % of GDP



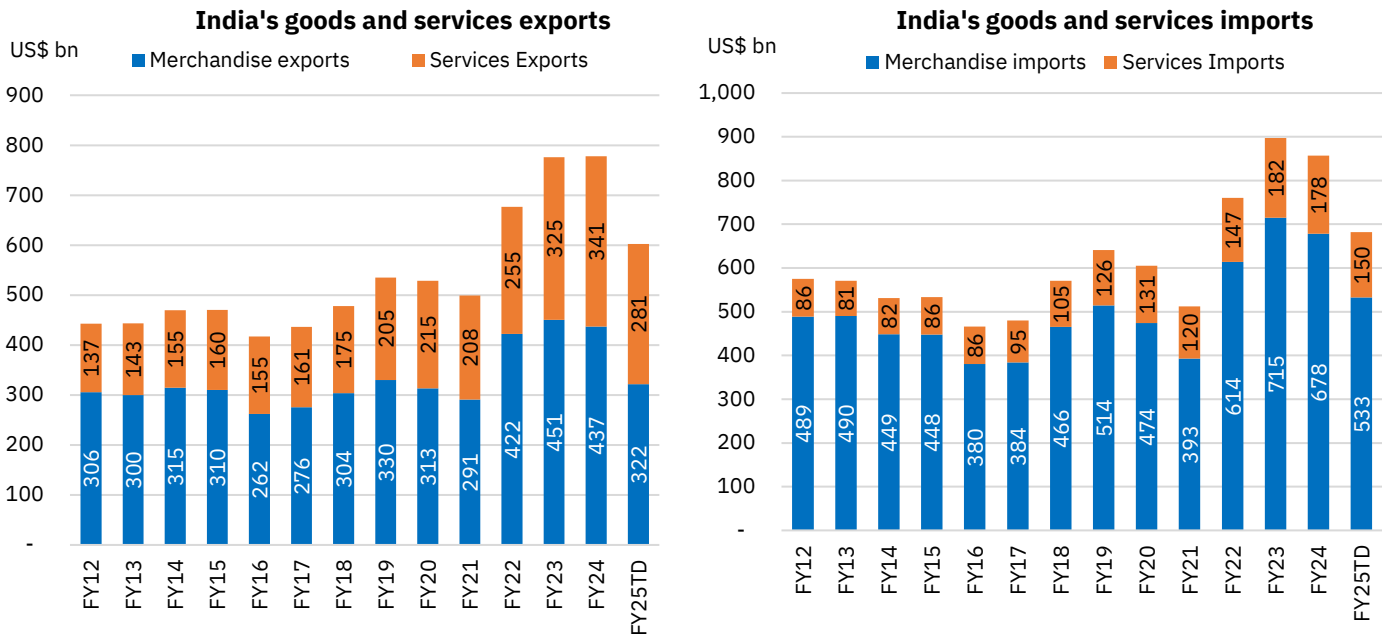
Source: CMIE Economic Outlook, NSE EPR.

External sector manageable but outlook clouded by global uncertainty: India's external sector has remained broadly stable, with the CAD to GDP ratio exceeding 2% only once since FY14. During the pandemic, the current account briefly turned into a surplus of US\$24.1 bn (0.9% of GDP) in FY21, but it has since reverted to a deficit, standing at US\$21.4 bn (1.2% of GDP) in H1FY25. On the trade front, India's total exports (merchandise goods + services) of US\$ 603 bn in the first nine months of FY25 have exceeded the full-year exports of nearly US\$500 bn in FY21. The share of services exports has also meaningfully improved from an average of 36.6% during FY15-FY19 to 46.6% in FY25TD (April-December). Despite significant external headwinds—including geopolitical tensions, asynchronous monetary policy actions, elevated commodity prices, and tightening global financial conditions—India has successfully rebuilt its foreign exchange reserves since October 2022. The foreign exchange reserves had crossed the US\$ 700 bn mark in September 2024. RBI has strategically utilized the reserves to mitigate extreme volatility, as evidenced in Q3FY25, when the rupee depreciated by ~2% and foreign exchange reserves fell by nearly US\$65 bn. Nevertheless, with reserves still robust enough to cover nearly 11 months of imports, India's external sector remains resilient. However, lingering uncertainties, such as persistent global monetary policy divergence and geopolitical risks, continue to cloud the outlook.

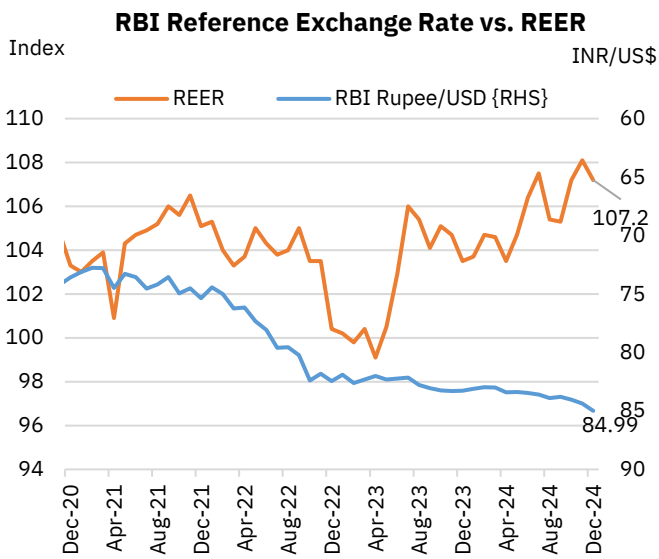
Figure 25: Trend of Current Account Balance



Source: CMIE Economic Outlook, NSE EPR. FY25TD is the period April-September 2024

Figure 26: Trend of India's merchandise and services exports and imports


Source: CMIE Economic Outlook, NSE EPR. FY25TD pertains to April-December 2024.

Figure 27: Nominal Exchange Rate and Real Effective Exchange Rate


Source: CMIE Economic Outlook, NSE EPR.

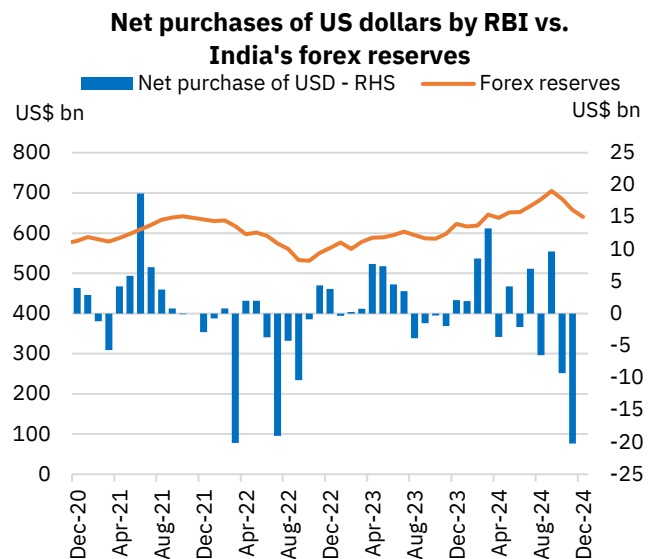
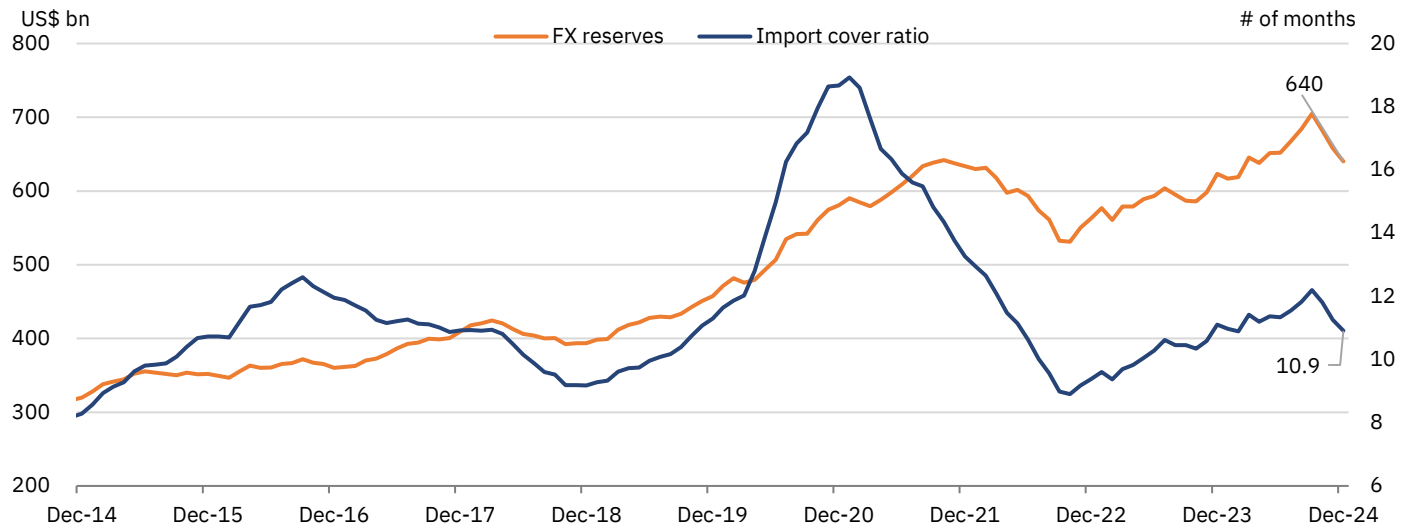
Figure 28: Net purchase of US dollars by the RBI and forex reserves


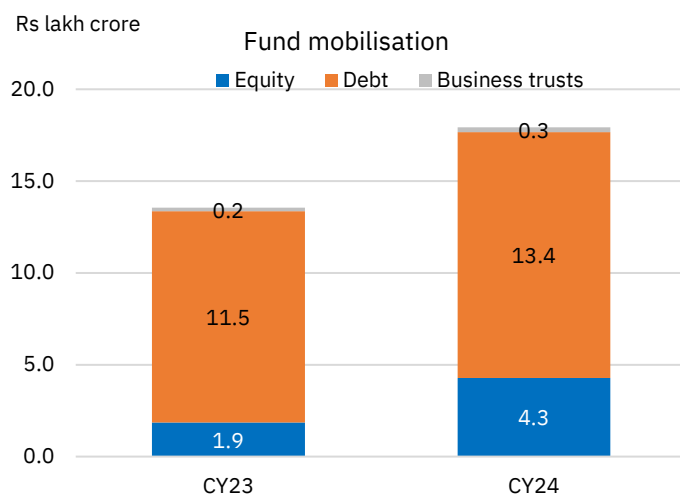
Figure 29: Forex reserves and import cover


Source: CMIE Economic Outlook, NSE EPR; Data for FX reserves is as of December 27th, 2024

Primary market performance

Fund mobilization at NSE hit a record high in 2024.... In 2024, fund mobilization in India reached a record Rs 17.9 lakh crore across equity and debt markets. This is more than double the amount disbursed by the banking sector to Industry and Services during the last 12 months, calculated as the difference between the outstanding credit as of Nov'24 and Nov'23 (Sectoral deployment of bank credit available until Nov'24). While fund mobilization through debt markets stood at Rs 13.4 lakh crore, up 16% YoY, that through equities surged by a robust 131% to Rs 4.3 lakh crore, and the balance Rs 25,396 crore was raised by business trusts. This included Rs 1.67 lakh crore from IPOs and Rs 2.6 lakh crore from follow-on issuances, including OFS in the secondary market. Equity markets saw 268 new IPOs in 2024, with 90 on the Main Board and 178 on SME Emerge, raising Rs 1.67 lakh crore, 57% of which was through offer-for-sale and the remainder via fresh issuance. By Dec'24, the exchange had 2673 listed companies, including 587 SMEs.

Please refer to '[Primary markets](#)' section on page 193 for more details on fund mobilization across assets.

Figure 30: Fund mobilisation at NSE across equity, debt and business trusts


Source: NSE EPR.

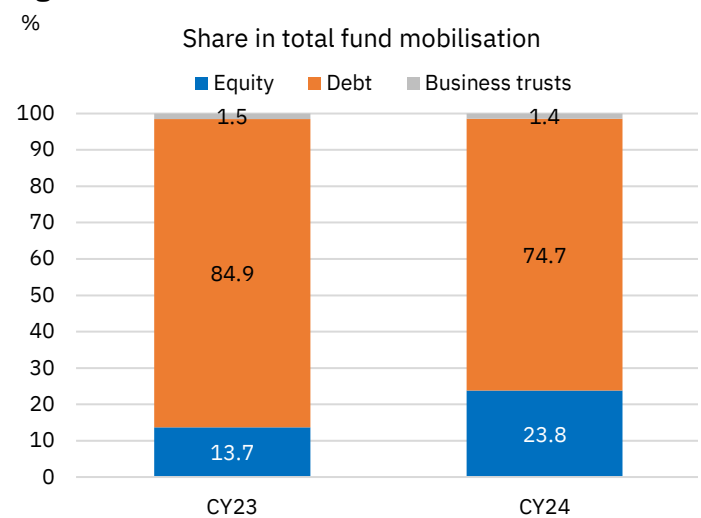
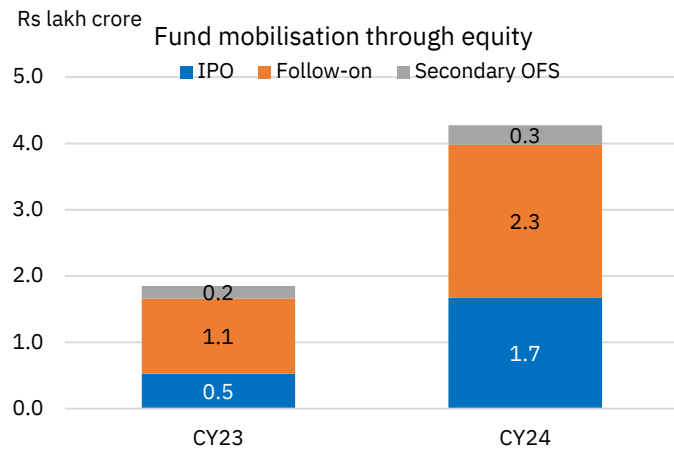
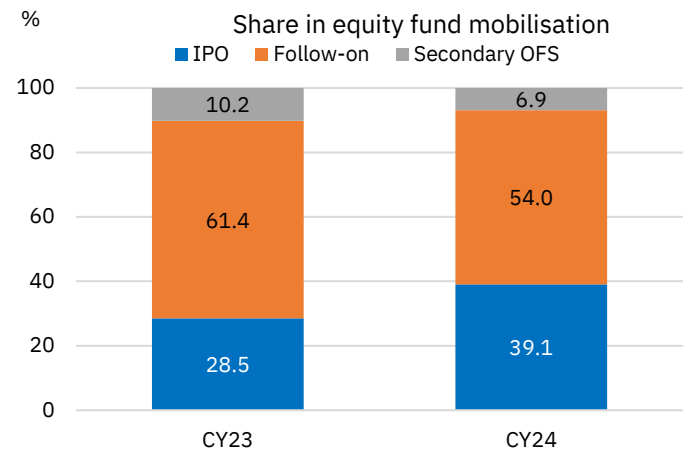
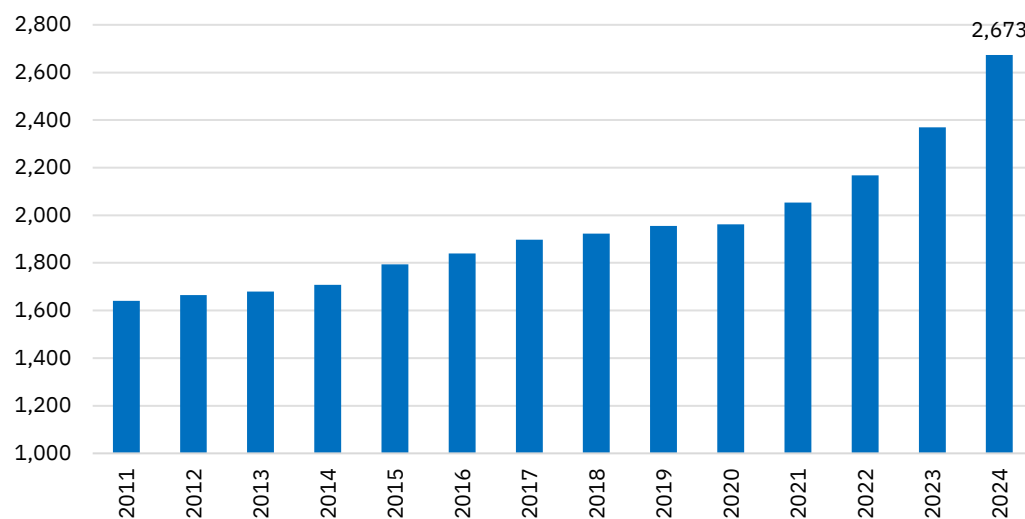
Figure 31: Share in total fund mobilisation at NSE


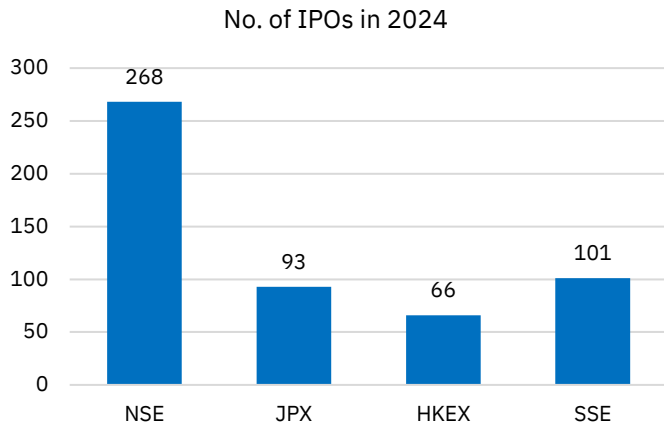
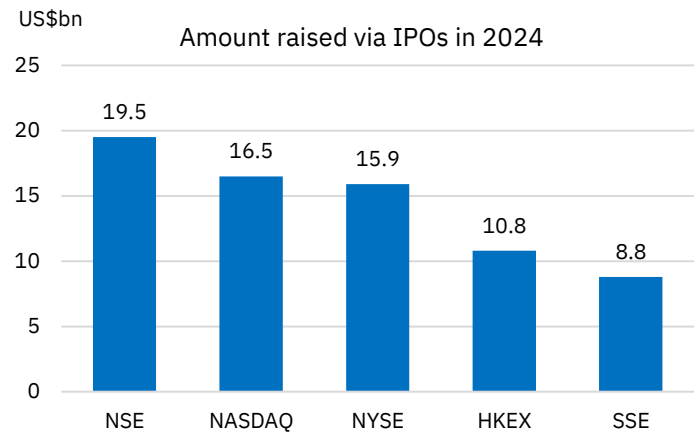
Figure 32: Fund mobilisation in equity


Source: NSE EPR.

Figure 33: Share in equity fund mobilisation

Figure 34: Number of companies listed on NSE (Mainboard and Emerge)


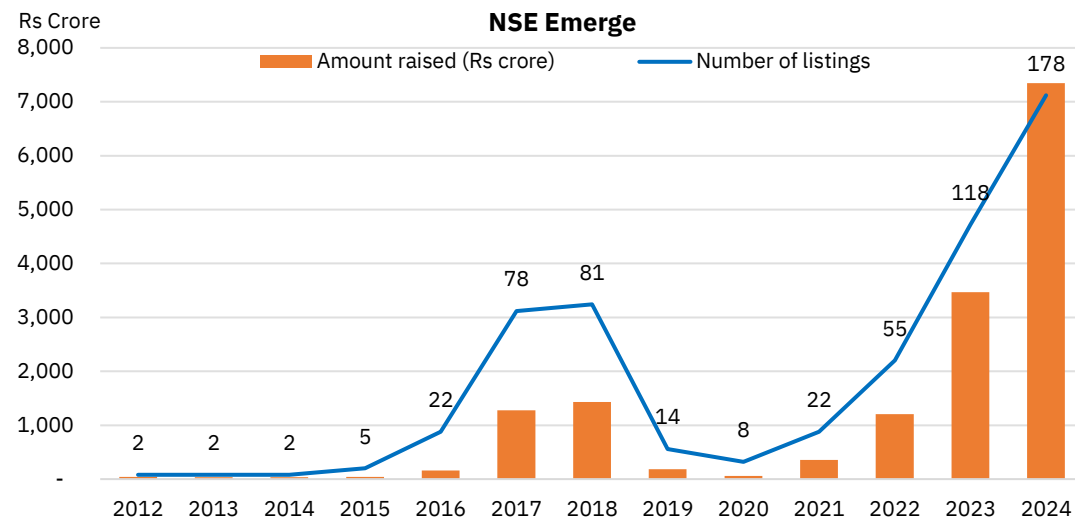
Source: NSE EPR.

India led in global IPO activity: With 268 IPOs in 2024, India led in IPO activity globally, capturing a 23% share of total listings (1,145). This surpassed the combined listings across top Asian exchanges, including Japan, Hong Kong and Shanghai. In terms of amount raised through IPOs, NSE saw these companies raising a total of US\$19.5bn—the highest across global exchanges and more than 18% higher than the amount issued at NASDAQ which stood second in the list. In 2024, India not only saw the largest ever IPO of Rs 27,500 crore of Hyundai Motor India Ltd., but the second largest IPO in the world during the year. With over 125,000 startups and 130 unicorns, India’s ecosystem presents significant opportunities for future listings.

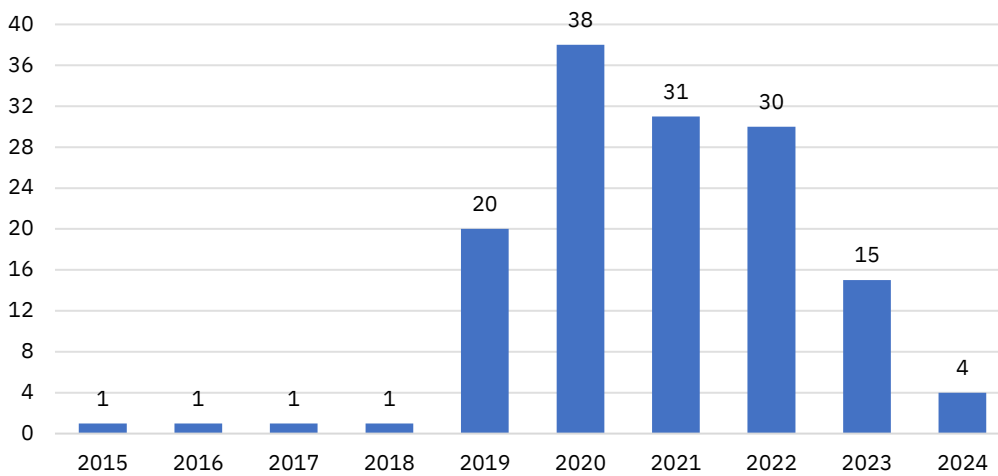
Figure 35: Number of IPOs across major exchanges in Asia in 2024

Figure 36: Amount raised via IPOs across major exchanges in 2024


Source: NSE, Media Reports.

SME listings surged to record high in 2024: In 2024, NSE's SME platform, SME Emerge, recorded its highest-ever annual listings with 178 SMEs, raising Rs 7,348 crore through IPOs, averaging Rs 41 crore per offering. This is compared with 118 SMEs, raising Rs 3,469 crore in the previous year. Since its inception in September 2012 until December 31st, 2024, SME Emerge has facilitated the listing of 587 SMEs, enabling total fund mobilization of Rs 15,638 crore. As of December 31st, 2024, this segment has a market capitalization of Rs 2.2 lakh crore (US\$ 26.0 bn). Of these, 142 companies have successfully migrated to the Main Board, reflecting the platform's role in fostering SME growth and integration into larger capital markets.

Figure 37: Fund mobilisation through NSE Emerge since inception


Source: NSE EPR.

Figure 38: Migration from NSE Emerge to Mainboard (No. of companies)


Source: NSE EPR.

Secondary market performance

Mixed regional performance marks a strong 2024 for global equity markets: Despite heightened geopolitical tensions and elevated yields, 2024 proved resilient for global equity markets, ending in the green for the second consecutive year, led by a strong performance in the US. The world's largest economy showcased robust economic resilience, with the IMF revising its growth estimate upward to 2.8% for 2024, surpassing initial expectations of 1.7%. Investor optimism surrounding the transformative potential of artificial intelligence (AI) served as a major catalyst for market performance. The S&P 500, buoyed by AI-driven enthusiasm, posted a gain of 23.3%, building on its impressive 24.2% return in 2023. A significant portion of these gains came from the so-called 'Magnificent Seven' tech giants, which continued to dominate, delivering returns ranging from 12.1% to 171.2%. These companies capitalized on advancements in AI, cloud computing, and digital infrastructure, reinforcing their leadership in the global tech space.

European equities, on the other hand, delivered modest single-digit gains in 2024, with the Eurostoxx Index rising by 8.3%. This subdued performance was largely constrained by economic slowdowns in key economies and heightened political uncertainty, particularly in France and Germany. France faced challenges related to labor strikes and stalled reforms, while Germany, Europe's largest economy, struggled with weak industrial output and a slower-than-expected green energy transition.

UK equities ended in green but lagged the US, with the FTSE 100 Index delivering a gain of 5.7% in 2024. Early optimism post-election and a cyclical recovery from 2023 lows aided investor sentiments, partly offset by higher-than-expected tax hikes in the autumn budget and the consequent impact on business sentiments. The surveys released in the later part of 2024 also indicated weaker hiring and rising price pressures, causing the Bank of England to ease the benchmark bank rate by a total of 50bps in the second half.

Within Asia, Japan stood as the second-best performing market globally, with the Nikkei 225 Index reaching its highest level in 35 years, ending the year with a 19.2% gain. This strong performance was driven by a weaker yen, corporate governance reforms, and the end of deflation, marked by the Bank of Japan's decision to conclude its eight-year-long zero interest rate policy in March 2024. Meanwhile, Chinese equities staged a robust

Please refer to **'Market Performance'** section on page 137 for more details on performance across markets and asset classes.

recovery in H2 2024, fueled by stimulus measures, pushing the SSE Composite Index to an impressive 12.7% gain last year. In contrast, other EMs faced challenges from a strengthening dollar and trade concerns following Donald Trump's victory. Nonetheless, the MSCI EM Index posted a gain of 5.1%, supported by China's strong rebound.

Table 4: Performance of major global equity markets

Markets	Index	Dec-24	1Y	3Y CAGR	5Y CAGR	10Y CAGR	15Y CAGR	20Y CAGR
India	Nifty 50	23,645	8.8	10.9	14.2	11.1	10.6	12.9
	Nifty Midcap 50	15,974	21.5	23.8	27.7	16.9	12.7	
	Nifty Smallcap 150	18,769	23.9	18.5	26.3	13.5	11.9	14.1
	Nifty 500	22,375	15.2	14.3	17.8	12.7	11.6	13.4
Developed Markets	MSCI World	3,708	17.0	4.7	9.5	8.0	8.0	5.9
	S&P 500	5,882	23.3	7.3	12.7	11.1	11.7	8.2
	Euro Stoxx 50	4,896	8.3	4.4	5.5	4.5	3.4	2.6
	FTSE 100	8,173	5.7	3.4	1.6	2.2	2.8	2.7
	Nikkei 225	39,895	19.2	11.5	11.0	8.6	9.3	6.4
Emerging Markets	MSCI EM	1,075	5.1	-4.4	-0.7	1.2	0.6	3.5
	Shanghai SE Composite	3,352	12.7	-2.7	1.9	0.4	0.2	5.0
	Taiwan SE	23,035	28.5	8.1	13.9	9.5	7.1	6.8
	KOSPI	2,399	-9.6	-6.9	1.8	2.3	2.4	5.0
	Brazil Bovespa	1,20,283	-10.4	4.7	0.8	9.2	3.8	7.9
	IDX Composite	7,080	-2.7	2.5	2.4	3.1	7.1	10.3

Source: LSEG Workspace, NSE EPR.

Table 5: Total annual return across major global equity markets
Total annual return across major global indices (Ranked by % change each year)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SSE Comp 52.9	MOEX 32.3	Bovespa 38.9	MSCI EM \$ 37.8	MOEX 18.5	Nasdaq 100 39.5	Nasdaq 100 48.9	Nifty 500 31.6	Nifty 50 5.7	Nasdaq 100 55.1	Nasdaq 100 25.9
Nifty 500 39.3	Nikkei 225 11.0	MOEX 32.8	Nifty 500 37.7	Bovespa 15.0	MOEX 39.1	Russell 1000 21.0	S&P500 28.7	FTSE100 4.7	MOEX 53.8	S&P500 25.0
Nifty 50 32.9	Nasdaq 100 9.8	FTSE100 19.1	Nasdaq 100 33.0	Nifty 50 4.6	Bovespa 31.6	MSCI EM \$ 18.7	Nasdaq 100 27.5	Bovespa 4.7	Nikkei 225 31.0	Russell 1000 24.5
Nasdaq 100 19.4	SSE Comp 9.4	DJIA 16.5	Nifty 50 30.3	Nasdaq 100 0.0	S&P500 31.5	S&P500 18.4	Russell 1000 26.5	Nifty 500 4.3	Nifty 500 26.9	Nikkei 225 21.3
S&P500 13.7	EuroStoxx50 7.3	Russell 1000 12.1	DJIA 28.1	Nifty 500 -2.1	Russell 1000 31.4	Nikkei 225 18.3	Nifty 50 25.6	DJIA -6.9	Russell 1000 26.5	MSCI World 19.2
Russell 1000 13.2	S&P500 1.4	S&P500 12.0	Bovespa 26.9	DJIA -3.5	EuroStoxx50 29.3	Nifty 500 17.9	EuroStoxx50 24.1	Nikkei 225 -7.3	S&P500 26.3	Nifty 500 16.2
DJIA 10.0	Russell 1000 0.9	MSCI EM \$ 11.6	MSCI World 23.1	S&P500 -4.4	MSCI World 28.4	MSCI World 16.5	MSCI World 22.4	EuroStoxx50 -8.8	MSCI World 24.4	DJIA 15.0
Nikkei 225 9.0	Nifty 500 0.2	MSCI World 8.2	S&P500 21.8	Russell 1000 -4.8	DJIA 25.3	Nifty 50 16.1	MOEX 21.8	SSE Comp -15.1	EuroStoxx50 23.2	SSE Comp 12.7
MSCI World 5.5	DJIA 0.2	Nasdaq 100 7.3	Russell 1000 21.7	MSCI World -8.2	SSE Comp 22.3	MOEX 14.8	DJIA 21.0	MSCI World -17.7	Bovespa 22.3	EuroStoxx50 11.9
EuroStoxx50 4.9	MSCI World -0.3	Nifty 500 5.1	Nikkei 225 21.3	FTSE100 -8.7	Nikkei 225 20.7	SSE Comp 13.9	FTSE100 18.4	S&P500 -18.1	Nifty 50 21.3	Nifty 50 10.1
FTSE100 0.7	FTSE100 -1.3	EuroStoxx50 4.7	FTSE100 12.0	Nikkei 225 -10.3	MSCI EM \$ 18.9	DJIA 9.7	Nikkei 225 6.7	Russell 1000 -19.1	DJIA 16.2	FTSE100 9.7
MSCI EM \$ -1.8	Nifty 50 -3.0	Nifty 50 4.4	EuroStoxx50 10.1	EuroStoxx50 -11.3	FTSE100 17.3	Bovespa 2.9	SSE Comp 4.8	MSCI EM \$ -19.7	MSCI EM \$ 10.3	MSCI EM \$ 8.1
MOEX -1.8	Bovespa -13.3	Nikkei 225 2.4	SSE Comp 6.6	MSCI EM \$ -14.2	Nifty 50 13.5	EuroStoxx50 -2.6	MSCI EM \$ -2.2	Nasdaq 100 -32.4	FTSE100 7.9	MOEX 6.2
Bovespa -2.9	MSCI EM \$ -14.6	SSE Comp -12.3	MOEX -0.2	SSE Comp -24.6	Nifty 500 9.0	FTSE100 -11.6	Bovespa -11.9	MOEX -37.3	SSE Comp -3.7	Bovespa -10.4

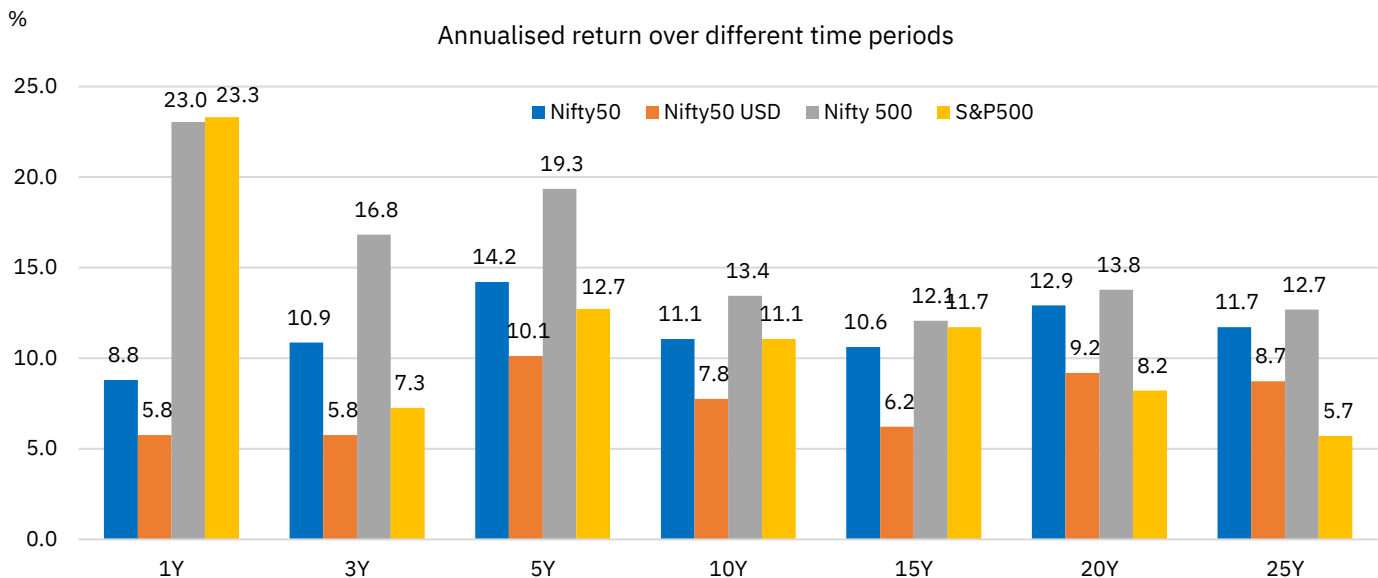
Source: LSEG Workspace, NSE EPR.

Indian equities consolidated in the second half but outperformed the broader EM pack...

Despite a sharp sell-off in Q4 2024 owing to heavy foreign capital outflows and muted corporate earnings, Indian equity markets closed 2024 in the green for the ninth year in a row, outshining the broader EM pack. This remarkable resilience came in the face of heightened geopolitical tensions, elevated global yields, and unfavorable external cues. The robust performance was anchored by strong economic fundamentals, bolstered by policy continuity following the NDA's third consecutive victory in the General Elections, which reinforced investor confidence in India's growth trajectory. Additionally, the surge in domestic investor participation played a pivotal role in supporting the markets, with individual and institutional investors stepping up to offset significant foreign capital outflows in the final quarter. This growing domestic investor base not only stabilized market sentiment during volatile periods but also underscored the increasing maturity and depth of India's equity markets.

The Nifty 50 Index posted an 8.8% return in 2024, translating into a robust 11.1% annualized return over the past decade. This performance outpaced that of both developed and emerging markets, with the MSCI World and MSCI EM Index generating an annualized return of 8% and 1.2% during this period, underscoring India's resilience in the global landscape. In 2024, mid- and small-cap segments outshone their large-cap peers, with the Nifty Mid-cap 50 and Nifty Small-cap 50 indices delivering stellar returns of 21.5% and 25.3%, contributing to annualized returns of 16.9% and 11.6%, respectively. This strong performance is partly attributed to robust earnings growth and higher retail participation in these segments.

Figure 39: Annualised returns of major indices over different time periods

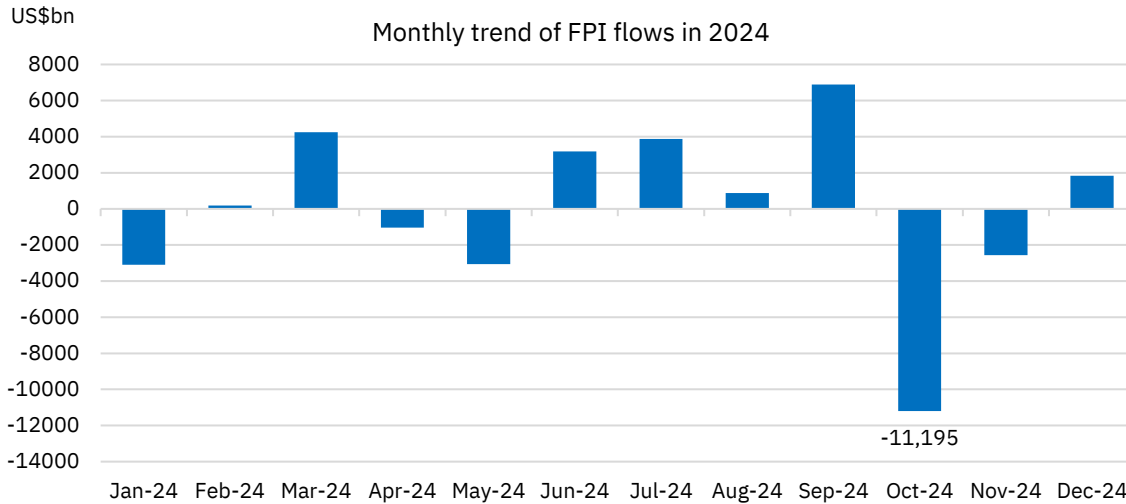


Source: LSEG Workspace, NSE EPR.

...Despite volatile FPI flows... The year gone by saw volatile FPI participation, with robust buying in the four-month period ending September almost entirely reversing in the subsequent two months (Oct-Nov'24). In fact, Indian equities saw a record US\$11.2 bn pulled out of Indian equities by FPIs in October (2024: US\$124m), exceeding the earlier peak that happened during the pandemic by 34%. Higher allocation to China after the announcement of stimulus measures to revive the economy, rising US dollar and bond yields and elevated market valuations back home are some of the factors that resulted in heavy FPI sell-off in the last quarter. Notwithstanding significantly higher FPI outflows in

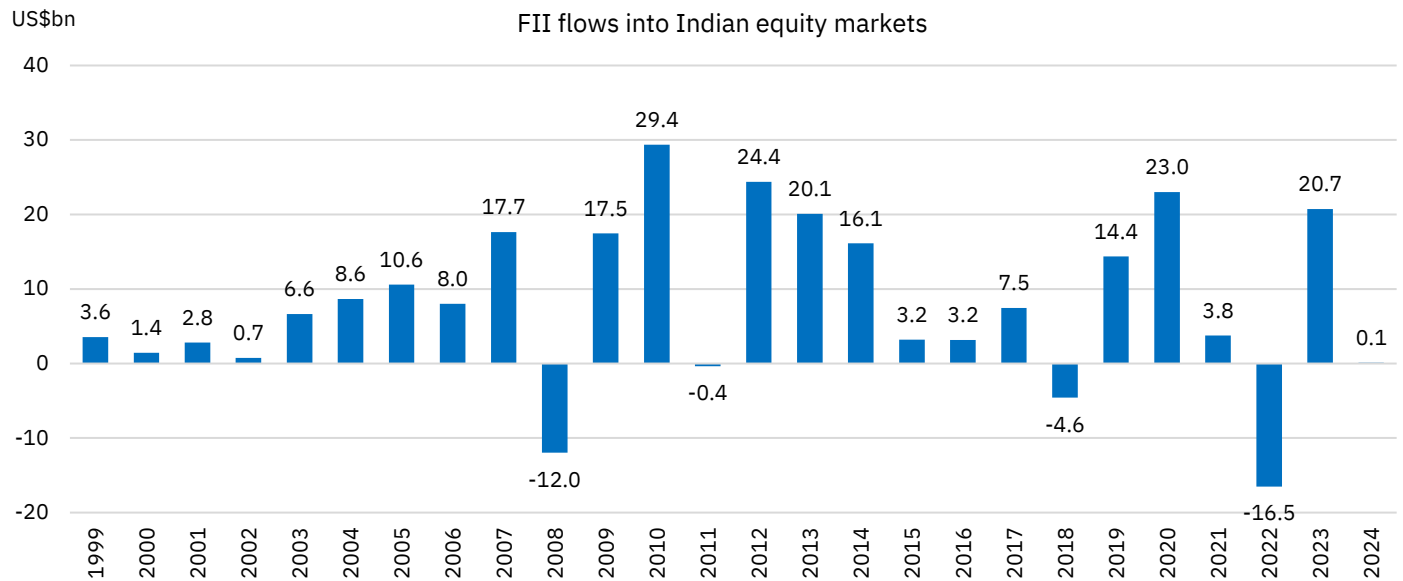
October 2024 as compared to the month when COVID-19 was declared a pandemic by the WHO (March 2020), the decline in Nifty 50 Index of 6.2% in Oct'24 was slightly over one-fourth of that seen in March 2020.

Figure 40: Monthly trend of FPI flows into Indian equity markets



Source: LSEG Workspace, NSE EPR.

Figure 41: Annual trend of FPI flows into Indian equity markets



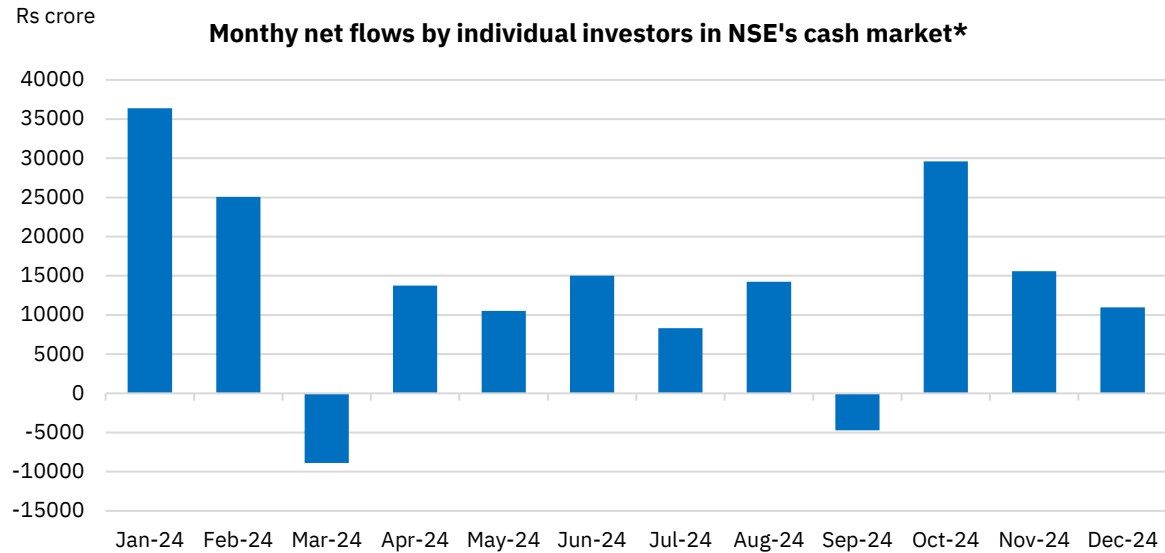
Source: LSEG Workspace, NSE EPR.

...Supported by strong domestic participation: Strong domestic investor participation—both institutional and individual—played a crucial role in limiting market losses in 2024, despite global headwinds. Individual investors contributed a record net investment of Rs 1.7 lakh crore (US\$19.8 billion) during the year, reflecting growing confidence in equity markets as a wealth creation avenue. In fact, individuals turned strong buyers of Indian equities in 2020 after a 11-year long hiatus, and have remains so over the subsequent four years, translating into total net inflows of Rs 4.55 lakh crore during this period.

DIIs further bolstered market stability, with net inflows soaring to an all-time high of Rs 5.3 lakh crore (US\$63 billion), surpassing the combined inflows of the previous two years. In fact, DIIs were net buyers of Indian equities for the fourth year in a row. A significant

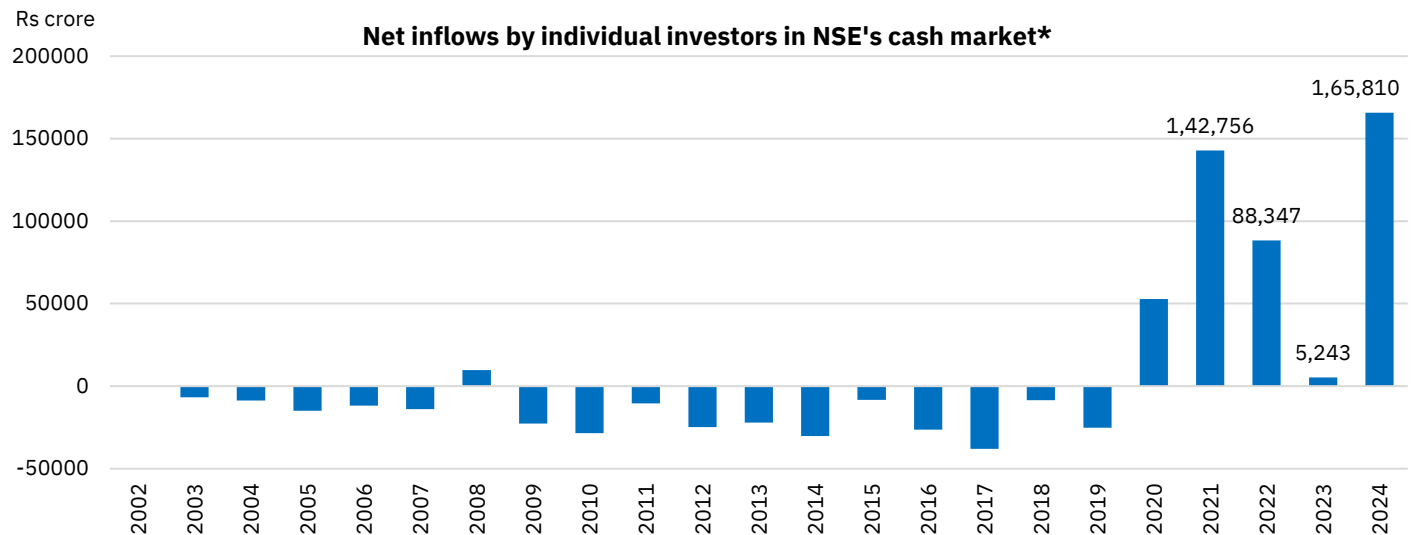
portion of this domestic participation was driven by indirect investments through systematic investment plans (SIPs), underscoring the increasing adoption of disciplined, long-term investment strategies. Monthly SIP inflows into mutual funds averaged Rs 22,360 crore in 2024, up from Rs 15,312 crore in the previous year. This robust domestic engagement not only offset the impact of foreign portfolio investor outflows but also underscored the growing maturity and resilience of India's capital markets.

Figure 42: Monthly trend of flows by individual investors in NSE's cash market

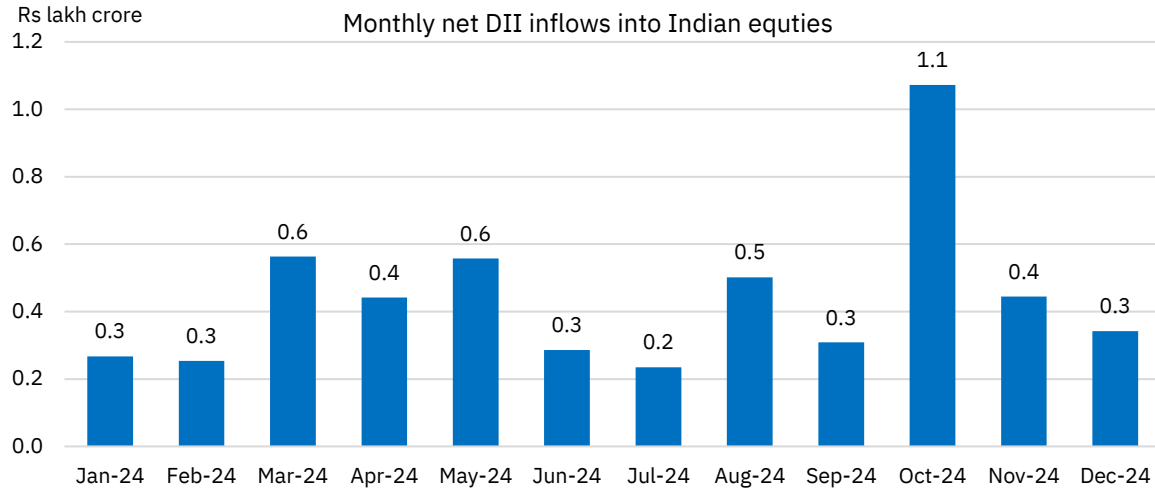
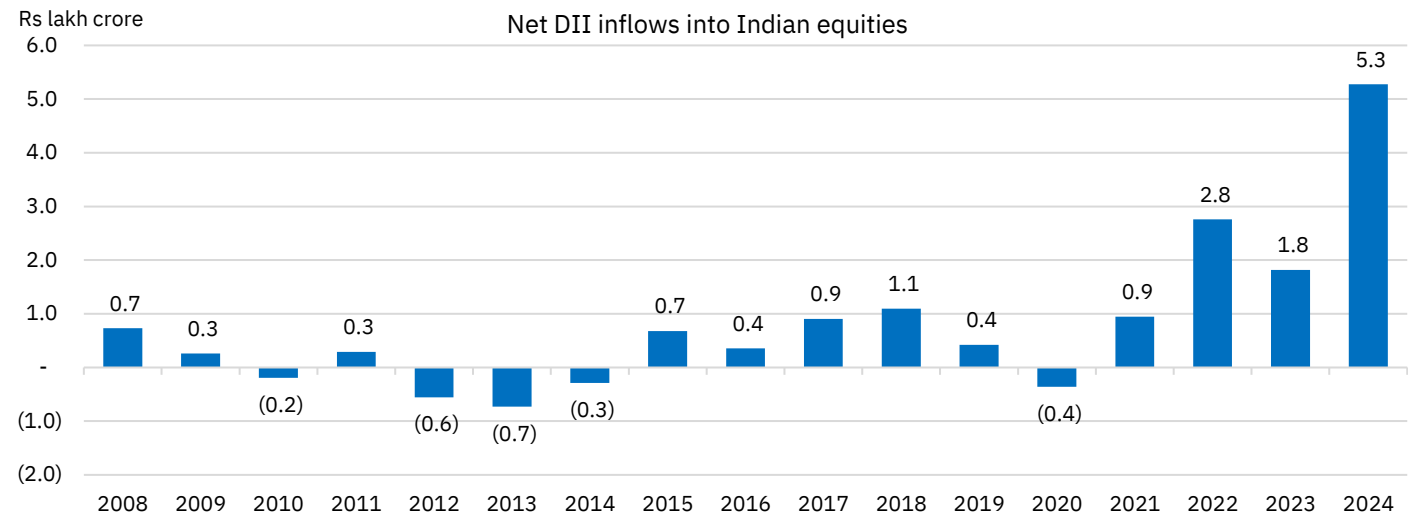
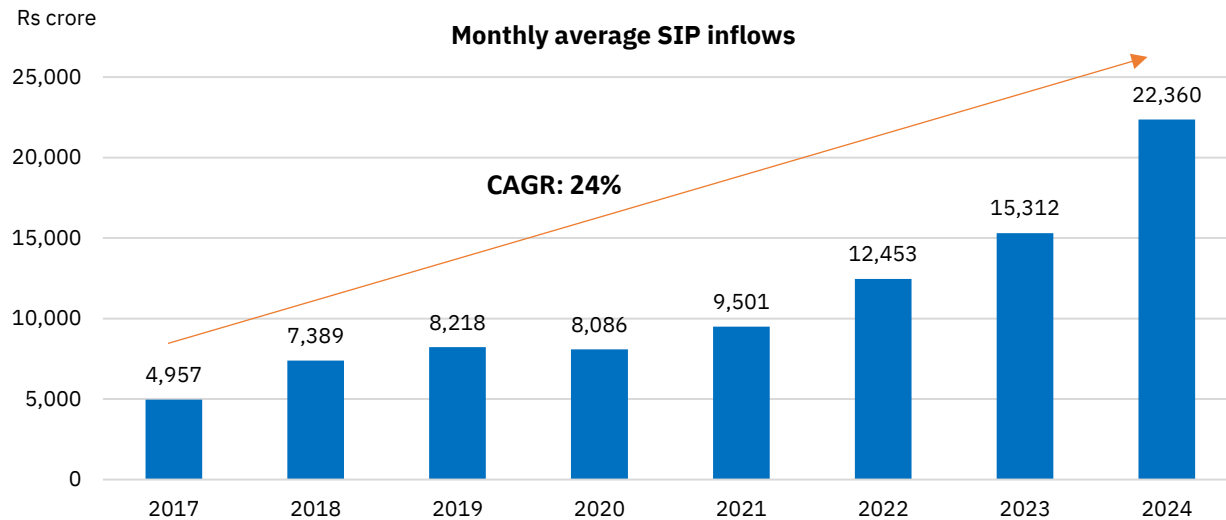


Source: NSE EPR. * In the secondary markets only.

Figure 43: Annual trend of individual investors' flows in NSE's cash market



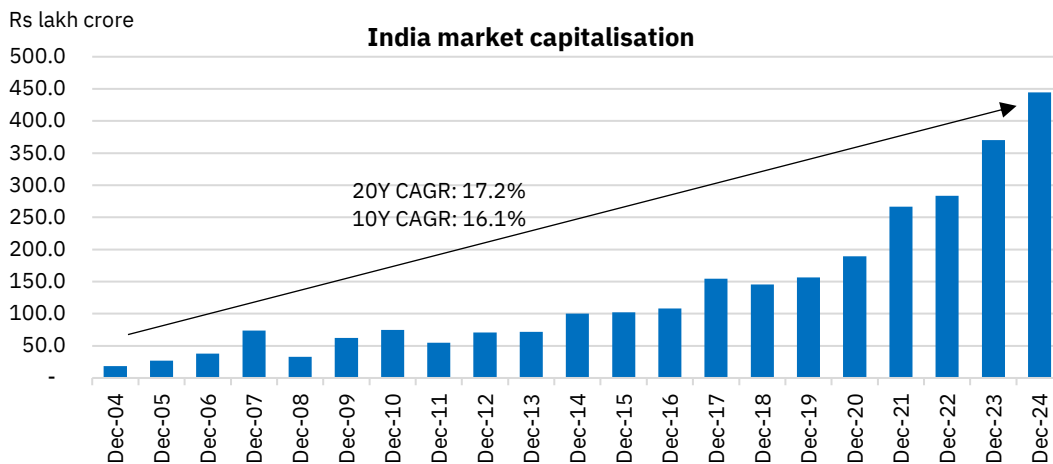
Source: NSE EPR. * In the secondary markets only.

Figure 44: Monthly trend of DII inflows into Indian equity markets

Figure 45: Annual trend of DII inflows into Indian equity markets

Figure 46: Monthly trend of DII inflows into Indian equity markets


India has solidified its position as the fourth largest market in the world: As of December 31st, 2024, India's equity market (Across exchanges) reached a market capitalization of Rs 444 lakh crore or US\$5.2tn, solidifying its position as the fourth largest market globally after the US, China (including Hong Kong), and Japan, and growing at an annualized rate of over 17% over the last two decades. As a % of GDP, India's market capitalisation is now nearly 145% of GDP, increasing from nearly 60% in March 2014.

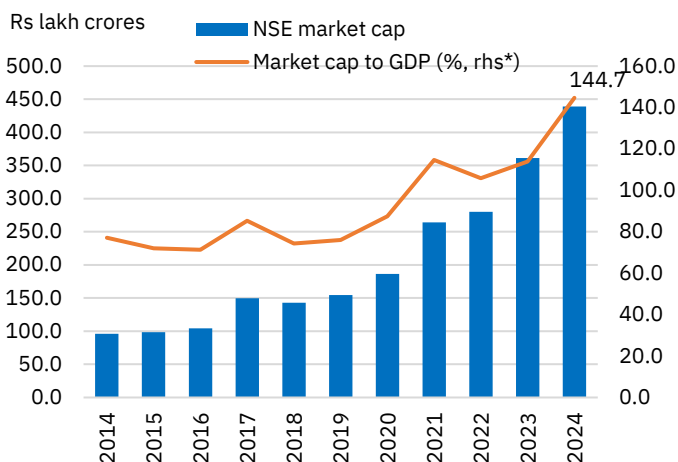
Remarkably, India's equity market cap, that was at par with the banking sector's total assets a decade back has grown to nearly 1.7x the size of the banking sector today. This underscores the growing significance of capital markets as a critical driver of economic activity and wealth creation in the country. The shift reflects an evolving financial ecosystem where businesses increasingly rely on equity markets for funding, reducing dependence on traditional bank financing. This is fuelled by robust investor participation, policy initiatives supporting market development, and the growing appeal of equities as a preferred investment avenue. The expanding market cap highlights the deepening integration of capital markets into India's economic fabric, signalling a more diversified and resilient financial system that is better equipped to support long-term growth.

Figure 47: India market capitalization (Across exchanges)



Source: CMIE Economic Outlook, NSE EPR.

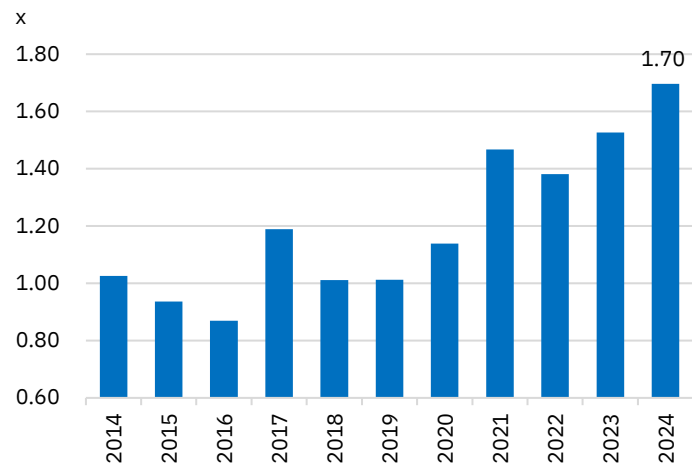
Figure 48: Market capitalisation as % of GDP



Source: CMIE Economic Outlook, NSE EPR.

*Market cap to GDP is based on 3M average market cap of NSE and calendar year GDP (data for December 2023 to September 2024 quarters used for 2024 as the GDP data for December 2024 quarter is not released yet)

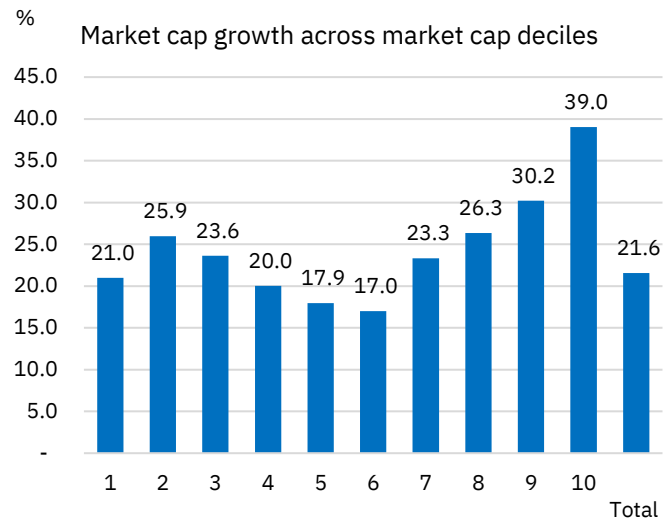
Figure 49: India market cap to total banking assets



Source: CMIE Economic Outlook, NSE EPR.

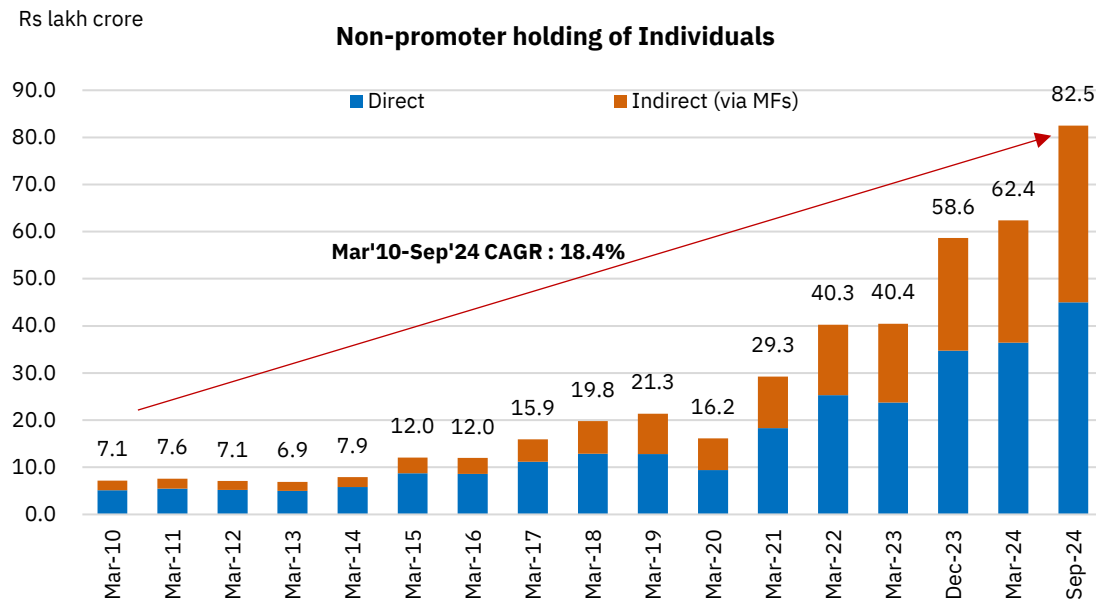
Data for 2024 is as of November 2024

Figure 50: Market cap growth across major indices in 2024

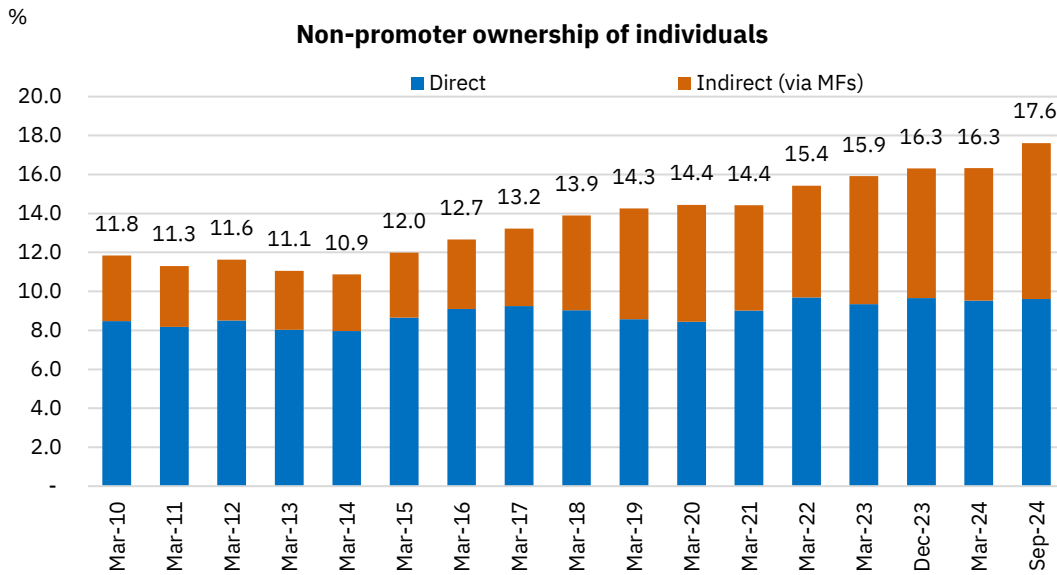
Figure 51: Market cap growth across market cap deciles for NSE listed companies in 2024


Source: NSE EPR.

Individuals own 17.6% of the Indian equities today: Despite market volatility, individuals' participation in Indian equities through direct as well as indirect channels has remained strong as highlighted earlier. As of September 2024, direct and indirect (via mutual funds) holding of individuals in NSE listed companies stood at Rs 82.5 lakh crore, quintupling (5x) since the pandemic (March 2020), translating into a 34% annualized growth during this period. Even looking at the last 15 years, the annualized growth remains strong at over 18%. Of this, nearly 55% was held directly, with the balance held through mutual funds. According to AMFI, nearly 85% of the equity AUM of mutual funds was held by individuals as of September 2024, rising from ~76% before the onset of the pandemic (March 2020). In terms of share, individuals today, directly and indirectly (via mutual funds), hold 17.6% of the Indian market, nearly matching the share of FPIs—a significant improvement from a 7.1pp gap in FY21.

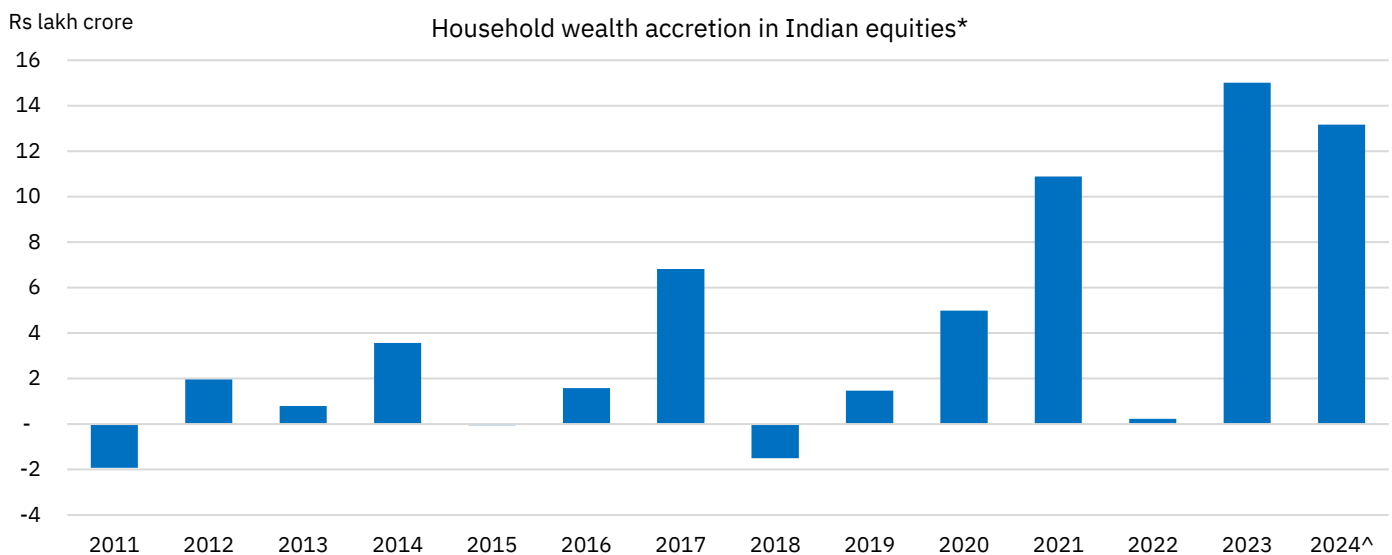
Figure 52: Individuals' holding in NSE listed companies as investors


Source: CMIE Prowess, AMFI, NSE EPR.

Figure 53: Individuals' ownership in NSE listed companies as investors


Source: CMIE Prowess, AMFI, NSE EPR.

Wealth accretion to households touched Rs 40 lakh crore in the last five years: Our estimates suggest that the household wealth in Indian equities has increased by over Rs 40 lakh crore in the last five years, and over Rs 28 lakh crore in the last three years. This has been arrived at by adding the annual change in absolute holding of individuals in NSE listed companies through both direct and indirect channels net of fresh investments during that year. We have assumed individuals to have the same share in the net investments of mutual funds as they have in the latter's equity AUM. Further, in the absence of the complete availability of the ownership data for the December quarter, we have assumed individuals' share—direct as well as indirect—to remain the same as of the end of September 2024, which seems to be slightly conservative in the light of heavy FPI outflows and equivalently strong domestic inflows.

Figure 54: Accretion to household wealth in Indian equity markets


Source: CMIE Prowess, AMFI, NSE EPR calculations.

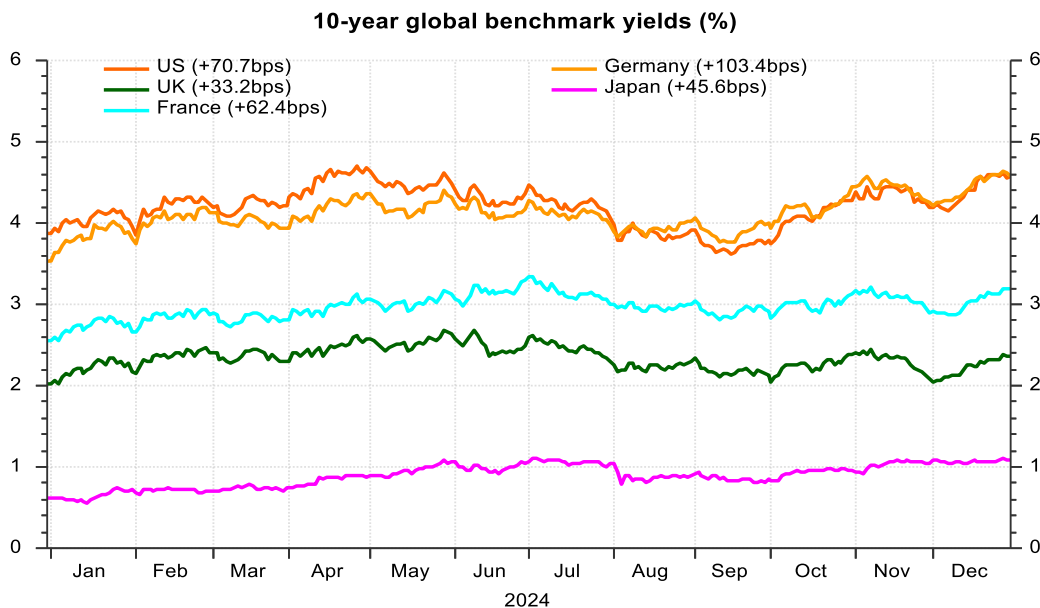
* NSE listed companies considered for the analysis.

^ Assumes direct and indirect ownership of individuals in NSE listed companies as of December-end to have remained unchanged from the September quarter

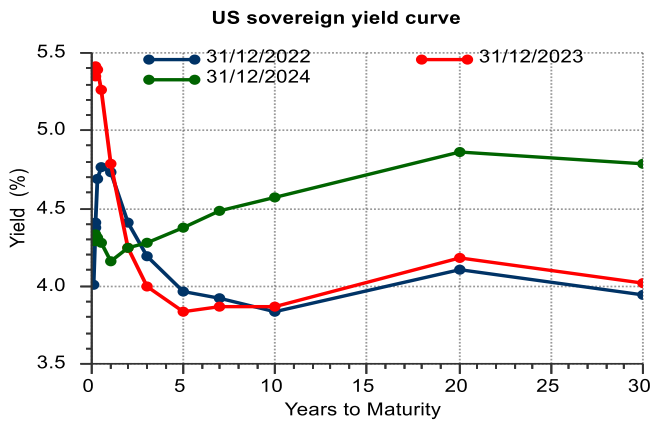
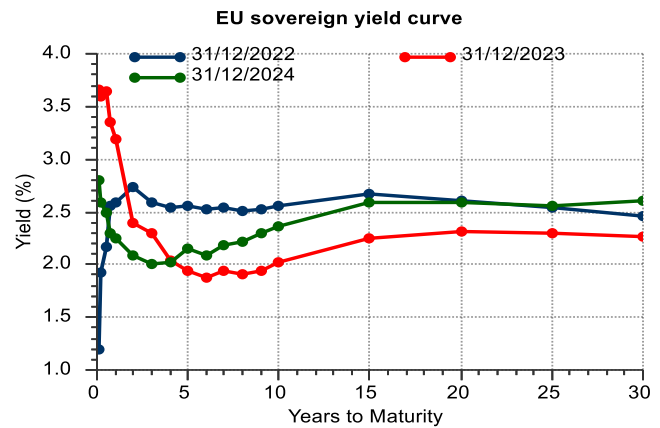
Global fixed income markets had a roller coaster ride in 2024...: Global fixed income markets faced significant challenges in 2024, grappling with shifting rate cut expectations amid geopolitical tensions, evolving central bank policies, and persistent inflation volatility. The US 10-year Treasury yield, a key benchmark for global bond markets, peaked at 4.7% in April due to elevated inflation expectations and a cautious Federal Reserve. However, optimism over central bank rate cuts in mid-2024, supported by easing inflation and slowing economic activity, pushed the yield down to 3.6% by September. This reprieve was short-lived, as Donald Trump’s election victory in November reignited concerns about a more hawkish fiscal policy and delayed rate cuts, driving yields back up to 4.6% by year-end.

Other developed markets mirrored the US experience. In the UK, the 10-year gilt yield rose by 103 bps in response to persistent inflationary pressures, exacerbated by higher energy costs and fiscal policy uncertainties. The EU faced similar challenges, with yields climbing 46 bps amid sluggish economic growth and the European Central Bank’s cautious stance. Meanwhile, Japan’s 10-year government bond yield also rose 46 bps, driven by the Bank of Japan’s shift away from its ultra-loose monetary policy and increasing inflationary pressures.

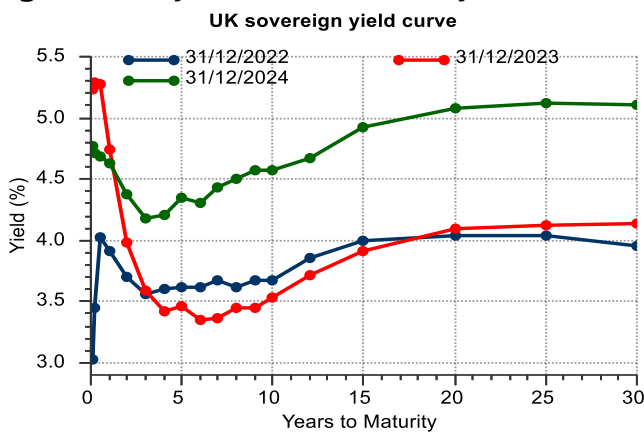
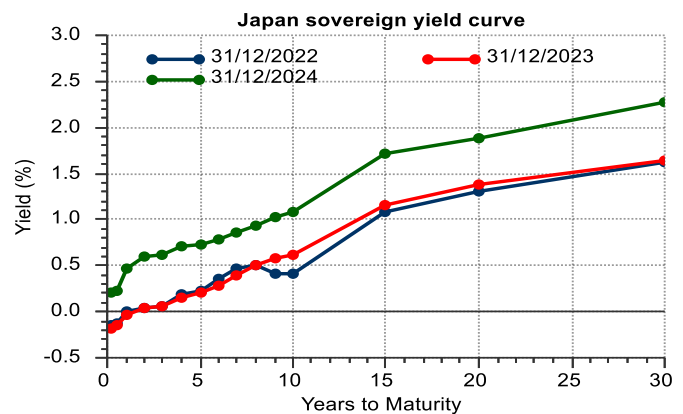
Figure 55: Movement in 10-year benchmark yields across major economies in 2024



Source: LSEG Datastream, NSE EPR.

Figure 56: US yield curve: Last three years

Figure 57: EU yield curve: Last three years


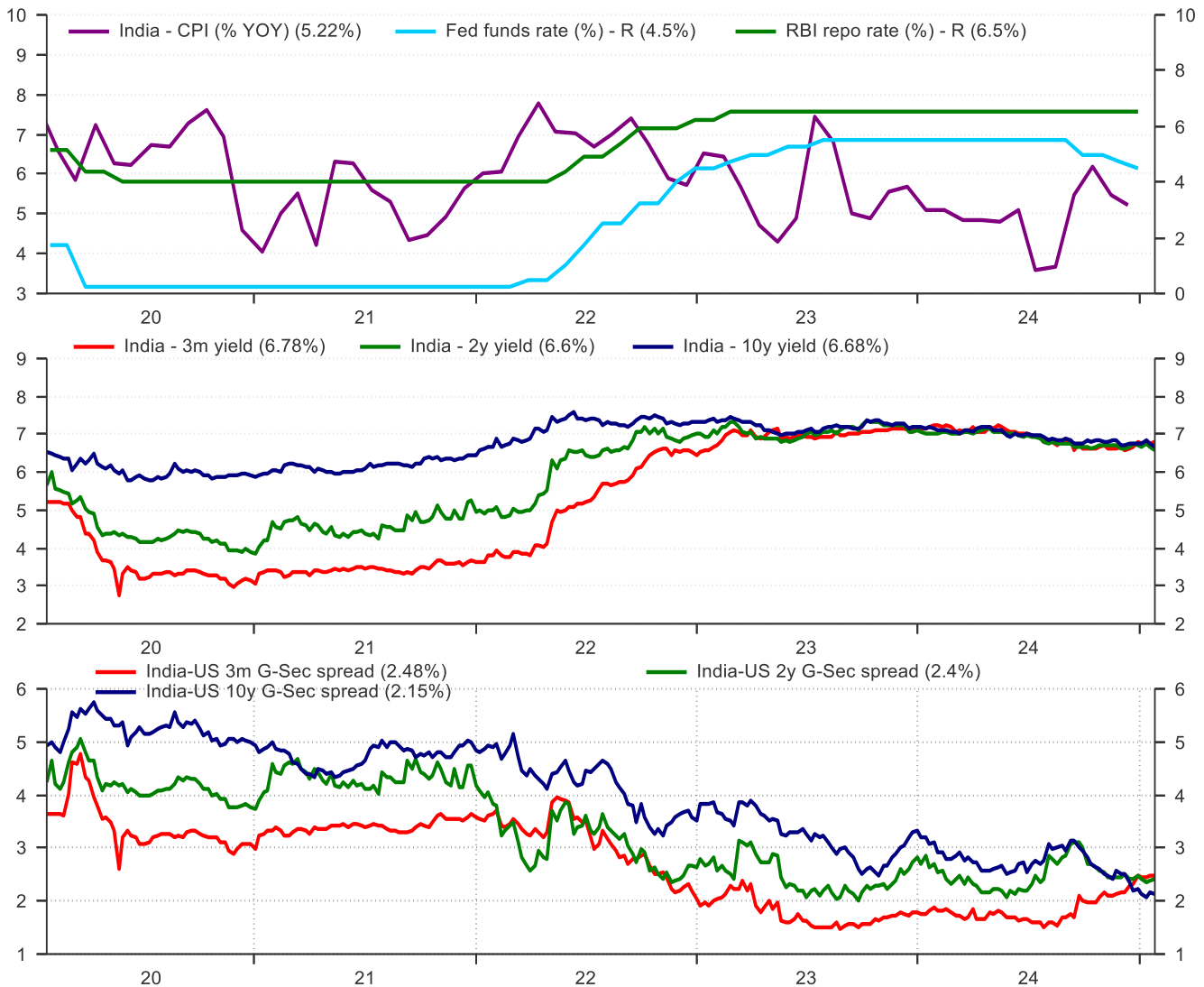
Source: LSEG Datastream, NSE EPR.

Figure 58: UK yield curve: Last three years

Figure 59: JP yield curve: Last three years


Source: LSEG Datastream, NSE EPR.

...Even as Indian fixed income markets remained steady: Indian debt markets displayed resilience in 2024, bucking the global trend of volatility. Stability was underpinned by several key factors, including the inclusion of Indian sovereign bonds in global bond indices, which attracted significant foreign investor interest and bolstered liquidity. Additionally, easing inflation improved expectations of the policy turning more accommodative, while proactive liquidity management by the RBI in the form of CRR cut and variable repo and reverse repo operations ensured market stability. The 10-year G-sec yield reflected this resilience, ending the year 42 bps lower at 6.76%, with the decline being more pronounced at the short-end of the curve. That said, the gap between the US and India 10-year G-sec has contracted for the third year in a row, falling from nearly 5pp by the end of 2021 to 2.2pp by the end of 2024, and further to 2% by January 10th—the lowest gap in over two decades. This reducing interest rate differential, coupled with the recent rupee volatility, does not bode well for foreign participation into Indian debt.

The state development bond yields have also fallen during the year, and slightly more so as compared to G-secs, resulting in some spread compression. Corporate bonds, on the other hand, have seen spreads rising through the year.

Figure 60: Inflation, yields and spreads in India vs. US


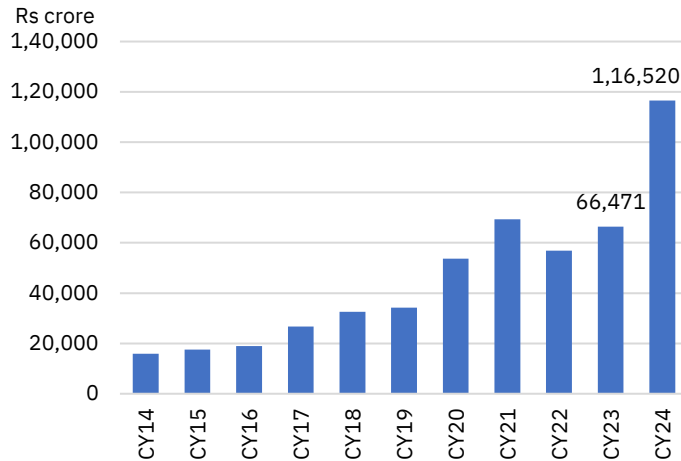
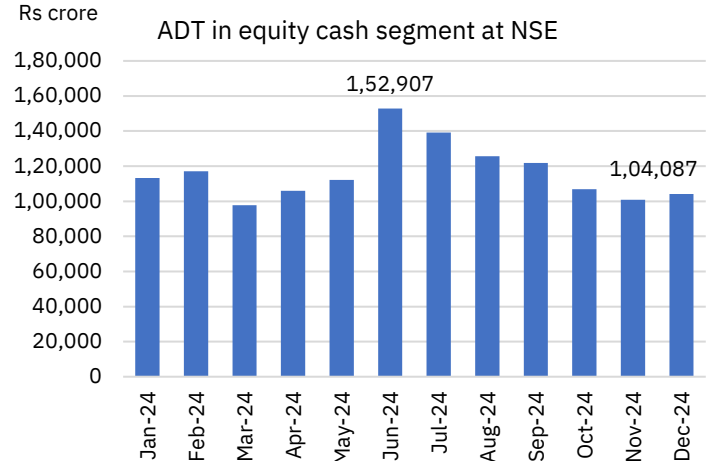
Source: LSEG Datastream, NSE EPR.

Market activity and investor growth

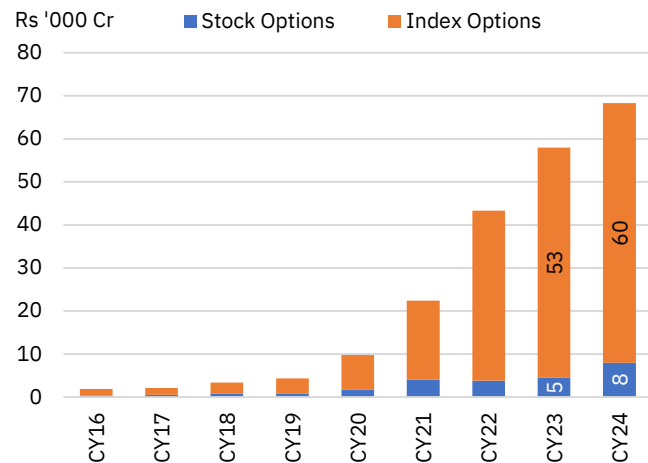
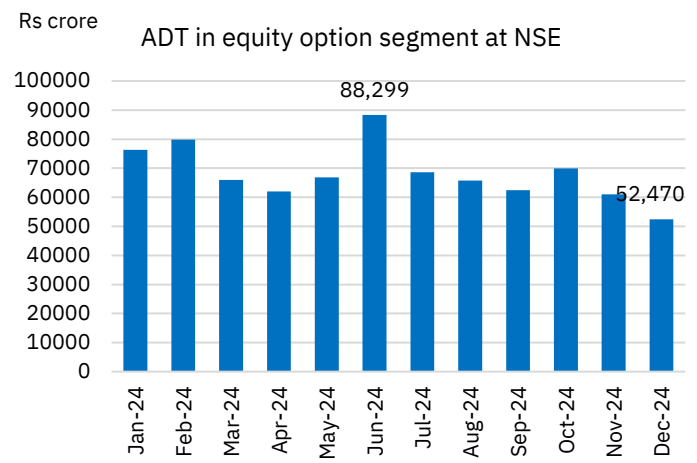
Market activity picked up across equity cash and derivative segments at NSE: Despite slower market activity in Q4 2024, impacted by FPI outflows and regulatory measures undertaken by SEBI in Index options aimed at enhancing market stability, turnover in the equity cash and derivatives segments saw remarkable growth for the year. The average daily turnover (ADT) in the equity cash segment surged 75.3% YoY to Rs 1.17 lakh crore, reflecting increased retail and institutional participation, even as it has steadily slowed from a record-high peak of ADT over a month of Rs 1.5 lakh crore in June to Rs 1 lakh crore in December 2024. The equity options segment posted a 17.7% rise in ADT (premium) to Rs 68,280 crore, with the monthly trend of ADT indicating a decline from a peak of Rs 88,299 crore in June to Rs 52,470 crore in December. Meanwhile, the equity futures segment demonstrated robust growth of 61.3%, with ADT reaching Rs 1.9 lakh crore in 2024, albeit with a sharp drop from an ADT of Rs 2.4 lakh crore in June to Rs 1.6 lakh crore in December.

Please refer to 'Market activity across segments and investor categories' section on page 215 for more details.

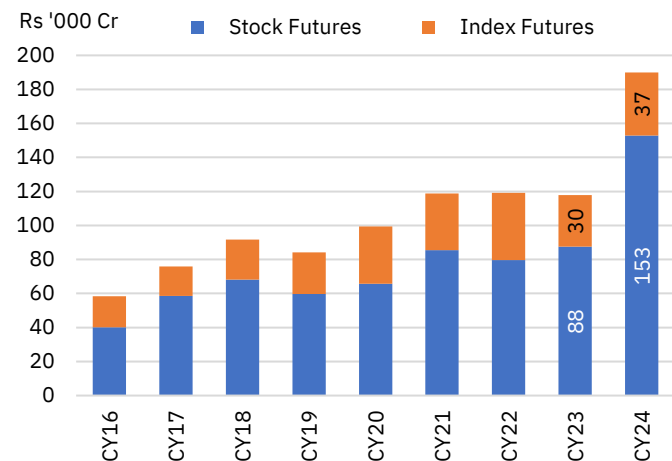
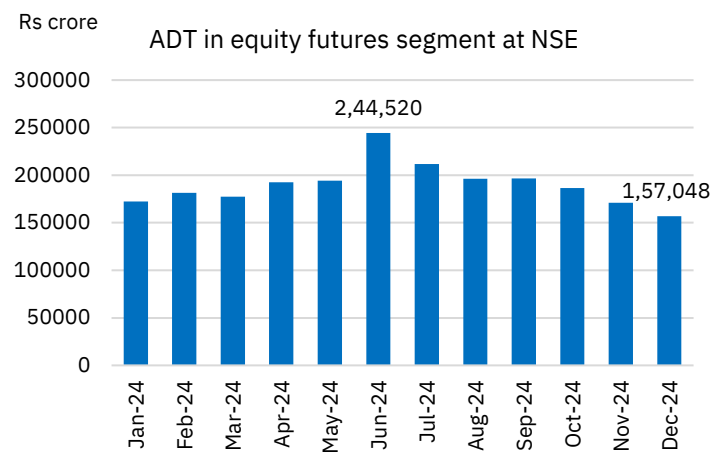
The number of investors who traded at least once in the equity cash segment during a year increased by 40% from 272 lakh in 2023 to 381 lakh in 2024, while that in the equity derivatives segment surged by a slightly lower 32% from 84.7 lakh to 111.5 lakh.

Figure 61: Annual trend of ADT in equity cash

Figure 62: Monthly trend of ADT in equity cash


Source: NSE EPR.

Figure 63: Annual trend of ADT in equity options

Figure 64: Monthly trend of ADT in equity options


Source: NSE EPR.

Figure 65: Annual trend of ADT in equity futures

Figure 66: Monthly trend of ADT in equity futures


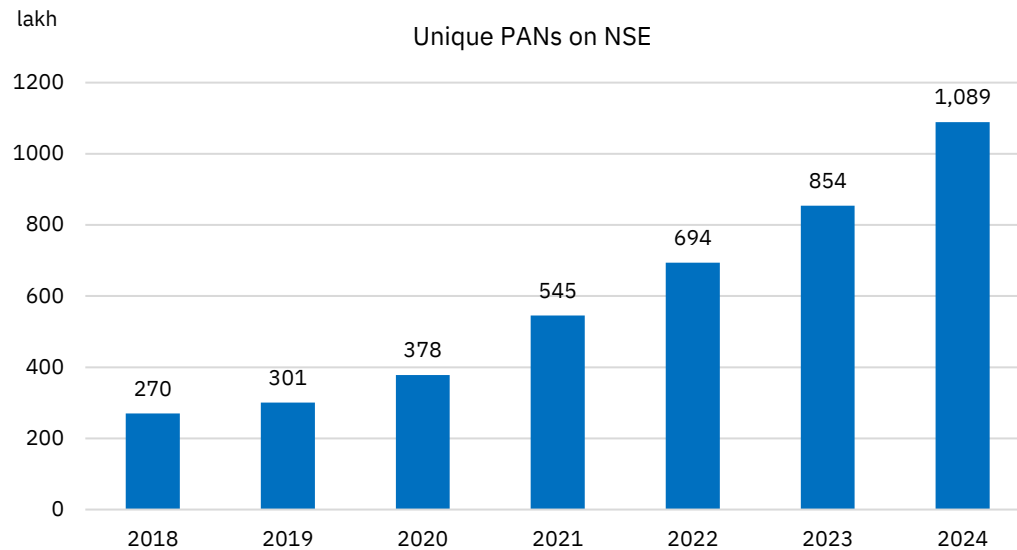
Source: NSE EPR.

Investor registrations in 2024 were the highest in a year: The unique registered investor base at NSE closed the year 2024 at 10.9 crore investors, surpassing the 11-crore milestone on January 20th, 2025, implying a growth of more than 3.5x in the last five years and nearly 7x in the last 10 years. The total number of client codes (accounts) registered with the exchange stands above 21 crore (210 million) (Includes all client registrations done till date; clients can register with more than one trading member). The year gone by saw record-high unique investor registrations of 2.3 crore in 2024, significantly higher than the 1.6 crore added in 2023, while number of accounts totaled 5.56 crore. Notably, 75% of the total accounts have been added in the past five years.

Please refer to **Investor growth** section on page 205 for more details on investor growth and demographics are

Investor registrations at NSE have surged, growing 3.6 times in the last five years. It took 14 years from NSE's inception in 1994 to reach 1 crore investors, but the pace has steadily quickened. The next crore took seven years, the third 3.5 years, and the fourth just over a year. More recently, each additional 1 crore investors has been added in 6–7 months, with the last crore registered in just over five months, highlighting a significant rise in market participation and investor enthusiasm. This rapid growth reflects rising confidence of the Indian public in the stock market as a trusted avenue for wealth creation. Factors such as enhanced digital accessibility, increased investor education, and government initiatives promoting financial inclusion have driven this surge. Additionally, a younger, tech-savvy population and growing awareness of the benefits of equity investments have further accelerated this trend.

Figure 67: Unique registered investors at NSE



Source: NSE EPR.

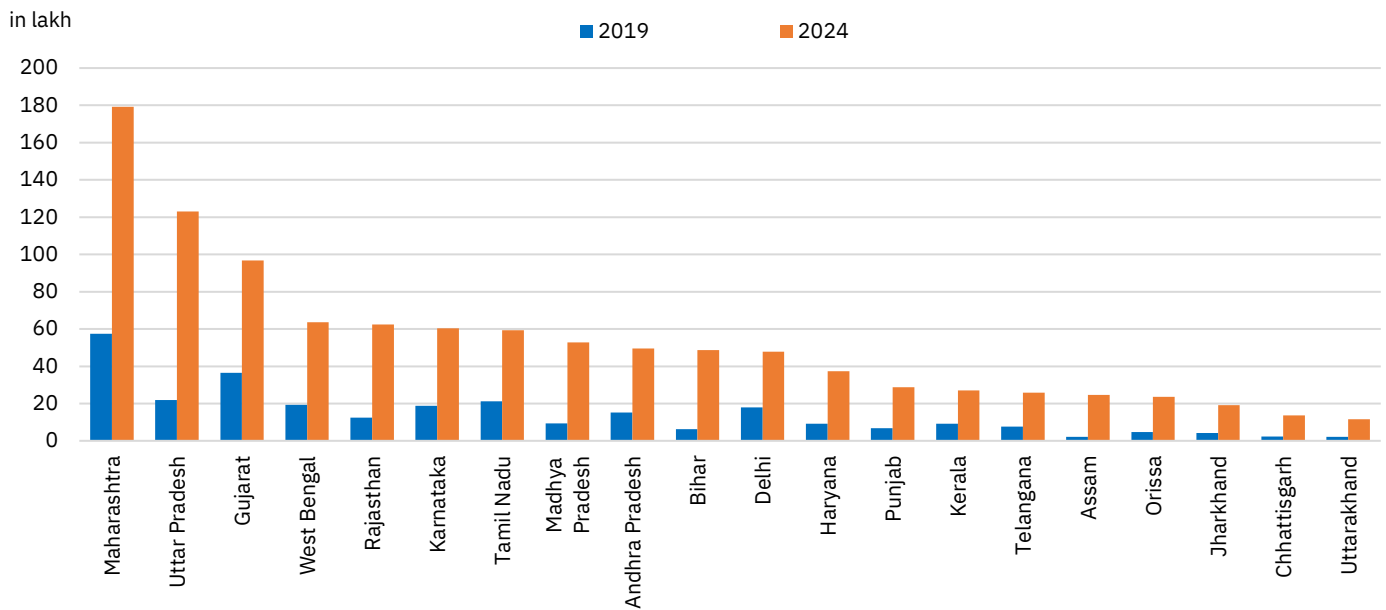
Investor demographics changing rapidly: In 2024, Uttar Pradesh became the second state after Maharashtra to surpass 1 crore investors, adding 33 lakh new investors during the year to end at 1.2 crore investors (up 36.7% YoY) and accounting for 14.4% of total registrations. In fact, Uttar Pradesh is now the largest state in terms of new investor registrations, with its share in the registered investor base expanding from 7.3% in 2019 to 11.3% in 2024. Among other states that are fast catching up, Bihar has risen to the top 10 states from 15th in 2019, while Assam now hold 2.3% of the investor base, up from 0.7% in 2019.

District-wise, six out of the top 10 districts were from Maharashtra and Gujarat. Districts beyond the top 50 contributed 65.2% of new investor additions in 2024, up from 61% in 2023. Today, we have investors from 99.84% of the pin codes in the country.

Gender-wise, women investors accounted for 24.1% of the investor base as of December 2024, rising from 22.8% in 2023, a sign of rising gender diversity through direct participation into the market.

The new investors coming into the market reflect a significant demographic shift. Today, the median age of these investors is now around 32 years, with 40% of them under the age of 30. This is a marked change from just five years ago, when the median age was 38, highlighting a growing interest in the stock market among younger investors.

Figure 68: State-wise investor count of top 20 states: 2019 vs. 2024



Source: NSE EPR.

Macroeconomy

A challenging environment awaits a resilient Indian economy

As the world transitions from the experience of an eventful 2024, the Indian economy stands at critical crossroads as we enter a new year. While global challenges such as lingering geopolitical tensions, monetary policy pivots and divergence in regional economies weigh on the overall world landscape. India has demonstrated resilience and continues to sustain its status as the fastest-growing major economy. Indian economy is estimated to expand by 6.4% for FY25(FAE), while various multi-lateral institutions having pegged the growth story to continue at a similar pace, with growth ranging between 6.5%-6.9% in FY26. In the first half of FY25, the growth in the economy has decelerated more than expected, weighed down by sharper-than-anticipated moderation in industrial activity, subdued government expenditure and slower than expected revival in private investment activity. After navigating a plethora of challenges in 2024, the outlook for the Indian economy in the remainder of this fiscal and FY26 is underpinned by revival in private consumption, deferred government expenditure, resilient services exports, and expectation of revival in private investment activity. An uncertain global environment, heightened trade policy precariousness, rising weather related exigencies and increasing input cost pressures pose risks to the outlook.

Moderation in economic activity hinted through by various indicators...: So far, this fiscal, the Indian economy has been industrial activity has moderated, as indicated by IIP/core sector expanding by 4.1%/4.2% YoY respectively in FY25TD (April-November), lower than 5.9%/7.6% in FY24. The moderation in bank credit growth from nearly 20% YoY in December 2023 to 11.2% YoY in December 2024, led by personal loans and services sector, has further weighed on aggregate demand.

...with external sector remaining manageable with a clouded outlook...: On the external front, the current account deficit remains manageable at 1.2% of GDP in H1-FY25, with emerging vulnerabilities, including the uncertain global trade policy outlook. Widening merchandise trade deficit coupled with FPI outflows have weighed on the rupee and forex reserves. Although the Indian forex reserves remain strong and provides robust buffers against external shocks, the recent fall in forex reserves from the peak of US\$700 bn needs close monitoring.

...along with softening inflation pressure could open space for rate cuts: Headline retail inflation continues to remain a persistent challenge, albeit witnessing some softening, with the CPI averaging 4.6% during the first nine months of this fiscal, lower than 5.4% in FY24. Although softening headline inflation and recent growth slowdown has opened space for a rate cut, rupee depreciating to record low levels and widening liquidity deficit to more than Rs 3 lakh crore poses an interesting conundrum for the RBI.

Union Budget to balance fiscal consolidation and growth dynamics: The upcoming Union Budget is likely to balance fiscal consolidation alongside growth and infrastructure-led expenditure, to ensure overall macroeconomic stability. The pace of India's fiscal consolidation remains on track, with the current trends of buoyant tax collections, non-tax revenues and lower than anticipated capex, displaying that the gross fiscal deficit could even undershoot the target of 4.9% of GDP. The Government could continue with its previous commitment of achieving the target of 4.5% of GDP by FY26. Favorable agriculture prospects, uptick in rural consumption, resilient services exports and robust banking sector fundamentals are likely to provide tailwinds for the growth outlook.

Industrial activity softening; aligns with pre-pandemic growth levels

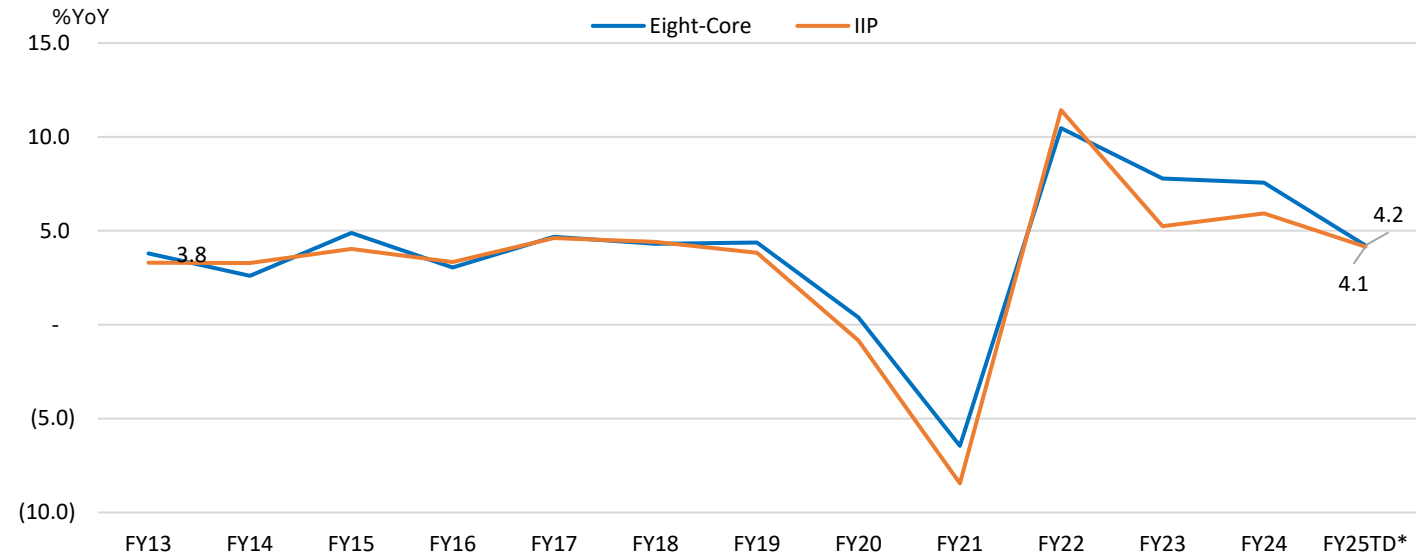
Industrial activity, measured through IIP/core sector, has averaged 4.1%/4.2% YoY respectively in FY25TD (April-November) notably lower than 5.9%/7.6% in FY24 while aligning with the pre-pandemic (FY15-FY19) average growth of 4%/4.3%, indicating steady progress and stability. After a sharp contraction of 8.4% in FY21, the post-pandemic IIP growth recovery has been broad-based aided by manufacturing and electricity under sectoral classification coupled with capital goods and infrastructure goods under use-based classification. Government-led infrastructure push, demand from the real estate segment, policies supporting manufacturing and affordable housing have facilitated the post-pandemic recovery. Conversely, consumer non-durables have exhibited lacklustre average growth at 1.4% during FY23-FY25TD, stemming from weak rural demand and heightened inflationary pressures. Notwithstanding the steady recovery since FY23, the fiscal so far (April-November) has witnessed IIP and core sector growth moderating, particularly in the heavy monsoon period of August. Consumer durables production has expanded by 8.7% YoY in FY25TD, significantly higher than 3.6% YoY in FY24, contrasting to the other segments, which have seen growth deceleration. In November 2024, IIP growth scaled a six-month high of 5.2% YoY, supported by an eight-month high growth in manufacturing (5.8% YoY) alongside 18 out of 23 industries exhibiting expansion.

Although the moderation in core sector growth this fiscal thus far has been broad-based, the sustained negative growth in crude oil production is concerning. India's Manufacturing PMI has remained in the expansion zone for over 40 months, reaching 56.4 in December 2024, despite easing from a peak of 59 in March 2024, and continues to outperform major global economies, indicating robust industrial outlook. Similarly, services PMI stood at 59.3 in December 2024, largely in line with the index value a year ago, while softening from 60+ levels for eight months during January-August 2024.

- **IIP growth this fiscal in line with pre-pandemic average...:** IIP growth reveals varied performance across different years with fluctuations across sectors. After averaging around 4% during the pre-pandemic phase (FY15-FY19), the COVID year recorded a sharp de-growth of 8.4% in FY21 led by contraction in manufacturing amidst supply-chain challenges, followed by a base-effect supported double digit recovery and has reverted to its pre-pandemic level of 4.1% YoY in FY25TD (April-November). The post-pandemic recovery has been steady with a broad-based expansion aided by manufacturing and electricity. So far, this fiscal, the easing in IIP growth has been across sectors with subdued growth in mining (3.4% YoY) and manufacturing (4.1% YoY) while electricity expanding at a slightly faster rate of 5.3% YoY, reflecting continued energy demand across industries and households. That said, IIP growth rebounded strongly in November, rising to a six-month high of 5.2% YoY, led by manufacturing — marking an eight-month high of 5.8% YoY— and 18 out of the 23 industries exhibiting expansion.
- **...with capital and infrastructure goods showing robust growth:** Use-based classification shows a sharp improvement in capital goods and infrastructure goods during the post-pandemic period, partly offset by sluggish growth in consumer non-durables segment. Capital goods, which registered a tepid pre-pandemic average growth of 2.3%, outperformed with an average growth of 7.9% during FY23-FY25TD, reflecting signs of private investment revival. Similarly, average growth in infrastructure goods has been 8.1% during FY23-FY25TD (vs. 4.9% pre-pandemic), led by government infrastructure and affordable housing support. Conversely, consumer non-durables have exhibited lacklustre average growth of 1.4% during the same period with de-growth of 0.5% YoY in the current fiscal FY25TD, reflecting weak consumption demand amidst inflationary

pressures. In FY25TD, consumer durable is the only segment registering a sharp improvement in growth to 8.7% YoY, with other use-based segments witnessing deceleration. For November'24, there has been growth acceleration across most use-based segments barring consumer non-durable led by consumer durables (13.1% YoY; 13-month high), infrastructure goods (10% YoY) and capital goods (9% YoY), aided by a favorable base effect.

- **Core sector growth softened this fiscal after 7+% growth in FY24:** Core sector growth has seen a notable recovery during FY23-FY25TD, albeit with wide variations across segments, with an average growth of 6.5% (vs. 4.3% during the pre-pandemic period) led by robust expansion in coal, steel and fertilizers. Steel (9.2%) and cement (6.9%) growth has seen a stable recovery during FY23-FY25TD, aided by the government push towards affordable housing and overall real-estate sector and infrastructure demand. Coal (11%) and electricity (7.1%) have exhibited resilient growth aided increasing household demand amidst weather-led vagaries. That said, the growth in the first eight months decelerated considerably to 4.2% YoY (vs. 8.7% YoY in the corresponding period last year) with a broad-based easing coupled with de-growth in crude oil production. After remaining resilient in the first four months (April-July), core sector output contracted in August during the heavy monsoon season, followed by signs of recovery with growth rising to a four-month high of 4.3% YoY in November. Cement production grew by 13% YoY in November — marking a 13-month high — led by revival in construction activity and a low-base effect. Conversely, the contraction in crude-oil/natural gas production continues for seven/five months respectively.
- **PMI in expansion zone for over 40+ months; signs of easing in 2024:** India's Manufacturing PMI stood at 56.4 in December 2024 (vs 54.9 in December 2023) with the index above 50 for nearly three-and-a-half years. That said, recent months have seen some softening, after scaling a peak of 59 in March 2024. Notwithstanding this easing, India's manufacturing PMI continues to outperform major global economies including the US, UK, China, the Euro Area, and Japan. Services PMI which stood at a four-month high 59.3 in December, was broadly at similar levels seen in December 2023 (59) but has tapered off to some extent, after exhibiting a higher level of 60+ during January-August 2024. Consequently, India's Composite PMI has inched up marginally to 59.2 in December 2024 (vs. 58.5 in December 2023). Throughout 2024, India's PMI has shown moderate fluctuations but has largely remained in the expansion zone. During FY14-FY25TD, manufacturing PMI has been in sustained expansion zone, barring eight months during COVID while services PMI was in contraction zone during almost 24 months during various periods.

Figure 69: Eight core industries and IIP growth trend (% YoY)


Source: CMIE Economic Outlook, NSE EPR.

Note: FY25TD is as of Nov'24

Table 6: Component-wise annual growth trends in IIP (YoY%)

Year	General	Mining	Mfg	Elec.	Primary Goods	Capital goods	Intermediate	Infra Goods	Consumer Goods	Consumer Durables	Consumer ND
FY13	3.3	(5.3)	4.8	NA	NA	NA	NA	NA	NA	NA	NA
FY14	3.3	(0.1)	3.6	6.1	2.3	(3.7)	4.6	5.7	4.5	5.6	3.7
FY15	4.0	(1.4)	3.8	14.8	3.8	(1.1)	6.1	5.0	3.9	4.0	3.8
FY16	3.3	4.3	2.8	5.7	5.0	3.0	1.5	2.8	2.9	3.4	2.6
FY17	4.6	5.3	4.4	5.8	4.9	3.2	3.3	3.9	5.7	2.9	7.9
FY18	4.4	2.3	4.6	5.4	3.7	4.0	2.3	5.6	6.3	0.8	10.6
FY19	3.8	2.9	3.9	5.2	3.5	2.7	0.9	7.3	4.6	5.5	4.0
FY20	(0.8)	1.6	(1.4)	1.0	0.7	(13.9)	9.1	(3.6)	(3.8)	(8.7)	(0.1)
FY21	(8.4)	(7.8)	(9.6)	(0.5)	(7.0)	(18.6)	(9.4)	(8.7)	(7.4)	(15.0)	(2.2)
FY22	11.4	12.2	11.8	7.9	9.7	16.9	15.4	18.8	6.6	12.5	3.2
FY23	5.2	5.8	4.7	8.9	7.5	13.1	3.8	8.4	0.6	0.6	0.7
FY24	5.9	7.5	5.5	7.1	6.1	6.3	5.3	9.7	3.9	3.6	4.1
FY25TD	4.1	3.4	4.1	5.3	3.9	4.5	4.2	6.3	3.1	8.7	-0.5

Source: CMIE Economic Outlook, NSE EPR.

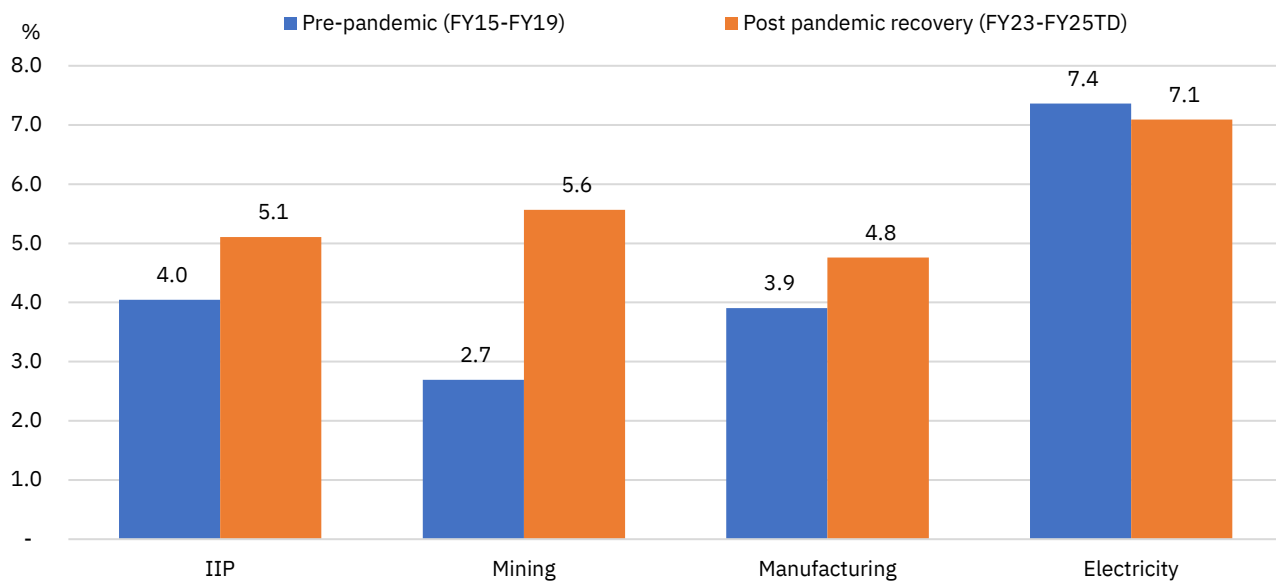
Note: FY25TD is as of Nov'24

Table 7: Component-wise annual growth trends in core sector (YoY%)

Year	Core Sector	Coal	Crude Oil	Natural Gas	Refinery	Fertilizers	Steel	Cement	Electricity
FY13	3.8	3.2	(0.6)	(14.4)	7.2	(3.3)	7.9	7.5	4.0
FY14	2.6	1.0	(0.2)	(13.0)	1.3	1.4	7.3	3.7	6.1
FY15	4.9	8.1	(0.8)	(5.2)	0.2	1.3	5.2	5.9	14.8
FY16	3.0	4.8	(1.4)	(4.8)	4.9	6.9	(1.3)	4.6	5.7
FY17	4.7	3.1	(2.6)	(1.0)	4.9	0.3	10.7	(1.2)	5.9
FY18	4.3	2.6	(0.8)	2.9	4.6	-	5.6	6.3	5.3
FY19	4.4	7.4	(4.2)	0.9	3.1	0.4	5.1	13.3	5.2
FY20	0.4	(0.4)	(5.9)	(5.7)	0.2	2.6	3.3	(0.9)	0.9
FY21	(6.5)	(1.9)	(5.2)	(8.1)	(11.2)	1.7	(8.7)	(10.8)	(0.4)
FY22	10.5	8.5	(2.6)	19.2	8.9	0.6	16.9	20.8	7.9
FY23	7.8	14.9	(1.8)	1.5	4.9	11.3	9.3	8.7	8.9
FY24	7.6	11.7	0.7	6.1	3.6	3.8	12.5	8.9	7.1
FY25TD	4.2	6.4	-2.4	1.1	2.7	1.6	5.9	3.1	5.3

Source: CMIE Economic Outlook, NSE EPR.

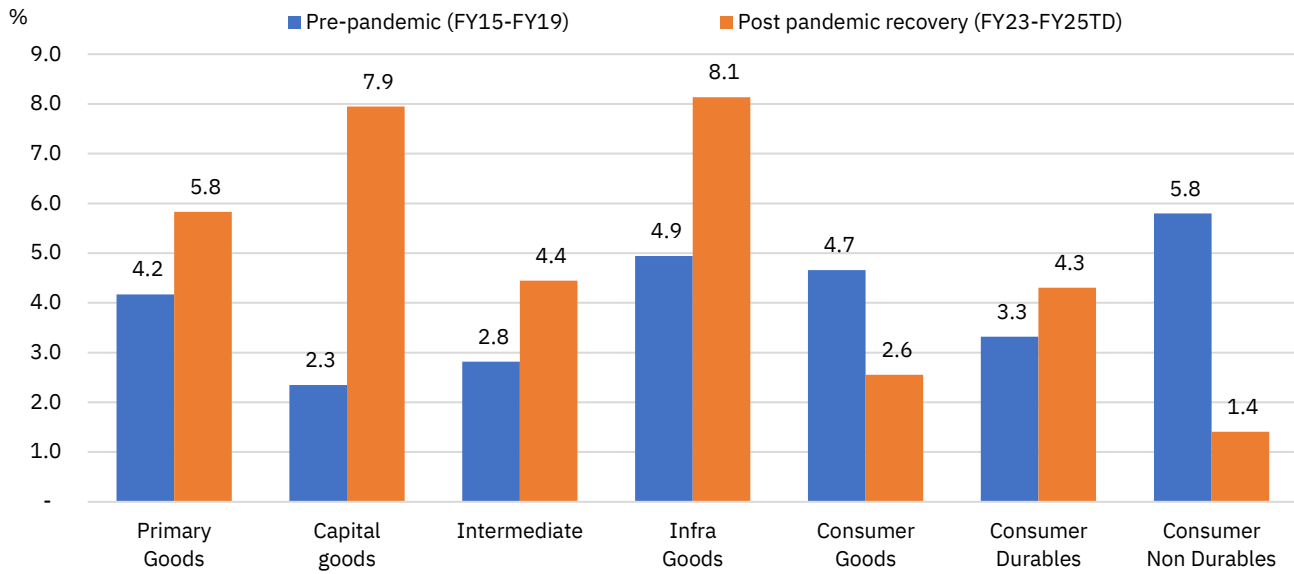
Note: FY25TD is as of Nov'24

Figure 70: Pre-pandemic vs post-pandemic recovery average growth levels in sectoral IIP classification


Source: CMIE Economic Outlook, NSE EPR.

Note: FY25TD is as of Nov'24

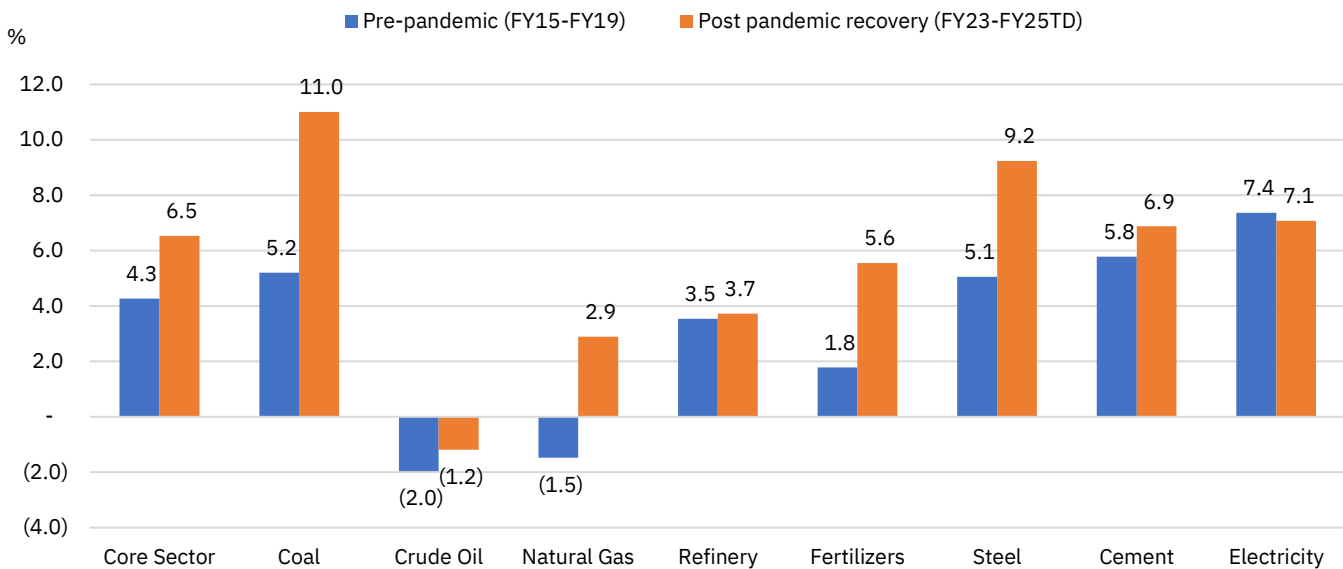
FY23 is regarded as the baseline for post-pandemic recovery, excluding the anomalous COVID years (FY20-FY21) and the rebound year of FY22, which was influenced by base effects.

Figure 71: Pre-pandemic vs post-pandemic recovery average growth levels in use-based IIP classification


Source: CMIE Economic Outlook, NSE EPR.

Note: FY25TD is as of Nov'24

FY23 is regarded as the baseline for post-pandemic recovery, excluding the anomalous COVID years (FY20-FY21) and the rebound year of FY22, which was influenced by base effects.

Figure 72: Pre-pandemic vs post-pandemic recovery average growth levels in core sector components


Source: CMIE Economic Outlook, NSE EPR.

Note: FY25TD is as of Nov'24

FY23 is regarded as the baseline for post-pandemic recovery, excluding the anomalous COVID years (FY20-FY21) and the rebound year of FY22, which was influenced by base effects.

Table 8: India industrial production for November 2024 (%YoY)

	%YoY	Weight (%)	Nov-24	Oct-24	Nov-23	FY25	FY24
IIP			5.2	3.7	2.5	4.1	7.0
Sector-based indices	Mining	14.4	1.9	0.9	7.0	3.4	9.4
	Manufacturing	77.6	5.8	4.4	1.3	4.1	6.6
	Electricity	8.0	4.4	2.0	5.8	5.3	7.9
Use-based Goods	Primary Goods	34	2.7	2.5	8.4	3.9	7.2
	Capital Goods	8.2	9.0	3.1	(1.1)	4.5	7.6
	Intermediate Goods	17.2	5.0	4.6	3.4	4.2	5.0
	Infra/Construction Goods	12.3	10.0	4.8	1.5	6.3	11.5
	Consumer Goods	28.2	5.1	3.9	(3.9)	3.1	3.7
	Consumer Durables	12.8	13.1	5.7	(4.8)	8.7	0.6
	Consumer non-durables	15.3	0.6	2.6	(3.4)	(0.5)	5.7

Source: CMIE Economic Outlook, NSE EPR.

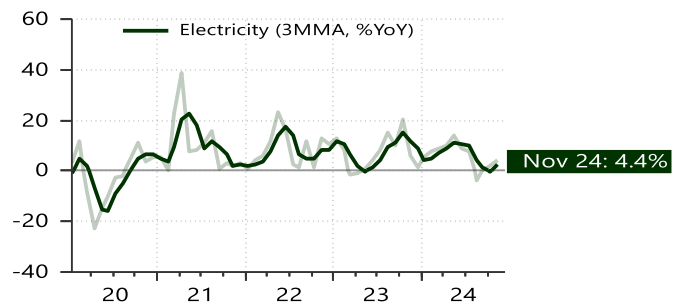
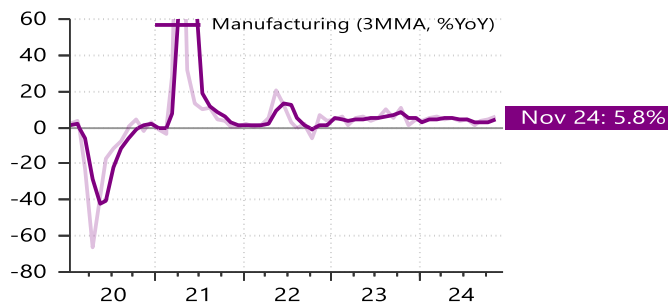
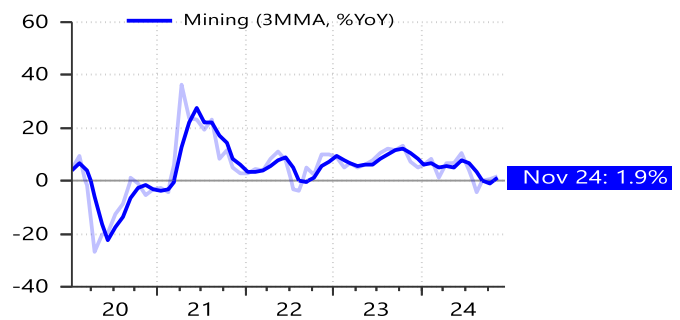
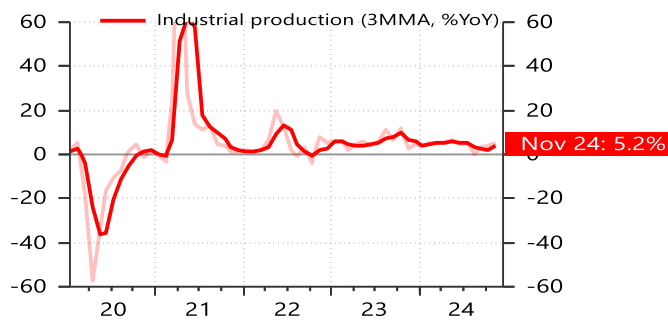
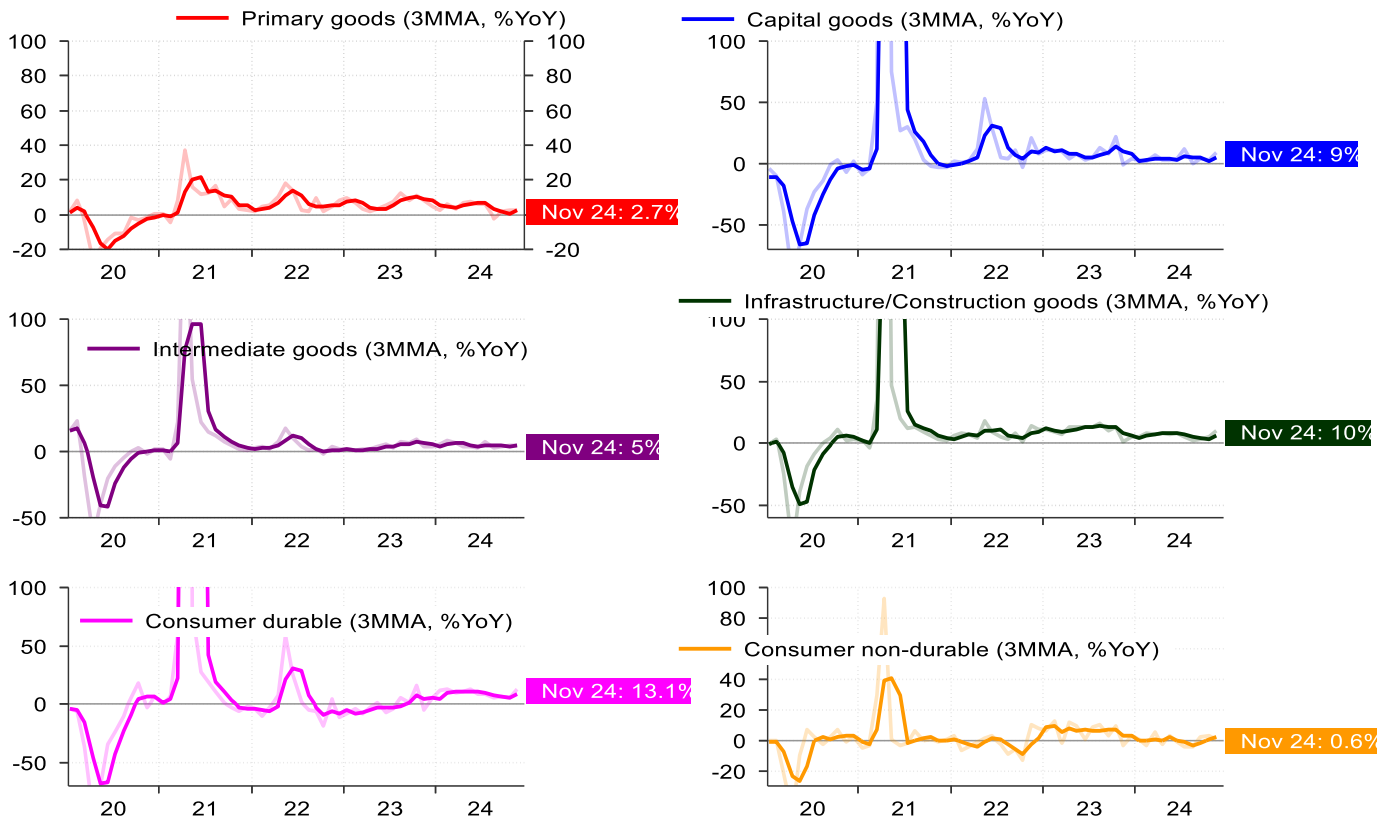
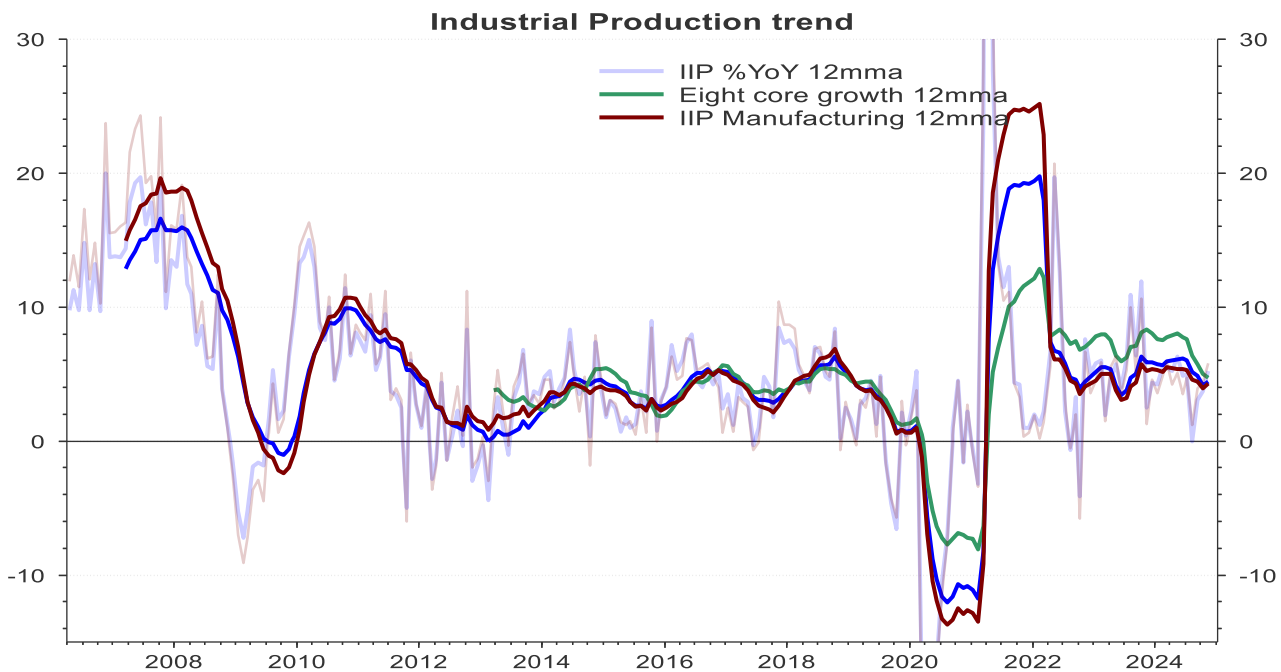
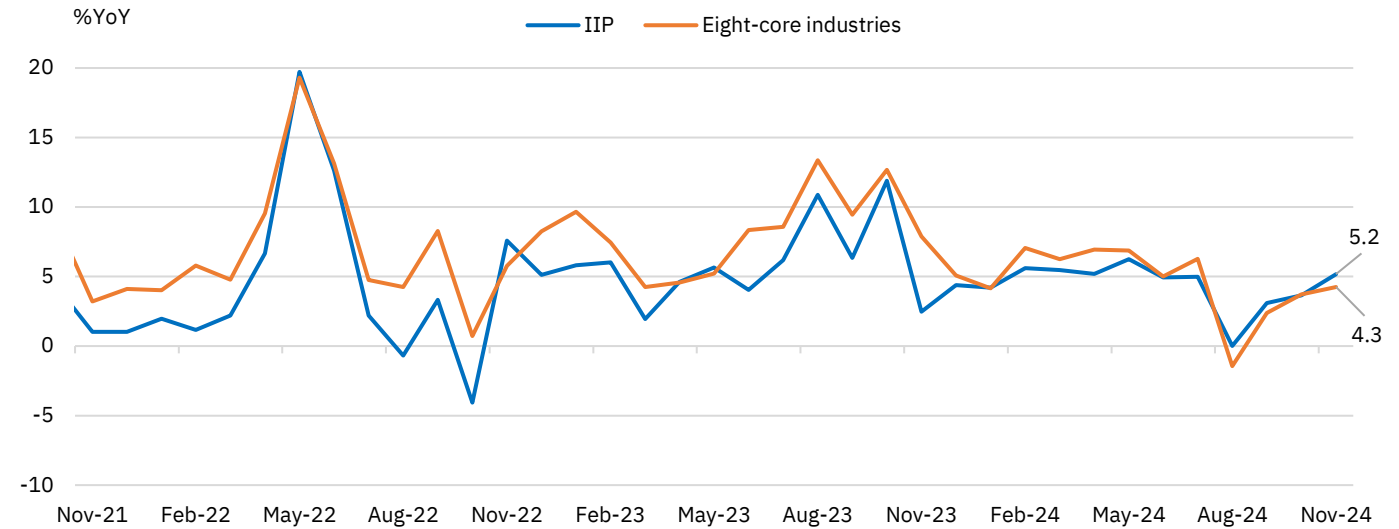
Figure 73: India industrial production (3MMA)


Figure 74: India industrial production use-based goods (3MMA)


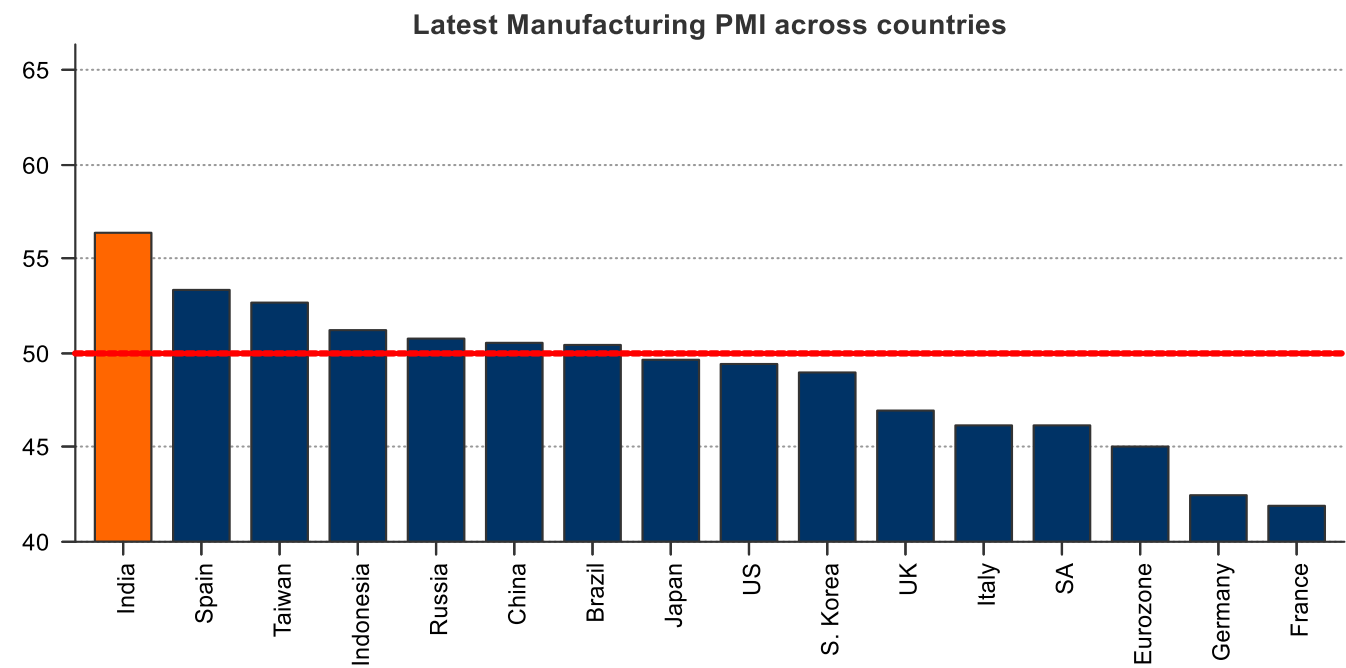
Source: LSEG Datastream, NSE EPR.

Figure 75: Long-term industrial production trend (12MMA)


Source: LSEG Datastream, NSE EPR.

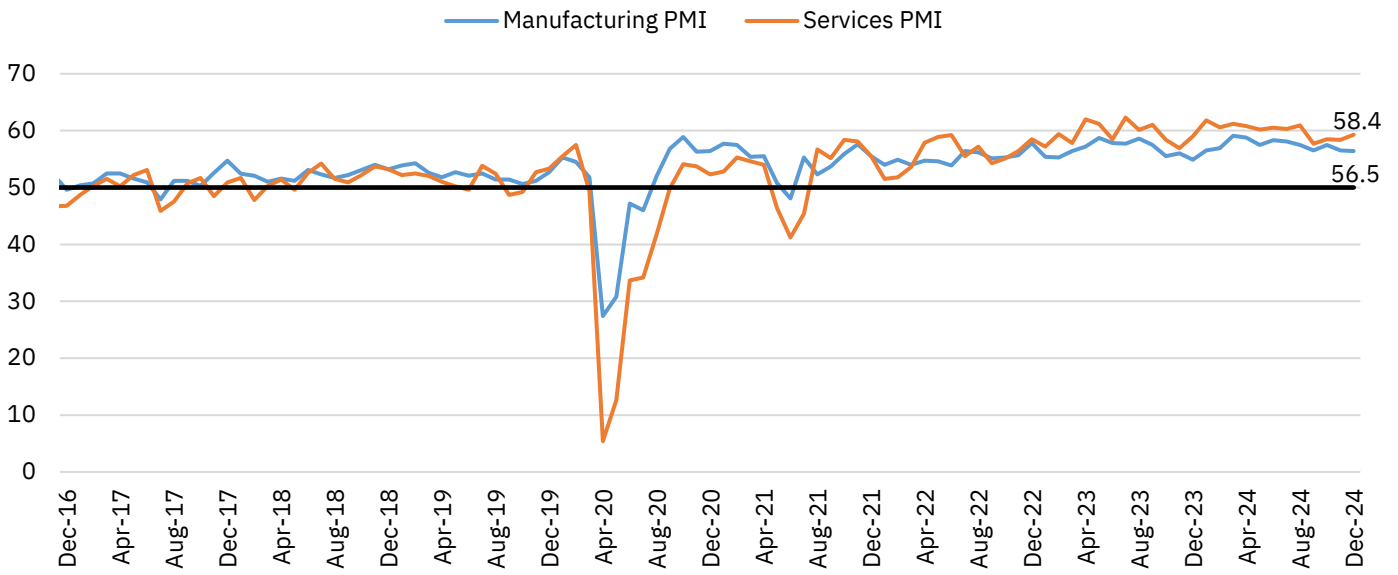
Figure 76: Monthly trends in Eight core industries and IIP growth (% YoY)


Source: CMIE Economic Outlook, NSE EPR.

Figure 77: Manufacturing PMI across countries


Source: LSEG Datastream, NSE EPR.

Figure 78: India's Manufacturing and Services PMI monthly trend



Source: CMIE Economic Outlook, NSE EPR.

Decoding India's Inflation Journey: Easing trends amid persistent pressures

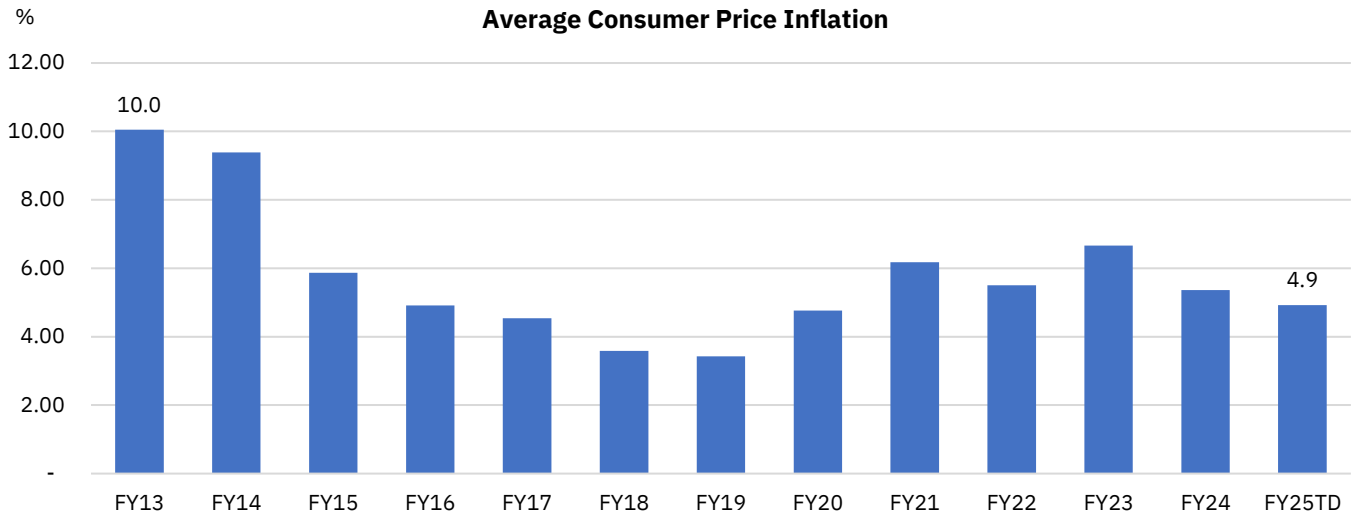
India's inflation landscape has undergone a notable transformation over the past decade, transitioning from double-digit rates in the early 2010s to a mid-to-low single-digit band in recent years. Headline CPI inflation currently stands at 4.9% YoY in FY25TD (April-December), significantly below historical peaks yet still above the trough of 3.4% reached in FY19. This moderation is partly attributable to a steep deceleration in Fuel & Light—now at -3.1% YoY—but is offset by higher Food & Beverages inflation of 7.6% YoY, driven by surging vegetable and cereal prices. Additionally, core inflation (headline less food and fuel) has declined to 3.5% YoY, reflecting a broad-based easing from the multi-year high of 6.3% in FY23. Even so, certain categories—most visibly personal care within miscellaneous—remain prone to sporadic spikes, underscoring the persistent risk of localized price pressures. Meanwhile, rural-urban inflation dynamics continue to shift, with rural CPI exceeding urban CPI by 1.1 percentage points in FY25TD, highlighting the nuanced impact of differing consumption patterns, supply bottlenecks, and local market structures.

On the wholesale front, WPI inflation has rebounded modestly to 2.2% YoY in FY25TD after dipping into deflationary territory at 0.7% in FY24. While well below the double-digit highs of 13.0% in FY22, this positive reading points to a combination of firming primary article prices—now at 6.0% YoY—which is offset by relatively subdued trends in manufactured products. Fuel & Power inflation, however, remains in negative territory at -1.7% YoY, reflecting softer global energy benchmarks and a high base. Taken together, the interplay between retail (CPI) and wholesale (WPI) indicators signals an environment of moderate, albeit uneven, price pressures across the economy. Food remains a critical element to monitor, given its significant role in driving rural-urban inflation gaps and influencing both headline and core measures. Going forward, continued vigilance is warranted, particularly around commodity market volatility and sector-specific disruptions that could reignite upward pressure in both consumer- and producer-level prices.

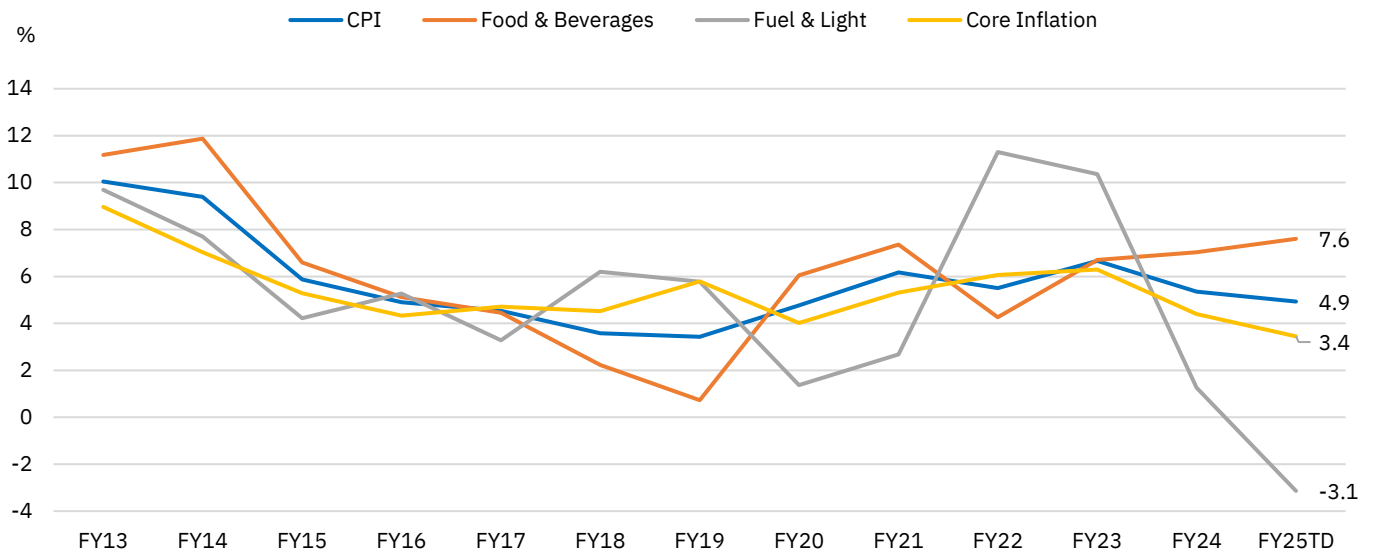
- **CPI Inflation moderates as energy eases, food pressures persist....:** CPI inflation sits at 4.9% YoY in FY25TD, marking a step down from 5.4% in FY24 and well below the recent high of 6.7% in FY23. While this inflation print is comfortably under the double-digit peaks recorded in FY13, it is still higher than the cycle-low of 3.4% back in FY19. A notable contributor to the current moderation is Fuel & Light, which plunged from +1.3% YoY last fiscal to -3.1% YoY reflecting softer global energy costs and a favourable base. However, Food & Beverages inflation rose to 7.6% YoY, up from 7.0% in FY24, making it the highest reading since FY21's 7.4% and highlighting persistent pressures on items like cereals, vegetables, fruits, and edible oils. Other core components softened in tandem: Housing eased from 3.9% in FY24 to 2.7% YoY, Clothing & Footwear slipped from 4.7% to 2.7% YoY, and Pan, Tobacco & Intoxicants fell from 3.6% to 2.7% YoY. Even inflation in miscellaneous components edged lower to 3.9% YoY (from 4.5%). Taken together, these movements paint a picture of broad-based disinflation—driven chiefly by energy relief—tempered by climbing food prices that continue to keep headline inflation from dipping back toward the historical lows seen in FY19.
- **... as food inflation rise led by vegetables and pulses:** Food & Beverages inflation currently stands at 7.6% YoY in FY25TD, surpassing the 7.0% YoY recorded in FY24 and well above the recent low of 0.7% YoY in FY19. Although the rate remains below the double-digit highs witnessed in the early 2010s, it underscores a renewed uptick in staple prices. Much of this increase stems from a 26.3% YoY surge in vegetables, alongside double-digit inflation in pulses & products (11.7% YoY) and a notable 7.6% YoY rise in cereals & products. In contrast, categories like milk & products (2.9% YoY) and oils & fats (2.1% YoY) show muted gains, while spices have turned negative at -2.2% YoY. Overall, while food inflation has eased compared to the peaks of a decade ago, it remains sufficiently elevated to warrant

close monitoring, particularly given the outsized role of vegetables and pulses in driving current price pressures.

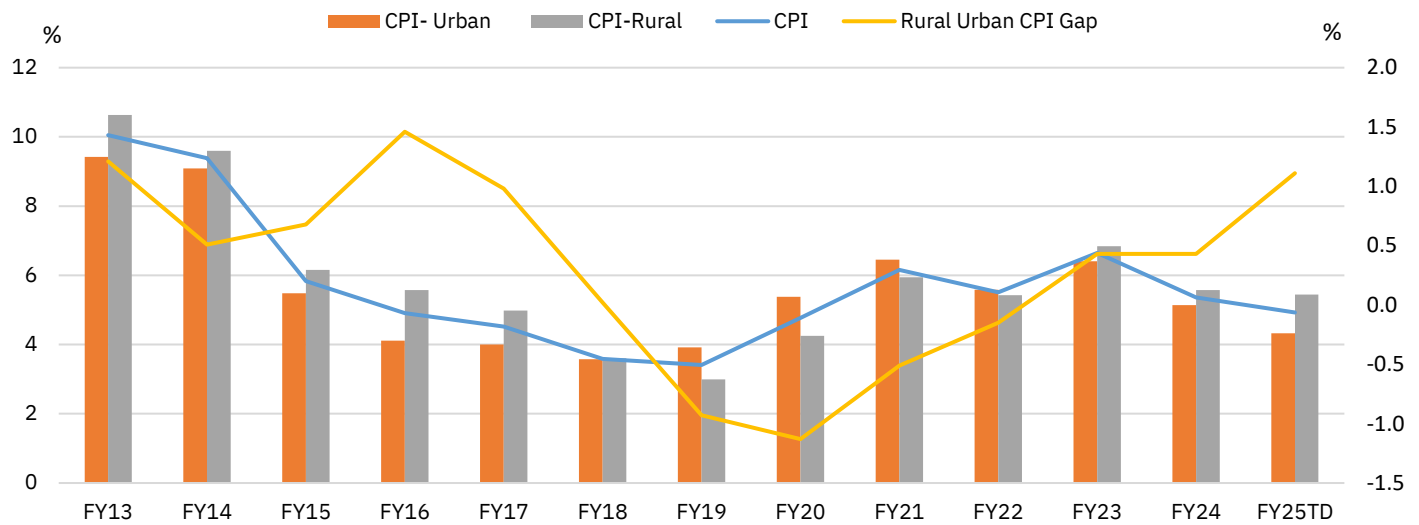
- **Core inflation eases amid broad disinflationary trends:** Core inflation stands at 3.5% YoY in FY25TD, falling from 4.4% in FY24 and well below the recent peak of 6.3% in FY23. Historically, core inflation reached as high as 9% in FY13, reflecting broad-based pressures across housing, clothing & footwear, and miscellaneous categories. Over the past decade, implementation of inflation targeting, better supply dynamics, more stable commodity prices, and moderated demand have all contributed to a gradual downshift. Within the current reading, housing and clothing & footwear continue to post subdued rates, while the miscellaneous segment also shows signs of easing. Notably, subcomponents such as household goods & services (2.6% YoY), health (4.1%), transportation & communication (2.1%), recreation & amusement (2.5%), and education (3.9%) have all softened compared to historical highs, although personal care & effects remains relatively elevated at 8.9%, due to higher gold and silver prices. Taken together, these figures underscore the broader disinflationary trend in core inflation, even as certain pockets of upward price momentum linger and warrant ongoing vigilance.
- **WPI rises reflecting shifts in commodity and energy prices:** WPI inflation stands at 2.2% YoY in FY25TD, reversing from the mild deflation of 0.7% in FY24 yet remaining well below the double-digit surge of 13.0% seen in FY22. Over the past decade, WPI has swung sharply, hitting a negative -3.6% in FY16 on the back of plummeting global commodity prices, and then soaring to multi-year highs in FY22, driven predominantly by energy costs. In the current reading, primary articles' inflation has accelerated to 6.0% YoY, indicating firm prices for key staples, whereas Fuel & Power has dipped into negative territory at -1.7% YoY, reflecting subdued global crude prices and a favorable base. Meanwhile, manufactured products posted a modest uptick of 1.3% YoY, suggesting build-up of cost pressures. Overall, WPI has stabilized in positive territory following last year's deflation, but persistent volatility in both primary commodities and global fuel markets could continue to shape wholesale inflation trends in the near term.
- **Shifting dynamics of rural-urban inflation:** Although rural and urban inflation in India have historically moved in tandem but they do diverge, underscoring structural distinctions in consumption baskets and market integration. To illustrate, the rural-urban CPI gap has swung from 1.5 percentage points (pp) in FY16—when rural CPI stood at 5.6% vs 4.1% for urban—to -1.1 pp in FY20, reflecting an atypical scenario where urban inflation (5.4%) exceeded rural inflation (4.3%). A key driver of these oscillations is food inflation, given its large weight in rural consumption. In FY20, rural food inflation surged to 8.1%, far above the 4.8% seen in urban areas—yet headline rural inflation remained lower due to milder non-food pressures. More recently, in FY25TD, overall rural CPI (5.4% YoY) again surpasses its urban counterpart (4.3% YoY), creating a 1.1 pp gap. Notably, food inflation is elevated at 7.6% YoY, with urban areas (7.7%) slightly outpacing rural markets (7.4%). These shifts highlight the nuanced interplay of supply dynamics, local cost structures, and consumption patterns that can reverse or widen the rural-urban inflation gap.

Figure 79: Average consumer price inflation trend


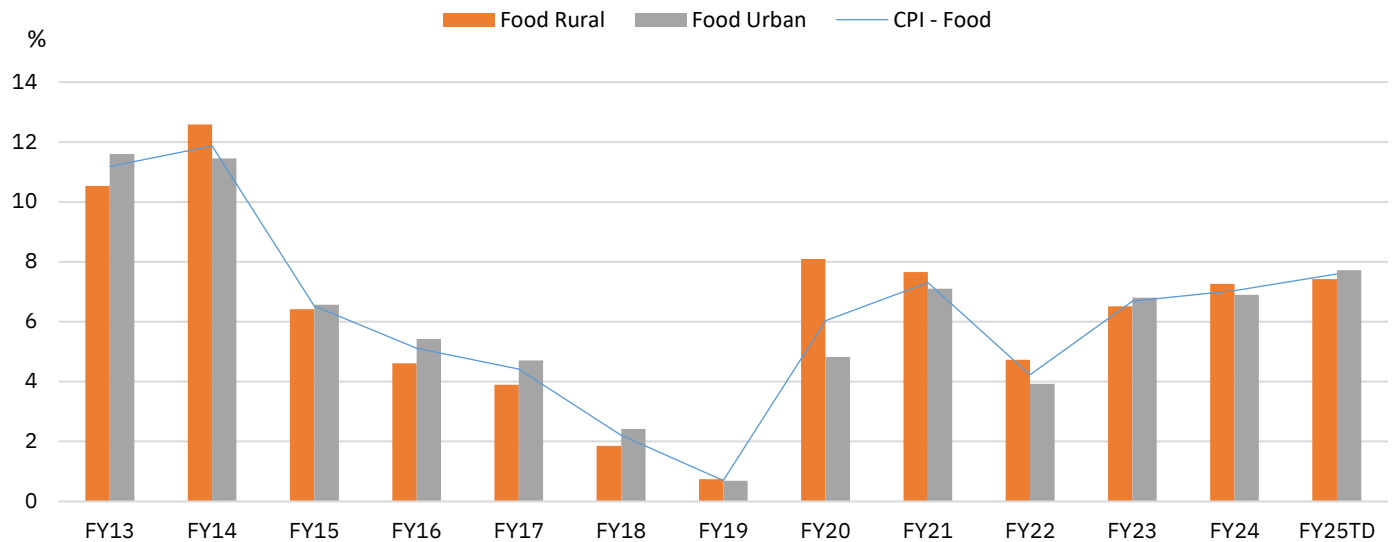
Source: CMIE Economic Outlook, NSE EPR. FY25TD pertains to April-December 2024

Figure 80: Components of Consumer Price Inflation and its trend (%YoY)


Source: CMIE Economic Outlook, NSE EPR. FY25TD pertains to April-December 2024.

Figure 81: Rural-Urban Inflation Gap (%YoY)


Source: CMIE Economic Outlook, NSE EPR; FY25TD pertains to April-December 2024

Figure 82: Rural-Urban Food Inflation Gap (%YoY)


Source: CMIE Economic Outlook, NSE EPR. FY25TD pertains to April-December 2024

Table 9: Consumer Price Inflation in December 2024 (%YoY)

%YoY	Weight (%)	Dec-24	Nov-24	Dec-23	FY25TD	FY24TD
CPI		5.2	5.5	5.7	4.9	5.5
Food & Beverages	45.9	7.7	8.2	8.7	7.6	6.8
Pan, Tobacco & Intoxicants	2.4	2.5	2.3	3.6	2.7	3.8
Clothing & Footwear	6.5	2.7	2.7	3.6	2.7	5.3
Housing	10.1	2.7	2.9	3.6	2.7	4.2
Fuel & Light	6.8	(1.4)	(1.8)	(1.0)	(3.1)	2.2
Miscellaneous	28.3	4.2	4.3	4.1	3.9	4.7
Core CPI inflation¹	44.9	3.6	3.7	3.9	3.5	4.7

 Source: CSO, NSE EPR; Note: ¹ Headline inflation excluding food & beverages, pan, tobacco & intoxicants and fuel & light.

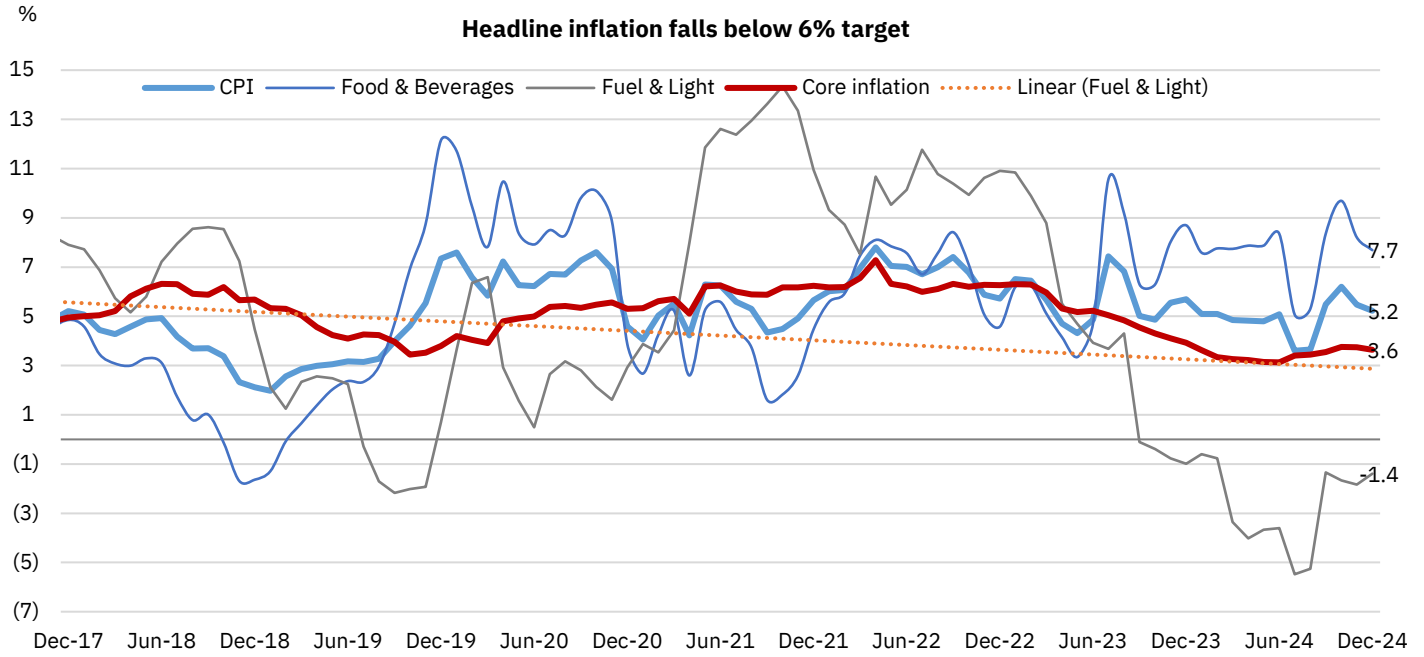
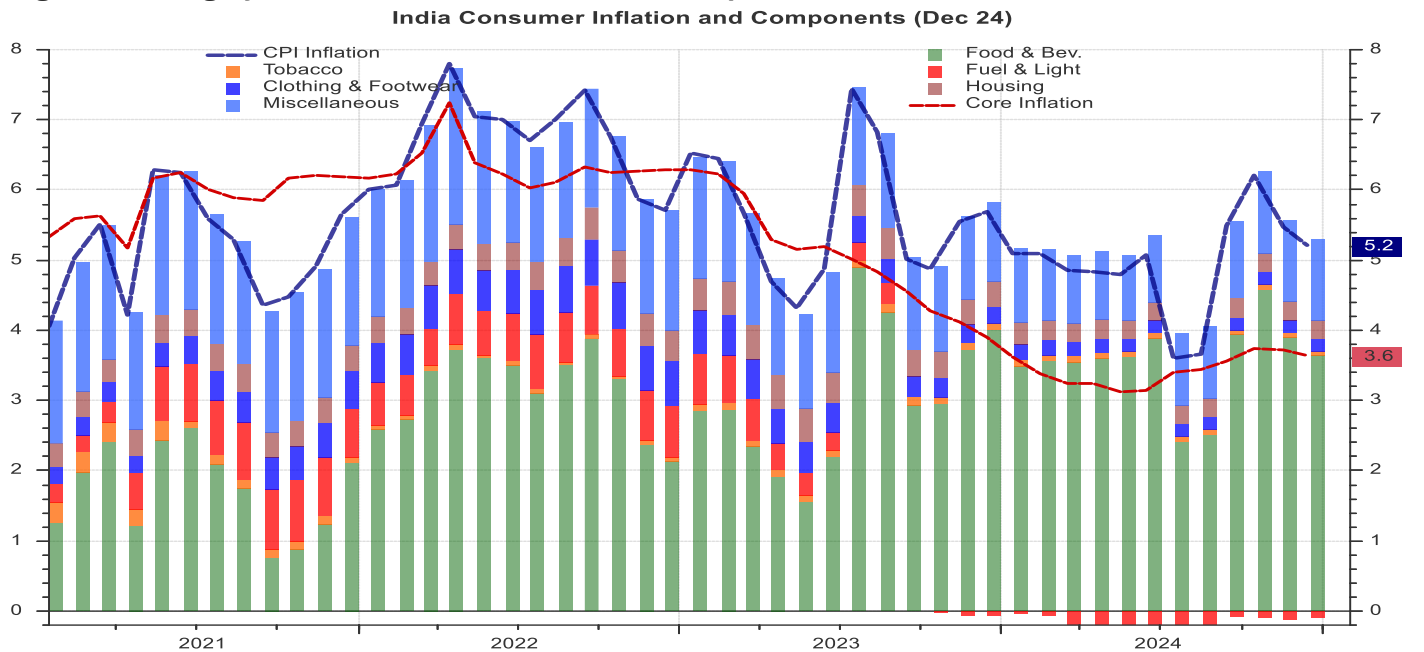
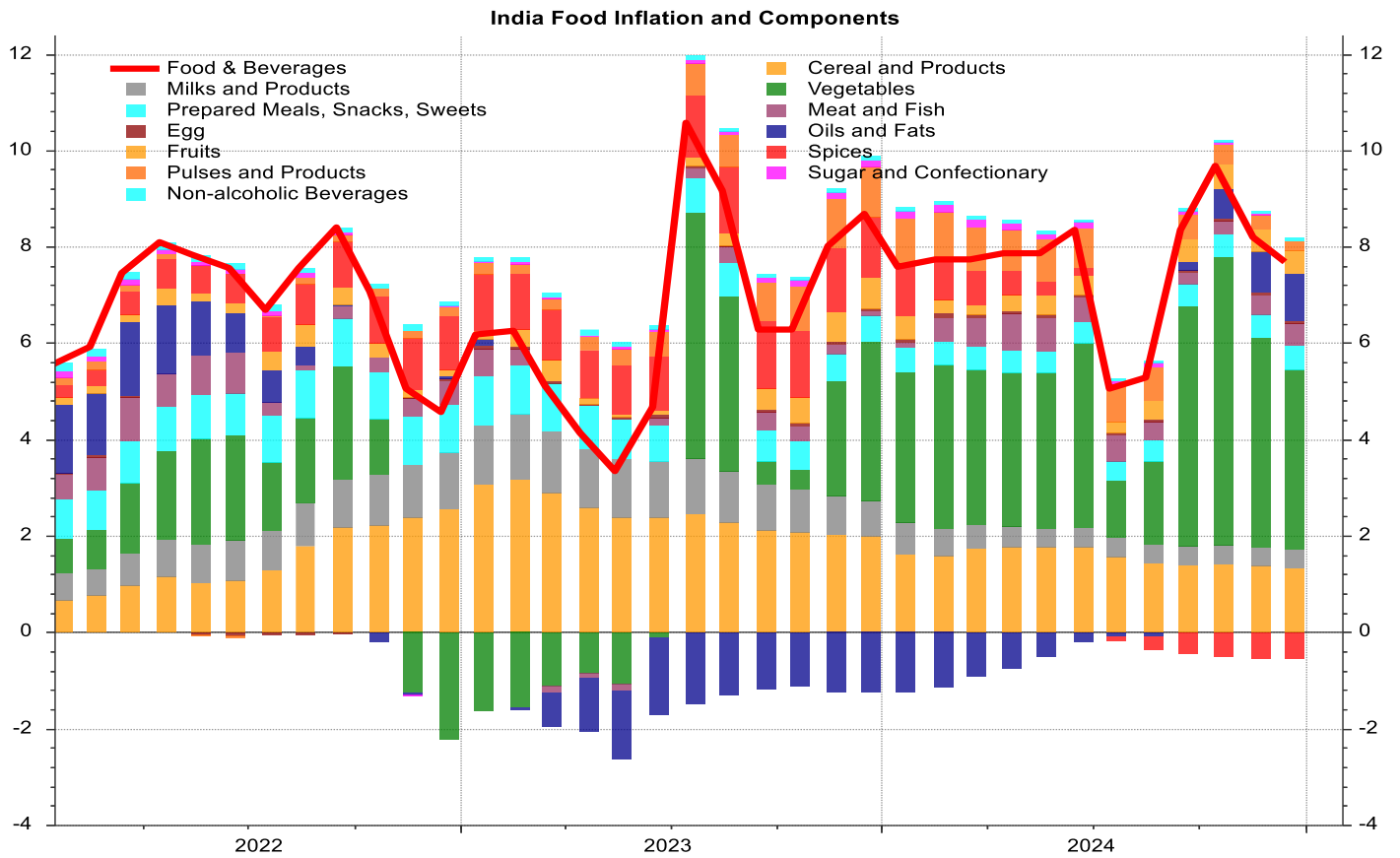
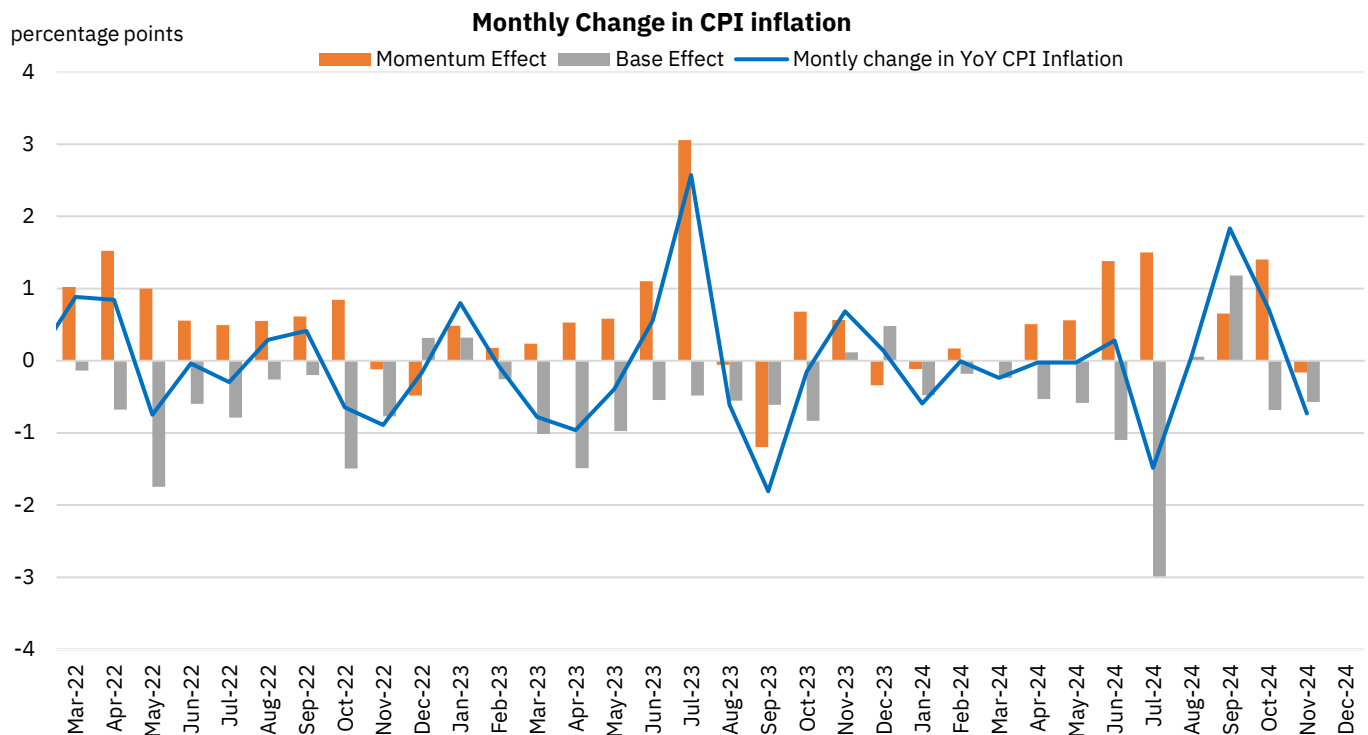
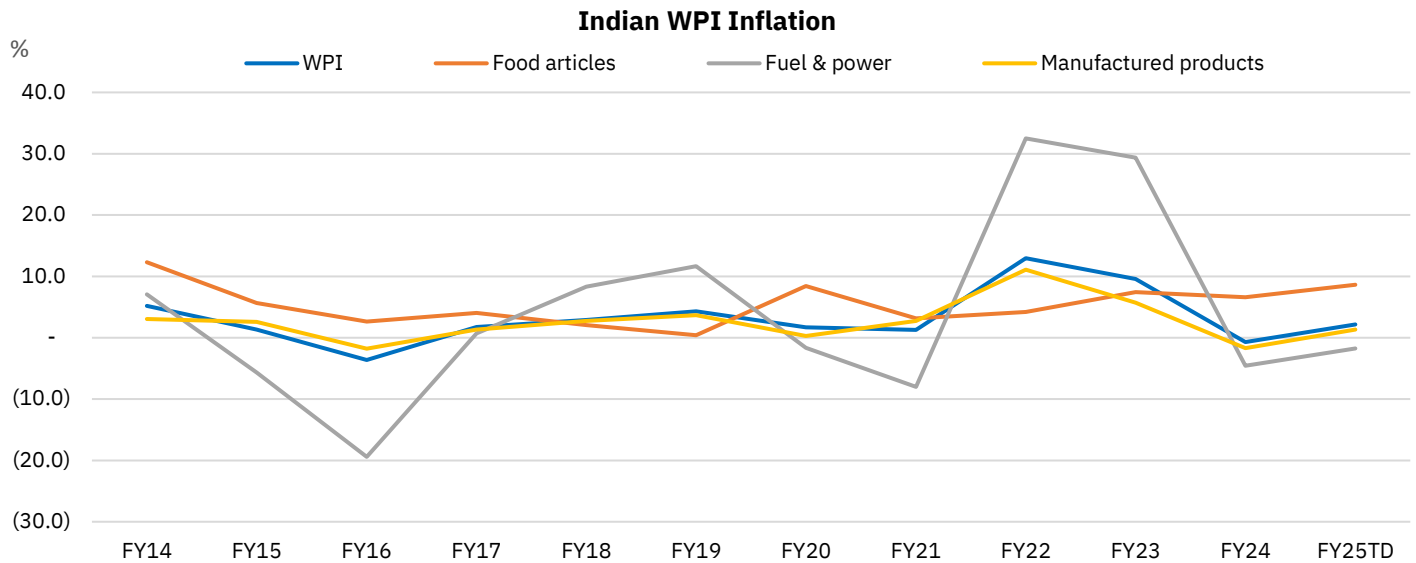
Figure 83: Headline CPI inflation trend

Figure 84: Category-wise contribution to India consumer price inflation (CPI)


Figure 85: Category-wise contribution to India Food and Beverages inflation (CPI)


Source: LSEG Datastream, NSE EPR.

Figure 86: Monthly Change in CPI inflation broken down by base and momentum


Source: CMIE Economic Outlook, NSE EPR

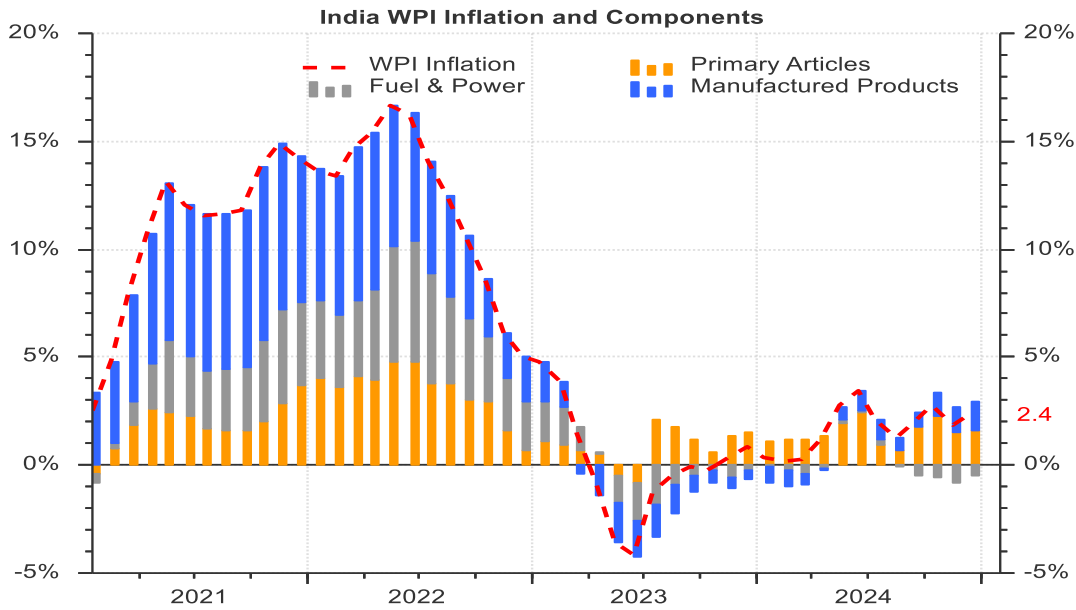
Figure 87: Components of Wholesale Price Inflation and its trend (%YoY)


Source: CMIE Economic Outlook, NSE EPR.

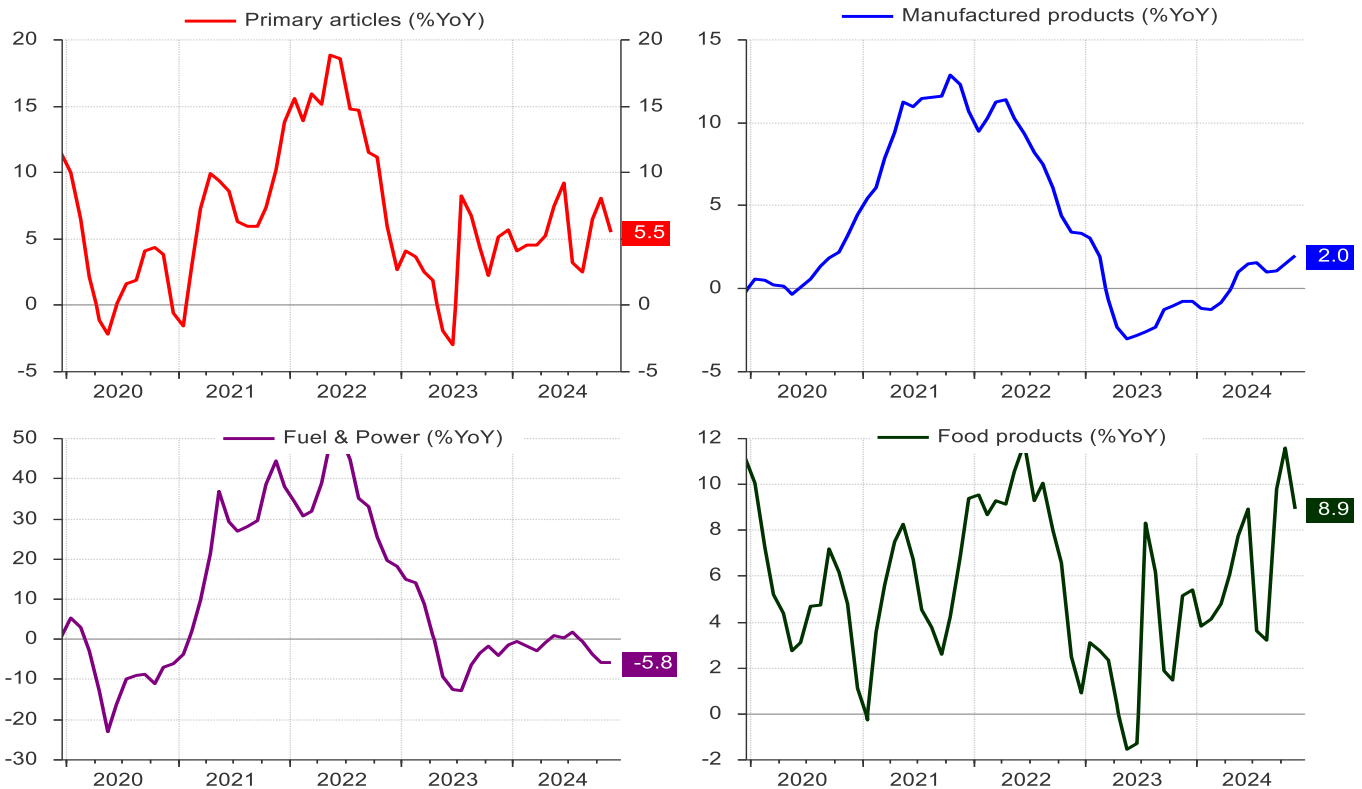
Table 10: Wholesale price inflation for December 2024 (%YoY)

	Weight (%)	Dec-24	Nov-24	Dec-23	FY25TD	FY24TD
WPI		2.4	1.9	0.9	2.2	-0.9
Primary articles	22.6	6.0	5.5	5.7	6.0	3.4
Food articles	15.3	8.5	8.6	9.3	8.6	6.5
Non-food articles	4.1	2.5	-1.0	-5.2	-1.6	-5.6
Minerals	0.8	5.5	5.9	6.8	5.4	8.3
Crude petroleum & natural gas	2.4	-6.8	-8.1	-0.1	-0.2	-4.3
Fuel & power	13.2	-3.8	-5.8	-1.4	-1.7	-5.1
Coal	2.1	-0.8	-0.9	1.8	-0.7	2.7
Mineral oils	8	-3.8	-5.2	-2.7	-1.7	-8.5
Electricity	3.1	-5.7	-10.4	0.4	-2.5	1.9
Manufactured products	64.2	2.1	2.0	-0.8	1.3	-1.8
Food group	24.4	8.9	8.9	5.4	7.7	3.0

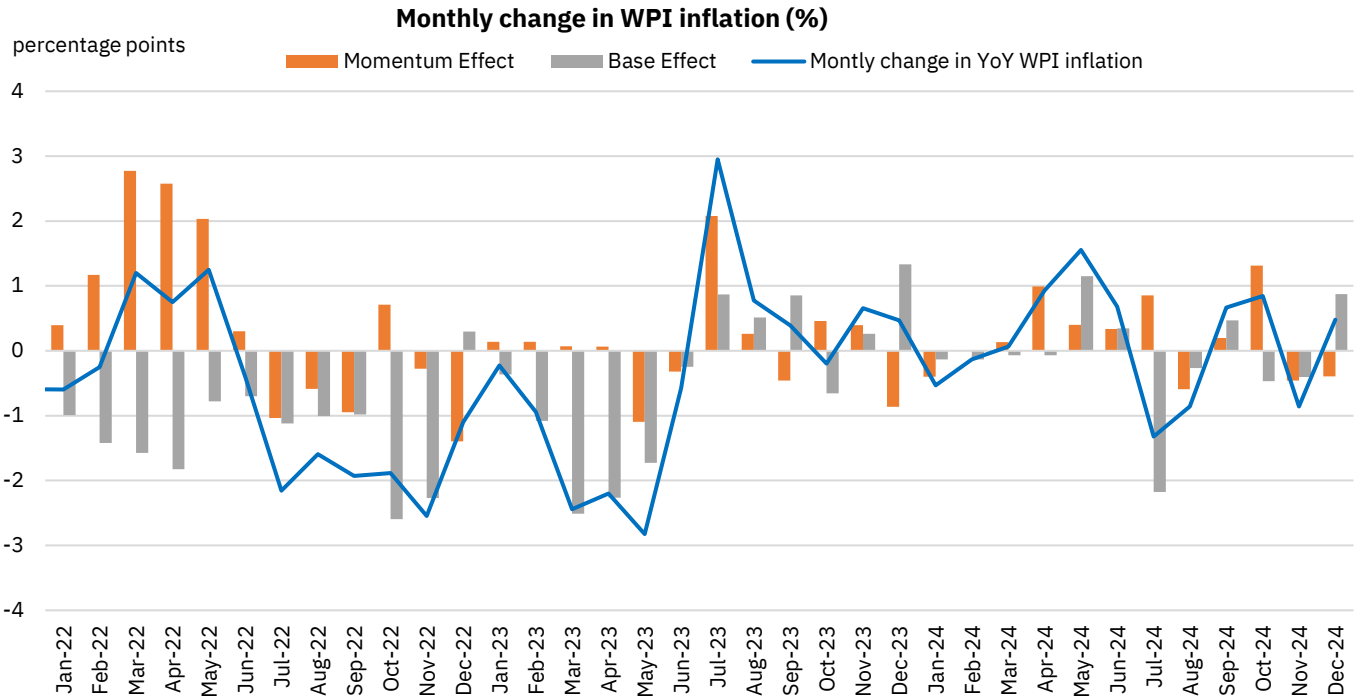
Source: CSO, CMIE Economic Outlook, NSE EPR.

Figure 88: Category-wise contribution to India wholesale price index (WPI)


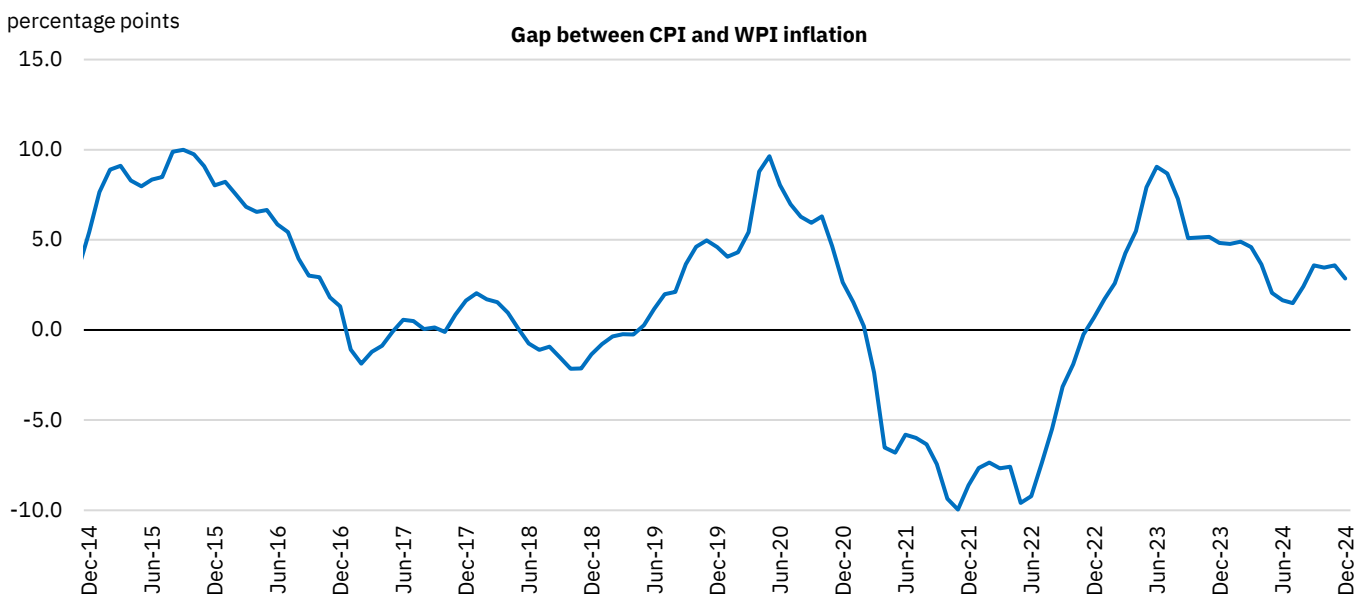
Source: LSEG Datastream, NSE EPR.

Figure 89: India wholesale price inflation (WPI)


Source: LSEG Datastream, NSE EPR.

Figure 90: Monthly Change in WPI inflation broken down by base and momentum


Source: CMIE Economic Outlook, NSE EPR.

Figure 91: Gap between retail and wholesale inflation


Source: CMIE Economic Outlook, NSE EPR.

Merchandise trade deficit declines as services surplus strengthens stability

India's merchandise trade deficit, though off its FY23 peak of US\$264.8bn, remains considerable at US\$210.8bn so far in FY25 (Apr-Dec'24 (vs. US\$ 208.7 bn in the same period last year), highlighting persistent pressures from elevated crude prices and steady demand for electronics and machinery. Exports, after hitting the peak of US\$450.6bn in FY23, have also softened to US\$321.7bn in FY25TD (vs. US\$ 358.6 bn in FY24TD) amid a global economic slowdown, while imports stand at US\$532.5bn in FY25TD (vs. US\$ 567.3 bn)—down from the FY23 record of US\$715.3bn but still elevated by historical standards. Petroleum products and gold continue to influence both sides of the ledger, although non-oil, non-gold imports also carry weight, reflecting expanding consumer and industrial needs. With geopolitical tensions and commodity price volatility lingering, India's external sector faces a delicate balancing act, emphasizing the need for export diversification and prudent demand management to contain the trade gap.

On the other hand, India's services sector has proven a reliable buffer, maintaining a sizable surplus and thereby mitigating the impact of the goods deficit. In FY24, services exports reached US\$341.1bn against imports of US\$178.3bn, pushing the net surplus to US\$162.8bn. This momentum continued into FY25TD, where exports totalled US\$280.9bn (vs. US\$ 251.7 bn in FY24TD), generating a surplus of US\$131.3bn (vs. US\$ 120 bn). IT, financial services, and business process outsourcing underpinned these gains, though rising competition and persistent global uncertainties underscore the importance of ongoing innovation, skill development, and supportive policy frameworks to sustain India's competitive edge and stabilize the broader trade balance.

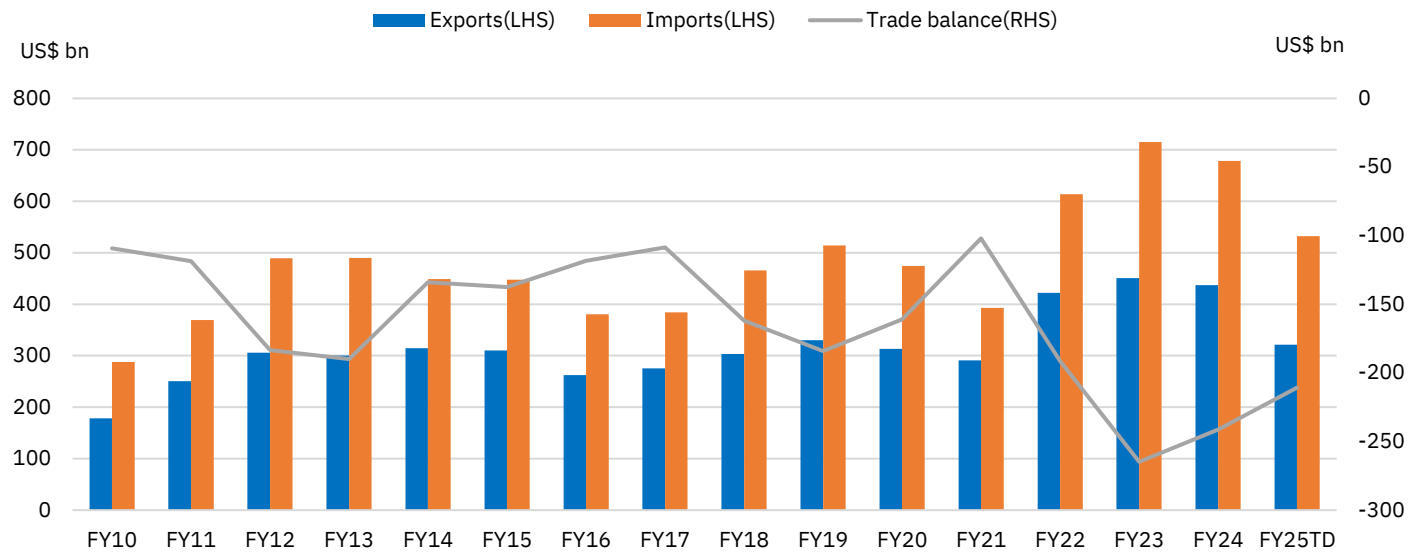
- **India's trade deficit narrows but remains elevated amid global challenges....:**

India's merchandise trade deficit reached a historic peak in FY23 at US\$264.8bn, propelled by elevated crude prices and a strong import demand for commodities and precious metals. Although the trade gap moderated to US\$241.2bn in FY24 and stands at US\$210.8bn so far in FY25 (vs. US\$208.7 bn in FY24TD), it remains sizable compared to pre-pandemic norms. Exports—which had touched US\$450.6bn in FY23—have since softened amid a global economic slowdown, inching down to US\$437.1bn in FY24 and US\$321.7bn in FY25TD (vs. US\$358.6 bn in FY24TD). Meanwhile, imports, although lower than their peak of US\$715.3bn in FY23, continue to be elevated at US\$678.3bn in FY24 and US\$532.5bn in FY25TD (vs. US\$ 567.3 bn in the same period last year). Beyond petroleum and gold, rising demand for electronics and machinery has also contributed to persistent import bills. With headwinds such as geopolitical tensions and volatile commodity prices still in play, the external sector remains under pressure, calling for a balanced approach to export diversification and prudent domestic demand management.

- **... as India's export growth shows resilience from sectoral volatility:** India's exports across key sectors registered strong gains, albeit with intermittent fluctuations reflecting global economic conditions and domestic policies. Petroleum Products have risen considerably, climbing from US\$28.0bn FY10 to US\$97.3bn in FY23 before moderating to US\$84.2bn in FY24. Similarly, Engineering Goods expanded from US\$32.6 bn to US\$102.9bn by FY24, underscoring India's rising manufacturing capabilities supported by government policies to enhance its production. Electronic goods has also emerged as a resilient segment, growing from US\$5.5 bn in FY10 to US\$30.9 bn in FY24. Other segments, such as Gems & Jewelry, readymade textiles, have also contributed notably to the export basket while gold exports continue to exhibit periodic swings, partly due to global price shifts and geopolitical considerations. Preliminary data for FY25TD indicates continued activity in these key export categories—Petroleum Products

stand at US\$49.0bn (vs. US\$ 61.9 bn in the same period last year), Engineering Goods at US\$82.7bn (vs. US\$ 75.6 bn), Gems & Jewellery at US\$21.4bn (vs. US\$ 24.3 bn), Ready Made Textiles at US\$11.3bn (vs. US\$ 10.1 bn), and Electronic Goods at US\$27.4 bn (vs. US\$21.4 bn), reflecting the sector's ongoing adaptation to changing global demand and market conditions. Overall, while India's export portfolio has strengthened significantly, the pronounced volatility in certain areas highlights the importance of strategic diversification and enhanced value addition to sustain and stabilize growth amidst evolving economic uncertainties

- **India's growing imports highlight rising demand and global ties:** India's imports have expanded substantially from US\$287.6 bn in FY10 over a decade and half ago to US\$678.3bn FY24, reflecting rising domestic demand, elevated energy requirements, and robust consumption of precious metals and electronics. Oil imports surged from US\$86.8 bn in FY10 to a peak of US\$209.3 bn in FY23, driven by escalating energy demands to support industrial growth and economic expansion, before moderating to US\$178.8 bn in FY24. Non-oil imports also exhibited a similar experience with robust growth, increasing to US\$506.0 bn in FY23, propelled by heightened demand for machinery, electronics, and consumer goods, before tapering to US\$499.5 bn in FY24. For FY25TD, overall imports total US\$532.5 bn , with oil imports at US\$138.3 bn(vs. US\$ 148 bn in the same period last year), gold imports at US\$42.1 bn (vs. US\$ 39.3 bn), and non-oil, non-gold imports at US\$352.1 bn (vs. US\$ 380 bn), indicating continued momentum across key segments. These import trends underscore India's increasing integration into global supply chains and the diversification of its consumption basket. The substantial growth in non-oil categories highlights the country's expanding industrial base and rising consumer demand, while the volatility in precious metals imports reflects sensitivity to global market conditions and investment behaviors. To sustain and stabilize import growth amidst global economic uncertainties, India must focus on strategic import management, enhancing domestic production capabilities, and fostering innovation to reduce dependency on volatile commodity markets. Additionally, diversifying import sources and strengthening trade partnerships will be crucial in mitigating trade deficits and supporting long-term economic resilience.
- **Services surplus continues to provide support to the CAD balance:** India's services trade has been instrumental in keeping the country's CAD under check, demonstrating substantial growth over the last one and half decade. In FY24, services exports increased to US\$341.1 bn, up from US\$325.3 bn in FY23, while imports slightly declined to US\$178.3 bn from US\$182.0 bn, resulting in net services exports of US\$162.8 bn. This growth is driven by impressive annual increases in service receipts, peaking at 27.8% in FY23 and 23.5% in FY22, coupled with controlled service payments, which grew by 23.8% in FY23 but decreased by 2.1% in FY24. In FY25TD, exports stood at US\$280.9 bn (vs. US\$251.7 bn in the same period last year) with services trade surplus reaching US\$131.3 bn (vs. US\$ 120 bn). The robust performance in IT, financial services and business outsourcing process has been central to this trend. However, with global uncertainties persisting and competition intensifying, maintaining the momentum in India's services exports will hinge on strategic diversification, ongoing investment in digital infrastructure, and sustained policy support.

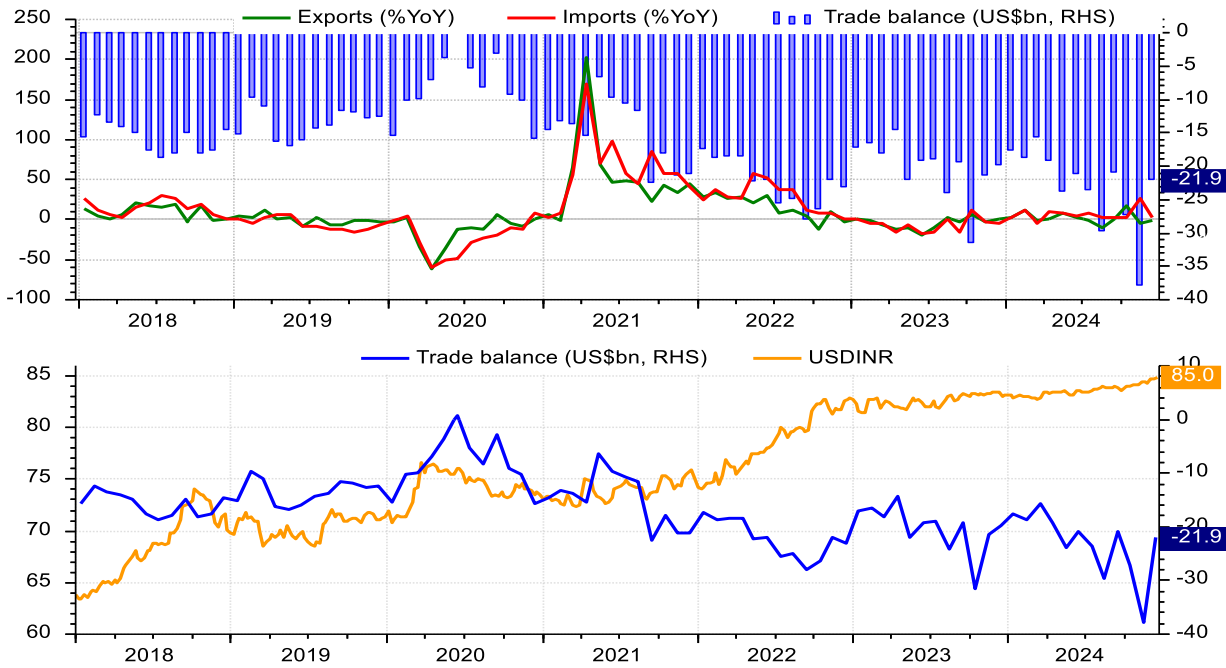
Figure 92: India yearly trade balance trend


Source: Ministry of Commerce, CMIE Economic Outlook. NSE EPR; FY25TD pertains to April-December 2024

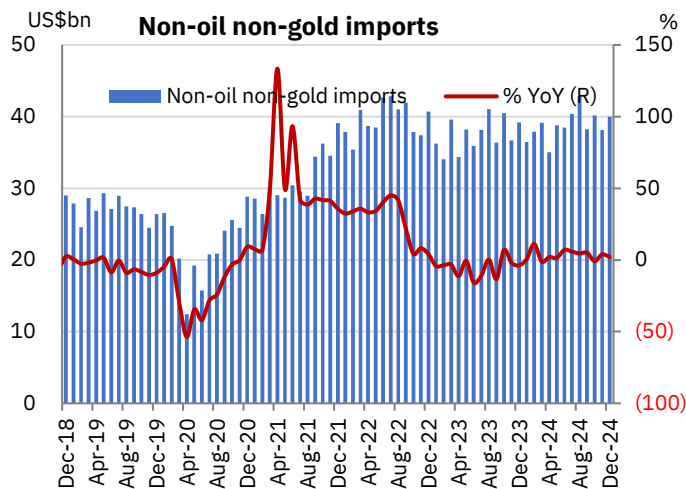
Table 11: India monthly trade balance for December 2024

	Exports		Imports								Trade balance
	US\$ bn	%YoY	Total (US\$ bn)	%YoY	Oil imports (US\$ bn)	%YoY	Non-oil imports (US\$ bn)	%YoY	Gold Import (US\$ bn)	%YoY	US\$ bn
Dec-24	38.0	-1.0	59.9	4.9	15.3	2.2	44.7	5.8	4.7	55.4	-21.9
Nov-24	32.0	-5.0	63.9	16.0	15.9	6.5	48.0	19.5	9.8	185.8	-31.8
Dec-23	38.4	0.8	57.2	-6.7	14.9	-22.8	42.2	0.8	3.0	156.5	-18.8
FY24TD	316.7	-5.8	506.4	-7.7	130.0	-18.1	376.4	-3.5	36.0	26.7	-189.8
FY25TD	321.7	1.6	532.5	5.2	138.3	6.4	394.2	4.7	42.1	17.1	-210.8

Source: Ministry of Commerce, CMIE Economic Outlook. NSE EPR. FY25TD pertains to April-December 2024

Figure 93: India monthly trade balance trend


Source: LSEG Datastream, NSE EPR. FY25TD pertains to April-December 2024

Figure 94: Non-oil, non-gold imports


Source: Ministry of Commerce, CMIE Economic Outlook. NSE EPR.

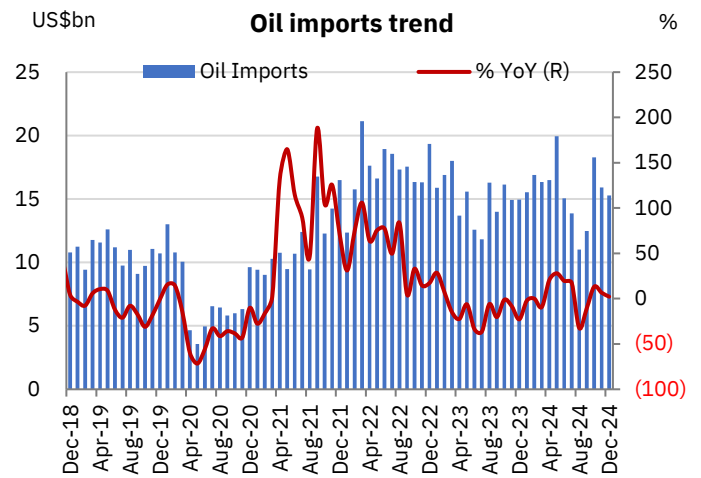
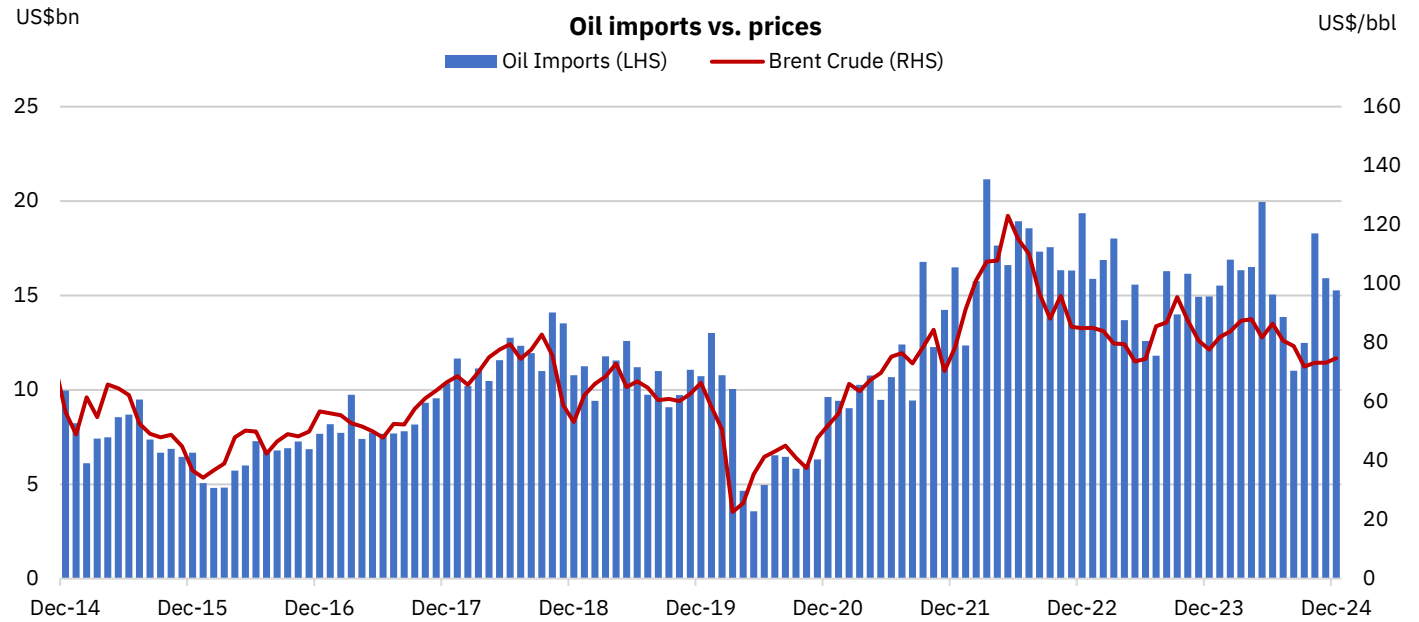
Figure 95: Oil imports trend


Figure 96: Oil imports vs. Brent crude oil prices trend


Source: LSEG Datastream, CMIE Economic Outlook, NSE EPR. FY25TD pertains to April-December 2024

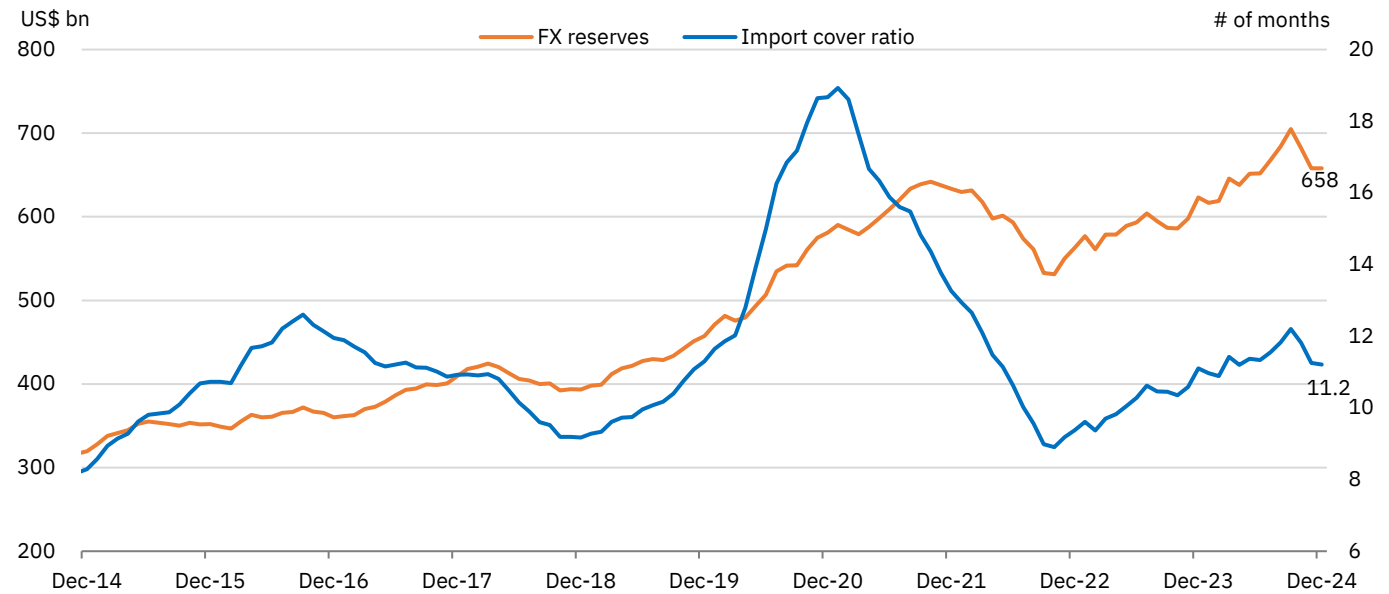
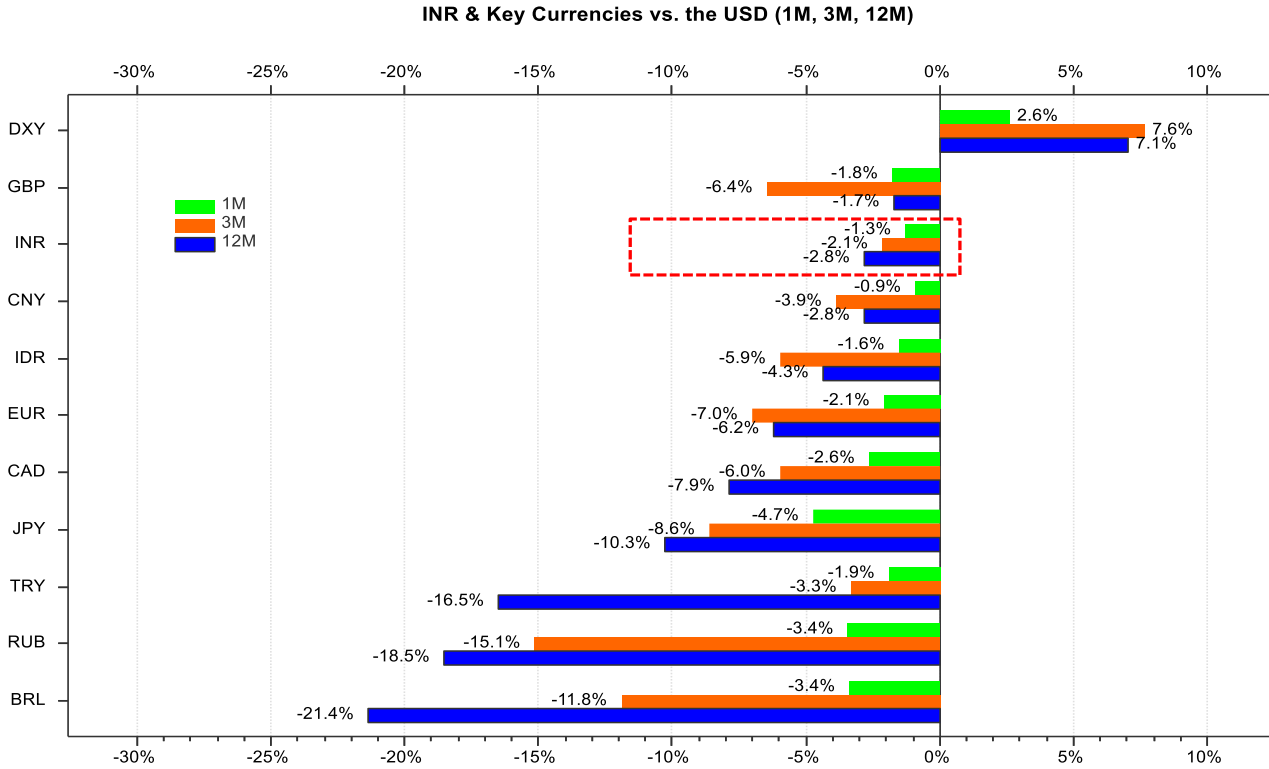
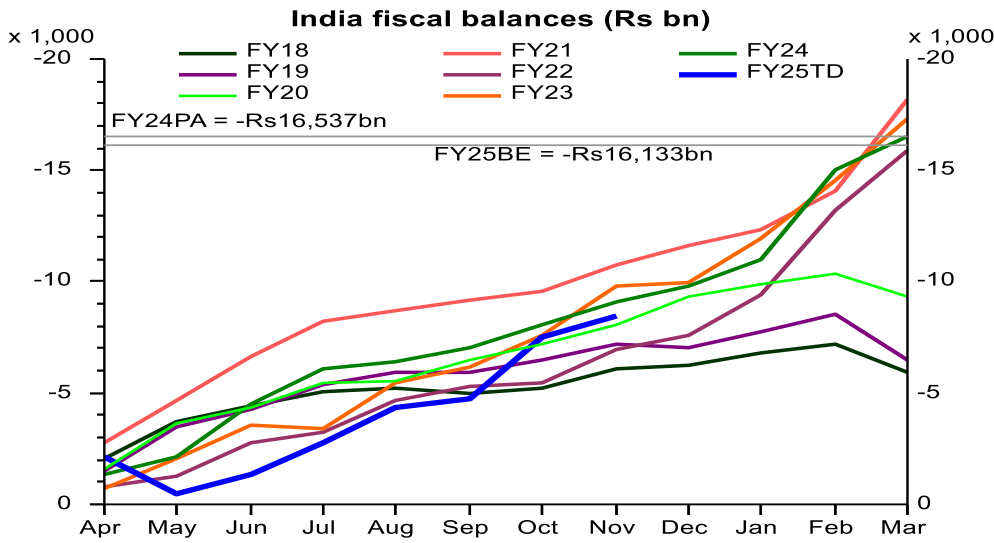
Figure 97: Forex reserves and import cover (months)

 Source: LSEG Datastream, RBI, NSE EPR; Forex reserves as of December 31st, 2024

Figure 98: INR vs. other key Asian market currencies

 Source: LSEG Datastream, NSE EPR. As of December 31st, 2024.

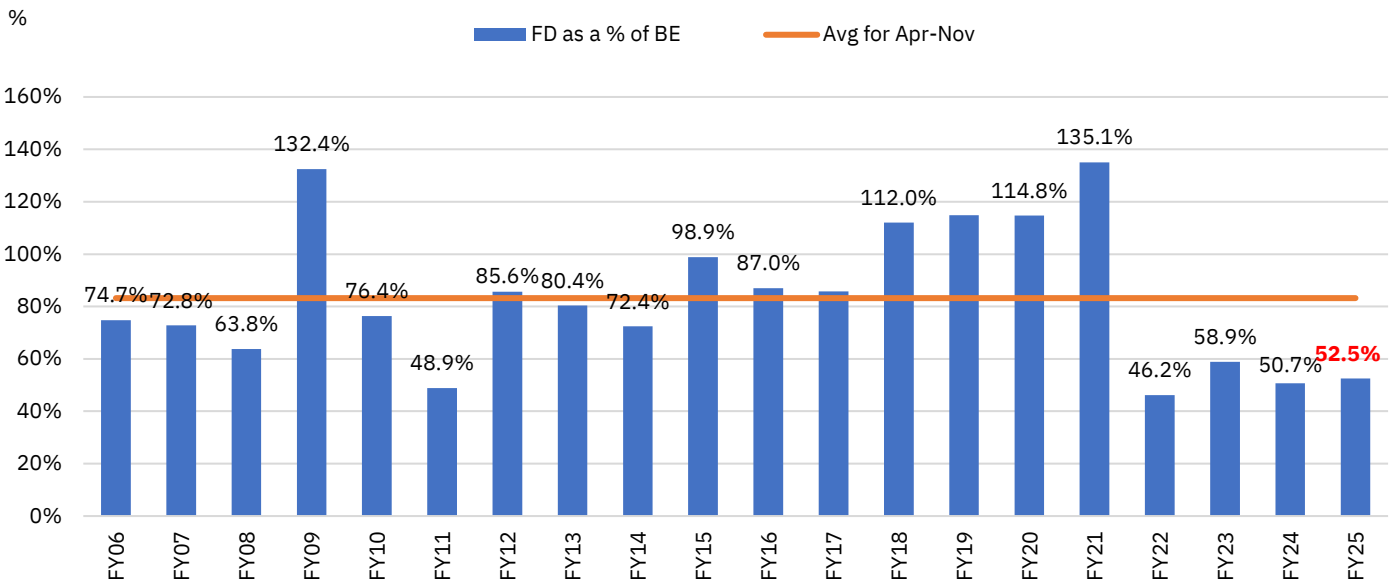
Union finances: Fiscal consolidation continues; on track to achieve the GFD target

The Union Government is on track to meet its FY25 fiscal deficit target of 4.9% of GDP, with the deficit at Rs 8.5 lakh crore during April-November, 6.6% lower YoY and 52.5% of FY25BE (vs. 50.7% in FY24). A combination of faster pace of realization rates for indirect taxes and non-tax revenues coupled with lower utilization rates of capex (46.2% of FY25BE) has facilitated fiscal consolidation. Direct tax has shown mixed trends with corporate tax collections remaining at the same level as last year while the personal income tax collections have been showing a growth of 23.5% YoY. That said, the realization rate during April-November for corporate tax (50.2% of FY25BE) and personal income tax (59%) have been lower than last year. Disinvestment proceeds at Rs 9,000 crore remain well below target, potentially marking the 15th year of likely miss in the last two decades. Revenue expenditure has been on track at 60% of FY25BE, same as that of last year. Capex momentum has weakened after September, raising concerns about meeting full-year targets. Spending on subsidies, particularly food, has been significantly higher than in the same period last year. With the Union Budget for 2025-26 round the corner, the expectation is for the Government to continue with its fiscal consolidation trajectory and adhere to the 4.5% fiscal target for FY26.

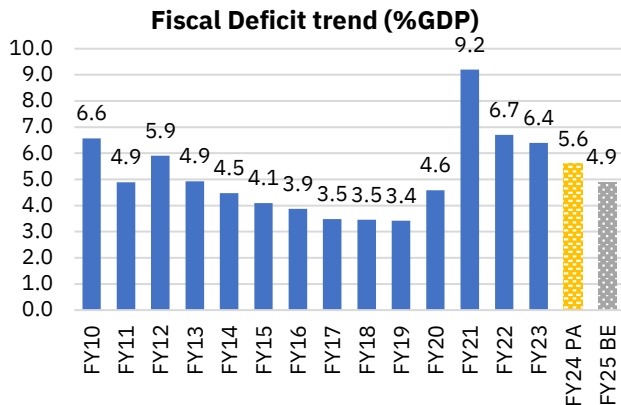
- **Union Government on track to meet the FY25 fiscal deficit target...:** The Union Government's fiscal deficit stood at Rs 8.5 lakh crore during April-November FY25, lower by 6.6% YoY and accounting for 52.5% of the FY25BE (vs. 50.7% of FY24BE). With four months remaining, the Government is on track to meet its fiscal deficit target of 4.9% of GDP for FY25 and may potentially undershoot it, given the current trends. Post-pandemic recovery (FY22-FY25TD) has seen fiscal deficit during April-November average 52% of budget estimates, significantly lower than the pre-pandemic average of nearly 100% (FY15-FY19), indicating improved fiscal discipline and efficient budget execution.
- **...on the back of strong personal income tax and GST collections...:** Revenue receipts this fiscal have shown divergent trends. Corporate tax collections remained at previous year's levels, achieving 50.2% of FY25BE (vs. 56% in FY24), weighed down by lower-than-expected corporate earnings. In contrast, personal income tax collections have grown by 23.5% YoY, reaching 59% of FY25BE, though this remains lower than the 63% achieved during the same period last year. Indirect tax collections have maintained momentum, led by GST (+9.8% YoY) and customs duties (+8.7% YoY). Non-tax revenues, driven primarily by the RBI dividend, surged to 78.3% YoY of FY25BE. However, disinvestment proceeds stood at Rs 9,000 crore during FY25TD, well below target, and thus the Government could miss the disinvestment goal for the 15th time in two decades.
- **...while the pace of expenditure remains subdued:** While revenue expenditure remains on track at nearly 60% of FY25BE, matching last year's pace, capital expenditure has fallen sharply to 46.2% of FY25BE, compared to 58.5% last year. After peaking at Rs 1.1 lakh crore in September, the pace of capex has slowed, averaging around Rs 50k crore in the subsequent two months. If this trend persists, the full-year capex could fall significantly short of the target. Meanwhile, spending on subsidies, particularly food and fertilizers, has surged, with both reaching approximately 74% of FY25BE, compared to 54% and 73%, respectively, during the same period last year.

Figure 99: Yearly trend of India's fiscal balances


Source: LSEG Datastream, NSE EPR.

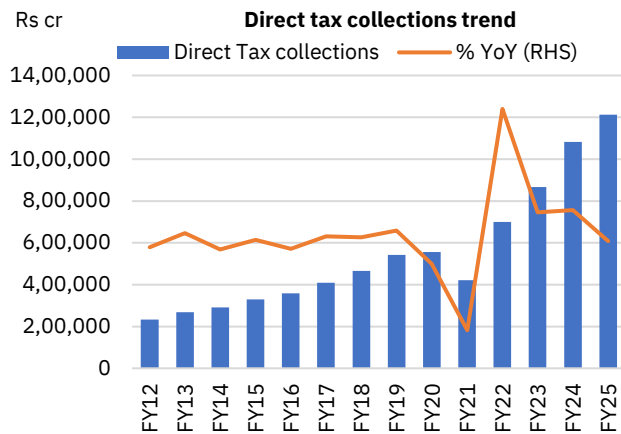
Figure 100: Gross fiscal deficit as % of budget targets during April-November


Source: CMIE Economic Outlook, CGA, NSE EPR.

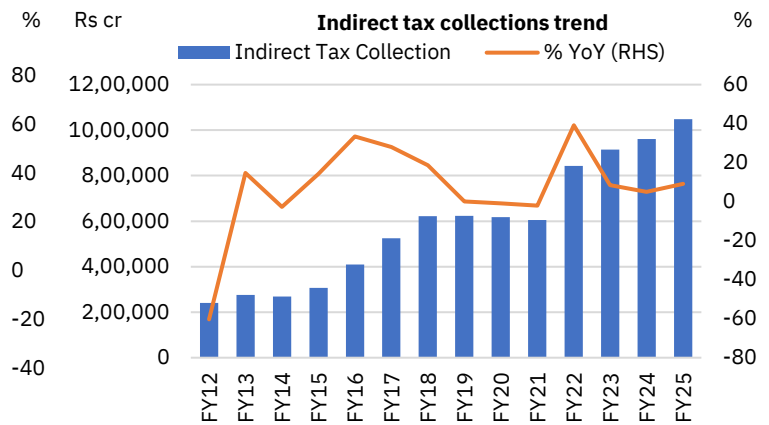
Figure 101: Centre's gross fiscal trend (% GDP)

Figure 102: Fiscal Balance Snapshot

Rs crore	FY23	FY24PA	% YoY	FY25BE	% YoY
Net tax rev	21.0	23.3	10.9%	25.8	11.0%
Non-tax rev	2.9	4.0	40.8%	5.5	35.8%
Non-debt cap rec.	0.7	0.6	-16.3%	0.8	29.0%
Total receipts	41.9	44.4	5.9%	48.2	8.5%
Revenue Exp	34.5	34.9	1.2%	37.1	6.2%
Capital Exp	7.4	9.5	28.2%	11.1	17.1%
Total exp.	41.9	44.4	5.9%	48.2	8.5%
Fiscal deficit	17.4	16.5	-4.8%	16.1	-2.4%
GDP	269.5	295.4	9.6%	326.4	10.5%
as a % of GDP	6.4	5.6		4.9	

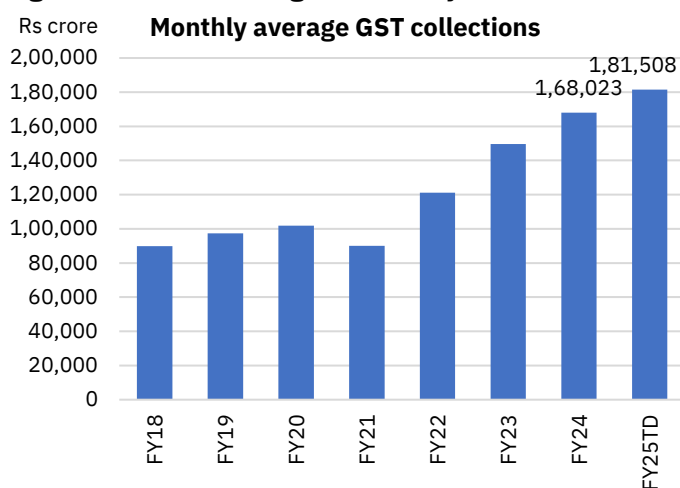
Source: CMIE Economic Outlook, CGA, NSE. BE = Budget Estimates, PA = Provisional Actuals

Figure 103: Direct tax collections during Apr-Nov


Source: CMIE Economic Outlook, CGA, NSE EPR.

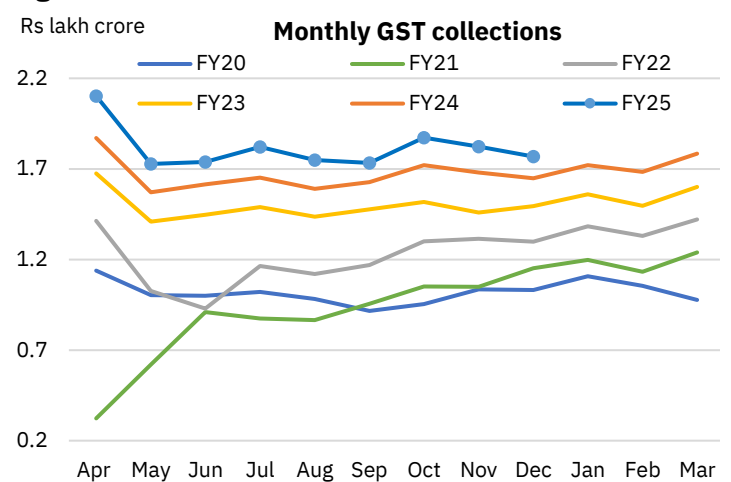
Figure 104: Indirect tax collections during Apr-Nov


Source: CMIE Economic Outlook, CGA, NSE EPR.

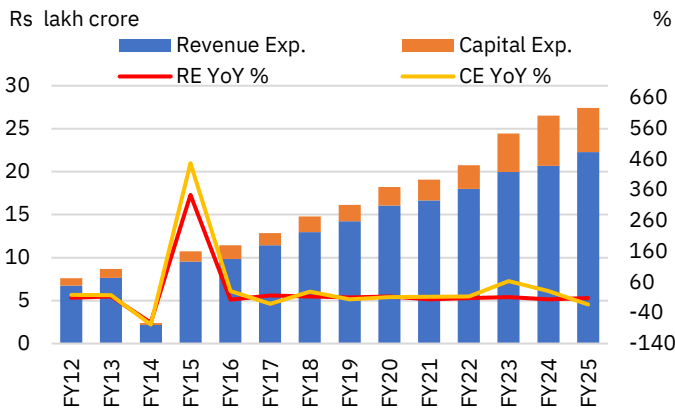
Figure 105: Year average of monthly collections*


*FY25TD – FY25 Till Date (Apr-Dec)

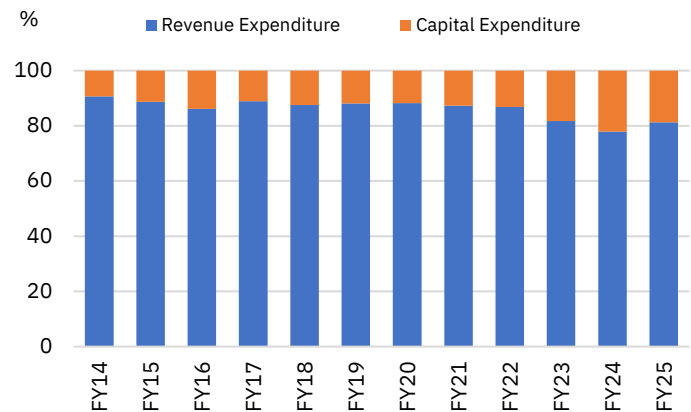
Source: CMIE Economic Outlook, CGA, PIB, NSE EPR.

Figure 106: GST collections trend


Source: CMIE Economic Outlook, NSE EPR.

Figure 107: Revenue and capital exp during Apr-Nov


Source: CMIE Economic Outlook, CGA, PIB, NSE EPR

Figure 108: Expenditure mix during Apr-Nov


Source: CMIE Economic Outlook, CGA, PIB, NSE EPR

Table 12: A snapshot of government finances (Apr-Nov FY25)

Items	Apr-Nov'23	Apr-Nov'24		Implied Figure (4MFY25)
	Rs crore	Rs crore	% YoY	Rs crore
Net tax revenues	14,35,755	14,43,435	0.5%	11,40,064
Gross tax revenues	20,42,027	22,60,975	10.7%	15,79,195
Of which:				
Direct Tax	10,81,778	12,12,411	12.1%	9,99,589
Corporation tax	5,14,374	5,11,636	-0.5%	5,08,364
Income tax	5,67,404	7,00,775	23.5%	4,86,225
Indirect Tax	9,60,249	10,48,564	9.2%	5,79,606
Goods and service tax	6,17,731	6,78,044	9.8%	3,83,855
Custom Duties	1,41,764	1,54,142	8.7%	83,603
Excise Duties	1,76,187	1,75,100	-0.6%	1,43,900
States Share	-6,01,366	-8,12,063	35.0%	-4,35,148
Transferred to NCCD	-4,906	-5,477	11.6%	-4,023
Non-Tax Revenue	2,84,365	4,27,020	50.2%	1,18,681
Dividends and profits	1,31,109	2,79,061	112.8%	10,073
Other non-tax revenues	1,53,256	1,47,959	-3.5%	1,08,608
Central govt. revenue receipts	17,20,120	18,70,455	8.7%	12,58,745
Non-Debt Capital Receipts	25,463	23,953	-5.9%	54,047
Recovery of Loans	16,707	14,972	-10.4%	13,028
Misc. receipts (inc. divestment)	8,756	8,981	2.6%	41,019
Total Receipts	17,45,583	18,94,408	8.5%	13,12,792
Revenue Expenditure	20,66,522	22,27,502	7.8%	14,81,899
Interest Payments	6,07,963	6,58,494	8.3%	5,04,446
Major subsidies	2,42,756	2,79,211	15.0%	1,49,212
Food	1,14,392	1,51,765	32.7%	53,485
Fertilizer	1,27,245	1,21,363	-4.6%	42,637
Petroleum	1,119	6,083		5,842
Other revenue expenditure	12,15,803	12,89,797	6.1%	8,28,241
Capital Expenditure	5,85,645	5,13,500	-12.3%	5,97,611
Total Expenditure	26,52,167	27,41,002	3.3%	20,79,510
Fiscal Deficit	9,06,584	8,46,594	-6.6%	7,66,718

Source: CMIE Economic Outlook, CGA, Budget Documents, NSE EPR.

Table 13: A snapshot of Government finances in 2024-25

Items	FY23		FY24				FY25	
	Rs lakh crore	% YoY	BE (Rs lakh crore)	PA (Rs lakh crore)	% YoY	% chg. from BE	BE (Rs lakh crore)	% YoY over FY24PA
Central govt. net tax revenue	20.9	16.0	23.3	23.3	11.1	0.0	25.8	10.9
Gross tax revenues	30.5	12.6	33.6	34.6	13.6	3.0	38.4	11.0
Of which:								
Direct Tax	16.6	17.8	18.2	19.7	18.7	8.2	22.1	12.3
Corporation tax	8.3	16.0	9.2	9.1	10.3	(1.1)	10.2	12.1
Income tax	8.3	19.7	9.0	10.5	25.4	16.7	11.9	13.0
Indirect Tax	13.9	6.9	15.4	15	7.6	(2.6)	16.3	8.5
Goods and service tax	8.5	21.6	9.6	9.6	12.7	0.0	10.6	10.6
Custom Duties	2.1	6.8	2.3	2.3	9.2	0.0	2.4	3.4
Excise Duties	3.2	(19.2)	3.4	3.1	(4.3)	(8.8)	3.2	2.9
States Share	-9.5	5.6	-10.2	-11.3	19.1	10.8	-12.5	10.4
Transferred to NCCD	-0.1	30.5	-0.1	-0.09	9.7	(10.0)	-0.1	5.6
Non-Tax Revenue	2.9	(18.0)	3.0	4.0	40.8	33.3	5.5	36.4
Dividends and profits	1.0	(37.8)	0.9	1.7	70.6	88.9	2.9	70.1
Central govt. revenue receipts	23.8	9.8	26.3	27.3	14.5	3.8	31.3	14.6
Non-Debt Capital Receipts	0.7	83.4	0.8	0.6	(16.3)	(25.0)	2.9	381.9
Divestment proceeds	0.5	214.5	0.6	0.3	(28.0)	(50.0)	0.5	66.7
Total Receipts	24.5	11.1	27.2	27.9	13.8	2.6	32.1	15.0
Revenue Expenditure	34.5	7.9	35	34.9	1.2	(0.3)	37.1	6.3
Interest Payments	9.3	15.3	10.8	10.6	14.6	(1.9)	11.6	9.7
Subsidy outgo	5.8	14.7	4.0	4.4	(23.8)	10.0	4.3	(2.6)
Capital Expenditure	7.4	24.8	10.0	9.5	28.2	(5.0)	11.1	17.0
Total Expenditure	41.9	10.5	45.0	44.4	5.9	(1.3)	48.2	8.6
Fiscal Deficit	17.4	9.7	17.9	16.5	4.8	(7.8)	16.1	(2.2)
Fiscal Deficit/GDP	6.4		5.9	5.6			4.9	

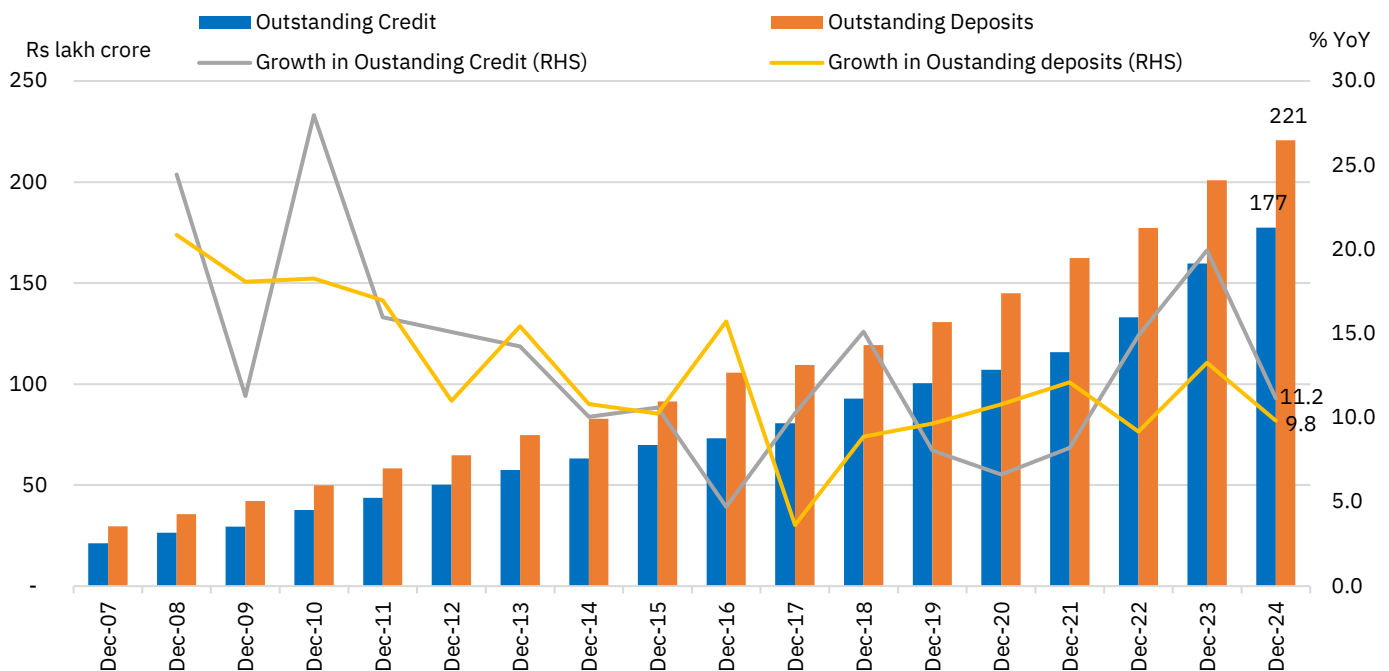
Source: Budget Documents, NSE EPR. BE: Budget Estimates; RE: Revised Estimates; A = Actual. PA = Provisional Actuals. Growth in FY24PA figures are on FY23 actual figures.

Bank credit growth moderates in 2024

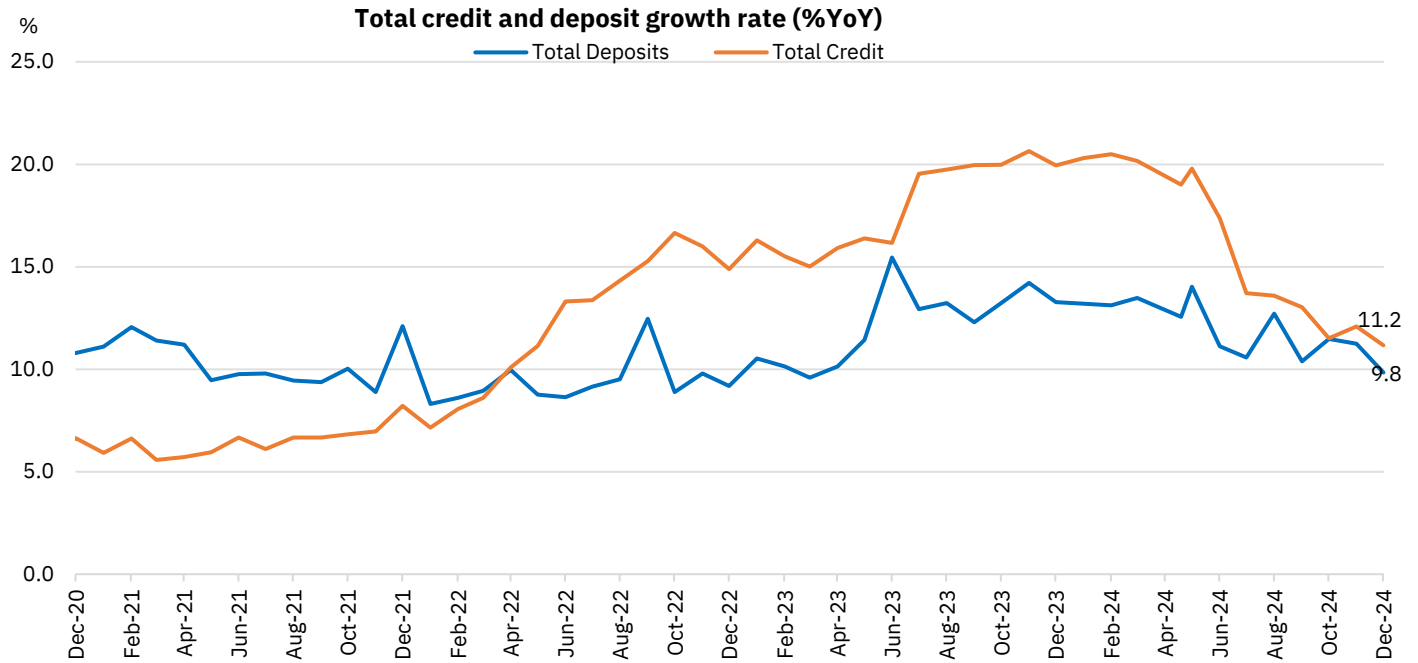
Outstanding bank credit growth moderated to 11.2% YoY in 2024 (as of December 27th, 2024) from 19.9% in the previous year, undershooting the five-year annualized growth of 12.1%. This moderation was owing to weaker momentum in personal loans and the services sector, particularly weighed down by RBI's regulatory tightening on unsecured retail loans and credit to NBFCs. Sector-wise, outstanding credit to agriculture grew by a robust 15.3% YoY in November 2024, even as the growth moderated from 18% YoY a year ago while outstanding credit to industry has rebounded to 8.0% YoY, supported by robust growth in medium (20% YoY) and large enterprises (6.1% YoY). Outstanding deposit growth at 9.8% YoY as of December 2024 has also eased from double-digit growth of 13.3% YoY a year ago, despite banks focusing on deposit mobilization and higher deposit rates. That said, the credit-deposit growth gap has narrowed significantly over the years, with the credit-deposit ratio (CD ratio) expanding from an average of 73.7% in 2020 to 76.8% in 2023 and further to 79.5% in 2024. Banks increasingly relied on certificates of deposits (CDs) to address funding needs. The amount raised through CDs in 2024 reached a record Rs 11.2 lakh crore, a 1.5x increase over 2023 levels, while the outstanding CD amount surged to Rs 4.9 lakh crore, growing 43.4% YoY. Outstanding credit composition in 2024 continued to shift structurally, with personal loans (~33%) and services (~28%) accounting for almost three-fifths of the outstanding bank credit followed by industry, which has eased to a one-fifth (vs. two-fifth a decade ago). This shift can be ascribed to credit offtake in housing, vehicle loans, credit cards, and NBFCs during the post-COVID recovery. The new year 2025 has started with outstanding bank deposit and credit growth having improved to 10.8%/11.5% YoY as of January 10th, 2025.

- **Sustained moderation in bank credit growth...:** As per RBI's Weekly Statistical Supplement (WSS), outstanding bank credit growth moderated to 11.2% YoY as of December 27th, 2024, a significant slowdown from a 19.9% YoY growth observed during the same period last year but has marginally improved to 11.5% YoY as of January 10th, 2025. Sector-wise, this slowdown in credit growth can be ascribed to personal loans (13.3% YoY in November 2024; -17pp YoY) and services (13%; -13pp YoY). This significant slowdown came on the back of an unfavorable base effect ensuing the merger effect, tightening of the RBI norms on unsecured personal loans and increased risk weights on credit to NBFCs. The outstanding bank credit-to-GDP ratio, which has remained stable in the 50%-55% range since FY09, and stood at ~55% as of December 27th, 2024, based on the First Advance Estimates of FY25 GDP. This stability highlights a balanced expansion of bank credit, aligned with the overall growth of the economy.
- **...while outstanding bank credit growth to industries has improved:** Outstanding bank credit to industry grew by 8% YoY as of November 2024, an improvement from 6.1% as of the same period last year but slower than the 11.8% growth recorded as of November 2022. This expansion was primarily driven by robust credit growth to medium and large enterprises, which increased by 20% YoY and 6.1% YoY, respectively, reflecting rising industrial activity and capex investments. Among industries, sectors like chemicals (11.4% YoY), engineering (18.3% YoY), and basic metals (15.8% YoY) led the growth, collectively accounting for 24% of total industry credit. In contrast, infrastructure and textiles, which together hold a 20.6% share in industry credit, saw slower growth. Credit growth to infrastructure decelerated to 1.6% YoY (from 2.3% last year), while textiles grew at 5.4% YoY, down sharply from 15.2% as of November 2023. These trends highlight sector-specific variations in credit demand within the industrial sector.

- Deposit growth lagged credit growth:** Outstanding deposit growth moderated from 13.3% YoY in December 2023 to 9.8% in December 2024, driven by a slowdown in time deposit growth (88.4% share in total deposits) to 10.4% YoY from 13.6%. While deposit growth maintained double-digit momentum for most of 2024, it lagged credit growth, leading to elevated credit-to-deposit (CD) ratios, which averaged 79.5% in 2024, up from 76.8% in 2023, and closed the year at 80.4%. The deposit-credit growth gap, which stood at 6.7 percentage points in December 2023, narrowed to less than one point by year-end, reflecting banks' efforts to mobilize deposits. To address funding needs, banks increasingly turned to certificates of deposit (CDs), which saw record issuance of Rs 11.2 lakh crore in 2024. Outstanding CDs also reached a record Rs 4.9 lakh crore, marking a 43.4% YoY increase. Notably, the amount raised through CDs in 2024 was 1.5 times higher than in 2023, underscoring their growing importance in bridging funding gaps.
- Shift in credit composition towards personal loans:** The composition of outstanding bank credit has seen a significant structural shift over the past decade, with the share of industrial credit steadily declining and personal loans and services emerging as the primary drivers of credit growth. Personal loans now account for nearly a third of outstanding credit in 2024 (January–November), up from ~20% in 2015, while the share of services has risen to ~28%, compared to 23% in 2015. In contrast, industrial credit has almost halved, dropping from 42% in 2015 to ~22% in 2024. The rising prominence of personal loans is driven by increased demand for housing, vehicle loans, and credit card debt. Similarly, services have gained share, largely due to growing credit to NBFCs, particularly during the post-COVID-19 recovery period, reflecting a shift in the focus of bank lending toward consumption and service-oriented sectors.

Figure 109: Outstanding bank credit and deposit as of end of each calendar year


Source: CMIE Economic Outlook, NSE EPR.

Figure 110: Monthly Trends in Bank Credit and Deposit Growth


Source: CMIE Economic Outlook, NSE EPR.

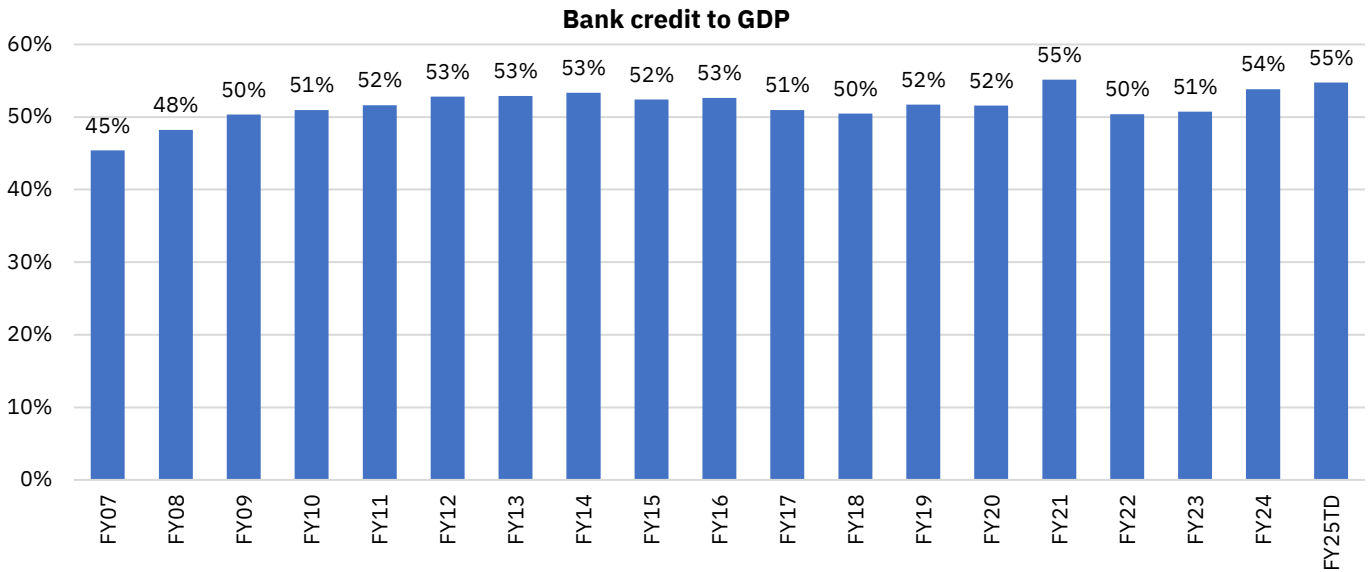
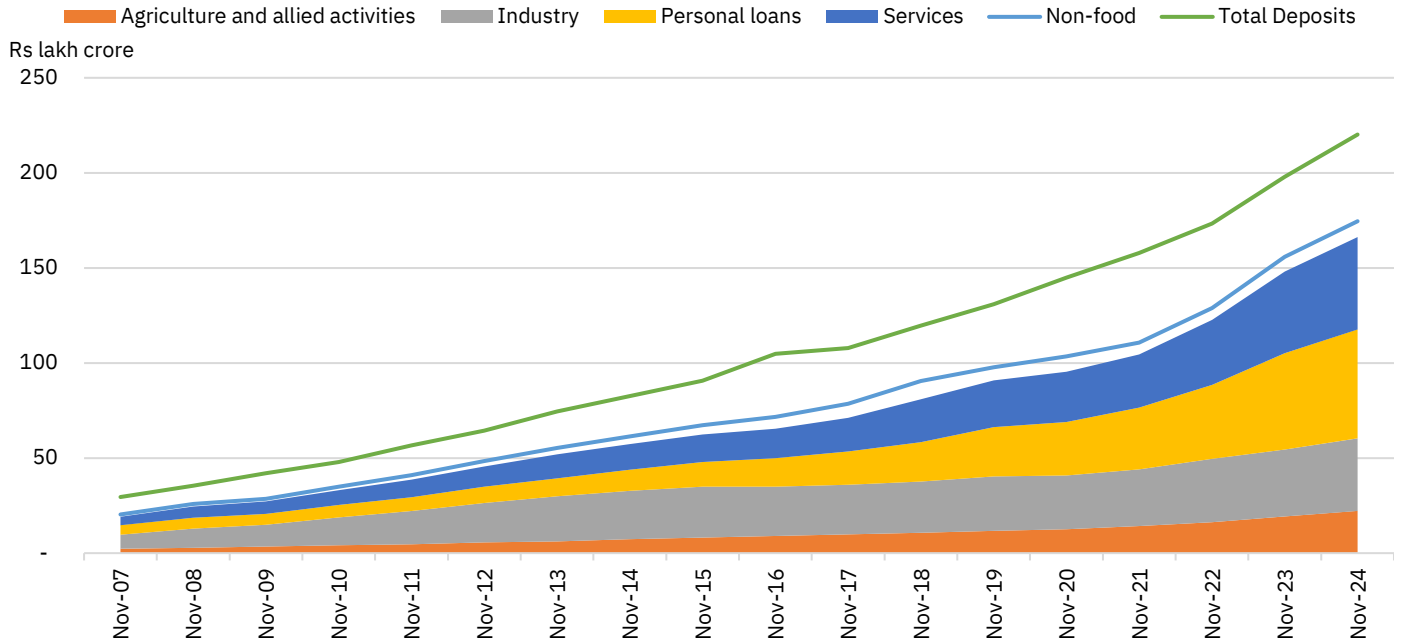
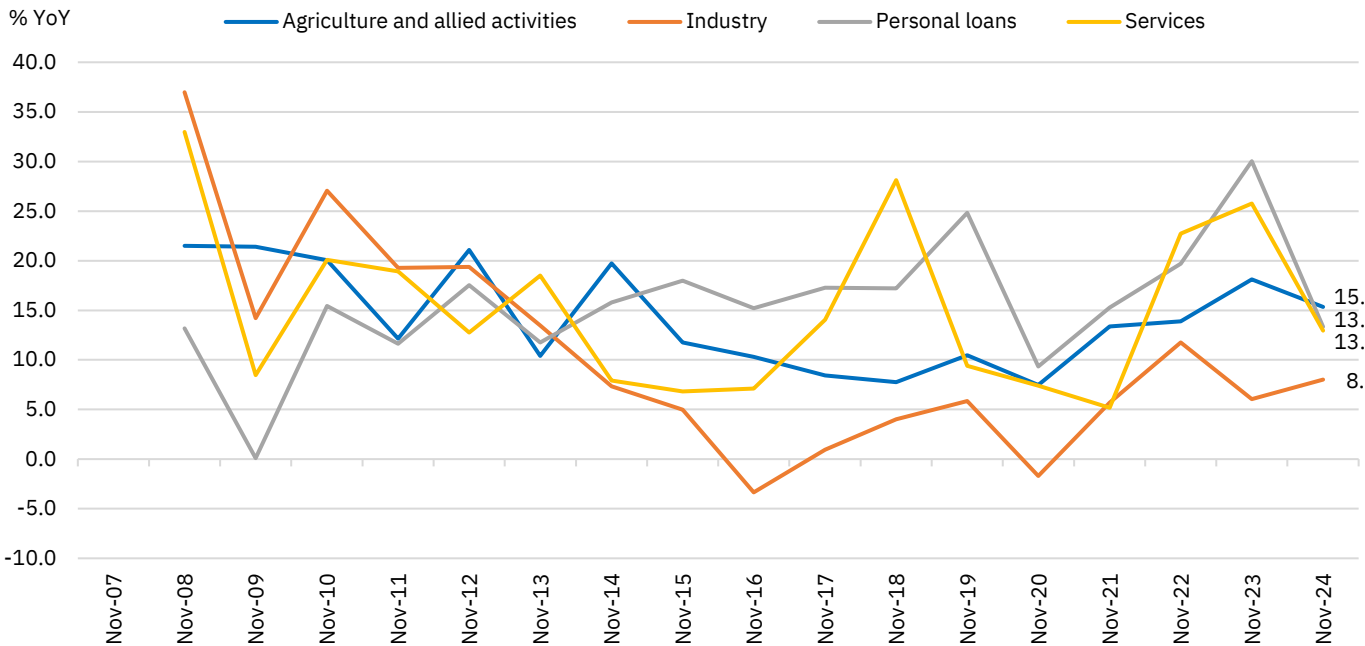
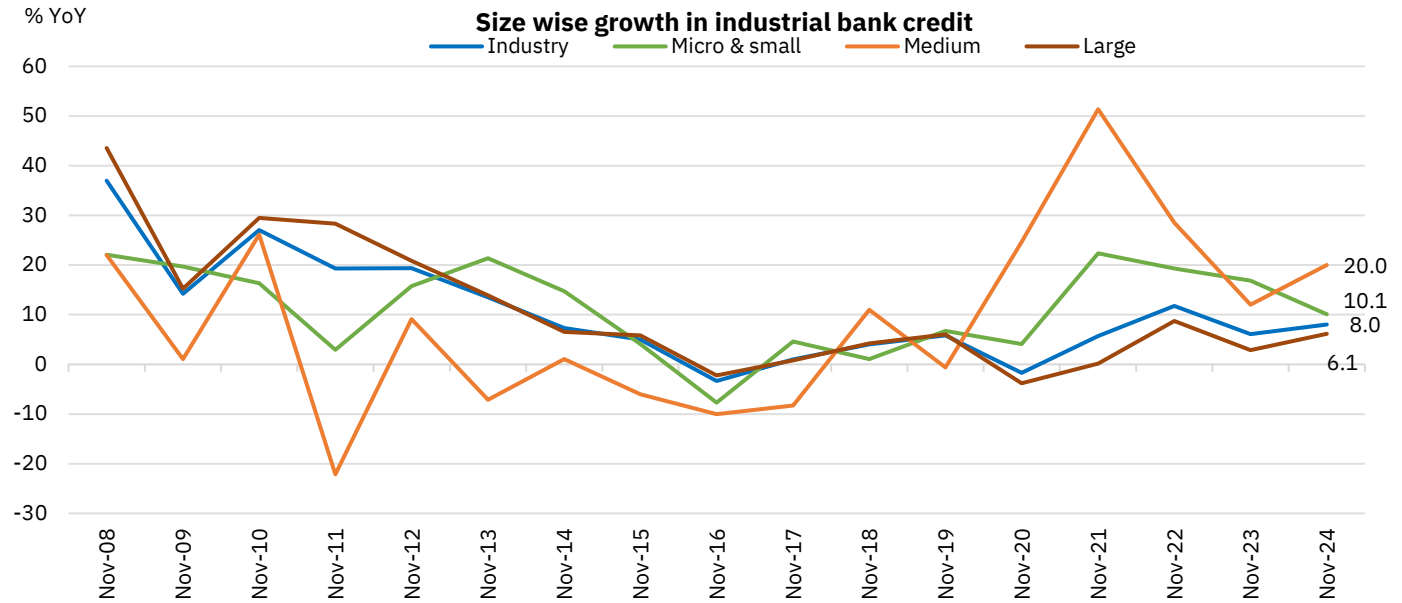
Figure 111: Trend in Bank credit to GDP

 Source: CMIE Economic Outlook, NSE EPR. FY25TD is calculated as outstanding credit as of December 27th, 2024 over the nominal GDP as of FY25(FAE)

Figure 112: Sectoral distribution of Outstanding bank credit and total deposit


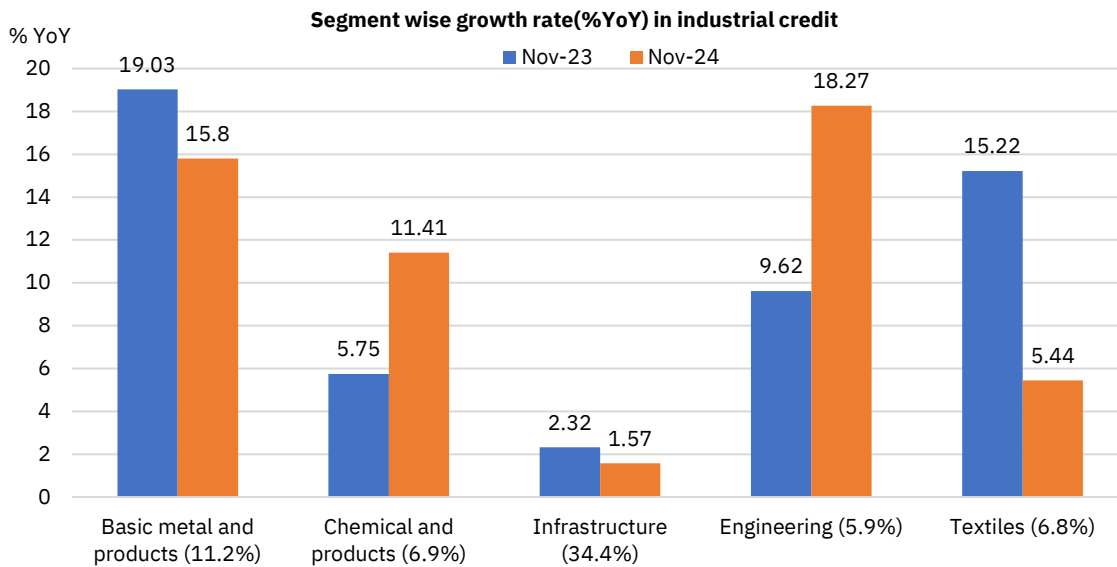
Source: CMIE Economic Outlook, NSE EPR.

Figure 113: Long term growth in outstanding bank credit across sectors


Source: CMIE Economic Outlook, NSE EPR.

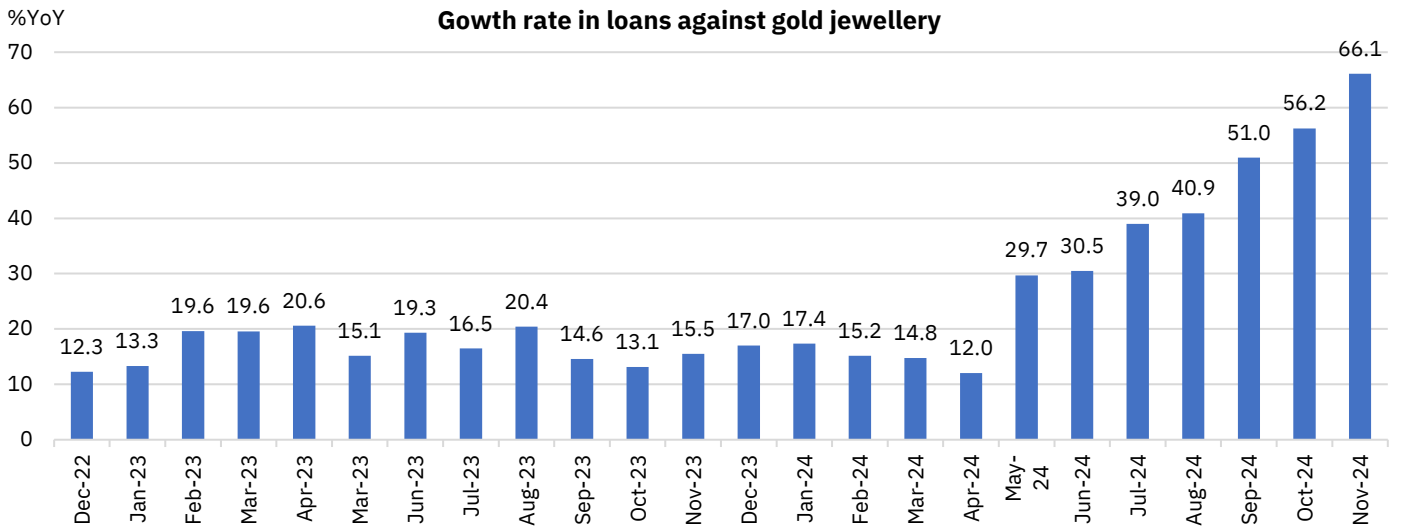
Figure 114: Industrial credit growth by size- long term trend


Source: CMIE Economic Outlook, NSE EPR.

Figure 115: Growth in bank credit across segments of industry


Source: CMIE Economic Outlook, NSE EPR.

Note: Number in parenthesis is share in total credit to industry

Figure 116: Growth rate in loans against gold jewellery


Source: CMIE Economic Outlook, NSE EPR.

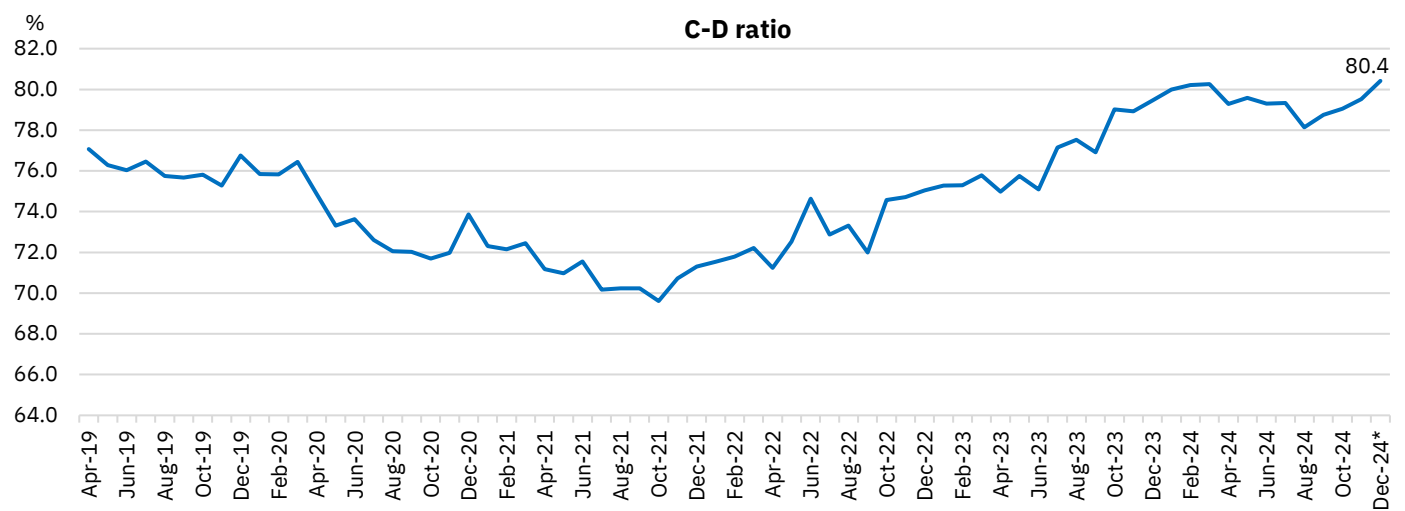
Figure 117: Credit to Deposit ratio

 Source: CMIE Economic Outlook, NSE EPR. * Data for Dec-24* is as of December 27th, 2024.

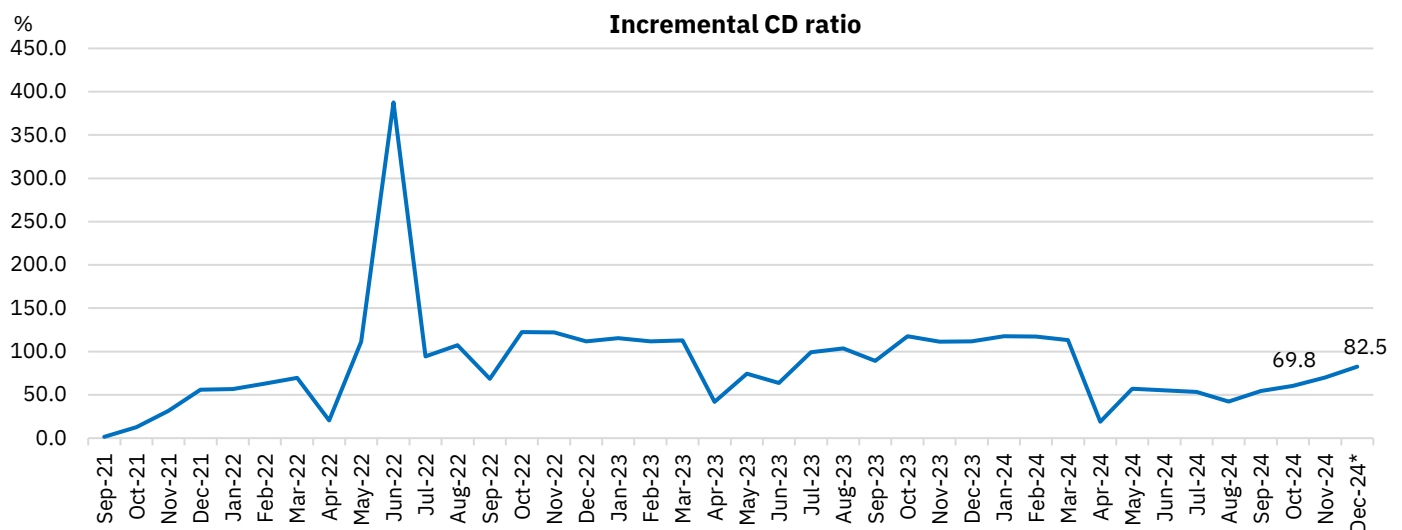
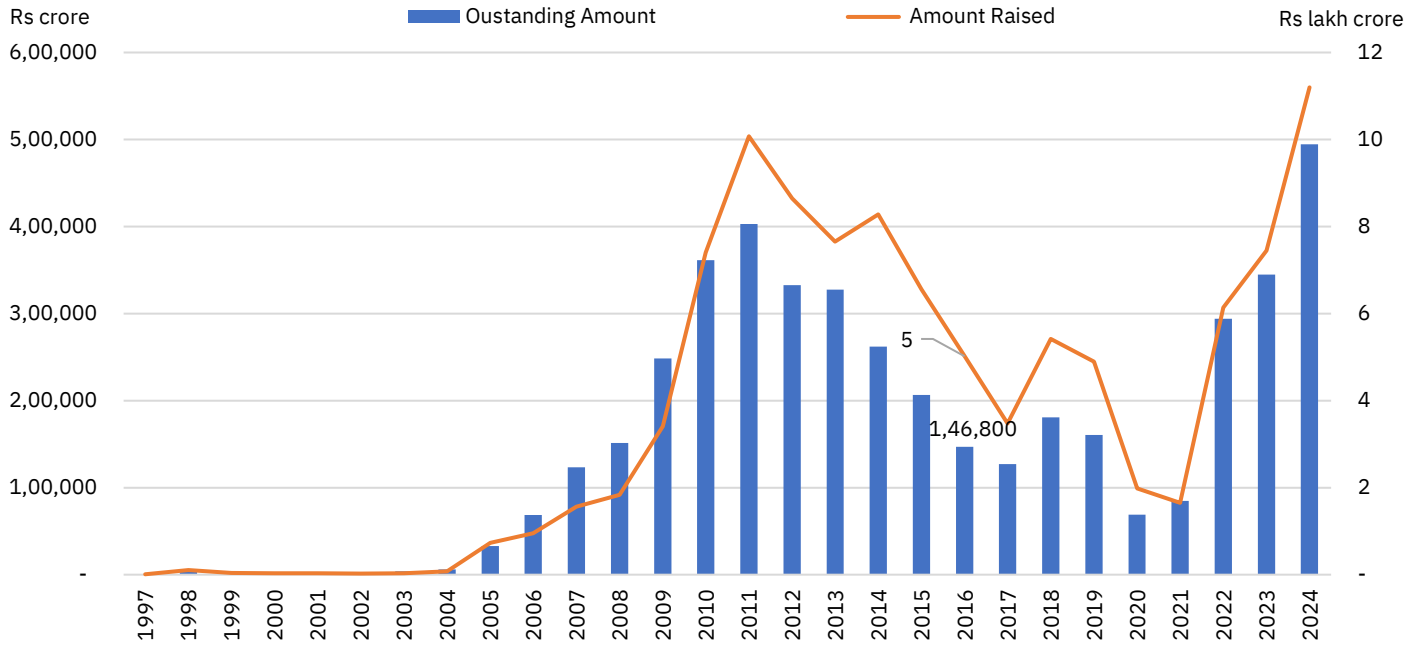
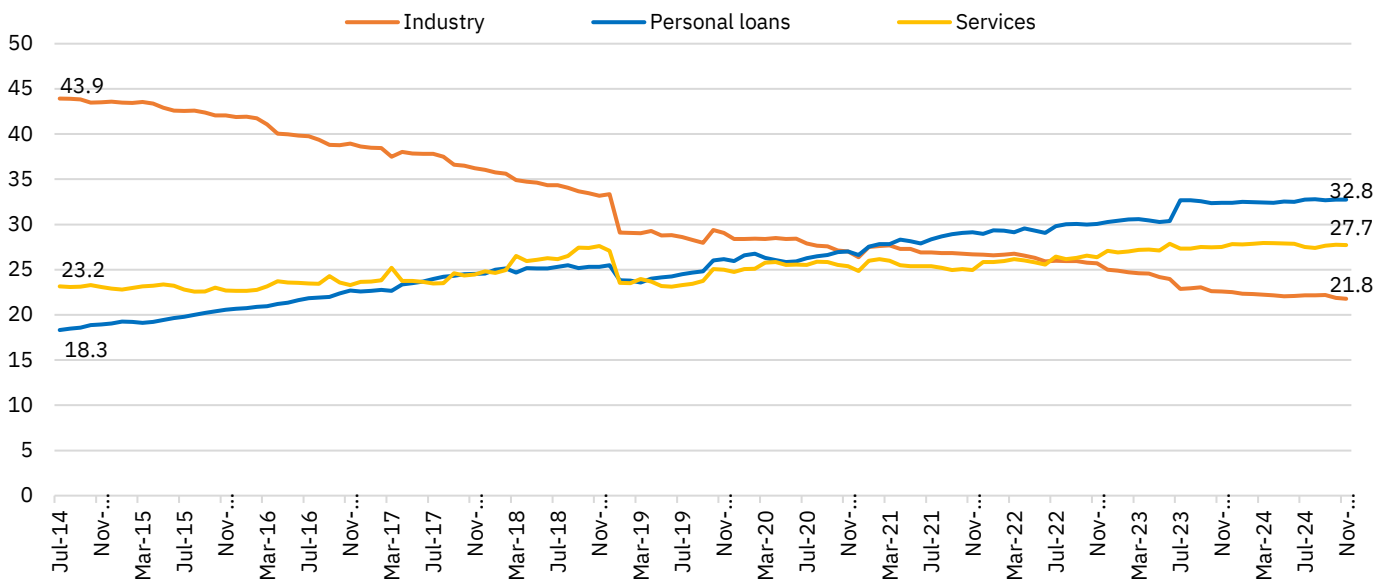
Figure 118: Incremental credit to deposit ratio (ICDR)

 Source: CMIE Economic Outlook, NSE EPR. * Data for Dec-24 is as of December 27th, 2024

Figure 119: Issued and outstanding amount of Certificate of Deposits


Source: CMIE Economic Outlook, NSE EPR

Note: Outstanding amount for each year is as of end of December for the corresponding year

Figure 120: Share of key sectors in outstanding bank credit


Source: CMIE Economic Outlook, NSE EPR.

RBI Financial Stability Report: Sustained improvement in the banking sector

The RBI's half-yearly Financial Stability Report (FSR)² released in December 2024 highlights further improvements in asset quality, robust profitability and adequate capital buffers of Scheduled Commercial Banks (SCBs), despite global policy uncertainty, geopolitical tensions, elevated debt levels, and stretched equity valuations. Bank credit growth slowed to 12.5% YoY in September 2024 (down from 19.2% in March), driven by reduced private sector bank credit, while deposit growth eased to 11.5% YoY, reflecting a shift to higher-yield schemes. By January 10th, 2025, credit and deposit growth further converged to 11.5% and 10.8% YoY, respectively. The asset quality, measured via Gross Non-Performing Assets (GNPA) ratio, has improved further to a 12-year low of 2.6% in September 2024, with a broad-based improvement across bank groups, particularly public sector banks. Credit card receivables, however, have seen an increase in the GNPA ratio alongside the highest credit growth within the personal loans segment, warranting close oversight. Macro stress tests suggest the GNPA ratio could increase to 3% under baseline and 5%+ in adverse scenarios by March 2026.

Capital buffers remain robust, with the Capital Risk-Weighted Asset Ratio (CRAR) at 16.7% and Common Equity Tier 1 capital ratio (CET1) at 14%, well above the regulatory requirements of 9% and 5.5%, respectively. Projections point to stable capital adequacy under baseline conditions, with CRAR estimated at 16.5% by Mar'26, though it could decline to 14.3%-15.7% under adverse scenarios. Liquidity coverage ratios also comfortably exceed regulatory minimums. The Systemic Risk Survey (SRS) conducted in Nov'24 categorized major risks as "medium," with heightened concerns over macroeconomic uncertainties, geopolitical tensions, and climate-related risks. While 60% of respondents expect stable or improved prospects for the banking system in 2025, this marks a decline from the previous survey, reflecting increased caution regarding global uncertainties and their potential impact on domestic financial stability.

- **Indian financial system remains robust and resilient:** The Indian financial system has demonstrated resilience amid heightened uncertainty, elevated asset valuations, high public debt, prolonged geopolitical tensions, and risks associated with emerging technologies. The banking sector has remained strong, supported by robust profitability, declining NPAs, and sufficient capital and liquidity buffers. Bank credit growth slowed to 12.5% YoY in September 2024 (down from 19.2% in March), primarily due to a sharp deceleration in private sector bank credit offtake (11.7% YoY vs. 28.3% YoY in March), partially offset by robust growth from foreign banks (14% YoY in September). Deposit growth also moderated to 11.5% YoY, driven by a slowdown in term deposit growth to 13.1% YoY, as investors shifted toward higher-return alternatives. Credit and deposit growth converged to a large extent by September and remained closely aligned by year-end, reflecting improved stability in the financial system.
- **GNPA ratio falls to 12-year low...:** The asset quality of SCBs has improved further with the GNPA ratio declining to a 12-year low of 2.6% in September 2024 while the NNPA ratio has remained at 0.6%. The GNPA ratio is now nearly one-fourth of its pre-pandemic level (9.3% in September 2019). Bank-group data indicates a broad-based decline in GNPA ratios from the corresponding period previous year, with the public sector banks (PSBs) seeing the steepest improvement. However, PSBs still have the highest GNPA ratio at 3.3%. Credit card receivables, which recorded the fastest growth within the personal loan segment, saw an increase in the GNPA ratio to 2.2% (vs. 1.8% in March), warranting close monitoring. Asset quality across other major sectors has also improved, reflecting economic stability and deleveraging. Stress test results indicate the aggregate GNPA ratio³ may rise from

RBI's macro stress tests point to GNPA ratio falling from 2.6% in Sept'24 to 2.2% in Mar'26 under the baseline scenario.

² Please refer to the detailed report [here](#)

³ The aggregate GNPA ratio in the macro stress test is computed for 46 SCBs.

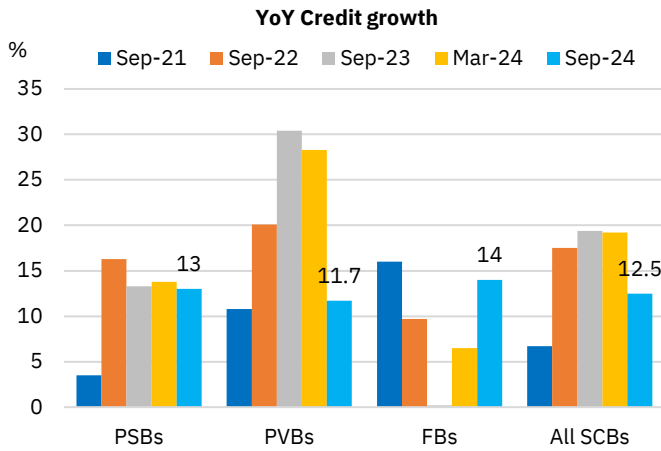
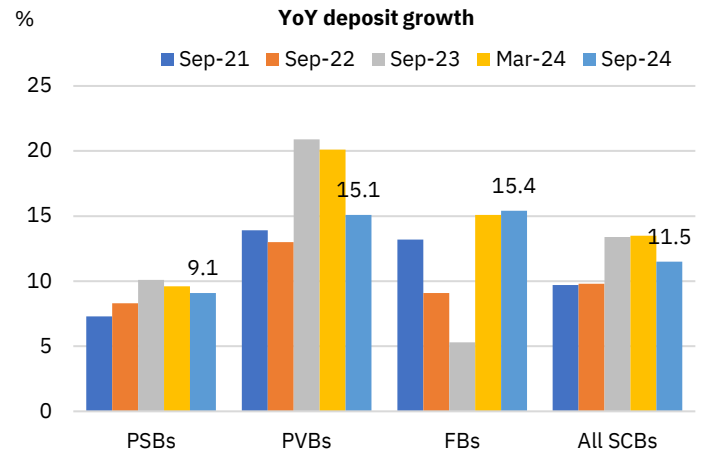
2.6% in September 2024 to 3% in March 2026 under the baseline scenario and further to 5%/5.3% in adverse scenario 1 and 2.

- **...with robust capital buffers...:** Indian banks remain well-capitalized, with SCBs reporting a CRAR of 16.7% and a CET1 ratio of 14%, both well above the regulatory minimum of 9%. The CRAR has stayed in the 16-17% range since March 2021, slightly above the pre-pandemic level of 15% (September 2019). Among bank groups, foreign banks have the highest CRAR at 18.2%, followed by private sector banks (17.8%), though both saw a slight dip from last year. Public sector banks, while showing improvement, still have the lowest CRAR. Projections indicate the aggregate CRAR will remain stable at 16.5% by March 2026 under the baseline scenario, with declines to 14.3% and 15.7% under adverse scenarios 1 and 2, respectively, and four banks potentially breaching the minimum capital requirement in the first adverse scenario.
- **...alongside higher profitability and comfortable liquidity:** The profitability of SCBs improved significantly in H1-FY25, with a 22.2% YoY increase driven by robust growth in PSBs (30.2% YoY) and PVBs (20.2% YoY), partially offset by single-digit growth in FBs. The overall yield on assets remained steady at 8.5% in September 2024, though a rise in the cost of funds, aligned with tighter monetary policy, led to a marginal contraction in net interest margins across bank groups. Despite this, ROA and ROE remained stable for FBs and showed slight improvement for PSBs and PVBs. Liquidity coverage ratios remained comfortably above the 100% regulatory minimum, with FBs reporting the highest ratio at 142.6%.
- **Systemic Risk Survey (SRS)⁴ revealed all major risks in “medium” category:** The latest assessment of the Systemic Risk Survey (SRS) in November 2024 reveals that all major risk categories remain in the “medium” risk bracket. Respondents have expressed an increase in macroeconomic risks like domestic growth, inflation, consumption demand and capital flows (FPIs/FDIs) alongside financial market risks specific to foreign exchange rate risk. Some of the other risks like geopolitical conflicts, climate risk, equity price volatility and cyber risks continue to remain “high”. Around 60% of the respondents assessed better or similar prospects for the Indian banking system over the one-year horizon vs. 88% in the previous survey. Additionally, 40% of the respondents expect credit demand to deteriorate while 60% believed in high/medium impact of global uncertainty on domestic macroeconomic stability.

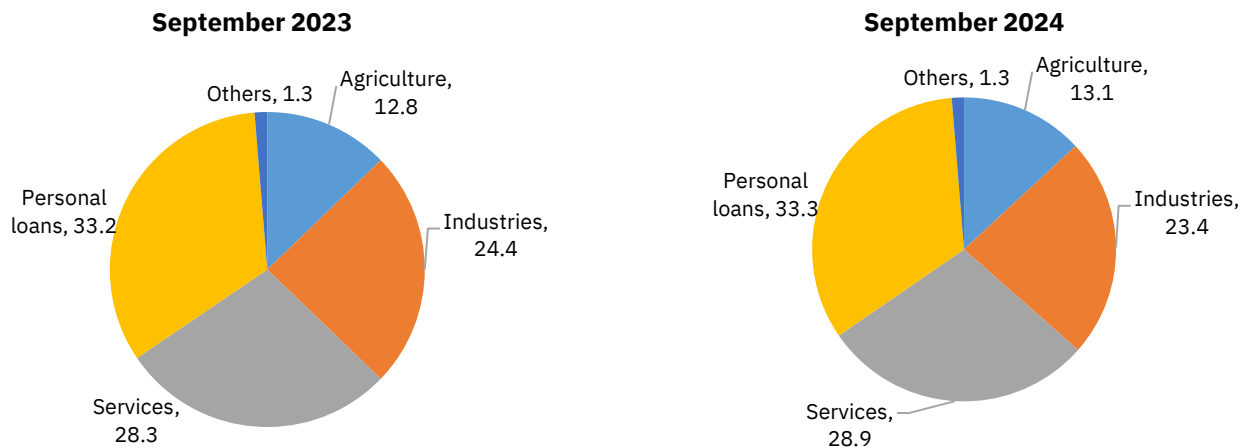
CRAR of 46 major banks is expected to decline from 16.7% in Sept'24 to 16.5% by Mar'26 under the baseline scenario.

All major risks to domestic financial stability have been categorized as “medium risk”.

⁴ The RBI's bi-annual systemic risk survey captures the qualitative perceptions of market participants and other stakeholders on key sources of systemic risk to the Indian financial system emanating from both global and domestic macro-financial developments.

Figure 121: Credit growth by bank groups

Figure 122: Deposit growth by bank groups


Source: RBI Financial Stability Report, NSE EPR. PSBs = Public Sector Banks, PVBs = Private Sector Banks, FBs = Foreign Banks

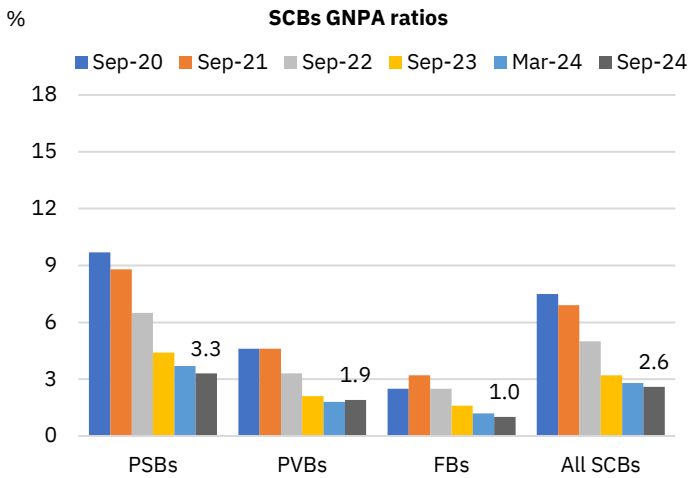
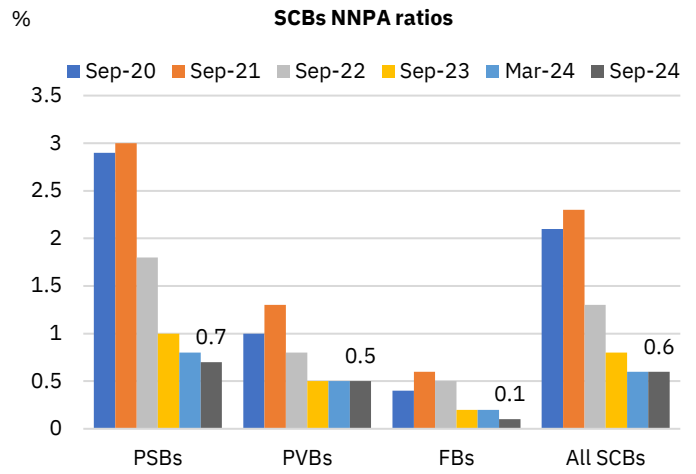
Figure 123: Sectoral share in credit by SCBs in economics sectors


Source: RBI Financial Stability Report, NSE EPR

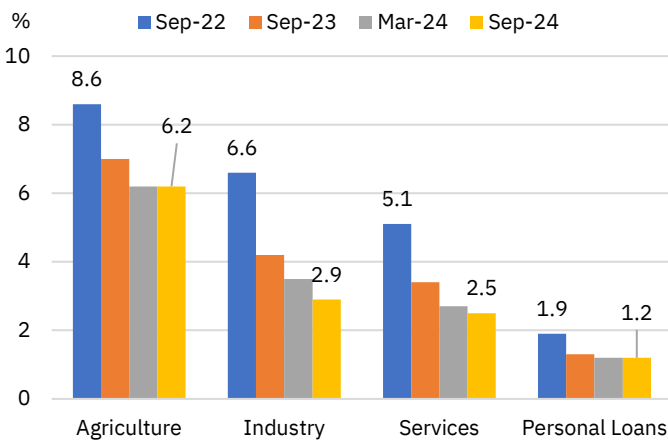
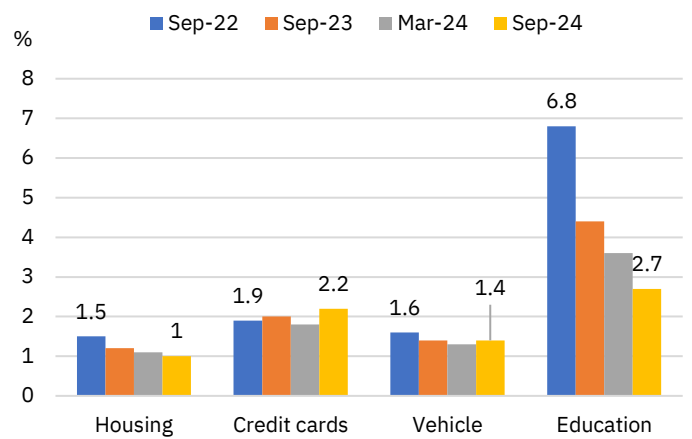
Table 14: Credit growth of select sectors

YoY%	Agriculture		Industry		Services		Personal	
	Sep-23	Sep-24	Sep-23	Sep-24	Sep-23	Sep-24	Sep-23	Sep-24
PSBs	15	13.8	4.1	8.9	23.9	15.9	15.5	13.9
PVBs	22.2	19.1	10.7	5.8	25	13.1	52.6	12.1
FBs	-1.3	32.6	-3	7.3	8.1	18.6	-21.1	10.4
SCBs	16.8	15.7	6.1	7.6	23.5	14.8	31.1	13

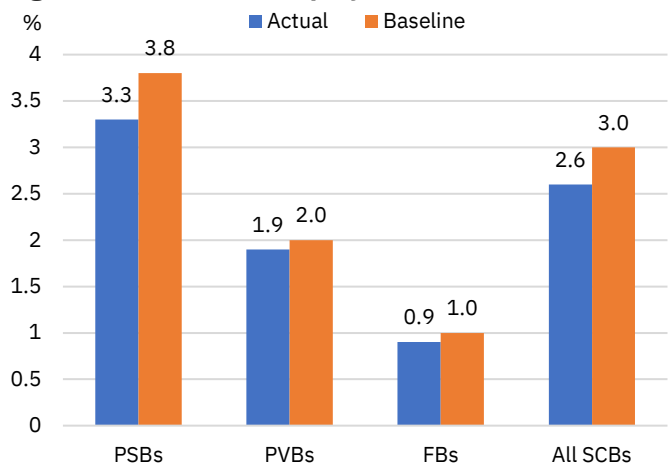
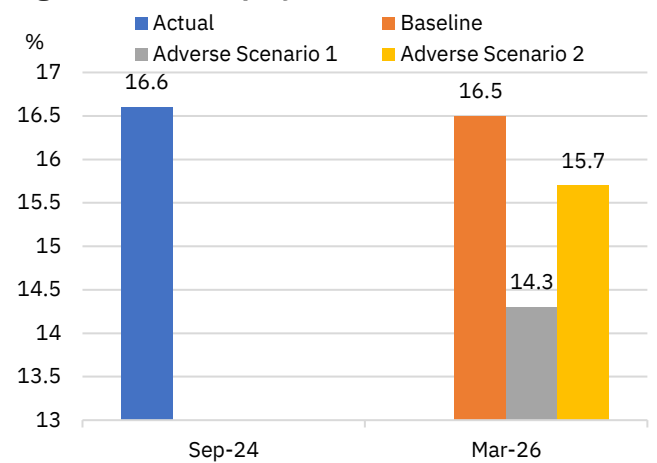
Source: RBI Financial Stability Report, NSE EPR.

Figure 124: GNPA Ratio of SCBs by bank groups

Figure 125: NNPA Ratio of SCBs by bank groups


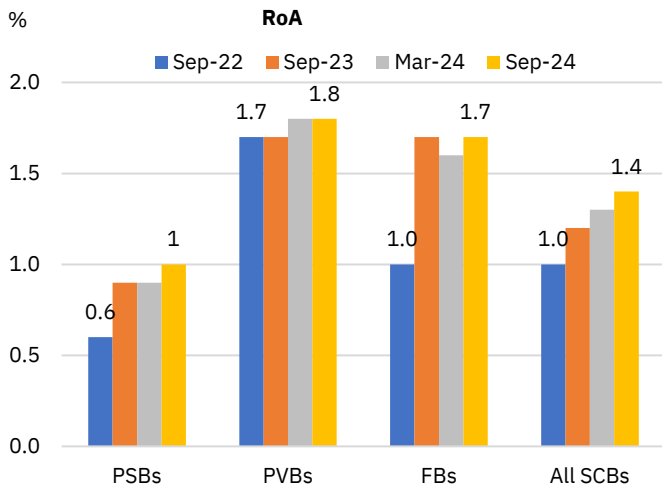
Source: RBI Financial Stability Report, NSE. PSBs = Public Sector Banks, PVBs = Private Sector Banks, FBs = Foreign Banks

Figure 126: Sector-wise GNPA ratio

Figure 127: GNPA Ratio of Personal Loans by category


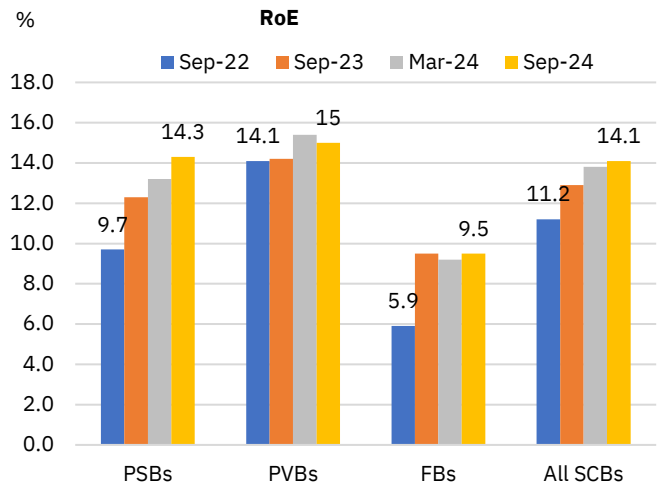
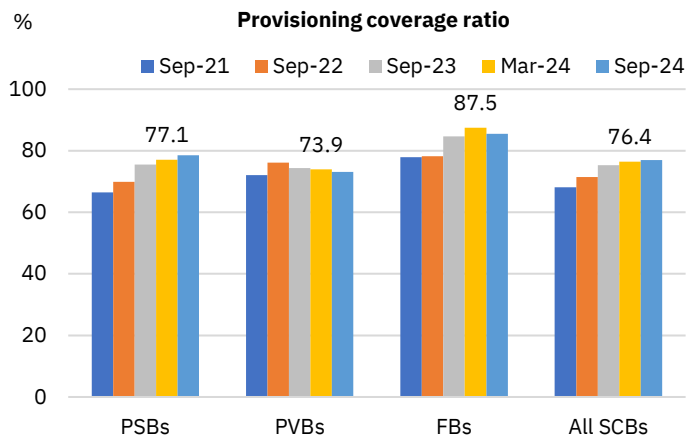
Source: RBI Financial Stability Report, NSE. PSBs = Public Sector Banks, PVBs = Private Sector Banks, FBs = Foreign Banks

Figure 128: GNPA Ratio projections

Figure 129: CRAR projections


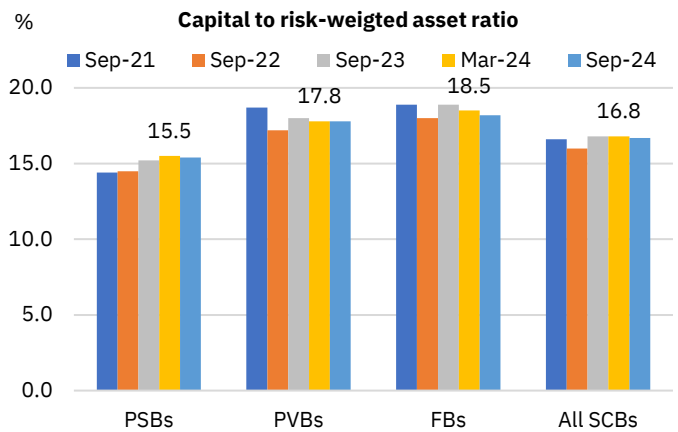
Source: RBI Financial Stability Report, NSE. PSBs = Public Sector Banks, PVBs = Private Sector Banks, FBs = Foreign Banks

Figure 130: Annualised Return on Assets by bank groups


Source: RBI Financial Stability Report, NSE. PSBs = Public Sector Banks, PVBs = Private Sector Banks, FBs = Foreign Banks

Figure 131: Annualised Return on Equity by bank groups

Figure 132: Provisioning coverage ratio by bank groups


Source: RBI Financial Stability Report, NSE EPR. PSBs = Public Sector Banks, PVBs = Private Sector Banks, FBs = Foreign Banks

Figure 133: Capital to risk-weighted asset ratio by bank groups


CAD stable, but uncertainty looms ahead

India's current account deficit (CAD) moderated slightly to US\$11.2 bn (1.2% of GDP) in Q2FY25, down from US\$ 11.3 bn (1.3% of GDP) in Q2FY24 but higher from US\$10.2 bn (1.1% of GDP) in Q1FY25. A sequential rise in the merchandise trade deficit to US\$75.3 bn (+15.6% QoQ), driven by weaker exports (especially petroleum) and stronger domestic demand for gold and non-oil non-gold imports, was offset by growth in net services income (+12.3% QoQ), remittances (+10.5% QoQ), and reduced investment income outflows. Net services income rose to US\$44.6 bn, aided by record software and business services income. The capital account surplus rose sharply to US\$30.5 bn, supported by strong foreign portfolio inflows (US\$19.9 bn) and higher loan disbursements (US\$7.5 bn), despite net FDI outflows of US\$2.2 bn amidst higher repatriations. As a result, the balance of payments (BOP) surplus widened to US\$18.6 bn in Q2FY25, compared to US\$5.2 bn in Q1, though pressures are expected in the second half of the fiscal year. For H1FY25, CAD stood at US\$21.4 bn (1.2% of GDP), marginally higher than US\$20.2 bn (1.2% of GDP) in the same period last year, as the higher merchandise trade deficit was partly offset by net services income and remittances.

Q3FY25 has been challenging, with a higher merchandise trade deficit (US\$77.9 bn, based on trade data) and significant FPI equity outflows (US\$11.9 bn, provisional), which may strain the overall BOP surplus in FY25. The narrowing of interest rate differential with the US is also likely to impact the debt FPI flows, albeit marginally, as India's inclusion in global bond indices is expected to continue to attract capital. That said, resilient services exports, coupled with sustained remittance inflows, should help keep the CAD manageable. Indian rupee has depreciated by nearly 2% in Q3FY25 amid a strengthening dollar, and FX reserves have depleted by nearly US\$65 bn during October-December'24, reaching US\$ 623.9 bn as of January 17th, 2025. Despite these pressures, India's adequate forex reserves offer a buffer against external sector vulnerabilities.

- CAD supported by rising services receipts and remittances:** India's CAD moderated slightly to US\$11.2 bn (1.2% of GDP) in Q2FY25 from US\$11.3 bn (1.3% of GDP) in the same period last year but is higher than US\$10.2 bn (1.1% of GDP) in Q1FY25. The sequential increase in CAD was driven by a sharp rise in the merchandise trade deficit to US\$75.3 bn (vs. US\$65.1 bn in Q1), partially offset by strong growth in net services income, which rose to US\$44.6 bn (+12.3% QoQ), and remittances, which increased to US\$29.1 bn (+10.5% QoQ). Lower investment income outflows at US\$9.5 bn (vs. US\$11.1 bn in Q1) further cushioned the deficit. Record net income from software services (US\$39.6 bn) and business services (US\$9.6 bn; +51% QoQ) significantly contributed to the robust growth in net services income.
- Trade deficit widens amid weak exports and rising imports:** The merchandise trade deficit widened to US\$75.3 bn in Q2FY25, notably higher than US\$65.1 bn in Q1FY25 and US\$64.5 bn in Q2FY24. Goods exports weakened to US\$104 bn in Q2FY25 (vs. US\$111.8 bn in Q1), primarily led by contraction in petroleum exports, although non-petroleum exports, particularly engineering and electronic goods exports, provided some support. Imports rose to US\$179.3 bn in Q2 (vs. US\$176.3 bn in Q1) primarily led by higher gold and non-oil non-gold imports, with the growth in the latter reflecting steady consumption and investment demand during the quarter. Lower crude oil prices (US\$78.9/bbl in Q2 vs. US\$85.2/bbl in Q1) helped cap oil import values, partially offsetting the increase in overall imports. During Apr-Dec 2024, the trade deficit reached US\$210.8 bn (+11.1% YoY), with imports rising 5.1% YoY and exports growing a modest 1.6% YoY, indicating potential pressure on the CAD for the remainder of the fiscal year.
- Capital account surplus widens supported by FPI inflows:** The capital account surplus rose sharply to US\$30.5 bn in Q2FY25, nearly double the US\$14.7 bn recorded in Q1, driven by strong foreign portfolio investments (FPIs) and higher

India's current account balance recorded a deficit of US\$11.2 bn or 1.2% of GDP in Q2FY25.

loan disbursements of US\$7.5 bn (vs. US\$5.9 bn in Q1). Banking capital inflows also increased to US\$6.1 bn, compared to US\$2.9 bn in the previous quarter. However, significant repatriations resulted in a net FDI outflow of US\$2.2 bn, compared to an inflow of US\$6.7 bn in Q1, partially capping the surplus. Net FPI inflows surged to US\$19.9 bn in Q2FY25 (vs. ~US\$1 bn in Q1), supported by buoyant equity markets and resilient debt flows, aided by higher interest rate differentials. Consequently, the overall balance of payments (BOP) surplus widened significantly to US\$18.6 bn (vs. US\$5.2 bn in Q1FY25 and US\$2.5 bn in Q2FY24), despite the increase in the merchandise trade deficit.

- External sector outlook marginally deteriorated; depreciation bias for INR:** India's external sector faced pressures in Q3FY25 due to a higher merchandise trade deficit (US\$77.9 bn) and significant FPI equity outflows (US\$11.9 bn, provisional), which could weigh on the overall BOP surplus for FY25. The narrowing interest rate differential may also marginally impact debt FPI flows, though India's inclusion in global bond indices is expected to attract steady investments into the debt segment. Resilient services exports and sustained remittance inflows are likely to keep the CAD manageable. Meanwhile, the rupee depreciated by ~2% in Q3FY25 amidst a stronger dollar, and FX reserves declined by nearly US\$65 bn during Oct-Dec'24, reaching an eight-month low in December and US\$623.9 bn as of January 17th, 2025. Despite these challenges, India's adequate forex reserves continue to provide a strong buffer against external sector vulnerabilities.

Table 15: Balance of Payments – Quarterly account

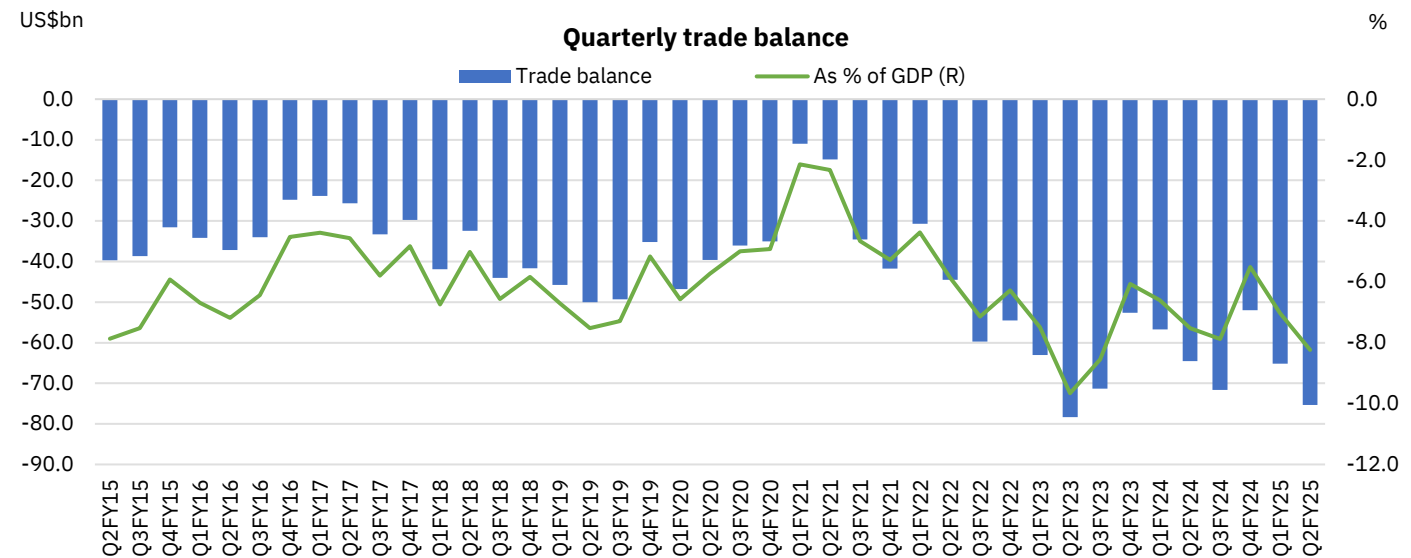
US\$ bn	Q2FY23	Q3FY23	Q4FY23	Q1FY24	Q2FY24	Q3FY24	Q4FY24	Q1FY25	Q2FY25
Current account	-30.9	-16.8	-1.4	-8.9	-11.3	-10.4	4.6	-10.2	-11.2
<i>CAB/GDP (%)</i>	-3.8	-2.0	-0.2	-1.0	-1.3	-1.1	0.5	-1.1	-1.2
Trade balance	-78.3	-71.3	-52.6	-56.7	-64.5	-71.6	-52.0	-65.1	-75.3
<i>Trade balance/GDP (%)</i>	-9.7	-8.6	-6.1	-6.6	-7.5	-7.9	-5.5	-7.0	-8.2
Merchandise exports	111.9	105.6	115.8	104.9	108.3	106.6	121.6	111.2	104.0
Merchandise imports	190.2	176.9	168.4	161.6	172.8	178.3	173.6	176.3	179.3
Oil imports	53.4	52.0	50.8	41.9	42.1	53.4	49.6	51.5	37.4
Non-oil imports	136.7	124.9	117.6	119.8	130.7	136.7	121.0	124.8	141.9
Invisibles	47.4	54.5	51.2	47.7	53.3	47.4	56.6	54.9	64.1
Net services	34.4	38.7	39.1	35.1	39.9	34.4	42.7	39.7	44.6
Software earnings	32.7	33.5	34.4	33.9	35.2	32.7	36.6	37.4	39.6
Transfers	24.8	28.5	24.8	22.8	24.9	24.8	28.7	26.4	29.1
Investment income	-12.6	-13.5	-13.4	-11.2	-12.5	-12.6	-15.7	-12.3	-10.5
Capital account	1.5	28.9	6.5	33.8	12.8	17.3	25.6	14.7	30.5
<i>Capital acc./GDP (%)</i>	0.2	3.5	0.8	3.9	1.5	1.9	2.7	1.6	3.3
Foreign investments	12.7	6.6	4.7	20.5	4.1	16.0	13.7	7.6	17.6
FDI	6.2	2.0	6.4	4.7	-0.8	4.0	2.3	6.7	-2.2
FII	6.5	4.6	-1.7	15.7	4.9	12.0	11.4	0.9	19.9
Loans	0.6	0.5	3.1	2.2	3.3	-2.8	3.9	5.9	7.5
ECBs	-0.2	-2.4	1.6	5.7	-3.0	-4.5	1.7	1.6	2.0
Banking capital	-8.4	14.4	-4.1	12.9	4.3	16.4	6.9	2.9	6.1
NRI deposits	2.5	2.6	3.6	2.2	3.2	3.9	5.4	4.0	6.2
Others	-3.4	7.3	2.8	-1.8	1.1	-12.3	1.1	-1.7	-0.7
Errors & Omissions	-0.9	-1.0	0.4	-0.4	1.0	-0.9	0.6	0.8	-0.7
Overall balance (BoP)	-30.4	11.1	5.6	24.5	2.5	6.0	30.8	5.2	18.6

Source: RBI, CMIE Economic Outlook, NSE EPR.

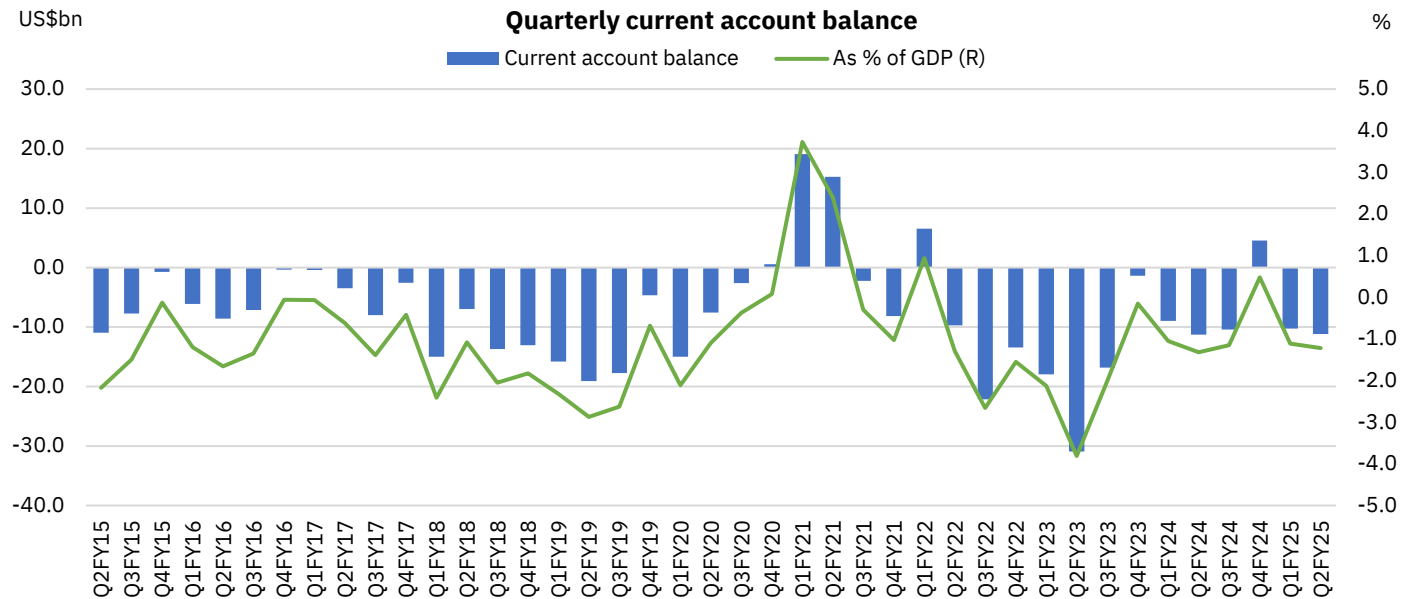
Table 16: Balance of Payments – Annual account

US\$ bn	FY21	FY22	FY23	FY24	H1-FY25
Current account	23.9	-38.8	-67.1	-26.0	-21.4
<i>CAB/GDP (%)</i>	0.9	-1.2	-2.0	-0.7	-1.2
Trade balance	-102.2	-189.5	-265.3	-244.9	-140.4
<i>Trade balance/GDP (%)</i>	-3.8	-6.0	-7.9	-6.9	-7.6
Merchandise exports	291.0	429.2	456.1	441.4	215.1
Merchandise imports	393.0	618.6	721.4	686.3	355.6
Oil imports	82.4	162.1	209.3	179.6	88.8
Non-oil imports	310.6	451.6	504.0	506.7	266.7
Invisibles	126.1	150.7	198.2	218.8	119.0
Net services	88.6	107.5	143.3	162.8	84.2
Software earnings	89.7	109.5	131.3	142.0	77.1
Transfers	73.5	80.4	100.9	105.8	55.5
Investment income	-39.2	-40.6	-49.2	-53.6	-22.8
Capital account	63.7	85.8	58.9	89.5	45.2
<i>Capital acc./GDP (%)</i>	2.4	2.7	1.8	2.5	2.5
Foreign investments	80.1	21.8	22.8	54.2	25.2
FDI	44.0	38.6	28.0	10.1	4.4
FII	36.1	-16.8	-5.2	44.1	20.8
Loans	6.9	33.6	8.3	6.6	13.4
Banking capital	-20.9	7.1	21.6	40.5	9.0
NRI deposits	0.5	5.1	9.6	14.7	10.2
Others	-2.2	23.7	6.9	-11.8	-2.4
Errors & Omissions	-0.3	0.5	-1.0	0.3	0.1
Overall balance (BoP)	87.3	47.5	-9.1	63.8	23.8

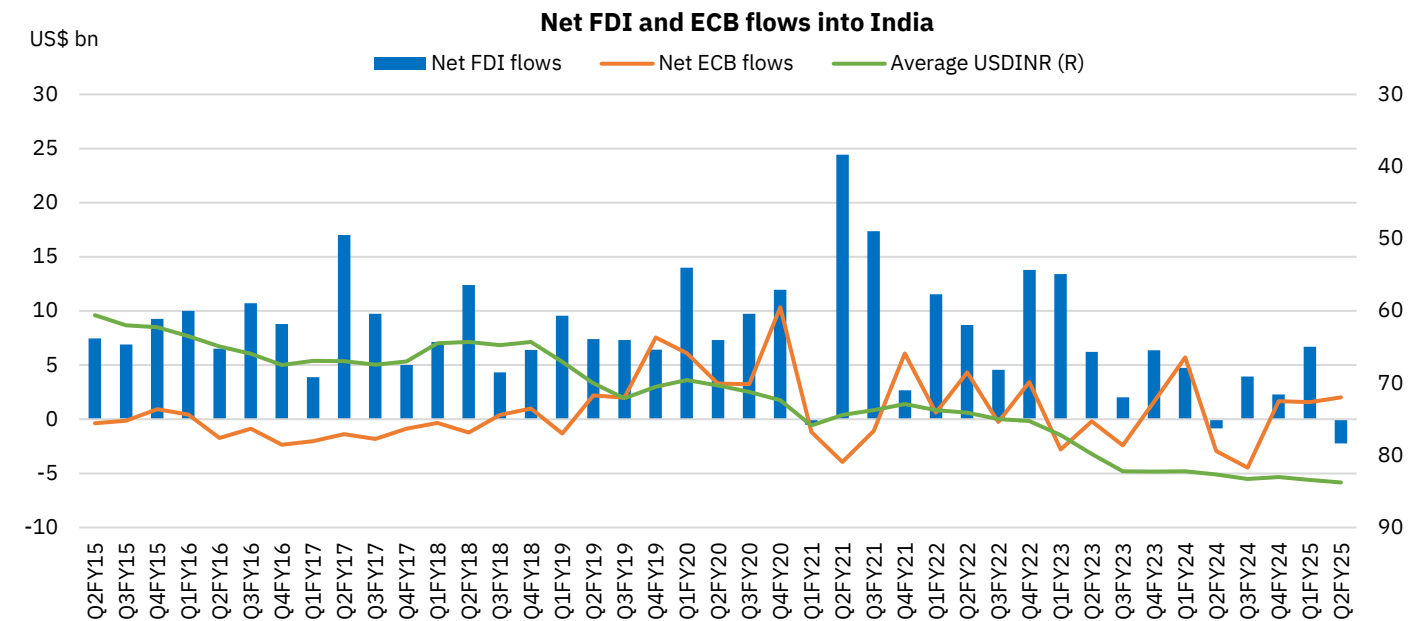
Source: RBI, CMIE Economic Outlook, NSE EPR. *Includes Investment Income.

Figure 134: Quarterly trade balance trend


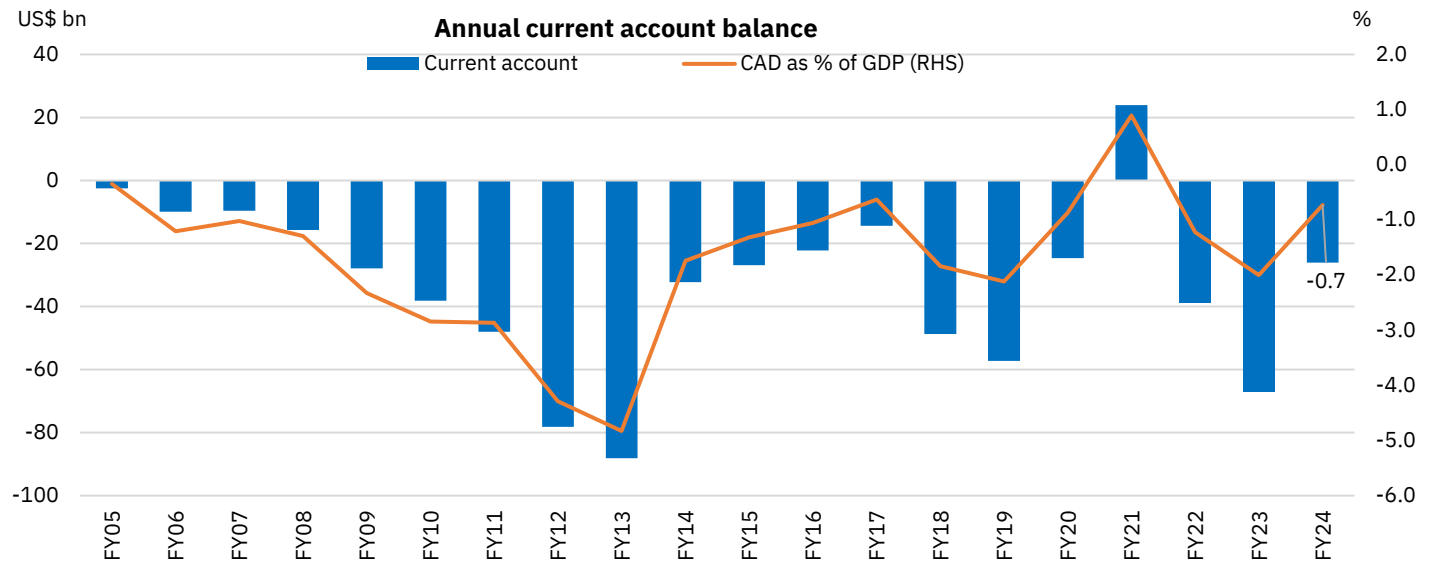
Source: RBI, CMIE Economic Outlook, NSE EPR.

Figure 135: Quarterly current account balance trend


Source: CMIE Economic Outlook, NSE EPR.

Figure 136: Quarterly net FDI and ECB flows vs. INR


Source: CMIE Economic Outlook, NSE EPR.

Figure 137: Annual current account deficit trend


Source: CMIE Economic Outlook, NSE EPR.

Insights

Highly cited research paper 1 in the field of Behavioural Science

We and It: An interdisciplinary review of the experimental evidence on how humans interact with machines⁵

Marina Chugunova⁶

Daniela Sele⁷

Research Paper Summary Prepared by Ram Prasad Behera⁸ and Varuna Joshi⁹

1. Introduction

The study thoroughly analyses 138 experimental investigations of human-automation interactions, combining insights from management, psychology, and economics. It shows how humans interact differently with automated agents (AAs), often exhibiting fewer emotional and social reactions. Depending on the situation, this can have both positive and negative effects.

The review categorizes human interactions with AAs into distinct roles: as peers, managers, decision-makers, and decision aids. According to the findings, people might be more receptive to automated decision-making in analytical activities than in moral or social settings. The authors address inconsistencies in prior research, proposing testable hypotheses to reconcile these differences. The paper uses an interdisciplinary approach to include studies across fields. Through this synthesis, the authors aim to support evidence-based policymaking and contribute to the broader societal discourse on automation.

Social interactions with automated agents

Humans frequently characterize technology assigning agency and social characteristics to inanimate objects and AAs. Early studies within computers such as Social Actors (CASA) paradigm demonstrated that people tend to apply social rules and stereotypes to computers. Research shows that while engaging with AAs, people are less likely to mentalize, that is, to infer mental states and intents. This is corroborated by neurophysiological studies showing less brain activity in mentalizing regions during human-AA encounters than human-human ones.

Compared to their human counterparts, AAs frequently elicit a more limited spectrum of emotional reactions during interactions. People exhibit less intense reactions to AAs, perceiving automated decisions and actions as less personal and thus reacting with less emotion. This detachment has economic implications. In financial situations, a reduced emotional response might result in more logical exchanges, improving cooperation in games and increasing efficiency. However, this rationality can sometimes reduce pro-social behavior, with people showing less altruism or ethical behavior toward AAs. The design features of AAs can enhance emotional response. Human-like appearances, behaviors, and social cues can increase emotional and social engagement.

Automated agents as peers and superiors in the workplace

Studies indicate that humans often face challenges adjusting to automated teammates, with differences in performance and task coordination. A few studies observed a decline in human effort when working alongside robots in repetitive tasks. Researchers also found that hybrid teams struggled with coordination, resulting in decreased

⁵ Chugunova, M., & Sele, D. (2022). We and It: An interdisciplinary review of the experimental evidence on how humans interact with machines. *Journal of Behavioral and Experimental Economics*, 99, 101897.

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productivity, particularly for lower-skilled individuals. However, when human workers felt accountable for the outcome, their effort increased.

Another area where automation has an impact is the distribution of responsibilities. Unlike human teams, automated agents do not attract blame-shifting behavior from human teammates, who often retain responsibility themselves. Observers, however, tend to assign less responsibility to humans if technology is involved.

Research also shows that people may accept or even prefer automated managers, depending on the perceived fairness and efficacy of task distribution. For example, Alibaba warehouse workers viewed task assignments by algorithms as more impartial than those from human managers, increasing productivity. Despite resistance from some participants, automated managerial roles are gaining acceptance.

Automated agents as delegates and aids in decision-making

Even when algorithms are clearly more accurate than humans at a given activity, people still tend to oppose giving them complete decision-making power, according to research. This resistance is observed in tasks like forecasting and medical decision-making, where people often prefer to either make the decision themselves or rely on human advice. In contrast, some studies show that people are willing to rely on algorithmic advice in particular contexts, even preferring it to human advice. This happens particularly when algorithms are perceived as less biased or as providing objective insights that humans may not achieve. Some studies find that people may over-rely on automated advice or decisions, leading to "automation bias" where they fail to override algorithmic mistakes, or "automation-induced complacency" where they become less vigilant in monitoring decisions made by automated systems.

The study suggests that the inconsistency in findings can be explained by the context in which automated agents are employed. A critical factor here is the **distribution of agency**: humans react differently depending on whether they retain primary decision-making authority or delegate it to the automated agent.

2. Summary of Results

Behavioral studies suggest humans engage differently with AAs compared to humans, experiencing reduced emotional and social responses. Automation's effectiveness is context-dependent: while it can improve efficiency and reduce social barriers, it may be detrimental in roles that benefit from social norms and human peer influences. Full automation is more accurate in many cases, yet algorithm aversion is common if users feel displaced. Partial human involvement can balance trust and usage but may lead to over-reliance.

Transparency in AAs does not guarantee better judgment of their performance. Transparency without comparative context to human decision-making can be misleading, as automated decisions may be perceived as biased or unfair despite potential objective improvements over human evaluations. People's perceptions of fairness differ for algorithmic versus human decisions. The paper highlights the need for further research into accountability, human-like design, context-specific applications, and the psychological effects of transparency.

3. Conclusion

In contrast to human-to-human relationships, the study looks at the unique dynamics of human interactions with AAs. Generally, human-AA interactions evoke less emotional and social response, though factors like human-like visual or behavioral cues in AAs can increase engagement. People are more open to using AAs in analytical tasks, and studies show AAs are increasingly taking roles as teammates and managers in workplaces. However, to fully understand the behavioral impact of AAs, further research is needed on when, where, and how AAs should interact with human workers. The study also addresses the contradictory outcomes of human dependence on automated decision-making, where individuals may favor and over-rely on AAs in certain situations while opposing automation's replacement of human functions in others.

Highly cited research paper 2 in the field of Behavioural Science

Options Trading, Managerial Risk-taking, and Brand Development¹⁰

Po-Hsuan Hsu¹¹ Fengfei Li¹² Yoshio Nozawa¹³

Research paper summary prepared by S Vishwath¹⁴ and Varuna Joshi¹⁵

1. Introduction

This paper is an empirical study to identify the role of options trading in brand development strategies. The study identifies the link between options trading by a firm and increased managerial risk-taking. The study established that increased levels of options trading led to increased introduction of new trademarks by the firms.

The authors also found that the firms with increased options trading favored brand creation over extension. This increased trademark diversity led to increased brand riskiness. These effects were explained by channels such as transient investors and managerial hedging opportunities.

The authors observed these effects more in firms with weaker governance, managers with higher pay-risk sensitivity, younger managerial teams, and intense competition. The study also observed a negative relationship between the unrelated brand diversification, which was driven by options trading, and the value of the firm.

2. Hypothesis

H1: Firms with higher levels of options trading show increased inclination to introduce new trademarks.

H2: Firms with higher levels of options trading show an increase in managerial risk-taking.

H3: The increase in managerial risk-taking is explained by increased institutional ownership by transient investors and enhanced managerial hedging.

H4: The increase in risk-taking in brand development negatively affects firm value.

3. Data and Methodology

The authors used the Trademark Case Files Dataset from the United States Patent and Trademark Organization for the trademark application filed or issued registrations from January 1870 to December 2021. The dataset contained information on the characteristics, ownership, classification, prosecution history, renewal, and maintenance history of trademarks.

The files also contain details of the patent owner, filing date, registration date, renewal or cancellation dates, trademark status, content, and class. Approximately 67% of the trademark owners were corporations. The names of the firms were matched with Compustat/CRSP database using their name, location, and industry.

The study focused on firms which had a positive annual dollar volume in the OptionsMetrics database. The authors required the firms to have been listed on Compustat for at least three years, have at least one trademark, and have at

¹⁰ Hsu, Po-Hsuan and Li, Fengfei and Nozawa, Yoshio, Options Trading, Managerial Risk-taking, and Brand Development * (September 26, 2024). <https://dx.doi.org/10.2139/ssrn.3101881>

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least two years of all the rest of the required data. The final sample consisted of 6,379 firms totaling 59,646 firm-year observations from 1996 to 2021.

The authors used the number of new trademarks filed in a two-year period to measure its brand development activities. The direction of brand development was calculated from the cited rate of new trademarks. A new trademark was classified as brand creation if it was not related to any existing trademarks, and brand extension if it did.

The study calculated options volume by multiplying the total number of contracts with the end-of-day quote midpoint. These values were aggregated annually across all trading days and options listed.

4. Summary of Results

The authors found that the sample firms had introduced 15 new trademarks with an average cited rate of 0.23. The mean and median total annual dollar options volume was US\$92.546 million and US\$4.318 million. The correlation between options volume and new trademarks, cited rate, and diversity were 0.280, -0.145, and 0.194 respectively.

The study found that for one standard deviation increase in options volume corresponded to a 4.643% increase in new trademarks and a decrease in cited rate of 0.008 after controlling for fixed effects of firm and year. This 4.643% increase corresponded to 0.7 additional trademarks. The mean and median trademark value US\$22.5 million and US\$74.25 million respectively.

The study found a significant positive relationship between options trading and brand creation and the correlation between options trading and brand extension was insignificant. The correlation value of 0.24 between hedging activities of the managers and options trading of the firms suggested a significant positive relationship.

5. Conclusion and Implications

The authors established the role of trading in active options markets in the brand development strategies of a firm and the implication on the firm's value. The study found that higher levels of options trading led to an increased inclination to introduce new trademarks and a lower citation rate for the subsequent trademarks.

The study also found that the firms involved in higher levels of options trading tended to favor brand creation over extension which led to increased brand riskiness because of the increased trademark diversity. The study explored potential channels for this effect and established links through increased institutional ownership by transient investors and enhanced managerial hedging.

The study also found that the effects of higher levels of options trading are more pronounced in firms with weaker governance structures, higher managerial pay-risk sensitivity, younger managerial teams, and intense market competition. The authors also found that the increased risk-taking in brand development negatively affected the firm's value.

The study highlighted the significant impact of financial markets on firm strategies and established that trademark activities were crucial indicators of the firm's brand development and overall value. This research stressed the importance of corporate governance and compensation structure, especially managerial incentives, to achieve intended brand equity.

Highly cited research paper 3 in the field of Behavioural Science

Racial disparities in the Paycheck Protection Program¹⁶

Sergey Chernenko¹⁷ David Scharfstein¹⁸

Research paper summary Prepared by S Vishwath¹⁹ and Varuna Joshi²⁰

1. Introduction

This paper is an empirical study on the disparity in Paycheck Protection Program (PPP) loans between minority-owned firms and white-owned firms. Paycheck Protection Program, which was authorized by the CARES Act in 2020, was an important part of the U.S. government's economic response to the COVID-19 pandemic.

Under PPP, the Small Business Administration (SBA) guaranteed low-interest loans to firms with less than 500 employees to the tune of \$800 billion provided the firm had maintained employment and certain fixed expenses. The study documented that minority-owned banks were more likely than similar white-owned firms to receive PPP loans from nonbank lenders than from banks.

The study found that the substitution to nonbanks was only partial, with location and firm characteristics accounting for two-thirds of the documented 25 percent disparity in PPP take-up by Black-owned firms. The study found greater substitution to nonbanks in more racially diverse locations, also explained by the lower overall take-up in such locations.

2. Hypothesis

H1: Minority-owned firms are less likely to receive PPP funding than white-owned firms.

H2: Black-, Asian-, Hispanic-owned firms are less likely to receive PPP loans from banks than white-owned firms.

H3: Minority-owned firms borrow from nonbanks to make for the disparity in lending from banks.

H4: Racial bias contributes to the disparity in lending from banks.

3. Data and Methodology

The authors constructed a main data set which was composed of restaurants in Florida including information on the owners' racial and Hispanic identity. The main sample was constructed from the restaurant licenses, corporate records, and voter registration from Florida government and used Yelp data for the restaurant characteristics and activity.

Then the authors differentiated the sample based on the whether they received loans from SBA under either PPP or the COVID-19 Economic Injury Disaster Loan (EIDL) program. The difference between PPP and EIDL loans is that EIDL loans are not forgivable and EIDL loans are obtained directly from SBA unlike PPP where it is done through an intermediary.

The PPP loan data included all loans approved from April 3rd, 2020 to August 9th, 2020, and January 11th, 2021 to June 30th, 2021. EIDL data included all loans approved till November 14th, 2020. In 2020, the SBA made 3.6 million EIDL

¹⁶ Chernenko, S., & Scharfstein, D. (2024). Racial disparities in the paycheck protection program. *Journal of Financial Economics*, 160, 103911. <https://doi.org/10.1016/j.jfineco.2024.103911>

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loans for a total of US\$194 billion. The authors matched 87.9% of PPP borrowers and 84.5% of EIDL borrowers to Florida's corporate records.

Both PPP and EIDL data reported the borrower's name, location, loan amount, and approval date. PPP loan data also consisted of the lender's name, location, borrower's industry, and self-reported demographic information. 83% of the borrowers did not report their racial and Hispanic identity.

The authors considered their sample as Florida restaurants who took PPP and EIDL loans. The authors did this since Florida restaurants are subjected to state licensing and hence had reliable data on population of eligible firms. The list of all licensed restaurants was obtained from the Florida Department of Business and Professional Regulation.

The sample filtered for only restaurants with seating to create a homogenous sample. The authors also excluded restaurants with licenses approved after February 15th, 2020, as they would have been ineligible for PPP loans. The sample also did not include hotel restaurants and franchise restaurants.

The authors could match 91% of the license records to Florida corporate records. The authors classified the firms based on first officer or director whose racial and Hispanic identity they could establish.

The authors used Florida voter registration data which gives the voters' self-reported racial and Hispanic identity. The voters identified themselves amongst seven different racial categories. The authors could extract the voters' Black and Hispanic identities from these categories. The authors were able to identify the racial and Hispanic identities of 70% of restaurant owners.

The authors used the National Information Center (NIC) of the Federal Financial Institutions Examinations to classify whether PPP lenders were banks or nonbanks. The authors used the Uniform Commercial Code (UCC) filings to measure borrowing relationships.

4. Summary of Results

The authors found Black-owned restaurants are only 21% as likely to have a secured loan from a bank relative to a white-owned restaurants, with the likelihoods at 4% and 19% respectively. Black-owned restaurants were located in ZIP codes with an average white population of 56% and white-owned restaurants were located in ZIP codes with an average white population of 81%.

Black-owned restaurants were also in ZIP codes which had 45% fewer bank branches per capita, 20% lower median household income, and 17% higher incidence of COVID cases per capita. 74% of the white-owned restaurants received a PPP loan, most of it made up of loans from banks. 33% of the white-owned restaurants received a EIDL loan, in which only 5% got EIDL loans without getting PPP loans.

The study documented that only 48% of the Black-owned restaurants received a PPP loan, with 30% of these loans from a nonbank. Black-owned restaurants, in comparison to white-owned restaurants, were three times as likely to receive an EIDL loan only. Furthermore, 39% of Black-owned restaurants received neither type of loan.

The authors measured the likelihood of restaurants getting a PPP loan relative to white-owned restaurants, with Black-owned restaurants 25.5 percentage points less likely, Hispanic-owned restaurants 10.7 percentage points less likely, Asian-owned restaurants only 2.3 percentage points less likely, and female-owned restaurants 4.8 percentage points less likely.

After accounting for disparity from location and restaurant characteristics, the authors determined that Black-owned restaurants were 9.1% less likely to receive a PPP loan than a white-owned restaurants after accounting for other factors. For Hispanic-owned restaurants, this parity was at 5.6 percentage points. There was no significant disparity when it came to Asian-owned and female-owned restaurants.

The study found that the disparity in PPP funding was driven by the disparity in lending from banks, with Black-, Hispanic-, Asian-owned restaurants were 16.8, 5.8, and 6.1 percentage points respectively less likely than white-owned restaurants to receive loans from banks.

This disparity in lending from banks was offset by lending from non-banks, largely from fintechs, with Black-owned restaurants 7.6 percentage points more likely than white-owned restaurants to receive a loan from nonbanks. The disparity in lending to Asian-owned restaurants was entirely bridged by lending from nonbanks. There was no disparity in lending from nonbanks between Hispanic-owned and white-owned restaurants.

5. Conclusion and Implications

The authors established racial disparities in the Paycheck Protection Program. The study established that 60% of the disparities for Black- and Hispanic-owned restaurants were explained by location and restaurant characteristics.

The authors documented that minority owned firms, especially Black-owned and Hispanic-owned restaurants, were less likely to receive PPP funding than white-owned restaurants. The study found that disparity was mainly driven by the disparity in lending from banks. This lending disparity was mitigated by nonbanks, largely fintechs, who were lending to minority-owned restaurants, mainly Black-owned and Asian-owned restaurants, at a higher rate.

The authors determined that a significant portion of this disparity was explained by explicit and implicit racial bias. The study also found that proximity of large business to banks and borrower relationships with banks also contributed to the disparity in lending.

Highly cited research paper in the field of Finance

Pre-opening auctions and price discovery in initial public offerings²¹

Keerat Bhurjee²²

Vishwanatha Saragur Ramanna²³

Research paper summary prepared by Economic Policy and Research, NSE

An Initial Public Offering (IPO) is a pivotal milestone in a company's journey, signaling its debut on the public stage. However, the information asymmetry between the firm and investors creates significant challenges, often influencing market liquidity and complicating the accurate pricing of the offering. Previous studies have extensively examined the determinants of IPO underpricing. However, there is limited evidence on the role of different types of investors, such as institutional, retail, and non-institutional investors, in IPOs. This paper aims to explore the bidding behaviour of these investor types and their impact on market liquidity and price discovery.

Price discovery in an IPO is challenging due to information asymmetry, which often leads to higher underpricing. Regulators aim to reduce this asymmetry through various means, one of which is market mechanisms. In 2012, the Indian market regulator introduced the call auction in IPOs, with the main intent of improving price discovery. Under this mechanism, a pre-opening auction is conducted before the trading session. It begins around 9:00 AM and continues until 10:00 AM. Continuous trading for the IPO stock begins only after 10:00 AM. Previous literature indicates that call auctions help reduce volatility, increase liquidity, and improve price discovery.

The authors used the introduction of the call auction as an empirical setting. Using a sample of 456 IPOs from 2006 to 2017, of which 97 IPOs took place after 2012, they examine the role of different types of investors in IPOs. The authors acquired proprietary data from the Bombay Stock Exchange (BSE), which includes bids (price and quantity) from various investor categories (retail, institutional, and non-institutional), indicating who is buying and selling.

The final sample consists of 937,663 quotes, including 468,861 buy quotes and 468,802 sell quotes from all three investor categories. Of the total quotes, 324,979 correspond to IPOs with initial returns of 10% or less, 170,148 to IPOs with initial returns of 20% or less, and 442,536 to the remaining IPOs. This suggests that investors trade heavily in "hot" IPOs.

A basic analysis shows that the average IPO underpricing in the sample is 13.92%. On average, the first price quote at the start of the pre-opening period is 13.11% above the offer price, with a median of 5.22%. Similarly, there is no difference between the first quote in continuous trading and the last quote price in the pre-opening session. This indicates that the first quote is used as a benchmark for opening trading.

The preliminary examination of bidding by different investor groups reveals the following: on average, 4,879.5 quotes were entered by all three investor categories (with a median of 2,151). Institutional investors placed an average of 1,739.7 quotes, retail investors placed 5,667.7, and non-institutional investors placed 2,259 quotes, respectively. Based on this, we can infer that retail investors, on average, place the highest number of quotes in the pre-opening call auction.

A classification of these quotes into buys and sells shows that retail investors place the majority of sell quotes, accounting for 90.49% of the total sell quotes. Furthermore, preliminary results indicate that retail investors are net sellers, while institutional and non-institutional investors are net buyers. A basic examination of the first five minutes

²¹ Bhurjee, K., & Ramanna, V. S. (2024). Preopening auctions and price discovery in initial public offerings. *Journal of Banking & Finance*, 165, 107196.

https://www.sciencedirect.com/science/article/pii/S0378426624001134?fr=RR-2&ref=pdf_download&rr=8fcb9a3dfd03df2#bib0001

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of the call auction reveals that almost all types of investors submit equal buy quotes. However, retail investors place the highest number of sell quotes during this initial five-minute period.

Interestingly, institutional and non-institutional investors submit almost negligible amounts of sell quotes. This suggests that retail investors who received allotments during the IPO are trying to monetize their investments. Another interpretation could be that retail investors who did not receive shares in the IPO preferred to participate in the market and place their buy quotes, which resulted in a higher number of sell quotes from retail investors. While one might argue that institutional or non-institutional investors could have sold to the retail investors, the data shows that institutional and non-institutional investors have sold very little and are in fact the net buyers.

The authors used sophisticated statistical techniques to explore who leads the price discovery process. Intuitively, institutional investors are expected to be more informed than other investors. Sequential learning models propose that institutional investors drive the price discovery process, with less-informed investors following their lead. However, it remains unclear who leads the price discovery process during the call auction session. The authors created a dependent variable based on who placed the first quote and assigned values of 1, 2, and 3 if the first quote was posted by retail, non-institutional, or institutional investors, respectively. The independent variable was the pre-market subscription rate.

The authors found that 55%, 30%, and 15% of buy quotes were placed by retail, non-institutional, and institutional investors, respectively. Retail investors are more likely to start trading when institutional and non-institutional investors place excess subscription bids. This suggests that less-informed investors, such as retail investors, follow the lead of more informed investors, such as institutional investors. The authors also found that non-institutional investors are more likely to place the first quote only when the IPO has received an excess subscription from institutional investors.

In terms of sell quotes, retail, institutional, and non-institutional investors place 90%, 7%, and 3% of first-time sell quotes, respectively. The authors found that retail and non-institutional investors are more likely to sell only when IPOs are excessively subscribed to by institutional investors. Based on this, we can infer that the initial trading activity by retail and non-institutional investors is driven by the excess subscription from institutional investors.

The authors explored whether investors' bids contribute to price discovery and how the offer-to-first-quote return is related to the level of underpricing. To examine this, the authors used regression techniques, where underpricing was the dependent variable, and the offer-to-first quote return was the independent variable. The authors found that a 1% change in the offer-to-first quote return results in a 0.984% change in IPO underpricing. Similarly, when they used the offer-to-last quote return, they found consistent results. This suggests that a significant portion of the listing day return is explained by the pre-open return in the call auction.

The authors also examined the impact of the pre-open session on information asymmetry and liquidity. There are two types of private information in the context of an IPO. The first type is released at the time of trading, while the second is released at a later stage. The first type of private information leads to an adverse selection problem during the IPO stage, while the second type causes adverse selection in the after-market, which is reflected in the bid/ask spread.

The authors believe that the pre-open auction helps reduce the adverse selection problem. Information asymmetry occurs when investors make trades based on private information, which is difficult to identify. However, the presence of privately informed traders in the market can be inferred from the imbalance between the number of buy and sell orders. The probability of informed trading (PIN) is a useful measure of information asymmetry. The authors expect that PIN should decline as information asymmetry decreases due to the arrival of new information, which increases the probability of trading with liquid traders over time. The decline in PIN should be more pronounced for institutional investors, as they are more likely to be informed traders.

The authors found that 32% of PIN occurred in the pre-open auction session, while the value was almost zero during the continuous trading session. This indicates that a higher fraction of informed trading happens during the pre-open

session, leading to better price discovery. By investor type, PIN for institutional investors is approximately 84%, compared to 54% for retail investors and 51% for non-institutional investors. Based on this, we can infer that the pre-open auction leads to better price discovery and more informed trading by institutional investors.

Similarly, the authors explored the impact of the pre-open auction session on liquidity. Using the Amihud liquidity measure, they found that liquidity improved after the introduction of the pre-open auction session. Finally, the authors examined the bidding behaviour of investors during the pre-open auction session. Previous literature suggests that if retail investors are optimistic, they are willing to pay more than the price suggested by fundamentals, and less when they are pessimistic. The authors explored whether pre- and post-market investor sentiment affects their net buying or selling positions in the trading session.

The authors measured pre-market sentiment based on excess subscription and post-market sentiment based on the first quote return. Investors are expected to be net buyers when both pre-market and after-market sentiment are high, and net sellers when both are low. If investor sentiment persists in the after-market, they may be more likely to pursue hot IPOs. When pre-market sentiment is high, but after-market sentiment is low, net buying positions may be low or moderate. Additionally, if pre-market sentiment is low, after-market sentiment is unlikely to be high, so net buying positions are expected to be low or moderate.

The authors found that buy and sell frequencies are high for retail investors in the pre-open session when both pre- and post-market sentiments are high. Additionally, the number of sell quotes is higher, indicating that retail investors are net sellers. Similarly, institutional investors tend to buy heavily when after-market sentiment is high, regardless of pre-market sentiment. Non-institutional investors show a similar pattern to retail investors. The authors also found that as excess subscription increases, retail investors increase their net buying positions, while institutional and non-institutional investors decrease theirs.

Similarly, as the offer-to-first quote returns rise, retail investors' net buying positions decrease (indicating more selling), while institutional and non-institutional investors' net buying positions increase. This suggests that the net buying position of retail investors is directly related to pre-market sentiment, while the net buying positions of institutional and non-institutional investors are more influenced by post-market sentiment.

Highly cited research paper in the field of Corporate Finance

Mandatory corporate social responsibility and foreign institutional investor preferences²⁴

Andrew Marshall²⁵ Sandeep Rao²⁶ Partha P. Roy²⁷ Chandra Thapa²⁸

Research paper summary prepared by Economic Policy and Research, NSE

Foreign institutional investors (FIIs) are an important player in the financial system. However, FIIs face numerous constraints in terms of transparency and information disclosure. To attract investors, regulators have periodically introduced regulations aimed at increasing transparency and reducing information asymmetry. This paper explores the impact of such a regulation, namely corporate social responsibility (CSR), on foreign investment.

As per the Companies Act 2013, corporates meeting one of the three thresholds (net worth of INR 5 billion or more, sales of INR 10 billion or more, or net profit of INR 50 million or more) in any specific year from the effective date of the Companies Act 2013 (i.e., April 1, 2014) are required to comply with the provisions outlined in Section 135. According to Section 135, companies must spend 2% of their average net profit over the previous three years on CSR activities.

In addition, the Act has introduced several provisions beneficial to investors i) a CSR committee consisting of three directors, one of whom must be independent; ii) disclosure of the committee's composition; iii) formulation of a CSR policy based on the committee's recommendations; iv) the board must approve and publicise the CSR policy; v) the board must ensure that the firm spends at least 2% of the previous three years' net profit on CSR activities or provide an explanation for non-compliance.

These provisions are mandatory, except for the fifth one. However, the company must either comply with the expenditure-related provisions or explain non-compliance. In the event of failure to comply, stringent actions, including criminal and financial penalties, will be imposed by the regulator.

The authors argue that increased CSR-related disclosure and mandatory CSR expenditure should have repercussions for foreign investors. Previous academic literature indicates that foreign investors face challenges when investing due to information asymmetry. As a result, they often either avoid investing or ask for more disclosure. This has led policymakers to introduce regulations for more transparency, particularly in CSR disclosure and expenditure.

The authors build their theoretical arguments on agency theory and the good governance hypothesis. According to agency theory, CSR is seen as a manifestation of the managerial agency problem, wherein managers undertake CSR activities for their private benefit, by pleasing non-investing stakeholders at the expense of investing stakeholders. This leads to overinvestment, which becomes a costly affair and value-destroying. Thus, investors may perceive CSR as a negative signal. Based on this theory, the authors believe that if foreign investors perceive CSR as short-term, they may choose to underinvest in such firms.

On the other hand, the good corporate governance theory suggests that CSR activities improve a company's relationships with stakeholders, resulting in better financial access and firm performance due to reduced transaction costs. Based on both theoretical arguments, the authors believe that the good governance view should prevail, particularly because there are substantial differences in investment choices between domestic institutional investors (DIIs) and FIIs, with the latter facing greater information asymmetry. Information asymmetry hinders FIIs from assessing the risk-adjusted economic value of foreign firms' equities, which increases monitoring costs. This can lead

²⁴ Marshall, A., Rao, S., Roy, P. P., & Thapa, C. (2022). Mandatory corporate social responsibility and foreign institutional investor preferences. *Journal of Corporate Finance*, 76, 102261. <https://www.sciencedirect.com/science/article/pii/S0929119922001043>

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to inefficient asset allocation and may induce FIIs to allocate more weight to foreign stocks. The authors believe that the introduction of mandatory CSR regulation will reduce the information gap between FIIs and DIIs.

Furthermore, CSR builds social capital and trust, which can expedite financial contracts by reducing adverse selection and moral hazard problems. This social capital could act as a form of insurance during crises. Additionally, institutional investors tend to develop social capital through CSR activities. Therefore, the authors argue that mandatory CSR regulation should increase FII investment in India.

The authors also explore whether the country of origin of FIIs affects their investment in India. They argue that, in common-law countries, the regulatory framework primarily fosters private market outcomes through unimpeded private transactions, while civil-law countries rely on policy-driven mechanisms grounded in socially accepted conventions. This suggests that FIIs from civil-law countries are more likely to be socially accustomed to CSR, and thus, they may invest more in CSR-compliant companies compared to those from common-law countries. Additionally, societies in civil-law countries tend to have a stronger CSR ideology, so investors from these countries would likely invest more in CSR-oriented firms.

Furthermore, the authors examine the impact of the CSR engagement mandate on FII heterogeneity based on investment styles and horizons. They classify FIIs into two groups based on investment style: independent foreign investors (such as mutual funds and independent investment advisors) and grey foreign investors (such as banks, insurance companies, and other institutions). Independent investors tend to actively monitor and influence corporate governance mechanisms. They attract financial capital through good financial performance and social channels.

CSR can improve the reputation of FIIs that are concerned about reputation; therefore, these independent institutional investors are likely to hold more CSR-compliant firms in their portfolios. Monitoring costs for them are also reduced due to government and regulatory oversight. On the other hand, grey foreign investors do not actively monitor due to closer ties with the management. They often have insider information even without regulatory transparency. The authors believe that such information will be more relevant to independent institutional investors.

The authors further divide FIIs based on investment horizon into long-term and short-term. Previous studies suggest that CSR-oriented firms can better align their interests with non-investing stakeholders, which enhances their competitiveness and financial returns in the long run. Long-term investors face substantial monitoring costs and downside risks.

CSR regulations reduce these monitoring costs through increased transparency and minimize downside risks. As a result, long-term FIIs should increase their investments in CSR-compliant firms. In contrast, short-term investors, who typically have superior information and are more myopic, are focused on frequent trading and shorter profit horizons. Thus, they are less willing to monitor a firm's management.

To examine this, the authors used 23,694 firm-year observations from 2012-2017 for listed Indian companies. FIIs owned 2.30% of the total outstanding shares. Before the implementation of CSR regulations, FIIs owned 2.16%, which increased to 2.43% after the regulation. The authors classified firms into treatment and control groups based on the applicability of Section 135 of the Act. They then employed propensity score matching (PSM) based difference-in-differences (DiD) methods.

FIIs were measured based on the percentage of foreign holding as a proportion of total outstanding shares (FIO) and the change in holding (Δ FIO). The authors found that mandatory adoption of CSR increased the holding of foreign investors in the range of 0.316% to 0.431%, and the Δ FIO in the range of 7.505% to 8.465%, more in the treatment group than the control group firms.

Furthermore, the authors validated the parallel trend assumption and found that the increase in FIO holding was observed in the treatment firms but not in the control firms. They also addressed potential issues arising from the "comply or explain" clause. By analysing actual CSR expenditures, they found that firms that spent more on CSR

received more FIO investments than those with lower CSR expenditures. Additionally, the authors found that both existing and new FIIs increased their FIO more in the treatment group than in the control group firms.

The authors also used a placebo test to rule out alternative explanations and also exclude firms that were already engaged in CSR prior to the regulation, finding similar results. This ruled out the possibility of sticky behaviour among voluntary CSR firms. Moreover, the authors used a regression discontinuity design to strengthen their findings, which yielded consistent results.

Finally, the authors explored the impact of legal origin and investment horizon on foreign investments. They found that investors from common-law countries did not change their FIO holdings. However, civil-law country investors increased their holdings in CSR-compliant firms compared to other FII investors. Additionally, the authors examined the impact of Scandinavian and non-Scandinavian civil-law origin investors on ownership holdings. They found that both Scandinavian and non-Scandinavian civil-law origin FIIs significantly increased their investments by 0.172% and 0.180% in treatment firms.

The authors also analysed FII heterogeneity based on investment type and found that independent FII investors increased their ownership in treatment firms by 0.191% more than control firms. However, they found no statistical evidence for grey FIIs. Furthermore, they found that only long-term oriented FIIs increased their investment more in treatment firms than in control firms due to the CSR regulation.

Based on these findings, it can be inferred that CSR regulation has created social capital and reduced information asymmetry, leading to increased foreign ownership.

Highly cited research paper in the field of Financial Economics

Strategic insider trading and its consequences for outsiders: Evidence from the eighteenth century²⁹

Mathijs Cosemans³⁰ Rik Ferhen³¹

Research paper summary prepared by Economic Policy and Research, NSE

This paper presents a detailed empirical analysis of insider trading behavior and its impact on outsiders in the early eighteenth-century London stock market based on unique hand-collected data. By examining share transactions and holdings of insiders and outsiders from three major companies, insights into insider trading in a historical context are provided. The absence of legal restrictions on insider trading during that era allowed for a clear assessment of the value of private information access. Directors displayed a pattern of increasing their positions on days of positive news and decreasing them on days of negative news, resulting in significant post-trade returns that outperformed other traders by 1.5% to 3%. The study also delves into how insider trades were camouflaged through an intermediary, leading to higher returns for anonymous trades. The timing of informed trades by insiders was found to be strategically linked to uninformed volume, indicating higher profitability when trading on days with better liquidity. The quantification of expected losses for outsiders due to insider trading revealed significant impacts, especially in cases of informed trading by directors and other potentially informed traders.

Background

In the early 18th century, the London stock market primarily focused on a few major stocks, with newspapers reporting daily prices for prominent companies³². The period between late 1719 and early 1720 saw the introduction of two new insurance company stocks³³, sparking a surge in public interest in equity trading. Despite over a hundred proposed new companies in spring 1720, the Bubble Act of June 1720 curtailed most initiatives except for the Royal Exchange Assurance and London Assurance. This period culminated in the infamous *South Sea Bubble*, characterized by speculative fervour. These three companies represented more than 40% of the market in terms of pre-bubble capitalisation.

Stock trading occurred in coffee houses near the London Stock Exchange, following a broker-mediated process with fixed brokerage fees. All transactions were recorded by the transfer clerk in the company's ledger and transfer books. Trading was not anonymous like it is today as both buyer and seller were required to be present in person in the company transfer office to complete relevant paperwork.

Notably, the *Bank of England* operated as a private bank back then with governmental ties. The *East India Company*, holding a monopoly on trading with the East Indies, and the *Royal African Company*, monopolizing trade along the west coast of Africa, were significant players in the market.

Data

This research paper examines stock market transactions and shareholdings in three major British companies during the early 18th century: the *Bank of England*, the *East India Company*, and the *Royal African Company*. The primary

²⁹ Journal of Financial Economics

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³² Bank of England, East India Company, South Sea Company, Million Bank and Royal African Company

³³ Royal Exchange Assurance and London Assurance

data sources are the companies' ledger books, which record daily stock holdings and transactions, as well as board meeting minutes and newspaper stock price data. The dataset allows for a detailed analysis of investor trades and holdings. The sample includes 14,200 shareholders, split into 14,081 outsiders and 119 insiders (directors). Board members often enter and leave the board multiple times during the sample period. On average, insiders hold larger stock portfolios than outsiders, and their trades outperform those of outsiders, particularly over the quarterly horizon. The researchers consider various alternative definitions of insiders beyond just board members, including employees, blockholders, politicians, brokers, nobles³⁴, and neighbours of directors. These expanded definitions significantly increase the number of identified insiders

Results

Insider Trading Patterns:

Authors regress insider and outsider trading activity (measured by net of daily buy and sell volume divided by the sum of buy and sell volume.) in Bank and East India shares on a dummy that assumes value one when board of directors discuss a positive news and minus one when they discuss a negative news. They find that insiders were able to capitalize on their access to material and non-public information to generate superior trading returns compared to outsiders. An analysis of corporate events first discussed in board meetings shows that directors increase their stock positions ahead of the public release of positive news and decrease their positions ahead of negative news announcements. The stock price changes following these news events suggest that the information shared in board meetings was material.

Insiders' Trading Outperformance:

Authors regress trader and company specific post-trade returns on insider dummy variables. The outperformance of insiders' trades ranges from 1.5% to 4.35% over monthly and quarterly horizons, respectively. This return gap between insiders and outsiders is robust to controlling for trader fixed effects, ruling out that the results are driven by differences in investor ability rather than information asymmetry. The authors find that not only directors, but also other potentially informed traders such as blockholders, brokers, and politicians, earn significantly higher returns than outsiders on their trades.

Insiders' Strategic Trading Behaviour:

The authors provide evidence that insiders strategically choose to hide their identity when trading on private information. Specifically, insiders collaborate with an intermediary who reverses his transaction with the insider by trading with an outsider. The anonymized trades of directors earn 1.7% (0.7%) higher returns over the next month (quarter) than their non-anonymized trades.

The authors also find that insiders time their informed trades to coincide with high uninformed trading volume, consistent with theoretical predictions. The strategically timed trades of insiders are much more profitable than their untimed trades, particularly over longer horizons.

Finally, the study quantifies the expected losses that outsiders incur due to insider trading. Using the authors' insider definition, expected losses range from 2 basis points per transaction over a one-month horizon to 7 basis points over a quarterly horizon. When focusing only on informed insider trades, expected losses increase to 13 basis points over one month and 27 basis points over one quarter. The results indicate that more experienced and knowledgeable outsiders are better able to avoid trading directly with insiders, but they are still prone to trading indirectly with informed insiders who strategically hide their identity.

³⁴ Dukes, Marquises, Earls, Viscounts and Barrons

Conclusion

This paper presents a detailed empirical analysis of insider trading behaviour and its impact on outsiders in the early eighteenth-century London stock market based on unique hand-collected data. By examining share transactions and holdings of insiders and outsiders from three major companies, insights into insider trading in a historical context are provided. The absence of legal restrictions on insider trading during that era allowed for a clear assessment of the value of private information access. Directors displayed a pattern of increasing their positions on days of positive news and decreasing them on days of negative news, resulting in significant post-trade returns that outperformed other traders by 1.5% to 3%. The study also delves into how insider trades were camouflaged through an intermediary, leading to higher returns for anonymous trades. The timing of informed trades by insiders was found to be strategically linked to uninformed volume, indicating higher profitability when trading on days with better liquidity. The quantification of expected losses for outsiders due to insider trading revealed significant impacts, especially in cases of informed trading by directors and other potentially informed traders. Moreover, the analysis highlighted that experienced outsiders were less likely to directly trade with insiders, emphasizing the nuanced interactions in the market. Overall, the research sheds light on the strategic nature of insider trading, its implications for outsiders, and the different mechanisms employed by insiders to maximize returns, ultimately influencing market dynamics and outcomes.

Monetary policy and fragility in corporate bond mutual funds³⁵

John Chi-Fong Kuong³⁶ James O'Donovan³⁷ Jinyuan Zhang³⁸

Research paper summary prepared by Economic Policy and Research, NSE

Introduction

The paper explores the impact of monetary policy on corporate bond mutual funds, focusing on the relationship between Federal Funds Target rate (FFTar) increases and outflows corporate bond mutual funds. The authors argue that market participants learn about FFTar increases before Federal Open Market Committee (FOMC) meetings, leading to temporary overpricing of fund shares, subsequent NAV declines, and pre-emptive investor redemptions. The study conducts an event study around FOMC meetings using daily flow data and finds that changes in market interest rates predict future FFTar changes and NAV adjustments. Authors find that NAVs of fund shares are stale and do not promptly adjust in response to new information, leading to temporary overpricing. They provide evidence supporting the notion that investors strategically redeem shares to profit from overpricing, particularly in high-staleness funds. The study further discusses the impact of illiquidity on outflows and the interaction between staleness and liquidity, highlighting their roles in fund fragility during market distress. The paper introduces two novel hypotheses related to NAV staleness, liquidity, and the outflow-FFTar sensitivity. It suggests that in periods of low liquidity, staleness may stabilize outflows, while a low. The paper offers policy implications, cautioning against reducing staleness in NAVs and highlighting the destabilizing effects of interest rate increases on corporate bond funds. The findings enrich the understanding of monetary policy transmission by exploring how anticipated rate changes affect flows in corporate bond mutual funds due to NAV mispricing.

Monetary policy changes and flows to corporate bond mutual funds

Authors examine the correlation between monetary policy changes and flows to corporate bond mutual funds. The study supports the mispricing channel theory, suggesting that stale pricing of fund shares around Federal Open Market Committee (FOMC) meetings plays a significant role in explaining the relationship between interest rates and fund outflows.

The analysis utilizes U.K. corporate bond fund data to demonstrate how swing pricing can mitigate the first-mover advantage and outflows during market distress. Additionally, the study finds that monetary policy surprises impact flows in loan funds.

Data

The study uses datasets from the Centre for Research in Security Prices (CRSP) Survivor-Bias-Free U.S. Mutual Fund database and the Morningstar Direct database to analyse corporate bond mutual funds. The analysis focuses on fund shares' characteristics such as expense ratio, maturity, cash and government bond holdings percentage, and high-yield fund indicators. The paper details the methodology for obtaining daily flow information at the fund-share level, including the merging of Morningstar Direct and CRSP databases using ticker information. The sample used spans from January 2009 to June 2023 and includes 3182 unique fund shares.

Authors find that corporate bond funds are more responsive to increases in FFTar compared to bank deposit flows. Furthermore, the research investigates the predictability of FFTar changes using market-traded derivatives and

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provides evidence that Net Asset Values (NAVs) of corporate bond funds may not fully react to information from market derivatives before FOMC meetings, suggesting potential staleness in pricing.

Authors point out the staleness of bond fund Net Asset Values (NAVs) leading up to Federal Open Market Committee (FOMC) meetings and its implications. The staleness measure is calculated by dividing the number of days where NAVs remain unchanged by the total days before each FOMC meeting.

Corporate bond funds exhibit higher staleness compared to equity funds, with an average staleness of 31% for corporate bonds. A one-meeting lag of staleness is used in the analyses to avoid measurement and estimation window overlaps. High-staleness funds have lower cash and government bond holdings, shorter maturity, and lower high-yield fund likelihood compared to low-staleness funds. The study includes an alternative measure of staleness using lagged daily returns, which confirms the robustness of the results.

Changes in NAVs of stale funds are predictable, especially around FOMC meetings, based on Eurodollar Futures rates. High-staleness funds show predictable NAV changes five days before and after meetings, while low-staleness funds do not exhibit predictability. Notably, NAV adjustments in high-staleness funds are delayed and incomplete, leading to temporary mispricing around FOMC meetings. The study employs predictive regressions to demonstrate the relationship between Eurodollar Futures rates and NAV changes for both high and low staleness funds.

Investor flows in response to NAVs mispricing

Opportunistic investors can take advantage of temporary NAV mispricings by redeeming or depositing shares before NAV adjustments occur, especially around FOMC meetings. Regression analyses reveal a significant relationship between Eurodollar rate changes and outflows, particularly for high-staleness funds around FOMC meetings. A 25-basis-point increase in Eurodollar rates is associated with a 0.47% increase in high-staleness fund outflows, double that of low-staleness funds in the 10-day window surrounding FOMC meetings.

Outflows linked to mispricing dissipate within 5 days post-FOMC meetings. Daily data analyses show that institution-oriented funds have weaker outflow sensitivity to rate changes compared to retail-oriented funds. Non-index bond funds exhibit significant outflow sensitivity compared to index funds. The study rules out reaching-for-yield behaviour as a driver for outflows, as the mechanism operates in the days surrounding FOMC meetings while portfolio tilting takes weeks. Furthermore, results remain robust even after controlling for reaching-for-yield predictors.

The analysis discounts return autocorrelations as a driver of outflows and shows no reallocation of funds to equity or Treasuries in response to increased interest rates. In conclusion, there is strong empirical evidence supporting the proposed mispricing mechanism around FOMC meetings, with outflows driven by Eurodollar rate changes, especially in high-staleness funds, suggesting investors exploit temporary NAV mispricings for financial gain.

Mispricing and Flows in Corporate Bond ETFs.

Outflows in open-end corporate bond mutual funds occur when investors redeem shares at the Net Asset Values (NAVs), while in corporate bond Exchange-Traded Funds (ETFs), only authorized participants (APs) can redeem shares for underlying assets, causing outflows. APs tend to buy shares and redeem them at a discount relative to NAVs, reducing the discount. Analysis of ETF data shows weaker evidence of mispricing compared to mutual funds, attributed to ETF NAVs being less stale and traded at market prices. Unlike mutual funds, where investors can profit from mispriced NAVs, APs in ETFs transact shares at market prices, limiting profitable opportunities. When APs trade baskets of bonds with dealers, quotes are updated to reflect monetary policy news, rendering mispriced NAVs unprofitable. Efficient market prices prevent APs from profiting from mispricing in ETFs, unlike in mutual funds where investors can benefit directly from underpriced or overpriced NAVs.

Theoretical Model

Authors identify two primary factors influencing outflows in response to interest rate fluctuations. First, the lagged updating of fund Net Asset Values (NAVs) leads to potential mispricing opportunities for investors. Second, the illiquidity of corporate bonds results in high costs associated with selling bonds during redemptions. Notably, the NAV fails to account for these future liquidation costs, burdening investors who remain in the fund and incentivizing redemption.

To capture these strategic considerations, the paper introduces a model for analysing the behaviour of fund investors. Model assumes three key dates: T_0, T_1, T_2 and agents are assumed to be risk-neutral consuming a single storable good, *cash*, without any time discounting. The only asset traded in the market is a zero-coupon long-term bond with a face value of \$1 maturing at T_2 . The analysis excludes credit risk from the bond to focus solely on interest rate risk implications.

Monetary policy

Monetary policy characterized by two parameters, r and σ , and a random variable ν . The parameter r represents the one-period (net) interest rate from time: T_0 to T_1 which is known at T_0 and reflects the tightness of the monetary policy environment. The future one-period interest rate from T_1 to T_2 is represented by $r + \sigma\nu$, which is unknown at T_0 because the interest rate shock, ν , is a random variable to be realized at T_1 drawn from a uniform distribution with zero mean and unit variance, and σ captures the monetary policy uncertainty over T_1 and T_2 . At T_1 , each investor i receives a signal x_i about the realization of ν , denoted as $\hat{\nu}$. The authors map this model into reality, where T_1 corresponds to the date when financial markets learn about the future policy rate set by the central bank, which can be days before the actual announcement at FOMC meetings. The key aspects of the monetary policy representation in the model are the distinction between the known interest rate r at T_0 and the uncertain future interest rate $r + \sigma\nu$ at T_1 , as well as the role of the random variable ν and the signals received by investors at T_1 regarding its realization. This framework allows the researchers to investigate the impact of monetary policy uncertainty on financial markets and investor behaviour.

Investors and a Bond Mutual Fund

There are a continuum of investors. Each investor owns one share of the fund for every unit of cash invested. The fund invests the cash in bonds at the initial price, and investors can redeem their shares at the latest net asset value (NAV) or wait and share the fund's assets at a later time. Upon receiving information about bond values, investors decide whether to redeem their shares at the NAV or stay invested. The paper introduces the concept of a redemption game where investors make individual decisions based on private signals about bond values. Investors who redeem their shares receive the NAV at a certain time, while staying investors share the remaining cash flow. Staying investors also derive non-monetary utility if the fund is not liquidated, representing the benefits of owning a diversified bond portfolio in a fund. The research highlights the investor payoffs at a specific time, considering factors like redemption fraction, bond liquidation, and fund liquidation. If the fund is not completely liquidated, redeeming investors reinvest the proceeds in bonds, while staying investors enjoy non-monetary utility.

Equilibrium

The paper delineates three distinct regions based on investors' optimal redemption strategies. In a high-interest rate region ($\nu \geq \bar{\nu}$), redeeming becomes the dominant strategy, leading to all investors choosing to redeem. Conversely, in a low-interest rate region ($\nu < \underline{\nu}$), the fund can easily repay redeeming investors even if all others redeem, resulting in all investors staying as the equilibrium. Parametric assumptions are then introduced to ensure the existence of dominance regions within the bounds of interest rate shocks. The paper establishes that in the intermediate region ($\nu \in (\underline{\nu}, \bar{\nu})$), multiple equilibria can exist. The payoff difference between redeeming and staying for an investor is used to determine the optimal strategy based on others' actions, leading to varying equilibria in different scenarios

Authors introduce the concept of monetary-policy-induced fragility in bond funds, where large redemptions occur when there is a positive and significant interest rate shock. This fragility is defined as the probability that all investors redeem their shares, leading to the complete liquidation of the fund.

Results show that all investors redeem if the net asset value (NAV) multiplied by a factor is greater than the intrinsic value of the fund. Then, the authors consider different scenarios of market liquidity and nonpecuniary benefits to investors, showing how these factors influence investors' redemption decisions. They establish that sensitivity of the probability of investors redeeming all shares to changes in interest rates depends on market liquidity and other parameters.

The paper discusses the impact of illiquidity, staleness in Net Asset Value (NAV), and monetary policy on the fragility of mutual funds. The condition for redemption is crucial in understanding the results, where illiquidity exacerbates fragility due to the need to liquidate more assets in illiquid times. This leads to higher costs for investors remaining in the fund, increasing the likelihood of redemptions. Staleness in NAV affects fragility differently based on market liquidity: in high liquidity environments, investors redeem to profit from overpricing in the NAV, while in low liquidity environments, concerns about redemption externalities may lead investors to redeem even when the fund's intrinsic value is expected to rise.

Moreover, the paper explores how loose monetary policy influences fund fragility based on liquidity levels. In high liquidity scenarios, investors only redeem if there is significant NAV overpricing, influenced by bond value sensitivity to interest rate changes. In contrast with low liquidity environments, investors are more inclined to redeem, and the impact of interest rate changes on bond value is less pronounced, making it easier to achieve a bond value increase and thereby reducing fragility.

Main hypotheses

Hypothesis 1 suggests a positive connection between fund outflows and changes in the Federal Funds Target rate. The authors propose that an increase in the rate leads to a decrease in bond values, resulting in temporarily overpriced net asset values (NAVs) which incentivize investors to redeem their shares.

Hypothesis 2 builds on the first by asserting that funds with less liquid assets are more sensitive to Federal Funds Target rate changes, especially during illiquid periods. This is attributed to redemption externalities where overpriced NAVs prompt some investors to redeem, causing costly liquidation of corporate bonds for remaining investors.

Hypothesis 3 addresses the interplay of illiquidity and staleness in fund outflows. In scenarios of high liquidity, investors act as arbitrageurs redeeming overpriced shares, driven by decreasing intrinsic fund values. Conversely, in low liquidity, concerns about redemption externalities dominate, leading to less redemption even with expected NAV increases.

Hypothesis 4 explores the impact of the monetary policy environment on fund outflows. In loose monetary environments, higher duration bonds amplify mispricing effects of stale NAVs, influencing investor redemption behaviour based on the degree of under or overpricing relative to liquidity levels.

Testing model predictions

Authors conduct regressions of outflows on changes in policy rates, interacting with illiquidity, staleness, and the monetary policy environment. Both daily and monthly samples are analysed, with the daily sample providing tighter identification, while the monthly sample covers a broader time frame. To ensure comparability between the daily and monthly results, a predicted FFTar change within a specific window around FOMC meetings is used as the explanatory

variable. The results demonstrate an asymmetrical relationship between outflows and inflows in response to changes in FFTar, with outflows being more pronounced, highlighting fragility induced by monetary policy.

Hypothesis 1 is tested using monthly data, confirming the outflow - Δ FFTAr relationship, with an asymmetry favouring outflows.

Hypothesis 2 is supported by findings showing intensified redemption externalities with lower liquidity.

The effect of staleness on mitigating fragility in illiquid funds is explored in Hypothesis 3, with results indicating a stabilizing effect.

Lastly, Hypothesis 4 reveals stronger outflow sensitivity to changes in FFTar in illiquid funds during tight monetary policy environments, emphasizing unintended consequences of monetary policy decisions.

The research findings underscore the importance of considering factors such as illiquidity, staleness, and monetary policy regime when analysing capital flows in corporate bond mutual funds. Overall, the paper highlights the novel policy implications of their findings, suggesting that policies or regulations aimed at stabilizing corporate bond funds should consider the funds' staleness, market liquidity, and monetary policy environment.

Nifty500 Equal Weight Index: Equal weight, equal opportunity

Introduction

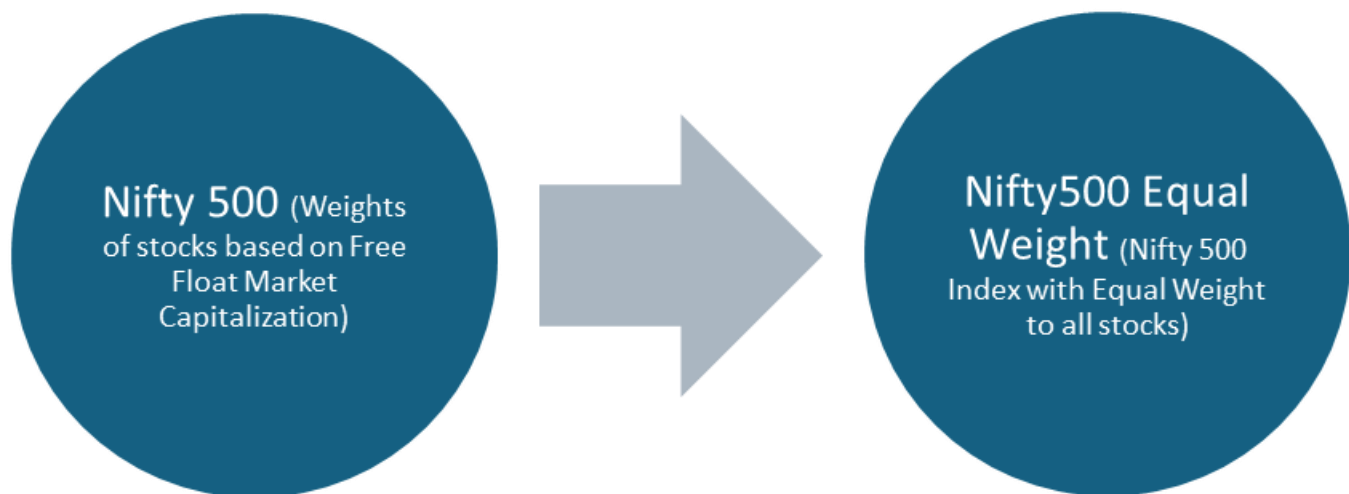
Consider any team sport around the world. A team's success often hinges on the balanced performance of all its players rather than relying solely on a few star players of that team. For example, during the 2016-2017 season, Leicester city defied expectations by winning the Premier league without relying on any superstar. Take the 1983 Indian cricket team, which defied all the odds and won the Cricket World Cup. The team's triumph was not due to the brilliance of a single player but the collective effort of every member, from consistent batting contributions to crucial wickets by less celebrated bowlers. Players like Mohinder Amarnath and Sandeep Patil stepped up in pivotal moments, showing that success comes from the balanced contribution of the entire squad. This mirrors the concept of an equal-weighted index, where each component is given the same level of importance. Just as the Indian team's World Cup victory was a result of the equal contributions from all players, an equal-weighted index treats each stock or asset with equal significance, ensuring a more balanced and comprehensive view of market performance. This approach highlights the value of every component, preventing a few dominant elements from overshadowing the rest and offering a more nuanced understanding of overall performance. Equal weighting methodology mitigates the impact of market cap biases and capitalizes on the growth potential of smaller companies.

The Equal weight methodology contrasts with the standard market capitalization method of Nifty 500 where larger companies have a more significant influence on the index performance. The Nifty500 Equal Weight when compared to Nifty 500 has relatively higher weight to mid and small cap stocks compared to large cap stocks. This Equal weight methodology can be advantageous compared to the weighing based on market capitalization during periods when the small-cap and mid-cap stocks outperform the large-cap stocks.

About the Nifty500 Equal Weight index

Nifty500 Equal Weight Index represents an alternative weighting strategy to its market capitalization-based parent index, the Nifty 500 Index. The index includes the same companies as its parent index, however, weighted equally. Essentially each stock in the index has 0.20% weight. The index has a base date of April 01, 2005, and base value of 1000.

Figure 138: Methodology of Nifty500 Equal Weight Index



Source: NSE Indices.

The Nifty500 Equal Weight index is more distributed compared to the Nifty 500 Index.

Table 17: Attributes of Nifty500 Equal Weight compared to Nifty 500

Parameters	Weight (%)	
	Nifty500 Equal Weight	Nifty 500
Top Stock	0.2	7.33
Top 5 Stocks	1.0	22.89
Top 10 Stocks	2.0	33.09
Top 50 stocks	10.0	59.33
Nifty 100	20.0	70.87
Nifty Midcap 150	30.0	18.54
Nifty Smallcap 250	50.0	10.59

Source: NSE Indices. Weights as on December 31st, 2024 beginning of day (BOD).

As seen in the above table, the top 50 stocks contributed only 10.00% of the total weight in the Nifty500 Equal Weight Index, providing a balanced exposure across the index constituents. In contrast, the traditional Nifty 500 Index allocated a significant 59.33% weight to the top 50 stocks, reflecting a concentration in larger, more dominant companies by Free float market capitalization. This equal weighting approach helps mitigate the influence of a few large-cap stocks, promoting broader diversification and reducing the risk associated with individual stock fluctuations. The large caps represented by Nifty 100 contributed 20.00% of the weight in the Nifty500 Equal Weight index, whereas the same large caps contributed 70.87% of the weight in the Nifty 500 index.

Sectoral Composition of Nifty500 Equal Weight Index compared to Nifty 500 Index

Table 18: Sector composition of Nifty500 Equal Weight compared to Nifty 500

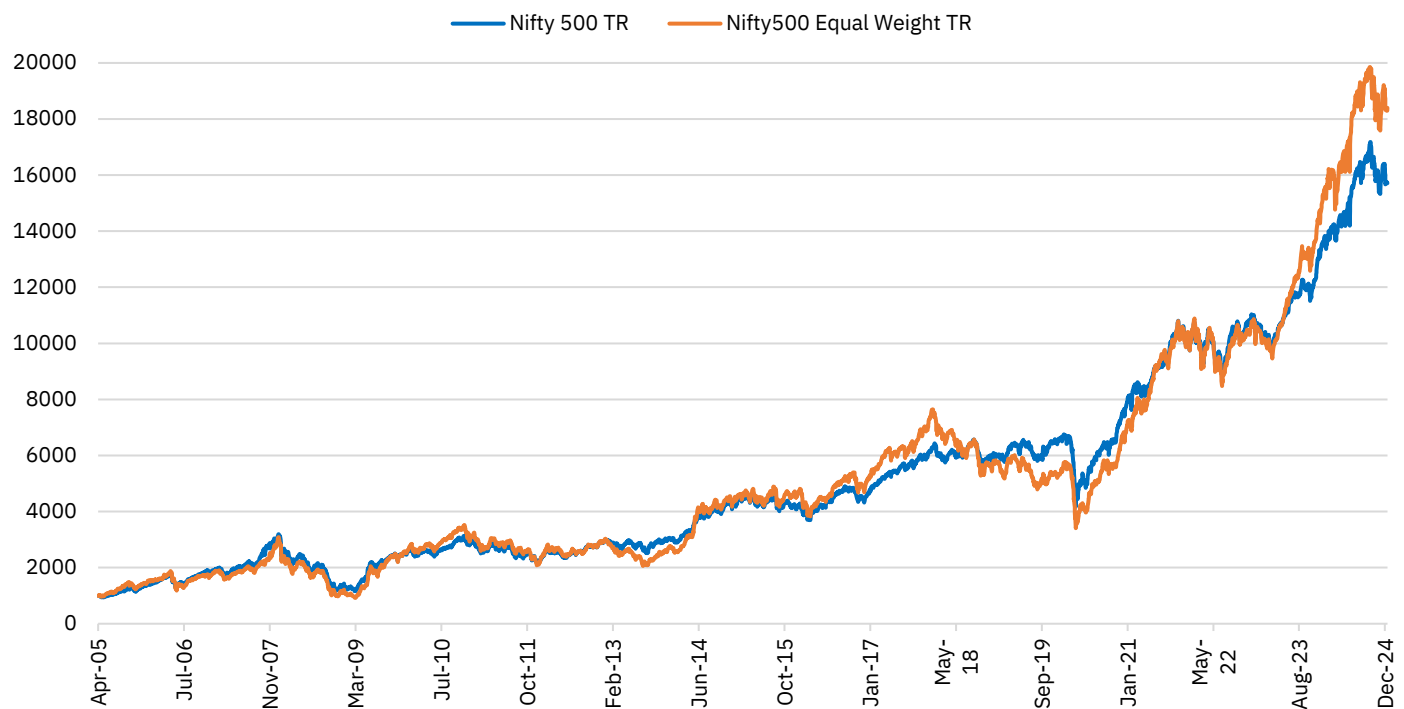
Sector	Nifty500 Equal Weight (%)	Nifty 500 (%)
Financial Services	18.80	29.17
Capital Goods	12.20	5.71
Healthcare	9.60	6.58
Automobile and Auto Components	6.80	6.74
Chemicals	6.60	2.08
Fast Moving Consumer Goods	6.20	6.86
Information Technology	5.40	10.53
Consumer Services	4.40	3.84
Consumer Durables	4.40	3.07
Oil, Gas & Consumable Fuels	3.60	7.22
Services	3.20	1.71
Metals & Mining	3.00	3.17
Construction	3.00	2.97
Power	2.60	3.19
Realty	2.60	1.48
Construction Materials	2.40	1.99
Telecommunication	2.20	2.99
Textiles	1.20	0.30
Media, Entertainment & Publication	1.00	0.19
Diversified	0.60	0.14
Forest Materials	0.20	0.07

Source: NSE Indices. All data as on December 31st, 2024 BOD.

The table above shows sector-wise distribution for the Nifty500 Equal Weight and Nifty 500 index. As on December 31st, 2024 the Nifty500 Equal Weight index was overweight in Financial Services (18.80%), Capital Goods (12.20%) and Healthcare (9.60%) sectors. Media, Entertainment & Publication, Diversified and Forest Materials were the sectors with lowest weights in both Nifty500 Equal Weight and Nifty 500 as on December 31st, 2024.

The Nifty500 Equal Weight Total Return (TR) index has outperformed Nifty 500 Index across 15, 10, 5, 3 and 1 year investment horizons.

Figure 139: Performance of Nifty500 Equal Weight TR and Nifty 500 TR



Source: NSE Indices. Data as on December 31st, 2024

Table 19: Annualized return and volatility profile of Nifty500 Equal Weight TR and Nifty 500 TR

Period	Annualised returns		Annualised Volatility		Return to risk	
	Nifty500 Equal Weight	Nifty 500	Nifty500 Equal Weight	Nifty 500	Nifty500 Equal Weight	Nifty 500
Since April 01, 2005	15.89%	14.97%	20.88%	20.56%	0.76	0.73
15 years	13.80%	12.81%	17.90%	16.30%	0.77	0.79
10 years	15.28%	13.95%	17.95%	16.37%	0.85	0.85
7 years	13.93%	14.27%	18.41%	17.27%	0.76	0.83
5 years	27.75%	19.00%	19.12%	18.54%	1.45	1.02
3 years	21.24%	15.43%	16.43%	14.38%	1.29	1.07
1 year	23.10%	16.24%	18.05%	14.95%	1.28	1.09

Source: NSE Indices. Data based on TR index values as on December 31st, 2024.

Since April 1st, 2005, till December 31st, 2024, the Nifty500 Equal Weight TR index has delivered annualized returns of 15.89%. On comparing the Nifty500 Equal Weight TR with Nifty 500 TR, we can observe that the Nifty500 Equal Weight TR index has outperformed Nifty 500 TR Index in all the above investment horizons except for seven-year horizon. For instance, over the last 15 years (as on December 31st, 2024), the Nifty500 Equal Weight TR index has delivered 13.80% CAGR compared to 12.81% for the Nifty 500 TR Index. The Nifty 500 index is a predominantly large cap index, which is not the case for the Nifty500 Equal Weight where smallcap and midcap stocks dominate the index. This increased

exposure to mid-caps and small caps is a primary factor for outperformance of the index compared to Nifty 500. In the short-term horizon of one year, the Nifty500 Equal Weight TR index has delivered a return of 23.10% compared to 16.24% returns delivered by the Nifty 500 TR Index.

Over the past 15 years, the historical volatility of the Nifty500 Equal Weight TR index has been 17.90%, which is higher than the Nifty 500 TR index whose volatility has been 16.30%. The volatility of Nifty500 Equal Weight TR index is higher in all the above investment horizons when compared to Nifty 500 TR.

In terms of return-to-risk ratio, the Nifty 500 Equal weight TR index has underperformed Nifty 500 TR index in 15 and seven-year investment horizons. For the five-year horizon, the Nifty500 Equal Weight TR index has delivered a return to risk ratio of 1.45 compared to 1.02 for the Nifty 500 TR Index. For the three-year investment horizon, the return to risk ratio was 1.29 for the Nifty500 Equal Weight TR index compared to 1.07 for the Nifty 500 TR.

The Nifty500 Equal Weight Index has outperformed the Nifty 500 index in 11 out of 19 calendar years.

Table 20: Calendar year performance of Nifty500 Equal Weight TR Index

Calendar Year	Nifty500 Equal Weight TR	Nifty 500 TR
2006	20.4%	36.2%
2007	68.6%	64.6%
2008	-61.8%	-56.5%
2009	132.6%	91.0%
2010	21.1%	15.3%
2011	-34.1%	-26.4%
2012	38.6%	33.5%
2013	-6.7%	4.8%
2014	62.4%	39.3%
2015	7.2%	0.2%
2016	2.5%	5.1%
2017	51.3%	37.7%
2018	-21.4%	-2.1%
2019	-6.9%	9.0%
2020	27.1%	17.9%
2021	50.2%	31.6%
2022	1.6%	4.2%
2023	42.5%	26.9%
2024	23.1%	16.2%
Count of outperformance of the Nifty500 Equal Weight Index	11/19	

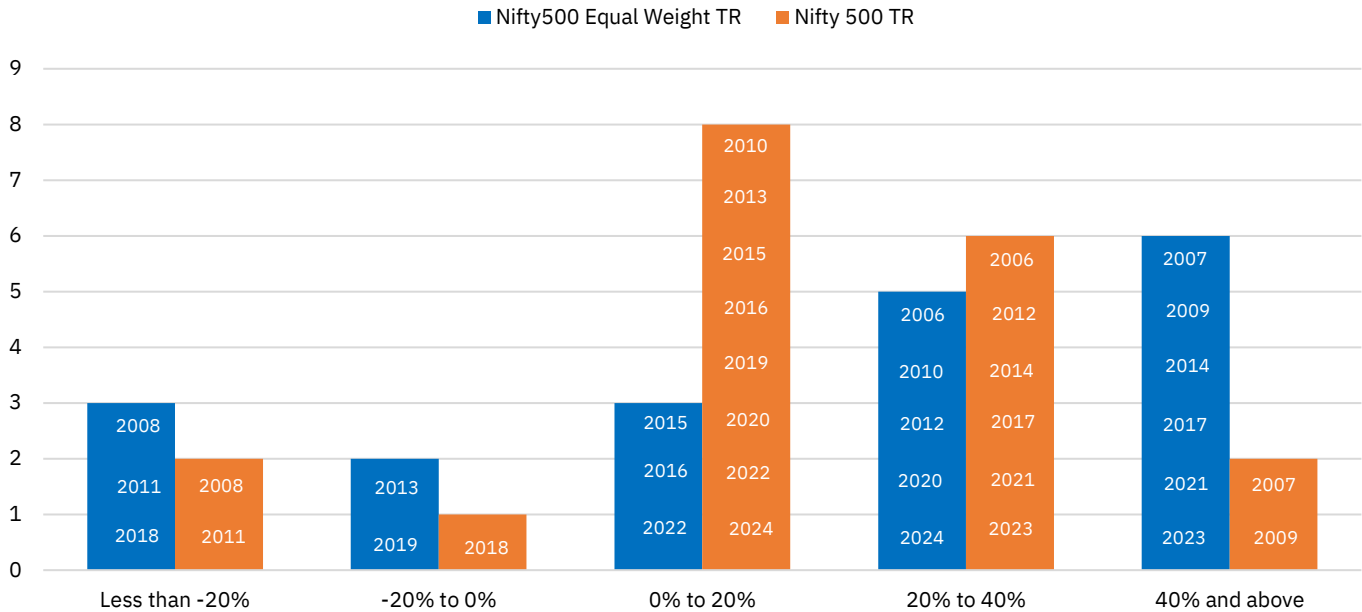
Source: NSE Indices. The cell in green are the CY years when the Nifty500 Equal Weight outperformed Nifty 500 and the cells highlighted in red are the CY years when the Nifty500 Equal Weight underperformed the Nifty 500 Index.

When compared to the Nifty 500, the Nifty500 Equal Weight TR index has outperformed in 11 out of 19 calendar years. Large caps, which are usually characterized by stable returns and lower volatility in long term tend to tide over phases of economic downturn relatively better than mid-cap and small cap stocks. This can be seen during the global financial crisis of 2008 where Nifty 500, which is dominated by large caps delivered return of -56.5% compared to -61.8% for the Nifty500 Equal Weight TR index which is dominated by small caps and mid caps. The same can also be seen during the global economic slowdowns of 2011 and 2018.

However, during phases of economic recoveries and mega bull runs, large caps generally underperform their mid-cap and small cap counterparts. This can be seen in the recovery period of 2009 where the Nifty500 Equal Weight TR index

delivered a return of 132.6% compared to 91% return delivered by the Nifty 500 TR Index. The Nifty500 Equal Weight TR index has outperformed the Nifty 500 TR index in bull runs which include 2007, 2009, 2014, 2017, 2021.

Figure 140: Calendar year return distribution of Nifty500 Equal Weight TR and Nifty 500



Source: NSE Indices.

Over the past 19 calendar years, the Nifty500 Equal Weight TR index has delivered positive returns in 14 years. The index has delivered returns greater than 20% in 11 out of 19 calendar years compared to the Nifty 500 TR which has delivered returns greater than 20% in 8 out of 19 calendar years. Out of the 11 years, where returns were more than 20%, the Nifty500 Equal Weight TR index delivered returns greater than 40% in six calendar years. Similarly, the Nifty 500 index has delivered returns greater than 40% in two calendar years.

Daily rolling return analysis of the Nifty500 Equal Weight TR Index

Table 21: Daily rolling return performance of the Nifty500 Equal Weight TR Index

Analysis based on daily rolling returns										
Investment Horizon	Percentage of total instances						Return Analysis			
	Negative returns	Positive returns					Return Attributes			
		<0% CAGR	>=0% CAGR	0-5% CAGR	5-10% CAGR	10-15% CAGR	>15% CAGR	Min CAGR	Max CAGR	Median CAGR
10 years	0.00%	100.00%	2.15%	16.56%	53.66%	27.62%	2.46%	20.33%	13.24%	12.99%
7 years	0.00%	100.00%	1.27%	20.20%	62.48%	16.05%	4.31%	25.33%	12.22%	12.28%
5 years	1.61%	98.39%	13.11%	23.85%	22.81%	38.62%	-5.11%	32.12%	12.53%	12.93%
3 years	16.27%	83.73%	8.65%	8.24%	18.15%	48.67%	-16.81%	42.82%	14.66%	13.66%
2 years	25.05%	74.95%	6.62%	8.16%	11.14%	49.03%	-27.03%	83.76%	14.43%	15.51%
1 year	30.77%	69.23%	8.26%	8.61%	4.65%	47.72%	-63.43%	193.12%	12.62%	20.52%

Source: NSE Indices. Data as on December 31st, 2024.

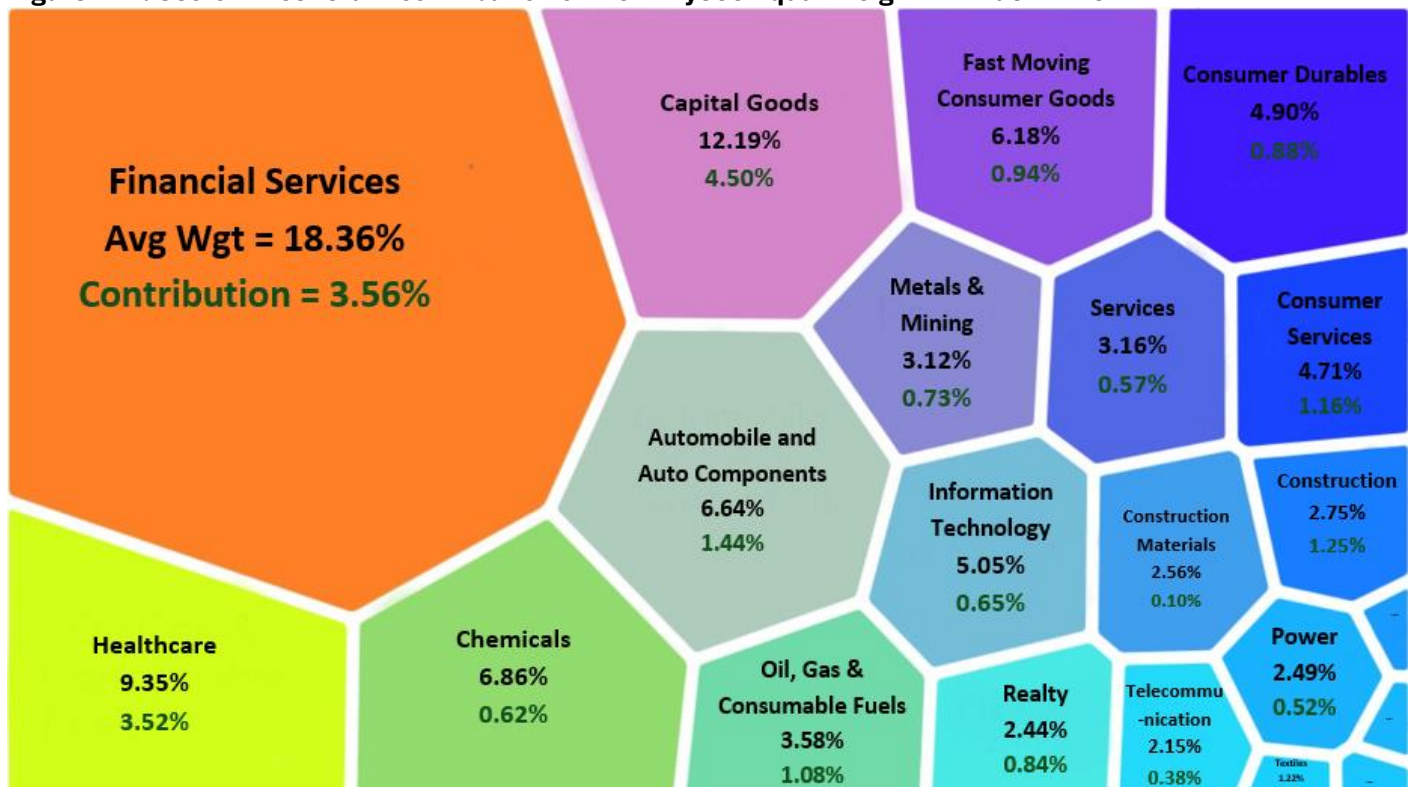
The Nifty500 Equal Weight TR has delivered positive returns more than 100% of the times over seven and 10-year investment horizons based on daily rolling return analysis. Out of 100% of the times where Nifty500 Equal Weight index delivered positive returns for the seven-year horizon, the returns were more than 15% p.a. for 16.05% of the

times. Similarly, for the 10-year horizon, instances of the Nifty500 Equal Weight index experiencing returns greater than 15% p.a were 27.62% of the times.

For the five-year horizon, the Nifty500 Equal Weight index delivered positive returns 98.39% of the time. Similarly, for the five-year investment horizon the minimum return was -5.11% and the maximum return was 32.12% with the average return being 12.93%. For the shorter-term horizon of one and two years, frequency of negative returns was 30.77% and 25.05% respectively. Variability in returns was seen in 1 year horizon as minimum return for the Nifty500 Equal Weight index was -63.43% and maximum return was 193.12% with the median return being 12.62%.

Sector wise contribution towards last 1 year return delivered by Nifty500 Equal Weight TR index

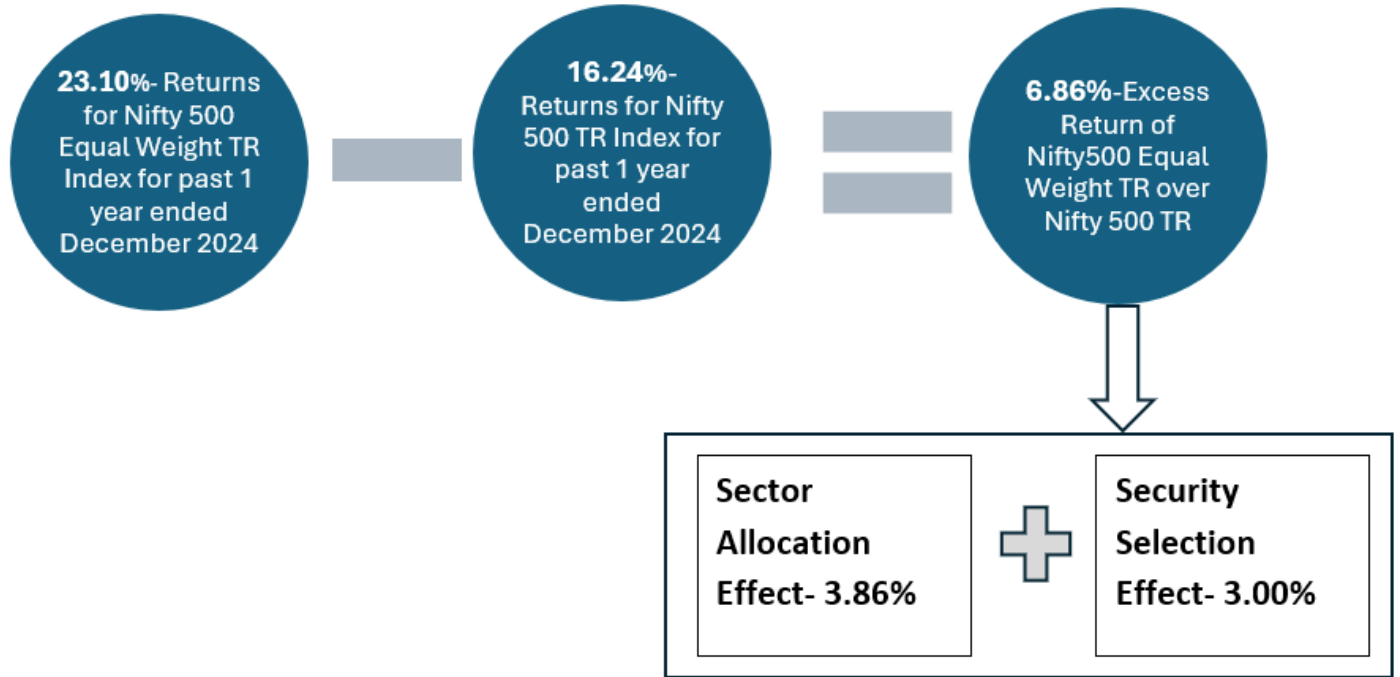
Figure 141: Sector-wise return contribution of the Nifty500 Equal Weight TR Index in 2024



Source: NSE FixedIn Attribution Tool. Numbers indicated by green font colour indicate the contribution of the sector to the returns of the index while number indicated by black font indicates the average weight of the sector in the index throughout the year.

The chart above shows sector wise contribution to the 23.10% returns delivered by Nifty500 Equal Weight TR Index in the past one year (as on December 31st, 2024). 20 sectors of Nifty500 Equal Weight Index have contributed positively to the returns of the index. Capital Goods, Financial Services and Healthcare were the sectors with the highest contribution to the returns of the index. Media, Entertainment & Publication, Forest Materials and Diversified were the sectors with the lowest contribution to the index returns. Media, Entertainment & Publication was the only sector which contributed negatively to the returns of the Nifty500 Equal Weight index.

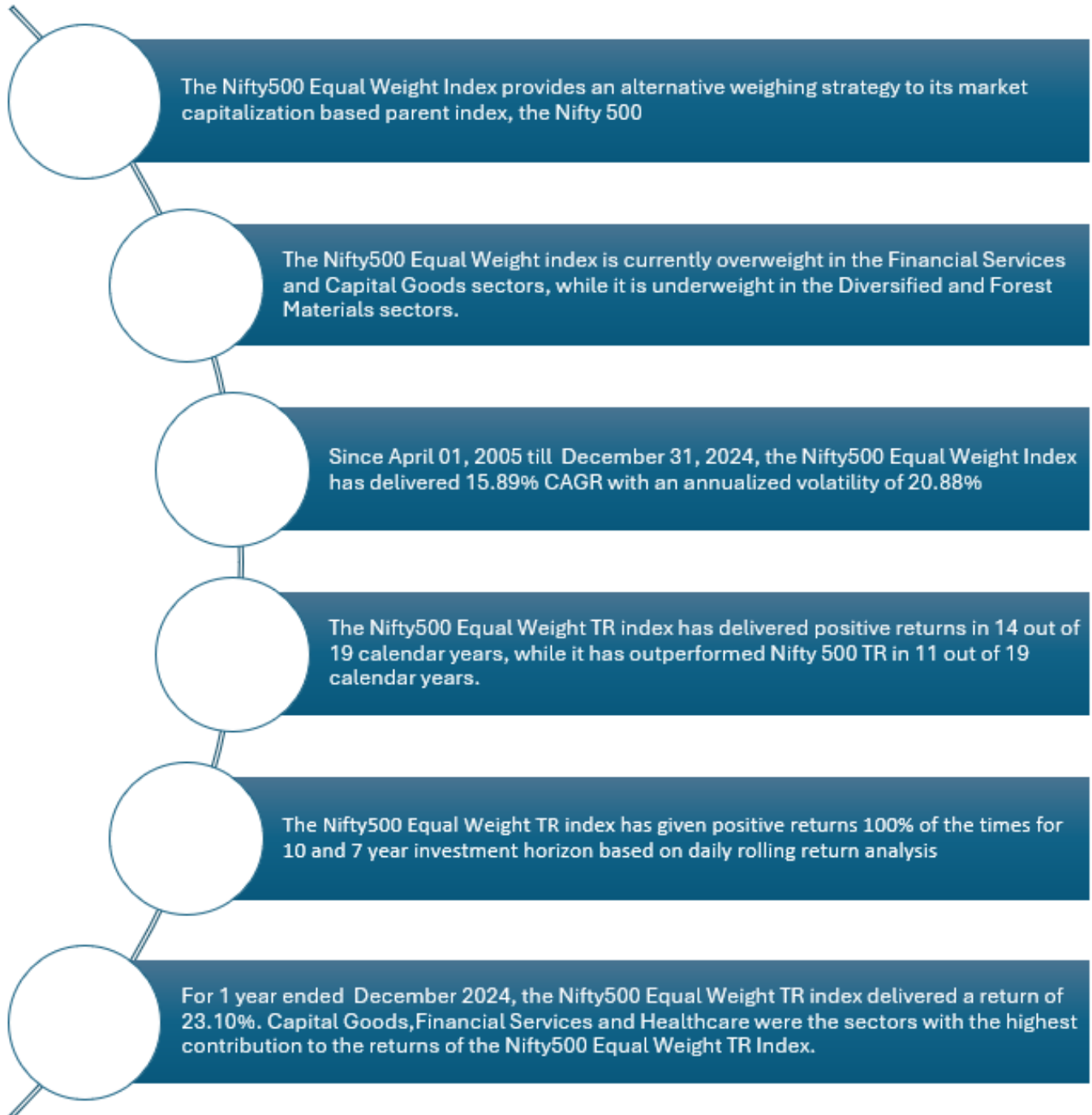
Figure 142: Excess return of Nifty500 Equal Weight TR over Nifty500 TR explained through sector allocation and security selection effect



Source: NSE FixedIn Attribution Tool.

Nifty500 Equal Weight TR has generated an excess return of 6.86% over Nifty 500 TR during the past one year ending December 2024. This excess return can be attributable to Sector allocation effect of 3.86% and Security Selection effect of 3.00%. The Sector allocation effect measures the impact of sector allocation decisions on the active return. The security selection effect measures the impact of security selection decisions on the active return.

Summary



Market performance

Market round-up

India closes 2024 in the green for the ninth consecutive year

Global equity markets defied geopolitical tensions and elevated bonds yields and posted gains for the second consecutive year. The performance was led by the US, with the S&P 500 rising 23.3% on top of a 24% return in the previous year, fueled by economic resilience and optimism around AI. Japan emerged as the second best performing large market globally (+19.2%), aided by weaker yen. Other developed markets, while ending in the green, underperformed the US markets, weighed down by political and trade-related uncertainty. Overall, developed equities (MSCI World Index) rose by 16.7% in 2024, building on a 21.8% return in 2023, with the optimism continuing in the new year (+4% in 2025 till date, as of January 24th, 2025). Emerging markets (EMs), on the other hand, faced challenges from a strengthening dollar and heightened trade uncertainties following Donald Trump's victory. However, the MSCI EM Index managed a 5.1% gain, driven largely by a strong rebound in Chinese equities during the second half of 2024, adding another 1.5% gain in 2025 thus far. Global fixed income markets faced challenges in 2024 due to shifting rate cut expectations driven by geopolitical tensions, inflation volatility, and central bank policies. The US 10-year Treasury yield fluctuated, ending the year at 4.6%, up 71 bps, with similar trends in the UK, EU, and Japan.

Indian equity markets ended 2024 on a positive note, marking nine consecutive years of gains and outperforming the broader EM pack. This strength, despite Q4 sell-offs and global headwinds, was fueled by robust economic fundamentals, policy stability following the NDA's third-term win, and strong domestic investor inflows that offset significant foreign outflows. The Nifty 50 Index posted an 8.8% return, achieving an 11.1% annualized gain over the decade, surpassing the MSCI World (8.0%) and EM (1.2%) indices, but started the new year on a somber note (YTD: -2.3%). Mid- and small-cap indices outperformed, delivering impressive returns of 21.5% and 25.3%, respectively. Indian debt markets, however, displayed resilience, supported by sovereign bond inclusion in global indices, easing inflation, and proactive RBI measures, with the 10-year G-sec yield ending 42 bps lower at 6.76%.

- **Indian equities remained volatile but ended 2024 in the green:** After witnessing a sharp sell-off in the last quarter of 2024, triggered by signs of economic slowdown, weaker corporate profitability and elevated valuations, Indian equities ended the year 2024 in the positive territory. This marked the ninth consecutive year of expansion in Indian equities. This strength was fueled by robust economic fundamentals, policy stability following the NDA's third-term win, and strong domestic investor inflows, institutional as well as individuals, that offset significant foreign outflows. The benchmark Nifty 50 Index ended the year 8.8% higher, but started the year 2025 on a negative note, falling 2.3% in January till date (As of January 24th), translating into an annualized growth of 11.1% in the last decade (2014-24). While the Nifty Mid-cap 50 and Small-cap 50 Index outperformed, delivering impressive returns of 21.5% and 25.3%, they have declined by 7.2% and 9.2% in January thus far (As of January 24th, 2025), respectively.

The benchmark Nifty 50 Index remained volatile in 2024, ending the year with 8.8% gain.

The average daily turnover in the equity cash segment surged 75.3% YoY to Rs 1.17 lakh crore in 2024. The equity options segment posted a 17.7% rise in average daily turnover to Rs 68,280 crore, while the equity futures segment recorded robust growth of 61.3%, reaching Rs 1.9 lakh crore.

- **Indian fixed income markets outperformed global markets:** In 2024, global fixed income markets struggled under pressure from fluctuating rate cut expectations driven by geopolitical tensions, central bank actions, and inflation uncertainty. The US 10-year Treasury yield hit a high of 4.7% in April due to stubborn inflation but

dropped to 3.6% by mid-September, aided by rate cuts from the US Fed and ECB. However, yields climbed back to 4.6% in Q4, ending the year 71 bps higher, as Trump's election win dampened hopes for rate cuts in 2025. Similarly, bond yields rose in the UK (+103 bps), EU (+46 bps), and Japan (+46 bps), resulting in broadly negative performance for developed market debt.

In contrast, Indian bond markets remained stable, benefiting from sovereign bond inclusion in global indices, moderating inflation, and proactive liquidity measures by the RBI including 50bps CRR cut and variable rate repo operations. The 10-year G-sec yield fell by 42 bps, closing the year at 6.76%, showcasing India's relative stability in a turbulent global environment. That said, the gap between the US and India 10-year G-sec has contracted for the third year in a row, falling from nearly 5pp by the end of 2021 to 2.2pp by the end of 2024, and further to 2% by January 10th—the lowest gap in over two decades. This reducing interest rate differential, coupled with the recent rupee volatility, does not bode well for foreign participation into Indian debt.

- **Domestic participation coming to rescue amid volatile FPI flows:** Indian equities faced significant pressure in the December quarter due to heavy foreign portfolio investor (FPI) outflows, with a record US\$11.2 billion exiting the market in October alone (2024 total: US\$124m). Despite this, robust contributions from domestic investors—both institutional and individual—helped cushion the impact. Individual investors poured in a record Rs 1.7 lakh crore (US\$19.8bn) over the year, while domestic institutional investors (DIIs) contributed a staggering Rs 5.3 lakh crore (US\$63bn), surpassing the cumulative inflows of the prior two years. Strong inflows by DIIs are a result of consistent participation of individual investors through SIPs, with monthly inflows averaging Rs 22,360 crore in 2024, up sharply from Rs 15,312 crore in 2023. This strong domestic momentum offset foreign outflows, stabilizing market sentiment. The last time Indian equities saw such heavy and consistent FPI outflows was during the first half of 2022, when FPIs sold an average of US\$4.7bn every month. Indian equities, however, emerged as the best performing market that year, underscores the increasing dominance and relevance of domestic investors in the market. Individuals' ownership of the market today at 17.6% is at par with that of the FPIs, as compared to a gap of 7.1pp in FY21.
- **US leads global equity surge in 2024; mixed performance across regions:** The year 2024 showcased remarkable resilience in global equity markets, with the US leading the charge. Driven by the rise of AI and strong performance from large-cap tech stocks, the US solidified its position as the engine of global equity growth. Europe, however, struggled with economic weakness and political instability, achieving modest gains largely due to cyclical rebounds in markets like Germany, while high energy costs and limited AI exposure weighed on performance. The UK saw marginally better returns, supported by economic recovery, though optimism was tempered by fiscal concerns and higher taxes. In Asia, Japan stood out as a top performer, fueled by structural reforms, a weaker yen, and economic recovery. China faced early challenges from property sector struggles and weak consumer confidence but saw a late-year rally following a cohesive policy response, offering hope for a stronger 2025. Emerging markets lagged, with the MSCI EM Index gaining 5.1%. While India and Taiwan posted solid results, China's difficulties and geopolitical concerns in other regions dampened broader performance.

US: The US equity market led global performance in 2024, with the S&P 500 surging 23.3% and maintaining its momentum into January 2025, marking two consecutive years of 20%+ returns. The Dow Jones Index, while trailing the S&P 500, delivered a solid 12.9% gain. Growth was driven primarily by large-cap technology stocks, particularly those tied to AI, which propelled the communication services and tech sectors. While small-cap stocks lagged, the continued dominance of large-cap stocks contrasted sharply with the previous decade, where mid- and small-caps often outperformed. Investor sentiment was further boosted by the Federal Reserve's easing cycle and declining energy costs, contributing to the market's strong performance.

On the macroeconomic front, the US economy started 2024 in expansion mode but slipped into contraction in the latter half, closing the year with a Manufacturing PMI of 49.7. In contrast, the Services PMI saw steady improvement, rising from near the expansion threshold to 56.8 by year-end, highlighting significant growth in the services sector. The labor market remained robust, adding 2.2 million jobs in 2024 (compared to 3 million in 2023), though the unemployment rate edged up from 3.7% in January to 4.1% in December. Inflation moderated, ending the year at an annual rate of 2.9%.

Europe: European equity markets had a relatively muted performance in 2024, hindered by a struggling manufacturing sector, high energy costs, and regulatory challenges. Political uncertainty in France and Germany, driven by fiscal pressures and populist movements, further dampened investor sentiment. Limited exposure to high-growth sectors like AI and technology also left Europe lagging behind the U.S. Despite these challenges, the Euro Stoxx 50 Index managed an 8.3% gain, marking its second consecutive year of growth. In comparison, the UK underperformed, with the FTSE 100 rising 5.7%. While the UK's economic recovery continued into 2024, boosted by post-election optimism, fiscal concerns weighed heavily after the autumn budget introduced higher taxes, including a significant rise in national insurance. This dampened business sentiment and constrained equity market performance.

On the macro front, the Eurozone experienced deeper contraction in 2024, driven by a sharp decline in manufacturing activity and a sustained drop in new orders. In contrast, the services sector showed resilience, with the Services PMI rising to 51.6 by year-end, supported by strong domestic demand. Inflation moderated, with the Eurozone closing the year at an annual rate of 2.4%, while food inflation eased to 1.5% in December 2024.

Asia: Asian equities showed mixed performance in 2024, with notable outliers driving regional gains. India stood out, supported by strong domestic growth and long-term investor optimism. The Nifty 50 reached an all-time high in Q3 but tapered due to significant foreign outflows and reduced domestic inflows in Q4, ending the year with an 8.8% gain. Japan's Nikkei 225 surged 19.2%, fueled by a weaker yen, improving corporate fundamentals, and structural economic reforms.

China's equities had a volatile year, with early struggles in the real estate sector and weak domestic activity. However, targeted stimulus in H2 spurred a late-year rally, leading to a 12.7% gain in the Shanghai Composite. Taiwan delivered an impressive 28.5% return, driven by its dominance in global semiconductor

production amid strong tech demand. Hong Kong also performed well, with the Hang Seng Index gaining 17.7%, reflecting improving sentiment in the region. On the macro front, India's manufacturing PMI stood at 56.4 at the year-end, reflecting the weakest growth since Jan'24, with slower expansion in output, new orders, and purchases. Despite this, employment rose for the tenth consecutive month. Further, the unemployment rate increased from 7.4% in Jan'24 to 8.3% in Dec'24, while the annual inflation rate stood at 5.2% in Dec'24. The total GST collection grew by 9.8% YoY to reach Rs 21.5 lakh crore in 2024.

- **Commodity prices mixed performance:** The commodity market in 2024 exhibited mixed performances, with the S&P GSCI Index rising by 2.6% YoY despite a decline in the energy sector. Oil prices grew 2.1% MoM in December but fell 3.8% YoY due to OPEC+ production cuts and a ceasefire in the Israel-Hamas conflict. Precious metals like gold and silver gained 27.1% YoY and 21.5% YoY, respectively, driven by central bank purchases, geopolitical tensions, and investor demand, while platinum and palladium fell by 9.2% and 18.8%, impacted by reduced demand and EV adoption. Industrial metals showed varied trends: iron ore and nickel prices dropped sharply due to weak global demand and oversupply, while aluminium and zinc rose 7.7% YoY and 11.9% YoY on supply shortages and production cuts. The agricultural sector experienced broad declines, with soybeans plummeting 22.7% YoY, followed by cotton (-15.9%), wheat and raw sugar (both -11.1%), and corn (-2.6%).
- **Dollar strengthens post US election:** In 2024, the Indian Rupee (INR) depreciated by 2.8% against the US Dollar, closing at a record low of 85.6, driven by the Dollar's strength amid elevated US bond yields, the Federal Reserve's hawkish stance, and geopolitical uncertainties like tariff threats. India's widening trade deficit, fueled by weaker exports and a surge in gold imports, along with significant FPI outflows, added to the rupee's pressures, while the Reserve Bank of India's forex interventions led to a decline in reserves to \$640 billion by December. Despite these challenges, the INR exhibited the lowest annualized volatility (1.8%) among major emerging market currencies, reflecting robust external buffers and effective forex management. However, the rupee remained overvalued, with the REER rising to 107.2 (+3.5% YoY), signaling potential risks to export competitiveness and trade balance. Stabilized one-year forward premiums at 1.8% underscored India's macroeconomic resilience and reduced interest rate differentials.

The S&P GSCI Index increased by 2.6% YoY 2024 (As of December 31st, 2024).

Market performance across asset classes

Table 22: Performance across equity, fixed income, currency, and commodity markets (As on Dec 31st, 2024)

Indicator Name	Dec-24	12M ago	1Y	2Y CAGR	3Y CAGR	5Y CAGR	10Y CAGR
Equity Indices							
NIFTY 50	23,645	21,731	8.8	14.3	10.9	14.2	11.1
NIFTY 500	22,375	19,429	15.2	20.3	14.3	17.8	12.7
MSCI INDIA	2,844	2,487	14.3	17.3	11.8	15.7	10.8
India Volatility Index (%)	14	15	-0.4	-1.4	-3.8	4.4	-0.5
MSCI WORLD	3,708	3,169	17.0	19.4	4.7	9.5	8.0
S&P 500 COMPOSITE	5,882	4,770	23.3	23.8	7.3	12.7	11.1
DOW JONES INDUSTRIALS	42,544	37,690	12.9	13.3	5.4	8.3	9.1
HANG SENG	20,060	17,047	17.7	0.7	-5.0	-6.6	-1.6
FTSE 100	8,173	7,733	5.7	4.7	3.4	1.6	2.2
NIKKEI 225	39,895	33,464	19.2	23.6	11.5	11.0	8.6
Fixed Income*							
India 10YR Govt Yield (%)	6.76	7.18	-42bps	-57bps	31bps	21bps	-110bps
India 5YR Govt Yield (%)	6.72	7.07	-34bps	-50bps	86bps	25bps	-125bps
India 1YR Govt Yield (%)	6.67	7.11	-44bps	-7bps	231bps	111bps	-143bps
India 3Month T-Bill Yield (%)	6.75	7.08	-34bps	25bps	306bps	160bps	-158bps
US 10YR Govt Yield (%)	4.57	3.87	71bps	74bps	308bps	266bps	240bps
Germany 10YR Govt Yield (%)	2.36	2.03	33bps	-20bps	254bps	255bps	182bps
China 10YR Govt Yield (%)	1.68	2.58	-90bps	-120bps	-110bps	-149bps	-197bps
Japan 10YR Govt Yield (%)	1.08	0.63	46bps	66bps	101bps	110bps	76bps
Currency							
USD/INR	85.6	83.2	2.9	1.7	4.8	3.7	3.1
EUR/USD	1.0	1.1	-6.3	-1.5	-3.1	-1.6	-1.5
GBP/USD	1.3	1.3	-1.8	2.0	-2.6	-1.1	-2.2
USD/YEN	157.2	141.0	11.5	9.1	10.9	7.7	2.7
USD/CHF	1.1	1.2	-7.1	1.0	0.2	1.3	0.9
USD/CNY	7.3	7.1	2.9	2.5	4.6	0.9	1.6
Commodities							
Brent Crude Oil (US\$/bbl)	74.7	77.7	-3.8	-6.2	-1.6	2.4	2.8
LME Aluminium (US\$/MT)	2,526.8	2,345.5	7.7	3.7	-3.4	7.2	3.3
LME Copper (US\$/MT)	8,652.7	8,463.9	2.2	1.7	-3.9	7.1	3.1
LME Lead (US\$/MT)	1,925.0	2,034.5	-5.4	-9.2	-6.3	0.1	0.4
LME Nickel (US\$/MT)	15,111.0	16,375.0	-7.7	-28.9	-10.2	1.6	0.0
LME Tin (US\$/MT)	28,846.0	25,175.0	14.6	7.9	-9.9	10.9	4.0
LME Zinc (US\$/MT)	2,953.9	2,640.0	11.9	-0.8	-6.3	5.3	3.1
SHC Iron Ore Spot (US\$/MT)	103.0	142.5	-27.7	-6.4	-3.9	2.3	3.6
Gold Spot Price (US\$/troy ounce)	2,625.4	2,065.5	27.1	20.2	12.9	11.5	8.3
Silver Spot Price (US\$/troy ounce)	28.9	23.8	21.5	9.8	7.5	10.1	6.3
Platinum Spot Price (US\$/ounce)	914.0	1,006.0	-9.2	-5.8	-1.6	-1.2	-2.7
Palladium Spot Price (US\$/ounce)	909.0	1,119.0	-18.8	-28.4	-22.8	-13.9	1.1
Soyabeans (US\$/bushel)	9.8	12.7	-22.7	-19.2	-9.2	0.9	-0.3
Corn (c/lb)	458.8	470.8	-2.6	-17.8	-8.3	3.4	1.5
Wheat (US\$/bushel)	5.6	6.3	-11.1	-14.9	-4.5	-2.0	-0.5
Cotton (US\$/lb)	0.7	0.8	-15.9	-11.4	-16.2	0.0	1.0
Raw Sugar (c/lb)	18.2	20.5	-11.1	-1.9	-0.8	6.1	2.0

Source: LSEG Workspace, Cogencis, NSE EPR. *Returns over different periods shown in terms of absolute change in basis points.

Table 23: Performance (total returns) across global asset classes (As on December 31st, 2024)

Asset performance (Ranked by % change each year)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SSE Comp 52.9	Bitcoin 34.2	Bitcoin 122.7	Bitcoin 1,394.5	Nifty 50 4.6	Bitcoin 94.1	Bitcoin 304.5	Bitcoin 59.4	WTI Crude 6.7	Bitcoin 153.5	Bitcoin 121.9
Nifty 50 39.3	STOXX 600 10.2	WTI Crude 45.0	MSCI EM \$ 37.8	Nasdaq 100 0.0	Nasdaq 100 39.5	Nasdaq 100 48.9	WTI Crude 55.8	Nifty 50 5.7	Nasdaq 100 55.1	Gold 27.1
Nifty 50 32.9	Nasdaq 100 9.8	FTSE100 19.1	Nifty 50 37.7	Gold -1.7	WTI Crude 35.3	Gold 24.8	Nifty 50 31.6	FTSE100 4.7	Nifty 50 26.9	Nasdaq 100 25.9
Nasdaq 100 19.4	SSE Comp 9.4	DJIA 16.5	Nasdaq 100 33.0	Nifty 50 -2.1	S&P500 31.5	Russell 1000 21.0	S&P500 28.7	Nifty 50 4.3	Russell 1000 26.5	S&P500 25.0
S&P500 13.7	S&P500 1.4	Russell 1000 12.1	Nifty 50 30.3	DJIA -3.5	Russell 1000 31.4	MSCI EM \$ 18.7	Nasdaq 100 27.5	Gold -0.4	S&P500 26.3	Russell 1000 24.5
Russell 1000 13.2	Russell 1000 0.9	S&P500 12.0	DJIA 28.1	S&P500 -4.4	MSCI World 28.4	S&P500 18.4	Russell 1000 26.5	DJIA -6.9	MSCI World 24.4	MSCI World 19.2
DJIA 10.0	Nifty 50 0.2	MSCI EM \$ 11.6	MSCI World 23.1	Russell 1000 -4.8	STOXX 600 27.6	Nifty 50 17.9	Nifty 50 25.6	STOXX 600 -10.1	Nifty 50 21.3	Nifty 50 16.2
STOXX 600 7.8	DJIA 0.2	Gold 9.0	S&P500 21.8	MSCI World -8.2	DJIA 25.3	MSCI World 16.5	STOXX 600 25.5	SSE Comp -15.1	STOXX 600 16.5	DJIA 15.0
MSCI World 5.5	MSCI World -0.3	MSCI World 8.2	Russell 1000 21.7	FTSE100 -8.7	SSE Comp 22.3	Nifty 50 16.1	MSCI World 22.4	MSCI World -17.7	DJIA 16.2	SSE Comp 12.7
FTSE100 0.7	FTSE100 -1.3	Nasdaq 100 7.3	Gold 12.6	STOXX 600 -10.2	MSCI EM \$ 18.9	SSE Comp 13.9	DJIA 21.0	S&P500 -18.1	Gold 13.8	Nifty 50 10.1
Gold -1.8	Nifty 50 -3.0	Nifty 50 5.1	WTI Crude 12.5	MSCI EM \$ -14.2	Gold 18.7	DJIA 9.7	FTSE100 18.4	Russell 1000 -19.1	MSCI EM \$ 10.3	FTSE100 9.7
MSCI EM \$ -1.8	Gold -10.5	Nifty 50 4.4	FTSE100 12.0	SSE Comp -24.6	FTSE100 17.3	STOXX 600 -1.5	SSE Comp 4.8	MSCI EM \$ -19.7	FTSE100 7.9	STOXX 600 9.5
WTI Crude -45.9	MSCI EM \$ -14.6	STOXX 600 2.4	STOXX 600 11.2	WTI Crude -25.3	Nifty 50 13.5	FTSE100 -11.6	MSCI EM \$ -2.2	Nasdaq 100 -32.4	SSE Comp -3.7	MSCI EM \$ 8.1
Bitcoin -56.2	WTI Crude -30.5	SSE Comp -12.3	SSE Comp 6.6	Bitcoin -74.2	Nifty 50 9.0	WTI Crude -21.0	Gold -4.0	Bitcoin -64.1	WTI Crude -10.4	WTI Crude 0.8

Source: LSEG Workspace, NSE EPR. Note: Returns for equity indices are based on total return index values except for Shanghai SE Composite Index.

Equity market performance and valuations

Table 24: Performance across NSE equity indices (As on December 31st, 2024)

Dec-24 Index Name	PR Index Returns (%)			TR Index Returns (%)		
	1Y	3Y	5Y	1Y	3Y	5Y
Broad Market Indices						
Nifty 50	8.8	10.9	14.2	10.1	12.2	15.5
Nifty Next 50	27.5	17.2	19.2	28.4	18.1	20.1
Nifty 100	11.8	11.6	14.8	13.0	12.8	16.1
Nifty 200	13.6	13.3	16.5	14.7	14.5	17.7
Nifty 500	15.2	14.3	17.8	16.2	15.4	19.0
Nifty Midcap 50	21.5	23.8	27.7	22.2	24.9	28.9
Nifty Midcap 100	23.9	23.4	27.3	24.5	24.3	28.4
Nifty Midcap 150	23.8	22.3	27.3	24.5	23.2	28.3
Nifty Midcap Select	24.1	20.6	24.4	25.0	21.5	25.4
Nifty Smallcap 50	25.3	18.8	26.0	26.4	19.9	27.2
Nifty Smallcap 100	23.9	18.5	26.3	24.9	19.5	27.5
Nifty Smallcap 250	26.4	21.7	29.6	27.2	22.7	30.7
Nifty LargeMidcap 250	17.7	17.0	21.1	18.7	18.0	22.2
Nifty MidSmallcap 400	24.7	22.3	28.1	25.5	23.2	29.1
Nifty500 Multicap 50:25:25	18.4	16.9	21.7	19.3	18.0	22.8
Nifty Microcap 250	34.2	34.4	42.5	34.7	35.2	43.5
Nifty Total Market	15.8	14.8	18.3	16.9	16.0	19.5
Thematic Indices						
Nifty India Consumption	18.6	17.2	18.0	19.8	18.5	19.4
Nifty MidSmall India Consumption	35.2	21.3	26.3	35.9	21.9	27.2
Nifty Non-Cyclical Consumer	17.8	15.7	18.4	18.9	16.9	19.6
Nifty India Manufacturing	25.2	20.3	23.8	26.0	21.4	25.1
Nifty Infrastructure	15.9	19.6	21.1	16.8	20.7	22.6
Nifty Services Sector	13.5	8.8	12.5	14.9	10.1	13.7
Nifty Commodities	5.2	13.3	18.8	6.1	14.6	20.5
Nifty CPSE	25.3	39.1	25.8	28.2	42.7	29.9
Nifty PSE	21.4	35.5	24.2	23.5	38.7	28.1
Nifty Energy	5.1	15.8	17.2	6.5	17.4	19.7
Nifty MNC	15.4	13.3	15.2	16.6	14.5	16.7
Nifty India Digital	33.3	10.3	25.3	34.6	11.5	26.8
Nifty India Defence	55.5	69.0	53.1	56.5	70.9	55.0
Nifty Mobility	24.2	26.0	23.5	24.9	27.0	24.7
Nifty100 Liquid 15	6.2	12.4	10.0	7.0	13.5	11.1
Nifty Midcap Liquid 15	32.9	26.4	29.2	34.0	27.8	30.5
Nifty Aditya Birla Group	2.0	9.8	20.6	2.4	10.3	21.1
Nifty Mahindra Group	49.5	24.9	28.3	50.6	26.5	30.3
Nifty Tata Group	10.2	10.3	21.3	11.4	11.6	22.8
Nifty Tata Group 25% Cap	14.3	15.3	27.0	15.1	16.3	28.3
Nifty Shariah 25	11.6	8.5	14.4	13.2	10.1	16.2
Nifty50 Shariah	9.0	4.5	15.2	10.7	6.2	17.2
Nifty500 Shariah	16.4	10.7	20.2	17.6	12.0	21.8
Nifty SME EMERGE	54.0	63.1	65.3	54.1	63.4	65.6
Nifty100 ESG	11.7	9.3	15.7	12.8	10.5	17.0
Nifty100 Enhanced ESG	11.7	9.3	15.7	12.8	10.5	17.0
Nifty100 ESG Sector Leaders	11.2	10.0	14.6	12.3	11.1	15.9

Dec-24	PR Index Returns (%)			TR Index Returns (%)		
Index Name	1Y	3Y	5Y	1Y	3Y	5Y
Strategy Indices						
Nifty Alpha 50	33.1	17.6	33.9	33.9	18.5	34.8
Nifty100 Alpha 30	24.7	12.9	19.8	25.8	14.1	21.0
Nifty Alpha Low-Volatility 30	16.7	15.4	17.7	17.8	16.7	19.2
Nifty Alpha Quality Low-Volatility 30	18.2	15.1	18.7	19.7	16.8	20.4
Nifty Alpha Quality Value Low-Volatility 30	19.9	22.5	22.8	21.8	24.7	25.1
Nifty200 Alpha 30	26.5	21.2	27.5	27.6	22.4	28.7
Nifty Dividend Opportunities 50	16.6	19.1	19.9	19.0	21.6	22.8
Nifty Growth Sectors 15	9.8	15.5	13.1	11.9	17.5	14.7
Nifty High Beta 50	4.3	19.7	20.5	5.1	20.8	21.6
Nifty Low Volatility 50	13.1	13.8	17.5	14.2	15.3	19.1
Nifty100 Low Volatility 30	11.1	13.2	16.6	12.4	14.8	18.5
Nifty100 Quality 30	9.9	11.8	15.2	11.3	13.4	16.9
Nifty Quality Low-Volatility 30	7.7	10.4	14.7	9.0	11.9	16.4
Nifty200 Quality 30	12.7	11.1	16.1	14.4	12.9	18.1
Nifty50 Equal Weight	9.7	14.8	18.8	10.8	16.2	20.4
Nifty100 Equal Weight	16.6	15.1	18.5	17.5	16.3	19.9
Nifty50 Value 20	15.6	13.6	19.7	17.9	15.9	22.4
Nifty500 Value 50	18.6	31.5	29.7	20.2	34.0	32.5
Nifty Midcap150 Quality 50	19.3	11.1	18.6	20.2	12.1	19.9
Nifty200 Momentum 30	20.0	16.5	23.4	21.3	17.6	24.6
Nifty Midcap150 Momentum 50	31.6	25.7	34.6	32.3	26.5	35.6
Sector Indices						
Nifty Auto	22.6	27.8	22.6	23.6	28.9	23.9
Nifty Bank	5.3	12.8	9.6	6.3	13.7	10.2
Nifty Private Bank	-0.4	11.2	6.9	0.4	12.0	7.4
Nifty PSU Bank	14.5	37.2	21.0	15.3	39.0	22.0
Nifty Financial Services	9.4	10.7	10.1	10.5	11.8	10.9
Nifty Financial Services Ex-Bank	13.3	12.4	12.2	14.2	13.5	13.1
Nifty Financial Services 25/50	11.3	13.3	12.1	12.4	14.5	13.0
Nifty MidSmall Financial Services	21.8	25.3	16.4	22.7	26.6	17.6
Nifty FMCG	-0.3	14.8	13.5	1.5	16.8	15.5
Nifty IT	22.0	3.8	22.6	24.4	5.9	25.0
Nifty MidSmall IT & Telecom	14.0	12.1	37.8	14.6	13.1	39.3
Nifty Media	-23.9	-6.4	0.2	-23.4	-5.9	0.9
Nifty Metal	8.4	16.1	25.3	9.3	17.7	27.3
Nifty Pharma	39.1	18.1	23.8	40.0	19.0	24.8
Nifty Realty	34.4	29.5	28.7	34.8	30.0	29.1
Nifty Consumer Durables	34.3	12.8	21.2	34.8	13.3	21.7
Nifty Oil & Gas	13.1	13.5	15.7	14.0	14.6	17.7
Nifty Healthcare Index	40.6	18.6	25.3	41.4	19.4	26.2
Nifty MidSmall Healthcare	44.4	21.1	27.5	45.1	21.8	28.4
Nifty Transportation & Logistics	25.4	26.8	25.0	26.1	27.7	26.2
Nifty Housing	7.6	12.9	17.7	8.4	14.0	18.9

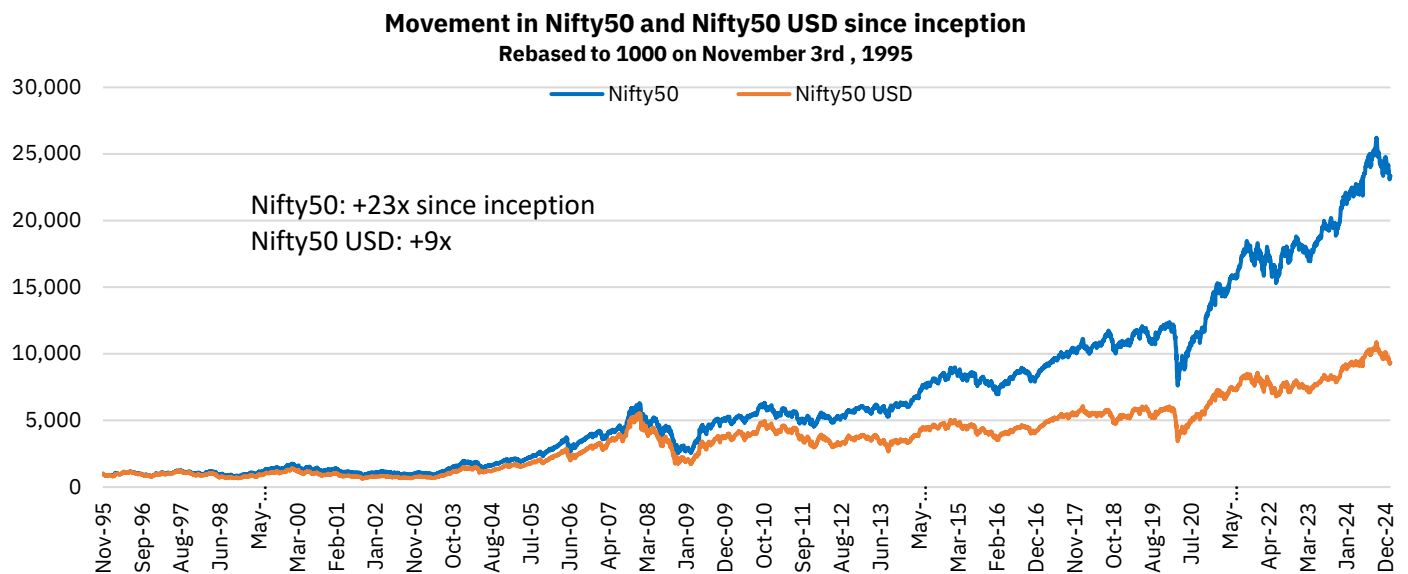
Source: NSE Indices, NSE EPR

Note: Returns for a period greater than one year are CAGR returns.

Table 25: Performance across NSE sector indices based on Price Return Index (As on December 31st, 2024)

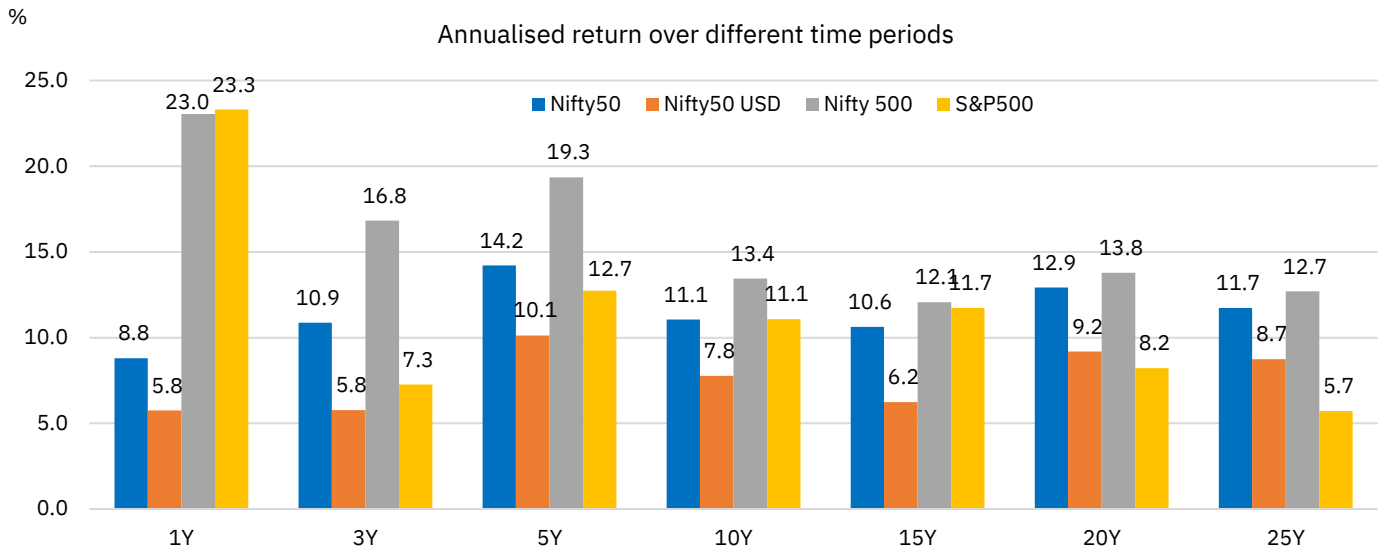
Indicator Name	Dec-24	12M ago	1Y	2Y CAGR	3Y CAGR	5Y CAGR	10Y CAGR
Sector indices							
Auto	22,834	18,618	22.6	34.6	27.8	22.6	10.7
Bank	50,860	48,292	5.3	8.8	12.8	9.6	10.5
Energy	35,188	33,468	5.1	16.6	15.8	17.2	15.1
FMCG	56,800	56,987	-0.3	13.4	14.8	13.5	10.9
IT	43,338	35,515	22.0	23.1	3.8	22.6	14.5
Infrastructure	8,464	7,303	15.9	26.9	19.6	21.1	10.8
Media	1,818	2,388	-23.9	-4.5	-6.4	0.2	-2.7
Metals	8,650	7,978	8.4	13.4	16.1	25.3	12.5
Pharma	23,412	16,832	39.1	36.3	18.1	23.8	7.9
Real Estate	1,052	783	34.4	56.1	29.5	28.7	17.9
Thematic Indices							
CNX PSE	9,532	7,855	21.4	47.7	35.5	24.2	10.4
CNX Consumption	11,363	9,578	18.6	22.6	17.2	18.0	13.0
CNX Services	31,417	27,688	13.5	12.5	8.8	12.5	11.4

Source: Cogencis, NSE EPR.

Figure 143: Nifty 50 and Nifty 50 USD since inception


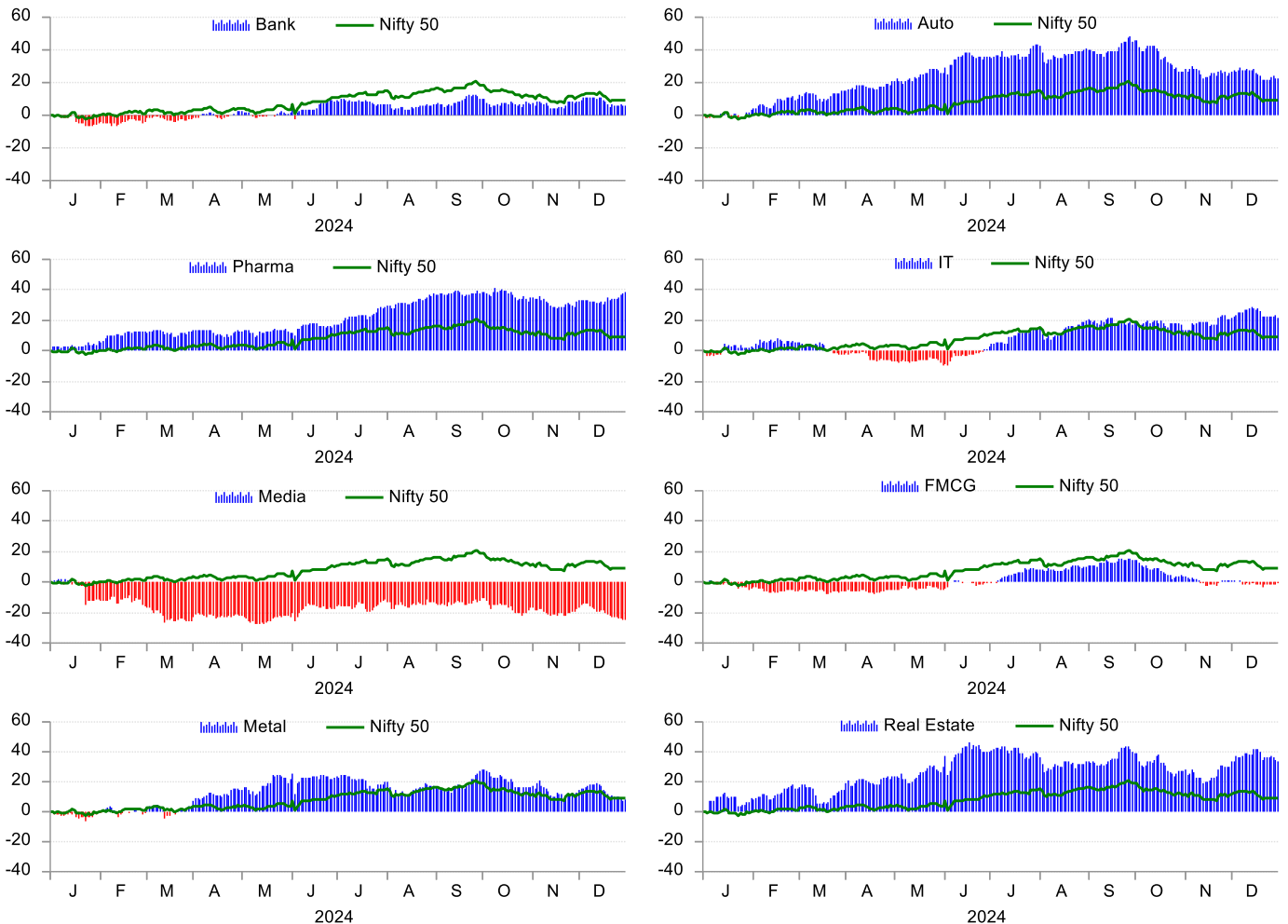
Source: Nifty Indices, NSE EPR.

The Nifty 50 Index was launched on April 22nd, 1996, with a rebasing on November 3rd, 1995. Since the rebasing date, Nifty 50 has risen nearly 25x (As of November 30th, 2024), translating into an annualized return of 12.2% over the last 29 years. During the same period, the Nifty50 Index in USD terms increased by more than 10x, with an annualized gain of about 8.8%. In the last 25 years, the Nifty50 USD Index has generated an annualized return of 9.2%, higher than 6.0% and 8.2% recorded by S&P500 and NASDAQ respectively.

Figure 144: Annualised return of major indices across different time periods (As of December 31st, 2024)


Source: Nifty Indices, LSEG Workspace, NSE EPR.

Figure 145: NIFTY sector performance in 2024

 Rebased to 0 on January 1st, 2024


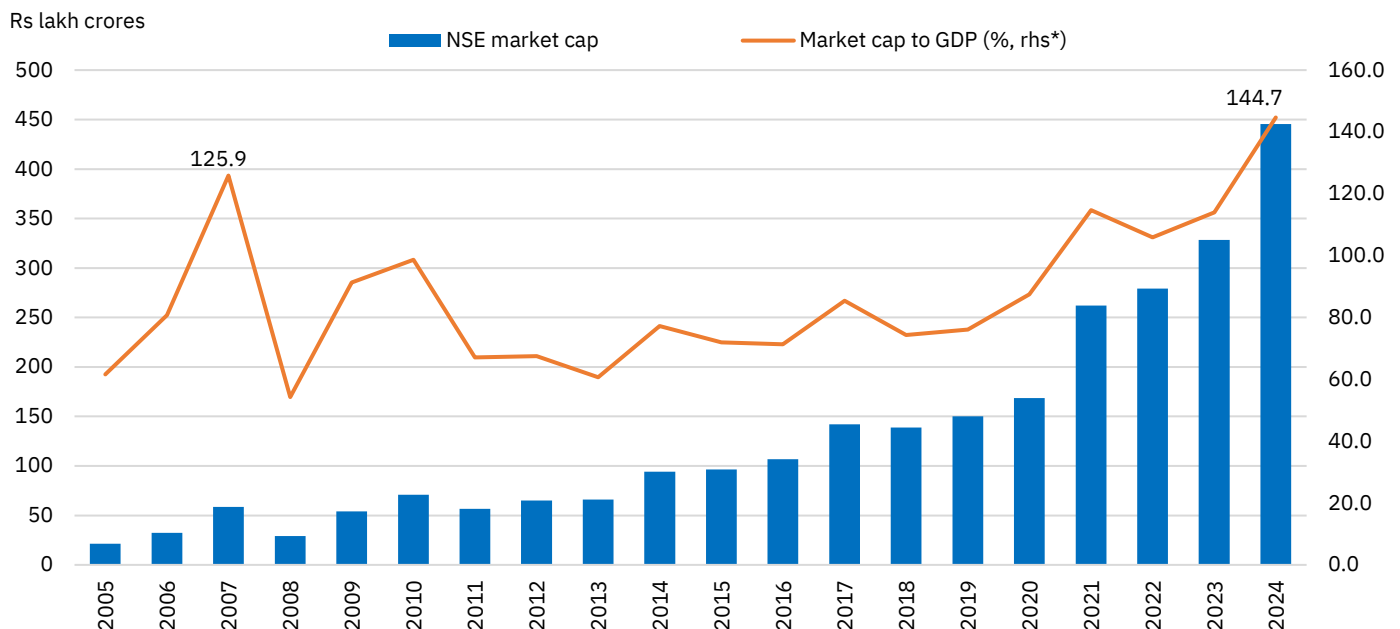
Source: LSEG Workspace, NSE EPR.

Market growth and concentration

Market cap to GDP at 20+ year high levels: Notwithstanding the market correction in the last quarter of 2024 (market capitalization fell 6.7% during this period), the market capitalization of NSE-listed companies expanded by 22% during the year, building on a 29% increase in the previous year and marking the sixth consecutive year of growth. In dollar terms, the growth was slightly lower at 18% compared to 28% in 2023, reflecting the impact of a 2.9% depreciation of the rupee against the US dollar. This strong growth in market capitalization was fueled by robust market returns, particularly in mid- and small-cap companies, and record-high listings during the year.

Over the last 20 years, the annualized growth in the market capitalization of NSE-listed companies has been an impressive 18.1% in rupee terms and 14.2% in dollar terms. After staying below 100% for the 13 years following the Global Financial Crisis (2008–2020), the market cap-to-GDP ratio—calculated using a three-month rolling market capitalization of NSE-listed companies and nominal GDP for the latest four quarters—rose to 114% by the end of 2021, supported by a strong market rally. This level was maintained in the subsequent three years, with the ratio reaching a 20+ year high of 145% by December 2024. This remarkable expansion underscores the growing significance of India’s equity markets relative to the size of its economy, driven by a combination of favorable macroeconomic factors, increased investor participation, and the structural evolution of India’s capital markets.

Figure 146: Market cap to GDP ratio trend (NSE listed companies)



Source: CMIE Economic Outlook, NSE EPR. # As of December 30th, 2024. * Based on average market cap over the last three months of the period and actual nominal GDP for the last four quarters.

Share of Nifty50 Index drops to record low levels in 2024 in annual terms: The share of Nifty50 Index in NSE listed companies fell by nearly 4pp in the fiscal thus far to 42.7% as of December 2024. This is the lowest share of the top 50 companies by market capitalization in the NSE listed universe, falling from the last peak of 58.9% in March 2020. While a large part of the drop in Nifty50 share in total market capitalization during this period is a consequence of an increase in the number of listed companies on the

exchange, from 1949 in FY20 (422 in FY96) to 2673 as of December 2024, the relative outperformance of mid and small-cap companies has also contributed in a meaningful manner. For instance, the Nifty Midcap 150 and Nifty Smallcap 250 have generated annualized returns of 22% and 24% in the last five years (2020-2024), as compared to 11.1% for the Nifty50 Index.

Table 26: Index-wise distribution of total market cap of NSE listed companies (Rs lakh crore)

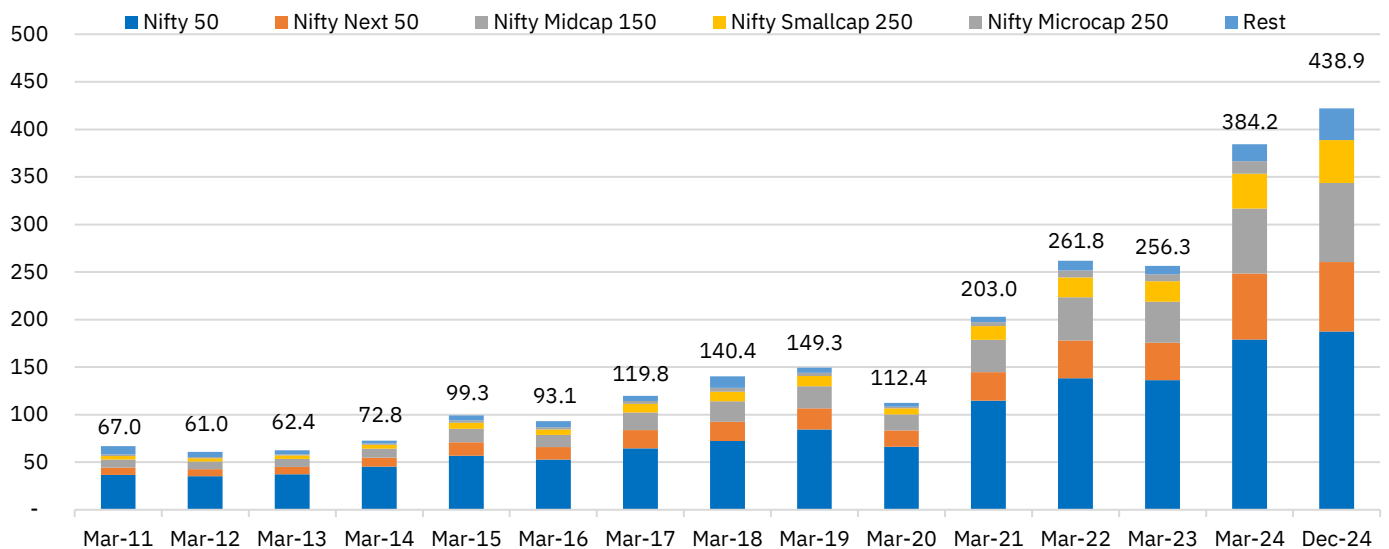
Year	Nifty 50	Nifty Next 50	Nifty Midcap 150	Nifty Smallcap 250	Nifty Microcap 250	Rest	Total
Mar-11	36.7	7.6	8.4	3.9	1.5	9.0	67.0
Mar-12	35.2	7.4	8.0	3.7	1.3	5.4	61.0
Mar-13	37.5	7.5	8.6	3.5	1.2	4.2	62.4
Mar-14	45.3	9.6	9.3	4.0	1.3	3.3	72.8
Mar-15	56.9	14.0	14.1	6.3	2.3	5.6	99.3
Mar-16	52.8	13.2	12.7	5.8	2.4	6.2	93.1
Mar-17	64.6	19.1	18.5	9.0	3.1	5.4	119.8
Mar-18	72.3	20.3	21.5	10.2	4.0	12.1	140.4
Mar-19	84.3	22.2	23.3	10.8	3.3	5.4	149.3
Mar-20	66.2	17.4	16.7	6.4	1.7	4.1	112.4
Mar-21	114.6	30.2	34.0	14.3	4.1	5.8	203.0
Mar-22	138.3	39.9	45.3	21.0	7.1	10.2	261.8
Mar-23	136.2	39.4	43.1	21.6	7.3	8.7	256.3
Mar-24	179.1	69.1	68.4	36.6	13.2	17.8	384.2
Dec-24	187.3	73.3	83.0	45.1	17.0	33.2	438.9
2024 growth (%)	9.7	30.7	25.4	29.3	27.5	67.9	21.6
FY25TD* growth (%)	4.6	6.1	21.3	23.1	29.3	86.6	14.2
CAGR (FY14-FY25TD)	14.1	20.8	22.6	25.4	27.0	24.0	18.2

Source: Nifty Indices, NSE EPR. * As of December 31st, 2024.

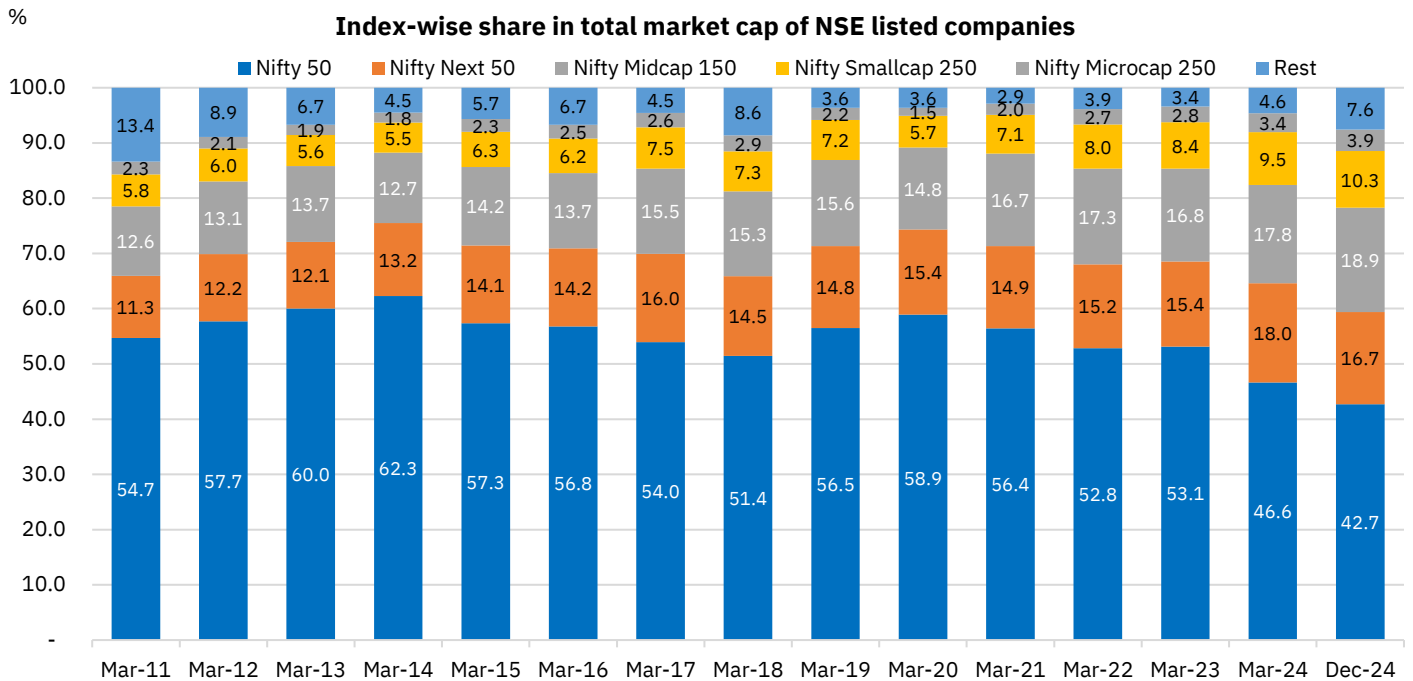
Figure 147: Index-wise distribution of total market cap of NSE listed companies (Rs lakh crore)

Rs lakh crore

Index-wise market cap distribution of NSE listed companies



Source: Nifty Indices, NSE EPR.

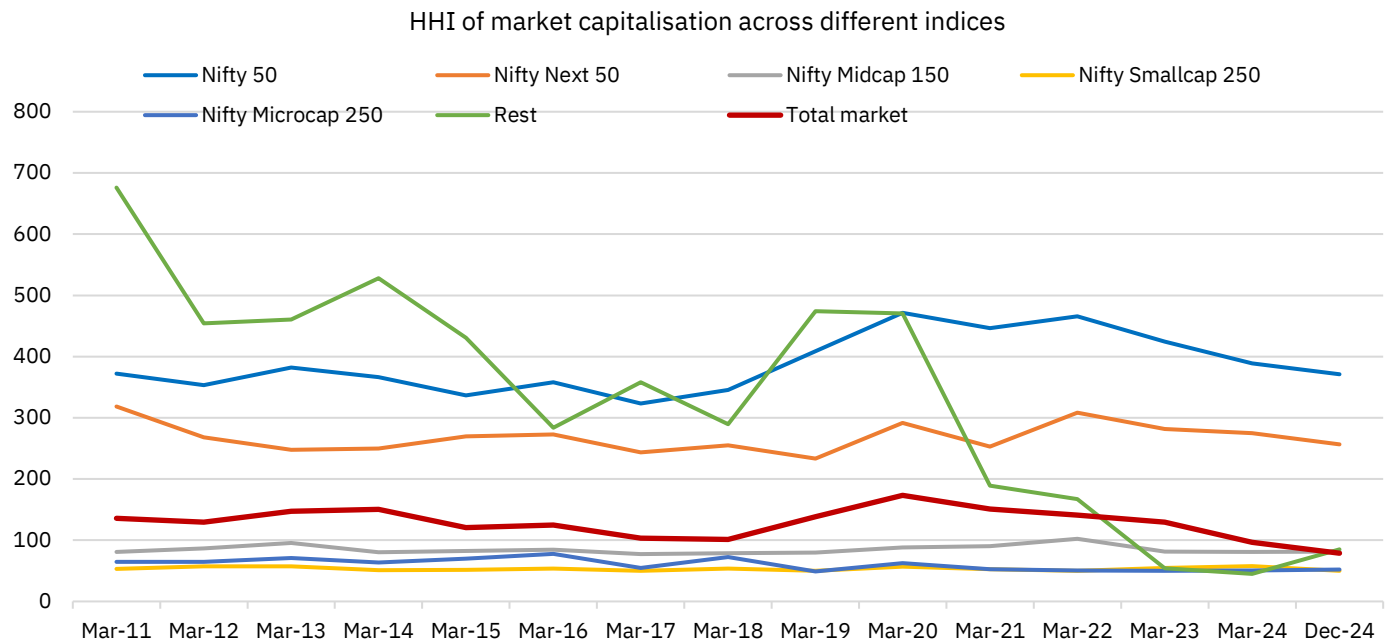
Figure 148: Index-wise share in total market cap of NSE listed companies


Source: Nifty Indices, NSE EPR.

Index-wise HHIs have fallen steadily since the pandemic: To assess market concentration, we calculate the Herfindahl-Hirschman Index (HHI) based on the market capitalization of NSE-listed companies as well as major equity indices over the past two decades. After a steady decline from 2010 to 2018, the HHI for the total market saw a sharp increase in 2019, reaching an 11-year high of 173 in March 2020, following the onset of the pandemic. However, it has been on a downward trend since then. As of December 2024, the market capitalization-based HHI for NSE-listed companies has fallen to a 22-year low of 79, partly reflecting the outperformance of smaller companies in recent years, which signals a greater degree of market fragmentation³⁹.

Looking at major indices, which include the top 750 stocks, the Nifty 50 expectedly has the highest HHI at 371 as of December 31st, 2024, even as it has fallen for the third year in a row and is much lower than the peak of 476 as of March 2009. This is followed by the Nifty Next 50 with an HHI of 257, that has also fallen for the third year in a row. The HHIs of the Nifty Midcap 150, Nifty Smallcap 250, and Nifty Microcap 250 have also been steadily decreasing since the pandemic, albeit gradually, currently ranging between 50 and 80. Overall, the analysis indicates that while the market remains fragmented, this fragmentation has intensified over the past few years, driven by stronger performance from mid, small, and microcap companies.

³⁹ HHI value ranges from 0 to 10,000. An HHI near 0 indicates a highly fragmented market with many firms holding small market shares (i.e., very low concentration). An HHI near 10,000 indicates a monopoly or a market dominated by a single firm (i.e., very high concentration). HHI value interpretation: HHI below 1,500 is considered low and implies a competitive, diversified and fragmented market; HHI between 1,500 and 2,500 is considered moderate, indicating some degree of competition but with a few firms holding a significant share; HHI above 2,500 is considered high, and reflects a highly concentrated market, with fewer firms dominating the market.

Figure 149: Index-wise share in total market cap of NSE listed companies


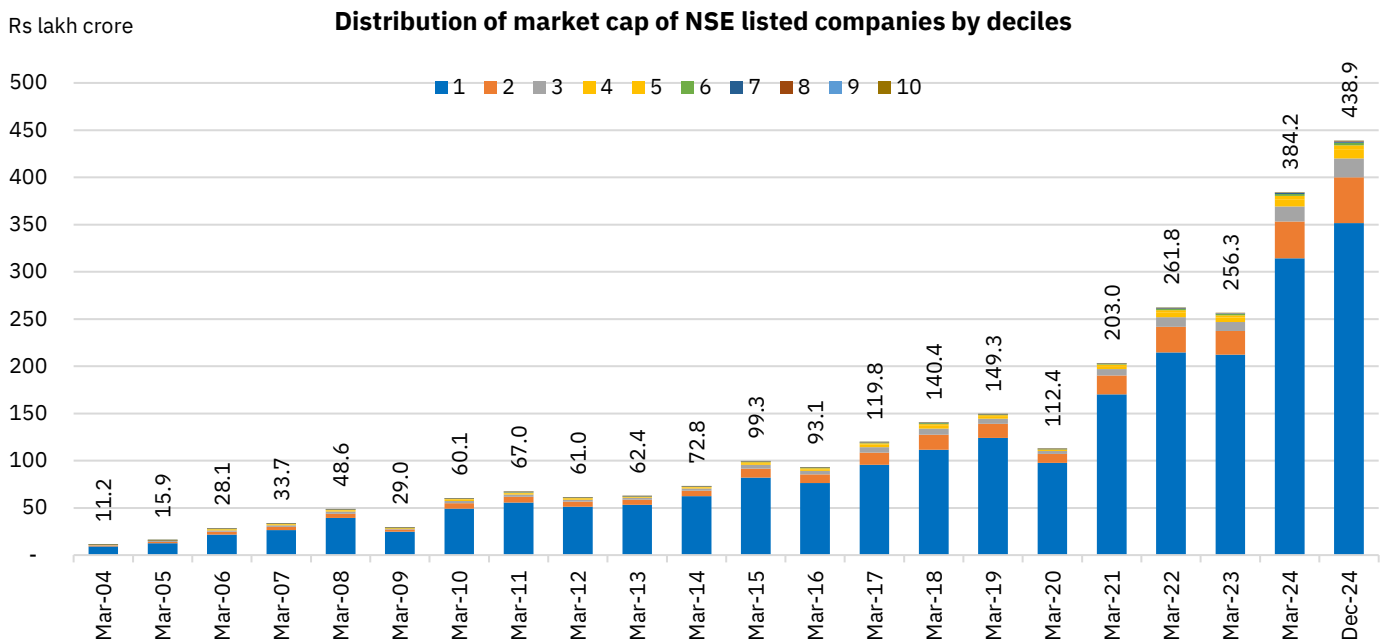
Source: Nifty Indices, NSE EPR.

Decile-wise distribution of total market cap: We also examine the distribution of the total market capitalization of NSE-listed companies across deciles. The analysis reveals that the share of the top decile (the top 10% by market capitalization) reached a record high of 86.8% in FY20, as the pandemic-induced risk-off environment led investors to seek refuge in large-cap stocks. In fact, by March 2020, the top two deciles together accounted for more than 95% of the total market capitalization. However, since then, the share of the top decile has steadily declined, aligning with the downward trend in the HHI for the market capitalization of NSE-listed companies. By March 2024, the top decile's share had decreased to 81.8%, and by December 31st, 2024, it had further fallen by approximately 175bps to 80.1%—the lowest since March 2018. Notably, the share of the bottom five deciles in total market capitalization stood at 1.1% as of December 31st, 2024—more than double the all-time low of 0.5% recorded during the pandemic year (FY20).

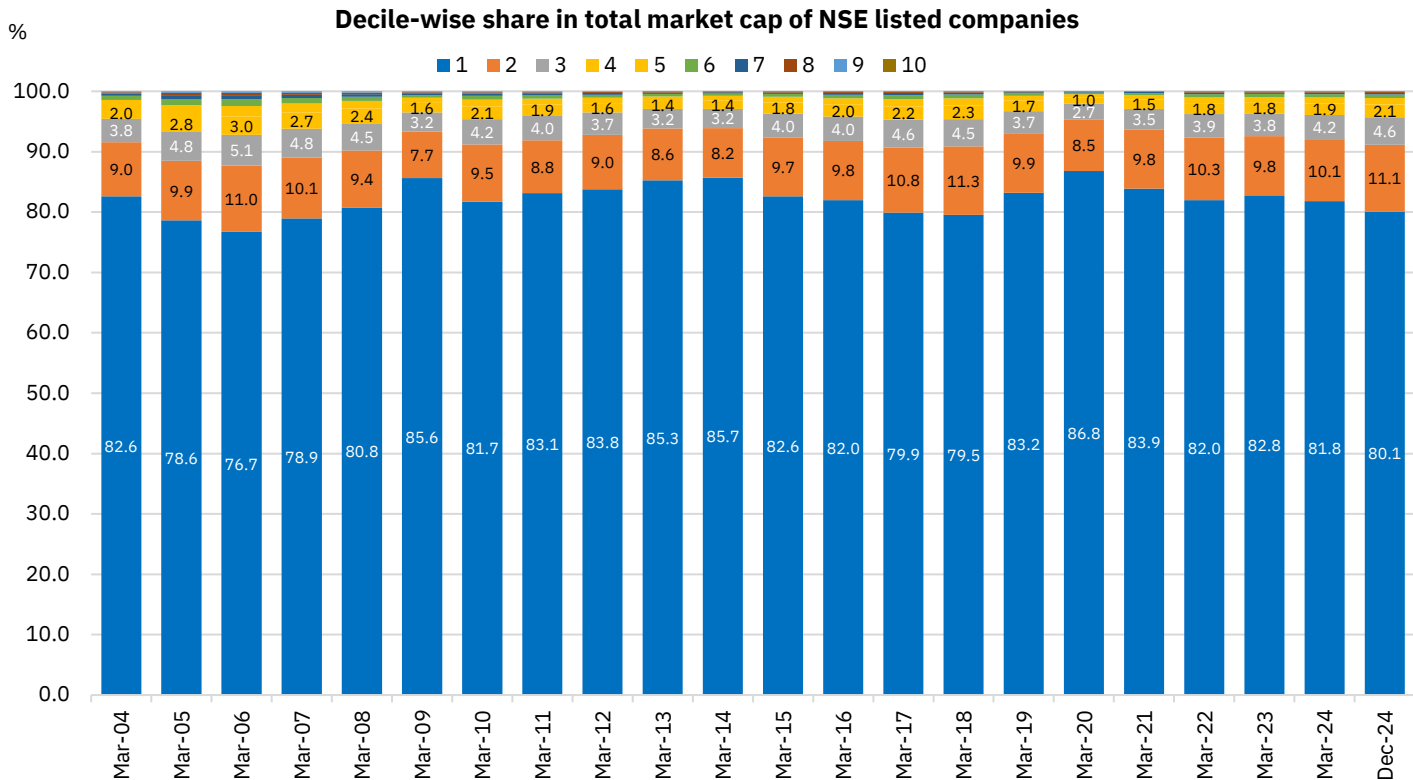
Table 27: Decile-wise distribution of total market cap of NSE listed companies (Rs lakh crore)

Year	Decile1	Decile2	Decile3	Decile4	Decile5	Decile6	Decile7	Decile8	Decile9	Decile10	Total
Mar-04	9.3	1.0	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	11.2
Mar-05	12.5	1.6	0.8	0.4	0.3	0.2	0.1	0.1	0.0	0.0	15.9
Mar-06	21.6	3.1	1.4	0.8	0.5	0.3	0.2	0.1	0.1	0.0	28.1
Mar-07	26.6	3.4	1.6	0.9	0.5	0.3	0.2	0.1	0.1	0.0	33.7
Mar-08	39.2	4.6	2.2	1.2	0.6	0.3	0.2	0.1	0.1	0.0	48.6
Mar-09	24.8	2.2	0.9	0.5	0.2	0.1	0.1	0.1	0.0	0.0	29.0
Mar-10	49.1	5.7	2.5	1.3	0.7	0.4	0.2	0.1	0.1	0.0	60.1
Mar-11	55.7	5.9	2.7	1.3	0.7	0.4	0.2	0.1	0.1	0.0	67.0
Mar-12	51.1	5.5	2.3	1.0	0.5	0.3	0.2	0.1	0.0	0.0	61.0
Mar-13	53.2	5.3	2.0	0.9	0.4	0.3	0.1	0.1	0.0	0.0	62.4
Mar-14	62.3	6.0	2.3	1.0	0.5	0.3	0.1	0.1	0.0	0.0	72.8
Mar-15	82.0	9.7	4.0	1.8	0.9	0.5	0.2	0.1	0.1	0.0	99.3
Mar-16	76.3	9.2	3.7	1.8	1.0	0.5	0.3	0.2	0.1	0.0	93.1
Mar-17	95.7	12.9	5.5	2.7	1.4	0.8	0.4	0.2	0.1	0.0	119.8
Mar-18	111.7	15.9	6.3	3.2	1.7	0.9	0.4	0.2	0.1	0.0	140.4
Mar-19	124.2	14.8	5.5	2.6	1.2	0.6	0.3	0.1	0.1	0.0	149.3
Mar-20	97.6	9.6	3.0	1.2	0.6	0.3	0.1	0.1	0.0	0.0	112.4
Mar-21	170.2	19.8	7.0	3.0	1.5	0.7	0.3	0.2	0.1	0.0	203.0
Mar-22	214.6	27.1	10.3	4.7	2.5	1.4	0.7	0.3	0.2	0.0	261.8
Mar-23	212.2	25.1	9.7	4.5	2.4	1.2	0.6	0.3	0.2	0.0	256.3
Mar-24	314.4	38.8	16.1	7.3	3.9	2.0	1.0	0.5	0.3	0.1	384.2
Dec-24	351.5	48.5	20.1	9.2	4.8	2.4	1.3	0.7	0.3	0.1	438.9
2024 (% YoY)	21.0	25.9	23.6	20.0	17.9	17.0	23.3	26.3	30.2	39.0	21.6
Chg. in FY25TD (%)	11.8	25.1	25.4	26.7	22.6	21.8	27.4	31.5	35.4	42.8	14.2
CAGR (FY04-, %)	17.5	21.5	22.3	22.4	22.8	22.2	22.3	22.0	23.6	23.1	18.2

Source: NSE EPR.

Figure 150: Decile-wise distribution of total market cap of NSE listed companies


Source: NSE EPR.

Figure 151: Decile-wise share of total market cap of NSE listed companies


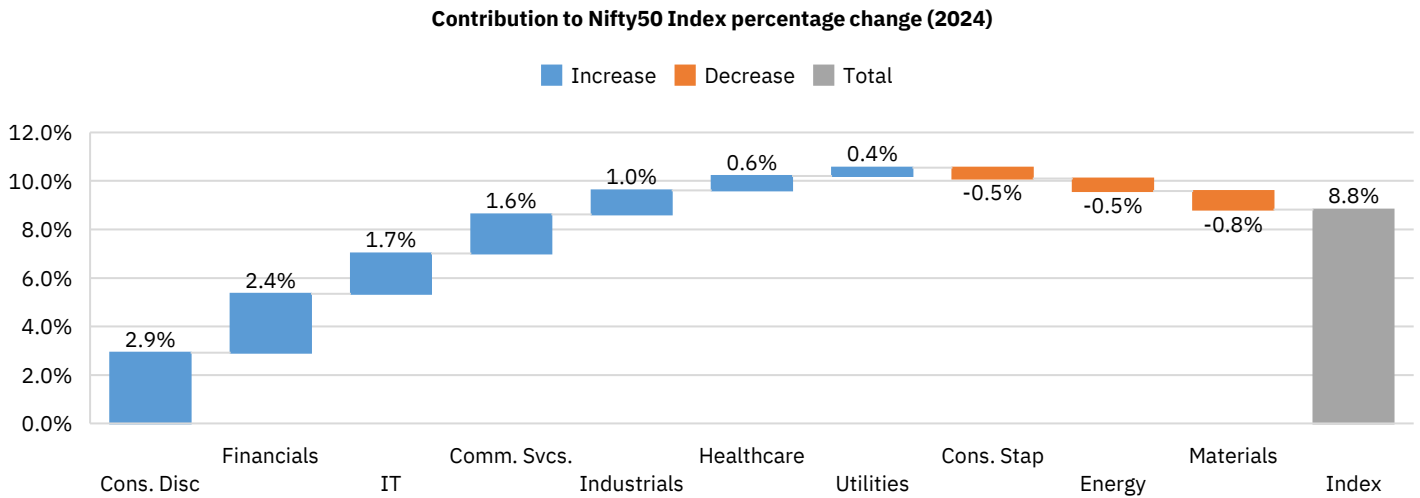
Source: NSE EPR.

Nifty50 performance attribution analysis

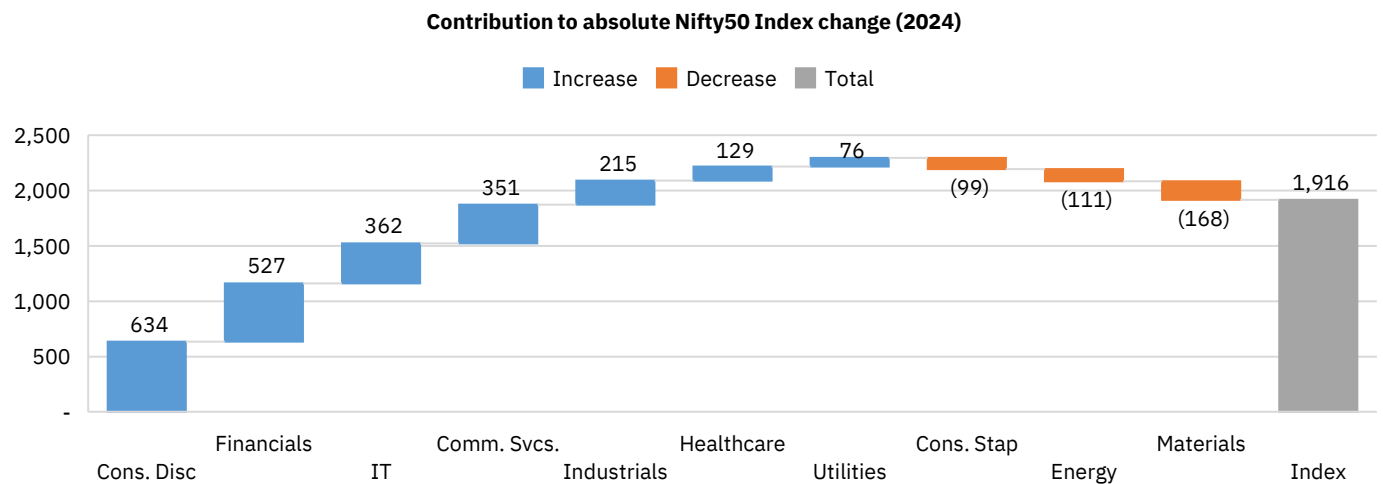
2024 marked the ninth year of positive returns for Indian equities: Indian equity markets ended 2024 on a positive note, marking their ninth consecutive year of gains and outperforming the broader emerging market (EM) pack. This strong performance came despite challenges from heightened geopolitical tensions and adverse global conditions. The market's resilience was driven by robust economic fundamentals, policy stability following the NDA's third consecutive General Election victory, and significant participation from domestic investors, which helped counteract notable foreign capital outflows in the final quarter. Volatile foreign flows (US\$124m in 2024) were more than offset by robust domestic participation, with individuals and domestic institutional investors contributing record net investments of Rs 1.7 lakh crore (US\$19.8 billion) and Rs 5.3 lakh crore (US\$63 billion), respectively, to equity markets. This strong domestic inflow provided crucial support to the markets, helping stabilize them amid external uncertainties.

The Nifty 50 Index posted an 8.8% return for the year, translating to an impressive 11.1% annualized return over the last decade. This performance surpassed the returns of both the MSCI World Index (8.0%) and the MSCI EM Index (1.2%) over the same period. Mid- and small-cap segments were standout performers, with the Nifty Mid-cap 50 and Nifty Small-cap 50 indices delivering stellar returns of 21.5% and 25.3%, respectively, further underscoring the depth and vibrancy of India's equity market

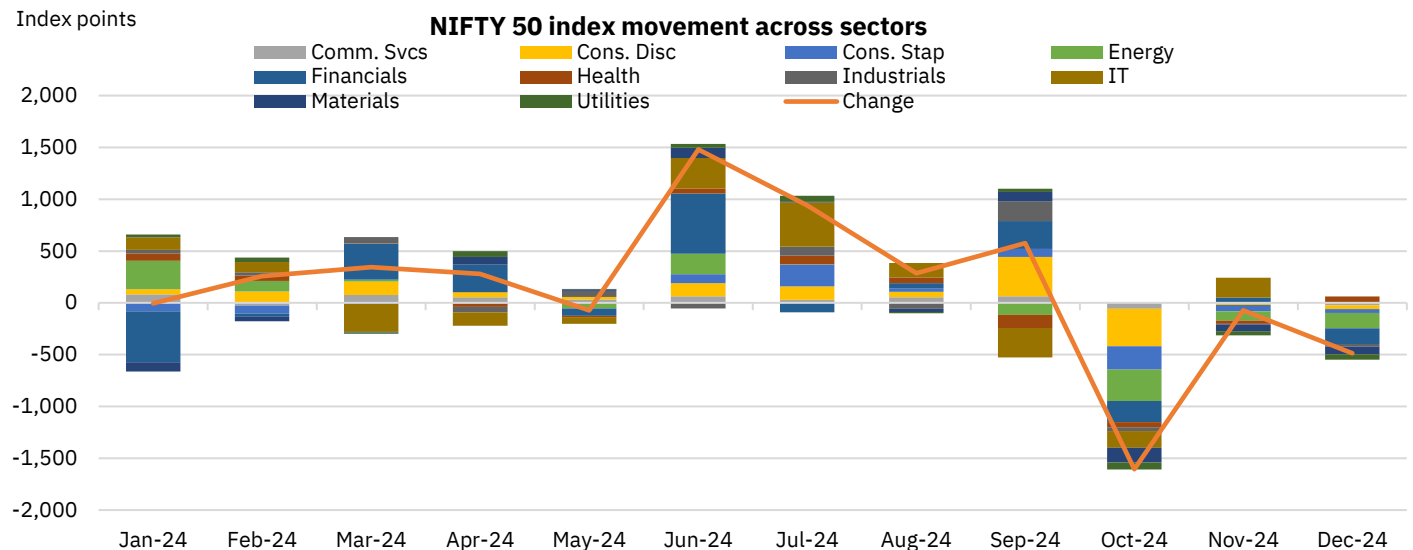
Sector-wise, the performance in 2024 was led by Consumer Discretionary, Financials and IT, while Consumer Staples, Energy and Materials dragged the Index lower.

Figure 152: Sector-wise contribution to Nifty 50 price return in 2024


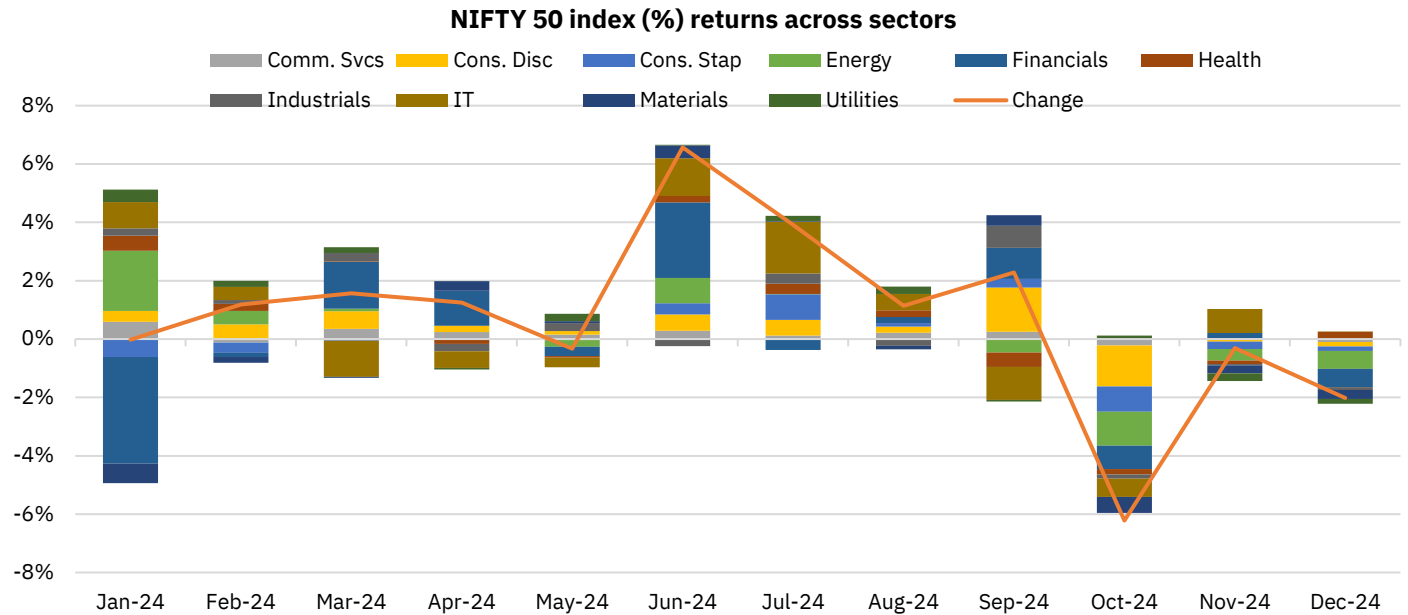
Source: LSEG Workspace, CMIE Prowess, NSE Indices, NSE EPR.

Figure 153: Sector-wise contribution to Nifty 50 Index change (points) in 2024


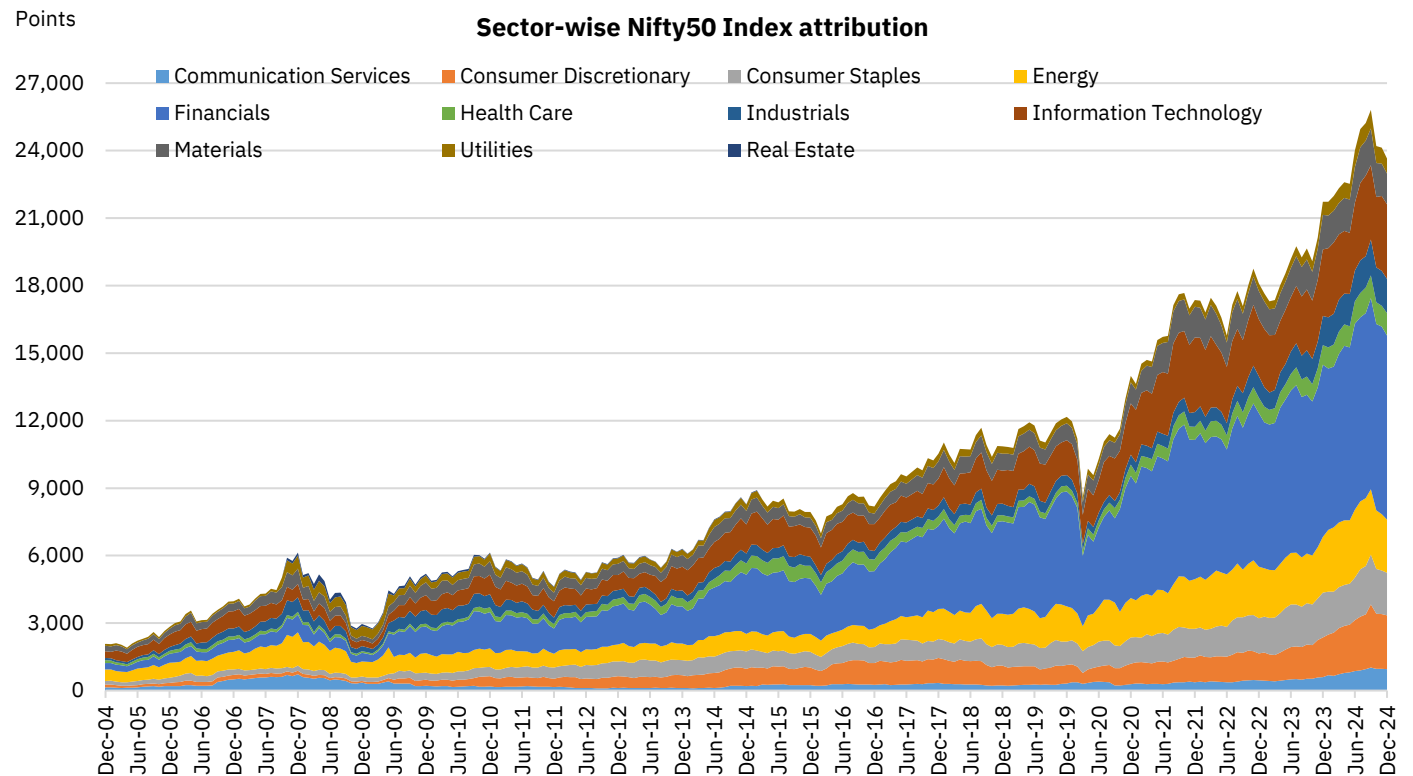
Source: LSEG Workspace, CMIE Prowess, NSE Indices, NSE EPR.

Figure 154: Nifty 50 Index monthly movement across sectors over the last 12 months


Source: LSEG Workspace, CMIE Prowess, NSE Indices, NSE EPR.

Figure 155: Nifty 50 Index monthly return across sectors over the last 12 months


Source: LSEG Workspace, CMIE Prowess, NSE Indices, NSE EPR.

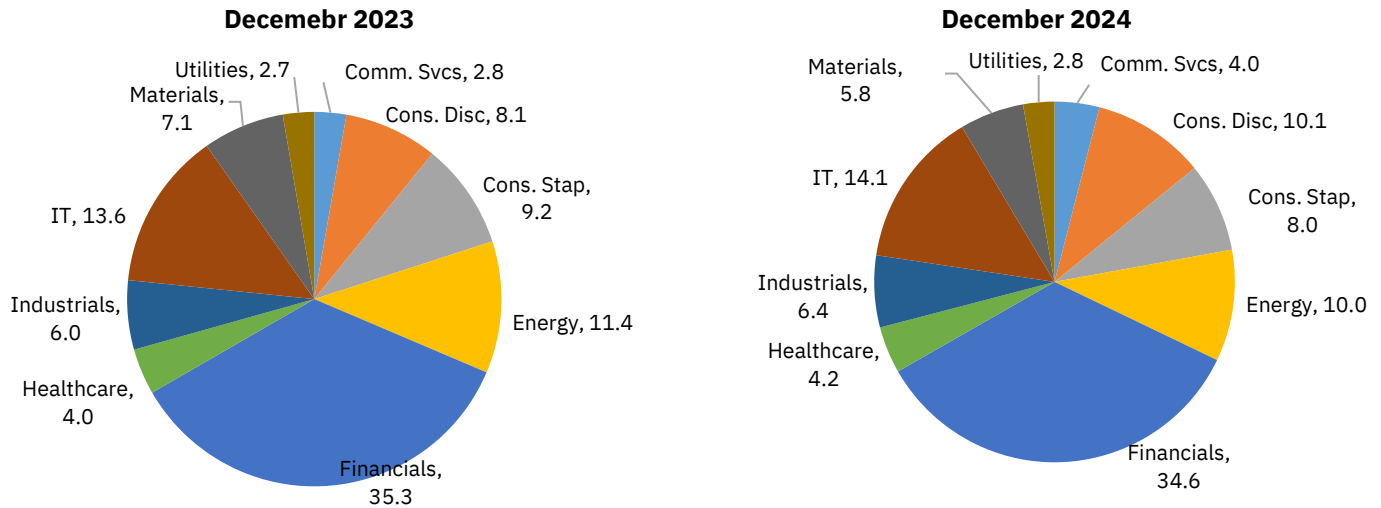
Figure 156: Sector-wise Nifty50 Index attribution (2004-)


Source: LSEG Workspace, CMIE Prowess, NSE EPR.

A strong outperformance of Information Technology and Financials in the month gone by resulted in their weights in the Nifty 50 Index rising by 83bps and 28bps MoM to 11-month and three-month high of 13.8% and 34.5% respectively. This came at the expense of a decline in weights of Energy, Materials, and Consumer Staples. In fact, the weight of the Energy sector at 10.4% as of November-end was the lowest in the last 92 months. In the last 12 months, the relative outperformance of Consumer Discretionary,

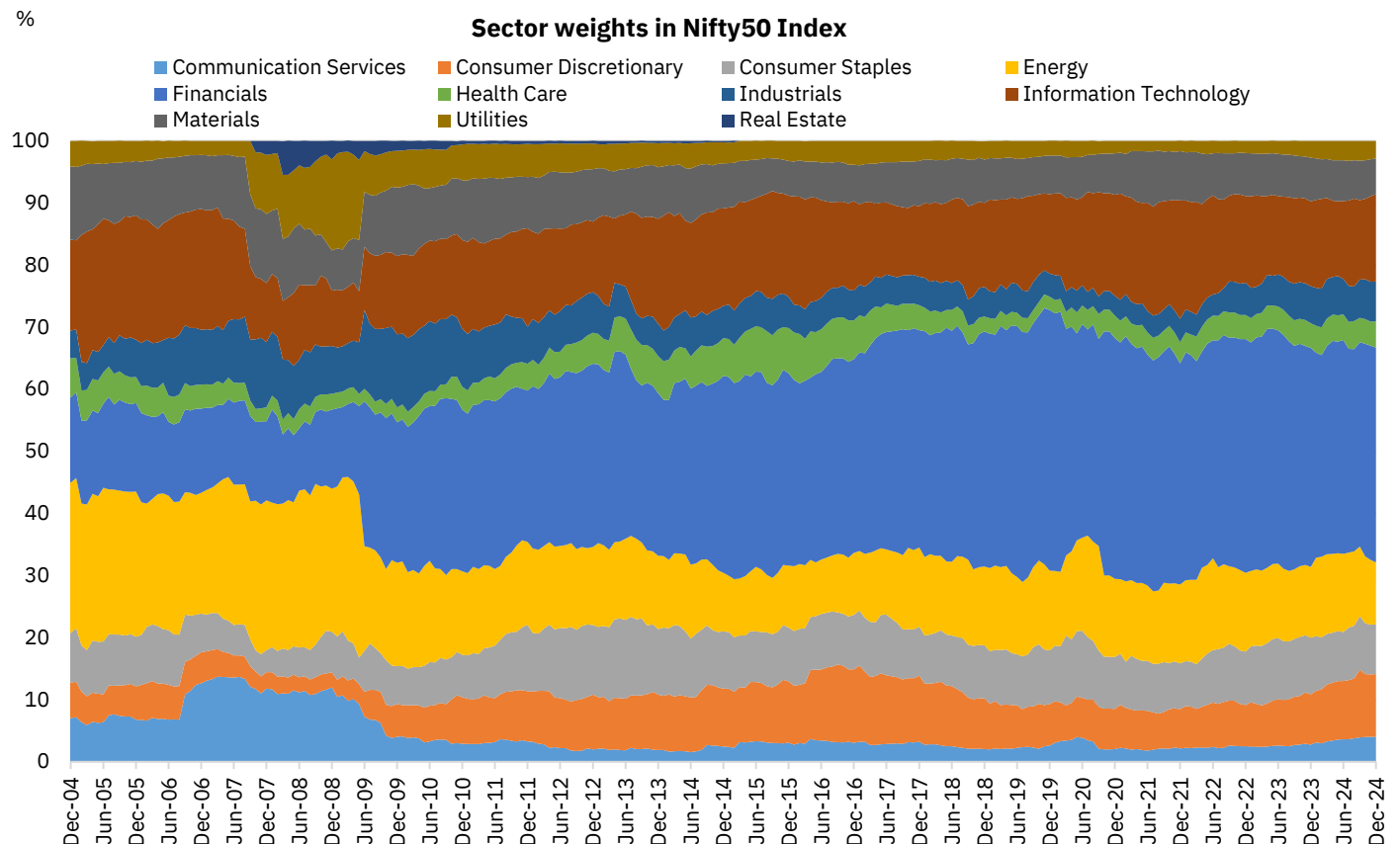
Communication Services and Industrials led to their weights in the Nifty 50 Index rising by 180bps, 113bps and 52bps to 10.1%, 177-month high of 4.0%, and 6.4% respectively. This increase in weight came at the expense of a significant drop of 121bps, 91bps, 85bps and 73bps in Consumer Staples, Energy, Materials and Financials to 8%, 10.4%, 6% and 34.5% respectively as of November-end. Interestingly, Financials weight is now 7.5pp lower than the peak weight of 42% in December 2019.

Figure 157: Nifty 50 sector weightage (December 2023) **Figure 158: Nifty 50 sector weightage (December 2024)**



Source: LSEG Workspace, CMIE Prowess, NSE EPR.

Figure 159: Sector weights in the Nifty 50 Index (2003-)



Source: LSEG Workspace, CMIE Prowess, NSE EPR.

Table 28: Top five Nifty 50 Index gainers in 2024

Security name	Security symbol	Return (%)	Index % return contribution (%)	Index change contribution (points)
I C I C I Bank Ltd.	ICICIBANK	28.6	1.9	414
Trent Ltd.	TRENT	133.2	1.6	352
Bharti Airtel Ltd.	BHARTIARTL	53.8	1.6	351
Infosys Ltd.	INFY	22.5	1.1	248
Mahindra & Mahindra Ltd.	M&M	73.9	1.1	239
Total			7.4	1,604
Nifty 50 Index	NIFTY 50	8.8	8.8	1,913

Source: LSEG Workspace, CMIE Prowess, NSE EPR.

Table 29: Top five Nifty 50 Index losers in 2024

Security name	Security symbol	Return (%)	Index % return contribution (%)	Index change contribution (points)
Reliance Industries Ltd.	RELIANCE	-6.0	-0.7	-162
Asian Paints Ltd.	ASIANPAINT	-32.9	-0.6	-120
Indusind Bank Ltd.	INDUSINDBK	-40.0	-0.5	-100
Hindustan Unilever Ltd.	HINDUNILVR	-12.3	-0.4	-83
Kotak Mahindra Bank Ltd.	KOTAKBANK	-6.4	-0.3	-57
Total			-2.4	-522
Nifty 50 Index	NIFTY 50	8.8	8.8	1,913

Source: LSEG Workspace, CMIE Prowess, NSE EPR.

Earnings and valuation analysis

Consensus earnings estimates cut sharply after a weak Q2FY25: Consensus earnings estimate for this as well as the next year have seen cuts in the last several months, reflecting the impact of weak corporate earnings, signs of slowdown in consumption demand, and heightened global uncertainty. The Nifty50 earnings estimates (Source: LSEG Workspace) for 2024 as well as 2025 were cut by 2.6% and 2.1% in the last three months, translating into a total drop of 4.2% and 1.3% respectively in the whole of 2024. This implies expected earnings growth of 4.4% and 16.0% for 2024 and 2025 as on December 31st, 2024, vs. 13.0% and 12.6% as of end of the previous year, respectively, resulting in a two-year CAGR (2023-25) of 10.0%, much lower than 13.8% as of end of March 2024 and 12.8% as of end of December 2024.

Our analysis of the earnings estimates of the top 200 companies by market cap.⁴⁰ painted an even bleaker picture. The aggregate consensus earnings estimate for this universe for FY25 as well as FY26 were curtailed by 4.9% and 4.2% respectively since September-end (As of January 23rd, 2024), translating into a drop of 4.9% for FY25 and 1.4% for FY26 in the fiscal year thus far. Sector-wise, steep earnings downgrades since September-end were led by commodity sectors such as Materials and Energy, accounting for ~65% and 47% of the absolute change in earnings for FY25 and FY26 since September-end respectively. While downgrades in the Energy sector were on the back of weak refining margins, inventory losses due to declining crude oil prices, currency volatility and geopolitical uncertainty, Materials, on the other hand, felt the brunt of slowdown in China, with the expected imposition of tariffs post the Trump victory adding to the woes. In fact,

⁴⁰ The sample set consists of top 200 companies by one-year average market cap ending June 30th, 2024, covered by at least five or more analysts during the previous 12 months using IBES estimates from LSEG Datastream.

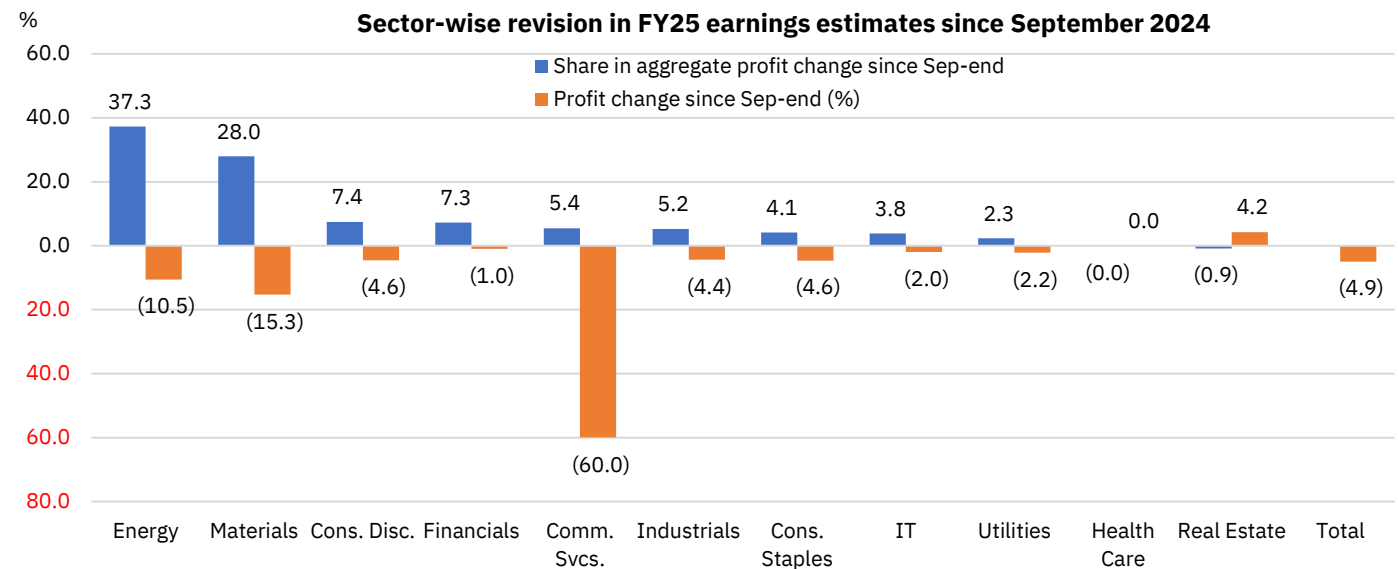
barring Healthcare and Real Estate that saw modest upgrades, all other sectors saw their earnings estimates getting curtailed in the last few months.

Table 30: Earnings growth and forward-looking multiples for Nifty 50 Index

Metric	Periods	As on 31-Dec-24	Change (%/bps)				
			1M	3M	6M	YTD	1Y
EPS (Rs)	12-month forward	1167.3	1.3%	1.3%	4.9%	10.4%	10.4%
	2023	998.6	0.3%	0.6%	1.8%	3.7%	3.7%
	% YoY	25.4%	42bps	75bps	226bps	555bps	555bps
	2024	1042.2	0.0%	-2.6%	-2.8%	-4.2%	-4.2%
	% YoY	4.4%	-33bps	-346bps	-502bps	-862bps	-862bps
	2025	1208.9	0.2%	-2.1%	-1.9%	-1.3%	-1.3%
	% YoY	16.0%	17bps	57bps	114bps	340bps	340bps
Price to earnings (P/E) (x)	12-month forward	20.4	-3.1%	-9.6%	-4.6%	0.3%	0.3%
	2024	22.8	-1.8%	-6.0%	3.1%	15.7%	15.7%
	2025	19.6	-2.0%	-6.4%	2.0%	12.3%	12.3%
Price to Book value (P/B) (x)	12-month forward	3.2	-3.3%	-10.8%	-0.4%	-1.0%	-1.0%
	2024	3.5	-2.3%	-8.5%	5.4%	11.1%	11.1%
	2025	3.1	-2.3%	-8.0%	5.9%	11.1%	11.1%

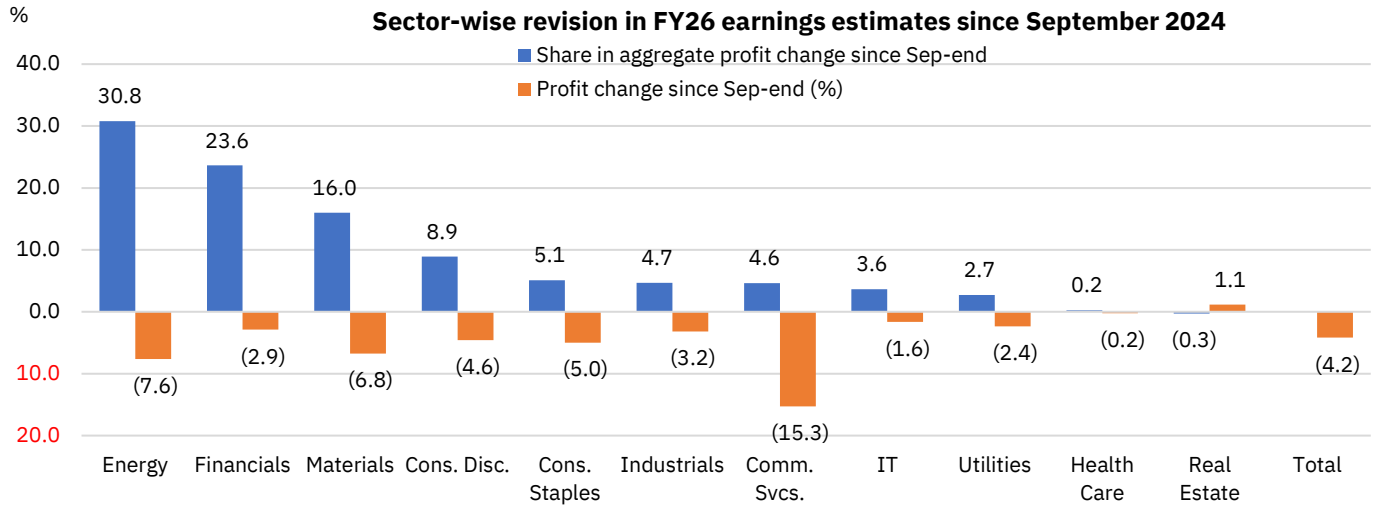
Source: LSEG Workspace, NSE EPR. NTM = Next Twelve Months.

Figure 160: Sector-wise revision in FY25 earnings estimates for top 200 companies since September 2024



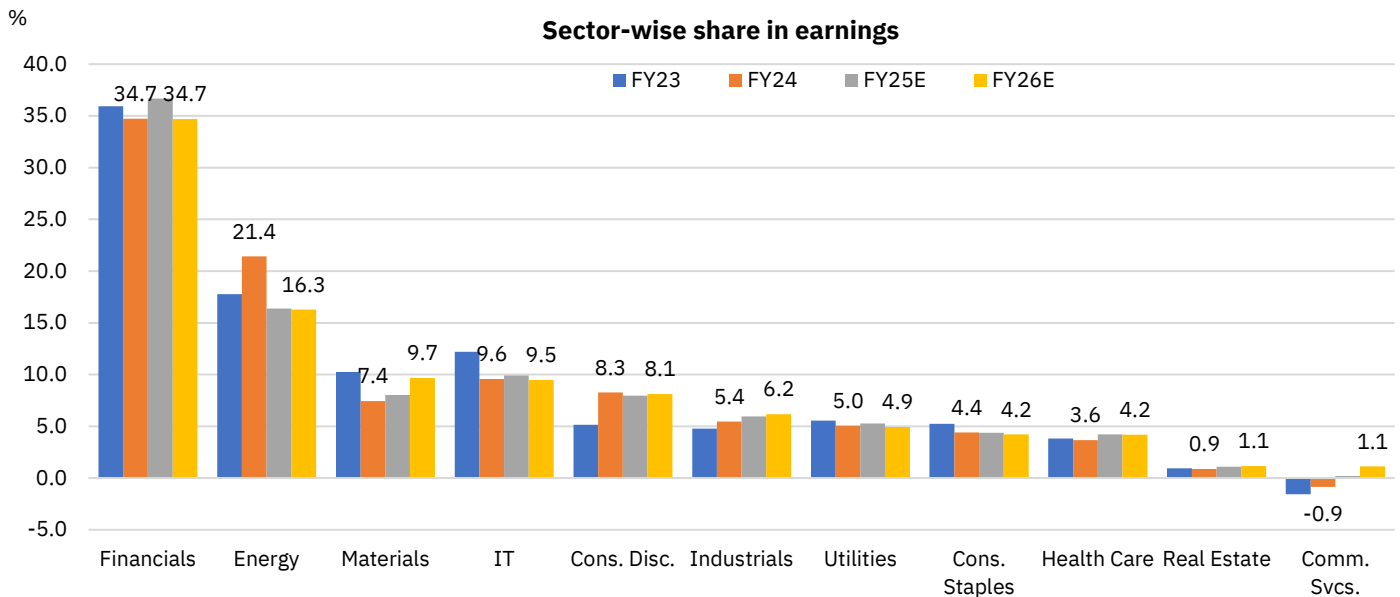
Source: LSEG Workspace, NSE EPR

Note: Based on IBES earnings estimates of top 200 companies by one-year average market cap ending June 30th, 2024, covered by at least five analysts at any given point of time over the last one year. Data is as on January 23rd, 2024.

Figure 161: Sector-wise revision in FY26 earnings estimates for top 200 companies since September 2024


Source: LSEG Workspace, NSE EPR

 Note: Based on IBES earnings estimates of top 200 companies by one-year average market cap ending June 30th, 2024, covered by at least five analysts at any given point of time over the last one year. Data is as on January 23rd, 2024.

Figure 162: Sector-wise share in earnings


Source: LSEG Workspace, NSE EPR.

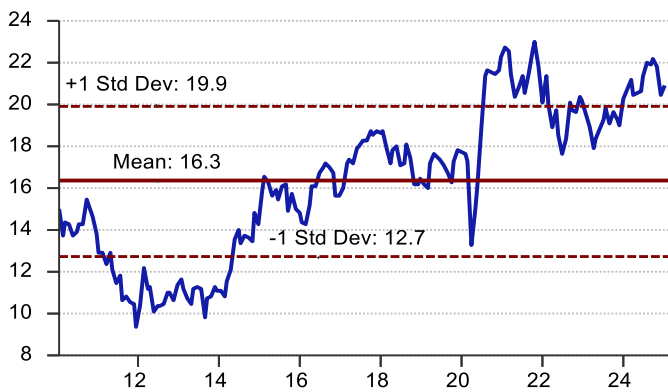
 Note: Based on IBES earnings estimates of top 200 companies by one-year average market cap ending June 30th, 2024, covered by at least five analysts at any given point of time over the last one year. Data is as of January 23rd, 2024.

Market valuations continue to correct...: After rising to nearly three-year high of 22.5x in early October, market valuations have come off sharply in the last six weeks, thanks to a steep sell-off witnessed during this period. The Nifty50 Index currently trades at a 12-month forward P/E of 19.8x, with recent cuts in earnings estimates capping the correction. This is now at par with one standard deviation to the long-term average multiple but is still 21% higher than long-term (Last 15-year) average multiple (16.3x) Valuations have corrected on a price-to-book (P/B) basis as well, with Nifty50 currently trading at a 12-month forward P/B of 3.1x. This implies a premium of ~26% to the average P/B of 2.5x over the last 15-year period.

...Accompanied with a drop in valuation premium to EM equities: Indian equities have perennially traded at a premium to EM equities, thanks to India's strong economic fundamentals and robust growth outlook. The sell-off in Indian equities over the last few months and underperformance to China has resulted in some drop in this premium level, even as it continues to remain much higher than long-term premium. On a 12-month forward P/E, MSCI India trades at a premium of 84% vs. last 15-year average premium of 53%, down from 111% in September 2024. On 12-month forward P/B, MSCI India is trading at a much higher premium of 121%, much higher than the last 15-year average premium of 84%.

Figure 163: Nifty 50 NTM P/E trend for last 15 years

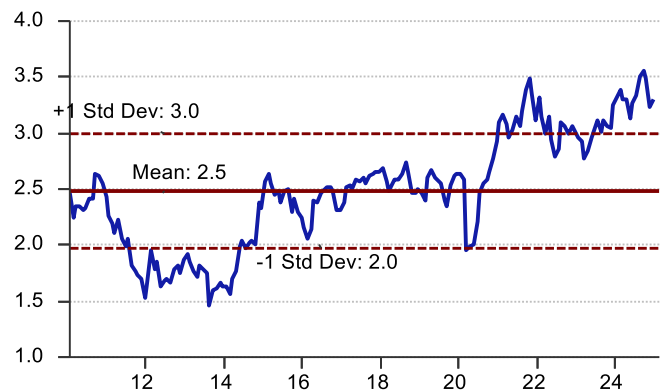
Nifty 50 12-month forward P/E



Source: LSEG Workspace, NSE EPR

Figure 164: Nifty 50 NTM P/B trend for last 15 years

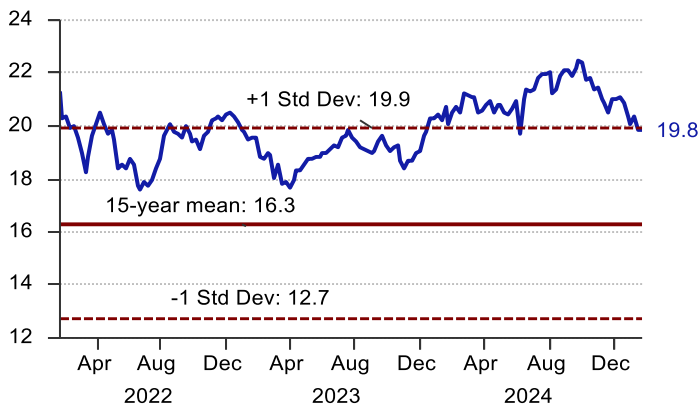
Nifty 50 12-month forward P/B



Source: LSEG Workspace, NSE EPR

Figure 165: Nifty 50 NTM P/E (Last three-year trend)

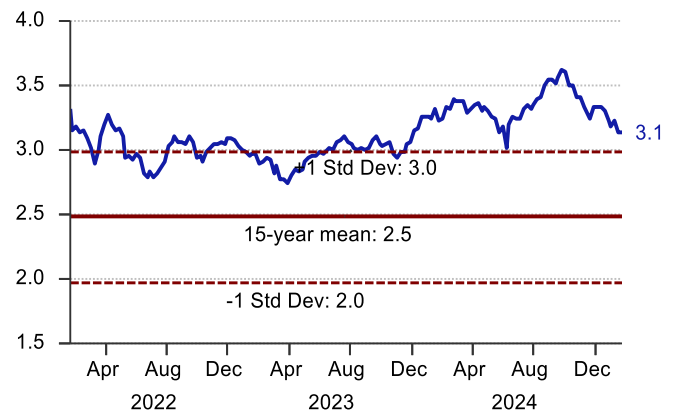
Nifty 50 12-month forward P/E



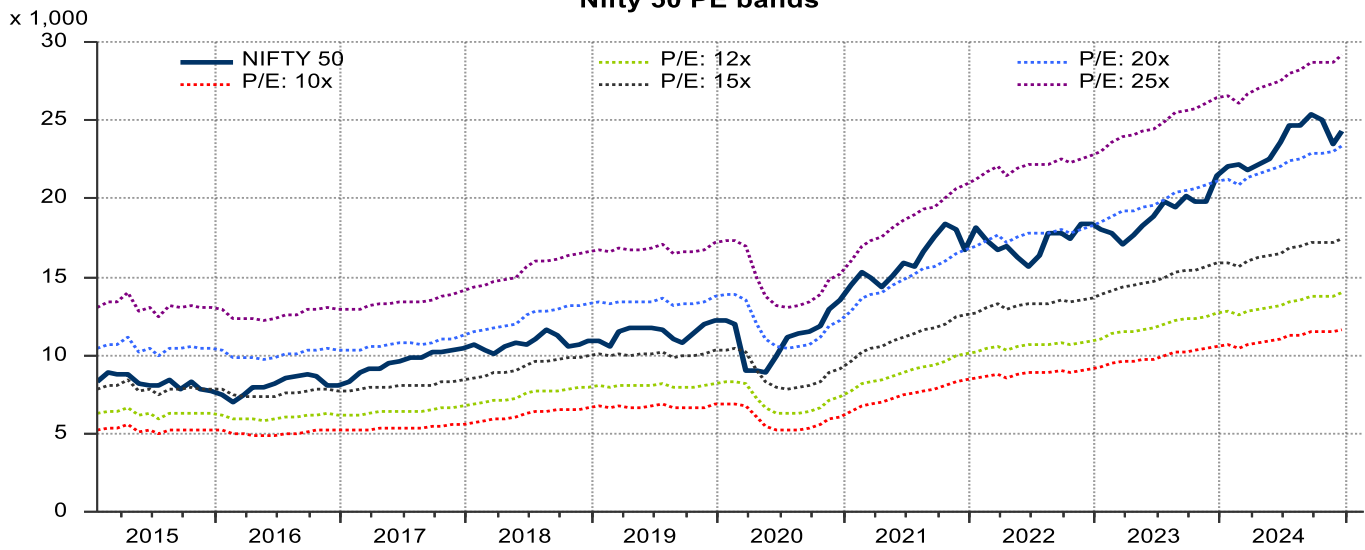
Source: LSEG Workspace, NSE EPR

Figure 166: Nifty 50 NTM P/B (Last three-year trend)

Nifty 50 12-month forward P/B



Source: LSEG Workspace, NSE EPR

Figure 167: Five-year trend of Nifty 50 values at different 12-month forward P/E bands
Nifty 50 PE bands


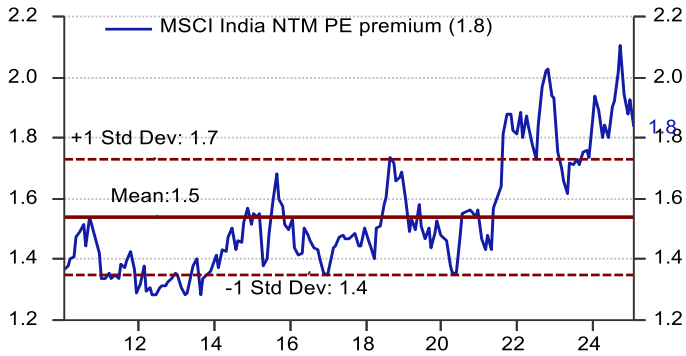
Source: LSEG Workspace, NSE EPR

Figure 168: NTM P/E of MSCI India vs. MSCI EM (15-year trend)

MSCI India currently trades at a premium of 84% to MSCI EM on 12-month forward P/E vs. long-term average premium of 54%, down from 111% in September 2024.

12-months forward P/E (Relative premium)

IBES MSCI India vs MSCI Emerging Markets



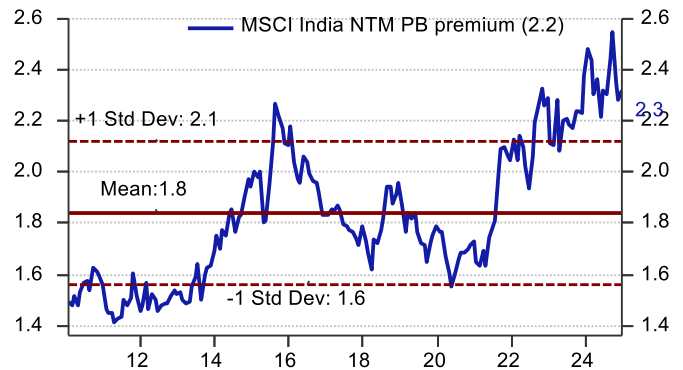
Source: LSEG Workspace, NSE EPR

Figure 169: NTM P/B of MSCI India vs. MSCI EM (15-year trend)

On 12m forward P/B as well, India's valuation premium to MSCI EM has remained elevated at 121% currently.

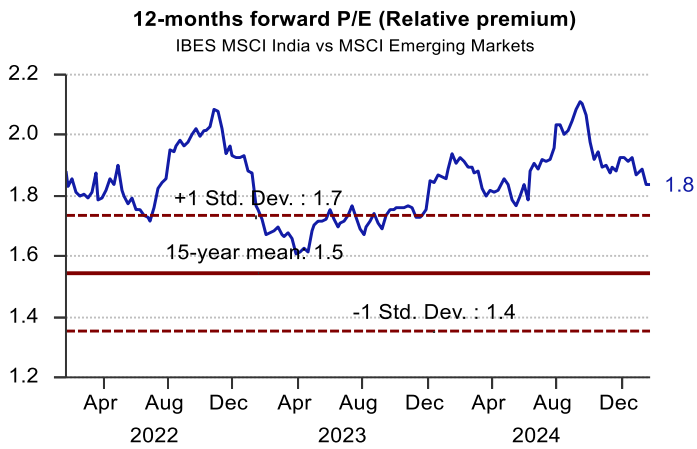
12-month forward P/B (Relative Premium)

IBES MSCI India vs MSCI Emerging Markets



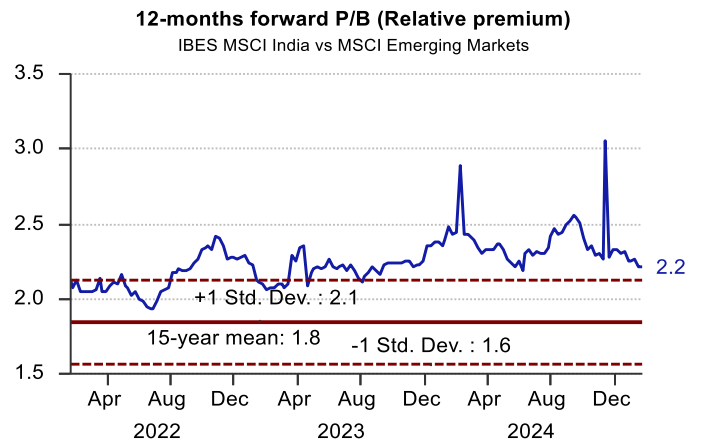
Source: LSEG Workspace, NSE EPR

Figure 170: NTM P/E of MSCI India vs. MSCI EM (Last three-year trend)



Source: LSEG Workspace, NSE EPR

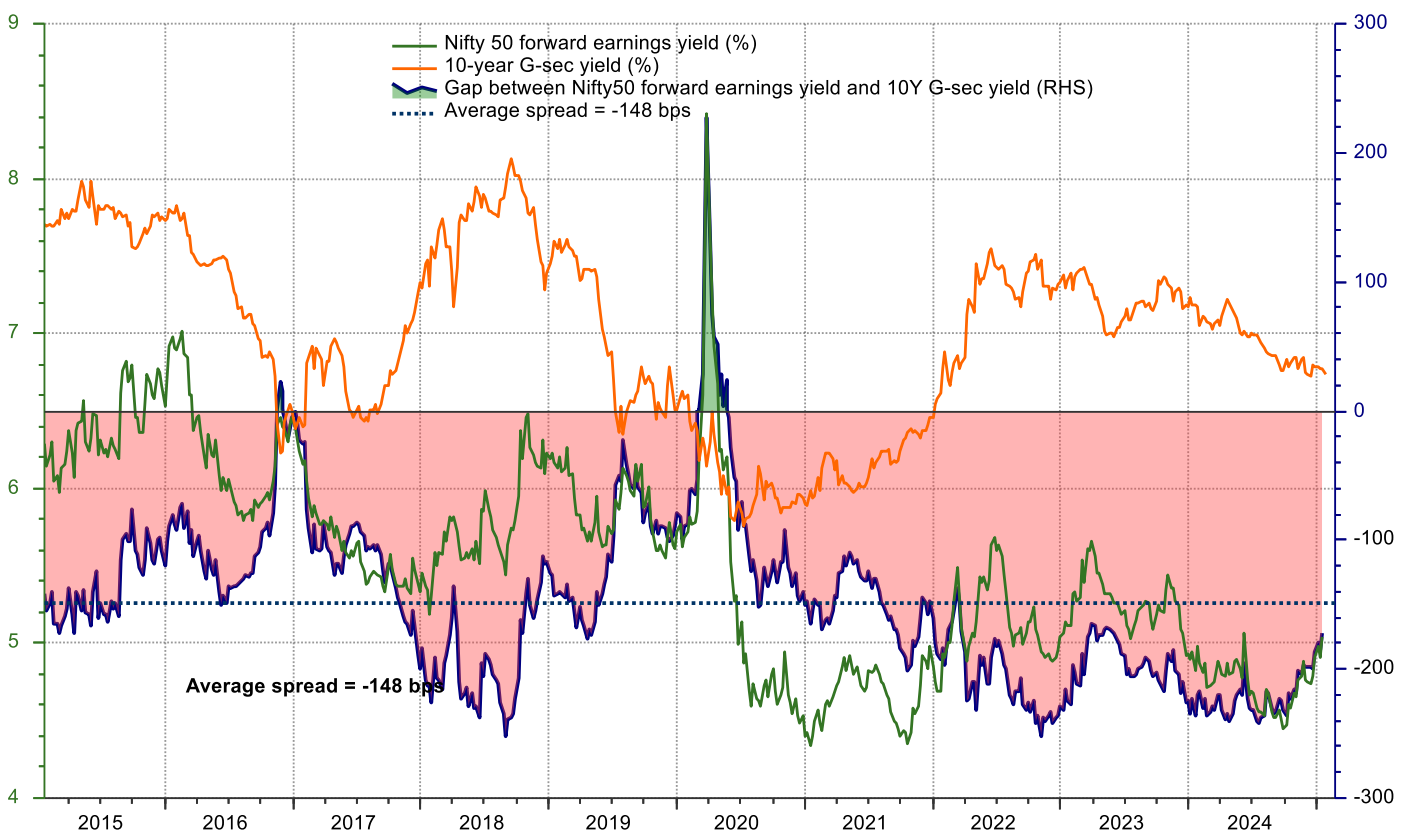
Figure 171: NTM P/B of MSCI India vs. MSCI EM (Last three-year trend)



Source: LSEG Workspace, NSE EPR

Figure 172: Nifty 50 forward earnings yield* vs. 10-year G-sec yield

Spread between Nifty 50 forward earnings yields and 10-year G-sec yield

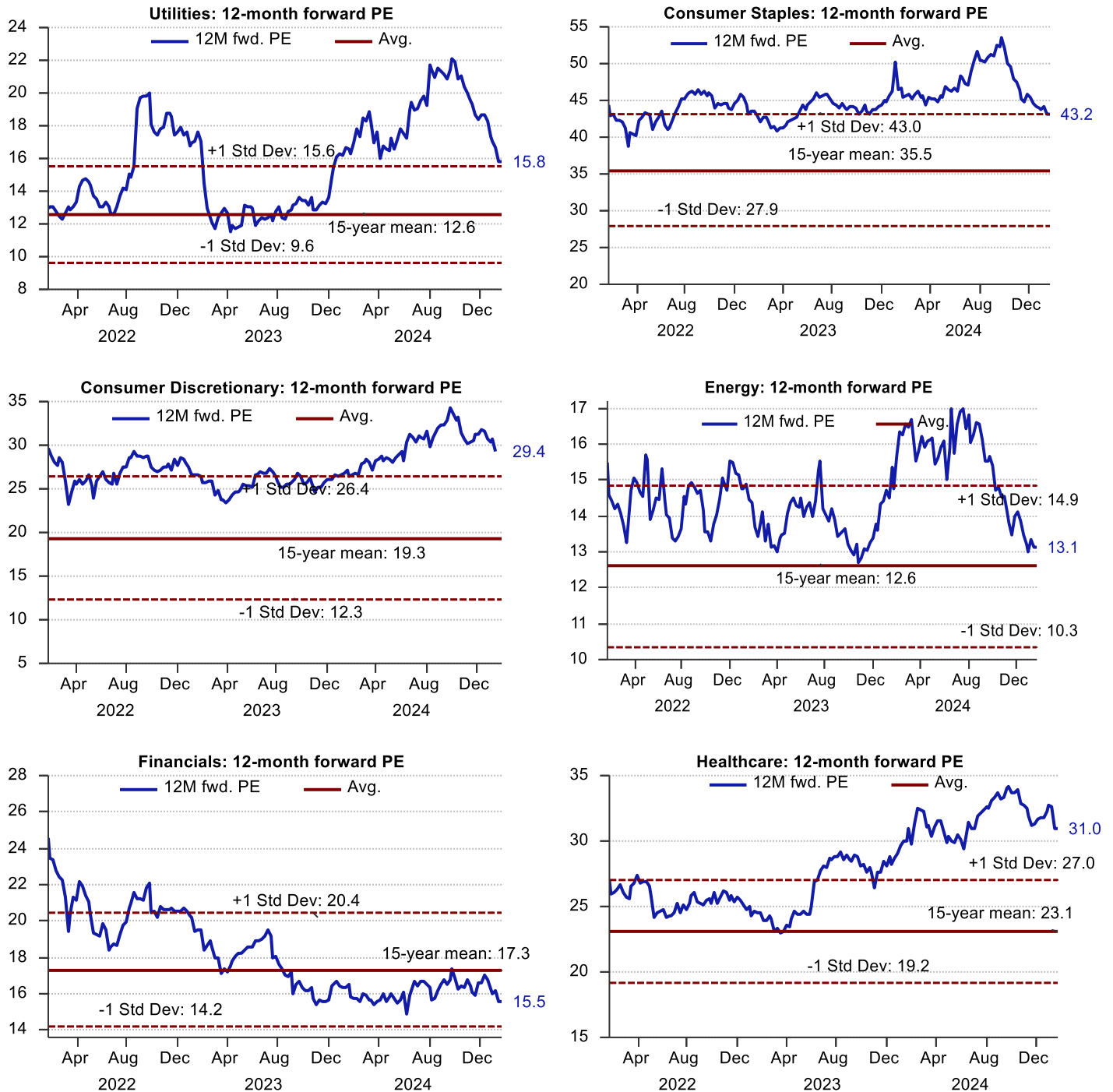


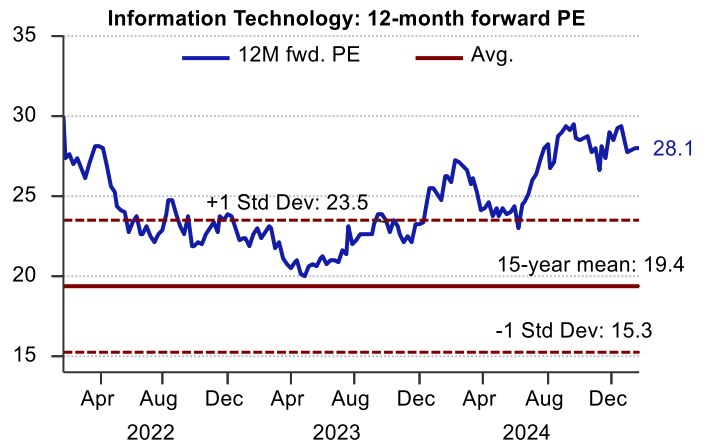
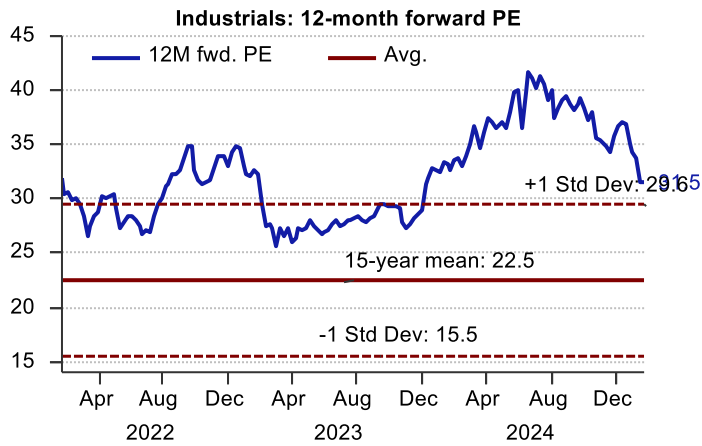
Source: LSEG Workspace, NSE EPR. * Forward earnings yield for Nifty 50 is calculated as (1/12-month forward PE).

Valuation correction was broad-based across sectors: We have also looked at long-term trends of 12-month forward P/E and P/B multiples across MSCI India sector indices. All sectors saw their forward multiples falling in the last few months, led by Energy and Consumer Staples and Utilities. Barring Consumer Discretionary, Healthcare and Information Technology, that continues to trade at levels well above the one standard deviation to long-term average multiples, all other sectors have seen their forward

multiples falling closer or below the one standard deviation. In fact, the Financials sector has been trading below long-term average multiples for over 18 months now, with the downside to the long-term average now hovering at nearly 10%.

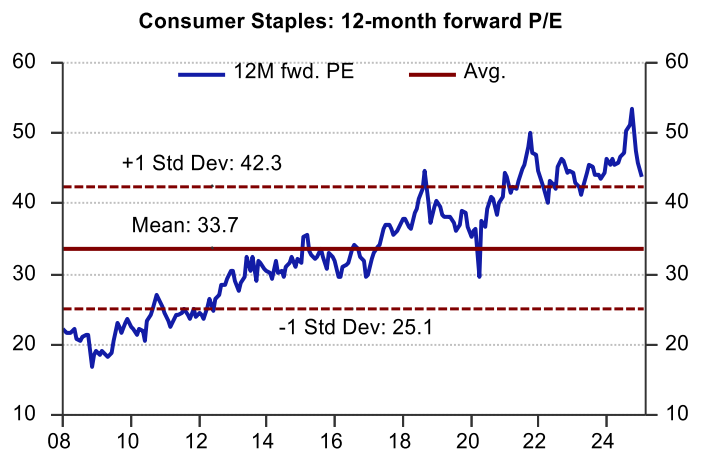
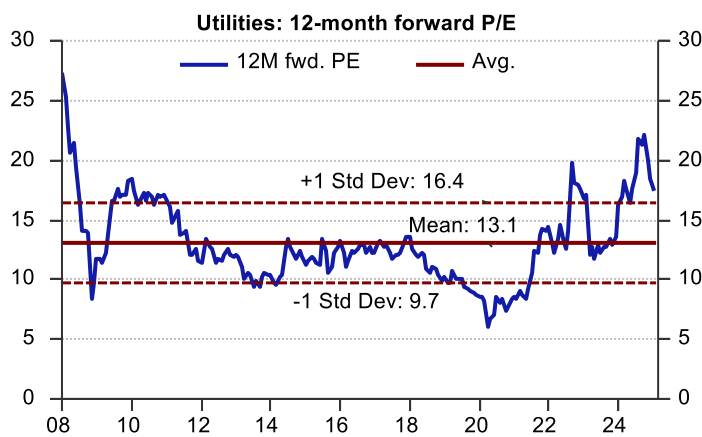
Figure 173: 12-month forward P/E for MSCI India sector indices (Three-year trend)

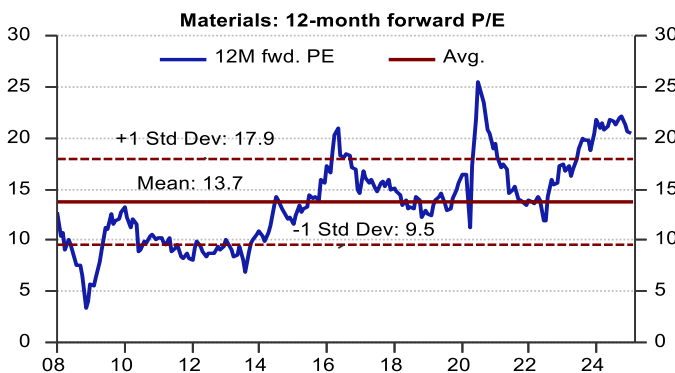
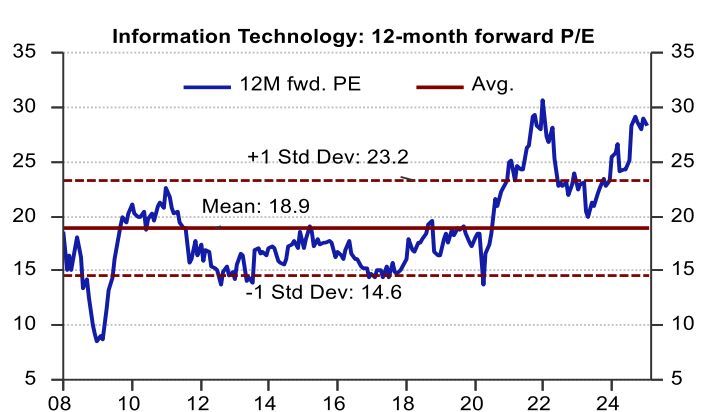
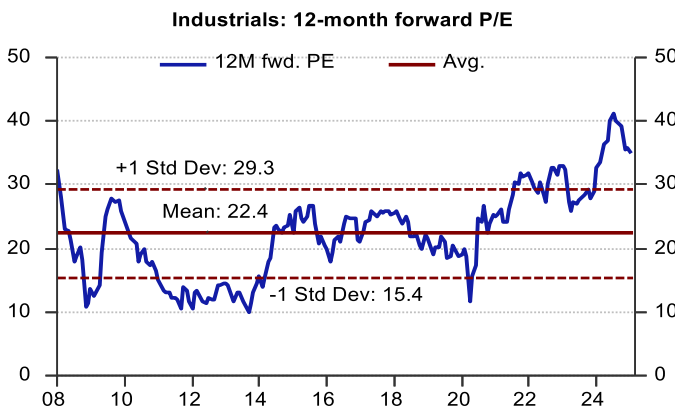
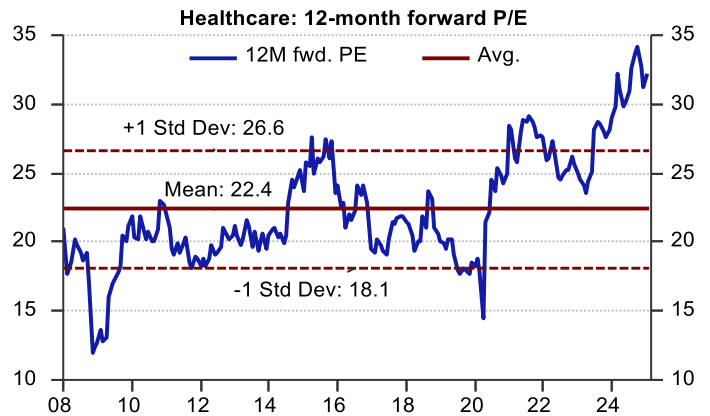
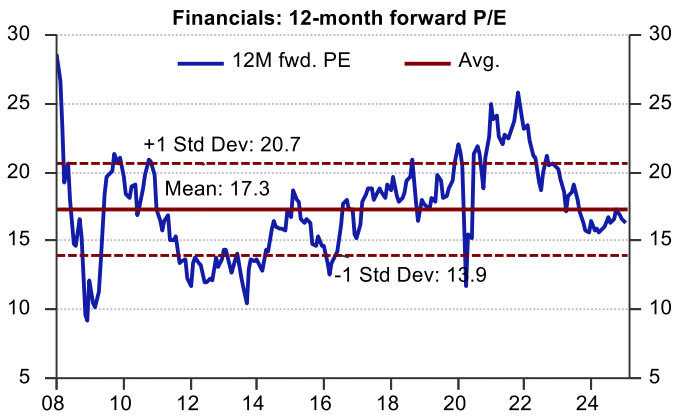
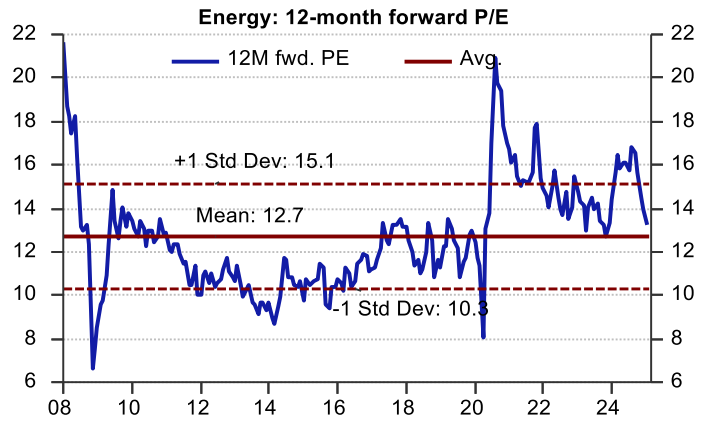
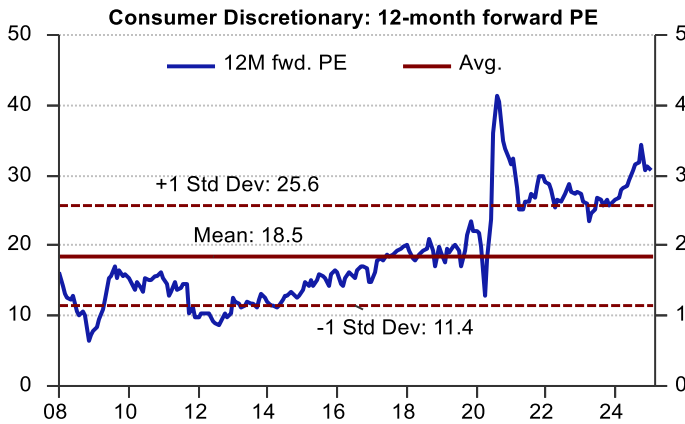




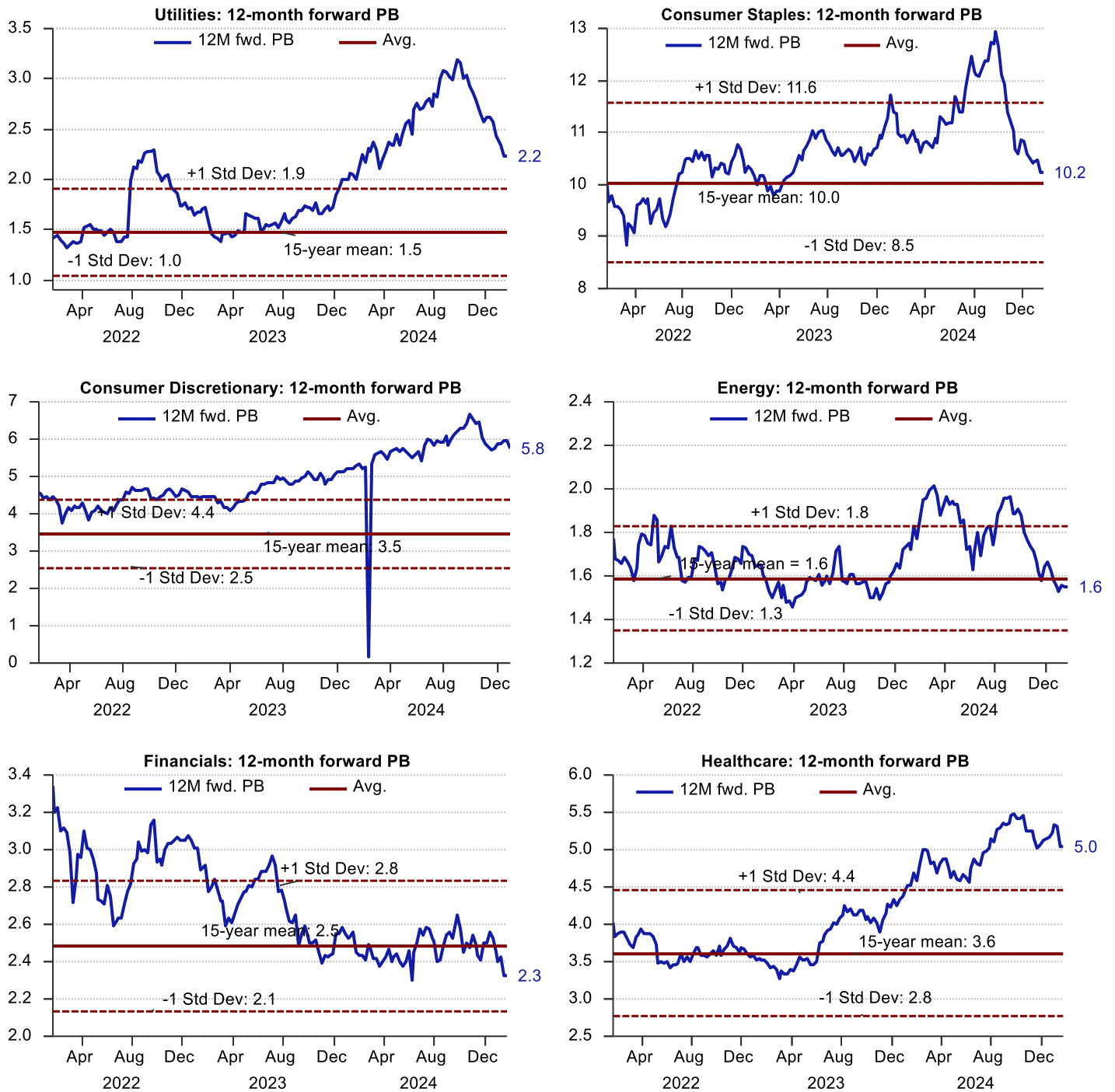
Source: LSEG Workspace, NSE EPR.

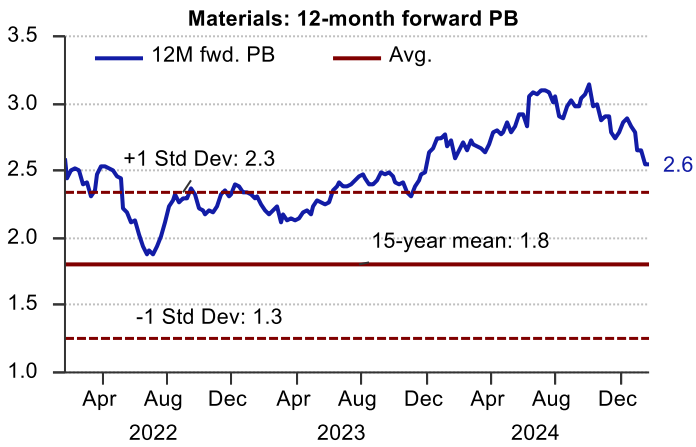
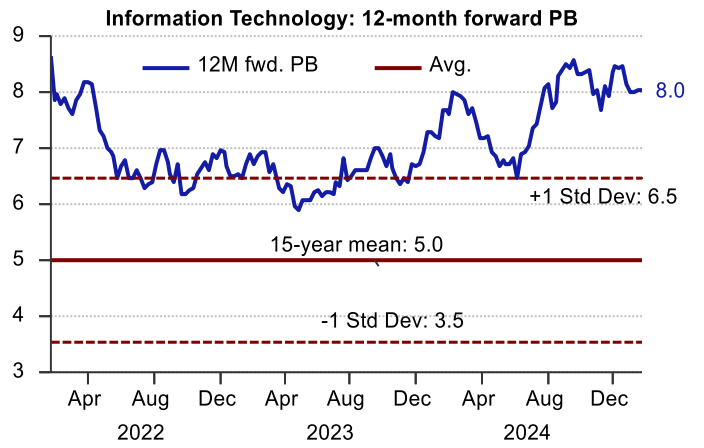
Figure 174: 12-month forward P/E for MSCI India sector indices (Long-term trend)



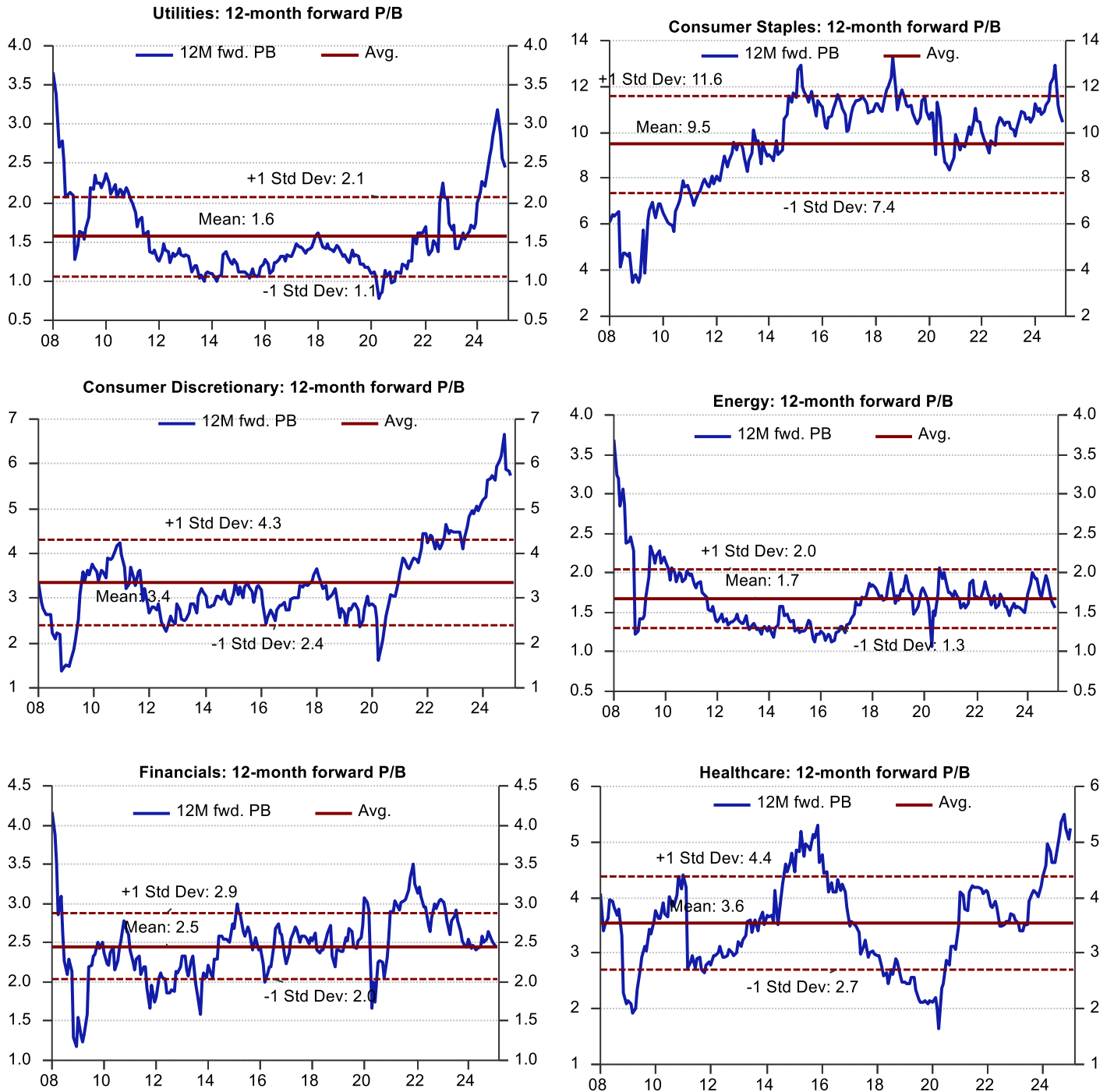


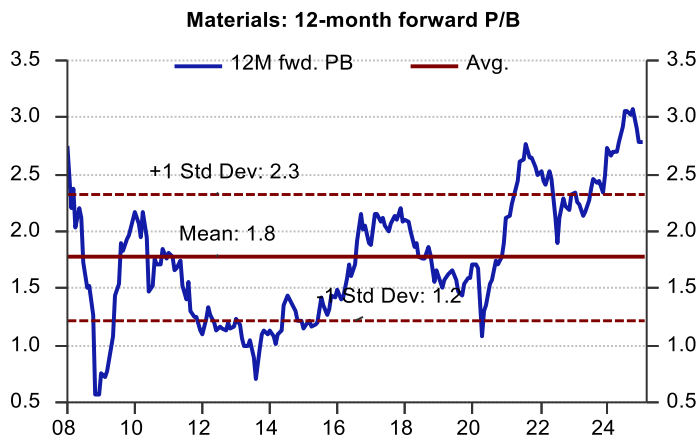
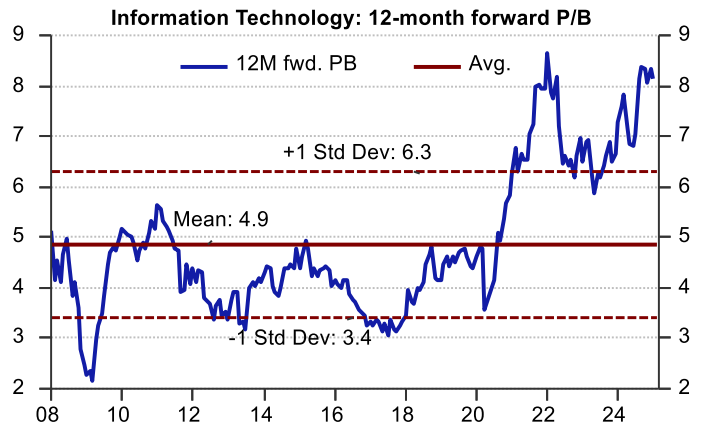
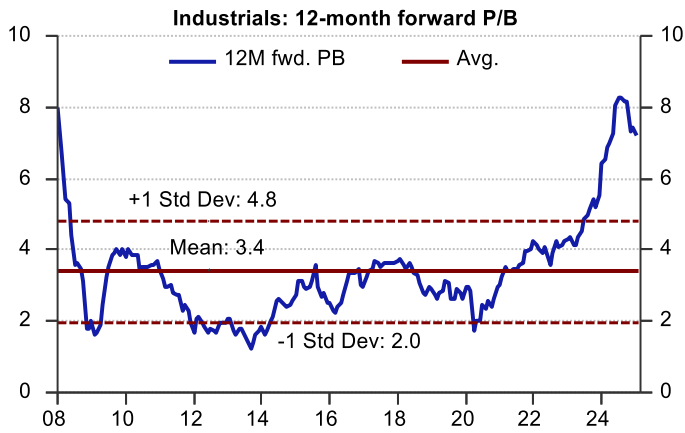
Source: LSEG Workspace, NSE EPR

Figure 175: 12-month forward P/B for MSCI India sector indices (Three-year trend)




Source: LSEG Workspace, NSE EPR.

Figure 176: 12-month forward P/B for MSCI India sector indices (Long-term trend)




Source: LSEG Workspace, NSE EPR.

Fixed income market performance

Table 31: Performance of key debt indices (As of December 31st, 2024)

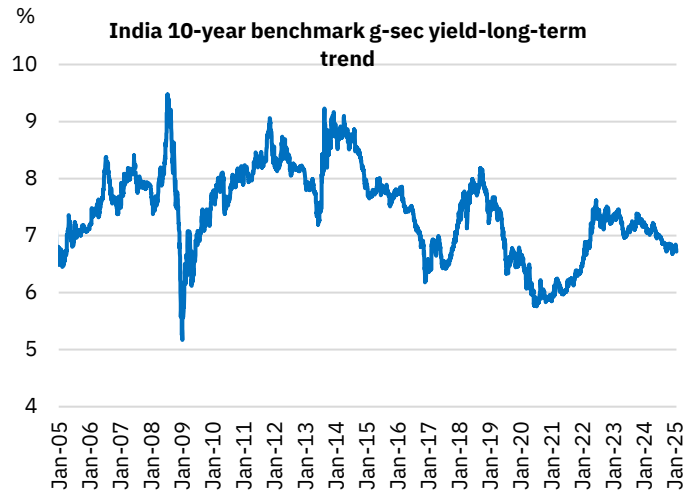
Category	Index name	Absolute returns (%)					CAGR returns (%)		
		1M	3M	6M	1Y	YTD	2Y	3Y	5Y
G-sec	Nifty 5yr Benchmark G-sec Index	0.5	1.3	4.7	8.5	8.5	8.2	6.2	6.8
	Nifty 10 yr Benchmark G-Sec	0.5	1.3	4.9	9.5	9.5	8.8	5.9	5.5
	Nifty Composite G-sec Index	0.5	1.1	4.8	9.9	9.9	9.0	6.6	6.8
SDL	NIFTY 10 Year SDL Index	0.8	1.4	4.9	10.6	10.6	8.8	7.0	7.4
AAA credit	NIFTY AAA Ultra Short Duration Bond Index	0.6	1.9	3.8	7.9	7.9	7.7	6.9	6.1
	NIFTY AAA Short Duration Bond Index	0.6	1.7	3.9	7.5	7.5	7.2	5.8	6.5
	NIFTY AAA Low Duration Bond Index	0.6	1.9	3.7	7.6	7.6	7.4	6.3	6.0
	NIFTY AAA Medium Duration Bond Index	0.5	1.2	3.8	7.6	7.6	7.0	5.3	6.7
	NIFTY AAA Medium to Long Duration Bond Index	0.6	1.2	4.1	8.4	8.4	7.4	5.4	6.8
	NIFTY AAA Long duration Bond Index	0.7	1.4	4.4	9.5	9.5	8.2	5.6	6.8
Composite	NIFTY Liquid Index	0.6	1.8	3.7	7.4	7.4	7.3	6.6	5.5
	NIFTY Money Market Index	0.6	1.8	3.8	7.8	7.8	7.6	6.7	5.7
	NIFTY Ultra Short Duration Debt Index	0.6	1.9	3.9	8.0	8.0	7.8	7.0	6.1
	NIFTY Short Duration Debt Index	0.6	1.7	3.9	7.6	7.6	7.4	6.2	6.5
	NIFTY Low Duration Debt Index	0.6	1.9	3.8	7.8	7.8	7.7	6.6	6.1
	NIFTY Medium Duration Debt Index	0.5	1.4	4.0	7.8	7.8	7.5	5.8	6.9
	NIFTY Medium to Long Duration Debt Index	0.6	1.3	4.4	8.7	8.7	8.0	6.1	7.0
	NIFTY Long Duration Debt Index	0.6	1.0	4.4	10.4	10.4	8.9	6.8	7.2
	NIFTY Composite Debt Index	0.5	1.3	4.2	8.7	8.7	8.0	6.3	7.0
	NIFTY Corporate Bond Index	0.6	1.6	3.9	7.6	7.6	7.4	6.1	7.0

Source: NSE Indices, NSE EPR.

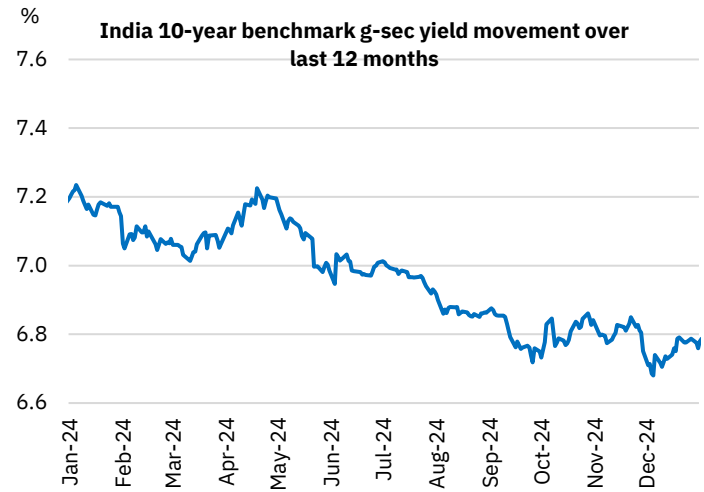
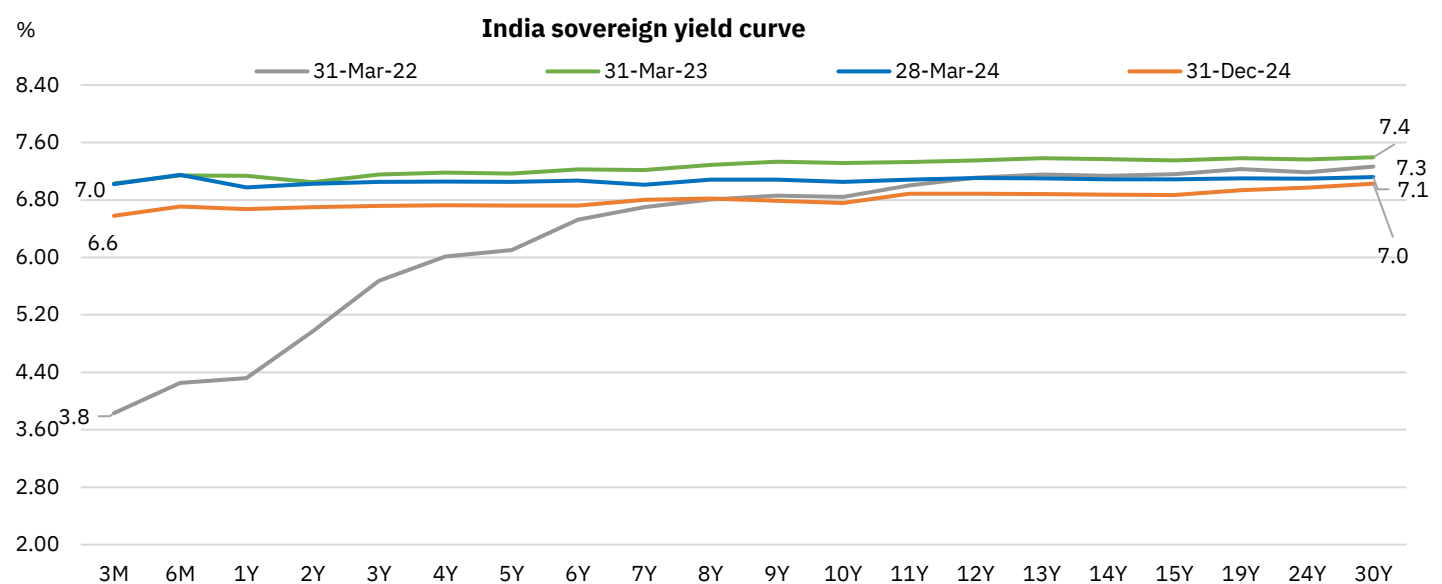
Divergent Paths Amid Shifting Monetary Policies...: The year gone by saw bond market movements reflecting shifting central bank priorities and diverging inflation expectations. While shorter-dated yields in the U.S., U.K., and Eurozone tumbled from their late-2023 peaks as policymakers turned dovish, long-term rates in these regions climbed steadily signaling that investors remain vigilant about future inflation and economic acceleration. In the U.S., for instance, the 3-month Treasury yield fell from 5.35% to 4.33%, whereas the 10-year edged up from 3.87% to 4.57%. The U.K. mirrored this pattern, with the 3-month yield slipping as the Bank of England softened its stance, even though the 10-year rose nearly a full percentage point to 4.57%. Over in the Eurozone, a similar gap emerged amid dovish signals from the European Central Bank. By contrast, Japan saw yields rise across the curve as the Bank of Japan wound back its ultra-loose policies amid modest inflation and improved domestic demand. The 1-year JGB climbed from -0.03% to 0.46%, and the 10-year advanced from 0.63% to 1.08%, underscoring Japan's subtle shift toward a more conventional monetary setting.

...with softer Indian yields reflecting improved inflation and tempered growth outlook: Indian government bond yields eased notably over 2024, underpinned by cooling inflationary pressures and a more growth-supportive policy stance. At the short end of the curve, the 3-month yield declined from 7.08% at end-2023 to 6.75% by December, while intermediate tenors such as the 5-year yield slipped from 7.07% to 6.72% over the same period. The 10-year benchmark also tracked lower, moving from 7.18% to 6.76%, reflecting investors' comfort with the Reserve Bank of India's guidance amid moderating commodity prices and inflation trends. This broad-based decline gained momentum through mid-year, as domestic inflation readings steadily approached the

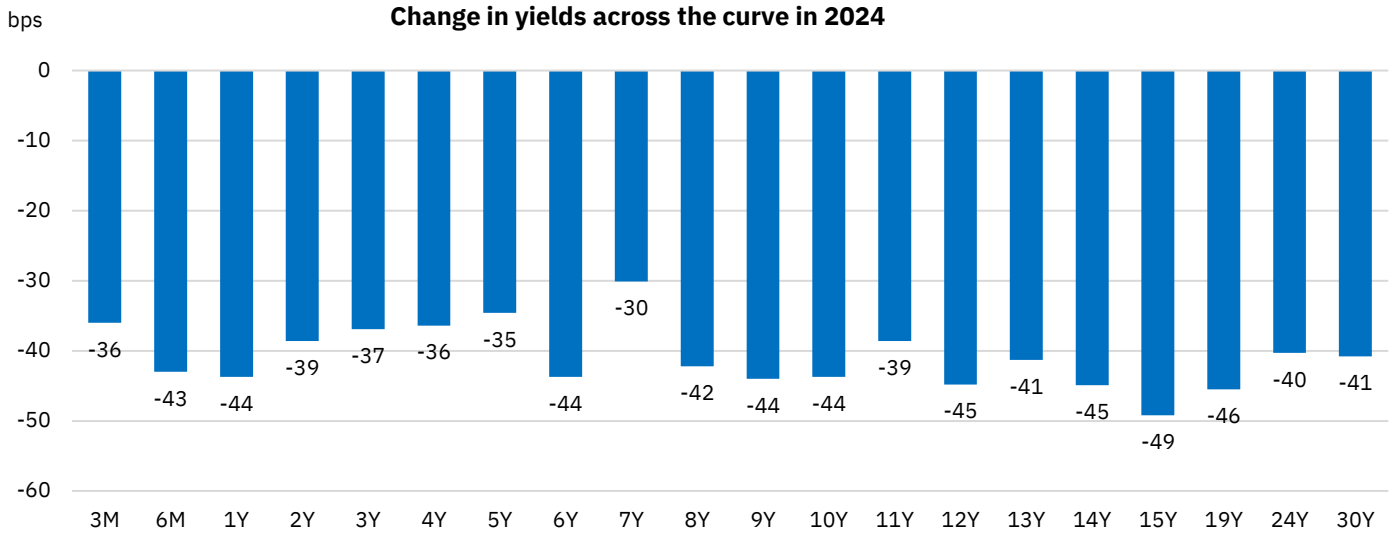
central bank's 4% target, bolstering market expectations of a potential rate cut or at least an extended pause in policy tightening. Subdued GDP data—further supported a downward bias in yields. Even the 30-year yield, which began 2024 at 7.41%, ended December at 7.03%, indicating strong duration demand from long-term investors seeking higher returns amid a calmer inflation environment. Overall, 2024 reinforced a constructive outlook for India's fixed income space as the RBI balances inflation management with the imperative of sustaining economic momentum.

Figure 177: India 10Y G-sec yield—long-term trend


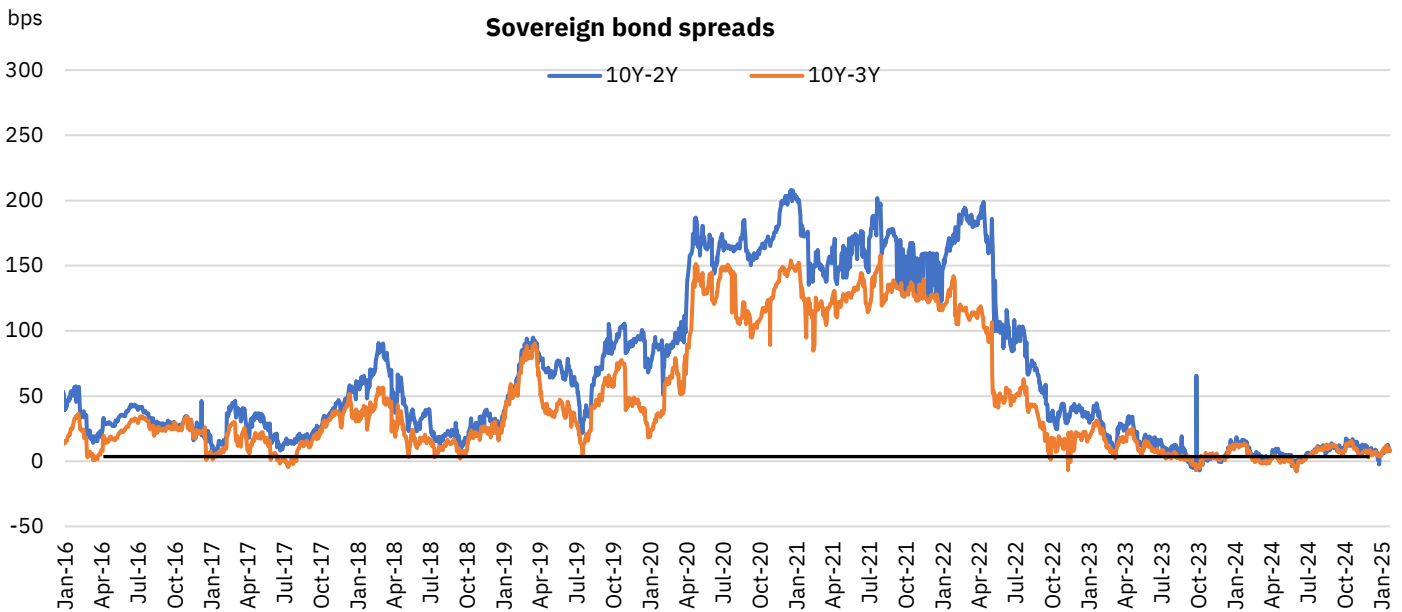
Source: Cogencis, NSE EPR

Figure 178: India 10Y G-sec yield—last one-year trend

Figure 179: India sovereign yield curve


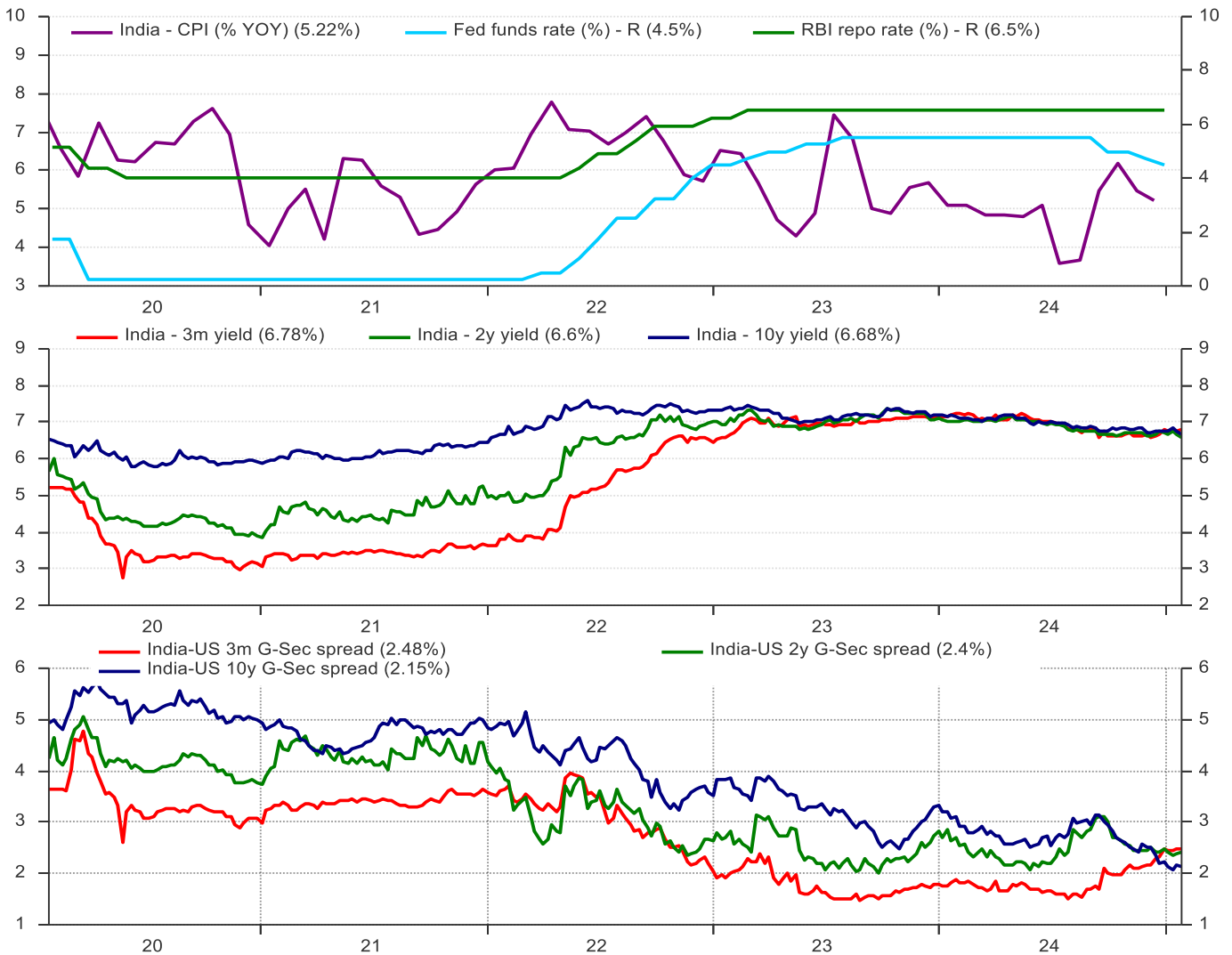
Source: Cogencis, NSE EPR.

Figure 180: Change in sovereign yields across the curve


Source: Cogencis, NSE EPR.

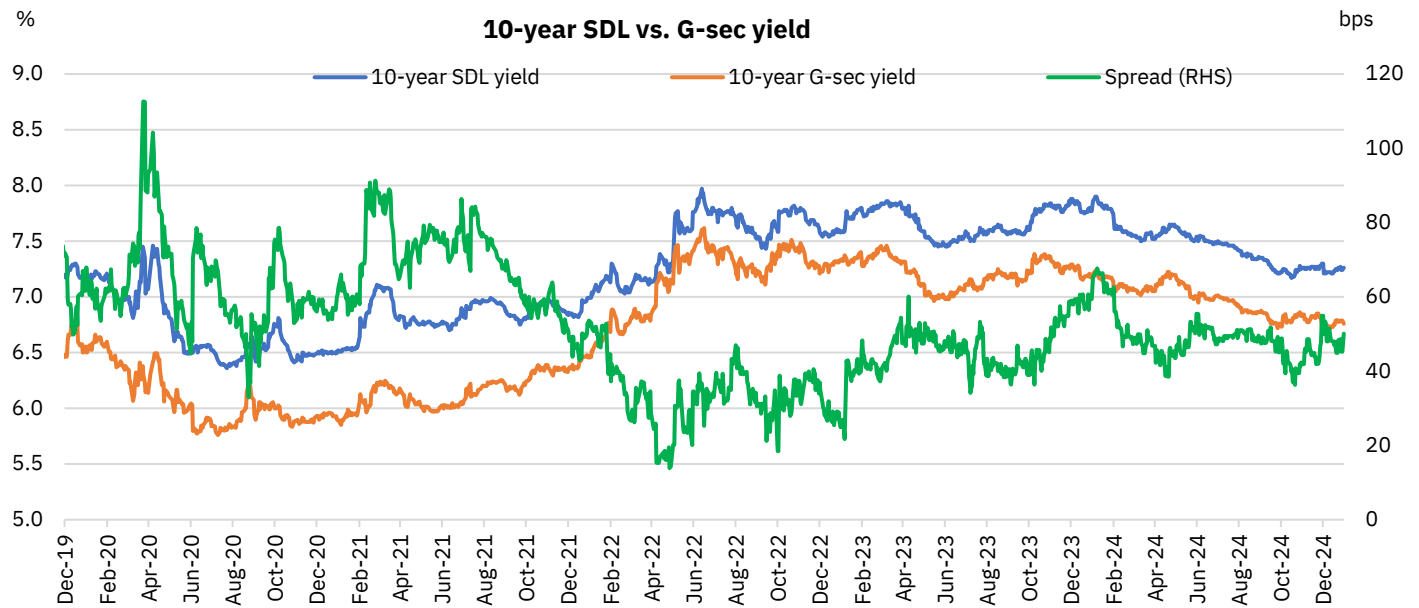
Figure 181: India sovereign bonds term premia


Source: Cogencis, NSE EPR.

Figure 182: Inflation, yields and spreads in India vs. US


Source: LSEG Datastream, NSE EPR.

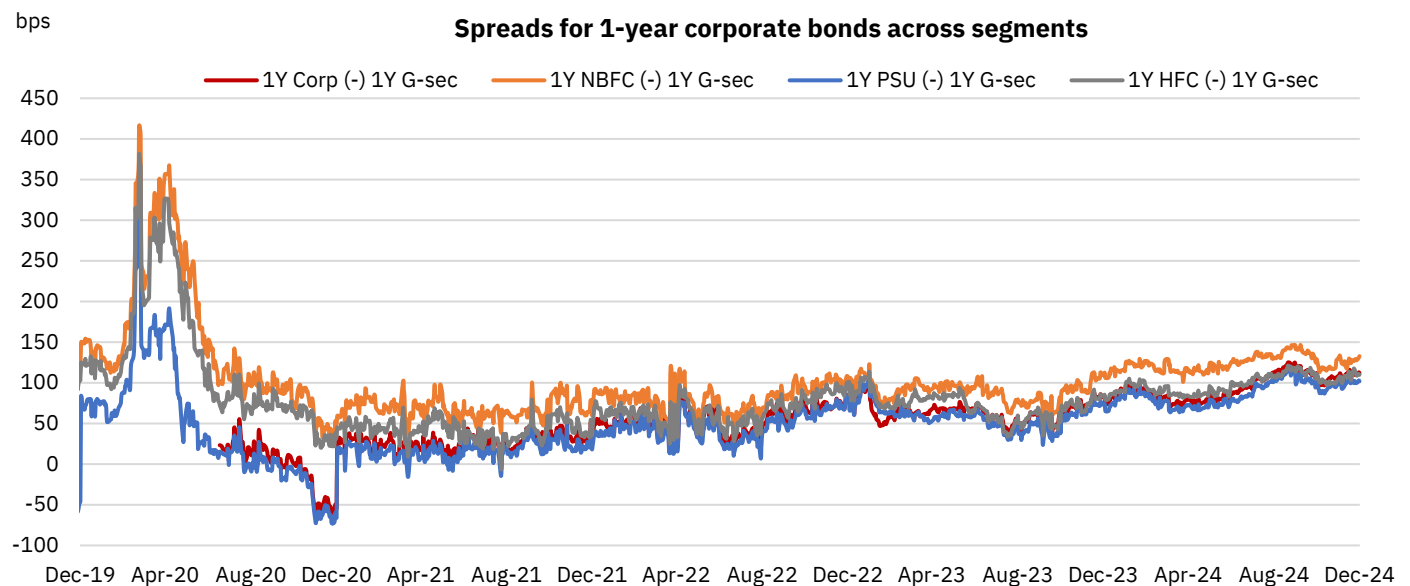
SDL spreads rise amid falling government yields: In 2024, SDL yields tended lower overall, ending at 7.26% from 7.82% at the start of the year, broadly mirroring the downward shift in 10-year G-sec yields (7.20% to 6.76%). However, the spread between the two oscillated notably—initially hovering around 62bps, narrowing to the mid-40s by mid-year, and widening back toward 50–55bps. These fluctuations reflected a confluence of factors. The key driver was the reduced central government borrowing, which fell to Rs 13.58 lakh crore in 2024 (from Rs 15.16 lakh crore in 2023) and helped lower G-sec yields. Meanwhile, state issuances climbed to Rs 10.16 lakh crore (vs. Rs 9.04 lakh crore a year earlier), intermittently placing upward pressure on SDL yields by boosting supply. Additionally, easing domestic inflation trends and accommodative policy signals from the RBI further contributed to the overall decline in yields

Figure 183: Spreads between 10-year SDL and G-sec yields


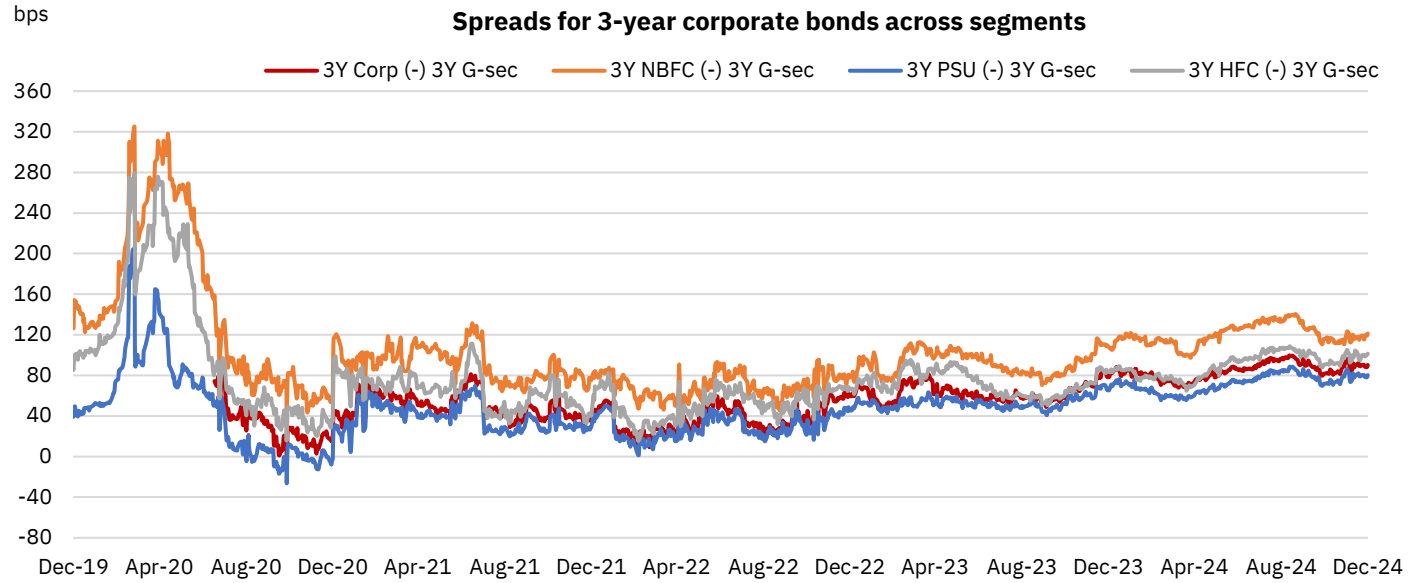
Source: NSE Data and Analytics (NDAL), Cogencis, NSE EPR.

Corporate bond market performance

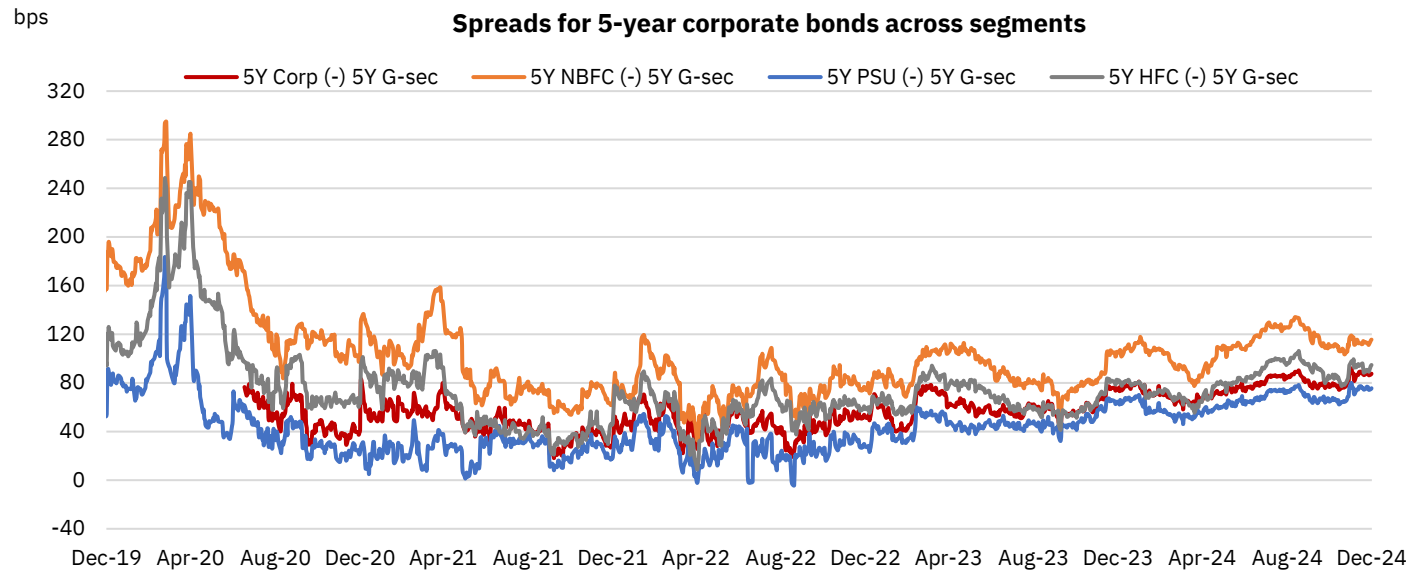
Corporate spreads widened through last year: Corporate bond yields also displayed a gentle downward shift throughout 2024, albeit lower than the decline seen in similar tenor G-secs, leading to widening of spreads. At the short end, 1-year AAA yields started the year around 7.93%, briefly spiking above 8% in February—before settling near 7.79% by December. Longer maturities followed a similar trajectory, with the 10-year AAA yield declining from 7.77% to 7.39%, reflecting reduced risk premiums as inflation stabilized and demand for high-grade credit remained solid. Concurrently, corporate bond issuances surged to Rs 18.17 lakh crore in FY24, up notably from Rs 10.66 lakh crore in FY23 partly attributed to rising demand from insurers—who typically favor longer-dated instruments, even as the supply in FY25 till date has reduced to Rs 6.8 lakh crore.

Figure 184: Spreads for one-year AAA-rated corporate bonds across segments


Source: NSE Data and Analytics (NDAL), Cogencis, NSE EPR.

Figure 185: Spreads for three-year AAA-rated corporate bonds across segments


Source: NSE Data and Analytics (NDAL), Cogencis, NSE EPR.

Figure 186: Spreads for five-year AAA-rated corporate bonds across segments


Source: NSE Data and Analytics (NDAL), Cogencis, NSE EPR.

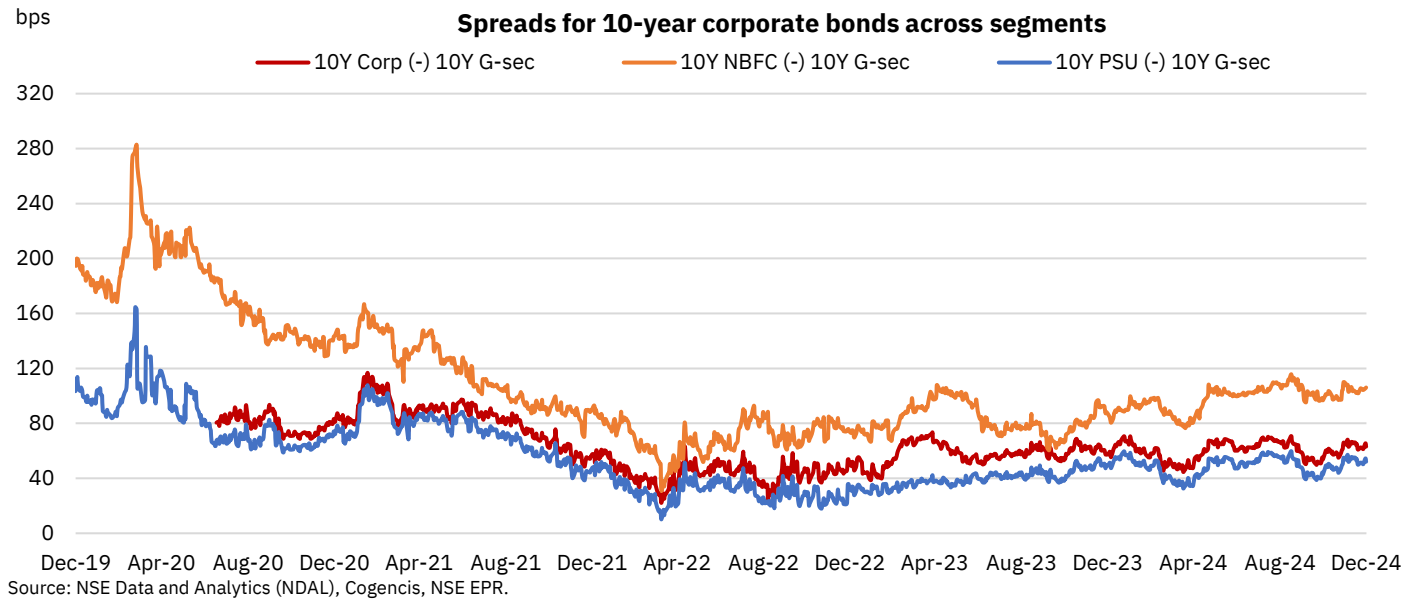
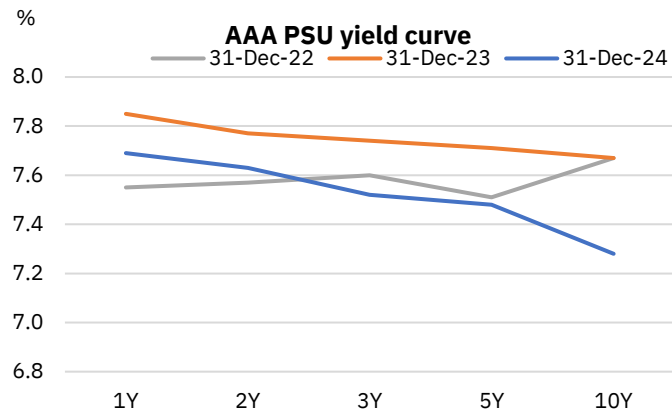
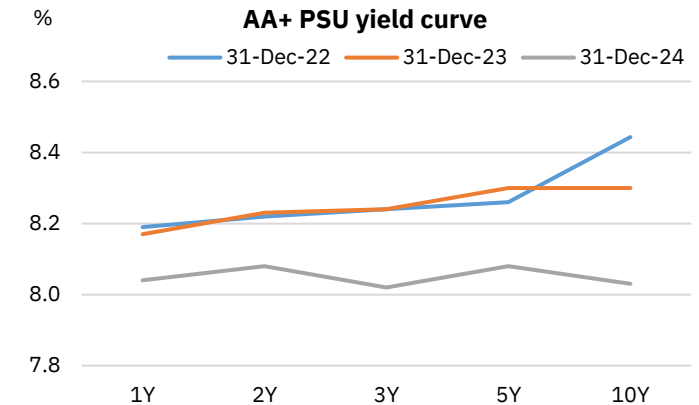
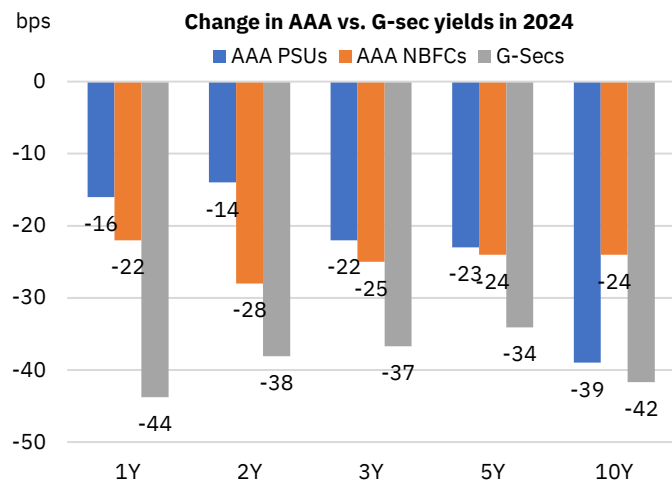
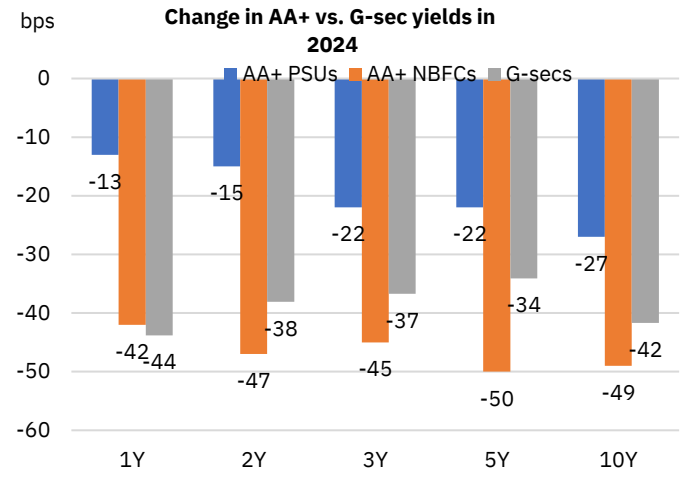
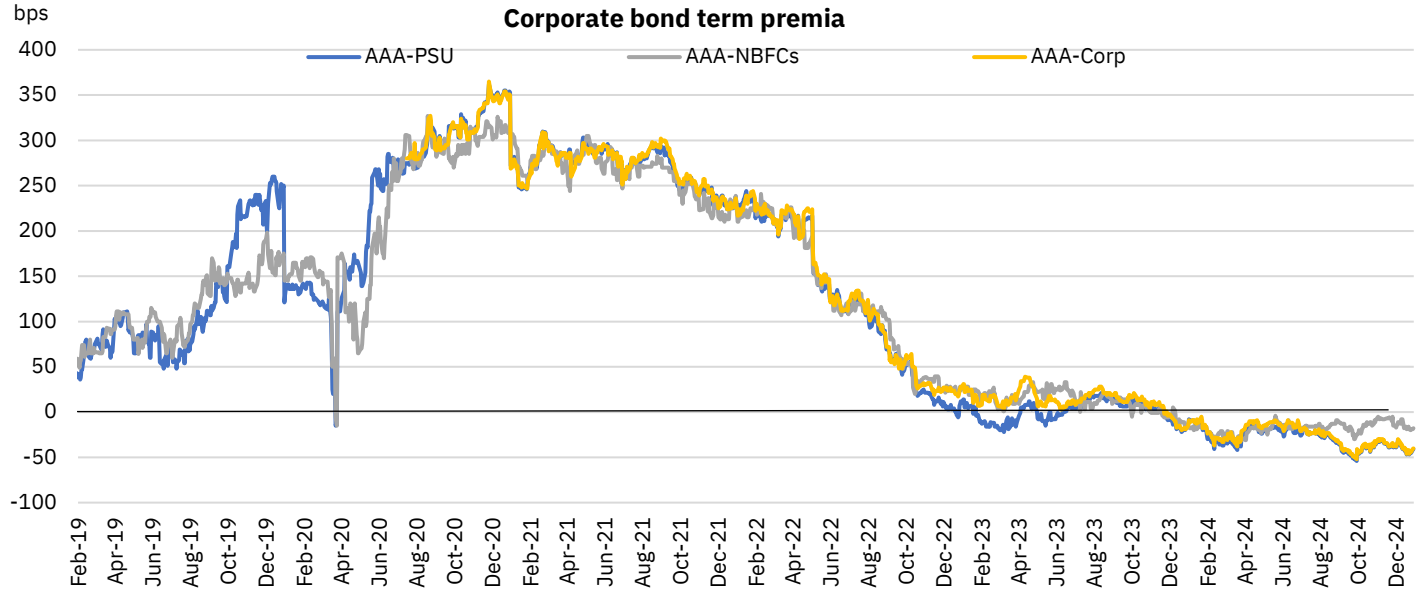
Figure 187: Spreads for 10-year AAA-rated corporate bonds across segments

Figure 188: AAA-rated corporate bond yield curve

Figure 189: AA+ rated corporate bond yield curve

Figure 190: Change in AAA corporate bond and G-sec yields in 2024

Figure 191: Change in AA+ corporate bond and G-sec bond yields in 2024


Figure 192: Corporate bond term premia between 10-year and 1-year yields



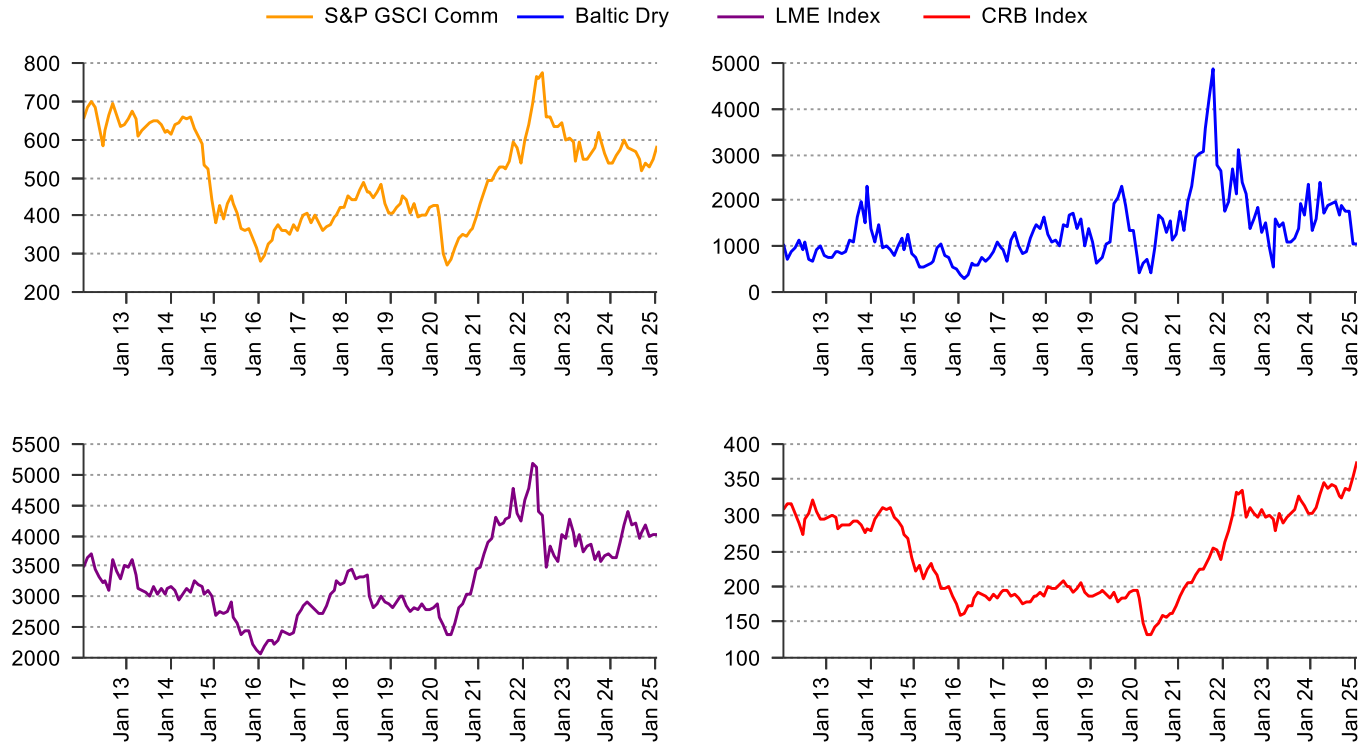
Source: NSE Data and Analytics (NDAL), NSE EPR.

Commodity market performance

Mixed performance in the commodity market: The S&P GSCI Index increased by 2.6% YoY in 2024, despite a decline in the energy sector. The agricultural sector experienced overall declines, while both precious metals and industrial metals showed mixed performances, reflecting varied market dynamics across different commodity groups.

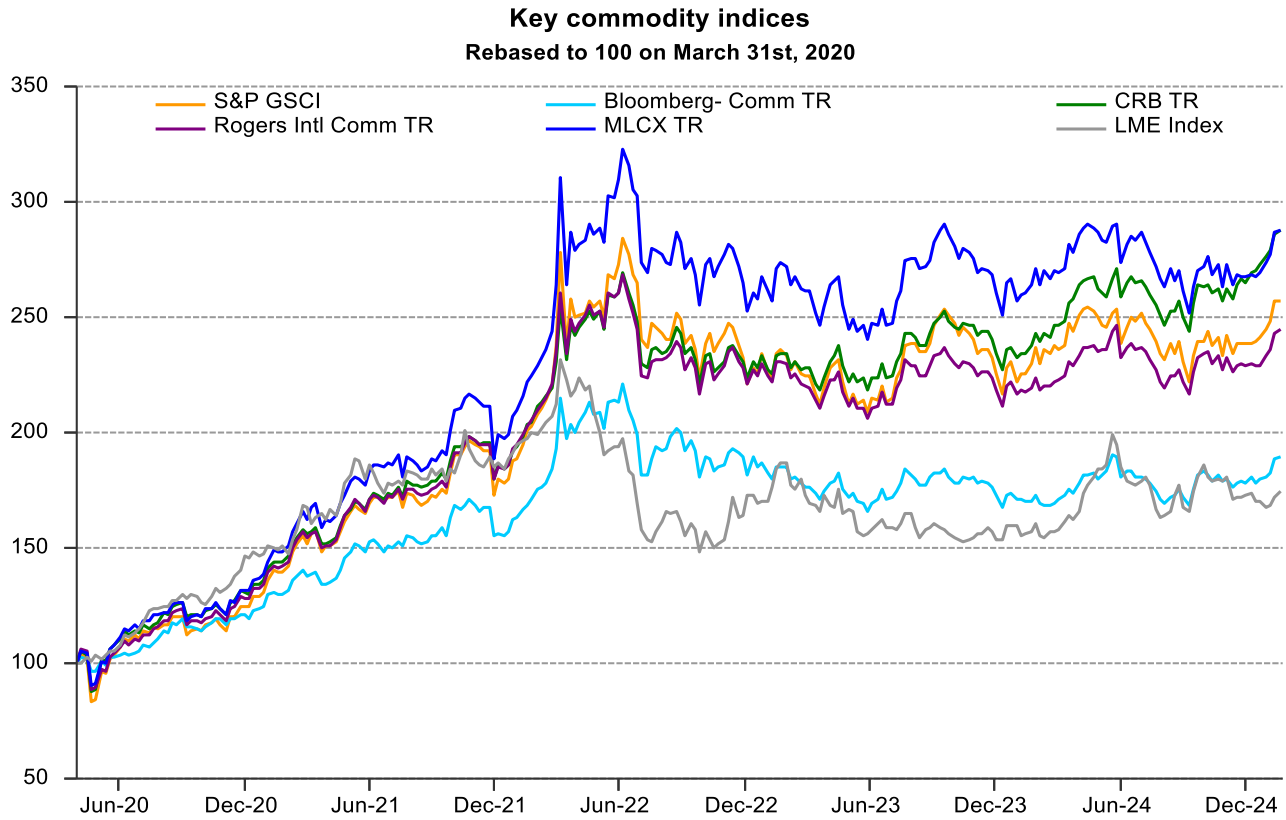
- **Energy Sector:** In December, oil prices experienced a 2.1% MoM increase, though they witnessed a 3.8% YoY decline in 2024. This growth occurred amidst a ceasefire agreement aimed at resolving the Israel-Hamas conflict, while OPEC+ nations continued their efforts to reduce production.
- **Precious Metals:** The performance of precious metals in 2024 was mixed. Gold and silver posted impressive year-on-year gains of 27.1% and 21.5%, respectively, although these gains moderated towards the year's end. These increases were largely driven by central bank purchases, heightened geopolitical tensions, and a surge in investor demand, with rate cuts further enhancing their appeal. In contrast, platinum and palladium faced significant challenges, with declines of 9.2% and 18.8%, respectively. These downturns were primarily attributed to reduced demand, particularly due to the rise of electric vehicles and the growing substitution of platinum in catalytic converters.
- **Industrial Metals:** In 2024, industrial metals demonstrated varied performance, shaped by global economic and sectoral trends. The J.P. Morgan Global Manufacturing PMI ended the year at 49.6 in December, signaling a contraction in manufacturing activity. This slowdown had a notable impact on the metals market. Iron ore prices declined by 27.7% YoY, driven by reduced global steel production and a softening of demand in China's property sector. Nickel prices also fell, reflecting an oversupply from Indonesia. Lead prices decreased by 5.4% YoY, influenced primarily by the strengthening of the U.S. dollar toward the end of the year. Conversely, aluminium prices rose by 7.7% YoY due to a global alumina shortage that emerged in the latter half of the year. Zinc prices increased by 11.9%, supported by concentrate shortages, production cuts by Chinese refiners competing for limited raw materials, significant withdrawals from exchange warehouses, and weak demand from the construction sector.
- **Agricultural Sector:** In 2024, agricultural commodities faced significant price declines, with soybeans experiencing the sharpest drop of 22.7% YoY. This was followed by cotton (-15.9% YoY), raw sugar (-11.1% YoY), and wheat (-11.1% YoY). Corn recorded the smallest annual decline, falling by just 2.6% YoY, marking it as a relative outlier in an otherwise challenging year for the agricultural sector.

Figure 193: Movement in key commodity indices
 (As on January 24th, 2025)

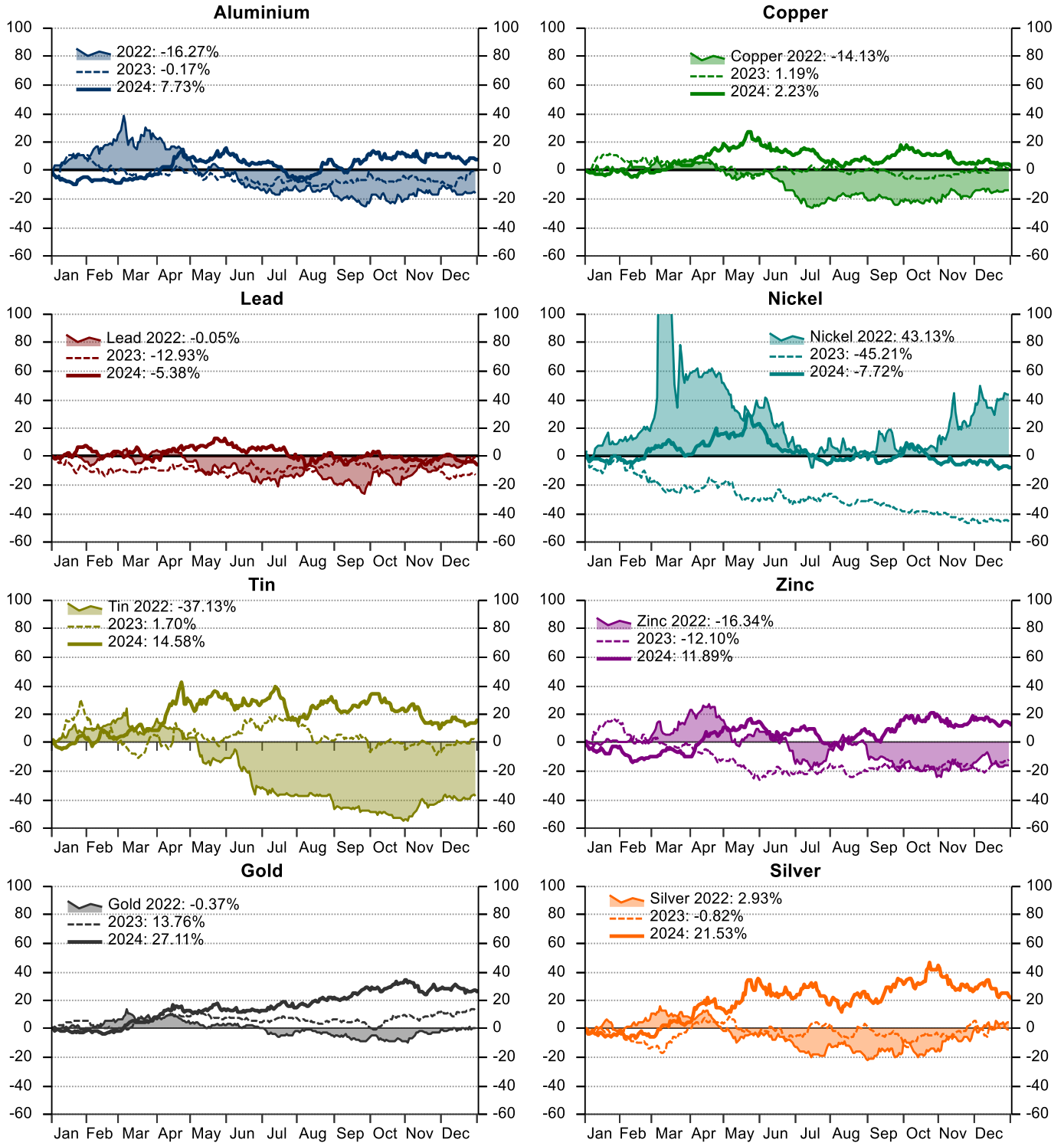


Source: LSEG Datastream, NSE EPR.

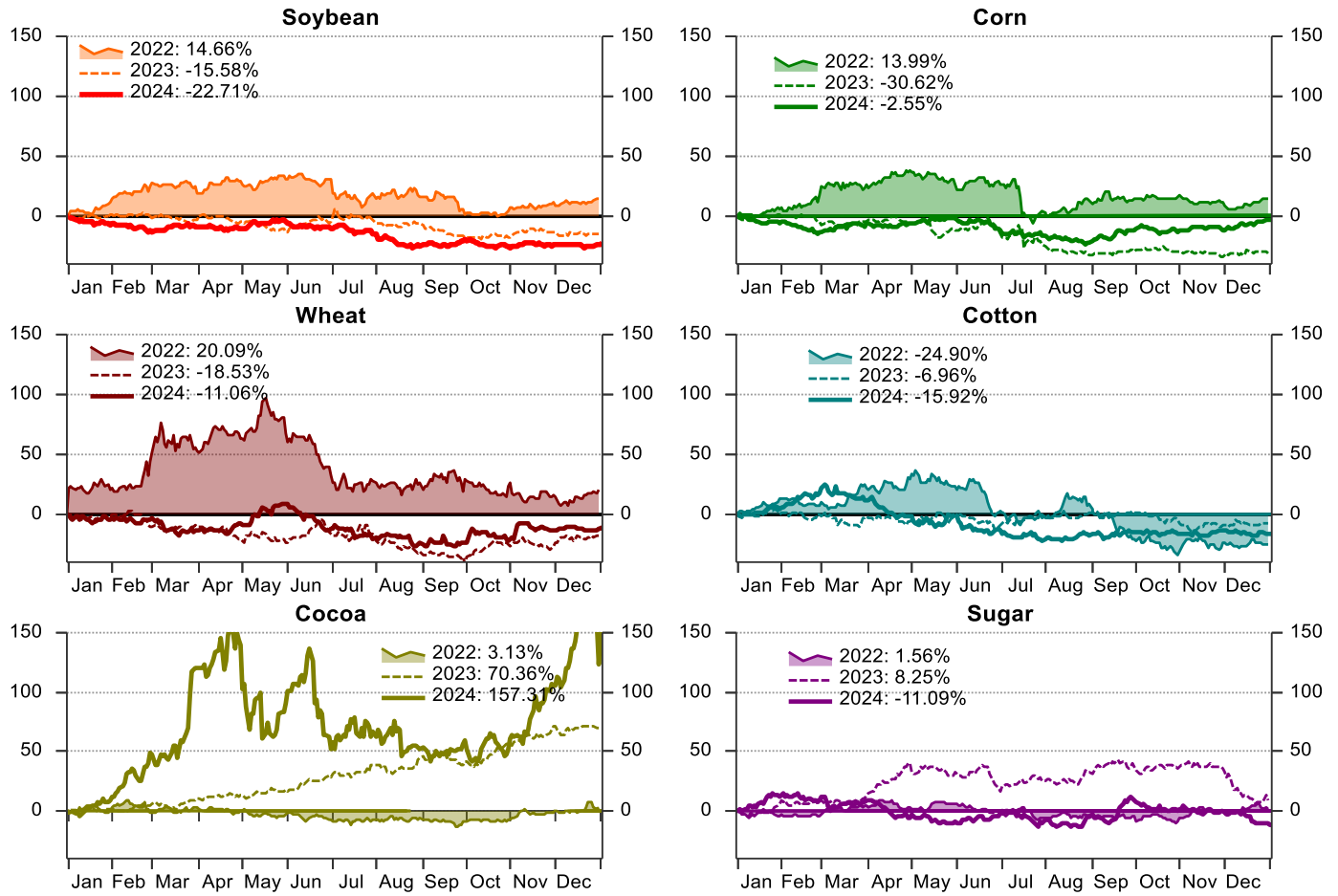
Figure 194: Movement in key commodity indices since 2020

 Rebased to 100 on March 31st, 2020 (As of January 24th, 2025)


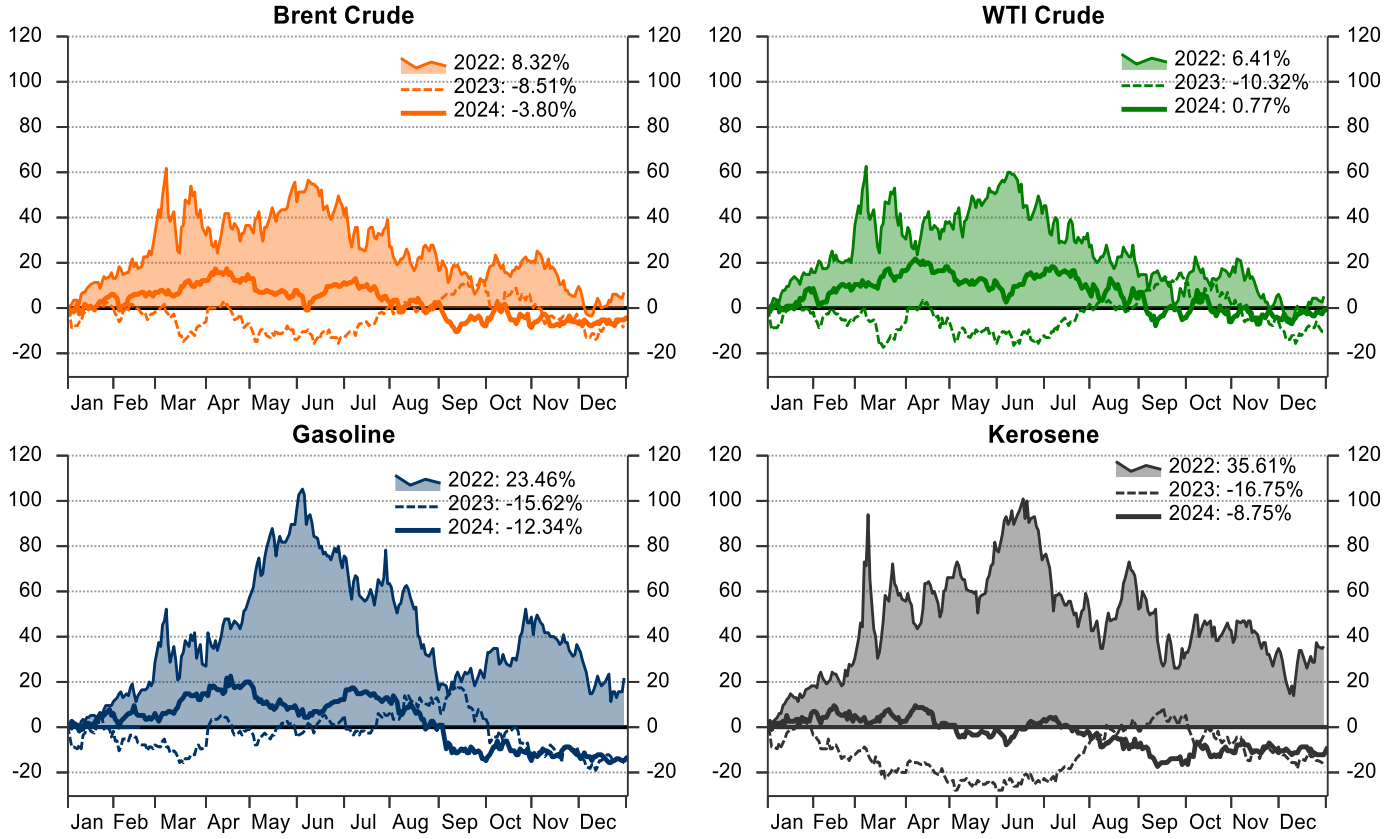
Source: LSEG Datastream, NSE EPR.

Figure 195: Returns of key hard commodities in 2022, 2023 and 2024
Returns of key hard commodities


Source: LSEG Datastream, NSE EPR.

Figure 196: Returns of key agricultural commodities in 2022, 2023 and 2024
Returns of key agri commodities


Source: LSEG Datastream, NSE EPR.

Figure 197: Returns of key energy commodities in 2022, 2023 and 2024
Returns of key energy commodities


Source: LSEG Datastream, NSE EPR.

Table 32: Annual performance across commodities

Annual performance across commodities (Ranked by % change each year)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Palladium 13.3	Lead -2.5	Zinc 60.6	Palladium 57.6	Palladium 19.6	Palladium 52.0	Silver 47.8	Tin 91.7	Nickel 43.1	Gold 13.8	Gold 27.1
Nickel 9.0	Gold -10.5	Brent Crude 54.5	Aluminium 32.4	Gold -1.7	WTI 35.3	Copper 26.0	WTI 55.8	Brent Crude 8.3	Tin 1.7	Silver 21.5
Zinc 5.6	Silver -11.8	Tin 45.3	Copper 30.5	Tin -2.9	Nickel 31.6	Gold 24.8	Brent Crude 51.1	Platinum 7.5	Copper 1.2	Tin 14.6
Aluminium 4.0	Aluminium -17.8	WTI 45.0	Zinc 30.5	Silver -8.6	Brent Crude 24.8	Palladium 22.0	Aluminium 42.2	Palladium 7.5	Aluminium -0.2	Zinc 11.9
Gold -1.8	Tin -24.9	Palladium 20.7	Nickel 27.5	Platinum -14.4	Platinum 22.3	Zinc 19.7	Zinc 31.5	WTI 6.7	Silver -0.8	Aluminium 7.7
Platinum -11.1	Copper -26.1	Copper 17.4	Lead 24.3	Nickel -16.5	Gold 18.7	Tin 19.6	Nickel 26.1	Silver 2.9	Platinum -2.4	Copper 2.2
Tin -13.0	Zinc -26.5	Silver 15.1	Brent Crude 17.5	Aluminium -17.4	Silver 15.2	Nickel 18.7	Copper 25.7	Lead -0.1	Palladium -2.4	WTI 0.8
Copper -13.7	Platinum -28.0	Aluminium 13.6	Gold 12.6	Copper -17.5	Copper 3.4	Aluminium 10.8	Lead 18.3	Gold -0.4	Brent Crude -8.5	Brent Crude -3.8
Lead -15.9	WTI -30.5	Nickel 13.5	WTI 12.5	Lead -19.2	Aluminium -4.4	Platinum 10.0	Gold -4.0	Copper -14.1	WTI -10.4	Lead -5.4
Silver -19.3	Palladium -31.6	Lead 11.3	Silver 6.4	Brent Crude -20.2	Lead -4.7	Lead 3.3	Platinum -10.2	Aluminium -16.3	Zinc -12.1	Nickel -7.7
WTI -45.9	Brent Crude -35.1	Gold 9.0	Platinum 3.2	Zinc -24.5	Zinc -9.5	WTI -21.0	Palladium -10.2	Zinc -16.3	Lead -12.9	Platinum -9.2
Brent Crude -48.9	Nickel -41.8	Platinum 3.5	Tin -5.2	WTI -25.3	Tin -12.0	Brent Crude -21.8	Silver -11.7	Tin -37.1	Nickel -45.2	Palladium -9.2

Source: LSEG DataStream, NSE EPR.

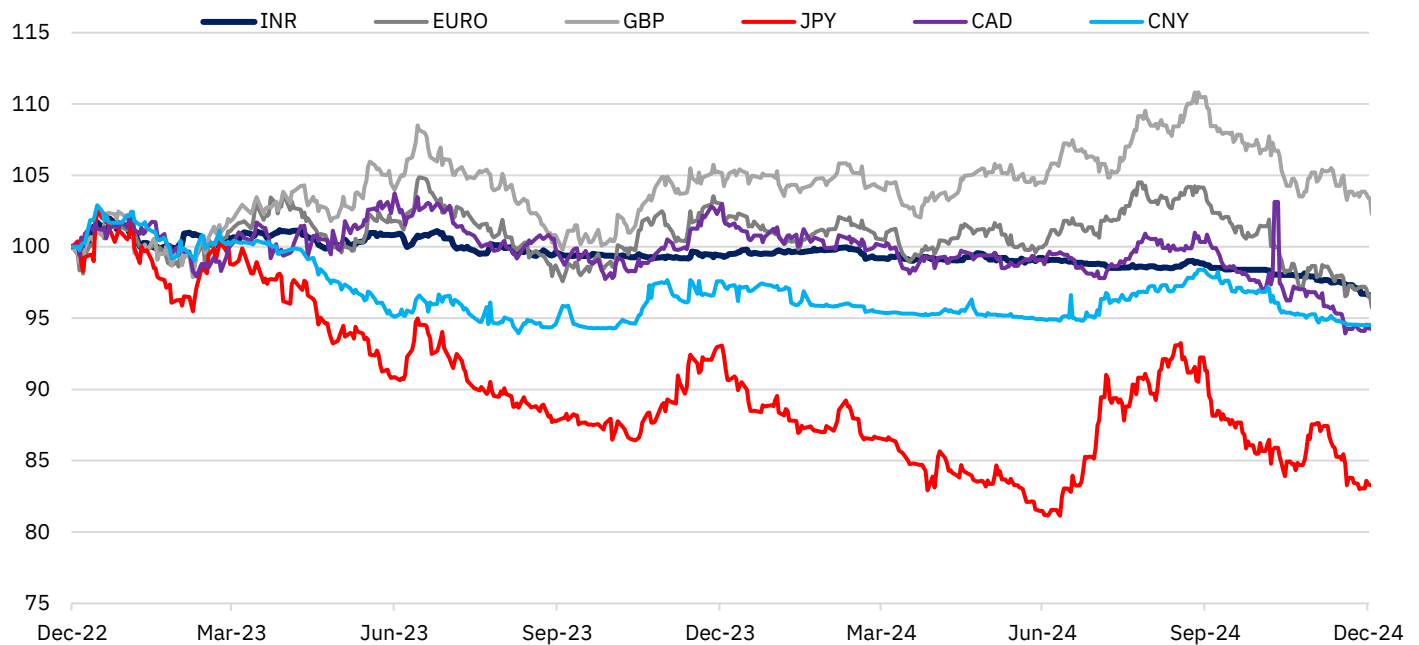
Currency market performance

INR under pressure amid strengthening dollar and economic uncertainty: In 2024, the Indian Rupee (INR) faced persistent pressures, depreciating by 2.8% against the US Dollar and closing the year at a record low of 85.6. The currency's weakness was primarily driven by the sustained strength of the US Dollar Index, which surged 7.1% in 2024, fuelled by elevated US bond yields, and tapered rate cut expectations, heavy FPI outflows in the last quarter of 2024 and widening trade deficit (up 8.2% to US\$262.2bn). Geopolitical uncertainty, including renewed trade concerns following the re-election of Trump as the US President, added to the woes, further supporting the dollar. The downside, however, was contained by active intervention by the RBI in the forex markets, with foreign exchange reserves declining to US\$640bn as of December 27th, 2024 from US\$704bn in September 2024.

Globally, most major currencies depreciated against the US Dollar in 2024 due to its sustained strength. Among developed market currencies, the Japanese Yen saw the steepest decline (-10.3% YoY), followed by the Canadian Dollar (-7.9% YoY), Euro (-6.2% YoY), Chinese Yuan (-2.8%), and Pound Sterling (-1.7%). Emerging market currencies were more volatile, with the Brazilian Real (-21.4%) and Russian Ruble (-18.5%) experiencing the sharpest depreciations, while the Turkish Lira (-16.5%) and Indonesian Rupiah (-4.3%) also weakened significantly.

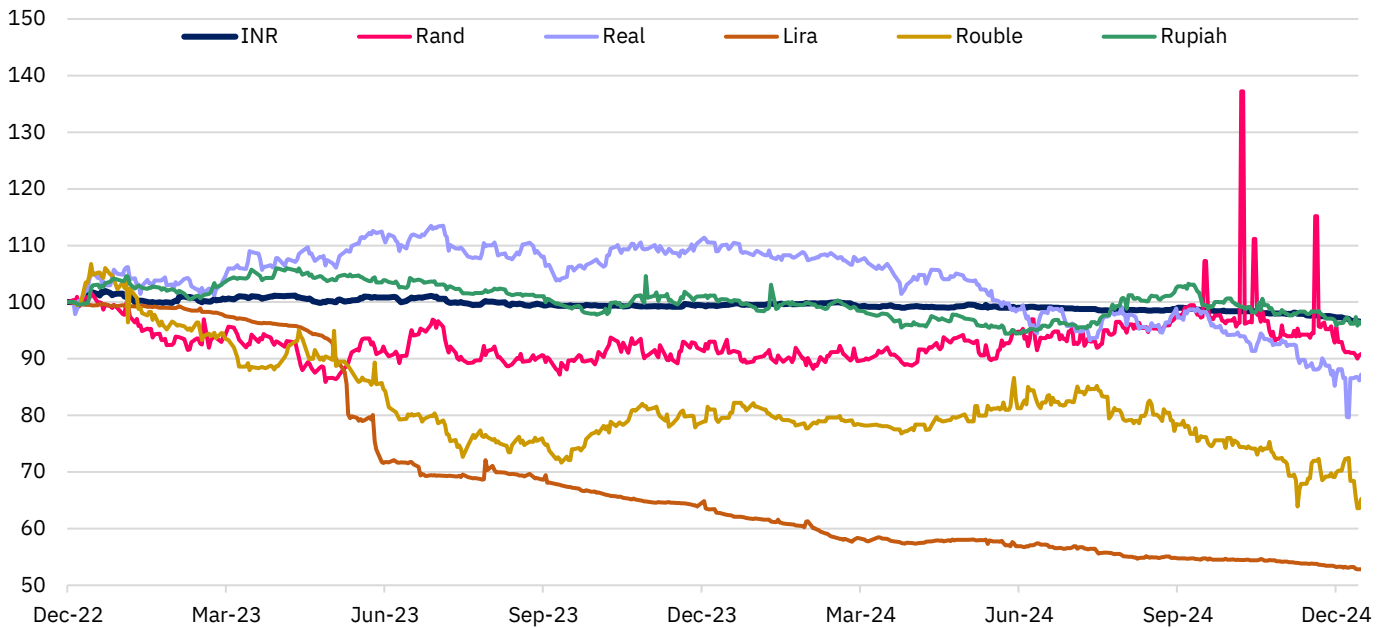
Figure 198: Movement in INR vs. major DM currencies

(Rebased to 100 on December 30th, 2022)



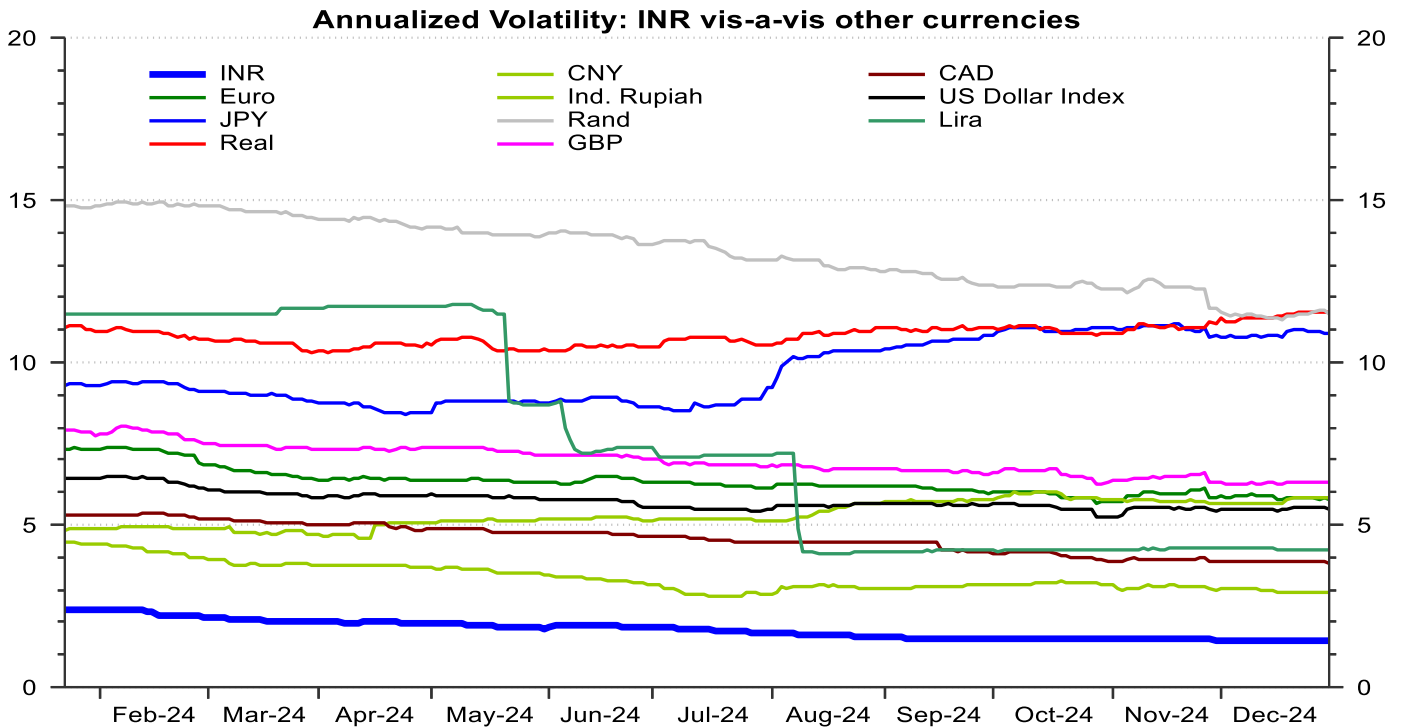
Source: Cogencis, LSEG Workspace, NSE EPR.

Figure 199: Movement in INR vs. major EM currencies

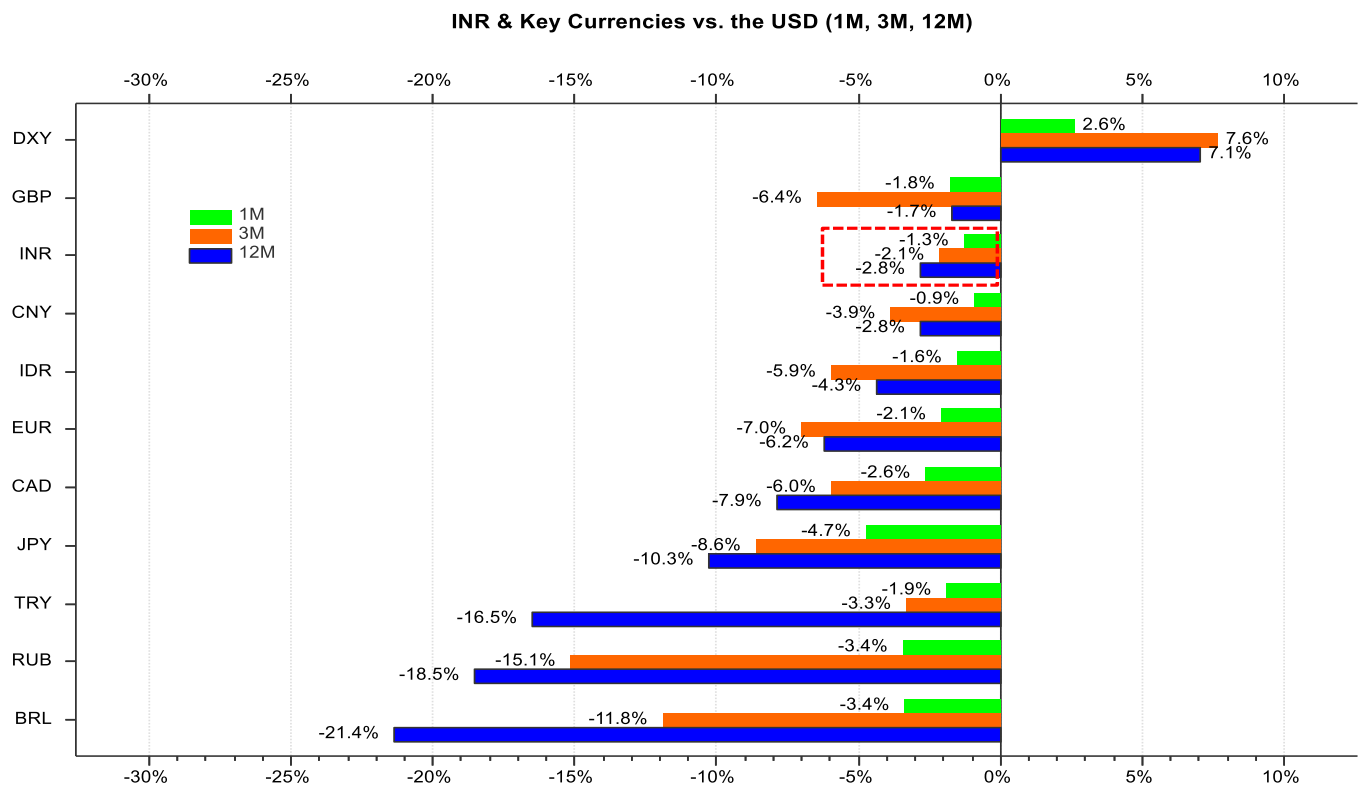
 (Rebased to 100 on December 30th, 2022)


Source: Cogencis, NSE EPR.

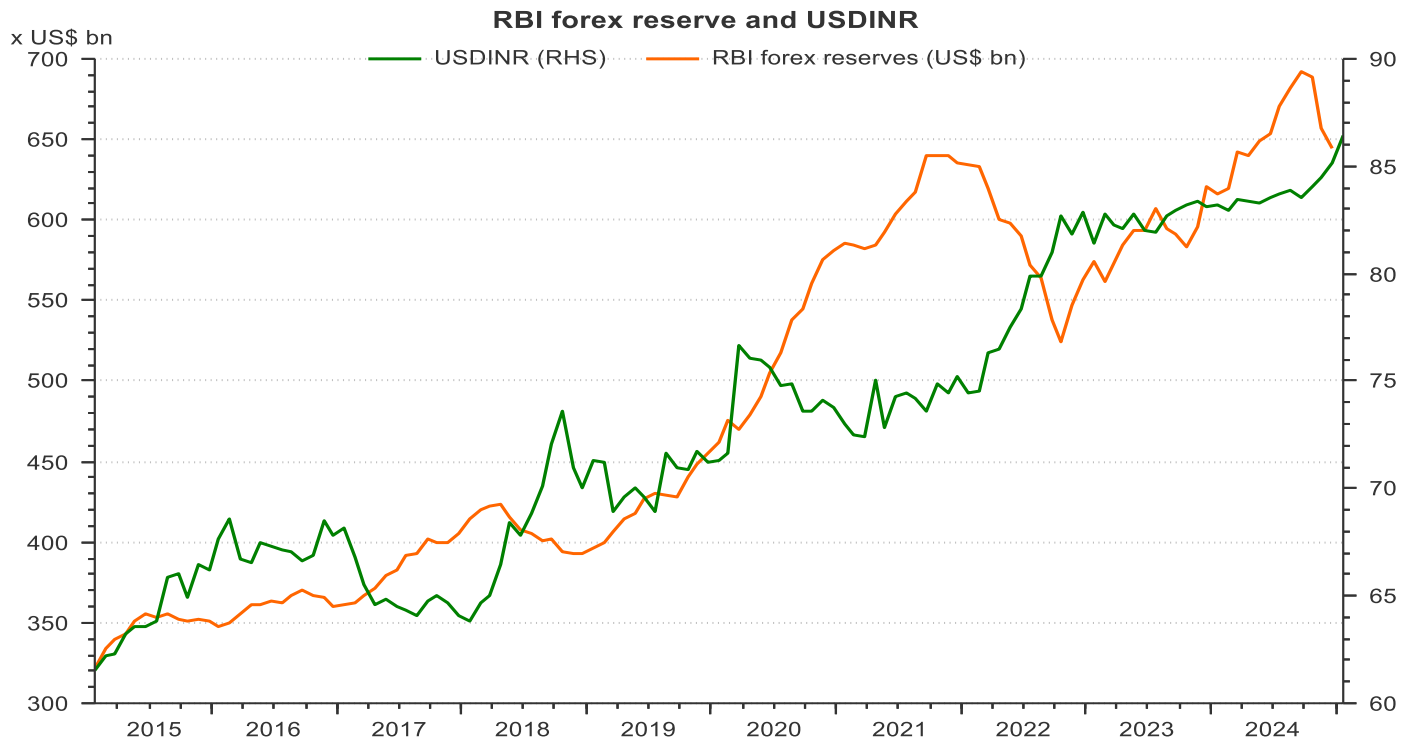
INR volatility lowest among peers despite threats of high tariffs: The INR's average annualized volatility declined sharply to 1.8% in 2024, down from 4.2% in 2023, marking its lowest level in a decade and cementing its position as the least volatile major emerging market currency. This sustained stability underscores India's strong external buffers and proactive forex management by the RBI, despite global headwinds such as the Fed's monetary tightening and geopolitical uncertainties. In contrast, the Russian Ruble exhibited the highest annualized volatility among emerging market currencies at 14.4%, driven by persistent geopolitical tensions and oil price volatility. Other EM currencies, including the South African Rand (13.5%), Brazilian Real (10.9%), and Indonesian Rupiah (5.3%), also displayed reduced volatility in 2024 vis-à-vis 2023 levels. Among developed market currencies, the Japanese Yen recorded the highest annual volatility at 9.7%, a notable increase from prior years, driven by shifts in yield differentials and policy divergence from other central banks. The Pound Sterling and Euro saw more moderate levels of volatility at 7.0% and 6.4%, respectively.

Figure 200: Annualized volatility of INR vs other developed and EM currencies


Source: LSEG Workspace, NSE EPR.

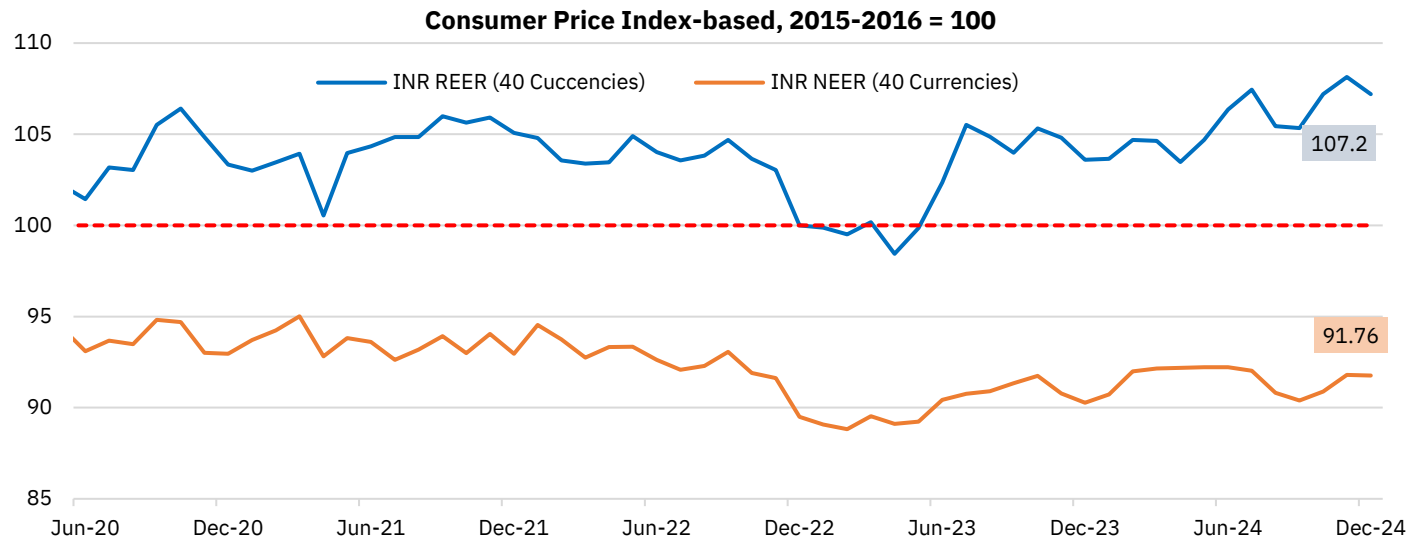
Figure 201: Change in INR vs other major currencies


Source: LSEG Workspace, NSE EPR.

Figure 202: RBI forex reserves and USDINR


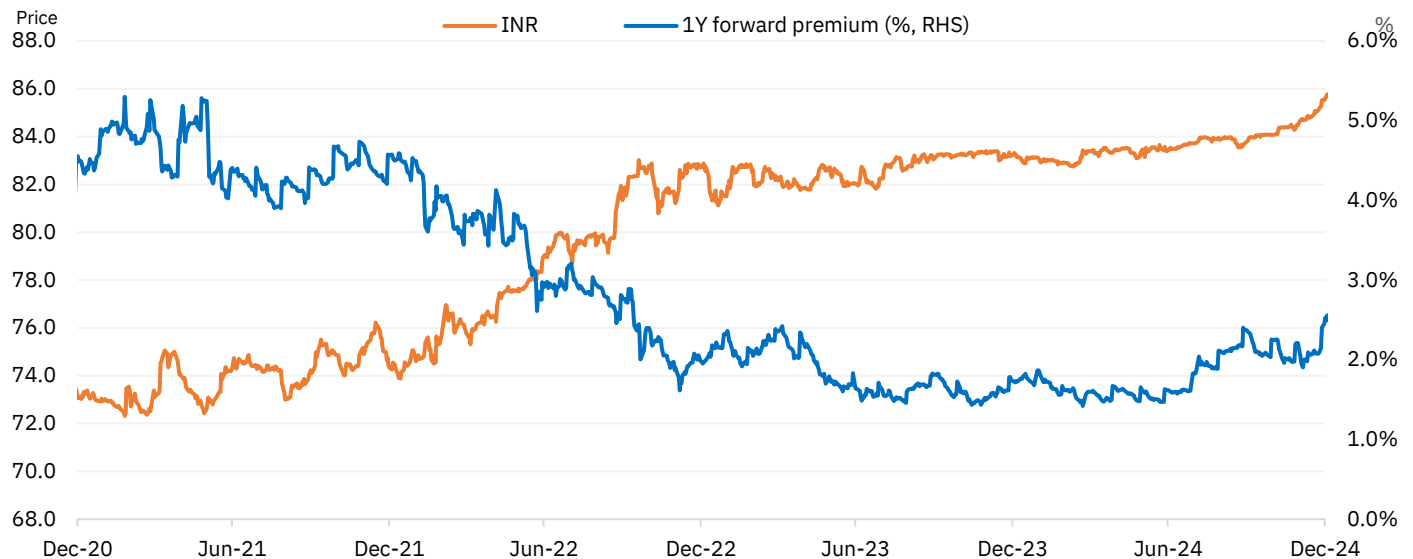
Source: LSEG Workspace, NSE EPR.

INR remained overvalued during the whole of last year: Over the past year, the INR continued to be overvalued, with the 40-currency trade-weighted Real Effective Exchange Rate (REER) rising to 107.2 (+3.5% YoY). Meanwhile, the Nominal Effective Exchange Rate (NEER) increased by 1.7% YoY to 91.8 (up from 90.27 in Dec'23). On a sequential basis, the rupee saw a marginal depreciation of 94bps in REER and 4bps in NEER. The divergence between REER and NEER reflects a favourable inflation differential, as India's inflation has been relatively lower than that of its trading partners, leading to real appreciation despite nominal depreciation trends. This persistent overvaluation of REER underscores growing real exchange rate pressures, which can reduce India's export competitiveness by making goods relatively more expensive in global markets while making imports cheaper. Such pressures could widen the trade deficit, especially in sectors sensitive to exchange rate movements, and weaken external sector resilience in the face of global shocks.

Figure 203: Real and nominal effective exchange rates of INR


Source: LSGE Workspace, NSE EPR.

One-year forward premium remains stable: The annual trend of one-year forward premiums for the Indian Rupee (INR) from 2021 to 2024 reveals a steady decline, reflecting changing global and domestic monetary dynamics. Starting at 4.5% in 2021, as India maintained an accommodative monetary stance during the pandemic. However, a sharp drop to 3.2% in 2022 and further decline to 1.8% in 2023 and stabilisation in 2024. Despite these declines, the stabilisation of premiums in 2024 reflects India's robust macroeconomic fundamentals, improved forex reserves, and confidence in the rupee, demonstrating a balance between domestic stability and external monetary pressures.

Figure 204: USDINR and 1-year forward premium


Source: Cogencis, NSE EPR.

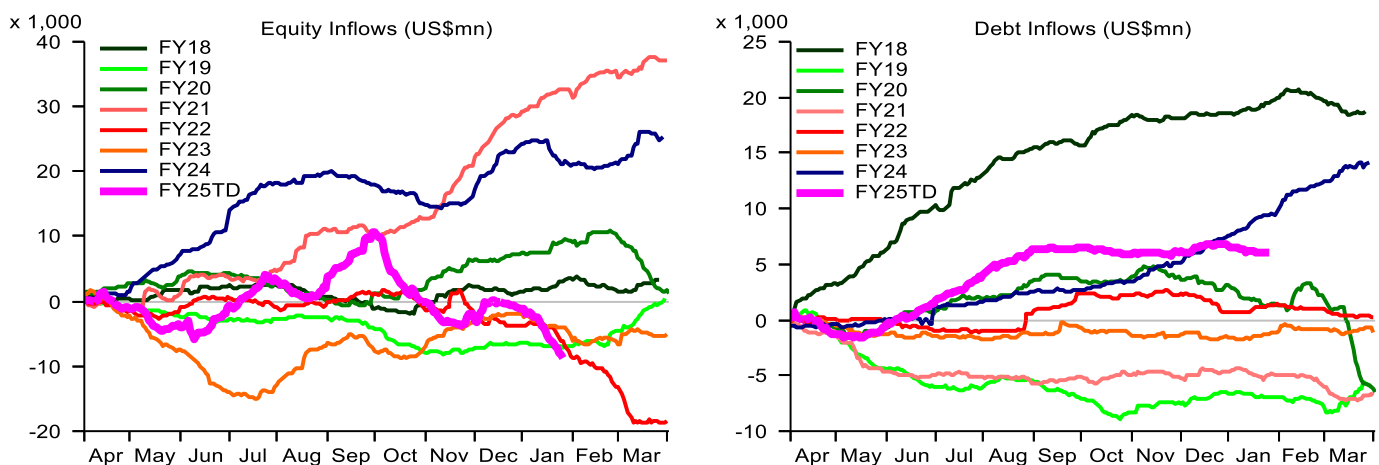
Institutional flows across market segments in India

FPI activity remained volatile in Indian equities in 2024....: FPIs exhibited fluctuating activity in Indian equities in 2024, reflecting shifting global and domestic dynamics. After starting off the year on a bleaker and volatile note, FPIs turned strong buyers of Indian equities in June and remained so until September 2024, injecting a total of US\$14.8 bn during this period, buoyed by political stability after NDA’s victory for the third consecutive term, strong economic landscape, and rising rate cut expectations in the US. The buying spree, however, was short lived, with the month of October seeing record-high monthly outflows of US\$11.1bn, dampened by receding rate cut expectations in the US after Trump’s victory, rising global trade uncertainty, slowdown in corporate earnings and elevated valuations. The trend continued in November, with net outflows in Oct-Nov almost entirely reversing the inflows seen in the previous four months, translating into total net inflows of US\$ 124m in 2024. The selling spree has further intensified in the new year, with FPIs being sellers in 17 out of the 18 trading days in January thus far (As of January 24th, 2024), translating into net outflows of US\$7.4bn.

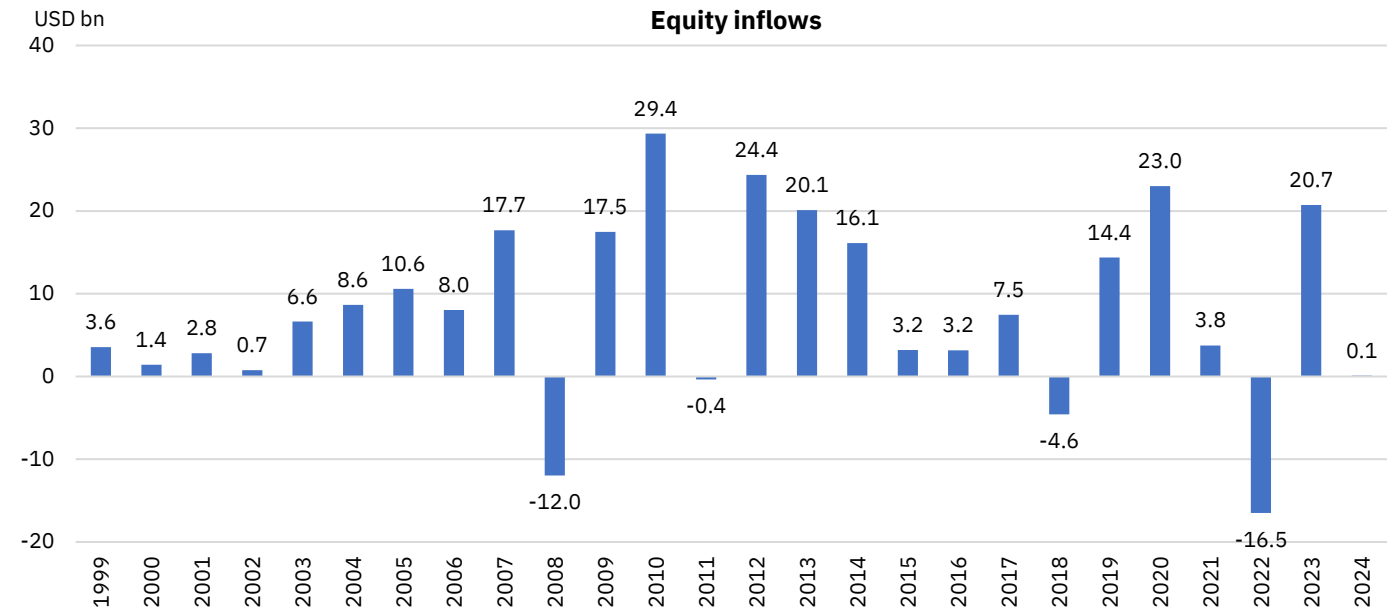
...While debt markets saw a rebound in FPI buying: The domestic fixed income markets saw a significant improvement in buying activity by FPIs in 2024, primarily benefiting from inclusion of Indian government bonds in global indices. Further, the easing inflation trajectory and signs of growth slowdown raised expectations of rate cut in the second half, with the Centre’s fiscal consolidation efforts providing additional support, partly offset by deteriorating interest rate differential with the US and depreciating rupee. Unlike equities, FPIs were buyers of Indian debt in 10 out of 12 months, translating into total net inflows of US\$13.3bn in the entire year, significantly higher than USD 8.3 bn in 2023 and the highest since 2018. The new year, however, has started on a softer note, with FPIs offloading a net amount of US\$511.1 m in the month thus far (As of January 24th, 2025).

Figure 205: Net inflows by FIIs in Indian equity and debt markets

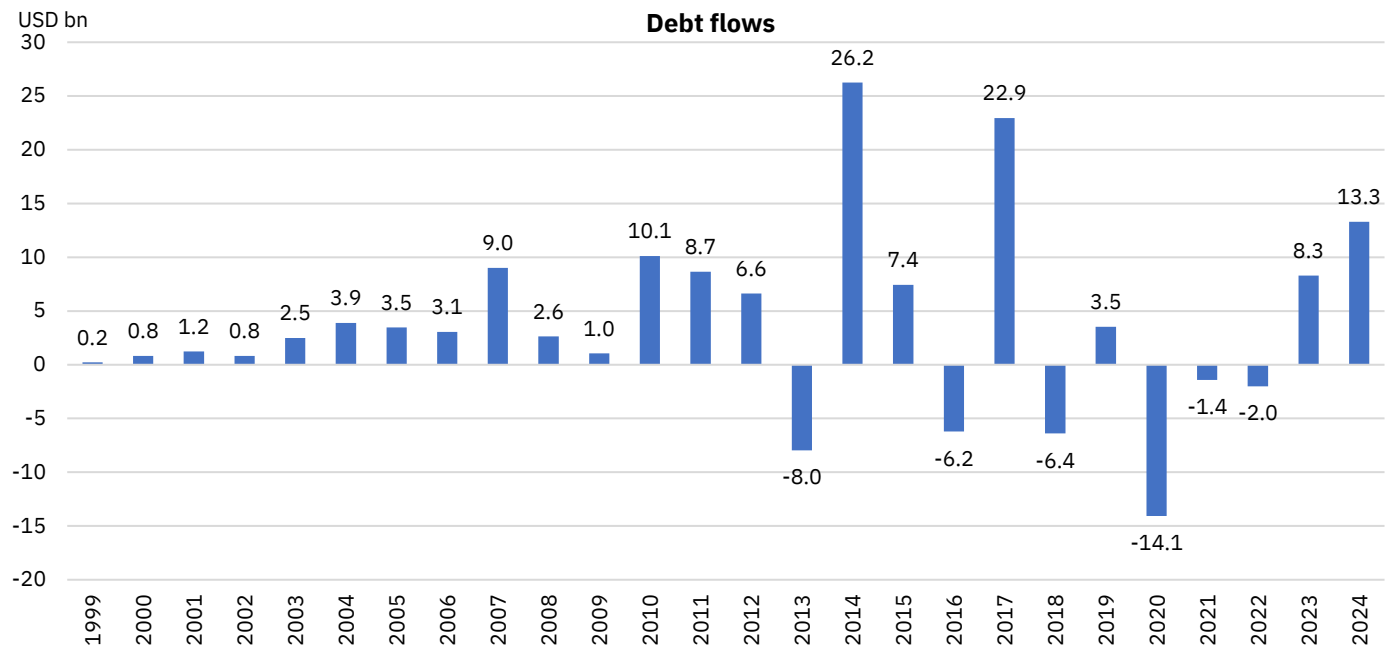
Cumulative FII net inflows over last eight years (FY)



Source: LSEG Datastream, NSE EPR.

Figure 206: Net inflows by FIIs in Indian equity markets


Source: LSEG Datastream, NSE EPR.

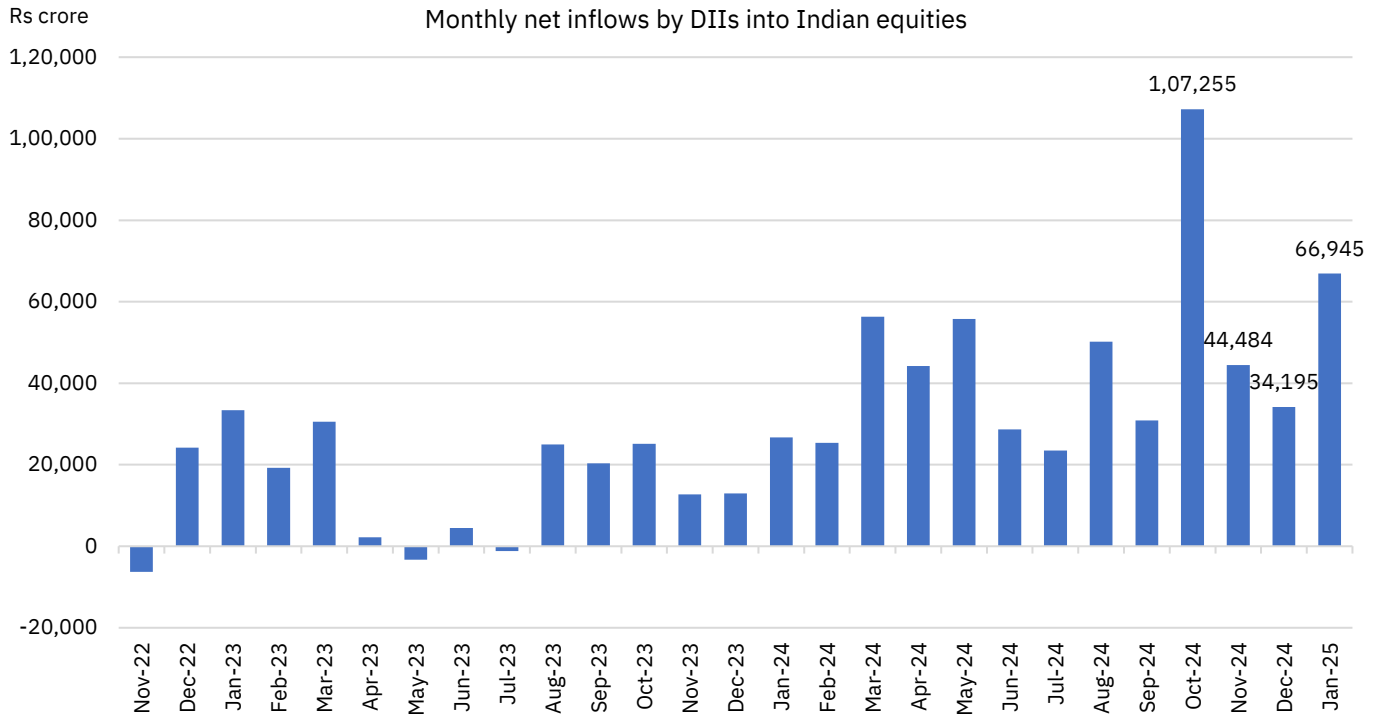
Figure 207: Net inflows by FIIs in Indian debt markets


Source: LSEG Datastream, NSE EPR.

DIIs injected record net investments in Indian equities in 2024: DIIs have been net buyers of Indian equities on a consistent basis since August 2023 with a record monthly net investment of Rs 1.1 lakh crore (US\$ 12.8 bn) in October 2024, in turn providing a much-needed downside support to markets. On a yearly basis, DIIs have remained net buyers for the fourth year in a row, with record net investments of Rs 5.3 lakh crore (US\$ 63bn) in 2024, surpassing the combined net inflows of the previous two years. Within DIIs, domestic mutual funds injected a net amount of Rs 4.3 lakh crore (US\$51.9bn) in 2024, benefiting from resilient participation by individual investors via the SIP route. Indian debt markets, however, have seen outflows amounting to Rs 3.7 lakh crore (-US\$43.8bn) in 2024, reflecting the slowdown in incremental mobilization into debt funds

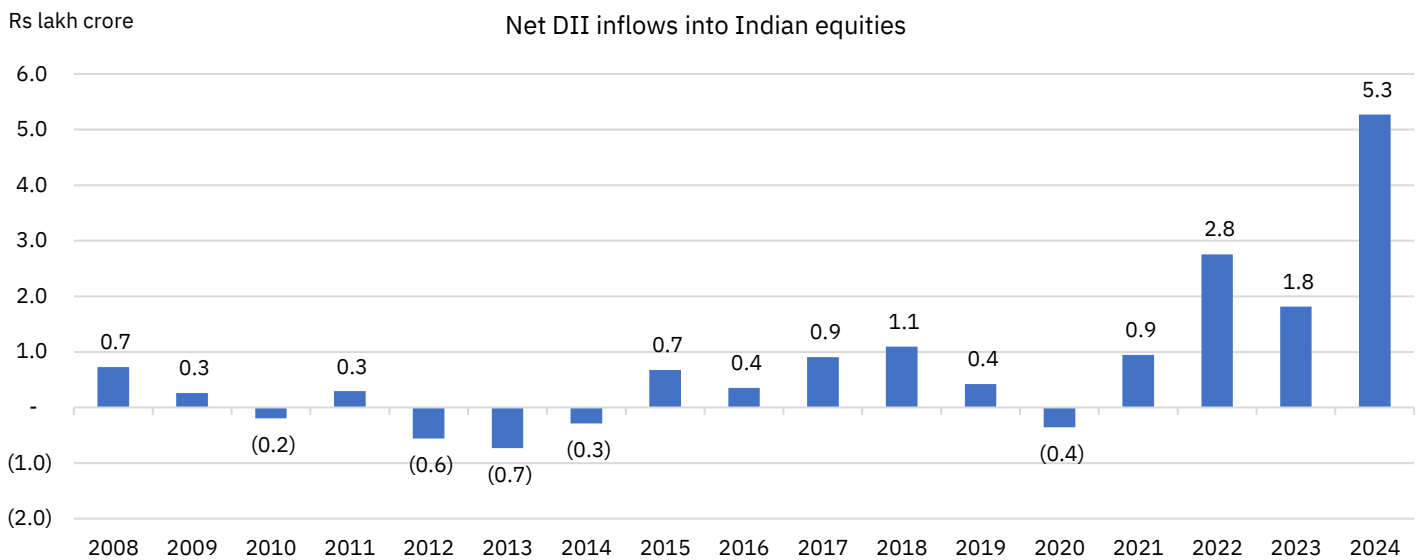
after the revision in taxation rules for debt MFs effective April 1st, 2023, which led to the removal of Indexation benefit on long-term capital gains.

Figure 208: Monthly net inflows by DIIs in Indian equity markets



Source: LSEG Datastream, NSE EPR. Data for January is as of January 24th, 2025.

Figure 209: Annual net inflows by DIIs in Indian equity markets

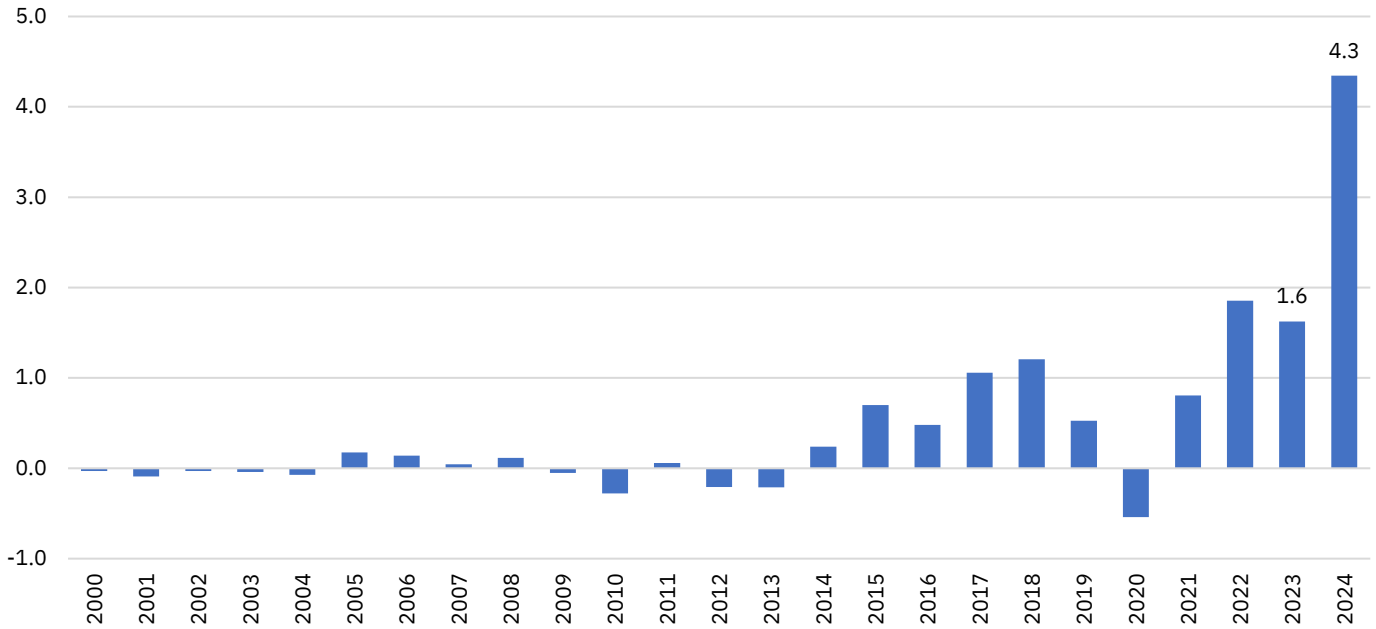


Source: LSEG Datastream, NSE EPR.

Figure 210: Annual net inflows by domestic mutual funds in Indian equity markets

Rs lakh crore

Net DMF inflows into Indian Equity

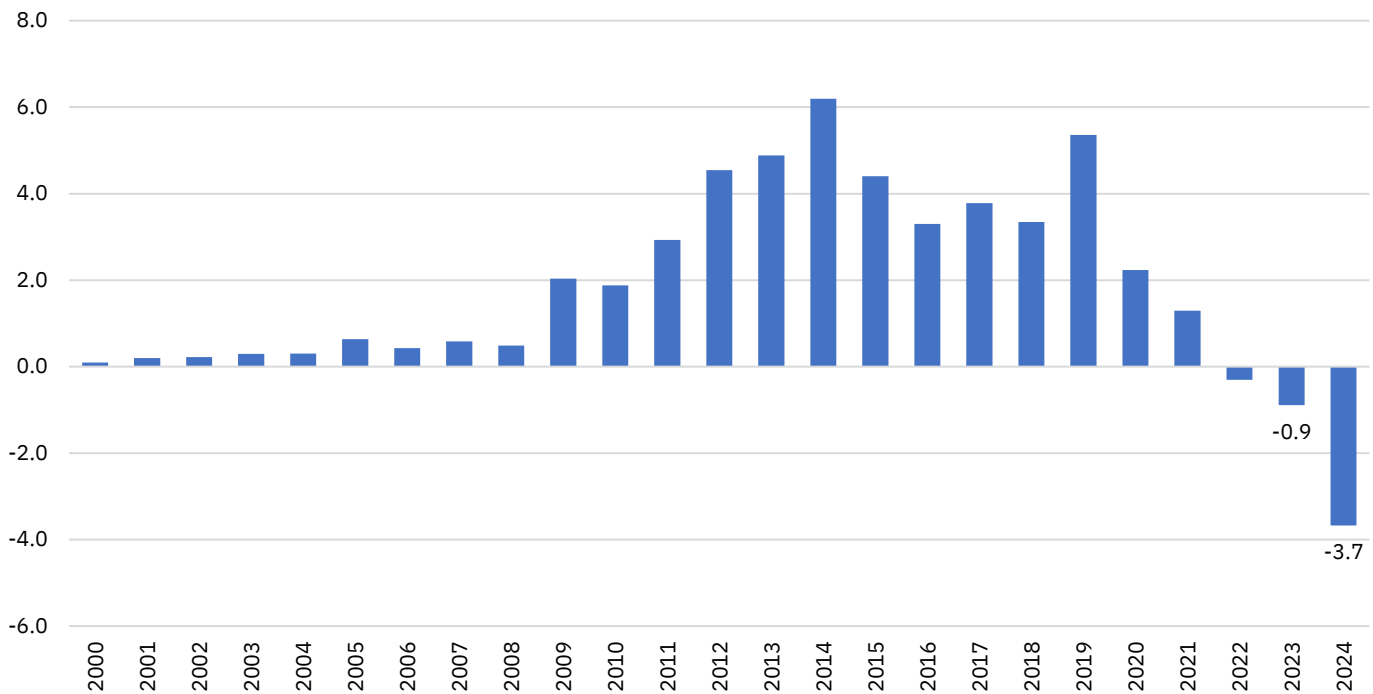


Source: CMIE Economic Outlook, NSE EPR.

Figure 211: Annual net inflows by domestic mutual funds in Indian debt markets

Rs lakh crore

Net DMF inflows into Indian Debt



Source: CMIE Economic Outlook, NSE EPR.

Primary markets

Market Statistics: Fund mobilisation

Fund raised through IPO stood at a record level in 2024: The fund mobilization landscape in 2024 witnessed significant growth, with total fundraising reaching Rs 17.9 lakh crore, a robust 32% increase from Rs 13.6 lakh crore in 2023. Capital raised through IPO listings (including fresh issues and Offer for Sale) on the Mainboard surged to Rs 1.6 lakh crore (+224% YoY) in 2024, the highest ever in annual terms. Notably, the three largest IPOs by size namely Hyundai Motors India Ltd, Swiggy Limited and NTPC Green Energy limited, accounted for ~31% of the total funds raised, totaling to ~Rs 49,000 crore in 2024. NSE Emerge platform also demonstrated impressive growth, with funds raised increasing by 112% to Rs 7,348 crore—the highest amount raised in annual terms since the inception of the SME platform in 2012.

Follow-on issues, that include follow-on public offers (FPOs) and rights issues, also witnessed a substantial increase in 2024. Companies raised Rs 18,177 crore through FPOs, while equity issuance through rights rose significantly by 181% to Rs 22,494 crore in 2024. Notably, fund raised through preferential allotments saw a modest increase of 5%, reaching Rs 55,801 crore. Remarkably, funds raised by listed companies through qualified institutional placements (QIPs) witnessed a notable rise of 156% to Rs 1.3 lakh crore. On the secondary market front, companies raised Rs 29,554 crore through Offer for Sale (OFS) route, reflecting a 57% increase from Rs 18,811 crore in 2023. In total, the equity markets collectively raised Rs 4.3 lakh crore (+131% YoY) in 2024.

The debt market exhibited strong performance as well, with total fund mobilized expanding by 16% to Rs 13.4 lakh crore from Rs 11.5 lakh crore in 2023. Commercial Papers (CPs) issuances stood at Rs 7.3 lakh crore, rising by a strong 23% YoY, while fund raised through Non-Convertible Debentures (NCDs) through private placements increased by 10% to Rs 6.1 lakh crore in 2024. On the contrary, public NCDs saw a notable decline of 46%, with only Rs 5,365 crore raised during the year.

Table 33: Annual trend of resource mobilisation through equity and debt in the last two calendar years

Segment (Rs crore)		2024	2023	Change (%)
IPO Listing (Fresh listing + OFS)	Mainboard	1,59,524	49,273	224%
	Emerge	7,348	3,469	112%
	FPO	18,177	-	-
Follow-on issues (Mainboard + Emerge)	Rights	22,494	8,017	181%
	Preferential allotment	55,801	53,158	5%
	QIPs	1,34,417	52,428	156%
Secondary markets	OFS	29,554	18,811	57%
Total equity raised		4,27,316	1,85,155	131%
Business Trust	InvITs	20,668	14,136	46%
	REITs	4,728	5,905	-20%
Total business trusts raised		25,396	20,041	27%
Debt	CPs	7,27,252	5,90,015	23%
	NCDs (Private)	6,06,956	5,50,163	10%
	NCDs (Public)	5,365	10,006	-46%
Total debt raised		13,39,572	11,50,184	16%
Total fund mobilisation		17,92,284	13,55,380	32%

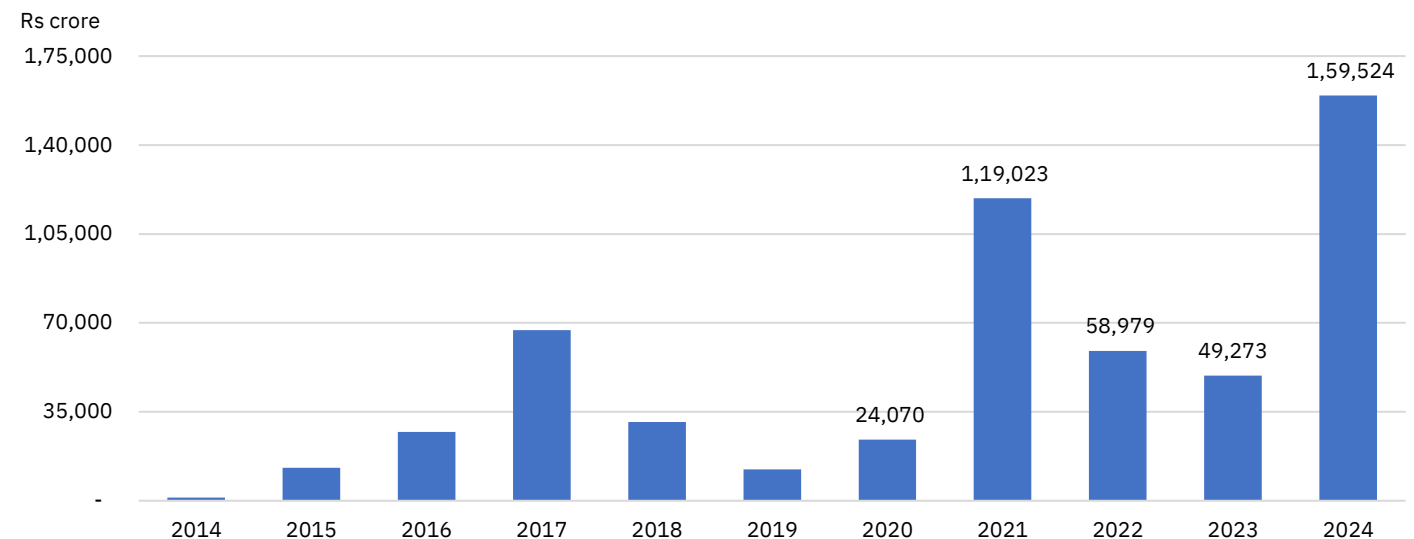
Source: NSE EPR. Note: Amount raised through debt issuances include reissuances of debt securities.

Table 34: Monthly trend of fund mobilisation through equity and debt in 2024

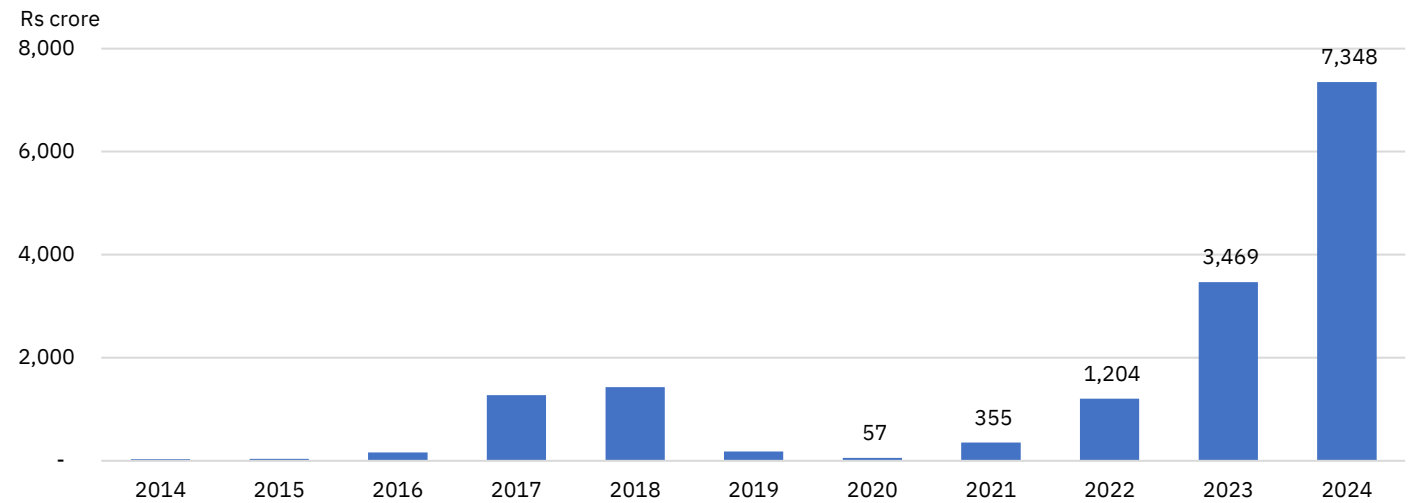
Segments	Modes	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Equity (Main Board) - Primary markets	Fresh listing	1,512	5,334	1,551	430	3,413	777	3,113	8,954	8,018	4,816	20,066	6,322	
	OFS	1,443	1,586	1,564	4,624	6,193	1,180	1,765	5,746	6,807	28,943	15,663	19,703	
	Fresh + OFS	2,956	6,920	3,115	5,055	9,606	1,957	4,878	14,700	14,825	33,759	35,729	26,025	
	FPO				18,000	-	-	-	-	-	-	-	-	-
	Rights	148	7,891	135	1,566	1,492	805	2,295	3,184.7	336.5	311	229	3,675	
	Pref. allot.	1,029	1,160	1,473	6,260	23,914	6,068	3,731	592.9	4,977.4	1,952	1,042	2,355	
	QIPs	3,255	3,400	8,388	11,472	3,040	2,750	13,699	12,033	18,333	15,539	11,150	31,144	
Equity (SME) - Primary markets	Fresh listing	309	643	438	538	405	380	873	653	1,140	966	104	557	
	OFS	13	60	-	-	7	22	157	6	54	14	-	9	
	Fresh + OFS	323	704	438	538	411	402	1,030	659	1,194	980	104	567	
	FPO			27	-	-	-	150	-	-	-	-	-	
	Rights	-	-	-	-	-	-	300	-	49.0	25.0	49	3	
	Pref. allot.	22	10	69	50	49	105	103	149	148	146	227	167	
	QIPs	-	-	-	-	-	25	-	-	150	-	40	-	
Secondary markets	OFS	2,320	41	3,545	-	-	82	806	4,908	8,667	2,026	7,082	77	
Total equity raised		10,054	20,127	17,190	42,940	38,513	12,193	26,993	36,227	48,678	54,738	55,651	64,012	
InvITS	Fresh listing	2,263	880	2,500	-	-	-	-	-	-	-	-	-	
	Rights	-	-	2,253	-	-	-	-	-	-	-	-	1,715	
	Pref. allot.	2,190	-	1,091	-	-	501	-	400	-	694	-	-	
	QIPs	-	-	6,181	-	-	-	-	-	-	-	-	-	
REITs	Fresh listing	-	-	-	-	-	-	-	-	-	-	-	-	
	Rights	-	-	-	-	-	-	-	-	-	-	-	-	
	Pref. allot.	-	-	-	-	-	1,228	-	-	-	-	-	-	
	QIPs	-	-	-	-	-	-	-	-	-	-	-	3,500	
Total business trusts raised		4,453	880	12,025	-	-	1,729	-	400	-	694	-	5,215	
Debt	CPs	26,794	72,461	65,641	43,362	69,915	90,408	49,218	54,424	62,735	53,856	50,846	87,592	
	NCDs (Pvt.)	40,211	52,086	53,188	15,950	30,966	42,209	64,565	53,288	73,470	46,766	58,618	75,639	
	NCDs (Pub.)	-	1,635	654	-	1,000	334	-	-	996	200	-	546	
Total debt raised		67,005	1,26,182	1,19,483	59,313	1,01,881	1,32,951	1,13,782	1,07,712	1,37,201	1,00,821	1,09,464	1,63,777	
Total fund mobilization		81,512	1,47,188	1,48,698	1,02,253	1,40,394	1,46,874	1,40,775	1,44,339	1,85,879	1,56,253	1,65,115	2,33,004	

Source: NSE EPR.

Note: Amount raised through debt issuances include reissuances of debt securities.

Figure 212: Annual trend on equity raised through IPOs on Mainboard


Source: NSE EPR.

Figure 213: Annual trend on equity raised through IPOs on NSE Emerge


Source: NSE EPR.

QIBs held a major share of allocation for Mainboard issuances in 2024: In 2024, equity allocation to Qualified Institutional Buyers (QIBs) surpassed Rs 1 crore or 65% (as against 57% in 2023) of the total capital raised by 90 newly listed companies listed on the Mainboard of the Exchange. Notably, of these listed companies, 67 companies issued equity under Regulation 6(1) of the SEBI ICDR Regulations while remaining 23 companies issued equity share under Regulation 6(2). The allocation to Retail Individual Investors (RIIs) stood at Rs 32,866 crore or 21% of the total allocations in 2024 (vs. 27% in 2023). Further, the allocation to Non-Institutional Investors (NIIs) stood at Rs 20,011 crore or 13% in 2024 (vs. 15% in 2023).

Under regulation 6(1), min. allotment to Retail is 35%, NII is 15% and that to QIB is capped at 50%.

Under regulation 6(2), max. allotment to Retail is 10%, NII is 15%, while allotment to QIB is min. 75%

Table 35: Monthly trend for equity issuance and allocation on Mainboard in 2024

Month	No. of issuances	Amount raised (Rs crore)			Allocation by categories (Rs crore)				
		Under section 6(1) ⁴¹	Under section 6(2) ⁴²	Total	Retail Individual Investors	Non-Institutional Investors	Qualified Institutional Buyers	Market Maker	Others
Jan-24	4	1,955	1,000	2,956	784	443	1,724	-	5
Feb-24	9	6,920	-	6,920	1,283	810	4,782	-	44
Mar-24	8	2,262	853	3,115	881	436	1,791	-	7
Apr-24	3	780	4,275	5,055	700	758	3,596	-	0
May-24	5	4,842	4,764	9,606	2,164	1,437	5,982	-	23
Jun-24	5	1,217	740	1,957	499	293	1,162	-	3
Jul-24	5	4,878	-	4,878	1,703	730	2,433	-	13
Aug-24	8	2,228	12,473	14,700	2,023	2,201	10,449	-	28
Sep-24	13	14,825	-	14,825	4,934	2,115	7,049	-	727
Oct-24	7	33,759	-	33,759	6,341	3,248	23,996	-	175
Nov-24	8	6,080	29,649	35,729	4,979	3,709	25,800	-	1,241
Dec-24	15	16,548	9,477	26,025	6,575	3,832	15,596	-	22

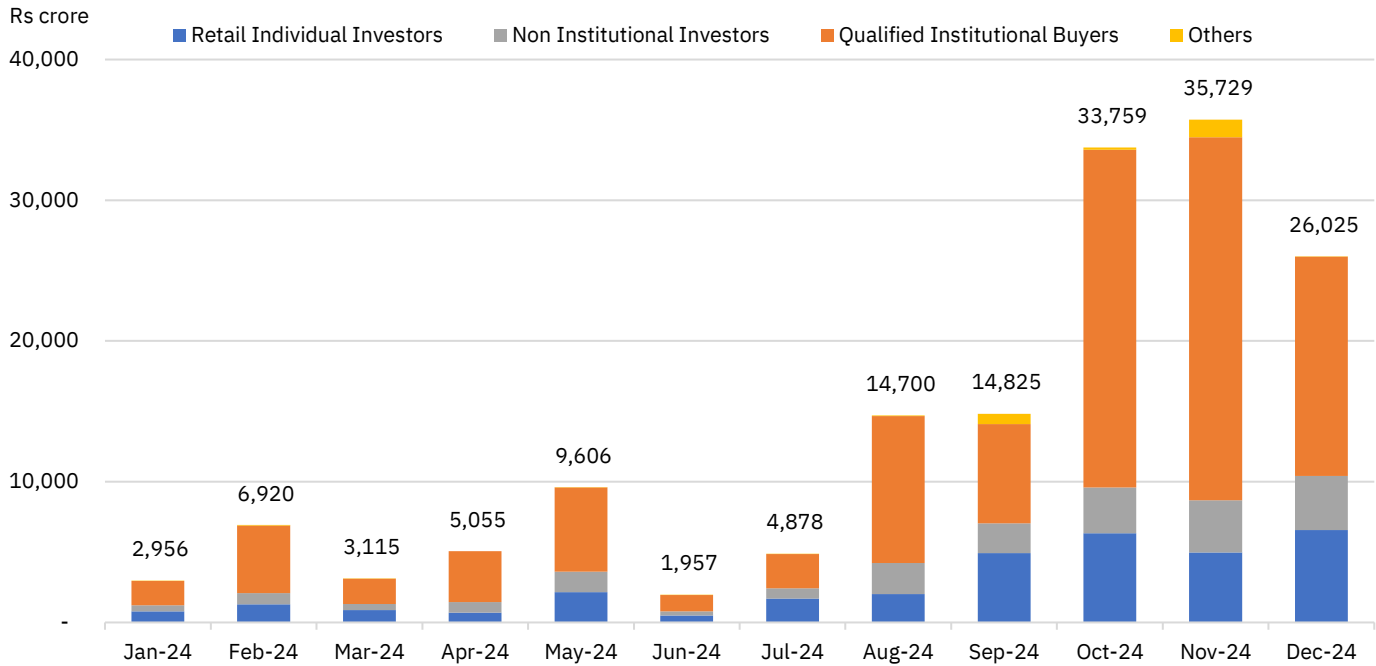
Source: NSE EPR.

Notes:

- Anchor investors are included in qualified institutional buyers (QIB).
- Others include shareholders, employees, policy holders, underwriters, and promoter contribution.

⁴¹ SEBI | Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018 [Last amended on May 17, 2024]

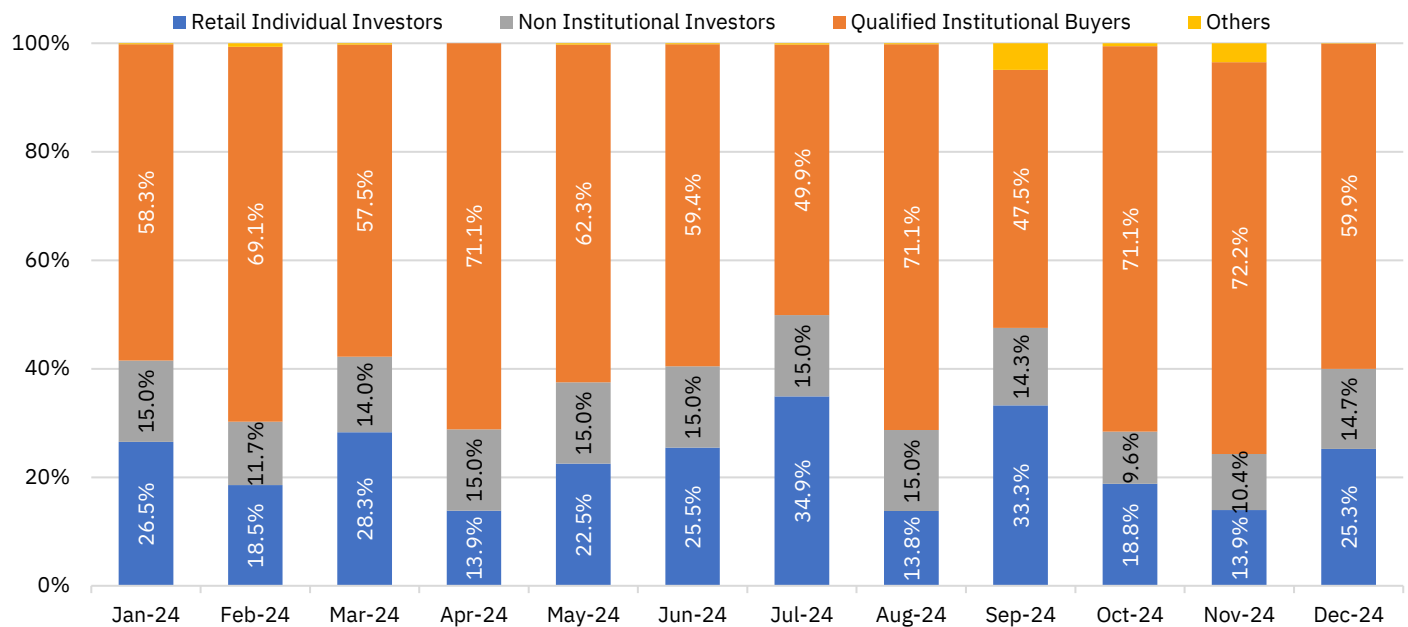
⁴² SEBI | Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018 [Last amended on May 17, 2024]

Figure 214: Monthly trend of IPO allocation to investors on Mainboard in 2024


Source: NSE EPR

Notes:

1. Anchor investors are included in qualified institutional buyers (QIB).
2. Others include shareholders, employees, policy holders, underwriters, and promoter contribution.

Figure 215: Monthly trend in IPO allocation (%) to investors on Mainboard in 2024


Source: NSE EPR.

Notes:

1. Anchor investors are included in qualified institutional buyers (QIB).
2. Others include shareholders, employees, policy holders, underwriters, and promoter contribution.

Allocation to QIBs in SME IPO issuances increased in 2024: In 2024, equity share allocation to Qualified Institutional Buyers (QIBs) reached Rs 2,761 crore or 38% (as against 25% in 2023) of the total capital raised by 178 new listings companies on the NSE Emerge platform. The allocation to RIIs stood at Rs 2,806 crore or 38% (vs. 43% in 2023),

and that to NIIs also declined to 19% (vs. 25% in 2023) or Rs 1,361 crore in 2024. Notably, the share of market makers stood at 6% of the total IPO proceeds in 2024.

Table 36: Monthly trend for equity issuance and allocation on Emerge in 2024

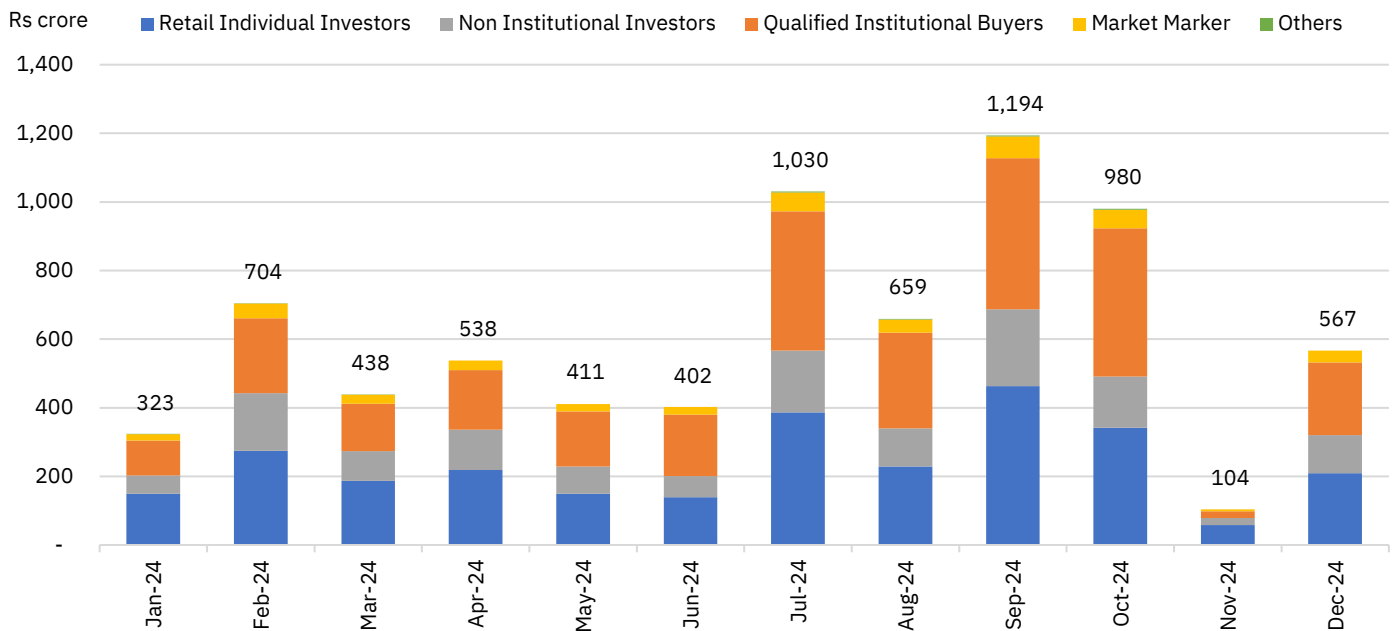
Month	No. of issuances	Amount raised (Rs crore)	Allocation by categories (Rs crore)				
			Retail Individual Investors	Non-Institutional Investors	Qualified Institutional Buyers	Market Maker	Others
Jan-24	10	323	149	53	102	18	0
Feb-24	16	704	275	167	219	42	0
Mar-24	12	438	187	87	137	26	0
Apr-24	15	538	218	118	174	28	0
May-24	14	411	150	79	160	22	0
Jun-24	10	402	140	61	179	22	0
Jul-24	22	1,030	387	179	406	56	2
Aug-24	19	659	229	111	280	38	2
Sep-24	28	1,194	463	224	441	63	3
Oct-24	17	980	342	149	432	54	3
Nov-24	3	104	58	20	20	5	-
Dec-24	12	567	209	111	212	35	0

Source: NSE EPR

Notes: 1. Anchor investors are included in qualified institutional buyers (QIB).

2. Others include shareholders, employees, policy holders, underwriters, and promoter contribution.

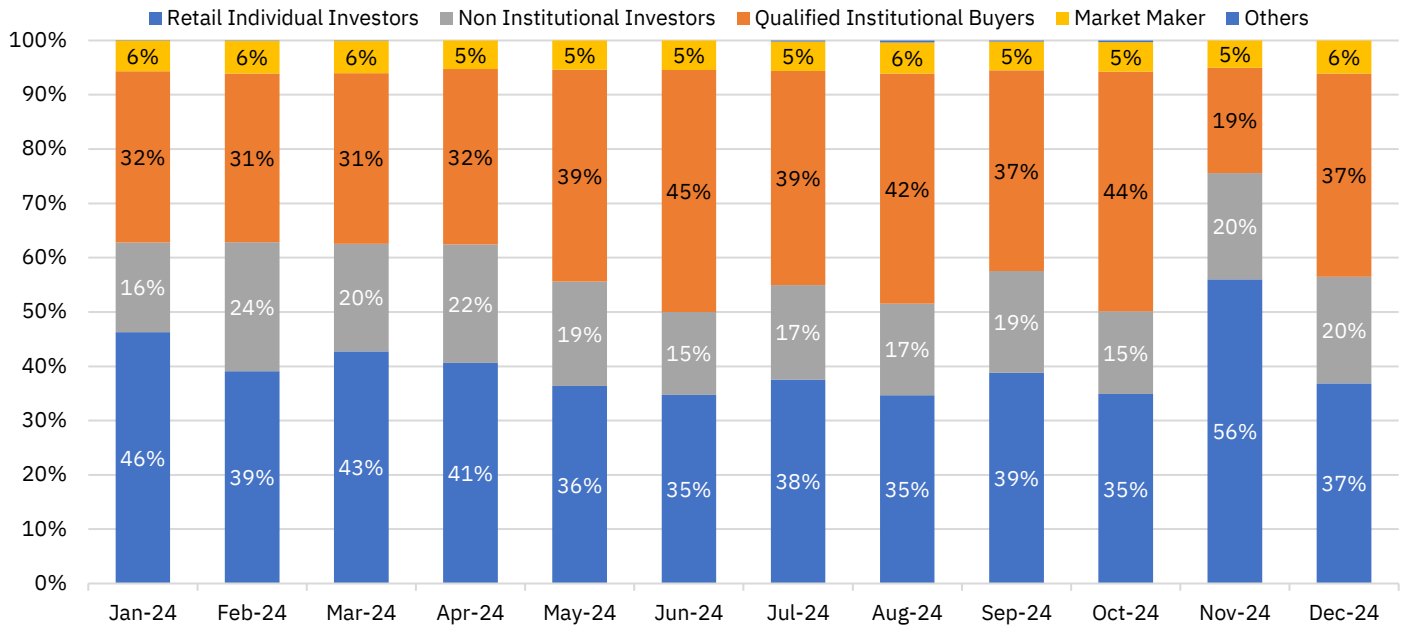
Figure 216: Monthly trend in IPO allocation to investors on Emerge platform in 2024



Source: NSE EPR.

Notes: 1. Anchor investors are included in qualified institutional buyers (QIB).

2. Others include shareholders, employees, policy holders, underwriters, and promoter contribution.

Figure 217: Monthly trend of IPO allocation (%) to investors on Emerge platform in 2024


Source: NSE EPR.

Notes: 1. Anchor investors are included in qualified institutional buyers (QIB).

2. Others include shareholders, employees, policy holders, underwriters, and promoter contribution.

Eligibility requirements and allocation criteria for mainboard IPOs

Regulation 6(1) and 6(2) of the SEBI ICDR Regulations lay down the framework for initial listing of companies on the main board.

Eligibility criteria for an issuer to make an initial public offering under regulation 6(1):

- Net tangible assets of at least Rs 3 crore in each of the preceding three full years (of twelve months each), of which not more than 50% are held in monetary assets
- Average operating profit of at least Rs 15 crore during the preceding three years (of twelve months each), with operating profit in each of these preceding three years
- Net worth of at least Rs 1 crore in each of the preceding three full years (of twelve months each)
- In case of name change in the last one year, at least 50% of the revenue for the preceding one full year has been earned by it from the activity indicated by its new name.

Note: The thresholds mentioned above are based on restated and consolidated figures.

For issuers satisfying the eligibility criteria under regulations 6(1), the following allotment criteria would apply.

- Minimum allotment to Retail and NII is 35% and 15%, respectively. Allotment to QIBs is capped at 50%, 5% of which shall be allocated to mutual funds.

Regulation 6(2) of the ICDR specifically allows issuer companies who do not satisfy the asset/net worth/operating profit criteria listed under Regulation 6(1) to make an initial public under. This is subject to a minimum allotment of 75% to qualified institutional buyers (“QIBs”) and refund of the full subscription money if it fails to do so. Such issues are mandatorily required to be made through the book-building process. Accordingly, maximum allotment to Retail and NII for IPO issuances under Regulation 6(2) is capped at 10% and 15% respectively.

Please refer the SEBI’s ICDR regulations for more details.

New IPO listings in the year

Record listing at NSE: In 2024, NSE witnessed 268 IPOs across Mainboard and Emerge platform and cumulatively raised Rs 1.67 lakh crore in the calendar year, the highest in the world. Among these, 90 companies made their debut on the NSE Mainboard, raising Rs 1.6 lakh crore, while Emerge saw its highest-ever listings with 178 companies, which collectively raised Rs 7,348 crore, marking a record amount.

India also witnessed its largest-ever IPO of Rs 27,859 crore with the listing of Hyundai Motor India Ltd. Further, in addition to Hyundai Motor India Ltd., two (2) other companies, namely Swiggy Ltd. and NTPC Green Energy Ltd., had issue sizes of over Rs 10,000 crore, and accounted for ~30% of the total capital raised through NSE's Mainboard. It is also noteworthy that the average IPO size for mainboard IPOs increased to ~Rs 1770 crore in 2024 that was more than double of the average IPO size in 2023. Remarkably, NSE Emerge witnessed its highest ever IPO size of Rs 198 crore, raised by Danish Power Limited while average IPO size stood at Rs 41 crore in 2024 (as against Rs 29 crore in 2023).

Notably, 225 companies out of 268 listed on NSE in 2024 recorded listing gains, of which 35 companies recorded gains of over 100%. Remarkably, the newly listed companies in the year gone have added a cumulative market capitalisation of Rs 13.8 lakh crore as of December 31st, 2024.

Table 37: Top 10 Listings (by amount raised) on NSE Mainboard platform in 2024

Listing Date	Name of the company	Fresh Issuances (Rs crore)	Offer for sales (Rs crore)	Capital raised (Rs crore)	Offer Price (Rs)	Listing Gain (%)	Market Cap (Rs Crore)
Oct 22, 24	Hyundai Motor India Limited	-	27,859	27,859	1960	-1%	1,46,753
Nov 13, 24	Swiggy Limited	4,499	6,828	11,327	390	8%	1,21,078
Nov 27, 24	NTPC Green Energy Limited	10,000	-	10,000	108	3%	1,07,174
Dec 18, 24	Vishal Mega Mart Limited	-	8,000	8,000	78	33%	47,986
Sep 16, 24	Bajaj Housing Finance Limited	3,560	3,000	6,560	70	114%	1,06,117
Aug 09, 24	Ola Electric Mobility Limited	5,500	646	6,146	76	0%	37,814
Nov 04, 24	Afcons Infrastructure Limited	1,250	4,180	5,430	463	-8%	20,055
Oct 28, 24	Waaree Energies Limited	3,600	721	4,321	1503	66%	82,008
Apr 12, 24	Bharti Hexacom Limited	-	4,275	4,275	570	32%	72,845
Dec 20, 24	International Gemmological Institute India Limited	1,475	2,750	4,225	417	22%	23,937

Source: CMIE Prowess, NSE EPR

Note: Data for market capitalisation is as of December 31st, 2024

Table 38: Top 10 Listings (by amount raised) on NSE Emerge in 2024

Listing Date	Name of the company	Fresh Issuances (Rs crore)	Offer for sales (Rs crore)	Capital raised (Rs crore)	Offer Price (Rs)	Listing Gain (%)	Market Cap (Rs Crore)
Oct 29, 24	Danish Power Limited	198	-	198	380	50%	2,158
Oct 04, 24	Sahasra Electronic Solutions Limited	172	14	186	283	90%	1,319
Jul 12, 24	Ganesh Green Bharat Limited	125	-	125	190	90%	1,389
Jul 23, 24	Tunwal E-Motors Limited	82	34	116	59	8%	275
Jul 02, 24	Petro Carbon and Chemicals Limited	-	113	113	171	75%	521
Sep 13, 24	Vision Infra Equipment Solutions Limited	106	-	106	163	26%	516
Dec 03, 24	C2C Advanced Systems Limited	99	-	99	226	90%	1,359
Dec 06, 24	Ganesh Infracore Limited	99	-	99	83	90%	674
Oct 31, 24	Usha Financial Services Limited	98	-	98	168	-2%	261
Feb 06, 24	Baweja Studios Limited	72	25	97	180	2%	121

Source: CMIE Prowess, NSE EPR

 Note: Data for market capitalisation is as of December 31st, 2024

Maharashtra tops with the highest number of listings and equity raised in 2024 on both, Mainboard and NSE Emerge platform: In 2024, Maharashtra, Tamil Nadu, and Karnataka collectively accounted for 64.4% of the total funds raised, exceeding Rs 1 lakh crore, on the mainboard of the Exchange, while Maharashtra, Delhi, and Gujarat contributed 63.8% of the total capital raised or over Rs 4,600 crore on the Emerge platform. Maharashtra alone held a 28% share of the mainboard issue size and 25% on the Emerge platform. Notably, the Emerge platform witnessed its first-ever listings from Odisha and Bihar, with one listing each during the year.

Bangalore (10 listings) stood at the pinnacle with capital raising of Rs 28,314 crore, followed by Kancheepuram (1 listing) at Rs 27,859 crore and New Delhi (13 listing) at Rs 23,924 crore on the Mainboard. Additionally, out of 90 newly listed companies on NSE's Mainboard, 18 companies belonged to the Consumer Discretionary⁴³ sector, and raised a total of Rs 68,790 crore or ~43% of total capital raised, followed by 24 companies that belonged to the Industrials⁴⁴ sector, and raised Rs 22,405 crore or ~14% of total capital raised in 2024. Financials sector accounted for 11 listing and raising of Rs 17,940 crore or 11% of total capital raised through the Mainboard in 2024. Interestingly, these three sectors accounted for 68.4% of the total amount raised on NSE's Mainboard in 2024.

Of the 178 companies listing on Emerge platform, New Delhi led in capital raising with 30 listing and raising of Rs 1,427 crore or 19% of the total capital raised, followed by Mumbai with Rs 919 crore or 13% of total capital raised with 30 listing, and Ahmedabad, where 20 companies got listed with raising of Rs 790 crore or 11% of total capital raised in 2024. Among these newly listed companies on NSE Emerge, 69 were from the Industrials sector, raising a total of Rs 3,002 crore or 41% of total capital raised. The Consumer Discretionary sector was represented by 32 companies, which raised Rs 1,174 crore or 16% of total capital, while the Information Technology sector, comprising 18 companies, raised Rs 964 crore or 13% of total capital raised in 2024.

⁴³ The consumer discretionary sector consists of companies that offer goods and services, such as apparel, automobiles, and entertainment, which consumers purchase based on their disposable income and economic confidence.

⁴⁴ The industrials sector encompasses companies involved in the production of goods and services related to manufacturing, construction, and transportation, providing essential infrastructure and equipment.

Table 39: State-wise issuances on NSE Emerge Platform (based on equity raised) in 2024

States	No of listings	Issue size (Rs crore)
Maharashtra	52	1,866
Delhi	30	1,427
Gujarat	37	1,397
West Bengal	13	548
Rajasthan	11	513
Tamil Nadu	7	495
Madhya Pradesh	6	235
Telangana	5	196
Haryana	4	181
Karnataka	2	155
Chhattisgarh	2	95
Punjab	3	90
Kerala	2	54
Uttar Pradesh	1	31
Himachal Pradesh	1	29
Odisha	1	18
Bihar	1	17
Grand Total	178	7,348

Source: CMIE Prowess, NSE EPR.

Note: Data has been presented based on respective states' shares in the total amount raised on the Emerge platform.

Table 40: Top 10 city-wise issuances on NSE Emerge (based on equity raised) in 2024

City	No of Listing(s)	Issue Size (Rs crore)
New Delhi	30	1,427
Mumbai	30	919
Ahmedabad	20	790
Kolkata	11	502
Chennai	6	448
Pune	6	392
Jaipur	7	354
Vadodara	4	220
Nagpur	3	160
Bangalore	2	155
Others	59	1,980
Grand Total	178	7,348

Source: CMIE Prowess, NSE EPR

Table 41: Sector-wise issuances on NSE Emerge Platform (based on equity raised) in 2024

Sector	No of listing(s)	Issue Size (Rs crore)
Industrials	69	3,002
Consumer Discretionary	32	1,174
Information Technology	18	964
Materials	24	888
Consumer Staples	10	429
Financials	6	292
Health Care	8	236
Communication Services	6	206
Utilities	2	77
Energy	2	61
Real Estate	1	20
Grand Total	178	7,348

Source: LSEG workspace, NSE EPR.

Notes: 1. The percentages displayed represent the respective sectors' shares in the total amount raised through IPOs on NSE Emerge in CY24

2. Sector classification is based on Global Industry Classification Standard (GICS)

Table 42: State-wise issuances on Mainboard (based on equity raised) in 2024

State	No of listing(s)	Issue Size (Rs crore)
Maharashtra	28	45,090
Tamil Nadu	3	29,059
Karnataka	11	28,538
Delhi	13	23,924
Haryana	7	14,302
Telangana	3	6,017
West Bengal	6	3,870
Gujarat	6	3,052
Punjab	2	1,776
Kerala	2	832
Uttar Pradesh	1	640
Dadra & Nagar Haveli	1	550
Jharkhand	1	500
Rajasthan	2	474
Himachal Pradesh	1	429
Chhattisgarh	1	171
Madhya Pradesh	1	170
Jammu & Kashmir	1	130
Grand Total	90	1,59,524

Source: CMIE Prowess, NSE EPR.

Note: The percentages displayed represent the respective states' shares in the total amount raised through Mainboard IPOs in CY24.

Table 43: Top 10 City-wise issuances on Mainboard (based on equity raised) in 2024

City	No of Listing(s)	Issue Size (Rs crore)
Bangalore	10	28,314
Kancheepuram	1	27,859
New Delhi	13	23,924
Mumbai	17	22,835
Pune	7	19,270
Gurugram	4	12,212
Kolkata	6	3,870
Hyderabad	1	3,043
Rangareddi	1	2,830
Navi Mumbai	1	2,498
Others	29	12,868
Grand Total	90	1,59,524

Source: CMIE Prowess, NSE EPR.

Table 44: Sector-wise issuances on Mainboard (based on equity raised) in 2024

Sector	No of listing(s)	Issue Size (Rs crore)
Consumer Discretionary	18	68,790
Industrials	24	22,405
Financials	11	17,940
Health Care	10	15,916
Utilities	4	14,051
Information Technology	6	9,358
Communication Services	2	4,699
Consumer Staples	4	2,884
Materials	8	1,918
Real Estate	2	1,009
Energy	1	555
Grand Total	90	1,59,524

Source: LSEG Workspace, NSE EPR.

Notes: 1. The percentages displayed represent the respective sectors' shares in the total amount raised through Mainboard IPOs in CY24

2. Sector classification is based on Global Industry Classification Standard (GICS)

NSE Emerge platform witnessed 587 companies listing since its inception, of which 324 are based out of Maharashtra and Gujarat accounted for 50% of the total amount raised or over Rs 7800 crore. Delhi trails with 79 companies listed on NSE Emerge and accounted for 17.1% of the total amount raised through the platform. Total market capitalization of these listed companies stood over Rs 2.2 lakh crore as of Dec 31st, 2024.

Table 45: Top 10 State-wise issuances on NSE Emerge since inception

State	No of listing	Issue size (Rs crore)	M-Cap (Rs crore)
Maharashtra	169	4,182	54,612
Gujarat	155	3,701	51,414
Delhi	79	2,669	49,758
Tamil Nadu	18	831	8,718
West Bengal	30	776	8,604
Rajasthan	29	741	10,572
Madhya Pradesh	27	627	14,114
Karnataka	14	533	5,599
Telangana	17	417	3,313
Haryana	12	278	3,929
Others	37	883	16,389
Grand Total	587	15,639	2,27,022

Source: CMIE Prowess, NSE EPR.

Notes:

1. Market cap values are as on December 31st, 2024
2. Above data includes companies that have migrated to Mainboard of the exchange.

Investor growth

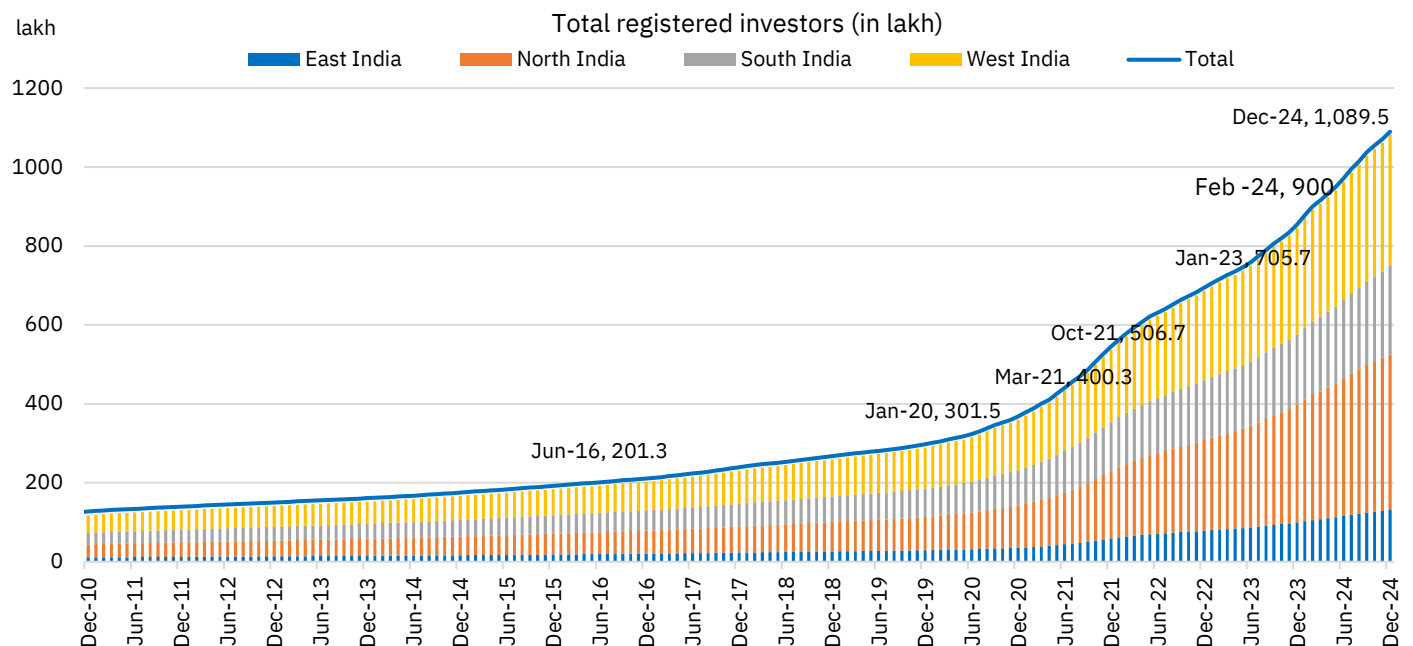
Region-wise distribution of total registered investors

Total registered investors ended 2024 at 10.9 crore: The registered investor base ended 2024 at 10.9 crore, crossing the 11-crore milestone on January 20, 2025. This reflects a growth of more than 3.5x over the past five years and nearly 7x in the last decade. The total number of client codes registered with the exchange has exceeded 21 crore (210 million), accounting for all client registrations to date, as investors can register with multiple trading members.

The year 2024 witnessed unprecedented growth in the investor base, crossing the 9-crore mark in February 2024 and reaching 10 crore just five months later in August 2024. This growth underscores robust investor participation and rising confidence in the stock market as a dependable avenue for wealth creation. Key drivers behind this multi-fold expansion include improved digital access, heightened investor education, government initiatives supporting financial inclusion, and a younger, tech-savvy demographic increasingly aware of the benefits of equity investments.

Regionally, North India led with a registered investor base of 3.9 crore, followed by West India at 3.3 crore, South India at 2.2 crore, and East India at 1.3 crore. North and East India experienced notable YoY growth rates of 32.5% and 31.5%, respectively, from December 2023 to December 2024, with South India growing by 25% and West India by 23.2% over the same period. Over the last decade, North India's share of the investor base increased by 9.1 pp, rising from 27.2% in 2014 to 36.2% at the end of 2024. East India also saw a 2.6 pp rise, reaching 12% in 2024 compared to 9.4% in 2014. Conversely, West India's share declined by 4.1 pp to 30.5% (from 34.6% in 2014), while South India's share fell by 3.6 pp to 20.5% (from 24.1% in 2014).

Figure 218: Region-wise distribution of total registered investors: Long term trend



Source: NSE EPR.

Note: East India includes Mizoram, Odisha, West Bengal, Assam, Manipur, Arunachal Pradesh, Tripura, Nagaland, Meghalaya, Sikkim, Chhattisgarh; West India includes Maharashtra, Gujarat, Madhya Pradesh, Daman & Diu, Goa, Dadra & Nagar Haveli; North India includes Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Haryana, Delhi, Punjab, Jammu & Kashmir, Himachal Pradesh, Chandigarh And Rajasthan; South India includes Telangana, Kerala, Andhra Pradesh, Tamil Nadu, Karnataka, Pondicherry, Lakshadweep and Andaman & Nicobar.

Table 46: Region-wise distribution of total registered investors at end of each calendar year (in lakhs)

Region	CY16	CY17	CY18	CY19	CY20	CY21	CY22	CY23	CY24
East India	20.5	23.3	26.3	29.3	35.7	59.5	78.7	99.6	131.0
North India	58.1	65.9	74.4	84.1	106.6	170.2	229.8	297.7	394.6
South India	51.7	57.8	64.7	72.4	90.1	124.0	151.4	178.7	223.4
West India	72.6	84.2	94.6	104.1	128.0	183.2	225.9	269.5	331.9
Others [#]	8.0	7.8	7.8	7.8	7.5	7.9	8.3	8.6	8.5
Total	210.8	239.0	267.6	297.6	367.9	544.8	694.1	854.1	1,089.5

Source: NSE EPR. *Data for CY24 is as of December 2024. #Others include Army Personnel Officers and investors for whom state mapping is unavailable.

Uttar Pradesh became the second state to cross 1 crore investors in 2024: In 2024, Maharashtra maintained its leadership in terms of registered investors, with nearly 1.8 crore investors as of December. However, the state's share has gradually declined from ~20% in 2015 to 16.5% by the end of 2024. Uttar Pradesh emerged as a key growth driver, becoming the second state after Maharashtra to surpass 1 crore investors in April 2024, ending the year at 1.24 crore investors—a remarkable 38% growth in 2024 alone. Since the pandemic, Uttar Pradesh's share in the investor base has increased significantly, rising from 7.3% in 2019 to 11.3% in 2024, elevating it to the second spot in state rankings.

Among other major states, Gujarat ranked third with 96.8 lakh investors as of December 2024, followed by West Bengal at 63.7 lakh and Rajasthan at 62.5 lakh. Collectively, these five states accounted for 48.2% of the total investor base as of December 2024, down from 49.6% in 2019, reflecting the growing contribution of smaller states.

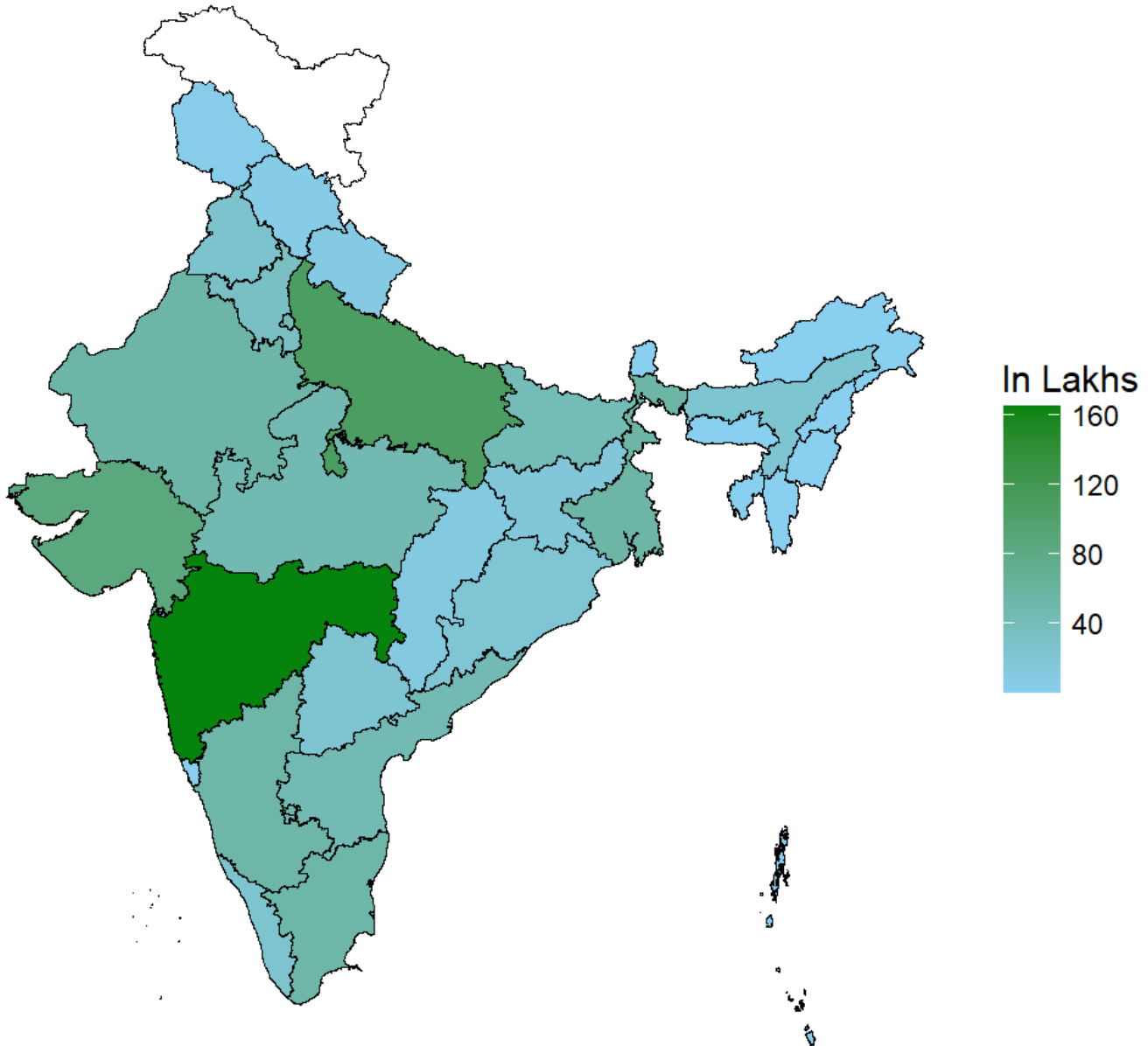
Notably, states outside the top 10 now account for 27% of the investor base, up from 22.7% in 2019, a significant rise driven by Bihar and Assam. Bihar's share more than doubled during this period, increasing from 2.1% in 2019 (15th rank) to 4.5% in 2024 (10th rank). Assam saw even more substantial growth, with its share tripling from 0.7% in 2019 (20th rank) to 2.3% in 2024 (16th rank).

Table 47: State-wise distribution of total registered investors at end of each calendar year

States	CY10		CY15		CY20		CY24	
	Count ('000)	Share (%)	Count ('000)	Share (%)	Count ('000)	Share (%)	Count ('000)	Share (%)
Maharashtra	2,517.4	19.8%	3,804.4	19.8%	7,187.3	19.5%	17,922.6	16.5%
Uttar Pradesh	795.7	6.2%	1,346.9	7.0%	2,815.1	7.7%	12,306.6	11.3%
Gujarat	1,628.2	12.8%	2,174.4	11.3%	4,246.3	11.5%	9,676.6	8.9%
West Bengal	800.3	6.3%	1,264.4	6.6%	2,218.1	6.0%	6,365.0	5.8%
Rajasthan	483.5	3.8%	712.5	3.7%	1,655.1	4.5%	6,250.8	5.7%
Karnataka	791.7	6.2%	1,246.6	6.5%	2,292.3	6.2%	6,028.1	5.5%
Tamil Nadu	838.2	6.6%	1,391.0	7.2%	2,468.1	6.7%	5,928.8	5.4%
Madhya Pradesh	332.2	2.6%	559.4	2.9%	1,255.2	3.4%	5,282.3	4.8%
Andhra Pradesh	656.3	5.1%	1,072.8	5.6%	1,985.6	5.4%	4,956.1	4.5%
Bihar	166.5	1.3%	325.5	1.7%	896.8	2.4%	4,864.4	4.5%
Delhi	856.2	6.7%	1,273.8	6.6%	2,065.4	5.6%	4,787.3	4.4%
Haryana	364.0	2.9%	571.0	3.0%	1,156.5	3.1%	3,728.2	3.4%
Punjab	261.1	2.0%	419.3	2.2%	834.1	2.3%	2,871.8	2.6%
Kerala	396.9	3.1%	631.4	3.3%	1,129.5	3.1%	2,707.9	2.5%
Telangana	171.9	1.3%	324.3	1.7%	1,079.9	2.9%	2,575.5	2.4%
Assam	63.5	0.5%	119.1	0.6%	296.3	0.8%	2,463.5	2.3%
Orissa	143.2	1.1%	275.9	1.4%	625.0	1.7%	2,357.0	2.2%
Jharkhand	168.8	1.3%	276.2	1.4%	535.3	1.5%	1,913.9	1.8%
Chhattisgarh	80.2	0.6%	138.6	0.7%	320.5	0.9%	1,370.1	1.3%
Uttarakhand	75.1	0.6%	133.4	0.7%	293.4	0.8%	1,151.4	1.1%
Himachal Pradesh	35.9	0.3%	66.8	0.3%	157.2	0.4%	730.1	0.7%
Jammu & Kashmir	43.8	0.3%	70.7	0.4%	135.8	0.4%	618.0	0.6%
Goa	33.1	0.3%	51.2	0.3%	97.0	0.3%	242.8	0.2%
Chandigarh	42.4	0.3%	67.1	0.3%	111.5	0.3%	239.2	0.2%
Tripura	8.1	0.1%	14.2	0.1%	32.5	0.1%	174.9	0.2%
Manipur	1.4	0.0%	5.6	0.0%	30.1	0.1%	119.8	0.1%
Pondicherry	13.5	0.1%	24.8	0.1%	46.5	0.1%	111.7	0.1%
Meghalaya	3.4	0.0%	6.5	0.0%	15.0	0.0%	71.5	0.1%
Nagaland	1.3	0.0%	3.0	0.0%	10.0	0.0%	59.0	0.1%
Arunachal Pradesh	1.3	0.0%	2.7	0.0%	8.1	0.0%	54.8	0.1%
Dadra & Nagar Haveli	3.8	0.0%	6.2	0.0%	11.6	0.0%	45.5	0.0%
Sikkim	1.6	0.0%	3.6	0.0%	9.1	0.0%	39.0	0.0%
Andaman & Nicobar Islands	2.1	0.0%	3.4	0.0%	6.1	0.0%	27.6	0.0%
Mizoram	0.3	0.0%	1.0	0.0%	3.6	0.0%	24.4	0.0%
Daman & Diu	2.9	0.0%	4.2	0.0%	7.6	0.0%	23.4	0.0%
Ladakh	0.0	0.0%	0.0	0.0%	0.3	0.0%	2.3	0.0%
Lakshadweep	0.1	0.0%	0.1	0.0%	0.4	0.0%	2.3	0.0%
Others	958.2	7.5%	810.9	4.2%	754.0	2.0%	851.5	0.8%
Total	12,743.7	100	19,202.8	100	36,791.8	100	1,08,945.8	100.0

Source: NSE EPR.

Figure 219: State-wise distribution of total registered investors as of December 2024



Source: NSE EPR

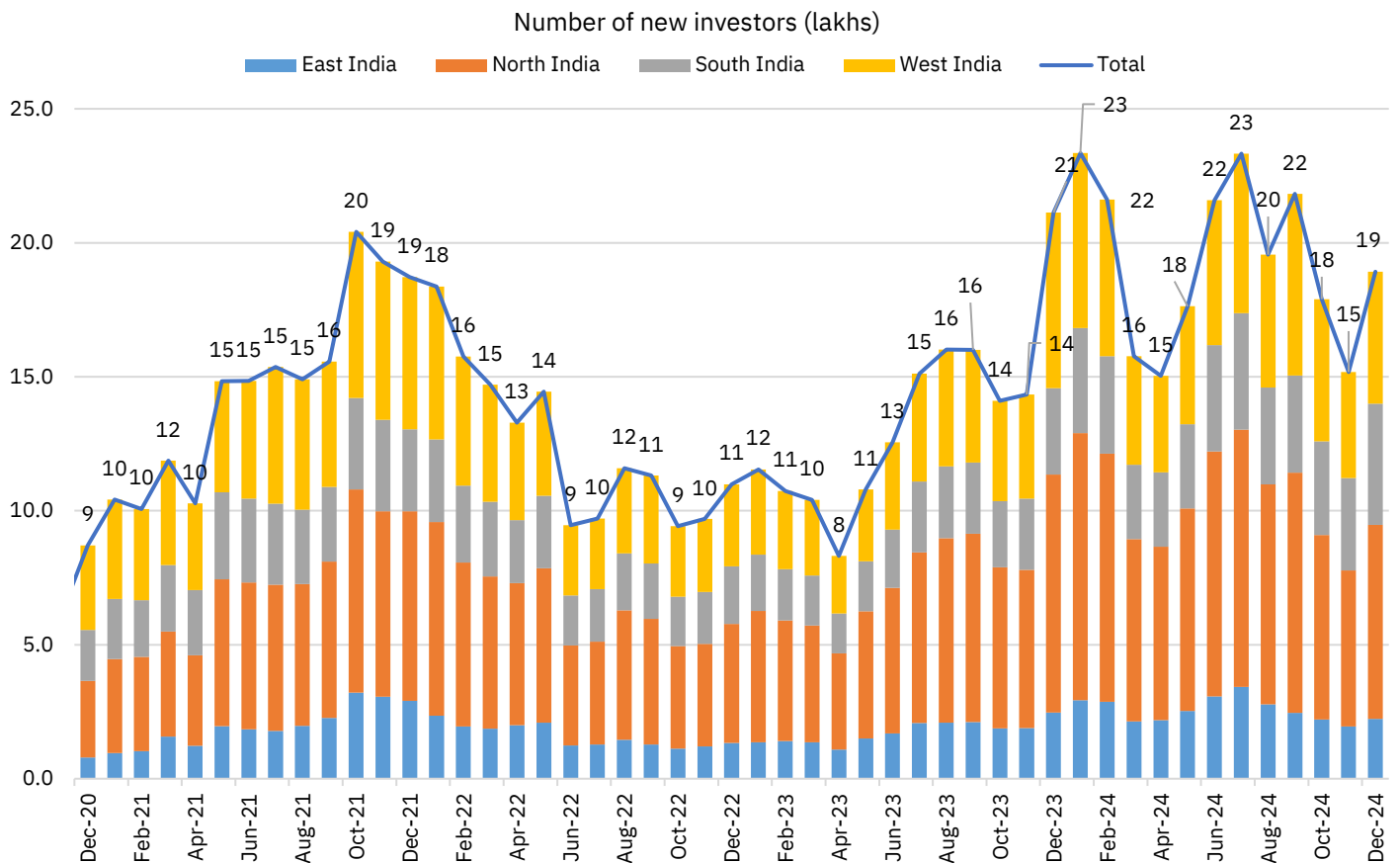
Note: The maps above are created using the state-level shapefile from <https://geographicalanalysis.com/gis-blog/download-free-india-shapefile-including-kashmir-and-ladakh/>

Region-wise distribution of new investor registrations

New investor registrations at record-high in 2024: The year gone by saw record-high unique investor registrations of 2.3 crore in 2024, significantly higher than the 1.6 crore added in 2023, while number of accounts totaled 5.56 crore. Notably, 75% of the total accounts have been added in the past five years. The average monthly run rate of new investors increased from 5.9 lakh in 2021 to 19.3 lakh in 2024, a significant jump of more than 3 times.

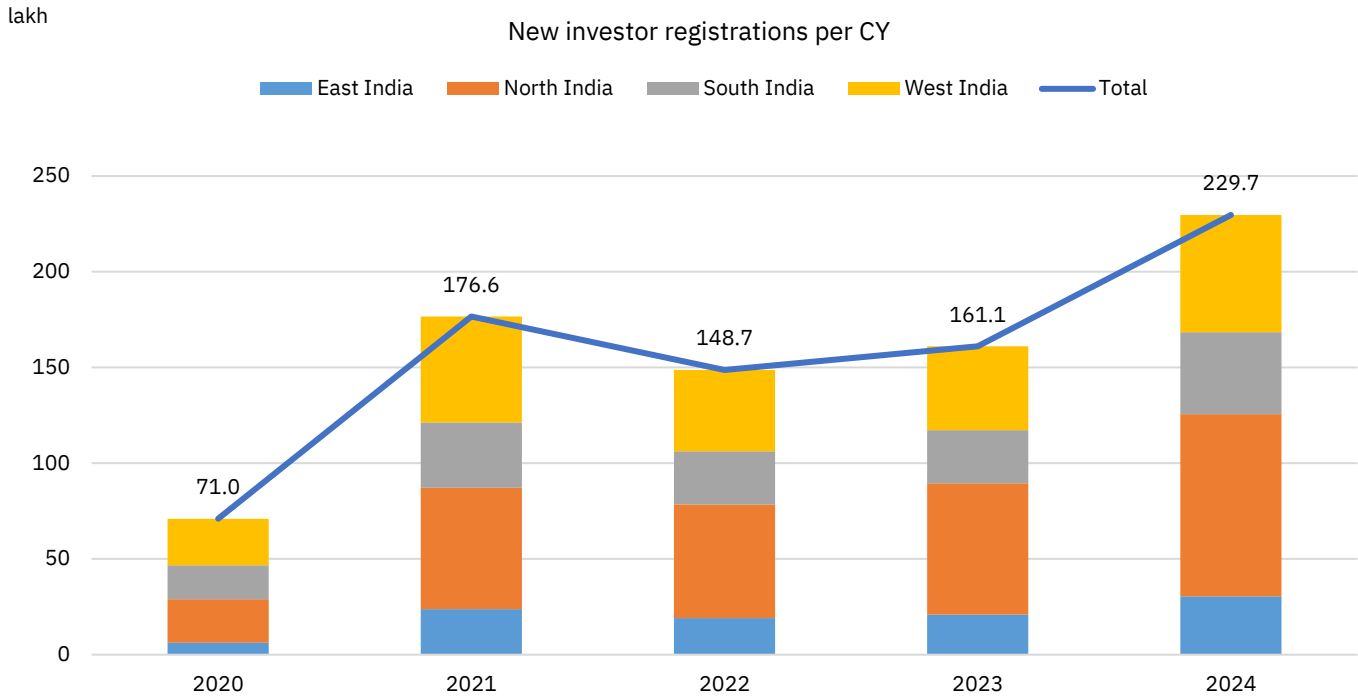
The growth in new investor registrations this year was seen across regions, with South India recording the highest growth in 2024 (+54.6% YoY) and 42.9 lakh new registrations. East India followed with a 46% YoY increase in registrations, reaching 30.5 lakh. The northern region saw the highest number of new registrations, with over 95 lakhs registrations from North India in 2024, growing by 38.5% YoY. West India recorded 61.2 lakh new registrations, showing a 40% YoY growth. The share of East India increased from 13% in 2023 to 13.3%, while South India's share grew from 17.2% to 18.7% in 2024. This shift came at the expense of other regions, with North India's share declining the most, from 42.6% in 2023 to 41.4% in 2024, followed by West India's share, which dropped from 27.2% to 26.6% in 2024.

Figure 220: Region-wise distribution of new investors registered each month for the last four years



Source: NSE EPR.

Note: East India includes Mizoram, Odisha, West Bengal, Assam, Manipur, Arunachal Pradesh, Tripura, Nagaland, Meghalaya, Sikkim, Chhattisgarh; West India includes Maharashtra, Gujarat, Madhya Pradesh, Daman & Diu, Goa, Dadra & Nagar Haveli; North India includes Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Haryana, Delhi, Punjab, Jammu & Kashmir, Himachal Pradesh, Chandigarh And Rajasthan; South India includes Telangana, Kerala, Andhra Pradesh, Tamil Nadu, Karnataka, Pondicherry, Lakshadweep and Andaman & Nicobar.

Figure 221: Region-wise distribution of new investors registered each calendar year


Source: NSE EPR.

Uttar Pradesh topped the chart on new investor registrations: Uttar Pradesh surpassed Maharashtra to become the leading state in new investor registrations with the exchange in 2024. UP added 33.3 lakh new investors during the year, reflecting a 39.9% year-on-year (YoY) growth and capturing a 14.4% share of total new registrations. Maharashtra followed closely, adding 30.0 lakh investors, while Gujarat added 19.2 lakh. Together, these three states accounted for 35.6% of the total new investor registrations in 2024.

Among the top 10 states, Andhra Pradesh recorded the highest growth in new registrations at 73.5%, followed by Gujarat at 63.1% and West Bengal at 55.9%. These states added 7.5 lakh, 19.2 lakh, and 15.6 lakh new investors, respectively, further underscoring the expanding investor base across key regions.

Table 48: Number of new investors registered in top 25 states for last three calendar years (in '000)

State	2022	Share (%)	2023	Share (%)	2024	Share (%)
Uttar Pradesh	1,862.1	12.5%	2,376.7	14.8%	3,325.5	14.4%
Maharashtra	2,403.6	16.1%	2,240.9	13.9%	3,003.2	13.0%
Gujarat	974.5	6.5%	1,176.6	7.3%	1,918.7	8.3%
West Bengal	841.4	5.6%	998.0	6.2%	1,555.4	6.7%
Rajasthan	916.7	6.2%	1,022.6	6.3%	1,495.0	6.5%
Bihar	780.3	5.2%	905.0	5.6%	1,305.9	5.6%
Madhya Pradesh	843.4	5.7%	926.4	5.8%	1,196.5	5.2%
Karnataka	769.1	5.2%	764.5	4.7%	1,189.9	5.1%
Tamil Nadu	731.9	4.9%	837.0	5.2%	1,151.9	5.0%
Delhi	834.9	5.6%	635.2	3.9%	839.1	3.6%
Haryana	438.8	2.9%	592.1	3.7%	793.4	3.4%
Andhra Pradesh	479.6	3.2%	430.4	2.7%	746.7	3.2%
Punjab	418.1	2.8%	537.3	3.3%	675.6	2.9%
Telangana	465.8	3.1%	409.6	2.5%	642.0	2.8%
Kerala	316.7	2.1%	319.9	2.0%	574.8	2.5%
Assam	418.7	2.8%	395.5	2.5%	517.1	2.2%
Odisha	379.6	2.5%	363.1	2.3%	498.7	2.2%
Jharkhand	283.3	1.9%	327.5	2.0%	465.6	2.0%
Chattisgarh	198.8	1.3%	241.8	1.5%	339.7	1.5%
Uttarakhand	169.5	1.1%	198.6	1.2%	287.7	1.2%
Jammu & Kashmir	90.0	0.6%	114.0	0.7%	184.2	0.8%
Himachal Pradesh	108.1	0.7%	126.9	0.8%	183.9	0.8%
Tripura	24.5	0.2%	32.7	0.2%	51.9	0.2%
Goa	29.7	0.2%	30.1	0.2%	49.0	0.2%
Chandigarh	24.6	0.2%	25.5	0.2%	34.2	0.1%
Others	91.3	0.6%	77.8	0.5%	142.7	0.6%
Total	14,895.2	100%	16,105.5	100%	23,167.9	100%

Source: NSE EPR.

Note: Top 25 states are chosen based on CY24 data.

Contribution of top 10 districts declined further in 2024: While new investor registrations remain concentrated in larger districts, smaller districts are steadily catching up. This shift is reflected in the decline in the share of the top 10 districts in new investor registrations, which fell from 19.8% in 2023 to 19.5% in 2024. Meanwhile, the share of districts beyond the top 50 rose significantly from 61% in 2023 to 65.2% in 2024.

Delhi-NCR, Mumbai, and Pune retained their positions as the top three districts, registering 14 lakh, 9.7 lakh, and 3.4 lakh new investors in 2024, respectively, with all three recording growth rates exceeding 30%. Surat climbed two spots to become the fourth-largest district for new investor registrations, recording a 66.9% increase to 3.3 lakh investors in 2024, contributing to a 20bps rise in its share of total registrations. Ahmedabad held the fifth spot, registering a 58.8% increase in new investors.

Bangalore, despite a robust 55.7% growth in new registrations, slipped two positions to sixth place, adding 3.25 lakh investors during the year. Notably, Rajkot from Gujarat made a significant leap, rising to 10th position in 2024 from 20th in the previous year.

Among the top 10 districts, three are from Maharashtra, three from Gujarat, and one each from Karnataka, Rajasthan, and West Bengal.

Table 49: New investors registered in top 10 districts for the last two calendar years (in '000)

District	CY23		District	CY24	
	Count ('000)	Share (%)		Count ('000)	Share (%)
Delhi- NCR	1,055.3	6.6%	Delhi- NCR	1,400.3	6.0%
Mumbai (MH/TN/RG)	706.4	4.4%	Mumbai (MH/TN/RG)	974.5	4.2%
Pune	248.6	1.5%	Pune	337.2	1.5%
Bangalore	208.9	1.3%	Surat	327.8	1.4%
Ahmedabad	206.3	1.3%	Ahmedabad	327.7	1.4%
Surat	196.4	1.2%	Bangalore	325.2	1.4%
Jaipur	170.8	1.1%	Jaipur	256.1	1.1%
North 24 Parganas	144.3	0.9%	North 24 Parganas	222.8	1.0%
Nagpur	130.0	0.8%	Nagpur	180.9	0.8%
Nashik	108.1	0.7%	Rajkot	154.2	0.7%
Top 10 districts	3,175.1	19.7%	Top 10 districts	4,506.7	19.5%
Districts beyond top 30	11,122.1	69.1%	Districts beyond top 30	16,059.0	69.3%
Districts beyond top 50	9,825.8	61.0%	Districts beyond top 50	15,105.5	65.2%
District beyond top 100	7,438.6	46.2%	District beyond top 100	10,733.0	46.3%

Source: NSE EPR

Note: Top 10 districts are chosen based on CY24's data.

Investor profile

Young investors dominate as mean/median age fell in the last five years: The proportion of young investors, particularly those under 30 years of age, has shown a consistent rise, increasing from 22.7% in 2018 to 39.9% in 2024, making them the dominant investor group. This shift is further reflected in the decline of the mean and median age of registered investors, which have dropped to 35.7 and 32 years, respectively from 41 and 38 years five years ago. This trend indicates a growing interest among younger generations in participating in the stock market. Their increasing participation has shifted the demographic balance, with the share of mid-age investors aged 40-49 years decreasing from 20.1% in 2018 to 15.6% in 2024. Similarly, the share of investors over 50 years of age has also continued to decline during the same period from 26.2% in 2018 to 15% in 2024. The share of investors in the 31 to 39 age group has also experienced a decline, albeit less pronounced compared to the older age groups.

Table 50: Distribution of registered individual investor base by age

Age category	Share of registered investor base (%)						
	2018	2019	2020	2021	2022	2023	2024
Less than 30 years	22.7	22.8	27.3	36.2	38.1	39.5	39.9
30-39 years	31.0	31.2	30.7	29.0	29.1	29.1	29.4
40-49 years	20.1	19.9	18.6	16.1	15.7	15.5	15.6
50- 59 years	13.1	12.9	11.5	9.4	8.8	8.3	8.0
60 years and above	13.1	13.2	11.8	9.2	8.2	7.6	7.0

Source: NSE EPR

Note: Only individuals and sole proprietorship firms have been considered in the above table

Table 51: Mean and median age of registered individual investors

Age (years)	2018	2019	2020	2021	2022	2023	2024
Median	38	38	36	34	33	33	32
Mean	41.3	41.3	39.9	37.2	36.5	36.0	35.7

Source: NSE EPR

Note: 1. Only individuals and sole proprietorship firms have been considered in the above table

Female participation has increased gradually since CY22: Female participation in individual investor registrations has shown a gradual increase since CY22, to slightly shy of a quarter as of December 2024. Among large states, Delhi (30%), Maharashtra (28%) and Tamil Nadu (27.7%) exhibit higher female representation than the pan India average of 24.1% in CY24, while states such as Bihar (15.6%), Uttar Pradesh (18.4%) and Odisha (19.7%) had sub-20% female share in their respective registered investor bases. Despite these regional variations, the overall progress highlights a steady improvement in gender inclusion within financial markets across the country.

Table 52: State-wise gender classification of registered investors (in %)

States	CY21		CY22		CY23		CY24	
	Female	Male	Female	Male	Female	Male	Female	Male
Andaman and Nicobar	18.9%	81.1%	19.7%	80.3%	20.5%	79.5%	22.8%	77.2%
Andhra Pradesh	19.3%	80.7%	20.2%	79.8%	21.1%	78.9%	23.0%	77.0%
Arunachal Pradesh	21.3%	78.7%	22.5%	77.5%	23.2%	76.8%	26.2%	73.8%
Assam	31.6%	68.4%	31.4%	68.6%	30.2%	69.8%	29.8%	70.2%
Bihar	13.6%	86.4%	13.8%	86.2%	14.3%	85.7%	15.6%	84.4%
Chandigarh	30.7%	69.3%	30.7%	69.3%	30.9%	69.1%	31.8%	68.2%
Chhattisgarh	18.7%	81.3%	19.1%	80.9%	19.8%	80.2%	22.2%	77.8%
Dadra and Nagar Haveli	17.9%	82.1%	18.0%	82.0%	17.8%	82.2%	19.7%	80.3%
Daman and Diu	19.0%	81.0%	18.9%	81.1%	19.1%	80.9%	20.6%	79.4%
Delhi	27.3%	72.7%	27.7%	72.3%	28.3%	71.7%	30.0%	70.0%
Goa	29.5%	70.5%	30.2%	69.8%	30.6%	69.4%	32.2%	67.8%
Gujarat	27.8%	72.2%	26.9%	73.1%	26.5%	73.5%	27.6%	72.4%
Haryana	22.0%	78.0%	21.8%	78.2%	22.6%	77.4%	24.4%	75.6%
Himachal Pradesh	16.1%	83.9%	16.9%	83.1%	17.7%	82.3%	20.4%	79.6%
Jammu and Kashmir	14.0%	86.0%	13.9%	86.1%	14.1%	85.9%	15.8%	84.2%
Jharkhand	17.9%	82.1%	18.1%	81.9%	18.6%	81.4%	20.4%	79.6%
Karnataka	24.2%	75.8%	24.7%	75.3%	25.4%	74.6%	27.1%	72.9%
Kerala	25.1%	74.9%	25.7%	74.3%	26.1%	73.9%	27.3%	72.7%
Lakshadweep	9.3%	90.7%	10.1%	89.9%	12.5%	87.5%	15.1%	84.9%
Madhya Pradesh	18.2%	81.8%	18.4%	81.6%	19.9%	80.1%	21.6%	78.4%
Maharashtra	25.5%	74.5%	25.7%	74.3%	26.2%	73.8%	28.0%	72.0%
Manipur	21.3%	78.7%	21.9%	78.1%	22.7%	77.3%	24.5%	75.5%
Meghalaya	25.7%	74.3%	25.4%	74.6%	25.1%	74.9%	26.1%	73.9%
Mizoram	27.5%	72.5%	28.2%	71.8%	29.9%	70.1%	31.4%	68.6%
Nagaland	25.0%	75.0%	25.8%	74.2%	26.2%	73.8%	28.3%	71.7%
Odisha	16.3%	83.7%	17.2%	82.8%	17.9%	82.1%	19.7%	80.3%
Pondicherry	26.1%	73.9%	26.6%	73.4%	27.0%	73.0%	28.1%	71.9%
Punjab	22.8%	77.2%	23.3%	76.7%	24.5%	75.5%	26.2%	73.8%
Rajasthan	19.8%	80.2%	19.0%	81.0%	18.9%	81.1%	20.1%	79.9%
Sikkim	24.5%	75.5%	25.7%	74.3%	26.6%	73.4%	29.6%	70.4%
Tamil Nadu	24.7%	75.3%	25.5%	74.5%	26.6%	73.4%	27.7%	72.3%
Telangana	21.6%	78.4%	22.2%	77.8%	22.9%	77.1%	24.5%	75.5%
Tripura	14.8%	85.2%	15.3%	84.7%	15.9%	84.1%	18.0%	82.0%
Uttar Pradesh	17.4%	82.6%	17.1%	82.9%	17.2%	82.8%	18.4%	81.6%
Uttarakhand	19.0%	81.0%	19.3%	80.7%	19.9%	80.1%	21.9%	78.1%
West Bengal	22.5%	77.5%	22.3%	77.7%	22.1%	77.9%	23.0%	77.0%
India	22.7%	77.3%	22.6%	77.4%	22.8%	77.2%	24.1%	75.9%

Source: NSE EPR.

Note: The gender classification is based on investor data where the gender was disclosed. The mapping is based on India Post's pincode level mapping (GoI).

* Data for CY25 is as of Dec'24.

Market activity across segments and investor categories

Total turnover across segments

CM segment turnover expanded in 2024: The CM segment increased by 77.4% YoY to Rs 290.1 lakh crore in 2024 and at a CAGR of 28.2% in the last five years, reflecting a robust increase in market activity. This growth can be attributed heightened investor participation driven by improved market sentiment amid strong economic fundamentals and political stability. Additionally, the proliferation of digital trading platforms has made investing more accessible over the years, encouraging a younger demographic to engage in the equity market.

Equity futures and options (premium) turnover expanded in 2024: In line with the CM segment, equity futures turnover increased by 63.2% YoY and a 5-year CAGR of 18.1% to Rs 473 lakh crore, while equity options (premium) turnover rose by 19.2% YoY and a 5-year CAGR of 74% to Rs 170 lakh crore. Notably, single stock derivatives outperformed index derivatives in 2024 on a YoY basis, with stock futures and options growing at a robust growth rate of 76.9% YoY and 76.7% YoY respectively. While the growth rates of stock futures and stock options turnover were comparable in 2024, YoY growth of index futures turnover (23.8% YoY) outpaced YoY growth rate of index options premium turnover (14.3% YoY). The robust growth in the equity derivatives segment can be attributed to heightened participation by proprietary traders, individual investors and foreign investors.

Turnover in currency futures and options (premium) witnessed a notable decline in 2024: The turnover in currency futures and currency options (premium) dropped significantly in 2024. The turnover in currency futures fell to Rs 27.3 lakh crore (-65.8% YoY) in 2024 from Rs 79.8 lakh crore in 2023, while that in currency options (premium) fell to Rs 6,489 crore in 2024 (-82.8% YoY). The drop in turnover can be primarily attributed to the Reserve Bank of India (RBI)'s circular aimed at tightening regulations around exchange-traded currency derivatives (ETCDs) trading, which necessitated requirement of underlying exposure in currencies to trade in ETCDs.

Commodity options (premium) turnover witnessed substantial expansion in 2024: While the turnover in commodity futures saw a drastic decline to Rs 213 crore (-96% YoY), commodity options (premium) rose to Rs 2,635 crore, registering a phenomenal growth rate of 1722.5% YoY in 2024, resulting in a CAGR of -66.6% and 173.4% in the last three years. Trading activity in the segment was primarily concentrated in Silver, Crude Oil, and Natural gas contracts. While Silver contracts witnessed increased trading in 2024 vs. 2023 in both futures and options segment, WTI crude and Natural gas contracts witnessed increased trading in options segment and decreased trading in futures segment.

Table 53: Total turnover across segments in the last six years (2019–2024)

Segment (Rs crore)	2019	2020	2021	2022	2023	2024
Cash market	83,92,830	1,35,30,418	1,72,04,858	1,40,88,124	1,63,51,754	2,90,13,502
Equity Futures	2,06,08,577	2,50,78,646	2,94,77,442	2,95,62,384	2,89,75,918	4,72,95,688
Stock Futures	1,46,20,466	1,65,83,570	2,12,25,472	1,97,49,313	2,15,30,867	3,80,79,245
Index Futures	59,88,111	84,95,076	82,51,970	98,13,071	74,45,051	92,16,443
Equity Options (Premium)	10,68,575	24,66,374	55,56,884	1,07,38,853	1,42,66,153	1,70,01,616
Stock Options (Premium)	2,06,974	4,37,769	10,09,122	9,52,729	11,23,567	19,85,766
Index Options (Premium)	8,61,601	20,28,605	45,47,763	97,86,124	1,31,42,586	1,50,15,851
Currency derivatives						
Currency Futures	45,26,040	56,18,150	62,75,443	1,00,09,828	79,77,022	27,28,195
Currency Options (Premium)	12,629	14,671	19,566	43,663	37,814	6,488
Interest rate derivatives	3,33,241	1,73,664	33,257	26,965	31,916	24,491
Commodity derivatives						
Commodity Futures	7,377	2,391	5,726	13	5,363	213
Commodity Options (Premium)	-	241	129	125	145	2,635

Source: NSE EPR

Table 54: Monthly trend of total turnover across equity cash and derivative segments in 2024

Segment (Rs crore)	Cash market	Equity Futures			Equity Options (Premium)		
		Total	Stock	Index	Total	Stock	Index
Jan-24	24,91,181	37,89,859	29,41,231	8,48,629	16,77,880	1,77,503	15,00,376
Feb-24	24,57,671	38,09,270	29,69,909	8,39,361	16,77,660	1,72,161	15,05,499
Mar-24	18,57,039	33,71,081	26,45,364	7,25,717	12,54,348	1,26,669	11,27,679
Apr-24	21,20,196	38,51,979	31,58,915	6,93,064	12,40,545	1,55,943	10,84,602
May-24	24,67,941	42,71,082	34,64,430	8,06,652	14,71,401	1,86,613	12,84,788
Jun-24	29,05,226	46,45,873	36,62,528	9,83,344	16,77,678	1,91,370	14,86,308
Jul-24	30,61,577	46,56,835	38,31,730	8,25,104	15,10,073	1,97,877	13,12,196
Aug-24	26,38,157	41,19,112	33,66,229	7,52,883	13,80,676	1,61,998	12,18,678
Sep-24	25,59,376	41,27,438	34,14,779	7,12,659	13,11,066	1,74,393	11,36,673
Oct-24	23,53,098	41,04,371	33,43,153	7,61,218	15,39,425	1,71,991	13,67,433
Nov-24	19,16,210	32,50,775	26,16,407	6,34,368	11,58,998	1,27,497	10,31,502
Dec-24	21,85,830	32,98,013	26,64,569	6,33,444	11,01,866	1,41,750	9,60,116

Source: NSE EPR.

Table 55: Monthly trend of total turnover across currency and commodity derivative segments in 2024

Segment (Rs crore)	Currency derivatives		Interest rate Futures	Commodity derivatives	
	Currency Futures	Currency Options (premium)		Commodity Futures	Commodity Options (premium)
Jan-24	6,12,806	2265.4	1978	31.8	113.0
Feb-24	4,64,005	1697.9	1808	18.6	160.7
Mar-24	5,94,814	2153.4	1518	19.9	137.0
Apr-24	2,17,438	353.3	1772	11.7	218.7
May-24	1,05,151	7.9	2239	12.6	174.2
Jun-24	1,09,312	3.4	2231	11.0	126.9
Jul-24	45,606	1.5	1786	11.1	178.1
Aug-24	1,08,395	1.4	1688	17.5	246.3
Sep-24	64,015	1.1	2307	28.6	290.2
Oct-24	1,50,597	1.3	2698	20.1	404.4
Nov-24	1,03,989	1.1	2238	13.9	262.2
Dec-24	1,52,068	1.2	2228	16.5	323.6

Source: NSE EPR.

Table 56: Notional to premium turnover ratio for equity options at NSE in 2024

Month	Index options			Stock options		
	Notional turnover (Rs lakh crore)	Premium turnover (Rs lakh crore)	Ratio	Notional turnover (Rs lakh crore)	Premium turnover (Rs lakh crore)	Ratio
Jan-24	8,720	15.0	581	102	1.8	58
Feb-24	8,452	15.1	561	104	1.7	61
Mar-24	7,098	11.3	629	87	1.3	68
Apr-24	7,072	10.8	652	99	1.6	64
May-24	7,154	12.8	557	110	1.9	59
Jun-24	7,226	14.9	486	112	1.9	58
Jul-24	8,215	13.1	626	119	2.0	60
Aug-24	7,768	12.2	637	116	1.6	72
Sep-24	8,097	11.4	712	129	1.7	74
Oct-24	8,602	13.7	629	125	1.7	72
Nov-24	6,245	10.3	605	91	1.3	71
Dec-24	4,258	9.6	443	104	1.4	74

Source: NSE EPR.

Table 57: Notional to premium turnover ratio for equity options at BSE in 2024

Month	Index options			Stock options		
	Notional turnover (Rs lakh crore)	Premium turnover (Rs lakh crore)	Ratio	Notional turnover (Rs lakh crore)	Premium turnover (Rs lakh crore)	Ratio
Jan-24	1,423	0.8	1,765	-	-	-
Feb-24	1,264	0.8	1,565	-	-	-
Mar-24	1,553	1.1	1,434	-	-	-
Apr-24	1,519	1.0	1,550	-	-	-
May-24	1,695	1.2	1,444	-	-	-
Jun-24	2,197	1.6	1,383	-	-	-
Jul-24	2,064	1.6	1,285	-	-	-
Aug-24	2,543	1.6	1,546	0.0	0.0	115
Sep-24	2,603	1.6	1,627	0.001069	0.000014	74
Oct-24	3,015	2.0	1,503	0.001024	0.000011	95
Nov-24	2,643	2.0	1,329	0.001362	0.000026	52
Dec-24	2,031	1.6	1,300	0.000393	0.000004	106

Source: NSE EPR.

Average daily turnover (ADT) across segments

Average daily turnover witnessed mixed trends across segments in 2024: In line with the segment's total turnover, the ADT of the CM segment experienced robust growth, surging from Rs 66,471 crore in 2023 to Rs 1.16 lakh crore (+75.3% YoY) in 2024 and a CAGR of 27.7% in the last five years. This sharp increase signals investor confidence in Indian markets, driven by a positive economic outlook, market reforms, and greater participation from individual investors. The month of June recorded the highest ADT of Rs 1.53 lakh crore this year, while March marked the lowest ADT of Rs 97,739 crore during the year.

Equity futures also saw an expansion, led by the surge in the ADT of stock futures to Rs 1.5 lakh crore (+74.7% YoY) in 2024 vs. a growth rate of 22.3% YoY in index futures. While the ADT of index futures witnessed a CAGR of 8.7% in the last five years, ADT in stock futures witnessed a CAGR of 20.7% during the same period. Further, the growth in the average daily premium turnover (ADPT) of equity options, which reached Rs 68,280 crore (17.7% YoY) in 2024 was largely led by the index options premium turnover. While index options premium turnover grew 12.9% YoY, it contributed nearly two-third of the growth in equity options ADPT in 2024. Stock options, on the other hand, registered a robust growth of 74.6% YoY in ADPT this year, however, it contributed one-third of the growth in equity options ADPT.

The ADT of currency futures declined steeply to Rs 11,320 crore (65.5% YoY), while ADPT of currency options plunged to Rs 27 crore (-82.7% YoY). The ADT in interest rate futures also fell to Rs 102 crore (-22.6% YoY) during the year. In the commodity derivatives segment, the ADT of commodity futures fell to Rs 1 crore, while the ADPT of commodity options rose to an all-time high of Rs 10 crore (+1722.5% YoY) during the year.

Table 58: Average daily turnover across segments in the last six years (2019–2024)

Segment (Rs crore)	2019	2020	2021	2022	2023	2024
Cash market	34,256	53,692	69,374	56,807	66,471	1,16,520
Equity Futures	84,117	99,518	1,18,861	1,19,203	1,17,788	1,89,943
Stock Futures	59,675	65,808	85,587	79,634	87,524	1,52,929
Index Futures	24,441	33,711	33,274	39,569	30,264	37,014
Equity Options (Premium)	4,362	9,787	22,407	43,302	57,992	68,280
Stock Options (Premium)	845	1,737	4,069	3,842	4,567	7,975
Index Options (Premium)	3,517	8,050	18,338	39,460	53,425	60,305
Currency derivatives						
Currency Futures	18,626	22,838	25,932	41,024	32,827	11,320
Currency Options (Premium)	52	60	81	179	156	27
Interest rate derivatives	1,371	706	137	111	131	102
Commodity derivatives						
Commodity Futures	29	9	22	0	21	1
Commodity Options (Premium)	-	2	0	0	1	10

Source: NSE EPR.

Table 59: Monthly trend of average daily turnover across equity cash and derivative segments in 2024

Segment (Rs crore)	Cash market	Equity Futures			Equity Options (Premium)		
		Total	Stock	Index	Total	Stock	Index
Jan-24	1,13,235	1,72,266	1,33,692	38,574	76,267	8,068	68,199
Feb-24	1,17,032	1,81,394	1,41,424	39,970	79,889	8,198	71,690
Mar-24	97,739	1,77,425	1,39,230	38,196	66,018	6,667	59,352
Apr-24	1,06,010	1,92,599	1,57,946	34,653	62,028	7,797	54,231
May-24	1,12,179	1,94,140	1,57,474	36,666	66,882	8,482	58,399
Jun-24	1,52,907	2,44,520	1,92,765	51,755	88,299	10,072	78,227
Jul-24	1,39,163	2,11,674	1,74,170	37,505	68,640	8,994	59,645
Aug-24	1,25,627	1,96,148	1,60,297	35,852	65,746	7,714	58,032
Sep-24	1,21,875	1,96,545	1,62,609	33,936	62,432	8,304	54,127
Oct-24	1,06,959	1,86,562	1,51,962	34,601	69,974	7,818	62,156
Nov-24	1,00,853	1,71,093	1,37,706	33,388	61,000	6,710	54,290
Dec-24	1,04,087	1,57,048	1,26,884	30,164	52,470	6,750	45,720

Source: NSE EPR.

Table 60: Monthly trend of ADT across currency, interest rate and commodity derivative segments in 2024

Segment (Rs crore)	Currency derivatives			Commodity derivatives		
	Futures	Options (premium)	Interest rate derivatives	Futures	Options (premium)	
Jan-24	29,181	108	94	1.5	5.4	
Feb-24	23,200	85	90	0.9	7.7	
Mar-24	33,045	120	84	1.0	6.9	
Apr-24	12,080	20	98	0.5	9.9	
May-24	5,258	0.4	112	0.5	7.6	
Jun-24	5,753	0.2	117	0.5	6.3	
Jul-24	2,073	0.1	81	0.5	7.7	
Aug-24	5,162	0.1	80	0.8	11.7	
Sep-24	3,201	0.1	115	1.4	13.8	
Oct-24	6,845	0.1	123	0.9	18.4	
Nov-24	5,473	0.1	118	0.7	12.5	
Dec-24	7,241	0.1	106	0.8	15.4	

Source: NSE EPR.

Average trade size inched up marginally in the CM and equity futures segments; declined in equity options in 2024: The average trade size (ATS) in the CM segment increased marginally to Rs 29,937 (+2.3% YoY) in 2024. While ADT in the last five years has growth at a CAGR of 22.7%, the CAGR for ATS has remained flat at 0.8%. Equity derivatives segment exhibited mixed responses. While ATS for equity futures has grown at a CAGR of 5% in the last five years, the corresponding growth for equity options has remained flat. Equity futures' average trade size increased by 2.1% YoY to a 3-year high of Rs 10.2 lakh crore, wherein index futures fell by 3.0% YoY and stock futures grew by 6.2% YoY to Rs 14.6 lakh and Rs 9.5 lakh, respectively. However, the average trade size of equity options (based on premium turnover) observed a modest decline of 4.2% YoY, led by index options which witnessed a 7.3% YoY drop in ATS to Rs 5,693. On the contrary, stock options witnessed a rise in the average trade size to a 3-year high of Rs 15,905 (+12.9% YoY) in 2024.

In the CM segment, Domestic Institutional Investors (DIIs) and Foreign Investors witnessed an increase in ATS to Rs 38,348 (9.9% YoY) and Rs 35,622 (7.1% YoY) respectively in 2024, while that of proprietary traders fell to Rs 27,460 (-4.8% YoY). On the other hand, DIIs and Foreign Investors observed a fall in their ATS in index futures to Rs 15.9 lakh (-8.4% YoY) and Rs 14.4 lakh (-9.9% YoY) respectively. In stock futures, the ATS of individuals and proprietary traders increased to Rs 9.6 lakh and Rs 9.1 lakh respectively. Further, the ATS of corporates increased to Rs 5,012 (11.3% YoY) in index options and Rs 16,984 (6.5% YoY) in stock options respectively.

Table 61: Average trade size in NSE cash market and equity derivatives segments (2019-2024)

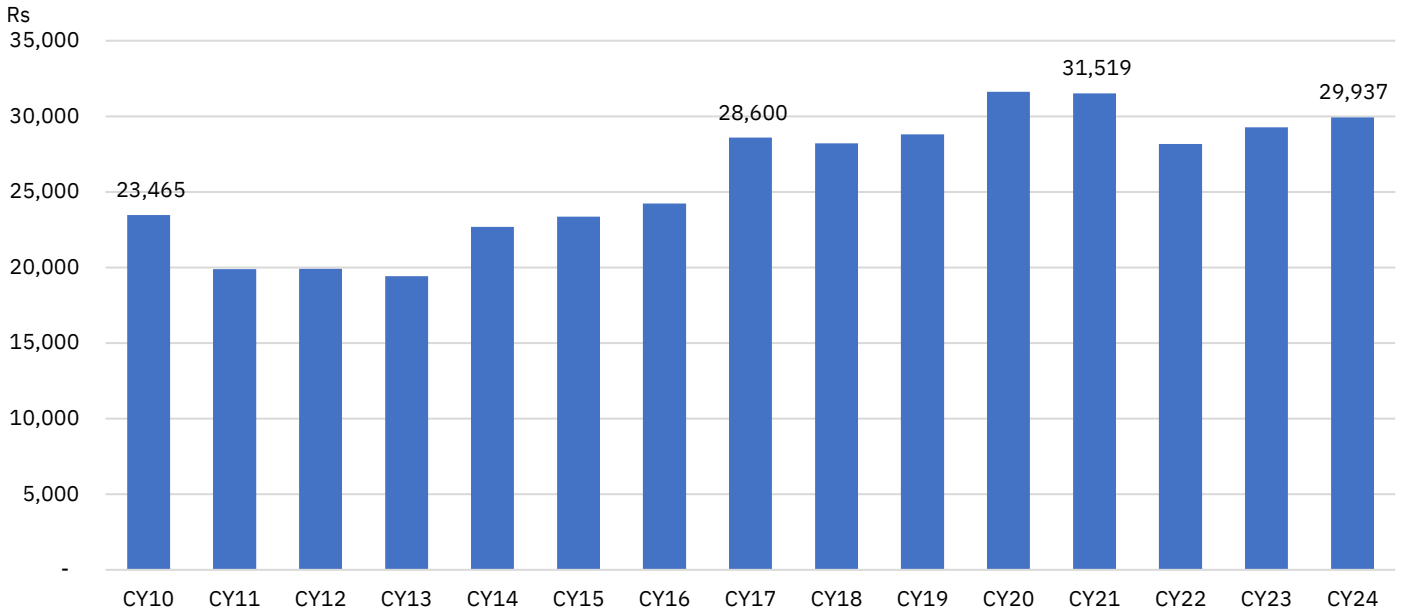
Segment wise (Rs)	2019	2020	2021	2022	2023	2024
Cash market	28,801	31,621	31,519	28,174	29,269	29,937
Equity Futures	8,00,975	8,25,101	10,84,484	9,62,572	9,99,942	10,21,193
Index Futures	11,97,522	9,63,131	13,81,090	14,09,255	15,06,167	14,61,614
Stock Futures	7,05,317	7,68,670	10,00,913	8,31,600	8,95,830	9,51,779
Equity Options	6,334	7,774	8,177	8,335	6,427	6,154
Index Options	5,658	6,905	7,236	8,002	6,141	5,693
Stock Options	12,559	18,635	19,766	14,553	14,088	15,905

Source: NSE EPR. Note: Premium has been considered for calculating average trade size for options contracts.

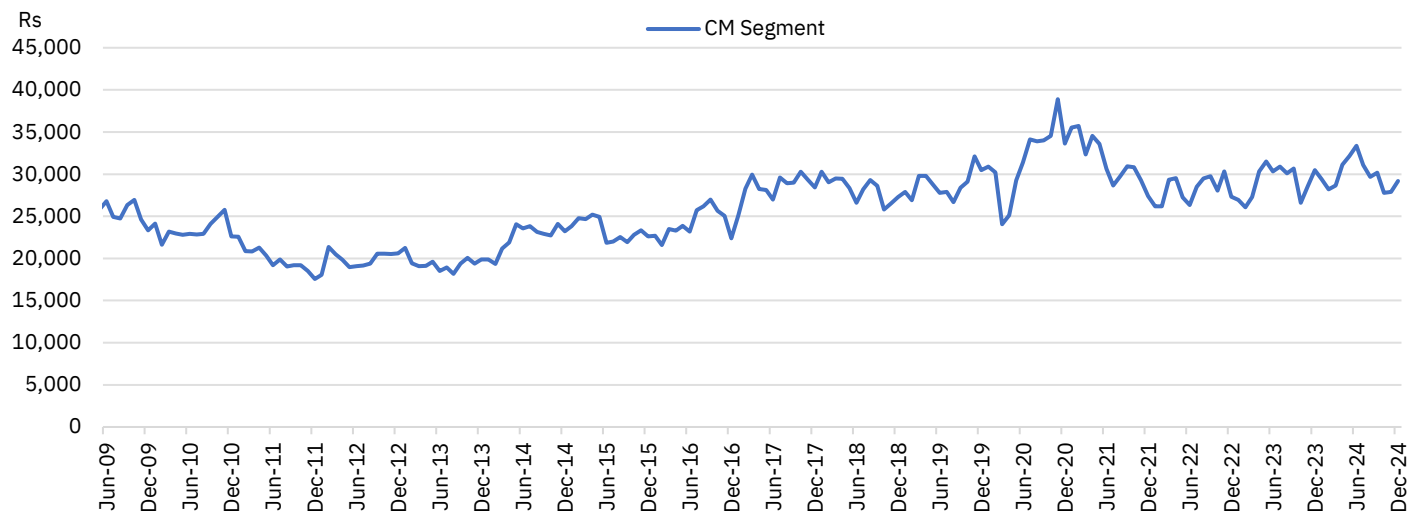
Table 62: Monthly trend of average trade size in NSE cash and equity derivatives segment in 2024

Segment (Rs)	Cash market	Equity Futures			Equity Options (Premium)		
		Total	Index	Stock	Total	Index	Stock
Jan-24	29,429	10,71,931	15,91,966	9,79,602	6,608	6,141	18,533
Feb-24	28,180	11,16,799	15,71,973	10,32,319	6,702	6,246	18,540
Mar-24	28,649	11,26,680	16,91,573	10,32,124	6,110	5,706	16,563
Apr-24	31,133	11,11,528	16,56,450	10,36,704	6,041	5,519	17,642
May-24	32,133	9,86,832	12,50,687	9,40,627	6,194	5,662	17,605
Jun-24	33,356	10,13,742	13,39,132	9,51,658	6,648	6,147	18,102
Jul-24	31,081	10,16,741	14,37,973	9,56,412	5,869	5,342	17,011
Aug-24	29,695	10,28,769	14,19,100	9,69,149	5,502	5,079	14,738
Sep-24	30,156	10,33,518	14,47,901	9,75,267	5,403	4,925	14,703
Oct-24	27,768	10,16,890	14,21,289	9,55,018	5,668	5,267	14,331
Nov-24	27,908	8,96,713	14,16,500	8,23,450	5,933	5,574	12,373
Dec-24	29,206	8,77,092	14,66,384	8,00,606	7,871	7,474	12,285

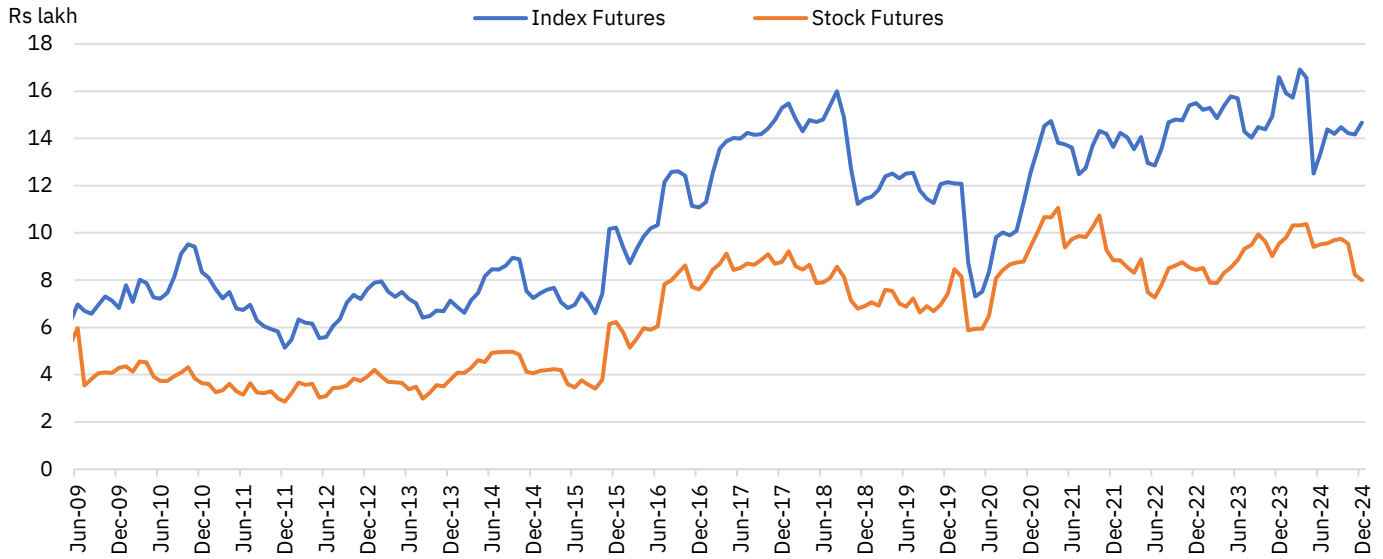
Source: NSE EPR. Note: Premium has been considered for calculating average trade size for options contracts.

Figure 222: Annual trend in average trade size in NSE cash market segment


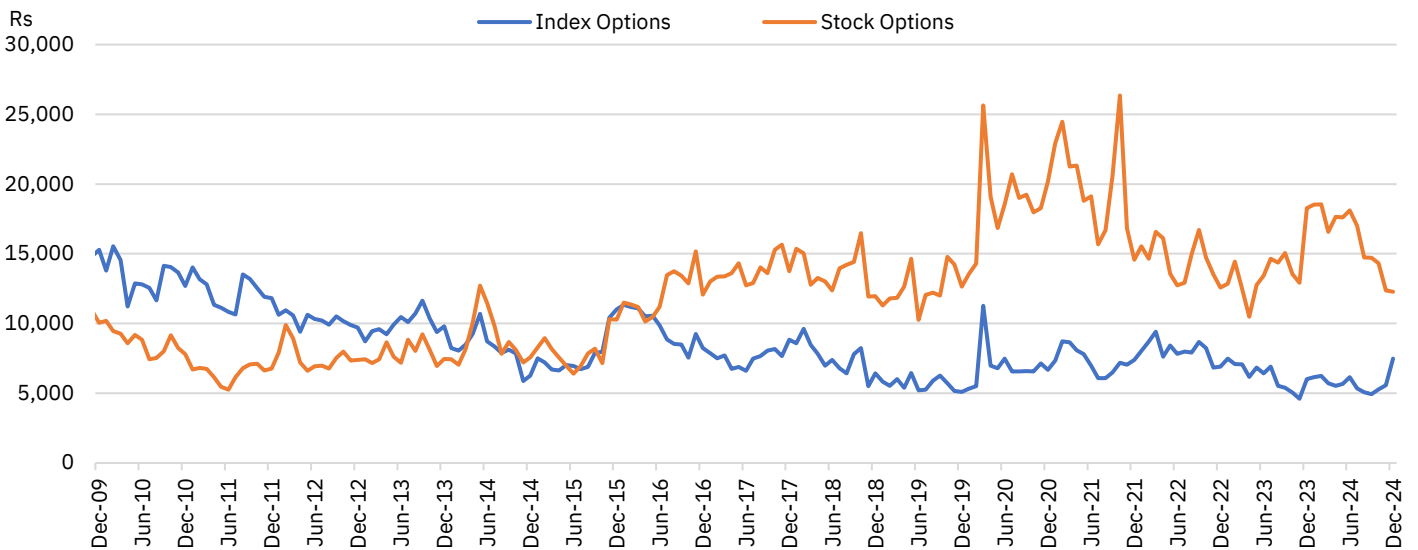
Source: NSE EPR.

Figure 223: Monthly trend in average trade size in NSE CM segment


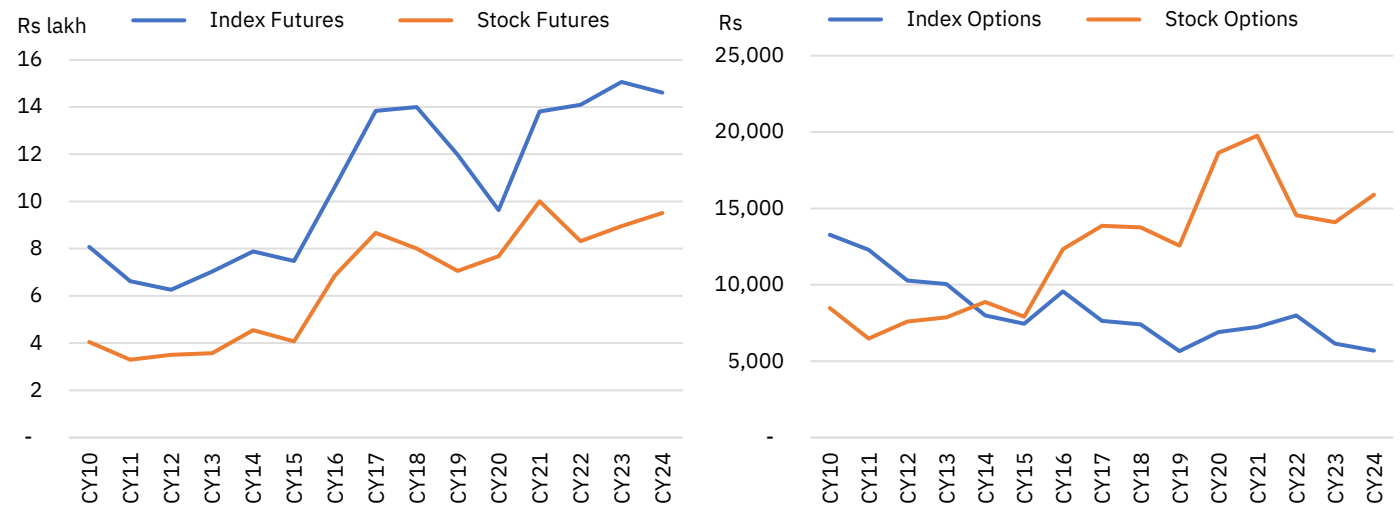
Source: NSE EPR.

Figure 224: Monthly trend in average trade size in equity futures


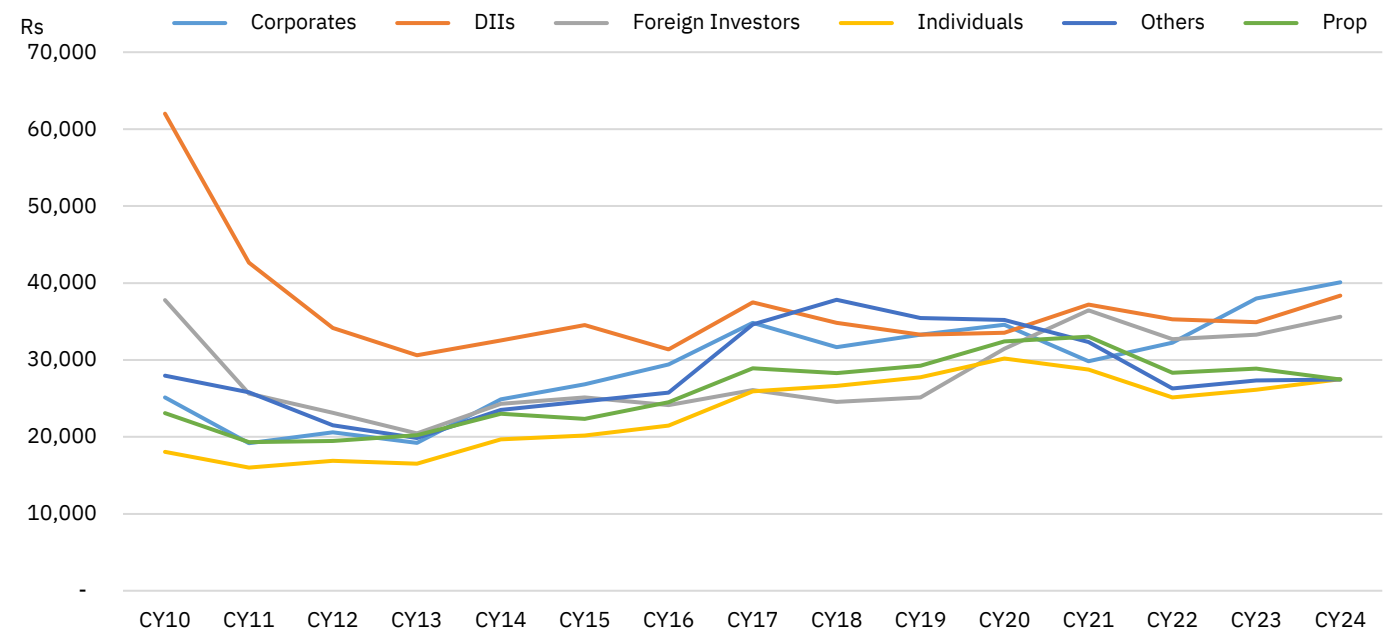
Source: NSE EPR.

Figure 225: Monthly trend in average trade size in equity options


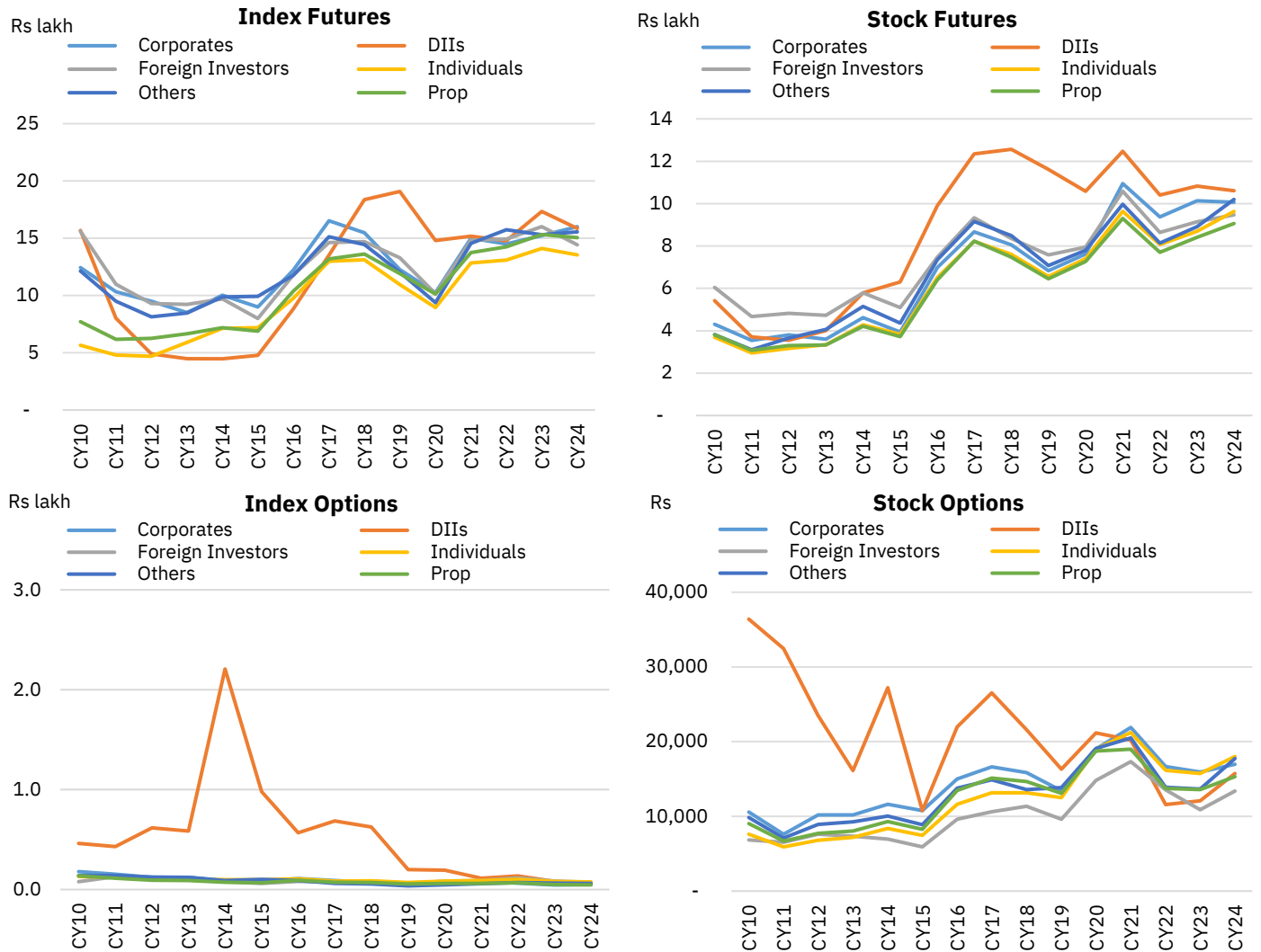
Source: NSE EPR

Figure 226: Annual trend in average trade size in NSE equity derivatives segment


Source: NSE EPR.

Figure 227: Annual trend in average trade size across categories in NSE CM segment


Source: NSE EPR.

Figure 228: Annual trend in average trade size across categories in NSE equity derivatives segment


Source: NSE EPR

ADT in the CM segment increased for the second consecutive year: In 2024, the ADT in NSE's CM segment increased across products. The ADT for mainboard equities increased by 74.6% YoY to Rs 1.14 lakh crore, while that of SME Emerge experienced the highest YoY growth of 295.4% YoY to Rs 373 crore. ETFs, REITs and InvITs also shared a similar trend, witnessing substantial expansions during the year.

Table 63: Average daily turnover in NSE's CM Segment

Products (Rs crore)	Dec-24	Nov-24	% MoM change	CY24	CY23	% YoY Change	FY25TD	FY24TD
Capital Market	104,087	100,853	3.2	116,520	66,471	75.3	118,757	72,269
Equities (Main Board)	102,106	98,851	3.3	114,413	65,527	74.6	116,486	71,247
Exchange Traded Funds	1,319	1,534	(14.0)	1,401	626	123.8	1,519	655
SME Emerge	400	342	17.1	373	94	295.4	416	113
Sovereign Gold Bonds	9	12	(20.8)	12	9	43.5	13	8
InvITs	24	21	12.1	57	28	101.0	59	32
REITs	155	49	213.4	87	42	109.3	96	45
Others	74	44	67.9	177	144	22.3	169	169

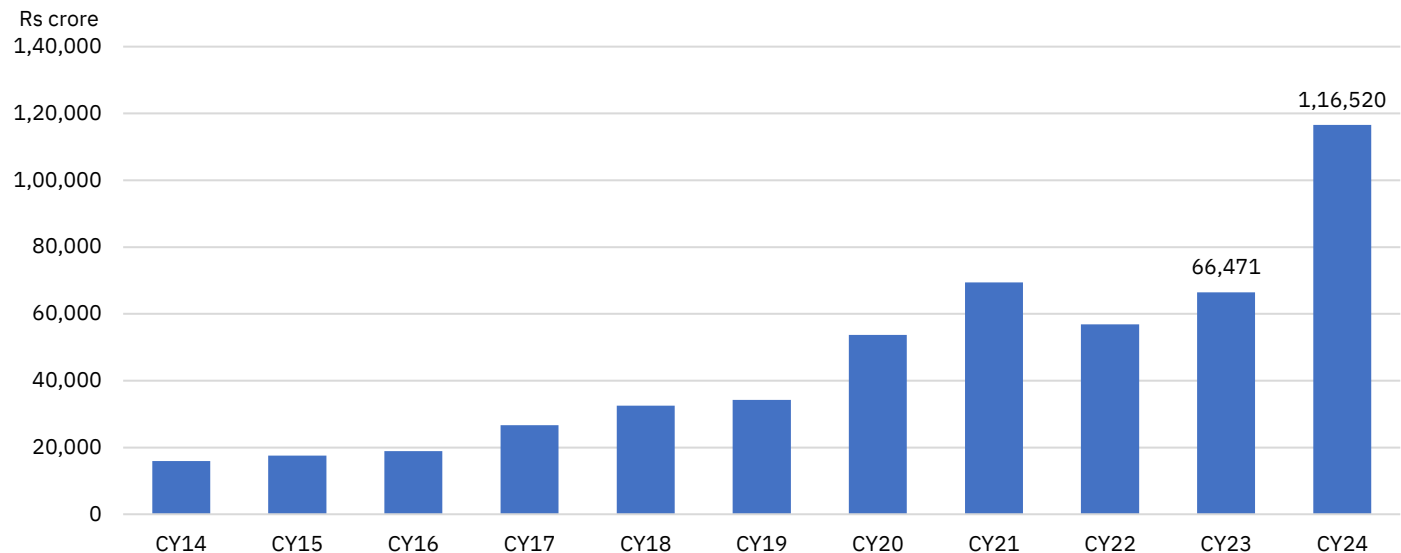
Source: NSE EPR

Notes: 1. Average daily turnover (ADT) excludes auction market turnover. Equities (Main Board) include stocks in EQ, BE, BL and BZ series.

2. Others include corporate and government debt instruments (excl. SGBs), preferential shares, partly paid-up shares, warrants etc., among others.

3. Figures in brackets indicate negative numbers.

4. FY25TD is as of Dec'24 and FY24TD is as of Dec'23.

Figure 229: Trends in average daily turnover in NSE cash market segment


Source: NSE EPR.

Note: Average daily turnover (ADT) excludes auction market turnover.

ADT of equity derivatives segment expanded across instruments: Average daily turnover (ADT) in equity futures rose to Rs 1.9 lakh crore (61.3% YoY) in 2024. ADT in stock futures and ADPT in stock options observed substantial growth of 74.7% and 74.6% YoY respectively to Rs 1.5 lakh crore and Rs 7,975 crore in the year gone by. Among index futures contracts, MIDCPNIFTY witnessed the highest growth of 752.8% YoY, followed by FINNIFTY (52.5% YoY). Within index options, MIDCPNIFTY (430.8% YoY) registered the highest growth in ADPT, followed by NIFTY50 (40% YoY). BANKNIFTY witnessed a yearly contraction in ADPT to Rs 27,510 crore.

Table 64: Average daily turnover in NSE's equity derivatives segment

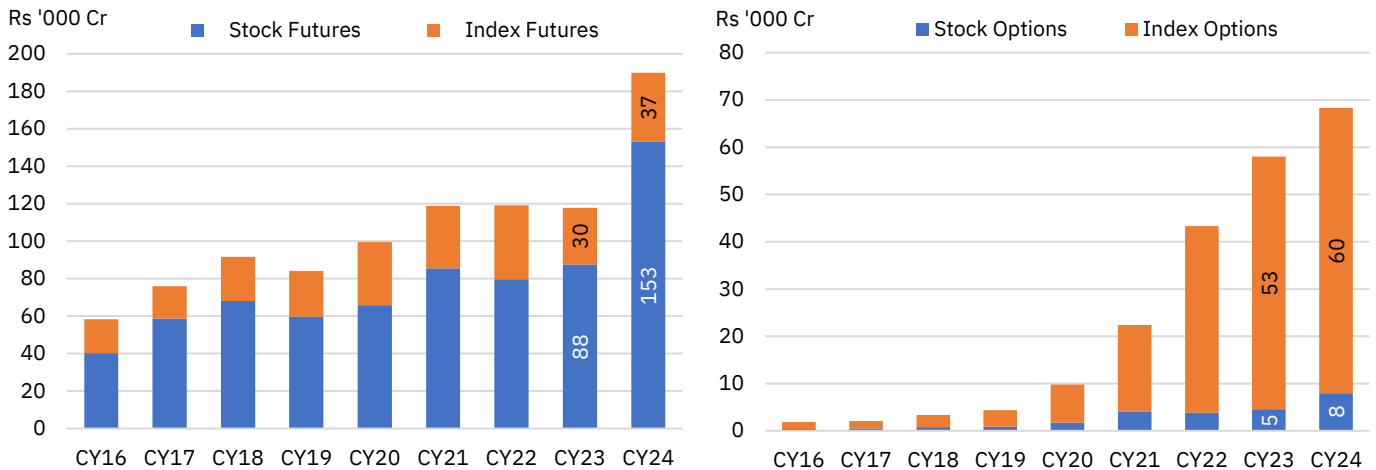
Product (Rs crore)	Dec-24	Nov-24	MoM Change (%)	CY24	CY23	YoY Change (%)	FY25TD	FY24TD
Equity Futures	1,57,048	1,71,093	(8.2)	1,89,943	1,17,788	61.3	1,94,254	1,19,532
Stock futures	1,26,884	1,37,706	(7.9)	1,52,929	87,524	74.7	1,57,876	92,339
Index futures	30,164	33,388	(9.7)	37,014	30,264	22.3	36,378	27,192
BANKNIFTY	11,235	11,908	(5.7)	14,683	14,638	0.3	13,940	12,802
NIFTY50	18,006	20,234	(11.0)	20,957	15,322	36.8	20,988	14,017
FINNIFTY	142	197	(28.0)	276	181	52.5	273	208
MIDCPNIFTY	724	993	(27.1)	1,052	123	752.8	1,117	165
NIFTYNXT50	58	56	4.1	45	-	NM	60	-
Equity Options	52,470	61,000	(14.0)	68,280	57,992	17.7	66,262	57,542
Stock options	6,750	6,710	0.6	7,975	4,567	74.6	8,072	4,901
Index options	45,720	54,290	(15.8)	60,305	53,425	12.9	58,190	52,641
BANKNIFTY	12,183	21,053	(42.1)	27,510	30,614	(10.1)	25,654	29,146
NIFTY50	31,308	24,499	27.8	23,243	16,600	40.0	22,970	16,627
FINNIFTY	988	6,181	(84.0)	6,005	5,544	8.32	5,867	5,975
MIDCPNIFTY	1,239	2,554	(51.5)	3,543	668	430.8	3,700	892
NIFTYNXT50	2	3	(22.6)	3	-	NM		

Source: NSE EPR. NM means not measurable.

Notes: 1. The above table reports premium turnover for Options contracts.

2. Figures in brackets indicate negative numbers.

3. FY25TD is as of Dec'24 and FY24TD is as of Dec'23.

Figure 230: Trends in average daily turnover in NSE's equity derivatives segment


Source: NSE EPR.

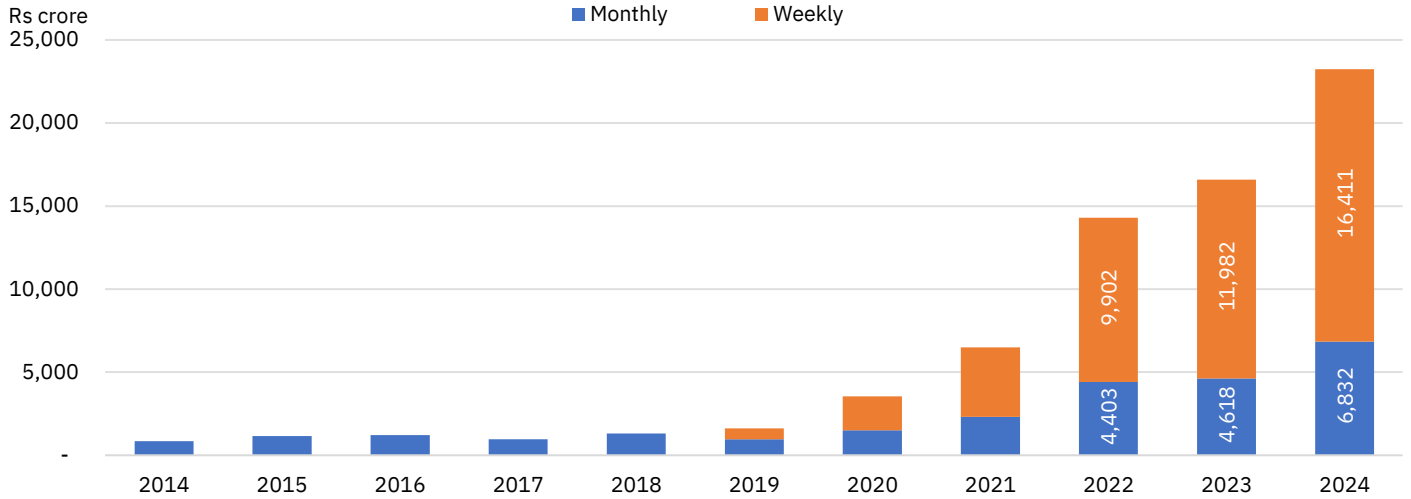
Note: The above figure reports premium turnover for options contracts.

NSE provides derivatives contracts in five major indices and 223 stocks. Over the last 9 years, average daily turnover in equity options has grown multifold, from Rs 1,867 crore in CY16 to Rs 68,280 crore in CY24. In 2024, the ADPT of index options accounted for 88.3% of the equity options ADPT.

Among index options, BANKNIFTY held the largest share at 45.6%, followed by NIFTY at 38.5%, FINNIFTY at 10%, and MIDCPNIFTY at 5.9% in 2024. After the recent SEBI guidelines that mandated discontinuation of weekly contracts on all but one index

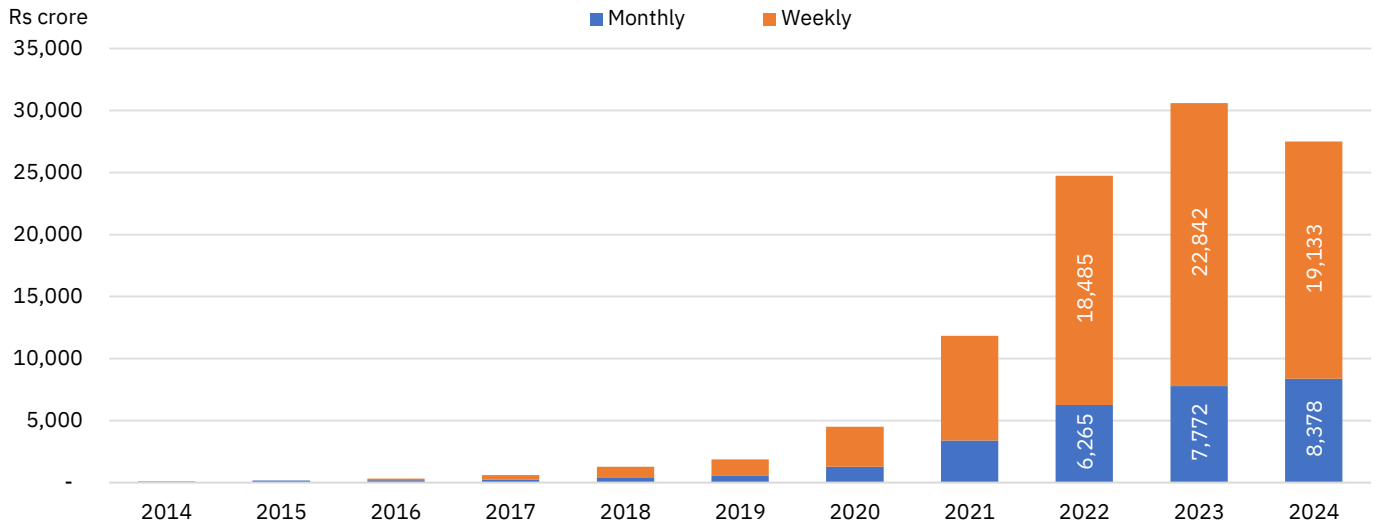
effective November 20th, weekly options contracts are now only available on Nifty 50. While weekly options contracts contributed 73.9% of the ADPT in index options in 2023, their contribution in 2024 reduced to 70.8%.

Figure 231: Annual trend in average daily turnover of Nifty 50

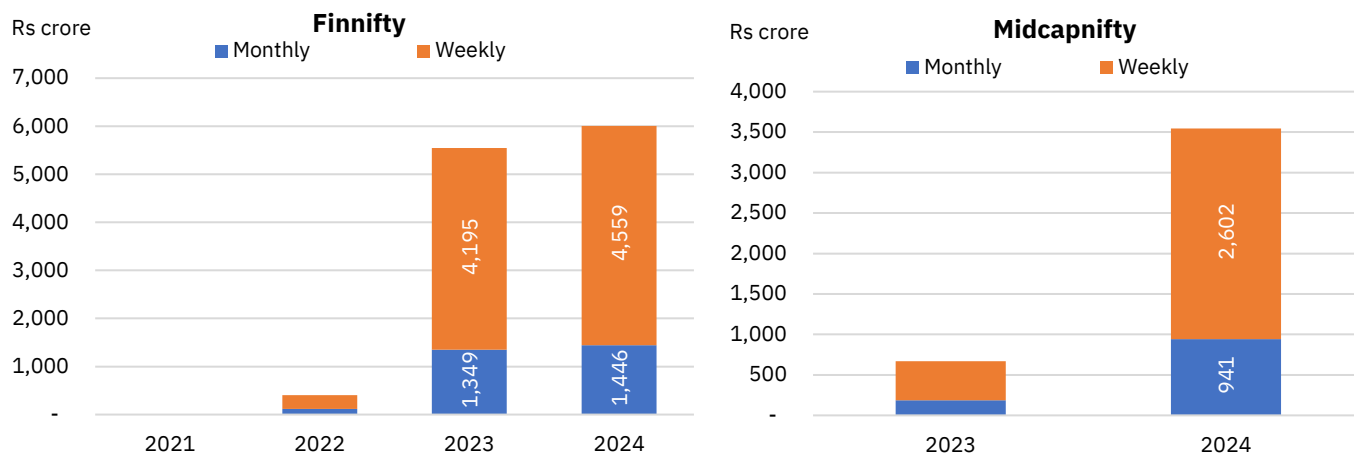


Source: NSE EPR.

Figure 232: Annual trend in average daily turnover of Bank Nifty



Source: NSE EPR.

Figure 233: Annual trend in average daily turnover of FINNIFTY and MIDCPNIFTY


Source: NSE EPR.

Average daily open interest (OI) in equity derivatives increased across products: The average daily value of open interest (OI) in equity futures rose by 64.9% YoY, while equity options recorded a slightly lower growth of 28.6% YoY in 2024, owing to increased trading activity in equity derivatives segment. In stock derivatives, the average daily OI in stock options grew to Rs 2.9 lakh crore (60.6% YoY) and that in stock futures increased to Rs 3.9 lakh crore (68.4% YoY).

Among index futures, MIDCPNIFTY recorded the highest YoY growth of 1201.5%, as the average daily open interest increased to Rs 2,168 crore. Similarly, among index options, MIDCPNIFTY recorded the highest growth (325.9% YoY), followed by NIFTY 50 (36.4% YoY). On the contrary, FINNIFTY witnessed a contraction in its average daily open interest to Rs 53,580 crore (-21.3% YoY).

Table 65: Average daily open interest in NSE's equity derivatives segment

Product (Rs crore)	Dec-24	Nov-24	MoM Change (%)	2024	2023	YoY Change (%)
Equity Futures	4,74,349	4,59,570	3.2%	4,40,137	2,66,886	64.9%
Stock Futures	4,25,718	4,10,007	3.8%	3,88,720	2,30,875	68.4%
Index Futures	48,630	49,563	-1.9%	51,417	36,011	42.8%
NIFTY	31,956	31,698	0.8%	34,140	23,395	45.9%
BANKNIFTY	14,035	15,077	-6.9%	14,864	12,345	20.4%
FINNIFTY	167	163	2.5%	182	104	75.3%
MIDCPNIFTY	2,386	2,518	-5.2%	2,168	167	1201.5%
NIFTYNEXT50	86	107	-19.8%	63	-	-
Equity Options	17,70,529	15,88,411	11.5%	15,55,051	12,08,988	28.6%
Stock Options	2,95,147	2,64,007	11.8%	2,87,610	1,79,139	60.6%
Index Options	14,75,382	13,24,403	11.4%	12,67,441	10,29,849	23.1%
NIFTY	10,57,123	8,41,275	25.7%	7,52,580	5,51,694	36.4%
BANKNIFTY	3,76,186	4,11,032	-8.5%	4,31,567	4,03,142	7.1%
FINNIFTY	24,327	49,473	-50.8%	53,580	68,088	-21.3%
MIDCPNIFTY	17,578	22,464	-21.7%	29,493	6,926	325.9%
NIFTYNEXT50	168	159	5.6%	221	-	NM

Source: NSE EPR. NM means not measurable.

Notes: 1. The above table reports notional turnover.

ADT in currency derivatives declined in 2024: The ADT in currency futures moderated substantially in the year gone by, owing to substantial drops in USDINR (-63.9% YoY) and GBPINR (-70.9% YoY) pairs to Rs 9,673.7 crore and Rs 951.4 crore respectively. The ADPT of currency options fell to Rs 26.9 crore (-82.7% YoY), led by a drastic decline in USDINR (-82.8% YoY) to Rs 26.6 crore. GBPINR (-55.9% YoY) and EURINR (-35.6% YoY) also observed a drop in ADPT to Rs 35.9 lakh and Rs 1.4 lakh respectively. USDINR was the highest traded pair in both currency futures and currency options in 2024.

Table 66: Average daily turnover in currency derivatives segment

Product (Rs lakhs)	Dec-24	Nov-24	MoM change (%)	CY24	CY23	YoY Change (%)	FY25TD	FY24TD
Currency futures	7,24,134	5,47,308	32.3	11,32,036	32,82,740	(65.5)	5,80,539	30,38,526
EURINR	4,083	5,617	(27.3)	52,385	2,06,084	(74.6)	7,705	2,02,608
EURUSD	421	1,259	(66.6)	912	1,360	(33.0)	804	1,505
GBPINR	6,479	7,794	(16.9)	95,141	3,26,655	(70.9)	11,909	3,31,718
GBPUSD	81	304	(73.4)	740	1,207	(38.7)	616	1,156
JPYINR	419	330	26.8	15,422	64,748	(76.2)	1,639	59,578
USDINR	7,12,627	5,31,961	34.0	9,67,372	26,82,182	(63.9)	5,57,810	24,41,584
USDJPY	25	43	(41.4)	64	504	(87.4)	56	377
Currency options	6	6	-2.4%	2,692.4	15,561.5	-82.7%	204	13,345
EURINR	-	-	-	1.4	2.2	(35.6)	0.1	2.3
EURUSD	-	-	-	-	-	-	-	-
GBPINR	-	-	-	35.9	81.5	(55.9)	0.8	107.9
GBPUSD	-	-	-	-	-	-	-	-
JPYINR	-	-	-	0.0	0.2	(77.6)	-	0.2
USDINR	5.6	5.8	-2.4%	2,655.1	15,477.7	(82.8)	203.6	13,234.6
USDJPY	-	-	-	-	-	-	-	-

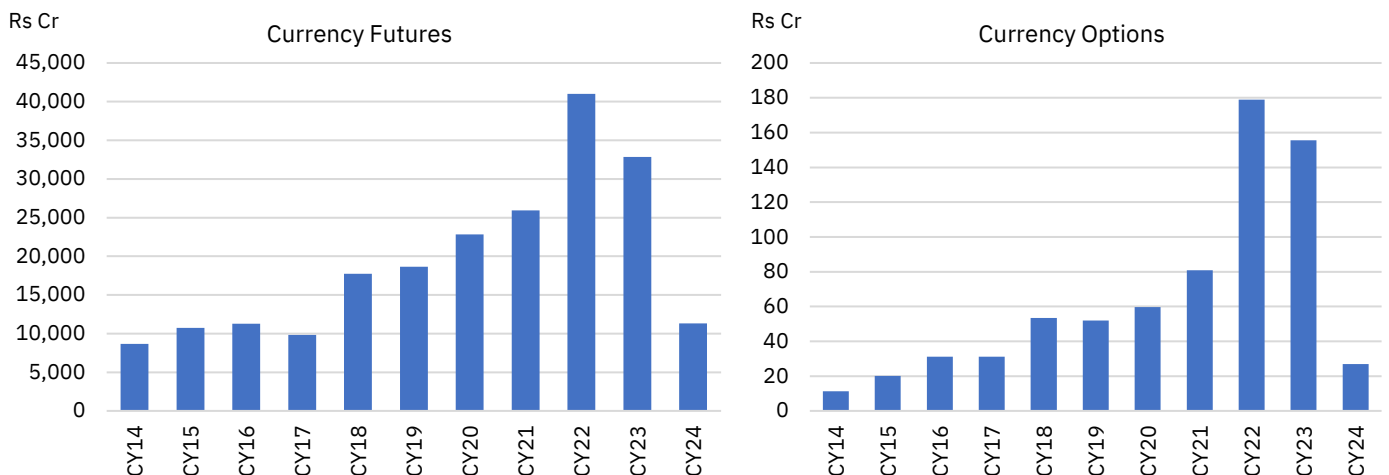
Source: NSE EPR

Notes: 1. Above table reports premium turnover for Options contracts.

2. Figures in brackets indicate negative numbers.

3. FY25TD is as of Dec'24 and FY24TD is as of Dec'23.

Figure 234: Trends in average daily turnover in currency derivatives segment



Source: NSE EPR

Note: The above figure reports premium turnover for options contracts.

ADT of interest rate futures moderated in 2024: The average daily turnover (ADT) in the interest rate futures segment fell by 22.6% YoY to Rs 101.6 crore in 2024. The drop in ADT is attributed to a significant reduction in trading activity by proprietary traders.

Table 67: Average daily turnover in Interest rate derivatives

Product (Rs Lakhs)	Dec-24	Nov-24	% MoM change	CY24	CY23	% YoY Change	FY25TD	FY24TD
Interest rate futures	10,609	11,781	(9.9)	10,162	13,134	(22.6)	10,543	13,334

Source: NSE EPR.

Notes: 1. Above table reports premium turnover for Options contracts.

2. Figures in brackets indicate negative numbers.

3. FY25TD is as of Dec'24 and FY24TD is as of Dec'23

Average daily premium turnover (ADPT) of commodity options surged in 2024: The ADPT of commodity options increased by 1722.6% YoY to Rs 10.3 crore, while the ADT of commodity futures fell to Rs 83 lakh in 2024. Proprietary traders' renewed interest in commodity options and a reduction in activity in commodity futures led to a shift in the dynamics of commodity derivatives' average turnover in the year gone by.

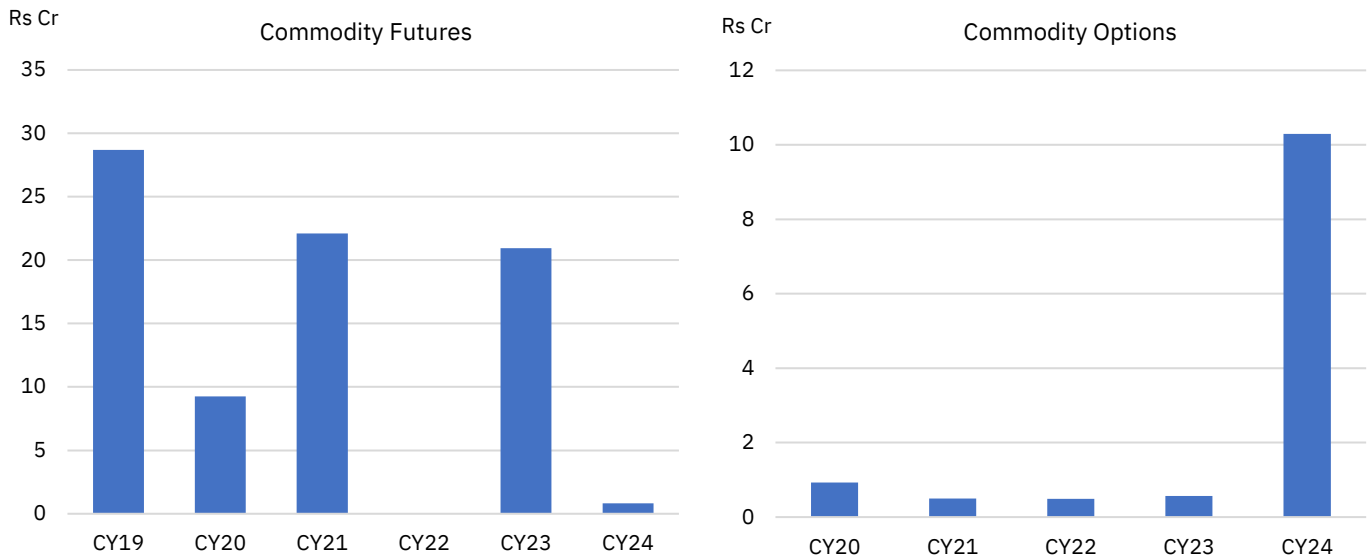
Table 68: Average daily turnover in commodities derivatives

Product (Rs Lakhs)	Dec-24	Nov-24	% MoM change	CY24	CY23	% YoY Change	FY25TD	FY24TD
Commodity futures	79	66	18.8	83	2,095	(96.0)	74	2,791
Commodity options	1,541.2	1,249	23.4	1,029	56	1,722.6	1,147	59

Source: NSE EPR.

Notes: Above table reports premium turnover for Options contracts; Figures in brackets indicate negative numbers; FY25TD data is as of December 31st, 2024.

Figure 235: Trends in average daily turnover in commodity derivatives segment



Source: NSE EPR

Note: Above figure reports premium turnover for options contracts.

Category-wise participation in turnover across segments

This section gives a detailed analysis of client-wise participation in the total trading activity across all segments at NSE. The clients are broadly classified into six categories, viz. corporates, domestic institutional investors (DIIs), foreign investors, proprietary traders, individuals, and Others. The individual category includes individual domestic investors, NRIs, sole proprietorship firms and HUFs. The category Others include Partnership Firms/LLP, Trust / Society, Depository Receipts, Statutory Bodies, etc. which are not included in any other categories mentioned above.

Client participation in the CM segment turnover remained broadly unchanged in 2024: The share of client participation in the total turnover of the CM segment remained broadly unchanged, even though the turnover of all client categories expanded substantially in 2024. The share of individual investors, the largest in the segment, increased by 5 bps to 35.1 in 2024 after declining for three consecutive years from its peak of 44% in 2020 to 35% in 2023. The share of proprietary traders, on the other hand, increased by 111 bps to 28.9%, which is the highest since 2005. After reaching its lowest level in 2021, the share of foreign investors expanded for two consecutive years. Their share in 2024 came in at a slightly lower level of 14.7% (-54bps YoY).

Table 69: Monthly trend of category-wise share in NSE cash market turnover in 2024 (%)

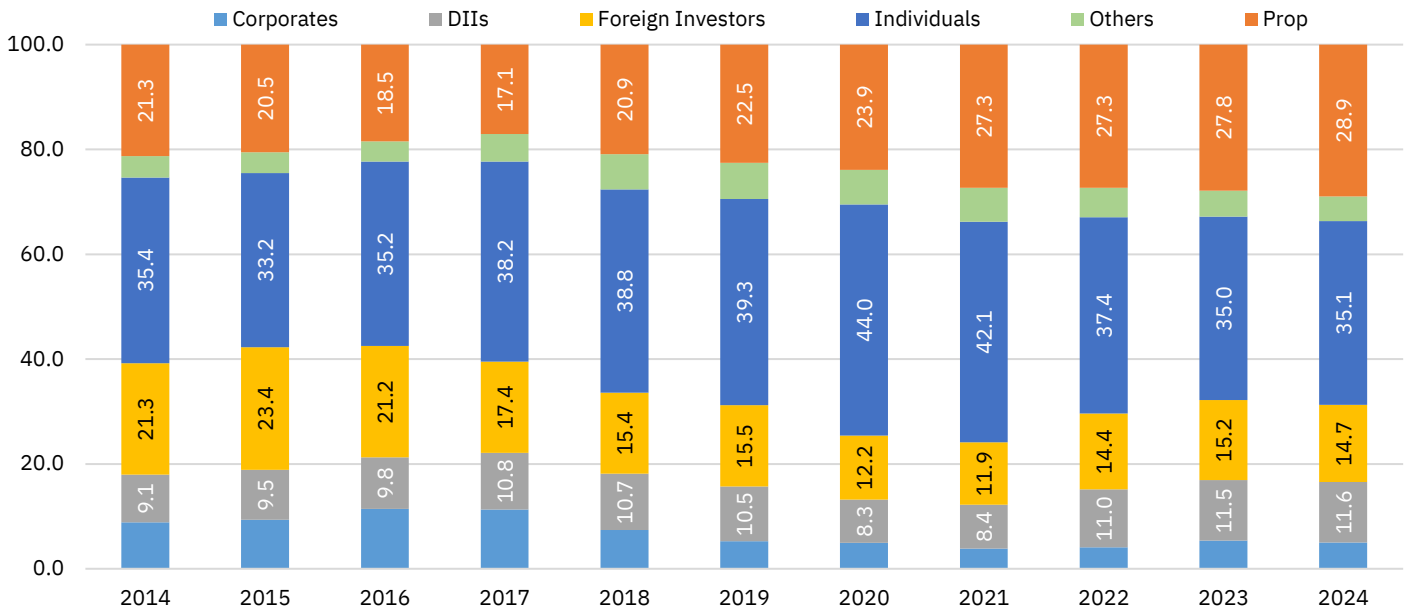
Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	5.9	5.8	4.9	4.8	5.0	5.4	5.2	4.8	4.8	4.4	4.4	4.4
DIIs	10.3	9.7	11.9	11.7	11.2	11.7	11.2	11.2	12.5	12.9	11.6	13.2
Foreign Investors	12.9	13.3	18.4	13.8	16.4	14.0	11.6	15.7	15.4	15.1	17.7	14.3
Individuals	37.3	36.5	32.2	36.1	34.1	34.4	38.1	34.9	34.4	33.0	32.9	35.2
Prop	28.8	29.8	28.4	29.3	29.1	30.1	29.3	28.3	28.0	29.4	28.5	28.0
Others	4.8	4.9	4.2	4.4	4.1	4.4	4.6	5.2	4.9	5.1	4.9	4.9

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

2. DII –Bank, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors (FIs) – Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate - Public & Private Companies / Bodies Corporate; Individual – Individual / Proprietorship firms, HUF and NRI; Others – Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop – PRO Trades.

3. Above data represents share in gross turnover i.e., buy-side turnover + sell-side turnover.

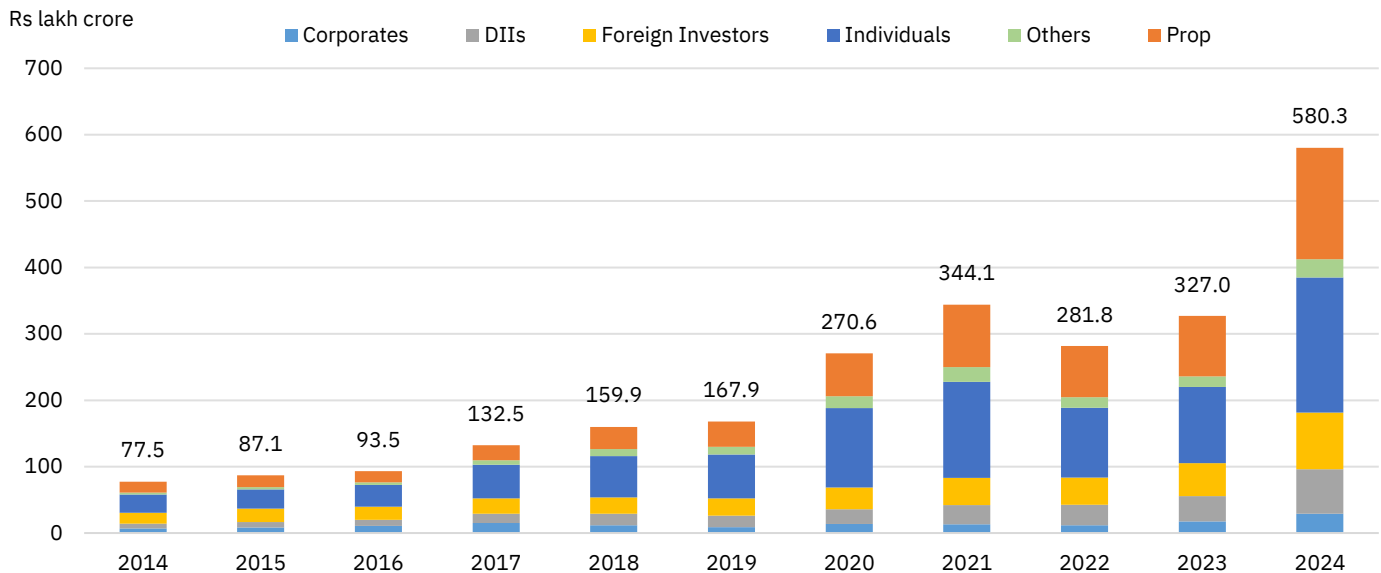
Figure 236: Trends in share of client participation in NSE cash market segment (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

2. DII –Bank, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors (FIs) – Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate - Public & Private Companies / Bodies Corporate; Individual – Individual / Proprietorship firms, HUF and NRI; Others – Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop – PRO Trades.

3. Above data represents share in gross turnover i.e., buy-side turnover + sell-side turnover.

Figure 237: Trends in client category-wise gross turnover in NSE cash market segment


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents gross turnover i.e., buy-side turnover + sell-side turnover.

Proprietary traders' share in equity derivatives increased in CY24 to an all-time high:

The share of proprietary traders expanded for four consecutive years touching an all-time high of 60% in 2024, in terms of notional turnover, continuing to hold the dominant position in the equity derivatives segment, even as their share witnessed marginal reduction in terms of notional turnover in equity futures and gross premium turnover in equity options in 2024. Within equity futures, foreign investors witnessed an increase in share to 27.1% (329bps YoY) in stock futures, and corporates increased their share in index futures by 169bps to 12.7%. Within equity options, foreign investors witnessed their share in gross premium turnover increase in both index options and stock options, while share of individuals increased in index options.

Table 70: Monthly trend of category-wise share in Equity Derivatives turnover (Notional) of NSE in 2024 (%)

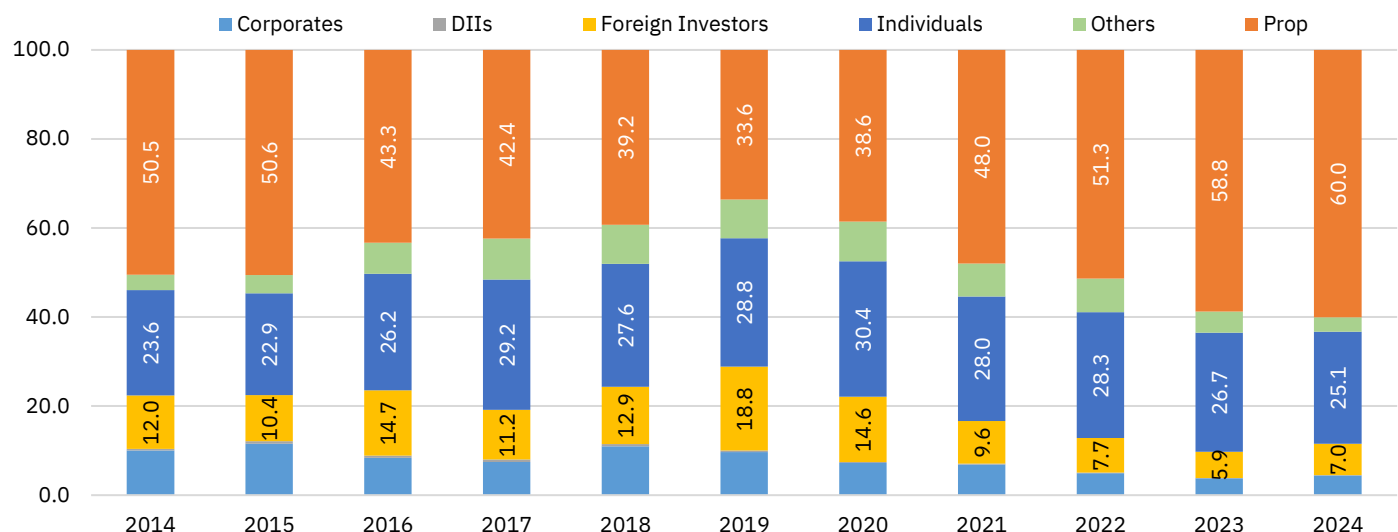
Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	4.4	4.2	3.4	4.6	3.9	5.8	5.8	4.3	4.3	5.0	3.2	2.9
DIIIs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Foreign Investors	6.6	6.9	6.9	7.7	7.0	6.6	6.5	7.0	7.0	7.1	7.7	8.3
Individuals	25.1	24.6	24.8	25.5	26.1	25.5	24.4	24.6	24.8	25.8	24.5	26.7
Prop	59.8	60.2	61.0	58.5	59.5	58.6	59.9	61.1	61.1	59.3	61.9	59.6
Others	4.0	3.9	3.7	3.6	3.5	3.4	3.2	2.9	2.5	2.7	2.6	2.4

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc. 2. DII –Bank, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors (FIs) – Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate - Public & Private Companies / Bodies Corporate; Individual – Individual / Proprietorship firms, HUF and NRI; Others – Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop – PRO Trades.

3. Above data represents share in gross notional turnover i.e., buy-side turnover + sell-side turnover.

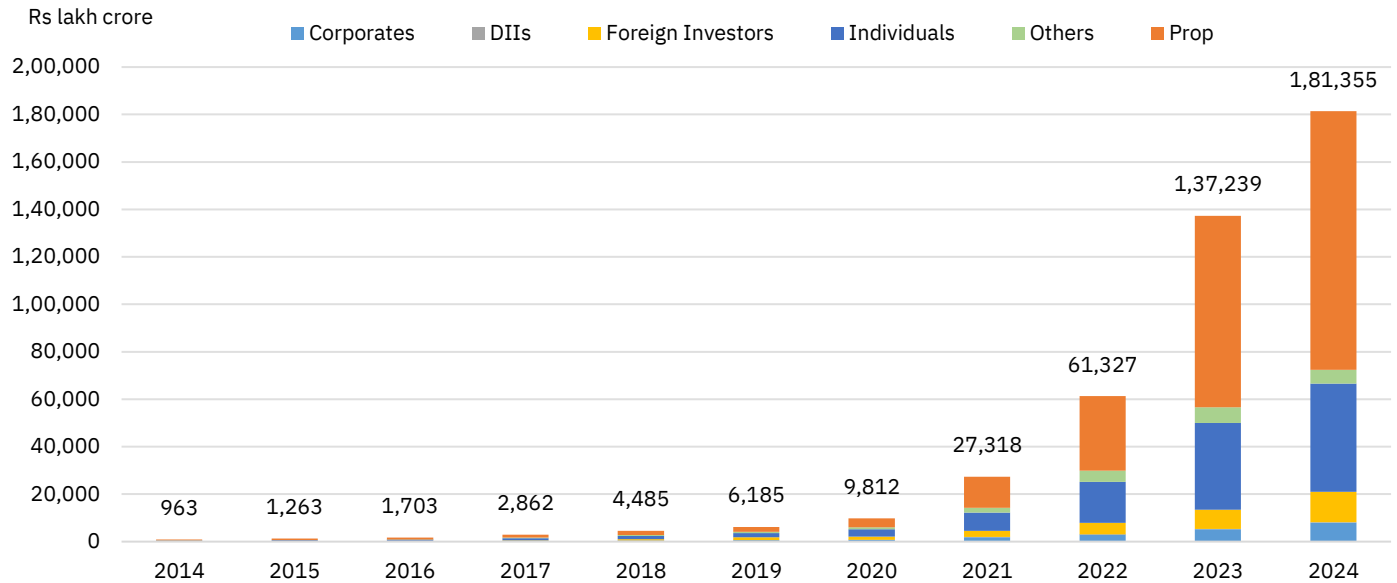
Figure 238: Trends in share of client participation in Equity Derivatives (Notional Turnover) at NSE (%)



Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc. 2. DII –Bank, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors (FIs) – Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate - Public & Private Companies / Bodies Corporate; Individual – Individual / Proprietorship firms, HUF and NRI; Others – Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop – PRO Trades.

3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 239: Trends in client category-wise gross notional turnover in Equity derivatives at NSE


Source: NSE EPR.

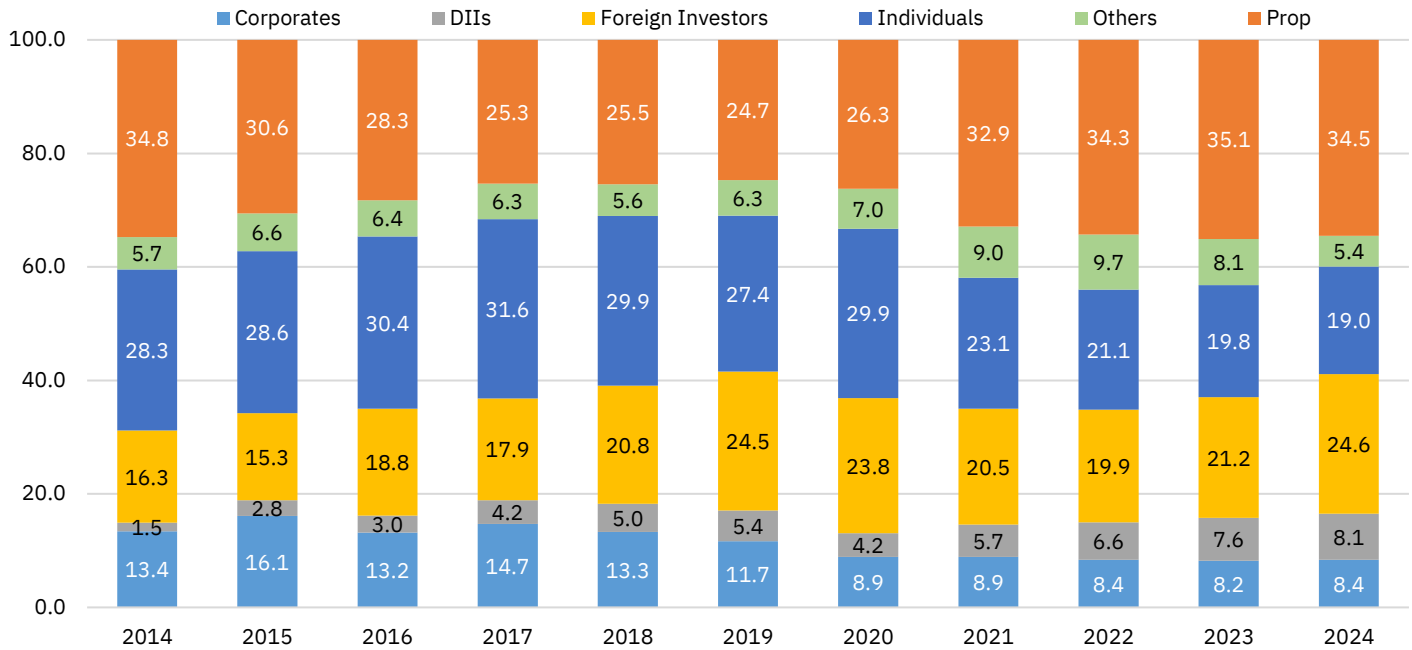
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 3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Table 71: Monthly trend of category-wise share in equity futures turnover (Notional) of NSE in 2024 (%)

Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	8.0	8.5	8.4	8.5	8.8	8.8	8.5	8.4	8.0	8.9	8.1	7.1
DIIs	7.0	7.4	7.9	7.6	7.4	7.2	7.4	8.5	8.5	8.7	10.2	10.7
Foreign Investors	20.4	21.7	24.0	24.4	25.2	24.4	24.1	25.3	26.6	26.2	27.0	25.9
Individuals	20.3	20.3	19.3	19.6	18.9	19.4	19.3	18.5	18.2	17.7	17.6	18.1
Prop	36.7	35.9	34.4	34.6	34.7	34.9	35.5	34.2	33.9	33.5	32.4	33.2
Others	7.6	6.3	6.0	5.3	5.0	5.2	5.2	5.1	4.8	5.0	4.8	4.9

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents share in gross notional turnover i.e., buy-side turnover + sell-side turnover.

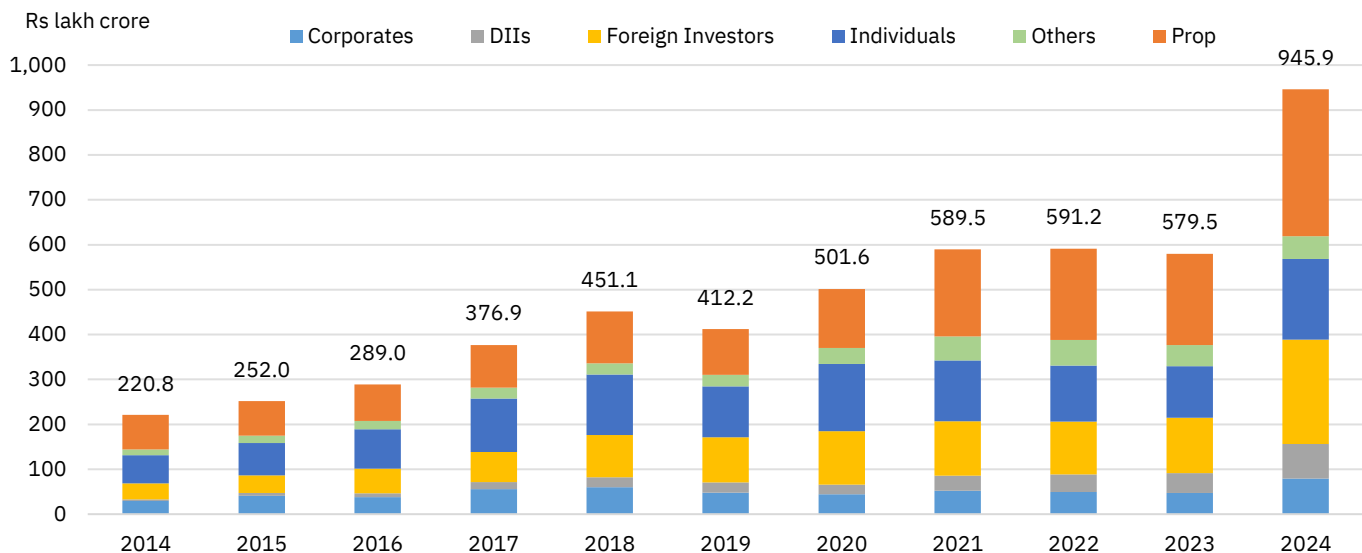
Figure 240: Trends in share of client participation in Equity futures (Notional Turnover) at NSE (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 241: Trends in client category-wise gross turnover in Equity futures at NSE


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Table 72: Monthly trend of category-wise share in equity options turnover (Premium) of NSE in 2024 (%)

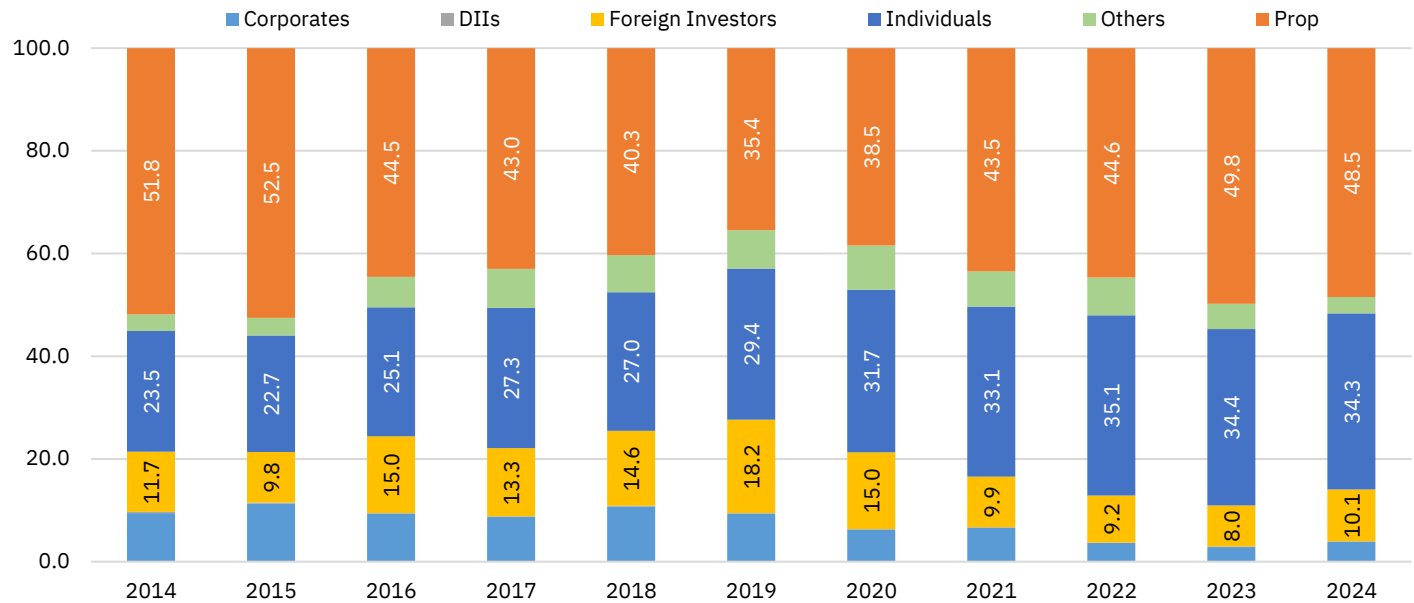
Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	2.6	2.6	2.4	2.6	3.7	4.8	4.8	5.0	5.4	6.0	3.2	2.6
DII's	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Foreign Investors	10.1	11.0	11.6	11.6	10.4	9.4	8.9	9.3	9.5	9.2	10.0	11.1
Individuals	33.7	34.2	34.3	34.8	34.6	33.0	33.6	34.4	34.1	34.8	34.8	36.0
Prop	49.7	48.5	47.7	47.4	47.7	49.7	49.6	48.4	48.5	47.1	49.2	47.7
Others	3.8	3.7	3.9	3.5	3.6	2.9	2.9	2.8	2.4	2.7	2.7	2.5

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross notional turnover i.e., buy-side turnover + sell-side turnover.

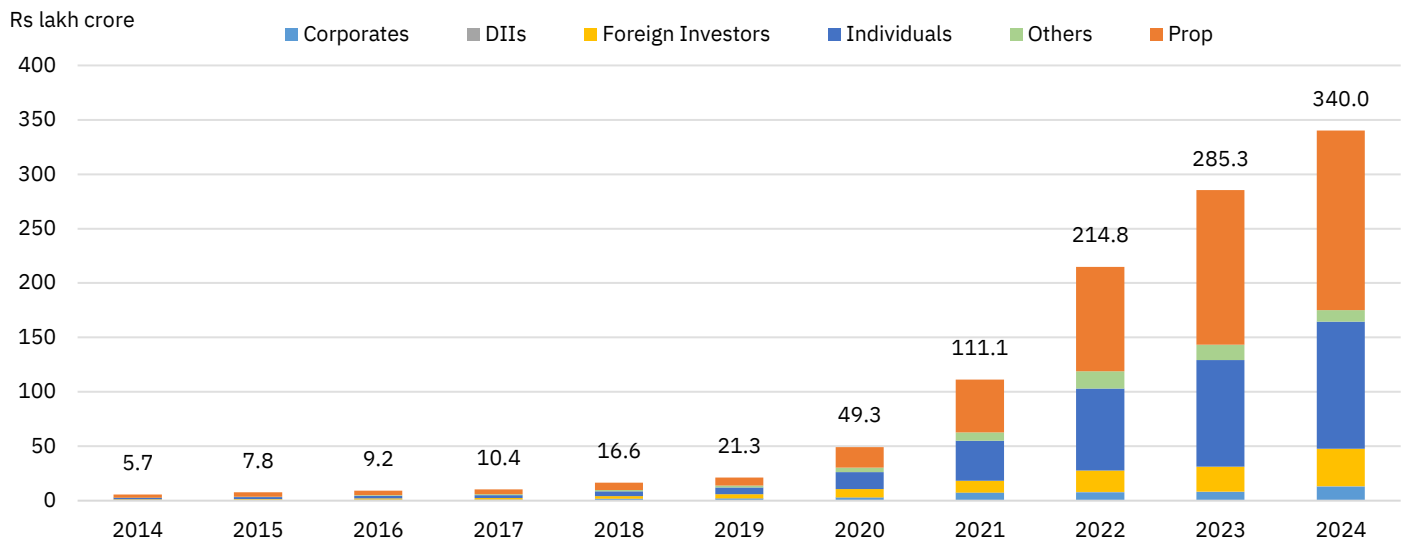
Figure 242: Trends in share of client participation in Equity options (Premium Turnover) at NSE (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 243: Trends in client category-wise gross turnover in Equity options (Premium Turnover) at NSE


Source: NSE EPR.

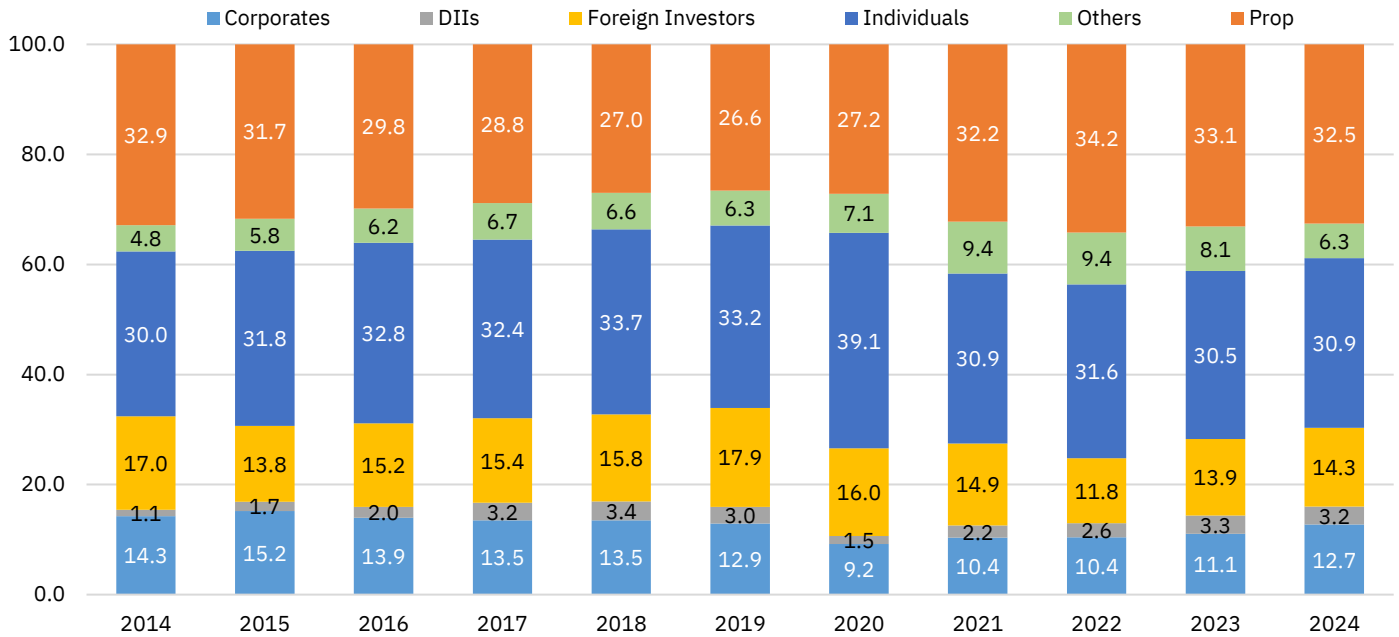
Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Table 73: Monthly trend of category-wise share in Index Futures turnover of NSE in 2024 (%)

Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	12.4	11.9	12.4	13.6	13.7	13.8	13.1	12.9	13.3	13.2	11.4	10.3
DIIs	3.3	2.9	2.9	2.4	2.3	2.6	2.9	3.3	4.0	4.1	4.4	4.3
Foreign Investors	13.6	12.3	14.5	16.8	16.5	15.3	14.2	14.3	14.5	13.6	13.3	12.7
Individuals	29.9	30.9	29.7	29.1	29.1	29.7	31.5	31.8	30.5	32.5	33.1	33.7
Prop	33.5	35.0	33.0	31.8	32.2	32.6	32.3	31.6	32.0	30.5	32.3	33.3
Others	7.3	7.0	7.4	6.4	6.1	5.9	6.0	6.1	5.7	6.1	5.5	5.8

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

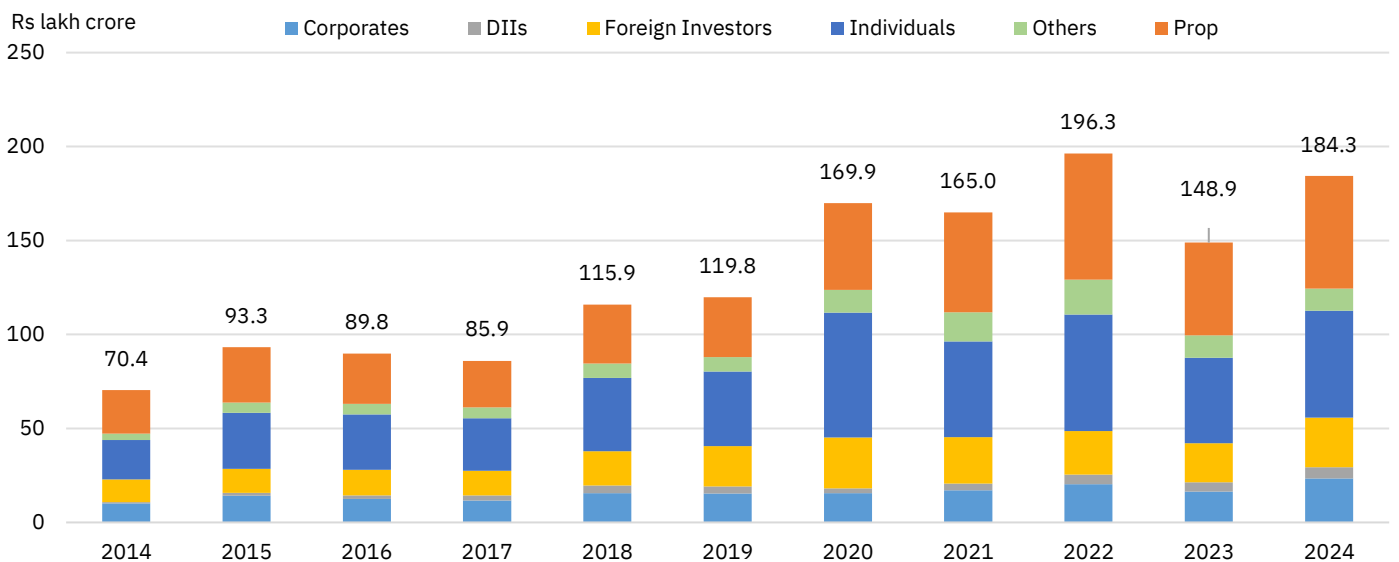
Figure 244: Trends in share of client participation in Index Futures at NSE (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 245: Trends in client category-wise gross turnover in Index Futures at NSE


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Table 74: Monthly trend of category-wise share in Stock Futures turnover of NSE in 2024 (%)

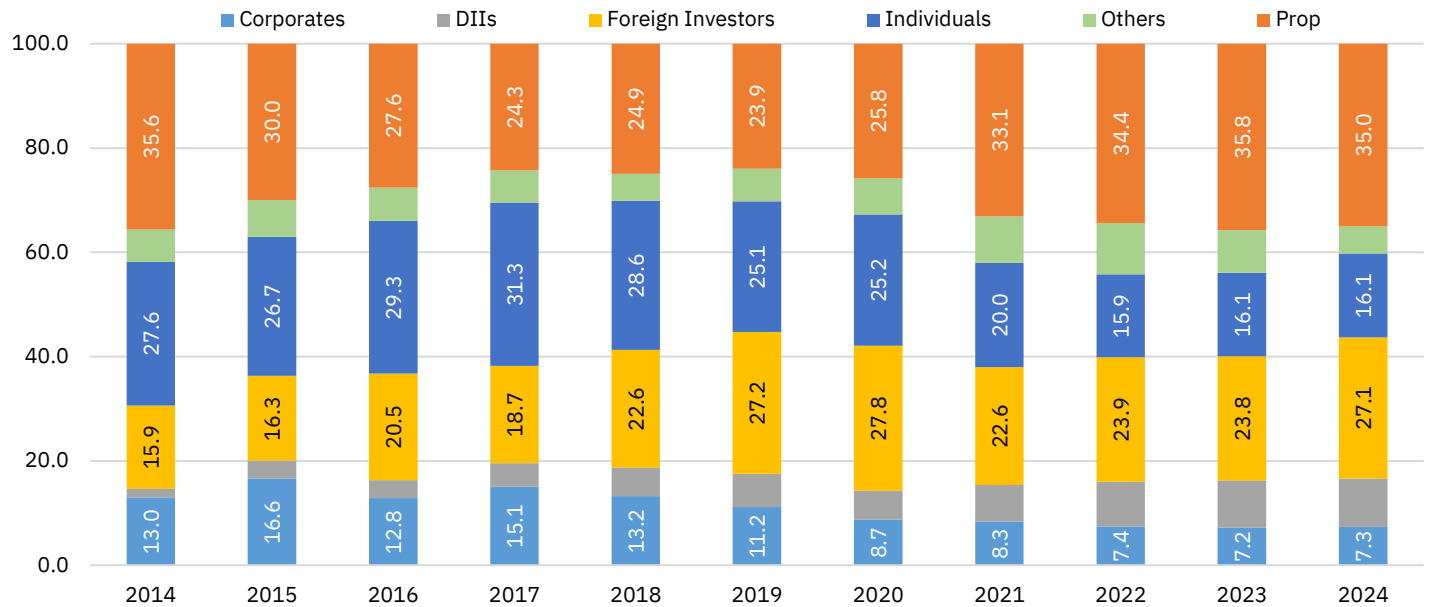
Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	6.8	7.6	7.3	7.4	7.7	7.4	7.6	7.4	6.9	7.9	7.3	6.3
DII's	8.1	8.7	9.2	8.8	8.6	8.4	8.4	9.7	9.5	9.8	11.6	12.3
Foreign Investors	22.3	24.3	26.7	26.1	27.2	26.9	26.2	27.8	29.1	29.1	30.3	29.1
Individuals	17.5	17.3	16.4	17.5	16.6	16.7	16.7	15.5	15.6	14.3	13.8	14.4
Prop	37.6	36.2	34.8	35.2	35.2	35.5	36.1	34.8	34.3	34.1	32.4	33.2
Others	7.7	6.1	5.6	5.0	4.7	5.1	5.0	4.9	4.6	4.8	4.6	4.6

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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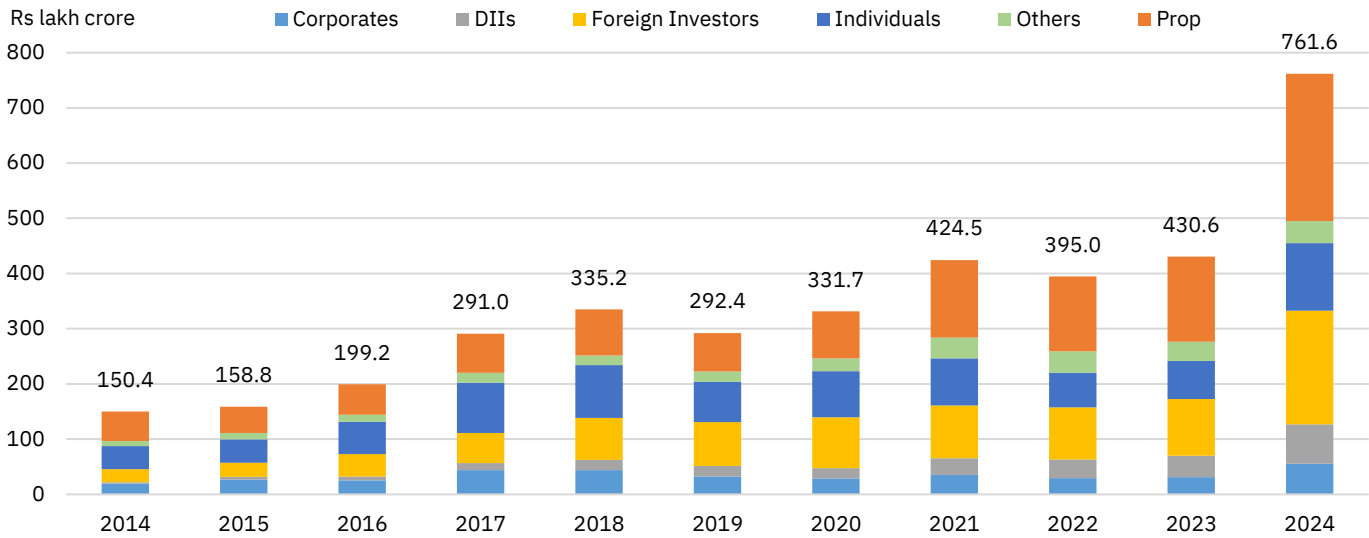
Figure 246: Trends in share of client participation in Stock Futures at NSE (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 247: Trends in client category-wise gross turnover in Stock Futures at NSE


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Table 75: Monthly trend of category-wise share in Index Options turnover (Premium) of NSE in 2024 (%)

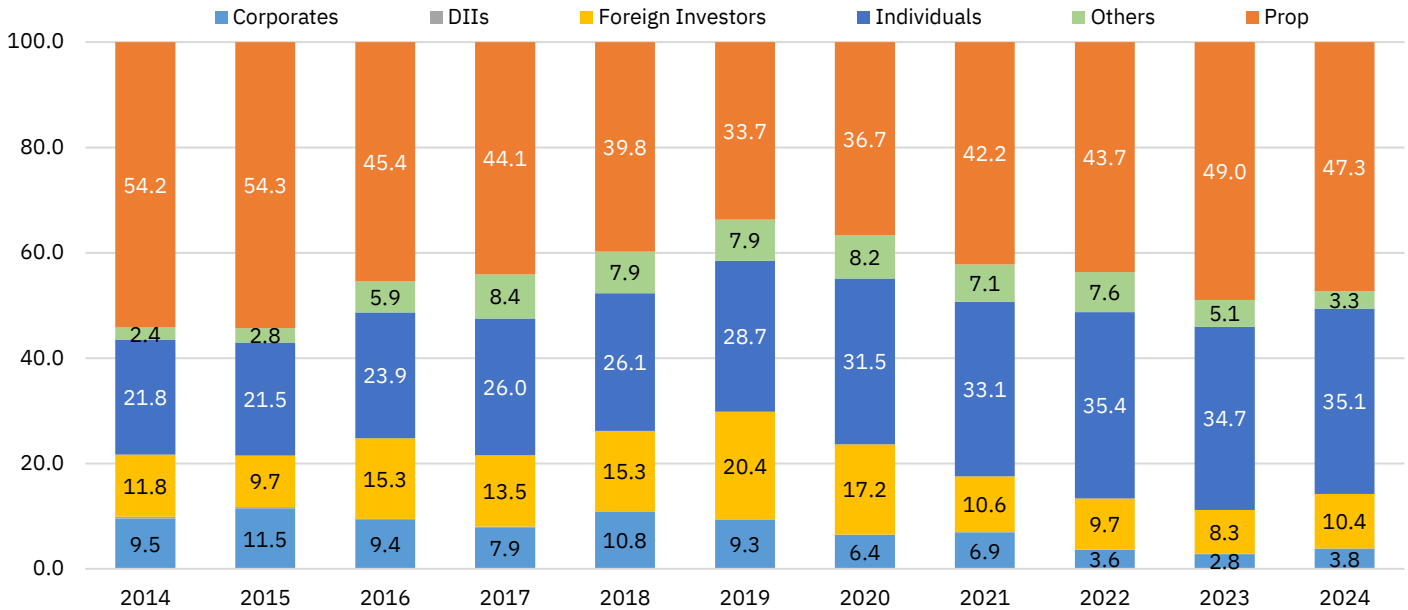
Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	2.5	2.5	2.4	2.5	3.7	4.9	4.8	4.8	5.2	5.9	3.1	2.5
DIIs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Foreign Investors	10.7	11.5	12.0	12.2	10.7	9.5	9.1	9.4	9.9	9.2	9.9	10.8
Individuals	34.4	34.7	34.9	35.6	35.4	33.7	34.4	35.3	35.0	36.0	36.0	37.3
Prop	48.2	47.3	46.5	45.8	46.3	48.8	48.6	47.4	47.3	46.0	48.1	46.6
Others	4.0	3.9	4.2	3.8	3.8	3.1	3.0	2.9	2.5	2.9	2.8	2.6

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross premium turnover i.e., buy-side premium turnover + sell-side premium turnover.

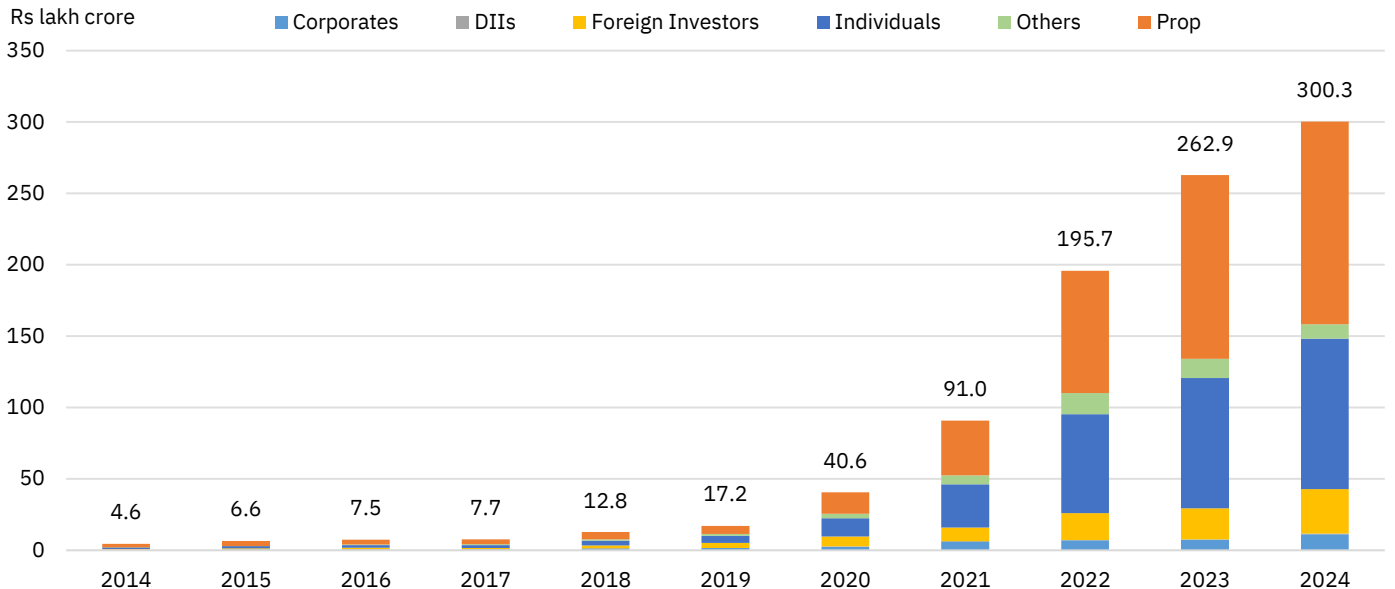
Figure 248: Trends in share of client participation in Index Options (premium turnover) at NSE (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross premium turnover i.e., buy-side premium turnover + sell-side premium turnover.

Figure 249: Trends in client category-wise gross premium turnover in Index Options at NSE


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross premium turnover i.e., buy-side premium turnover + sell-side premium turnover.

Table 76: Share of client participation in Stock Options (Premium Turnover) of NSE in 2024 (%)

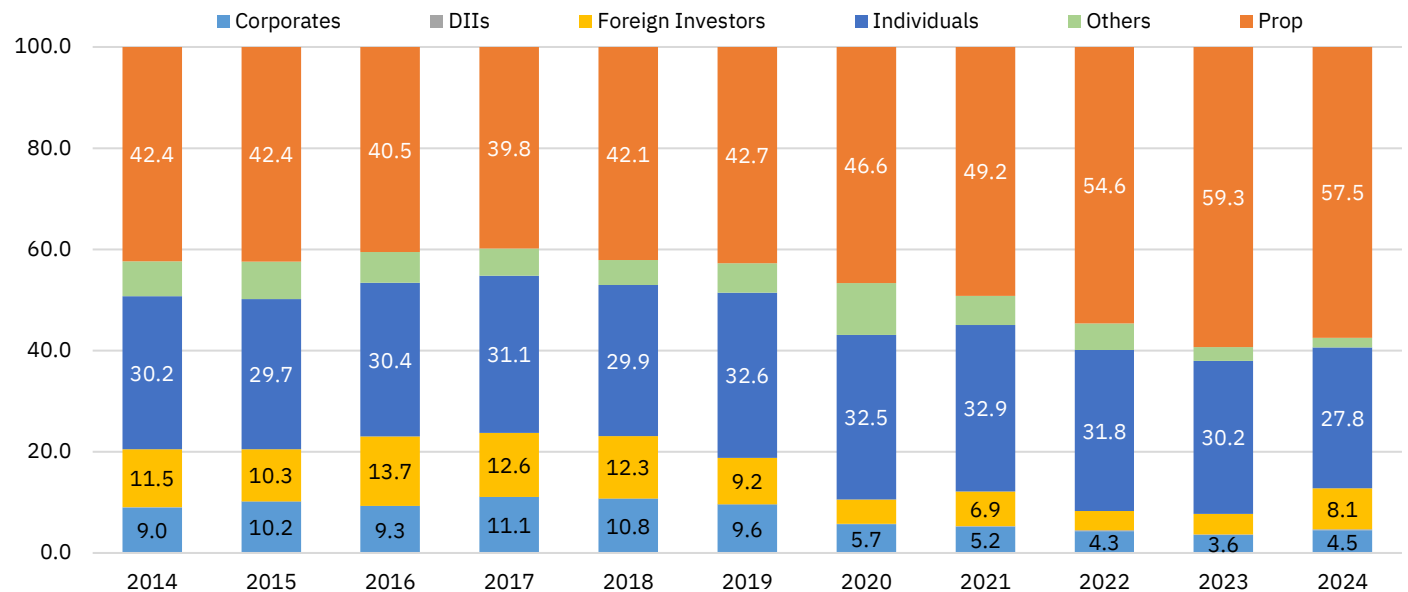
Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	3.2	3.3	2.9	2.8	3.8	4.6	4.9	6.7	7.0	6.6	4.3	3.0
DIIs	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2
Foreign Investors	5.1	6.0	7.7	7.3	7.7	8.4	8.2	7.8	7.4	9.7	10.6	13.1
Individuals	27.8	28.9	28.6	29.1	28.7	27.9	28.5	27.3	27.9	26.0	25.1	27.3
Prop	61.8	59.6	58.7	58.8	57.4	56.9	56.0	56.0	56.0	55.8	58.2	55.1
Others	1.9	2.0	1.9	1.9	2.1	2.0	2.3	2.0	1.5	1.6	1.5	1.3

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross premium turnover i.e., buy-side premium turnover + sell-side premium turnover.

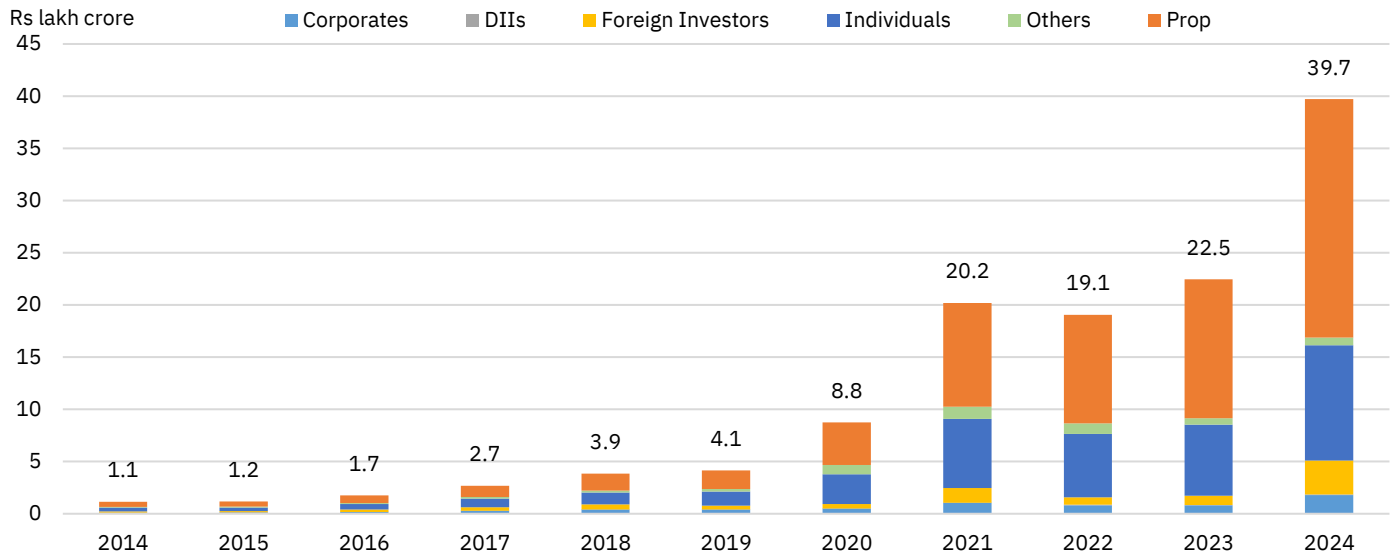
Figure 250: Trends in share of client participation in Stock Options (Premium Turnover) at NSE (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross premium turnover i.e., buy-side premium turnover + sell-side premium turnover.

Figure 251: Trends in client category-wise gross premium turnover in Stock Options at NSE


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc. 2. DII –Bank, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors (FIs) – Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate - Public & Private Companies / Bodies Corporate; Individual – Individual / Proprietorship firms, HUF and NRI; Others – Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop – PRO Trades.

3. Above data represents share in gross premium turnover i.e., buy-side premium turnover + sell-side premium turnover.

Proprietary traders continue to remain dominant players in the currency derivatives

segment: While proprietary traders’ turnover in currency futures and options declined 64.7% YoY and 82.8% YoY respectively, they continue to hold the foremost share in the currency derivatives segment. Individuals’ share in currency derivatives turnover plunged by 1,078bps YoY to reach a 7-year low of 13.8%, as a result of a fall in their share in currency futures turnover to 10.7% (-465bps YoY) and a contraction of 964bps YoY to 13.8% in currency options premium turnover during the year. Foreign investors’ share, on the other hand, increased to a 3-year high of 6% (138bps YoY) during the year.

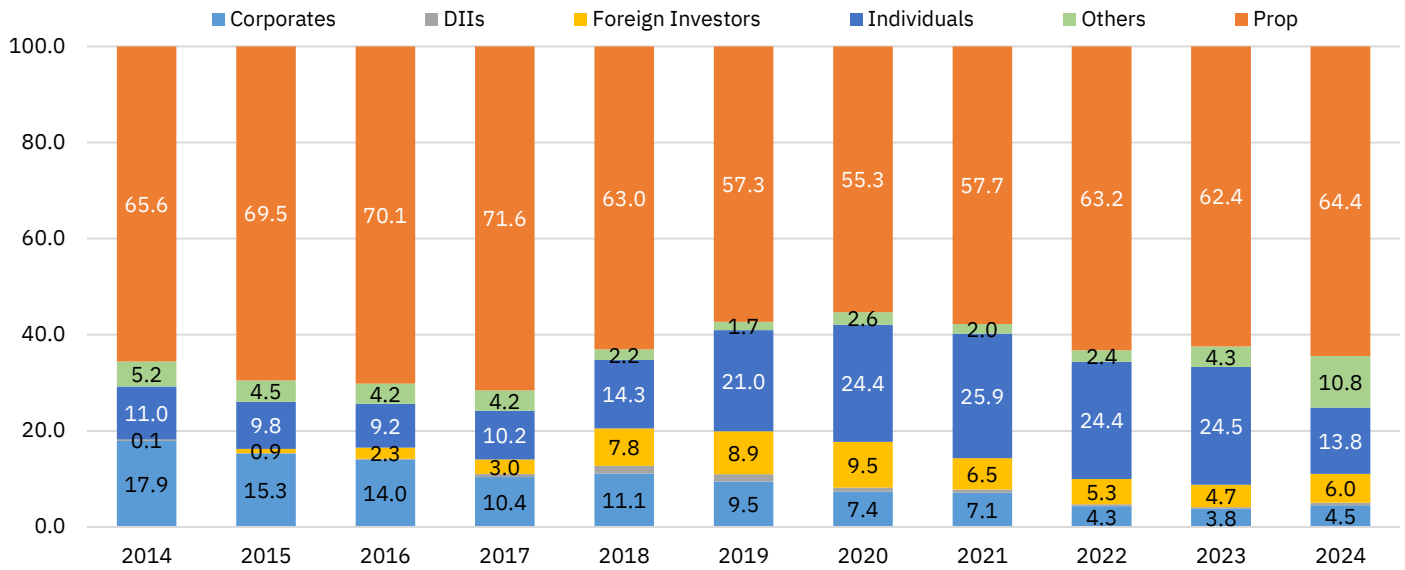
Table 77: Share of client participation in Currency Derivatives segment (Notional Turnover) of NSE in 2024 (%)

Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	3.8	3.9	4.4	10.5	8.3	6.6	17.7	6.5	11.8	4.7	7.3	5.2
DIIs	0.2	0.2	0.3	1.8	1.6	2.0	1.6	1.4	1.6	0.6	1.0	2.2
Foreign Investors	5.7	6.2	5.9	7.1	4.1	5.3	10.6	7.3	11.7	5.4	6.8	6.9
Individuals	18.1	19.0	18.4	19.1	7.7	7.4	11.8	5.2	7.8	2.8	3.8	2.6
Prop	64.1	62.3	63.5	58.2	77.2	77.6	55.4	78.3	65.4	85.6	80.1	82.4
Others	8.1	8.3	7.5	3.3	1.1	1.1	2.9	1.3	1.8	0.8	1.0	0.7

Source: NSE EPR.

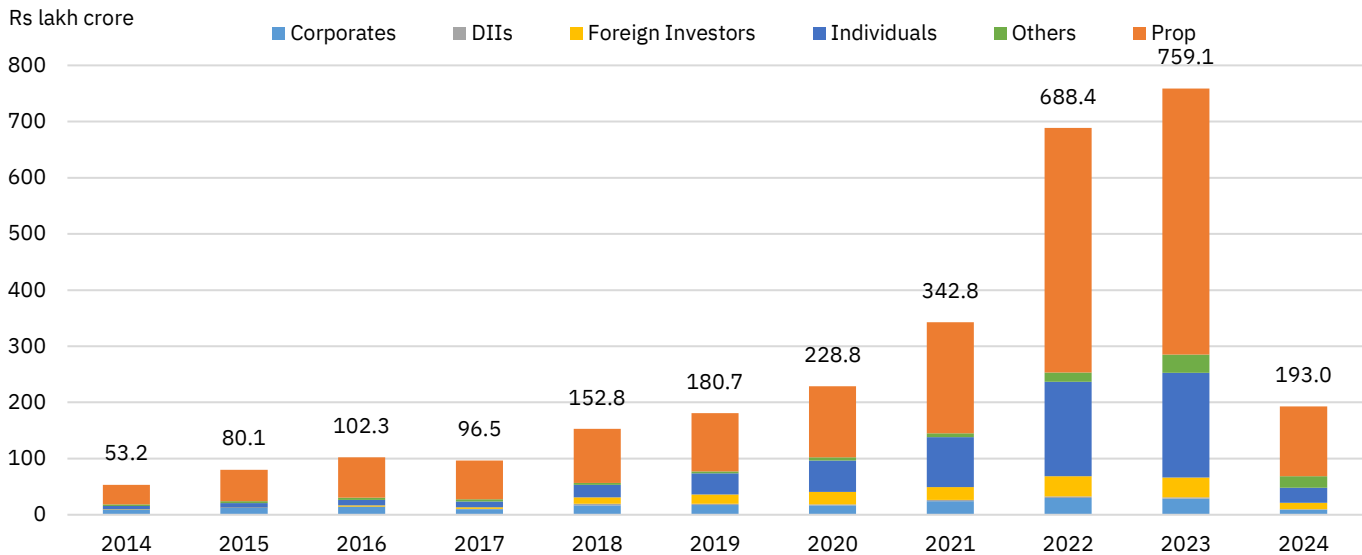
Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc. 2. DII –Bank, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors (FIs) – Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate - Public & Private Companies / Bodies Corporate; Individual – Individual / Proprietorship firms, HUF and NRI; Others – Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop – PRO Trades.

3. Above data represents share in gross turnover i.e., buy-side turnover + sell-side turnover.

Figure 252: Trends in share of client participation in Currency Derivatives (Notional Turnover) at NSE (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 253: Trends in client category-wise gross notional turnover in Currency Derivatives at NSE


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Table 78: Share of client participation in Currency Futures of NSE in 2024 (%)

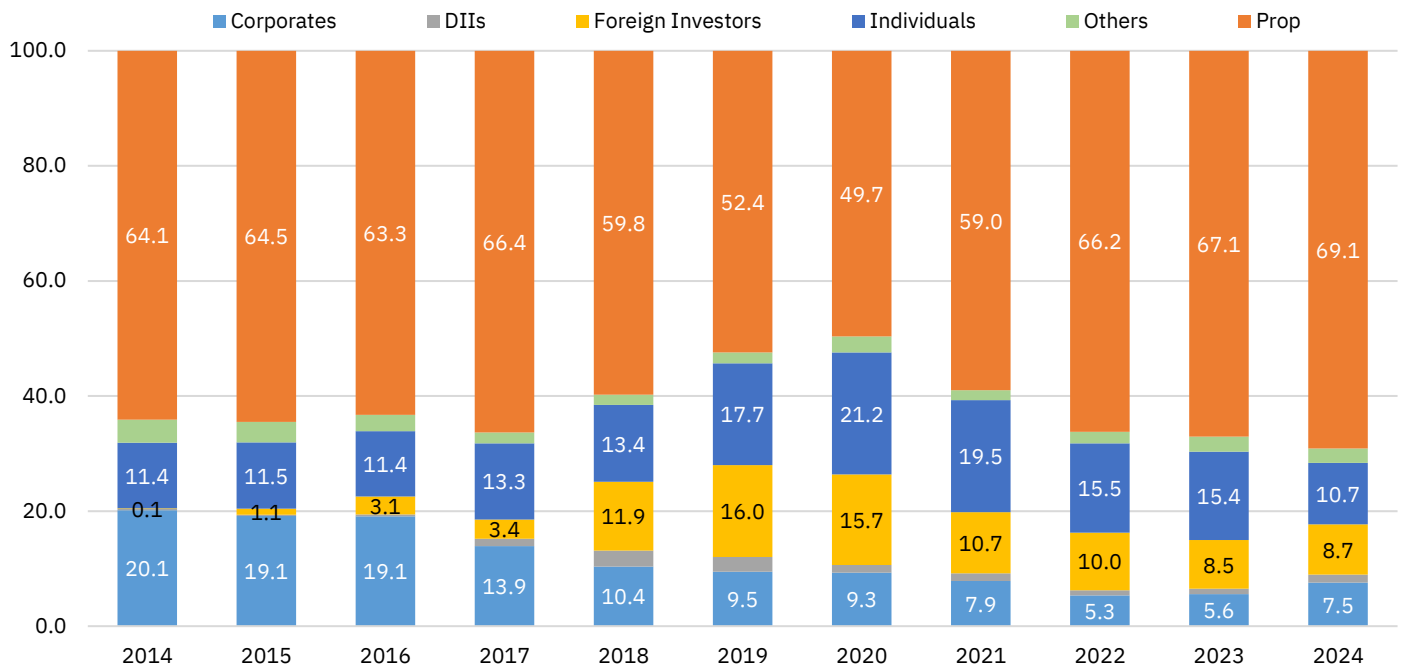
Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	6.8	7.6	8.0	11.1	7.4	6.1	16.6	6.0	10.9	4.4	7.0	5.1
DIIs	1.1	1.3	1.2	2.9	1.7	2.1	1.7	1.4	1.6	0.6	1.0	2.3
Foreign Investors	7.9	10.9	11.0	7.8	4.0	5.5	11.0	7.5	12.0	5.5	6.8	6.9
Individuals	14.6	15.5	12.5	8.6	5.6	5.8	10.6	4.4	7.0	2.4	3.3	2.2
Prop	66.4	62.6	64.0	65.5	80.2	79.5	57.0	79.4	66.7	86.3	80.9	82.9
Others	3.3	2.1	3.2	4.1	1.1	1.1	3.0	1.3	1.9	0.8	1.0	0.7

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross turnover i.e., buy-side turnover + sell-side turnover.

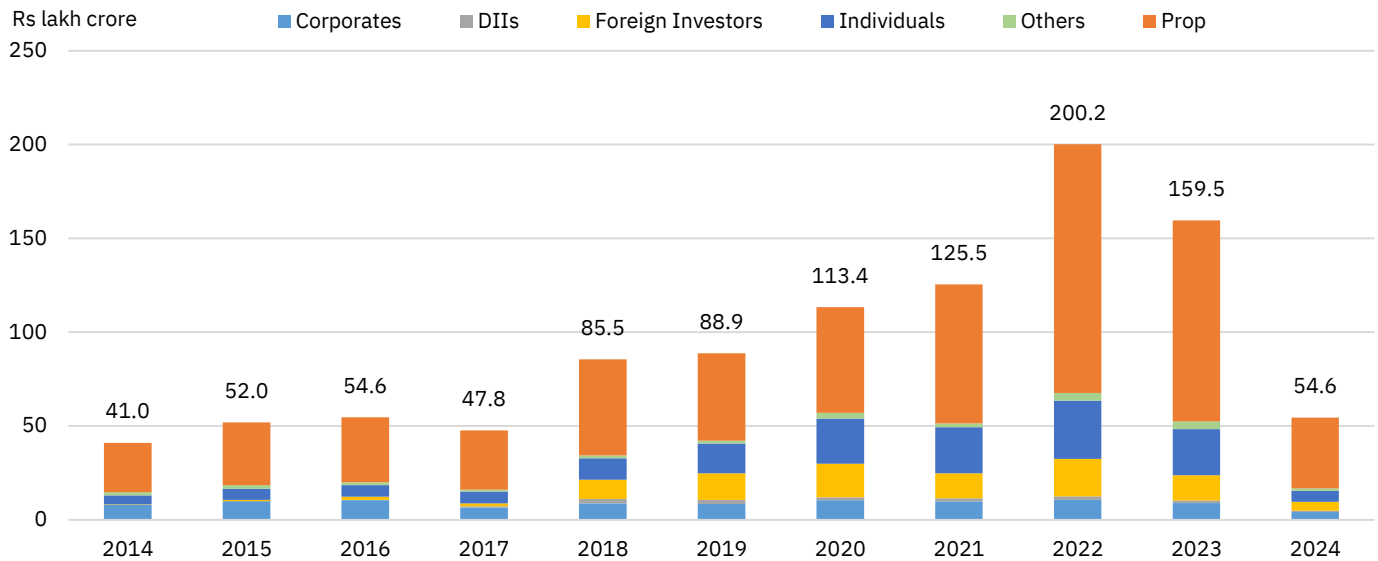
Figure 254: Trends in share of client participation in Currency Futures at NSE (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 255: Trends in client category-wise gross turnover in Currency Futures at NSE


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc. 2. DII –Bank, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors (FIs) – Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate - Public & Private Companies / Bodies Corporate; Individual – Individual / Proprietorship firms, HUF and NRI; Others – Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop – PRO Trades.

3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Table 79: Share of client participation in Currency Options (Premium Turnover) of NSE in 2024 (%)

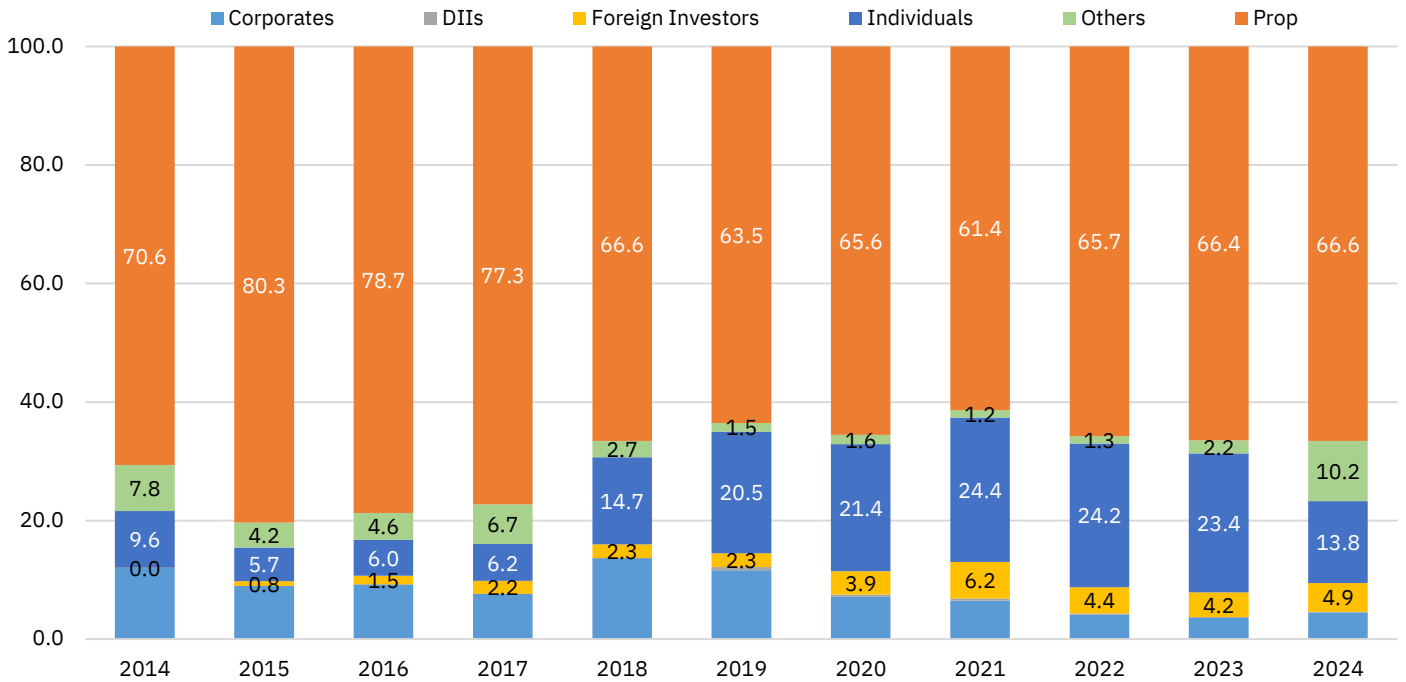
Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	4.4	3.6	4.3	9.9	21.1	24.5	45.9	32.2	45.2	45.3	37.2	26.1
DIIs	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign Investors	5.0	5.2	4.4	5.7	18.2	0.1	0.0	0.0	0.0	0.0	0.0	0.9
Individuals	19.3	20.0	20.6	36.4	39.3	51.0	33.8	54.7	42.0	43.2	44.1	51.2
Prop	68.2	68.1	67.7	47.1	20.9	24.2	19.9	12.7	12.7	11.4	18.5	21.9
Others	3.1	3.1	3.1	0.8	0.5	0.3	0.4	0.5	0.2	0.1	0.3	0.0

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

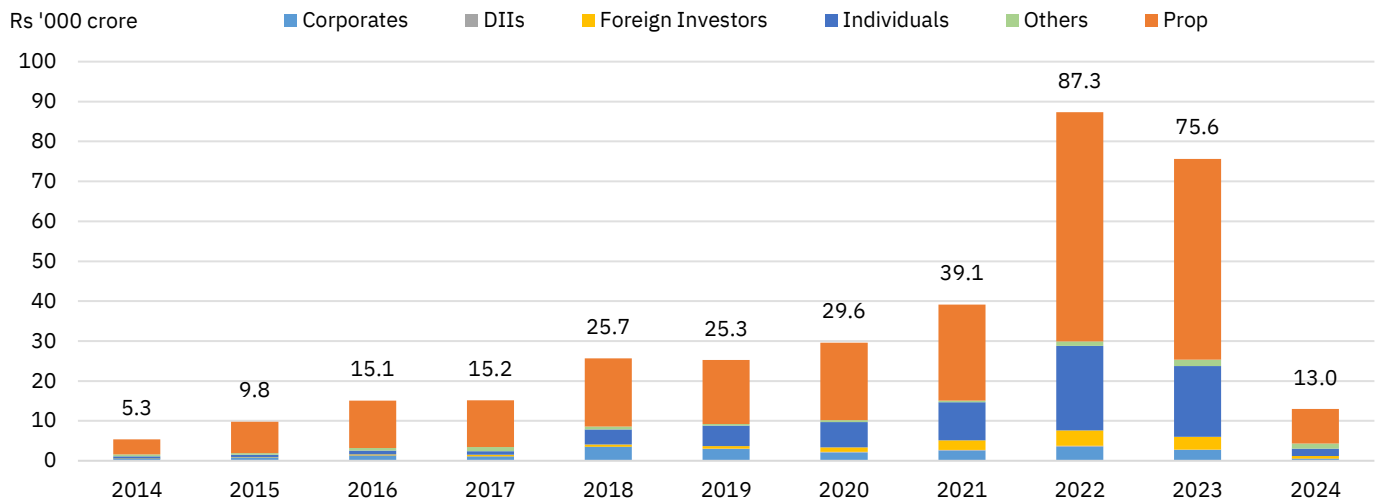
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3. Above data represents share in gross turnover i.e., buy-side turnover + sell-side turnover.

Figure 256: Trends in share of client participation in Currency Options (Premium Turnover) at NSE (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents share in gross premium turnover i.e., buy-side premium turnover + sell-side premium turnover.

Figure 257: Trends in client category-wise gross premium turnover in Currency Options at NSE


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents share in gross premium turnover i.e., buy-side premium turnover + sell-side premium turnover.

Share of corporates in interest rate futures at an 11-year high: Corporates surpassed proprietary traders in 2024 to dominate interest rate futures segment, bolstered by a 2,265bps YoY rise in their share in turnover. It should be noted that this increase in share of corporates stemmed primarily from a substantial reduction (-77.3% YoY) in trading activity by proprietary traders, complemented by a 24.7% rise in trading activity by corporates. Individuals also increased their activity in this instrument, reflected by an uptick in their share to 14.9% (1,002bps YoY) as result of 2x increase in their turnover.

Table 80: Share of client participation in Interest Rate Futures of NSE in 2024 (%)

Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	50.5	56.3	70.3	66.4	69.5	61.4	61.4	68.3	75.5	74.7	78.3	79.1
DII's	1.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Foreign Investors	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Individuals	11.0	16.2	21.0	25.3	12.3	9.4	14.3	10.1	16.4	14.9	15.1	15.6
Prop	36.2	26.5	8.2	7.7	17.5	28.2	22.7	17.9	6.9	5.9	3.9	5.2
Others	0.4	0.4	0.1	0.5	0.6	0.9	1.5	3.5	1.0	4.4	2.6	0.1

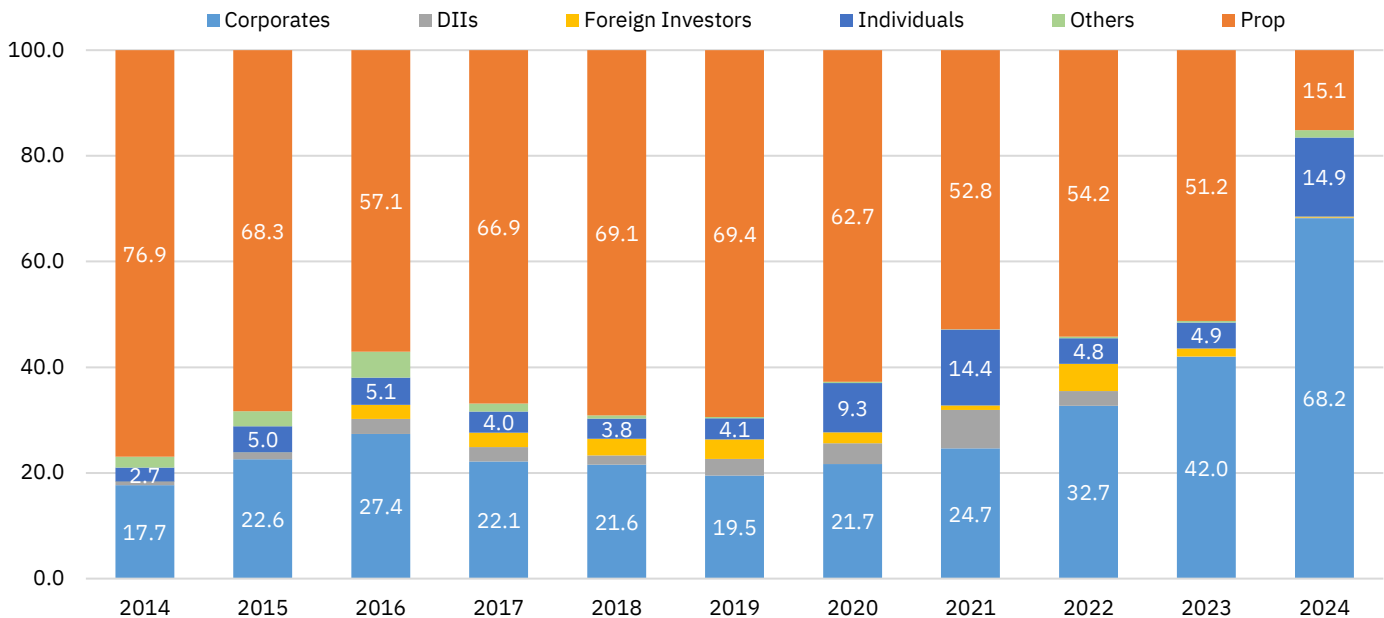
Source: NSE EPR.

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3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 258: Trends in share of client participation in Interest Rate Futures at NSE (%)

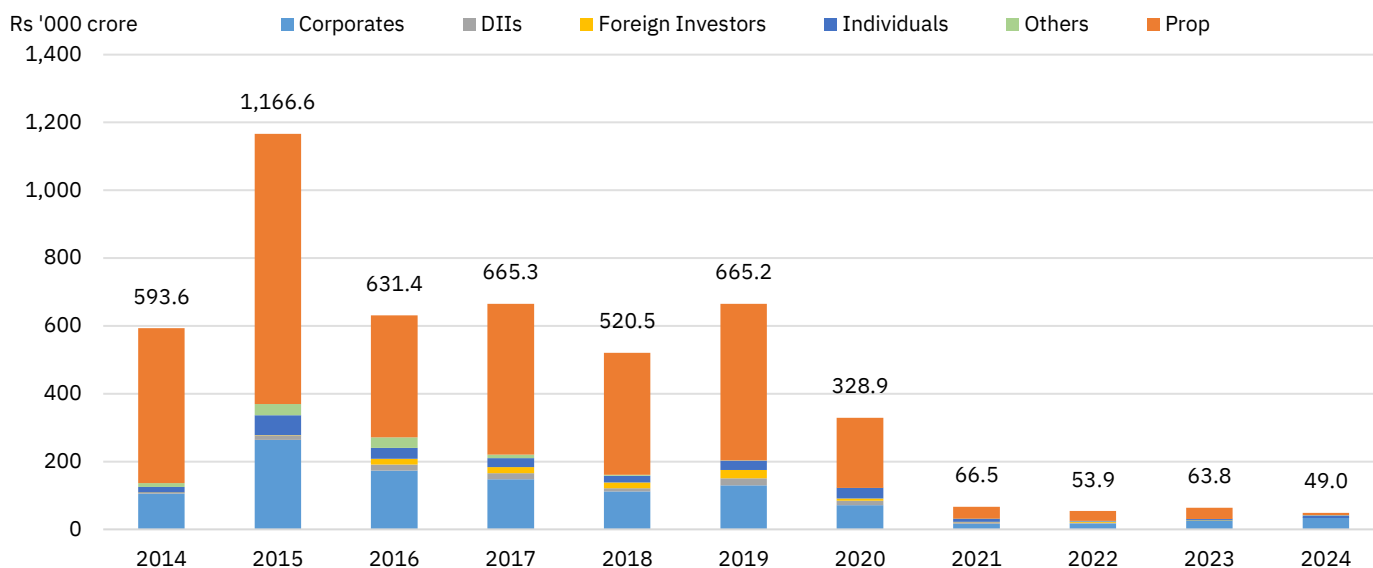


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 259: Trends in client category-wise gross turnover in Interest Rate Futures at NSE


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc. 2. DII –Bank, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors (FIs) – Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate - Public & Private Companies / Bodies Corporate; Individual – Individual / Proprietorship firms, HUF and NRI; Others – Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop – PRO Trades.

3. Above data represents gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Proprietary traders continue to dominate the commodity derivatives segment since inception:

Proprietary traders contributed over 80% of the turnover in commodity futures and options turnover in 2024, maintaining their leading position in the segment. They recorded marginal upticks of 6bps and 3bps in futures contracts and options (premium) contracts respectively during the year. The share of individuals, on the other hand, moderated by 109bps YoY rise to 12.3% in futures contracts and increased by 536bps YoY rise to 11.1% (based on premium turnover) in options contracts during the same period. Notably, proprietary traders contributed majorly to the phenomenal growth witnessed in the commodity options segment in 2024.

Table 81: Share of client participation in Commodity Derivatives segment of NSE in 2024 (%)

Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	1.7	0.2	0.2	0.1	0.1	0.5	0.6	0.6	0.6	0.9	0.6	1.0
DIIs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign Investors	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.5	0.1	0.1	0.1
Individuals	11.4	10.1	9.7	8.8	10.1	8.0	10.1	10.8	10.4	10.3	11.9	10.6
Prop	86.1	89.1	89.2	87.3	88.5	90.2	88.6	88.4	88.3	88.6	87.4	87.4
Others	0.8	0.6	0.9	3.7	1.2	1.2	0.7	0.2	0.2	0.1	0.0	0.8

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc. 2. DII –Bank, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors (FIs) – Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate - Public & Private Companies / Bodies Corporate; Individual – Individual / Proprietorship firms, HUF and NRI; Others – Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop – PRO Trades.

3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Table 82: Share of client participation in Commodity Futures (notional turnover) of NSE in 2024 (%)

Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	0.0	0.0	0.0	0.6	0.0	8.8	0.3	11.3	0.0	0.0	0.0	0.9
DII's	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign Investors	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Individuals	15.2	4.8	3.2	9.3	16.6	11.2	10.2	10.0	26.7	14.5	5.9	7.2
Prop	81.9	93.9	96.2	87.6	83.4	79.9	88.9	72.9	71.8	74.8	78.1	91.5
Others	2.7	1.3	0.7	2.5	0.0	0.0	0.6	5.8	1.0	10.7	16.0	0.4

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Table 83: Share of client participation in Commodity Options (premium turnover) segment of NSE in 2024 (%)

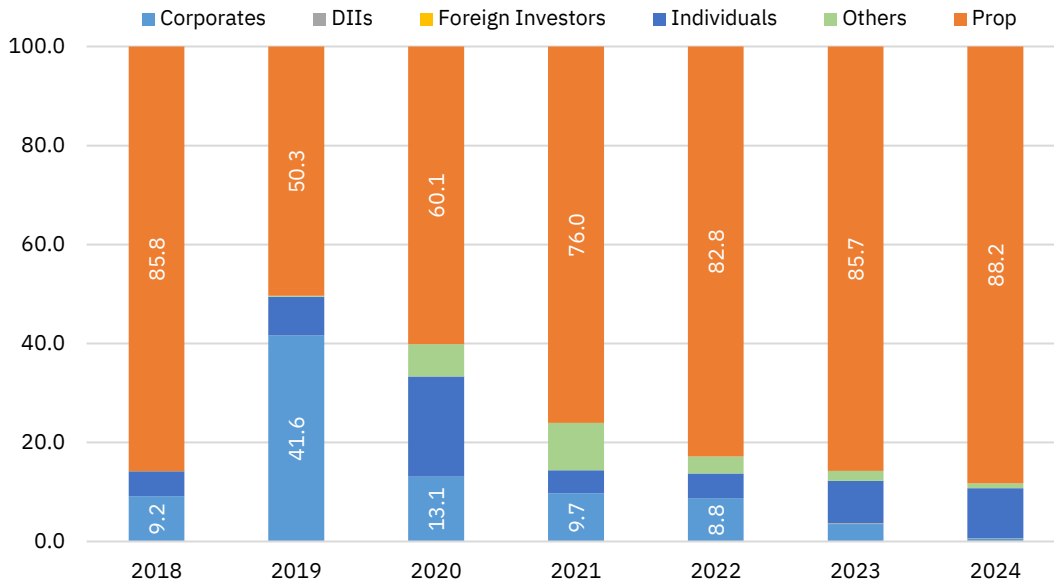
Client category	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Corporates	1.8	0.1	0.1	0.1	0.1	0.4	0.5	0.4	0.5	0.6	0.4	0.8
DII's	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign Investors	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.1	1.5	0.7	0.2	0.3
Individuals	10.1	10.7	9.1	9.3	9.4	6.4	13.0	12.1	11.7	10.7	11.1	14.9
Prop	87.3	88.7	90.3	87.6	89.2	92.2	83.7	86.7	85.3	87.6	88.3	83.3
Others	0.7	0.4	0.5	3.0	0.9	0.8	2.8	0.7	1.0	0.5	0.1	0.8

Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

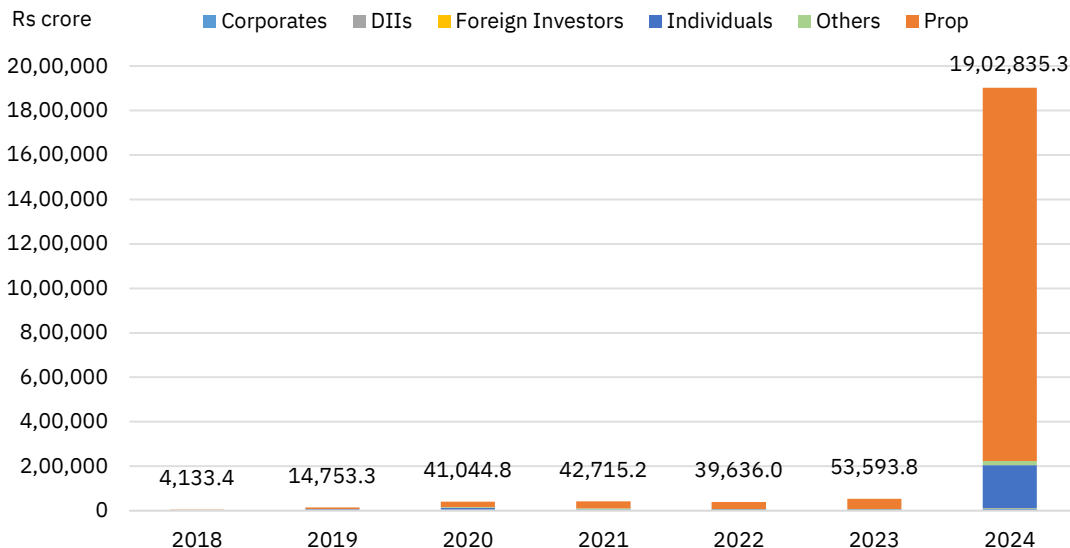
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3. Above data represents share in gross turnover i.e., buy-side turnover + sell-side turnover.

Figure 260: Trends in share of client participation in Commodity Derivatives (Notional Turnover) at NSE (%)


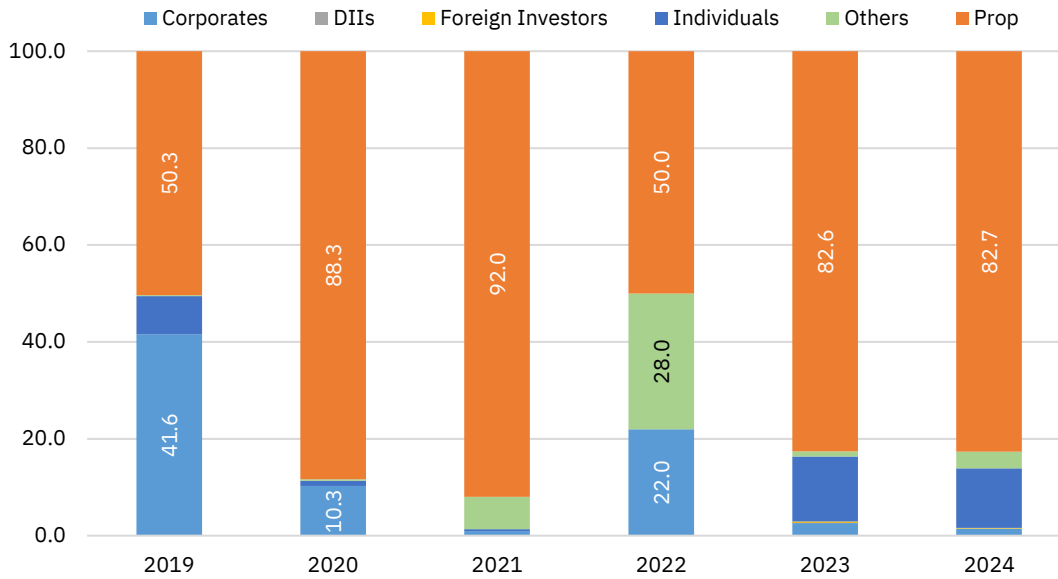
Source: NSE EPR.

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 3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 261: Trends in client category-wise gross notional turnover in Commodity Derivatives at NSE


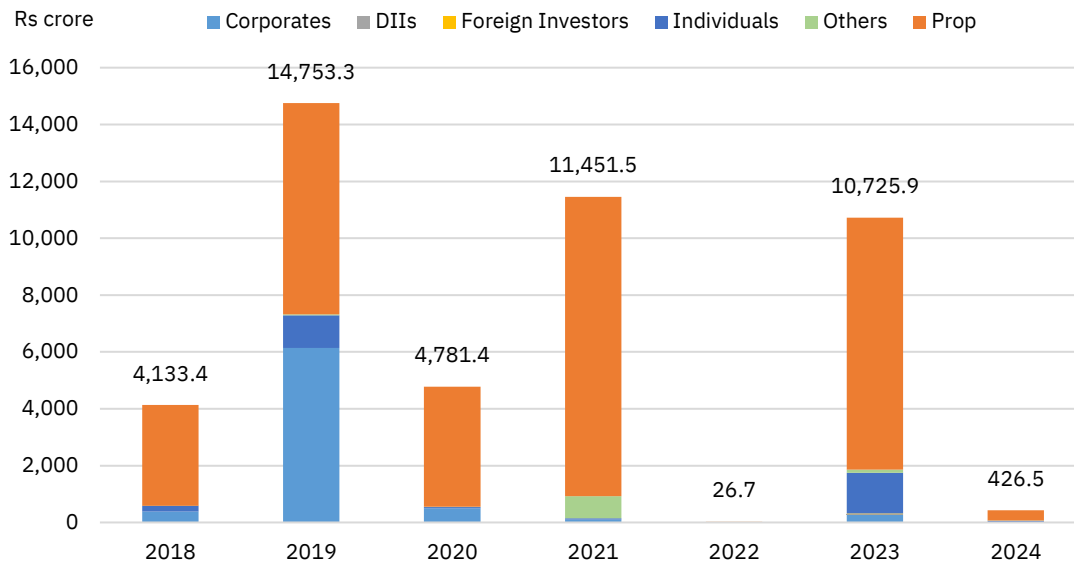
Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 262: Trends in share of client participation in Commodity Futures at NSE (%)


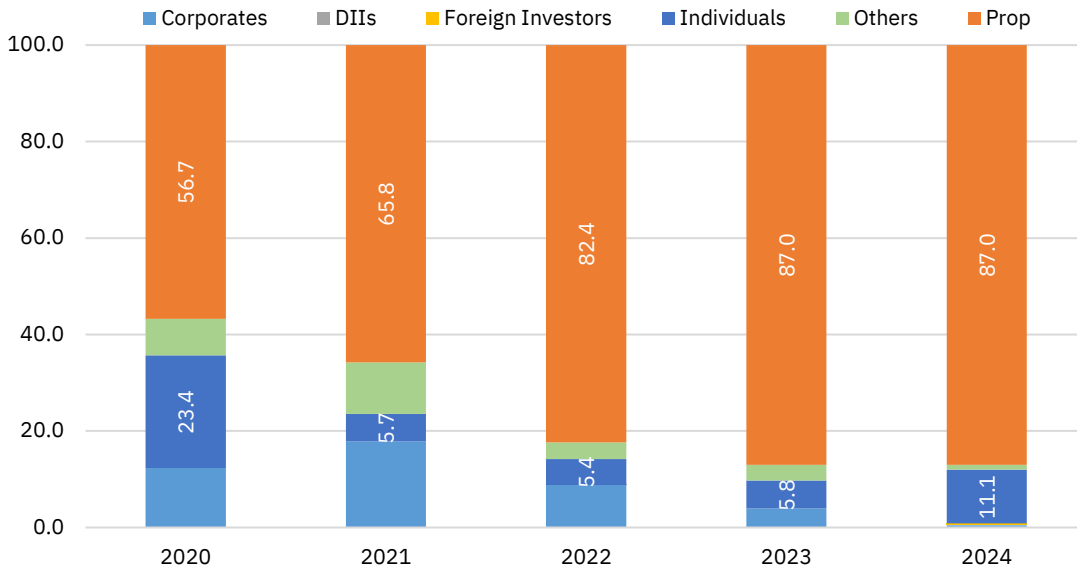
Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 263: Trends in client category-wise gross turnover in Commodity Futures at NSE


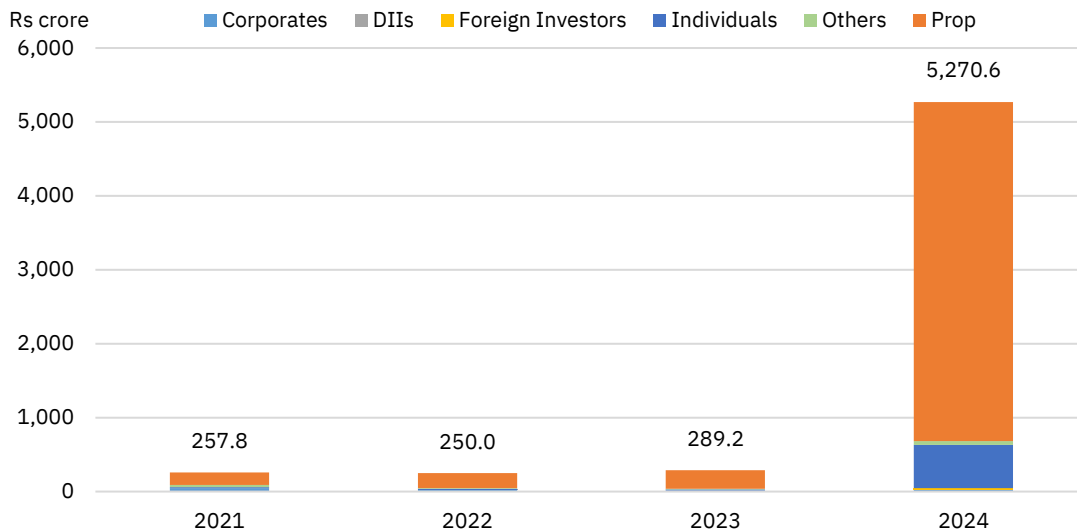
Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 264: Trends in share of client participation in Commodity Options (Premium Turnover) at NSE (%)


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Figure 265: Trends in client category-wise gross premium turnover in Commodity Options at NSE


Source: NSE EPR.

Notes: 1. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.
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 3. Above data represents share in gross notional turnover i.e., buy-side notional turnover + sell-side notional turnover.

Distribution of turnover by channels of trading

The Share of Colocation stood at record high in NSE CM segment: Colocation trading came a long way from 3.1% in 2010 to 35.7% in 2024 while the share of trading through CTCL/Neat terminal declined from 86.2% in 2010 to 28.1% in 2024. Remarkably the share of Colo stood at record high on annual terms since inception. Similarly, the share of Mobile, internet-based trading (IBT) and Direct Market Access (DMA) also showed remarkable progress, and their share stood at 20.7%, 8% and 6.7% respectively in 2024.

During the last ten years, the turnover using Mobile facility grew at a CAGR of 66%, followed by DMA at 47% and Colocation at 29%. It also signifies the positive impact of technology and investors preference towards using these facilities.

Over the past 14 years, algorithmic trading has also witnessed significant growth in the stock markets. Largely driven by institutional investors and proprietary trading firms, the share of algorithmic trading expanded from 14% in 2010 to 53% in 2024, marking its highest annual share and, for the first time, overtaking non-algorithmic trading in the cash market segment. Conversely, the share of non-algorithmic trading declined from 86% in 2010 to 47% in 2024.

Table 84: Monthly trend in share (%) of different channels of trading in NSE CM segment in 2024

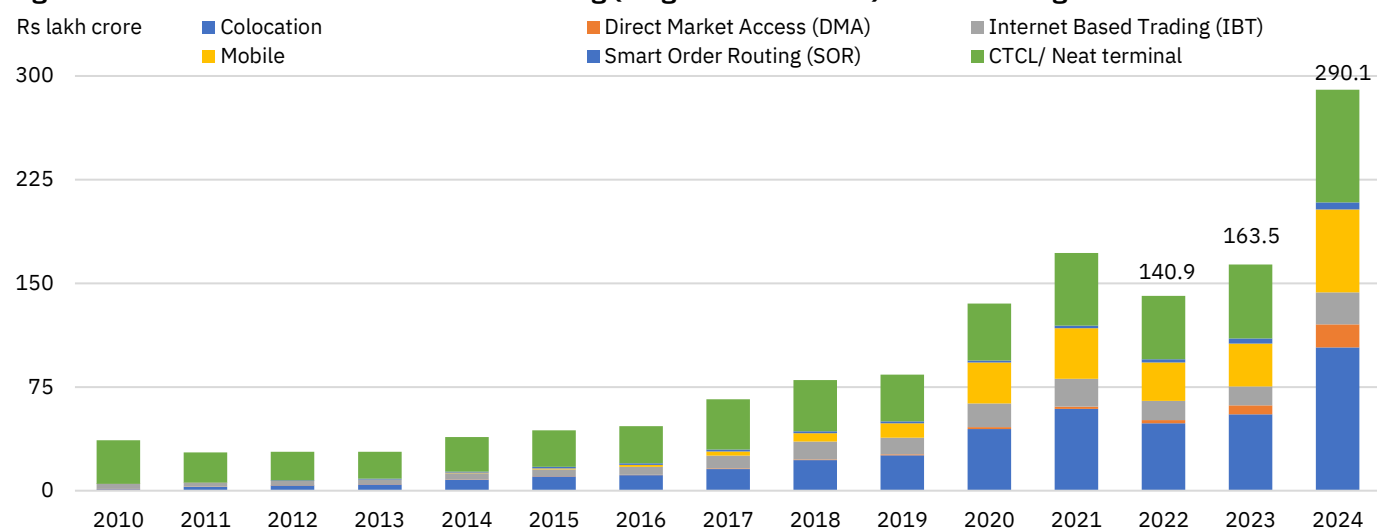
Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	34.9	34.9	35.9	35.9	36.3	34.3	35.1	34.7	35.3	37.4	37.0	36.2
Direct Market Access (DMA)	5.6	5.6	7.1	6.1	7.2	6.3	6.3	7.3	7.4	7.2	7.8	6.9
Internet-based Trading (IBT)	8.6	8.6	7.5	8.3	7.6	7.7	8.5	8.0	7.9	7.6	7.5	7.9
Mobile	21.1	21.1	18.3	20.7	20.2	20.3	22.7	20.9	20.6	20.2	20.2	21.6
Smart order routing	0.8	0.8	0.8	0.6	0.7	0.6	0.7	0.5	0.6	0.9	0.9	0.8
CTCL/ Neat terminal	29.1	29.1	30.4	28.2	28.0	30.8	26.7	28.6	28.3	26.7	26.6	26.5

Source: NSE EPR

Note: 1. The above figures have been computed based on traded value.

2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access. The above figures are based on net turnover.

Figure 266: Annual trends in channels of trading (Single side turnover) in NSE CM Segment

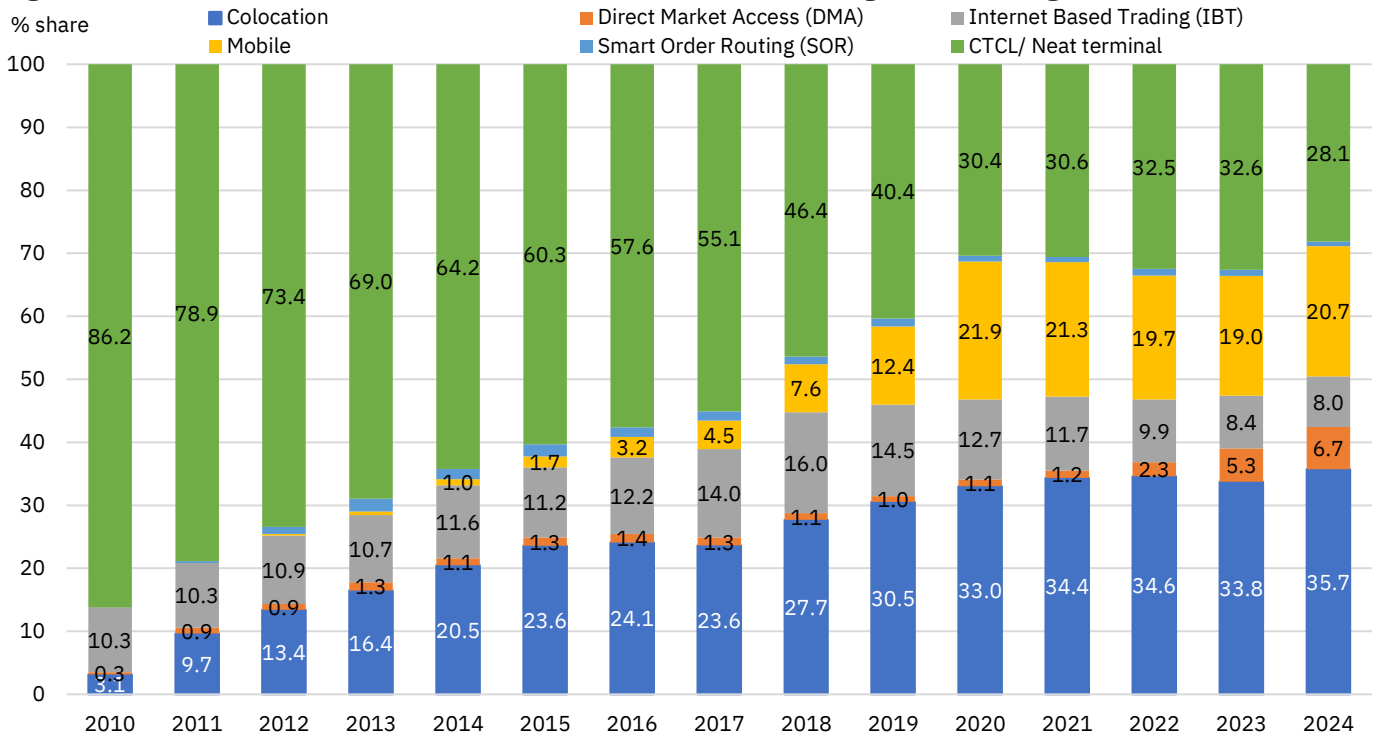


Source: NSE EPR

Note:

1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

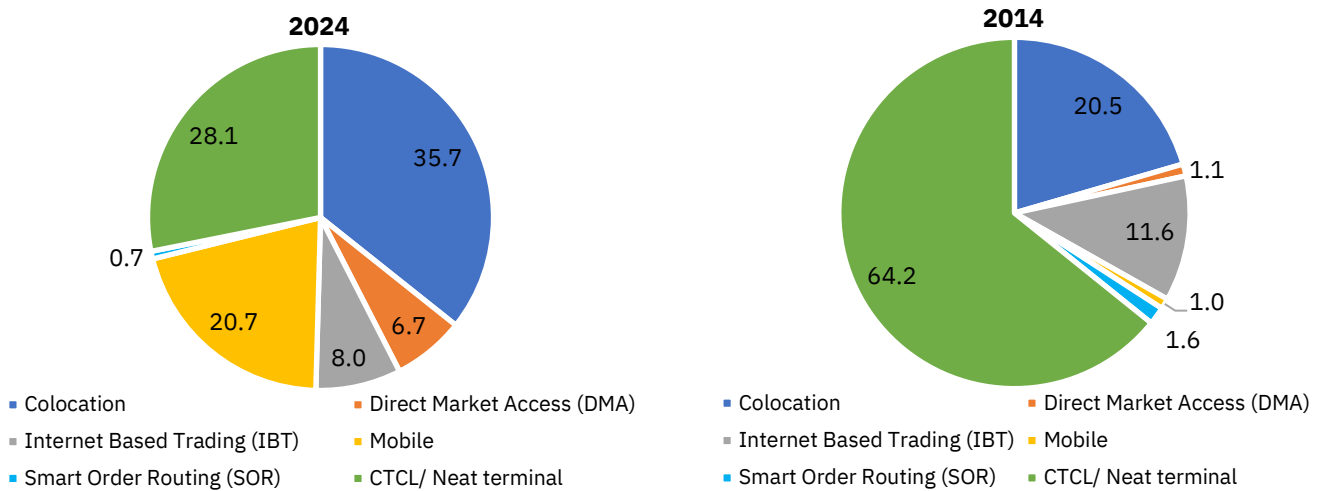
2. The above figures have been computed based on traded value.

Figure 267: Annual trends in the share of different channels of trading in NSE CM segment


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

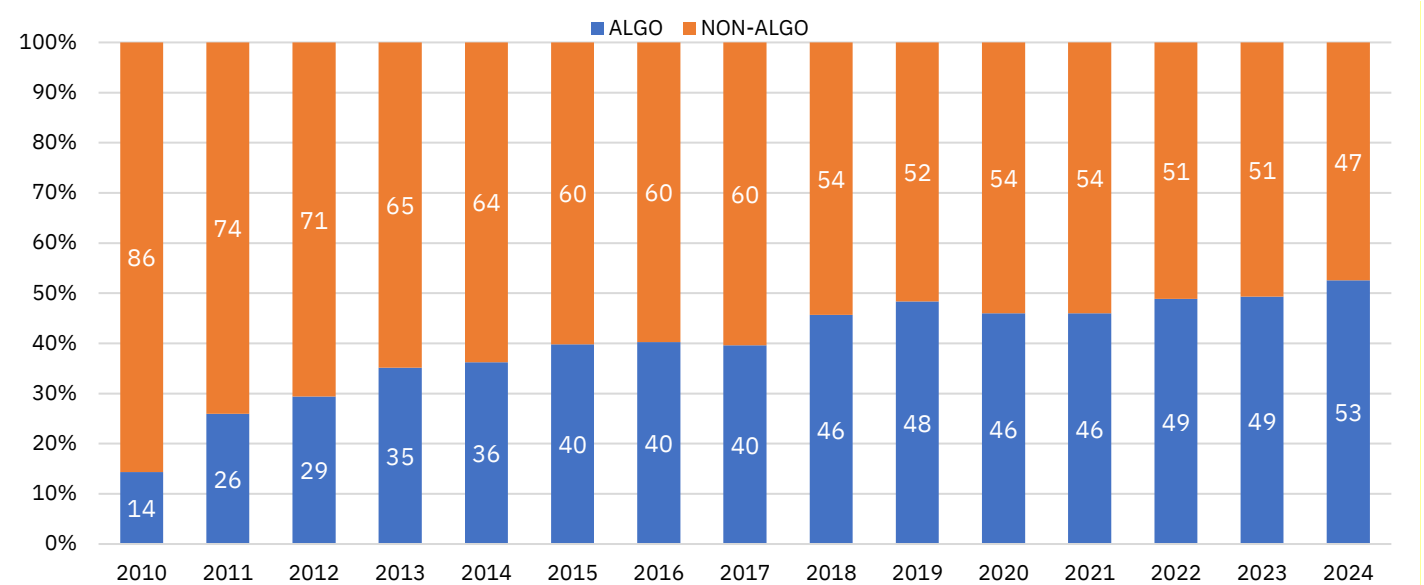
2. The above figures have been computed in % share on the basis of net turnover

Figure 268: Bifurcation of share (%) by various channels of trading in NSE CM Segment – 2024 vs 2014


Source: NSE EPR

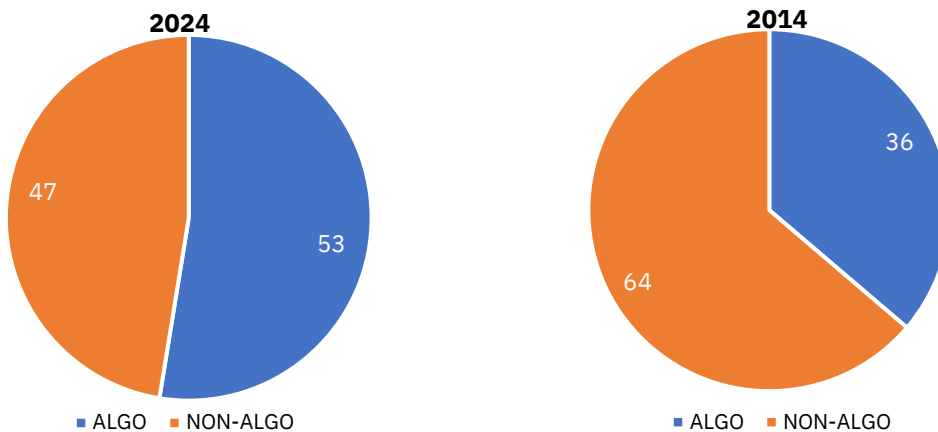
Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed in % share on the basis of net turnover.

Figure 269: Bifurcation of CM segment turnover (% share) by modes of trading (2010 – 2024)


Source: NSE EPR

Note: The above figures have been computed in terms of % share on the basis of net turnover.

Figure 270: Bifurcation of CM segment turnover (% share) by modes of trading – 2024 vs 2014


Source: NSE EPR

Note: The above figures have been computed in terms of % share on the basis of net turnover.

Evolving trends in trading, growth of Colocation, Mobile, DMA, and Algorithmic trades for equity derivatives segment:

The share of Colocation reached a record high of 62.1% on an annual basis, measured by notional turnover in 2024—a significant rise from 7.3% in 2010 and 46.3% in 2019. Notably, in 2024, Colocation accounted for 49.5% of equity futures turnover and 53.6% of equity options turnover based on premium turnover. Mobile trading also saw substantial growth, with its share in equity derivatives based on notional turnover reaching 17.1% in 2024, compared to 0.7% in 2014 and 6.5% in 2019. However, its share for equity options (based on premium turnover) stood at 23.7%, significantly higher than the 9.4% share in equity futures in 2024. Interestingly, the shares of Direct Market Access (DMA) stood at 6.2% for equity derivatives segment based on notional turnover in 2024, however, its share was at 15.7% for equity futures, much higher as compared to 8.6% for equity options based on premium turnover.

The evolution of algorithmic versus non-algorithmic trading has been noteworthy. In 2010, non-algorithmic trading accounted for 88% of the equity derivatives (notional) turnover, while algorithmic trading held a mere 12% share. However, with advancements in technology and greater accessibility, algorithmic trading steadily gained traction. The share of algorithmic trading in the equity derivatives segment based on notional turnover has seen substantial growth, with its share rising from 12% in 2010 to 59% in 2019, and further to 70% in 2024. Within this, the share of algorithmic trading in equity futures stood at 68%, while that for equity options (based on premium turnover) was at 63% in 2024.

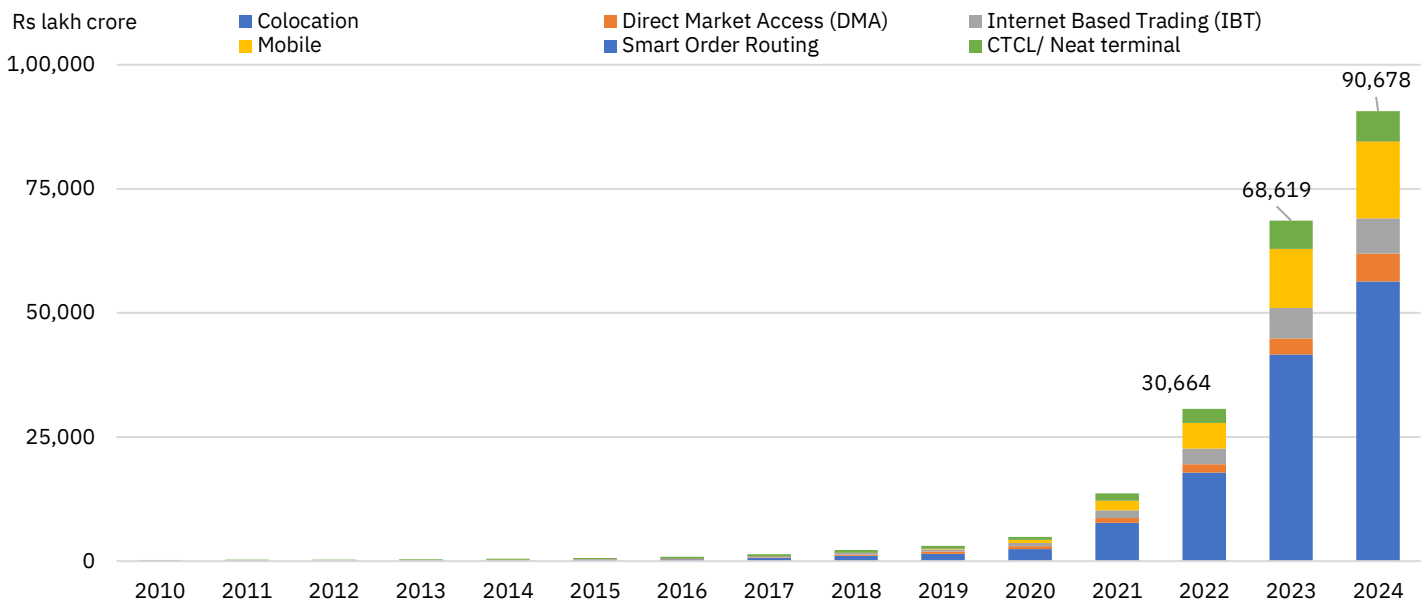
Table 85: Share (%) of different channels of trading in Equity Derivatives segment (Notional turnover)

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	63.2	63.2	63.6	62.2	61.1	61.7	62.4	61.9	61.7	60.3	62.8	60.1
Direct Market Access (DMA)	4.8	4.8	4.6	5.4	5.7	6.0	6.6	7.0	7.3	8.0	7.0	7.0
Internet Based Trading (IBT)	7.9	7.9	7.9	8.1	8.2	7.9	7.8	7.8	7.8	7.8	7.5	8.0
Mobile	16.9	16.9	16.8	17.3	17.7	17.4	16.5	16.7	16.9	17.9	16.9	18.4
Smart order routing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CTCL/ Neat terminal	7.2	7.2	7.1	7.0	7.3	7.0	6.7	6.5	6.2	6.0	5.9	6.5

Notes: 1. The above figures have been computed based on net turnover.

2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access. The above figures are based on net turnover.

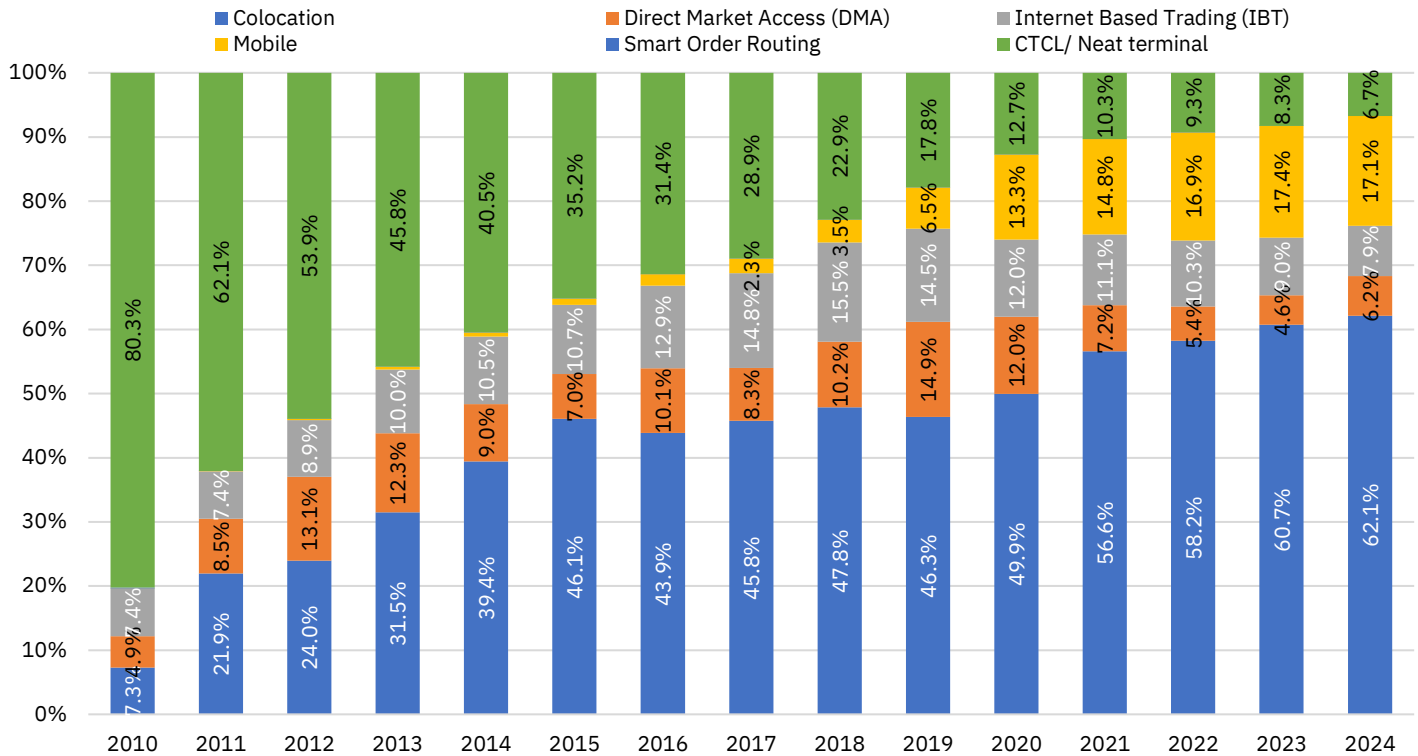
Figure 271: Annual Trends for different channels of trading (Single side notional turnover) in Equity Derivatives



Source: NSE EPR

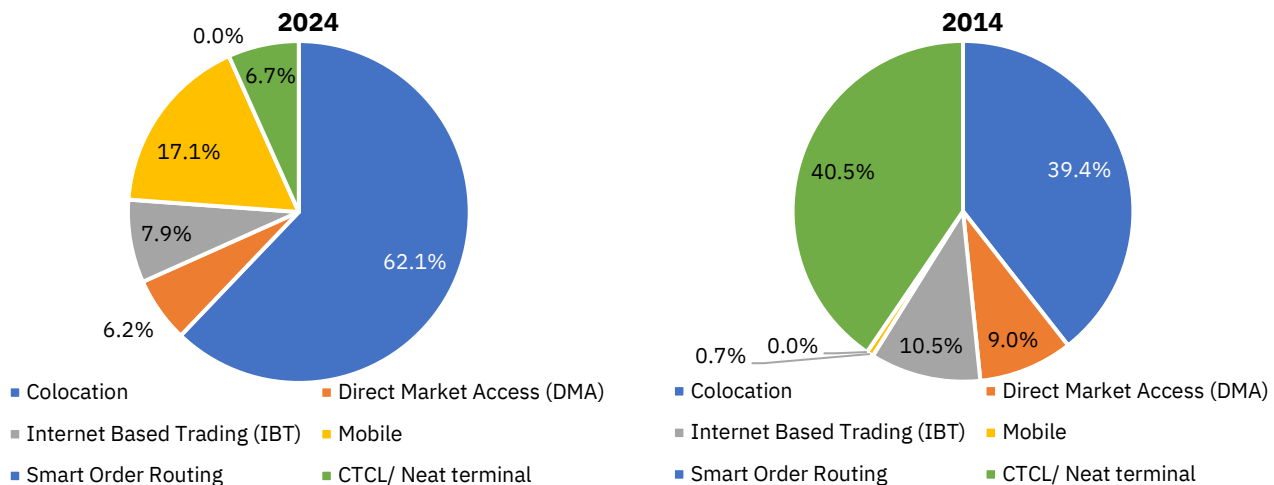
Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed on the basis of net turnover.

Figure 272: Annual trends in share (%) of different channels of trading in Equity Derivatives (Notional turnover)


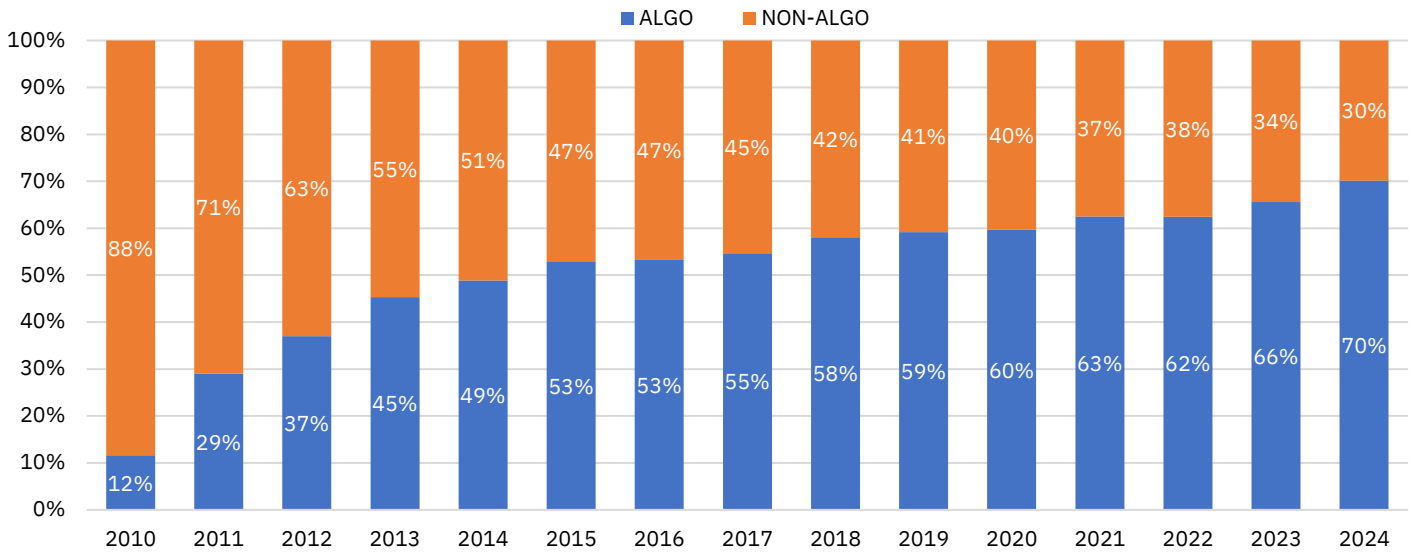
Source: NSE EPR

 Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.
 2. The above figures have been computed in % share on the basis of net turnover

Figure 273: Bifurcation of share (%) by various channels of trading in Equity derivatives – 2024 vs 2014


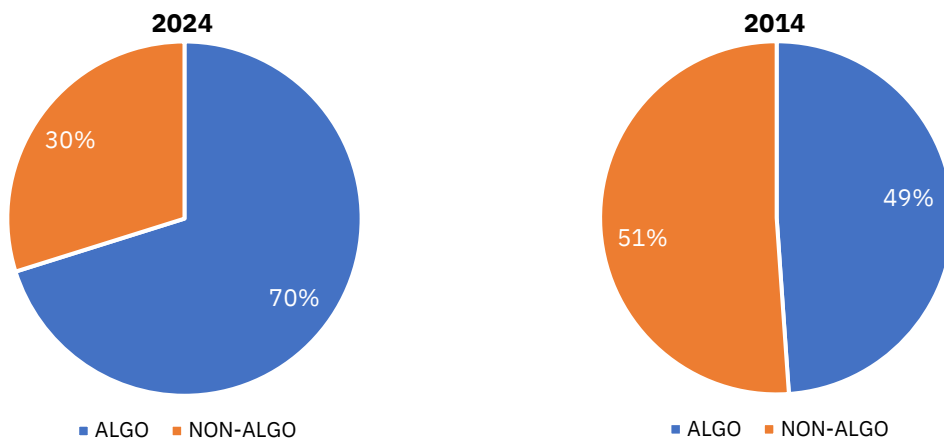
Source: NSE EPR

 Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.
 2. The above figures have been computed in % share based on notional turnover.

Figure 274: Bifurcation of Equity Derivatives turnover (% share) by modes of trading (2010 – 2024)


Source: NSE EPR

Note: The above figures have been computed in terms of % share based on notional turnover.

Figure 275: Bifurcation of equity derivatives (% share) by modes of trading – 2024 vs 2014


Source: NSE EPR

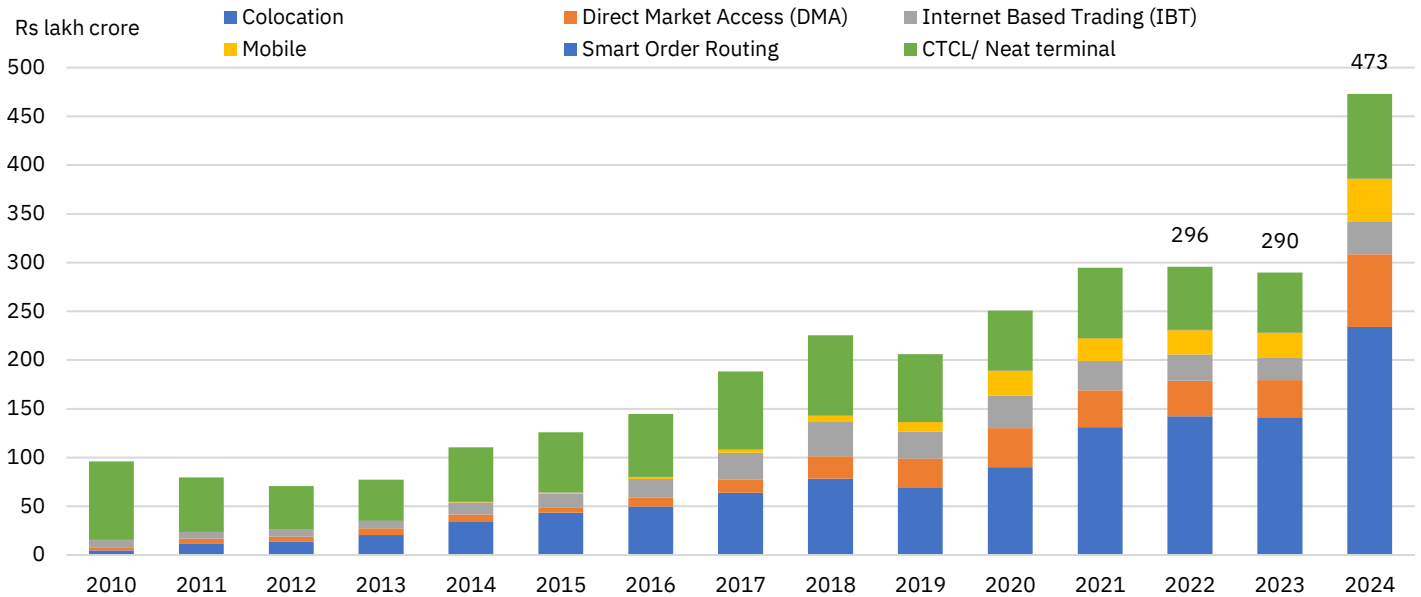
Note: The above figures have been computed in terms of % share based on notional turnover.

Table 86: Share (%) of different channels of trading in Equity futures (based on turnover)

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	49.8	49.8	47.8	48.5	49.5	51.0	49.8	49.7	49.6	49.4	49.8	49.8
Direct Market Access (DMA)	13.5	13.5	15.7	15.6	16.2	15.2	15.7	15.7	16.5	17.8	16.7	16.2
Internet Based Trading (IBT)	7.6	7.6	7.8	7.3	6.9	6.8	6.9	6.7	6.4	6.5	6.5	6.7
Mobile	9.7	9.7	9.1	9.4	9.4	9.9	9.7	9.4	9.4	9.1	9.0	9.3
Smart order routing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CTCL/ Neat terminal	19.5	19.5	19.5	19.3	17.9	17.0	18.0	18.5	18.0	17.3	18.1	18.1

Note: 1. The above figures have been computed as the % based on turnover.

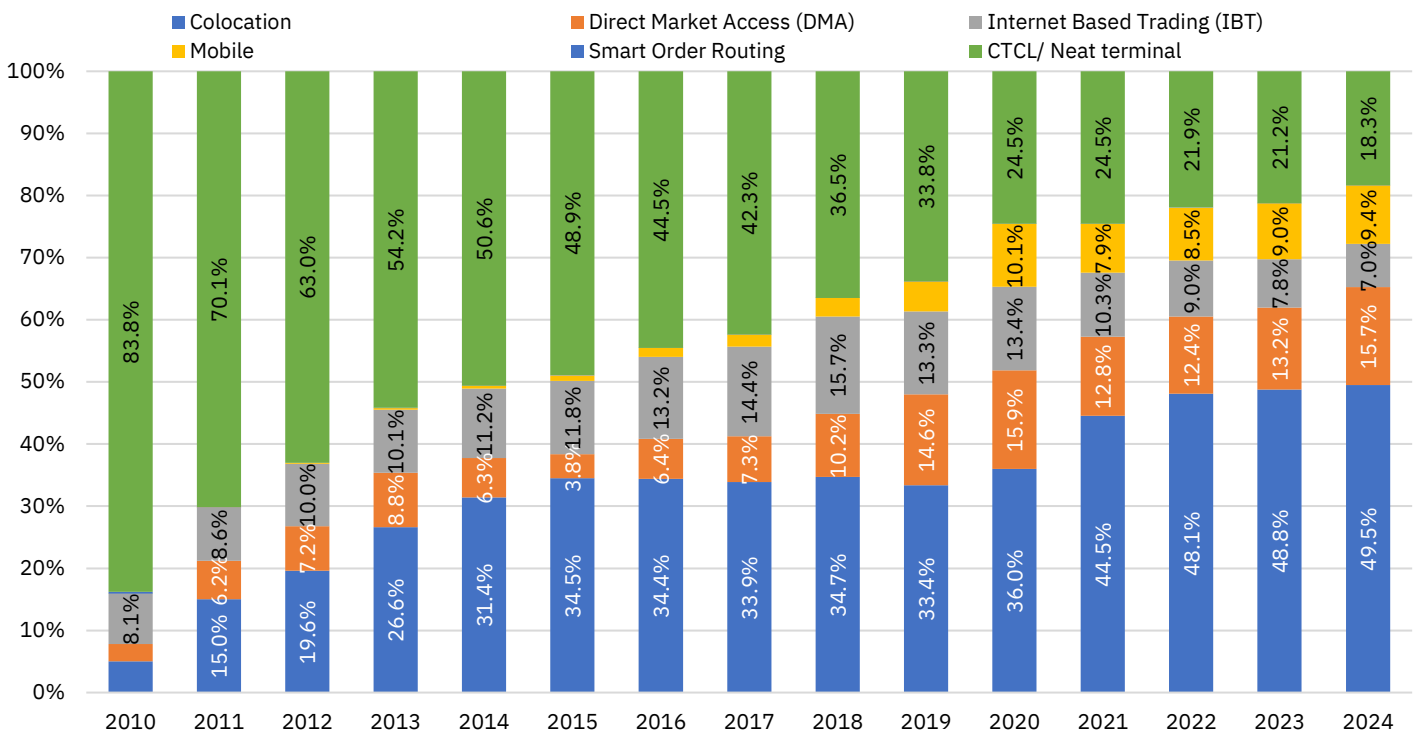
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

Figure 276: Annual trends for different channels of trading in equity futures turnover


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

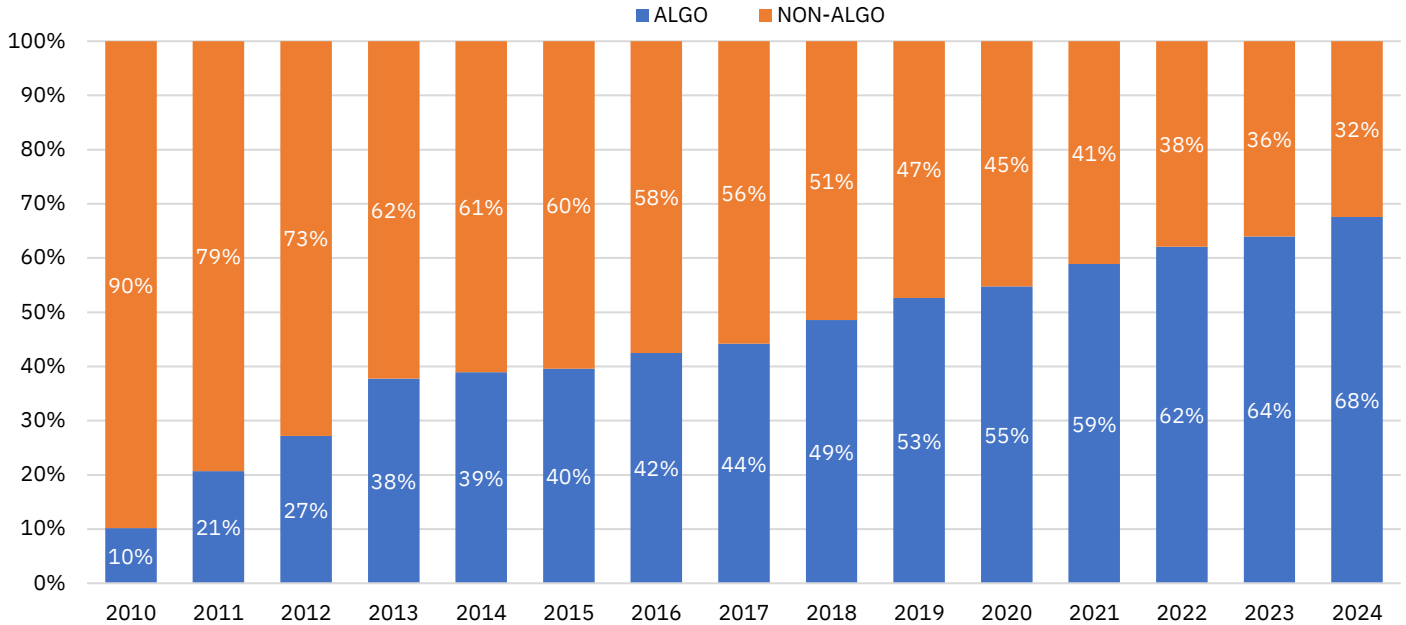
2. The above figures have been computed on the basis of net turnover.

Figure 277: Annual trends of share (%) for different channels of trading in equity futures turnover


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed in % share based on turnover in equity futures

Figure 278: Bifurcation of Equity futures turnover (% share) by modes of trading (2010 – 2024)


Source: NSE EPR

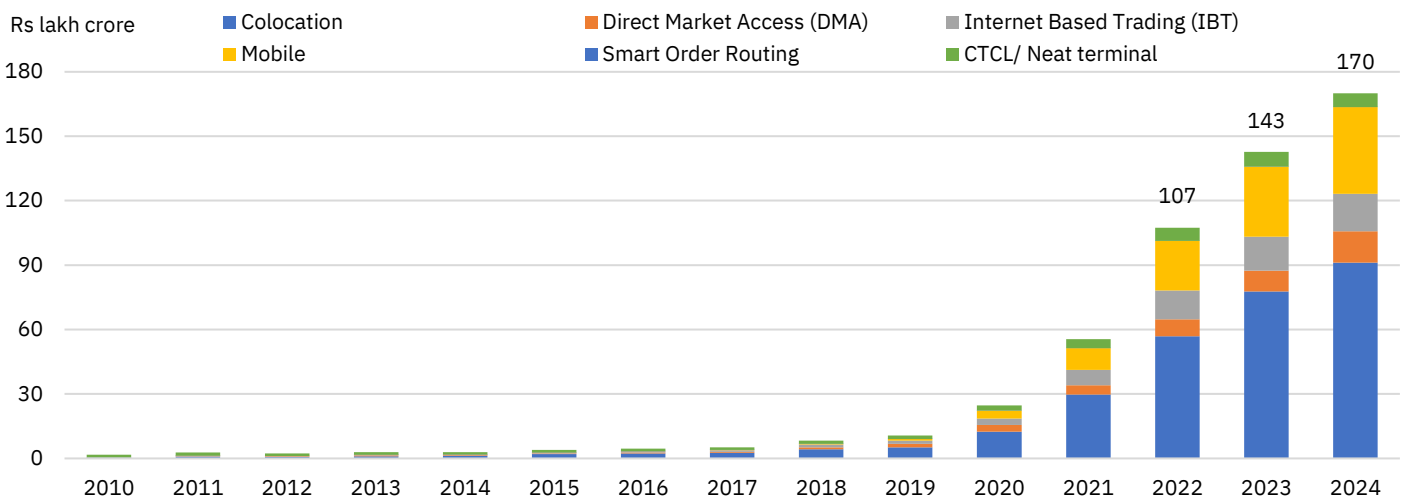
Note: The above figures have been computed in terms of % share on the basis of net turnover.

Table 87: Share (%) of different channels of trading in Equity options (Based on premium turnover)

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	55.5	55.5	54.3	53.7	53.4	54.7	53.8	52.5	52.4	51.3	53.9	52.4
Direct Market Access (DMA)	7.0	7.0	7.7	7.8	8.5	8.7	9.0	9.7	10.2	10.6	8.1	8.2
Internet Based Trading (IBT)	10.3	10.3	10.4	10.5	10.4	9.8	10.2	10.4	10.3	10.2	10.4	10.6
Mobile	23.2	23.2	23.7	24.1	23.9	22.9	23.2	23.7	23.6	24.4	24.2	25.1
Smart order routing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CTCL/ Neat terminal	4.0	4.0	4.0	4.0	3.8	3.9	3.8	3.7	3.6	3.5	3.5	3.6

Note: 1. The above figures have been computed on the basis of net turnover.

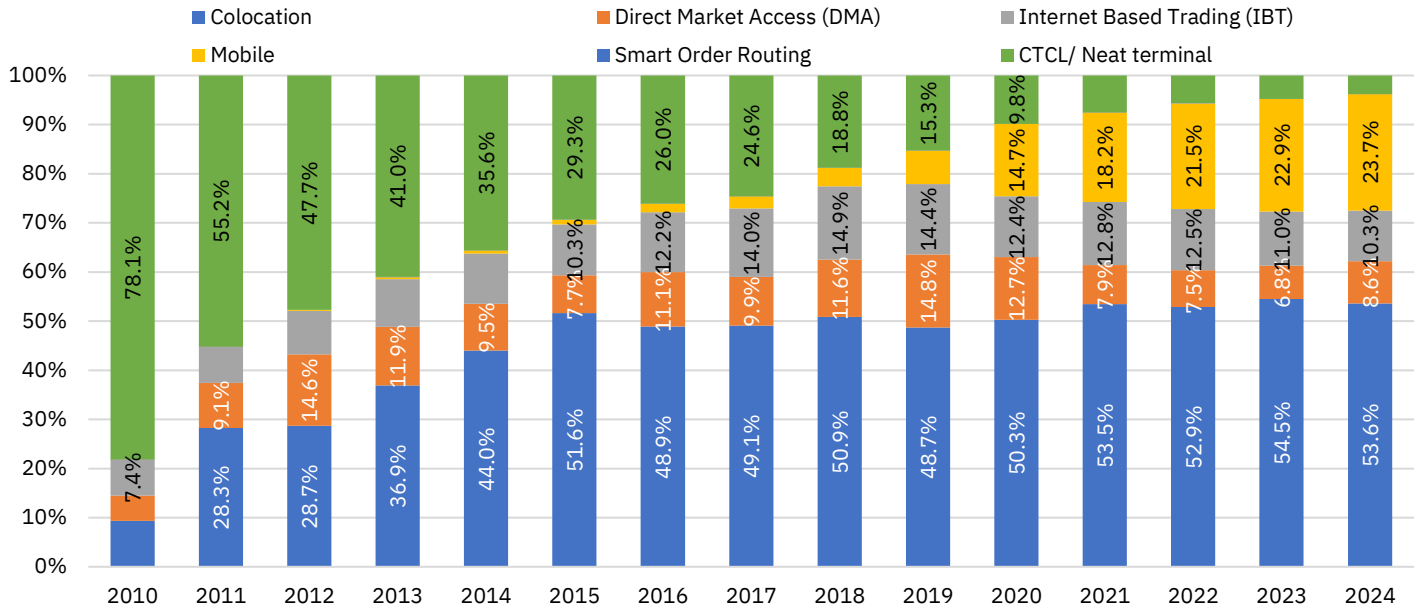
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access. The above figures are based on net turnover.

Figure 279: Annual trends for different channels of trading in equity options (Single side premium turnover)


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

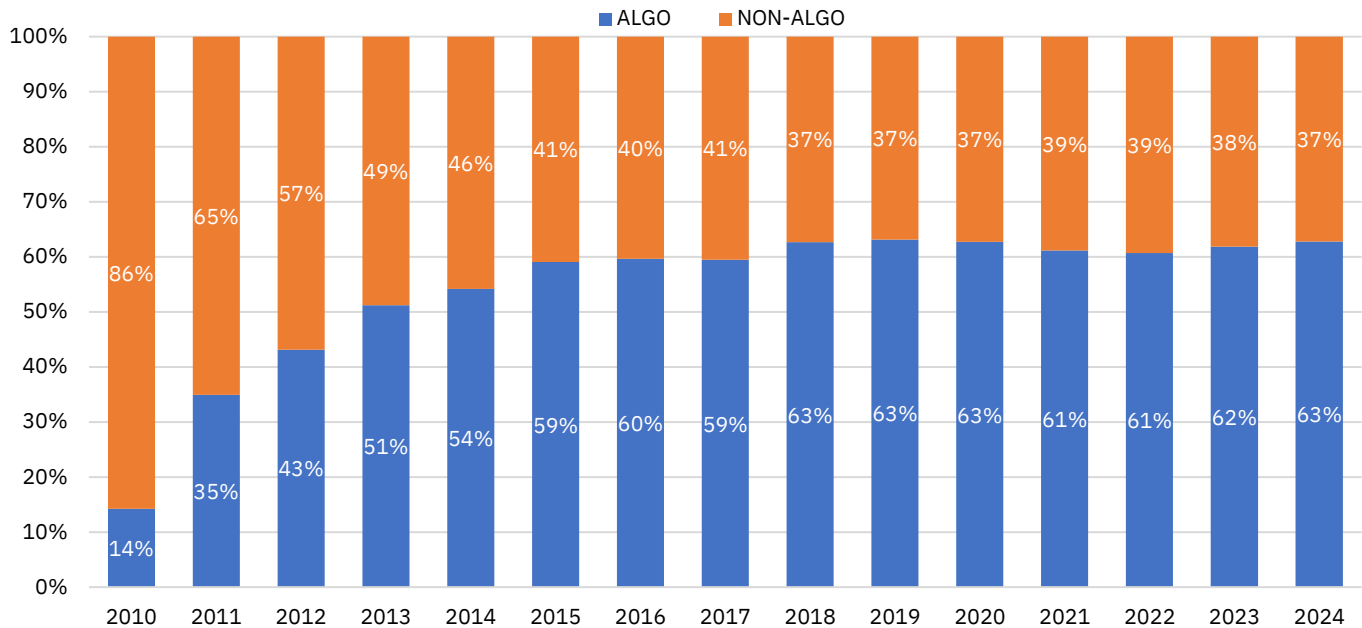
2. The above figures have been computed on the basis of net turnover.

Figure 280: Annual trends of share (%) for different channels of trading in equity options turnover


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed in % share based on premium turnover

Figure 281: Bifurcation by modes of trading in equity options (premium turnover) from 2010 to 2024


Source: NSE EPR

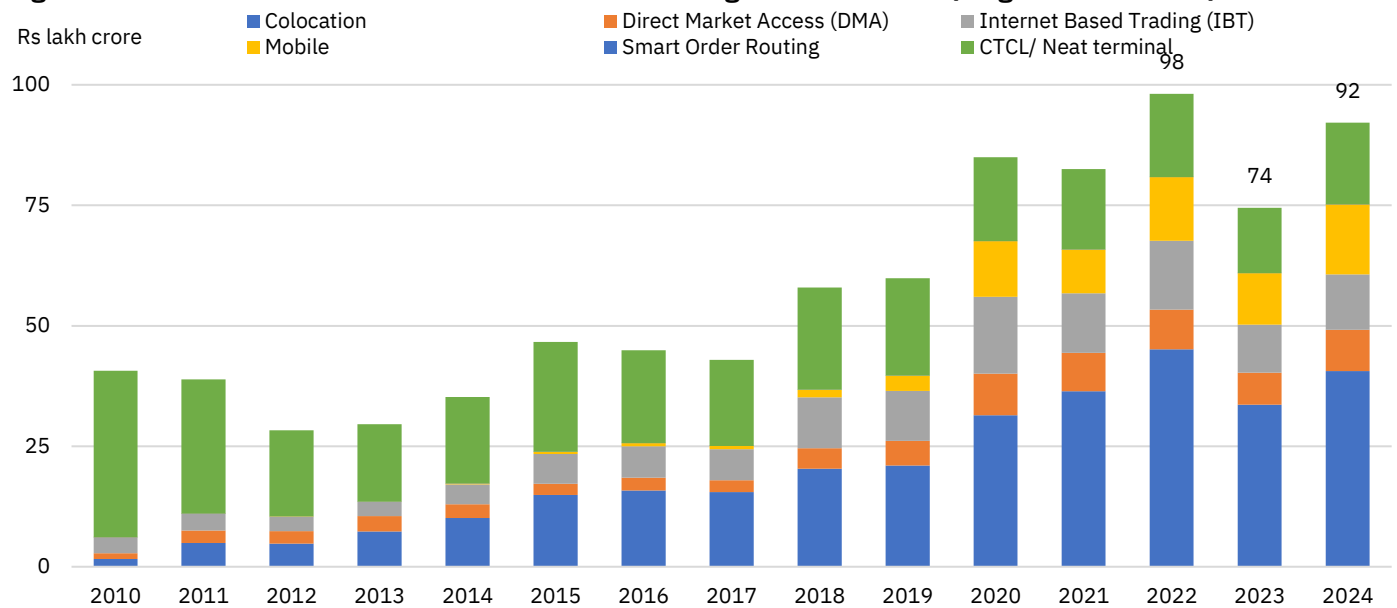
Note: The above figures have been computed in terms of % share based on turnover.

Table 88: Share (%) of different channels of trading in Index Futures based on turnover

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	46.9	46.9	42.5	44.4	45.6	45.4	42.6	42.6	44.5	41.3	42.9	43.3
Direct Market Access (DMA)	8.4	8.4	9.3	10.2	9.8	10.8	10.4	9.7	9.4	9.8	7.7	7.1
Internet Based Trading (IBT)	12.3	12.3	13.4	12.4	11.6	11.4	12.2	12.4	12.1	12.7	13.2	13.6
Mobile	14.6	14.6	13.9	14.0	14.7	15.6	15.9	16.5	16.5	17.8	17.7	18.0
Smart order routing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CTCL/ Neat terminal	17.8	17.8	20.9	19.0	18.3	16.7	18.9	18.8	17.5	18.4	18.6	18.1

Note: 1. The above figures have been computed in % based on turnover.

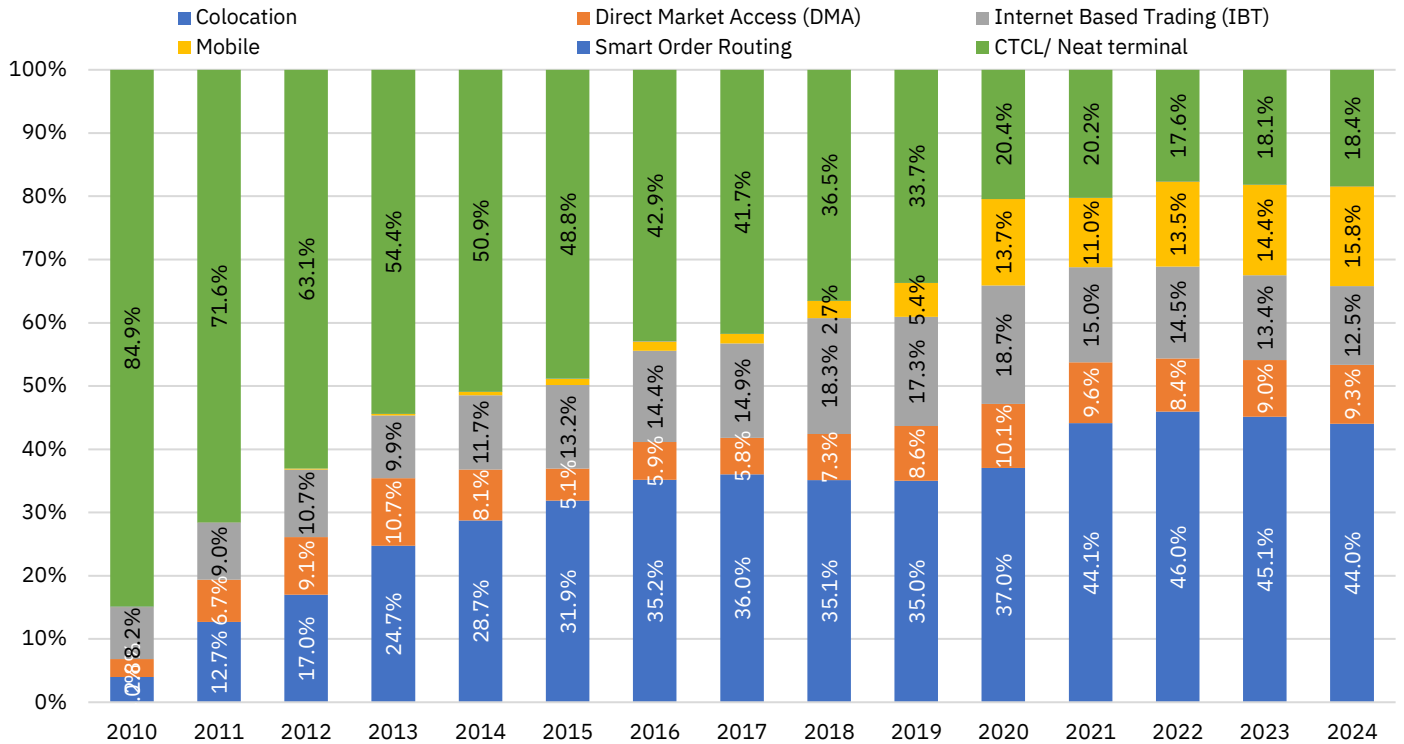
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

Figure 282: Annual trends for different channels of trading in index futures (Single side turnover)


Source: NSE EPR

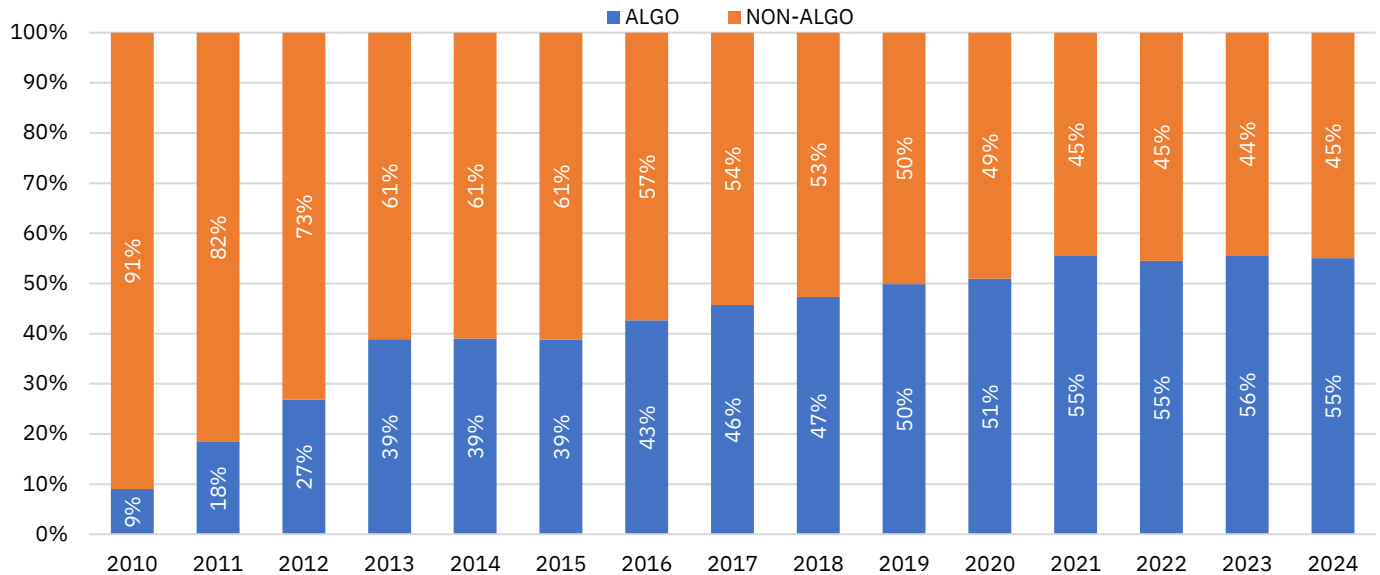
Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been presented based on net turnover.

Figure 283: Annual trends of share (%) for different channels of trading in index futures turnover


Source: NSE EPR

 Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.
 2. The above figures have been computed in % share based on turnover

Figure 284: Bifurcation of index futures turnover (% share) by modes of trading (2010 – 2024)


Source: NSE EPR

Note: The above figures have been computed in terms of % share based on turnover.

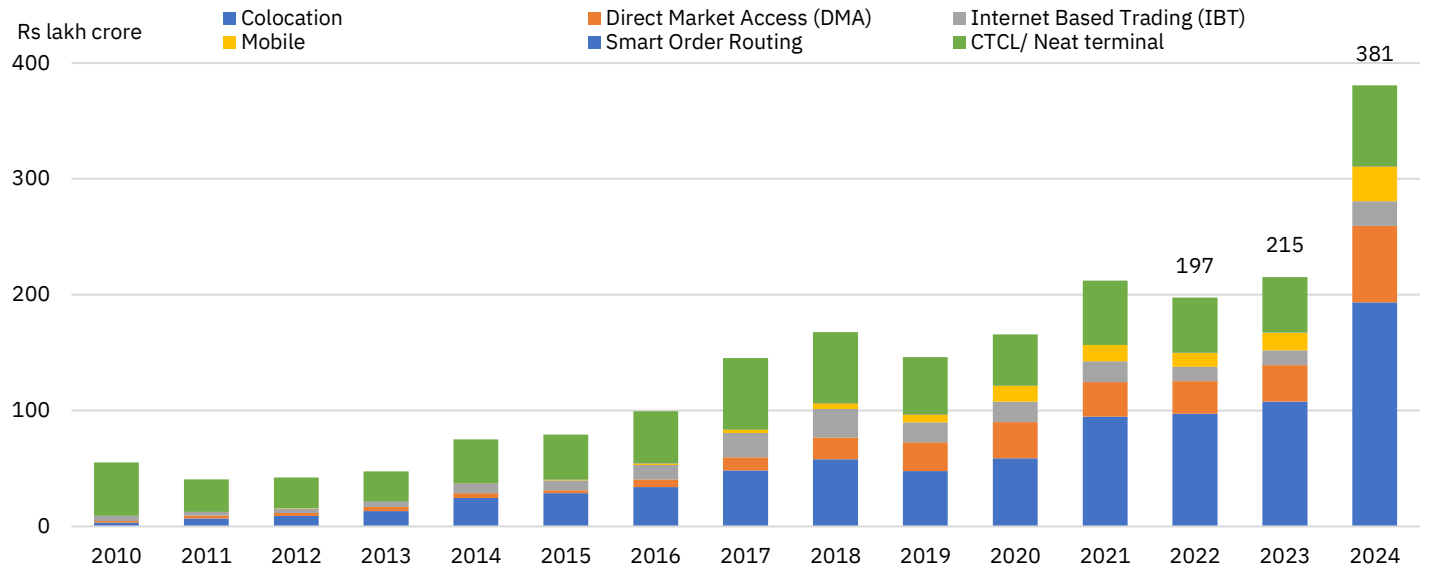
Table 89: Share (%) of different channels of trading in Stock Futures based on turnover

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	50.6	50.6	49.3	49.4	50.5	52.5	51.3	51.3	50.7	51.2	51.5	51.3
Direct Market Access (DMA)	14.9	14.9	17.5	16.8	17.6	16.4	16.8	17.1	18.0	19.6	18.9	18.3
Internet Based Trading (IBT)	6.3	6.3	6.3	6.1	5.8	5.6	5.8	5.4	5.3	5.1	4.9	5.0
Mobile	8.3	8.3	7.8	8.3	8.2	8.4	8.4	7.8	7.9	7.1	6.9	7.2
Smart order routing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CTCL/ Neat terminal	19.9	19.9	19.1	19.4	17.8	17.1	17.7	18.5	18.2	17.0	17.9	18.1

Source: NSE EPR

Note: 1. The above figures have been computed based on turnover.

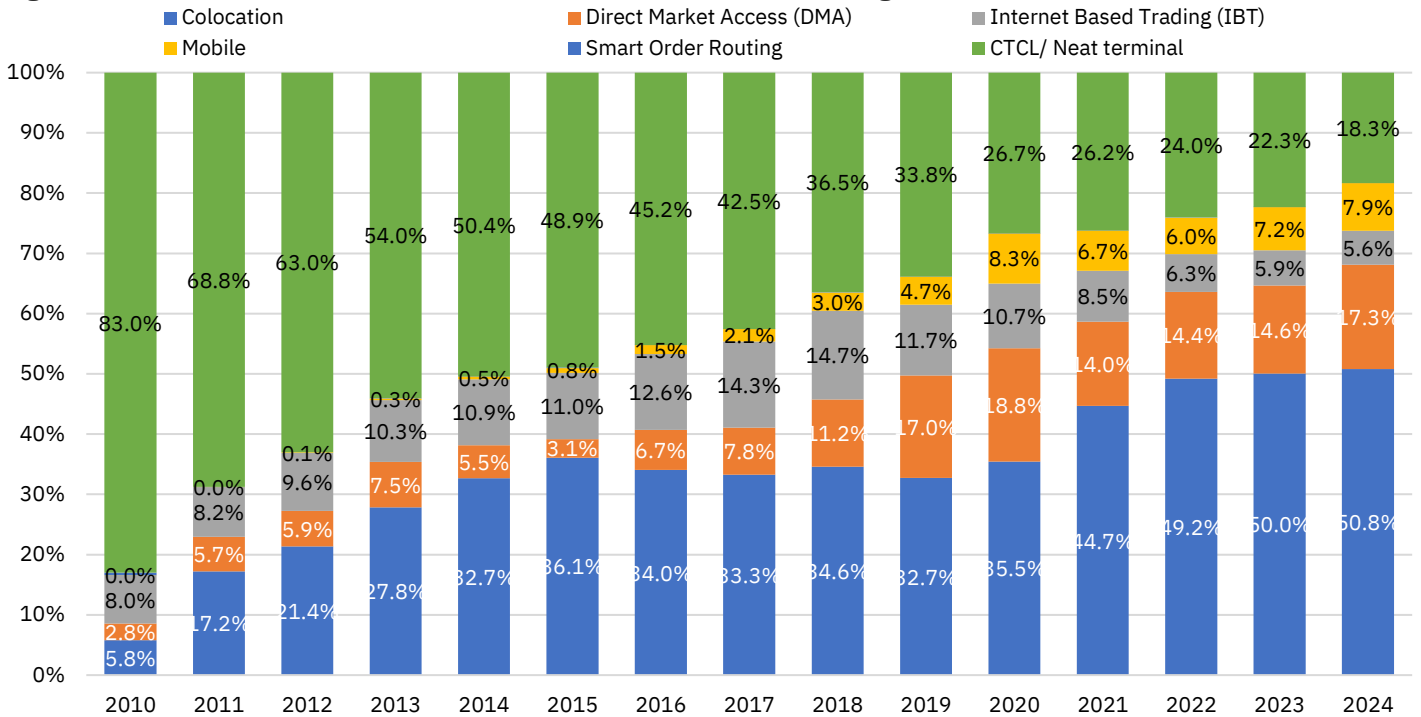
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

Figure 285: Annual trends for different channels of trading in stock futures (Single side turnover)


Source: NSE EPR

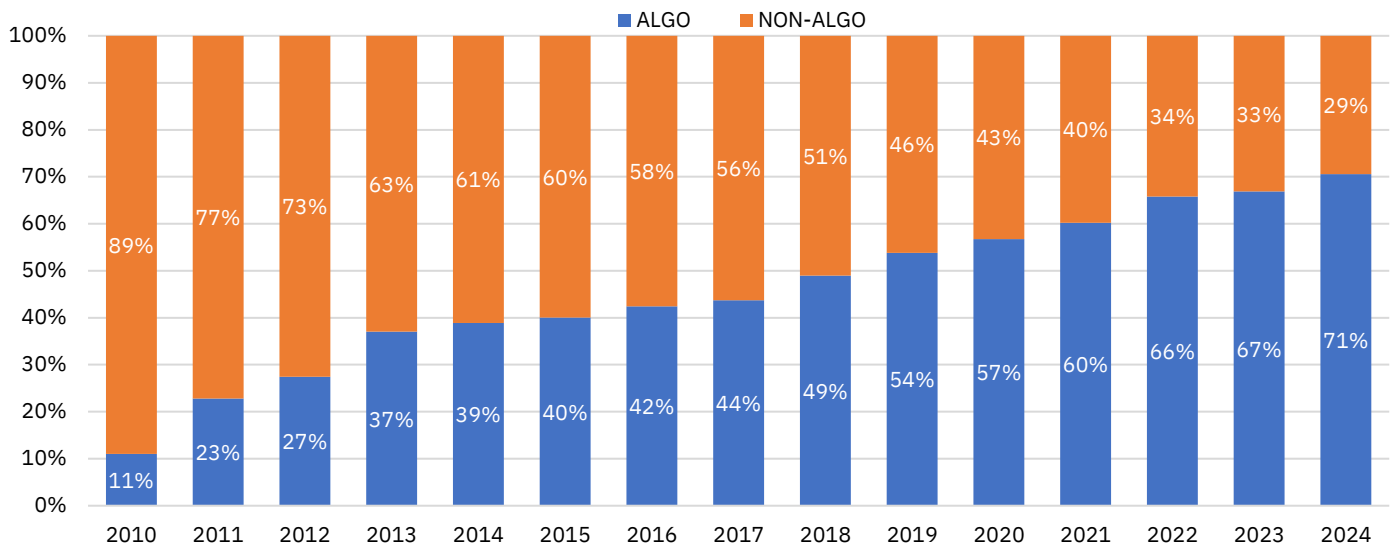
Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed based on single side turnover.

Figure 286: Annual trends of share (%) for different channels of trading in stock futures turnover


Source: NSE EPR

 Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.
 2. The above figures have been computed in % share based on turnover

Figure 287: Bifurcation of stock futures turnover (% share) by modes of trading (2010 – 2024)


Source: NSE EPR

Note: The above figures have been computed in terms of % share based on turnover.

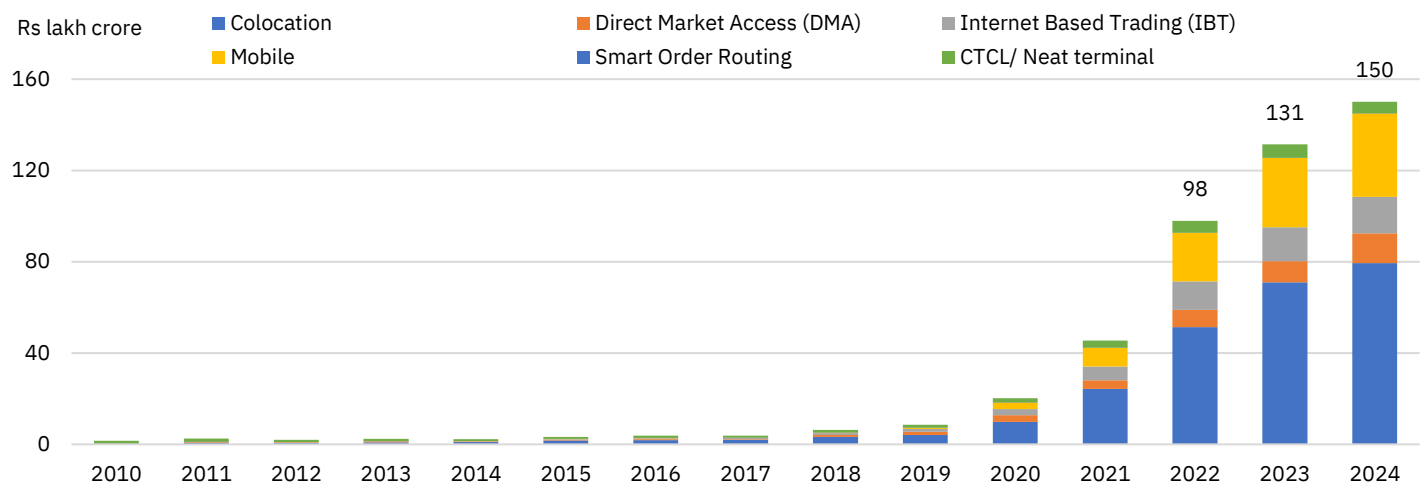
Table 90: Share (%) of different channels of trading in index options (Premium turnover)

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	54.8	54.8	53.7	52.8	52.7	54.2	53.3	51.8	51.6	50.5	53.0	51.6
Direct Market Access (DMA)	7.2	7.2	7.7	8.1	8.6	8.7	9.0	9.6	10.1	10.5	8.0	7.9
Internet Based Trading (IBT)	10.7	10.7	10.7	10.9	10.8	10.2	10.7	10.9	10.8	10.6	10.8	11.2
Mobile	23.8	23.8	24.2	24.6	24.5	23.3	23.7	24.4	24.2	25.2	25.0	26.0
Smart order routing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CTCL/ Neat terminal	3.6	3.6	3.6	3.6	3.4	3.5	3.4	3.4	3.3	3.2	3.1	3.4

Source: NSE EPR

Note: 1. The above figures have been presented in % based on premium turnover.

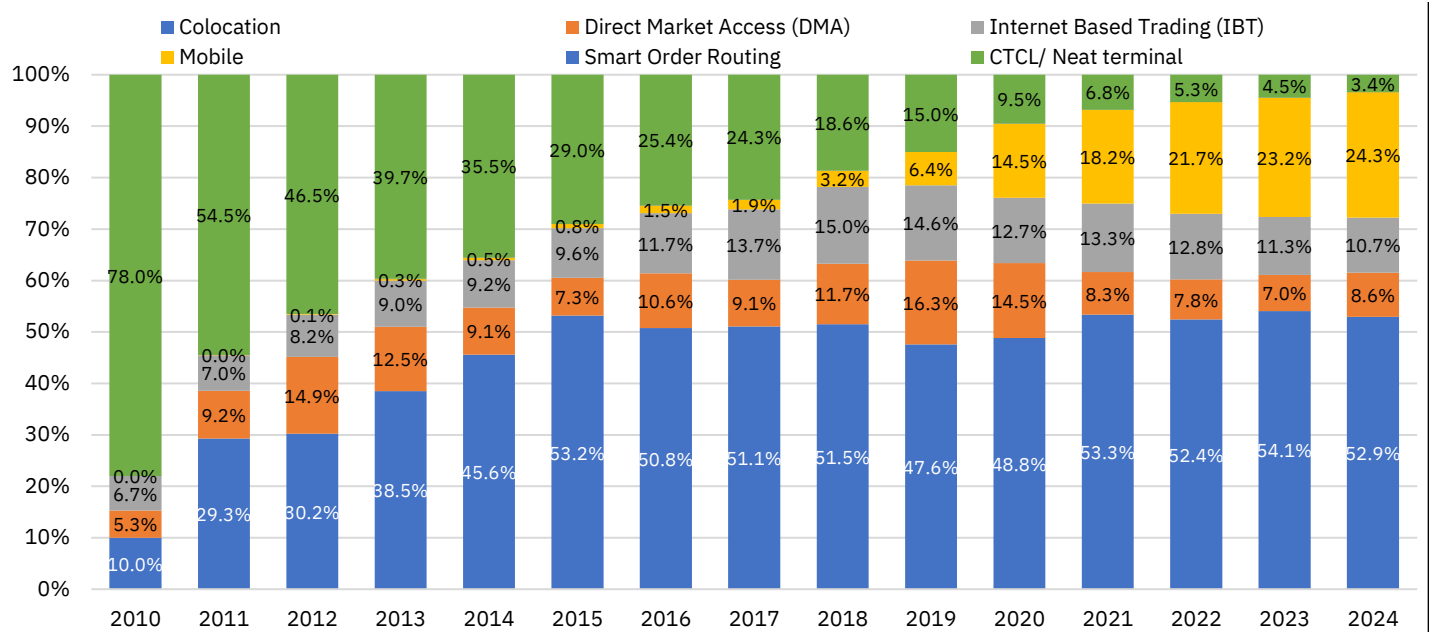
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

Figure 288: Annual trends for different channels of trading in index options (Single side premium turnover)


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

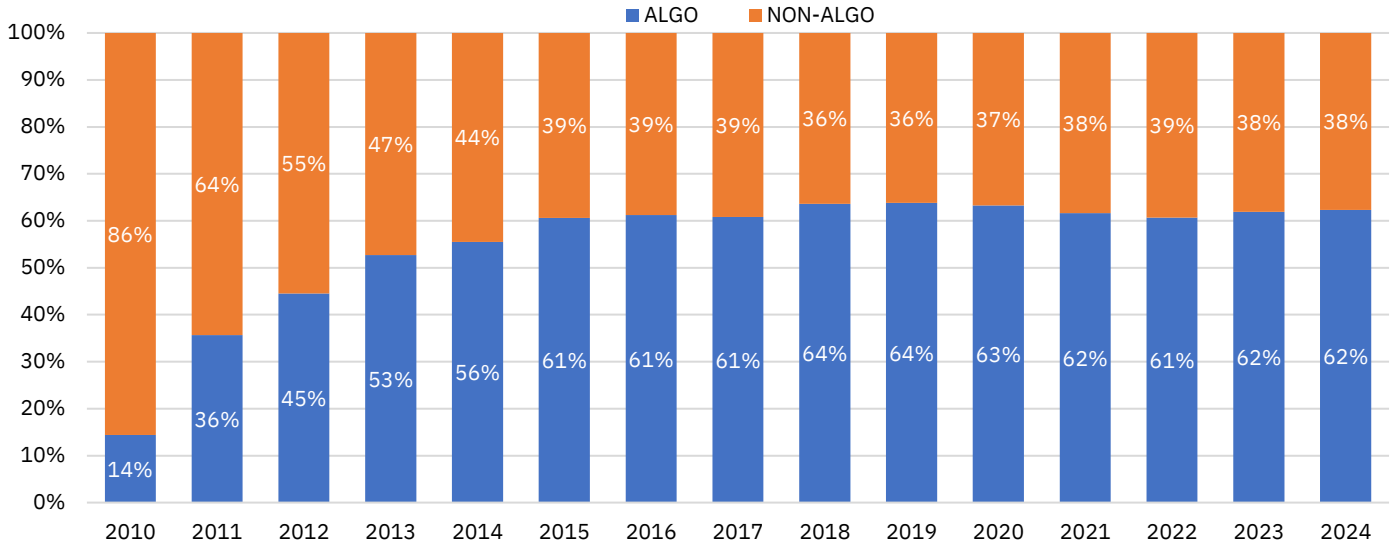
2. The above figures have been computed based on single side premium turnover.

Figure 289: Annual trends of share (%) for different channels of trading in index options (Premium turnover)


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed in % share based on premium turnover

Figure 290: Bifurcation (%) of index options (premium) turnover by modes of trading (2010 – 2024)


Source: NSE EPR

Note: The above figures have been computed in terms of % share based on premium turnover.

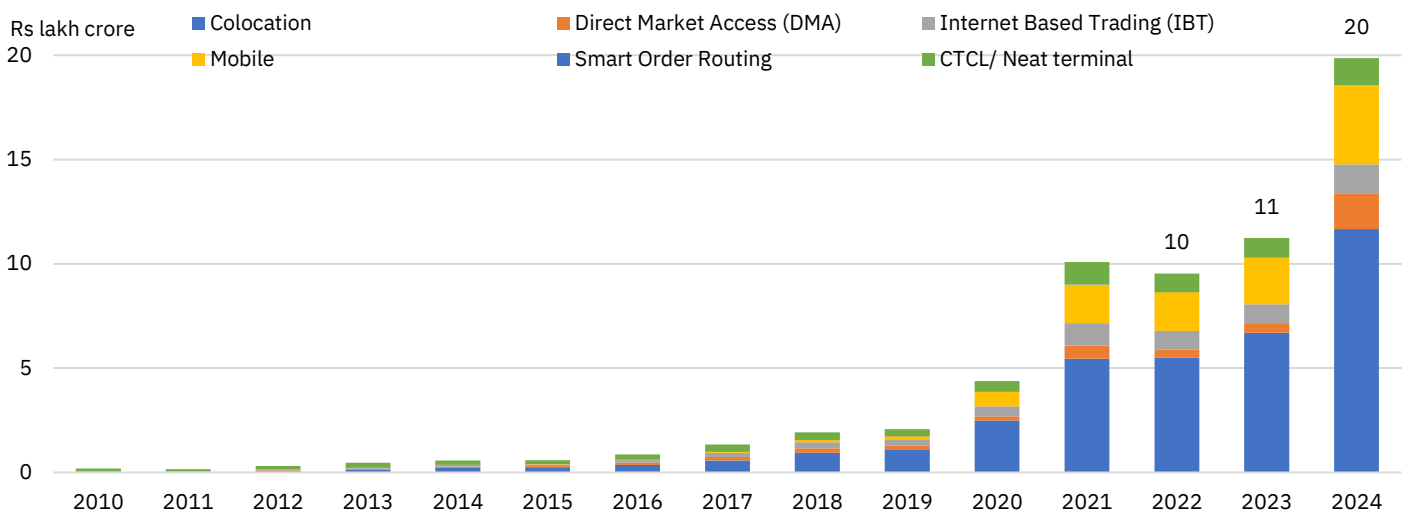
Table 91: Share (%) of different channels of trading in Stock Options (Premium turnover)

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	61.2	61.2	59.2	59.7	58.8	58.2	57.4	57.6	57.1	57.8	61.1	57.8
Direct Market Access (DMA)	5.5	5.5	7.1	6.2	7.5	8.7	9.2	10.3	10.4	11.5	9.1	10.7
Internet Based Trading (IBT)	7.4	7.4	7.5	7.6	7.4	6.9	7.3	6.8	7.0	6.8	6.6	6.6
Mobile	18.6	18.6	19.3	19.9	19.9	19.4	19.7	19.0	19.6	17.9	17.2	19.4
Smart order routing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CTCL/ Neat terminal	7.3	7.3	6.9	6.6	6.4	6.7	6.4	6.3	5.9	6.1	6.0	5.5

Source: NSE EPR

Note: 1. The above figures have been computed on the basis of net turnover.

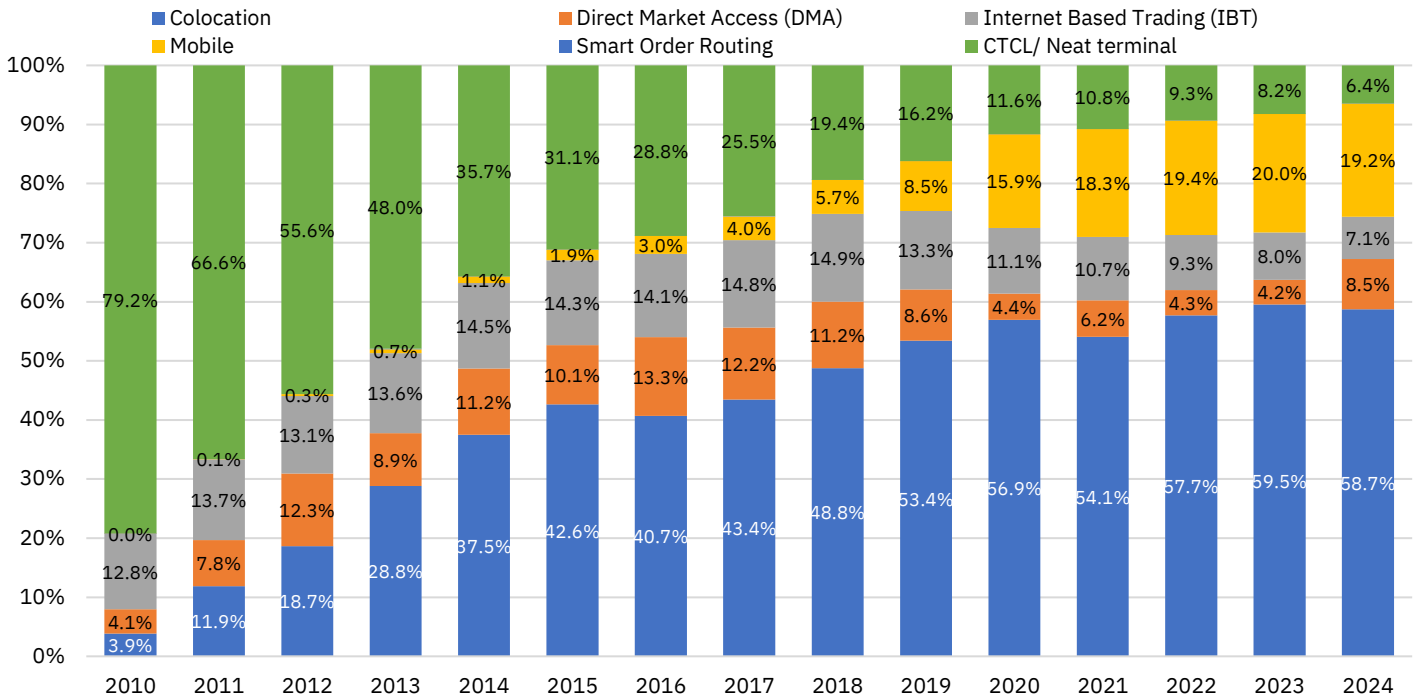
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

Figure 291: Annual trends for different channels of trading in stock options (Single side premium turnover)


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

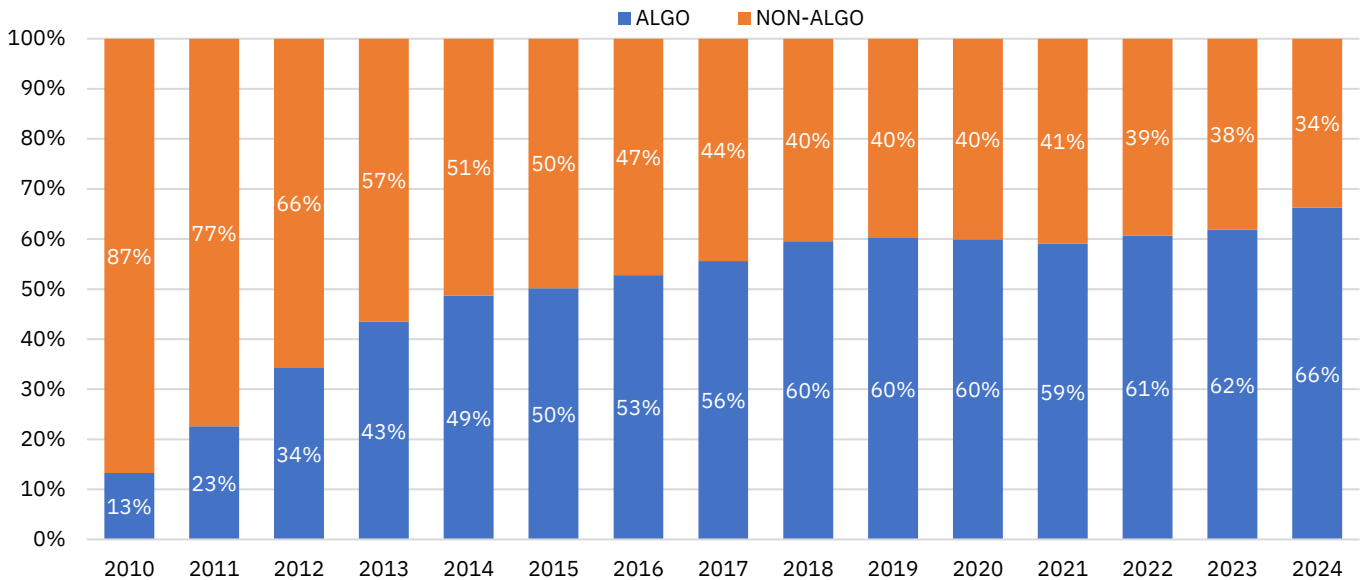
2. The above figures have been computed based on single side premium turnover.

Figure 292: Annual trends of share (%) for different channels of trading in stock options (Premium turnover)


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been presented in % share based on the premium turnover

Figure 293: Bifurcation (%) of Stock Options (premium) turnover by modes of trading (2010 – 2024)


Source: NSE EPR

Note: The above figures have been computed in terms of % share on the basis of net turnover.

Share of Colocation declined to a 10-year low in currency derivatives segment in 2024:

In 2024, the share of Colocation in the currency derivatives segment based on notional turnover reached a 10-year low, declining to 42.8% on an annual basis. Specifically, Colocation accounted for 29.9% of currency futures and 55.6% of currency options turnover (based on premium turnover). On a monthly average basis, the share of colocation in currency derivatives was 16%, significantly lower than the annual figure. Similarly, the monthly share of colocation stood at 15% for currency futures and 17.9%

for currency options (based on premium turnover) during the year, highlighting a decline in its utilization.

Another interesting observation is that since the implementation of the regulatory guidelines for hedging currency through ETCD, the monthly share of colocation for currency futures and currency options (based on premium turnover) stood at 3.4% and negligible, respectively, in the last six months—much lower than the monthly average of 2024. On a similar note, the monthly share of DMA, IBT, and Mobile in currency derivatives (based on notional turnover) was 3.7%, 5.2%, and 6.4%, respectively, during 2024, lower as compared to their respective annual shares of 5.5%, 8.2%, and 9.2%. This decline in the share of technology appears to have impacted the overall monthly turnover for the segment, marking a shift in market dynamics.

The share of algorithmic trades in currency derivatives (based on notional turnover) saw significant growth, rising from 7% in 2010 to 53% in 2019. However, the trend reversed thereafter, with a steady decline on annual terms, reaching 46% in 2023. This decline continued into 2024, with the share dropping further to 45%. For 2024, the share of algorithmic trades stood at 36% for currency futures and 60% for currency options (based on premium turnover).

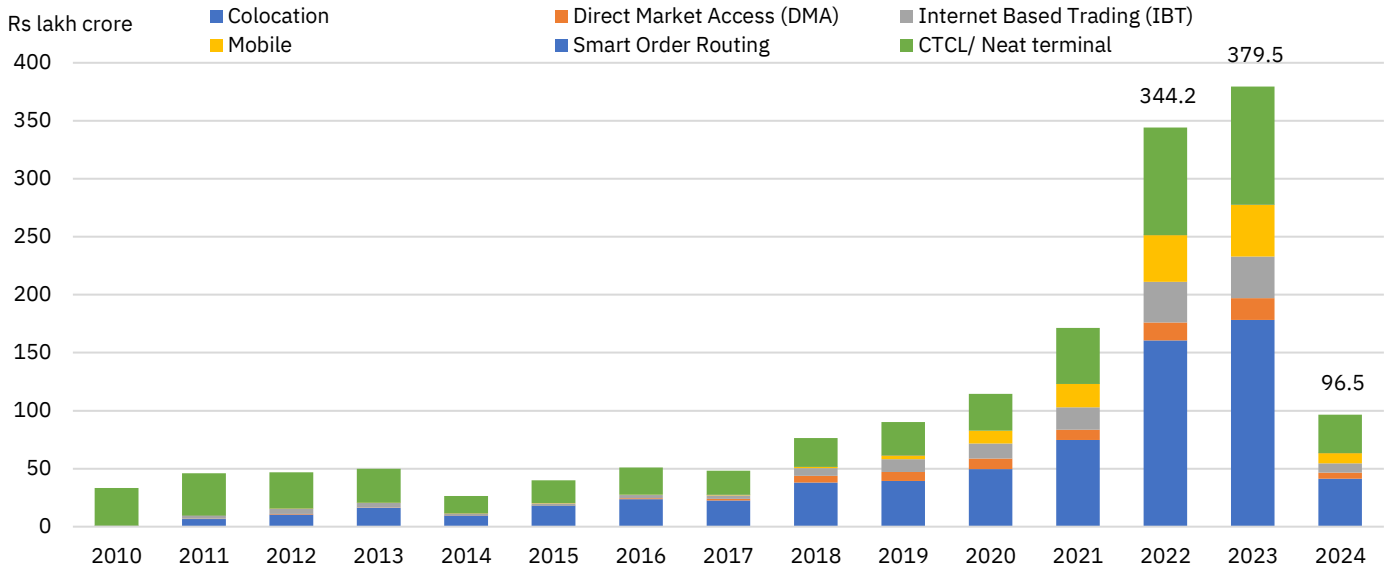
Table 92: Share (%) of different channels of trading in Currency Derivatives (Notional turnover)

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	49.9	49.9	43.8	24.0	2.0	2.6	5.4	2.9	4.0	1.7	3.0	3.3
Direct Market Access (DMA)	6.0	6.0	5.5	5.9	2.4	2.4	3.5	2.6	3.2	1.6	2.1	3.1
Internet Based Trading (IBT)	8.3	8.3	9.0	12.6	4.0	2.9	6.2	2.7	3.7	1.6	2.3	1.3
Mobile	9.7	9.7	9.4	10.2	6.0	6.0	9.2	4.1	5.8	2.0	3.0	2.2
Smart order routing	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-
CTCL/ Neat terminal	26.1	26.1	32.2	47.3	85.6	86.2	75.6	87.8	83.2	93.2	89.7	90.1

Source: NSE EPR

Note: 1. The above figures have been presented based on notional turnover.

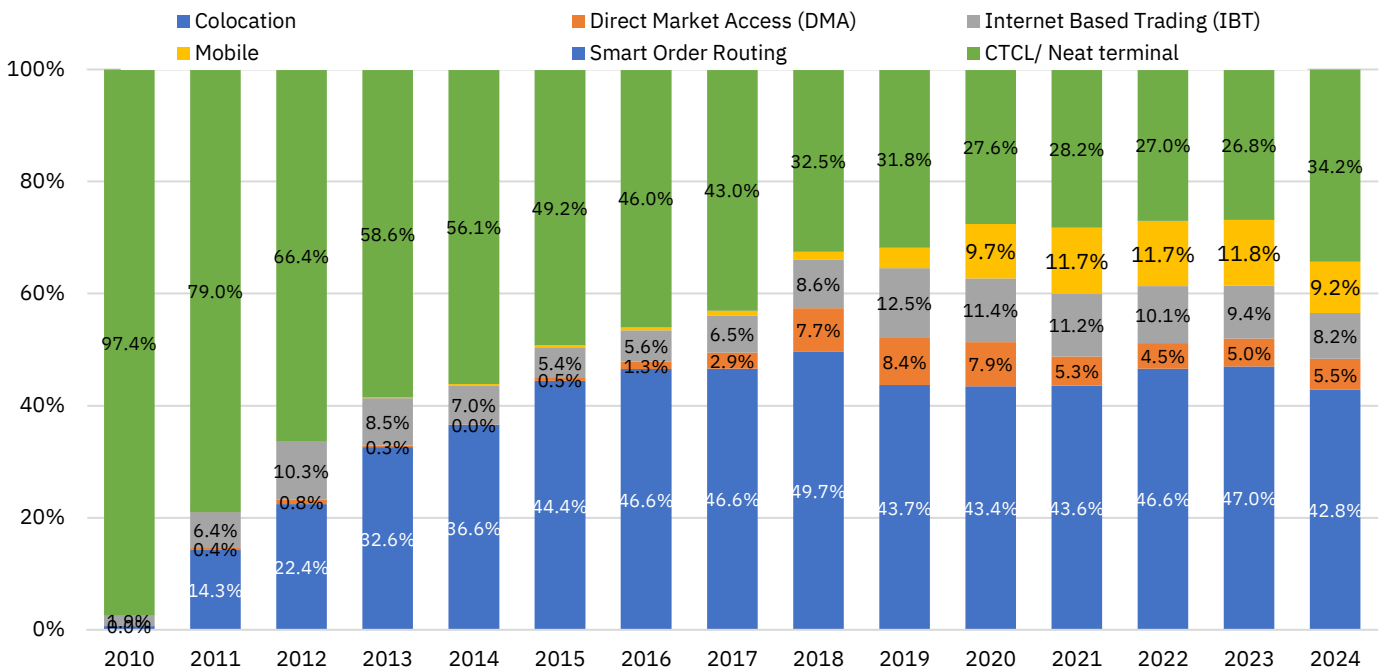
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access. The above figures are based on net turnover.

Figure 294: Annual trends for different channels of trading in currency derivatives (Single side notional turnover)


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

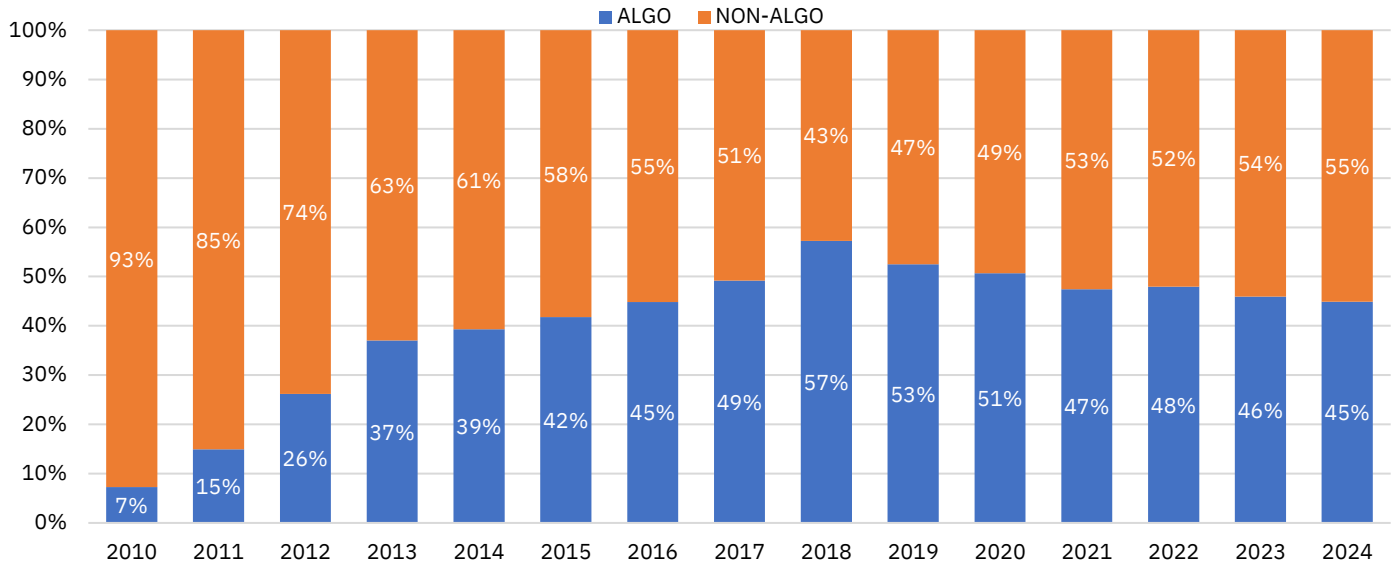
2. The above figures have been presented based on single side notional turnover.

Figure 295: Annual trends of share (%) for different channels of trading in currency derivatives notional turnover


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed in % share based on notional turnover.

Figure 296: Bifurcation by modes of trading for currency derivatives (Notional turnover)


Source: NSE EPR

Note: The above figures have been presented in % share based on notional turnover

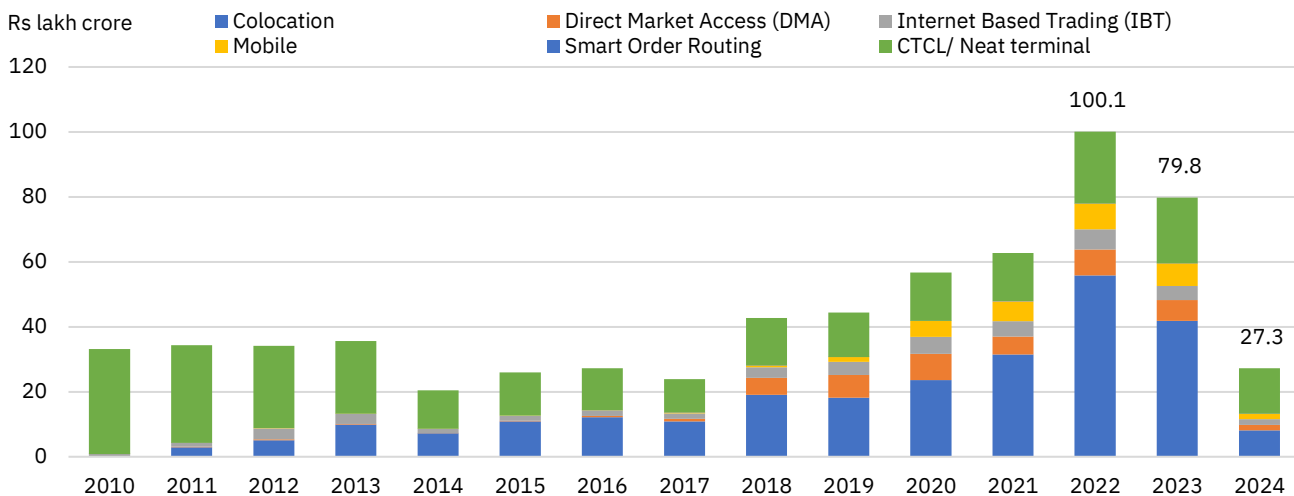
Table 93: Share (%) of different channels of trading in currency futures

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	49.0	49.0	38.3	18.7	1.9	2.6	5.6	2.9	4.1	1.7	3.0	3.3
Direct Market Access (DMA)	7.3	7.3	8.1	6.2	2.3	2.5	3.7	2.6	3.3	1.6	2.1	3.1
Internet Based Trading (IBT)	7.7	7.7	8.5	10.0	3.2	2.5	5.6	2.3	3.4	1.5	2.2	1.3
Mobile	8.4	8.4	7.0	4.8	4.5	4.6	8.2	3.5	5.3	1.7	2.6	1.9
Smart order routing	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-
CTCL/ Neat terminal	27.6	27.6	38.1	60.4	88.1	87.8	76.8	88.7	83.8	93.5	90.2	90.4

Source: NSE EPR

Note: 1. The above figures have been presented in % based on turnover.

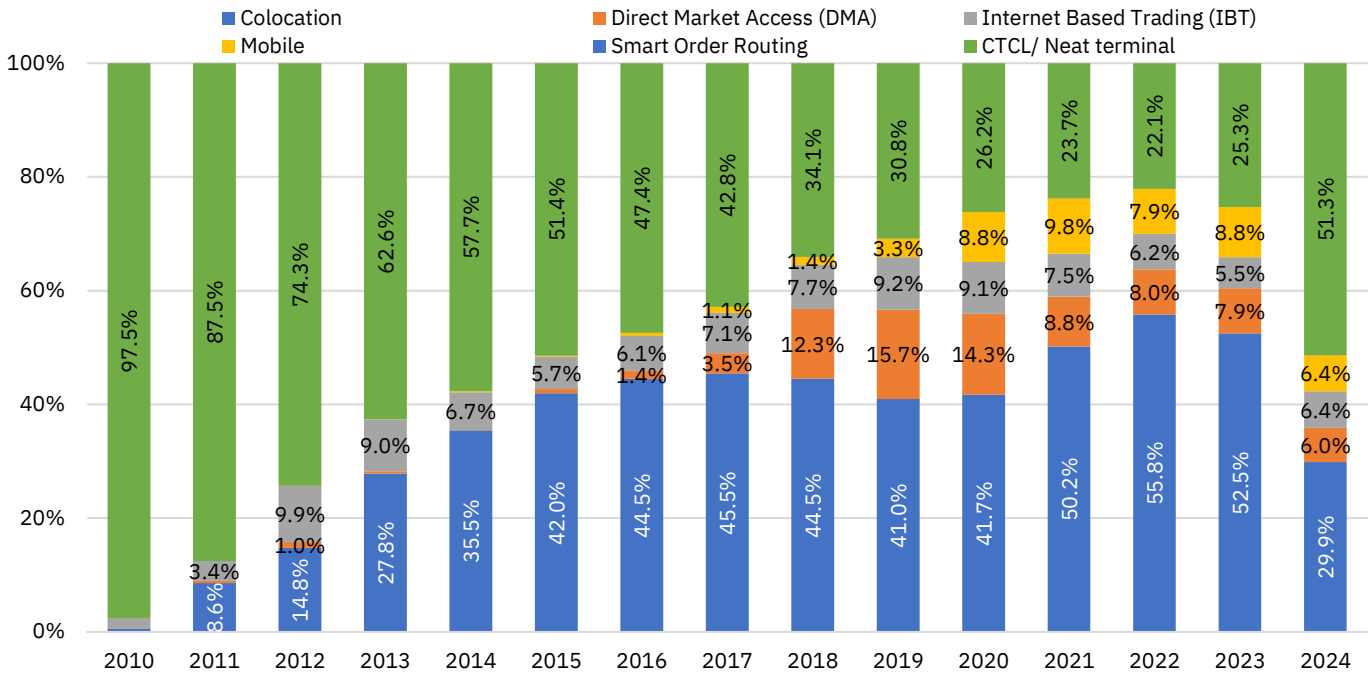
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

Figure 297: Annual trends for different channels of trading in Currency Futures (Single side turnover)


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

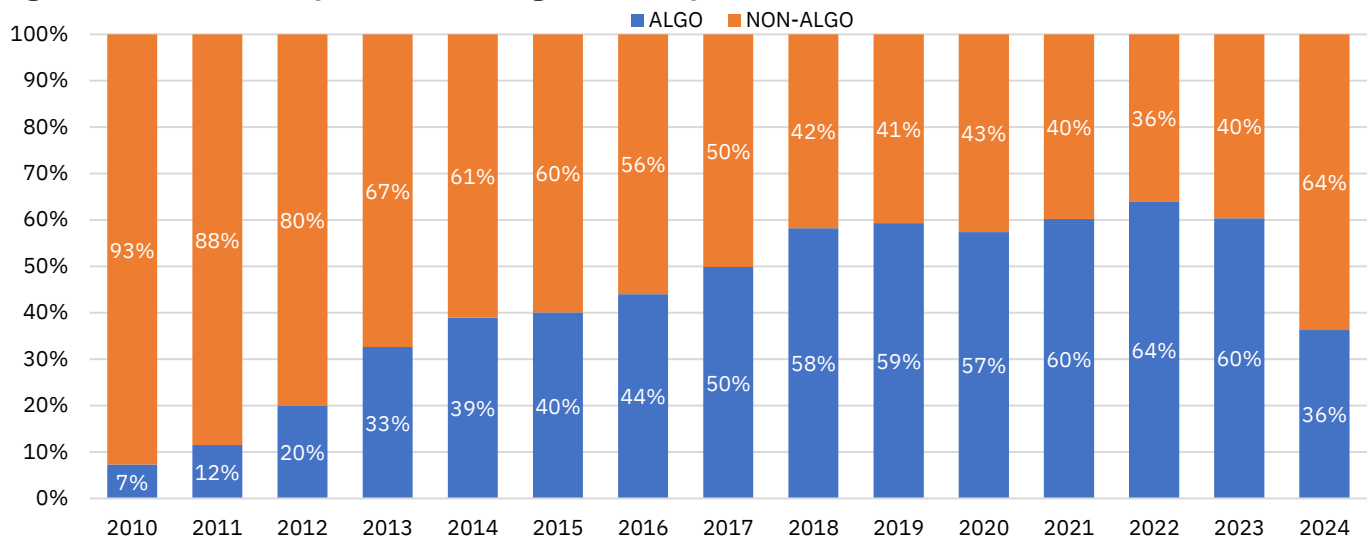
2. The above figures have been presented based on single side turnover.

Figure 298: Annual trends of share (%) for different channels of trading in currency futures (% share) turnover


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed in % share on the basis of net turnover

Figure 299: Bifurcation by modes of trading for currency futures


Source: NSE EPR

Note: 1. The above figures have been computed in % share based on turnover

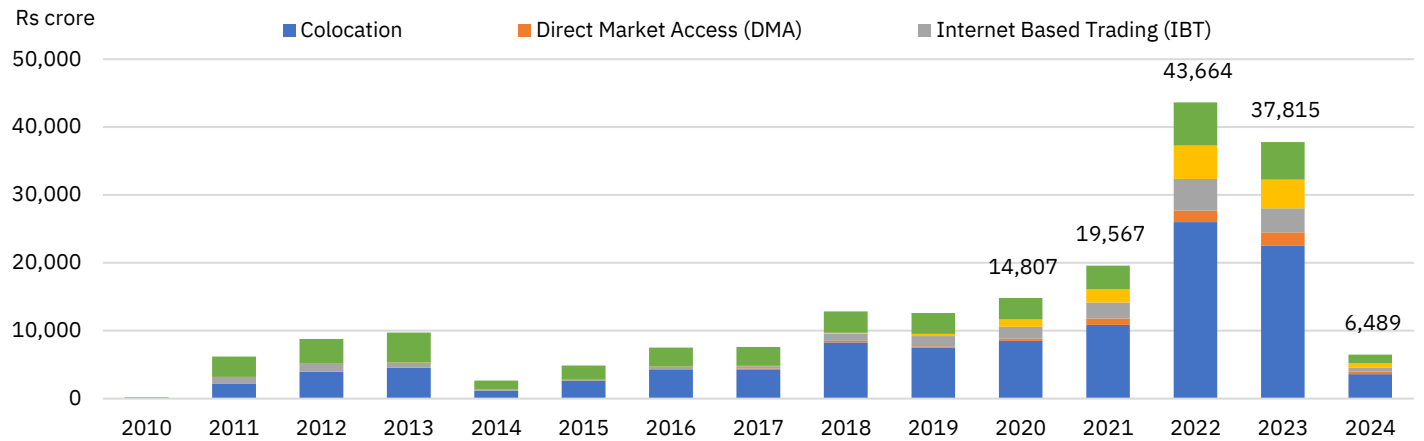
Table 94: Share (%) of different channels of trading in currency options (Based on premium turnover)

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	60.8	60.8	51.2	32.7	7.3	1.8	0.0	0.1	-	-	-	-
Direct Market Access (DMA)	6.0	6.0	4.7	5.1	9.2	0.1	-	-	-	-	-	0.3
Internet Based Trading (IBT)	8.6	8.6	9.6	16.0	15.8	11.6	19.6	26.9	19.3	12.4	13.0	13.2
Mobile	9.8	9.8	9.5	14.2	26.6	43.5	27.7	38.2	30.0	36.6	39.4	44.4
Smart order routing	0.0	0.0	-	-	-	-	-	-	-	-	-	-
CTCL/ Neat terminal	14.8	14.8	25.1	32.0	41.1	43.0	52.7	34.9	50.8	51.0	47.6	42.0

Source: NSE EPR

Note: 1. The above figures have been computed based on premium turnover.

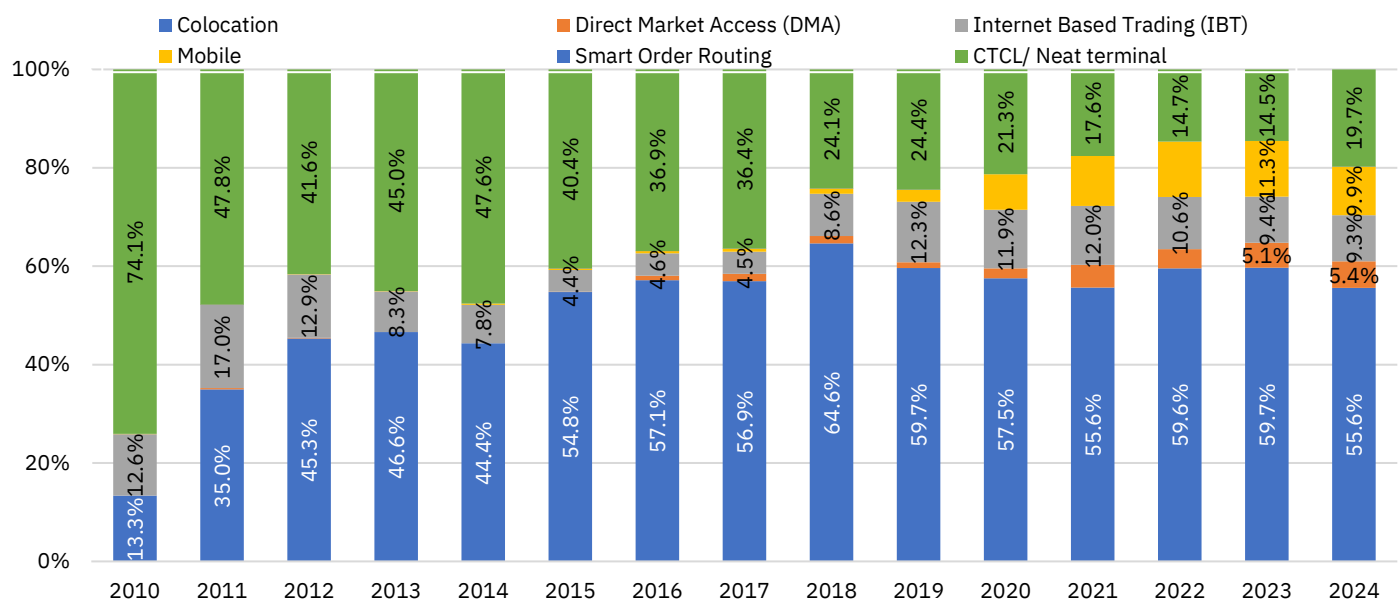
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

Figure 300: Annual trends for different modes of trading in currency options (Single side premium turnover)


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

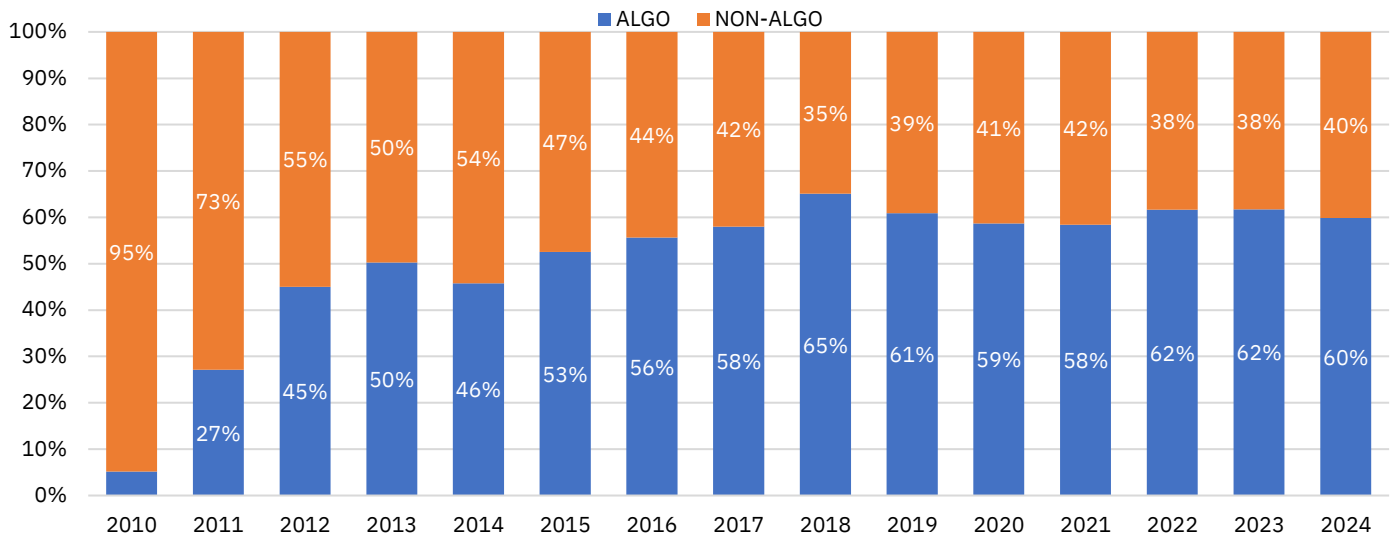
2. The above figures have been presented based on single-side premium turnover.

Figure 301: Annual trends of share (%) for different channels of trading in currency options premium turnover


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been presented in % share based on premium turnover.

Figure 302: Bifurcation by modes of trading for currency options premium turnover


Source: NSE EPR

Note: The above figures have been presented in % share based on premium turnover

The share of Colocation at record level in 2024 for interest rate futures: In 2024, the share of Colocation in interest rate futures trading reached a record level of 19.2%, a significant increase compared to 2.6% in 2019 and 12.1% in 2023. Similarly, the adoption of Direct Market Access (DMA) and Internet-Based Trading (IBT) has shown marked growth, reaching 18.7% and 11.3% respectively in 2024, up from 3.4% and 7.3% in 2019. Despite these advancements, the overall turnover in the segment has been on a declining trajectory since 2019, when it stood at Rs 3.3 lakh crore, apart from a brief recovery last year, reaching at Rs 24,491 crore in 2024. Notably, algorithmic trades have continued to hold a negligible share of the total turnover.

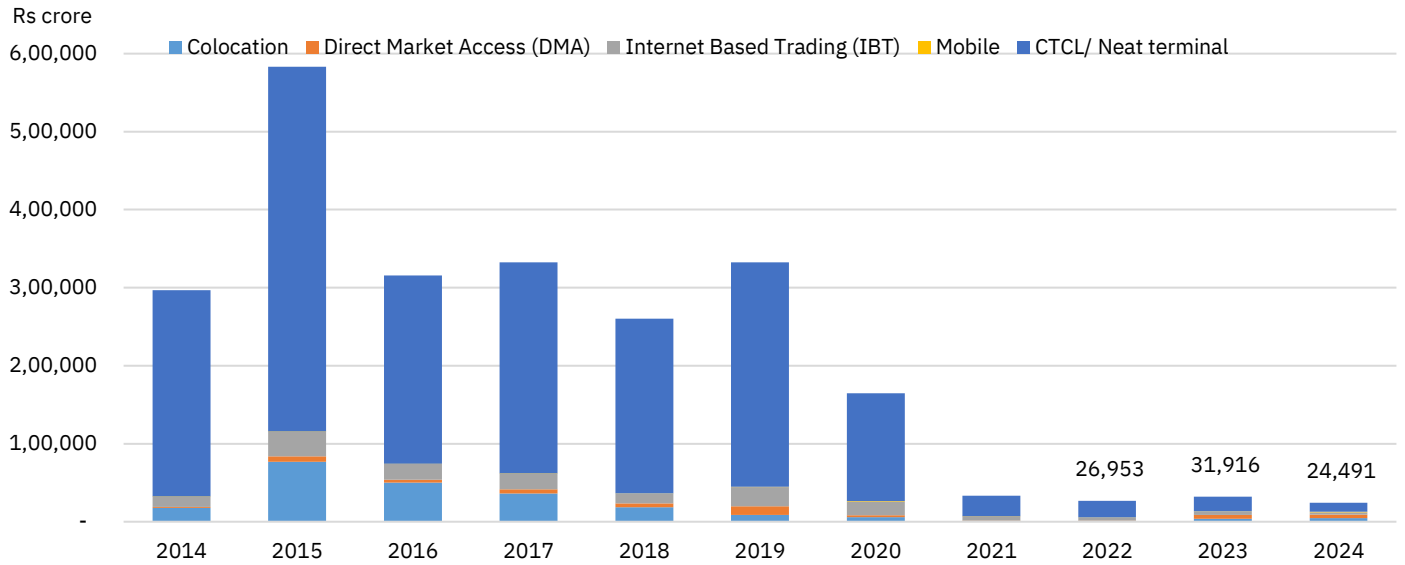
Table 95: Share (%) of different channels of trading in interest rate futures

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Colocation	18.8	18.8	7.0	18.7	21.1	18.2	26.3	22.5	19.3	17.1	16.4	23.4
Direct Market Access (DMA)	16.7	16.7	19.7	21.2	18.4	20.2	20.1	25.4	13.2	17.4	19.8	16.6
Internet Based Trading (IBT)	16.8	16.8	13.1	15.3	15.9	14.9	4.5	8.7	10.9	8.8	8.8	5.1
Mobile	1.3	1.3	6.1	8.1	2.8	1.6	1.0	1.6	1.1	1.1	0.8	0.9
Smart order routing	-	-	-	-	-	-	-	-	-	-	-	-
CTCL/ Neat terminal	46.4	46.4	54.0	36.7	41.8	45.2	48.1	41.9	55.4	55.6	54.2	53.9

Source: NSE EPR

Note: 1. The above figures have been presented in % share based on turnover.

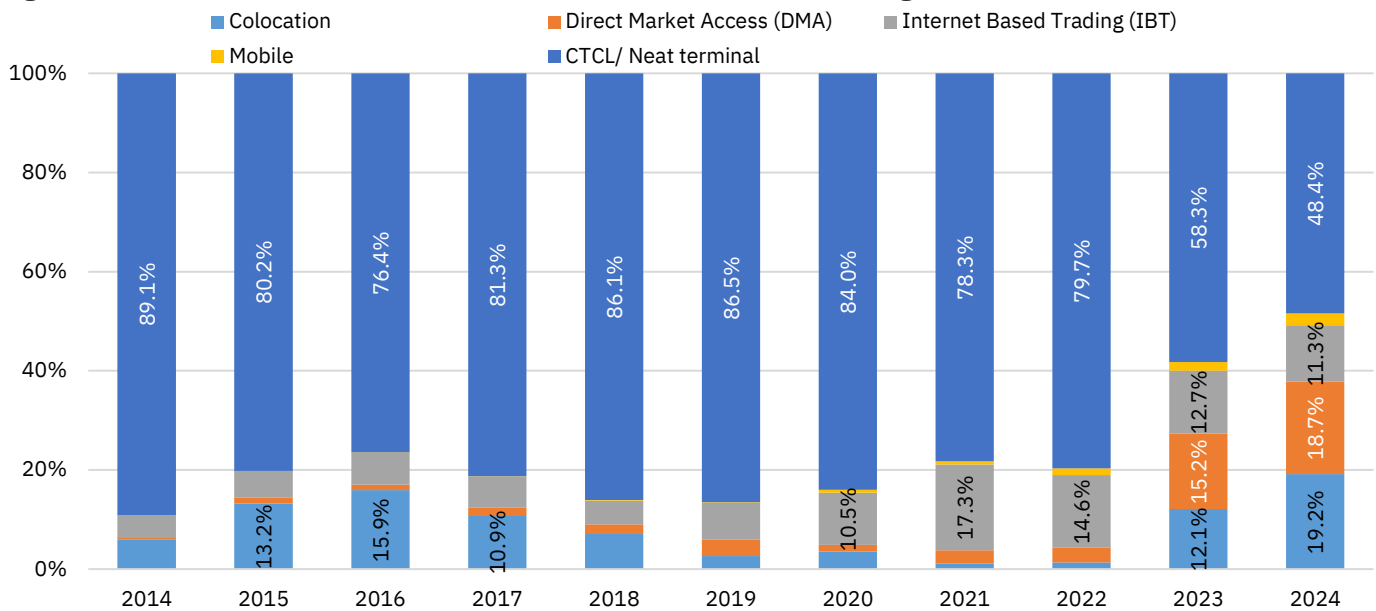
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

Figure 303: Annual trends for different channels of trading in interest rate future turnover (Single side)


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

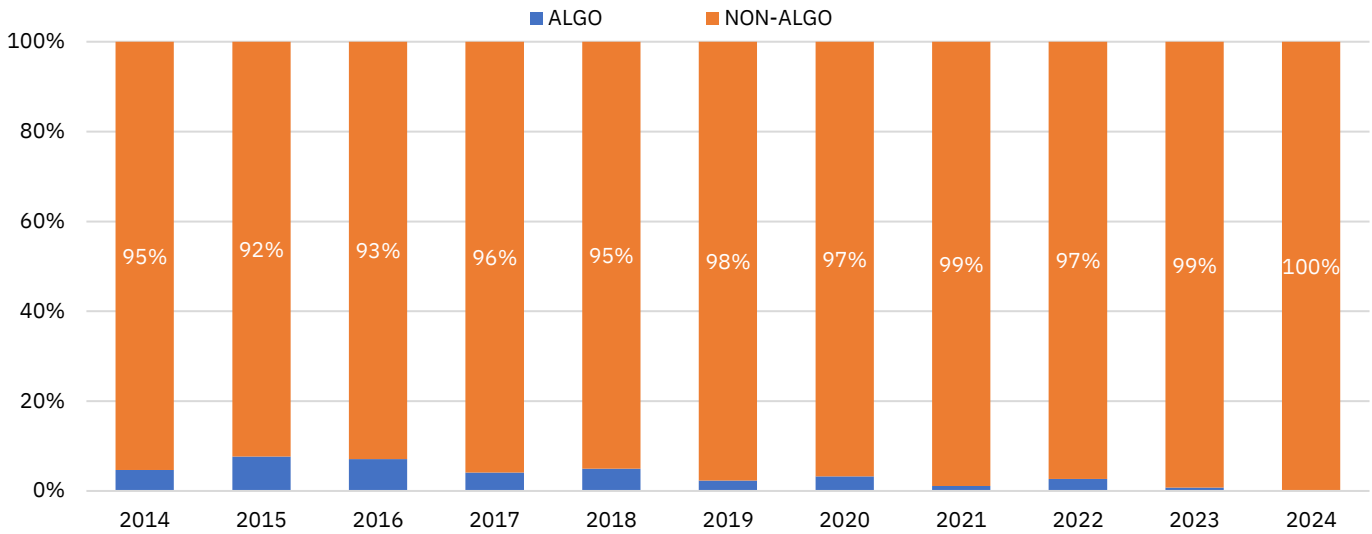
2. The above figures have been presented for single side turnover.

Figure 304: Annual trends for shares (%) for different channels of trading in interest rate futures


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been presented in % for turnover.

Figure 305: Bifurcation of trades in interest rate futures by modes of trading (2010 – 2024)


Source: NSE EPR

Note: The above figures have been presented in % share on the basis of turnover.

Dominance of CTCL based trading in commodity derivatives continued: The commodity derivatives segment witnessed significant growth in 2024, with the overall turnover reaching Rs 9.5 lakh crore, primarily driven by a surge in commodity options turnover. The premium turnover of commodity options increased 18 times as compared to last year, reaching Rs 2,635 crore. CTCL/NEAT-based trading continued to dominate the segment, accounting for 97.7% of the notional turnover in 2024, compared to 97.1% in 2023. Within this, its share stood at 95.5% for commodity futures and 94.9% for commodity options (premium turnover). In contrast, IBT and mobile trading contributed just 1.3% and 1.1% to the overall notional turnover in 2024.

The share of algo and non-algo trading across commodity derivatives, commodity futures and commodity options reveal significant shifts over the last few years. The share of Algo increased from 40% in 2018 to a peak of 77% in 2022 but dropped to 31.4% in 2024. Meanwhile, non-algo trading saw a sharp decline in 2019 to 33.9% from 60% in 2018 but has been gradually rising since 2022, reaching a seven-year high of 68.6% in 2024. In commodity futures, algo trading maintained dominance until 2021, but in 2022, the trend shifted dramatically with non-algo accounting for 100% of the turnover. Since 2023, algo trading regained prominence, contributing 53.5% in 2024. For commodity options, algo trading remained dominant but showed a gradual decline from 73.8% in 2020 to 52.5% in 2024, while non-algo trading increased to 47.5%.

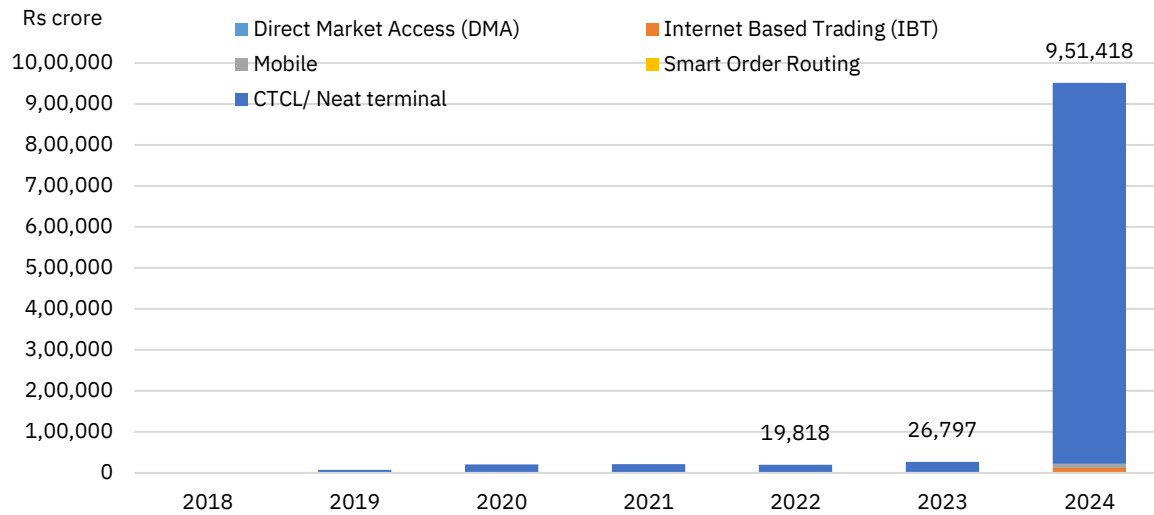
Table 96: Share (%) for different channels of trading in commodity derivatives (notional turnover)

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Direct Market Access (DMA)	-	-	0.0	0.0	-	0.1	-	-	-	-	0.0	0.1
Internet Based Trading (IBT)	1.6	1.6	0.6	0.9	1.4	1.0	1.2	1.0	1.0	0.9	1.3	3.1
Mobile	0.2	0.2	0.0	0.3	0.9	1.4	1.1	1.9	1.3	0.9	2.1	2.1
Smart order routing	-	-	-	-	-	-	-	-	-	-	-	-
CTCL/ Neat terminal	98.3	98.3	99.4	98.8	97.7	97.5	97.7	97.1	97.6	98.2	96.6	94.7

Source: NSE EPR

Note: 1. The above figures have been computed based on notional turnover.

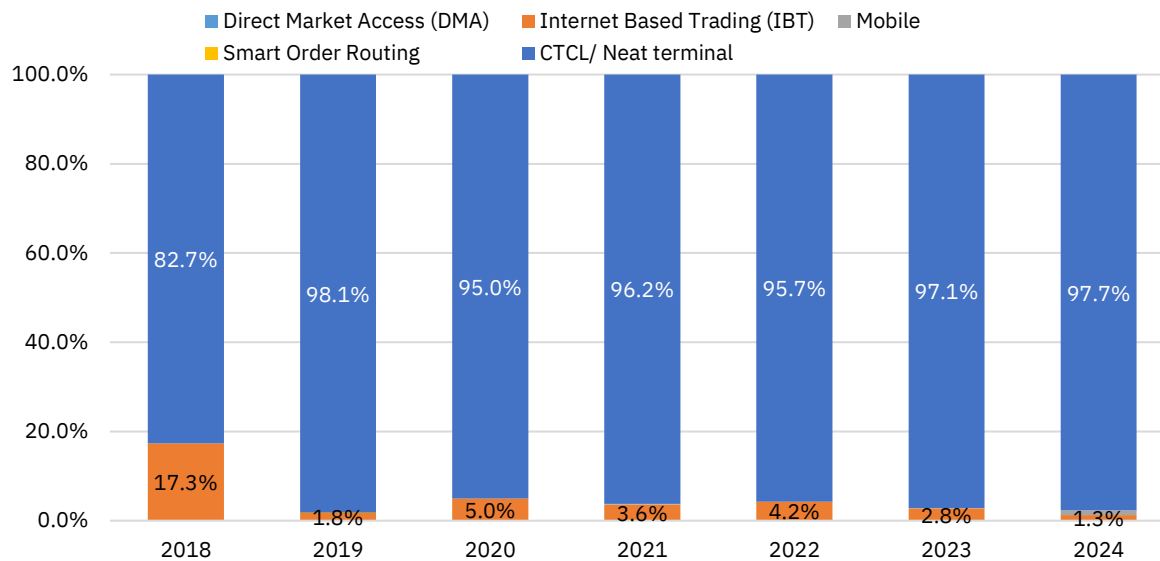
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access. The above figures are based on net turnover.

Figure 306: Annual trend for different channels of trading in commodity derivatives (single side notional turnover)


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

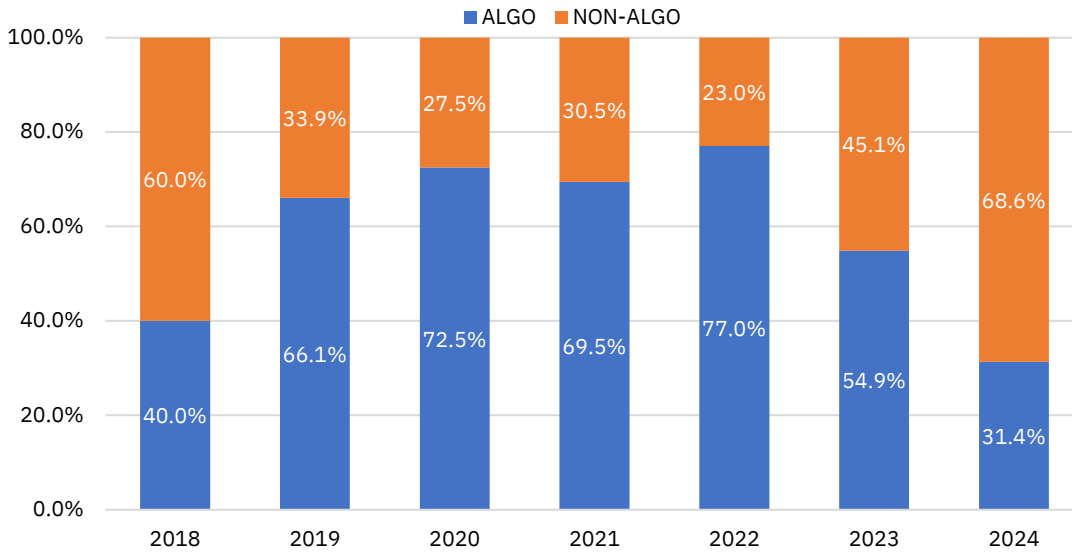
2. The above figures have been computed based on notional turnover.

Figure 307: Annual trends of share (%) for different channels of trading in commodity derivatives


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed in % share based on notional turnover

Figure 308: Bifurcation by modes of trading in commodity derivatives segment


Source: NSE EPR

Note: The above figures have been computed in % share based on notional turnover.

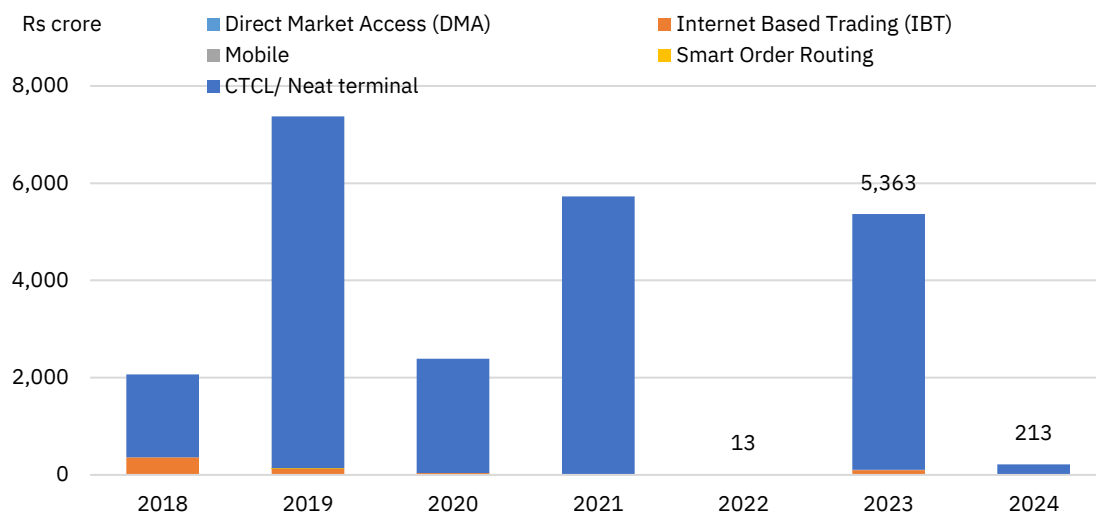
Table 97: Share (%) of different channels of trading in commodity futures turnover

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Direct Market Access (DMA)	-	-	-	-	-	-	-	-	-	-	-	-
Internet Based Trading (IBT)	0.6	0.6	-	6.7	0.5	8.8	1.2	14.2	0.6	4.3	2.5	0.4
Mobile	-	-	-	0.1	-	-	2.4	2.5	1.8	5.1	2.3	5.1
Smart order routing	-	-	-	-	-	-	-	-	-	-	-	-
CTCL/ Neat terminal	99.4	99.4	100	93.1	99.5	91.2	96.4	83.3	97.5	90.6	95.2	94.6

Source: NSE EPR

Note: 1. The above figures have been computed based on turnover.

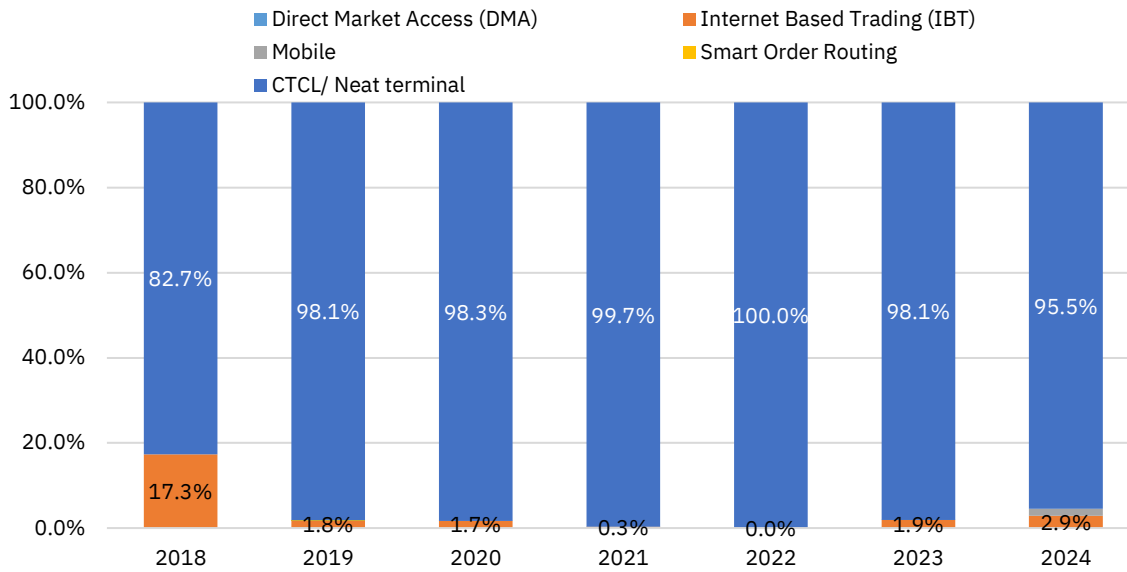
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

Figure 309: Annual trends for different channels of trading in commodity futures


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

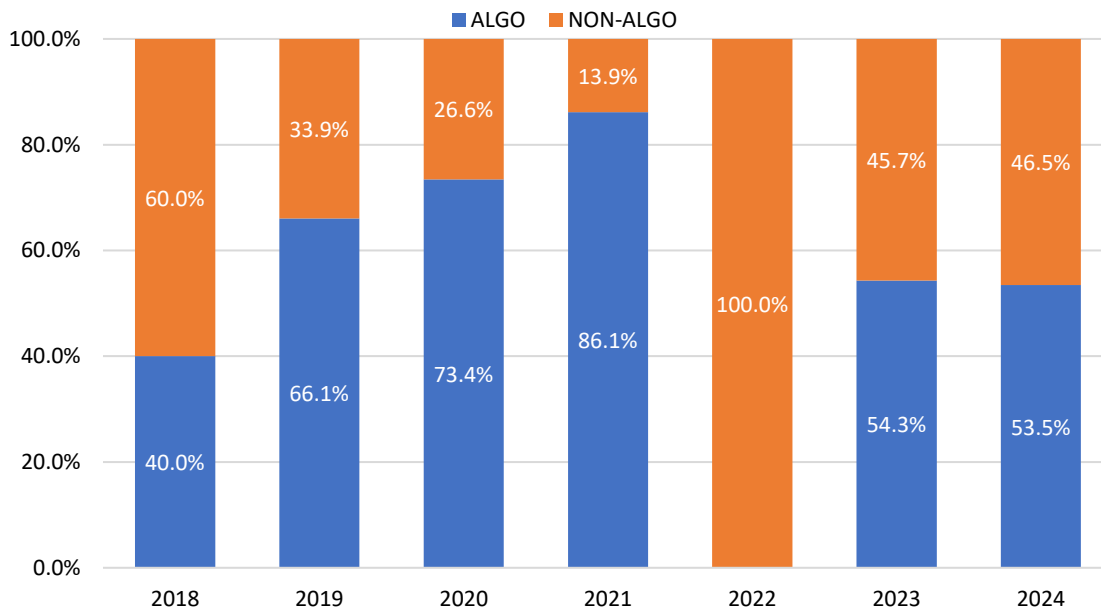
2. The above figures have been computed based on single side turnover

Figure 310: Annual trends in share (%) for different channels of trading in commodity futures


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed in % share based on turnover.

Figure 311: Bifurcation by modes of trading in commodity futures segment


Source: NSE EPR

Note: The above figures have been computed in % share based on turnover.

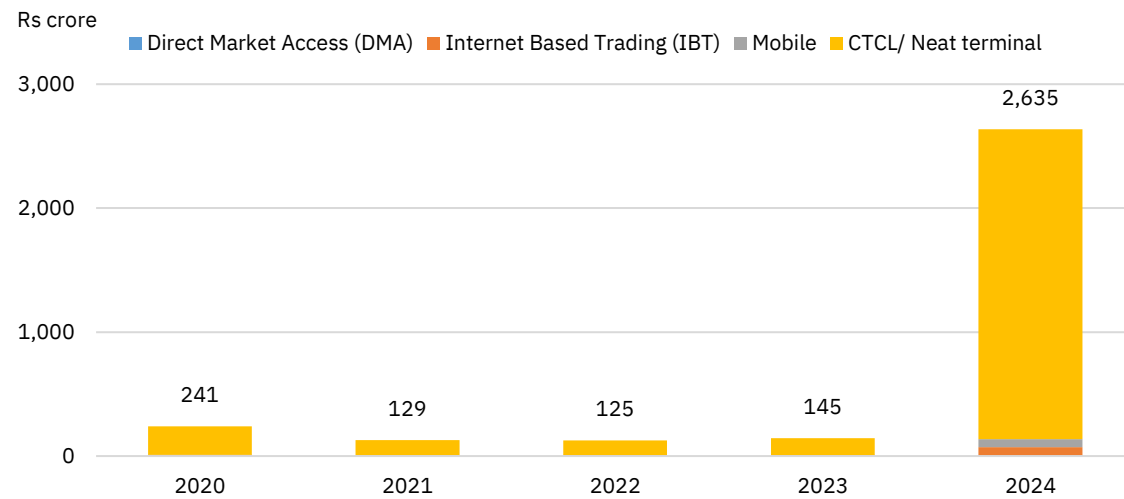
Table 98: Share (%) of different channels of trading in commodity options (premium turnover)

Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Direct Market Access (DMA)	-	-	0.0	0.0	-	0.2	-	-	-	-	0.0	0.0
Internet Based Trading (IBT)	1.1	1.1	0.4	1.2	1.3	1.6	6.1	4.2	2.5	1.3	2.7	6.7
Mobile	0.2	0.2	0.2	0.9	1.2	1.4	1.9	2.6	2.0	2.8	4.3	6.0
Smart order routing	-	-	-	-	-	-	-	-	-	-	-	-
CTCL/ Neat terminal	98.6	98.6	99.4	98.0	97.6	96.8	92.1	93.2	95.5	96.0	93.0	87.3

Source: NSE EPR

Note: 1. The above figures have been computed based on premium turnover.

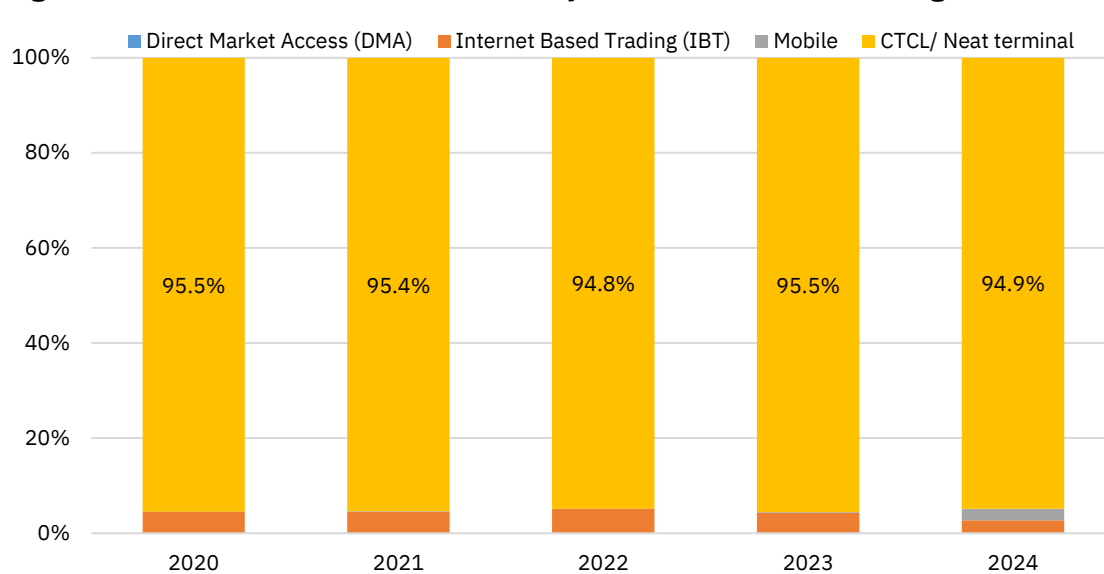
2. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

Figure 312: Annual trends for different channels of trading in commodity options (Single side premium turnover)


Source: NSE EPR

Notes: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed based on premium turnover.

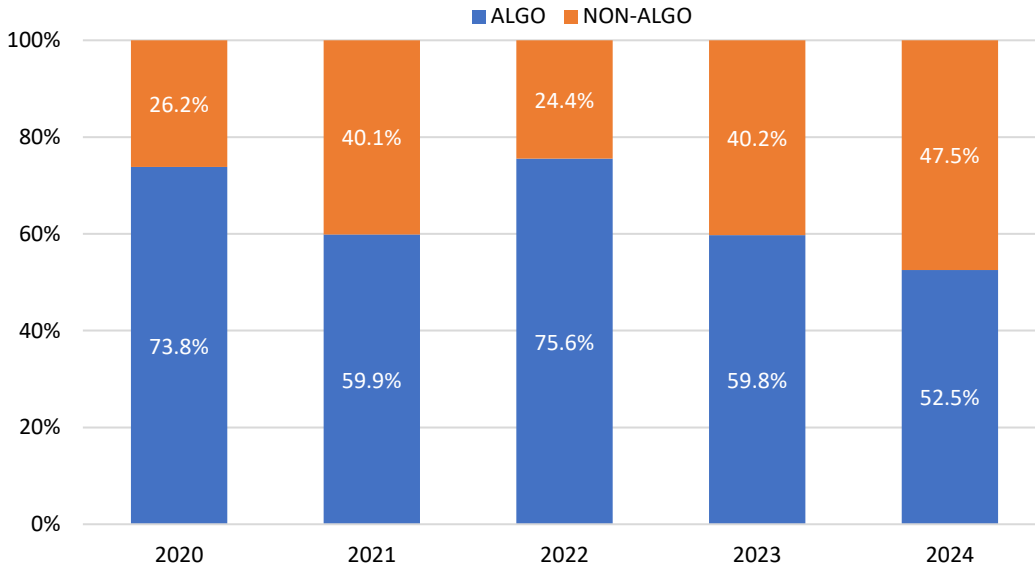
Figure 313: Annual trends for share (%) for by different channels of trading in commodity options


Source: NSE EPR

Note: 1. IBT- Internet-based Trades, SOR – Smart Order Routing, Colo – Colocation, DMA – Direct Market Access.

2. The above figures have been computed in % share based on premium turnover.

Figure 314: Bifurcation by modes of trading in commodity options premium turnover



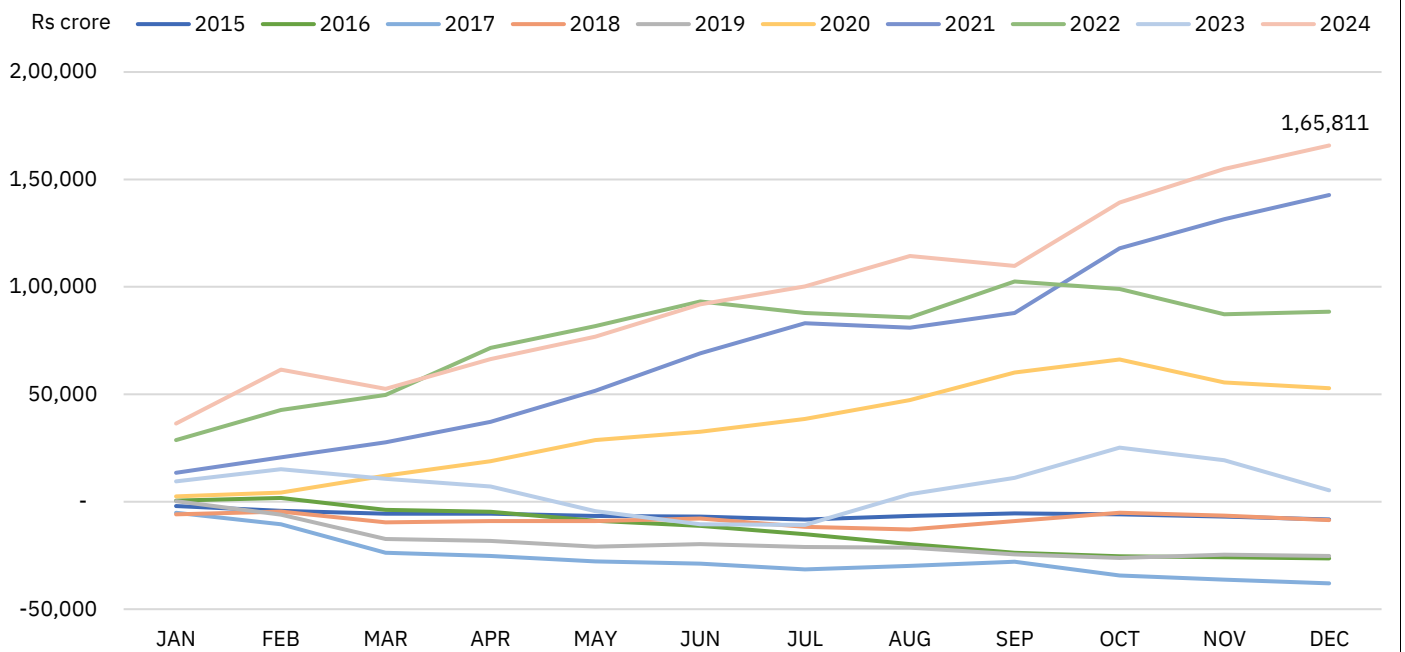
Source: NSE EPR

Note: The above figures have been computed in % based on premium turnover.

Individual investors' activity in NSE's CM and derivatives segment

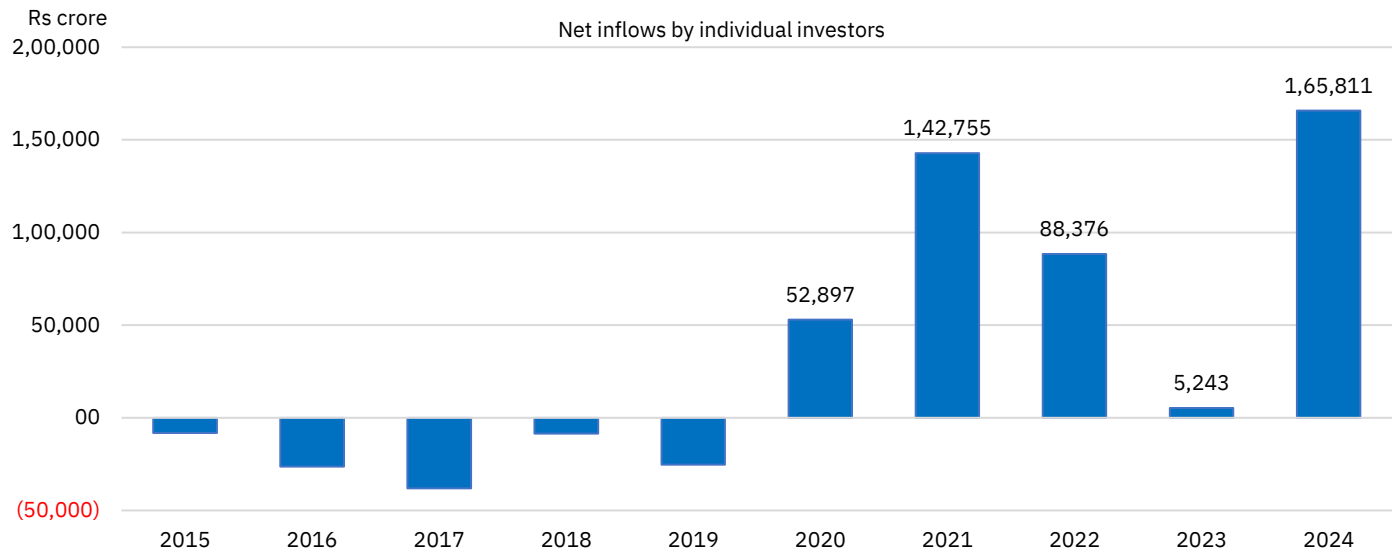
Net inflows by individual investors in NSE's CM segment witnessed a strong inflow in 2024: From 2015 to 2019, individual investors in India were persistent net sellers, however, this trend reversed in 2020, with a net inflow of Rs 52,897 crore, driven by increased direct retail participation during the pandemic, thanks to rally in global equity markets driven by excess liquidity and low interest rates and rise in digital trading platforms that enabled investors to trade from any part of the country. The inflows continued to rise significantly in 2021 to Rs 1.43 lakh crore, more than double the net inflows in 2020. Following this peak, inflows moderated in 2022 and 2023, as investors shifted to indirect avenues such as mutual funds for their investment needs, amid economic uncertainty, geopolitical tensions and inflationary pressures. However, 2024 saw a strong rebound, with inflows reaching an all-time peak of Rs 1.65 lakh crore, a 32% increase compared to 2023, underscoring the positive sentiment of retail investors in the Indian equity markets.

Figure 315: Overall cumulative net inflows of individual investors in NSE's CM segment in last ten calendar years



Source: NSE EPR

Note: 1. Individual investors include individual domestic investors, NRIs, sole proprietorship firms and HUFs.

Figure 316: Annual trend of net inflows of individual investors in NSE's CM segment


Source: NSE EPR.

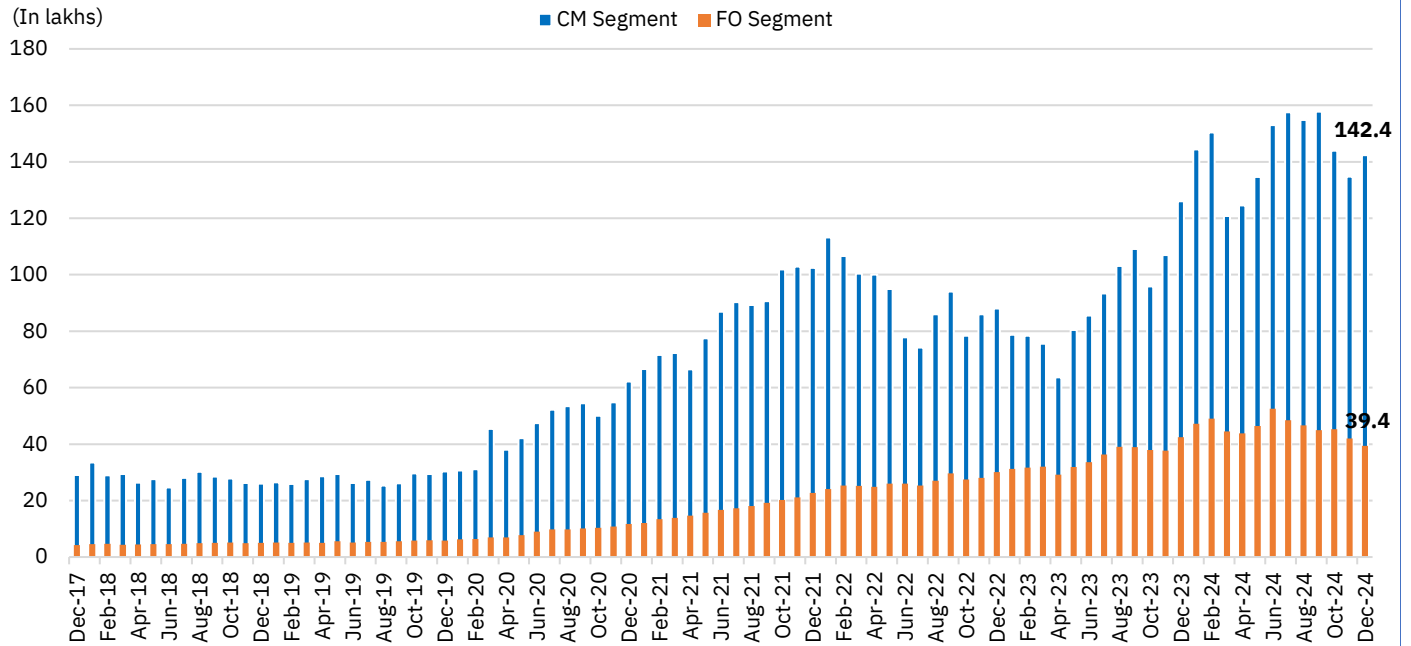
Note: 1. Individual investors include individual domestic investors, NRIs, sole proprietorship firms and HUFs.

Number of individual investors participating in the CM and FO segment has increased consistently:

Individual investor participation in the CM segment has sharply increased, rising 9 times from 42 lakh in 2014 to 381 lakh in 2024 growing at a 10-year CAGR of 24.7%. This steep growth can be attributed to strong equity market gains, low returns on fixed-income instruments, and stable macro and market environment. Although the average monthly participation in 2024 was 143 lakh investors, a slight decline of 1.4% in participation was observed from January to December 2024. Despite this, September 2024 saw the highest level of participation across all years.

In line with trends in the CM segment, individual investor participation in the equity derivatives segment also grew substantially, increasing by more than 16 times between 2014 and 2024. Participation stayed mostly steady until 2017, when it started to increase gradually. The largest growth took place after 2020, with a 74% YoY, followed by a 96% surge in 2021. This surge reflects a shift in investor behavior, with more retail investors adopting equity derivative products in their investment strategies.

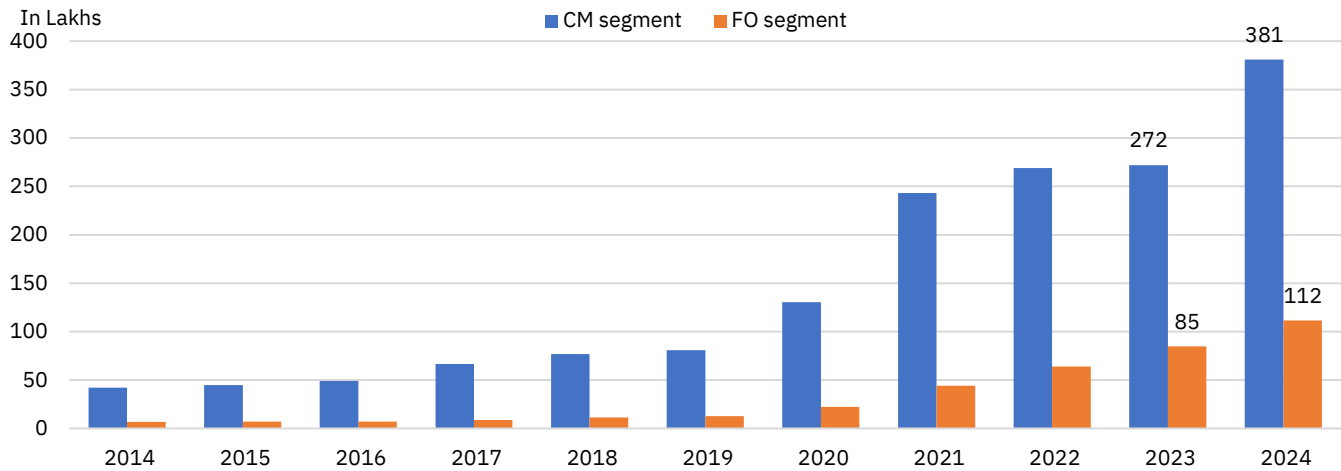
In 2024, the equity derivatives segment experienced the highest participation, though performance varied over the year. Participation tapered towards the end of the year, indicating some shifts in investor sentiment following regulatory measures taken by SEBI to curb excessive speculation in the segment. These measures include discontinuation of weekly expiries except one per exchange, increase in contract sizes and enhanced margin requirements in the form of extreme loss margin on short index option contracts on the day of the expiry.

Figure 317: Monthly trend of individual investors participation in NSE cash and equity derivative segments


Source: NSE EPR

Notes:

- Individual investors include individual domestic investors, NRIs, sole proprietorship firms and HUFs.
- The chart above gives the count of individual investors who traded at least once in the month.

Figure 318: Annual trends of individual investors participation in NSE cash and equity derivative segments


Source: NSE EPR

- Note: 1. Individual investors include individual domestic investors, NRIs, sole proprietorship firms and HUFs.
2. The chart above gives the count of investors who traded at least once during the year.

Table 99: Annual trend of individual investors participation (in lakhs) in NSE CM and equity derivatives segment

Year	CM Total	FO Total	CM Alone	FO Alone	CM & FO Both
2014	42	6.7	36.4	1.1	5.6
2015	45	7.1	38.8	1.1	6.0
2016	49	7.1	43.0	1.0	6.1
2017	66	8.6	58.9	1.0	7.5
2018	77	11.3	66.8	1.3	9.9
2019	81	12.8	69.6	1.7	11.1
2020	130	22.4	109.9	2.1	20.3
2021	243	44.0	203.9	4.6	39.3
2022	269	63.9	214.7	9.8	54.1
2023	272	84.7	205.5	18.3	66.4
2024	381	111.5	289.3	19.9	91.6

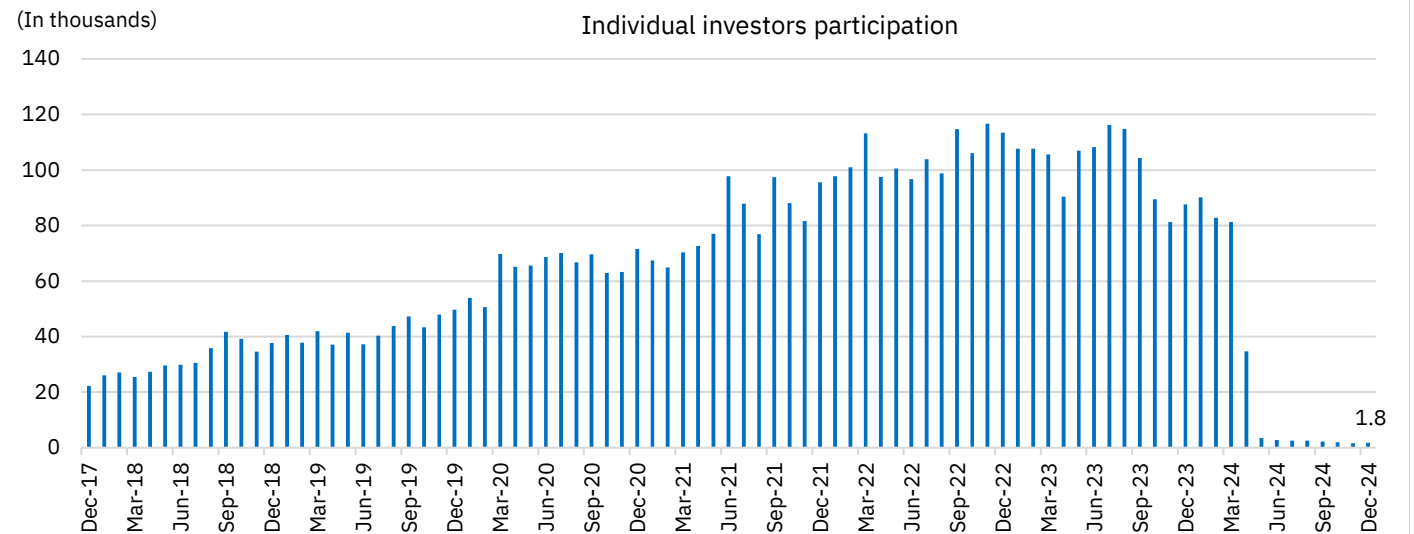
Source: NSE EPR

Notes: 1. Individual investors include individual domestic investors, NRIs, sole proprietorship firms and HUFs.

Individual investors' participation in the currency derivatives segment declined by 63% YoY in 2024:

Individual investor participation in the currency derivatives segment declined by 63% year-on-year in 2024. After remaining stable until 2017, participation began rising gradually from 2018, reflecting growing interest. A sharp 66% increase was recorded in 2020, aligning with trends in other market segments. The growth continued through 2022 and 2023, reaching 4.4 lakh participants in both years.

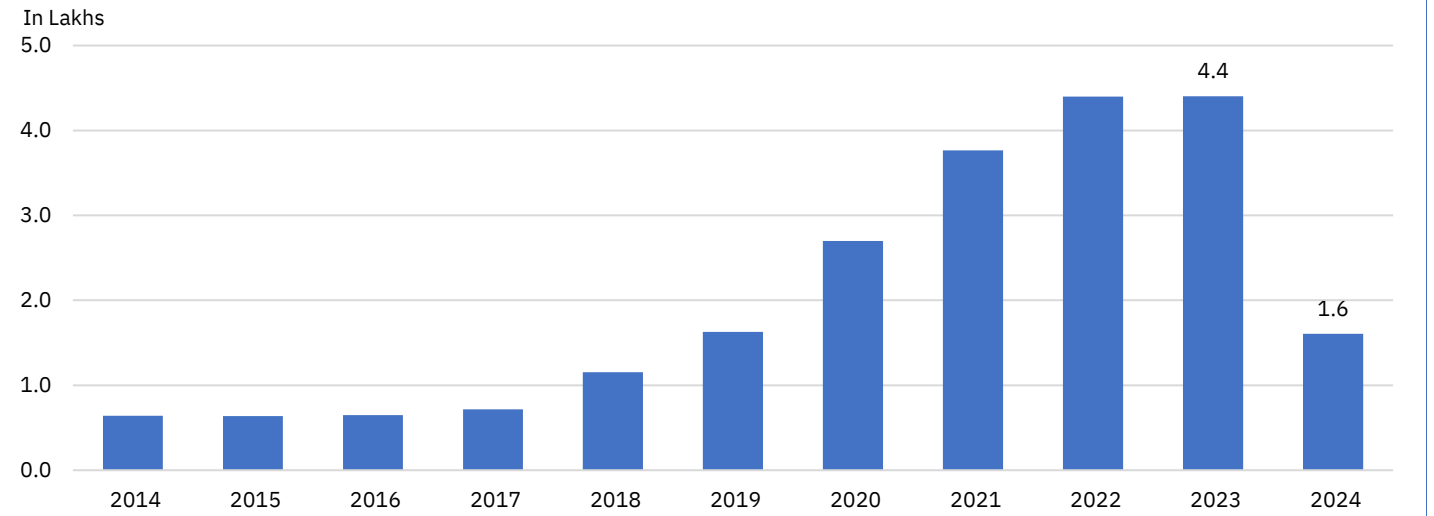
However, 2024 saw a significant reversal, with participation dropping to 1.6 lakh individuals only. The decline started in October 2023 and worsened in May 2024 following new RBI guidelines issued in April. These regulations introduced stricter trading conditions, discouraging many individual investors. Despite the overall decline, December 2024 showed a slight recovery, with participation increasing by 7% from the previous month.

Figure 319: Monthly trend of individual investors participation in currency derivative segments of NSE


Source: NSE EPR

Note: 1. Individual investors include individual domestic investors, NRIs, sole proprietorship firms and HUFs.

2. The chart above provides the number of investors who traded at least once during the month.

Figure 320: Annual trend of individual investors participation in currency derivative segments of NSE

Source: NSE EPR

Note: 1. Individual investors include individual domestic investors, NRIs, sole proprietorship firms and HUFs.

2. The chart above provides the count of investors who traded at least once during the year.

Distribution of trading activity by turnover

Turnover remained highly concentrated for equity cash in 2024: The turnover distribution in the equity cash market for 2024 remained heavily concentrated among a small segment of investors who traded in the highest turnover range. Investors with turnover exceeding Rs 10 crore continued to dominate, contributing 76.6% of the total turnover in 2024, up from 75.2% in 2023. Proprietary trades accounted for 37.8% of the turnover for highest trading range, followed by foreign investors at 19.2%, individual investors at 16% and domestic institutional investors (DIIs) at 15% during 2024. Notably, investors trading above Rs 1 crore accounted for 90.1% of the total turnover in 2024, up from 89.3% in the previous year. Conversely, those trading below Rs 1 crore contributed 9.9% to the overall turnover in 2024, a decrease from 10.7% in 2023.

On a monthly comparison, only 0.2% of investors trading above Rs 10 crore accounted for 76.6% of the total turnover, while 1.5% of investors trading between Rs 1 crore and Rs 10 crore contributed 13.7% to the turnover in December 2024. Together, these two groups represented just 1.7% of the total investor base but contributed 90.3% to the turnover in Dec'24, a slightly higher than annual share of 90.1% in 2024.

Table 100: Distribution of turnover by range in cash market for all investors

Turnover range	Oct-24		Nov-24		Dec-24			
	Turnover (Rs cr)	Unique investors (In lakh)	Turnover (Rs cr)	Unique investors (In lakh)	Turnover (Rs cr)	Share in turnover	Unique investors (In lakh)	Share in investors
<Rs 10,000	715	45.8	720	47.9	658	0.03%	44.7	31.3%
Rs 10,000 - Rs 1 lakh	10,257	53.8	9,243	49.5	10,336	0.5%	55.9	39.1%
Rs 1 lakh - Rs 10 lakh	53,205	32.1	44,356	27.2	49,872	2.3%	29.9	20.9%
Rs 10 lakh - Rs 1 cr	1,55,008	10.3	1,29,117	8.5	1,51,256	6.9%	9.9	6.9%
Rs 1 cr – Rs 10 cr	2,97,331	2.2	2,50,533	1.8	2,98,868	13.7%	2.2	1.5%
>Rs 10 cr	18,36,582	0.3	14,82,241	0.2	16,74,840	76.6%	0.2	0.2%
Total	23,53,098	144.4	19,16,210	135.1	21,85,830	100%	142.8	100%

Source: NSE EPR

Notes

1. Turnover ranges are based on gross turnover.
2. Investor categorization is based on gross turnover i.e. buy traded value + sell traded value
3. Data has been provided for single side i.e. (Buy traded value + sell traded value)/2

Table 101: Category-wise share in turnover across different turnover ranges in NSE's cash market in 2023

Turnover range	Turnover (Rs cr)	Share in turnover (%)	Client category-wise turnover share (%)					
			Corporates	DIIs	Foreign investors	Individuals	Prop	Others
<= Rs 10,000	5,633	0.03%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Rs 10,000 - Rs 1 lakh	72,944	0.4%	0.0%	0.0%	0.0%	99.9%	0.0%	0.0%
Rs 1 lakh - Rs 10 lakh	4,06,990	2.5%	0.2%	0.2%	0.0%	99.5%	0.0%	0.1%
Rs 10 lakh - Rs 1 cr	12,69,138	7.8%	0.9%	0.2%	0.0%	98.5%	0.0%	0.4%
Rs 1 cr - Rs 10 cr	22,94,200	14.0%	2.8%	0.4%	0.5%	95.5%	0.2%	1.2%
> Rs 10cr	1,23,02,846	75.2%	6.6%	15.3%	20.2%	14.7%	37.0%	6.3%
Total	1,63,51,752	100%	5.4%	11.5%	15.2%	35.0%	27.8%	5.0%

Source: NSE EPR.

Notes: 1. Turnover ranges are based on gross turnover.

2. Data has been provided for single side i.e. (Buy traded value + sell traded value)/2

3. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

4. DIIs include Banks, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors include Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate includes Public & Private Companies / Bodies Corporate; Individuals include Individual / Proprietorship firms, HUF and NRI; Others include Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop include PRO Trades.

Table 102: Category-wise share in turnover across different turnover ranges in NSE's cash market in 2024

Turnover range	Turnover (Rs cr)	Share in turnover (%)	Client category-wise turnover share (%)					
			Corporates	DIIs	Foreign investors	Individuals	Prop	Others
<= Rs 10,000	8,449	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Rs 10,000 - Rs 1 lakh	1,17,247	0.4%	0.0%	0.0%	0.0%	99.9%	0.0%	0.0%
Rs 1 lakh - Rs 10 lakh	6,71,209	2.3%	0.2%	0.1%	0.0%	99.6%	0.0%	0.1%
Rs 10 lakh - Rs 1 cr	20,85,048	7.2%	0.7%	0.2%	0.0%	98.7%	0.0%	0.3%
Rs 1 cr - Rs 10 cr	39,03,793	13.5%	1.9%	0.3%	0.3%	96.4%	0.1%	1.0%
> Rs 10cr	2,22,27,756	76.6%	6.1%	15.0%	19.2%	16.0%	37.8%	5.9%
Total	2,90,13,502	100%	5.0%	11.6%	14.7%	35.1%	28.9%	4.7%

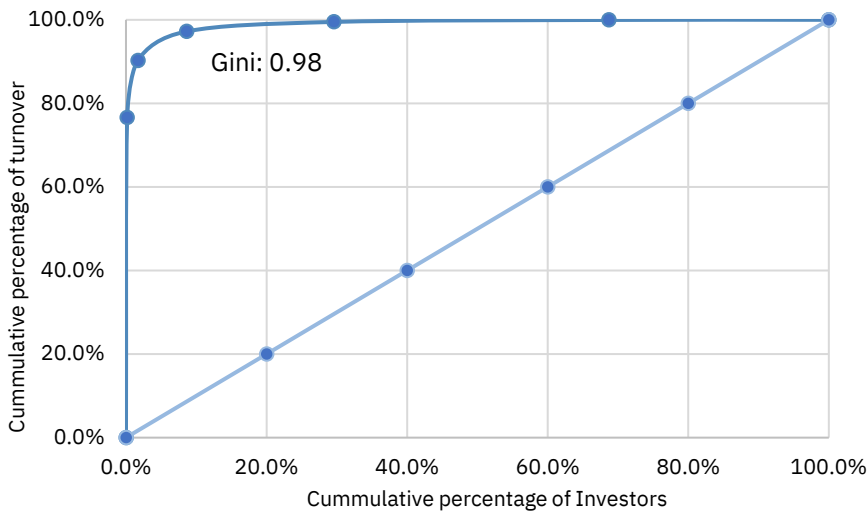
Source: NSE EPR.

Notes: 1. Turnover ranges are based on gross turnover.

2. Data has been provided for single side i.e. (Buy traded value + sell traded value)/2

3. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

4. DIIs include Banks, Insurance companies, Mutual Funds, Domestic Financial Institution (Other than banks & insurance), Domestic Venture Capital Funds, AIFs, PMS clients, New Pension Systems and NBFC; Foreign investors include Foreign Institutional Investors, Foreign Portfolio Investors all categories, Foreign Direct Investors, Foreign Venture Capital Investors, Depository receipts, Foreign Nationals (FN), Qualified foreign investor, Eligible Foreign Entity and OCBs; Corporate includes Public & Private Companies / Bodies Corporate; Individuals include Individual / Proprietorship firms, HUF and NRI; Others include Partnership Firm/ Limited Liability Partnership; Trust / Society, Statutory Bodies, Non Govt Organization etc.; Prop include PRO Trades.

Figure 321: Lorenz Curve of turnover in the NSE's Cash Market (Dec'24)


Source: NSE EPR.

Lorenz Curve and Gini Coefficient

The Lorenz Curve—a concept in Economics developed by the American Economist Max O. Lorenz in 1905—is a graphical representation of the distribution of income or wealth. In other words, it graphically explains the income or wealth inequality across a population. The graph plots percentiles of population on the x-axis according to income or wealth, and cumulative income or wealth on the y-axis.

The line of equality—referred to as the baseline—is demonstrated by a straight, upward-sloping, 45-degree line, which represents perfect equality in income or wealth. The farther the curve is from the baseline, the higher is the level of inequality.

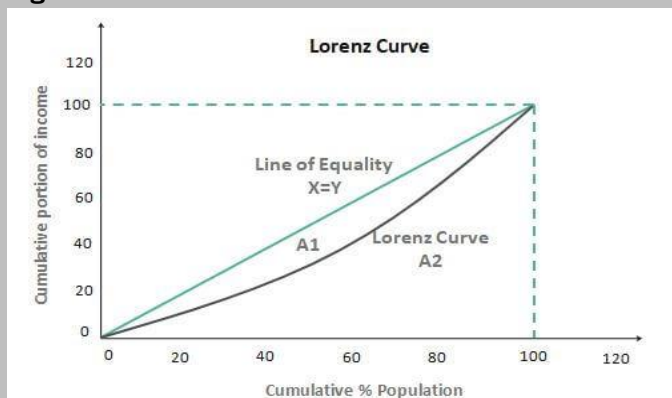
The Gini coefficient is a mathematical way of expressing the extent of inequality. It ranges from 0 to 1, where 0 points to complete equality and 1 points to complete inequality. It is calculated as the ratio of area between the baseline and the Lorenz curve and total area under the baseline.

$$\text{Gini coefficient} = A_1 / (A_1 + A_2)$$

Where:

A1 is the area between the baseline and the Lorenz curve,

A2 is the area under the Lorenz curve.

Figure 322: Illustration of a Lorenz curve


Skewed turnover distribution in equity options in 2024: The turnover distribution in equity options during 2024 remained highly skewed. Investors with a premium turnover exceeding Rs 1 crore contributed 88.5% of the total premium turnover in 2024, slightly lower than 88.8% in 2023. Notably, investors with a premium turnover above Rs 10 crore accounted for 72.9% of the overall premium turnover in 2024, down from 73.5% in the previous year. Proprietary trades dominated the highest trading range of above Rs 10 crore, contributing 66.5% of total premium turnover in 2024 (down from 67.7% in 2023), followed by foreign investors at 13.9% (up from 10.8% in 2023), and individual investors at 10.3% (down from 11.1% in 2023). On a monthly comparison, investors with turnover exceeding Rs 10 crore represented just 0.2% of the total investor base but accounted for ~70% of the total turnover. Meanwhile, ~4% investors with turnover between Rs 1 crore and Rs 10 crore contributed ~16% to the overall premium turnover in Dec'24. Conversely, 96% of investors, who traded below Rs 1 crore, contributed mere ~13% of the total premium turnover in Dec'24.

Table 103: Distribution of turnover by range in equity options market for all investors

Turnover range	Oct-24		Nov-24		Dec-24			
	Turnover (Rs cr)	Unique investors (In lakh)	Turnover (Rs cr)	Unique investors (In lakh)	Turnover (Rs cr)	Share in turnover	Unique investors (In lakh)	Share in investors
<Rs 10,000	139	8.6	134	8.4	119	0.01%	7.2	18.7%
Rs 10,000-Rs 1 lakh	2,325	11.1	2,250	10.7	2,122	0.2%	10.0	26.1%
Rs 1 lakh - Rs 10 lakh	26,794	13.9	24,682	13.0	23,904	2.2%	12.5	32.5%
Rs 10 lakh - Rs 1 cr	1,40,212	8.7	1,15,599	7.3	1,12,874	10.2%	7.2	18.7%
Rs 1 cr – 10 cr	2,51,729	2.0	1,86,452	1.5	1,82,486	16.6%	1.4	3.8%
>Rs 10 cr	11,18,225	0.1	8,29,882	0.1	7,80,360	70.8%	0.1	0.2%
Total	15,39,425	44.3	11,58,998	40.9	11,01,866	100%	38.4	100%

Source: NSE EPR

Notes:

1. Turnover ranges are based on gross premium turnover.

2. Investors categorization is based on gross premium turnover i.e. buy premium turnover + sell premium value

3. Data has been provided for single side i.e. (Buy premium turnover + sell premium turnover)/2

Table 104: Distribution of turnover and the share of investors categories in equity options in 2023

Turnover range	Turnover (Rs cr)	Share in turnover (%)	Client category-wise share in premium turnover (%)					
			Corporates	DIIs	Foreign investors	Individuals	Prop	Others
<= Rs 10,000	1,145	0.0%	0.0%	0.0%	0.0%	99.9%	0.0%	0.0%
Rs 10,000 - Rs 1 lakh	22,104	0.2%	0.1%	0.0%	0.0%	99.9%	0.0%	0.1%
Rs 1 lakh - Rs 10 lakh	2,76,215	1.9%	0.1%	0.0%	0.0%	99.8%	0.0%	0.1%
Rs 10 lakh - Rs 1 cr	12,93,267	9.1%	0.3%	0.0%	0.0%	99.5%	0.0%	0.2%
Rs 1 cr - Rs 10 cr	21,92,203	15.4%	1.0%	0.0%	0.1%	98.2%	0.1%	0.6%
> Rs 10cr	1,04,81,219	73.5%	3.7%	0.1%	10.8%	11.1%	67.7%	6.6%
Total	1,42,66,153	100.0%	2.9%	0.1%	8.0%	34.4%	49.8%	4.9%

Source: NSE EPR.

Notes: 1. Turnover ranges are based on gross turnover.

2. Data has been provided for single side i.e. (Buy traded value + sell traded value)/2

3. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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Table 105: Distribution of turnover and the share of investors categories in equity options in 2024

Turnover range	Turnover (Rs cr)	Share in turnover (%)	Client category-wise share in premium turnover (%)					
			Corporates	DIIs	Foreign investors	Individuals	Prop	Others
<= Rs 10,000	1,707	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Rs 10,000 - Rs 1 lakh	29,228	0.2%	0.1%	0.0%	0.0%	99.9%	0.0%	0.0%
Rs 1 lakh - Rs 10 lakh	3,29,989	1.9%	0.1%	0.0%	0.0%	99.8%	0.0%	0.1%
Rs 10 lakh - Rs 1 cr	15,87,455	9.3%	0.2%	0.0%	0.0%	99.6%	0.0%	0.2%
Rs 1 cr - Rs 10 cr	26,52,564	15.6%	0.9%	0.0%	0.0%	98.3%	0.1%	0.6%
> Rs 10cr	1,24,00,673	72.9%	5.1%	0.1%	13.9%	10.3%	66.5%	4.2%
Total	1,70,01,616	100.0%	3.9%	0.1%	10.1%	34.3%	48.5%	3.1%

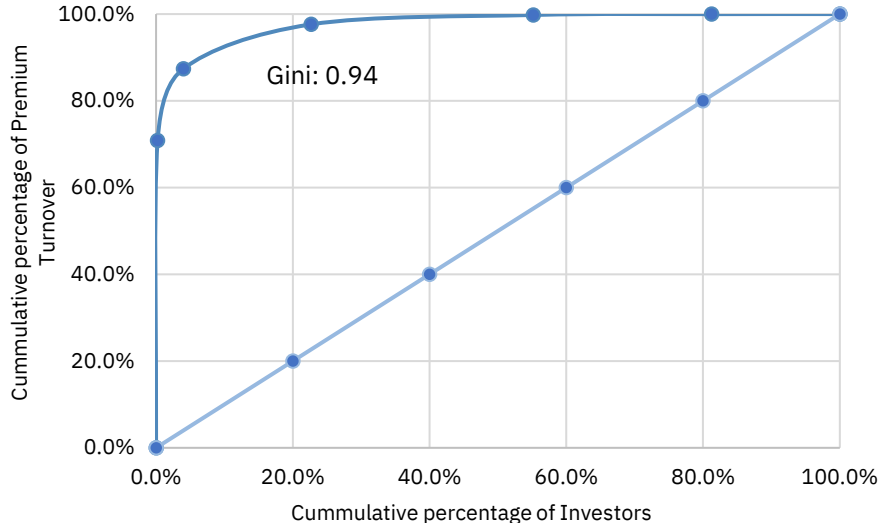
Source: NSE EPR.

Notes: 1. Turnover ranges are based on gross turnover.

2. Data has been provided for single side i.e. (Buy traded value + sell traded value)/2

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Figure 323: Lorenz Curve of turnover in Equity Options (Dec'24)


Source: NSE EPR.

Turnover remained skewed in equity futures segment in 2024: The turnover distribution in the equity futures market remained highly skewed in 2024, with investors trading above Rs 10 crore contributing 93.6% of the total turnover, up from 92.3% in 2023. This segment was primarily dominated by proprietary trades, which accounted for 36.9% of the turnover for high value range in 2024 (down from 38% in 2023), followed by foreign investors at 26.3% (up from 23% in 2023) and individual investors at 13.5% (marginally up from 13.3% in 2023). Meanwhile, investors trading between Rs 1 crore and Rs 10 crore contributed 5.6% to the overall turnover in 2024, a decline from 6.7% in 2023. Combined, these groups represented 99.2% of the turnover in 2024, compared to 98.9% in the previous year.

On a monthly comparison, approximately 7% of investors traded above Rs 10 crore accounted for 93% of the total turnover in December 2024. Meanwhile, 37% of investors trading between Rs 1 crore and Rs 10 crore contributed 6% of the turnover. In contrast, 55% of investors traded below Rs 1 crore but contributed only 1% of the overall turnover during the month.

Table 106: Distribution of turnover by range in equity futures market for all investors

Turnover range	Oct-24		Nov-24		Dec-24			
	Turnover (Rs cr)	Unique investors (In lakh)	Turnover (Rs cr)	Unique investors (In lakh)	Turnover (Rs cr)	Share in turnover	Unique investors (In lakh)	Share in investors
Rs 1 lakh - Rs 10 lakh	733	0.2	768	0.2	753	0.0%	0.2	6.6%
Rs 10 lakh - Rs 1 cr	34,523	1.7	32,986	1.6	33,155	1.0%	1.6	48.9%
Rs 1 cr – 10 cr	2,15,514	1.3	1,88,511	1.2	1,96,810	6.0%	1.2	37.1%
>Rs 10 cr	38,53,602	0.3	30,28,510	0.2	30,67,294	93.0%	0.2	7.4%
Total	41,04,371	3.5	32,50,775	3.3	32,98,013	100.0%	3.3	100.0%

Source: NSE EPR.

Notes: 1. Turnover ranges are based on gross turnover.

2. Investors categorization is based on gross turnover i.e. buy turnover + sell value

3. Data has been provided for single side i.e. (Buy turnover + sell turnover)/2

Table 107: Distribution of turnover and the share of investors categories in equity futures in 2023

Turnover range	Turnover (Rs cr)	Share in turnover (%)	Client category-wise share in premium turnover (%)					
			Corporates	DIIs	Foreign investors	Individuals	Prop	Others
Rs 1 lakh - Rs 10 lakh	5,703	0.0%	0.6%	0.0%	0.0%	99.0%	0.0%	0.4%
Rs 10 lakh - Rs 1 cr	3,01,509	1.0%	0.8%	0.0%	0.0%	98.7%	0.0%	0.5%
Rs 1 cr - Rs 10 cr	19,37,630	6.7%	1.7%	0.0%	0.0%	97.2%	0.1%	0.9%
> Rs 10cr	2,67,31,076	92.3%	8.8%	8.2%	23.0%	13.3%	38.0%	8.7%
Total	2,89,75,918	100.0%	8.2%	7.6%	21.2%	19.8%	35.1%	8.1%

Source: NSE EPR.

Notes: 1. Turnover ranges are based on gross turnover.

2. Data has been provided for single side i.e. (Buy traded value + sell traded value)/2

3. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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Table 108: Distribution of turnover and the share of investors categories in equity futures in 2024

Turnover range	Turnover (Rs cr)	Share in turnover (%)	Client category-wise share in premium turnover (%)					
			Corporates	DIIs	Foreign investors	Individuals	Prop	Others
Rs 1 lakh - Rs 10 lakh	6,554	0.0%	0.5%	0.0%	0.0%	99.2%	0.0%	0.3%
Rs 10 lakh - Rs 1 cr	3,78,727	0.8%	0.7%	0.0%	0.0%	98.8%	0.0%	0.5%
Rs 1 cr - Rs 10 cr	26,52,236	5.6%	1.4%	0.0%	0.0%	97.6%	0.1%	0.9%
> Rs 10cr	4,42,58,171	93.6%	8.9%	8.7%	26.3%	13.5%	36.9%	5.7%
Total	4,72,95,688	100.0%	8.4%	8.1%	24.6%	19.0%	34.5%	5.4%

Source: NSE EPR.

Notes: 1. Turnover ranges are based on gross turnover.

2. Data has been provided for single side i.e. (Buy traded value + sell traded value)/2

3. Client categories provided here are based on client category classification uploaded by the trading members in the UCC (Unique Client Code) system. The turnover data is based on client codes entered by trading members at the time of order entry and the corresponding client category classification provided by trading members in the UCC system. This is provisional data and subject to change, inter-alia, on account of custodial trade confirmation process, client code modifications etc.

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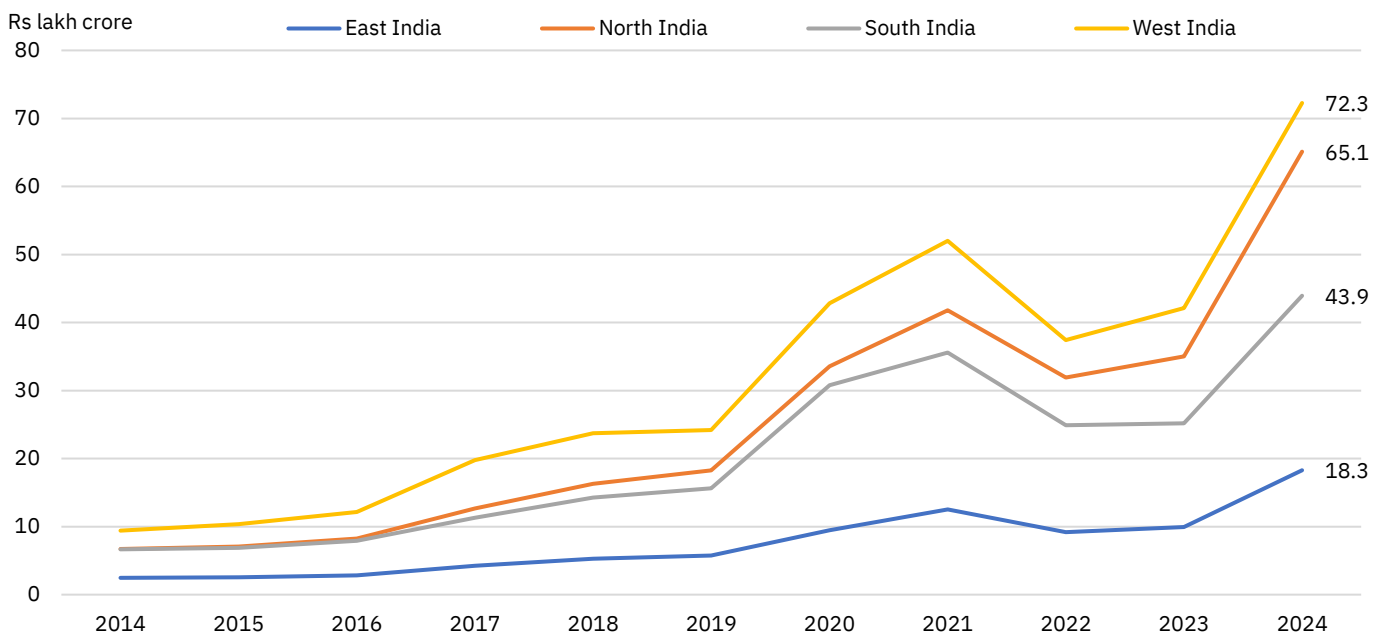
Spatial distribution of individual investor activity in the cash market

Region-wise individual investors activity

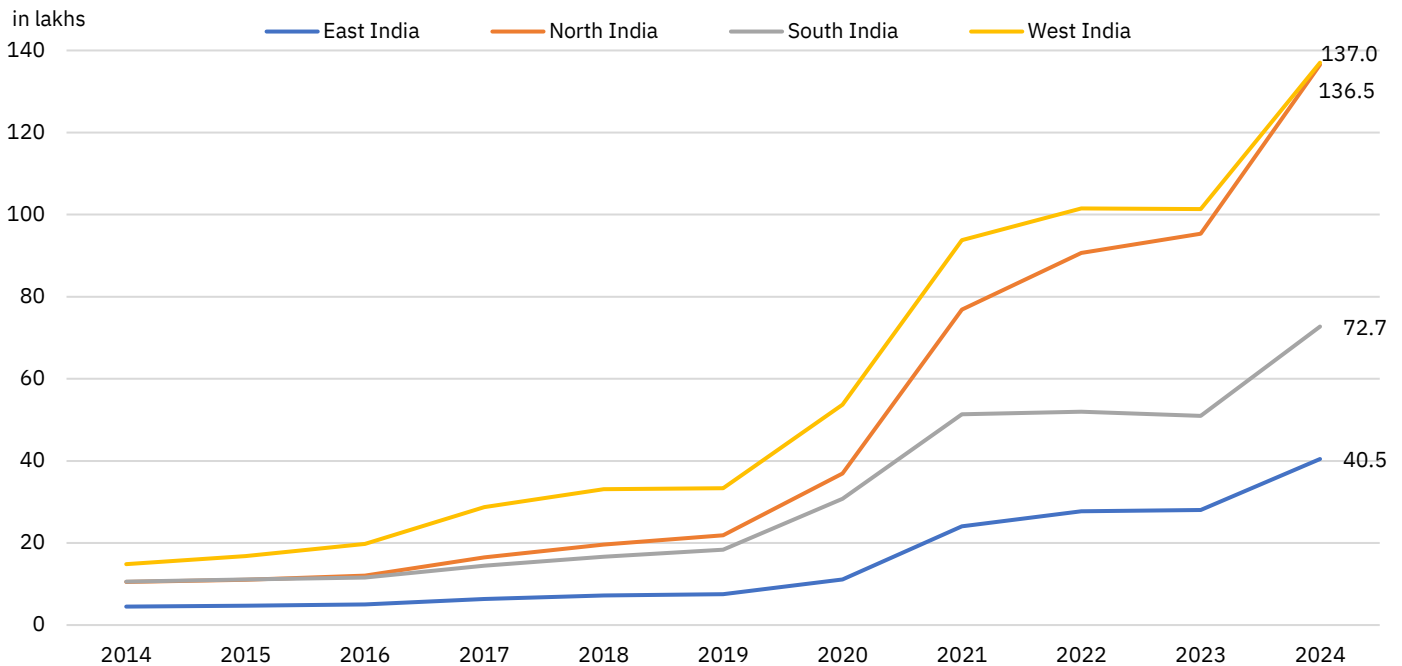
Over the past decade, the turnover in the NSE's CM segment by the individual investors has experienced significant growth across all regions, with the year 2024 registering an all-time high turnover in each region. Throughout this period, the Western region has consistently been leading, followed by the Northern, Southern, and Eastern regions. In terms of growth, however, the Northern region has outpaced the others, with its turnover rising by 9.7 times since 2014 and 3.5 times since 2019. In comparison, the Western region has experienced growth of 7.6 times since 2014 and 3 times since 2019. In 2024, the turnover stood at ₹72.3 lakh crore (35.5% share) in the West, ₹65.12 lakh crore (32% share) in the North, ₹43.9 lakh crore (21.6% share) in the South, and ₹18.3 lakh crore (9% share) in the East. Since 2014, the share of the Northern region has increased from 24.4% to 32%, while the share of the Eastern region has remained almost unchanged. The Southern region's share has declined, while the Western region's share has seen slight growth.

This impressive growth in turnover has been mirrored by a substantial rise in the number of individual investors who engaged in trading at least once per year in the NSE's CM segment. Once again, the trend across regions has followed a similar pattern, with the Western region leading, followed by the Northern, Southern, and Eastern regions. The Northern region has again registered the highest growth, with the number of individual investors who traded at least once a year increasing by 13 times since 2014 and 6.2 times since 2019. In 2024, the individual investor count stood at 1.37 crore (34.8% share) in the West, 1.36 crore (34.7% share) in the North, 72.7 lakh (18.5% share) in the South, and 40.5 lakh (10.3% share) in the East. Notably, the shares of individual investors in the Western and Northern regions have almost converged at 34.7%-34.8% in 2024. The Southern region's share has declined from 23.7% in 2014, while the Eastern region has shown modest improvement over the past decade.

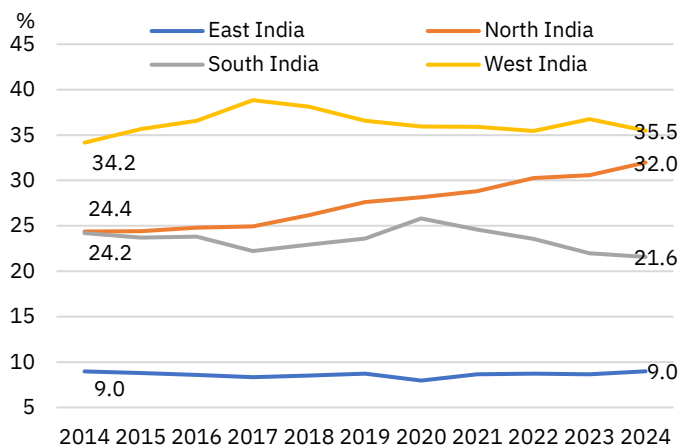
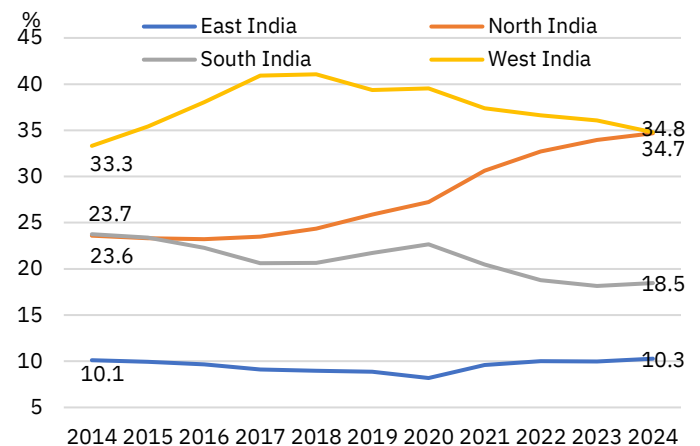
Figure 324: Region-wise distribution of annual individual investors' turnover in the cash market



Source: NSE EPR. Note: Individual investors include Individual / Proprietorship firms and HUF

Figure 325: Region-wise distribution of individual investors who traded at least once in a year in the cash market


Source: NSE EPR. Note: Individual investors include Individual / Proprietorship firms and HUF.

Figure 326: Region-wise share of individual investors' turnover in cash market (%)

Figure 327: Region-wise share of individual investors who traded at least once a year in cash market (%)


Source: NSE EPR.

Note: Individual investors include Individual / Proprietorship firms and HUF.

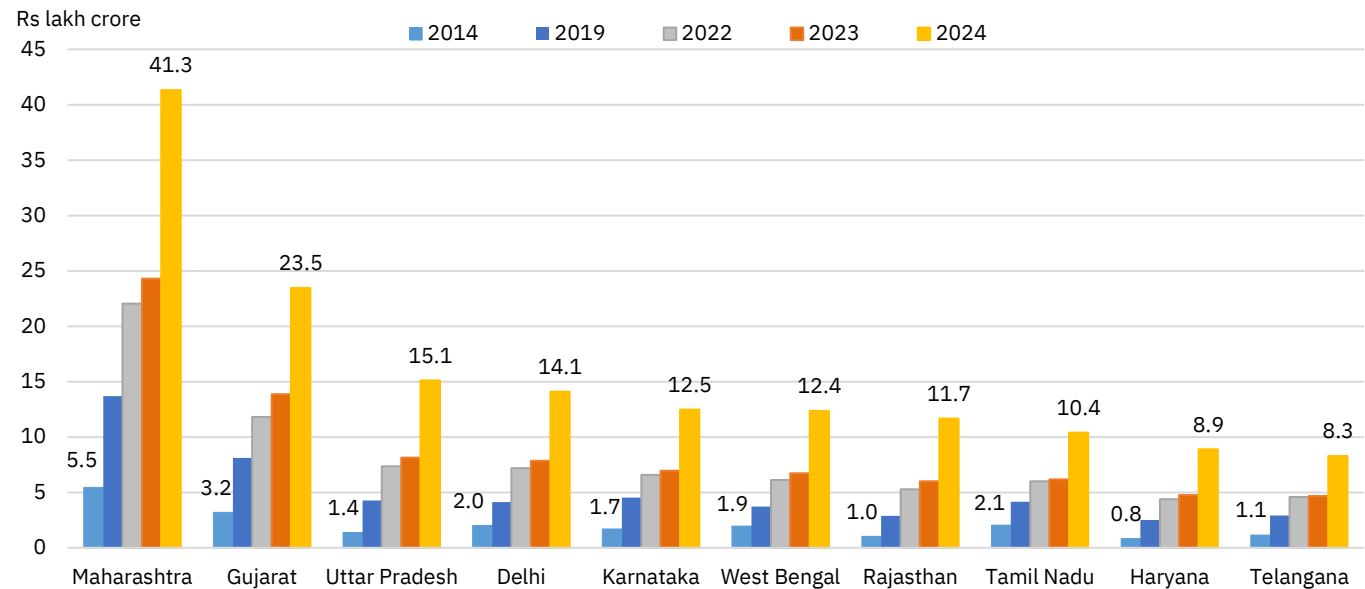
State-wise individual investors activity

Since 2014, Maharashtra and Gujarat have maintained their top positions (1st and 2nd, respectively) in turnover by individual investors in the NSE's CM segment. In 2024, they registered 41.3 lakh crore and 23.5 lakh crore of turnover by individual investors, respectively. However, there have been notable shifts in the rankings of other leading states. In 2014, the third, fourth, and fifth positions were held by Tamil Nadu, Delhi, and West Bengal, respectively. By 2019, these positions had shifted to Karnataka, Uttar Pradesh, and Tamil Nadu, respectively. As of 2024, Uttar Pradesh, Delhi, and Karnataka occupy these three spots, respectively. Tamil Nadu has dropped to eighth place, while West Bengal has moved down to sixth in 2024. Uttar Pradesh, in particular, has made significant progress, rising from seventh position in 2014 to third place in 2024. In terms

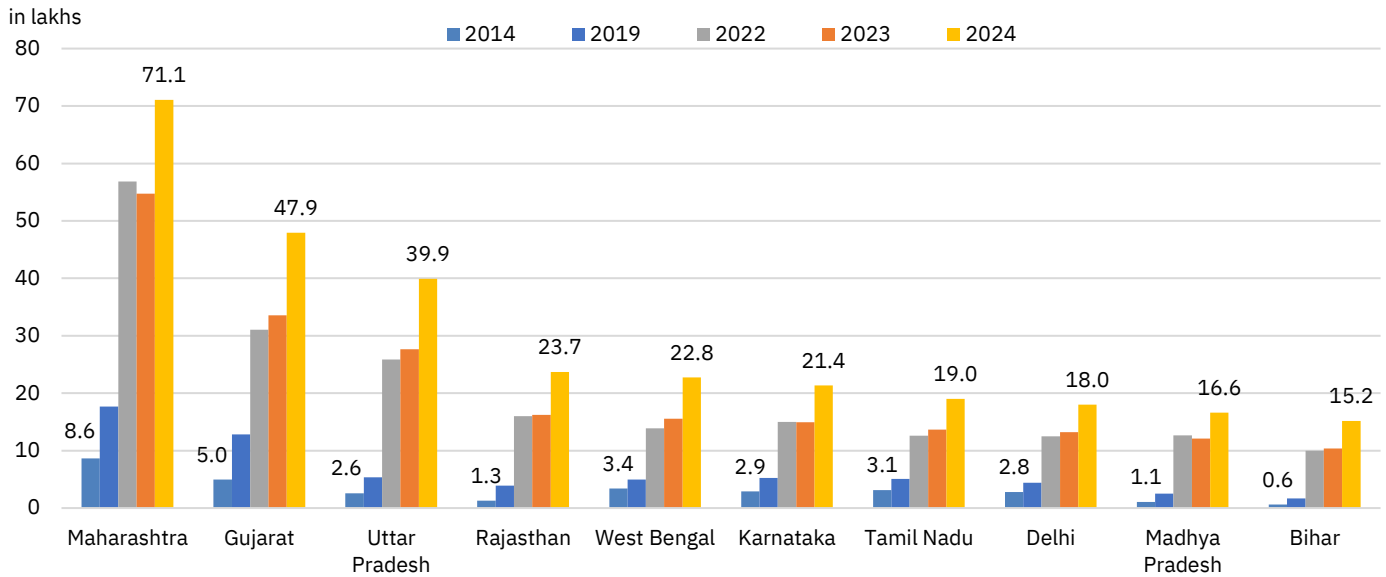
of share of overall individual turnover, Maharashtra and Gujarat have shares of 20.3% and 11.5%, respectively, in 2024 – not changed significantly as compared to 2014. Rajasthan’s share has been consistently rising, while Tamil Nadu’s share has been on the decline.

As expected, the highest number of individual investors who traded at least once a year in the NSE’s CM segment also come from the same leading states – Maharashtra (71.1 lakhs – 18.1% share), Gujarat (47.9 lakhs – 12.2% share), and Uttar Pradesh (39.9 lakhs – 10.1% share) as of 2024. Maharashtra and Gujarat have remained at the top since 2014. However, the rankings for the third, fourth, and fifth positions have shifted over the years. In 2014, these positions were held by West Bengal, Tamil Nadu, and Karnataka, respectively. By 2019, Uttar Pradesh, Karnataka, and Tamil Nadu had claimed these spots. As of 2024, Uttar Pradesh, Delhi, and Karnataka now occupy the third, fourth, and fifth positions, respectively. Notably, Madhya Pradesh and Bihar have made significant progress, entering the top 10 list, a position they did not hold either five or ten years ago.

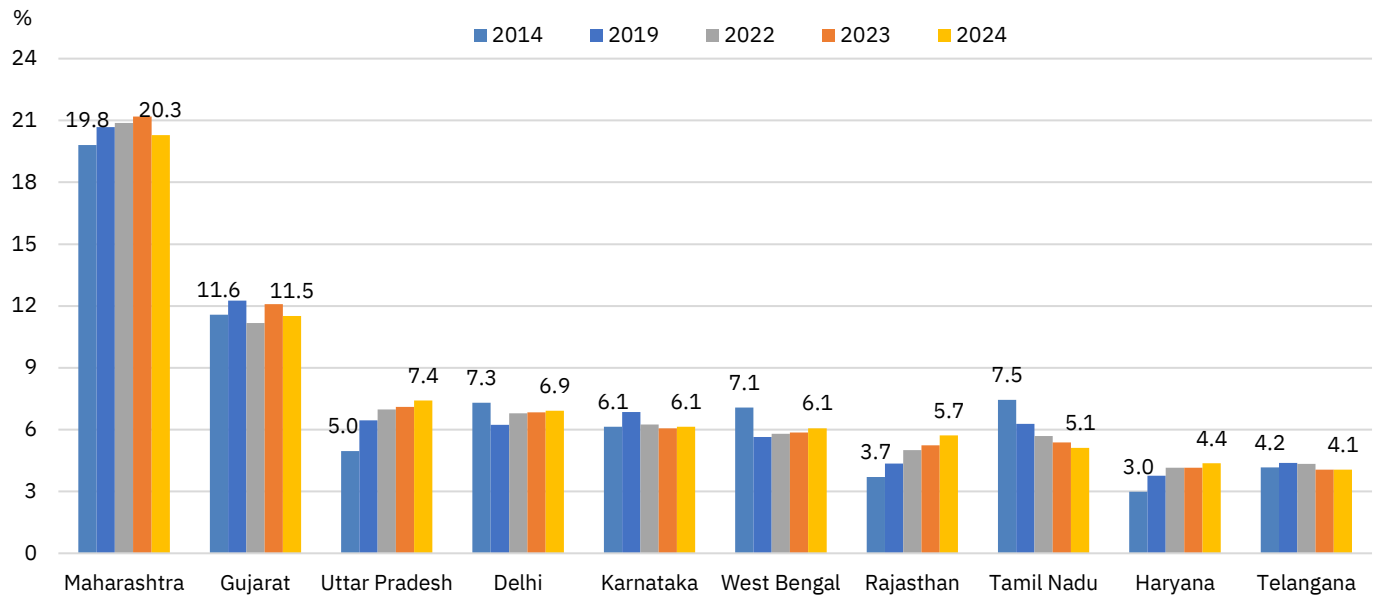
Figure 328: Top 10 states based on turnover of individual investors in the cash market



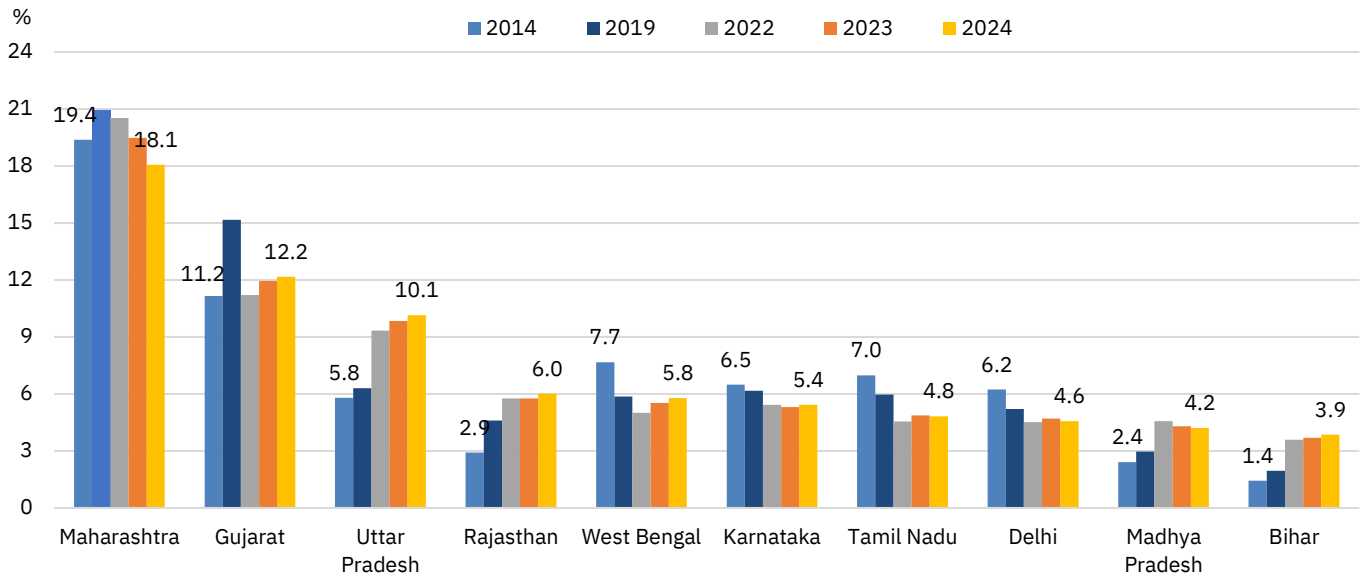
Source: NSE EPR. Note: Individual investors include Individual / Proprietorship firms and HUF. The top ten states are chosen based on last year’s data.

Figure 329: Top 10 states based on individual investors traded in the cash market


Source: NSE EPR. Note: Individual investors include Individual / Proprietorship firms and HUF. The top ten states are chosen based on last year's data.

Figure 330: Share of the top 10 states based on turnover of individual investors in the cash market


Source: NSE EPR. Note: Individual investors include Individual / Proprietorship firms and HUF. The top ten states are chosen based on last year's data.

Figure 331: Share of the top 10 states based on number of individual investors traded in the cash market


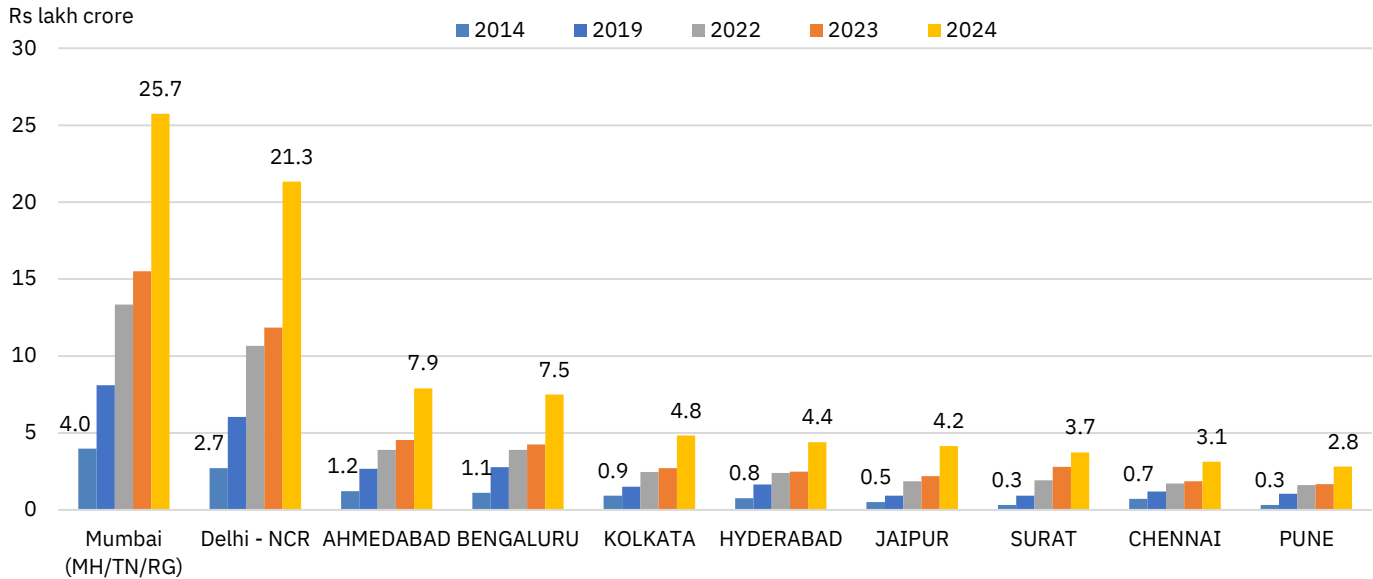
Source: NSE EPR. Note: Individual investors include Individual / Proprietorship firms and HUF. The top ten states are chosen based on last year's data.

District-wise individual investors activity:

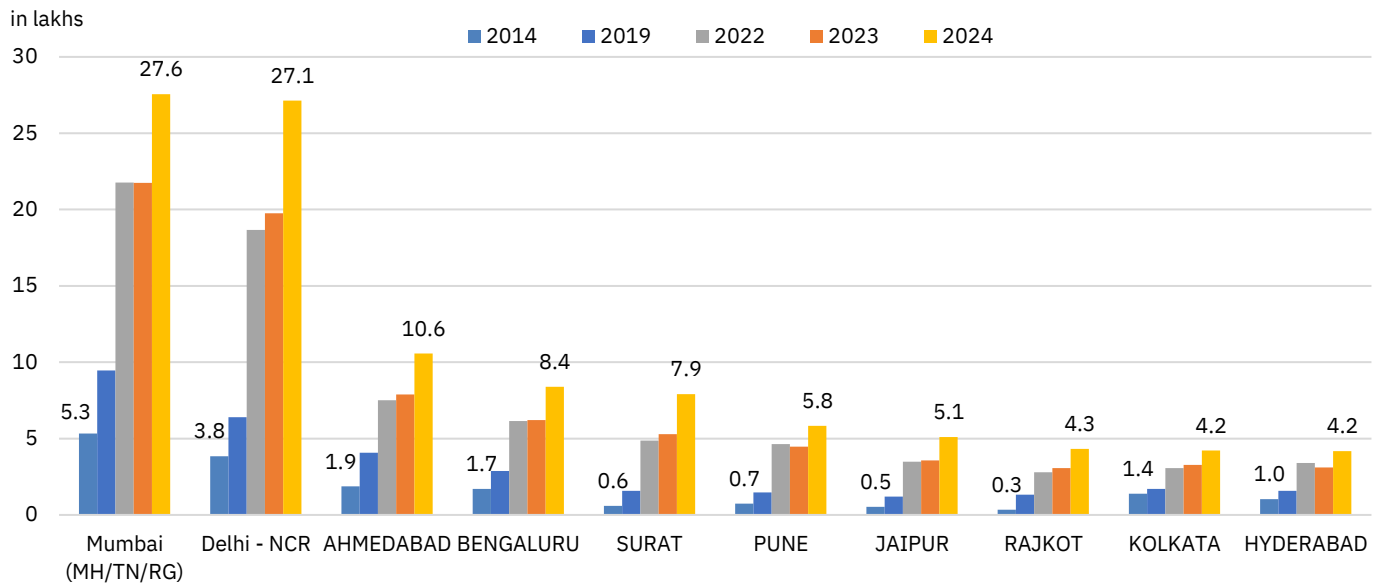
The top districts in terms of individual investors' turnover in 2024 are Mumbai (25.7 lakh crore – 12.6% share), Delhi (21.3 lakh crore – 10.5% share), Ahmedabad (7.9 lakh crore – 3.9% share), Bengaluru (7.5 lakh crore – 3.7% share), and Kolkata (4.8 lakh crore – 2.4% share). While the top five districts have largely remained consistent over the past decade, Hyderabad briefly entered the top five in 2019, surpassing Kolkata. Notably, Surat has steadily risen into the top 10 post-COVID-19 pandemic, a position it did not hold in 2014 or 2019.

In terms of individual investors who traded at least once in a year, top 4 districts remained the same while Surat stood at the fifth position in 2024, surpassing Kolkata which now stands at the ninth position.

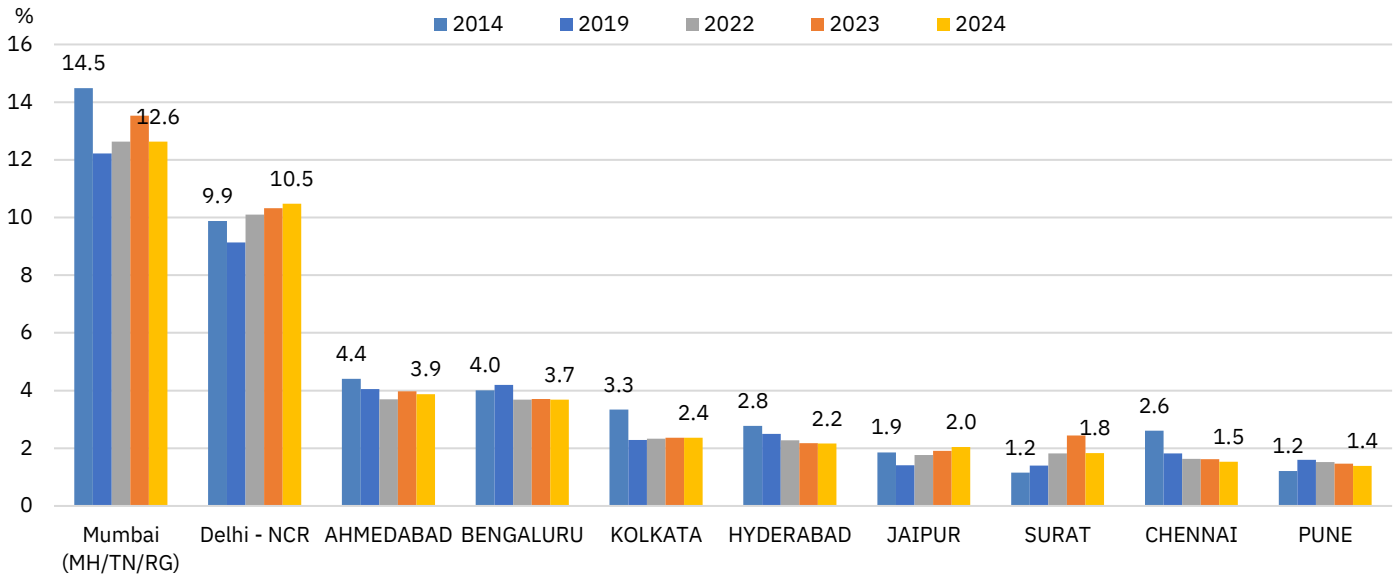
Interestingly, a significant portion of activity is concentrated in Mumbai and Delhi (~23%), yet these two districts account for only about 14% of the total share in individual investor count. This disparity highlights the inequality in participation across districts.

Figure 332: Top 10 districts based on cash turnover of individual investors


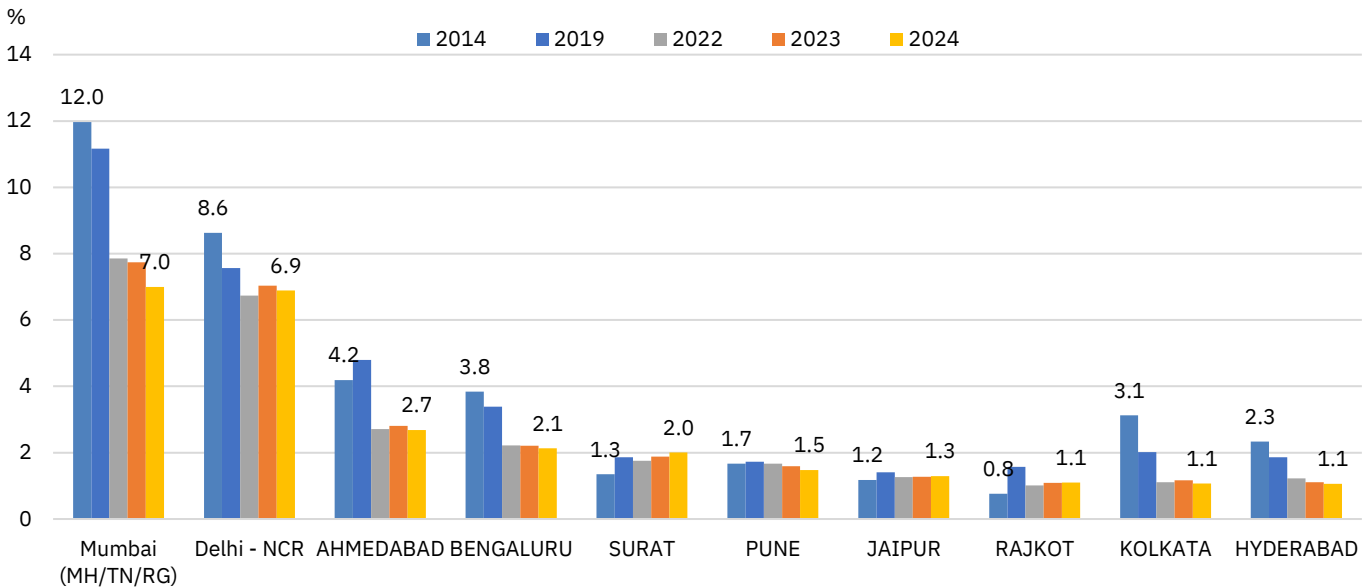
Source: NSE EPR. Note: 1. Mumbai includes Mumbai (MH/TN/RG); 2. Individual investors include Individual / Proprietorship firms and HUF. The top ten districts are chosen based on last year's data.

Figure 333: Top 10 districts based on individual investors traded in the cash market


Source: NSE EPR. Note: 1. Mumbai includes Mumbai (MH/TN/RG); 2. Individual investors include Individual / Proprietorship firms and HUF. The top ten districts are chosen based on last year's data.

Figure 334: Share of the top 10 districts based on individual turnover in the cash market


Source: NSE EPR. Note: 1. Mumbai includes Mumbai (MH/TN/RG); 2. Individual investors include Individual / Proprietorship firms and HUF. The top ten districts are chosen based on last year's data.

Figure 335: Share of the top 10 districts based on individual investors traded in the cash market


Source: NSE EPR. Note: 1. Mumbai includes Mumbai (MH/TN/RG); 2. Individual investors include Individual / Proprietorship firms and HUF. The top ten districts are chosen based on last year's data.

Turnover of top 10 traded securities in the year

Annual trends of Top 10 traded securities in 2024: The top 10 traded securities accounted for approximately 13% of the total market turnover in 2024. While the overall market turnover grew by 77%, the turnover of these securities increased by 39% during the same period. Among them, Hindustan Aeronautics Limited and Zomato recorded a remarkable over 100% increase in turnover, followed by Tata Motors, which experienced a rise of approximately 80% in 2024. The remaining securities showed turnover growth ranging between 17% and 46%. It is also noteworthy that HDFC Bank, Reliance Industries, and ICICI Bank maintained their respective rankings in 2024, like 2023.

Table 109: List of top 10 trade securities turnover (Rs crore) in NSE CM segment during 2024

Name of the securities	2024	2023	%Change
HDFC Bank Limited	8,29,687	6,34,420	31%
Reliance Industries Limited	4,63,626	3,84,166	21%
ICICI Bank Limited	4,39,974	3,74,114	18%
State Bank of India	3,39,917	2,32,945	46%
Zomato Limited	3,04,447	1,43,371	112%
Tata Motors Limited	2,92,343	1,62,510	80%
Infosys Limited	2,89,471	2,24,248	29%
Axis Bank Limited	2,76,949	2,35,879	17%
Hindustan Aeronautics Limited	2,49,541	1,00,814	148%
Kotak Mahindra Bank Limited	2,48,147	1,89,955	31%
Top 10 securities turnover	37,34,100	26,82,422	39%
% share of Top 10 scrips	13%	16%	-4%

Source: NSE EPR.

Note: Top 10 securities have been presented based on the ranking in 2024.

Top 10 traded securities in stock futures and turnover growth in 2024: The top 10 traded securities in stock futures contributed approximately 23% of the overall turnover in 2024. Their turnover, based on 2024 rankings, increased by 71%, compared to the overall turnover growth of 77%. HDFC Bank and Reliance Industries Limited retained their rankings from 2023, with turnover increases of 80% and 54%, respectively in 2024. Notably, Hindustan Aeronautics Limited recorded a remarkable 183% rise in turnover, followed by Tata Motors Limited at 92% and HDFC Bank Limited. Among the remaining securities, Axis Bank Limited, Kotak Mahindra Bank, and Bajaj Finance Limited registered increases of 46%, 45%, and 47%, respectively, while the remaining securities saw turnover growth exceeding 50% in 2024.

Table 110: List of top 10 traded securities turnover (Rs crore) in stock futures during 2024

Name of the securities	2024	2023	%Change
HDFC Bank Limited	19,48,023	10,82,714	80%
Reliance Industries Limited	10,91,971	7,10,946	54%
ICICI Bank Limited	10,71,506	5,99,013	79%
State Bank of India	9,78,964	5,59,835	75%
Tata Motors Limited	7,12,383	3,70,491	92%
Axis Bank Limited	6,26,512	4,29,350	46%
Infosys Limited	6,21,811	3,86,222	61%
Kotak Mahindra Bank Limited	5,87,331	4,03,994	45%
Hindustan Aeronautics Limited	5,47,345	1,93,577	183%
Bajaj Finance Limited	5,40,913	3,68,570	47%
Top 10 securities turnover	87,26,760	51,04,712	71%
% of total turnover	23%	24%	-1%

Source: NSE EPR.

Note: Top 10 securities have been presented based on the ranking in 2024.

Top 10 traded stock options turnover trends and ranking in 2024: The top 10 traded securities in stock options contributed 23% of the overall premium turnover in 2024. Their premium turnover, based on 2024 ranking, rose by 55%, lower than the 77% rise recorded for overall premium turnover. Reliance Industries Limited exhibited a 57% rise in their turnover to become top traded securities in 2024, while HDFC Bank Limited stood at 2nd position (as against 5th in 2023) with an increase of over 100% in premium turnover in 2024. Notably, Adani Enterprise experienced a 46% YoY drop in its turnover to become 5th position in 2024 (as against 1st in 2023). It is also noteworthy that three securities, namely Power Finance Corporation, REC Limited and Dixon Technologies entered the top 10 securities with an increase of 113%, 116% and 180% in their premium turnover respectively in 2024.

Table 111: List of top 10 traded securities premium turnover (Rs crore) in stock options during 2024

Name of the securities	2024	2023	%Change
Reliance Industries Limited	62,697	40,048	57%
HDFC Bank Limited	61,465	29,690	107%
State Bank of India	56,839	29,840	90%
Tata Motors Limited	53,460	27,695	93%
Adani Enterprises Limited	47,436	87,326	-46%
Hindustan Aeronautics Limited	46,826	19,445	141%
Power Finance Corporation Limited	36,071	16,924	113%
REC Limited	34,286	15,871	116%
Dixon Technologies (India) Limited	33,043	11,809	180%
Maruti Suzuki India Limited	32,979	20,969	57%
Top 10 securities turnover	4,65,104	2,99,617	55%
% of total turnover	23%	27%	-3%

Source: NSE EPR.

Note: Top 10 securities have been presented based on the ranking in 2024.

Record statistics

Record-breaking milestones in NSE's Indices closing and turnover in 2024: In 2024, the index values reached record highs, with Nifty50, BankNifty, and Nifty Financial Services closing at their peak on September 26, 2024. Additionally, Nifty Midcap Select and Nifty Next 50 also achieved new milestones during September.

On June 4, 2024, coinciding with the general election results, NSE recorded its highest-ever single-day turnover of Rs 2.7 lakh crore in the cash market segment, along with 8.85 crore trades. On June 4, 2024, coinciding with the general election results, NSE recorded its highest-ever single-day turnover of Rs 2.7 lakh crore in the capital market segment, along with 8.85 crore trades. The same day also witnessed record turnovers in index derivatives and stock options. Further milestones were achieved in equity derivatives, including the highest number of trades—24.25 crore—on June 19, 2024, and the peak single-day stock futures turnover of Rs 3.98 lakh crore on July 23, 2024, approximately 2.6 times the average daily turnover (ADT) for the year.

Table 112: Record in index value

Index name	Closing value	Date of Record
Nifty50	26,216	26-Sep-24
Nifty Bank	54,375	26-Sep-24
Nifty Financial Service	25,155	26-Sep-24
Nifty Midcap Select	13,347	13-Sep-24
Nifty Next 50	77,813	27-Sep-24

Table 113: Segment-wise record statistics

Particulars	Value	Date of Record
Market Cap (Rs crore)	4,73,83,695	27-Sep-24
Capital market turnover (Rs crore)	2,71,245	04-Jun-24
Number of trades in capital market segment (In crore)	8.85	04-Jun-24
Index futures turnover (Rs crore)	1,57,036	04-Jun-24
Index options premium turnover (Rs crore)	2,13,406	04-Jun-24
Stock futures turnover (Rs crore)	3,98,161	23-Jul-24
Stock options premium turnover (Rs crore)	20,683	04-Jun-24
Number of trades in equity derivatives segment (In crore)	24.25	19-Jun-24
Number of trades in currency derivatives	11,40,451	11-Nov-22
Number of trades in commodity derivatives	39,731	13-Dec-24

Source: NSE EPR

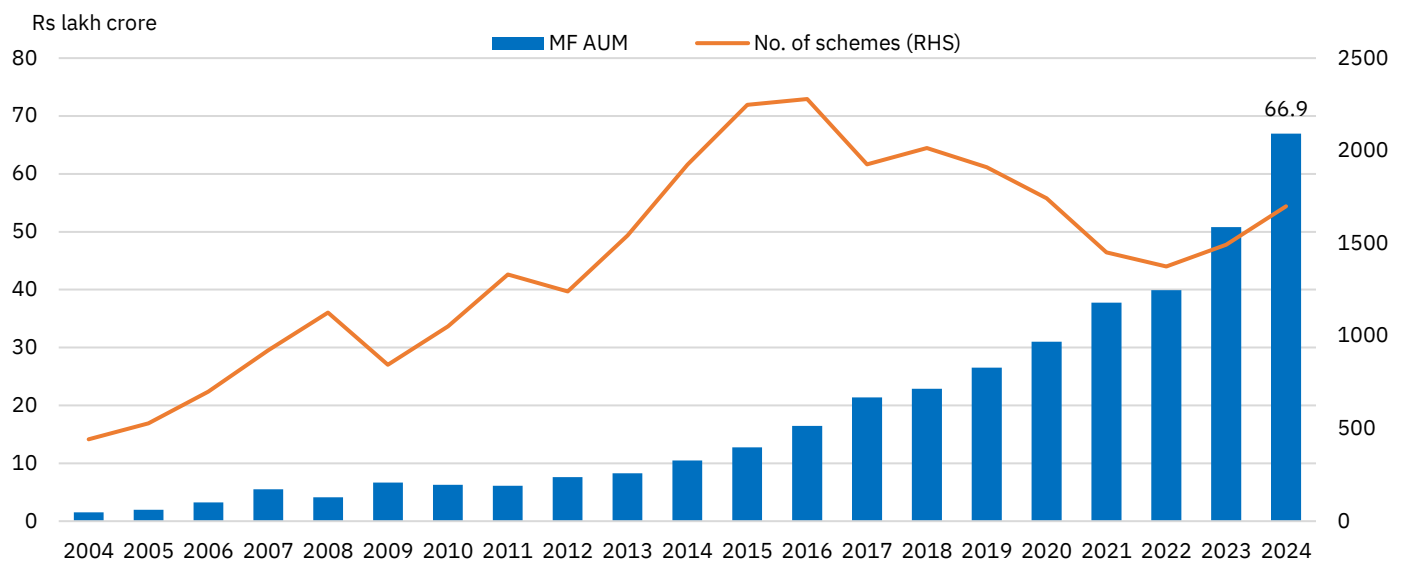
Investment through mutual funds in India

Mutual funds' AUM (Assets under management) hits all-time high in 2024: The Indian mutual fund industry has seen an impressive growth over the last two decades, wherein assets under management (AUM) increased at annualised rates of 20.3% and 20.9% over the last 10 and 20 years, respectively, reaching a record of Rs 66.9 lakh crore by the end of December 2024 (vs. Rs 50.8 lakh crore as of the end of 2023). Average monthly AUM for the month of December 2024 stood at Rs 69.3 lakh crore, implying a 35.7% growth. This increase is attributed to a combination of the growing participation of individual investors in the Indian equity markets through direct as well as indirect channels, and strong returns over the last few years resulting in mark to market (MTM) gains. Remarkably, even during the Covid-19 pandemic, the industry did not experience a decline in AUM, instead continuing its upward trajectory.

In contrast, the number of mutual fund schemes has declined since 2017 due to SEBI's categorization and rationalization regulations. Before these regulations, fund houses could launch multiple schemes under the same category, often leading to redundancy and investor confusion. The regulatory changes required fund houses to consolidate overlapping schemes within each category, streamlining offerings and enhancing transparency for investors. As a result, the number of schemes decreased. However, post-2022, there has been a rebound, with the number of schemes starting to rise again, reflecting renewed product innovation and demand for diverse investment options.

Investor confidence is further evident in the substantial growth of Systematic Investment Plans (SIPs). Total SIP contributions have surged from Rs 59,482 crore in 2017 to Rs 2,68,323 crore in 2024, marking a robust 24% CAGR during this period. This rise is underpinned by strong market performance and an expanding range of mutual fund options. Although SIP inflows saw a temporary dip during the Covid-19 period, they have consistently risen in subsequent years, underscoring the growing preference for disciplined, long-term investment strategies among retail investors. This trend highlights the critical role SIPs play in driving mutual fund penetration and fostering financial inclusion in India.

Figure 336: Annual trend of total MF schemes and AUM

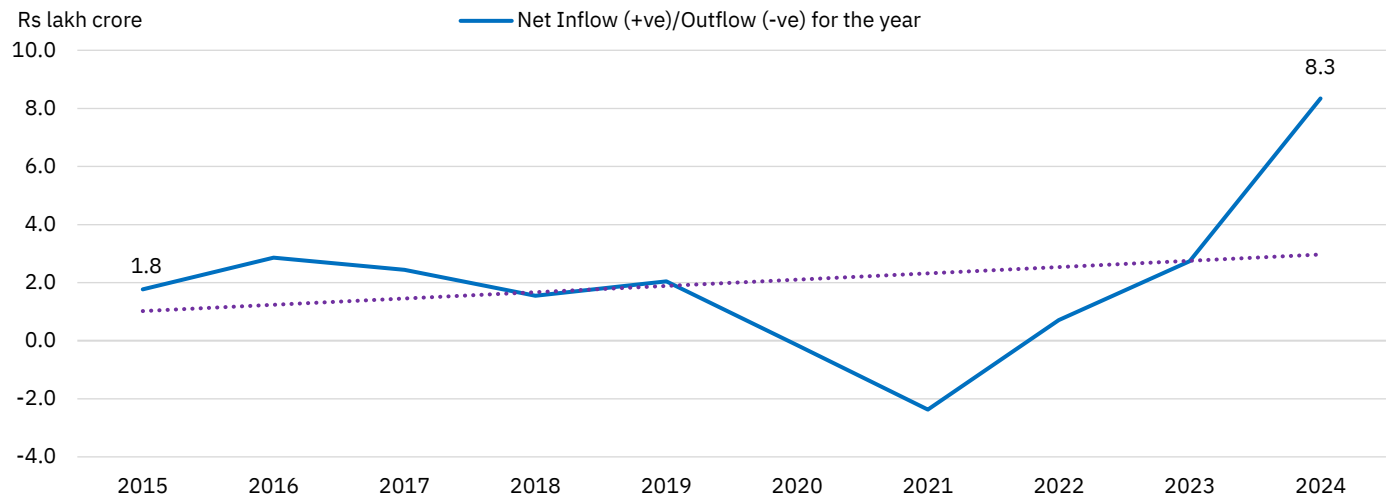


Source: AMFI, NSE EPR.

The mutual fund industry has experienced significant fluctuations in net investments over the years, driven by market dynamics. Starting with Rs 1.8 lakh crore in net investments in 2015, the industry has seen a substantial surge, reaching a record Rs 8.3 lakh crore in 2024. However, this growth has not been without challenges. During the Covid-19 pandemic, the industry faced notable setbacks, with net investments declining by Rs 15,190 crore in 2020 and Rs 2.4 lakh crore in 2021 due to heightened redemptions and subdued fund mobilization.

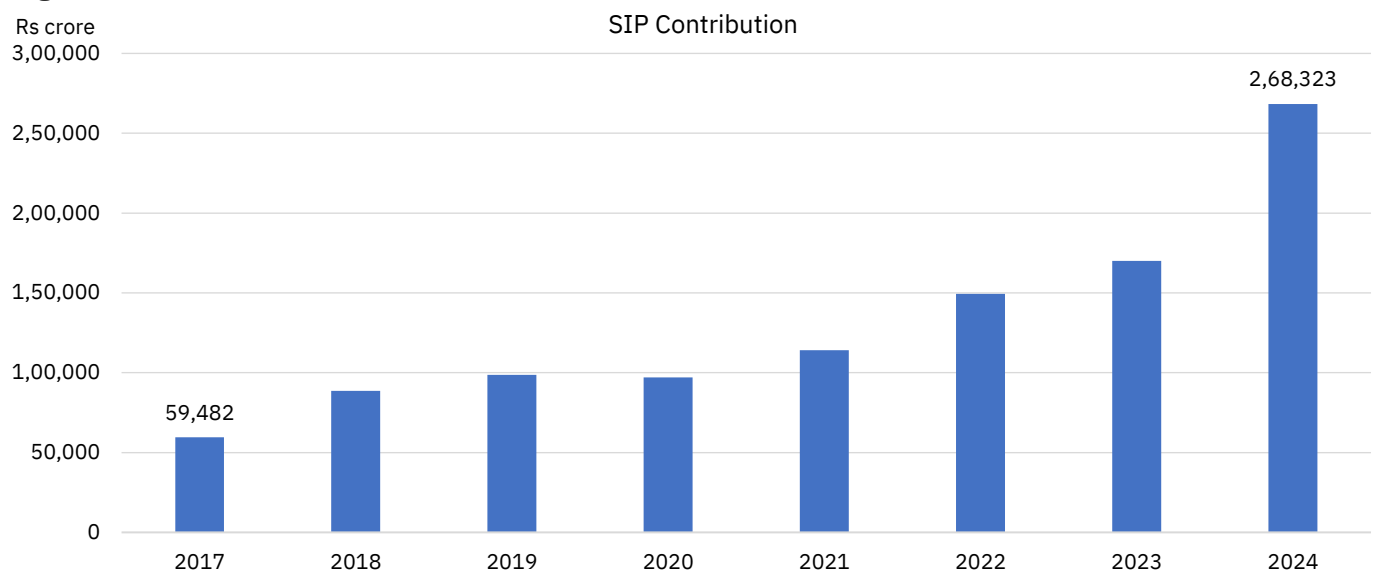
In a remarkable recovery, net investments soared by 204% in 2024, jumping to Rs 8.3 lakh crore from Rs 2.7 lakh crore in 2023. This sharp rebound highlights the industry's resilience and renewed investor confidence as markets stabilized post-pandemic. Over the years, the mutual fund sector has consistently attracted an average of Rs 2 lakh crore in annual net investments, underscoring its growing popularity as a reliable investment avenue, even in the face of periodic market volatility.

Figure 337: Annual trend of net investments in mutual funds



Source: AMFI, NSE EPR.

Figure 338: Annual trend of SIP inflows into mutual funds



Source: AMFI, NSE EPR.

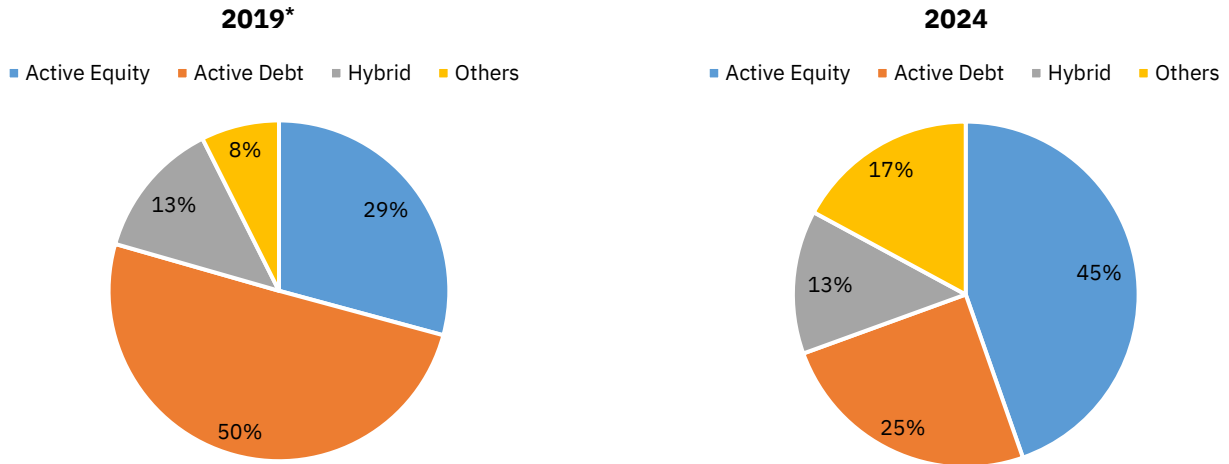
Equity funds' share in MF AUM surged to record high in 2024...: Of the total AUM of Rs 69.3 lakh crore of the mutual fund industry, equity funds comprised 56.8% or Rs 39.4 lakh crore, vs. 53.3% share in the previous year. Higher investments into equity mutual funds, coupled with relatively strong mark-to-mark-gains, has provided further boost to equity AUM, that has risen by a strong 44.4% in 2024. The share of debt funds, on the other hand, has fallen from 31.6% in 2023 to 27.7% in 2024, notwithstanding a 19.1% increase in the AUM to Rs 19.2 lakh crore in December 2024. Hybrid funds have also witnessed strong traction in 2024, with the AUM growing by 39.2% to Rs 9.3 lakh crore, reflecting shift of investors seeking exposure to debt from pure debt funds to hybrid funds after the capital gains tax rejig in 2023. Other mutual funds, primarily including commodity ETFs (gold and silver ETFs) and solution-oriented schemes, have also grown by 42.3% to Rs 1.4 lakh crore and Rs 11.9 lakh crore.

...led by growth in both active and passive funds: Within equity, the growth has been led by both active and passive funds, with the respective AUM growing by 45.6% and 40.3%, to Rs 30.9 lakh crore and Rs 8.4 lakh crore respectively. Within domestic equity passive funds, while the AUM of index funds has more than doubled in 2024 to Rs 1.61 lakh crore, ETFs' AUM has registered a growth of 30.7% to Rs 6.6 lakh crore. Notably, the share of domestic passive AUM in overall domestic equity AUM has been hovering in a tight 21-22% band over the last year or so. Within debt, the share of passive AUM, currently at Rs 2 lakh crore as of December 2024, has been declining, falling from 12.3% in December 2023 to 10.5%.

Table 114: Monthly trend of average AUM of mutual funds across categories

Rs cr	Nov'24	Dec'24	% share	MoM (%)	CY 2023	CY 2023 (% share)	CY 2024	CY 2024 (% share)	CY Change (in %)
Total MF AUM	68,04,913	69,32,959	100.0	1.9	51,09,072	100.0	69,32,959	100.0	35.7
Equity	38,12,040	39,37,140	56.8	3.3	27,25,654	53.3	39,37,140	56.8	44.4
Active	29,83,715	30,94,558	44.6	3.7	21,25,193	41.6	30,94,558	44.6	45.6
Passive	8,28,324	8,42,582	12.2	1.7	6,00,461	11.8	8,42,582	12.2	40.3
Index funds	1,59,080	1,67,007	2.4	5.0	84,527	1.7	1,67,007	2.4	97.6
Domestic	1,53,668	1,61,408	2.3	5.0	80,549	1.6	1,61,408	2.3	100.4
International	5,413	5,599	0.1	3.4	3,978	0.1	5,599	0.1	40.7
ETFs	6,69,244	6,75,575	9.7	0.9	5,15,934	10.1%	6,75,575	9.7	30.9
Domestic	6,56,193	6,61,823	9.5	0.9	5,06,220	9.9%	6,61,823	9.5	30.7
International	13,051	13,751	0.2	5.4	9,714	0.2%	13,751	0.2	41.6
Debt	19,38,510	19,23,318	27.7	-0.8	16,14,928	31.6%	19,23,318	27.7	19.1
Active	17,34,064	17,20,621	24.8	-0.8	14,15,899	27.7%	17,20,621	24.8	21.5
Passive	2,04,446	2,02,697	2.9	-0.9	1,99,029	3.9%	2,02,697	2.9	1.8
Index funds	1,06,449	1,06,564	1.5	0.1	1,09,050	2.1%	1,06,564	1.5	-2.3
ETFs	97,997	96,133	1.4	-1.9	89,979	1.8%	96,133	1.4	6.8
Hybrid	9,16,644	9,31,530	13.4	1.6	6,69,433	13.1	9,31,530	13.4	39.2
Others*	1,37,720	1,40,970	2.0	2.4	99,056	1.9	1,40,970	2.0	42.3

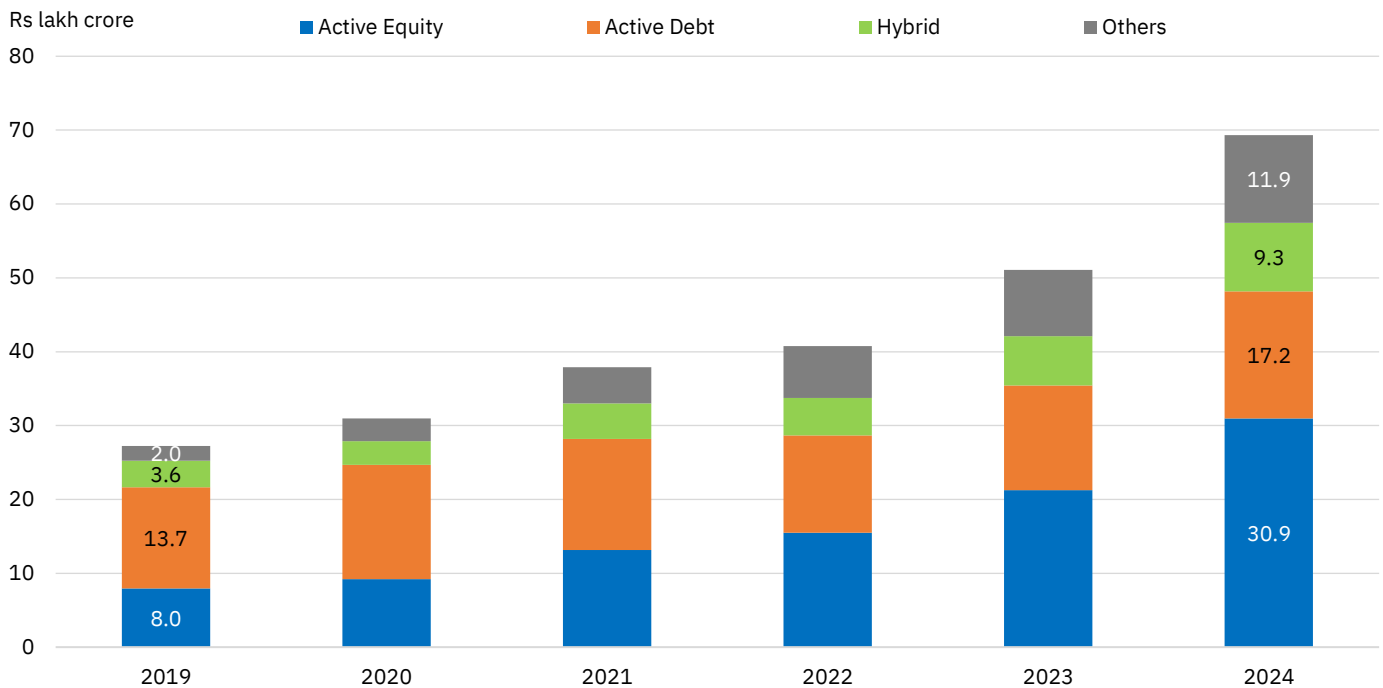
Source: AMIF, NSE EPR. *Others include Gold and silver ETFs, other ETFs and index funds, solution-oriented schemes, interval schemes, FoFs investing overseas in active and passive funds. The AUM of CY 2023 and CY 2024 is average of the last month of the year.

Figure 339: Share of overall mutual fund AUM across asset classes


Source: CMIE Economic Outlook, AMFI, NSE EPR

Note: Others include all passive funds (Index funds and ETFs), solution-oriented schemes, interval schemes, fund of funds investing overseas in active and passive funds.

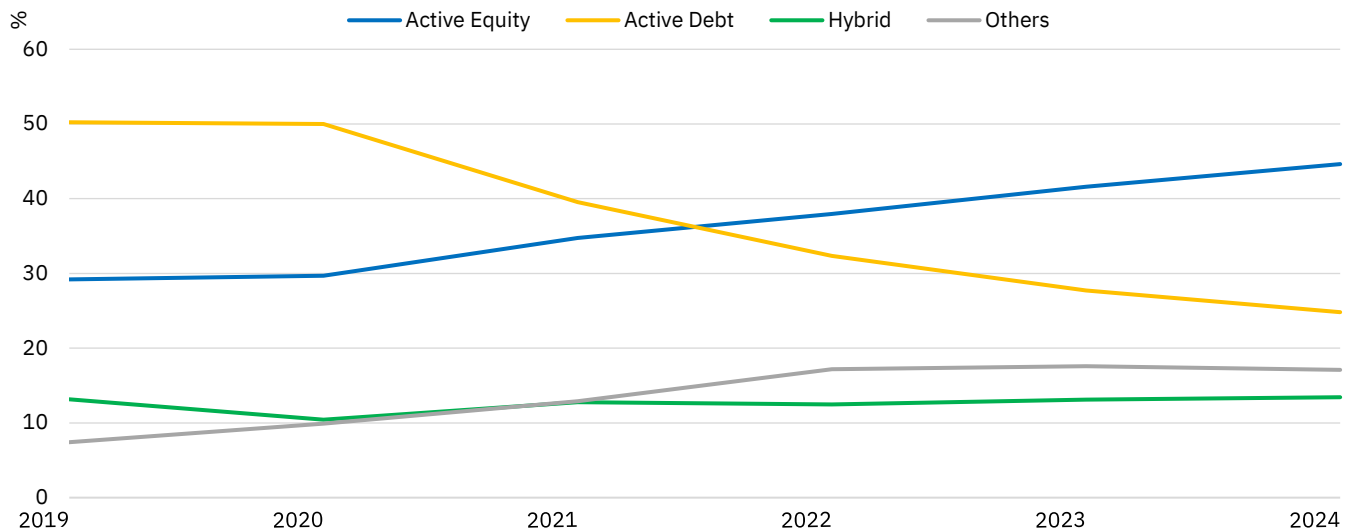
*Only 8 months of data is available for 2019.

Figure 340: Category-wise AUM split*


Source: CMIE Economic Outlook, AMFI, NSE EPR

* Others include all passive funds (Index funds and ETFs), solution-oriented schemes, interval schemes, fund of funds investing overseas in active and passive funds.

*Only eight months of data is available for the 2019.

Figure 341: Category-wise share in MF AUM*


Source: CMIE Economic Outlook, AMFI, NSE EPR

*Others include all passive funds (Index funds and ETFs), solution-oriented schemes, interval schemes, fund of funds investing overseas in active and passive funds.

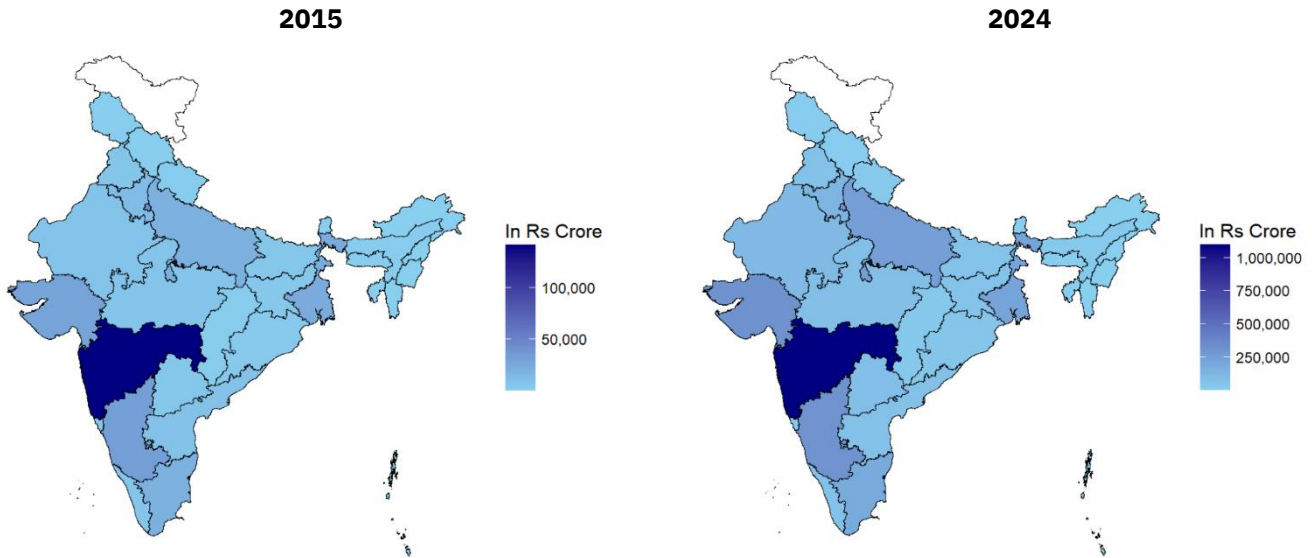
*Only eight months data of is available for the 2019.

Concentration of equity AUM in few states: In 2015, the top 10 states accounted for nearly 85.6% of the total AUM, with the top 5 states contributing around 66.5%. Maharashtra and Gujarat were the dominant players, together accounting for 45.6% of the total AUM—Maharashtra contributing 35.3% and Gujarat 10.3%. Over the years, this concentration has remained relatively stable, with only slight changes in 2024. The top 5 states now contribute 59.4% of the total AUM, a modest decline of nearly 7% from 2015.

Among these top 5 states, Gujarat (+114 bps, 8.3%), Karnataka (+27 bps, 8.1%), and Uttar Pradesh (+157 bps, 6.6%) saw a noticeable increase in their share of the total AUM compared to 2015. On the other hand, Maharashtra saw a sharp decline in its share, falling by 6.7% to 28.7% and Delhi's share fell to 7.7%. Apart from West Bengal, all other states contribute less than 5% to the total AUM.

Interestingly, every state in India has seen an increase in its absolute contribution to AUM over time—some states at a faster pace than others. The Covid-19 pandemic did not have a severe impact on AUM, thanks to timely government interventions in the economy, including economic stimulus measures and public health initiatives like vaccination campaigns, which helped keep the financial system running smoothly.

The top five states' contribution to total AUM stood at 59.4% in 2024, a marginal dip from 59.6% in 2023. Among these five states, only two saw an increase in their contribution, while the remaining states experienced a marginal decline.

Figure 342: State-wise distribution of Equity schemes AUM in 2015 and 2024


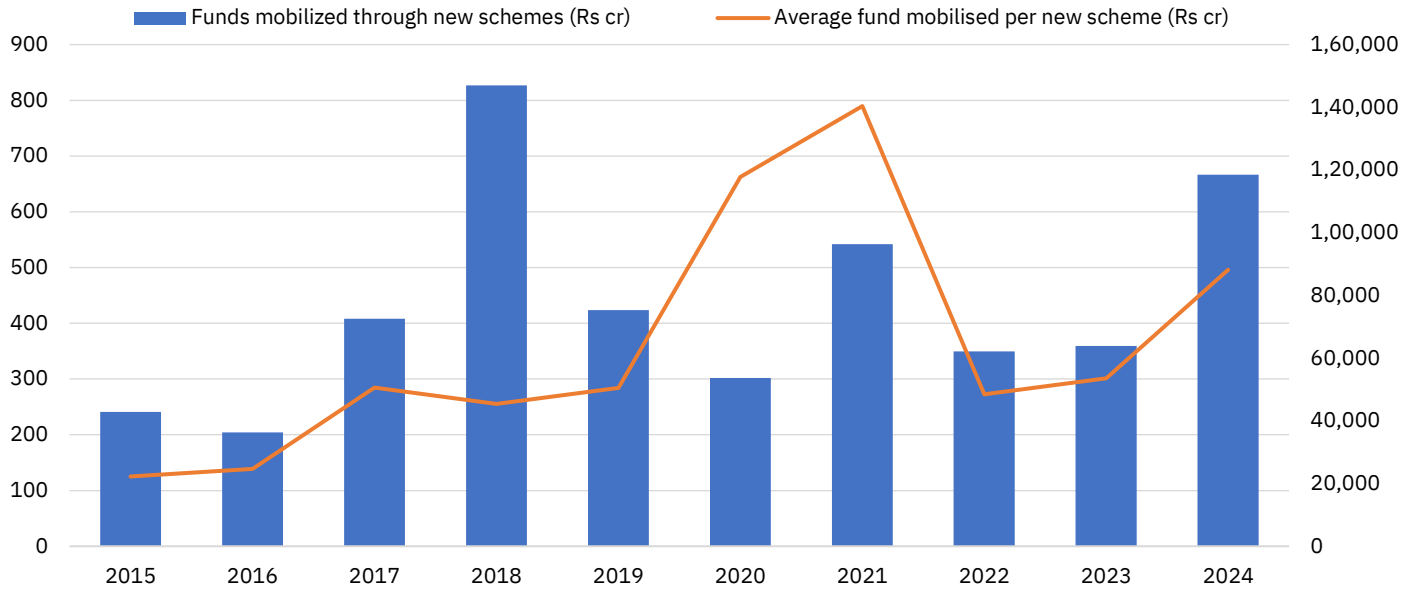
Source: AMFI, NSE EPR.

Note: The maps are created using the state-level shapefile (<https://github.com/AnujTiwari/India-State-and-Country-Shapefile-Updated-Jan-2020>)

Funds mobilised through new schemes; a significant swing over time: Over time, changes in reporting standards and the need for better comparison across mutual fund schemes led SEBI to introduce new regulations. As per these regulations, mutual fund AMCs were required to have only a single scheme per category, which triggered a wave of consolidation. As a result, the number of new schemes launched declined from 342 in 2015 to 239 in 2024.

Despite this decline in the number of new schemes, funds mobilised through them have seen significant growth. In 2015, new schemes raised Rs 42,822 crore, but by 2024, this figure had surged to Rs 1.2 lakh crore. Compared to 2023, the increase is particularly sharp, jumping by over 85% from Rs 63,930 crore to Rs 1.2 lakh crore. This surge can be attributed to multiple factors, including stronger SIP inflows and robust market performance over the past year.

In terms of funds mobilised per scheme, the average amount in 2015 stood at Rs 125 crore. Initially, this figure grew at a slower pace, but following SEBI's regulatory changes, the growth accelerated. In the 2024, the average funds mobilised per new scheme reached Rs 496 crore—the highest in the last three years. This increase is a direct result of higher fund mobilisation through new mutual fund schemes. In comparison to the 2023, the average fund mobilisation per new scheme rose sharply from Rs 302 crore to Rs 496 crore, reflecting the growing investor interest and market performance.

Figure 343: Annual trend of fund mobilization through new schemes*


Source: AMFI, NSE EPR. * Only data for 9 months is available for 2015.

Comparison of trading activities across major exchanges globally

Developed markets outperformed their emerging counterparts, as the MSCI World Index posted a solid gain of 17% YoY, while the MSCI EM Index increased by 5.1%, underscoring a stark divergence in performance across regions. The US markets emerged as a key driver of global equity strength, with the S&P 500 gaining 23.3% YoY in 2024. A pivotal year politically, Donald Trump's presidential victory and the Republican sweep of Congress fuelled investor optimism, driven by expectations of tax cuts, infrastructure spending, and regulatory easing. Despite persistent inflationary pressures and tighter credit conditions towards the end of 2024, the US economy demonstrated remarkable resilience, with strategic investments in artificial intelligence and infrastructure. The US dollar rallied to its highest levels since Jan'23, bolstering investor confidence, while Japanese equities also gained on the back of a weakening yen, which benefitted large-cap exporters.

In contrast, emerging markets faced significant headwinds throughout the year. The MSCI EM Index struggled, weighed down by China's underwhelming recovery. Insufficient government support for its real estate sector and a broader crisis of confidence dampened investor sentiment. Indian equities, though volatile, closed the year with modest gains, supported by strong macroeconomic fundamentals and infrastructure initiatives. Other emerging economies, including Brazil, Korea, and Taiwan, grappled with foreign equity outflows and global trade uncertainties, with Korea implementing a surprise interest rate cut to mitigate slowing growth. European markets posted a modest increase of 8.3% YoY as the region wrestled with sluggish growth and geopolitical instability. However, inflation moderated over the course of 2024, providing a glimmer of optimism for the year ahead. As we close the books on 2024, the year can be characterised as one of divergence and adaptation. Developed markets capitalised on economic resilience and favourable policy shifts, while emerging markets faced growth and confidence challenges.

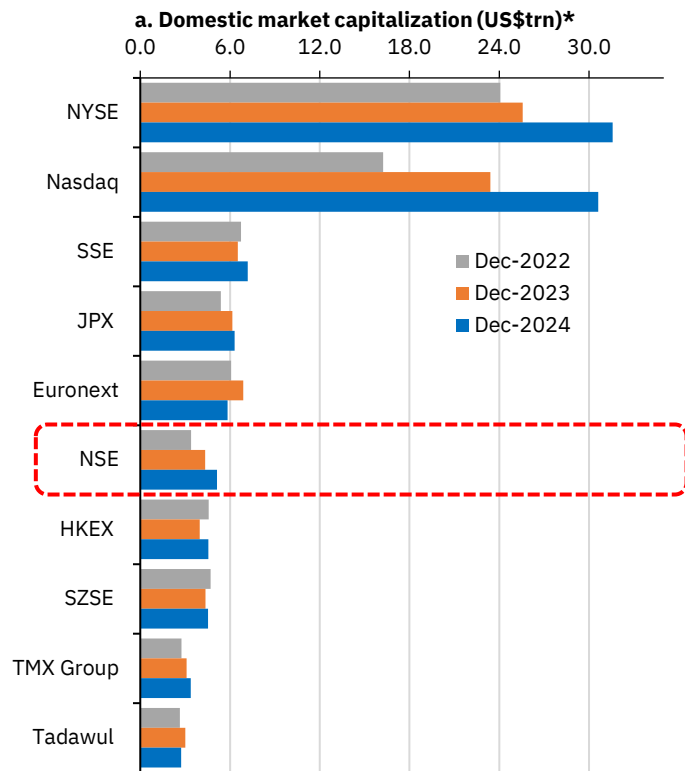
This section explores the overall trend of trading patterns and shifts in the securities market over the past three years in various segments across global stock exchanges. We used data from the World Federation of Exchanges (WFE) over the period Jan'14-Dec'24, covering a total of 149 exchanges, the majority of which are from EMEA region, followed by Asia-Pacific, and the rest from the Americas. We have also highlighted NSE's share across asset classes in cash and spot markets based on market capitalization and trading activity. The key takeaways of the analysis are as follows.

- **Market capitalisation of major exchanges show mixed performance; NSE maintained sixth spot:** Major exchanges, barring Euronext and Tadawul, had a good run in the year gone by. NYSE led with a market capitalisation of US\$31.6 tn (+23.5% YoY), albeit with a minor dip in the closing month of 2024 (-0.2% MoM). Followed by Nasdaq (US\$30.6 tn), which experienced the highest YoY growth of 30.7%. SSE and JPX occupied the third and fourth position with US\$7.2 tn and US\$6.3 tn, as they grew by 10.1% YoY and 2.6% YoY. Euronext stood at the fifth position with a market cap of US\$5.8 tn (-15.3% YoY), while NSE maintained the sixth position with US\$5.1 tn, with an 18.2% YoY growth, despite a decline of 2.2% MoM in Dec'24.
- **NSE jumped to the second position in equity market trades:** SZSE occupied the top spot with a 23.7% share in the number of trades in the equity market, as it ended the year with 1290.9 crore trades. NSE moved to the second spot with 956.9 crore trades, as its share increased from 11.9% in 2023 to 17.6% in 2024. SSE slipped to the third position with a share of 17.1% (931.2 crore trades), while KRX stood its ground at the fourth position with 457 crore trades (8.4% share). Nasdaq maintained its position at the fifth place, with 406.9 crore trades and a share of 7.5%. The top ten exchanges, apart from KRX, CBOE Global and BIST, experienced a growth in the number of trades in 2024.

- **NSE stood at the pinnacle in the equity derivatives segment:** NSE saw a remarkable increase in its global market share of contracts traded, up from 14.1% in 2014 to 81.8% in 2024, with 12,397 crore contracts traded in the entire year. Interestingly, B3 retained its second position with 755 crore contracts traded—less than one-tenth of NSE during the same period, while its global market share dropped from 6.3% in 2023 to 5% in 2024. CBOE Global held firm at the third position with 254 crore contracts traded, though its share declined from 2.2% in 2023 to 1.7% in 2024. In 2024, KRX and TSE secured fourth and fifth positions, trading 240 crore and 237 crore contracts, respectively.
- **NSE climbed to the fourth position in the stock options segment:** NSE ended the year in fourth position in the stock options segment with 159.5 crore contracts traded (+57.2% YoY). TSE experienced a 93.5% YoY growth and jumped to the top spot, with 236.8 crore contracts traded in the year gone by. Nasdaq and B3 occupied the second and third positions with 203 crore (+14.4% YoY) and 173 crore (+13.5% YoY) contracts traded. Notably, KRX, though maintained its tenth position, experienced the growth of 196.5% YoY – highest among the top ten exchanges.
- **NSE held firm at the fourth position in the stock futures segment:** NSE experienced the highest growth of 65.7% YoY – highest among the top ten exchanges, as it traded 48.5 crore contracts in 2024. BIST led the segment with 179 crore contracts traded, despite a 4.7% YoY fall. B3 and KRX occupied the second and third positions with 154.1 crore (+11.2% YoY) and 142.9 crore (+56.4% YoY) contracts traded. Notably, eight out of the top ten exchanges experienced growth in the past year, with TFEX and BIST being the exceptions.
- **NSE continued to lead global markets in the index options segment:** NSE maintained its lead in the index options segment, as it traded 12,175.9 crore contracts in the past year – more than 100x of CBOE Global which occupied the second position with 103.2 crore contracts traded. Nasdaq witnessed an exponential YoY growth in 2024 and jumped to the seventh position. All exchanges, barring KRX, DBAG and B3, witnessed a growth in the number of contracts traded in the year gone by.
- **NSE witnessed substantial growth in the index futures segment:** In 2024, the number contracts traded in NSE grew by 52% YoY – bettered only by CFFEX which had a growth of 72.4 % YoY. B3 led with 426.3 crore contracts traded (+10.2% YoY), followed by the CME Group with 132.5 crore contracts traded, with a slight growth of 0.7% YoY. Barring DBAG and KRX, all the top ten exchanges witnessed a growth in the number of contracts traded in the year gone by.
- **NSE held firm at the top in the currency options segment; major contraction witnessed in 2024:** NSE dominated the currency options section with 83.2 crore contracts traded in 2024: albeit with a decline of 77.1% YoY owing to the RBI directive on trading in currency derivatives. MX and BIST experienced remarkable growths of 626.4% YoY and 245.5% YoY respectively in the year gone by. Notably, only five exchanges in the top ten experienced growth in the number of contracts traded in 2024.

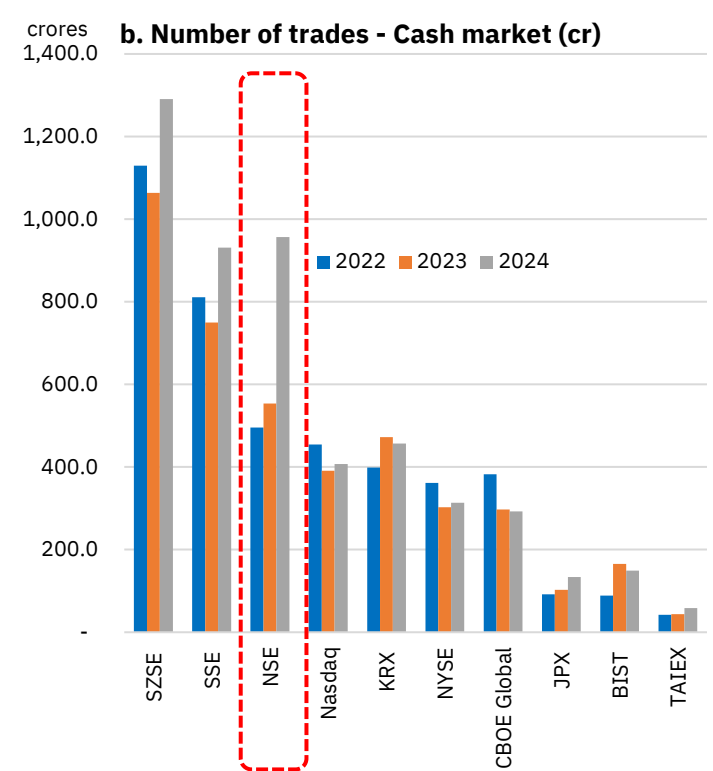
- NSE slipped to the second position in the currency futures segment:** In 2024, NSE fell to the second position with 32.2 crore contracts traded (-66.1% YoY). B3 rose to the top, with 73 crore contracts traded. Meanwhile, although HKEX experienced a growth of 149.5% YoY, it stood at the ninth position. Six out of the top ten exchanges experienced growth in the number of contracts traded in 2024.
- NSE retained the top spot with 268 new listings in 2024:** NSE continued to hold the top spot with 268 new listings through IPOs in 2024, reflecting a strong growth of 52.3% YoY. Nasdaq overtook Tadawul and secured the second position with 126 new listings, followed by JPX with 80 new listings in the same period. NYSE stood at the seventh position with 50 new listings. Notably, except for JPX, SZSE, IDX and Euronext, all the top ten exchanges witnessed a growth in the number of new listings in the year gone by.

Figure 344: Domestic market cap of top ranked exchanges*



Source: WFE monthly statistics, NSE EPR

Figure 345: Number of trades in Cash market of top ten exchanges*



Source: WFE monthly statistics, NSE EPR

Table 115: No. of trades (cr) in the top 10 exchanges in cash market*

Exchange	2022	2023	2024
SZSE	1129.9	1063.6	1290.9
NSE	495.6	553.5	956.9
SSE	810.9	749.9	931.2
KRX	398.6	472.6	457.0
Nasdaq	454.2	391.2	406.9
NYSE	361.7	302.9	313.8
CBOE Global	382.6	297.6	292.7
BIST	88.4	165.8	149.1
JPX	91.9	102.8	133.5
TAIEX	42.0	43.8	58.5

Source: WFE monthly statistics, NSE EPR

Table 116: Global market share of trades in the top 10 exchanges in cash market*

Exchange	2022	2023	2024
SZSE	23.3%	22.8%	23.7%
NSE	10.2%	11.9%	17.6%
SSE	16.7%	16.1%	17.1%
KRX	8.2%	10.1%	8.4%
Nasdaq	9.4%	8.4%	7.5%
NYSE	7.5%	6.5%	5.8%
CBOE Global	7.9%	6.4%	5.4%
BIST	1.8%	3.6%	2.7%
JPX	1.9%	2.2%	2.5%
TAIEX	0.9%	0.9%	1.1%

Source: WFE monthly statistics, NSE EPR

Table 117: No. of contracts traded (cr) in the top 10 exchanges in equity derivatives segment*

Exchange	2022	2023	2024
NSE	3,378	8,021	12,397
B3 #	729	680	755
CBOE Global	226	239	254
KRX	187	185	240
TSE	21	122	237
Nasdaq	179	178	215
BIST	259	195	186
CME Group	192	167	173
NYSE	109	106	135
DBAG	123	114	110

Source: WFE monthly statistics, NSE EPR

Nov'24 data has been used B3 for Dec'24 due to its unavailability on the WFE portal.

Table 118: Global market share of contracts traded in the top 10 exchanges in equity derivatives segment*

Exchange	2022	2023	2024
NSE	56.1%	74.1%	81.8%
B3 #	12.1%	6.3%	5.0%
CBOE Global	3.8%	2.2%	1.7%
KRX	3.1%	1.7%	1.6%
TSE	0.4%	1.1%	1.6%
Nasdaq	3.0%	1.6%	1.4%
BIST	4.3%	1.8%	1.2%
CME Group	3.2%	1.5%	1.1%
NYSE	1.8%	1.0%	0.9%
DBAG	2.0%	1.1%	0.7%

Source: WFE monthly statistics, NSE EPR

Nov'24 data has been used B3 for Dec'24 due to its unavailability on the WFE portal.

Table 119 120121: Number of contracts traded (cr) traded in Stock futures of top-ranked exchanges*

Exchange	2022	2023	2024	% YoY
BIST	249.3	187.8	179.0	-4.7
B3 #	135.3	138.6	154.1	11.2
KRX	90.1	91.3	142.9	56.4
NSE	28.9	29.3	48.5	65.7
DBAG	9.9	9.5	13.8	45.4
PSE	4.6	5.2	8.7	65.4
TAIFEX	5.4	5.2	6.6	27.9
TFEX	5.7	4.2	3.7	-12.0
ICE Futures Europe	2.2	1.6	1.7	9.4
BME Spanish Exchanges #	1.0	1.1	1.3	14.1

Source: WFE monthly statistics, NSE EPR

Nov'24 data has been used B3 and BME Spanish Exchange for Dec'24 due to its unavailability on the WFE portal.

Table 121 122: Number of contracts traded (cr) traded in Stock options of top-ranked exchanges*

Exchange	2022	2023	2024	% YoY
TSE	21.2	122.4	236.8	93.5
Nasdaq	178.6	177.4	203.0	14.4
B3 #	167.9	152.4	173.0	13.5
NSE	81.0	101.4	159.5	57.2
CBOE Global	154.7	144.1	150.4	4.4
NYSE	109.1	105.6	135.0	27.9
MIAX	77.2	93.9	101.6	8.1
ISE	51.6	59.7	82.6	38.2
DBAG	17.2	17.3	17.4	0.3
KRX	3.6	5.4	16.0	196.5

Source: WFE monthly statistics, NSE EPR

Nov'24 data has been used B3 for Dec'24 due to its unavailability on the WFE portal.

Table 123: Number of contracts traded (cr) in Index futures of top ranked exchanges*

Exchange	2022	2023	2024	% YoY
B3 #	420.3	386.8	426.3	10.2
CME Group	161.6	131.7	132.5	0.7
DBAG	53.6	46.8	40.3	-13.9
JPX	33.8	33.2	39.9	20.0
SGX	18.2	15.5	16.8	8.5
HKEX	13.8	13.7	14.4	4.9
TAIFEX	12.8	9.6	13.3	39.3
NSE	11.0	8.4	12.8	52.4
CFFEX	7.5	6.9	11.9	72.4
KRX	12.3	11.6	11.1	-4.4

Source: WFE monthly statistics, NSE EPR

Nov'24 data has been used B3 for Dec'24 due to its unavailability on the WFE portal.

Table 124: Number of contracts traded (cr) in Index options of top ranked exchanges*

Exchange	2022	2023	2024	% YoY
NSE	3,257.1	7,881.6	12,175.9	54.5
CBOE Global	71.5	95.0	103.2	8.6
KRX	81.0	77.0	70.4	-8.6
CME Group	30.5	35.8	40.0	11.6
DBAG	42.1	40.4	38.1	-5.5
TAIFEX	20.1	17.6	19.4	9.7
Nasdaq	0.6	1.0	11.9	1,110.8
CFFEX	3.9	5.3	7.9	49.4
TASE	2.8	2.7	3.0	11.6
B3 #	5.2	2.0	2.0	-1.1

Source: WFE monthly statistics, NSE EPR

Nov'24 data has been used B3 for Dec'24 due to its unavailability on the WFE portal.

Table 125: Number of contracts traded (cr) in Currency futures of top ranked exchanges*

Exchange	2022	2023	2024	% YoY
B3 #	90.4	72.5	73.0	0.7
NSE	125.0	94.9	32.2	-66.1
CME Group	23.7	22.9	24.8	8.4
KRX	12.7	11.0	13.3	21.7
MTR.BA	17.4	18.2	13.0	-28.6
SGX	3.4	4.1	5.9	44.1
BIST	7.0	6.1	5.3	-12.9
JSE	3.3	3.7	4.1	12.6
HKEX	0.5	1.0	2.5	149.5
TFEX	1.0	1.1	1.1	-1.5

Source: WFE monthly statistics, NSE EPR

Nov'24 data has been used B3 for Dec'24 due to its unavailability on the WFE portal.

Table 126: Number of contracts traded (cr) in Currency options of top ranked exchanges*

Exchange	2022	2023	2024	% YoY
NSE	308.2	362.6	83.2	-77.1
JSE	2.0	3.5	2.1	-38.6
CME Group	1.1	1.0	1.1	15.9
TASE	1.0	0.9	0.9	2.7
B3 #	0.5	0.5	0.4	-14.8
BIST	0.0	0.1	0.2	245.5
MX	0.0	0.0	0.0	626.4
SGX	0.0	0.0	0.0	-61.7
BMV	0.0	0.0	0.0	39.4
MTR.BA	0.0	0.0	0.0	-38.4

Source: WFE monthly statistics, NSE EPR

Nov'24 data has been used B3 for Dec'24 due to its unavailability on the WFE portal.

Table 127: Number of Total New Listings in IPO of top ranked exchanges*

Exchange	2022	2023	2024	% YoY
NSE	93	176	268	52.3
Nasdaq	86	98	126	28.6
JPX	87	88	80	-9.1
KRX	65	75	71	-5.3
HKEX	80	68	70	2.9
Bursa Malaysia #	34	32	53	65.6
NYSE	23	21	50	138.1
SZSE	187	133	45	-66.2
Saudi Exchange (Tadawul)	36	37	41	10.8
IDX #	58	79	40	-49.4
Euronext	61	40	37	-7.5

Source: WFE monthly statistics, NSE EPR

Note: The new listings data for NSE excludes REITs.

Oct'24 data has been used Bursa Malaysia and IDX for Nov'24 and Dec'24 due to its unavailability on the WFE portal.

Table 128: Global share of Total New Listing in IPO of top ranked exchanges*

Exchange	2022	2023	2024
NSE	6.3	14.0	22.8
Nasdaq	5.8	7.8	10.7
JPX	5.9	7.0	6.8
KRX	4.4	6.0	6.0
HKEX	5.4	5.4	6.0
Bursa Malaysia #	2.3	2.5	4.5
NYSE	1.6	1.7	4.3
SZSE	12.7	10.6	3.8
Saudi Exchange (Tadawul)	2.4	2.9	3.5
IDX #	3.9	6.3	3.4
Euronext	4.1	3.2	3.1

Source: WFE monthly statistics, NSE EPR

Note: The new listings data for NSE excludes REITs.

Oct'24 data has been used Bursa Malaysia and IDX for Nov'24 and Dec'24 due to its unavailability on the WFE portal.

* ASX -Australian Securities Exchange, BIST -Borsa Istanbul, BME -Spanish Exchanges, BMV-Bolsa Mexicana de Valores, BET-Budapest Stock Exchange, BYMA -Bolsa y Mercados Argentinos, CBOE -Chicago Board Options Exchange, CFFEX-China Financial Futures Exchange, DBAG -Deutsche Boerse AG, Euronext-Euronext, HKEX -Hong Kong Exchanges and Clearing, IDX-Indonesia Stock Exchange, IFB-Iran Fara Bourse Securities Exchange, India INX -India International Exchange, ISE -International Securities Exchange, JPX -Japan Exchange Group, JSE -Johannesburg Stock Exchange, KRX -Korea Exchange, MIAX -MIAX Exchange Group, MOEX -Moscow Exchange, MTR.BA-Matba Rofex, MX -Bourse de Montreal, Nasdaq- US - Nasdaq, NSE-National Stock Exchange of India, NYSE-NYSE, SET-The Stock Exchange of Thailand, SGX -Singapore Exchange, SIX-SIX Swiss Exchange, SSE -Shanghai Stock Exchange, SZSE -Shenzhen Stock Exchange, Tadawul -Saudi Exchange (Tadawul), TAIEX-Taiwan Stock Exchange, TAIFEX -Taiwan Futures Exchange, TASE -Tel-Aviv Stock Exchange, TFEF -Thailand Futures Exchange, TMX Group-TMX Group, TSE -Tehran Stock Exchange, LSE Group-LSE Group London Stock Exchange, PSE-Pakistan Stock Exchange, CME Group-CME Group, CBOE Europe-CBOE Europe, B3-B3 - Brasil Bolsa Balcão, DGCX-Dubai Gold and Commodities Exchange, CBOE Global-CBOE Global Markets, ICE Futures US-ICE Futures US, MSE-Metropolitan Stock Exchange of India, CBOE Futures-CBOE Futures Exchange, ICE Futures Europe-ICE Futures Europe, Athens-Athens Stock Exchange, GPW-Warsaw Stock Exchange, IFEU-ICE Futures Europe, BME -BME Spanish, IFUS-ICE Futures US, NSX-National Stock Exchange of Australia, BSE-BSE India Limited, BVC-Bolsa de Valores de Colombia, NSEIX-NSE IX India. Only WFE member exchanges are included in the analysis.

Policy developments

India

Key policy measures by the SEBI in 2024

January 12, 2024	<p>Ease of Doing investments by investors- facility of voluntary freezing/ block trading of Trading accounts by clients</p> <p>The stock broking industry in India has transitioned from call and trade to online mode. However, investors often encounter suspicious activities but the facility to freeze or block their accounts is not available with the majority of Trading members. To address this, a framework for Trading Members to provide voluntary freezing/blocking of online access to trading accounts was set to be established by April 01, 2024. This initiative, developed in consultation with the Brokers' Industry Standards Forum (ISF), aims to enhance ease of business and investment. The framework includes guidelines on client communication, processing time for requests, actions taken by Trading Members, re-enabling procedures, and client intimation.</p>
May 24, 2024	<p>Enhancing Dynamic Price Bands for scrips in the Derivatives segment</p> <p>SEBI introduced enhancements to the dynamic price bands for scrips in the derivatives segment, addressing sudden price movements and improving volatility management. Key modifications include increasing the conditions for flexing price bands to 50 trades, 10 unique UCCs, and three trading members on each side. The cooling-off period is extended, and the flexing percentage is reduced, providing adequate time for market participants to assimilate information and ensure orderly price movements. Additionally, when price bands for underlying scrips are flexed, the bands for futures contracts will be flexed across all exchanges. Changes also include sliding the price band in both directions and setting temporary price floors or ceilings for options during cooling-off periods.</p>
June 28, 2024	<p>Facility for Basic Services Demat Account (BSDA) for Financial Inclusion and Ease of Investing</p> <p>SEBI introduced the Basic Services Demat Account (BSDA) to enhance financial inclusion and ease of investing. Eligibility requires individuals to hold only one demat account as sole or first holder, with securities valued below ₹10 Lakhs. Existing eligible demat accounts will automatically convert to BSDA unless owners opt for a regular account. BSDA holders enjoy waived annual maintenance charges (AMC) for holdings up to ₹4 Lakhs, with a nominal ₹100 AMC for holdings between ₹4 Lakhs and ₹10 Lakhs. Charges for other services are aligned with regular accounts. This initiative aims to simplify investing, encourage wider demat account adoption, and ensure compliance through revised rules and regulatory oversight.</p>
July 1, 2024	<p>Charges levied by Market Infrastructure Institutions- true to label</p> <p>This circular addresses concerns about the transparency and fairness of charge structures implemented by Market Infrastructure Institutions (MIIs) such as stock exchanges, clearing corporations, and depositories. The circular highlights that volume-based slab-wise charge structures can lead to discrepancies between the charges collected from clients by members and the charges paid by members to MIIs.</p> <p>SEBI has mandated that MIIs redesign their charge structures to ensure they are uniform, transparent, and "true to label." This means the charges imposed on clients must match what is</p>

	received by the MIIs, and the charge structures must be consistent across all members rather than based on transaction volume.
August 30, 2024	<p>Review of eligibility criteria for entry/exit of stocks in derivatives segment</p> <p>To ensure that only high-quality stocks with sufficient market depth are allowed to trade in derivatives market, SEBI revised its previous circular and changed the eligibility criteria. The revised criteria include increased order size, position limit, and average daily delivery value. If a stock fails to meet these criteria for a certain period, it will be excluded from the derivatives segment. Additionally, SEBI introduced Product Success Framework (PSF) for single stock derivatives.</p>
September 24, 2024	<p>Usage of UPI by individual investors for making an application in public issue</p> <p>To simplify and streamline the application process for public issues of debt securities, preference shares, municipal debt, and securitized instruments, SEBI has mandated the use of UPI for individual investors with application amounts up to ₹5 lakh to block the fund.</p>
Oct 01, 2024	<p>Measures to strengthen equity index derivatives framework</p> <p>The SEBI circular outlines several measures to strengthen the equity index derivatives framework for better investor protection and market stability. Key measures include the upfront collection of option premiums from buyers to manage intraday leverage. The calendar spread benefit on expiry day is removed to mitigate the increased risk on such days, with new margin requirements for contracts expiring on that day. SEBI also mandates intraday monitoring of position limits for index derivatives, ensuring compliance throughout the trading day. The minimum contract size for new index derivatives is recalibrated to Rs. 15 lakh, aligning with market growth. To curb speculative trading, weekly expiry index derivatives will be rationalized, with only one benchmark index per exchange allowed for weekly expiry. Additionally, to address heightened risks on expiry days, an extra Extreme Loss Margin (ELM) of 2% will be levied on short options contracts.</p>
November 11, 2024	<p>Trading supported by Blocked Amount in Secondary Market</p> <p>Earlier trading took place through transfer of fund to the trading member by the clients. SEBI introduced a supplementary process for trading in secondary market based on blocked funds in investors bank account, instead of transferring them upfront to the trading members. This was a non-mandatory circular. After seeing the benefit, SEBI decided that qualified stockbrokers must provide either the facility of trading supported by blocked amount in the secondary market (cash segment) using UPI block mechanism or the 3-in-1 Trading Account facility, to their clients. Clients will have option to choose among these facilities or can continue with the existing facilities.</p>
Dec 10, 2024	<p>Guidelines for capacity planning and real time performance monitoring framework of Market Infrastructure Institutions (MIIs)</p> <p>MIIs provide essential infrastructure for the smooth operation of the securities market. Given the market's growth and increased volumes, it is crucial for MIIs to regularly assess and enhance their infrastructure for trading, clearing, and settlement to ensure uninterrupted functioning. TAC committee of SEBI advised following requirement:</p> <ul style="list-style-type: none"> • MIIs must develop a forward-looking methodology to estimate future capacity needs, based on factors like transaction volume trends, customer growth, and new business initiatives.

	<ul style="list-style-type: none"> • MIIs should ensure sufficient system capacity to handle high volumes. Installed capacity should be at least 1.5 times the projected peak load. • The projected peak load shall be calculated for the next 60 days based on the sustained peak load trend of the past 180 days and other relevant factors. • MIIs must conduct quarterly stress tests to evaluate system performance under varying loads. Applications should be scalable, with regular testing to ensure they meet demand. Comprehensive guidelines and SOPs are required to monitor the performance and capacity of all IT components. Capacity planning must consider the interdependence of IT systems, including networks, hardware, and third-party services, ensuring they are appropriately sized for MII operations.
Dec 10, 2024	<p>Enhancement in the scope of optional T+0 rolling settlement cycle</p> <p>SEBI has expanded the optional T+0 settlement cycle in equity cash markets to include the top 500 scrips, up from the original 25. All stock-brokers can now participate and charge differential brokerage for T+0 and T+1 cycles within regulatory limits. MIIs and custodians are required to implement systems for institutional investor participation. A block deal window will be introduced under the optional T+0 settlement cycle, available only during the morning session from 8:45 am to 9:00 am, in addition to the existing block deal windows for T+1 settlement (8:45 am to 9:00 am and 2:05 pm to 2:20 pm).</p>

Annual macro snapshot

	FY18	FY19	FY20	FY21	FY22	FY23	FY24*	FY25#
National income								
GDP (Current) (Rs lakh crore)	170.9	189.0	201.0	198.5	236.0	269.5	295.36	324.1
GDP (Current) Growth (%)	11.0	10.6	6.4	-1.2	18.9	14.2	9.6	9.4
GDP (Constant) Growth (%)	6.8	6.5	3.9	-5.8	9.7	7.0	8.2	6.4
IIP (Constant) Growth (%)	6.2	5.8	3.9	-4.2	8.8	7.0	7.6	6.4
Agriculture growth (%)	6.6	2.1	6.2	4.0	4.6	4.7	1.4	3.8
Industry growth (%)	5.9	5.3	-1.4	-0.4	12.2	2.1	9.5	6.2
Services growth (%)	6.3	7.2	6.4	-8.4	9.2	10.0	7.6	7.2
Per Capita GDP (Curr) (Rs)	1,31,743	1,44,620	1,52,504	1,48,586	1,72,422	1,94,879	2,11,725	2,30,195
Prices								
CPI Inflation (%)	3.6	3.4	4.8	6.2	5.5	6.7	5.4	
Food & beverages (%)	2.2	0.7	6.0	7.3	4.2	6.7	7.0	
Core inflation (%)	4.5	5.8	4.0	5.3	6.1	6.3	4.4	
WPI Inflation (%)	2.9	4.3	1.7	1.3	13.0	9.4	(0.7)	
Primary articles (%)	1.4	2.7	6.8	1.7	10.3	10.0	3.5	
Fuel & power (%)	8.2	11.5	-1.8	-8.0	32.5	28.1	(4.6)	
Manuf. prods (%)	2.8	3.7	0.3	2.8	11.1	5.6	(1.7)	
Money, banking & interest rates								
Money supply (M3) growth (%)	9.2	10.5	8.9	12.2	8.8	9.0	11.2	
Aggregate deposit growth (%)	6.2	10.0	7.9	11.4	8.9	9.6	13.5	
Bank credit growth (%)	10.0	13.3	6.1	5.6	8.6	15.0	20.2	
Non-food credit growth (%)	10.2	13.4	6.1	5.5	8.7	15.4	20.2	
Cash Reserve Ratio (% eop)	4.0	4.0	4.0	3.0	4.0	4.5	4.5	
Bank Rate (% eop)	6.25	6.50	4.65	4.25	4.25	6.75	6.75	
Public Finance								
GOI rev. receipts growth (%)	4.4	8.2	8.5	-3.0	32.8	9.8	13.6	14.7
Gross tax receipts growth (%)	11.8	8.4	-3.4	0.9	33.7	12.7	13.5	10.8
GOI Expenditure growth (%)	8.4	8.1	16.0	30.7	8.1	10.5	6.1	8.5
Subsidies growth (%)	-4.4	-0.7	17.7	189.0	-33.5	14.7	-22.1	-2.8
Interest expense growth (%)	10.0	10.2	5.1	11.1	18.5	15.3	14.6	9.3
External transactions								
Exports growth (%)	10.1	8.8	-5.2	-7.1	45.1	6.7	-3.0	
POL exports growth (%)	18.8	24.5	-11.6	-37.6	162.8	43.9	-13.5	
Non-POL exports (%)	9.0	6.6	-4.1	-2.5	33.7	-0.4	-0.1	
Imports growth (%)	21.2	10.5	-7.8	-17.1	56.2	16.3	-5.7	
Non-POL imports growth (%)	20.1	4.6	-7.9	-9.6	45.4	12.1	-2.0	
POL imports growth (%)	25.0	29.9	-7.5	-36.9	96.7	29.1	-14.2	
Net FDI (US\$bn)	30.3	30.7	43.0	44.0	38.6	28.0	9.8	
Net FII (US\$bn)	22.1	-2.4	1.4	36.1	-16.8	-5.2	44.1	
Trade Balance: RBI – (US\$bn)	-160.0	-180.3	-157.5	-102.2	-189.5	-265.3	-242.1	
Current Acc. Balance (US\$bn)	-48.7	-57.2	-24.6	24.0	-38.8	-67.1	-23.3	
Forex Reserves (US\$bn)	424.4	411.9	475.6	579.3	617.6	578.4	645.6	
Exchange rate (USDINR)	64.5	69.9	70.9	74.2	74.5	80.4	83.4	

Source: CMIE Economic Outlook, NSE; *FY24 public finance data and national income data is as per PE; #FY25 public finance data and national income data are budget estimates.

Glossary

Indicators	Definition
General	
Compounded Annual Growth Rate (CAGR)	Average annual rate of return on an investment over a specified time period, assuming the profits are reinvested each year.
Fiscal Year (FY)	The 12-month period from April 1 to March 31 of the following year, used by Indian government and businesses for financial reporting and budgeting.
Month to Date (MTD)	The period from the beginning of the current month up to the current date, used to measure performance or track data over the partial month so far.
Month-over-Month (MoM)	A comparison of data from one month to the previous month.
Year to Date (YTD)	The period from the beginning of the current calendar or fiscal year up to the present date, used to assess performance or analyse data for the year in progress.
Year-over-Year (YoY)	A comparison of data from one year to the previous year.
Macro	
Balance of Payments (BOP)	A comprehensive record of a country's economic transactions with the rest of the world, including trade, investment, and financial transfers.
Capital Expenditure (Capex)	The amount of money used by a company to acquire, upgrade, and maintain physical assets such as property, buildings, or equipment over a specific period. It is essential for business operations and growth.
Capital Account	A component of the balance of payments that records all transactions involving the purchase and sale of assets, including foreign investments and loans.
Consumer Price Index (CPI)	A measure of average change in prices paid by consumers for a basket of goods and services over time.
Crowding Out	A situation where increased government spending leads to a reduction in private sector investment, often due to higher interest rates resulting from increased borrowing.
Current Account Deficit	A situation where a country's total imports of goods, services, and transfers exceed its total exports, indicating a net outflow of domestic currency to foreign markets.
Deflation	A decrease in the general price level of goods and services, often associated with a reduction in the supply of money or credit.
Economic Cycle	Natural fluctuation of the economy between periods of expansion (growth) and contraction (recession), typically measured by changes in GDP growth.
Exchange Rate	The value of one currency for the purpose of conversion to another, which affects international trade and investment flows.
Fiscal Deficit	The financial situation when a government's total expenditure exceeds its total revenues, excluding money from borrowings.
Fiscal Policy	The use of government spending and taxation to influence the economy with an aim to manage economic fluctuations and promote economic growth.
Foreign Direct Investment (FDI)	Investment made by a company or individual in business interests in another country, typically through establishing business operations or acquiring assets. It indicates a long-term interest in the foreign economy.
Gross Domestic Product (GDP)	The total monetary value of all finished goods and services produced within a country's borders in a specific time-period. It is a comprehensive measure of a nation's overall economic activity and health.
Gross Value Added (GVA)	The monetary value of goods and services produced by an economy after subtracting the cost of intermediate goods and services used.
Index of Industrial Production (IIP)	A measure of change in the production of a basket of industrial products during a given period with respect to that in a chosen base period.
Monetary Policy	The process by which a central bank manages the money supply and interest rates to achieve macroeconomic objectives such as controlling inflation, consumption, growth, and liquidity.
Monetary Stance	The central bank's position on monetary policy, typically classified as hawkish (favouring higher rates to control inflation), dovish (preferring lower rates), neutral (balanced approach), or accommodative (expanding money supply to boost growth).
Nominal Effective Exchange Rate (NEER)	An unadjusted weighted average rate at which a country's currency is exchanged for a basket of multiple foreign currencies.
Policy Rates	Interest rates set by central banks to influence monetary policy, affecting costs, inflation, and overall economic activity.
Public Debt	The total amount of money that a government owes to creditors, resulting from borrowing to finance budget deficits and other expenditure.

Real Effective Exchange Rate (REER)	A measure of the value of a country's currency against a basket of other currencies, adjusted for inflation, reflecting its competitiveness in international trade.
Trade Balance	Difference between a country's total value of exports and total value of imports over a specific period.
Wholesale Price Index (WPI)	A measure of average change in prices of goods at the wholesale level before retail sale over time.
Markets	
Algorithmic (Algo) Trading	A trading strategy based on computer programming, where orders are placed automatically based on pre-defined sets of conditions and algorithms, often used for high-frequency trading.
Average Daily Turnover (ADT)	Average value of securities traded on the exchange each day, indicating the liquidity and activity level of the market over a specific period.
Average Trade Size	Average monetary value of individual trades executed on an exchange, calculated by dividing the total traded value by the number of trades over a specific period.
Bonds	Debt securities where investors lend money to an entity (typically a corporation or government) for a defined period at a variable or fixed interest rate.
Cash Market (CM)	A marketplace where financial instruments, such as stocks and bonds, are bought and sold for immediate delivery and payment.
Colocation (Colo) Trading	The practice of positioning trading servers near exchange servers to minimize data transmission delays and optimize trade execution speed.
Credit Rating	An assessment of the creditworthiness of an individual, corporation, or government, evaluating their ability to repay borrowed funds.
Derivatives	Financial instruments whose value is derived from an underlying asset, such as stocks, bonds, and commodities, among others.
Direct Market Access (DMA)	A facility allowing investors to directly access exchange trading systems through their broker's infrastructure without manual intervention.
Domestic Institutional Investors (DII)	Financial institutions based within a country that invest in that country's financial markets, including mutual funds, insurance companies, and pension funds.
Equity Derivatives	Financial instruments whose value is derived from the value of an underlying equity securities, such as stock.
Equity Futures	Financial contracts obligating parties to buy or sell the underlying asset at a predetermined price on a specified future date.
Equity Options	Financial contracts giving the holder the right, but not obligation, to buy (call) or sell (put) a specific quantity of stocks at a predetermined price within a set timeframe.
Follow-on Public Offering (FPO)	A process through which a company that is already publicly traded issues additional shares to raise more capital, allowing existing shareholders to sell their shares as well.
Foreign Portfolio Investment (FPI)	Investments made by foreign investors in financial assets in another country, primarily in stocks and bonds, without acquiring significant control or influence over the companies.
Index Options	Contracts that give the buyer the right but not the obligation to buy or sell a specified quantity of a stock market index at a predetermined price on a specified expiration date.
Initial Public Offering (IPO)	Process through which a private company offers its shares to the public for the first time, allowing it to raise capital, and/or provide an exit opportunity for existing investors.
Institutional Investors	Organizations that pool and invest large sums of money on behalf of others, such as pension funds, mutual funds, and insurance companies.
Internet Based Trading (IBT)	A process of buying and selling financial securities through online platforms, enabling direct trading of various financial instruments via the internet without traditional brokers.
Liquidity	The ease with which an asset can be quickly bought or sold in the market without affecting its price, indicating how quickly an asset can be converted into cash.
Market Capitalization	Total market value of a company's outstanding shares, calculated by multiplying the current share price by the total number of outstanding shares.
Market Maker	A financial intermediary that provides liquidity by continuously quoting buy and sell prices for specific securities, facilitating smooth trading in financial markets.
Market Volatility	The degree of variation in the price of a financial asset or market over time.
Mutual Funds	An investment vehicle that pools money from multiple investors to buy a diversified portfolio of stocks, bonds, or other securities.
Nifty50 Index	A benchmark Indian stock market index representing the weighted average of 50 of the largest Indian companies listed on the National Stock Exchange.
Offer for Sale (OFS)	A method through which existing shareholders, typically promoters or large stakeholders, sell their shares to the public or institutional investors.
Option Premium	Price paid by an investor to purchase an option contract, comprising both its intrinsic value and time value.

Preferential Allotments	The issuance of shares or securities to specific investors, usually at a predetermined price, to raise funds for a company while bypassing public offerings.
Price-to-Book Value (P/B)	A ratio comparing a company's market capitalization to its book value, indicating how much investors are willing to pay for each unit of net assets.
Price-to-Earnings (P/E)	A ratio comparing a company's current share price to its Earnings per Share (EPS), indicating how much investors are willing to pay for each unit of earnings.
Qualified Institutional Buyers (QIB)	Institutional investors that meet certain criteria set by regulators, allowing them to invest in unregistered securities and participate in private placements.
Retail Individual Investors	Non-professional, individual investors who buy and sell securities, such as stocks and bonds, primarily for personal investment purposes rather than for institutional or commercial reasons.
Rights Issue	An offer to existing shareholders to purchase additional shares at a discounted price, typically to raise capital for the company.
Smart Order Routing (SOR)	A technology that automatically directs trade orders to the most favourable venues, optimizing execution by considering factors such as price, speed, and liquidity.
Turnover	The total value of all transactions (buying and selling) that occur within a specific period, reflecting the volume of trading activity on the exchange.
Unique Client Code (UCC)	Unique identification code allocated to each client by a stockbroker for the purpose of trading in the securities market.
Unique Registered Investors	The total number of distinct investors registered with an exchange based on their Permanent Account Number (PAN).
Valuation	The process of determining the current worth or fair market value of an asset, company, or investment.
World Federation of Exchanges (WFE)	A global trade association representing publicly regulated stock, futures, and options exchanges, as well as central counterparties, fostering collaboration and standardization in the financial markets industry.

Note: This glossary provides concise definitions for key Economic and Financial terms. While these definitions aim to capture the essence of each concept, many of these terms have nuanced meanings that may vary slightly depending on context or specific applications in Economics, or Financial market analysis. For more comprehensive understanding, readers are encouraged to consult specialized literature or seek advice from domain experts. It's important to note that this glossary may not be exhaustive or holistic in its current form. We aim to expand and refine these definitions in future editions to provide a more comprehensive resource.

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1	17-Dec-24	NSE-CFA BRSR Report
2	06-Dec-24	Macro Review: RBI Monetary Policy
3	30-Nov-24	Macro Review: Q2FY25 India GDP
4	18-Nov-24	India Ownership Tracker Q2FY25
5	15-Oct-24	State of States: Capex pace moderates in FY25BE
6	09-Oct-24	Macro Review: RBI Monetary Policy
7	01-Oct-24	Macro Review: Q1FY25 Balance of Payments
8	02-Sep-24	Macro Review: Q1FY25 India GDP
9	16-Aug-24	NSE-Assocham Corporate Bond Report 2024
10	16-Aug-24	Market Pulse August 2024: Markets take a breather; Indian investors over 10 crore
11	10-Aug-24	India Ownership Tracker Q1FY25
12	08-Aug-24	Macro Review: RBI Monetary Policy
13	31-Aug-24	Market Pulse July 2024: Citius, Altius, Fortius!
14	24-Jul-24	Indian Capital Market: Transformative shifts achieved through tech and reforms
15	23-Jul-24	Union Budget 2024-25: Roadmap to Viksit Bharat
16	17-Jul-24	EY-NSE The Cost of Capital Survey 2024
17	28-Jun-24	Market Pulse June 2024: The last mile on the inflation path
18	28-Jun-24	Q4FY24 Corporate Earnings Review
19	25-Jun-24	Macro Review: Q4FY24 Balance of Payments
20	07-Jun-24	Macro Review: RBI Monetary Policy
21	01-Jun-24	Macro Review: Q4FY24 India GDP
22	29-May-24	Market Pulse May 2024: US\$5trn and beyond
23	22-May-24	India Ownership Tracker Q4FY24
24	26-Apr-24	Market Pulse April 2024: Markets and macro in the year that was
25	05-Apr-24	Macro Review: RBI Monetary Policy
26	26-Mar-24	Market Pulse March 2024: Indian investors cross the 9-crore mark
27	24-Mar-24	India Ownership Tracker Q3FY24
28	01-Mar-24	Macro Review: Q3FY24 India GDP
29	27-Feb-24	Market Pulse February 2024: On a high: Markets, investors, flows, and Generative AI
30	12-Feb-24	Macro Review: RBI Monetary Policy
31	01-Feb-24	Macro Review: Union Budget FY2024-25
32	26-Jan-24	Market Pulse January 2024: January effect...as January goes, so does the year?
33	22-Dec-23	Market Pulse Nov-Dec 2023: Hope smiles from the threshold of the year

34	15-Dec-23	India Ownership Tracker Q2FY24
35	08-Dec-23	Macro Review: RBI Monetary Policy
36	01-Dec-23	Macro Review: Q2FY24 India GDP
37	30-Nov-23	Q2FY24 Corporate Earnings Review
38	30-Oct-23	Market Pulse October 2023: Israel-Palestine redux, and the need for cooperation
39	06-Oct-23	Macro Review: RBI Monetary Policy
40	05-Oct-23	State of states: Will major states push capex in FY24
41	29-Sep-23	Macro Review: Q1 FY24 India Balance of Payments
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43	01-Sep-23	Macro Review: Q1 FY24 India GDP
44	10-Aug-23	Macro Review: RBI Monetary Policy
45	27-Jun-23	India Ownership Tracker December 2022
46	18-Jul-23	Market Pulse July 2023: A monthly review of Indian economy and markets
47	15-Jul-23	Q4FY23 Corporate Earnings Review
48	28-Jun-23	Macro Review: Q4FY23 Balance of Payments
49	27-Jun-23	India Ownership Tracker December 2022
50	13-Jun-23	Market Pulse June 2023: A monthly review of Indian economy and markets
51	08-Jun-23	Macro Review: RBI Monetary Policy
52	01-Jun-23	Macro Review: Q4FY23 India GDP
53	12-May-23	Market Pulse May 2023: A monthly review of Indian economy and markets
54	12-Apr-23	Market Pulse Apr-May 2023: A monthly review of Indian economy and markets
55	06-Apr-23	Macro Review: RBI Monetary Policy
56	29-Mar-23	India Ownership Tracker December 2022
57	24-Feb-23	Market Pulse February 2023: A monthly review of Indian economy and markets
58	08-Feb-23	Macro Review: RBI Monetary Policy
59	01-Feb-23	Macro Review: Union Budget FY2023-24
60	25-Jan-23	Market Pulse January 2023: A monthly review of Indian economy and markets
61	23-Dec-22	Market Pulse Nov-Dec 2022: A monthly review of Indian economy and markets
62	07-Dec-22	Macro Review: RBI Monetary Policy
63	05-Dec-22	Q2FY23 Corporate Earnings Review
64	30-Nov-22	Macro Review: Q2FY23 India GDP
65	21-Oct-22	Market Pulse October 2022: A monthly review of Indian economy and markets
66	30-Sep-22	Macro Review: RBI Monetary Policy
67	28-Sep-22	Market Pulse September 2022: A monthly review of Indian economy and markets
68	22-Sep-22	India Ownership Tracker June 2022

69	26-Aug-22	Market Pulse August 2022: A monthly review of Indian economy and markets
70	25-Aug-22	Q1FY23 Corporate Earnings Review
71	05-Aug-22	Macro Review: RBI Monetary Policy
72	28-Jul-22	Market Pulse July 2022: A monthly review of Indian economy and markets
73	29-Jun-22	Market Pulse June 2022: A monthly review of Indian economy and markets
74	27-Jun-22	Q4FY22 Corporate Earnings Review
75	24-Jun-22	India Ownership Tracker March 2022
76	24-Jun-22	Macro Review: Q4FY22 Balance of Payments
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79	01-Jun-22	Corporate Governance: ESG scores of NIFTY 50 companies
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83	29-Apr-22	Market Pulse April 2022: A monthly review of Indian economy and markets
84	11-Apr-22	India Ownership Tracker December 2021
85	08-Apr-22	Macro Review: RBI Monetary Policy
86	03-Apr-22	Macro Review: Q3FY22 Balance of Payments
87	31-Mar-22	Quarterly Briefing: Mandatory Board Governance in India
88	26-Mar-22	Market Pulse March 2022: A monthly review of Indian economy and markets
89	28-Feb-22	Market Pulse February 2022: A monthly review of Indian economy and markets
90	24-Feb-22	Q3FY22 Corporate Earnings Review
91	18-Feb-22	Quarterly Briefing: Related Party Transactions: Implications for Investor Protection
92	10-Feb-22	Macro Review: RBI Monetary Policy
90	01-Feb-22	Union Budget FY2022-23
91	29-Jan-22	Market Pulse January 2022: A monthly review of Indian economy and markets
92	03-Jan-22	Macro Review: Q2FY22 Balance of Payments

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