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Volume 3, Issue 4

Market Pulse

A monthly review of Indian economy and markets

A Monthly Review

Indian Economy and Markets

Volume 3, Issue 4

This monthly publication is a review of major developments in the economy and financial markets during the month.

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Market Pulse

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Executive Summary

COVID resurgence: Markets and macro face the second wave

Significant progress in vaccination drives, strong global growth prospects and enhanced fiscal and monetary policy support kept investor sentiments buoyant for yet another month in March. While the MSCI World Index ended the month 3.1% higher (YTD: +4.5% as of April 12th), the MSCI EM Index underperformed for the second month in a row and ended 1.7% lower (YTD: +2%), weighed down by a continued surge in the US Treasury yields, a strong dollar and a slower pace of vaccination drives as compared to developed markets. On the negative side, resurgence of COVID-19 infections in several countries—most notably India, coupled with default of a large US hedge fund, triggered bouts of volatility.

The Indian equities rally took a breather in March, as an exponential rise in daily confirmed cases—far surpassing the peak seen in the first wave—renewed restrictions, and shortage in supply of vaccines posed fresh challenges to the domestic growth outlook. Consequently, FIIs turned net sellers towards the latter part of March, even as domestic institutional investors emerged as modest buyers, partly supported by a sharp surge in SIP inflows during the month. The Nifty 50 and Nifty 500 Index ended the month of March with limited gains of 1.1%, underperforming the broader EM pack, even as Indian equities outperformed most major markets by a wide margin in FY21.

Our detailed analysis on the COVID spread across states and districts in India shows a 2.5x jump in active cases in March. This implies a daily CAGR of 4.1% which has risen to 6.8% in the first half of April, partly attributed to aggressive testing. The spread, which was largely concentrated in the state of Maharashtra until mid-March, is now equally worse across states, and prominently so in Uttar Pradesh, Chhattisgarh, Delhi, Karnataka and Gujarat. While it took ~105 days for COVID cases to increase 10x and reach the peak during the first wave, it has now taken just 37 days for a 10x jump to surpass 0.2mn mark. With mounting strain on healthcare infrastructure, daily casualties have also started catching up. The pace of inoculations also slowed down towards the end of March with several states reporting supply shortages but should pick up with faster approvals for procurement of foreign vaccines.

Global fixed income markets remained under pressure for yet another month, thanks to stronger growth prospects stimulated by vaccination rollouts and strengthening reinflationary concerns amid enhanced fiscal policy support in the US. Consequently, the US 10-year benchmark yield surged to a 15-month high of 1.75% by March-end (+83bps YTD). Indian domestic bond markets, that were reeling under pressures of a heavy Government borrowing programme, also bore the brunt of negative global cues. While yields rose in the first half of March, the RBI's support in the form of open market operations, Operation Twists, critical forward guidance and most importantly, the assurance to buy specified amounts of G-secs from the secondary market came to the rescue. As a result, the Indian 10-year G-sec yield ended the month 5 bps lower at 6.18%, falling by another 17bps in April thus far (as on April 12th). Commodity markets also took a back seat as the firm US Dollar and a new wave of infections coerced investors to exercise caution.

Our quarterly analysis of ownership trends and patterns in NSE-listed companies showed a sharp increase in FII ownership in the December quarter (+120bps QoQ to 21.7%) supported by record-high foreign capital inflows. Mutual fund ownership, however, dropped further, reflecting moderation in SIP inflows and redemption pressures. Additionally, the institutional money remained concentrated in large companies, albeit incrementally less so, with FIIs and DMFs having 93% and 84% of their investments made towards top 10% companies respectively in the December quarter

On the macro front, several high-frequency indicators pointed to a further slowdown in growth momentum. Headline retail inflation inched up further to 5.5% in Mar'21, led by higher food and fuel prices as well as a steady increase in core inflation. An eight-year high wholesale inflation print of 7.8% in Mar'21 was a big negative surprise, reflecting renewed supply-side bottlenecks and input cost pressures, and may find way into final consumer prices. Industrial recovery remained in fits and starts, with Industrial Production (IIP) declined by 3.6% YoY in Feb'21, marking the second YoY contraction in a row. Business sentiments have also weakened sequentially, reflected in a drop in Manufacturing as well as Services PMI in March, while renewed COVID fears have weighed on consumer confidence. On

the positive side, trade activity gained significant traction in March, with both exports and imports registering a strong rebound and GST collections jumped to record-high levels of Rs1.25trn in March. A stronger-than-expected recovery post gradual lifting of lockdown restrictions last year prompted the IMF to revise up its FY22 GDP growth forecast for India to 12.5% from 11.5% projected in January 2021. This is a tad higher than our estimate of 10% and remains susceptible to downward revisions amidst heightened COVID-induced growth uncertainty. The RBI's MPC acknowledged these challenges and announced a slew of measures to further strengthen liquidity support and bring down yields, including the one-of-its-kind G-sec purchase programme.

In the Insights section, we have summarised two research papers supported by the NSE-ISB Trading Lab. The first paper by Prabhala, et al. on "Mutual Fund Competition, Managerial Skill, and Alpha Persistence" argues with low barriers to entry and exit, and little differentiation between products lead to mutual funds investing in a similar style represent a contestable market. Greater competition, therefore, implies lower outperformance vis-à-vis markets with lesser competition. In the second paper by Richard G. Sloan on "Do Stock Prices Fully Reflect Information in Accruals and Cash Flows about Future Earnings?", the author show that investors do not correctly price the cash flow and accrual component of earnings in stock returns. However, this does not imply investor irrationality or unexploited profit opportunities.

Our invited article from the Arguden Academy talks about how corporates can play an important role in empowering women and how important it is to have a long-term sustainability plan for gender equality. The Section also provides takeaways from an interesting Paper by the World Federation of Exchanges that examines how exchanges used circuit breakers and other market safeguards to restrict sharp and sudden price movements so as to ensure fair and orderly trading and market integrity. Lastly, we have also featured top three entries of the first year of the NSE Scholar Program, selected based on an exhaustive internal and external evaluation. The program was launched in late 2019 to further NSE's efforts towards remaining at the forefront of encouraging and supporting financial market research.

We write this summary in mid-April, a full year after 2020, and COVID-19 cases keep rising across the country in a full-blown second wave. Observing the second wave across the country leads one to a sense of despair and *deja vu*, if only because the response in some parts is probably *jamais vu!* The health infrastructure remains stretched, and lockdowns, even partial ones post- lessons learnt from 2020, come with their uncertainties and weigh on a nascent recovery. That said, we are on the right track. As we ramp up tests across the country and vaccinate faster than any other country in the world, we should remember that *it always seems impossible until it's done* (thanks Nelson Mandela).

We bring you the fourth edition of the *Market Pulse* in 2021 on this resolve. As always, we are eager to hear your comments and suggestions.

Dr. Tirthankar Patnaik
Chief Economist

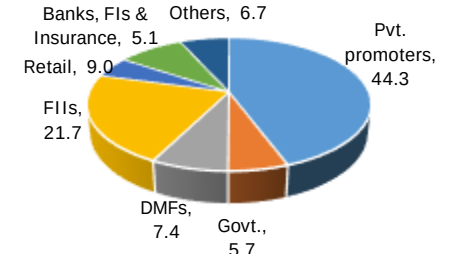
Stories of the month

Who owns India Inc.? — FIIs **regain some lost share; DIIs' drops further**

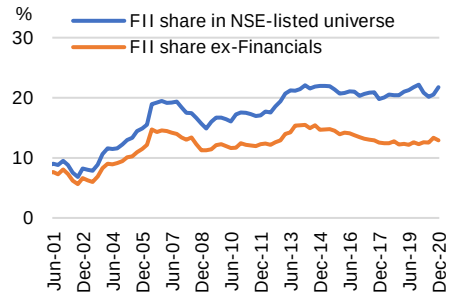
In this edition of our quarterly report "India Inc. Ownership Tracker"[1], we extend our analysis of ownership trends and patterns in NSE-listed companies to include the data available for the quarter ending December 2020. We note: 1) A modest increase in Govt. ownership, partly reflecting relative outperformance of some of the Govt.-owned companies during the quarter; 2) Decline in private promoter ownership following a steady rise over the previous three quarters; 3) A sharp increase in FII[2] (foreign institutional investors) ownership, reflected in record-high FII inflows; 4) Drop in DMF (domestic mutual funds) share for the third quarter in a row, partly attributed to continued moderation in SIP inflows and redemption pressures; 5) A marginal decline in direct retail ownership, reflecting some profit booking amidst a huge market rally; 6) FIIs' increased exposure to Indian equities was entirely through Financials where they strengthened their out-sized bet[3] at the expense of reduced allocation to Energy and sustained cautious stance on India's consumption as well as investment story; 7) DMFs' portfolio stance contrasted with FIIs with a more cautious view on Financials, a weakened UW[4] stance on Energy and an OW position on Industrials and Healthcare; and 8) Institutional money has remained concentrated to larger companies, albeit incrementally less so, with FIIs and DMFs having 74%/93% and 63%/84% of their investments made towards Nifty 50/top 10% companies respectively in Q3FY21.

- Private promoter share declined for the first time in four quarters: Private Indian promoters saw their ownership dropping in the December quarter after witnessing a steady increase over the previous three quarters. In the NSE-listed/Nifty 500 space, private Indian promoter stake fell by 83bps/78bps QoQ to 34.6%/34.3% in the December quarter. This marked the steepest sequential (QoQ) drop in over last 11 years for the overall NSE-listed universe, with 253/1690 companies (where shareholding data is available for September as well as December quarters) witnessing a decline. Foreign promoter stake declined for the third quarter in a row, leading to 106bps and 113bps QoQ drop in private promoter stake in the NSE-listed and Nifty 500 universe to 44.3% and 43.8% respectively. The fall in private promoter share was much higher in the Nifty 50 Index.
- Government ownership inched up: Govt. share (promoter and non-promoter) rose modestly from all-time lows in the September quarter to 5.7% in the NSE-listed universe, partly attributed to a significant catch-up in stock price performance of some of the Govt.-owned companies towards the latter part of the year. Nevertheless, the Government share is still down 245bps in 2020, partly attributed to a massive underperformance of PSU stocks in the current market rally (one-year return of 51% for Nifty PSE Index vs. 73% for Nifty 50).
- FIIs ownership surged amidst strong foreign capital flows: FII ownership in the December quarter rose further by 169bps, 134bps, 120bps QoQ to 27.6%, 22.5% and 21.7% in the Nifty 50, Nifty 500 and the overall NSE-listed universe respectively. This was the steepest sequential increase seen in last 46 quarters for the Nifty 50 as well as

Who owns India Inc.? NSE-listed in **Dec'20**



FII ownership in NSE-listed companies



Source: CMIE Prowess, NSE.

[1] The *"India Inc. Ownership Tracker"* report examines ownership trends and patterns in Indian companies listed on the NSE since 2001.
[2] FII ownership includes ownership through depository receipts held by custodians.
[3] Sector weights and comparisons here are based on the respective indices as benchmarks.
[4] Overweight (OW), neutral (N) or underweight (UW) stance of FIIs and DMFs on any sector is with respect to the sector's weight in the Index. An OW/UW position on a sector implies a more than 100bps higher/lower allocation to the sector than its weight in the Index. A neutral position on a sector implies an allocation to the sector within +/- 100bps of the sector's weight in the Index

Nifty 500 universe, supported by record high FII inflows of US$20bn into Indian equities during the December quarter. The increase in FII ownership was entirely led by Financials, excluding which FII ownership actually declined in the December quarter

The sector stance of FIIs has remained broadly stable. FIIs strengthened their outsized bet on Financials at the expense of a sharp reduction in allocation to Energy—a part of which reflects the latter's underperformance with respect to broader markets in the December quarter. Additionally, FIIs maintained their cautious view on India's consumption as well as investment story with a sustained UW position on Consumer Staples and Discretionary, Materials and Industrials.

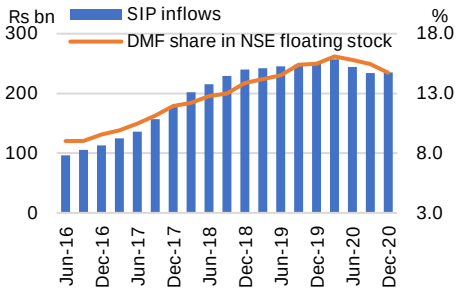
- DMF ownership dropped for the third quarter in a row: The December quarter saw a further drop in DMF ownership in Indian equities, reflecting continued moderation in SIP inflows and redemption pressures. DMFs' stake in the Nifty 500/overall NSE-listed universe fell by 22 QoQ to 7.6%/7.4% in the December quarter, and a tad lower by 16bps QoQ in Nifty 50 to 8%. The share of Banks, Financial Institutions and Insurance companies fell further to hit fresh two-decadal lows in the December quarter.

  DMFs' sector positioning has remained a complete contrast to FIIs. In Q3FY21, DMFs turned incrementally cautious on Financials, Materials and Utilities while maintaining a mild OW stance on the latter two, reduced their UW stance on Energy and IT, and retained their OW positioning on Industrials and Healthcare. DMFs' OW position on Industrials, however, has come off sharply over the last several years.

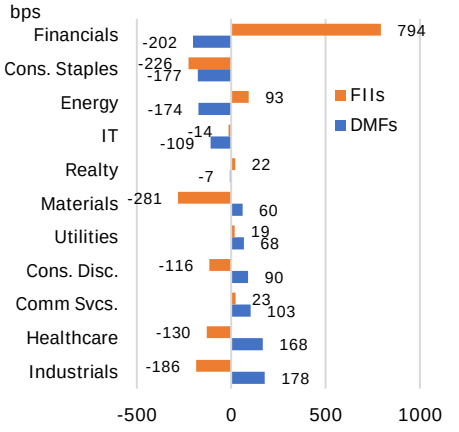
- Direct retail ownership dropped marginally: Direct retail ownership in NSE-listed companies/Nifty 50 fell by a modest 5bps to 9%/8% in the December quarter, marking the first drop in a year. Direct retail share in the Nifty500 universe fell by a tad higher 9bps QoQ to 8.5%. The decline has been much steeper in the listed space excluding the Nifty 500 universe, and understandably so, given higher retail interest and ownership in smaller companies. A sharp rally in the December quarter paved way for some profit booking by retail investors who have otherwise been heavy buyers of Indian equities in 2020.

- Evolving institutional ownership and concentration: Combining the theme of ownership patterns with concentration trends leads to some interesting takeaways. The *number* of stocks in the FII portfolio has remained unchanged over the last decade, with inflows of US$145bn since 2010 merely leading to a larger share in existing stocks. FIIs have at least 5% ownership in 70% of the Nifty 500 companies and have nearly 74% and 93% of their investments made towards Nifty 50 and top 10% companies respectively. DMFs have a more interesting story. Large inflows over the past few years have led to a curious combination: A wider share (5%+ ownership in 283 stocks now, vs 137 in 2014) and higher concentration (~84% of value in top 10% of stocks vs. 75% three years back), even as the concentration has come off marginally on a sequential basis.

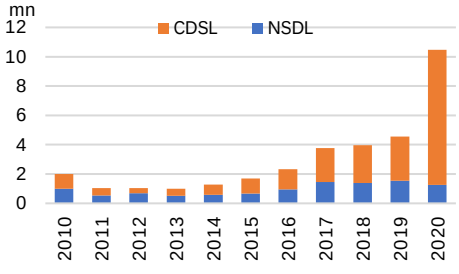
DMF ownership in NSE-listed companies



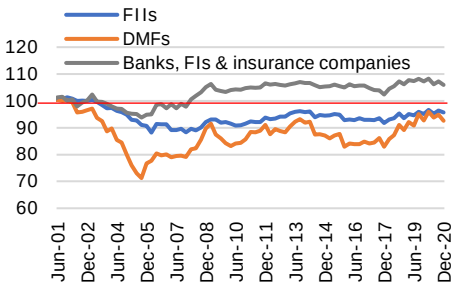
FII and DMF portfolio OW/UW in Nifty 500 vs. the index (Dec 2020)



New investor account addtions



Ownership concentration trend in top 10% companies (rebased on March 31st, 2001)



Source: CMIE Prowess, AMFI, SEBI, NSE.

Ownership patterns—December 2020

Ownership pattern of the NSE-listed universe (December 2020)

Private promoter ownership dropped after rising over the previous three quarters: Total promoter ownership in the NSE-listed universe fell by 92bps QoQ to a six-quarter low of 49.7% in the quarter ending December 2020, marking the steepest sequential (QoQ) drop in over five years. Both Indian and foreign promoters saw a drop in ownership in the quarter gone by. Private Indian promoter ownership fell by 83bps QoQ to 34.6% after rising over the previous three quarters even as it is still up by 241bps in 2020. In terms of number of companies, 253/1690 companies (where shareholding data is available for September as well as December quarters) saw a drop in private Indian promoter ownership in the December quarter. Foreign promoter stake in the NSE listed universe declined for the third consecutive quarter, falling by 23bps QoQ to 9.7%.

December quarter saw a drop in private Indian promoter ownership in the NSE-listed universe—a reversal in the trend seen over the previous three quarters.

Government ownership inched up marginally from record-low levels: Government ownership (promoter as well as non-promoter) in the NSE-listed space has been coming off since 2010, in-line with its efforts to garner higher revenues through the disinvestment route. After falling sharply and hitting all-time lows in the previous quarter, the Government's share in the NSE-listed universe inched up by a modest 13bps QoQ to 5.7% in the quarter ending December 2020, partly attributed to a significant catch-up in stock price performance of some of the Government-owned companies towards the latter part of the year. Nevertheless, the Government ownership still fell by 245bps in 2020, partly attributed to a massive underperformance of PSU stocks in the current market rally. For instance, Nifty PSE Index (comprising of 20 Govt-owned stocks) rose by ~51% in last one year vs. Nifty 50 return of ~73%.

Government ownership inched up modestly in the December quarter from record-low levels in the previous quarter.

FII ownership rose sharply in the December quarter on strong flows: Amongst institutional investors, FII ownership surged by 120bps QoQ to 21.7% in the December quarter, marking the steepest sequential increase in last 31 quarters, thereby largely reversing the sharp drop seen in the first half of 2020. This is reflected in strong foreign portfolio inflows into Indian equity markets in the December quarter (US$20bn), supported by ultra-loose global monetary/fiscal policies and positive global cues including abating US Presidential election and Brexit uncertainty. The increase in FII ownership was primarily led by Financials where FII ownership shot up by 161bps after falling over the previous three quarters. Excluding Financials, FII ownership in the listed universe actually declined by 41bps QoQ in the December quarter.

FII ownership rose by a strong 120bps QoQ in the December quarter—the steepest QoQ increase over the last eight years, thanks to strong foreign inflows.

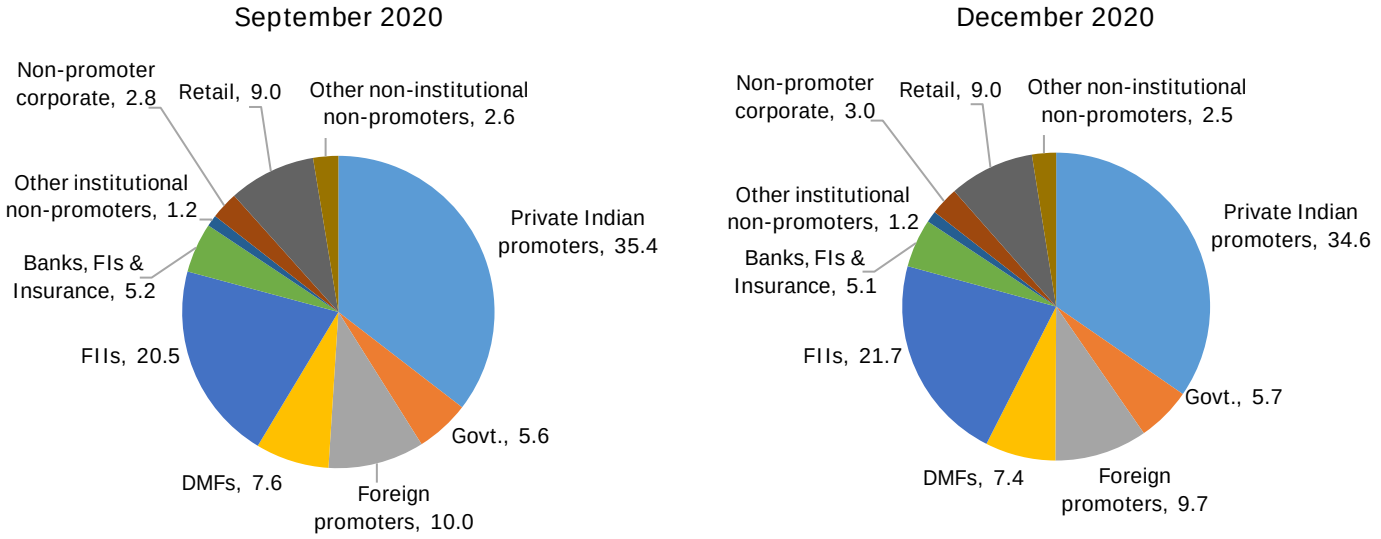
DMF ownership dropped for the third quarter in a row: DMFs' stake in the NSE listed universe declined for the third consecutive quarter, down 22bps QoQ to a six-quarter low of 7.4% in the December quarter. This translates into a total drop of 50bps from the peak share of 7.9% in the March quarter. A part of this decline is attributed to continued moderation in SIP (Systematic Investment Plans) inflows barring a spike in Dec'20 as well as redemption pressures. SIP inflows into DMFs have averaged at ~Rs79bn/month during Apr'20-Jan'21 vs. a monthly average of Rs83bn in FY20. The share of Banks, Financial Institutions and Insurance companies in the NSE-listed space hit fresh lows (since the beginning of the analysis), falling by 7bps QoQ to 5.1% in the December quarter.

DMF ownership declined for the third quarter in row, falling by 22bps QoQ to 7.4%.

Retail investors' **holding remained broadly steady in the December quarter**: Following a sharp rise in the previous quarter, individual retail investors' holding fell by a modest

5bps OoQ to 9% in the December quarter. A sharp rally in the December quarter paved way for some profit booking by retail investors who have otherwise been heavy buyers of Indian equities in 2020. The year 2020 saw nearly 10.5mn new investor accounts being added by NSDL and CDSL combined, translating into a 1.3x jump YoY. Additionally, the share of individual investors in the cash market turnover has shot up to 46% during Apr-December 2020 vs. 39% in FY20.

Figure 1: NSE-listed universe: Ownership pattern by total market cap (%)



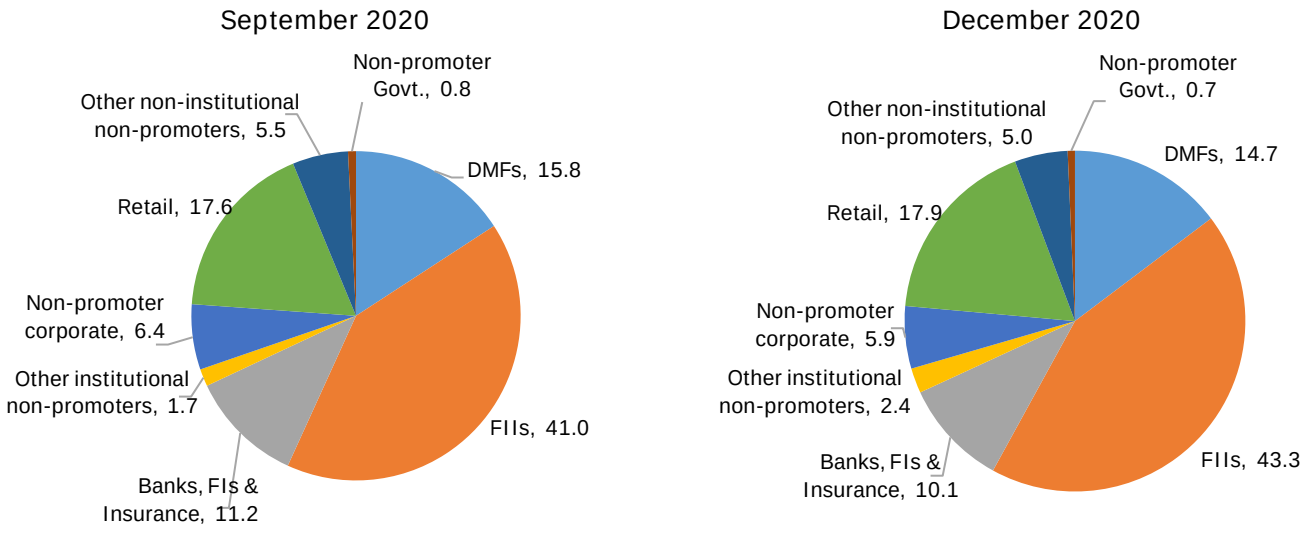
Source: CMIE Prowess, NSE. *FII ownership includes ownership through depository receipts held by custodians.

Figure 2: NSE-listed universe: Ownership trend across key stakeholders by total market cap over last three years

%	Private Indian promoters	Govt.	Foreign promoters	Domestic MFs	Banks, FIs & Insurance	FIIs *	Non-promoter corporate	Retail
Mar-18	31.3	10.1	9.4	6.1	5.6	20.1	5.6	9.0
Jun-18	31.4	9.5	9.7	6.4	5.7	20.5	5.2	8.7
Sep-18	32.0	9.2	9.5	6.4	5.8	20.4	5.1	8.6
Dec-18	31.3	9.1	10.0	7.0	5.8	20.4	5.0	8.7
Mar-19	31.5	9.2	9.2	7.2	5.5	21.0	5.0	8.6
Jun-19	31.4	9.3	9.3	7.3	5.5	21.3	4.7	8.4
Sep-19	32.2	7.9	10.1	7.7	5.5	21.8	3.6	8.5
Dec-19	32.2	8.2	9.8	7.8	5.4	22.2	3.5	8.4
Mar-20	33.3	6.9	11.1	7.9	5.5	20.8	3.3	8.4
Jun-20	34.1	6.7	10.4	7.8	5.5	20.2	3.2	8.7
Sep-20	35.4	5.6	10.0	7.6	5.2	20.5	2.8	9.0
Dec-20	34.6	5.7	9.7	7.4	5.1	21.7	3.0	9.0
QoQ change	*-83bps*	*13bps*	*-23bps*	*-22bps*	*-7bps*	*120bps*	*13bps*	*-5bps*

Source: CMIE Prowess, NSE. *FII ownership includes ownership through depository receipts held by custodians.

Figure 3: NSE-listed universe: Ownership pattern by free float market cap (%)



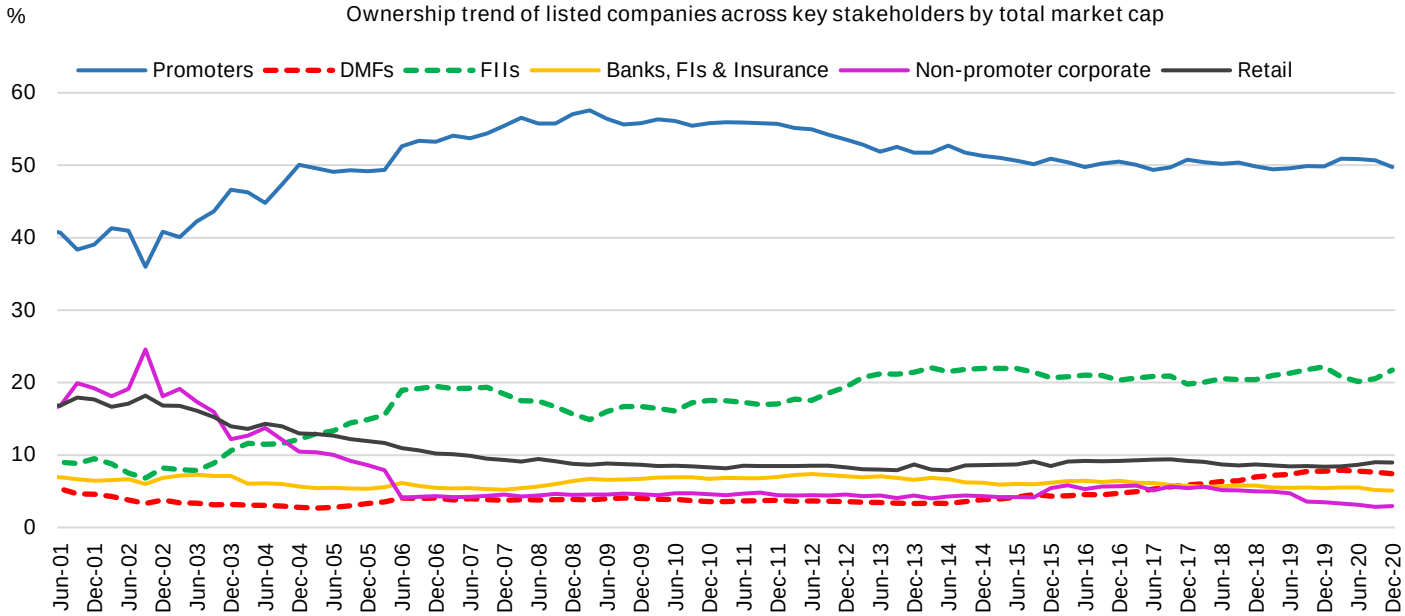
Source: CMIE Prowess, NSE. *FII ownership includes ownership through depository receipts held by custodians.

Figure 4: NSE-listed universe: Ownership trend across key stakeholders by floating stock over last three years

%	Domestic MFs	Banks, FIs & Insurance	FIIs*	Non-promoter corporate	Retail
Mar-18	12.2	11.3	40.4	11.3	18.2
Jun-18	12.8	11.4	41.2	10.4	17.5
Sep-18	13.0	11.7	41.1	10.3	17.3
Dec-18	13.9	11.6	40.7	10.0	17.4
Mar-19	14.2	10.9	41.5	9.8	17.0
Jun-19	14.5	10.9	42.2	9.4	16.7
Sep-19	15.4	11.0	43.4	7.2	16.9
Dec-19	15.5	10.8	44.2	6.9	16.7
Mar-20	16.1	11.2	42.4	6.7	17.2
Jun-20	15.8	11.2	41.0	6.4	17.6
Sep-20	15.4	10.5	41.6	5.8	18.3
Dec-20	14.7	10.1	43.3	5.9	17.9
QoQ change	*-73bps*	*-34bps*	*163bps*	*15bps*	*-44bps*

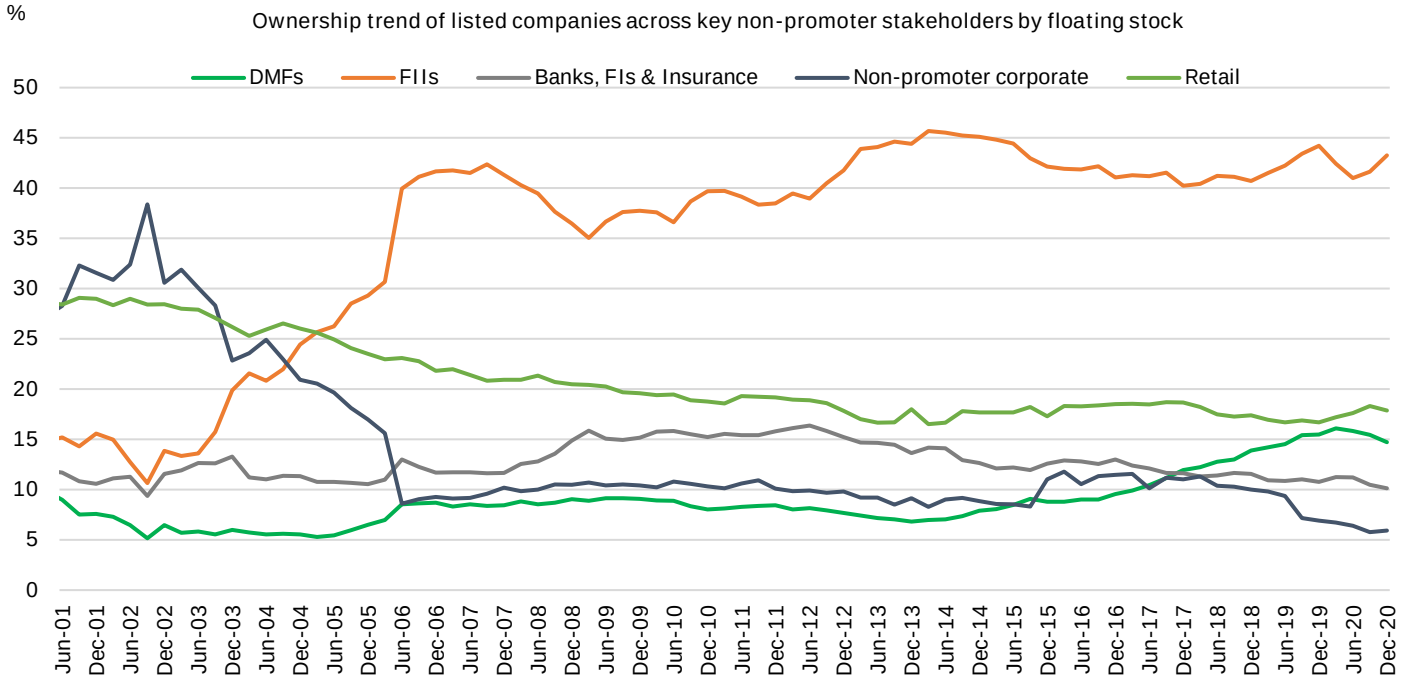
Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Figure 5: NSE-listed universe: Long-term ownership trend across key stakeholders by total market cap



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Figure 6: NSE-listed universe: Long-term ownership trend across key stakeholders by free float market cap



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians

SIP inflows declining amidst a sharp market rally: SIPs—a preferred route for retail investors to invest in equity markets until early last year—have seen a steady drop in inflows since March last year, barring a strong jump in December 2020 on positive cues around COVID-19 vaccination and US elections. Average monthly inflows into mutual funds through the SIP route fell from Rs834bn in FY20 to Rs790bn in FY21. While a part of this has found its way back into the markets through direct retail trading this year, a huge liquidity-driven market rally has prompted retail investors to take some money off

Average monthly SIP inflows dropped by ~5.3% YoY to Rs790bn during Apr'20-Feb'21.

the table. Drop in disposable incomes in the wake of sharp COVID-induced economic slowdown is also partly responsible for a decline in SIP inflows during the initial months of the fiscal.

That said, the moderation in SIP inflows has been fairly benign considering the unprecedented economic slowdown and consequent pay cuts and job losses, potentially signaling that mature long-term retail investors still consider SIP as the feasible route to increase exposure to Indian equities as it helps them reduce market timing risk. These sticky SIP flows have helped mutual funds significantly increase their ownership in Indian equities over the last few years barring FY21.

Figure 7: Monthly SIP inflows into mutual funds

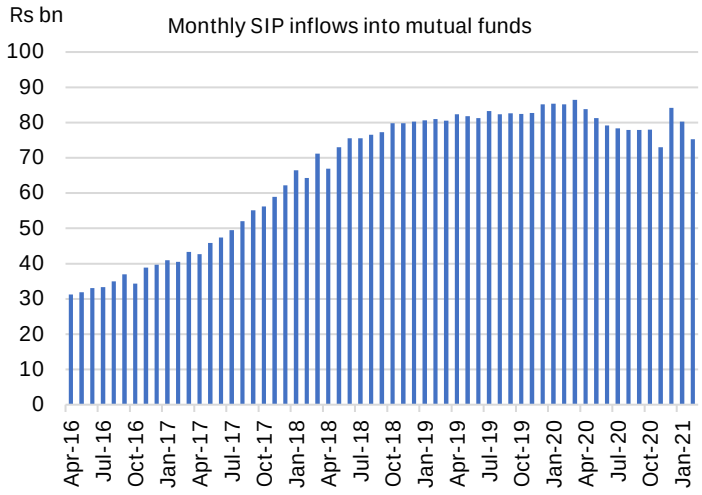
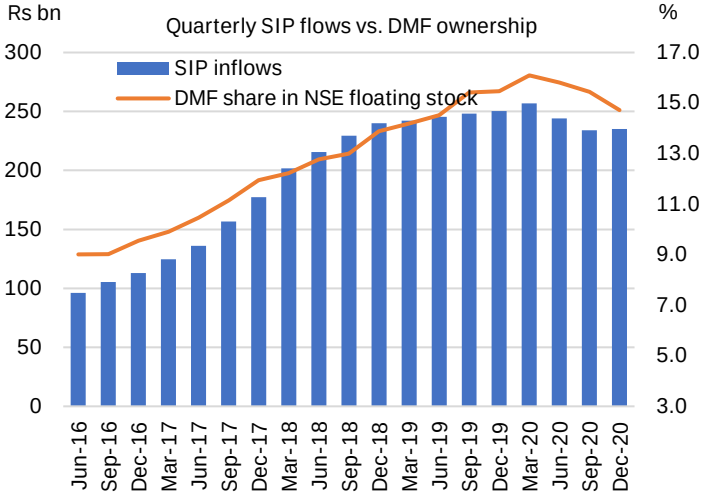


Figure 8: Quarterly SIP inflows vs DMF ownership



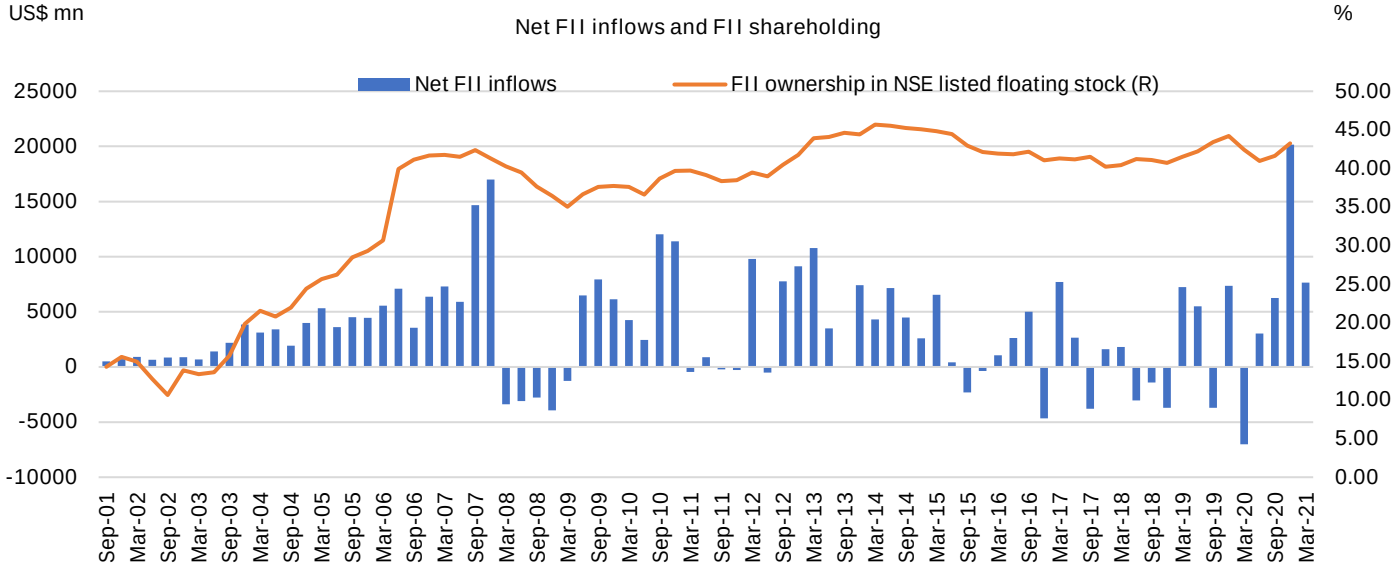
Source: AMFI, NSE

FII resumed buying from May onwards: After witnessing record-high FII outflows on a quarterly basis of US$7bn in the March quarter amid fears of a worst global recession since the Great Depression, FIIs resumed buying into Indian equities from May onwards, supported by aggressive policy response by the global central banks through rate cuts and injection of ample global liquidity. This has translated into total FII inflows of US$29.5bn in Indian equities during the first three quarters of FY21. In fact, net FII inflows of US$20bn in the December quarter was the highest ever flows India has ever seen into Indian equities in any quarter. This was aided by strengthened global risk-on environment in the wake of favorable phase-3 trials and consequent regulatory authorization of some vaccines as well as continued fiscal and monetary policy support.

December quarter saw strong FII buying into Indian equities supported by positive cues on the development of COVID-19 vaccine, abating political uncertainty in the US and enhanced policy support.

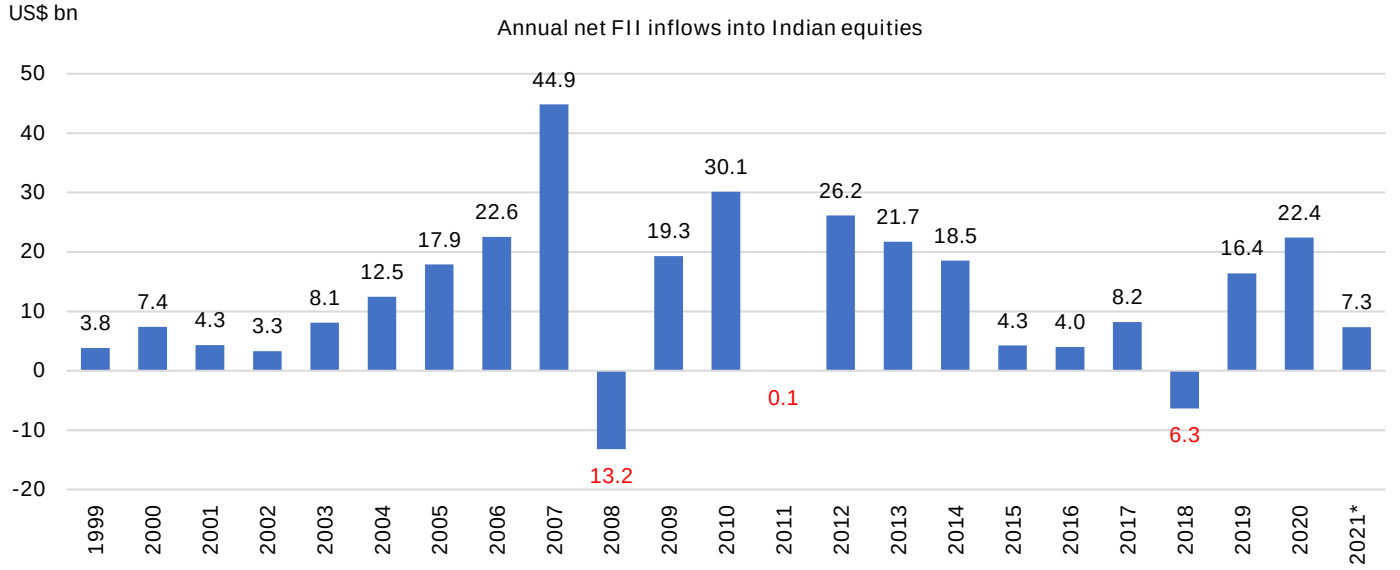
FII resumed buying from May onwards: After witnessing record-high FII outflows on a quarterly basis of US$7bn in the March quarter amid fears of a worst global recession since the Great Depression, FIIs resumed buying into Indian equities from May onwards, supported by aggressive policy response by the global central banks through rate cuts and injection of ample global liquidity. FII buying gained strength towards the latter part of 2020, thanks to positive cues around the development and regulatory authorization of a few COVID-19 vaccine candidates, abating political uncertainty in the US and enhanced policy support. This has translated into total FII inflows of US$38bn in Indian equities in FY21 thus far (As of March 24th). Notably, net FII inflows of US$20bn in the December quarter was the highest ever flows India has ever seen into Indian equities in any quarter, thereby translating into a significant increase in FII ownership in the NSE listed universe.

Figure 9: Net FII inflows and FII shareholding in the NSE-listed floating stock



Source: Bloomberg, CMIE Prowess, NSE * FII ownership includes ownership through depository receipts held by custodians.

Figure 10: Annual net FII inflows trend



Source: Refinitiv Datastream, * Data for 2021 is until April 12th, 2021.

Direct retail participation remained broadly steady in the December quarter: A sharp market crash in the March quarter, coupled with lockdown restrictions, lured retail investors into trading in equity markets, with a strong market rebound thereafter further strengthening their sentiments. This is reflected in an increase in retail ownership in the NSE-listed universe in 2020. This increased buying is also reflected in a sharp rise in new investor accounts added in 2020 and increase in retail share in the cash market turnover. New investor account additions through CDSL as well as NSDL in 2020 stood at 10.5mn—the highest in last 10 years—representing nearly 21% of the outstanding active investor accounts. Moreover, the share of individual retail investors in NSE's cash market turnover shot up from 39% in FY20 to 45% during Apr'20-Feb'21.

Figure 11:Quarterly trend of number of active investor accounts with depositories

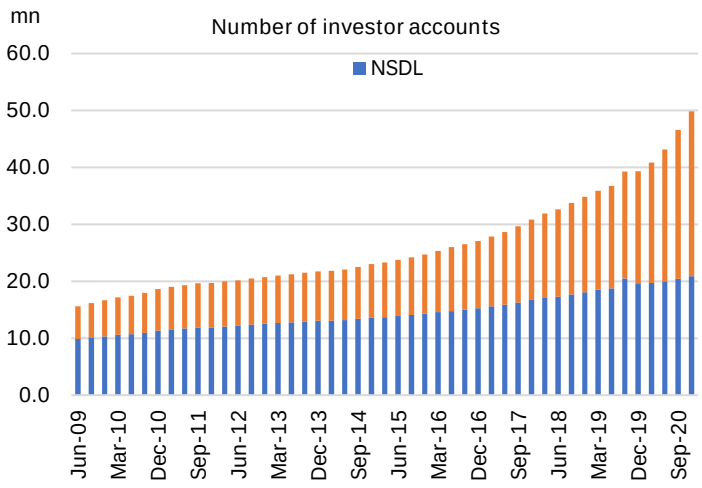
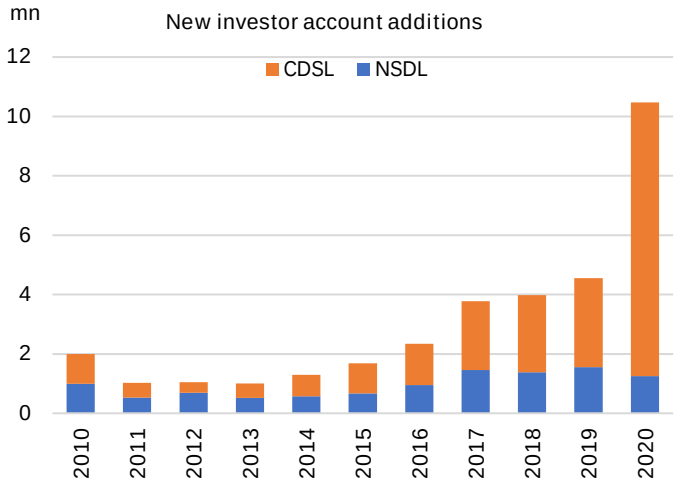


Figure 12: Annual trend of new investor account additions with depositories



Source: SEBI Bulletin, NSE.

Ownership pattern of the Nifty 50 universe (December 2020)

Private promoter stake dropped for the first time in eight quarters; Govt. ownership inched up: Overall private promoter ownership in the Nifty 50 Index dropped for the first time in eight quarters by 171bps QoQ to 38.1% in the December quarter, albeit much lower than the huge 5.2pp increase seen over the previous three quarters. While private Indian promoter stake fell by 132bps QoQ to 30.7%, foreign promoters also saw a 39bps QoQ drop in their stake in the Nifty 50 universe to a six-quarter low of 7.3%—nearly 240bps shy of an 18-year high share of 9.75% in March 2020.

Private promoter ownership in the Nifty 50 universe dropped for the first time in eight quarters, while Government ownership inched up, reflecting outperformance of some of the Govt.-owned companies in the December quarter.

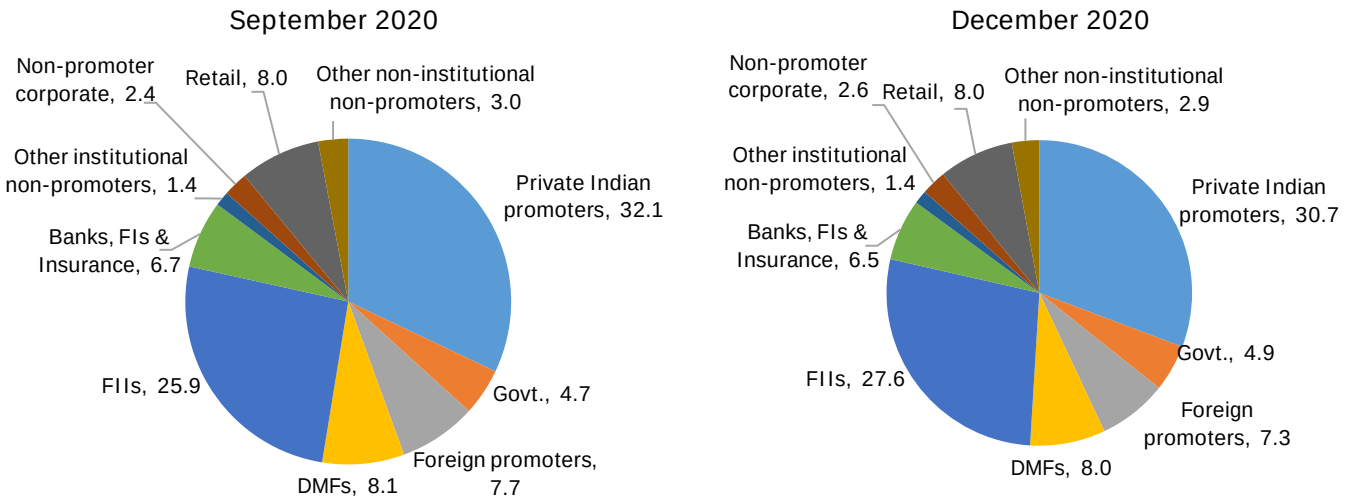
After declining consistently over the previous five quarters to hit all-time lows in the September quarter, Government ownership inched up by a modest 27bps QoQ to 4.9% in the December quarter, partly attributed to strong outperformance of some of the Government-owned companies with respect to the broader market including SBI, GAIL and ONGC. Excluding SBI, the Government stake in the Nifty 50 universe remained broadly steady at 3.7% in the December quarter.

FII ownership rose further in the Nifty 50 universe while DMFs' saw a modest drop for the second quarter in a row: FII ownership in the Nifty 50 universe inched up for the second quarter in a row by 169bps QoQ to 27.6% in the December quarter—the steepest sequential rise in last 46 quarters, and is now just ~90bps shy of the all-time high share of 28.5% seen a year ago. This is reflected in the highest-ever quarterly net inflows by FIIs into Indian equities in the December quarter. DMF ownership on the other hand declined for the second consecutive quarter by 16bps QoQ to a six-quarter low of 8.0%--broadly in-line with the drop seen in the broader listed universe. The share of Banks, Financial Institutions and Insurance also fell by 18bps QoQ to hit fresh two-decadal lows of 6.5% in the quarter ending December 2020.

FII share in Nifty 50 companies rose by a strong 169bps QoQ to 27.6% in the December quarter, while that of DMFs fell by 16bps QoQ to 8.0%.

Retail ownership in the Nifty 50 index remained broadly steady in the December quarter: Individual retail investors' holding in the Nifty 50 Index remained broadly steady at near-12-year high levels of 8% in the December quarter. In 2020, retail ownership in the Nifty 50 Index rose by 32bps, much lower than the 60bps increase in the overall NSE-listed universe, indicating higher retail buying in smaller companies.

Figure 13: Nifty 50: Ownership pattern by total market cap (%)



Source: CMIE Prowess, NSE. *FII ownership includes ownership through depository receipts held by custodians.

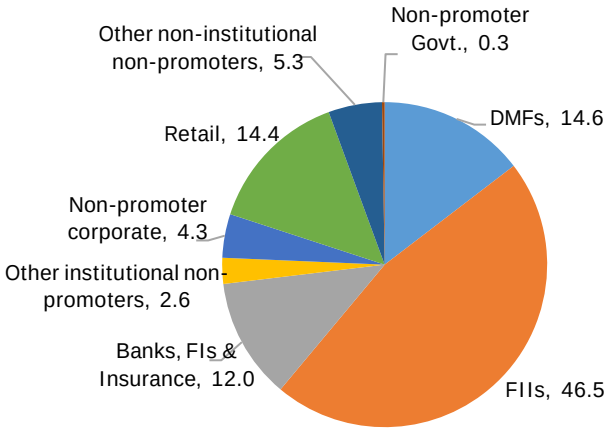
Figure 14: Nifty 50: Ownership trend across key stakeholders by total market cap over the last three years

%	Private Indian promoters	Govt	Foreign promoters	Domestic MFs	Banks, FIs & Insurance	FIIs *	Non-promoter corporate	Retail
Mar-18	23.9	10.7	7.9	6.4	8.0	27.6	5.1	7.0
Jun-18	25.8	9.6	6.9	6.7	7.8	27.4	5.2	7.3
Sep-18	27.1	9.5	6.2	6.7	7.9	26.6	5.2	7.3
Dec-18	26.0	9.1	6.6	7.4	7.9	27.0	5.2	7.5
Mar-19	26.3	8.8	6.3	7.7	7.6	27.5	4.9	7.6
Jun-19	26.6	9.0	6.4	7.7	7.4	27.6	4.6	7.5
Sep-19	26.8	7.7	7.8	8.3	7.4	27.8	3.5	7.7
Dec-19	27.0	7.5	7.6	8.4	7.2	28.5	3.3	7.6
Mar-20	28.0	6.4	9.8	8.4	7.1	26.4	3.1	7.7
Jun-20	29.3	5.6	8.8	8.4	7.2	25.8	2.9	7.8
Sep-20	32.1	4.7	7.7	8.1	6.7	25.9	2.4	8.0
Dec-20	30.7	4.9	7.3	8.0	6.5	27.6	2.6	8.0
QoQ change	*-132bps*	*27bps*	*-39bps*	*-16bps*	*-18bps*	*169bps*	*23bps*	*-5bps*

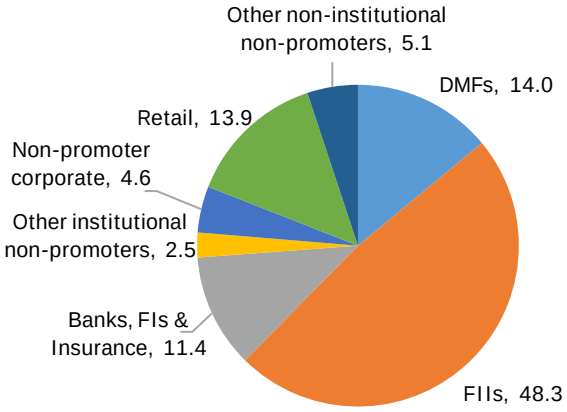
Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Figure 15: Nifty 50: Ownership pattern by free float market cap (%)

September 2020



December 2020



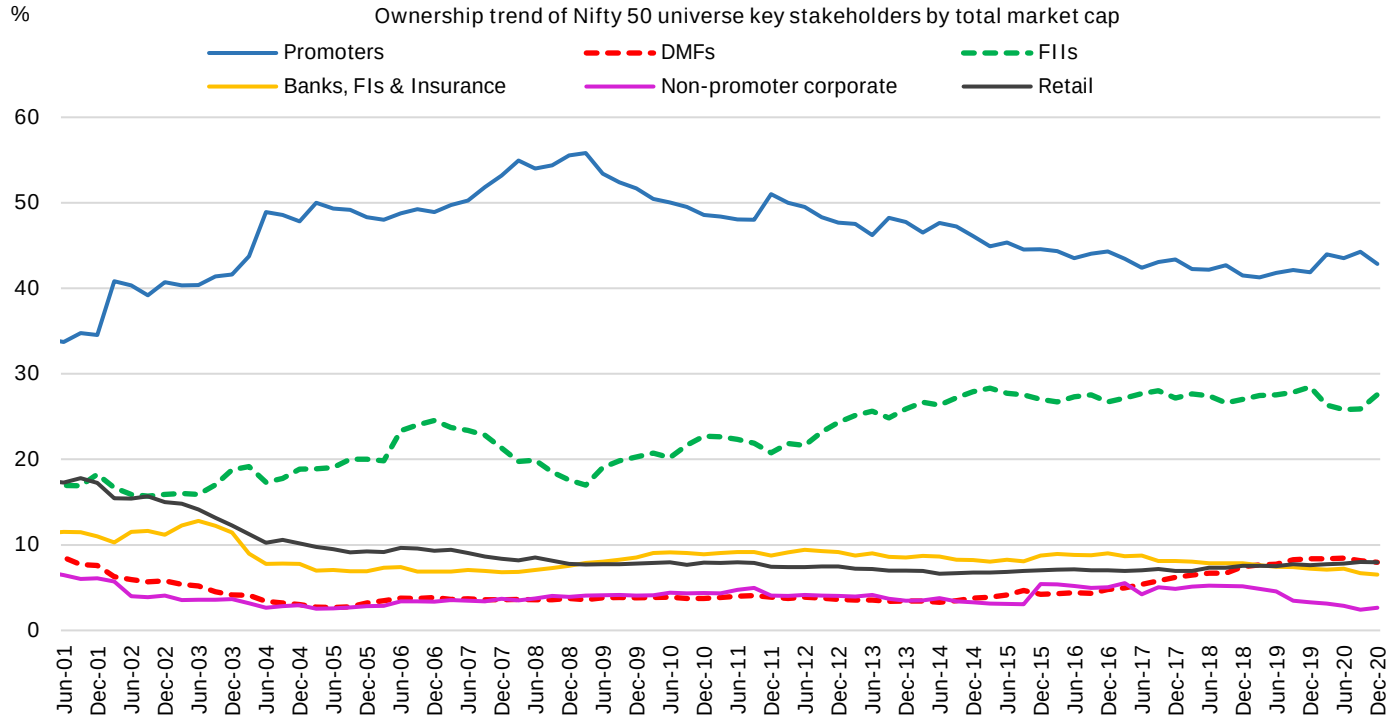
Source: CMIE Prowess, NSE. *FII ownership includes ownership through depository receipts held by custodians.

Figure 16: Nifty 50: Ownership trend across key stakeholders by free float market cap over last the three years

%	Domestic MFs	Banks, FIs & Insurance	FIIs*	Non-promoter corporate	Public
Mar-18	11.2	13.9	47.9	8.8	12.1
Jun-18	11.6	13.6	47.5	9.0	12.7
Sep-18	11.7	13.7	46.5	9.1	12.8
Dec-18	12.7	13.4	46.2	8.8	12.9
Mar-19	13.0	13.0	46.8	8.3	12.9
Jun-19	13.3	12.8	47.4	7.8	12.9
Sep-19	14.3	12.8	48.1	6.0	13.4
Dec-19	14.4	12.4	49.0	5.7	13.1
Mar-20	15.0	12.7	47.0	5.6	13.8
Jun-20	14.9	12.8	45.7	5.1	13.8
Sep-20	14.6	12.0	46.5	4.3	14.4
Dec-20	14.0	11.4	48.3	4.6	13.9
QoQ change	*-64bps*	*-62bps*	*178bps*	*28bps*	*-46bps*

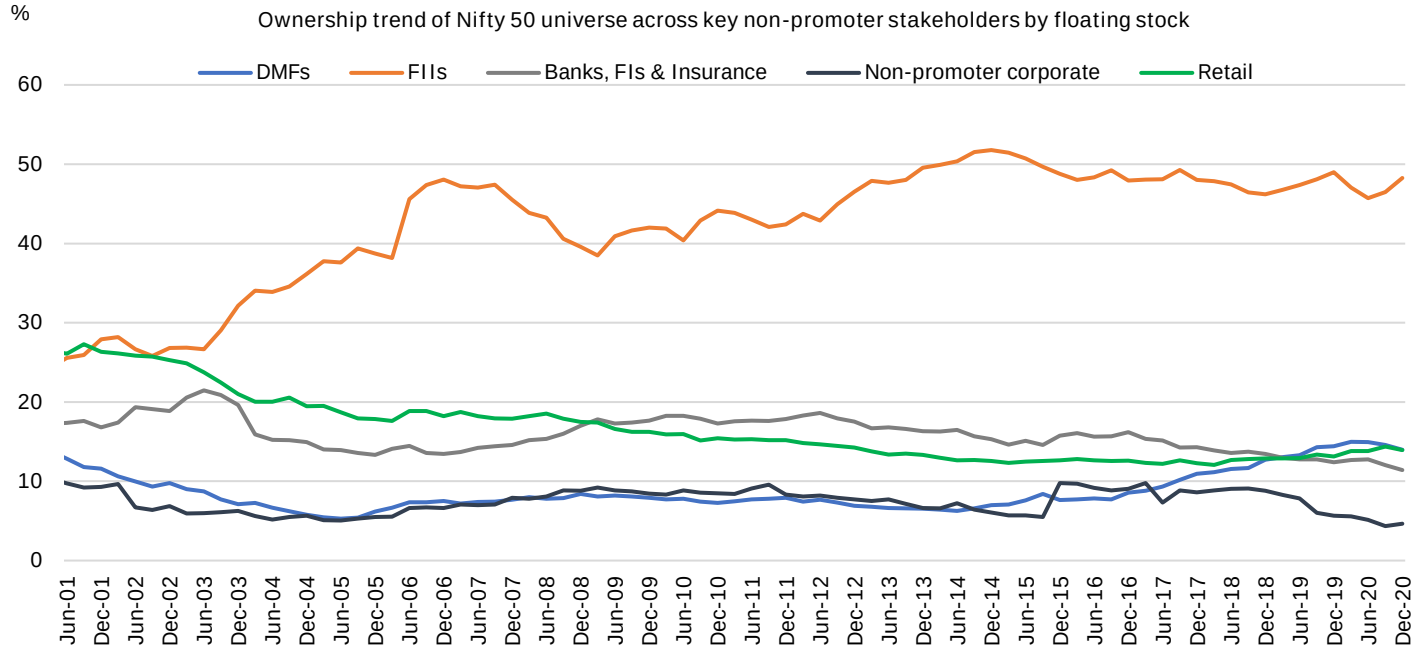
Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Figure 17: Nifty 50: Long-term ownership trend across key stakeholders by total market cap



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians

Figure 18: Nifty 50: Long-term ownership trend across key stakeholders by free float market cap



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians

Ownership pattern of the Nifty 500 universe (December 2020)

Private promoter stake declined in-line with the listed universe; Govt. stake inched up marginally: In line with the listed universe and the Nifty 50 Index, private Indian promoter ownership in the Nifty 500 universe fell by 78bps QoQ—the steepest sequential decline in last 38 quarters—to 34.3% in the December quarter after rising over the previous three quarters. Nearly 119 out of 500 companies saw a drop in the private Indian promoter stake during the quarter. Foreign promoter further reduced their share in the Nifty 500 universe by 35bps QoQ on top of a 129bps drop in the previous two quarters to a six-quarter low of 9.5%. Consequently, private promoter stake fell by 113bps QoQ to 43.8% in the December quarter, marking the steepest QoQ drop in last 11 years.

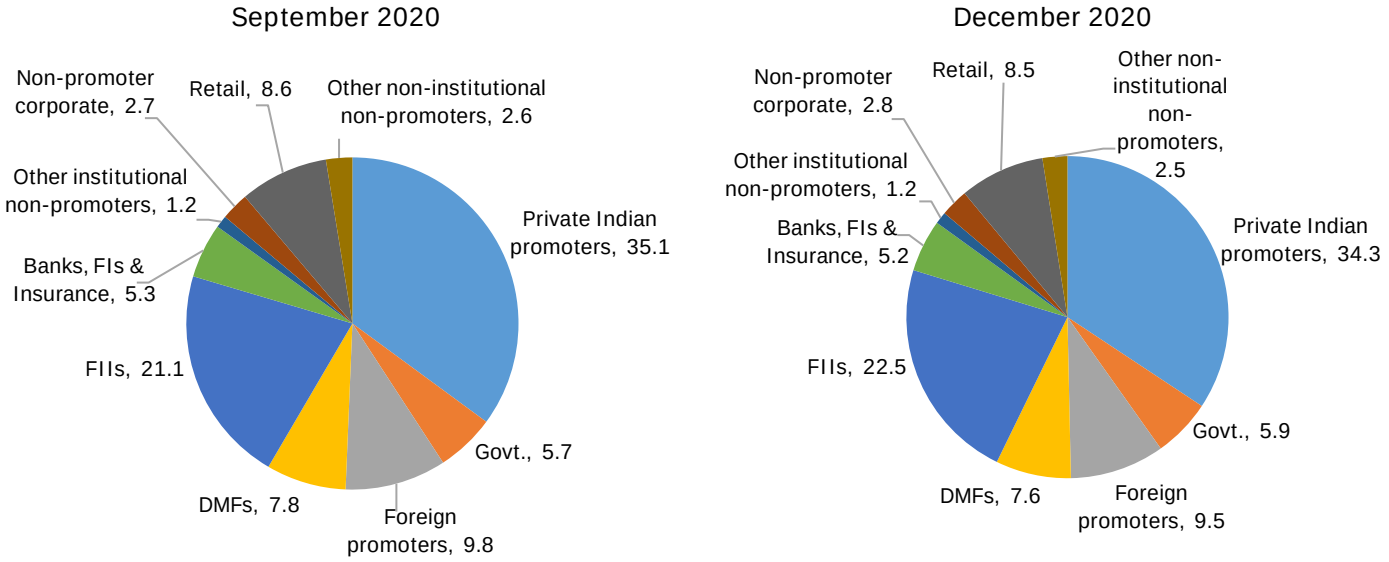
Private Indian promoter ownership in the Nifty 500 universe fell by 78bps QoQ—the steepest sequential decline in last 38 quarters—to 34.3% in the December quarter.

Institutional ownership in Nifty 500 inched up sharply led by FIIs: In terms of institutional ownership, DMFs' aggregate share in Nifty 500 companies fell by 22bps QoQ to 7.6%, taking the total decline in the first three quarters of this fiscal to 54bps. Banks, Financial Institutions and Insurance companies continued to trim their ownership in the Nifty 500 companies by 7bps QoQ to hit fresh two-decadal lows of 5.2%. Selling by domestic institutions, however, was far more than made up by FIIs whose share in the Nifty 500 companies rose by 134bps QoQ to 22.5% and is now mere 72bps shy of the peak share in December 2014. However, this increase has been entirely led by Financials, partly reflecting huge outperformance of the sector with respect to the broader market. Excluding Financials, FII ownership in the Nifty 500 Index fell by 38bps QoQ to 13.3% in the December quarter.

FII share in Nifty 500 rose by 134bps QoQ in the December quarter to 22.5%, while that of DMFs fell further by 22bps to 7.6%.

Retail ownership dropped marginally in the Nifty500 universe: Retail investors ownership in Nifty 500 companies fell by a modest 9bps QoQ to 8.5% in the December quarter but is still up 52bps in 2020 as a whole. The decline has been much steeper in the listed space excluding the Nifty 500 universe, and understandably so, given higher retail interest and ownership in smaller companies.

Figure 19: Nifty 500: Ownership pattern by total market cap (%)



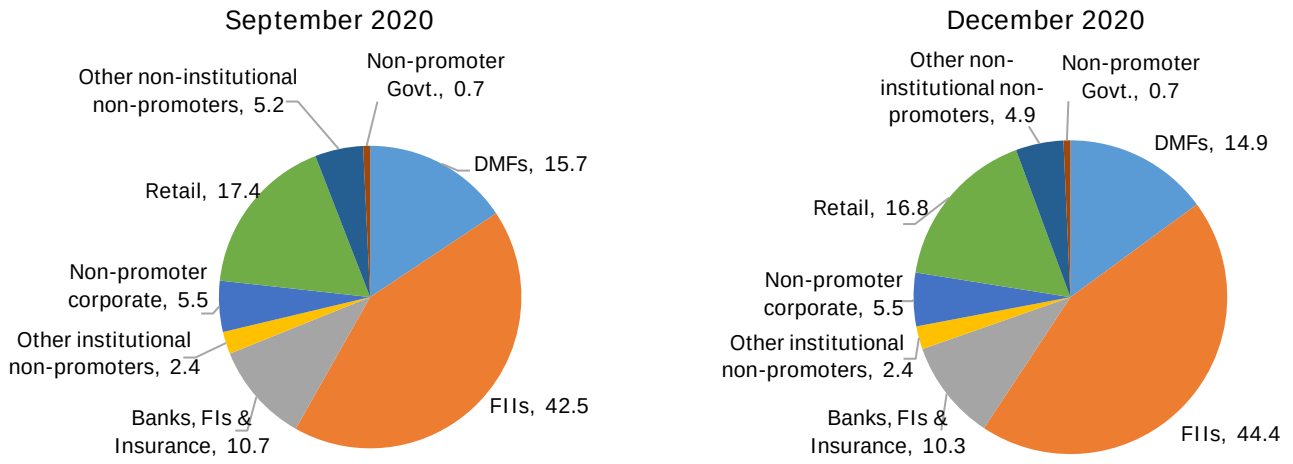
Source: CMIE Prowess, NSE. *FII ownership includes ownership through depository receipts held by custodians.

Figure 20: Nifty 500: Ownership trend across key stakeholders by total market cap over last the three years

%	Private Indian promoters	Govt	Foreign promoters	Domestic MFs	Banks, FIs & Insurance	FIIs *	Non-promoter corporate	Retail
Mar-18	30.1	10.1	9.2	6.4	6.0	22.0	5.1	8.2
Jun-18	30.4	9.6	9.3	6.6	6.0	21.8	5.1	8.2
Sep-18	31.3	9.7	9.1	6.6	6.0	21.3	5.0	8.1
Dec-18	30.7	9.5	9.5	7.1	6.1	21.3	4.9	8.2
Mar-19	30.9	9.6	8.8	7.3	5.7	21.8	4.9	8.1
Jun-19	30.9	9.6	8.9	7.5	5.7	22.1	4.6	8.0
Sep-19	31.7	8.1	9.9	7.9	5.7	22.5	3.5	8.1
Dec-19	31.9	8.0	9.7	7.9	5.6	23.0	3.4	8.0
Mar-20	32.8	6.9	11.1	8.1	5.5	21.6	3.1	8.1
Jun-20	33.4	6.9	10.6	8.0	5.5	20.9	2.9	8.3
Sep-20	35.1	5.7	9.8	7.8	5.3	21.1	2.7	8.6
Dec-20	34.3	5.9	9.5	7.6	5.2	22.5	2.8	8.5
QoQ change	*-78bps*	*14bps*	*-35bps*	*-22bps*	*-7bps*	*134bps*	*8bps*	*-9bps*

Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Figure 21: Nifty 500: Ownership pattern by free float market cap (%)



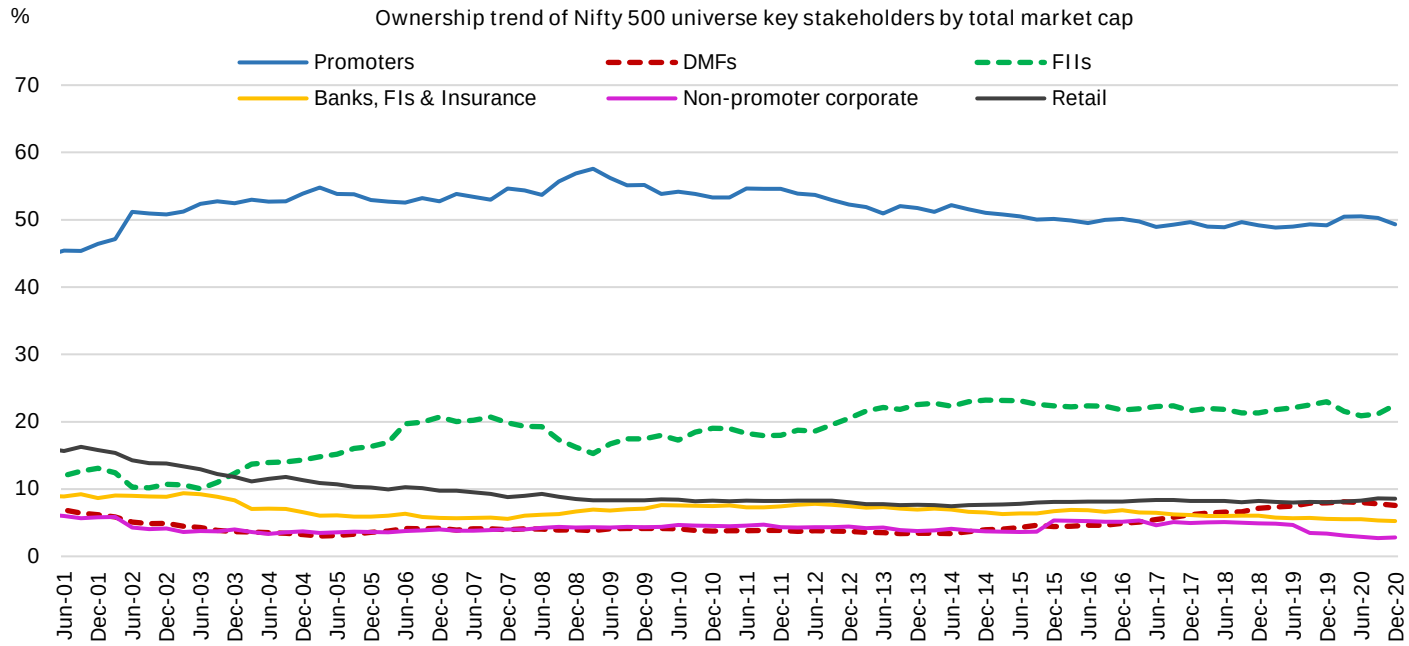
Source: CMIE Prowess, NSE. *FII ownership includes ownership through depository receipts held by custodians.

Figure 22: Nifty 500: Ownership trend across key stakeholders by free float market cap over the last three years

%	Domestic MFs	Banks, FIs & Insurance	FIIs	Non-promoter corporate	Retail
Mar-18	12.6	11.8	43.1	9.9	16.1
Jun-18	12.9	11.7	42.7	9.9	16.1
Sep-18	13.1	12.0	42.4	9.9	16.0
Dec-18	14.0	11.9	41.9	9.6	16.2
Mar-19	14.3	11.2	42.6	9.5	15.8
Jun-19	14.6	11.1	43.2	9.1	15.6
Sep-19	15.5	11.3	44.4	6.8	15.9
Dec-19	15.6	10.9	45.2	6.6	15.8
Mar-20	16.4	11.1	43.5	6.2	16.4
Jun-20	16.1	11.2	42.2	5.9	16.7
Sep-20	15.7	10.7	42.5	5.5	17.4
Dec-20	14.9	10.3	44.4	5.5	16.8
QoQ change	*-74bps*	*-35bps*	*183bps*	*6bps*	*-51bps*

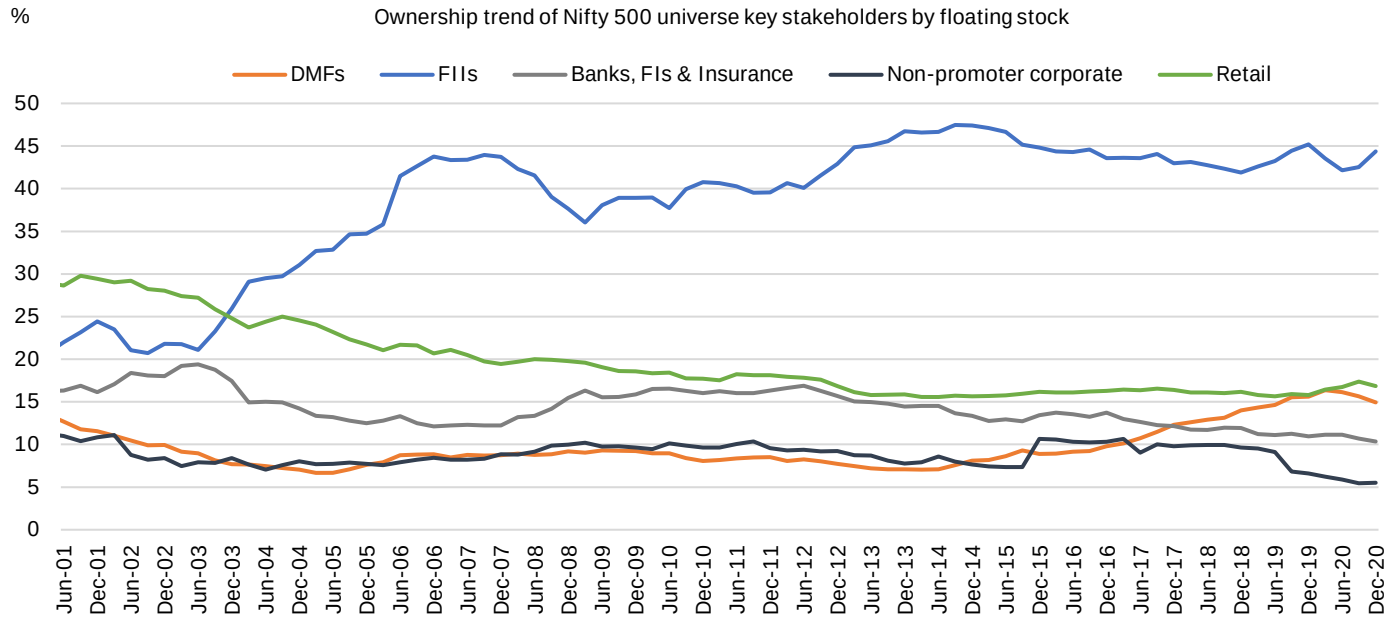
Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Figure 23: Nifty 500: Long-term ownership trend across key stakeholders by total market cap



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Figure 24: Nifty 500: Long-term ownership trend across key stakeholders by free float market cap



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians

Sector-wise ownership pattern and allocation to key stakeholders

Sector-wise ownership of the Nifty 50 universe (December 2020): In the quarter ending December 2020, Communication Services within the Nifty 50 universe had the highest promoter ownership at 56.2%, followed by Information Technology at 54.8% (-74bps QoQ), Utilities at 51.3% and Energy at 51.0% (+44bps QoQ). Utilities and Energy remained the top sectors in terms of Government ownership at 53.2% (+33bps QoQ) and 12.7% (+278bps QoQ) respectively, even as both the sectors have seen a significant drop in Government's ownership over the years.

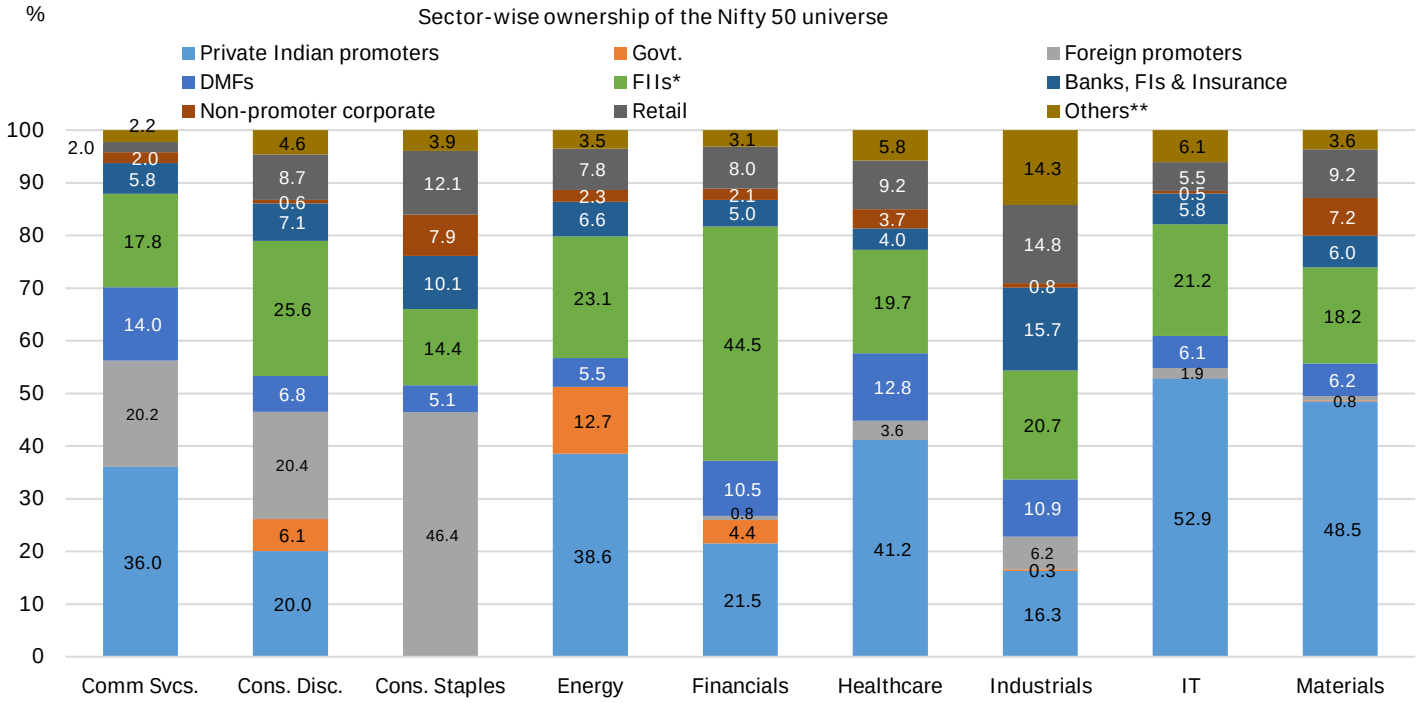
In the quarter ending December 2020, Communication Services remained at the top in terms of DMF ownership for the second consecutive quarter despite just one stock in the Index even as the holding has come off by 41bps QoQ to 14.0%. Utilities ranked second with DMF share of 12.9% (-120bps QoQ), followed by Healthcare at 12.8%, Industrials at 10.9% (-108bps QoQ) and Financials at 10.5% (-70bps QoQ), Notably, DMF ownership in Communication Services has nearly tripled in the last three years.

FIIs have remained the biggest non-promoter owners of Financials and have seen an increase in allocation by 2pp to 44.5% in the December quarter, largely reversing the drop seen in the previous two quarters. This is followed by Consumer Discretionary at 25.6% (+86bps QoQ), Energy at 23.1% (-97bps QoQ), Information Technology at 21.2% (+40bps QoQ and Industrials at 20.7% (+228bps QoQ). Unlike DMFs, FIIs' ownership share in Communication Services has been declining over the last few years, with the recent drop attributed to the exclusion of a couple of companies belonging to this sector from the Index. In terms of overall foreign ownership (including foreign promoters), Consumer Staples leads with a 60.9% foreign share, followed by Consumer Discretionary at 46.0% and Financials at 45.3% (+188bps QoQ).

Communication Services remained the leading sector in terms of DMF ownership for the second quarter in a row.

FIIs have remained the biggest non-promoter owners of Financials and have seen an increase in allocation by 2pp to 44.5% in the December quarter.

Figure 25: Nifty 50: Sector-wise ownership pattern across key stakeholders (December 2020)



Source: CMIE Prowess, NSE.

* FII ownership includes ownership through depository receipts held by custodians **Others include other institutional and non-institutional non-promoter investors

Figure 26: Sector allocation of the Nifty 50 universe for key stakeholders (December 2020)

%	Private Indian promoters	Govt	Foreign promoters	Domestic MFs	FIIs*	Banks, FIs & Insurance	Non-promoter corporate	Retail
Communication Services	3.0	0.0	7.0	4.5	1.6	2.3	1.9	0.6
Consumer Discretionary	3.9	7.4	16.5	5.1	5.5	6.5	1.4	6.5
Consumer Staples	0.0	0.0	63.1	6.4	5.2	15.4	29.5	15.1
Energy	19.7	40.4	0.0	10.8	13.1	15.9	13.4	15.5
Financials	20.8	26.7	3.3	39.1	48.0	23.0	23.4	29.9
Health Care	4.9	0.0	1.8	5.9	2.6	2.3	5.0	4.2
Industrials	1.4	0.2	2.2	3.5	1.9	6.2	0.8	4.8
Information Technology	34.4	0.2	5.3	15.2	15.4	17.9	3.7	13.7
Materials	12.0	0.3	0.8	5.9	5.0	7.0	20.5	8.8
Utilities	0.0	24.9	0.0	3.7	1.6	3.6	0.3	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

DMFs continued to place bets on COVID-immune sectors: In the wake of continued macro uncertainty, DMFs maintained their OW position on sectors that have remained largely unscathed from the COVID-19 pandemic. In the December quarter, DMFs maintained an OW stance on Healthcare, Communication Services and Utilities within the Nifty 50 Index for yet another quarter, increased exposure to Financials but turned Neutral on the sector relative to the Index and turned incrementally less cautious on Information Technology and Energy during the quarter. While DMFs retained their negative stance on India's consumption theme with an UW position on Consumer Discretionary and Staples—partly attributed to expensive valuations, they had a neutral stance on Materials and Industrials in the December quarter.

DMFs increased their exposure to Financials but turned Neutral, maintained OW position on Healthcare, Communication Services and Utilities and remained negative on consumption-oriented sectors.

Figure 27: DMF sector allocation of the Nifty 50 universe (December 2020 vs. September 2020)

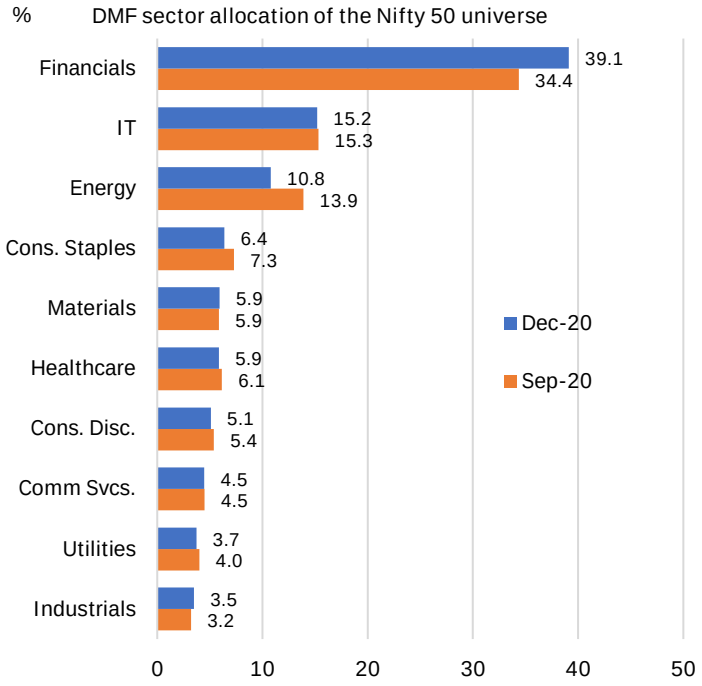
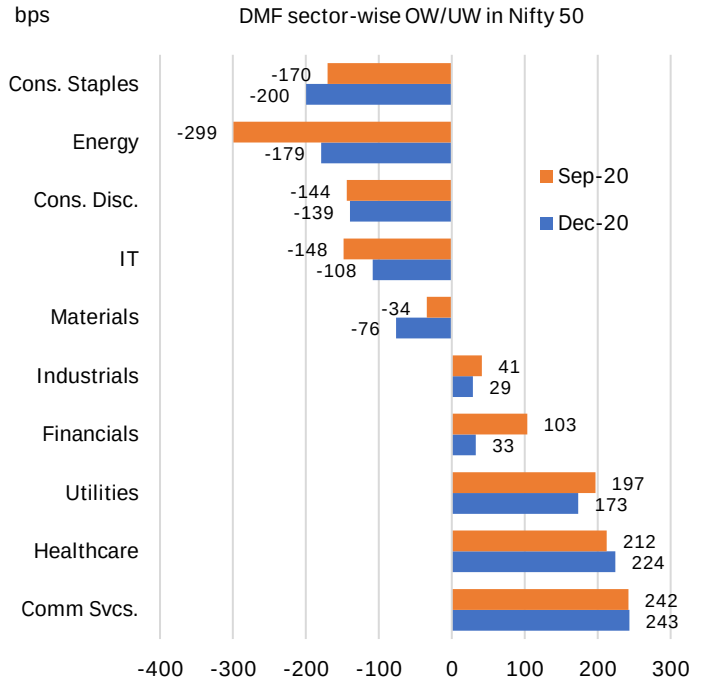
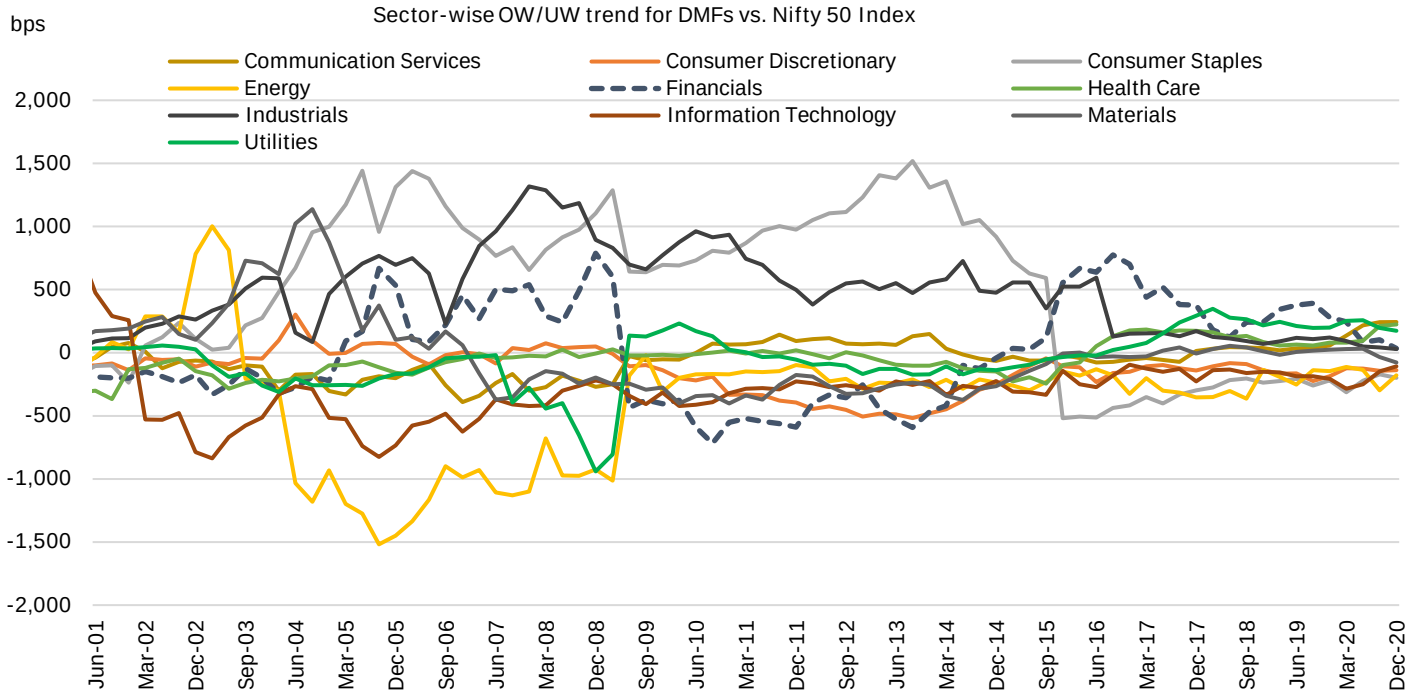


Figure 28: DMF sector-wise OW/UW in Nifty 50 relative to sector weight in the index (December 2020)



Source: CMIE Prowess, NSE.

Figure 29: DMF vs Nifty 50—Sector-wise OW/UW trend (bps)



Source: CMIE Prowess, NSE

FIIs strengthened their outsized bet on Financials and turned incrementally bearish on Energy: Unlike DMFs, FIIs increased their exposure to Financials over and above the increase in sector's weight in the Index, thereby strengthening their outsized OW bet on the sector. In fact, Financials is the only sector that FIIs are OW on within the Nifty 50 Index. FIIs turned incrementally bearish on Energy and changed their OW stance on the sector to Neutral in the December quarter, partly reflecting the sharp underperformance of the sector (particularly Reliance) with respect to the broader markets during the quarter. In terms of other sectors, FIIs remained negative on Consumer Staples, Healthcare, Industrials and Materials and neutral on Communication Services, Consumer Discretionary, Information Technology and Utilities.

FIIs strengthened their perennial OW position on Financials and turned incrementally negative on Energy.

Figure 30: FII sector allocation of the Nifty 50 universe (December 2020 vs. September 2020)

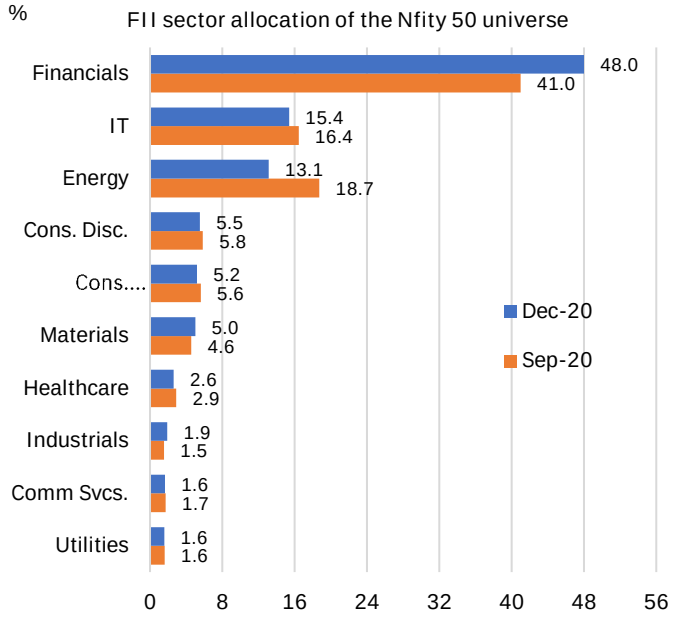
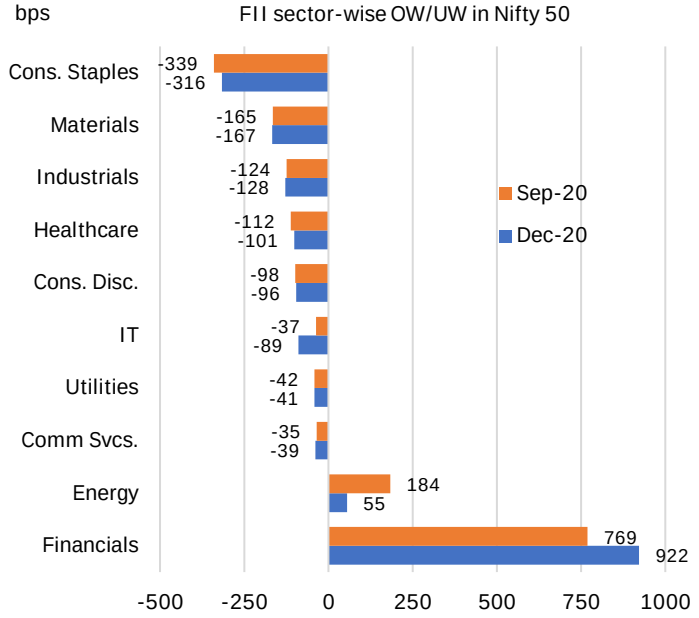
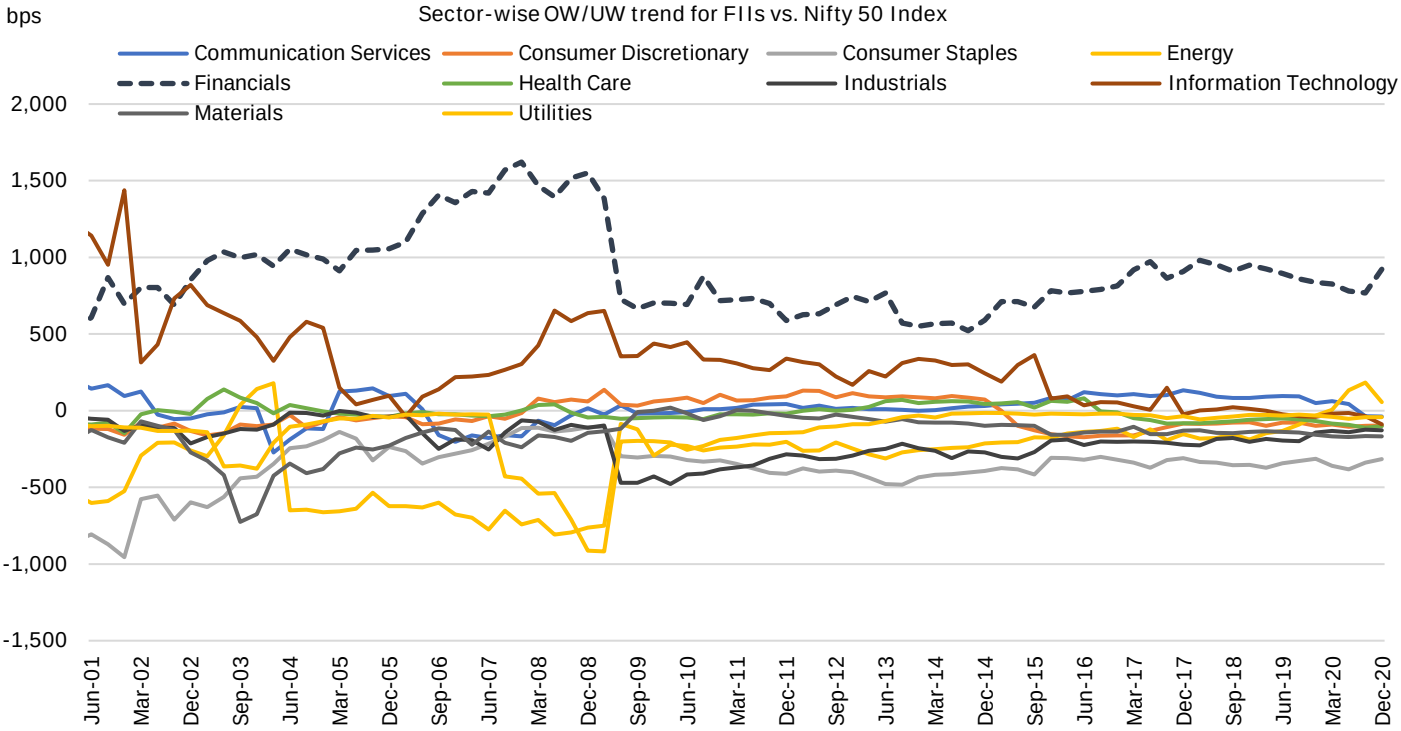


Figure 31: FII sector-wise OW/UW in Nifty 50 relative to sector weight in the index (December 2020)



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Figure 32: FII vs Nifty 50—Sector-wise OW/UW trend (bps)



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Sector-wise ownership of the Nifty 500 universe (December 2020): As of December 2020, Real Estate sector had the highest promoter shareholding at 65.7%, followed by Utilities at 61.1% (+59bps QoQ), Materials at 56.2% (-33bps QoQ) and Communication Services at 56.1% (+183bps QoQ). Utilities had the highest Government ownership at 24.8% (-137bps QoQ), followed by Energy at 12.4% (+263bps QpQ), even as both have seen a significant drop over the last few years. Industrials and Financials stood second and third with Government share at 9.1% (-162bps QoQ) and 8.2% (-49bps QoQ) respectively in the December quarter.

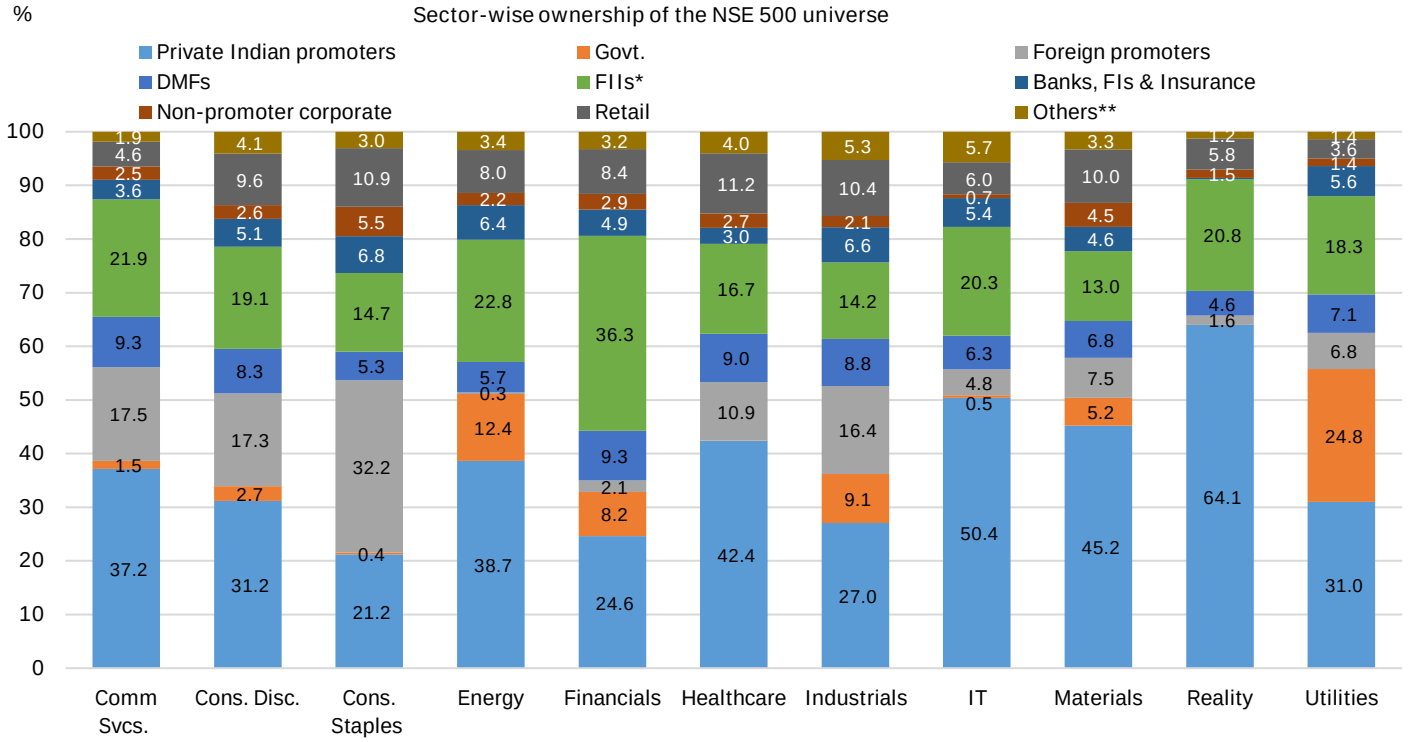
Sector-wise, all sectors except for Real Estate saw a drop in DMF ownership in the December quarter led by Utilities, Materials and Communication Services.

FIIs remained the biggest non-promoter owners of Financials in the Nifty 500 universe as well, followed by Energy and Communication Services.

In case of DMF ownership, all sectors except for Real Estate saw a drop in the December quarter led by Utilities, Materials and Communication Services. In terms of absolute share held by DMFs within the Nifty 500 universe, Communication Services maintained the top position among sectors with a DMF share of 9.3% (-72bps QoQ) in the December quarter, followed by Financials at 9.25% (-27bps QoQ) and Healthcare at 9.0% (-38bps QoQ). DMF ownership in Real Estate sector within the Nifty 500 Index jumped by 14bps QoQ to near-15-year high of 4.6% in the quarter ending December 2020.

FIIs remained the biggest non-promoter owners of Financials at 36.3% (+273bps QoQ), followed by Energy at 22.8% (-97bps QoQ) and Communication Services at 21.9% (-58bps QoQ). Except for Communication Services, Energy and Real Estate, all sectors within the Nifty 500 universe witnessed a sequential increase in FII ownership in the December quarter. In terms of overall foreign ownership (including foreign promoters), Consumer Staples leads with a 46.8% (+7bps QoQ) foreign share, followed by Communication Services at 39.4% (+39.4bps QoQ) and Financials at 38.5% (+235bps QoQ).

Figure 33: Nifty 500: Sector-wise ownership pattern across key stakeholders (December 2020)



Source: CMIE Prowess, NSE * FII ownership includes ownership through depository receipts held by custodians
**Others include other institutional and non-institutional non-promoter investors.

Figure 34: Sector allocation of the Nifty 500 universe for key stakeholders (December 2020)

%	Private Indian promoters	Govt	Foreign promoters	Domestic MFs	FIIs*	Banks, FIs & Insurance	Non-promoter corporate	Retail
Communication Services	3.4	0.8	5.7	3.8	3.0	2.2	2.8	1.7
Consumer Discretionary	7.5	3.9	15.1	9.1	7.0	8.1	7.7	9.3
Consumer Staples	6.5	0.6	35.5	7.3	6.8	13.7	20.6	13.4
Energy	11.5	21.6	0.3	7.7	10.3	12.5	8.2	9.5
Financials	18.2	35.6	5.7	31.0	41.0	23.7	26.4	24.9
Health Care	8.2	0.0	7.6	7.9	4.9	3.7	6.4	8.7
Industrials	5.4	10.7	11.8	8.0	4.3	8.6	5.1	8.4
Information Technology	20.3	1.2	7.0	11.5	12.5	14.2	3.5	9.7
Materials	13.8	9.3	8.3	9.5	6.1	9.1	16.8	12.2
Real Estate	1.7	0.0	0.2	0.6	0.9	0.0	0.5	0.6
Utilities	3.5	16.4	2.8	3.6	3.2	4.1	2.0	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

DMFs turned incrementally cautious on smaller financial companies and continued to favour COVID-immune sectors: DMFs' turned incrementally more negative on financial companies as reflected from their strengthened UW position on the sector within the Nifty 500 Index. This contrasts with a Neutral position on the sector within the Nifty 50 Index, indicating the sustenance of a cautious view of DMFs on smaller banks and NBFCs for yet another quarter.

DMFs turned incrementally more negative on smaller banks and NBFCs and reduced their UW stance on Energy.

The OW position on Industrials was retained despite a cut in allocation.

Similar to the trend seen in the Nifty 50 Index, DMFs turned incrementally less negative on Energy, and reduced their UW stance as the drop in DMFs' allocation to the sector was lower than the decline in its weight in the Index. This partly reflects a meaningful underperformance of the Energy sector vis-à-vis the broader Index in the December quarter. DMFs also reduced their UW stance on Information Technology during the quarter, while turned Neutral on Materials after remaining OW in the previous two quarters. In terms of other sectors, DMFs maintained their OW stance on Healthcare, Communication Services and Industrials, UW stance on Consumer Staples and Neutral stance on Consumer Discretionary, Materials, Real Estate and Utilities. DMFs' OW position on Industrials, however, has come off meaningfully over the last several years.

Notably, unlike FIIs, DMFs' portfolio has remained far more aligned to the Index for yet another quarter, with no outsized positive or negative bets on any sector.

Figure 35: DMF sector allocation of the Nifty 500 universe (December 2020 vs. September 2020)

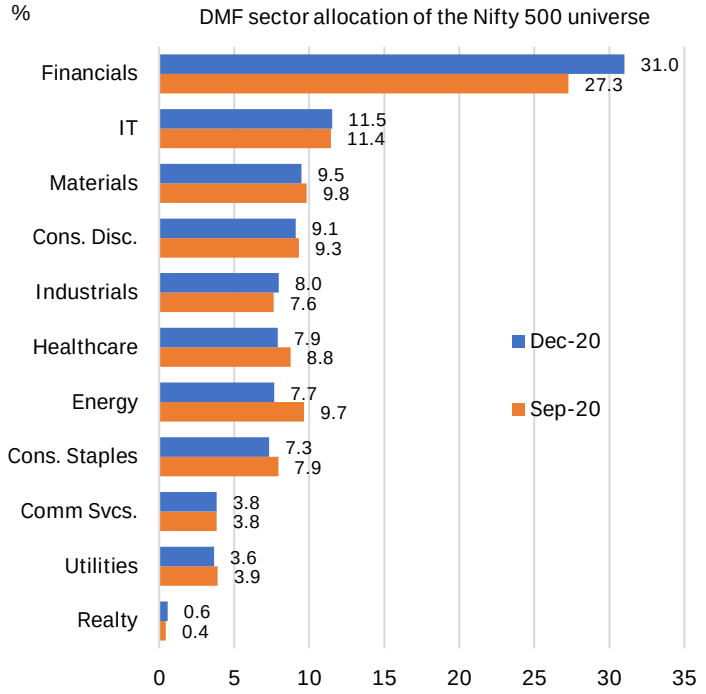
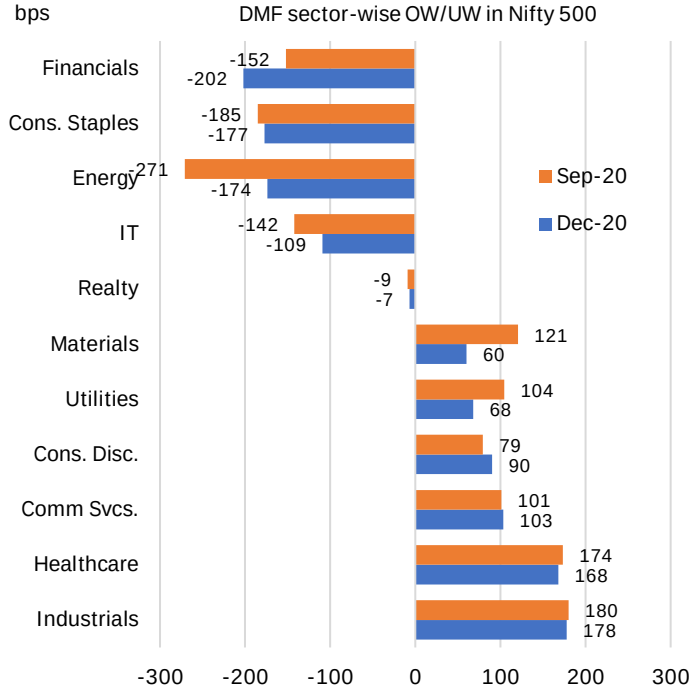
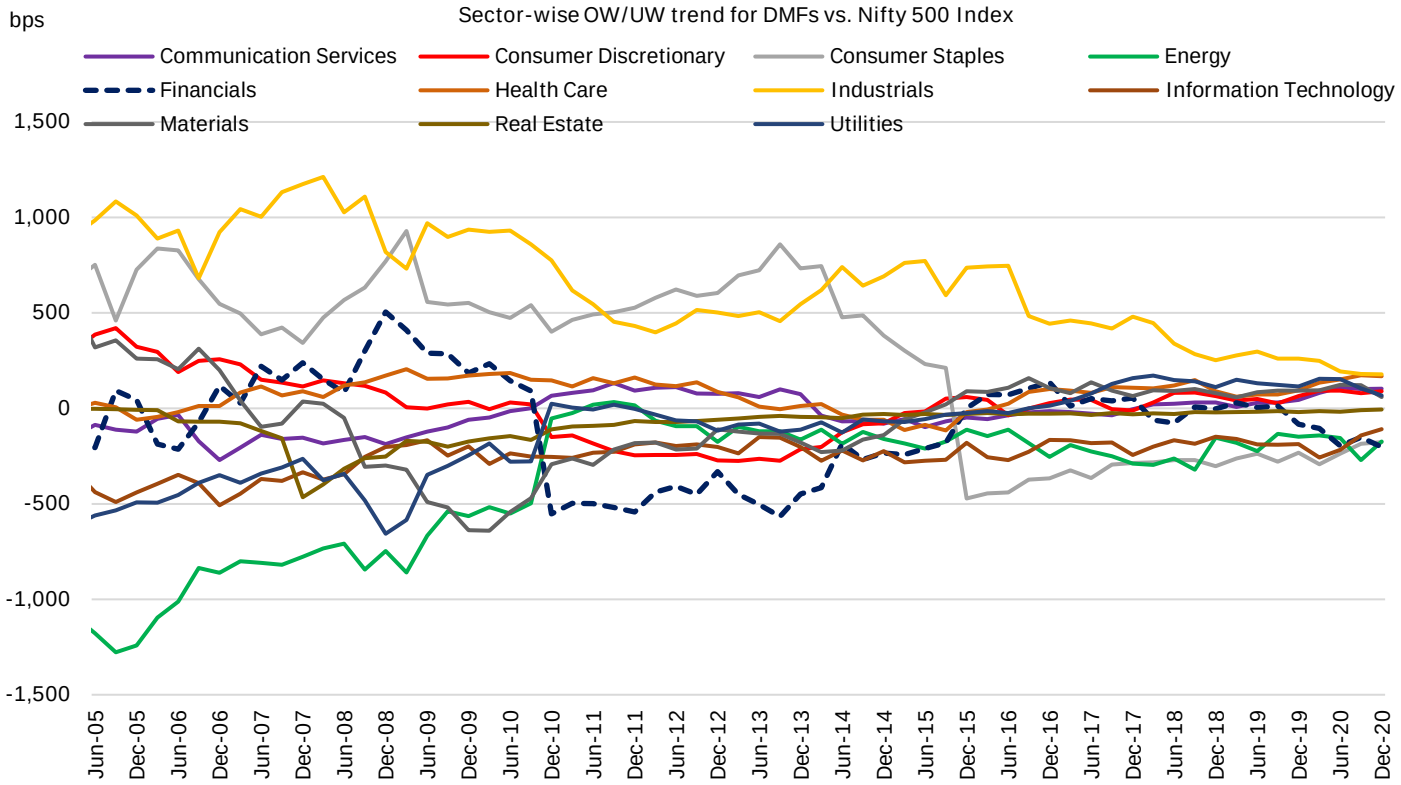


Figure 36: DMF sector-wise OW/UW in Nifty 500 relative to sector weight in the index (December 2020)



Source: CMIE Prowess, NSE

Figure 37: DMF vs Nifty 500—Sector-wise OW/UW trend (bps)



Source: CMIE Prowess, NSE

FIIs' sector stance contrasted DMFs' with a strengthened OW stance on Financials in the Nifty 500 Index: Unlike DMFs, FIIs strengthened their outsized bet on Financials relative to the Index to 10-quarter highs with an absolute allocation of 41% to the sector within the Nifty 500 Index. This has primarily come at the expense of a sharp reduction in allocation to Energy—a part of which is a reflection of the sector's underperformance with respect to broader markets in the December quarter.

FIIs continue to play the India story through Financials and Energy with the two accounting for 51.3% of their exposure to Nifty 500 vs. their combined weight of 42.4% in the Index as of December-end.

Besides Financials and Energy, the relative sector positioning of FIIs on other sectors within the Nifty 500 Index has remained broadly stable in the December quarter, and is in complete contrast to DMFs' sector stance. Contrary to DMFs, FIIs have perennially remained negative on the investment theme in the economy, maintaining their UW stance on Industrials and Materials since 2006. FIIs have also maintained their cautious view on India's consumption story and are UW on Consumer Staples as well as Consumer Discretionary, possibly reflecting valuation discomfort and uncertain demand environment. Amongst other sectors, FIIs maintained a negative stance on Healthcare and a neutral position on Utilities, Communication Services, Information Technology and Real Estate.

Figure 38: FII sector allocation of the Nifty 500 universe (December 2020 vs. September 2020)

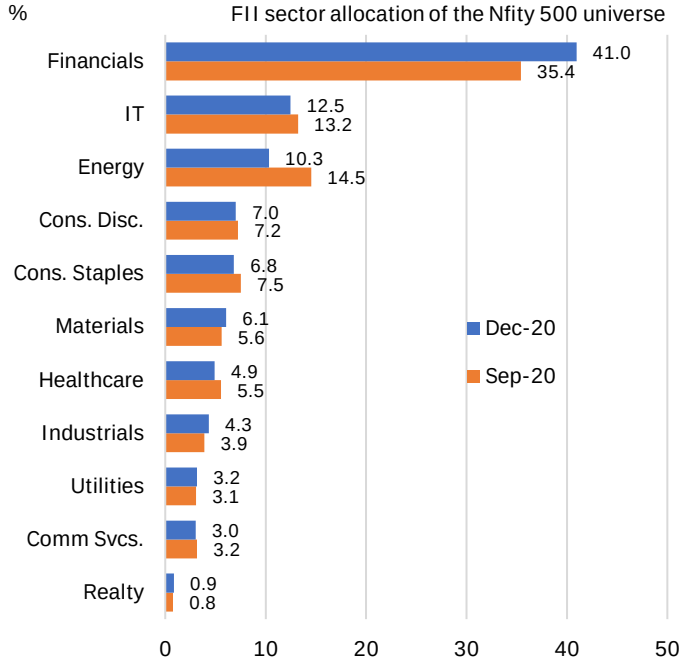
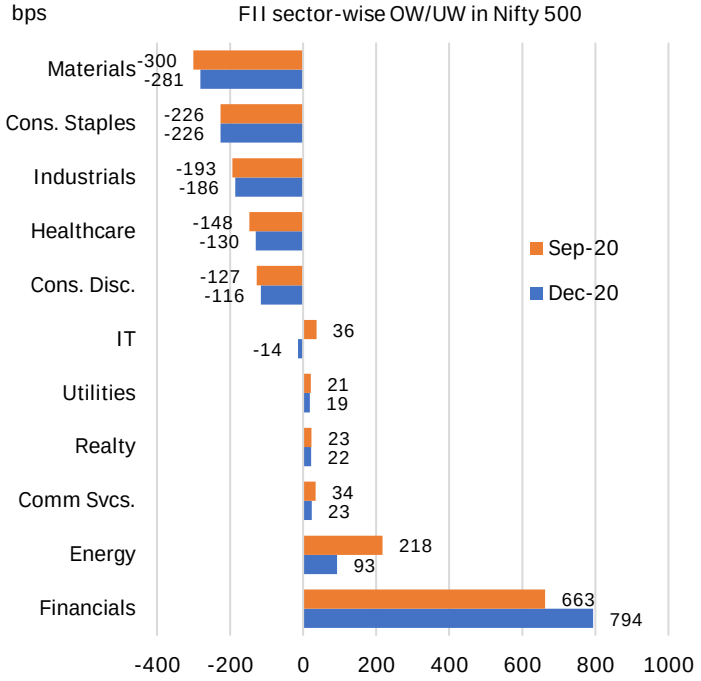
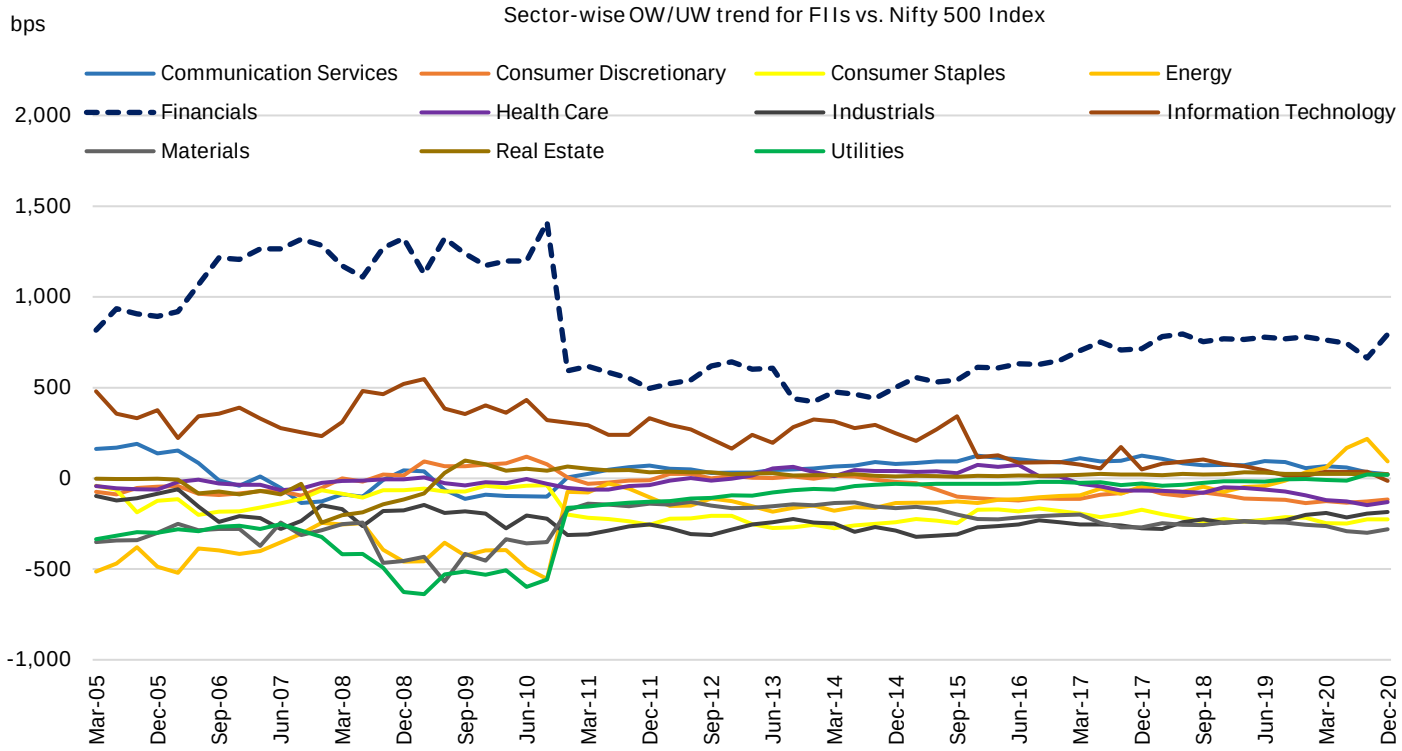


Figure 39: FII sector-wise OW/UW in Nifty 500 relative to sector weight in the index (December 2020)



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Figure 40: FII vs Nifty 500—Sector-wise OW/UW trend (bps)



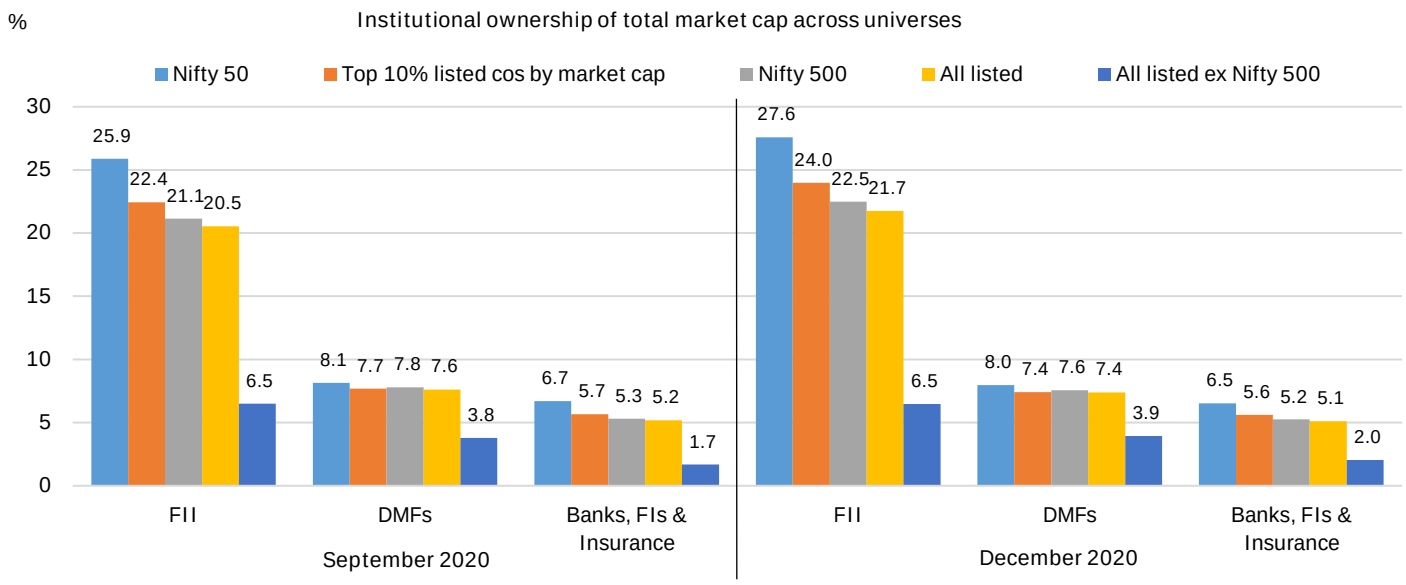
Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians.

Institutional ownership concentration analysis

Institutional ownership remained concentrated to larger companies: The charts below depict how institutional money is concentrated in the larger companies within the listed universe. FII ownership (including ownership through depository receipts) inched up across the board in the December quarter, translating into a net buying (increase in exposure) of ~Rs 1.1trn and Rs 1.5trn in the floating stock of Nifty 50 and the overall NSE-listed universe respectively. DMFs, on the other hand, reduced their ownership in equity markets for the third quarter in a row, with net selling (decrease in exposure) by DMFs in the December quarter estimated at ~Rs680bn in the overall NSE-listed floating stock. Banks, FIs and insurance companies also remained sellers of Indian equity markets in the December quarter, with net selling amounting to ~Rs315bn during the quarter. That said, FIIs' portfolio, with nearly 74% of investments made towards Nifty 50 companies (~58% of the NSE-listed universe), remains far more concentrated as compared to DMFs' who have a relatively much lower (63%) share of their portfolio allocated to Nifty 50.

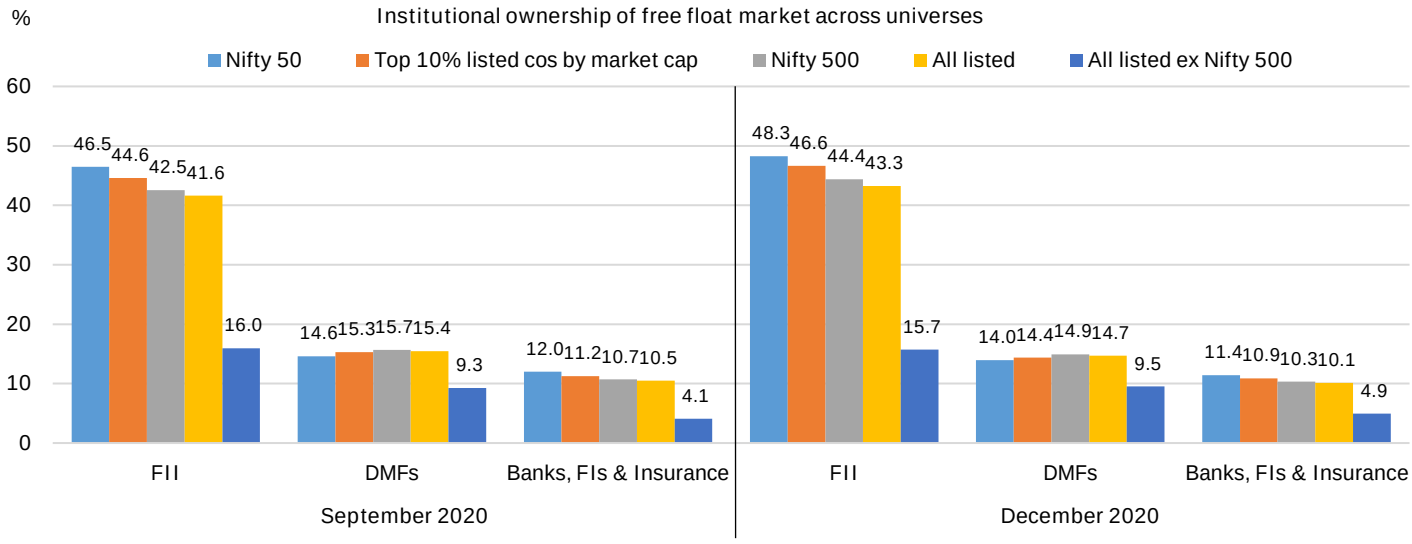
FIIs' portfolio, with nearly 74% of investments made towards Nifty 50 companies, is far more concentrated as compared to DMFs' who have a relatively much lower (63%) share of their portfolio allocated to Nifty 50.

Figure 41: Institutional ownership of total market cap across indices and stock universe (Dec 2020 vs. Sep 2020)



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians

Figure 42: Institutional ownership of floating stock across indices and stock universe (Dec 2020 vs. Sep 2020)



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians

Ownership concentration in terms of no. of companies with holding greater than 5%: Combining the theme of evolving institutional ownership patterns with concentration trends in the market brings out some interesting takeaways. We consider the FII portfolio in India since 2001, not in terms of its value, but in terms of the *number* of stocks. Notice how overall number of stocks in the portfolio has hovered around 1200 for the past 10 years. During this period (2010-), FIIs have poured in US$145bn+ on a net basis into the Indian equity markets. In the absence of new companies, the deployment of this capital has led to a gradual rise in their ownership of the incumbent portfolio. Illustratively, FIIs today have at least 5% ownership in ~70% of the Nifty 500 Universe (by no of companies), even as the share has fallen slightly over the last couple of years.

FIIs' investment concentration in terms of not of companies with at least 5% ownership has remained broadly steady over the last six years, while that of DMFs has more than doubled during this period.

In contrast with foreign investors, domestic mutual funds have led an amplified version of this behaviour, particularly since June 2014. Notice how the number of Nifty 500

companies with at least 5% DMF ownership has almost *doubled from 137 in June 2014 to ~280 now.* This is a direct consequence of the increased inflows into DMFs, particularly through the SIP route, the last few years. While the FIIs have broadly held their position, other institutional players have ceded space to DMFs.

Figure 43: Number of listed cos with FII holding >5%

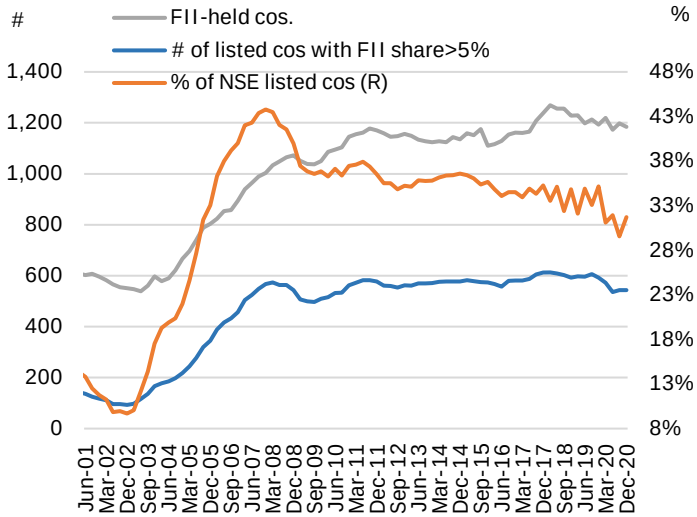
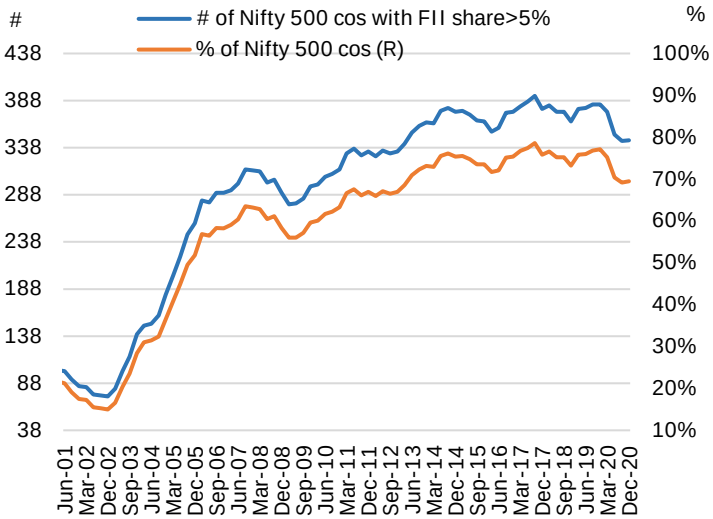


Figure 44: Number of Nifty500 cos with FII holding >5%



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians

Figure 45: Number of listed cos with DMF holding >5%

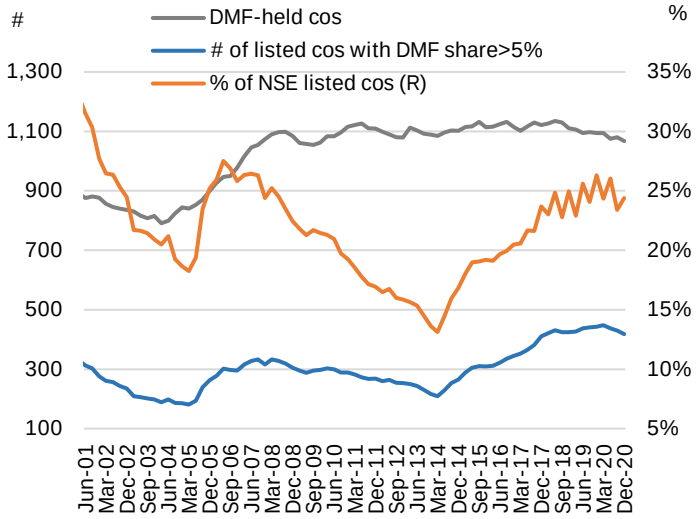
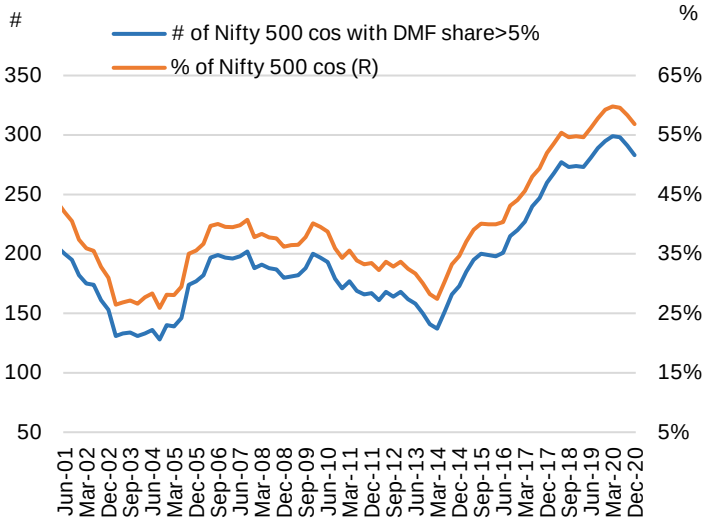


Figure 46: Number of Nifty500 cos with DMF holding >5%



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians

Figure 47: Number of listed companies with Banks, FIs & Insurance holding >5%

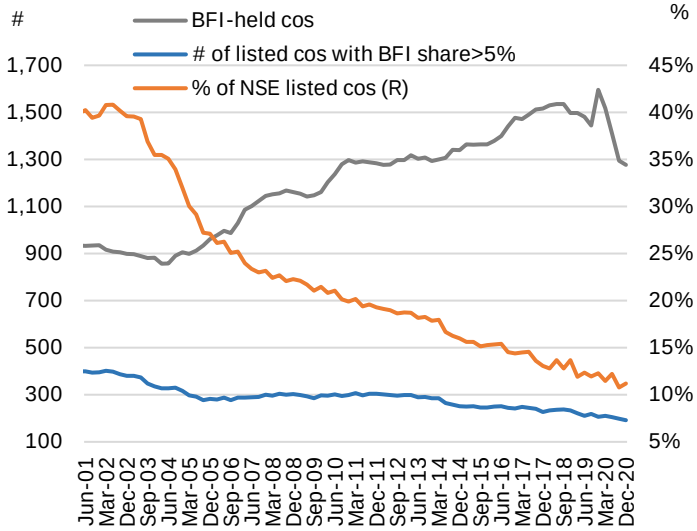
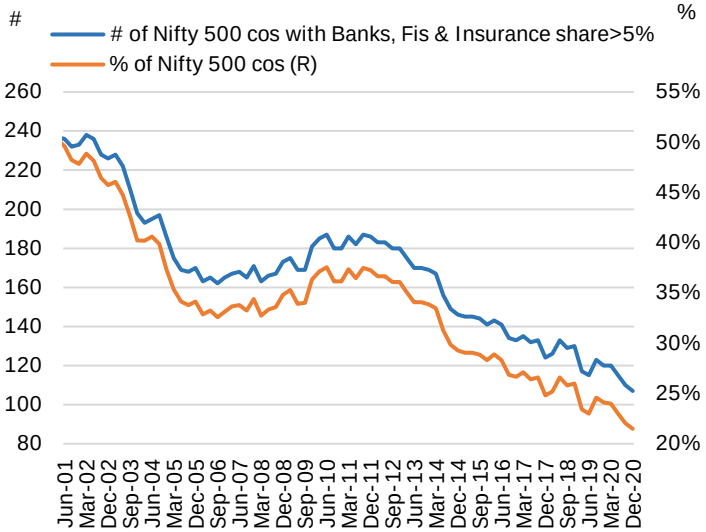


Figure 48: Number of Nifty500 companies with Banks, FIs & Insurance holding >5%



Source: CMIE Prowess, NSE. BFI = Banks, Financial Institutions and Insurance Companies.

Concentration of Institutional money in the top 10% companies by market cap:
So, if FIIs are content to maintain the stock count in their portfolio, what has been the experience with their top holdings? A benchmarking of the concentration levels in institutional portfolios with the Nifty 500 throws up some more interesting results. We use the market-cap share of the top 10% of stocks as the metric here.

While FIIs have tried to maintain the status quo, by and large, strong inflows of funds into DMFs have led to a curious combination of both rising concentration and a widening spread.

The 'foreign' portfolio was highly concentrated in 2001, with ~98% of the entire holdings in just the top 10% of stocks. That has since changed with increased understanding of the markets, dropping to 85% in 2006, and then gradually rising, to reach ~93% in December 2020. Just to clarify here: The rise in concentration in the last three years or so is merely a market feature—notice the commensurate (actually more acute) rise in the market-cap share of the top 10% of listed stocks during this period.

It is the DMFs that have actually seen their portfolios turning far more concentrated in the last three years. The top 10% of stocks by market cap now occupy ~84% of their total portfolio, vs. 75% in December 2017.

What one can gather from both the views (The top 10% of the portfolio and the number of stocks with at least 5% ownership) is that while FIIs have tried to maintain the status quo, by and large, strong inflows of funds into DMFs, barring a drop seen in FY21 thus far, have led to a curious combination of both rising concentration and a widening spread. DMFs do explore a larger set of stocks, but they are also largely content to pile on their existing holdings.

Figure 49:Trend of FII portfolio allocation to top 10% companies by total market cap

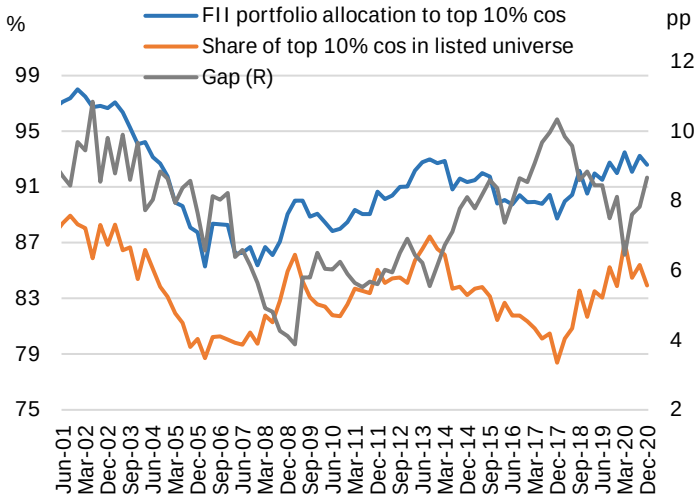
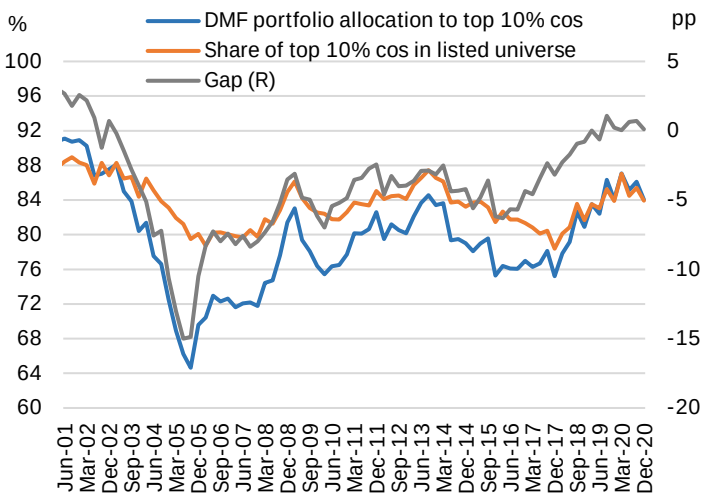


Figure 50:Trend of DMF portfolio allocation to top 10% companies by total market cap



Source: CMIE Prowess, NSE *FII ownership includes ownership through depository receipts held by custodians

Figure 51: **Trend of Banks, FIs & Insurance companies'** portfolio allocation to top 10% cos by total market cap

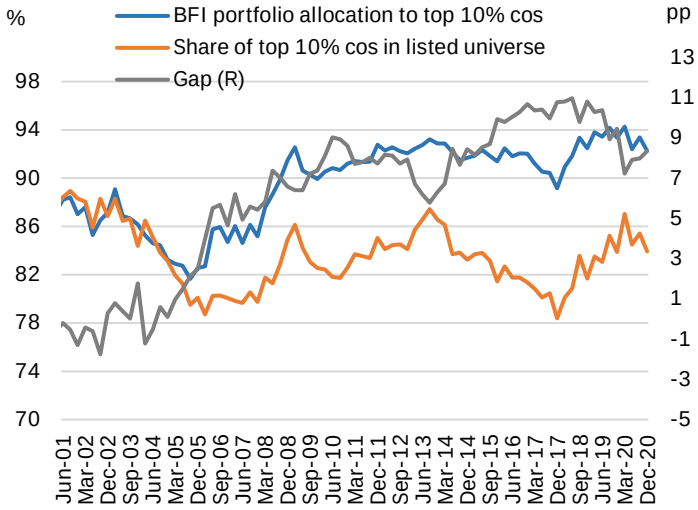
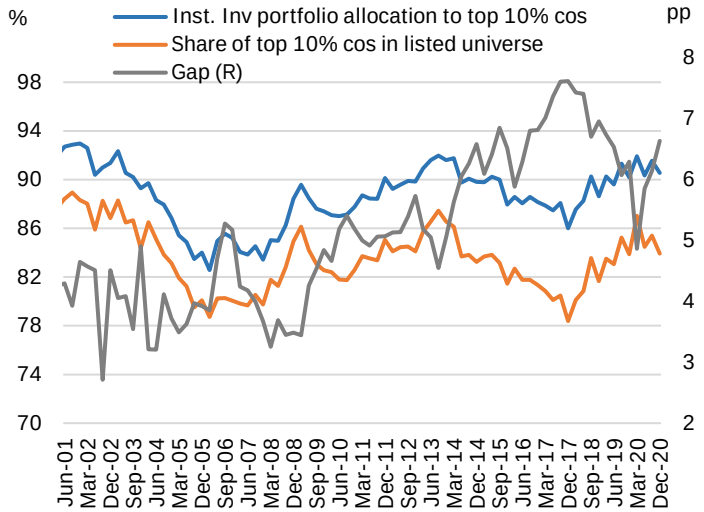
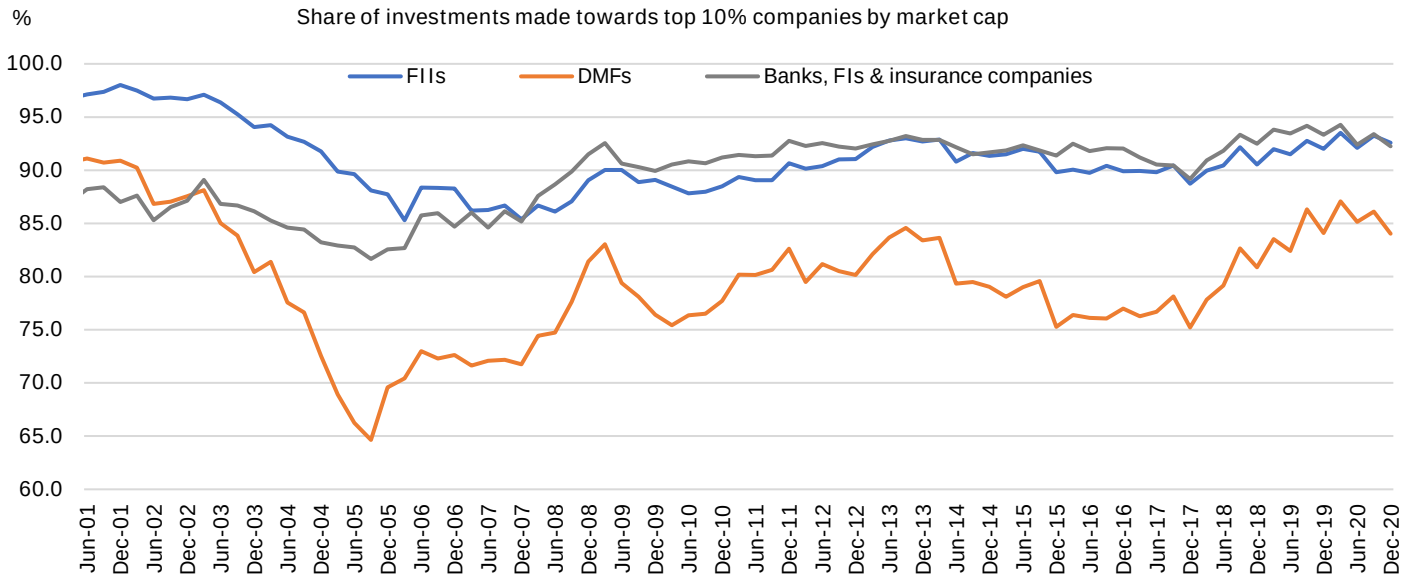


Figure 52: Trend of institutional investment share in top 10% companies by total market cap



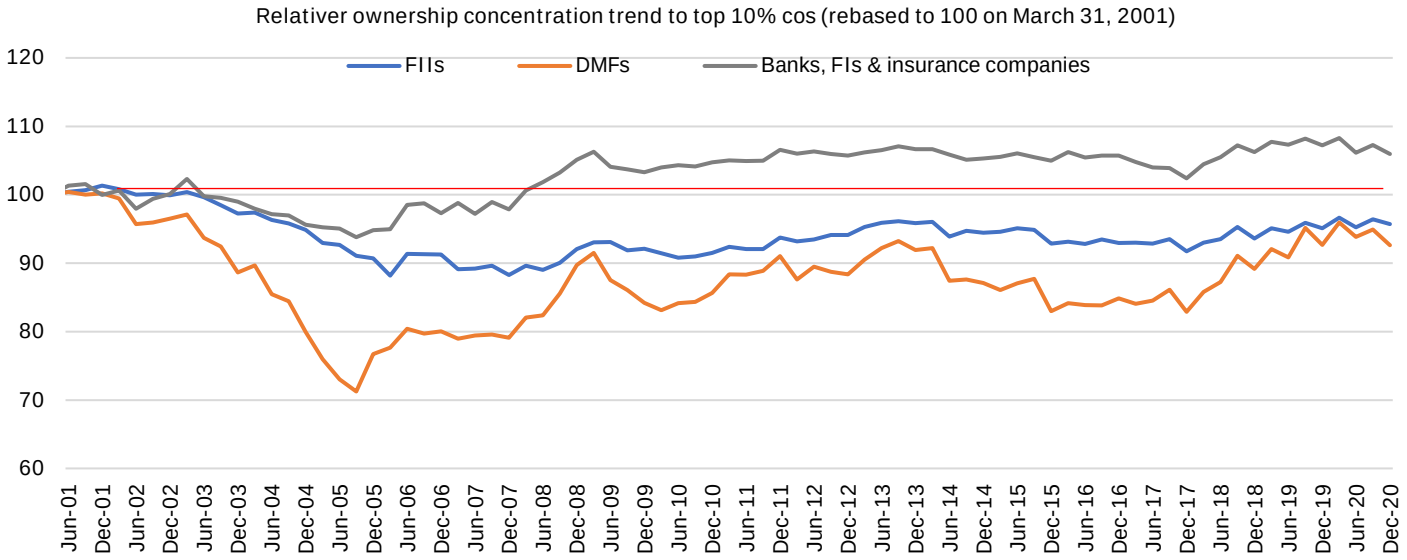
Source: CMIE Prowess, NSE. BFI = Banks, Financial Institutions and Insurance Companies

Figure 53: Share of investments made by institutional investor categories towards top 10% companies



Source: CMIE Prowess, NSE

Figure 54: Relative ownership concentration trend of institutional investors in top 10% companies by market cap



Source: CMIE Prowess, NSE. Concentration here is calculated as the share of investments made towards top 10% companies by market cap.

COVID-19 Update: India in the midst of a severe second wave; vaccine drive gathers momentum[5]

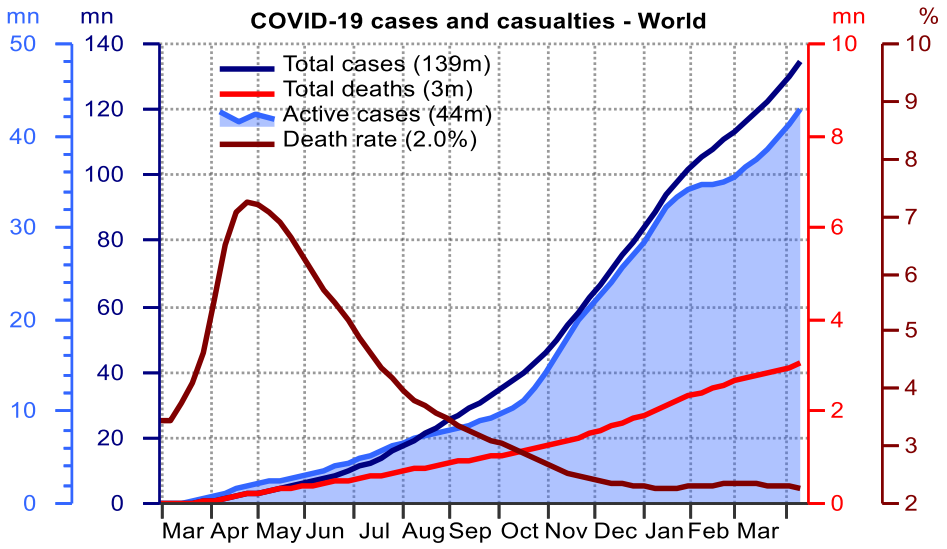
India is in the midst of a severe second wave of COVID-19 cases that began in mid-February. Selected states in India saw a surge in cases in the second half of February, while other states have followed closely and are now recording a high growth rate in active cases. As of April 14th, 2021, daily cases recorded were ~200k, active cases were at ~1.5mn, well past the peak of the first wave in September 2020, and confirmed cases were ~14mn. India's daily share of global cases added has jumped to 26.7% while the total share stands at 10.1% as of April 14th, 2021.

Five states – Maharashtra, Chhattisgarh, Uttar Pradesh, Karnataka and Kerala—account for 67% of the total active cases in the country while most of the fatalities being reported are from Maharashtra, Chhattisgarh, Delhi and Gujarat. A steady drop in active cases in January and February along with the launch of the vaccination drive led to people letting their guard down and disobeying social distancing norms. India's deadly second wave is believed to be a consequence of this complacent behaviour and possibly a more virulent strain. Several states have announced night curfews, weekend lockdowns and other restrictions to reign in the spread of the virus and prevent state healthcare systems from being overburdened.

Daily cases globally have increased to ~600k on April 12th as compared to ~355k at the end of February, led by a surge in cases in India, Brazil and France. Vaccination drives are rapidly progressing in the United States, China and the United Kingdom where a large part of their population has received at least one dose of a vaccine.

India opened up its vaccination program on April 1st, 2021 to all citizens above 45 years of age. We have now administered over 11.44 crore doses and rank third globally with respect to the number of vaccine doses administered. The vaccination programme is gathering momentum as the government has now allowed private workplaces to set up vaccination centres for employees and has also decided to fast track approvals for foreign vaccines that have been approved in other countries.

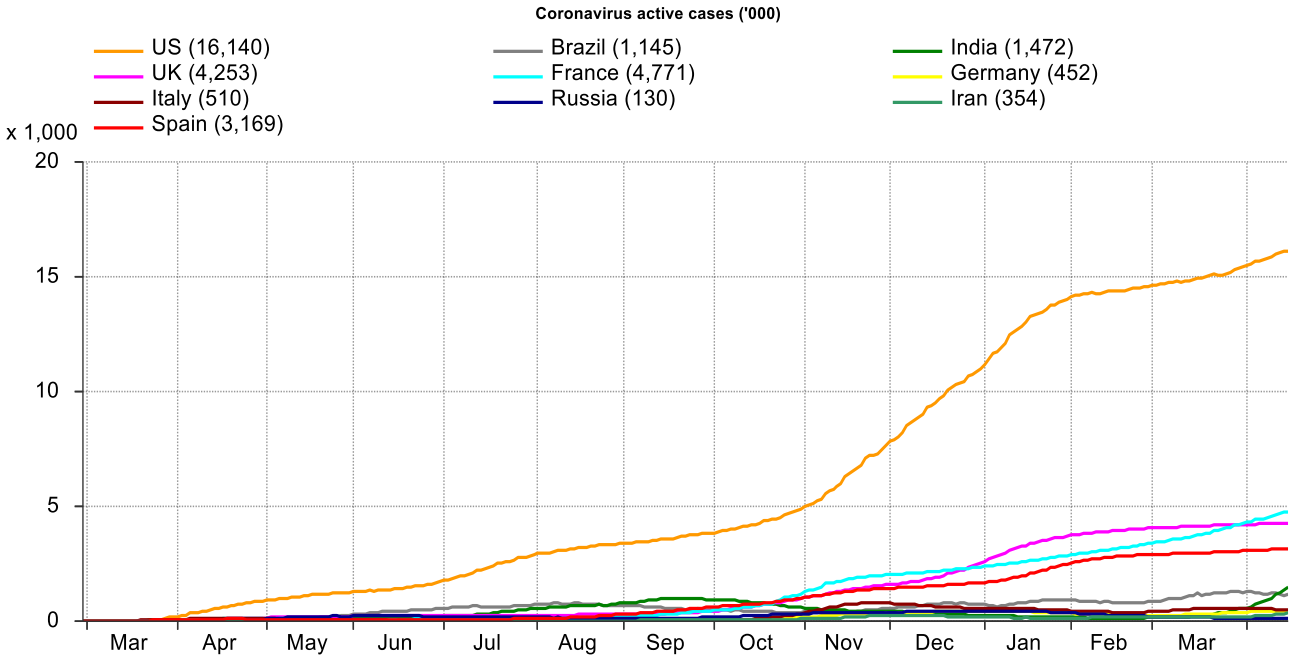
Figure 55: COVID-19 status—Worldwide



Source: Refinitiv Datastream,

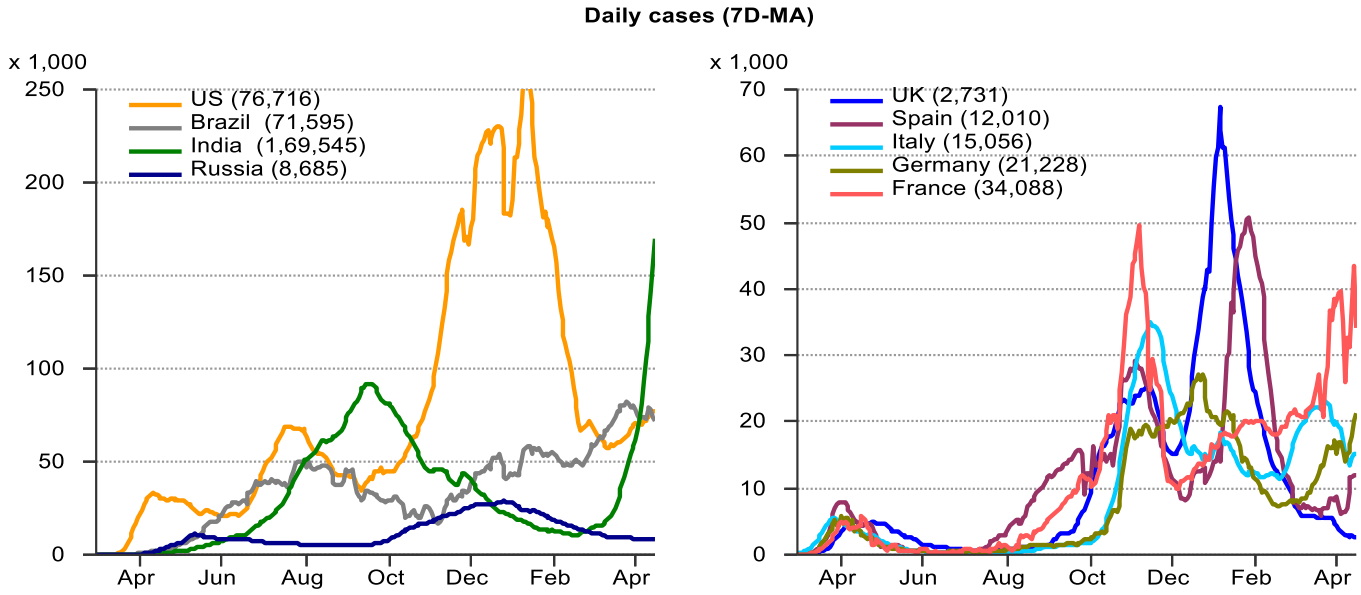
[5] The minor variations in data across tables and charts are due to different data sources.

Figure 56: COVID-19 active cases across countries (As on April 15th)



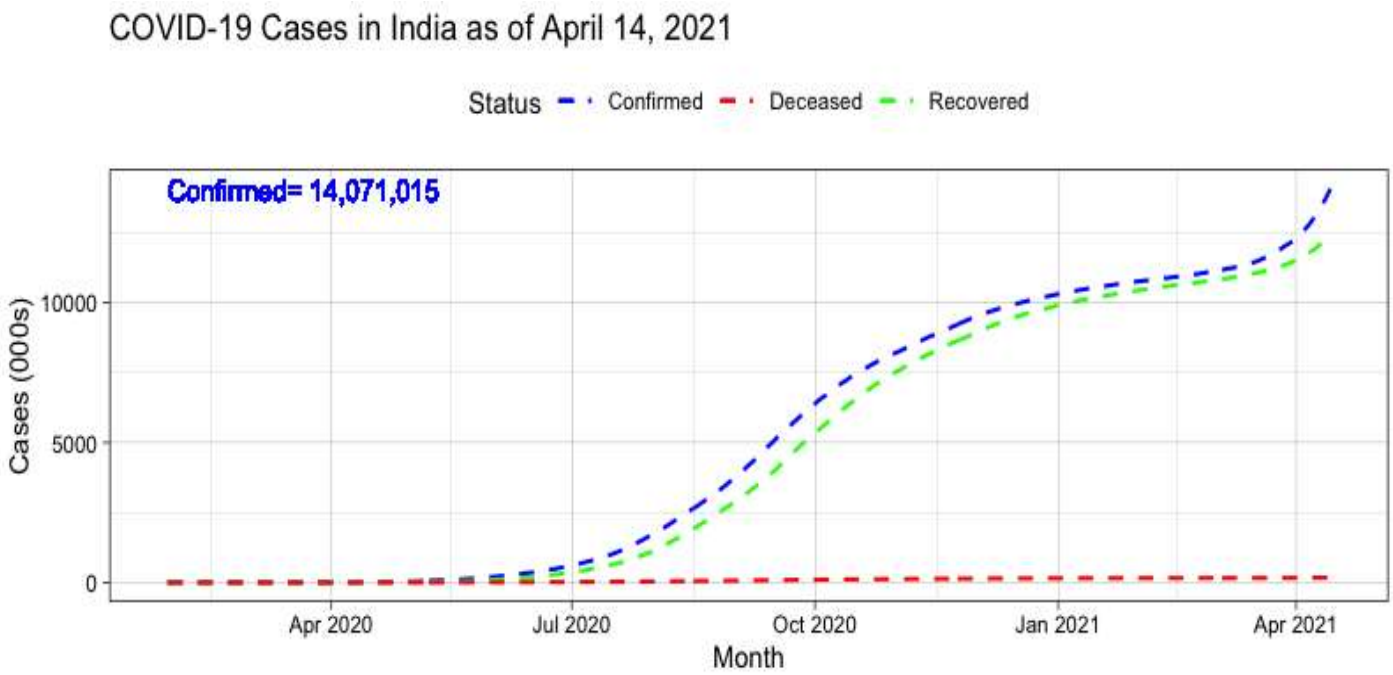
Source: Refinitiv Datastream,

Figure 57: Daily Coronavirus cases across countries (As on April 15th)



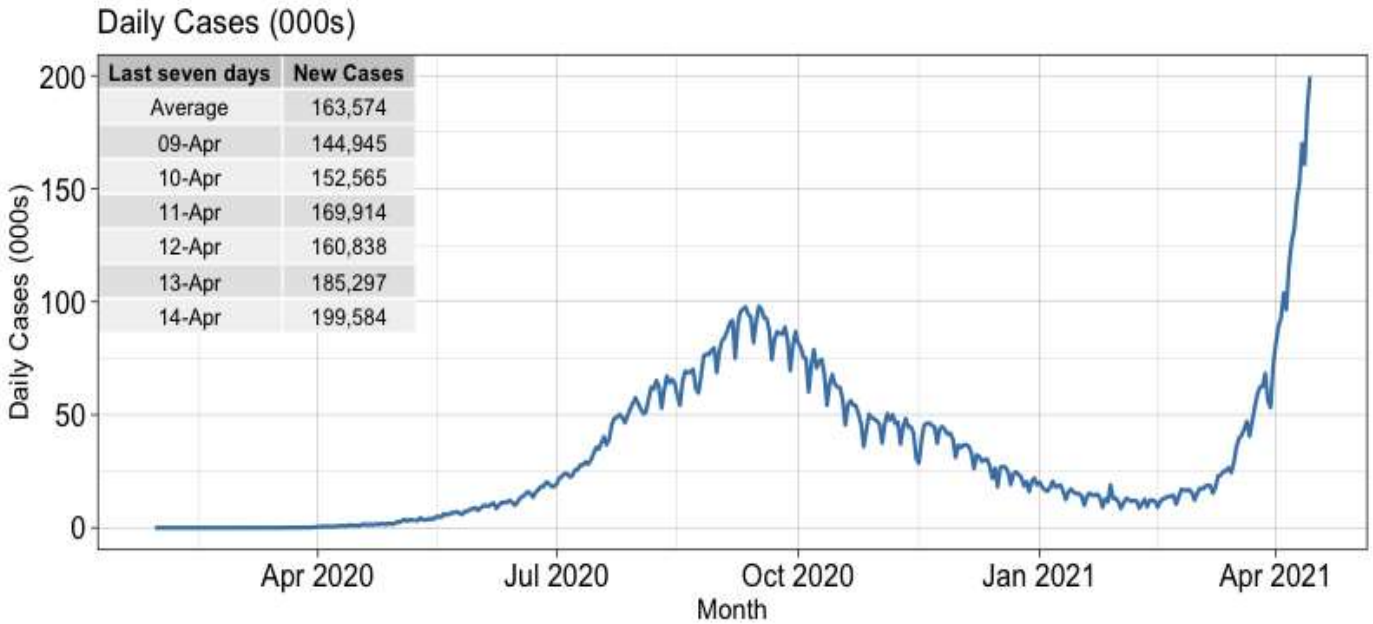
Source: Refinitiv Datastream,

Figure 58: COVID-19 cases in India (as of April 14th, 2021)



Source: covid19india.org.

Figure 59: COVID-19 daily cases in India (as of April 14th, 2021)

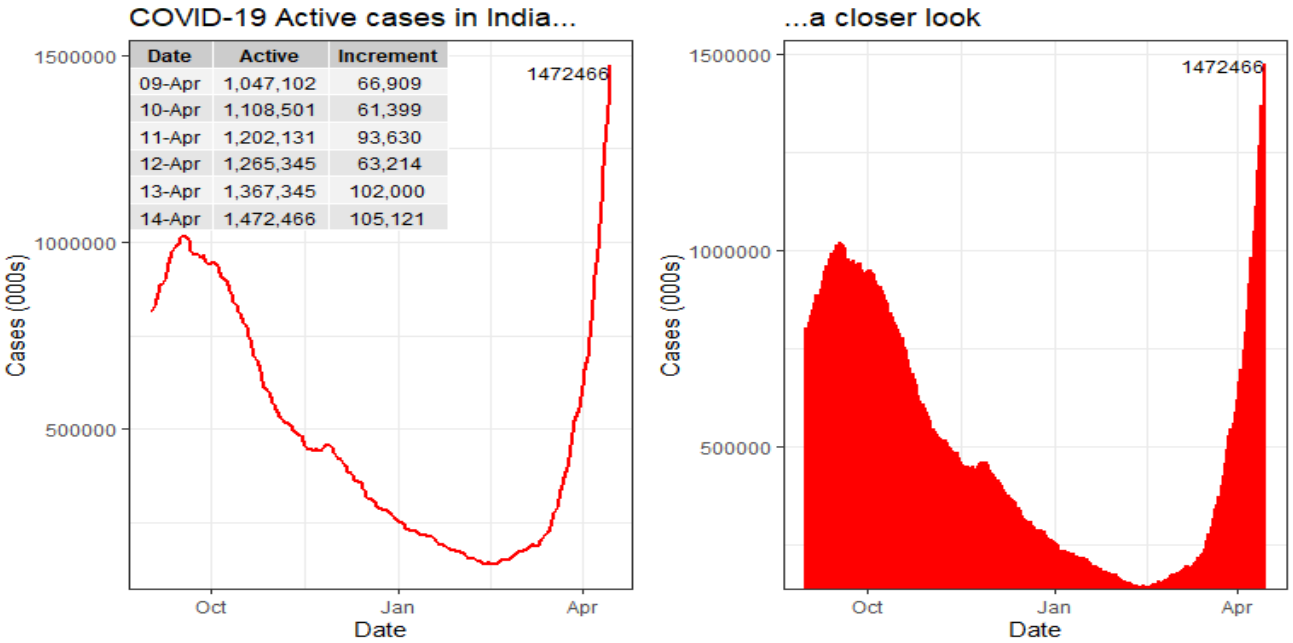


Last seven days	New Cases
Average	163,574
09-Apr	144,945
10-Apr	152,565
11-Apr	169,914
12-Apr	160,838
13-Apr	185,297
14-Apr	199,584

Source: covid19india.org

Figure 60: COVID-19 active cases in India (as of April 14th, 2021)

Active cases in India have been on the rise since mid-February and have surged past the peak of the first wave, which was ~1,000,000.



Source: covid19india.org.

Figure 61: Month-wise COVID-19 progression

Month	Daily confirmed (average)	Daily recovered (average)	Daily deceased (average)	Cumulative confirmed (eop)
Jan'20	0	0	0	1
Feb'20	0	0	0	3
Mar'20	53	5	2	1,635
Apr'20	1,100	297	37	34,866
May'20	5,000	2,671	137	190,649
Jun'20	13,000	8,533	400	585,795
Jul'20	36,000	24,119	618	1,697,068
Aug'20	64,000	56,188	932	3,687,953
Sep'20	87,000	81,087	1,089	6,310,276
Oct'20	60,000	71,595	756	8,183,317
Nov'20	43,000	46,633	517	9,463,178
Dec'20	27,000	32,037	366	10,286,234
Jan'21	14,313	16,736	164	10,758,551
Feb'21	12,622	12,520	98	11,111,978
Mar'21	35,763	22,191	186	12,220,634
Apr'21*	132,170	68,118	728	14,071,015

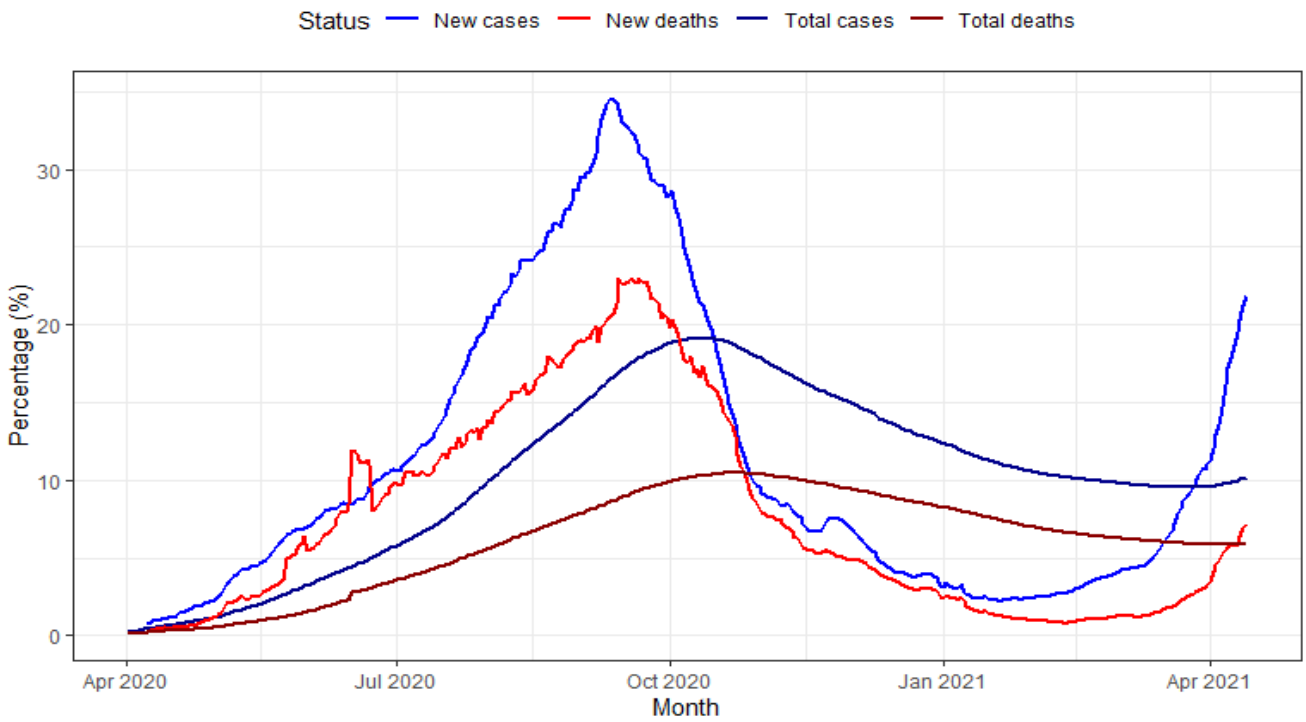
Source: covid19india.org. * As of April 14th, 2021

Daily cases in India experienced a spike in the second half of February and have been on a steep rise since then. India is currently in the midst of a second wave, much more severe than the first one. Daily additions surged past the peak of the first wave in the first week of April, prompting state governments to announce night curfews amongst other restrictions. As of April 14th, 2021, daily cases recorded were 200,739 (source: covid19india.org). Maharashtra, Chhattisgarh, Delhi, Kerala and Karnataka are amongst

the states recording higher number of cases but there is an observed rise in most states of the country now.

The country's total and daily share of incremental cases, as of September 30th , 2020, was 19% and 27% respectively which fell to 10% and 3% respectively by January 31st, 2021. However, the severe second wave in cases has resulted in a jump in India's daily share—27%--while the total share recorded was 10% on April 13th, 2021. This means that India now contributes a third of all cases globally on a day-to-day basis. India's mortality rate has remained stable at 1.4% despite the surge in cases, compared to the global mortality rate of 2.2%, attributed to increased medical knowledge of the virus and treatment options for severe cases. Our daily share of global deaths has jumped to ~8% while the recovery rate has seen a significant decline to 88% from a peak of ~98%. All Indian states tested aggresively through the crisis which was key in containing the spread. Testing numbers have increased meaningfully since February due to the increase in active cases, but they have not yet proven to be enough to contain the rapid spread of the second wave.

Figure 62: **India's** share of the global cases and deaths



Source: worldometers.info, covid19india.org.

Figure 63: **India's share of the global coronavirus cases (daily** and total)

Date	World Daily	India Daily	India Total	World Total	India Daily Share	India Total Share
29-Feb	1,446	0	3	6,612	0.0%	0.0%
31-Mar	75,337	146	1,397	779,093	0.2%	0.2%
30-Apr	81,818	1,801	34,863	3,130,737	2.2%	1.1%
31-May	105,773	8,782	190,609	5,998,835	8.3%	3.2%
30-Jun	173,337	18,641	585,481	10,239,259	10.8%	5.7%
31-Jul	289,732	61,242	1,695,988	17,356,471	21.1%	9.8%
31-Aug	261,172	69,921	3,691,166	25,233,053	26.8%	14.6%
30-Sep	324,096	86,821	6,312,584	33,685,132	26.8%	18.7%
31-Oct	473,618	46,963	8,184,082	45,711,629	9.9%	17.9%
30-Nov	496,892	31,118	9,462,809	62,778,734	6.3%	15.1%
30-Dec	747,664	21,822	10,266,674	81,926,995	2.9%	12.5%
30-Jan	513,060	13,044	10,747,091	103,130,698	3.0%	10.0%
28-Feb	322,449	15,614	11,111,978	114,644,539	4.8%	9.7%
30-Mar	564,208	53,480	12,149,335	126,974,931	9.5%	9.6%
12-Apr	605,682	161,736	13,689,453	135,316,038	26.7%	10.1%

Source: worldometers.info, covid19india.org.

Figure 64: **India's** share of the global coronavirus deaths (daily and total)

Date	World Daily	India Daily	India Total	World Total	India Daily Share	India Total Share
29-Feb	22	0	0	105	0.0%	0.0%
31-Mar	4,722	3	35	40,947	0.1%	0.1%
30-Apr	5,830	75	1,154	228,555	1.3%	0.5%
31-May	2,768	223	5,408	362,422	8.1%	1.5%
30-Jun	4,907	507	17,400	494,899	10.3%	3.5%
31-Jul	6,194	793	36,511	661,570	12.8%	5.5%
31-Aug	4,198	819	65,288	836,248	19.5%	7.8%
30-Sep	6,399	1,181	98,678	999,643	18.5%	9.9%
31-Oct	6,526	470	122,111	1,179,890	7.2%	10.3%
30-Nov	8,564	482	137,621	1,450,169	5.6%	9.5%
30-Dec	14,976	299	148,738	1,783,126	2.0%	8.3%
30-Jan	14,092	127	154,312	2,230,317	1.0%	7.0%
28-Feb	9,918	108	156,603	2,544,070	1.1%	6.2%
31-Mar	12,174	459	162,927	2,786,089	3.8%	5.8%
13-Apr	13,279	1,027	172,085	2,928,714	7.7%	5.9%

Source: worldometers.info, covid19india.org.

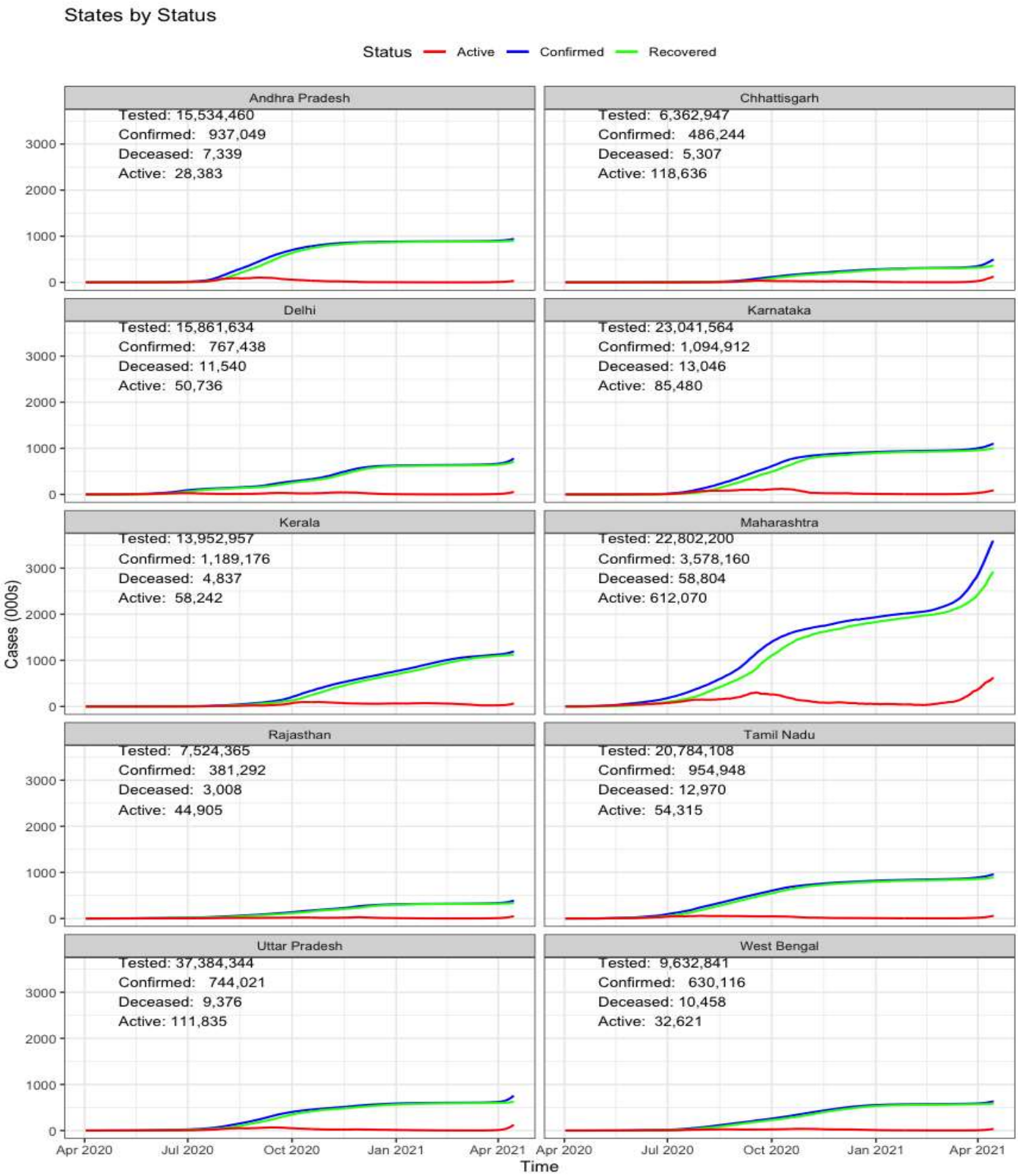
Total confirmed cases in a state can be misleading since area, population and population density need to be taken into account as well. States that saw the virus spreading early on include Maharashtra, Kerala and Delhi but were able to bring their case load under control. These states also saw surges after festivals in August and November but were on a steady downward trajectory from December to February, before the second wave began. Maharashtra, Karnataka, Delhi, Kerala and Uttar Pradesh are currently recording a high number of daily cases, but the growth rate in active cases seems to be rising across the country, not just here.

Mortality levels pan-India remain stable at 1.4% while recovery rates, at ~88%, have significantly declined from the ~99% seen in Janurary 2021 due to the severe second

wave. All states have increased their testing capacity but due to the difference in demographics, ranking of states differs meaningfully across confirmed and active cases.

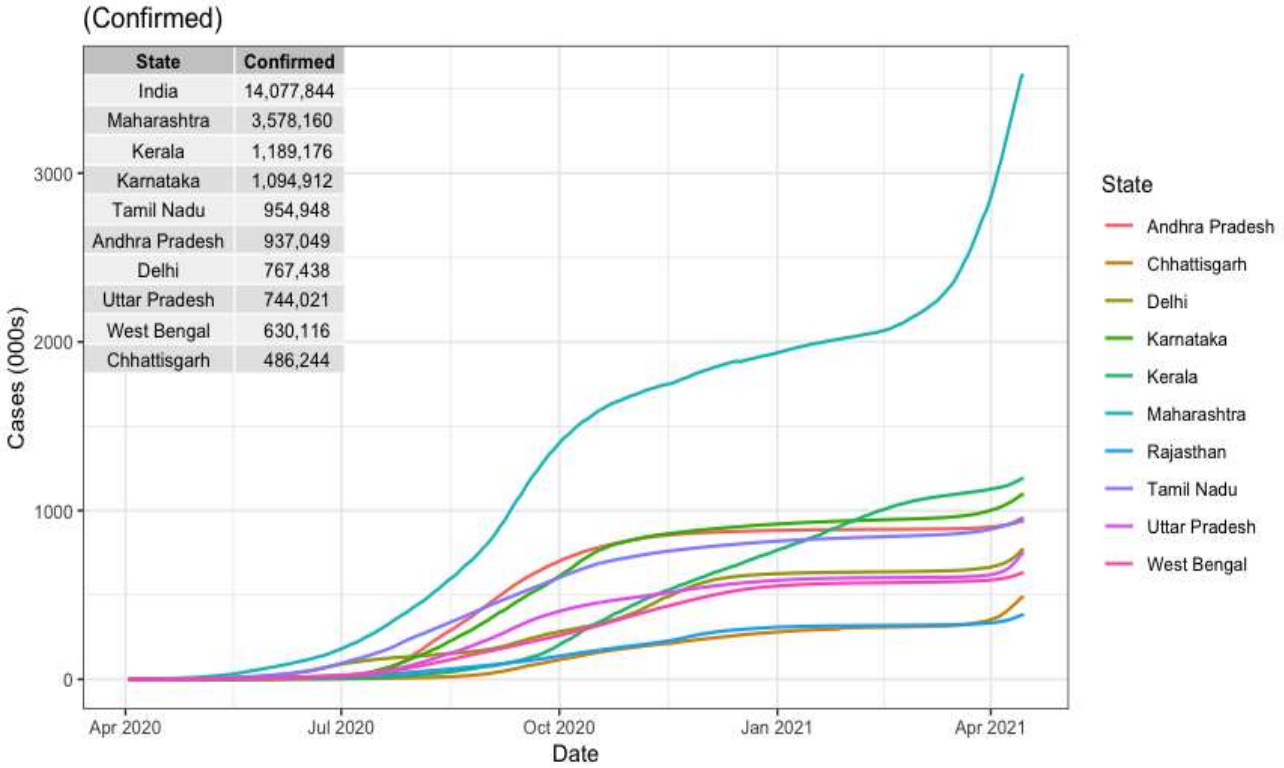
The sustained drop in active cases in January and February along with the launch of the vaccination drive led to people letting their guard down and not abiding by social distancing norms. Elections in five states (West Bengal, Tamil Nadu, Assam, Kerala and Puducherry), and religious festivals have not helped either. The second wave is believed to be a consequence of this complacent behaviour and a potentially more virulent strain of the virus. In terms of response measures, several states have now announced night curfews and other restrictions to reign in the spread of the virus and prevent state healthcare systems from being overburdened.

Figure 65: COVID-19 Cases Panel in India across States (Confirmed, Recovered, Active) as of April 14th, 2021



Source: covid19india.org

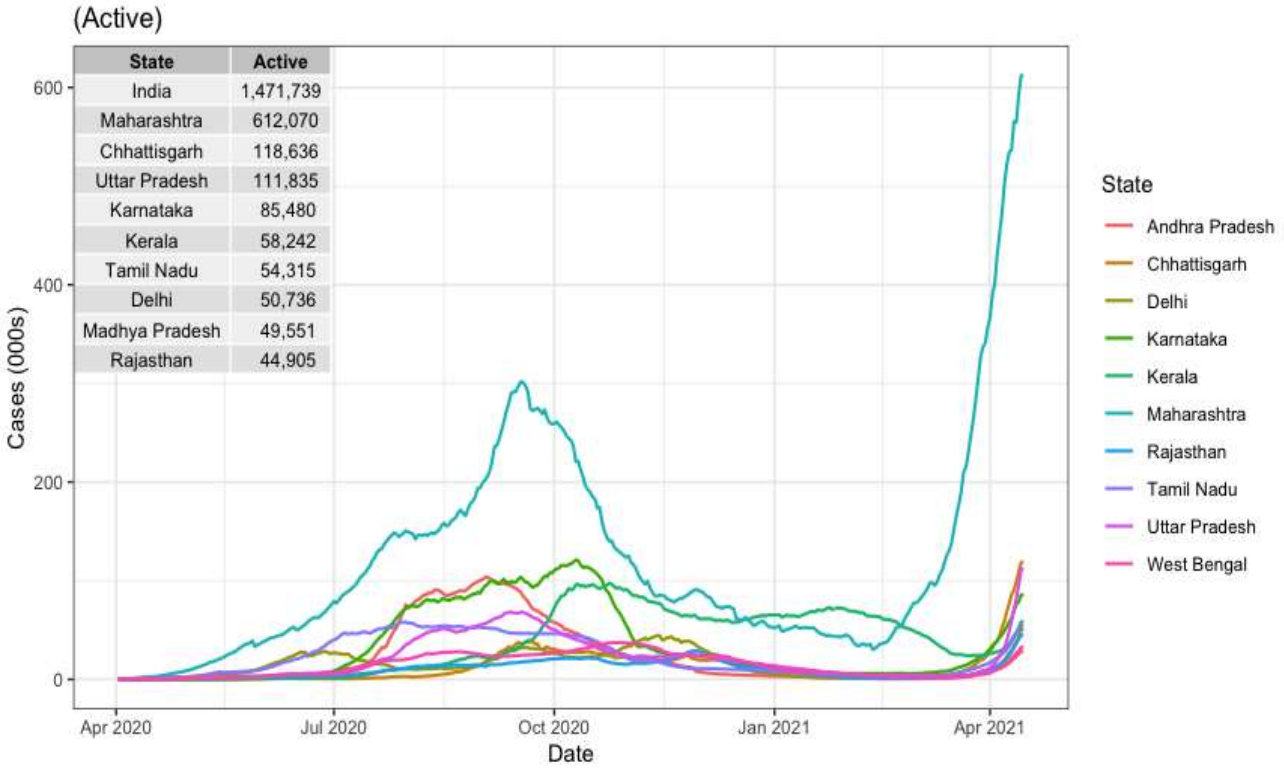
Figure 66: COVID-19 Confirmed cases across major states, as of April 14th, 2021



State	Confirmed
India	14,077,844
Maharashtra	3,578,160
Kerala	1,189,176
Karnataka	1,094,912
Tamil Nadu	954,948
Andhra Pradesh	937,049
Delhi	767,438
Uttar Pradesh	744,021
West Bengal	630,116
Chhattisgarh	486,244

Source: covid19india.org

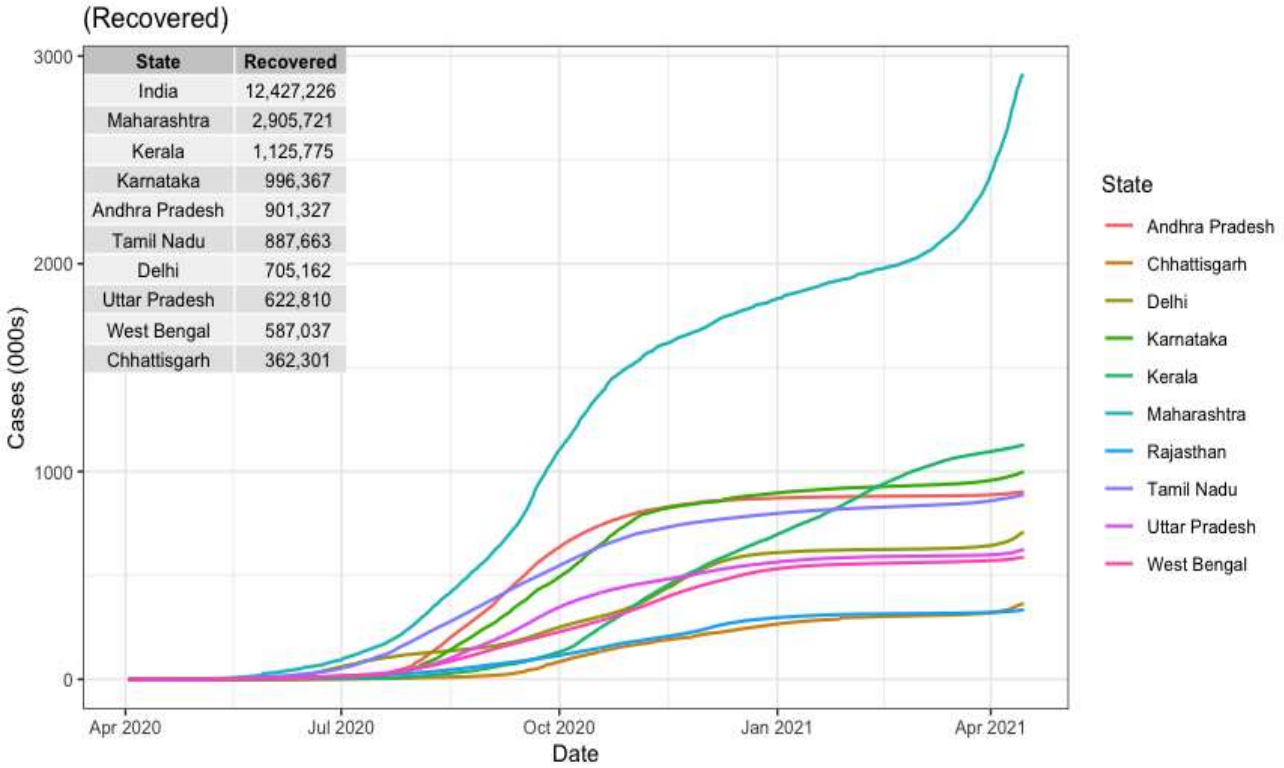
Figure 67: COVID-19 Active cases across major states, as of April 14th, 2021



State	Active
India	1,471,739
Maharashtra	612,070
Chhattisgarh	118,636
Uttar Pradesh	111,835
Karnataka	85,480
Kerala	58,242
Tamil Nadu	54,315
Delhi	50,736
Madhya Pradesh	49,551
Rajasthan	44,905

Source: covid19india.org

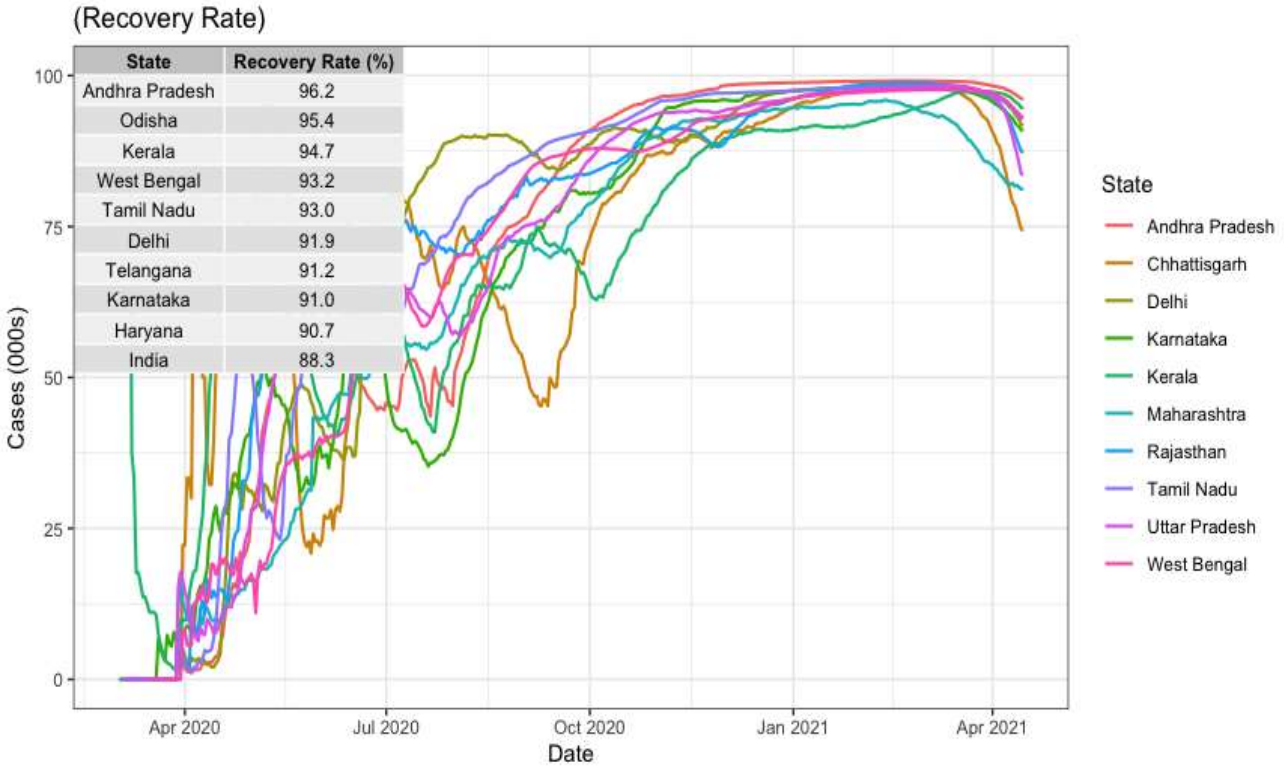
Figure 68: COVID-19 Recovered cases across major states, as of April 14th, 2021



State	Recovered
India	12,427,226
Maharashtra	2,905,721
Kerala	1,125,775
Karnataka	996,367
Andhra Pradesh	901,327
Tamil Nadu	887,663
Delhi	705,162
Uttar Pradesh	622,810
West Bengal	587,037
Chhattisgarh	362,301

Source: covid19india.org

Figure 69: COVID-19 recovery rate across major states, as of April 14th, 2021

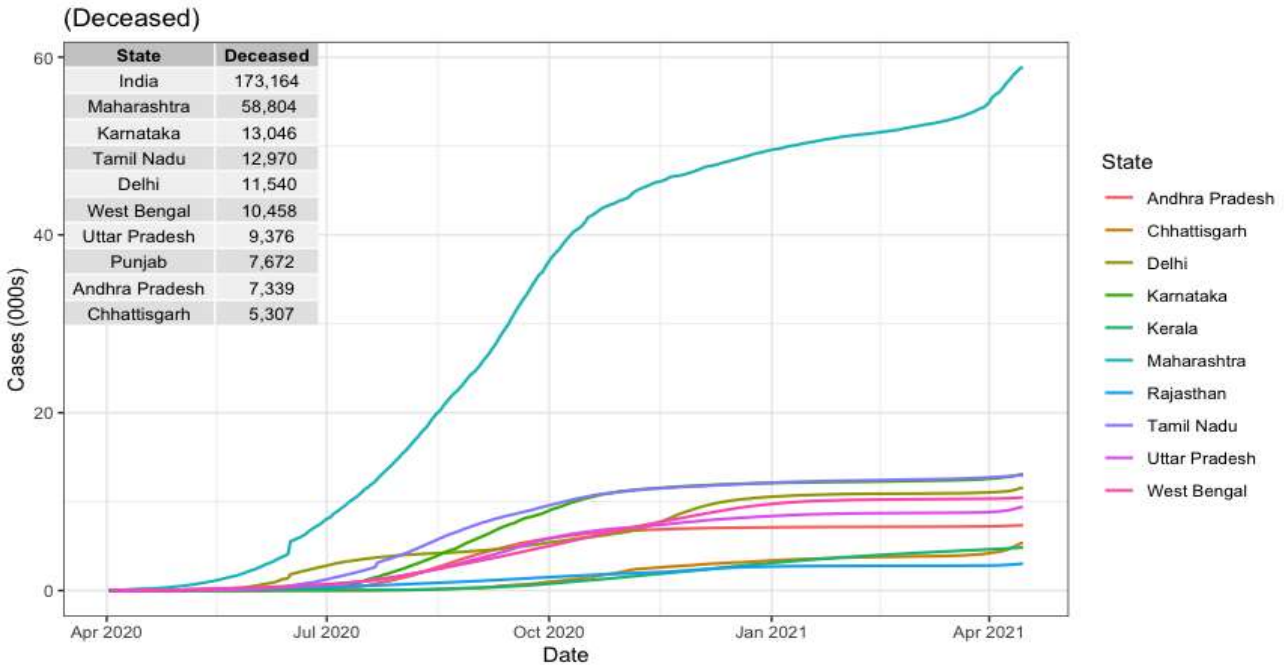


State	Recovery Rate (%)
Andhra Pradesh	96.2
Odisha	95.4
Kerala	94.7
West Bengal	93.2
Tamil Nadu	93.0
Delhi	91.9
Telangana	91.2
Karnataka	91.0
Haryana	90.7
India	88.3

Source: covid19india.org

There remains a divergence between mortality rates of different states. Punjab continues to report a higher case fatality rate (CFR), 2.7%, than the rest of the country, 1.4%. Maharashtra, West Bengal and Sikkim are also reporting a higher CFR than the national average, 1.6%, 1.7% and 2.1% respectively. Despite a higher caseload in Kerala, their mortality rate remains one of the lowest in the country. India's mortality rate, at 1.4%, is meaningfully lower than the global average and has managed to remain low even through the second wave.

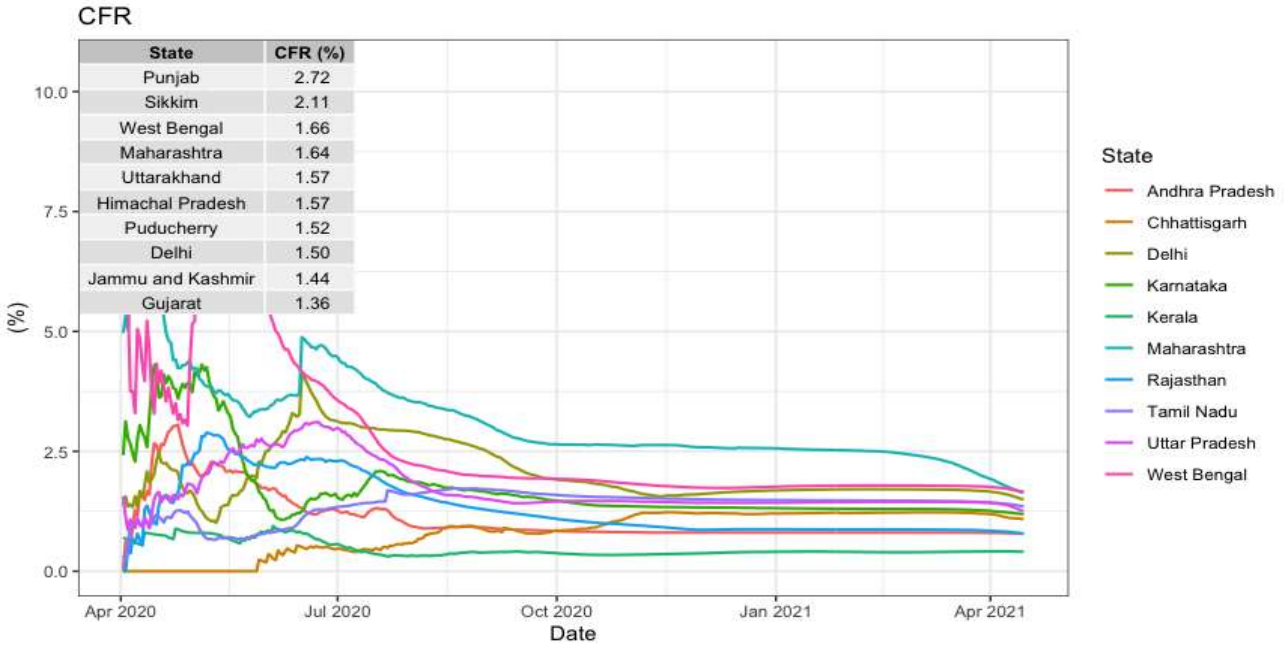
Figure 70: COVID-19 Deceased cases across major states, as of April 14th, 2021



State	Deceased
India	173,164
Maharashtra	58,804
Karnataka	13,046
Tamil Nadu	12,970
Delhi	11,540
West Bengal	10,458
Uttar Pradesh	9,376
Punjab	7,672
Andhra Pradesh	7,339
Chhattisgarh	5,307

Source: covid19india.org

Figure 71: COVID-19 Case Fatality Rate (CFR) across major states, as of April 14th, 2021

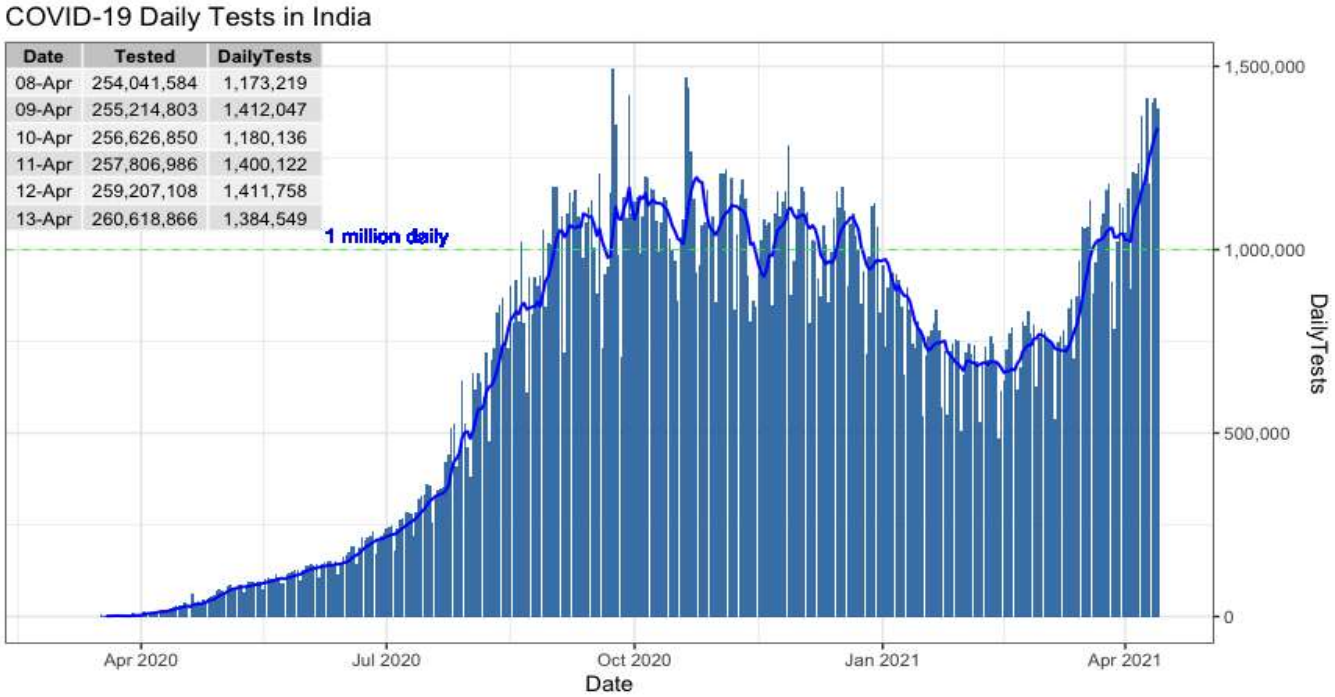


State	CFR (%)
Punjab	2.72
Sikkim	2.11
West Bengal	1.66
Maharashtra	1.64
Uttarakhand	1.57
Himachal Pradesh	1.57
Puducherry	1.52
Delhi	1.50
Jammu and Kashmir	1.44
Gujarat	1.36

Source: covid19india.org

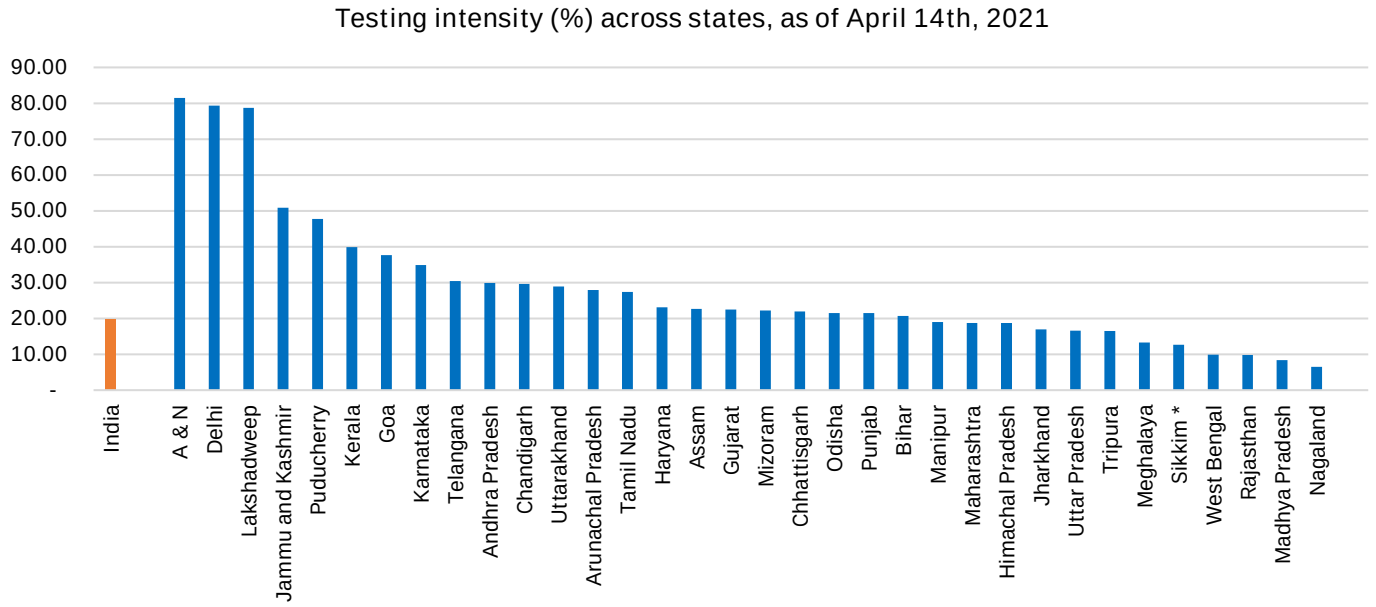
The differentiating factor in containing the spread of the virus across countries continues to be the extent of testing. Uttar Pradesh and Bihar have conducted the most number of tests so far while Delhi, Kerala, Karnataka and Andhra Pradesh have covered almost 79%, 40%, 35% and 30% of their population respectively. Testing intensity has been scaled up in states affected by the recent surge. Madhya Pradesh, Rajasthan and West Bengal continue to do poorly with respect to testing with 8.4%, 9.8% and 10% testing intensities respectively.

Figure 72: Daily COVID-19 tests in India, as on April 14th, 2021 (the trend line denotes 7DMA)



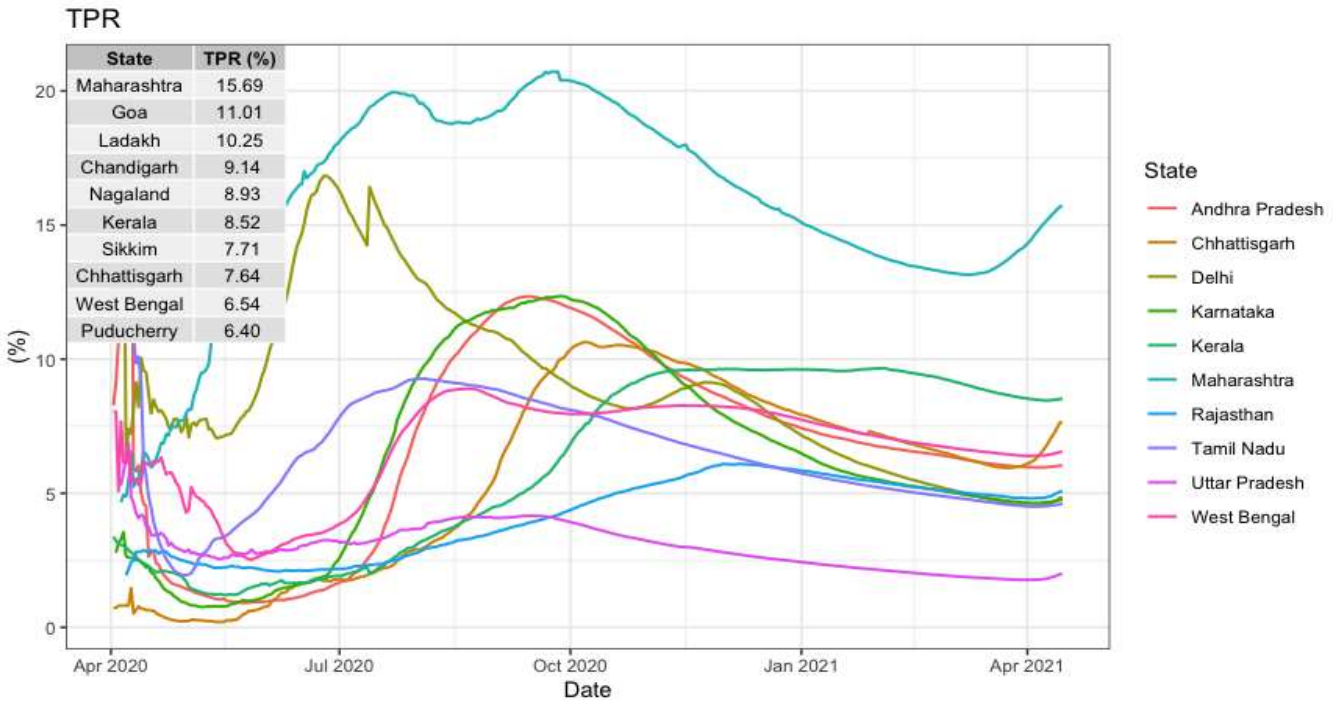
Source: covid19india.org

Figure 73: Testing intensity across states as of April 14th, 2021



Source: covid19india.org

Figure 74: COVID-19 Test Positivity Rate (TPR) across major states, as of April 14th, 2021



State	TPR (%)
Maharashtra	15.69
Goa	11.01
Ladakh	10.25
Chandigarh	9.14
Nagaland	8.93
Kerala	8.52
Sikkim	7.71
Chhattisgarh	7.64
West Bengal	6.54
Puducherry	6.40

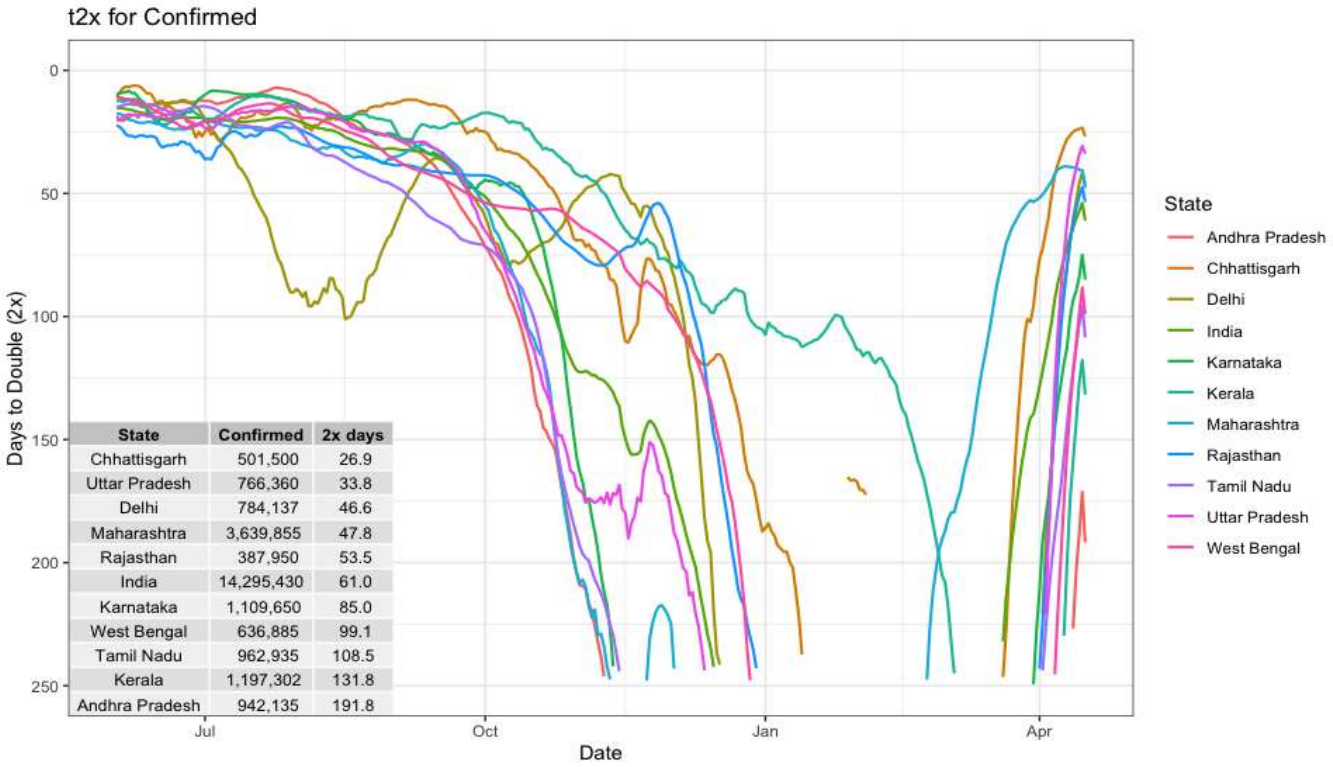
Source: covid19india.org

Infection spread across states

We have highlighted the divergence in the rate of infection across states since the pandemic hit India. In order to understand the growth trends, we consider growth in terms of the number of days it would take to double the cases. The so-called doubling-rate (2x) rate is a widely used metric for measuring rapid growth.

Most states have seen a drop in the number of days to double their current confirmed cases, due to the second wave. India's 2x rate is down to 64.5 as of April 14th as compared to 403.8 on March 11th, 2021. Chhattisgarh, Uttar Pradesh and Maharashtra are the worst performing states with a doubling rate of 27, 38 and 47 days respectively. We see a similar trend in the number of fatalities as well – the national 2x rate has fallen to 151.2 days as of April 14th as compared to 1009.8 days on March 11th. Chhattisgarh has a worryingly low doubling rate of fatalities at 32 days while Rajasthan and Uttar Pradesh have recorded ~118 days each. Maharashtra's test positivity rate (TPR) is 16%, noticeablly higher than other states. While the state has scaled up testing since the beginning of March, it lags behind states like Delhi and Karnataka. The high TPR in Maharashtra could be a consequence of insufficient testing in the state.

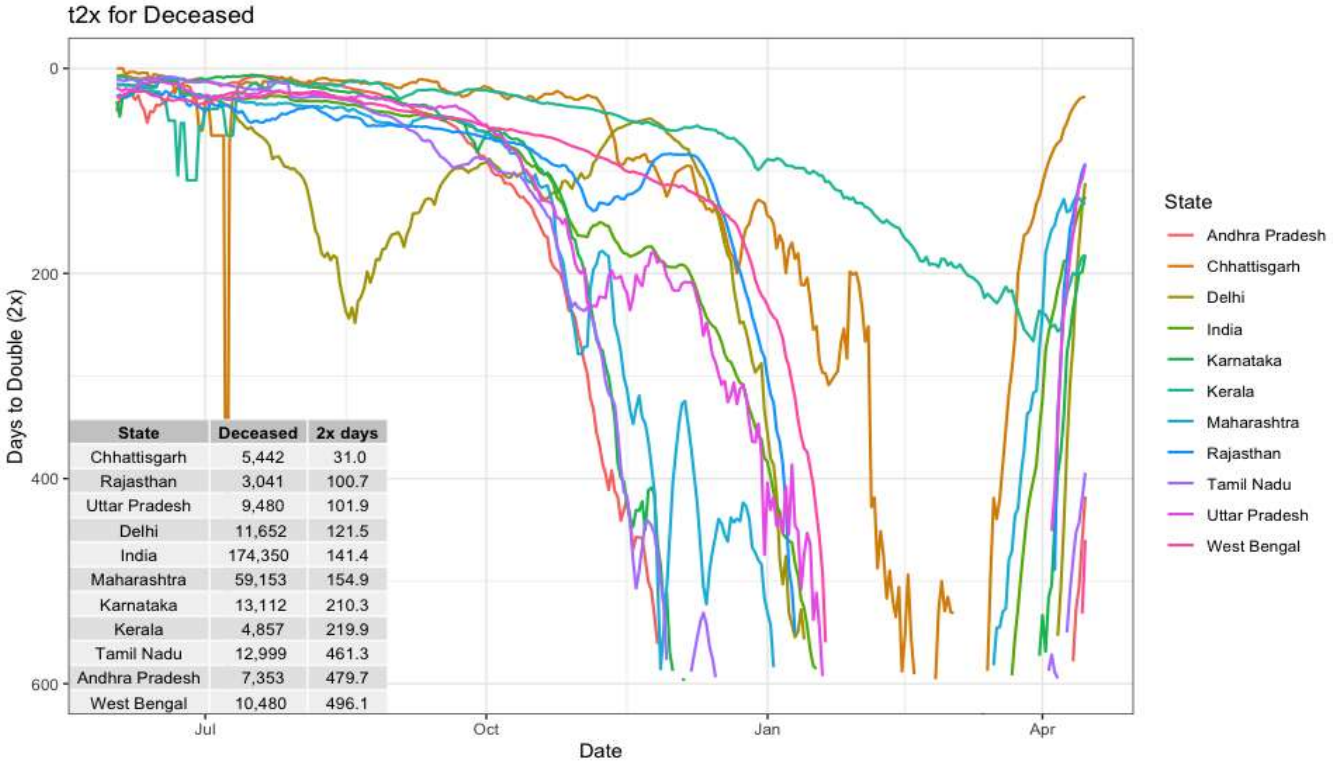
Figure 75: COVID-19 Doubling Rate: Confirmed cases across major states, as of April 14th, 2021



State	Confirmed	2x days
Chhattisgarh	501,500	26.9
Uttar Pradesh	766,360	33.8
Delhi	784,137	46.6
Maharashtra	3,639,855	47.8
Rajasthan	387,950	53.5
India	14,295,430	61.0
Karnataka	1,109,650	85.0
West Bengal	636,885	99.1
Tamil Nadu	962,935	108.5
Kerala	1,197,302	131.8
Andhra Pradesh	942,135	191.8

Source: covid19india.org

Figure 76: COVID-19 Doubling Rate: Deceased cases across major states, as of April 14th, 2021



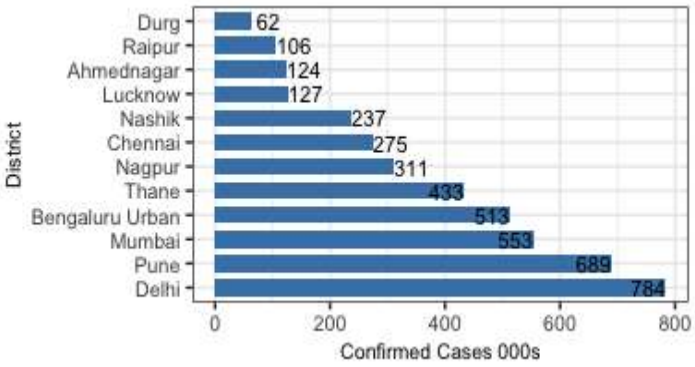
State	Deceased	2x days
Chhattisgarh	5,442	31.0
Rajasthan	3,041	100.7
Uttar Pradesh	9,480	101.9
Delhi	11,652	121.5
India	174,350	141.4
Maharashtra	59,153	154.9
Karnataka	13,112	210.3
Kerala	4,857	219.9
Tamil Nadu	12,999	461.3
Andhra Pradesh	7,353	479.7
West Bengal	10,480	496.1

Source: covid19india.org

District-level trends

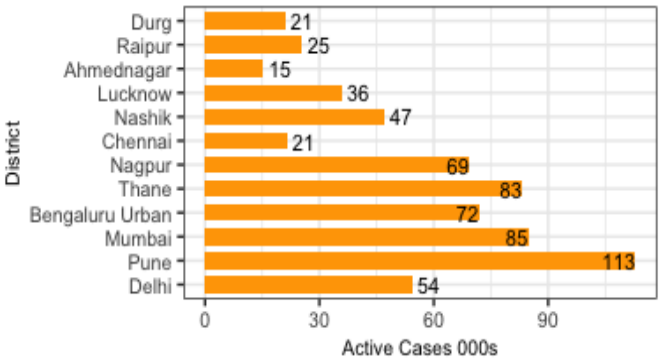
Active cases are on the rise in most parts of the country, led by a few states and districts. The number of districts with 1000+ active cases has increased to 192 and and 22 districts have more than 10,000 cases.

Figure 77: COVID-19 confirmed cases across districts, ranked by confirmed cases as of April 14th, 2021



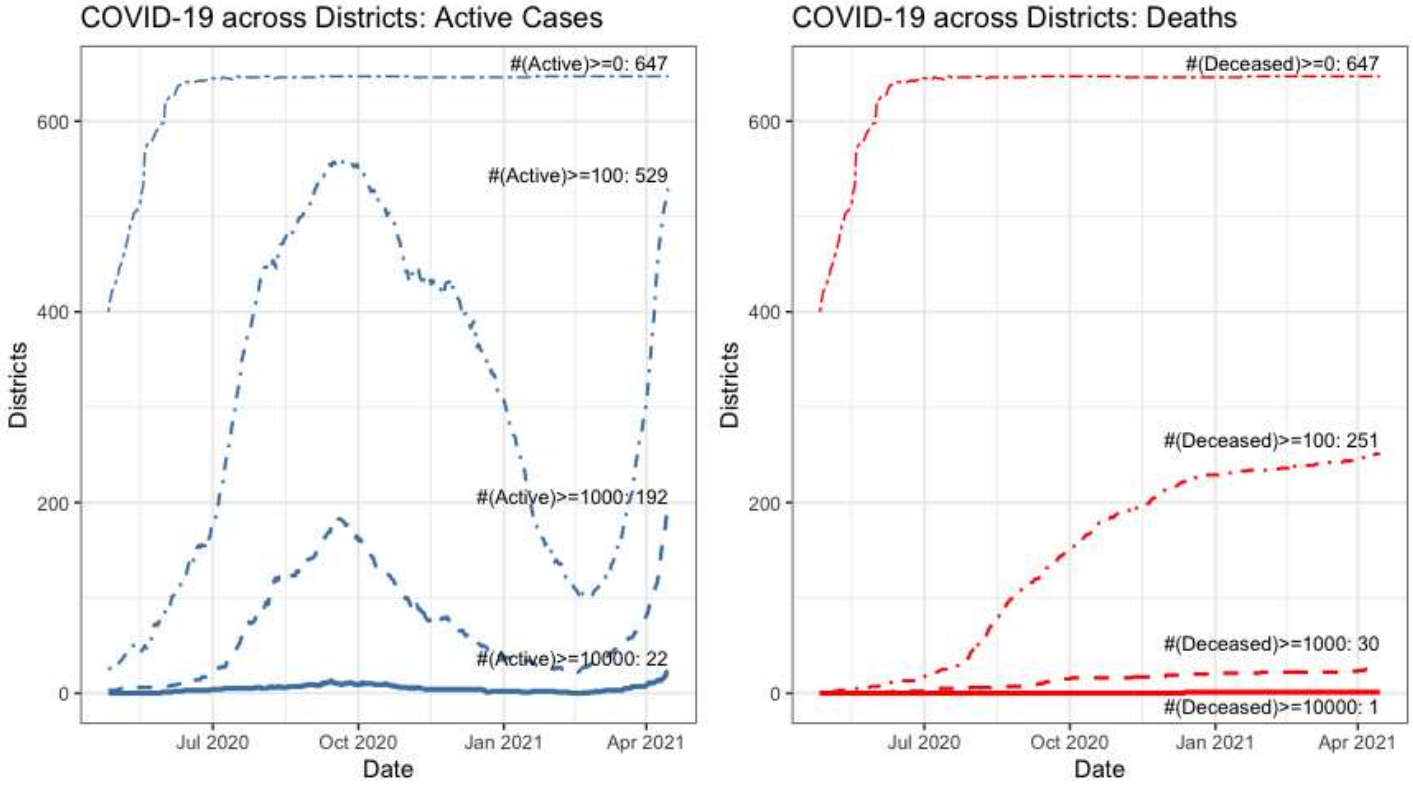
Source: covid19india.org

Figure 78: COVID-19 active cases across districts, ranked by confirmed cases as of April 14th, 2021



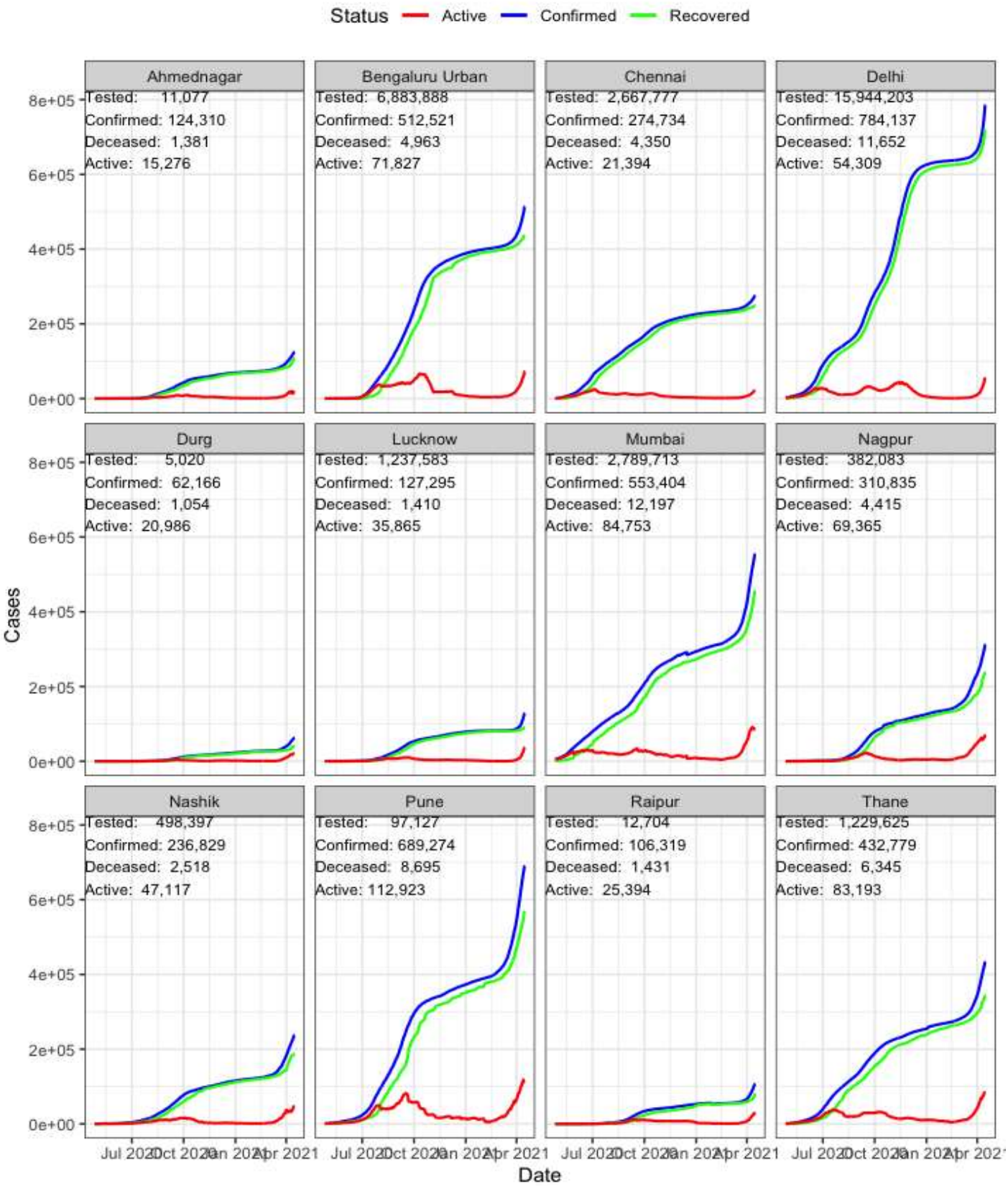
Source: covid19india.org

Figure 79: Dispersion of COVID-19 active cases and deaths across districts



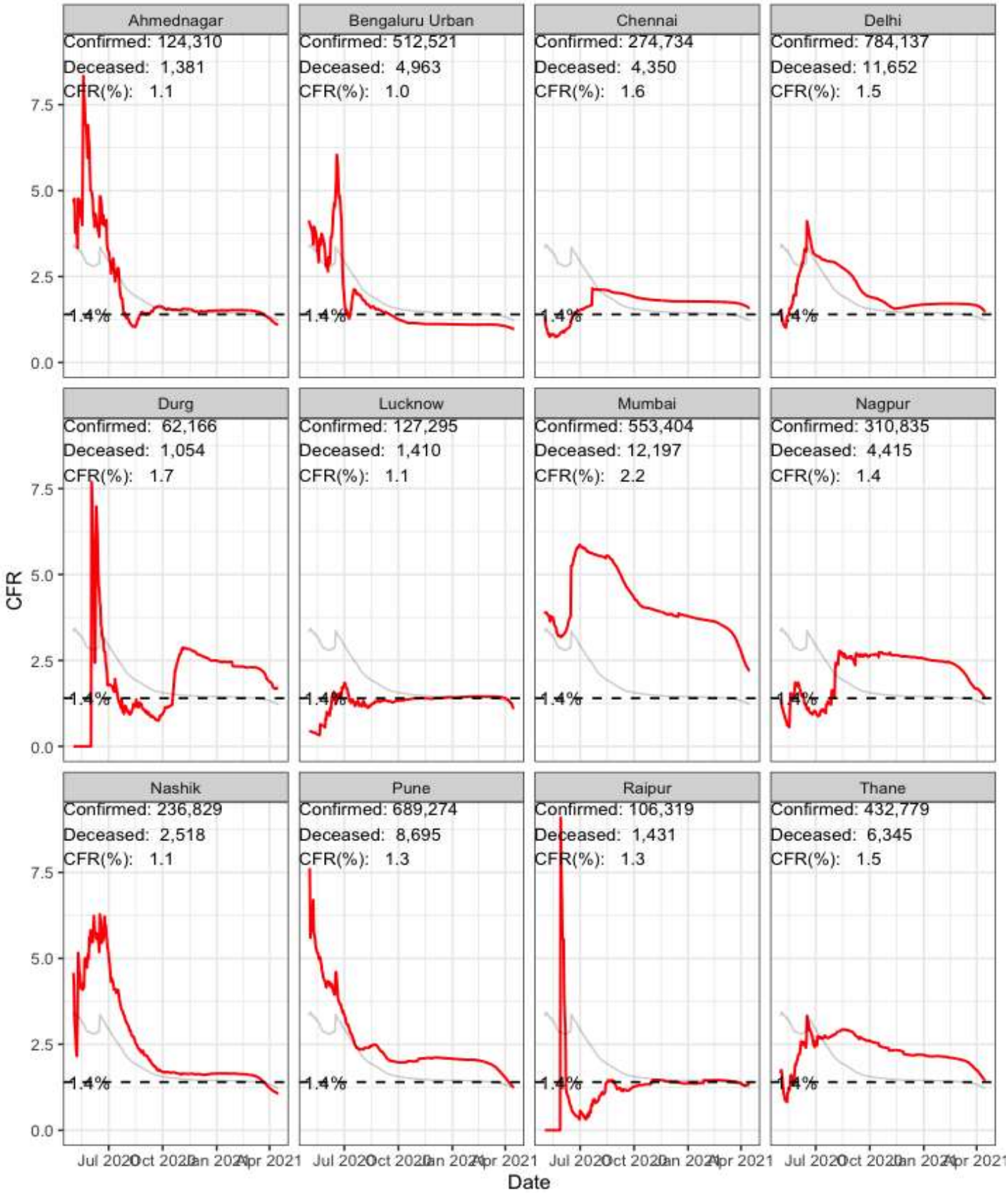
Source: covid19india.org

Figure 80: COVID-19 cases across districts, ranked by Active Cases as of April 14th, 2021



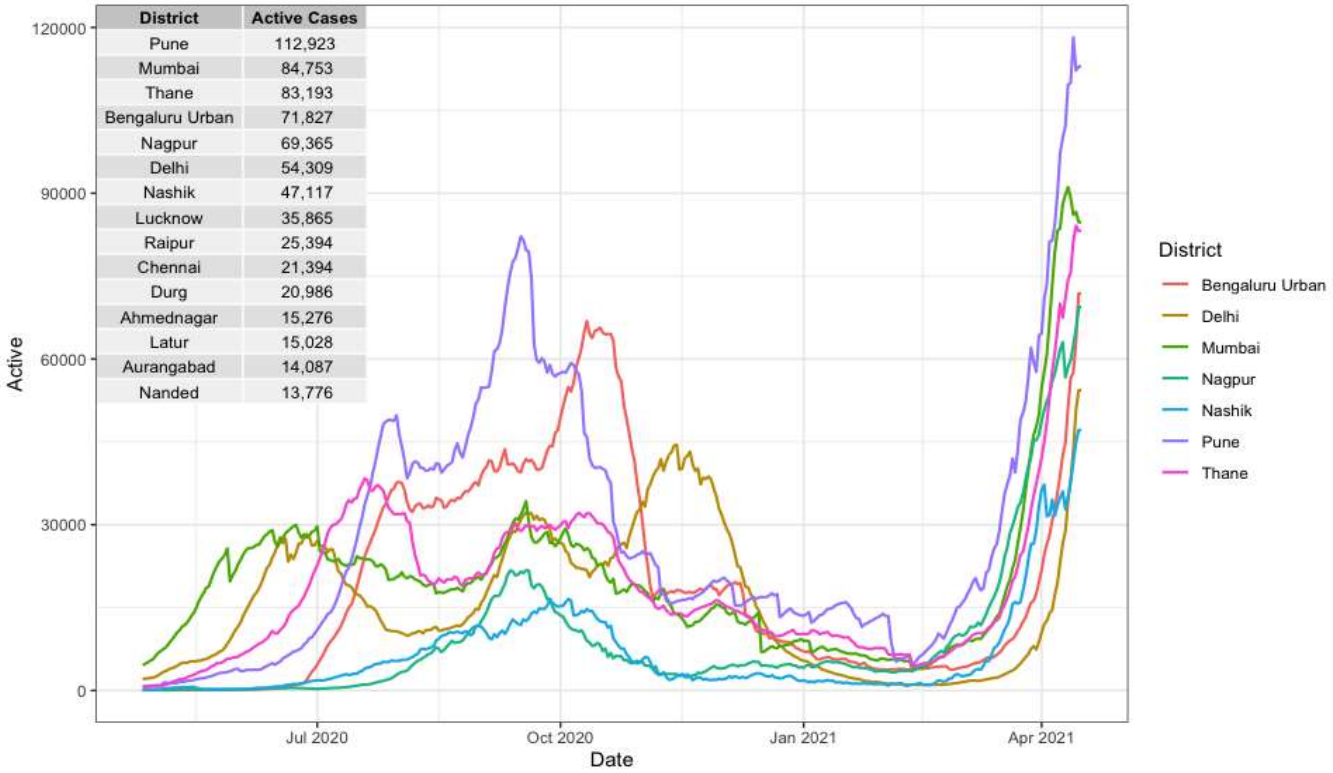
Source: covid19india.org

Figure 81: COVID-19 Case Fatality Rate (CFR) across districts, ranked by Active Cases as of April 14th, 2021



Source: covid19india.org

Figure 82: COVID-19 Active cases trend across districts ranked by Active Cases as of April 14th, 2021



District	Active Cases
Pune	112,923
Mumbai	84,753
Thane	83,193
Bengaluru Urban	71,827
Nagpur	69,365
Delhi	54,309
Nashik	47,117
Lucknow	35,865
Raipur	25,394
Chennai	21,394
Durg	20,986
Ahmednagar	15,276
Latur	15,028
Aurangabad	14,087
Nanded	13,776

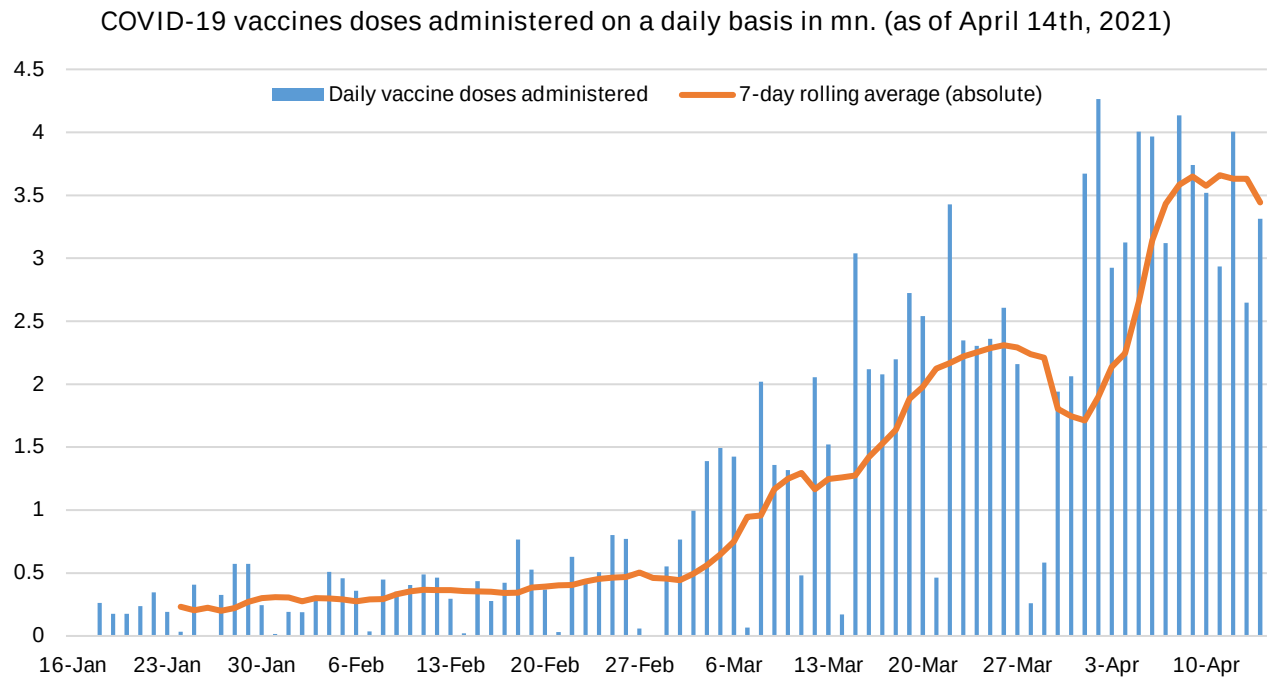
Source: covid19india.org

COVID-19 vaccine roll-out

India has now opened its vaccination programme to citizens over 45 years of age. As of April 14th, 2021, India had vaccinated over 11.44 crore people making it the country with the third highest doses of vaccines administered, after the United States and China. The pace of vaccination slowed down in the first week of April as some states had reported shortages of vaccines but is now back to a fast pace. The Centre declared April 11th – 14th as "Tika Utsav" days which witnessed a jump in operating centres and vaccinations administered.

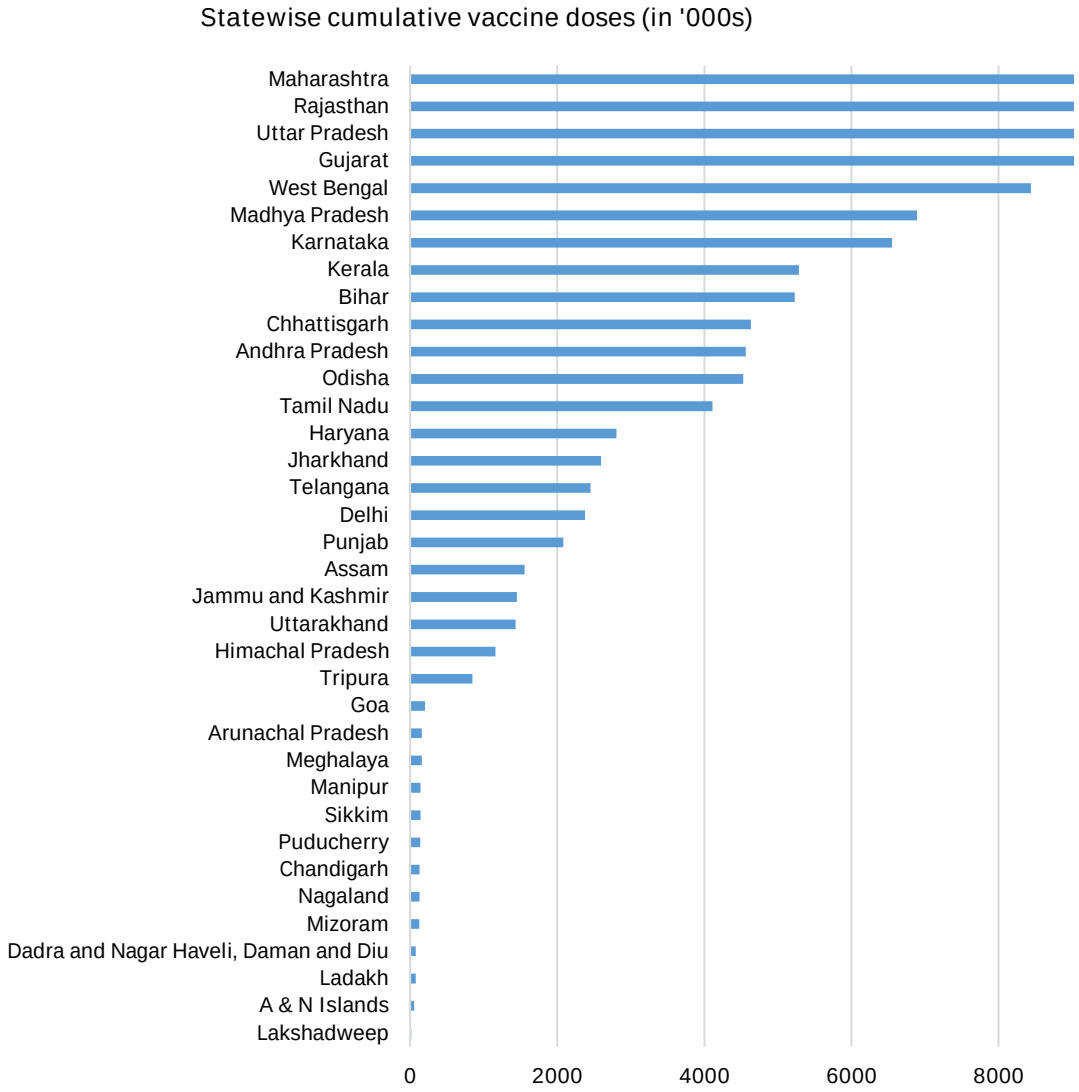
To hasten the pace of vaccination amidst a deadly second wave, the Indian government has also fastracked approvals for COVID-19 vaccines produced by foreign bodies and given approval in other countries. Russia's Sputnik-V will be rolled out this quarter in India. While initial batches will be imported from Russia, local production will begin in the second quarter.

Figure 83: COVID-19 vaccine doses administered in India



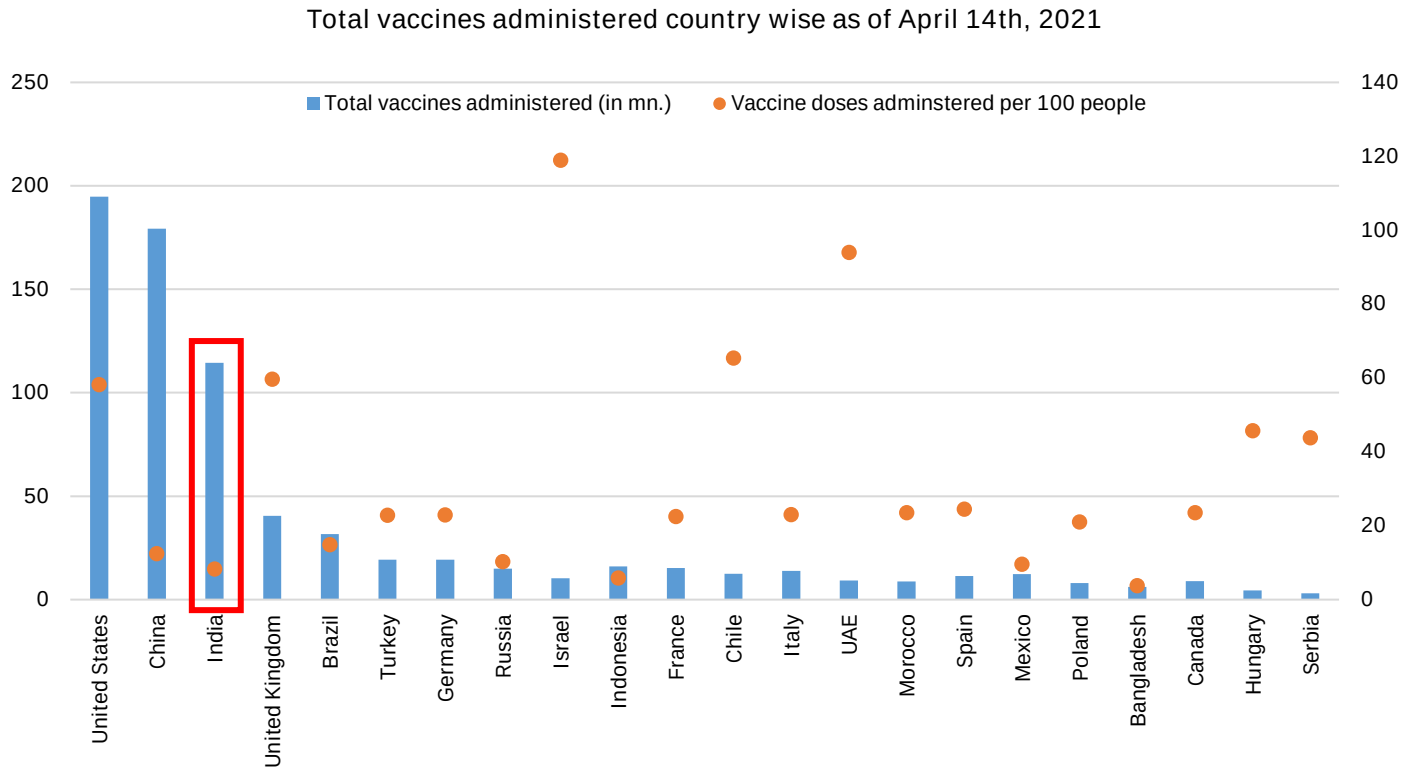
Source: covid19india.org

Figure 84: State-wise cumulative COVID-19 vaccine does, as of April 14th, 2021



Source: covid19india.org

Figure 85: Covid-19 vaccine doses administered across countries, as of April 14th, 2021



Source: Our World in Data

Chart of the month

Race between virus and vaccines

India saw the commencement of a second wave of COVID-19 infections since mid-February 2021 which not only continues to breach the levels seen during the earlier peak but is appearing to be more virulent than the first one. As on April 15th, daily COVID-19 cases stood at ~217K, taking cumulative caseload to 14.3mn. According to the COVID-19 Concentration Index, the second wave—that remained largely concentrated to Maharashtra till mid-March—is now spreading across the other states as well.

The second phase of COVID-19 vaccination drive, that began on March 1st for all individuals above 60 years of age and for people aged 45 and above with specified co-morbidities, saw more than 65mn doses administered until March 31st. As such, nearly 5% of the population got inoculated by the end of phase two. Since the onset of phase three drive on April 1st, 2021, where all 45+ individuals have been permitted to get vaccinated, the tally has crossed 114mn doses, implying 9% of the population getting injected so far. Unlike expectations, the pace of inoculations has moderated from the previous months' levels as many states have started reporting shortages of doses. Alongside, daily injections to infections ratio has moderated as well. Since the commencement of phase three drive, on an average, 30 persons are getting vaccinated for every 1 person getting infected. This is relatively lower than the ratio witnessed in the month of March, where on an average 50 persons were getting vaccinated for every 1 person infected.

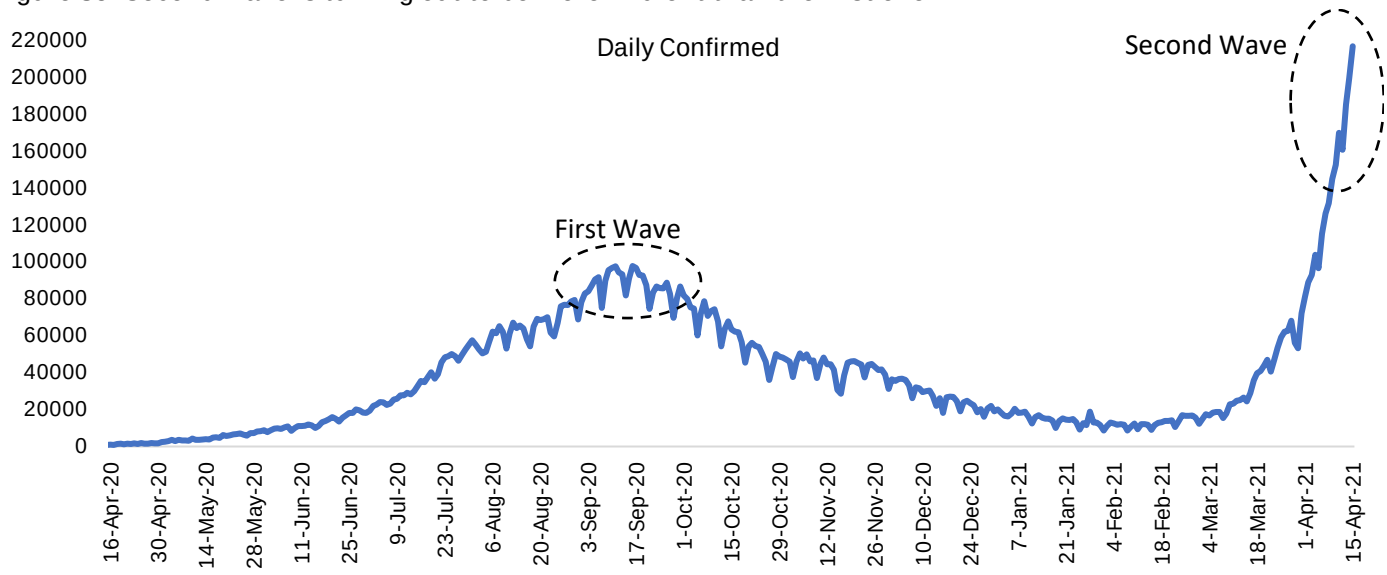
Looking within the states, the roll-out of vaccinations relative to population has, however, been non-uniform. As on April 14th, within states of more than 10mn population, Chhattisgarh, Kerala, Gujarat, Rajasthan and Uttarakhand have been the leaders by inoculating more than 13% of their population while states like Tamil Nadu, Assam, Uttar Pradesh and Bihar have been the laggards as they have been unable to inoculate even 6% of their population yet.

- Second wave more virulent than the first one: After recording the highest number of daily cases (97,860) during the first wave on Sep 16, 2020, India started witnessing a steady decline in infections until Jan'21. However, since mid-Feb'21, there has been a sharp spike in fresh cases across the nation, marking the start of a second wave that not only continues to breach the levels seen during the earlier peak but is appearing to be more virulent than the first one. As on April 15th, daily COVID-19 cases stood at ~217K, taking cumulative caseload to 14.3mn. While it took ~105 days for the cases to increase 10x and reach the peak during the first wave, it has now taken just 35 days for a 10x jump to 1.5 lakh mark. India is now consistently logging a six-figure addition in cases every day while daily deaths are hovering around 1k mark. The alarming surge in figures validates the much higher severity and speediness relative to the one encountered in the first wave.
- More states are now joining the second wave, indicating secular resurgence: According to the COVID-19 Concentration Index, the second wave that remained largely concentrated to Maharashtra till mid-March, is now spreading across the other states as well. In March, Maharashtra was contributing nearly 60% of the new cases. Kerala (7.8), Punjab (5.4), Karnataka (3.8), and Gujarat (3.3) were the other top states in contributing to the case rise. However, since the onset of April, more states have started contributing in the surge. The Covid Concentration index calculated using Herfindahl-Hirschman Index has been on a falling spree after reaching its highest level on March 21st, 2021, the level last seen on March 14th, 2020, thereby indicating that the second wave is no longer concentrated amongst few states and is rapidly spreading across the sphere.
- Pace of vaccines picked up significantly in second phase but has moderated in the third phase: The second phase of COVID-19 vaccination drive began on March

1st, 2021 for all the individuals above 60 years of age and for people aged 45 and above with specified co-morbidities. In the second phase till March 31st, more than 65mn doses were administered i.e. nearly 5% of the population got inoculated till phase two. Since the onset of phase three drive, where all 45+ individuals have been permitted to get vaccinated, the tally has crossed 114mn doses, implying 9% of the population getting injected so far. Unlike expectations, the pace of inoculations has moderated from the previous months' levels as many states have started reporting shortages of doses. Alongside, daily injections to infections ratio has moderated as well. Since the commencement of phase three drive, on an average, 30 persons are getting vaccinated for every 1 person getting infected. This is relatively lower than the ratio witnessed in the month of March where on an average 50 persons were getting vaccinated for every 1 person infected. On Apr 2nd, India achieved a milestone in its vaccination drive with the highest ever single day figure of 4.265mn doses administered in 24 hours.

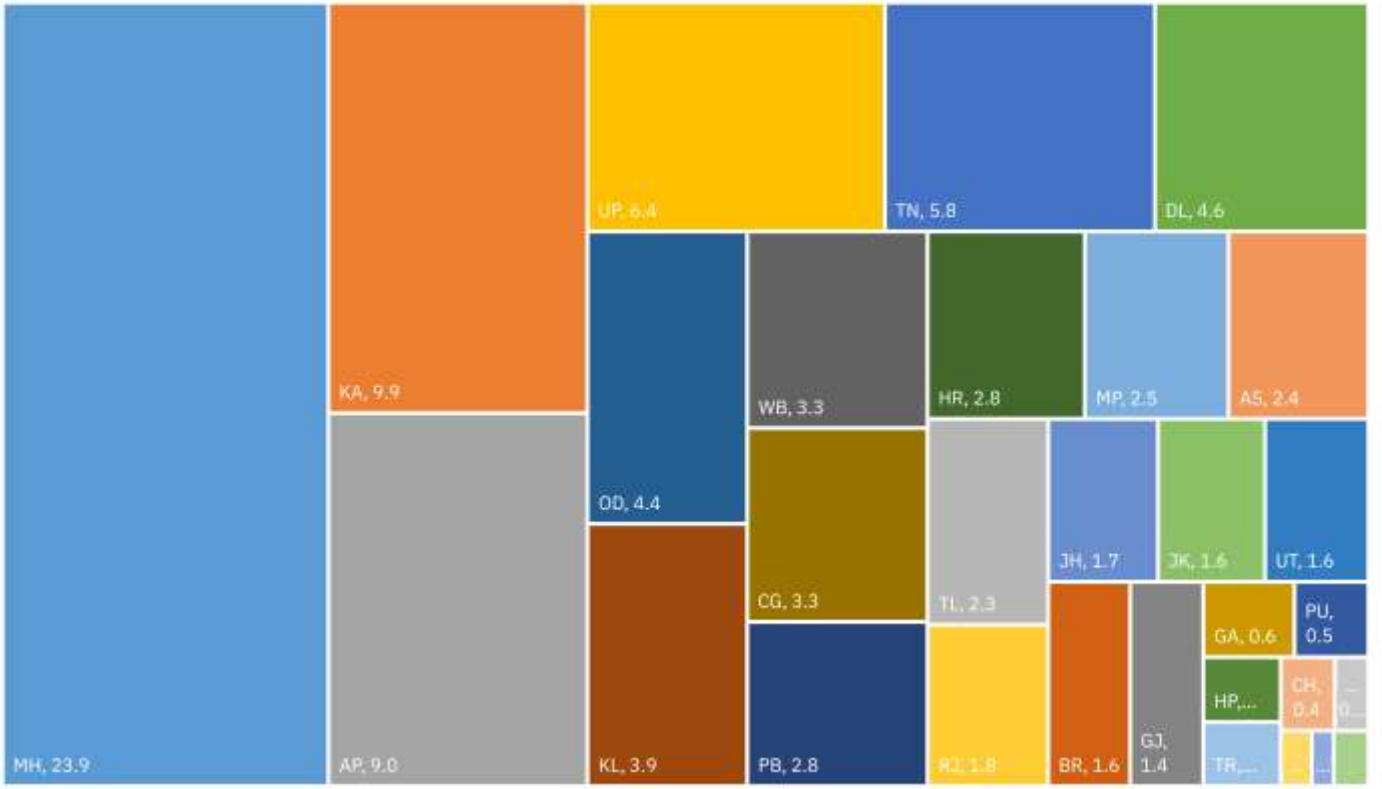
- Non-uniform vaccination roll-out across states: Looking within the states, the roll-out of vaccinations relative to population, however, has been non-uniform. Till April 14th, within the states having more than 10mn population, c while states like Tamil Nadu, Assam, Uttar Pradesh and Bihar have been the laggards as they have been unable to inoculate even 6% of their population yet. However, looking at the % of population injected in isolation does not exhibit the right performance of the state. Therefore, while also taking into consideration, the states that have more than 3k active cases and are adding more than 5k cases daily, it can be deciphered that Chhattisgarh, Delhi, Karnataka and Kerala are increasing their vaccination drive amidst surging cases. States like Gujarat, Rajasthan, West Bengal and Haryana are relatively in a better position in terms of inoculation, additions to daily cases and active cases.

Figure **86**: Second wave is turning out to be more virulent than the first one



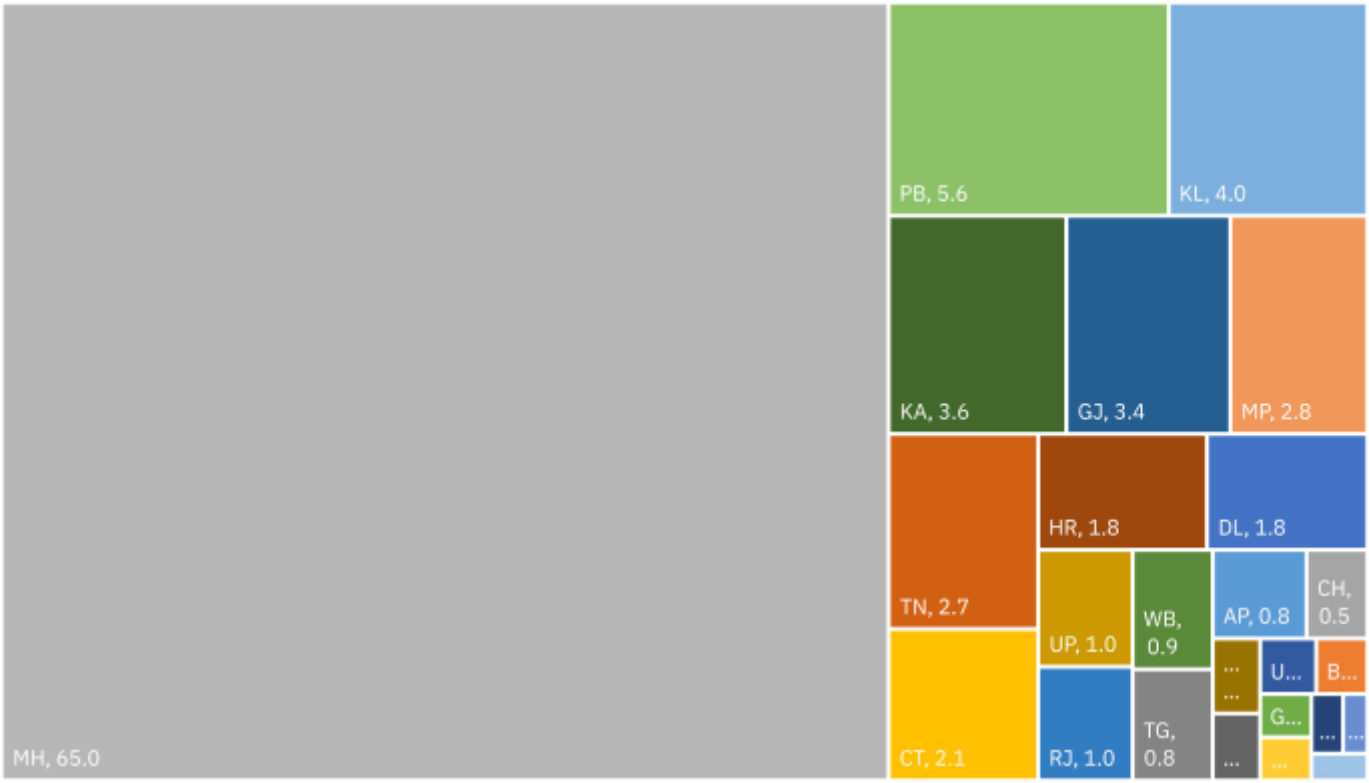
Source: covid19india.org

Figure **87**: Composition of the peak during the first wave on September 16th, 2020



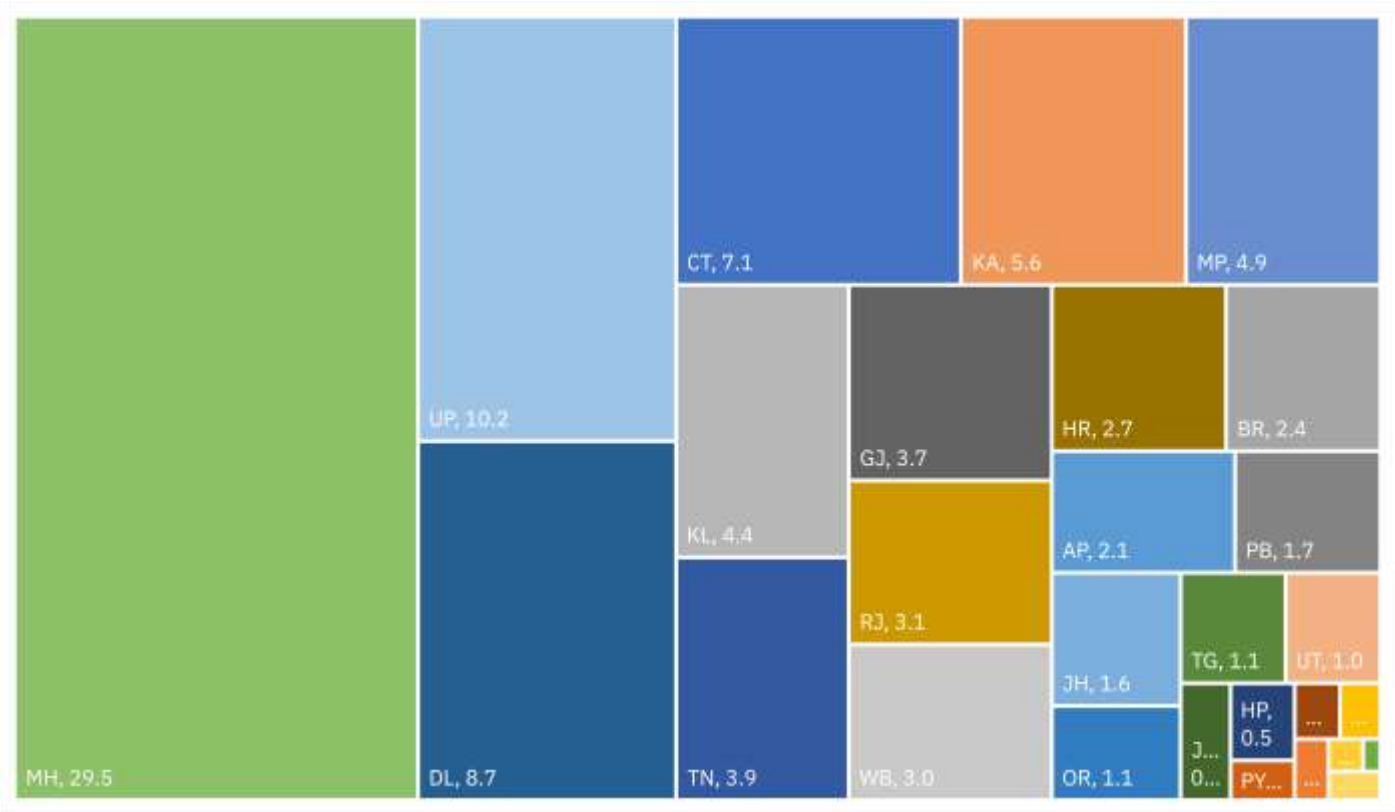
Source: covid19india.org

Figure **88**: Composition of cases on March 21st, 2021, onset of second peak, concentrated within a few states



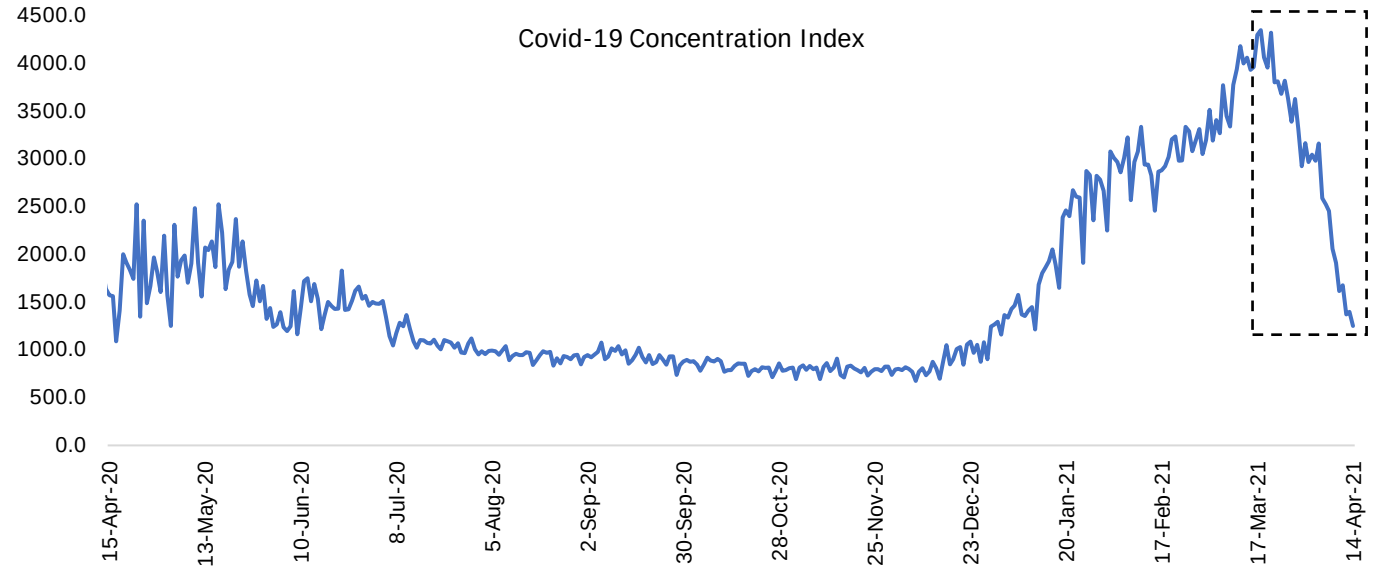
Source: covid19india.org

Figure **89**: Composition of cases as on April 14th**, 2021, suggesting...**



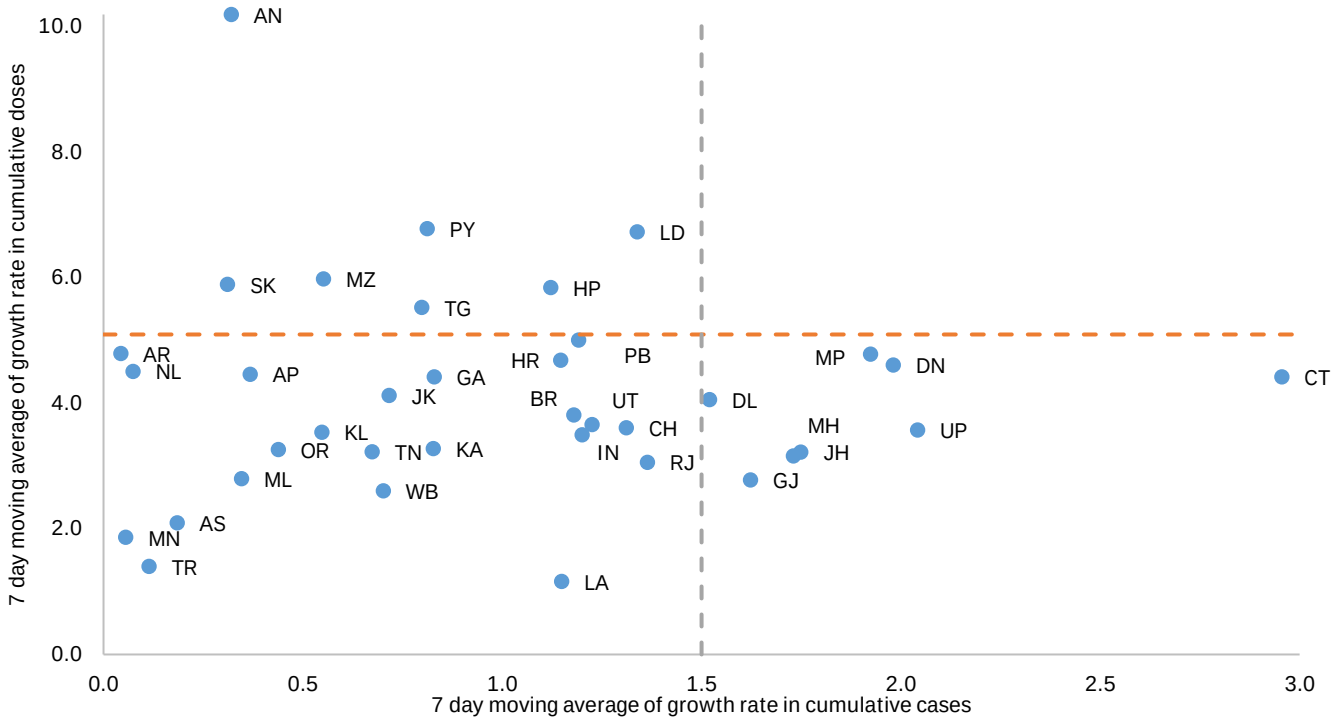
Source: covid19india.org

Figure **90**: ...more states are now joining the second wave, indicating secular resurgence as evident from index



Source: covid19india.org

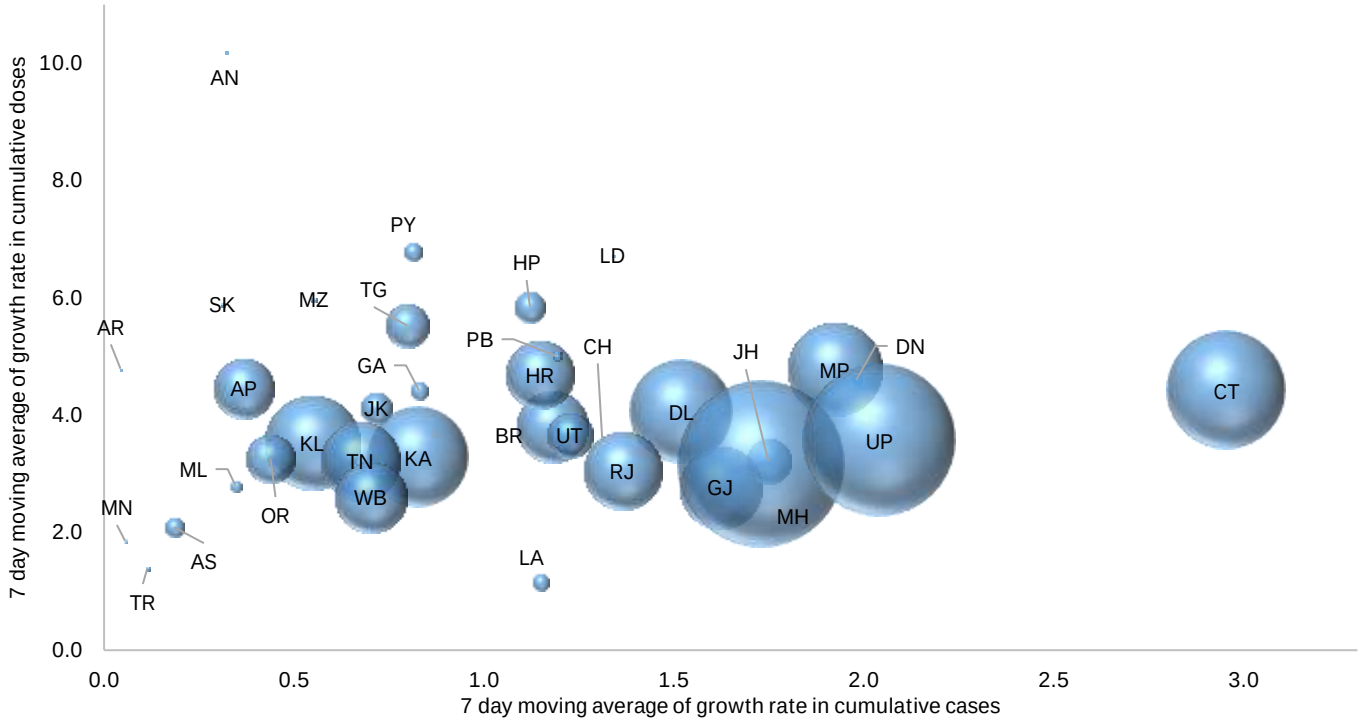
Figure **91**: Deciphering race between virus and vaccines amongst states, taking recent 7-day CDGR of cumulative cases and doses



Source: covid19india.org

Figure **92**: Deciphering race between virus and vaccines amongst states, taking recent 7-day CDGR of cumulative cases and dose

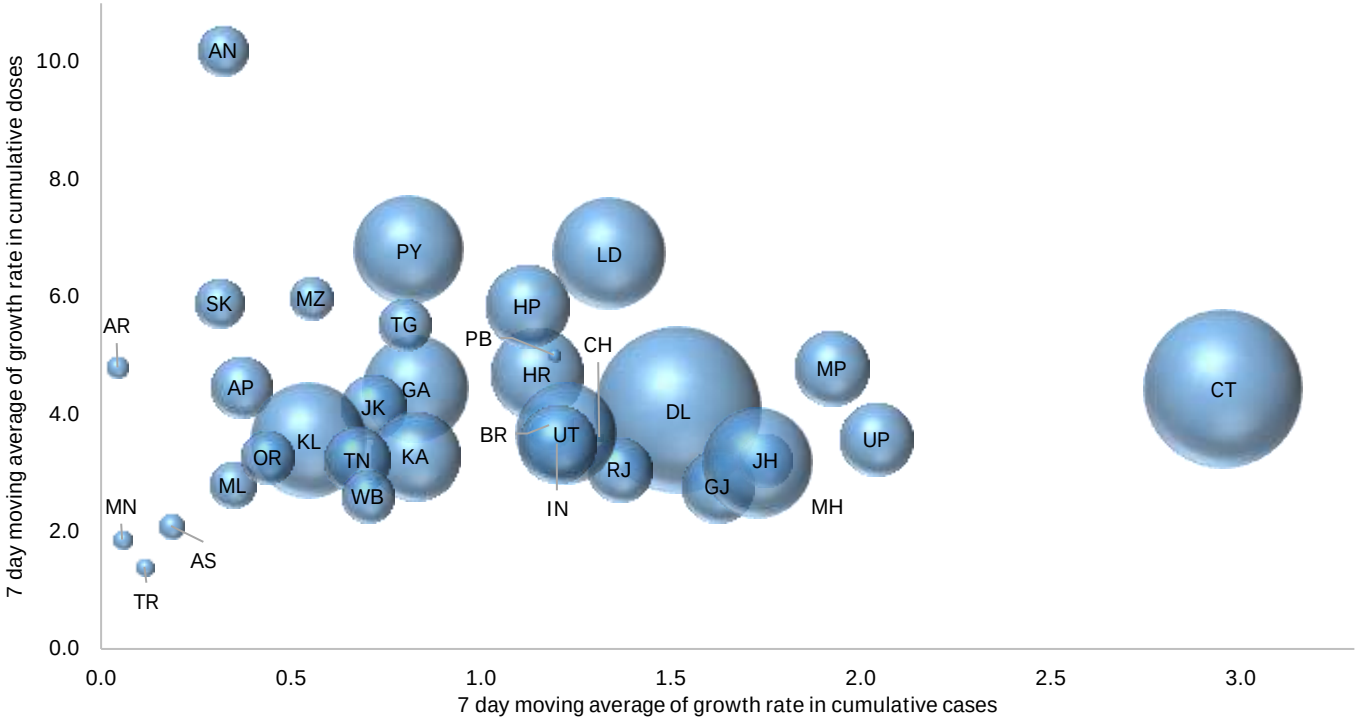
Size of the bubble represents number of active cases in a state.



Source: covid19india.org

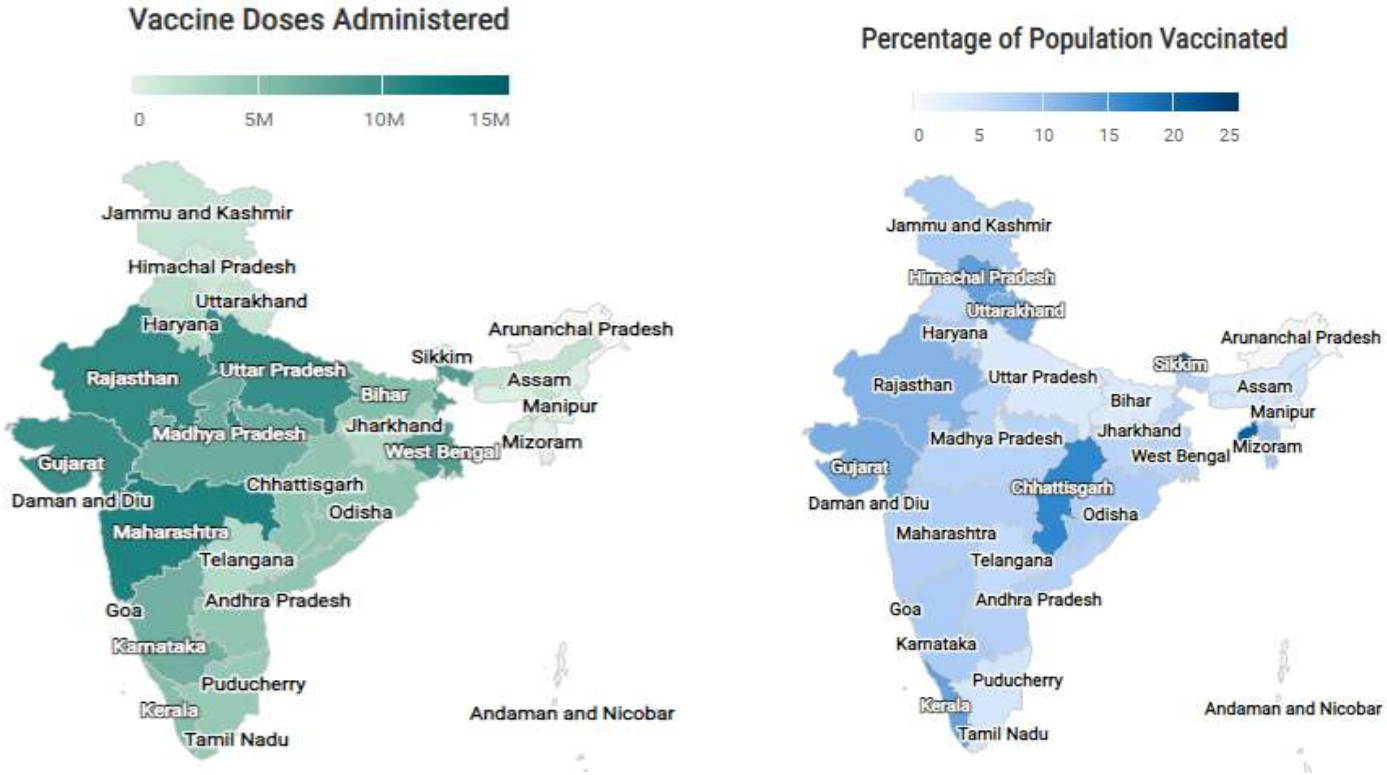
Figure **93**: Deciphering race between virus and vaccines amongst states, taking recent 7-day CDGR of cumulative cases and dose.

Size of the bubble represents number of active cases in a state normalised by population.



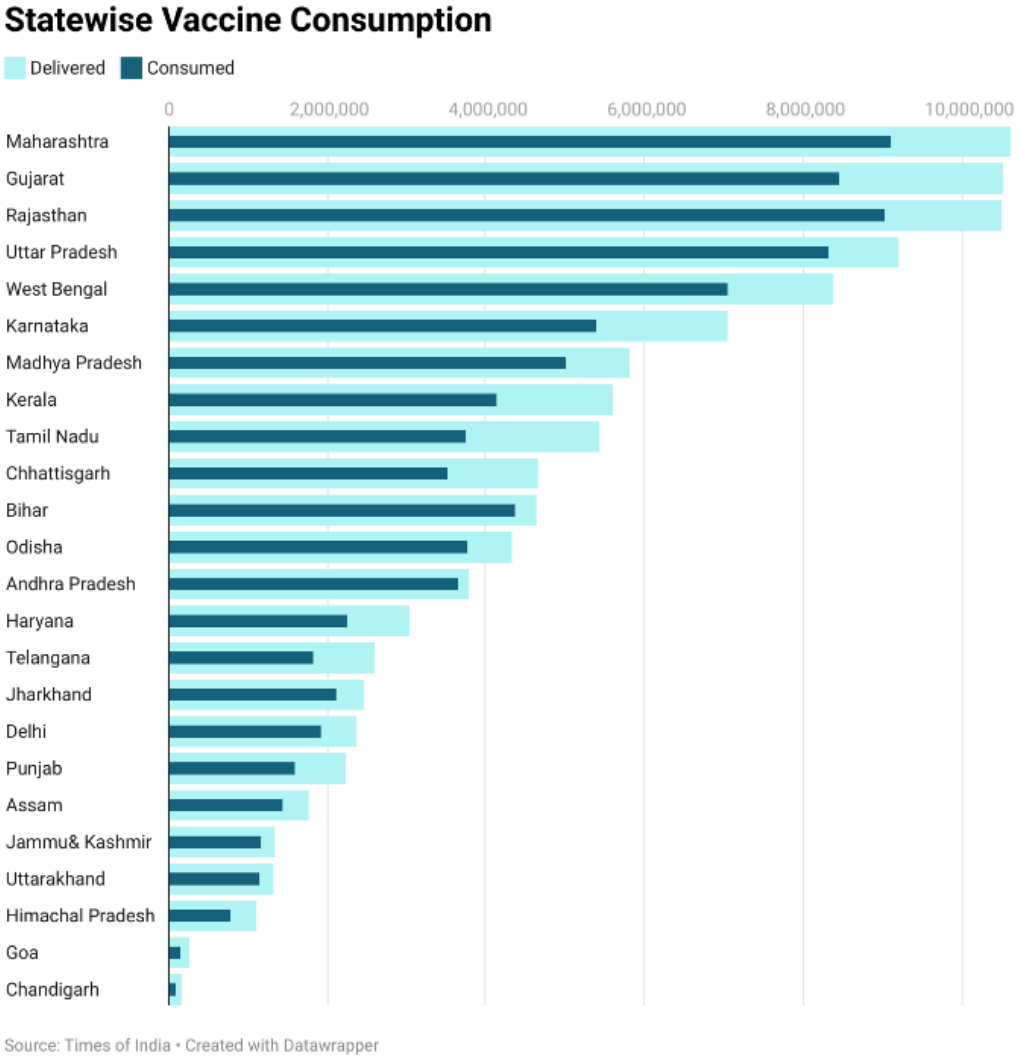
Source: covid19india.org

Figure **94**: Within states with more than 10mn population, Chhattisgarh, Kerala, Gujarat, Rajasthan and Uttarakhand have been the leaders by inoculating more than 13% of their population till now



Source: covid19india.org

Figure **95**: Many states have started reporting shortages of doses, thus moderating the pace of vaccination drive



Source: Times of India

Macro economy

Retail inflation rebounds in February

Headline CPI inflation bounced back again and surged to a three-month high of 5.0% in February 2021, snapping its downward trend and negatively surprising market expectations (Consensus: 4.8%; Source: Reuters). The rebound was primarily led by a rise in food and fuel inflation. Within the food basket, acceleration in prices of certain items like fruits and fats & oils as well as lower deflation in vegetable prices, particularly onions, have contributed to the rise in food inflation. Core inflation (headline inflation ex food and fuel), inched higher and rose to a 26-month high of 5.6% YoY—a reflection of steady consumption demand and higher commodity prices.

We expect the headline inflation to remain elevated for another month before the base effect starts kicking in as benefits from lower food prices is likely to be outweighed by demand-side pressures and rising crude and commodity prices. Notwithstanding a favourable base, inflation is expected to remain north of the RBI's 4% target in the foreseeable future. Additionally, the high-frequency indicators point to some moderation in growth momentum, with resurgence of COVID infections and selective re-imposition of restrictions posing further downside risks. While an elevated inflation trajectory rules out further rate cuts, weakening growth momentum, coupled with surging COVID cases, would ensure sustenance of the RBI's accommodative stance at least through the current financial year. The Central Bank's focus would remain on maintaining adequate liquidity in the system to support the ongoing recovery and ensure effective execution of the Government's borrowing programme.

Headline retail inflation snapped the downward trend and came in at a three-month high of 5% in February 2021.

- Retail inflation rebounds to a three-**month high in February…:** Headline retail inflation snapped the downward trend and came in at 5% in February 2021—the highest print in last three months. The rebound is largely attributable to higher food and beverage prices coupled with the surge in fuel and other commodity prices prices. Headline CPI inflation has averaged 6.2% in FY21 thus far (April 2020-February 2021) as compared to 4.7% during the same period in FY20.
- **…Led** by higher food inflation: The higher-than-expected uptick in headline inflation was primarily led by a surge in food inflation to a three-month high of 4.3 YoY in Feb'21 from an 18-month low of 2.7% in Jan'21. Within the food basket, acceleration in prices of certain items like fruits (+6.3% vs. 5% in Jan), fats & oils (+20.8% vs. +19.8% in Jan) and non-alcoholic beverages (+13.9% vs. +13.2% in Jan) as well as lower deflation in vegetable prices (-6.3% vs. -15.8% in Jan) have contributed to the rise in food inflation. Within vegetables, significant increase in prices of onions (+2.5% vs. -36.2% in Jan) and tomatoes (+4.4% vs. -3.7% in Jan) pushed prices higher. This was partly offset by moderation in prices of other food items including cereals, meat & fish, eggs, milk & milk products, pulses, sugar and spices. In fact, all categories within food, barring fruits, fats and oils, vegetables, non-alcoholic beverages and prepared meals, saw a drop in inflation in February.
- Core inflation inched higher: Core inflation (headline inflation excluding food and fuel) rose to a 26-month high of 5.6% YoY—a reflection of steady consumption demand and higher fuel and commodity prices. Except for personal care & effects where inflation fell from 10.7% to a 11-month low of 8.6% because of significant moderation in gold prices and education where inflation remained steady at 2.1%, all other categories witnessed a spike in inflation in February. The increase has been particularly steep in transportation and communication services where inflation surged to a five-month high of 11.4% YoY in February from 9.4% YoY in

the previous month. Core inflation has averaged 5.3% over the April-Feb period of FY21 as compared to 4% over the same period of FY20.

- Expect sustenance of accommodative stance and adequate liquidity from RBI: We expect the headline inflation to remain elevated for another month before the base effect starts kicking in as benefits from lower food prices is likely to be outweighed by demand-side pressures and rising crude and commodity prices. Notwithstanding a favourable base, inflation is expected to remain north of the RBI's 4% target in the foreseeable future. Economic recovery seems to have faltered after the festive season—visible from a sequentially slower growth in some high frequency indicators (auto sales, freight traffic, petrol consumption), with the resurgence of COVID-19 cases and rising commodity prices posing further downside risks. That said, increasing pace of inoculations should translate into continued normalisation of activities, particularly in the services sector. We expect the RBI to remain accommodative in FY22 given the nascent economic recovery but see no change in policy rates. The RBI's focus would remain on maintaining adequate liquidity in the system to support the ongoing recovery and ensure effective execution of the Government's borrowing programme.

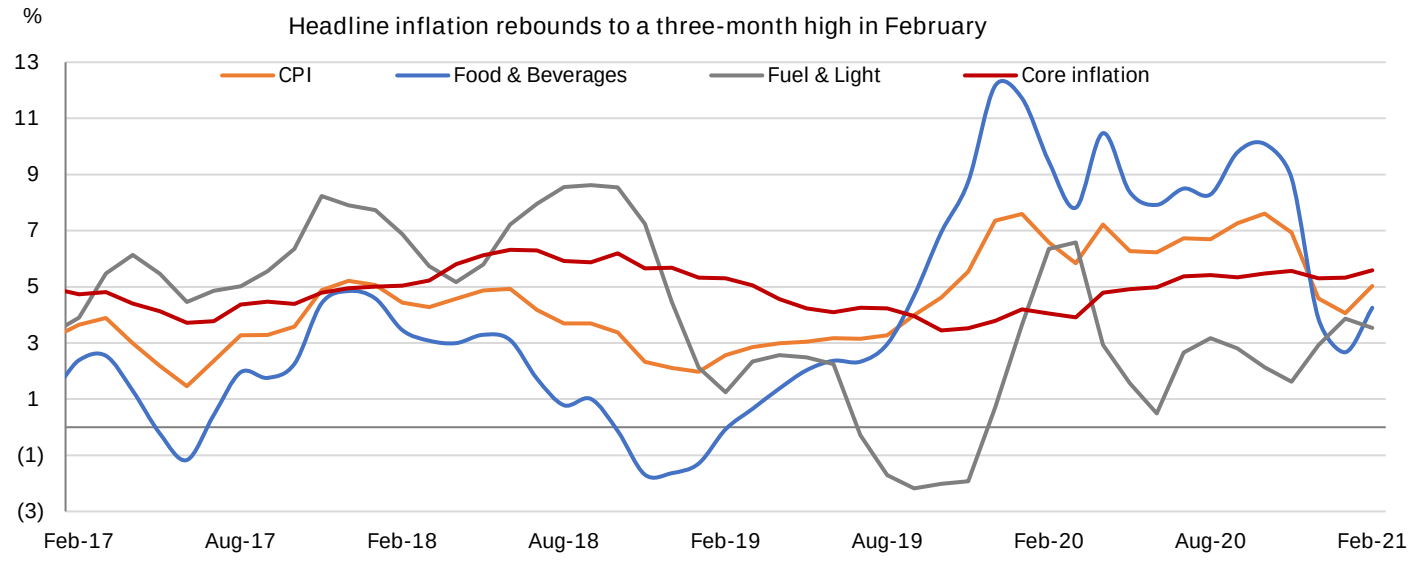
Expect RBI to maintain an accommodative stance and support growth by ensuring adequate liquidity in the system.

Figure 96: Consumer price inflation in February 2021 (%YoY)

%YoY	Weight (%)	Feb-21	Jan-21	Feb-20	FY21TD	FY20TD
CPI		5.0	4.1	6.6	6.2	4.7
Food & Beverages	45.9	4.3	2.7	9.5	7.5	5.9
Pan, Tobacco & Intoxicants[2]	2.4	10.7	10.9	4.1	9.9	4.1
Clothing & Footwear[2]	6.5	4.2	3.8	2.0	3.3	1.6
Housing	10.1	3.2	3.2	4.2	3.3	4.6
Fuel & Light	6.8	3.5	3.9	6.4	2.5	0.9
Miscellaneous[2]	28.3	6.8	6.5	4.5	6.5	4.4
Core CPI inflation[1,2]	44.9	5.6	5.3	4.0	5.3	4.0

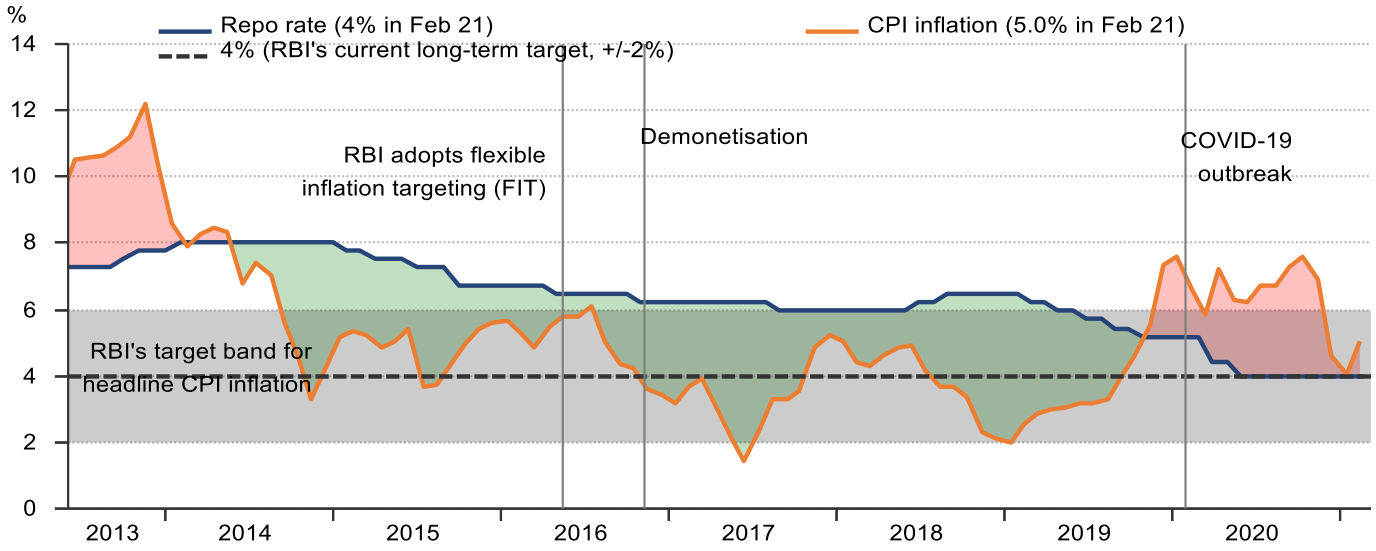
Source: CSO, NSE. NA = Not Available.
Note: [1] Headline inflation excluding food & beverages, pan, tobacco & intoxicants and fuel & light.
[2] Inflation data for these components for April and May 2020 are based on the imputed index calculated by MOSPI.

Figure 97: Headline CPI inflation trend



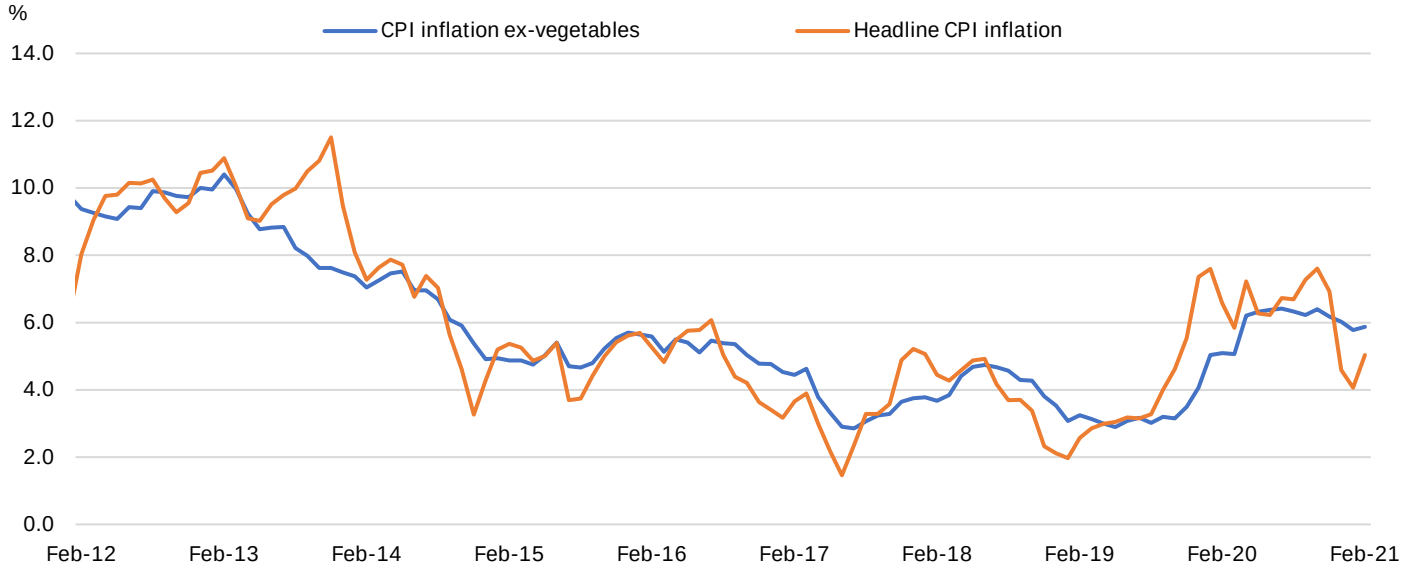
Source: CMIE Economic Outlook, NSE

Figure 98: Real interest rates have remained negative for quite some time now



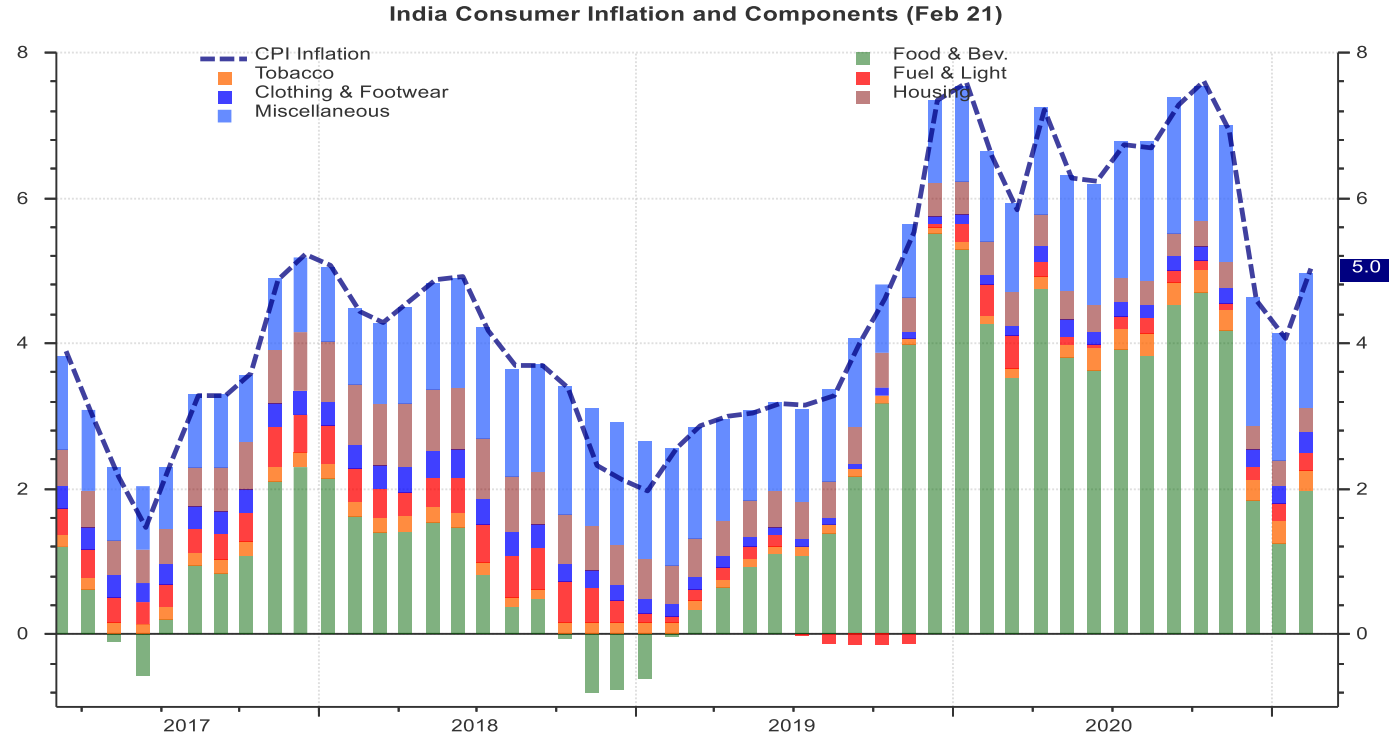
Source: CMIE Economic Outlook, NSE

Figure 99: Increase in headline inflation primarily led by higher vegetable prices



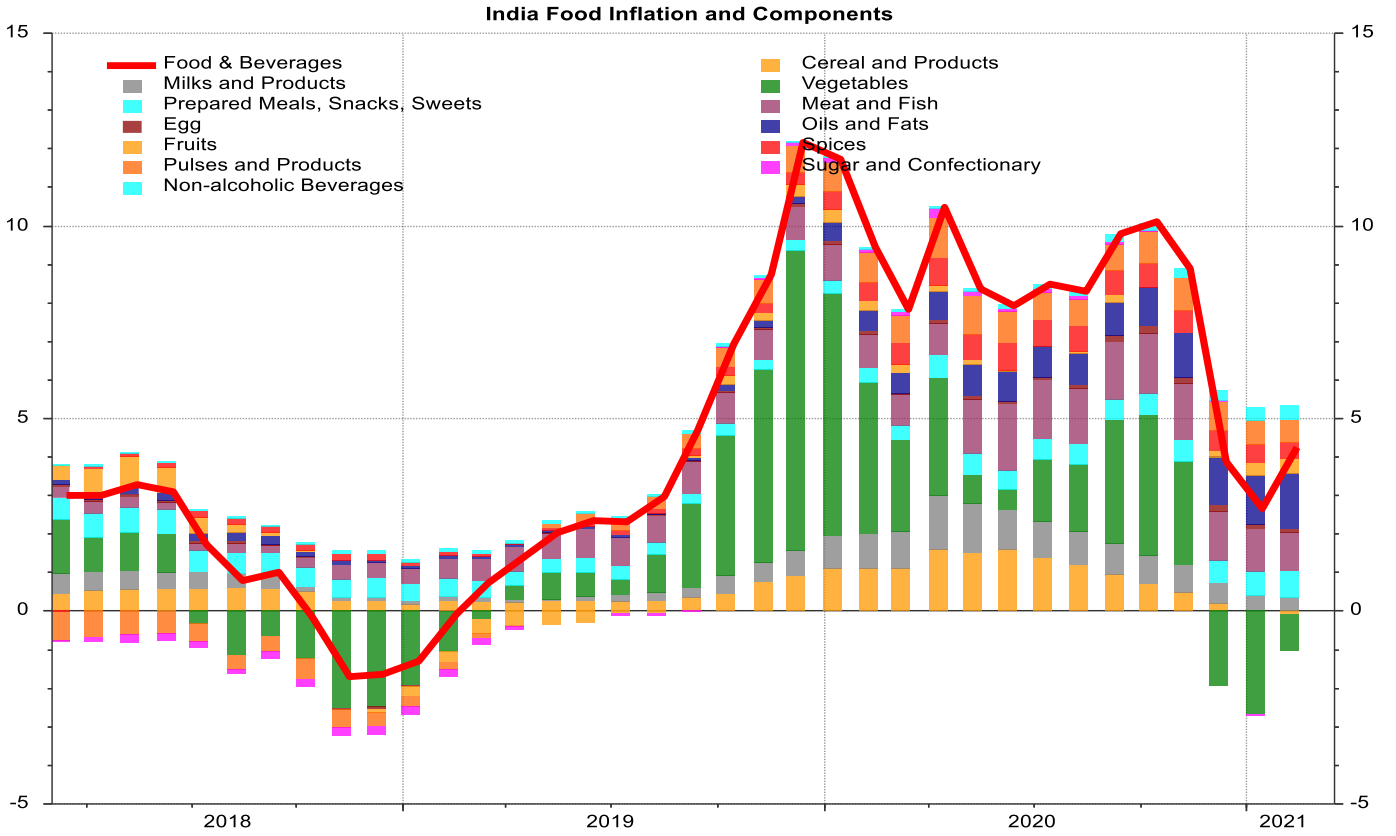
Source: CMIE Economic Outlook, NSE

Figure 100: Category-wise contribution to India consumer price inflation (CPI)



Source: Refinitiv Datastream, NSE.

Figure 101: Category-wise contribution to India Food and Beverages inflation (CPI)



Source: Refinitiv Datastream, NSE.

- Wholesale inflation rises sharply in February: Wholesale price inflation (WPI) surprised on the upside and inched up by ~215bps MoM to a 27-quarter high of 4.2% in Feb'21. The pick-up was primarily led by an increase in primary food inflation, a significant jump in manufactured inflation to fresh record-high levels, higher minerals inflation, and reversal in deflationary trend seen in mineral oils over last several months. This was partly offset by a modest drop in non-food primary articles infaltion. Within Primary articles, while food prices at the wholesale level rose by 1.4% YoY in Feb'21 after recording a YoY drop over the previous two months, non-food articles inflation dropped by 22bps MoM to 3.9%. The extent of YoY drop in crude, petroleum & natural gas prices came off sharply to a 13-month low of 3.2%. Extremely low base, coupled with surging global prices, is likely to result in a significantly higher YoY inflation in crude, petroleum & natural gas category this fiscal year. Fuel & power inflation entered the positive zone after remaining negative over the last 11 months and stood at 0.6% in Feb'21, largely led by modest inflation in mineral oils and electricity even as coal inflation remained broadly steady.

  Manufactured products inflation inched up further to 5.8% in January—the highest level in the series, entirely led by a spike in food as well as non-food manufactured categories. While manufactured food products recorded a 13-month high inflation of 7.1% in February, inflation in non-food manufactured products picked up further to fresh series-high levels of 5.6%. This is largely attributed to continued pick-up in economic and trade activities as well as higher commodity prices. Unlike retail inflation, headline wholesale price inflation has averaged at +0.6% in FY21 thus far (Apr-Feb'21) as compared to 1.8% over the same period in FY20.

- Gap between CPI and WPI inflation fell to a 21-month low in February: The gap between retail and wholesale price inflation fell for the fourth month in a row by a huge 120bps MoM to a 21-month low of 0.9pp in February 2021—significantly lower than the series average of 3.6pp. This sharp drop in February was primarily on account of a) a much higher weight of food in the retail basket (45.9%) as compared to the wholesale basket (15.3%), where price rise was relatively benign in February, and b) a higher weightage of manufactured goods in the wholesale basket (64.2%) as compared to the retail basket, where prices have been on a rising trajectory due to improving demand and normalizing business environment.

Figure 102: Wholesale price inflation for February 2021 (%YoY)

	Weight (%)	Feb-21	Jan-21	Feb-20	FY21TD	FY20TD
WPI		4.2	2.0	2.3	0.6	1.8
Primary articles	22.6	1.8	(2.2)	6.5	1.0	7.2
Food articles	15.3	1.4	(2.8)	7.7	3.1	8.8
Non-food articles	4.1	3.9	4.2	6.9	0.4	4.9
Minerals	0.8	9.4	2.3	9.3	3.9	13.1
Crude petroleum & natural gas	2.4	(3.2)	(15.0)	(7.8)	(22.4)	(6.0)
Fuel & power	13.2	0.6	(4.8)	3.1	(9.8)	(1.7)
Coal	2.1	0.4	0.4	2.3	1.2	1.5
Mineral oils	8.0	0.9	(8.7)	1.1	(17.4)	(4.2)
Electricity	3.1	0.3	(0.4)	7.8	(2.0)	1.6
Manufactured products	64.2	5.8	5.1	0.5	2.2	0.3
Food group	24.4	3.3	(0.3)	7.2	3.8	7.1

Source: CSO, CMIE Economic Outlook.

Figure 103: WPI inflation trend

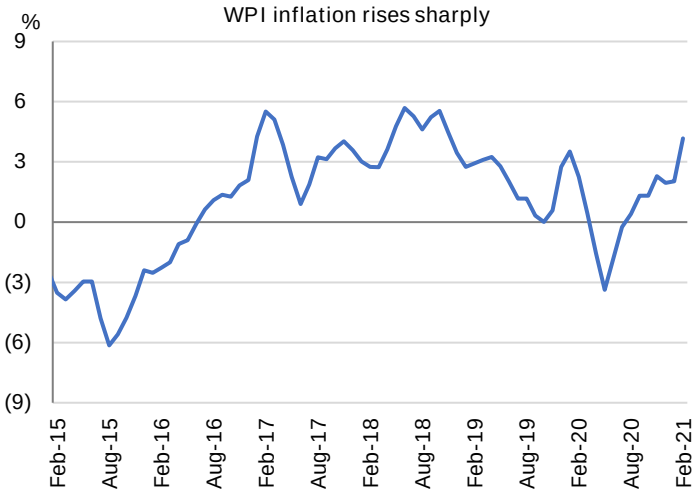
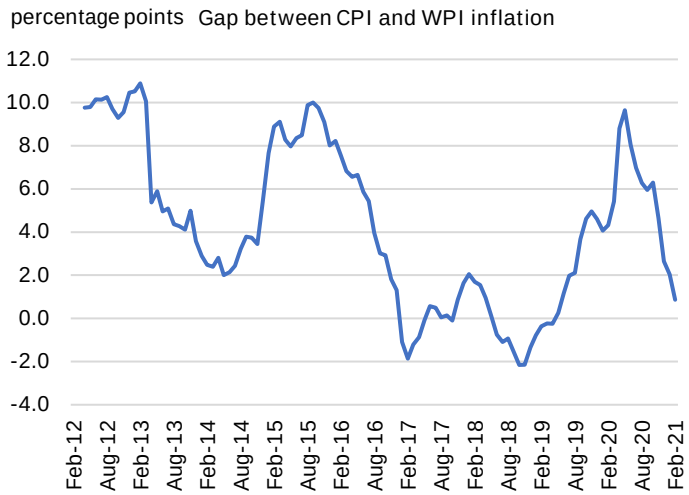
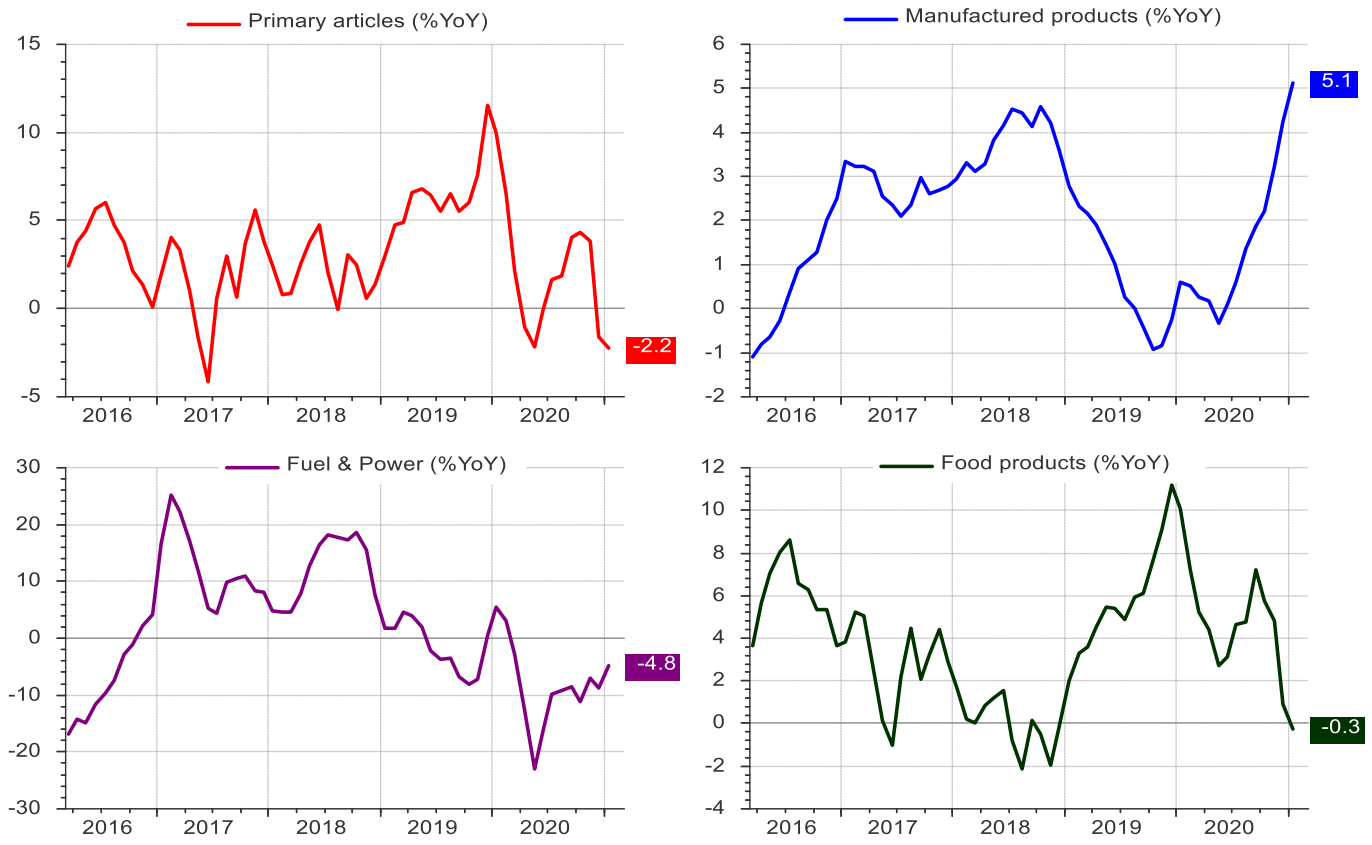


Figure 104: Gap between wholesale and retail inflation



Source: CMIE Economic Outlook.

Figure 105: India wholesale price inflation (WPI)



Source: Refinitiv Datastream, NSE.

Industry production growth slumps in January

Industrial recovery remains uneven with Industrial Production (IIP) falling back into the contraction zone, recording a 1.6% YoY decline in January 2021 following an upwardly revised expansion of 1.6% in December 2020. This is much lower than the Consensus estimate of +0.9% YoY and even lower than the minimum market expectation of -1.4%. The plunge was led by Manufacturing and Mining even as Electricity continued to show decent growth. The use-based classification shows weakness in consumption as well as investment activity as reflected from a five-month high YoY fall in Consumer and Capital Goods production.

Economic recovery seems to have faltered after the festive season—visible from a sequentially slower growth in some high frequency indicators (auto sales, freight traffic, petrol consumption), with the resurgence of COVID-19 cases and consequent reimposition of regional lockdowns as well as rising commodity prices posing further downside risks. Additionally, after a steady progress in vaccinations, several states have reported vaccine shortages, thereby adding to the woes. This is likely to weigh on the ongoing economic recovery and normalisation of activities particularly in the services sector.

Industrial production growth fell back into contraction zone, falling by 1.6% YoY in Jan'21.

- **IIP growth slumps in January...:** Industrial production fell by 1.6% YoY in Jan'21 following an upwardly revised 1.6% YoY growth in Dec'20, pointing to an uneven economic recovery, significantly falling short of market expectations (+0.9%). Growth in the previous months seem to have been supported by normalisation of business activities and inventory build-up to cater to festive/pent-up demand. The average IIP growth in the current fiscal year (Apr-Jan'21) is -12.2% as opposed to +0.6% growth during the same period in the previous fiscal year.
- **...Led by weakness in Mining and Manufacturing activity:** Manufacturing sector registered a 2.0% YoY drop in January—the steepest decline in five months, partly off a high base (+1.8% YoY in Jan'20). The weakness was fairly broad-based, with 18/23 sub-sectors recording a YoY contraction, led by wearing apparel (-20.2%), recorded media (-18.3%), furniture (-18%), paper & paper products (-12.5%), pharmaceuticals, medicinal chemical & botanical products (-11.5%) and tobacco products (-10.8%). This was partly offset by strong growth in rubber & plastic products (+6.3%), base metals (+4.2%) other transport equipment (+4.7%) and chemical & chemical products (+3.1%). Mining activity remained lacklustre for yet another month, down 3.7% YoY—marking the fourth month and 10/11 months to witness a YoY contraction, even as it improved on a sequential basis. On the positive side, Electricity sector continued to show healthy performance, growing by 5.5% YoY despite an unfavourable base (+3.1% YoY in Jan'20).
- Use-based classification shows weakness in consumption and investment activity: In the use-based classification, except for Primary Goods that registered a sequential improvement in Jan'21, all other sectors witnessed a drop from the previous month's levels. On a YoY basis, Primary, Intermediate and Infra /Construction Goods grew by 0.2%, 0.5% and 0.3% respectively. Capital Goods production slumped by 9.6% YoY—the steepest drop in five months, indicating continued weakness in investment activity. Consumption activity also seem to have faltered, with Consumer Non-durables production falling by an eight-month high of 6.8% YoY, while Consumer Durables declined by a modest 0.2% YoY.
- Economic uncertainty mounting: Economic recovery seems to have faltered after the festive season—visible from a sequentially slower growth in some high frequency indicators (auto sales, freight traffic, petrol consumption), with the

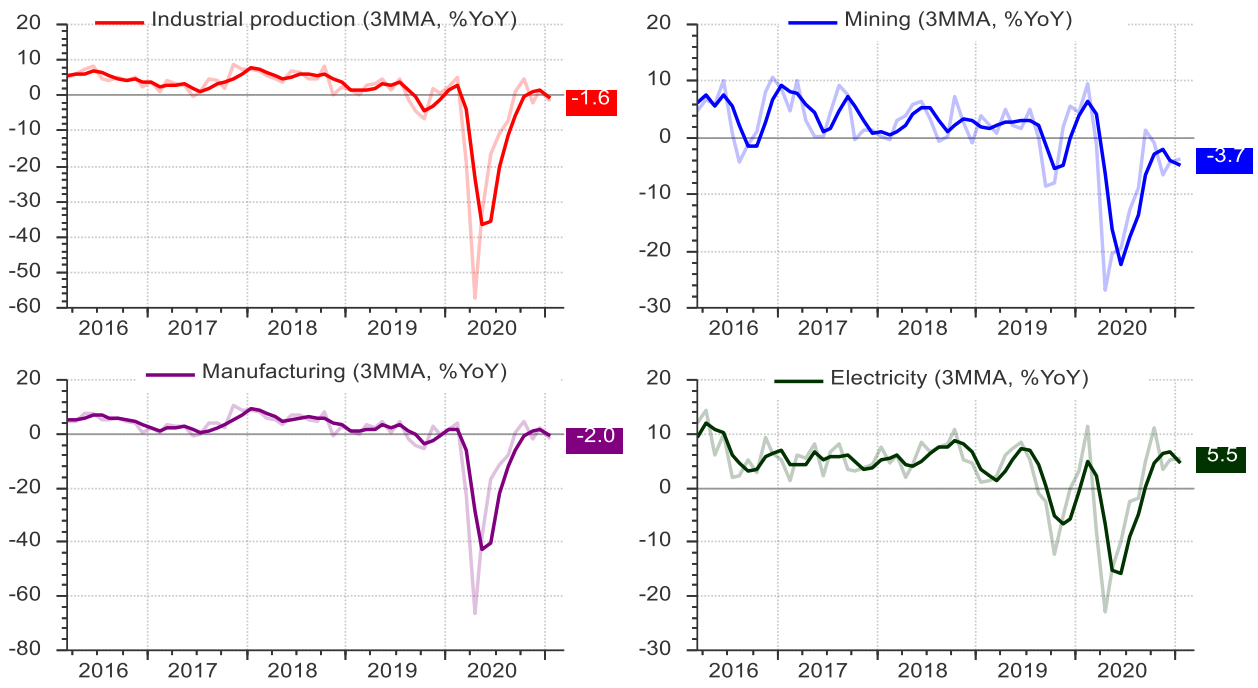
resurgence of COVID-19 cases and consequent reimposition of regional lockdowns as well as rising commodity prices posing further downside risks. Additionally, after a steady progress in vaccinations, several states have reported vaccine shortages, thereby adding to the woes. This is likely to weigh on the ongoing economic recovery and normalisation of activities particularly in the services sector.

Figure 106: India industrial production for January 2020 (%YoY)

%YoY		Weight (%)	Jan-21	Dec-20	Jan-20	FY21TD	FY20TD
	IIP		(1.6)	1.6	2.2	(12.2)	0.6
Sector-based indices	Mining	14.4	(3.7)	(4.2)	4.4	(10.4)	1.0
	Manufacturing	77.6	(2.0)	2.1	1.8	(13.6)	0.4
	Electricity	8.0	5.5	5.1	3.1	(2.7)	0.9
Use-based Goods	Primary Goods	34.0	0.2	(0.1)	1.8	(9.0)	0.5
	Capital Goods	8.2	(9.6)	1.5	(4.4)	(25.6)	(11.7)
	Intermediate Goods	17.2	0.5	2.2	15.6	(13.0)	11.2
	Infra/Construction Goods	12.3	0.3	2.7	(0.3)	(13.3)	(1.9)
	Consumer Goods	28.2	(4.2)	2.5	(1.8)	(12.0)	(1.4)
	Consumer Durables	12.8	(0.2)	5.7	(3.7)	(22.1)	(6.2)
	Consumer Non-durables	15.3	(6.8)	0.5	(0.6)	(4.9)	2.3

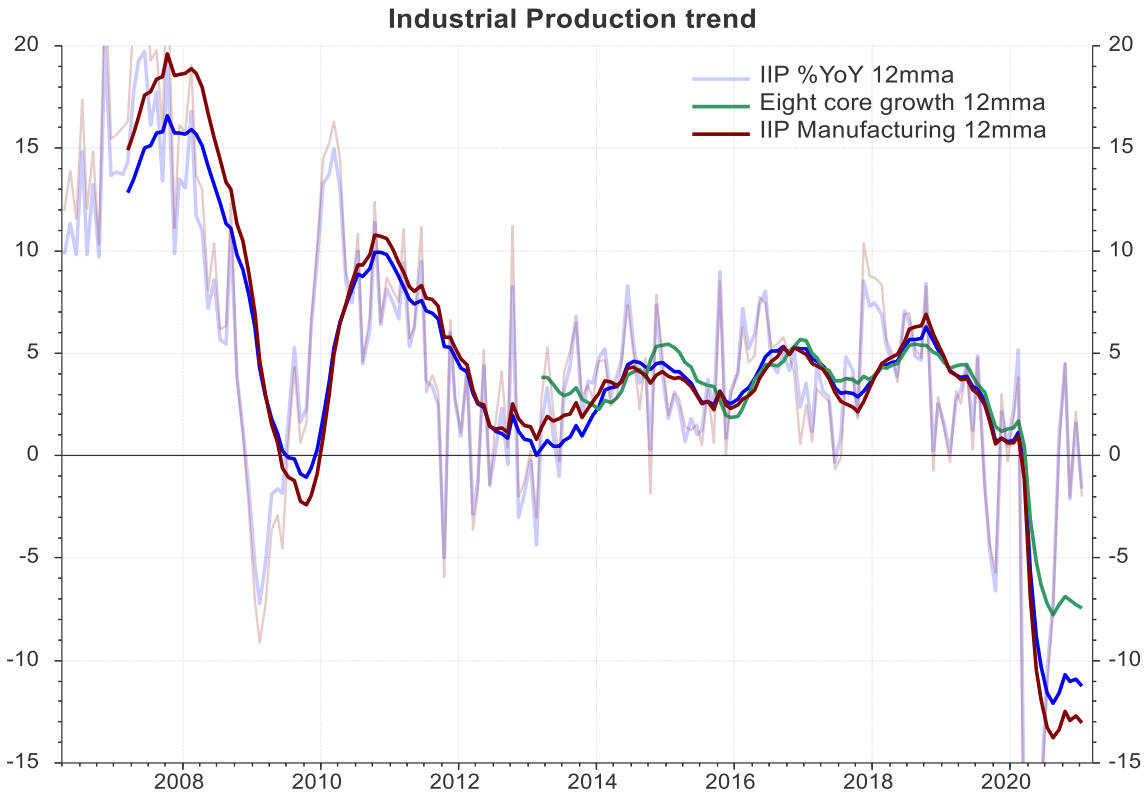
Source: CSO, NSE.

Figure 107: India industrial production (3MMA)



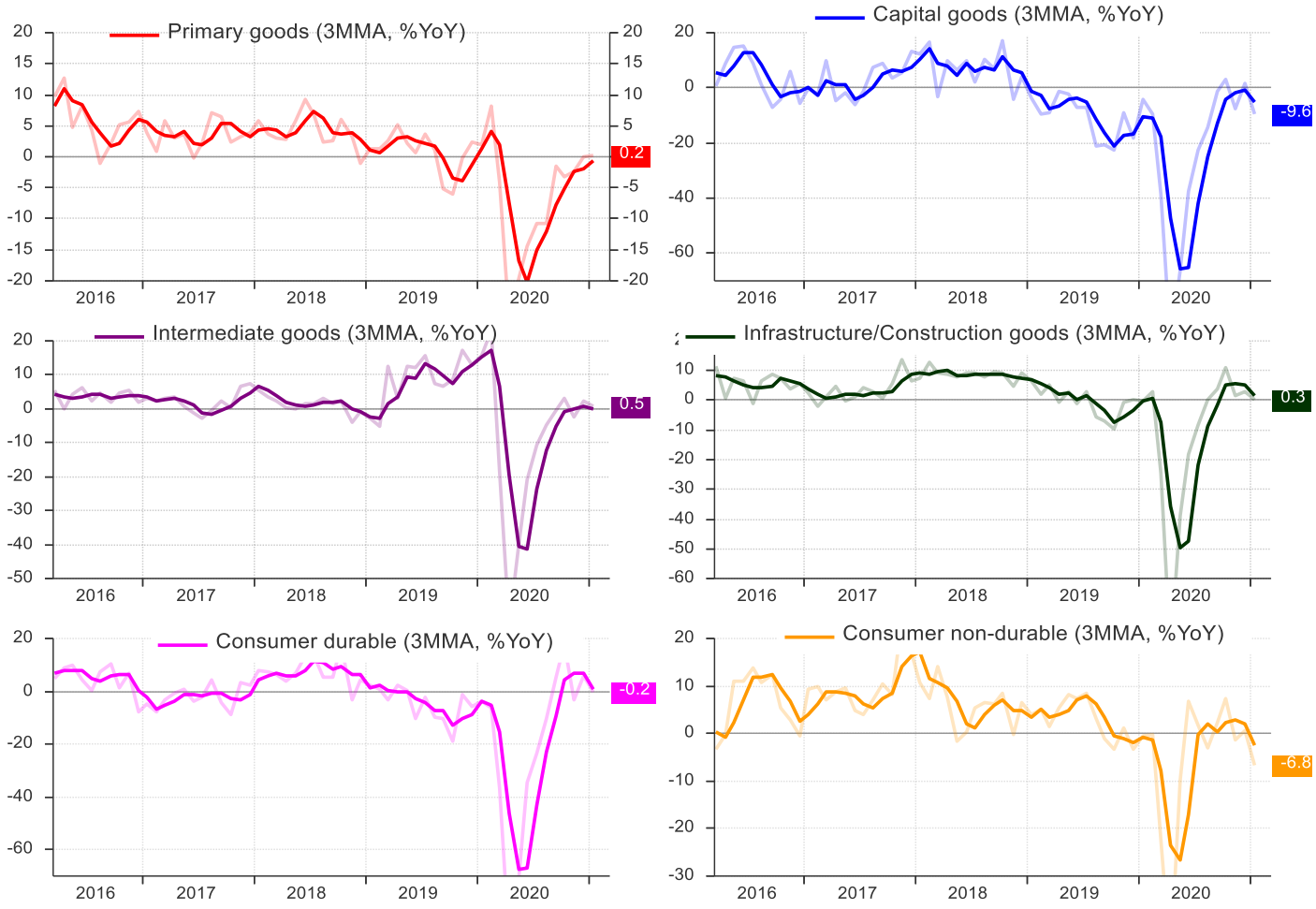
Source: Refinitiv Datastream, NSE

Figure 108: Long-term industrial production trend (12MMA)



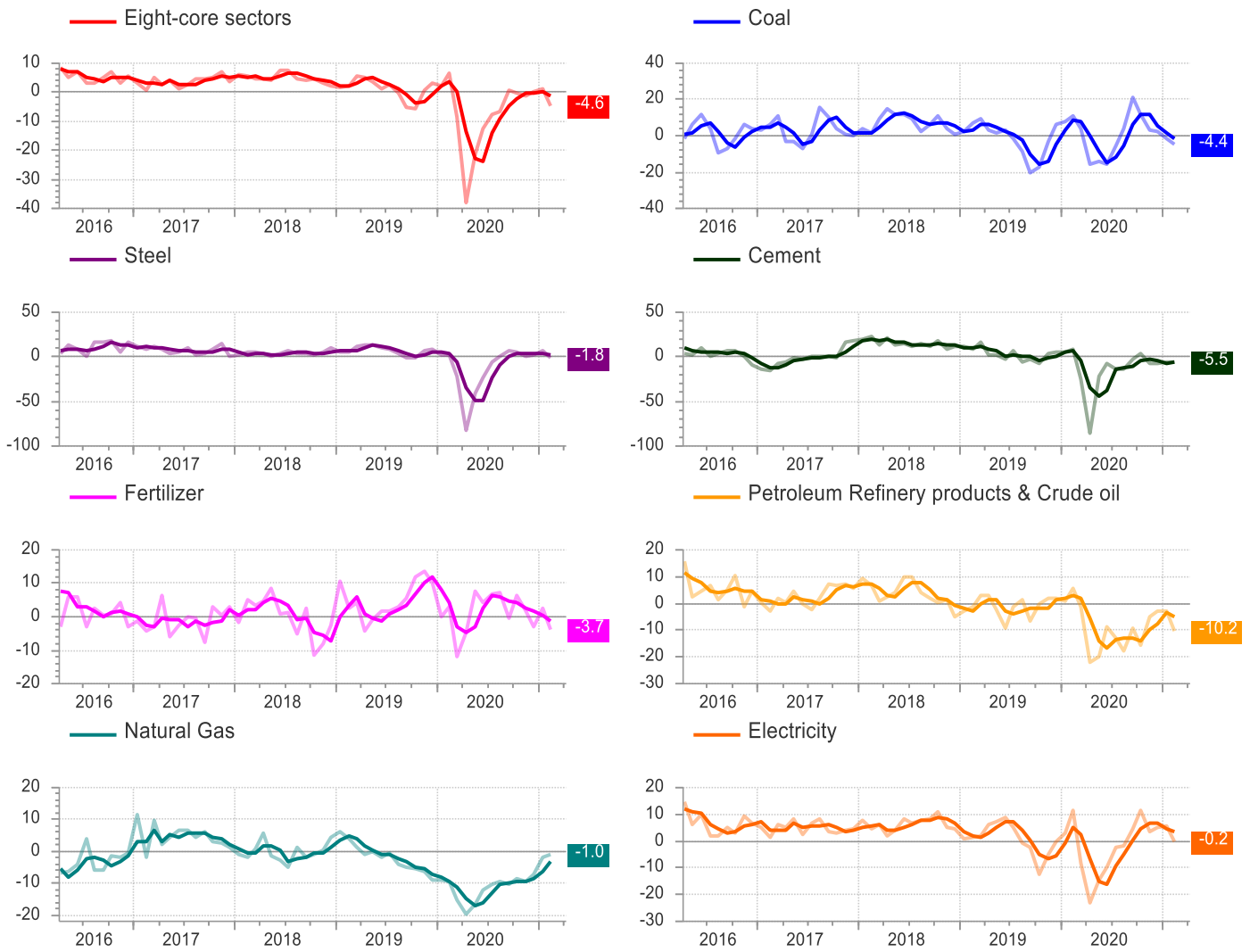
Source: Refinitiv Datastream, NSE

Figure 109: India industrial production use-based goods (3MMA)



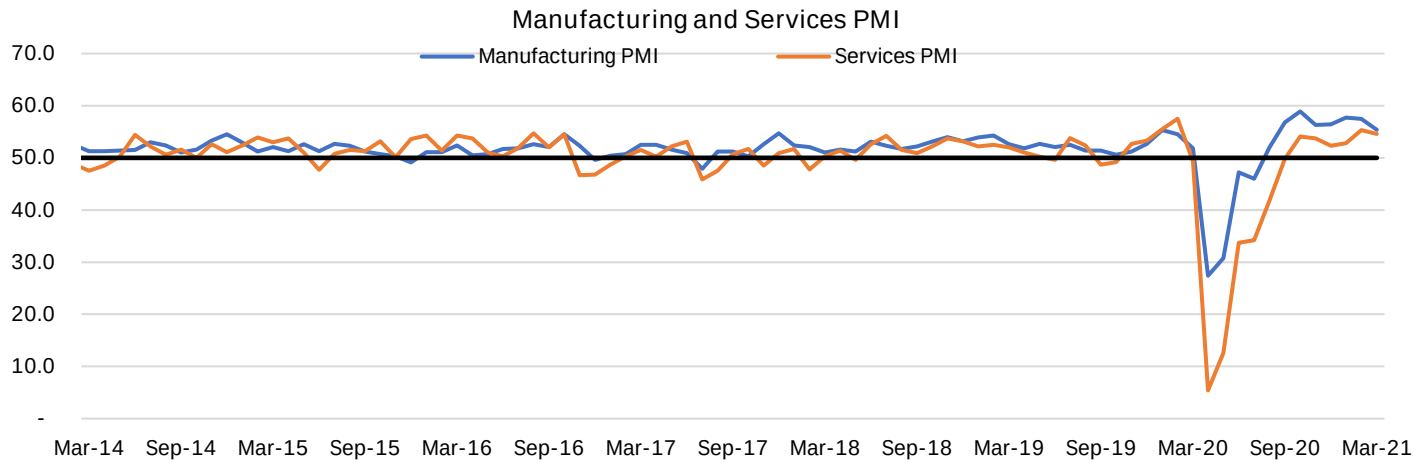
Source: Refinitiv Datastream, NSE

Figure 110: India eight-core sector growth (3MMA)



Source: Refinitiv Datastream, NSE

Figure 111: Manufacturing and Services PMI slows down in March amid rising COVID cases



Source: CMIE Economic Outlook, NSE.

Trade deficit narrows to three-month lows in February

India's merchandise trade deficit contracted further to a three-month low of US$12.6bn in Feb'21 from US$14.5bn in the previous month, primarily led by sequential tapering of imports accompanied with a mild uptick in exports. Thanks to a strong 7% growth in imports, however—attributed to a sharp surge in gold and core (non-oil, non-gold) imports—the deficit was meaningfully higher than Feb'20's US$10.2bn. Export growth on the other hand moderated from a 22-month high of 6.2% YoY in Jan'21 to a modest 0.7% in Feb, largely because of container shortages across the country.

Steady consumption demand as reflected through the core import group (three-month avg. of 7.6%YoY), coupled with the regained momentum in non-oil exporting activity (three-month avg. of 7.1%YoY), augers well for the overall economic recovery. That said, the sequential tapering of growth momentum seen in several high-frequency indicators including core imports, auto sales, cargo port/rail freight traffic, and petrol consumption warrants caution ahead, with the recent surge in COVID infections and renewed restrictions adding to the woes. An effective implementation of COVID vaccination drives is therefore crucial for a sustainable global trade recovery. We maintain expectations of a current account surplus of 1.1% of GDP in FY21 and a deficit of 0.7% of GDP in FY22.

Emerging market (EM) currencies have lately come under pressure in the wake of hardening oil prices, escalating US bond yields and a stronger US macroeconomic landscape translating into dollar rally. The INR is no different, having witnessed a significant volatility over the last few weeks, accentuated by concerns over rising COVID-19 cases and a dovish monetary policy by the RBI. Going ahead, while the INR is likely to move in tandem with global cues, it should exhibit greater resilience relative to its peers due to the war chest of forex reserves (US$577bn as of April 2nd, +115bn in last one year) even as the latter is down US$13bn from peak-levels seen in January 2021.

- Exports grew sequentially but lost momentum on a YoY basis: After growing at a 22-month high of 6.2% YoY in Jan'21, exports witnessed a moderation in annual growth momentum in Feb'21, up 0.7% YoY, but expanded sequentially (+1.8% MoM). This is primarily attributed to container shortages across the country and supply disruptions in the last week of Feb'21 due to rising COVID-19 cases. The moderating pace of YoY drop in exports of petroleum products (-21%YoY in Feb'21 vs. 32%YoY in Jan'21) was outweighed by a marked slowdown in performance of non-oil export segment—up by 3.7%YoY in Feb vs. +11.5% YoY in Jan'21. While essential items such as other cereals (546.5%), oil meals (245.5%), iron ore (167.8%) and drugs (14.7%) continued to show stellar growth, non-essential items such as leather (-21.6%), gems & jewellery (-11.2%), ready-made garments (-8.5%), electronic goods (-5.8%) and engineering goods (-2.4%) continued to falter. Export growth in FY21 thus far (Apr'20-Feb'21) stood at -12.5% YoY.

Exports continued to show uptick on sequential basis, but moderated on a YoY basis from 22 month high of 6.2%YoY in Jan to 0.7%YoY in Feb.

- Import growth fell sequentially but remained healthy on a YoY basis: Import growth picked up meaningfully to 7% YoY in Feb from +2% YoY in the previous month, primarily led a sharp surge in gold imports (+124% YoY)—a consequence of price moderation and healthy wedding demand, as well as robust growth in non-oil non-gold imports (+6% YoY). Alongside, the YoY contraction in oil imports came off from 28%YoY to 17%YoY in Feb. Within the core import group, import growth of electronic goods remained quite resilient, registering 38% YoY print—indicating a steady recovery in consumption demand. Growth in inbound shipments for wood (19%YoY), iron and steel (23% YoY), pharma (15.4%YoY), chemicals (45%YoY) and metallic ferrous ores (30% YoY) continued to exhibit signs of industrial demand recovery. Imports, however, lost momentum on a sequential basis and declined by 3% MoM, thanks to an 8% MoM contraction in non-oil non-gold imports, thereby giving us reasons to be cautious ahead particularly in the wake of

Imports rose by a 7% YoY in Feb'21 vs. +2% in Jan'21 led by robust gold/non-oil non-gold imports that continue to point to strong industrial/ consumption demand.

resurgence of COVID-19 infections. Imports on a cumulative basis (Apr'20-Feb'21) are down 23% as compared to the same period in the previous year.

- Trade deficit narrowed to a three-month low: Trade deficit moderated further from US$14.5bn in Jan'21 to a three-month low US$12.6bn in Feb'21, primarily led by sequential tapering of imports accompanied with a mild uptick in exports. Trade deficit, however, was higher than the year-ago levels (US$10.2bn in Feb'20) due to a sharp increase in gold and core import group segment on a YoY basis. On a cumulative basis, trade deficit is down 42% YoY FYTD.

Trade deficit moderated to a three-month low of US$ 12.6bn in Feb'21 from US$14.5bn in Jan'21.

- External environment to remain conducive: Steady consumption demand as reflected through the core import group (three-month avg. of 7.6%YoY), coupled with the regained momentum in non-oil exporting activity (three-month avg. of 7.1%YoY), augers well for the overall economic recovery. That said, the sequential tapering of growth momentum seen in several high-frequency indicators including core imports, auto sales, cargo port/rail freight traffic, and petrol consumption warrants caution ahead, with the recent surge in COVID infections and renewed restrictions adding to the woes. An effective implementation of COVID vaccination drives is therefore crucial for a sustainable global trade recovery. We maintain expectations of a current account surplus of 1.1% of GDP in FY21 and a deficit of 0.7% of GDP in FY22. Sustained foreign capital flows amidst global risk-on environment is likely to keep the BoP (Balance of Payments) in a comfortably surplus position.

We estimate a current account surplus of 1.1% of GDP in FY21 but expect a deficit of 0.7% of GDP in FY22.

Sustenance of foreign capital inflows should keep the BoP in a comfortably surplus position.

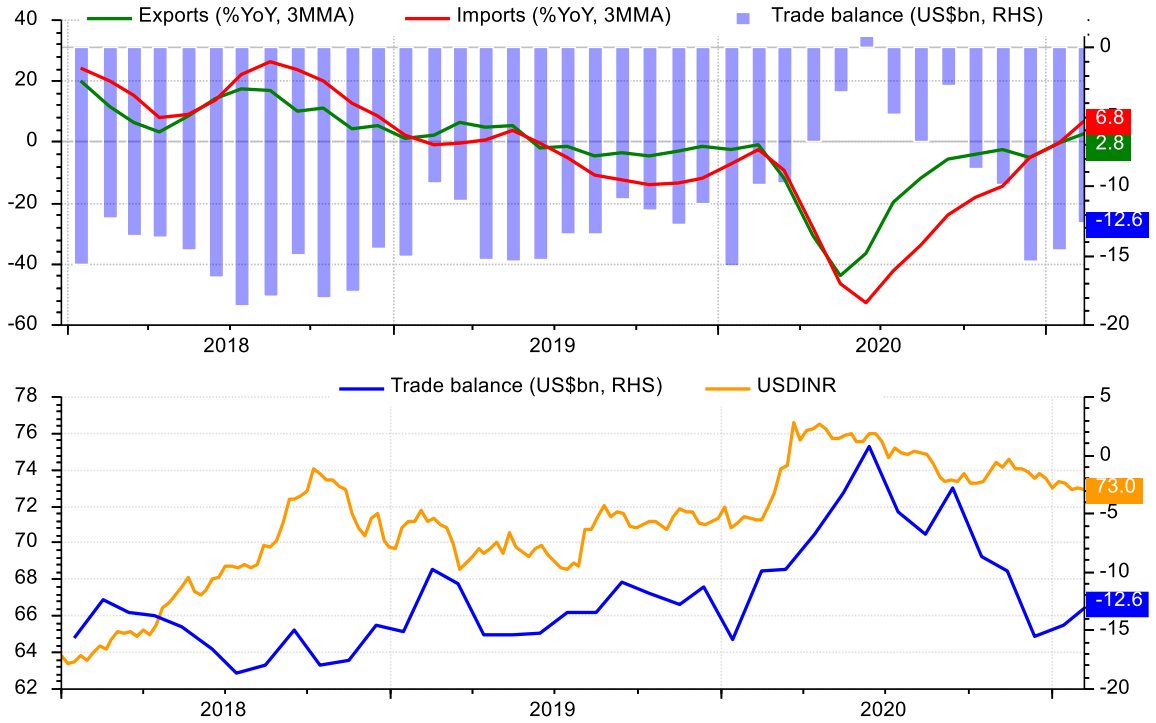
- INR likely to move in tandem with global cues: Emerging market (EM) currencies have lately come under pressure in the wake of hardening oil prices, escalating US bond yields and a stronger US macroeconomic landscape translating into dollar rally. The INR is no different, having witnessed a significant volatility over the last few weeks, accentuated by concerns over rising COVID-19 cases and a dovish monetary policy by the RBI. Going ahead, while the INR is likely to move in tandem with global cues, it should exhibit greater resilience relative to its peers due to the war chest of forex reserves (US$577bn as of April 2nd, +115bn in last one year) even as the latter is down US$13bn from peak-levels seen in January 2021.

Figure 112: India monthly trade balance for February 2021

	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
Feb-21	27.9	0.7	40.5	7.0	9.0	-16.6	31.6	16.3	5.3	123.9	-12.6
Jan-21	27.4	6.2	42.0	2.0	9.4	-27.7	32.6	15.8	4.0	154.7	-14.5
Feb-20	27.7	3.3	37.9	3.6	10.8	14.5	27.1	-0.2	2.4	-8.5	-10.2
FY21TD	256.7	-12.0	345.1	-22.1	72.3	-40.0	272.8	-15.5	26.1	-3.3	-88.4

Source: Ministry of Commerce, CMIE Economic Outlook.

Figure 113: India monthly trade balance trend



Source: Refinitiv Datastream.

Figure 114: Non-oil, non-gold imports trend

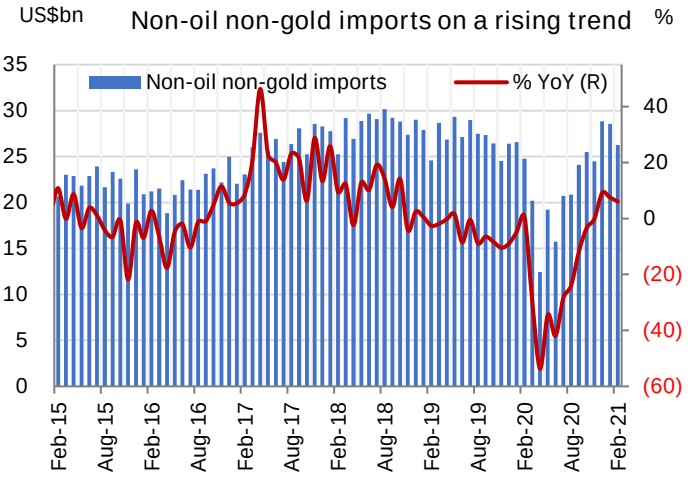
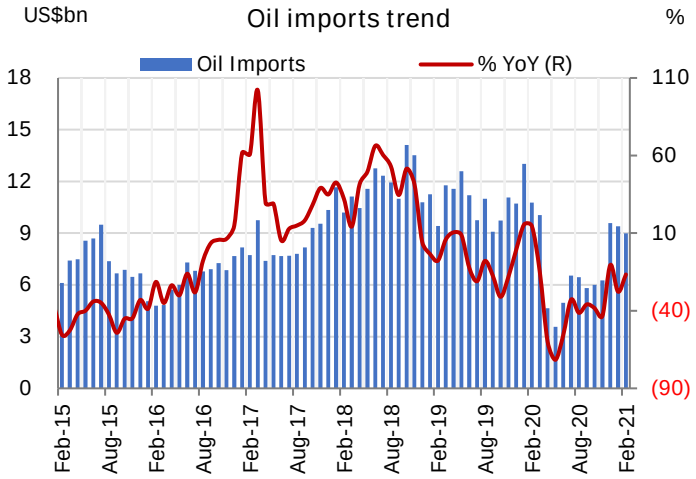
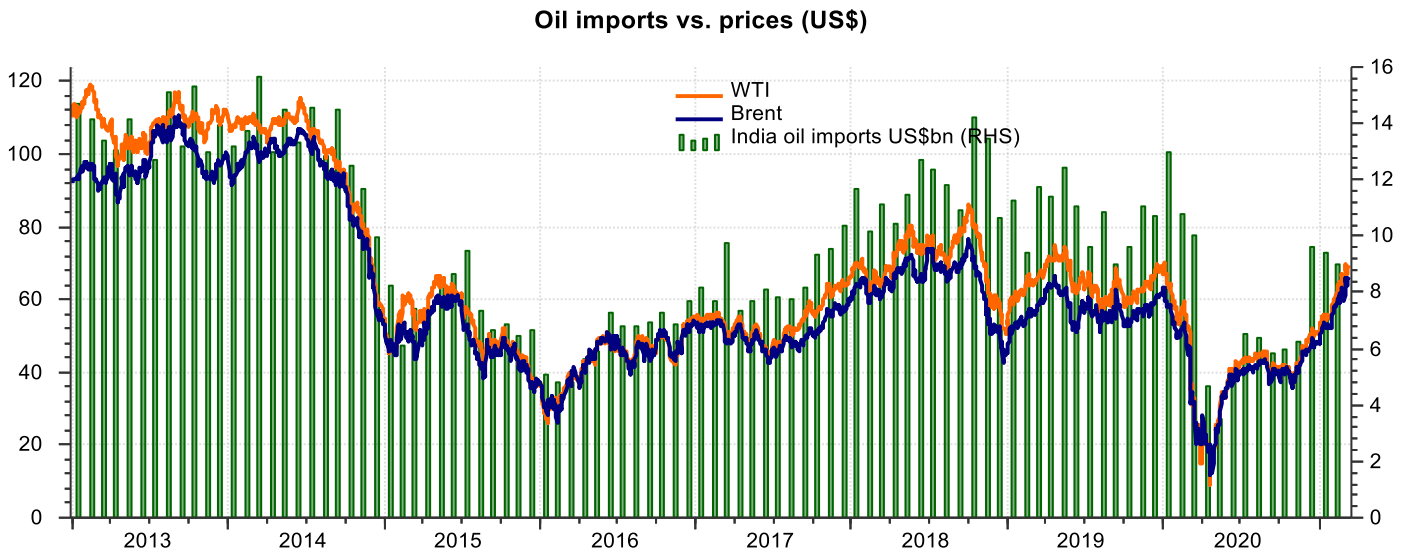


Figure 115: Oil imports trend



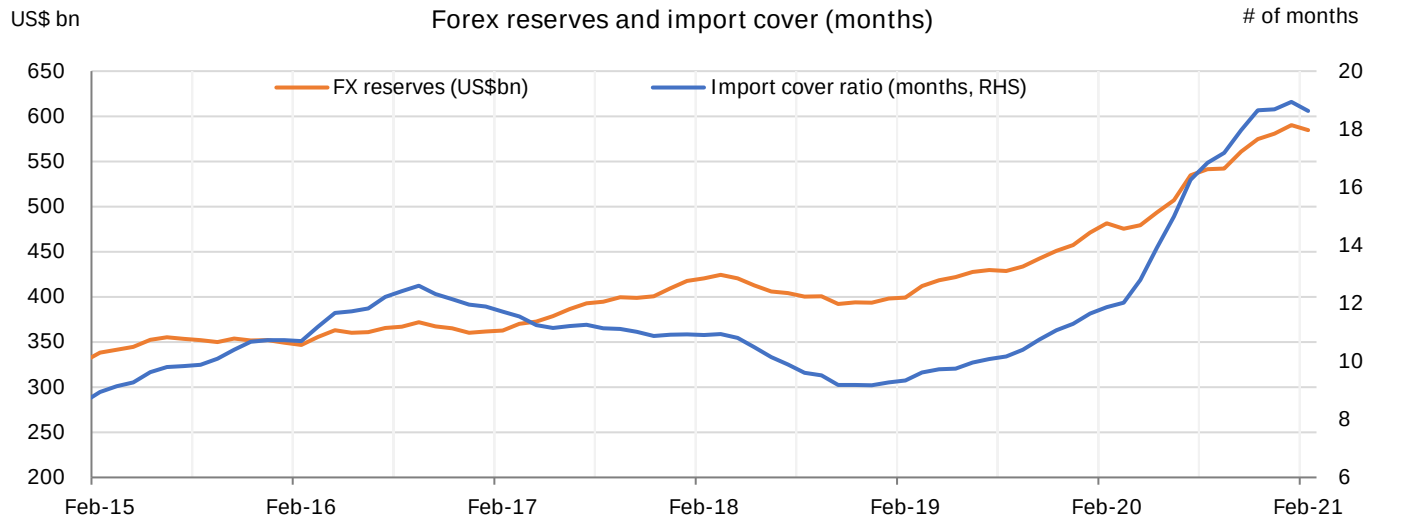
Source: Ministry of Commerce, CMIE Economic Outlook.

Figure 116: Oil imports vs. Brent crude oil prices trend



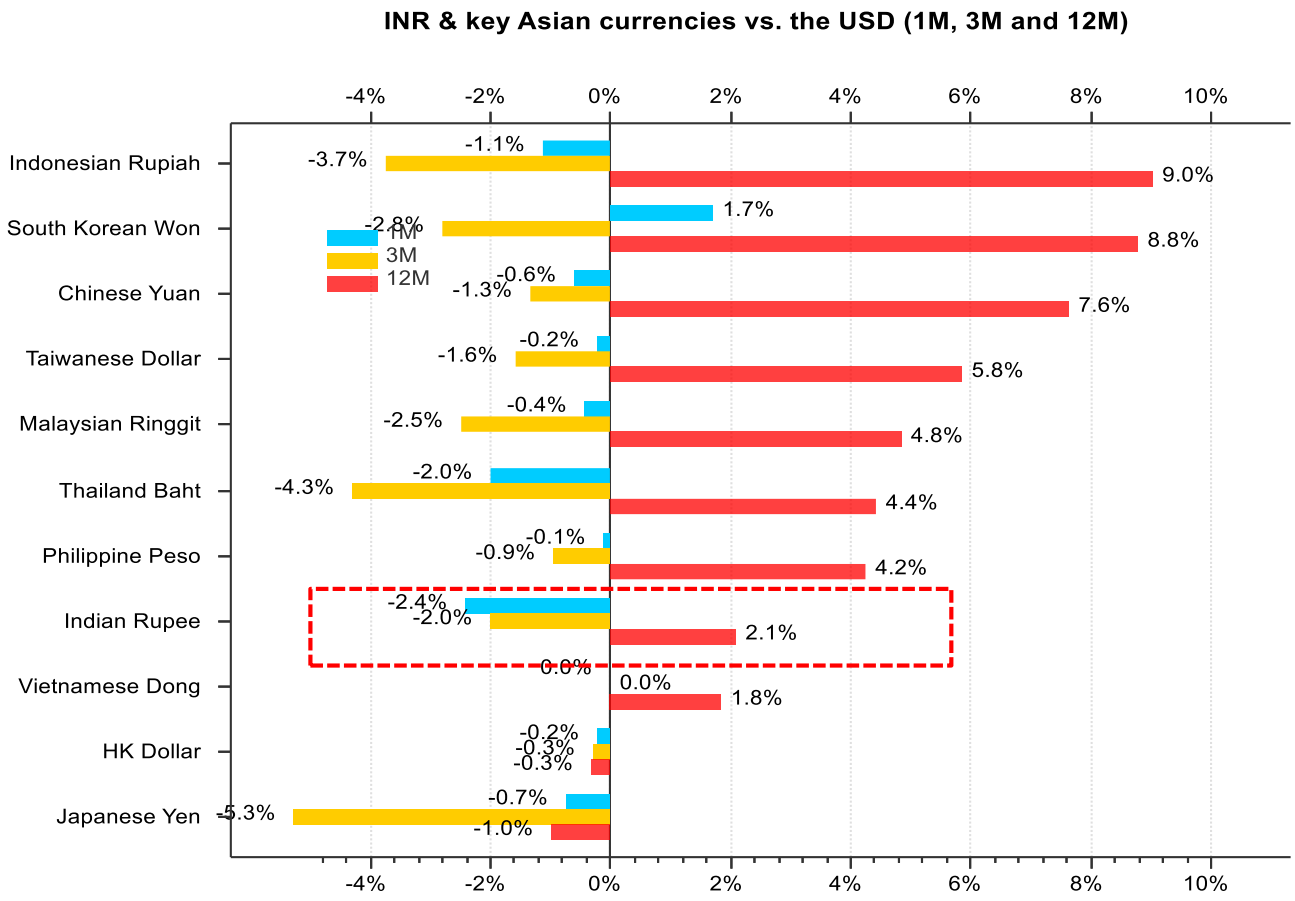
Source: Refinitiv Datastream.

Figure 117: Strong accretion to forex reserves over the last couple of years has led to a sharp rise in import cover



Source: CMIE Economic Outlook, NSE.

Figure 118: Aggressive RBI intervention has weighed on the INR over last one year



Source: Refinitiv Datastream.

Current account balance slips into deficit in Q3; BoP rises to record-high levels

India's current account balance slipped back into deficit in Q3FY21 at US$1.7bn or 0.2% of GDP after remaining in surplus for the previous three quarters. This is primarily attributed to a 133% QoQ expansion in merchandise trade deficit, thanks to a substantially higher import bill (+24% QoQ). The capital account balance, on the other hand, improved meaningfully led by record-high foreign portfolio inflows during the quarter, supported by enhanced global monetary easing and continuous normalization in economic activities. This led to the Balance of Payments (BoP) surplus rising to record-high levels of US$32.5bn in Q3FY21.

Going ahead, trade deficit is expected to widen further in Q4FY21, thanks to continued resilience in normalisation of domestic economy, translating into higher imports. The full year figure, however, is expected to remain reasonably lower than last year. Our estimates point to near-40% drop in trade deficit in FY21, thereby translating into a current account surplus of 1.1% of GDP in FY21—the first surplus in 17 years. Alongside, sturdy foreign capital inflows should result in a record-high BoP surplus in FY21. In FY22, we expect current account to slip into deficit again, with our estimate pegged at 0.7% of GDP. However, sustenance of foreign investments on the back of easy global monetary policy stance is likely to keep BoP in a comfortable surplus position.

- **Trade deficit widened in Q3 on continued traction in domestic activities...**: India's trade deficit widened to a three-quarter high of US$34.5bn in Q3FY21 from US$14.8bn in Q2FY21. This was primarily led by a 24% QoQ expansion in the import bill that outweighed export growth of 2% QoQ. Within imports, non-oil import growth (+26% QoQ) exceeded oil import growth (+16% QoQ), thanks to strong festive/pent-up demand even as the latter continued to suffer owing to travel restrictions. While trade deficit widened sequentially, it remained well below Dec-19 levels (-4% YoY). On a YoY basis, imports fell by 4.7% owing to a sharp 30.5% YoY dip in oil imports even as non-oil imports grew by 4.8% YoY, reflecting resilience in normalisation of economic activities. Exports, on the other hand, fell by a tad higher 4.9% YoY, as recovery in global demand suffered amid resurgence of COVID infections in several countries including the US, Europe, and UK.

After maintaining surplus over three consecutive quarters, current account balance registered a deficit of US$1.7bn or 0.2% of GDP in Q3FY21.

- **...pushing current account balance** into deficit again: Net invisible receipts witnessed a strong recovery on a sequential basis, rising by 10% QoQ to US$33bn in Q3FY21 but fell by a modest 1.8% on a YoY basis. The improvement was primarily led by a strong growth in software services receipts (+6.1%QoQ/ +8.9%YoY) and remittances (+4.7%QoQ/+1.9%YoY), partly offset by higher net investment outgo. Despite steady invisible receipts, a significant widening of trade deficit on a sequential basis pushed current account balance into deficit again of US$1.7bn in Q3FY21 vs. a surplus of US$15.1bn in the previous quarter.

- Capital account improved meaningfully leading to record-high BoP surplus: Led by robust foreign portfolio inflows on the back of continued global risk on sentiment (record-high FII inflows of US$21bn in Q3) and sequentially lower banking capital outflows, capital account surplus surged significantly to US$33.5bn in Q3FY21 from US$16bn in the previous quarter. This was partly offset by some sequential moderation in foreign direct investments (US$16.9bn vs. US$24.6bn in Q2FY21). Consquently, BoP surplus in Q3 rose to record-high levels of US$32.5bn (US$84bn in 9MFY21, +2.06x YoY).

Despite widening current account deficit, Balance of Payments (BoP) surplus rose to record-high levels of US$32.5bn in Q3FY21.

- Current account surplus expected at 1.1% of GDP in FY21; FY22 to see deficit again: The monthly trade figures suggest further expansion in trade deficit in Q4FY21 as domestic demand has remained steady amid continued normalisation of domestic economy while external demand has been weighed down still high infection rate across major trading partners. The full year figure is expected to remain reasonably lower than last year. Our estimates point to near-40% drop in trade deficit in FY21, thereby translating into a current account surplus of 1.1% of GDP in FY21—the first surplus in 17 years. Alongside, sturdy foreign capital inflows, should result in a record-high BoP surplus in FY21. In FY22, we expect current account to slip into deficit again, with our estimate pegged at 0.7% of GDP as import growth is expected to outpace export growth. However, sustenance of foreign investments on the back of easy global monetary policy stance is likely to keep BoP in a comfortable surplus position.

We estimate a current account surplus of 1.1% of GDP in FY21 but expect a deficit of 0.7% of GDP in FY22.

Sustenance of foreign capital inflows should keep the BoP in a comfortably surplus position.

Figure 119: Balance of Payments – Quarterly account

US$ bn	Q3FY19	Q4FY19	Q1FY20	Q2FY20	Q3FY20	Q4FY20	Q1FY21	Q2FY21	Q3FY21
Current account	-17.8	-4.6	-15.0	-7.6	-2.6	0.6	19.0	15.1	-1.7
CAD/GDP (%)	*-2.7*	*-0.7*	*-2.1*	*-1.1*	*-0.4*	*0.1*	*3.8*	*2.4*	*-0.2*
Trade balance	-49.3	-35.2	-46.8	-39.7	-36.0	-35.0	-10.8	-14.8	-34.5
Trade balance/GDP (%)	*-7.4*	*-5.0*	*-6.6*	*-5.7*	*-5.0*	*-4.8*	*-2.2*	*-2.3*	*-4.7*
Merchandise exports	83.1	87.4	82.7	80.0	81.2	76.5	52.4	75.6	77.2
Merchandise imports	132.4	122.6	129.5	119.6	117.3	111.6	63.2	90.4	111.8
Oil imports	38.5	32.4	35.4	29.9	31.5	33.8	13.2	18.8	21.9
Non-oil imports	93.9	90.2	94.1	89.7	85.8	77.8	50.0	71.6	89.9
Invisibles	31.5	30.6	31.8	32.1	33.4	35.6	29.8	29.9	32.8
Net services	21.7	21.3	20.1	20.9	21.9	22.0	20.5	20.9	23.6
Software earnings	19.9	19.9	21.0	21.1	21.5	21.1	20.8	22.0	23.4
Transfers	17.4	16.2	18.0	20.0	18.9	18.4	17.0	18.4	19.3
Investment income	-8.3	-7.5	-7.0	-9.6	-8.1	-5.6	-8.3	-10.1	-10.9
Other invisibles	0.8	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8
Capital account	13.8	19.2	28.6	13.6	23.6	17.4	1.2	16.1	33.5
Capital acc./GDP (%)	*2.1*	*2.7*	*4.0*	*1.9*	*3.3*	*2.4*	*0.2*	*2.5*	*4.5*
Foreign investments	5.2	15.9	18.8	9.8	17.6	-1.8	-0.2	31.6	38.2
FDI	7.3	6.4	14.0	7.3	9.7	12.0	-0.8	24.6	17.0
FII	-2.1	9.4	4.8	2.5	7.8	-13.7	0.6	7.0	21.2
Loans	2.9	10.3	9.6	3.1	3.1	9.9	2.7	-3.8	0.2
ECBs	2.0	7.5	6.1	3.3	3.2	10.3	-1.2	-3.9	-1.2
Banking capital	4.9	-8.1	3.4	-1.8	-2.3	-4.6	2.2	-11.3	-7.6
NRI deposits	0.1	3.4	2.8	2.3	0.8	2.8	3.0	1.9	3.0
Others	0.7	1.2	-3.2	2.5	5.2	13.8	-3.6	-0.4	2.8
Errors & Omissions	-0.3	-0.4	0.4	-0.9	0.6	0.9	-0.4	0.4	0.7
Overall balance (BoP)	-4.3	14.2	14.0	5.1	21.6	18.8	19.8	31.6	32.5

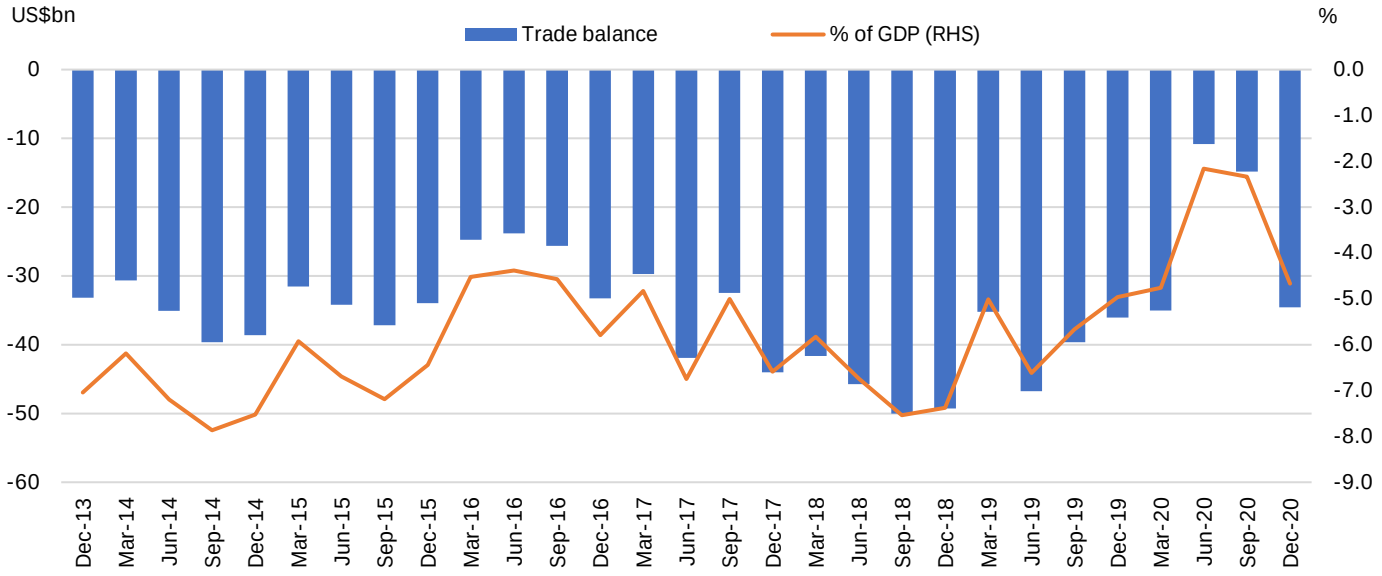
Source: RBI, CMIE Economic Outlook, NSE

Figure 120: Balance of Payments – Annual account

US$ bn	FY16	FY17	FY18	FY19	FY20	FY21E	FY22
Current account	-22.2	-14.4	-48.7	-57.3	-24.7	29.0	-20.3
CAD/GDP (%)	*-1.1*	*-0.6*	*-1.8*	*-2.1*	*-0.9*	*1.1*	*-0.7*
Trade balance	-130.1	-112.4	-160.0	-180.3	-157.5	-96.0	-147.6
Trade balance/GDP (%)	*-6.2*	*-4.9*	*-6.0*	*-6.6*	*-5.5*	*-3.7*	*-5.0*
Merchandise exports	266.4	280.1	309.0	337.2	320.4	282.0	321.5
Merchandise imports	396.4	392.6	469.0	517.5	477.9	377.9	469.1
Oil imports	82.6	86.9	108.7	141.1	130.5	83.0	100.4
Non-oil imports	313.9	305.6	360.3	376.4	347.4	295.0	368.7
Invisibles	107.9	98.0	111.3	123.0	132.8	125.0	127.4
Net services	69.7	68.3	77.6	81.9	84.9	86.5	89.1
Transfers	62.6	56.0	62.4	69.9	75.2	70.8	72.2
Other invisibles	-24.4	-26.3	-28.7	-28.9	-27.3	-32.3	-33.9
Capital account	41.1	36.4	91.4	54.4	83.2	90.0	79.0
Capital account/GDP (%)	*2.0*	*1.6*	*3.4*	*2.0*	*2.9*	*3.5*	*0.0*
Foreign investments	31.9	43.2	52.4	30.1	44.4	83.0	60.0
FDI	36.0	35.6	30.3	30.7	43.0	50.0	40.0
FII	-4.1	7.6	22.1	-0.6	1.4	33.0	20.0
Loans	-4.6	2.4	16.7	15.9	25.7	10.0	12.0
Banking capital	10.6	-16.6	16.2	7.4	-5.3	-5.0	5.0
NRI deposits	16.1	-12.4	9.7	10.4	8.6	9.0	10.0
Others	3.2	7.5	6.1	1.0	18.4	2.0	2.0
Errors & Omissions	-1.1	-0.5	0.9	-0.5	1.0	0.0	0.0
Overall balance (BoP)	17.9	21.6	43.6	-3.3	59.5	119.0	58.7

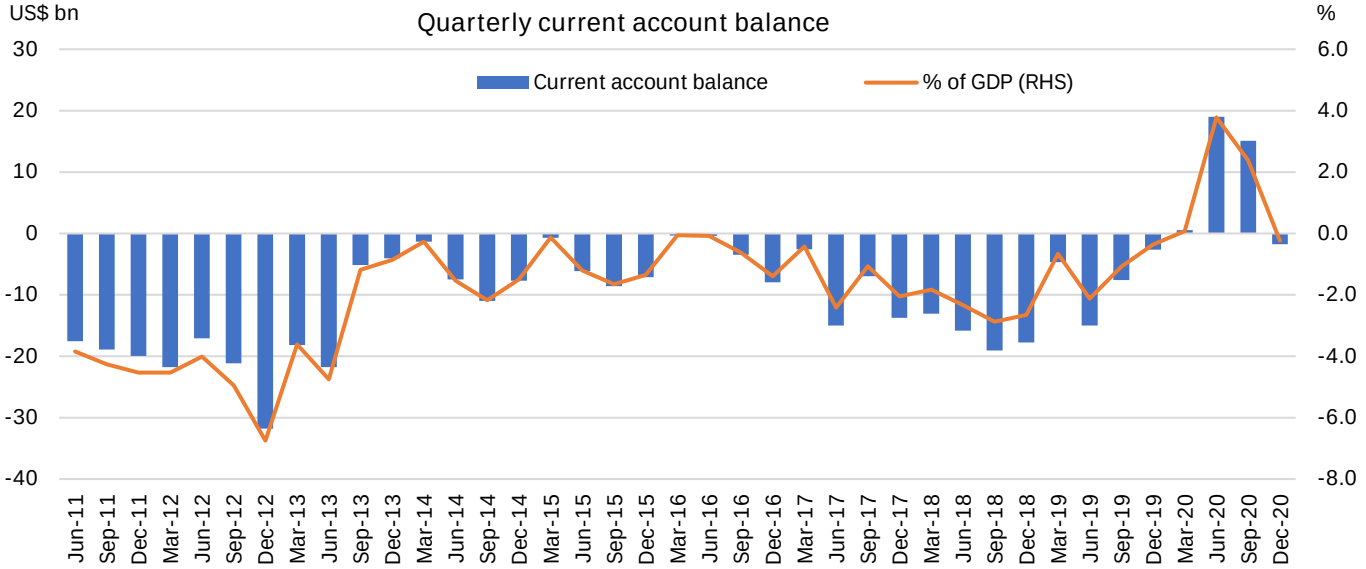
Source: RBI, CMIE Economic Outlook, NSE

Figure 121: **Trade deficit widened further in Q3FY21...**



Source: RBI, CMIE Economic Outlook, NSE.

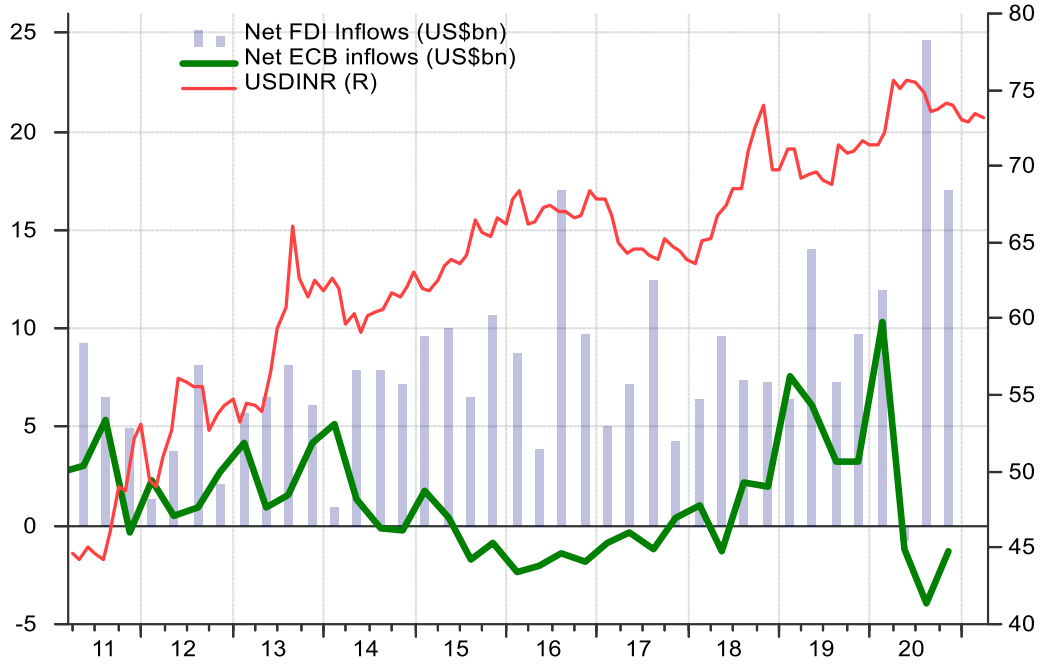
Figure 122: **...**pushing current account balance into deficit again



Source: CMIE Economic Outlook, NSE

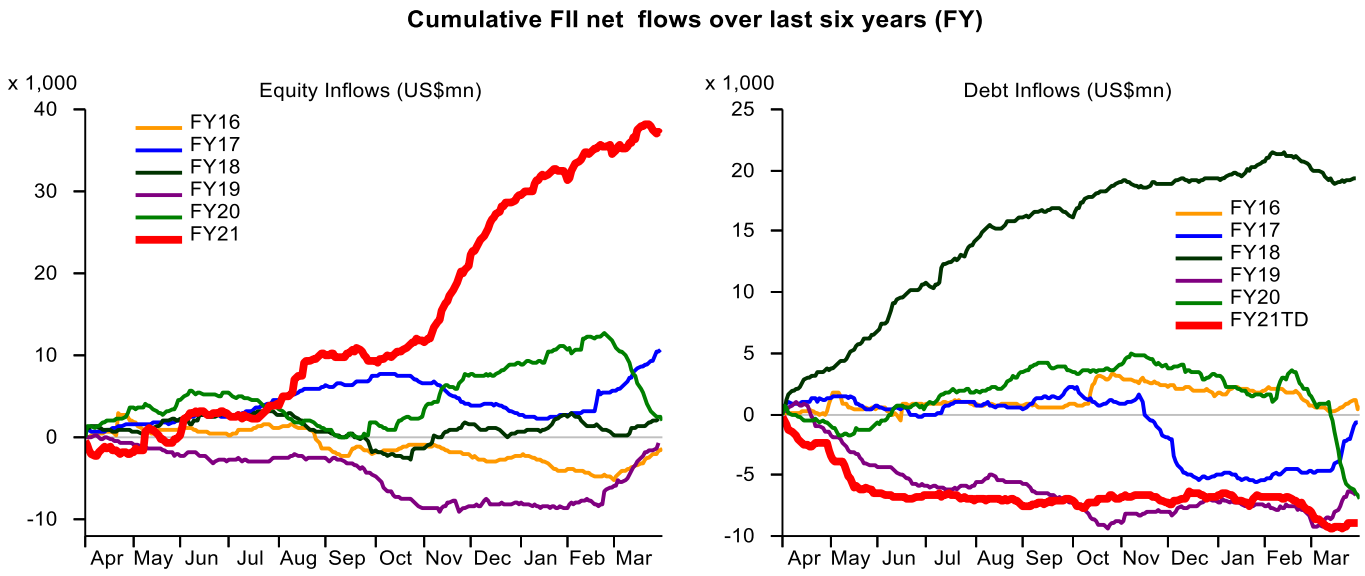
Figure 123: After surging to record-high levels in Q2FY21, FDI **inflows moderated in Q3FY21 ...**

Net FDI and ECB inflows into India



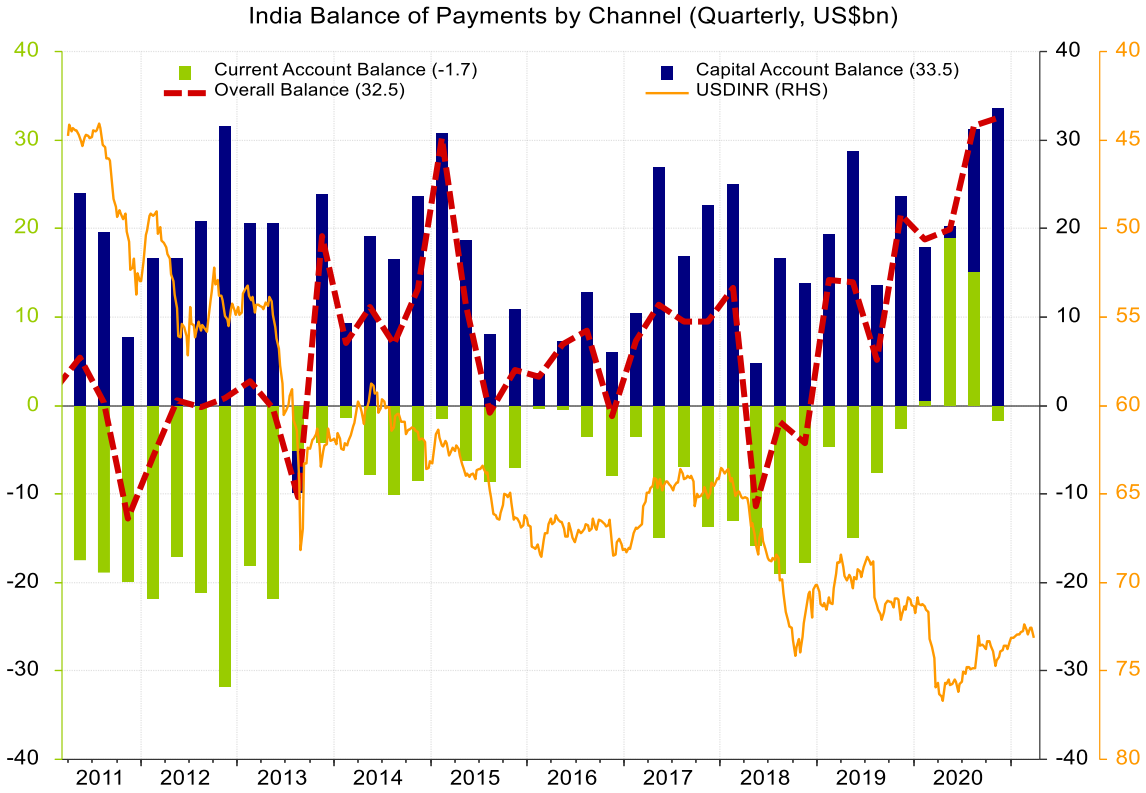
Source: Refinitiv Datastream, NSE

Figure 124: **...with strong foreign portfolio inflows during the quarter...**



Source: Refinitiv Datastream, NSE

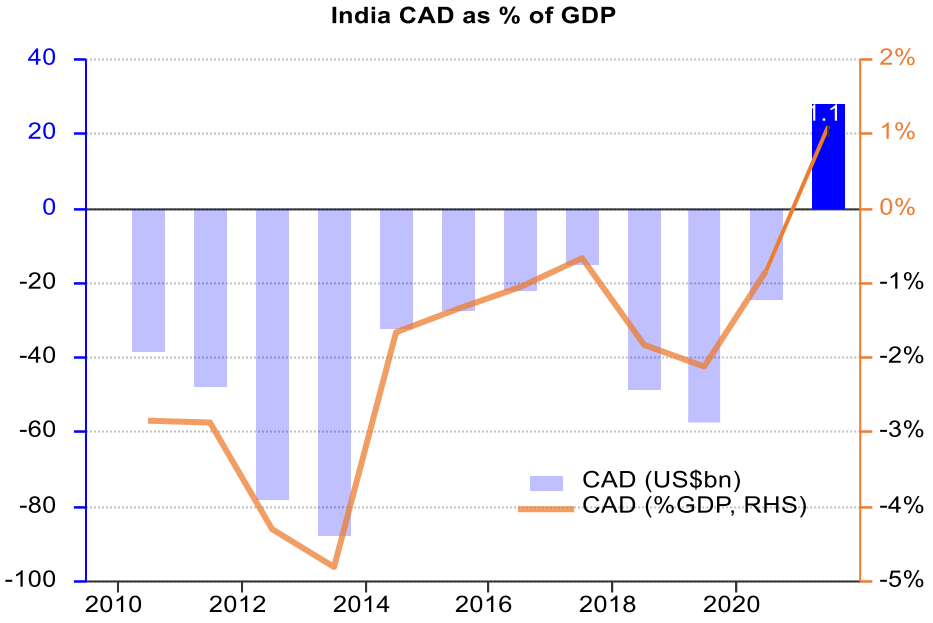
Figure 125: **...translating into a meaningful improvement in capital account surplus**



Source: Refinitiv Datastream, NSE

Figure 126: Current account surplus pegged at 1.1% of GDP in FY21; expect deficit of 0.7% of GDP in FY22

A significant contraction in trade deficit in FY21 is expected to translate into a current account surplus of 1.1% of GDP in FY21—the first surplus in 17 years, vs. a deficit of 0.9% of GDP in FY20. In FY22, we expect current account to slip into deficit again, with our estimate pegged at 0.7% of GDP, even as expectations of sustenance of foreign investments is likely to keep BoP in a comfortable surplus position for the third year in a row.



Source: Refinitiv Datastream, NSE

Centre likely to undershoot its revised budget target for FY21

The Centre's gross fiscal deficit for the eleven months of FY21 reached Rs14.1trn, exhibiting an escalation of 36% YoY. The cumulative deficit equivalent to 76% of the revised estimate for FY21 indicates the sustenance of robust spending by the Government in the last month of FY21 with an intent to bolster the nascent growth. Gross tax revenues in the 11 months of FY21 are now down by a mere 0.7% YoY vs. -1% during Apr-Jan'21, led by a meaningful improvement in direct as well as indirect tax collections. GST collections for March at Rs.1.2trn surpassed Rs.1trn mark for the sixth consecutive month because of continuing normalisation of economic activities, higher consumption demand and better compliance. The Centre's overall expenditure has grown by 14.3% YoY led by a strong 33% growth in capital expenditure, even as revenue expenditure grew by a modest 7.7% YoY during this period.

The implied figures point to a 29.3% YoY drop in gross tax collections in March 2021, while the overall expenditure is pegged to display a growth of 186% YoY, partly attributed to shift in some of the off-balance sheet items to on-balance sheet (e.g. FCI borrowing). However, the insistent traction in economic activities, as depicted through record-high GST collections and E-way bills in March despite rising COVID cases and renewed restrictions, elucidate better-than-expected revenue collections for March. This, along with marginally higher divestment proceeds as compared to revised figures and non-curtailment of expenditure in the month, is likely to result in the Centre undershooting its revised FY21 fiscal deficit target of 9.5% of GDP. The combined fiscal deficit (Centre + States) is likely to exceed 14% of GDP in FY21.

The budget estimate for fiscal deficit at 6.8% of GDP in FY22 assumes a 15% growth in net tax revenues despite a low base and a modest 1% growth in total expenditure which seems fairly reasonable and achievable unlike the trend seen in the past. The Government has also relaxed its medium-term fiscal consolidation roadmap, targeting 4.5% fiscal deficit by FY26.

- **Centre's cumulative fiscal deficit escalates by 36% YoY:** Centre's cumulative fiscal deficit for 11 months witnessed deterioration of nearly 36% YoY owing to COVID-19 induced economic disruption. This is equivalent to 76% of the revised estimate for FY21, implying robust spending in March'21 as well amidst recovery in revenue collections. Both tax collections and spending have improved over the last couple of months. Revenue deficit, however, is a tad lower at 72% in 11MFY21.

Gross fiscal deficit for Apr-Feb'21 at Rs.14.1trn is equivalent to mere 76% of the revised estimate.

- Revenue receipts showed resilient progress in the last few months: Gross tax revenues during April-February 2021 fell by a mere 0.7% YoY to Rs16.7trn and indeed demonstrated significant improvement from previous months' subdued performance thanks to continued normalisation of economic activity, higher consumption demand and better compliance. Indirect tax collections (+8.2% YoY vs. 7.9% YoY in 10MFY21) have also revived swiftly thanks to a meaningful recovery in GST collections and strong growth in excise revenues (supported by excise duty hikes on petrol/diesel). Direct tax collections exhibited limited improvement from January, falling by 10.4% YoY in the 11 months vs. a 10.5% YoY drop in Apr-Jan'21, weighed down by corporate tax receipts that declined by 16.2% YoY against 14.9% YoY contraction recorded in Apr-Jan'21. This was partly offset by some improvement in income tax receipts (-4% YoY in Apr-Feb'21 vs. -5.5% YoY during Apr-Jan'21). Gross tax collections are implicitly expected to decline by 29.3% YoY in March'21 despite the ongoing economic recovery, and therefore may surprise on the upside.

Tax collections have improved significantly in the wake of constant normalisation of economic activity.

  Net tax collections, however, rose by 9.1% YoY (vs. 10.4% YoY in Apr-Jan'21) as transfer of tax collections to states has come off meaningfully. The taxes devolved to the state governments fell by a huge 21% YoY to Rs.4.4trn during Apr-Feb'21 despite steady gross tax collections during this period. Non-tax revenues during

Apr-Feb 2021, however, continued to remain lacklustre and are down 41% YoY, primarily owing to a substantial drop of 50% YoY in dividends from PSUs as well as RBI. Revenue generation through the disinvestment route stood at Rs257bn for Apr-Feb'21. The Government garnered a sum of Rs71bn through this route in March'21, thereby pushing the overall proceeds for the fiscal to Rs328bn—a tad higher than the revised disinvestment target of Rs320bn.

- GST collections breaches Rs.1trn mark for the sixth month in a row: GST collections in March (collected for the month of February) surged to its highest level and grew by 27% YoY to Rs1.24trn following Rs.1.1trn recorded in Feb, substantiating continued economic recovery and effectiveness of anti-evasion drive undertaken by the tax administration to improve compliance. Cumulative GST collections during FY21 are now down by 7.5% YoY, with average monthly run-rate touching Rs967bn in FY21. The issuance of E-way bills touched 71.2mn in March, the highest in three years.

GST collections surpassed the Rs.1trn mark for the sixth time in a row, indicating significant normalisation in economic activities and better compliance.

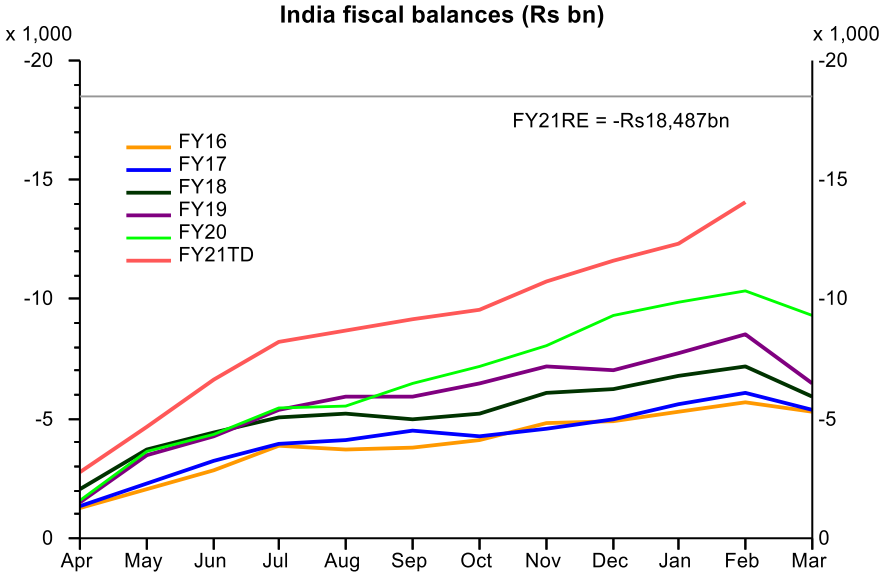
- Government maintained robust spending: Despite strained fiscal balances, the government has maintained the strong pace of spending with the commitment to bolster the nascent recovery momentum. For April-Feb'21, revenue expenditure—accounting for 86% of the total expenditure—exhibited a robust 11.7% YoY growth. Sectors that have seen strong growth in revenue spending by the Government include agriculture (11.2%), chemicals & fertilizers (46.4%), communications (49.5%), consumer affairs, food and distribution (50.5%), food processing (17.1%), health & family welfare (16.7%), labor and employment (36.0%), road transport and highways (28.9%), rural development (50.6%) and housing and urban affairs (39.82%). Capital expenditure also improved sharply and is now up 33% YoY on a cumulative basis during Apr-Feb'21, led by robust spending on food & public distribution and road transport & highways as well as higher transfer to state and union territories. The Government's revised estimates for FY21 point to a strong 186% YoY growth in the overall expenditure for the last month, partly attributed to shift in some of the off-balance sheet items to on-balance sheet (e.g. FCI borrowing).

- Combined fiscal deficit to cross 14% of GDP in FY21; FY22 fisc budgeted at 6.8%: A higher-than-expected fiscal deficit of Rs18.5trn or 9.5% of GDP in FY21 has been funded by market borrowings (expanded by an additional Rs800bn) and small savings. This may lead to the combined fiscal deficit (Centre + states) exceeding 14% of GDP in FY21. However, considering modest upbeat in gross tax revenues for March and a marginally higher divestment proceeds compared to revised budget estimates, the Centre is most likely to undershoot its revised FY21 budget target of 9.5% of GDP. The budget estimate for fiscal deficit at 6.8% of GDP in FY22 assumes a 15% growth in net tax revenues despite a low base and a modest 1% growth in total expenditure which seems fairly reasonable and achievable unlike the trend seen in the past. The Government has also relaxed its medium-term fiscal consolidation roadmap, targeting 4.5% fiscal deficit by FY26.

Combined fiscal deficit for FY21 is expected to cross 14% of GDP. However, upside surprise cannot be ruled out.

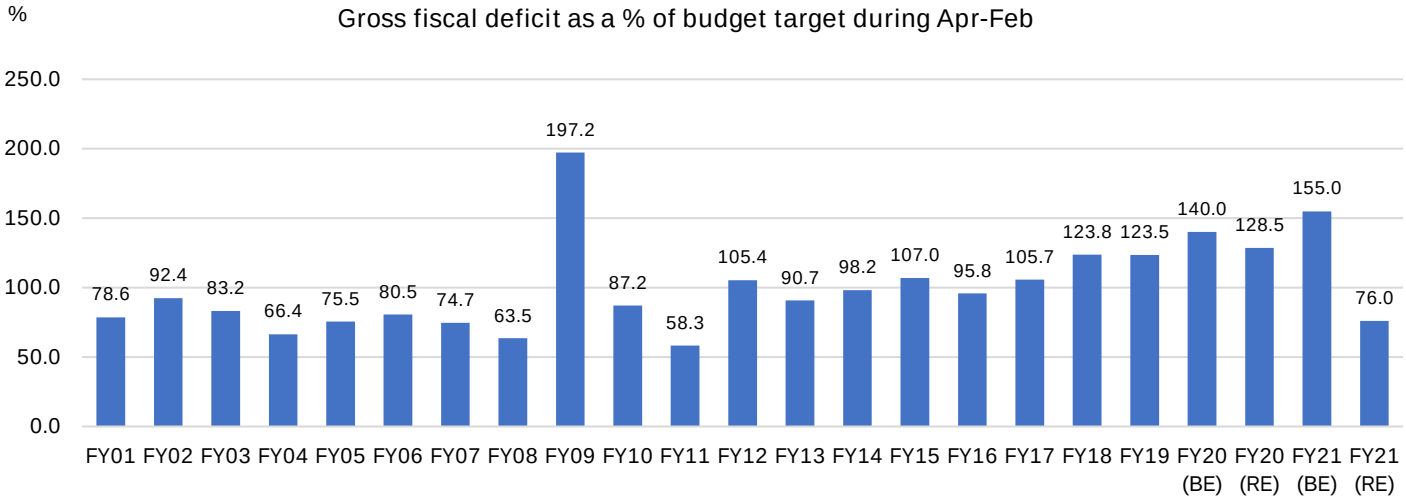
FY22 fiscal deficit target is pegged at 6.5% of GDP.

Figure 127: **Yearly trend of India's fiscal balances**



Source: Refinitiv Datastream.

Figure 128: Gross fiscal deficit as % of budget targets during April-February over the last 20 years



Source: CMIE Economic Outlook, CGA, NSE.

Figure 129: **Centre's gross fiscal trend**

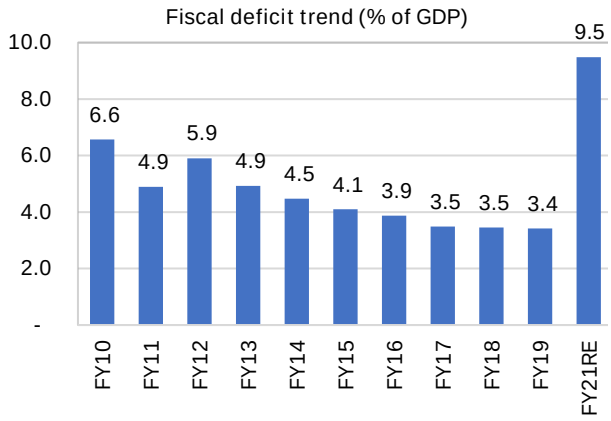


Figure 130: A quick glance at FY21 fiscal balances

Rs bn	FY20A	FY21RE	%YoY*	Apr-Feb 2021	% YoY
Net tax revenues	13,569	13,445	-0.9	12,161	9.1
Non-tax revenues	3,272	2,107	-35.6	1,542	-41.4
Non-debt cap rec.	686	465	-32.2	428	-16.2
Total receipts	17,527	16,017	-8.6	14,131	-1.1
Revenue Exp	23,506	30,111	28.1	24,135	11.7
Capital Exp	3,357	4,392	30.8	4,035	33.0
Total expenditure	26,863	34,503	28.4	28,186	14.3
Fiscal deficit	9,336	18,487	98.0	14,055	35.6
% of GDP#	4.6	9.5		6.3	

Source: CMIE Economic Outlook, CGA, NSE. BE = Budget Estimates, RE = Revised Estimates, A = Actual.

Figure 131: Direct tax collections trend during Apr-Feb

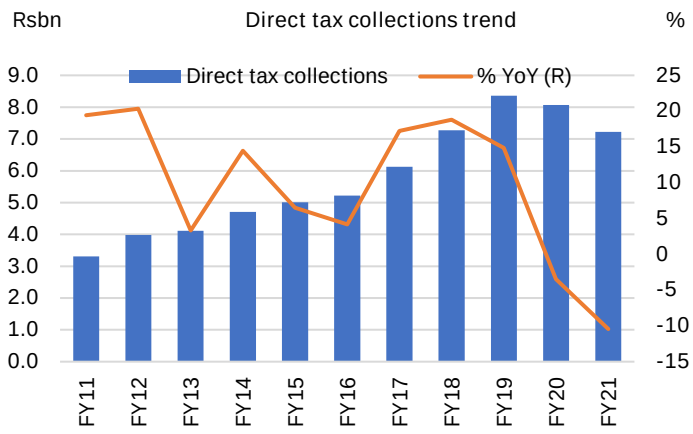
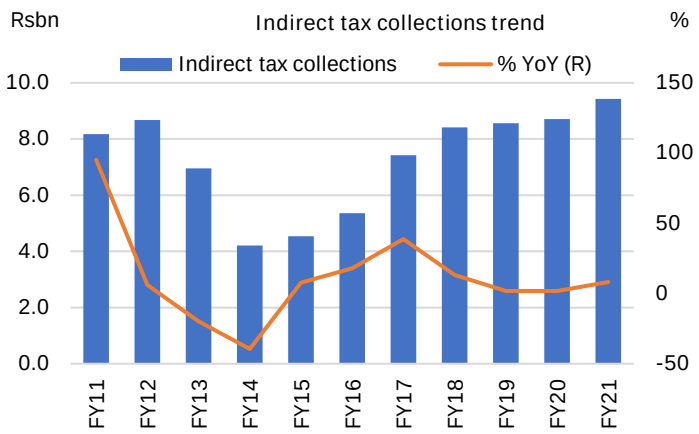


Figure 132: Indirect tax receipts trend during Apr-Feb



Source: CMIE Economic Outlook, CGA, NSE.

Figure 133: Gross tax collections trend during Apr-Feb

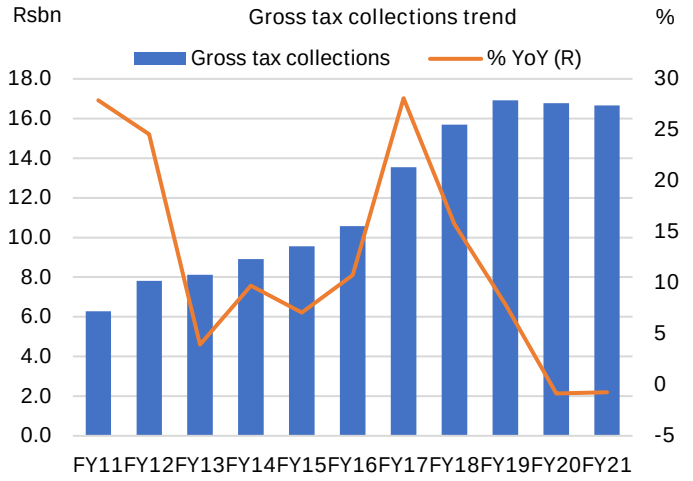
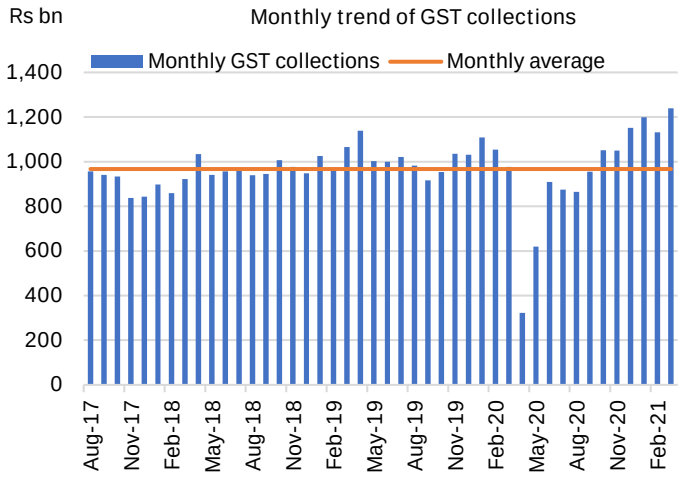


Figure 134: GST collections trend



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

Figure 135: Revenue and capital exp during Apr-Feb

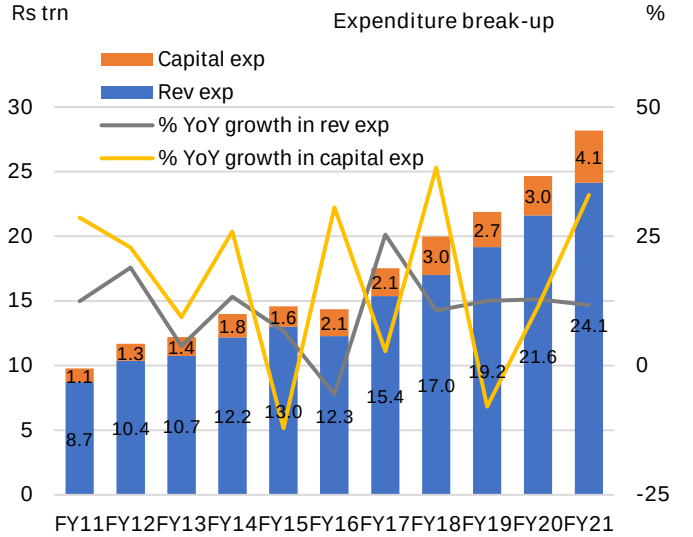
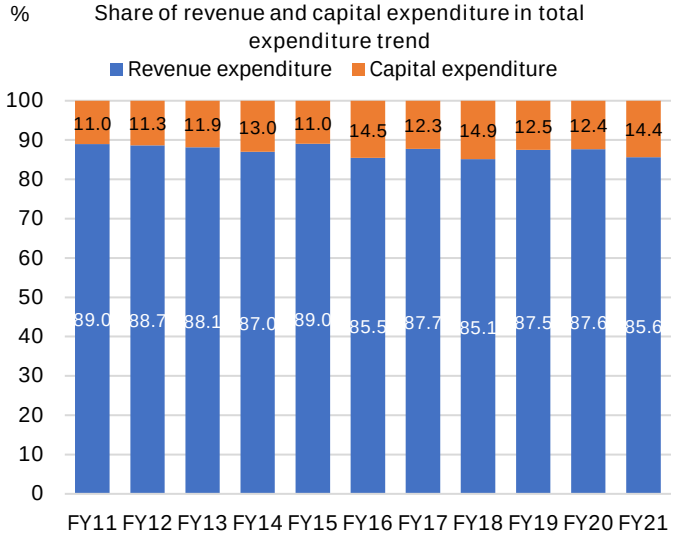


Figure 136: Expenditure mix during Apr-Feb FY21



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

Figure 137: A snapshot of government finances for April-Feb 2021

Items (Rs bn)	FY20A		FY21RE		Apr-Feb'21		Implied Mar 2021	
	Rs bn	% YoY	Rs bn	% YoY	Rs bn	% YoY	Rs bn	% YoY
Net tax revenues	13,559	2.9	13,445	(0.9)	12,161	9.1	1,284	(47.0)
Gross tax revenues	20,099	(3.4)	19,003	(5.5)	16,653	(0.7)	2,350	(29.3)
Of which:								
Direct Tax	10,372	(7.8)	9,050	(13.8)	7,226	(10.4)	1,824	(24.8)
Corporation tax	5,569	(16.1)	4,460	(19.9)	3,506	(16.2)	954	(31.0)
Income tax	4,803	4.0	4,590	(6.8)	3,720	(4.2)	870	(16.7)
Indirect Tax	9,727	1.8	9,953	3.6	9,427	8.2	526	(41.3)
Goods and service tax	6,014	2.9	5,151	(14.0)	4,960	(9.9)	191	(60.5)
Custom Duties	1,092	(7.3)	1,120	2.5	1,128	7.4	-8	(117.4)
Excise Duties	2,396	3.7	3,610	50.0	3,141	59.6	469	7.1
States Share	(6,507)	(15)	(5,500)	(15.5)	(4,442)	(72.5)	(1,058)	17.6
Transferred to NCCD	(33)	84.4	(58)	134.7	(51)	33.3	(8)	1444.9
Non-Tax Revenue	3,262	38.3	2,107	(35.6)	1,542	(20.8)	565	(11.8)
Dividends and profits	1,861	64.1	965	(48.1)	820	108.3	146	(32.6)
Other non-tax revenues	1,401	14.5	1,141	(19.1)	722	(41.4)	419	(1.2)
Central govt. revenue receipts	16,821	8.3	15,552	(7.7)	13,703	(50.2)	1,849	(39.6)
Non-Debt Capital Receipts	686	(39.1)	465	(32.2)	428	(26.8)	37	(79)
Recovery of Loans	183	2.0	145	(20.9)	172	(0.5)	-27	(207.8)
Misc. Receipts (inc. divestment)	503	(46.9)	320	(36.4)	256.68	(16.2)	63.32	(58)
Total Receipts	17,507	5.1	16,017	-8.6	14,131	(1.1)	1,886	(41.8)
Revenue Expenditure	23,496	17.0	30,111	28.1	24,134	11.7	5,978	214.8
Interest Payments	6,110	4.9	6,929	13.2	5,595	9.1	1,334	34.6
Major subsidies	2,232	13.3	5,954	100.7	3,656	37.5	2,298	643.6
Food	1,087	6.7	4,226	129.4	2,189	43.8	2,038	536.1
Fertilizer	811	14.9	1,339	78.6	1,177	46.6	162	(403.9)
Petroleum	334	36.0	388	3.5	290	(13.0)	98	134.0
Other revenue expenditure	15,154	23.4	16,695	15.8	14,883	7.7	1,812	202.4
Capital Expenditure	3,367	9.7	4,392	30.8	4,053	33.0	339	9.1
Total Expenditure	26,864	16.0	34,503	28.4	28,186	14.3	6,317	185.9
Fiscal Deficit	9,356	44.1	18,487	98.0	14,055	35.6	4,431	NM
Fiscal Deficit/GDP*	4.6		9.5		7.2			

Source: CMIE Economic Outlook, CGA, Budget Documents, NSE. *Based on nominal GDP growth estimate in FY21 Revised Estimates.

Figure 138: Fiscal math: FY22 fiscal deficit budgeted at 6.8% of GDP

Items (Rs bn)	FY20A		FY21					FY22	
	Rs bn	% of BE	BE (Rs bn)	% YoY	RE (Rs bn)	% YoY	% chg. from BE	BE (Rs bn)	% YoY over FY20RE
Net tax revenues	13,569	3.8	16,359	20.6	13,445	-0.9	-17.8	15,454	14.9
Gross tax revenues	20,101	-2.9	24,230	20.5	19,003	-5.5	-21.6	22,171	16.7
Of which:									
Direct Tax	10,495	-6.7	13,190	25.7	9,050	-13.8	-31.4	11,080	22.4
Corporation tax	5,569	-16.1	6,810	22.3	4,460	-19.9	-34.5	5,470	22.6
Income tax	4,927	6.8	6,380	29.5	4,590	-6.8	-28.1	5,610	22.2
Indirect Tax	9,605	1.6	11,040	14.9	9,953	3.6	-9.8	11,091	11.4
Goods and service tax	5,988	2.5	6,905	15.3	5,151	-14	-25.4	6,300	22.3
Custom Duties	1,093	-7.2	1,380	26.3	1,120	2.5	-18.8	1,360	21.4
Excise Duties	2,406	4.2	2,670	11	3,610	50	35.2	3,350	-7.2
States Share	-6,507	-14.5	-7,842	20.5	-5,500	-15.5	-29.9	(6,656)	21.0
Transferred to NCCD	-25	37.8	-29	18.1	-58	134.7	98.6	(61)	4.8
Non-Tax Revenue	3,272	38.8	3,850	17.7	2,107	-35.6	-45.3	2,430	15.4
Dividends and profits	1,861	64.1	1,554	-16.5	965	-48.1	-37.9	1,035	7.2
Central govt. revenue receipts	16,841	9.1	20,209	20	15,552	-7.7	-23.0	17,884	15.0
Non-Debt Capital Receipts	686	-39.2	2,250	227.8	465	-32.2	-79.3	1,880	304.3
Misc. Receipts (inc. divestment)	503	-46.9	2,100	317.5	320	-36.4	-84.8	1,750	446.9
Total Receipts	17,527	5.8	22,459	28.1	16,017	-8.6	-28.7	19,764	23.4
Revenue Expenditure	23,506	17.1	26,301	11.9	30,111	28.1	14.5	29,290	-2.7
Interest Payments	6,121	5	7,082	15.7	6,929	13.2	-2.2	8,097	16.9
Major subsidies	2,623	17.6	2,621	-0.1	6,487	147.3	147.5	3,699	-43.0
Capital Expenditure	3,357	9.1	4,121	22.7	4,392	30.8	6.6	5,542	26.2
Total Expenditure	26,863	16	30,422	13.2	34,503	28.4	13.4	34,832	1.0
Fiscal Deficit	9,336	41.6	7,963	-14.7	18,487	98	132.1	15,068	(18.5)
Fiscal Deficit/GDP	4.6		3.5		9.5			6.8	

Source: Budget Documents, CGA. BE: Budget Estimates; RE: Revised Estimates; A = Actual

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RBI Monetary Policy: Status quo on rates; liquidity support strengthened

The RBI's Monetary Policy Committee (MPC) unanimously decided to keep the policy rates unchanged (repo rate: 4%) and continue with the accommodative stance as long as necessary. While growth outlook for FY22 has strengthened, the RBI underscored the need to support and revive growth on a durable basis particularly in the wake of downside risks emanating from COVID resurgence and consequent implementation of regional lockdowns. The RBI has retained its FY22 GDP growth forecast at 10.5%—a tad higher than our estimate of 10.0%. Inflation, on the other hand, faces upside risks from higher commodity prices and logistics costs, and is expected to average at ~5% in FY22—higher than the RBI's medium-term target of 4% (retained for the next five years).

With an aim to enable an orderly evolution of the sovereign yield curve which acts as a benchmark for other financial market instruments, the RBI announced a secondary market G-sec Acquisition Programme (G-SAP 1.0) for FY22 wherein the RBI would commit upfront to a specific amount of open market purchases of Government securities. For Q1FY22, G-SAP amount is pegged at Rs1trn. This is in addition to RBI's regular liquidity management tools including regular and special open market operations. The RBI also announced a slew of measures to strengthen liquidity support including a) Extension of TLTRO (Targeted Long-term Repo Operations) On Tap Scheme by six months, b) Additional liquidity support of Rs500bn to All-India Financial Institutions (AIFIs) for fresh lending during FY22, c) Extension of permission granted to banks to on-lend to registered NBFCs by six months, d) Increase in farm loan limit under priority sector lending (PSL) from Rs5mn to Rs7.5mn against warehouse receipts, and e) Enhanced Ways and Means Advance (WMA) limit for states and UTs.

Persistence of supply-side and cost-push pressures on inflation rules out any possibility of a rate cut in the foreseeable future. At the same time, increasing COVID-led uncertainty on growth outlook would ensure sustenance of an accommodative stance and status quo on rates at least through the current financial year. The RBI's focus is likely to remain on ensuring ample liquidity in the system to support the ongoing recovery process and ensure smooth execution of the Government's borrowing programme without hurting financial stability.

- RBI keeps policy rates unchanged; maintains an accommodative stance: In the first bi-monthly monetary policy review of FY22, the RBI's MPC unanimously voted to keep the policy rates unchanged. As such, the repo, reverse repo and bank/Marginal Standing Facility (MSF) rates remain unchanged at 4.0%, 3.35% and 4.25% respectively. While economic recovery has remained steady and outlook for FY22 has strengthened, the MPC acknowledged rising uncertainty to the growth outlook emanating from the recent spike in COVID cases and consequent re-imposition of localised and regional lockdowns. The MPC therefore remained committed to maintaining an accommodative stance as long as necessary to support growth on a sustainable basis and mitigate the impact of COVID-19, while ensuring inflation remains within the target band of 4% +/- 2%.

The RBI expectedly kept policy rates unchanged and maintained an accommodative stance, reiterating the need to support growth amidst rising COVID cases.

- Growth forecasts retained but uncertainty mounting: The RBI provided a stable growth outlook, citing buoyant rural demand and recovering urban demand. While the ongoing vaccination drive should provide further fillip to urban demand, fiscal impulse in the form of higher capital expenditure and rise in capacity utilisation bode well for investment demand. The RBI has retained its FY22 GDP growth forecast at 10.5%—a tad higher than our est. of 10.0%, with Q1, Q2, Q3 and Q4 growth forecasts pegged at 26.2%, 8.3%, 5.4% and 6.2% respectively. That said, the recent spike in COVID infections and tightening of restrictions by some state governments has imparted significant uncertainty to the domestic growth outlook.

The RBI has retained its FY22 GDP growth forecast at 10% and expect inflation to average at ~5%.

- Inflation expected to average at 5% in FY22: Supply-side pressures on inflation are expected to persist for now, thanks to rising COVID cases, even as it is likely to keep demand-side pressures contained. While pulses and cereals prices are likely

to come off amidst a bumper foodgrain production in FY21, incoming *Rabi* supplies and imports, cost-push pressures on the manufacturing as well as services sectors are expected to remain high thanks to higher commodity prices and logistic costs. Tax relief on fuel prices may help mitigate the impact of rising crude oil prices on consumers. Overall, the RBI expects the headline retail inflation to average at ~5% in FY22, projecting a print of 5.2% in Q1 and Q2, 4.4% in Q3 and 5.1% in Q4.

- Yield curve management through assured G-sec purchases: With an aim to enable an orderly evolution of the sovereign yield curve which acts as a benchmark for other financial market instruments, the RBI announced a secondary market G-sec Acquisition Programme (G-SAP 1.0) for FY22 wherein the RBI would commit upfront to a specific amount of open market purchases of Government securities. For Q1FY22, G-SAP amount is pegged at Rs1trn, with the first purchase worth Rs250bn scheduled for April 15th. This is in addition to RBI's regular liquidity management tools including longer-term repo/reverse repo auctions, forex operations and regular and special open market operations. While this would calm bond markets and bring down yields particularly at the long end which has shot up amidst growth and fiscal concerns as well as expectations of a reflationary cycle in the US, it would also facilitate smooth execution of the Govt.'s borrowing plan.

The RBI's commitment towards assured G-sec purchases from the secondary market, pegged at Rs1trn for FY22, would provide comfort to bond markets by ensuring orderly evolution of yield curve.

- Additional measures to strengthen liquidity support include: a) Extension of TLTRO (Targeted Long-term Repo Operations) On Tap Scheme announced on October 9, 2020 by six months up to September 30, 2021, b) Additional liquidity support of Rs500bn to All-India Financial Institutions (AIFIs) for fresh lending during FY22—Rs250bn to NABARD, Rs100bn to NHB and Rs150bn to SIDBI, c) Extension of permission granted to banks to on-lend to registered NBFCs by six months up to September 30, 2021, d) Increase in farm loan limit under priority sector lending (PSL) from Rs5mn to Rs7.5mn against warehouse receipts issued by warehouses registered with the Warehousing Development and Regulatory Authority (WDRA), and e) Enhancement in WMA limit for states and UTs by 46% to Rs470.1bn and continuation of enhanced interim WMA limit of Rs515.6bn for an additional six months up to September 30, 2021.

- Liquidity and yield curve management to remain in focus: Persistence of supply-side and cost-push pressures on inflation rules out any possibility of a rate cut in the foreseeable future. At the same time, increasing COVID-led uncertainty on growth outlook would ensure sustenance of an accommodative stance and status quo on rates at least through the current financial year. The RBI's focus is likely to remain on ensuring ample liquidity in the system to support the ongoing recovery process and facilitate smooth execution of the Government's borrowing programme without hurting financial stability.

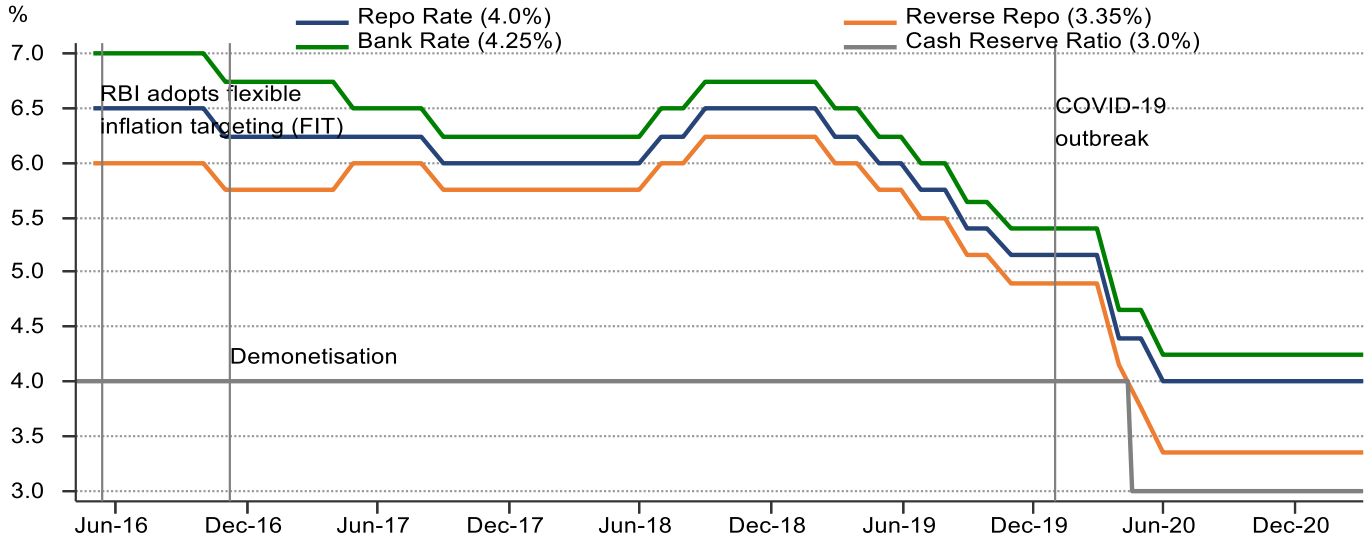
Liquidity and yield curve management to remain the RBI's focus areas in FY22.

Figure 139: Current policy rates

Key rates	Current value
Repo Rate	4.0%
Reverse Repo Rate	3.35%
Marginal Standing Facility (MSF) Rate	4.25%
Bank Rate	4.25%
Cash Reserve Ratio (CRR)	3.0%
Statutory Liquidity Ratio (SLR)	18.0%

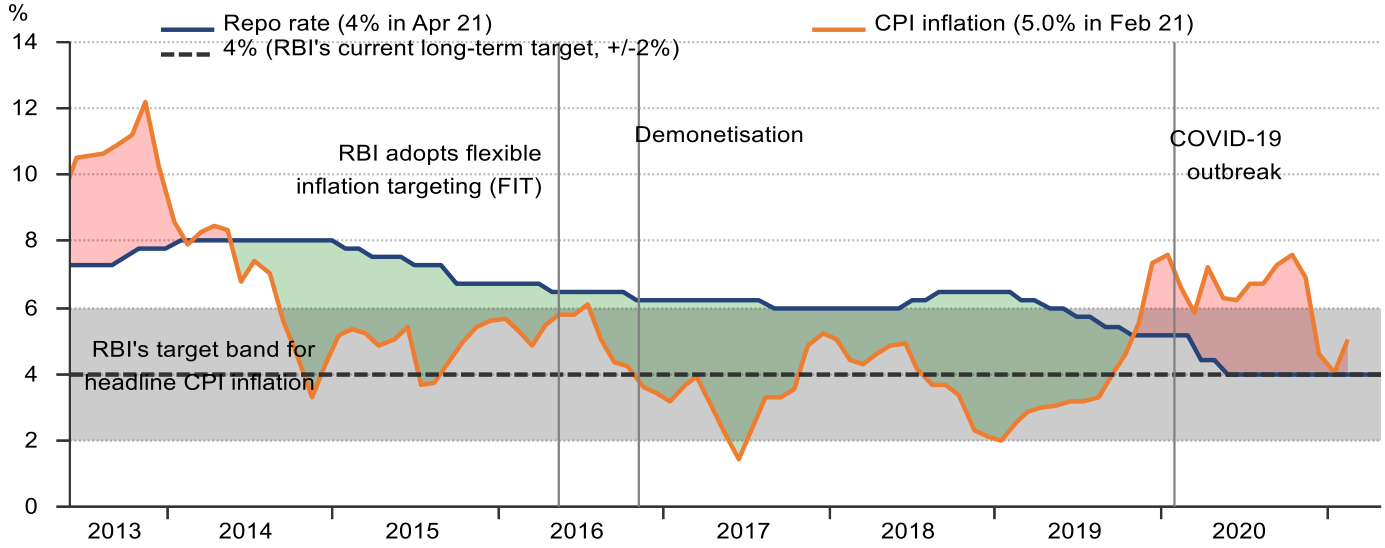
Source: RBI

Figure 140: Policy rates kept unchanged



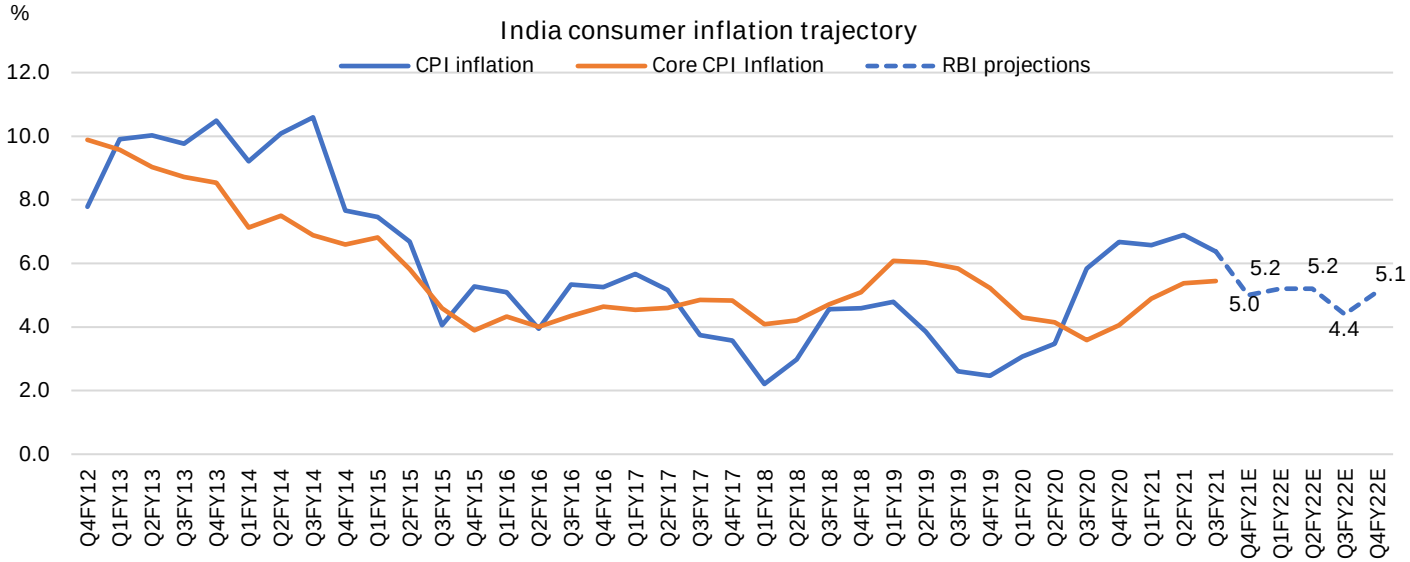
Source: Refinitiv Datastream.

Figure 141: Real interest rates have remained negative for more than a year now



Source: Refinitiv Datastream.

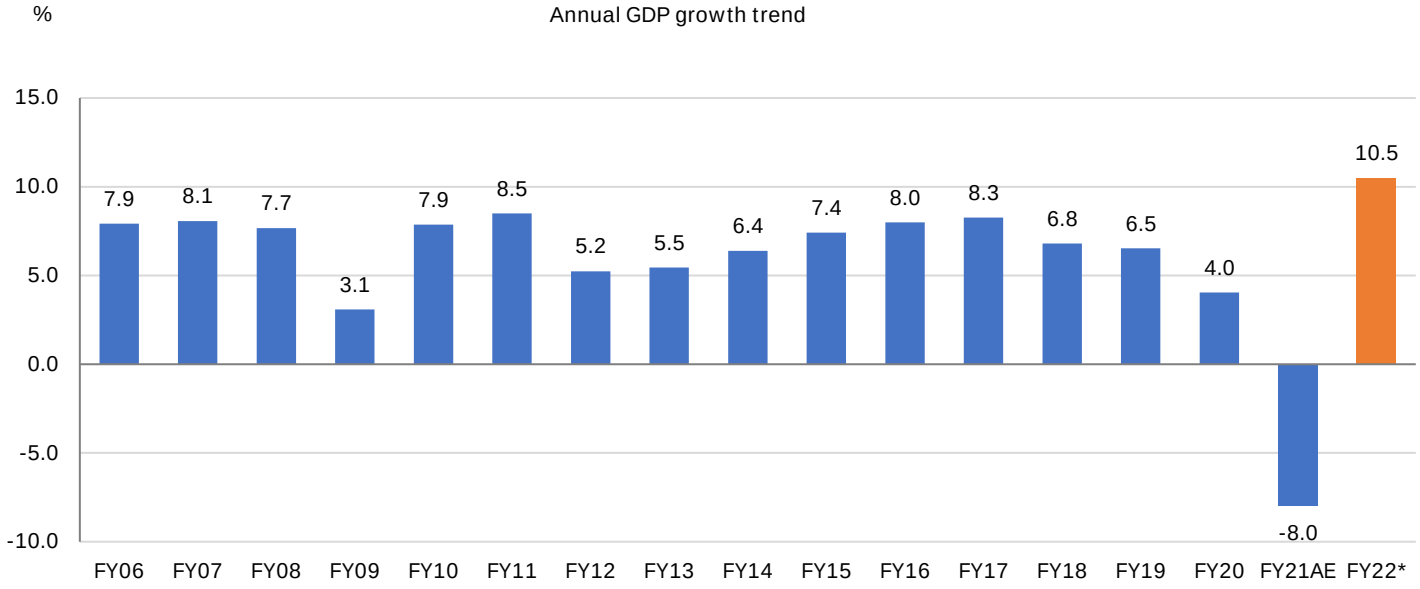
Figure 142: RBI expects headline CPI inflation to average at 5.0% in FY22



Source: CSO, RBI. Core inflation is calculated as CPI inflation excluding food, pan, tobacco & intoxicants and fuel & light.

Figure 143: GDP growth trend and estimate for FY22

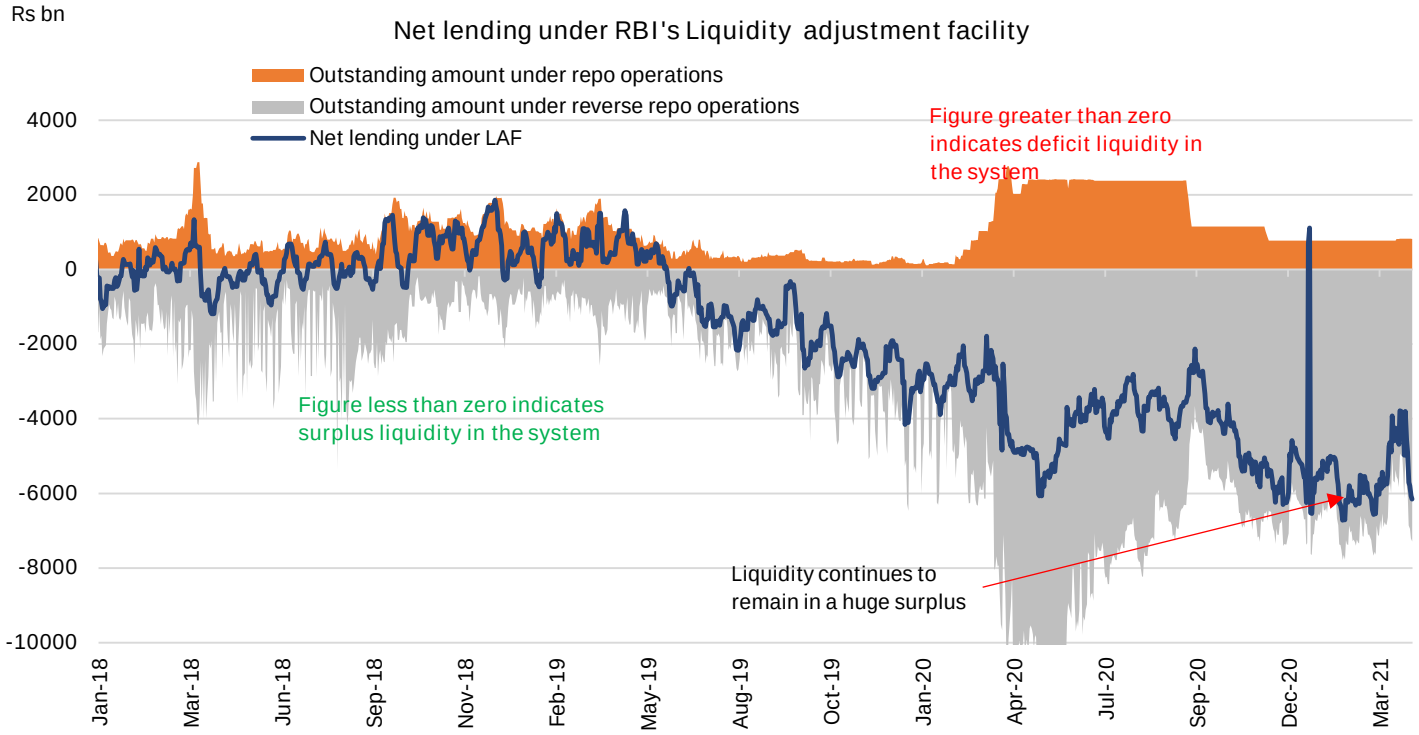
The RBI has retained its FY22 GDP growth forecast at 10.5%—a tad higher than our estimate of 10.0%, with Q1, Q2, Q3 and Q4 growth forecasts pegged at 26.2%, 8.3%, 5.4% and 6.2% respectively.



Source: RBI. * FY22 figure is RBI's estimate.

Figure 144: **Net lending under RBI's Liquidity Adjustment Facility**

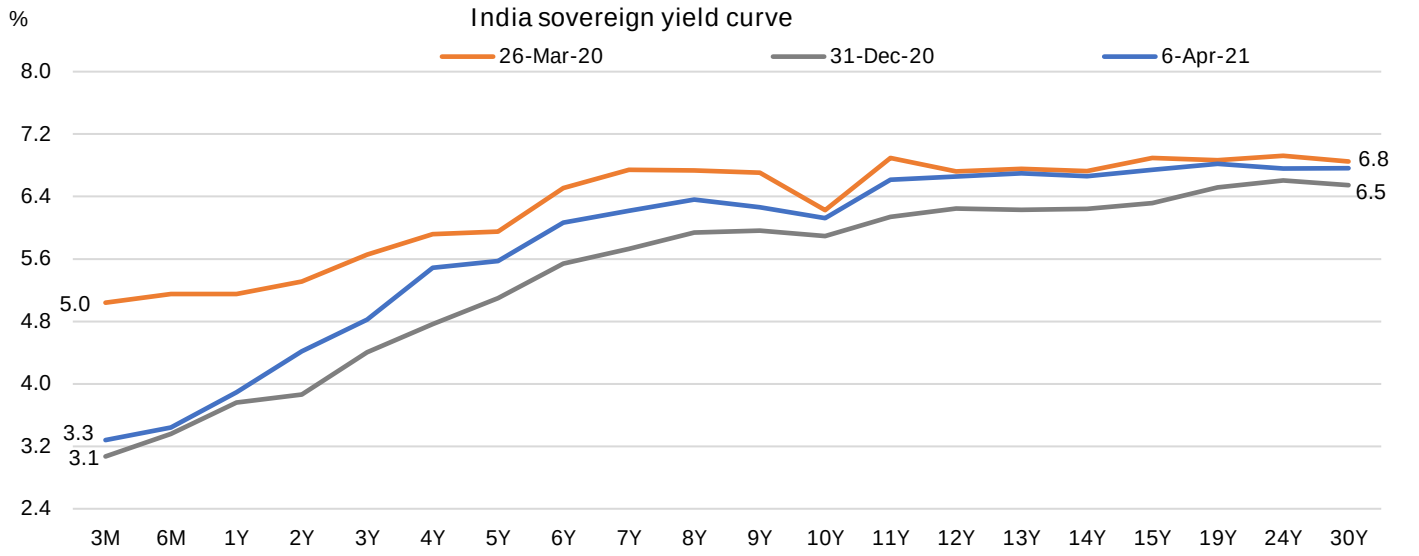
Surplus liquidity in the system has remained north of Rs5trn in 2021 thus far.



Source: CMIE Economic Outlook, NSE

Figure 145: India sovereign yield curve

The India sovereign yield curve has risen meaningfully this year, particularly in the belly and long-end of the curve, resulting in significant steepening of the curve. This has been primarily on the back of sharp surge in US bond yields amid expectations of onset of a reflationary cycle as well as growth and fiscal concerns back home. The RBI's commitment to buy an assured amount of G-secs from the secondary market, pegged at Rs1trn for Q1 FY22, should bring down the yield curve and consequently rates on other financial market instruments, thereby facilitating the ongoing economic recovery.



Source: Refinitiv Datastream, NSE.

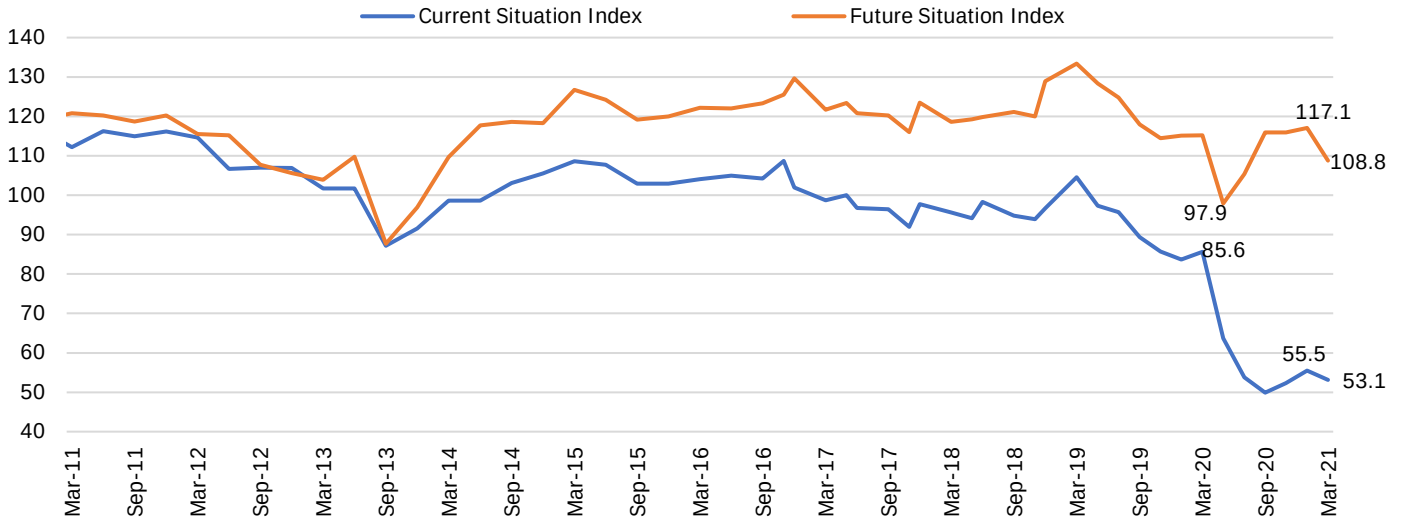
RBI Surveys: Renewed COVID fears weigh on consumer sentiments

The RBI released the results of the recently conducted forward-looking surveys including the Consumer Confidence Survey (March 2021), Households' Inflation Expectations Survey (March 2021), Survey of Professional Forecasters on Macroeconomic Indicators (round 69th), Industrial Outlook Survey of the Manufacturing Sector (round 93rd: Q4FY21), Order Books, Inventories, Capacity Utilisation (OBICUS) Survey on the Manufacturing sector (round 52nd: Q4FY21), Bank Lending Survey (round 15th: Q4FY21) and Services and Infrastructure Outlook Survey (round 28th: Q4FY21). While Consumer sentiments have worsened in the wake of rising COVID-19 cases, investment activity seems to have improved further, with a similar trend expected over the next three quarters—reflected in improved capacity utilisation, order inflows, and improved bank lending. Key highlights of the survey results are as follows.

- Consumer Confidence Survey (March 2021 round)[6]: Following an improvement in the previous two surveys, Consumer confidence, as measured by the current situation index (CSI), fell further into the negative territory, from 55.5 in January 2021 to 53.1 in March 2021. This reflects a deterioration in general economic situation and employment scenario in the wake of recent spike in COVID infections. Respondents were also less optimistic about future prospects. After rising for the fourth survey in a row, the future expectations index (FEI) for the one-year ahead period declined from 117.1 in January 2021 to 108.8 om March 2021, even as it remained in the expansion zone. That said, overall consumer spending is expected to increase further in the one-year ahead period despite a continued slowdown in discretionary spending.

Consumer confidence, as measured by the current situation index (CSI) fell deeper in the negative zone, signalling a deterioration in general economic situation.

Figure 146: Consumer confidence indices



Source: RBI, CMIE Economic Outlook. CSI and FEI are compiled based on net responses on the economic situation, income, spending, employment and the price level for the current period and a year ahead, respectively. CSI/FEI = 100 + Average of Net Responses of the above parameters

[6] Consumer Confidence Survey: Perceptions and expectations on the general economic situation, the employment scenario, the overall price situation and own income and spending were obtained from telephonic interviews with 5,372 households during February 27– March 08, 2021 across 13 major cities viz., Ahmedabad; Bengaluru; Bhopal; Chennai; Delhi; Guwahati; Hyderabad; Jaipur; Kolkata; Lucknow; Mumbai; Patna; and Thiruvananthapuram.

Figure 147: Summary of survey responses

Variable	Current perception compared to one-year ago		One-year ahead expectations compared with current situation	
	Jan-21	Mar-21	Jan-21	Mar-21
Economic Situation	-57.9	-63.9	21.3	5.3
Employment	-62.3	-62.4	26.7	10.7
Price level	-86.9	-92.6	-63.5	-64.4
Change in price level (inflation)	-80.4	-86.1	-72.7	-76.6
Income	-51.0	-53.7	41.4	33.4
Spending	35.5	38.2	59.6	59.3
Essential items	57.2	58.2	68.8	69.2
Non-essential items	-46.4	-46.6	-8.3	-12.4
Consumer Confidence Index	55.5	53.1	117.1	108.8

Source: RBI, CMIE Economic Outlook.

- **Households' Inflation Expectations Survey**[7]: In-line with a pick-up in retail and wholesale inflation trajectory over the last couple of months, household inflation expectations shot up in the latest survey for current as well as three-months ahead period, primarily led by expectations of an increase in food and services inflation. The three-month ahead inflation expectations rose by 80bps to 10.1%, entirely reversing the drop seen in the previous survey. For the one-year ahead period, however, median household inflation expectations remained elevated and broadly steady at 10.2%—reflecting continued uncertainty. Importantly, a greater number of households expect inflation to harden across categories over the next one year.

Household inflation expectations rose sharply for the three-month ahead period but remained steady at elevated levels for the one-year ahead period.

Figure 148: Median inflation rate: Perception and three-months ahead expectations

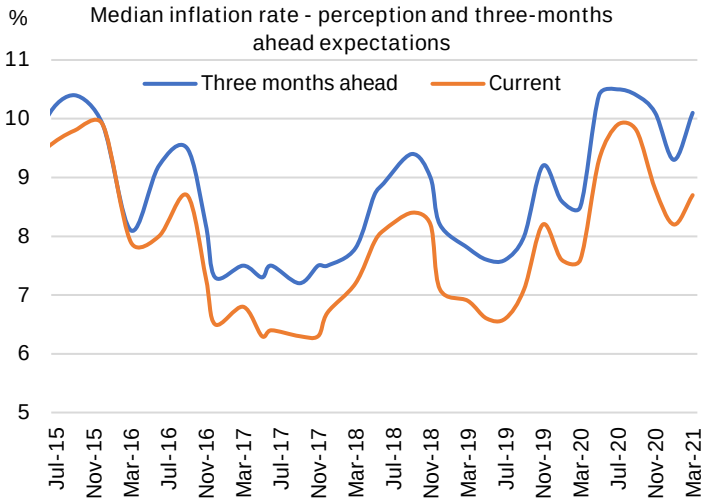
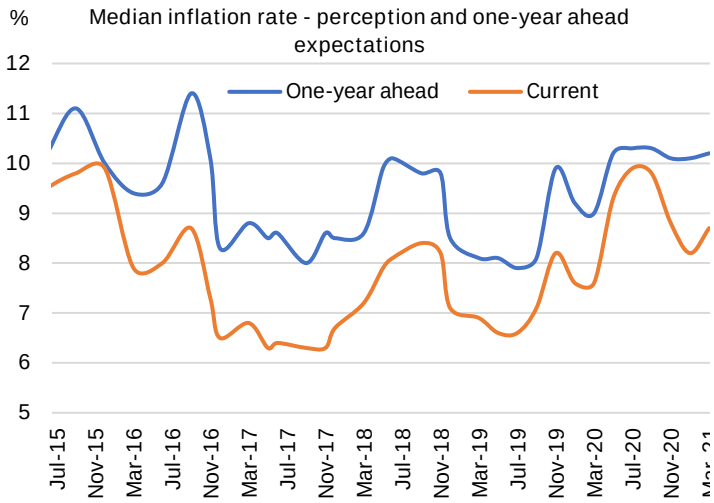


Figure 149: Median inflation rate: Perception and one-year ahead expectations



Source: RBI, CMIE Economic Outlook.

[7] It is a bi-monthly survey conducted by the RBI. It provides directional information on near-term inflationary pressures as expected by the respondents and may reflect their own consumption patterns. Hence, they should be treated as households' sentiments on inflation.

Figure 150: Household median inflation expectations

Survey period (%)	Current perception	Three-months ahead expectations	One-year ahead expectations
May-20	9.3	10.4	10.2
Jul-20	9.9	10.5	10.3
Sep-20	9.8	10.4	10.3
Nov-20	8.8	10.1	10.1
Jan-21	8.2	9.3	10.1
Mar-21	8.7	10.1	10.2

Source: RBI, CMIE Economic Outlook.

Figure 151: Households expecting general price movements in coherence with movements in price expectations of various product groups: Three months ahead and one-year ahead (percentage of respondents)

Survey period	Food	Non-food	Households durables	Housing	Cost of services
Three-months ahead					
Jul-20	62.8	61.0	49.9	43.6	58.4
Sep-20	62.1	61.0	50.4	45.9	60.5
Nov-20	62.7	63.5	52.4	54.0	60.7
Jan-21	63.3	64.3	54.5	55.7	62.8
Mar-21	67.0	65.7	57.4	58.6	65.1
One-year ahead					
Jul-20	63.9	64.5	55.2	51.2	65.7
Sep-20	63.0	64.8	55.5	53.6	66.6
Nov-20	66.4	65.9	56.7	62.1	68.9
Jan-21	68.4	68.6	60.6	63.0	69.0
Feb-21	69.6	70.1	62.4	65.5	71.6

Source: RBI, CMIE Economic Outlook.

The RBI's SPF points to a contraction in FY21 GDP of 7.6%, with growth recovering to 9.5% on a low base.

- Survey of Professional Forecasters (SPF)[8] on macroeconomic indicators: Results of the 69th round of the Survey of Professional Forecasters conducted by the RBI point to a 7.5% GDP contraction in FY21—a tad lower than 7.6% in the previous survey, but GDP growth forecast for FY22 has been significantly revised upwards from 9.5% to 10.9% (median). The range of forecasts, however, is very wide (7.9-15.2%), indicating heightened uncertainty in the wake of surging COVID-19 infections and consequent re-imposition of lockdown restrictions. While Private Final Consumption Expenditure is expected to grow by 11.8% (vs. 11% expected in the previous survey), growth in investment activity (Gross Fixed Capital Formation) is expected to be a tad better at 12.8%, supported by a favorable base. Forecasts for FY22 Real GVA growth has also been increased by 70bps to 10%, largely led by a meaningful upward revision in industrial as well as services sector, even as agri sector growth projection has been pared marginally.

  Headline inflation for FY22 is expected at 4.8%—a tad higher than 4.7% in the previous survey, but off a very high base (6.2% in FY21). While a favorable base and a normal monsoon bode well for food inflation, core inflation is expected to remain elevated, reflecting higher commodity prices and logistics costs. On the fiscal front, the combined fiscal deficit is expected at 14% of GDP in FY21 and 10.4% in FY22—160bps higher than the previous survey. On the external front,

[8] Thirty-one panelists participated in the 69th round of the survey conducted during between March 12-April 3, 2021. The survey results are summarized and consolidated in terms of their median forecasts.

current account surplus is expected at 1.0% of GDP in FY21—a tad lower than 1.2% estimated in the previous survey, reflecting a faster recovery in non-oil, non-gold imports. Current account is expected to turn into deficit again in FY22, with the survey estimate pegged at -0.8%, a downgrade of 40bps from the previous survey.

Figure 152: Annual forecasts (median) for FY21 and FY22

	FY21			FY22		
	Forecasts issued on			Forecasts issued on		
	4-Dec-20	5-Feb-21	7-Apr-21	4-Dec-20	5-Feb-21	7-Apr-21
# of respondents	29	33	31	29	33	31
Real GDP at constant prices (% YoY)	-8.5	-7.6	-7.5	9.4	9.8	10.9
PFCE (% YoY)	-9.7	-9.4	-9.0	10.7	11.0	11.8
GFCF (% YoY)	-19.1	-14.5	-12.4	12.5	12.4	12.8
Real GVA at basic prices (% YoY)	-8.2	-7.3	-6.5	8.9	9.3	10.0
Agriculture & allied activities (% YoY)	3.5	3.4	3.2	3.6	3.4	3.2
Industry (% YoY)	-10.5	-7.7	-7.6	11.0	11.3	12.2
Services (% YoY)	-9.7	-9.6	-8.5	9.5	10.4	11.3
Combined CPI inflation (avg, %)	6.3	6.2	6.2	4.5	4.7	4.8
Core CPI inflation (avg., %)	5.3	5.3	5.3	4.3	4.7	5.1
Wholesale inflation (avg, %)	0.2	0.5	1.0	2.6	3.5	4.9
WPI non-food mfg. products (avg, %)	0.7	1.7	2.0	2.1	3.5	4.4
Bank credit (% YoY)	5.5	5.6	6.4	7.7	8.4	8.5
Combined fiscal deficit (% of GDP)	12.5	11.8	14.0	9.8	8.8	10.4
Centre's fiscal deficit (% of GDP)	7.7	7.5	9.5	6.0	5.4	6.7
Merchandise exports (% YoY)	-11.3	-12	-10.3	13.8	14.6	15.1
Merchandise imports (% YoY)	-23.2	-21	-19	24.1	23.8	25.1
Current account balance (% of GDP)	1.2	1.2	1.0	-0.4	-0.4	-0.8

Source: RBI, CMIE Economic Outlook.

- Industrial Outlook Survey (IOS) for the manufacturing sector[9]: Business sentiments improved for the second survey in a row, reflecting expectations of continued normalization in business activities. Manufacturing companies witnessed further improvement in production, order books, employment as well as overall financial situation during Q4FY21 but indicated margin pressures on rising input and salary expenses. Responding companies expect overall business situation to continue to improve over the next three quarters, resulting in an improvement in capacity utilisation and employment conditions, even as they expect input cost pressures to persist.

While Business Assessment Index improved further and moved into the expansion zone to a two-year high of 108.6 in Q3FY21, Business Expectations Index also rose to 114.1—the highest since Q1FY20.

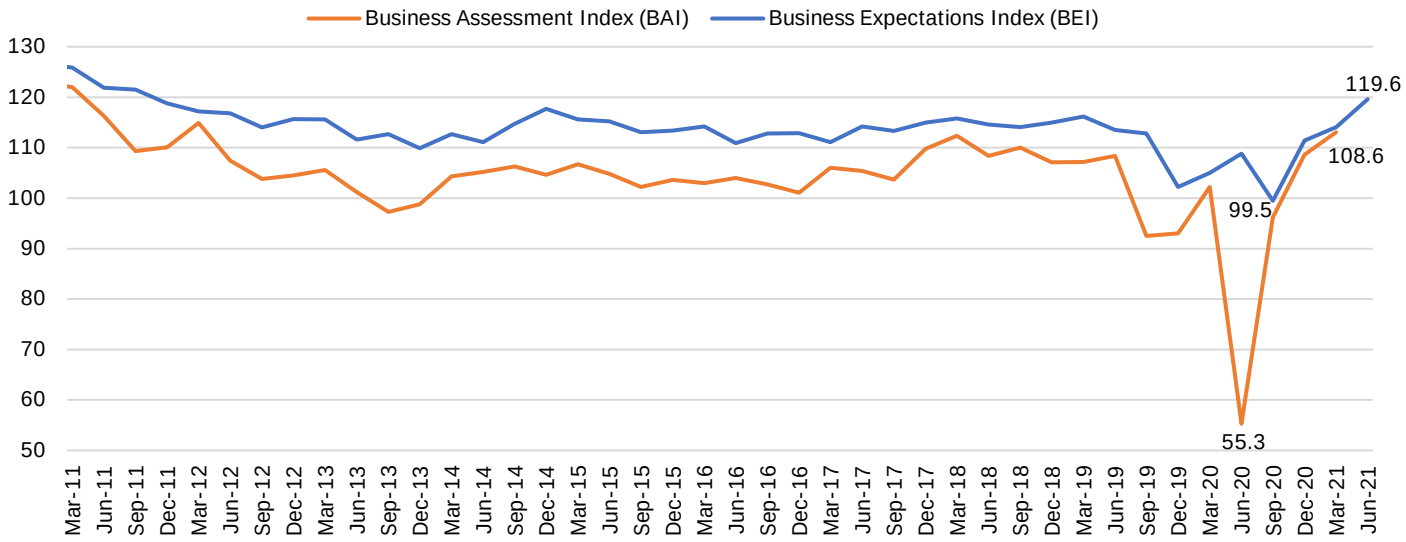
The Business Assessment Index (BAI)[10] inched up further higher in the expansion zone in Q4FY21 to 113.1—the highest in nine years. The Business Expectations Index (BEI) also moved higher to 119.6—the highest since Q3FY12, reflecting expectations of strengthening of domestic as well as external demand

[9] The IOS, conducted during October-December 2020, encapsulates qualitative assessment of the business climate by 1,011 companies in the manufacturing sector for Q3FY21 and expectations for Q4FY21 based on nine business indicators: overall business situation, production, order books, inventory of raw material, inventory of finished goods, profit margins, employment, exports, and capacity utilisation.

[10] Calculated as a weighted (share of GVA of different industry groups) net response of business indicators mentioned above, BAI/BEI gives a snapshot of the business outlook in every quarter and takes values between 0 and 200, with 100 being the threshold separating expansion from contraction.

environment. That said, the recent spike in COVID infections and renewed restrictions on non-essential activity imposed by select state governments may weigh on business sentiments.

Figure 153: **RBI's Industrial Outlook Survey: Business sentiments**



Source: RBI, CMIE Economic Outlook.

Figure 154: **RBI's Industrial Outlook Survey:** Net responses* across parameters (%)

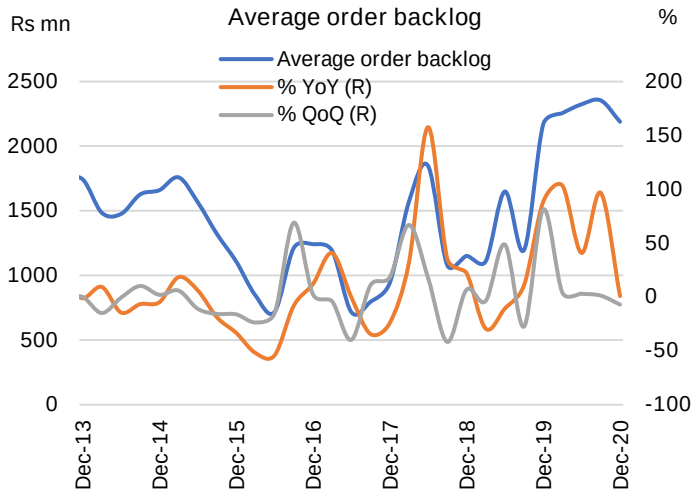
Parameters	Assessment period		Expectations period	
	Q3FY21	Q4FY21	Q4FY21	Q1FY22
Production	27.2	36.3	31.5	43.7
Order Books	20.5	33.1	27.3	43.2
Pending Orders	12.0	-3.0	9.2	-2.4
Capacity Utilisation	17.3	29.1	24.1	38.0
Inventory of Raw Materials	-5.4	-11.1	-6.7	-11.8
Inventory of Finished Goods	-4.6	-7.6	-6.3	-10.9
Exports	4.6	15.5	13.0	29.6
Imports	6.3	16.4	8.5	26.1
Employment	3.9	10.9	7.2	17.9
Financial Situation (Overall)	27.5	29.4	33.0	47.3
Availability of Finance (from internal accruals)	17.4	23.7	22.8	34.7
Availability of Finance (from banks and other sources)	14.9	16.5	15.3	25.6
Availability of Finance (from overseas, if applicable)	0.8	2.7	3.8	13.4
Cost of Finance	0.2	-3.4	-5.0	-13.9
Cost of Raw Materials	-51.6	-69.0	-42.7	-62.4
Salary/ Other Remuneration	-14.0	-18.7	-16.0	-41.6
Selling Price	9.4	22.7	10.7	29.2
Profit Margin	-11.8	2.0	-2.4	11.0
Overall Business Situation	32.9	36.5	40.7	52.5

Source: RBI, CMIE Economic Outlook. * Net Response is the difference in percentage of the respondents reporting optimism and that reporting pessimism. The range is -100 to 100. Any value greater than zero indicates expansion/optimism and any value less than zero indicates contraction/pessimism.

- OBICUS Survey[11]: The 52nd round of the OBICUS survey conducted by the RBI points to an improvement in demand conditions in India's manufacturing sector, thanks to easing lockdown restrictions. Key highlights are: 1) Capacity utilisation: At an aggregate level, capacity utilization improved to 66.6% in Q3FY21 to 63.3% in the previous quarter, thanks to continued normalization of business activities. 2) Order books: Inflow of new orders recovered sharply, rising by 22% YoY/29.4% QoQ to Rs1.72bn—the highest new order value in last six quarters. 3) Finished goods inventory (FGI) to sales ratio: The FGI to sales ratio fell further to 15.8% in the December quarter from 16.2% in the September quarter thanks to a strong festive-led revival in sales. 4) Raw material inventory (RMI) to sales ratio inched up to 39% from 35.9% in the previous quarter.

Aggregate capacity utilisation improved for the second quarter in a row to 66.6% in Q3FY21 from 63.3% in Q2FY21.

Figure 155: Average order backlog trend and growth



Source: RBI, CMIE Economic Outlook.

Figure 156: Average new order backlog trend and growth

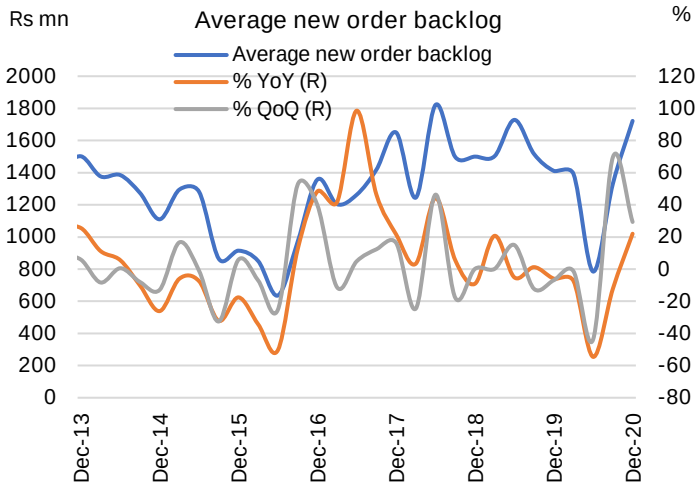
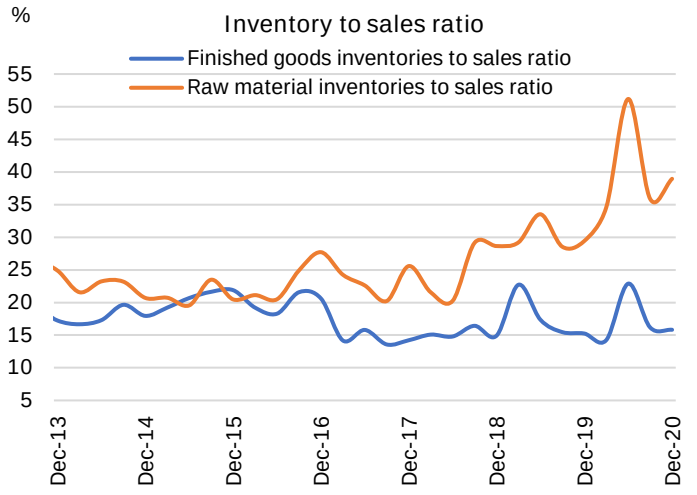
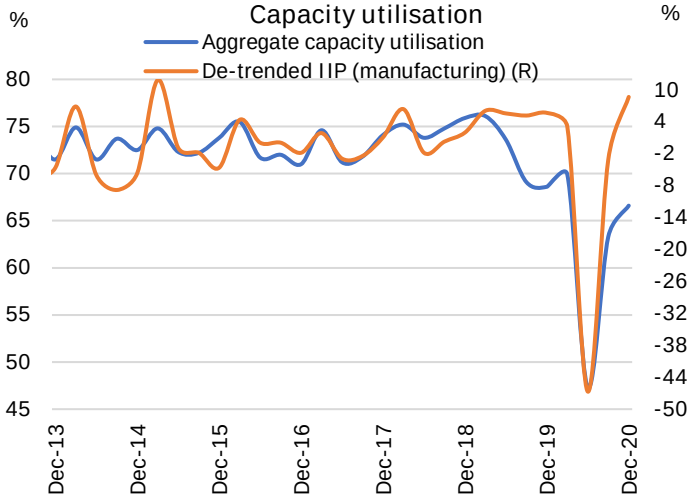


Figure 157: Finished goods and raw material inventories to sales ratio



Source: RBI, CMIE Economic Outlook.

Figure 158: Aggregate capacity utilisation and de-trended IIP (manufacturing)



[11] The 52nd round of the OBICUS survey, covering 644 companies with reference period as October-December 2020, provides a snapshot of demand conditions in India's manufacturing sector.

- Bank Lending Survey[12]: The 15th round of the Bank Lending survey conducted by the RBI points to a further improvement expected in loan demand in Q4FY21, marking an improvement for the third quarter in a row. Sectors that are likely to drive this include manufacturing, infrastructure, services, and personal loan. A sustained recovery in loan demand is expected to be accompanied with further easing of terms and conditions. The responding banking officers expect loan demand to continue to improve across sectors over the next three quarters.

Loan demand is expected to continue to improve over the next three quarters.

Figure 159: Loan demand for all sectors: Net responses*

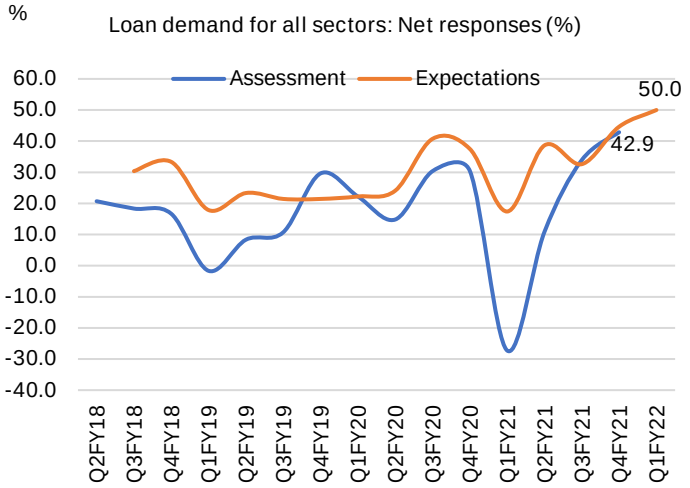
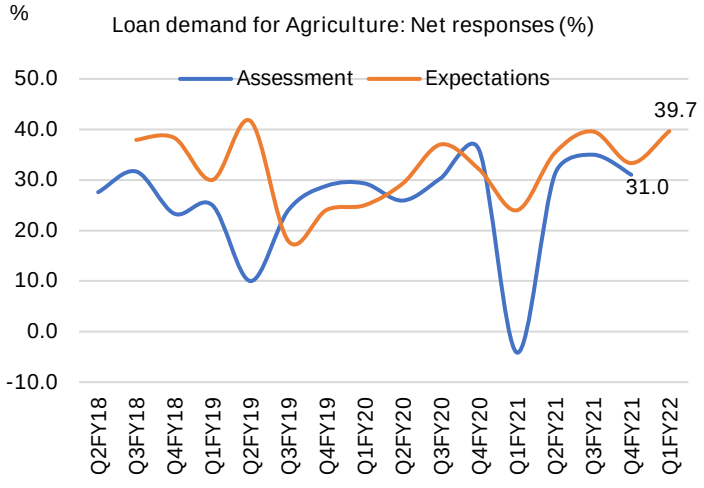


Figure 160: Loan demand for Agriculture: Net responses*



Source: RBI. * Net Response (NR) is computed as the difference of percentage of banks reporting increase/optimism and those reporting decrease/pessimism in respective parameter.

Figure 161: Loan demand for Mining & Quarrying: Net responses*

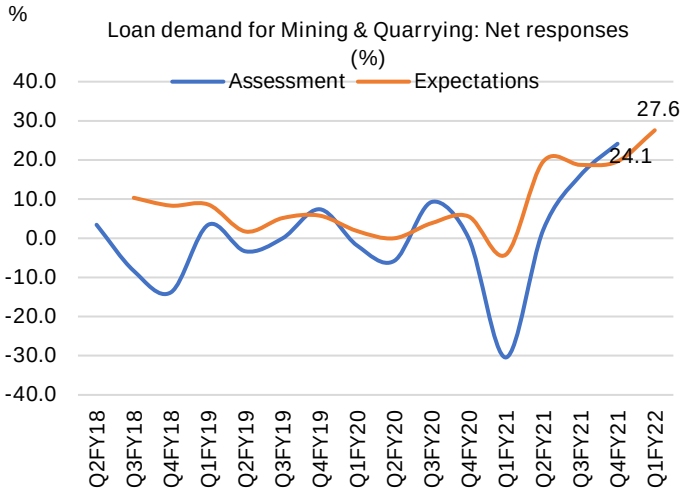
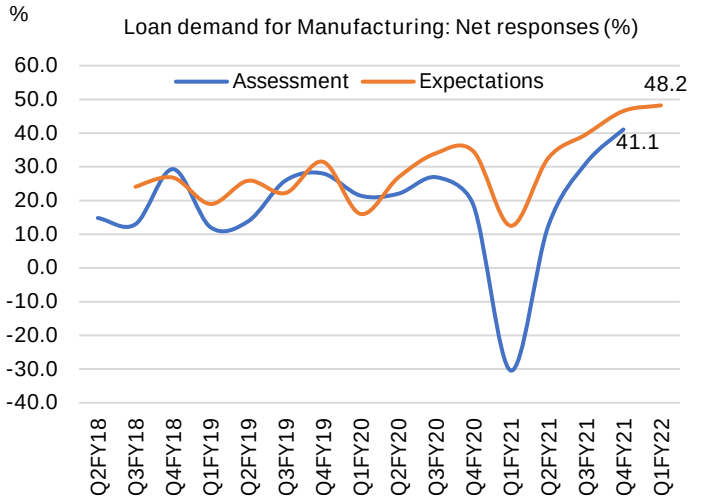


Figure 162: Loan demand for Manufacturing: Net responses*



Source: RBI. * Net Response (NR) is computed as the difference of percentage of banks reporting increase/optimism and those reporting decrease/pessimism in respective parameter.

[12] The Bank Lending Survey—sent to 30 scheduled commercial banks (SCBs) for responses, accounting for 90% of credit by SCBs—provides qualitative assessment and expectations of these SCBs on credit parameters such as loan demand and terms and conditions of loans for major economic sectors.

Figure 163: Loan demand for Infrastructure: Net responses*

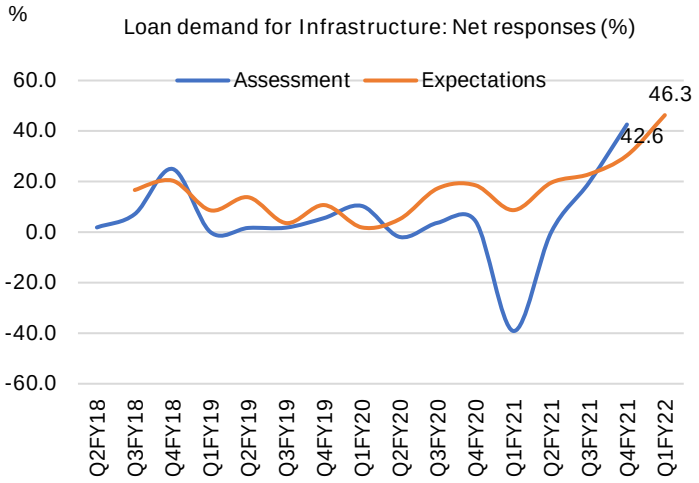
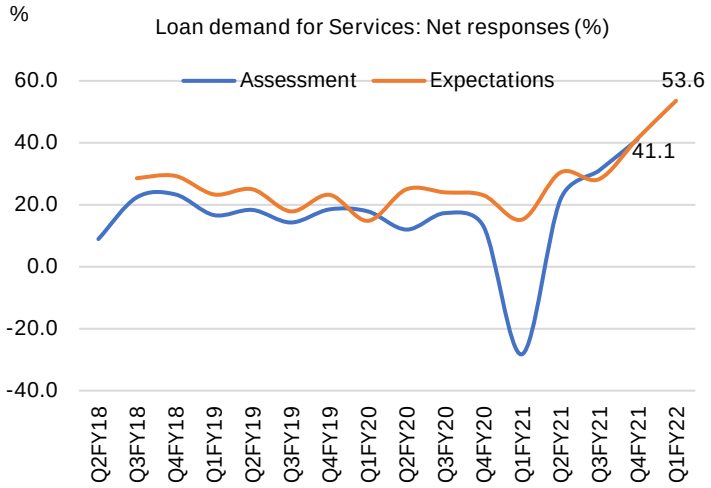
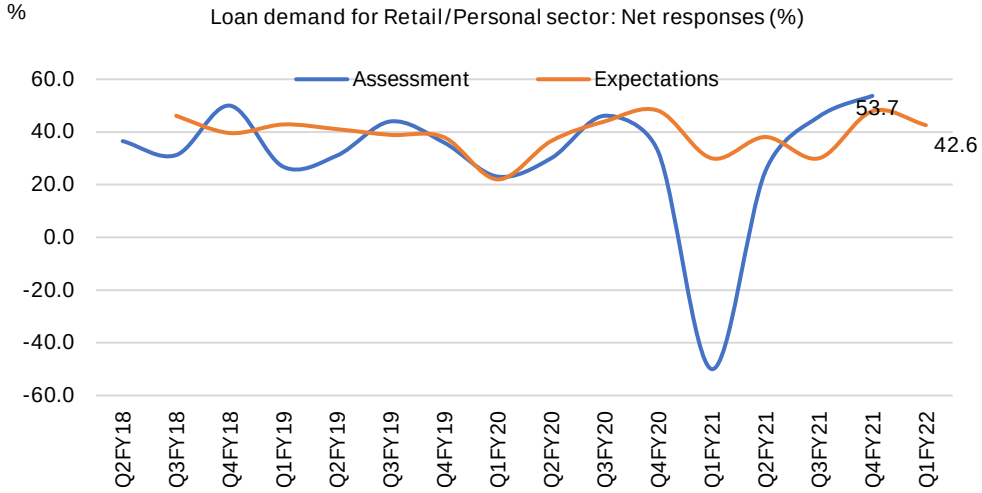


Figure 164: Loan demand for Services: Net responses*



Source: RBI. * Net Response (NR) is computed as the difference of percentage of banks reporting increase/optimism and those reporting decrease/pessimism in respective parameter.

Figure 165: Loan demand for Retail/Personal sector: Net responses*



Source: RBI. * Net Response (NR) is computed as the difference of percentage of banks reporting increase/optimism and those reporting decrease/pessimism in respective parameter.

Figure 166: Sector-wise expectations for the next three quarters: Summary of net responses*

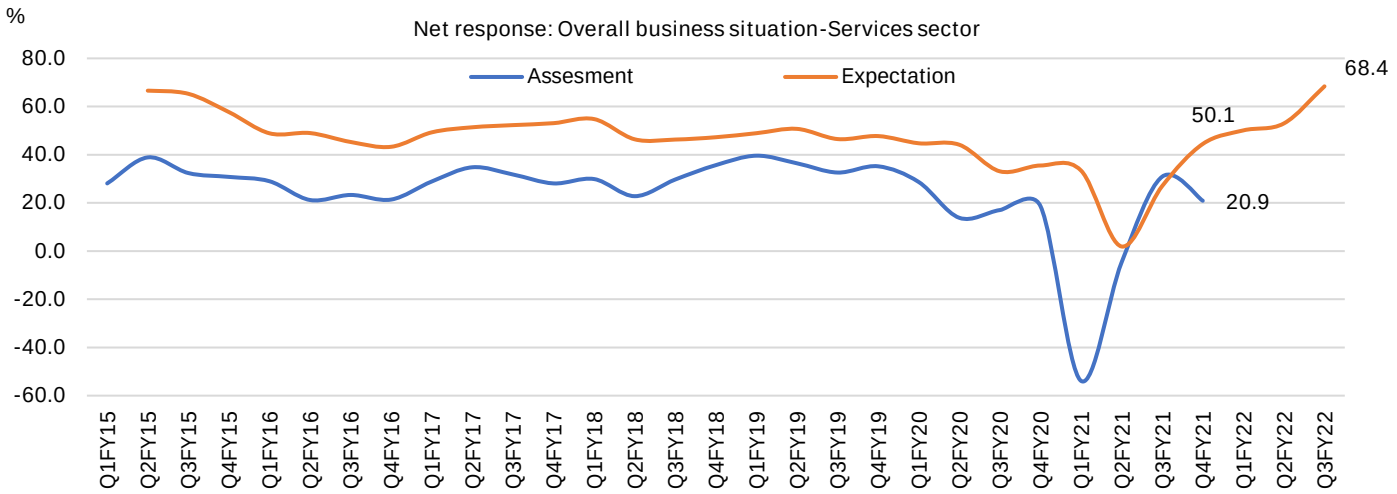
Sectors	Loan demand (%)			Loan terms & conditions (%)		
	Q1FY22	Q2FY22	Q3FY22	Q1FY22	Q2FY22	Q3FY22
All Sectors	50.0	55.4	53.6	19.6	25.9	31.0
Agriculture	39.7	51.7	56.9	17.9	23.2	30.4
Mining and Quarrying	27.6	25.9	37.9	10.3	10.3	12.1
Manufacturing	48.2	53.4	51.7	14.3	19.0	24.1
Infrastructure	46.3	46.6	46.6	16.7	10.3	12.1
Services	53.6	58.3	56.7	19.6	21.7	28.3
Retail/Personal	42.6	53.3	60.0	25.0	23.3	26.7

Source: RBI. * Net Response (NR) is computed as the difference of percentage of banks reporting increase/optimism and those reporting decrease/pessimism in respective parameter.

- Services and Infrastructure Outlook Survey[13]: The latest round of Services and Infrastructure Outlook survey points to a moderation in business environment of the Services sector in Q4FY21 following a strong recovery in Q3FY21. This is partly on the back of expectations of renewed pressures on demand for contact-intensive services amidst rising COVID-19 infections. That said, the responding services companies expect demand situation to improve over the next three quarters. Similar to the manufacturing sector, services sector also expect cost pressures to strengthen in the wake of rising input and logistics costs and salary outgo. Unlike Services sector, Infrastructure companies witnessed a strong rebound in overall business situation in Q4FY21, with improvement seen across business parameters viz., turnover, credit availability and selling prices. The demand environment is expected to further strengthen over the next three quarters, even as cost pressures are expected to intensify.

Loan demand is expected to continue to improve over the next three quarters.

Figure 167: Overall business situation in the Services sector: Net responses*



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

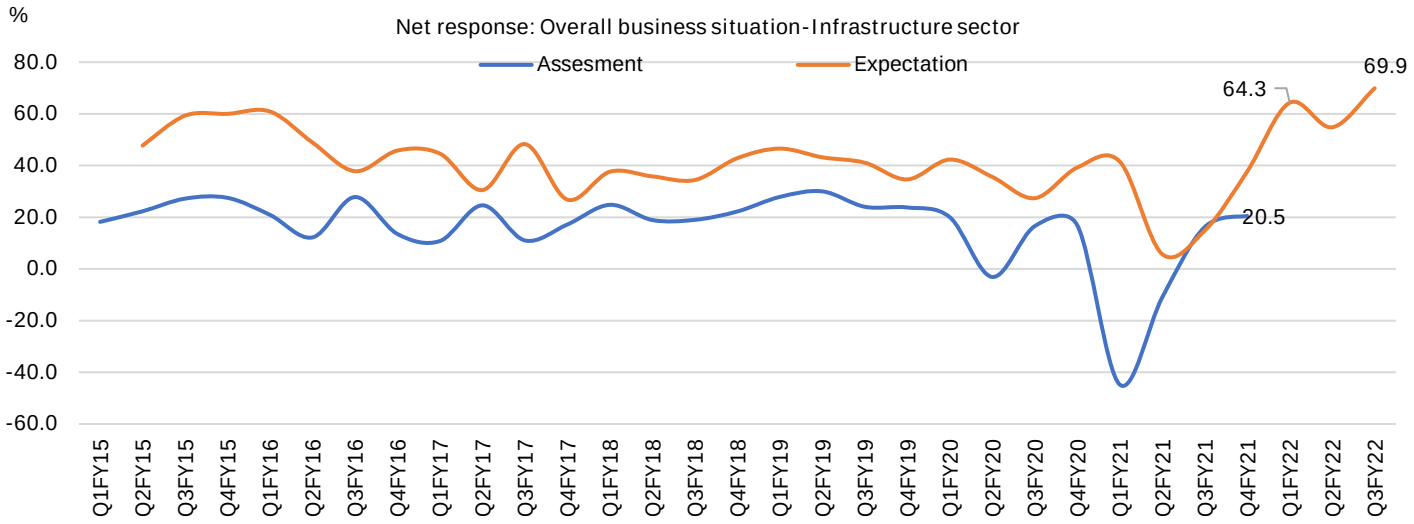
Figure 168: Summary of net responses* across parameters for the Services sector

Parameters	Assessment period		Expectations period	
	Q3FY21	Q4FY21	Q4FY21	Q2FY22
Overall Business Situation	30.9	20.9	44.5	50.1
Turnover	23.7	17.7	38.4	53.7
Full-time Employees	9.5	5.6	15.4	28.7
Part-time Employees	-4.3	4.7	6.6	19.4
Availability of Finance	10.7	14.6	16.9	39.1
Cost of Finance	-4.6	-3.9	-8.5	-22.3
Salary & Wages	-12.0	-16.2	-20.3	-41.6
Cost of Inputs	-28.0	-25.4	-29.2	-43.2
Selling Price	-9.9	3.6	0.3	31.2
Profit Margin	-11.1	-5.6	1.4	32.5
Inventories	6.0	3.6	12.3	21.1
Technical/Service Capacity	10.7	21.5	13.1	40.9
Physical Investment	5.7	12.4	8.7	31.1

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

[13] The Bank Lending Survey—sent to 30 scheduled commercial banks (SCBs) for responses, accounting for 90% of credit by SCBs—provides qualitative assessment and expectations of these SCBs on credit parameters such as loan demand and terms and conditions of loans for major economic sectors.

Figure 169: Overall business situation in the Infrastructure sector: Net responses*



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

Figure 170: Summary of net responses* across parameters for the Infrastructure sector

Parameters	Assessment period		Expectations period	
	Q3FY21	Q4FY21	Q4FY21	Q2FY22
Overall Business Situation	16.2	20.5	37.7	64.3
Turnover	3.5	27.9	31.9	56.5
Full-time Employees	-14.2	-7.1	2.9	24.1
Part-time Employees	-5.8	4.2	3.0	14.7
Availability of Finance	-0.7	7.1	10.1	25.0
Cost of Finance	-13.8	-16.7	-17.4	-30.5
Salary & Wages	-8.6	-10.7	-16.7	-39.2
Cost of Inputs	-33.1	-44.7	-40.7	-44.4
Selling Price	-7.1	4.2	3.2	18.8
Profit Margin	-23.4	-11.1	-3.6	22.8
Inventories	0.8	18.4	6.9	26.8
Technical/Service Capacity	1.7	11.1	5.0	21.4
Physical Investment	0.9	7.9	7.0	24.2

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

MER: Indian economy better equipped to face the wrath of second COVID wave

The Monthly Economic Report (MER)[14] released recently by the Department of Economic Affairs highlights the steady recovery in domestic and global economic activity, even as there are significant divergences across economies and sectors. On the domestic front, the buoyancy in overall economic momentum is reflected in a sustained improvement in majority of high frequency indicators. Amongst sectors, agri has remained a sweet spot, while industrial and services sectors continued to show a steady improvement. That said, there has been some moderation in growth momentum as seen from a sequential slowdown in some of the high-frequency indicators including PMIs, petroleum consumption, eight-core sector growth, among others. The report, however, accentuates that the Indian economy is better equipped to deal with the second wave, thanks to the ongoing vaccination drive, adequate testing, improved health care infrastructure and enhanced ability to adapt to the pandemic developed over the last one year. The report also underscores that investment measures initiated by the Government in the form of PLI (Production-linked Incentive), NIP (National Infrastructure Pipeline), and DFI (Development Financial Institution) are likely to play a pivotal role in this resilient comeback.

On the global front, recovery during Feb-Mar'21 has been swifter-than-anticipated, thanks to strengthened vaccination drives, continued revival in consumption demand and stable industrial recovery, as exhibited by the return of commodity prices to pre-pandemic levels. While the global upturn has been led by manufacturing, global services sector continues to remain a laggard, showing signs of only gradual improvement. Among economies, large emerging market (EM) economies have demonstrated better performance than the advanced economies.

- Fast progress in vaccination drive amidst the onset of second wave: After experiencing the first peak in mid-Sep'20, India started witnessing a steady decline in fresh COVID cases till Jan'21. However, since mid-Feb'21, there has been a significant resurgence in fresh cases, marking the commencement of a second wave that continues to breach the levels seen during the earlier peak. Amidst surging fresh cases, daily vaccines administered has expanded at a fast pace. That said, the roll-out of vaccination relative to population has been non-uniform across states. Going ahead, the pace of inoculations is likely to gather further steam. The report accentuates that the Indian economy is now well armed to combat the impending downside risk emanating from the second COVID wave, thanks to a steady progress in vaccination drive, adequate testing, improved health care infrastructure and the enhanced ability to adapt to the pandemic.

The Indian economy is now well armed to deal with downside risk emanating from COVID resurgence, thanks to rising pace of infections and learnings from the first wave.

- Signs of steady recovery visible globally but with notable divergences across economies: Global economic recovery during Feb-Mar'21 has been swifter-than-anticipated, thanks to rising pace of vaccinations vaccination, continued revival in consumption demand and stable industrial recovery. This is reflected in the return of commodity prices to pre-pandemic levels. The US American Rescue Plan of US$1.9trn is not only likely to bolster demand in the US but would also have a significant spill-over effect on the global economy via higher export demand and accelerated global recovery. On the negative side, this is likely to induce reflationary pressures in the US, leading to higher US bond yields and consequent capital outflows from emerging economies as well as higher imported inflation.

  Global composite PMI index is hovering at near-two-and-a-half-year high levels, led by the US. India, China, Germany, Italy, Russia and Australia. While the global

Global economic recovery during Feb-Mar'21 was faster-than-expected, with rising pace of vaccinations, demand revival and return of commodity prices to pre-pandemic levels.

[14] https://dea.gov.in/sites/default/files/MER_March%202021.pdf

upturn has been led by manufacturing, global services sector continues to remain a laggard, showing signs of only gradual improvement. There have been prominent divergences across economies as well, with large EMs demonstrating better performance than the advanced economies.

- Market sentiments remained buoyant but headwinds rising: Global equity markets witnessed contrary forces in March. On the financial markets front, American Rescue Plan and rising pace of vaccinations continued to provide succour to investors' sentiments. However, localized lockdowns amidst surging cases, inflationary concerns and rising bond yields across advanced economies continued to pose as headwinds for all markets except the US. On the commodities front, oil prices rose further in March due to strengthening demand and supply disruptions (Suez Canal blockage).

Localized lockdowns, inflationary concerns and rising bond yields across advanced economies weighed on market sentiments.

- Domestic recovery resilient despite surge in COVID cases: The buoyancy in overall economic momentum is reflected in a sustained recovery in majority of high-frequency indicators. Amongst sectors, the agricultural sector has continued to exhibit strong performance, thanks to record-high food grain production (303.3mn tonnes in FY21) and encouraging MGNREGS-supported rural employment (3,838 mn person days in FY21). Recovery in the industrial and services sectors has remained steady.

Recovery in Indian economy has remained resilient despite COVID resurgence, barring a sequential moderation in some of the high-frequency indicators

However, there has been some moderation seen across a few high-frequency indicators suggesting loss of growth momentum, with recent surge in COVID cases and renewed restrictions adding to the woes. The Manufacturing PMI print of 55.4 for March indicated a sequential moderation in manufacturing activity. Eight-core industry output dipped by 4.6% in Feb'21 led by a broad-based slowdown, thereby weighing on the overall industrial recovery. Petroleum consumption contracted on a YoY basis for the 12th month in a row in Feb, translating into a drop of 11% YoY in FY21 thus far. On the positive side, broader set of indicators like GST collections, E-way bills, power consumption and external demand (exports and non-oil non-gold imports) continue to show traction. However, sequential moderation in cargo port and railway freight traffic amidst rising cases warrants caution.

- Strong fiscal support to aid in growth normalisation: With an objective to provide further fillip to capex momentum, the Union Budget FY21 emphasised on infrastructure investment, and proposed setting up of National Bank for Financing Infrastructure and Development (NaBFID) as a DFI, with an endeavour to achieve lending portfolio of Rs5trn in three years. The report explicates that NaBFID is committed to the vision of building an AtmaNirbhar Bharat by providing the necessary backbone for infrastructure financing, encouraging mobilization of savings and conversion to investment, nurturing bond market for infrastructure financing as well as bringing in transparency, good governance and technology advancement. NaBFID will also dovetail with the on-going Government's efforts to enhance capital for implementing infrastructure projects worth Rs111trn by 2024 under the NIP.

The report elucidates that infrastructure investment is paramount in driving economic growth and makes a strong case for nurturing the right type of DFI to facilitate the same.

Figure 171: **Manufacturing sector across globe has recovered swiftly...**

Countries	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
World	50.3	47.1	47.3	39.6	42.4	48.0	50.6	51.8	52.4	53.1	53.8	53.8	53.6	53.9	55.0
Advanced Economies															
US	51.9	50.7	48.5	36.1	39.8	49.8	50.9	53.1	53.2	53.4	56.7	57.1	59.2	58.6	59.1
UK	50.0	51.7	47.8	32.6	40.7	50.1	53.3	55.2	54.1	53.7	55.6	57.5	54.1	55.1	58.9
Germany	45.3	48.0	45.4	34.5	36.6	45.2	51.0	52.2	56.4	58.2	57.8	58.3	57.1	60.7	66.6
France	51.1	49.8	43.2	31.5	40.6	52.3	52.4	49.8	51.2	51.3	49.6	51.1	51.6	56.1	59.3
Japan	48.8	47.8	44.8	41.9	38.4	40.1	45.2	47.2	47.7	48.7	49.0	50.0	49.8	51.4	52.7
Australia	49.6	50.2	49.7	44.1	44.0	51.2	54.0	53.6	55.4	54.2	55.8	55.7	57.2	56.9	56.8
Canada	50.6	51.8	46.1	33.0	40.6	47.8	52.9	55.1	56.0	55.5	55.8	57.9	54.4	54.8	58.5
EM Asia															
China	51.1	40.3	50.1	49.4	50.7	51.2	52.8	53.1	53.0	53.6	54.9	53.0	51.5	50.9	50.6
India	55.3	54.5	51.8	27.4	30.8	47.2	46.0	52.0	56.8	58.9	56.3	56.4	57.7	57.5	55.4
Malaysia	48.8	48.5	48.4	31.3	45.6	51.0	50.0	49.3	49.0	48.5	48.4	49.1	48.9	47.7	49.9
South Korea	49.8	48.7	44.2	41.6	41.3	43.4	46.9	48.5	49.8	51.2	52.9	52.9	53.2	55.3	55.3
Thailand	49.9	49.5	46.7	36.8	41.6	43.5	45.9	49.7	49.9	50.8	50.4	50.8	49.0	47.2	48.8
Indonesia	49.3	51.9	45.3	27.5	28.6	39.1	46.9	50.8	47.2	47.8	50.6	51.3	52.2	50.9	53.2
Philippines	52.1	52.3	39.7	31.6	40.1	49.7	48.4	47.3	50.1	48.5	49.9	49.2	52.5	52.5	52.2
Latin America EMs															
Mexico	49.0	50.0	47.9	35.0	38.3	38.6	40.4	41.3	42.1	43.6	43.7	42.4	43.0	44.2	45.6
Brazil	51.0	52.3	48.4	36.0	38.3	51.6	58.2	64.7	64.9	66.7	64.0	61.5	56.5	58.4	52.8
Other EMs															
Russia	47.9	48.2	47.5	31.3	36.2	49.4	48.4	51.1	48.9	46.9	46.3	49.7	50.9	51.5	51.1

Source: Refinitiv Datastream, NSE

Figure 172: **...**while services sector continues to limp

Countries	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
World	52.7	47.1	36.8	23.7	35.2	48.1	50.7	52.0	52.0	52.9	52.2	51.8	51.6	52.8	
Advanced Economies															
US	53.4	49.4	39.8	26.7	37.5	47.9	50.0	55.0	54.6	56.9	58.4	54.8	58.3	59.8	60.4
UK	53.9	53.2	34.5	13.4	29.0	47.1	56.5	58.8	56.1	51.4	47.6	49.4	39.5	49.5	56.3
Germany	54.2	52.5	31.7	16.2	32.6	47.3	55.6	52.5	50.6	49.5	46.0	47.0	46.7	45.7	51.5
France	51.0	52.5	27.4	10.2	31.1	50.7	57.3	51.5	47.5	46.5	38.8	49.1	47.3	45.6	48.2
Japan	51.0	46.8	33.8	21.5	26.5	45.0	45.4	45.0	46.9	47.7	47.8	47.7	46.1	46.3	48.3
Australia	50.6	49.0	38.5	19.5	26.9	53.1	58.2	49.0	50.8	53.7	55.1	57.0	55.6	53.4	55.5
EM Asia															
China	51.8	26.5	43.0	44.4	55.0	58.4	54.1	54.0	54.8	56.8	57.8	56.3	52.0	51.5	54.3
India	55.5	57.5	49.3	5.4	12.6	33.7	34.2	41.8	49.8	54.1	53.7	52.3	52.8	55.3	54.6
Latin America EMs															
Brazil	52.7	50.4	34.5	27.4	27.6	35.9	42.5	49.5	50.4	52.3	50.9	51.1	47.0	47.1	44.1
Other EMs															
Russia	54.1	52.0	37.1	12.2	35.9	47.8	58.5	58.2	53.7	46.9	48.2	48.0	52.7	52.2	55.8

Source: Refinitiv Datastream, NSE

Figure 173: Movement in consumption high-frequency indicators since COVID outbreak

Indicators	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
Consumption demand														
Rural														
2-wheeler sales	100.0	67.5	2.9	23.4	75.3	91.0	113.0	135.7	150.9	120.0	93.1	113.0	111.5	
3-wheeler sales	100.0	63.9	8.7	23.9	43.1	39.0	64.7	73.2	82.2	72.7	72.5	80.0	81.8	
Tractor sales	100.0	54.2	19.2	99.9	151.9	108.8	111.8	178.9	190.8	137.9	110.5	134.9	130.4	
Fertilizer sales	100.0	101.5	84.3	113.9	134.7	149.9	140.9	143.0	146.1	144.4	134.4	123.5	103.6	
MGNREGA daily work demand (HH)	100.0	87.4	54.5	148.3	183.1	128.8	98.4	101.1	98.3	94.6	105.5	103.3	124.7	
MGNREGA daily work provided (HH)	100.0	79.8	53.5	156.5	190.2	132.6	96.7	99.0	95.7	91.2	98.9	97.9	118.7	
Average rural wage rates	100.0	100.0	100.0	103.3	104.6	104.9	103.7	102.7	102.8	103.4	103.8	104.4	104.4	
Rural unemployment	100.0	115.0	311.9	287.6	129.3	88.7	104.2	80.1	94.7	85.0	124.7	79.4	93.5	
Urban														
Passenger car sales	100.0	56.0	0.0	9.7	37.4	69.2	84.0	110.4	123.0	100.9	98.9	103.2	104.4	
Domestic air passenger traffic	100.0	62.1	0.0	2.5	16.0	16.8	23.1	32.3	42.8	52.0	59.9	63.2	64.1	
Non-oil, non-gold & silver imports	100.0	81.5	50.0	76.6	63.3	83.7	84.5	97.7	101.0	99.0	116.6	115.5	106.3	106.5
Gold & silver imports	100.0	53.7	4.3	16.6	30.2	76.8	151.6	24.7	101.0	122.8	182.2	163.8	214.7	
Broadband subscriber base	100.0	100.9	99.3	100.4	102.5	103.6	101.0	106.6	107.9	108.9	109.7	111.2	111.2	
Petrol consumption	100.0	85.9	38.7	70.5	90.9	90.0	94.9	97.6	105.7	106.1	107.8	104.0	97.0	
Google mobility (retail & recreation) **	-2.0	-75.0	-84.0	-73.0	-55.0	-54.0	-45.0	-39.0	-34.0	-27.0	-18.0	-28.0	-23.0	-22.0
Naukri Job speak Index	100.0	80.9	39.4	37.7	50.0	52.3	58.5	72.7	100.0	71.5	81.7	79.7	97.6	
Urban unemployment	100.0	108.8	288.4	267.5	135.0	108.3	113.6	97.7	100.0	81.7	102.2	93.4	80.8	83.7
EPFO net payroll additions	100.0	56.1	-25.0	-24.3	16.2	52.4	65.3	101.0	91.5	75.5	105.8	130.8		
Perceptions														
Rural Consumer Sentiment Index	100.0	91.6	46.0	41.5	42.2	42.2	48.2	46.8	52.7	51.8	52.7	52.7	54.2	56.5
Rural Consumer Expectations Index	100.0	91.5	47.7	43.2	43.2	44.9	50.3	50.3	54.5	54.0	54.8	54.5	56.0	58.8
Urban Consumer Sentiments Index	100.0	92.5	38.5	35.4	38.6	38.6	36.7	38.8	44.9	44.2	46.0	48.4	48.2	48.2
Urban Consumer Expectations Index	100.0	92.8	39.6	37.2	41.4	40.4	38.8	40.6	48.1	46.3	47.9	50.5	51.6	50.8

Worst (significantly below pre-COVID level) ←---------- | ----------→ Best (at par or ahead of pre-COVID level)

** Note: Data has been extracted on April 7th, 2021. * Mobility change from the baseline day. A baseline day represents a normal value for that day of the week and is the median value from the 5-week period from Jan 3rd to Feb 6th, 2020, translating into seven baseline values for seven days of the week.
Source: CMIE Economic Outlook, RBI, SEBI, AMFI, Refinitiv Datastream, Bloomberg, MGNREGA website, IGR, Google COVID-19 Community Mobility Reports.

Figure 174: Movement in investment high-frequency indicators since COVID outbreak

Indicators	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
Investment														
Industrial Production														
IIP	100.0	87.3	40.2	67.2	80.4	87.9	87.3	92.5	96.6	94.0	101.8	100.7		
IIP: Manufacturing	100.0	83.2	31.4	62.9	79.8	88.3	88.5	94.3	98.4	95.4	103.1	100.7		
IIP: Capital Goods	100.0	74.5	7.2	36.3	65.5	72.8	77.9	92.7	93.7	86.7	97.6	95.1		
IIP: Const. & Infra. Goods	100.0	81.1	14.0	61.0	79.2	88.7	90.1	91.5	99.4	94.3	103.7	101.4		
IIP: Cons. Durables Goods	100.0	70.9	4.7	33.8	66.7	84.7	93.4	110.0	114.1	96.1	105.7	105.5		
Eight-core sector output	100.0	100.0	60.6	80.4	86.8	91.4	89.3	90.6	94.6	95.3	101.4	103.5	95.4	
Steel production	100.0	87.1	17.6	63.0	80.0	92.8	98.6	98.0	103.6	102.0	110.9	108.0	98.2	
Steel consumption	100.0	72.6	12.8	56.0	74.3	89.9	95.4	98.9	109.7	107.2	118.9	117.2	108.4	
Coal production	100.0	122.6	60.6	63.9	61.0	58.6	57.4	61.7	71.5	80.6	91.3	94.4	95.6	
Cement production	100.0	80.8	14.0	73.0	85.7	78.9	67.9	78.9	87.9	82.2	92.0	96.2	94.5	
Electricity production	100.0	95.6	81.8	98.0	101.7	108.3	105.9	108.3	105.6	94.3	102.8	106.9	99.7	
Commercial Vehicle sales	100.0	75.3			21.5			90.9			131.3			
Activity														
Diesel consumption	100.0	79.0	45.4	76.7	88.0	76.9	67.7	76.7	97.7	98.4	100.4	95.1	91.5	
Rail freight traffic	100.0	96.8	61.4	77.5	87.9	89.4	88.9	96.1	101.7	103.4	111.1	112.5	105.5	122.5
Domestic air cargo	100.0	72.2	6.9	18.1	52.6	64.7	71.3	89.6	104.0	95.1	100.7	95.7	93.5	
International air cargo	100.0	82.5	24.8	46.9	66.3	76.2	79.6	89.0	92.0	88.2	93.2	88.9	90.2	
Port cargo	100.0	106.5	82.7	79.1	85.5	89.7	90.0	93.3	98.1	103.7	110.1	112.2	102.1	
Daily E-way bills	100.0	66.5	14.6	41.7	73.4	79.1	80.9	97.1	105.0	97.6	105.0	102.9	115.6	116.5
GST collections	100.0	92.6	30.6	58.9	86.3	83.0	82.0	90.6	99.8	99.6	109.3	113.7	107.4	117.6
New orders (machinery)	100.0	166.9	1279.0	693.0	5.5	75.7	472.2	184.9	55.2	554.8	1605	2807	88.7	6261
New orders (Industrial & Infra Const.)	100.0	74.7	2.4	161.4	66.5	346.8	524.2	314.6	135.1	952.5	296.7	216.1	337.0	466.3
Daily property sale registrations (MH)	100.0	73.7	0.7	26.3	72.8	67.2	71.1	107.2	113.4	123.3	221.8	131.9	144.8	184.8
Google mobility (workplaces)**	8.0	-68.0	-61.0	-16.0	-35.0	-34.0	-31.0	-27.0	-17.0	-34.0	-18.0	-2.0	-2.0	-16.0
Perceptions														
Business Assessment Index	100.0	109.9			54.1			94.1			106.3			
Business Expectations Index (for qtr ahead)	100.0	103.6			91.5			102.4			104.9			
Manufacturing PMI	100.0	95.0	50.3	56.5	86.6	84.4	95.4	104.2	108.1	103.3	103.5	105.9	105.5	101.7
Services PMI	100.0	85.7	9.4	21.9	58.6	59.5	72.7	86.6	94.1	93.4	91.0	91.8	96.2	95.0

** Note: Data has been extracted on April 7th, 2021. * Mobility change from the baseline day. A baseline day represents a normal value for that day of the week and is the median value from the 5-week period from Jan 3rd to Feb 6th, 2020, translating into seven baseline values for seven days of the week.

Source: CMIE Economic Outlook, RBI, SEBI, AMFI, Refinitiv Datastream, Bloomberg, MGNREGA website, IGR, Google COVID-19 Community Mobility Reports.

Worst (significantly below pre-COVID level) ←---------- ----------→ Best (at par or ahead of pre-COVID level)

Figure 175: Movement in external and financial markets high-frequency indicators since COVID outbreak

Indicators	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
External														
Merchandise imports	100.0	83.0	45.1	60.3	56.3	76.7	81.9	80.5	89.6	89.0	113.0	110.7	107.0	127.0
Oil imports	100.0	93.2	43.1	33.2	46.1	60.7	59.9	54.0	55.7	58.5	88.9	87.4	83.7	94.3
Merchandise exports	100.0	77.5	36.7	69.4	79.4	85.7	82.3	99.3	89.8	84.9	98.1	99.3	99.2	122.6
Agri exports	100.0	90.0	61.6	86.6	93.8	106.0	93.9	108.5	108.8	103.4	114.7	111.3	127.1	
Services imports	100.0	100.4	84.0	89.8	90.0	90.8	86.7	91.6	86.1	91.4	103.9	91.2		
Services exports	100.0	102.5	92.8	94.6	95.9	96.1	92.8	97.5	93.6	96.4	105.6	96.3		
USDINR (eop)	100.0	104.4	104.0	104.8	104.6	103.6	102.0	102.2	102.5	102.2	101.2	101.1	101.2	101.8
Financial markets														
Cost of credit														
WALR on new loans	100.0	98.9	97.9	97.3	96.1	95.9	95.5	94.9	94.2	93.7	92.8	92.4	91.9	
WALR on O/S loans	100.0	95.2	92.0	92.8	90.4	92.1	90.2	89.5	90.5	90.1	87.8	87.9	88.4	
1-year T-bill	100.0	91.6	75.1	69.1	71.3	69.9	71.4	70.8	66.3	63.6	71.8	74.6	77.8	
10-year G-sec yield	100.0	96.3	95.9	94.4	92.4	91.6	95.4	94.4	92.3	92.8	92.5	93.4	97.8	
5Y AAA-rated corp bond yield	100.0	103.3	100.5	93.8	90.7	83.5	88.4	88.3	82.8	81.7	81.0	83.8	93.2	
Access to capital														
Equity issuances	100.0	166.2	0.1	54.0	379.6	126.9	326.1	84.8	38.0	57.3	122.6	72.5	47.9	210.9
Debt issuances	100.0	101.5	94.5	94.5	90.6	62.4	68.9	104.9	77.8	60.4	100.2	90.4	59.0	117.2
Agri credit (O/S)	100.0	100.2	99.6	99.2	99.7	101.1	101.0	103.3	105.4	106.4	107.8	109.7	110.2	
Industry credit (O/S)	100.0	104.0	103.3	102.5	103.0	101.0	99.5	99.4	98.1	98.6	98.8	99.6	99.8	
Services credit (O/S)	100.0	106.6	105.8	104.5	103.9	104.7	104.8	105.9	105.9	105.6	106.0	108.3	109.3	
Consumer durable loans (O/S)	100.0	143.2	137.2	134.0	136.2	140.5	139.4	102.6	105.9	106.8	109.2	113.9	111.5	
Credit card outstanding (O/S)	100.0	97.4	87.4	83.7	88.0	91.4	94.5	95.2	99.3	103.0	99.5	104.9	104.8	
Vehicle loans (O/S)	100.0	99.8	98.1	97.0	97.0	98.4	99.4	100.1	101.3	103.5	104.1	106.7	108.3	
Housing loans (O/S)	100.0	100.8	100.2	100.1	100.6	101.5	101.6	102.4	103.4	104.2	104.9	106.7	108.4	
Digital retail payments	100.0	109.6	59.8	73.7	94.0	97.8	96.9	107.2	115.0	113.7	128.9	114.6		
Participation														
Investor A/Cs (NSDL + CDSL)	100.0	101.8	103.5	105.1	107.6	110.3	112.9	116.1	118.7	121.1	124.1	128.3		
SIP inflows	100.0	101.5	98.4	95.4	93.0	92.0	91.5	91.5	91.6	85.8	98.9	94.2	88.4	
Market cap of listed companies	100.0	77.3	87.5	86.0	94.9	100.5	104.7	105.2	107.1	118.7	128.1	127.0	137.2	
Trading volumes on NSE	100.0	120.3	126.3	132.2	154.1	147.2	153.3	139.6	131.4	167.8	156.8	181.9	204.3	
Share of wallet														
MF average net AUM	100.0	87.4	83.2	85.9	92.2	96.4	98.2	98.1	100.2	105.5	109.5	112.6	114.2	
Aggregate deposits (O/S)	100.0	101.8	103.0	104.6	104.4	106.3	106.4	107.0	108.2	108.8	108.7	111.0		

Source: CMIE Economic Outlook, RBI, SEBI, AMFI, Refinitiv Datastream, Bloomberg, MGNREGA website, IGR, Google COVID-19 Community Mobility Reports.

Worst (significantly below pre-COVID level) ←---------- | ----------→ Best (at par or ahead of pre-COVID level)

Household financial savings declined in Q2FY21 amidst normalisation of activity

The RBI's preliminary estimates for Q2FY21 unveiled in the recent RBI Bulletin[15] that the net household financial savings rate expectedly declined from 21% (of GDP) in Q1FY21 to 10.4% in Q2FY21, even as it remained higher than 9.8% reported in the same period last year (Q2FY20). Increased household discretionary spending due to persistent traction in normalization of economic activities following easing lockdown norms resulted in a drop in financial savings from the peak of COVID-19. This is also reflected in the moderation in current account surplus in Q2 relative to Q1FY21, implying a sequentially higher increase in investments as compared to savings. The reversion has also been substantiated by increase in household debt to GDP ratio that rose sharply to 37.1% in Q2FY21 from 35.4% in Q1FY21.

Within financial assets, while household deposits with banks picked up in Q2, currency holdings, investments in mutual funds and shares declined. On the other hand, financial liabilities of households entered the positive territory in Q2 on the back of personal loans from banks and NBFCs for vehicles, durables and housing.

Looking at the cross-country trend, household/personal savings rates in the developed economies like US, UK, Australia and Canada which moved up to more than 20% mark in April-June 2020 corrected significantly in the subsequent quarter but remained much higher than the pre-pandemic levels. In contrast, financial savings of Indian households reverted closer to the pre-pandemic levels, thanks to impending festive demand and release of pent-up demand.

Going forward, household financial savings rate for Q3FY21 is anticipated to moderate further amidst continuous normalization of economic activities as reflected through improving consumption and mobility indicators. While resurgence of COVID-19 cases poses downside risks, steady vaccinations, coupled with gradual improvement in consumer confidence, should further boost consumption demand and work further towards restoration of the pre-pandemic spending and saving pattern. Escalating net household advances clearly indicates scope for further moderation in household financial saving. However, buoyant stock markets may provide some offset by portfolio re-balancing by households through investments in shares and debentures, including units of mutual funds.

- Household financial savings expectedly declined in Q2FY21: According to the preliminary estimates released by the RBI for Q2FY21, net household (HH) financial savings retreated closer to the pre-pandemic levels to 10.4% of GDP after touching the unprecedented high of 21% in Q1FY21, even as it remained higher than 9.8% reported in the same period last year (Q2FY20). Persistent traction in normalization of economic activities following phased easing of stringent lockdown norms in Q2 prompted households to increase discretionary spending, which resulted in the reversal of household financial savings from the peak of COVID-19. On a sequential basis, milder pace of contraction in private financial consumption expenditure (-11.3% vs. -26.3% in Q1) coupled with the lower current account surplus (implying a sequentially higher increase in investments than savings) attributed to the decline in household financial savings rate.

RBI's preliminary estimates for Q2FY21 show a drop in net household financial savings rate from 21% in Q1FY21 to 10.4% in Q2FY21 due to persistent normalisation of activities.

- In terms of the fund movement, increase in HH liabilities outweighed increase in HH assets: Over the quarters, the share of different instruments in the household financial portfolio has remained broadly stable with banking sector being the dominant one on both sides. Alongside, life insurance and mutual funds have been the two other major instruments held by households along with currency, whereas borrowings from NBFCs and HFCs constitute the other dominant portions of their liabilities. While, gross household financial assets increased marginally in Q2FY21 to Rs7.5trn (15.8% of GDP) from Rs7.4tn (19% of GDP) in Q1FY21, gross household financial liabilities re-entered the positive

In terms of fund composition, banking sector continued to dominate on both fronts—assets as well as liabilities.

[15] https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/0BULLETINMARCH202113071F7DA3F74912BDC44055B5E78E2C.PDF

territory and stood at Rs2.6tn (5.4% of GDP GDP) vs. -2% of GDP in Q1FY21, thereby weighing heavily on the net household financial savings.

- **From the household financial assets' side:** Within financial assets, savings in the form of bank deposits increased significantly to Rs3.6tn in Q2FY21 from Rs 1.1tn in Q1FY21, reflecting restoration of their safe-haven status. Savings in the form of life insurance funds and provident and pension funds remained elevated and witnessed further uptick in Q2. However, household deposits with non-banks, currency holdings and investments in mutual funds and shares moderated significantly from Q1 levels, in turn weighing heavily on the gross financial assets. Currency holdings declined from 5.3% of GDP in Q1FY21 to a mere 0.4% of GDP in Q2FY21, reflecting lower uncertainty with the unlocking of the economy and resumption of economic activity. Similarly, investments in mutual funds and shares tumbled from 2.2% of GDP in Q1FY21 to 0.4% of GDP in Q2FY21.

Within financial assets, while household deposits with banks picked up in Q2, currency holdings, investments in mutual funds and shares declined.

- From **the household financial liabilities' side:** Within financial liabilities, credit flows in personal loans of scheduled commercial banks (SCBs), vehicle loans, consumer durables and credit cards gained traction by registering an expansion in Q2FY21 as against a contraction in the previous quarter. Credit growth for housing strengthened further to 1.3% in Q2FY21 from 0.4% in Q1. In alignment with the banking sector, credit flow from NBFCs to households witnessed an increase in Q2FY21 even though their overall credit growth took a beating in Q2 vis-à-vis Q1.

On the other hand, financial liabilities of households entered the positive territory in Q2 on the back of personal loans from banks and NBFCs for vehicles, durables and housing.

- **Cross country trend shows India's correction in household financial** savings rate is better than DMs: Looking at the cross-country trend, household/personal savings rates in the developed economies like US, UK, Australia and Canada which moved up to more than 20% mark in April-June 2020 corrected significantly in the subsequent quarter but remained much higher than the pre-pandemic levels. In contrast, financial savings of Indian households reverted closer to the pre-pandemic levels thanks to impending festive season and release of pent up demand. The reversal in the Indian context has been sharper in contrast to many of the European countries faced with the second COVID wave including that of more virulent strains. Household debt to GDP ratio, which has been steadily increasing since Q1FY19, rose sharply to 37.1% in Q2FY21 from 35.4% in Q1FY21. BIS data of cross-country comparison (2019) shows that India's household debt as a % of GDP is categorized as "low and flat" relative to peers.

Cross country comparison shows that while India's household financial savings retreated to near pre Covid-19 levels, in developed markets it remained still higher in Q2 despite substantial correction.

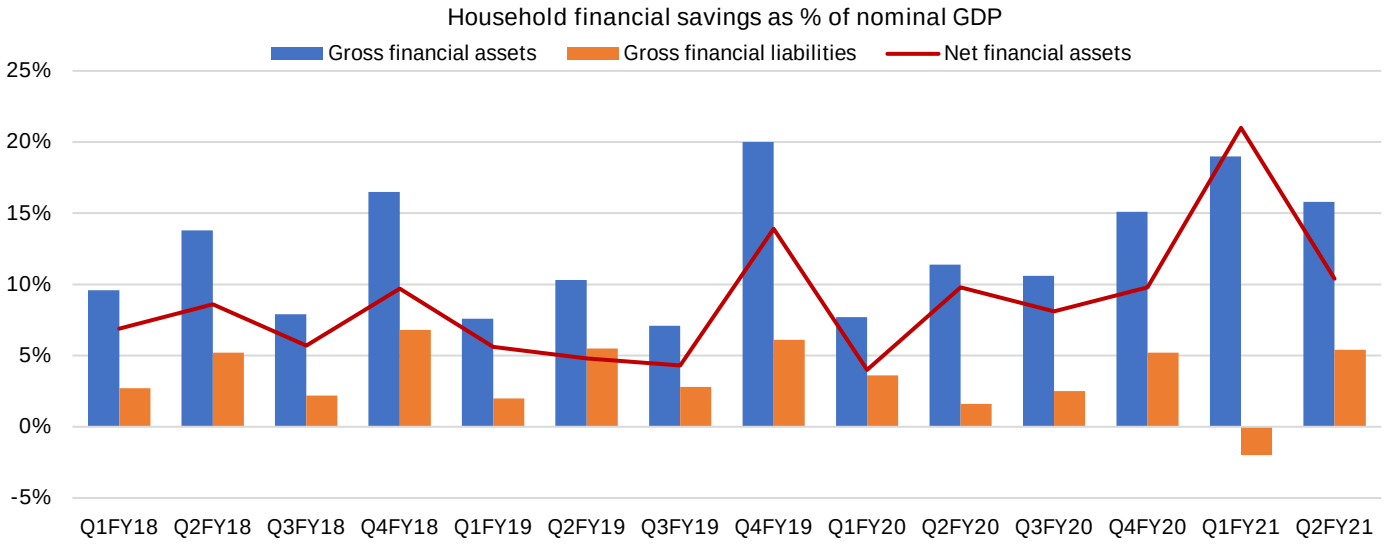
- Household financial savings rate for Q3FY21 is anticipated to moderate further: Going ahead, household financial savings is most likely to ease further amidst continuous normalization of economic activities as reflected through improving consumption and mobility indicators. While resurgence of COVID-19 cases poses downside risks, steady vaccinations, coupled with gradual improvement in consumer confidence, should further boost consumption demand and work further towards restoration of the pre-pandemic spending and saving pattern. Escalating net household advances clearly indicates scope for further moderation in household financial saving. However, buoyant stock markets may provide some offset by portfolio re-balancing by households through investments in shares and debentures, including units of mutual funds.

Figure 176: Household Financial Savings declined in Q2FY21 amidst normalisation of economic activities

Rs trn	Q1 FY18	Q2 FY18	Q3 FY18	Q4 FY18	Q1 FY19	Q2 FY19	Q3 FY19	Q4 FY19	Q1 FY20	Q2 FY20	Q3 FY20	Q4 FY20	Q1 FY21	Q2 FY21
Net financial assets	2.8	3.6	2.5	4.5	2.6	2.2	2.1	6.7	2.0	4.9	4.2	5.1	8.2	4.9
Gross financial assets	3.9	5.8	3.4	7.6	3.5	4.8	3.5	9.6	3.8	5.7	5.5	7.9	7.4	7.5
Gross financial liabilities	1.1	2.2	0.9	3.1	0.9	2.6	1.4	2.9	1.8	0.8	1.3	2.7	-0.8	2.6
% of GDP	Q1 FY18	Q2 FY18	Q3 FY18	Q4 FY18	Q1 FY19	Q2 FY19	Q3 FY19	Q4 FY19	Q1 FY20	Q2 FY20	Q3 FY20	Q4 FY20	Q1 FY21	Q2 FY21
Net financial assets	6.9	8.6	5.7	9.7	5.6	4.8	4.3	13.9	4.0	9.8	8.1	9.8	21	10.40
Gross financial assets	9.6	13.8	7.9	16.5	7.6	10.3	7.1	20.0	7.7	11.4	10.6	15.1	19	15.80
Gross financial liabilities	2.7	5.2	2.2	6.8	2.0	5.5	2.8	6.1	3.6	1.6	2.5	5.2	-2	5.40

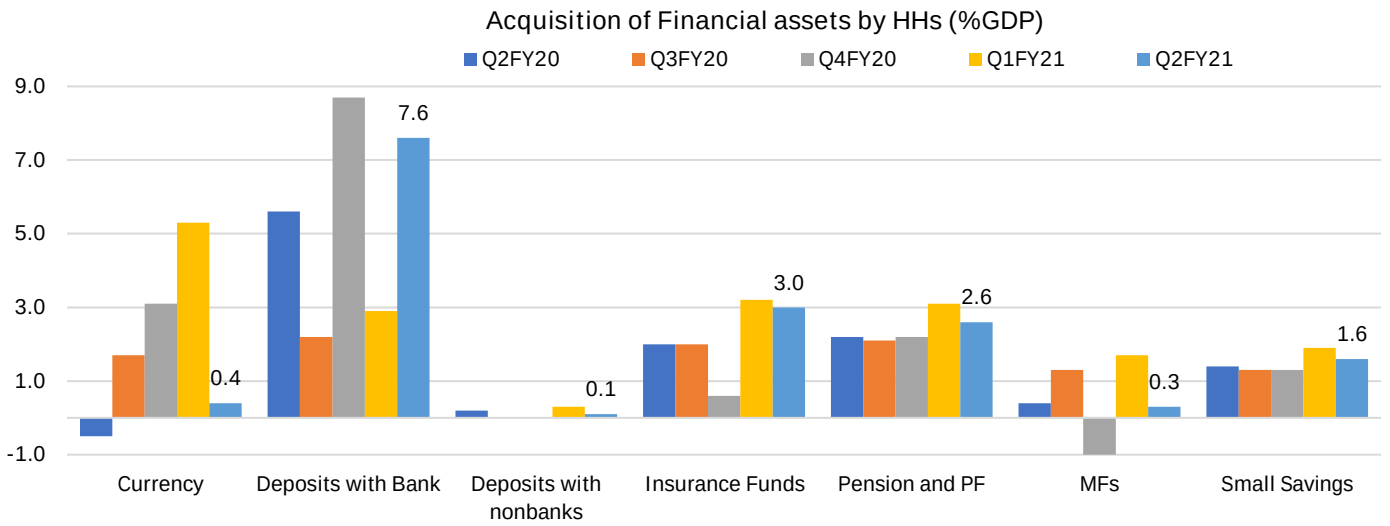
Source: RBI.

Figure 177: India's household financial portfolio exhibits rising financial liabilities and moderating financial assets



Source: RBI, NSE.

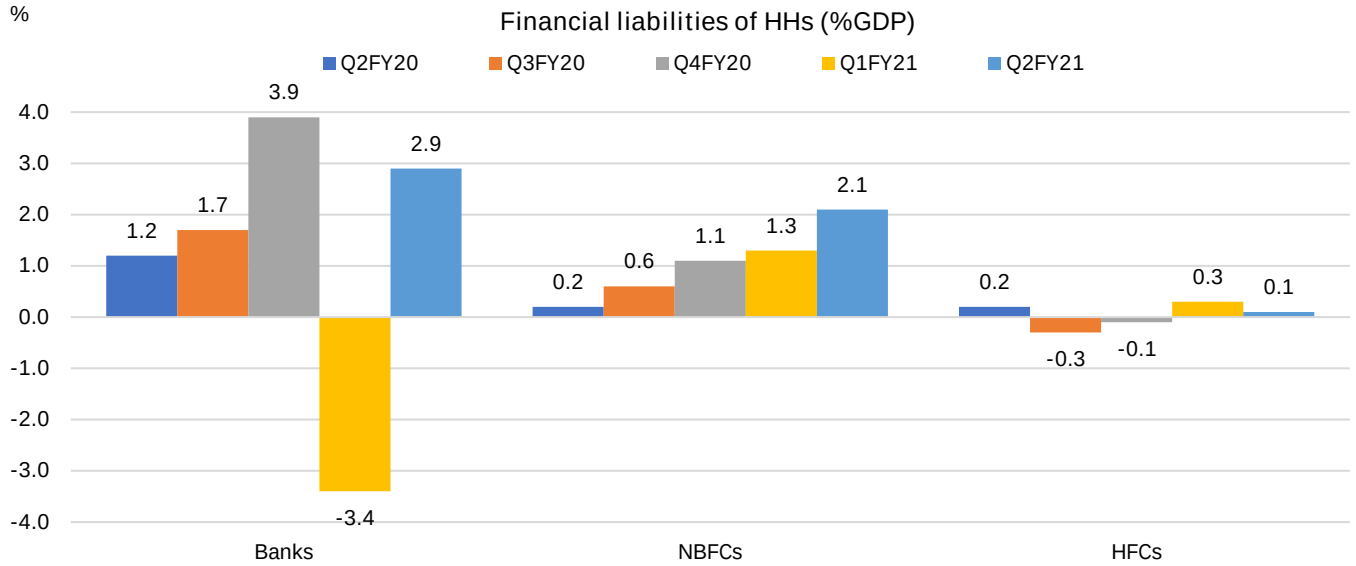
Figure 178: Acquisition of financial assets by households as a % of GDP
Within financial assets, while household deposits with banks picked up in Q2, currency holdings, investments in mutual funds and shares declined



Source: RBI, NSE.

Figure 179: Financial liabilities of households as a % of GDP

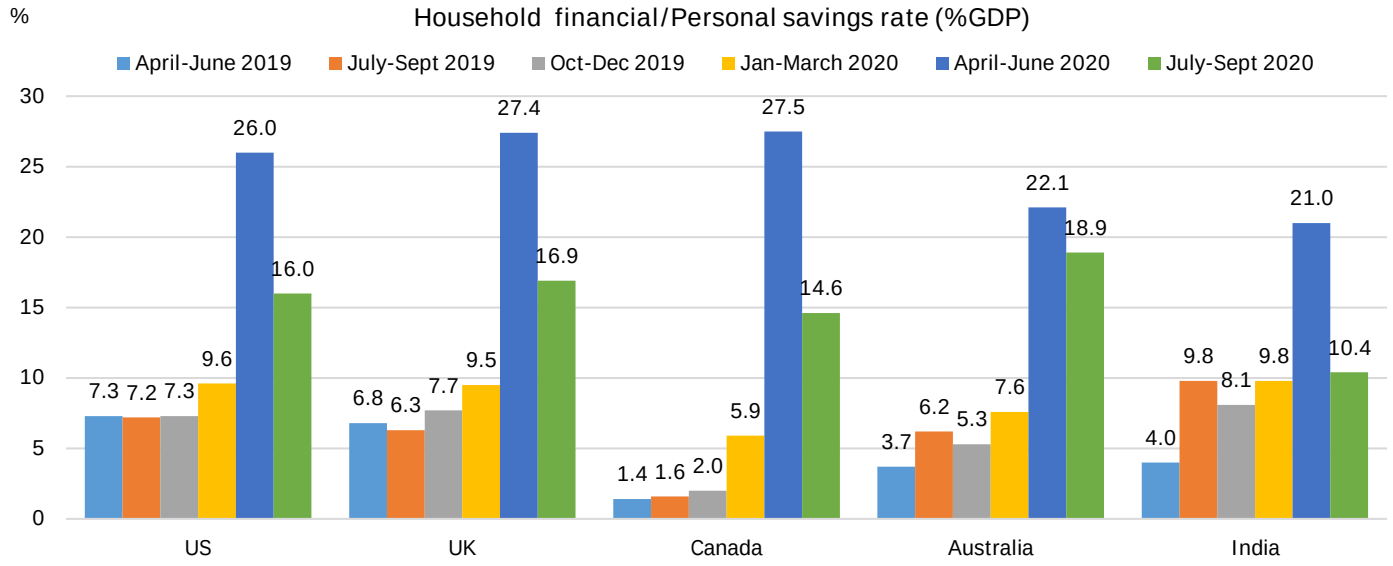
Financial liabilities of households entered the positive territory in Q2 on the back of personal loans from banks and NBFCs for vehicles, durables and housing.



Source: RBI, NSE

Figure 180: Household/personal savings rate across countries (% of GDP)

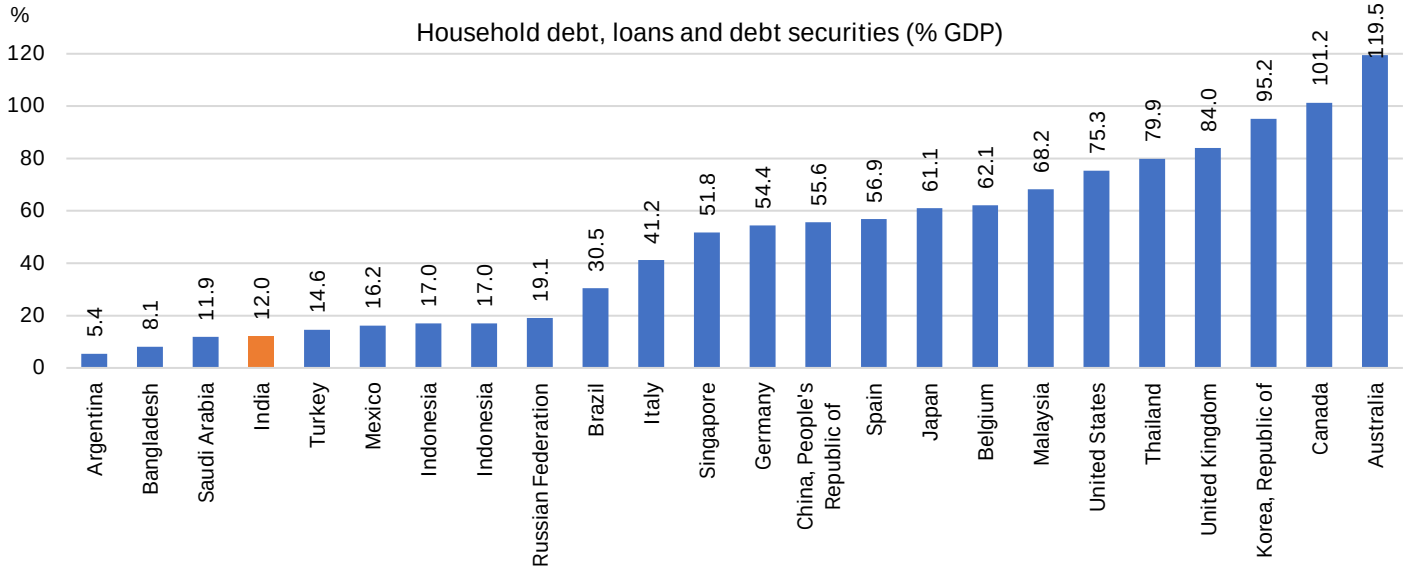
Cross country comparison shows that while India's household financial savings retreated to near pre Covid-19 levels, in developed markets it remained still higher in Q2 despite substantial correction.



Source: RBI, NSE

Figure 181: Household debt to GDP ratio across countries

Household debt to GDP ratio, which has been steadily increasing since Q1FY19, rose sharply to 37.1% Q2FY21 from 35.4% in Q1FY21. BIS data of cross-country comparison (2019) shows that India's household debt as a %GDP is categorized as "low and flat" relative to peers.



Source: RBI, BIS, NSE

RBI Bulletin March 2021: Unconventional Monetary Policy in times of COVID-19[16]

With an aim to mitigate the impact of COVID-19 on the economy and financial markets, the RBI undertook a slew of conventional monetary policy measures including a reduction in the policy repo/reverse repo rates by 115/155 bps and cash reserve ratio by 100 bps. Additionally, they introduced a variety of unconventional monetary policy tools (UMPTs) to address systemic liquidity and concerns of certain sectors, brought about by global spillovers affecting financial markets. The tools implemented include long-term repo operations (LTROs) and targeted long-term repo operations (TLTROs), Operation Twists (OTs), forward guidance that was time-contingent and state-contingent in nature as well as refinance facilities and liquidity support for mutual funds.

LTROs and TLTROs implemented by the RBI worked along with open market operations (OMOs) to ease financial conditions by bringing down yields and encouraging positive behaviour of market participants. OTs introduced by the Central Bank brought down term spreads of G-sec yields and reduced the cost of funds for the Government after announcing a huge fiscal package as their response to the pandemic. Their measures targeting mutual fund stress bolstered liquidity levels and reduced redemption pressures. The use of forward guidance supported the other measures in keeping market sentiments positive and we can expect the RBI Monetary Policy Committee (MPC) to continue using this tool in the future.

- Liquidity Support Operations: The RBI announced the following liquidity support measures to mitigate the impact of COVID-19 and attendant lockdown restrictions on economic activity and financial markets.
  a. In February 2020, the RBI introduced long term repo operations (LTROs) to facilitate monetary policy transmission and encourage of credit demand. The scheme involved providing long-term liquidity to banks at 5.15%, the former policy rate and lower than market rates, which led to five LTRO auctions held between February and December 2020. These auctions added Rs. 1251.2bn to the system. Rs 1235.7bn was repaid by banks in September 2020 to reduce their cost of funds.
  b. As a consequence of the pandemic, large global spill-overs set off flight of capital to safety which in turn resulted in sell-off pressures in financial markets. Financial conditions tightened, leading to a spike in risk premiums on corporate bonds, commercial papers and debentures, thereby drying up trading activity and market liquidity. The RBI introduced targeted long-term repo operations (TLTROs) to pump liquidity into sectors and entities under stress. Initially, four TLTRO auctions were conducted in March and April 2020 were conducted, which provided Rs. 1000.5bn to banks. A second phase of TLTRO auctions also took place to provide funds to small and mid-sized corporates, which included NBFCs and micro finance institutions. However, TLTRO 2.0 was met with a lukewarm response which indicated the lack of demand for more liquidity. Banks repaid 33.1% of funds availed in Nov'20.
  c. In Oct'20, 'On Tap TLTRO' scheme worth Rs1trn was introduced to provide liquidity support to banks at a floating rate linked to the policy rate for up to three years. Liquidity availed by banks under the scheme has to be deployed in corporate bonds, commercial paper and non-convertible debentures issued by the entities in specific sectors including agri, agri infrastructure, retail, MSMEs

[16]RBI Bulletin: Unconventional Monetary Policy in times of COVID-19 (March 2021)
https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/0BULLETINMARCH202113071F7DA3F74912BDC44055B5E78E2C.PDF

and drugs, pharma & healthcare. This was over and above the outstanding level of their investments in such instruments as on September 30, 2020. This scheme was later extended to 26 stressed sectors identified the Kamath Committee in February 2021.

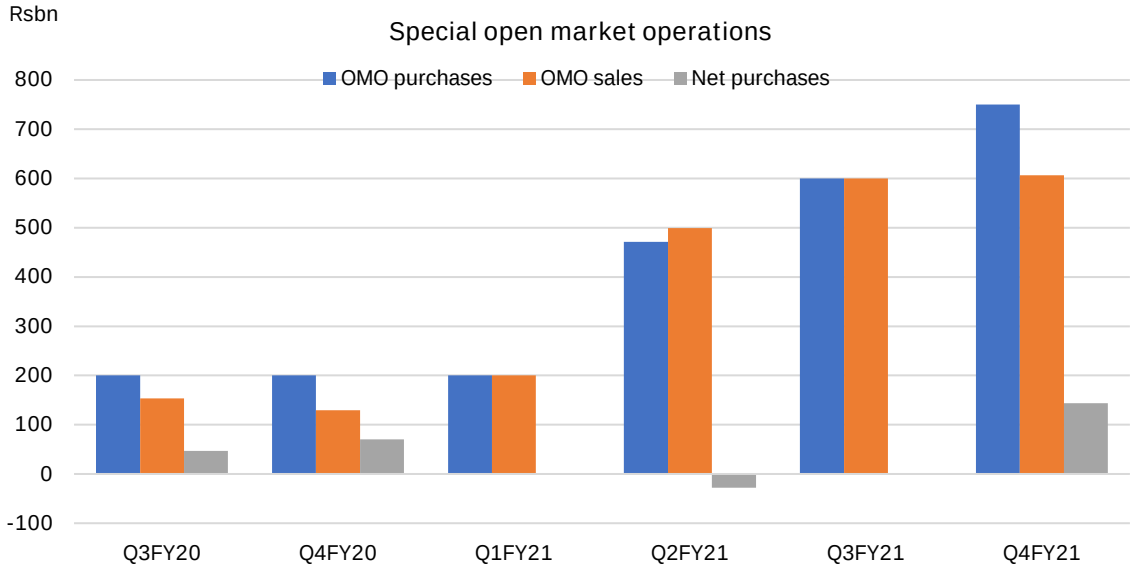
- Liquidity Support to AIFIs: All India financial institutions (AIFIs) had difficulty raising resources with tightening financial conditions. To address liquidity stress and credit requirements, National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI) and National Housing Bank (NHB) were provided with special refinance facilities at the policy repo rate for a total amount of Rs 600bn. Additionally, the Export Import (EXIM) Bank was extended a line of credit of Rs 150bn and a US dollar swap facility for their FX requirements. The RBI also introduced a special liquidity facility of Rs 500bn in Apr'20 to help mutual funds deal with closure of some debt funds.
- Asset Purchase Programme (APP): Historically, the RBI has restricted purchases to the secondary market and government securities. They made an exception for FY21 by including state government securities. They also announced special Open Market Operations (OMOs) in December 2019, called Operation Twists (OTs), which included the simultaneous purchase of long-term and sale of short-term securities, to reduce the term premium and the slope of the yield curve. Such policy decisions, in turn, result in moderation in rates of financial market instruments and improve monetary transmission. By February 2021, 20 operations of Rs 100bn each were conducted by the RBI and have successfully reduced the cost of borrowing for the Government in FY21.
- Forward Guidance: The Monetary Policy Committee (MPC) has maintained an accommodative monetary policy stance to mitigate the impact of COVID-19 on the economy and hence used forward guidance as a prominent strategy. The Governor assured comfortable liquidity conditions and consequently got rid of illiquidity fears, improved market sentiment and supported other unconventional monetary policy tools implemented by the RBI.
- Empirical assessment to analyse efficacy of UMPTs: The UMPTs led to a decline in yields and a return of corporate bond spreads to levels seen before the pandemic. The efficacy of the UMPTs implemented is assessed empirically by the authors in two parts. The first part involved analysis of the impact of LTRO and TLTRO auctions held on certain segments of the money and bond markets using daily data. The results indicate that both auctions had a greater effect on the money market than the bond market. The second part was the study of the effect of announcements on term premium in the G-sec market which shows that the total impact led to a 29bps reduction in the term spread, thereby flattening the yield curve.

Figure 182: Measures taken by central banks globally during COVID-19

Country		Asset Purchase			Lending/Liquidity		FX Swap/ Intervention		Prudential Regulations
		Govt. Bond	Commercial Paper	Corporate Bond	General Liquidity Facility	Specialised Lending	USD Swap Line	FX Intervention	
AEs	Australia	✓			✓	✓	✓		✓
	Euro Area	✓	✓	✓	✓	✓	✓		✓
	Japan	✓	✓	✓	✓	✓	✓		✓
	New Zealand	✓			✓	✓	✓		
	Sweden	✓		✓		✓	✓		✓
	Switzerland					✓	✓	✓	✓
	UK	✓	✓	✓	✓	✓	✓		✓
	United States	✓	✓	✓	✓	✓			✓
EMEs	Argentina		✓			✓			
	Brazil				✓	✓	✓	✓	✓
	India	✓			✓	✓		✓	✓
	Indonesia	✓			✓				✓
	Malaysia				✓	✓			
	Mexico				✓	✓	✓	✓	✓
	Philippines	✓				✓			
	Russia				✓	✓		✓	✓
	Singapore				✓	✓	✓		
	South Africa	✓			✓				✓
	Korea				✓	✓	✓		✓
	Thailand	✓				✓		✓	

Source: RBI Bulletin.

Figure 183: Special open market operations (Operation Twists)



Source: RBI, NSE. Note: The OTs are grouped based on the announcement dates.

Figure 184: Movement in interest rates across instruments

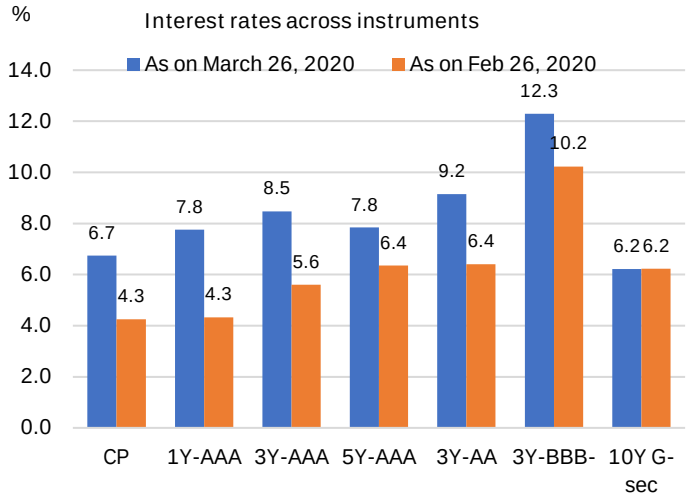
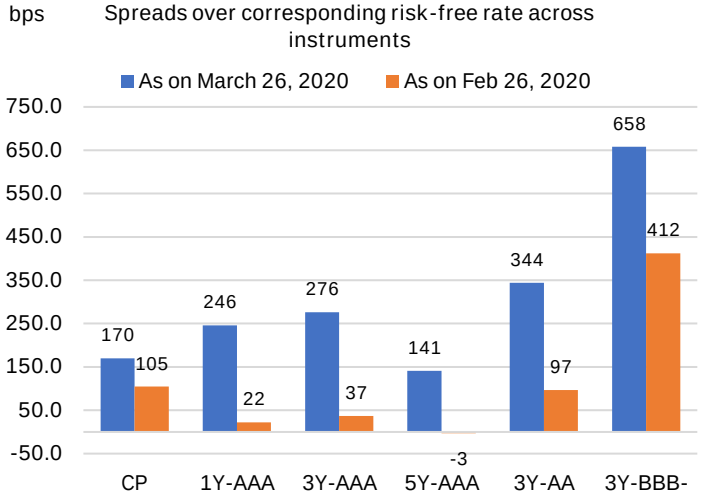
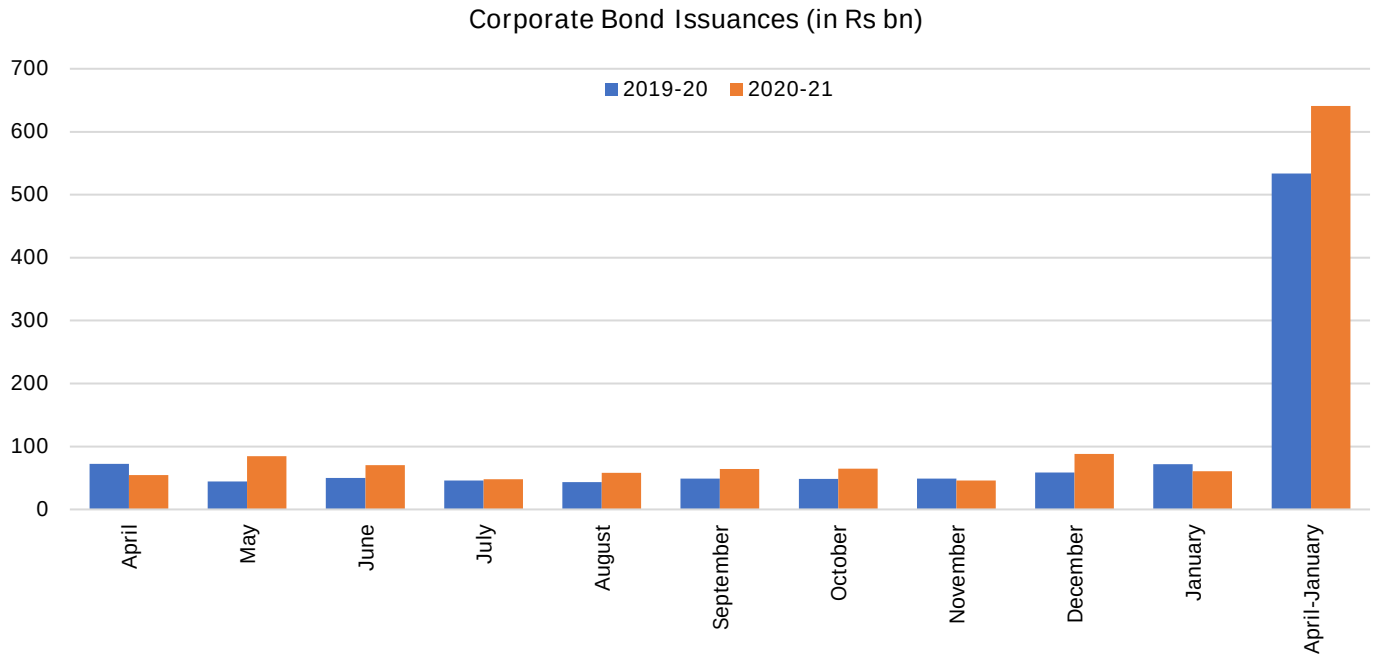


Figure 185: Change in term premia across instruments over the last one year



Source: RBI Bulletin.

Figure 186: Monthly trend of corporate bond issuances during FY20 and FY21



Source: RBI Bulletin.

IMF WEO April 2021: IMF revises global growth forecasts upwards

The IMF World Economic Outlook (WEO)[17] revised the global GDP growth forecast upwards to 6% for 2021 and 4% for 2022, reflecting expanded fiscal support and faster economic recovery led by vaccination programmes. Easing of lockdown restrictions and adoption of new ways of working reduced the extent of contraction to -3.3% in 2020 vs. -3.5% projected in January. The strength of economic recovery differs across countries and socio-economic groups, dictated by path of the pandemic, severity of lockdown restrictions and efficacy of the policy support. While advanced economies are expected to bounce back faster because of faster vaccinations, emerging economies are likely to take much lower to inoculate their populations and may require more frequent lockdown and containment measures, thereby weighing on their growth prospects. China remains an exception as they have curbed the spread of the virus and introduced fiscal packages along with adequate liquidity support. The pandemic has had a disproportionate impact on women, young and low skilled workers as well as the informal sector. The IMF WEO also calls for continued policy support across countries, calibrated to the state of the pandemic, economic recovery and characteristics of the country. While monetary policy must remain accommodative to encourage recovery, governments must prioritize investing in healthcare during the pandemic.

India's growth projection for FY22 was revised upwards to 12.5% from 11.5%/8.8% predicted in the January 2021/October 2020 WEO—much higher than our estimate of 10%. This revision reflects the stronger-than-expected recovery after lockdowns were eased in mid-2020. That said, a sharp surge in COVID cases leading to targeted regional lockdowns, coupled with slower pace of vaccinations, poses significant downside risks to these estimates. Global trade is expected to grow by 8.4% in 2021 thanks to continued economic recovery, even as world-wide relaxation of restrictions is crucial for a credible recovery in export volumes.

- IMF revises global growth forecasts upwards: The IMF, in its recent WEO publication, further revised their global growth forecasts for 2021 and 2022 upwards from 5.5% and 4.2% to 6.0% and 4.4% respectively. They estimate the global economy to have contracted by -3.3% in 2020—lower than the 3.5% contraction projected in January 2020. This is primarily on the back of easing lockdown restrictions, policy support and continued adaptation of new ways of working. The upgrades in 2021 and 2022 growth forecasts reflect enhanced fiscal policy support in advanced economies and a faster economic recovery led by vaccination progress. The IMF WEO also states that while an exact estimation is difficult, the global economic contraction could have been three times as worse without the unprecedented policy support that was provided.

- Divergent recoveries across countries and socio-economic groups: The IMF expects advanced economies to resume contact intensive activities faster as larger proportions of their population get vaccinated, with accumulated savings in 2020 expected to drive pent up demand. Projections for the US and Japan have been revised up due to a stronger recovery and enhanced fiscal support. Emerging markets and developing economies (EMDEs) are expected to endure medium-term losses as COVID-related restrictions will be needed frequently through 2021 and they are likely to take much longer to inoculate a large section of their populations. China is an exception, as they successfully stopped the spread of the virus, had an aggressive fiscal policy response and sufficient liquidity support. The impact of the pandemic has been worse for certain groups–women, young and low-skilled workers as well as informal employees. The IMF estimates that an additional 95mn

[17] https://www.imf.org/en/Publications/WEO/Issues/2021/03/23/world-economic-outlook-april-2021

people have fallen into poverty as compared to pre-pandemic projections, hampering years of progress in bringing global poverty levels down.

- Policy responses must continue to support recovery: While economic recovery calls for policy responses that are finetuned to the state of the pandemic, nature of economic recovery and characteristics of the country, the IMF WEO calls for monetary policy to remain accommodative. Governments must prioritize curbing the spread of the virus and investing in healthcare while also mitigating financial stability risks. As economies recover, enhancing productive capacity will assume importance. Unemployment and underemployment rates are still high, despite policy support. There has been an observed drop in labour force participation rates and the impact could be even higher due to job retention programs introduced in many countries.

- Lasting damage from the pandemic: The pandemic will not lead to an impact as deep as the Global Financial Crisis (GFC) of 2008. Advanced economies are expected to recover quickly, while emerging economies are likely to recover at a slower pace. Lower income countries are expected perform worse than they did after the GFC. Losses in advanced economies are expected to be the least due to the extensive policy support provided and early vaccine rollouts. Economies with less room for policy support, a slower vaccine rollout and an economy dependent on tourism, exports or services are expected to be affected adversely. The IMF WEO states that projections for losses from the pandemic are highly dependent on their current understanding of crisis and could evolve as new risks emerge.

- Global trade estimated to grow by 8.4% in 2021: The IMF WEO projects global trade growth to increase by 8.4% in 2021 as economic recovery progresses globally, even as world-wide relaxation of restrictions is crucial for a credible recovery in export volumes. International services trade is expected to remain weak until the virus is curbed everywhere while current accounts will remain stable in the medium-term.

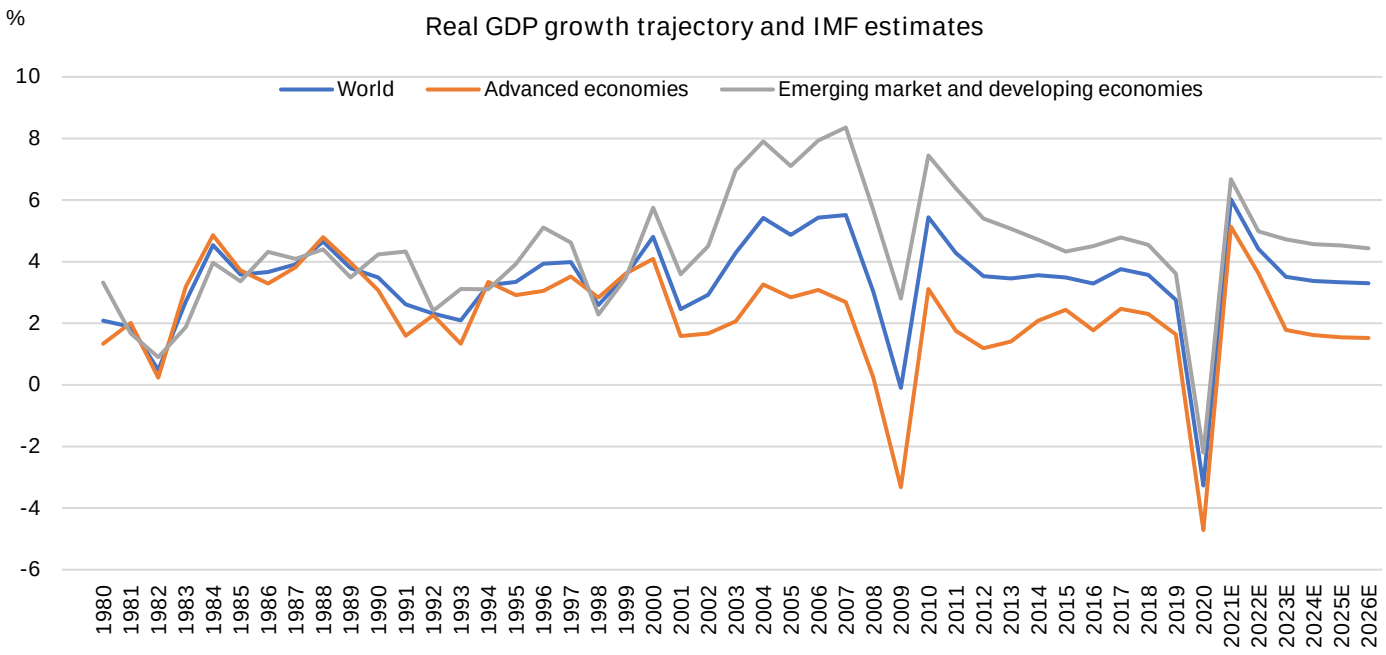
- India growth for FY22 revised upwards to 12.5%: The April 2021 WEO revised India's FY22 GDP growth forecast upwards to 12.5% as compared to 11.5% and 8.8% predicted in the January 2021 and October 2020 WEO respectively. This is much higher than our estimate of 10%. This upward revision reflects the stronger-than-expected recovery after lockdowns were eased in mid-2020. That said, a sharp surge in COVID cases leading to targeted regional lockdowns, coupled with slower pace of vaccinations, poses significant downside risks to these estimates.

Figure 187: IMF World Economic Outlook projections

Countries	2020	Projections		Difference from January 2021 WEO Update		Difference from October 2020 WEO	
		2021	2022	2021	2022	2021	2022
Real GDP Growth							
World	−3.3	6.0	4.4	0.5	0.2	0.8	0.2
Advanced Economies	−4.7	5.1	3.6	0.8	0.5	1.2	0.7
United States	−3.5	6.4	3.5	1.3	1.0	3.3	0.6
Euro Area	−6.6	4.4	3.8	0.2	0.2	−0.8	0.7
Germany	−4.9	−6.0	3.4	0.1	0.3	−0.6	0.3
France	−8.2	3.6	4.2	0.3	0.1	−0.2	1.3
Italy	−8.9	4.2	3.6	1.2	0.0	−0.8	0.2
Spain	−11.0	6.4	4.7	0.5	0.0	−0.8	0.2
Japan	−4.8	3.3	2.5	0.2	0.1	1.0	0.8
United Kingdom	−9.9	5.3	5.1	0.8	0.1	−0.6	1.9
Canada	−5.4	5.0	4.7	1.4	0.6	−0.2	1.3
EMDEs	−2.2	6.7	5.0	0.4	0.0	0.7	−0.1
China	2.3	8.4	5.6	0.3	0.0	0.2	−0.2
India	−8.0	12.5	6.9	1.0	0.1	3.7	−1.1
Russia	−3.1	3.8	3.8	0.8	−0.1	1.0	1.5
Brazil	−4.1	3.7	2.6	0.1	0.0	0.9	0.3
Mexico	-8.2	5.0	3.0	0.7	0.5	1.5	0.7
World Trade Volume (goods and services)	−8.5	8.4	6.5	0.3	0.2	0.1	1.1

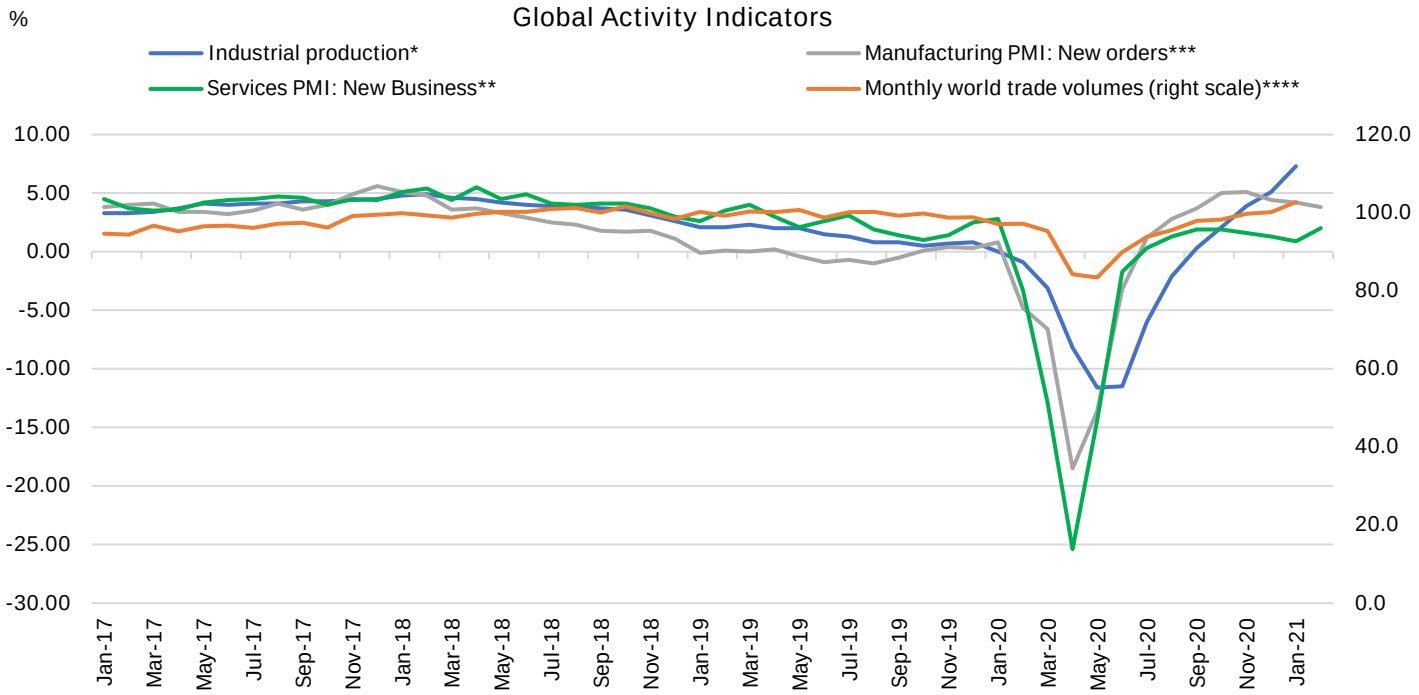
Source: IMF World Economic Outlook.

Figure 188: Global real GDP growth trajectory alone with IMF estimates



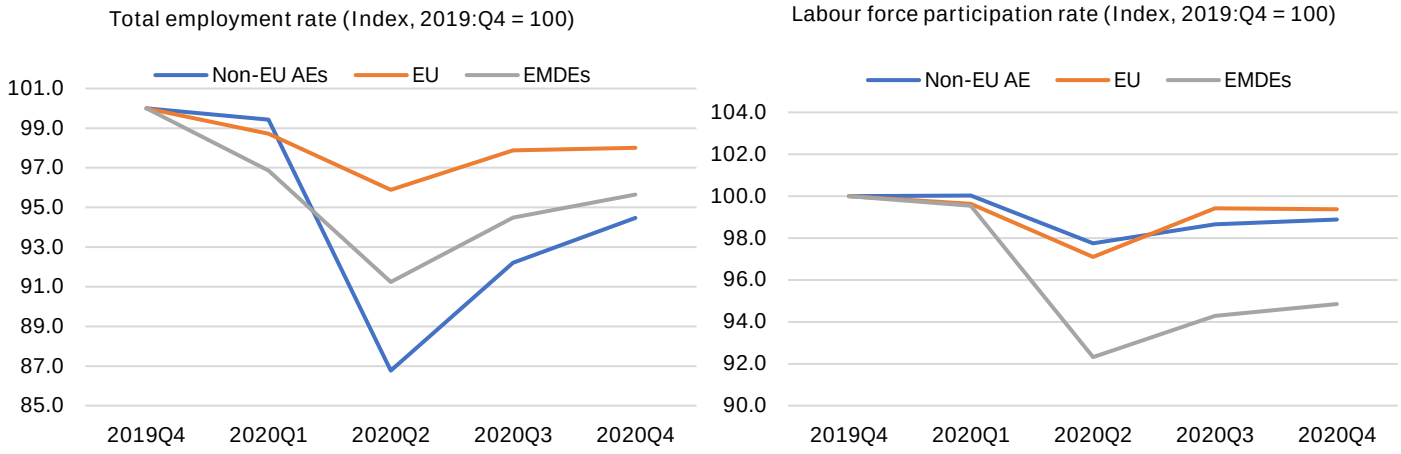
Source: IMF World Economic Outlook

Figure 189: Global Activity Indicators



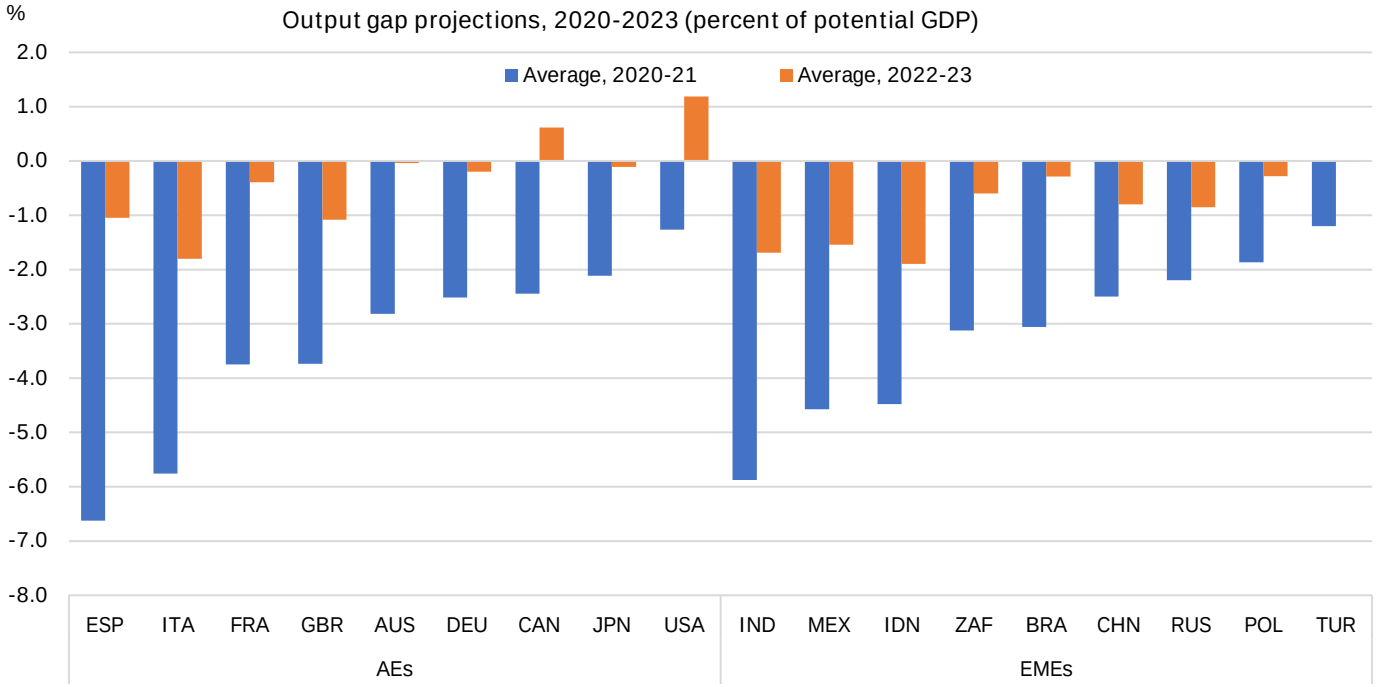
Source: IMF World Economic Outlook; Note: *three month moving average, **annualized percent change; ***deviations from 50, ****seasonally adjusted, 2018=100).

Figure 190: Employment and labour force participation



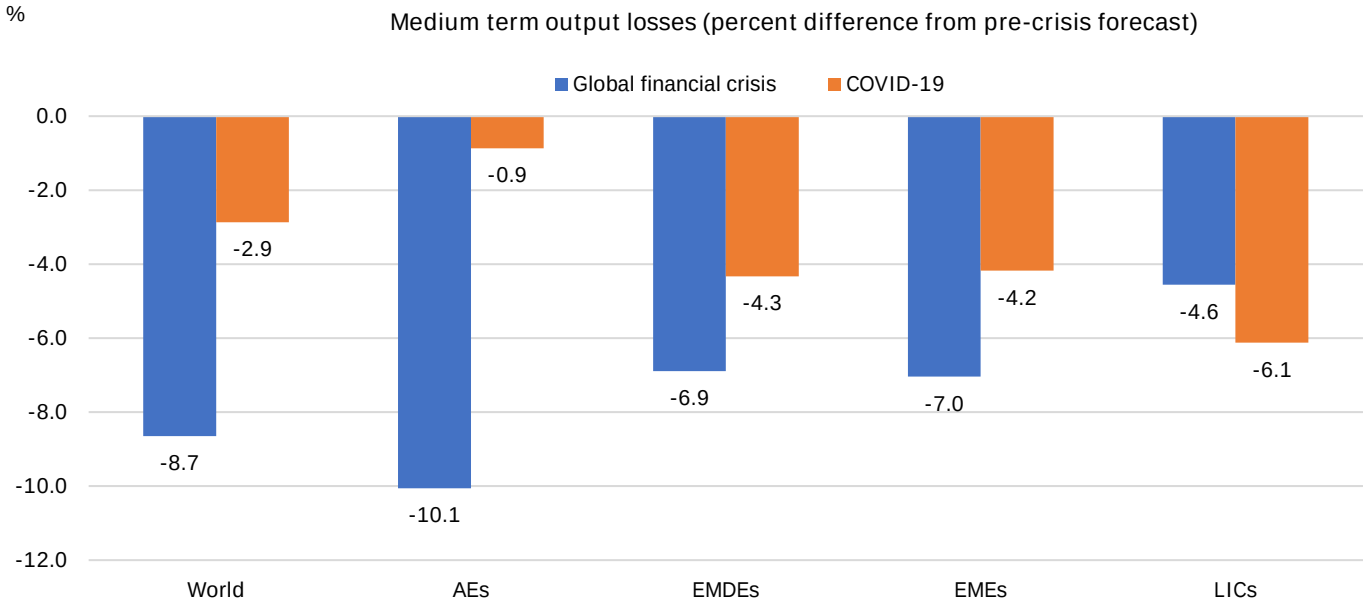
Source: IMF World Economic Outlook.
Note: Non-EU AEs: Non-European Union advanced economies, EU: European Union, EMDEs: emerging market and developing economies

Figure 191: Output gap projections, 2020-23 as percent of potential GDP



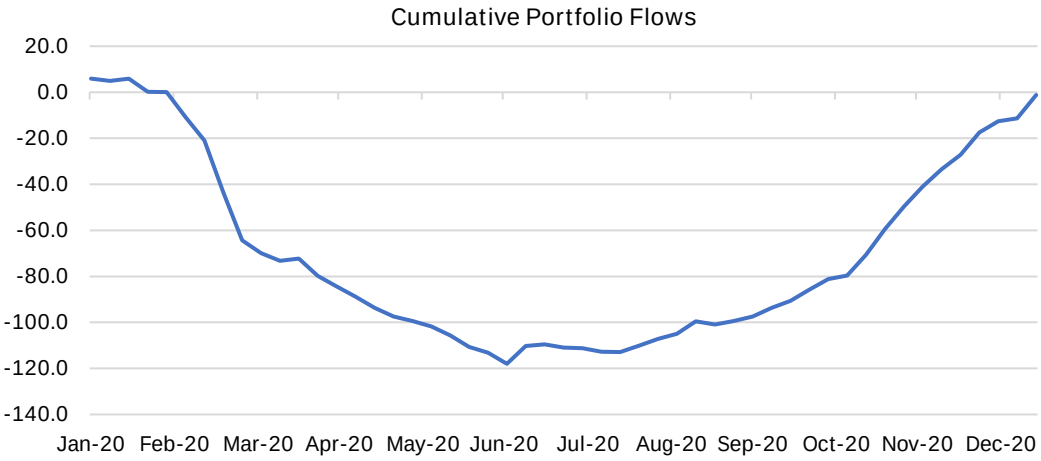
Source: IMF World Economic Outlook.
Note: AEs: advanced economies, EMEs: emerging market economies, ESP: Spain, ITA: Italy, FRA: France, GBR: United Kingdom, AUS: Australia, DEU: Germany, CAN: Canada, JPN: Japan, USA: United States of America, IND: India, MEX: Mexico, IDN: Indonesia, ZAF: South Africa, BRA: Brazil, CHN: China, RUS: Russia, POL: Poland, TUR: Turkey.

Figure 192: Medium term output losses, percent difference from pre-crisis forecast



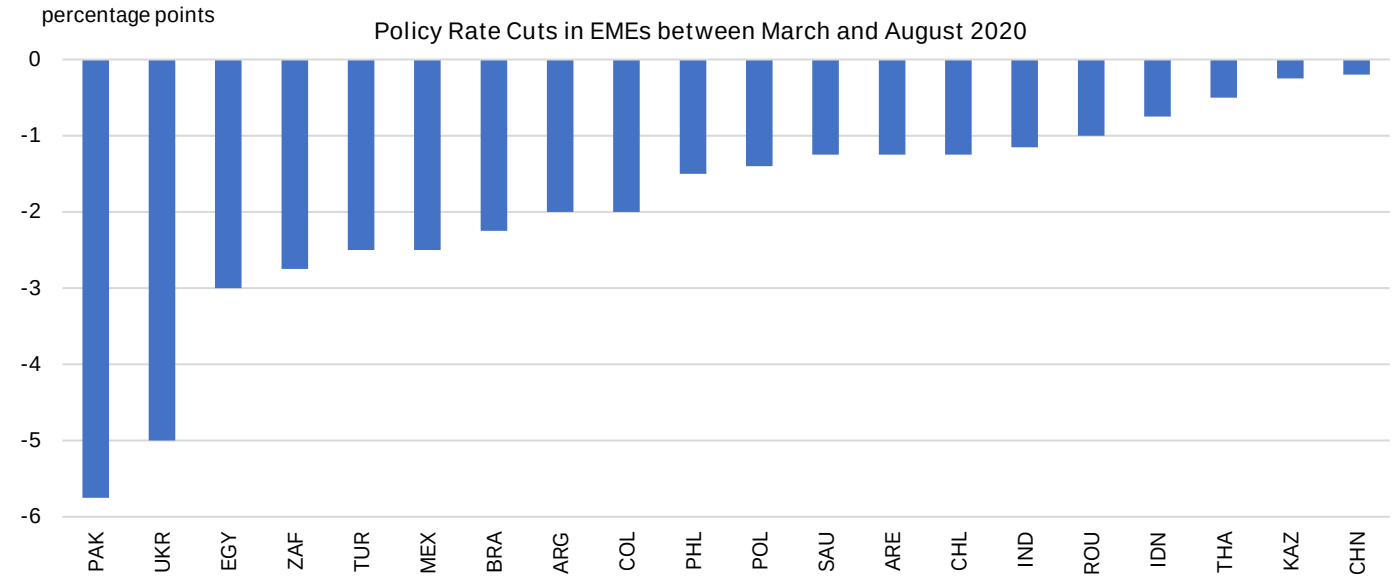
Source: IMF World Economic Outlook.
Note: AEs: advanced economies, EMDEs: emerging market developing economies, EMEs: Emerging market economies, LICs: low income countries.

Figure 193: Cumulative portfolio flows in EMs from January 2020 to January 2021



Source: IMF World Economic Outlook. Note: EMs: emerging markets.

Figure 194: Policy Rate Cuts in Emerging Market Economies between March and August 2020



Source: IMF World Economic Outlook.

Note: PAK: Pakistan, UKR: Ukraine, EGY: Egypt, ZAF: South Africa, TUR: Turkey, MEX: Mexico, BRA: Brazil, ARG: Argentina, COL: Colombia, PHL: Philippines, POL: Poland, SAU: Saudi Arabia, ARE: United Arab Emirates, CHL: Chile, IND: India, ROU: Romania, IDN: Indonesia, THA: Thailand, KAZ: Kazakhstan, CHN: China.

STOP PRESS: Macro data update (Data released between April 1st and 15th)[18]

CPI inflation for March 2021: Retail inflation rises further to a four-month high of 5.5%

Headline CPI inflation witnessed a sequential uptick for the second month in a row, rising to a four-month high of 5.5% in Mar'21 from 5.0% in the previous month—a tad higher than the Consensus estimate of 5.4% (Source: Reuters). Amidst an unfavourable base, food and fuel inflation led the rebound. The surge was primarily led by higher food and fuel prices as well as a steady increase in core inflation. Within the food basket, acceleration in prices of certain items like meat & fish, pulses, fruits and fats & oils as well as lower deflation in vegetable prices contributed to the rise in food inflation. Core inflation (headline inflation ex food and fuel), continued to inch higher and rose to a 29-month high of 5.7% YoY, primarily led by higher auto fuel prices that pushed transport & communication services inflation to the highest level in the series, partly offset by decline in gold/silver prices.

WPI inflation for March 2021: Wholesale inflation spikes to an eight-year high of 7.4%

Wholesale price inflation (WPI) surprised on the upside for yet another month and rose to an eight-year high of 7.4% in March 2021 from 4.2% in the previous month, albeit off a low base (+0.4% in March 2020). This was led by a broad-based spike in inflation across categories, particularly led by non-food primary articles, crude, petroleum & natural gas, mineral oils and manufactured products. Consequently, the gap between wholesale and retail inflation turned negative for the first time in 23 months, thanks to a higher weightage of manufactured goods in the wholesale basket. WPI inflation in FY21 has averaged at 1.2%—a tad lower than 1.7% in FY20. An unfavorable base effect, continued increase in commodity prices and renewed supply-side bottlenecks may result in a sharp spike in WPI inflation trajectory over the next several months.

IIP for March 2021: IIP growth slumps further signalling an uneven industrial recovery

Industrial recovery remains in fits and starts, with Industrial Production (IIP) recording an YoY contraction for the second month in a row, albeit off a high base. Following an upwardly revised drop of 0.9% in Jan'21, IIP fell by a sequentially steeper 3.6%YoY in Feb'21, negative surprising market expectations (Consensus: -3.0%; source: Reuters). The plunge was yet again led by Manufacturing and Mining even as Electricity continued to remain in the positive territory despite an unfavourable base. The use-based classification shows continued weakness in investment activity as reflected from sustained contraction in production of capital and infra/construction goods, even as consumption demand has remained steady.

Trade balance for March 2021: A strong rebound in exports and imports

India's merchandise trade deficit widened to US$13.9bn in Mar'21 from a three-month low of US$13.0bn in the previous month, with both imports and exports registering a strong rebound. India's import bill in Mar'21 grew by a strong 53.7% YoY, albeit off a very low base (A COVID-induced strict lockdown led to a 28% YoY drop in imports in Mar'20), primarily led by a huge jump in gold and non-oil, non-gold imports. Oil imports also recovered, posting a modest 2.2% YoY growth in Mar'21. On a sequential basis, imports grew by 19.3% in March. Exports also witnessed a sharp recovery following a lull period, led by a rebound across the board, primarily led by electronic goods, engineering goods and gems & jewellery. Notably, both exports and imports in March 2021 were at record-high levels in value terms. A part of this spike may be attributed to hastened delivery of contracts amid expectations of re-imposition of lockdown restrictions in the wake surge in COVID-19 cases. For FY21 as a whole, exports and imports declined by 7.2% and 17.2% respectively, leading to merchandise trade deficit contracting to US$ 102.5bn from US$161.3bn in FY20.

[18] A detailed note on these would be included in the next month's edition of Market Pulse.

Insights

Invited Article: Climate Justice and Gender Inequality[19]

Richard Betts, Dr. Erkin Erimez and Kübra Koldemir

Introduction

Oftentimes, we hear the narrative that tackling so-called environmental issues such as climate change are about saving the planet. But really, it's about saving us, about saving humanity. Environmental issues such as climate change are also indivisibly social and economic issues. This is why there is a term called climate justice, highlighting how it is essential to connect the causes and effects of climate change to concepts of environmental and social justice. It underscores the human, ethical and political dimensions presented by climate change and how it is misplaced to think of climate change as purely an environmental issue.

Climate change affects all countries, but the impact is not equally distributed between countries, income groups, generations, minorities or gender. In terms of gender, studies show that climate has disparate impacts on men and women emanating from the social construction of gender roles and relations.[20]

Researchers report robust evidence that demonstrate that women are disproportionately vulnerable to climate change, not because there is something inherently vulnerable about women, but rather due to socio-cultural structures that deprive women of access to resources, information, and decision-making structures.[21]

Climate change can increase gender inequality, for example by reducing women's ability to be financially independent. It can negatively impact their human rights, especially in economies that are heavily based on agriculture. This is due to gender roles, especially in the developing world, which means that women often depend on the natural environment for subsistence and income. Climate change, by further limiting women's already often limited access to physical, social, political, and fiscal resources, can exacerbate existing gender inequality.

Furthermore, poverty research reveals that many of the poor are women because, as a group, they have less social power.[22] Many women in developing countries are farmers, but women as a group have trouble obtaining education, income, land, livestock, and technology and own a disproportionately small part of agricultural land and land rights, meaning climate change may negatively impact female farmers more than male farmers by further limiting their resources.[23]

How much do gender equality plans by corporations help?

Many corporations now monitor and report comprehensively on diversity and inclusion and are striving to link profit with purpose. Many companies now report on their historic performance, future targets and set and report quotas for gender equality and other areas. However, many corporations are still under pressure from employees and other stakeholders unconvinced by the progress that has been made. Why?

While one important question concerns setting and reporting on targets, an even more fundamental question is why gender issues exist in the first place.

In terms of gender inequality, a key reason may be that a lot of women's issues are very difficult to change because they are deeply ingrained in our cultures. For example, many gender issues are subtle, yet pervasive, and have long been

[19] The views expressed in the article are those of the authors, and do not necessarily reflect the views of NSE or the organizations they are affiliated to.
[20] https://careclimatechange.org/
[21] https://www.carbonbrief.org/tackling-gender-inequality-is-crucial-for-climate-adaptation
[22] Rodenberg, Birte. Climate Change Adaptation from a Gender Perspective: A Cross-cutting Analysis of Development-policy Instruments. German Development Institute, 2009.
[23] http://www.fao.org/3/i2050e/i2050e.pdf

accepted in our societies. Hence, we have tended to accept them as "normal" without questioning these social constructs as we are too busy caught up in our modern hectic lifestyles to take a step back and question societal norms and expectations. However, it is important to recognize gender and other inequalities that can be pervasive in our societies. These include structural inequalities that require much deeper action than simply meeting targets. Without a fundamental mindset shift regarding what we perceive as "normal" it is a moot point whether women can truly reach their full potential in the workplace.

Climate change: A case in point

Returning to climate change, it is a case in point that shows how issues pertaining to human rights and social justice can impact both genders differently.

Evidence shows that the global south is currently more vulnerable to the impacts of climate change as people there are vulnerable to climate-induced events including heat waves, droughts, floods, and sea level rise which could result in crop losses, potentially resulting in poor people losing their homes and having to migrate to refugee camps. In such areas, men often migrate to work away from their family but may not be able to remit enough money for women and their families to sustain themselves. Women, then, often assume the responsibility for looking after their children, earning their living, finding water and firewood in many disadvantaged communities in developing countries. In such conditions, women are more vulnerable to violence, sexual abuse, and rape.

Even though women mostly work in agricultural jobs in many developing countries, their land ownership is very low. Land ownership is critical to get access to financing through bank loans to improve agricultural production. Consequently, many women fall into the hands of private lenders who often charge much higher interest rates than banks.

Negative impacts from climate change on women are not limited to developing countries. For example, research in the US has demonstrated how women are especially vulnerable to the effects of climate change.[24] A study examining the impact of Hurricane Katrina on displaced people and families in trailer parks in the US found that the rate of violence more than tripled for women surveyed in the year following the storm, and elevated risks persisted two years after the storm[25].

Studies show how men and women are affected in financially different ways by disasters. Especially in many developing countries, women tend to have less emergency savings compared to men. As a result, more women apply for loans to recover their businesses after disasters[26].

The burden is not shared equally either as evidence shows that women take more responsibility for looking after children, the elderly and the infirm after disasters[27]. In many cases, this further adds to women's already busy lives from paid work and existing household duties. Studies have also shown that in poor areas, many women tend to donate their food in times of food scarcity, leaving them more vulnerable to health, social, and psychological damages.

These examples highlight how there are no easy fixes because the fundamental issues that lead to those inequalities are also entrenched in our cultures.

The difficulty regarding the identification of some gender issues can make women sometimes appear ungrateful or demanding when in fact they may be genuinely trying to voice a very basic inequality issue and explain themselves. Therefore, the subtlety of some gender issues can be very confusing due to the way we all have been raised.

[24] ***Gender and Climate Change in the United States: A Reading of Existing Research***, WEDO and SIERRA CLUB, March 2020
[25] ***Increased gender-based violence among women internally displaced in Mississippi 2 years post–Hurricane Katrina***. Anastario, M., Shehab, N. & Lawry, L., Disaster Medicine and Public Health Preparedness 3, 18–26 (2009).
[26] ***A population on the brink: American renters, emergency savings, and financial fragility***., West, S. & Mottola, G, Poverty & Public Policy 8, 56–71 (2016).
[27] ***Displacement, gender, and the challenges of parenting after Hurricane Katrina.***, Peek, L. & Fothergill, A., NWSA Journal 20, 69–105 (2008).

These examples also show that inequalities can be made worse by prevailing cultural norms. Studies show that our gender constructs lead men to typically save more compared to women while the latter remain more focused on the needs of their families. After a major disaster, there is typically the need to rebuild one's life and hence having savings is crucial. Indeed, the lack of savings is a key reason why there are disproportionately more women who have to take the burden of taking loans compared to men. For all these reasons, when they are trying to rebuild their lives, it is often more difficult for women to recover after a misfortune has happened.

What are some of the solutions?

Disadvantaged groups are rarely included in the planning process at local, national, and international levels for coping with the impacts of climate change.[28] Hence, one way to mitigate the disproportionate impact of climate change on disadvantaged groups is to involve them in the planning and policy-making process and through the empowerment of women in politics, social institutions, and business. This way, by being inclusive we all have the opportunity to have a say in our future.

Business could create an opportunity to develop diverse solutions for the challenges of climate change. Since men and women have different perspectives and experiences, achieving a more diverse and inclusive workforce can be expected to make decision-making more productive and fruitful.

Indeed, when there is an underrepresentation of women and minorities in business or broader society, then it is not representative of the expectations and needs of the society as a whole. There is untapped potential. However, if we change our mindsets and challenge deeply entrenched social norms, then we all stand to benefit. As we live in a highly interconnected planetary system, we all benefit from addressing systemic issues.

In conclusion

Corporates can play an important role in empowering women, especially if company leaders address gender issues by providing in-depth solutions and if they lead the way in questioning and challenging our cultural norms whenever they may lead to inequality. Creating opportunities for the development of women's businesses especially in the global south could also improve the resilience of women and societies.

Additionally, corporations should have a long-term sustainability plan for gender equality (SDG 5). This requires long-term thinking and a learning mindset. Companies that identify gaps and share action plans on how they will address them will be better positioned for continuous improvement.[29] According to an impact research called "Sustainability Governance Scorecard ©" by Argüden Governance Academy, which evaluates companies through a governance lens, only 39% of leading ESG-compliant global corporations align their overall strategy with SDG 5 (gender equality). Even though the study shows that SDG 5 is being now adopted by a growing number of companies, there still is room for improvement in this area. However, in light of our collective experience during COVID, there is now huge momentum for change. The latest KPMG CEO Outlook Report (2020) found that, at the start of the year, 77% of global CEOs said that the primary objective of their organization was purpose or societal-driven.[30]

The involvement of more women in politics, and management, executive and board positions in corporates would promote participatory and collective decision-making which is an important aspect of good governance practices. Therefore, implementation of good governance practices in both public and private sector will enable us to fix some of the gender inequality issues.

[28] https://minorityrights.org/wp-content/uploads/old-site-downloads/download-524-The-Impact-of-Climate-Change-on-Minorities-and-Indigenous-Peoples.pdf
[29] https://sgscorecard.argudenacademy.org/research-findings/sustainability-performance
[30] https://home.kpmg/content/dam/kpmg/xx/pdf/2020/09/kpmg-2020-ceo-outlook.pdf

Use of circuit breakers and other market safeguards by exchanges during COVID-19[31]

Exchanges employ several techniques, including market-wide circuit breakers, trading halts of individual instruments, price limits to restrict sharp and sudden price movements in order to maintain fair and orderly trading and integrity of the market. In other words, exchanges halt trading activities through circuit breakers either for the entire market or for a specific instrument temporarily or for the remaining day to prevent excessive volatility in the market that may interrupt price discovery mechanism and rise market speculation.

In Mar'20, several exchanges triggered multiple circuit breaker mechanisms to cope up with the sudden rise in volatility in the wake of the coronavirus pandemic. In this regard, Alderighi *et al*. have recently published a paper under the World Federation of Exchanges (WFE) to improve our understanding of these techniques and their usefulness and benefits in restricting volatility in the market. The study focuses on the equity market, both cash and derivatives segments, and conducted a primary survey covering a wide range of exchanges across Americas, EMEA and APAC to understand their views on circuit breakers and other market safeguards on minimising market volatility and maintaining fair trades in the system.

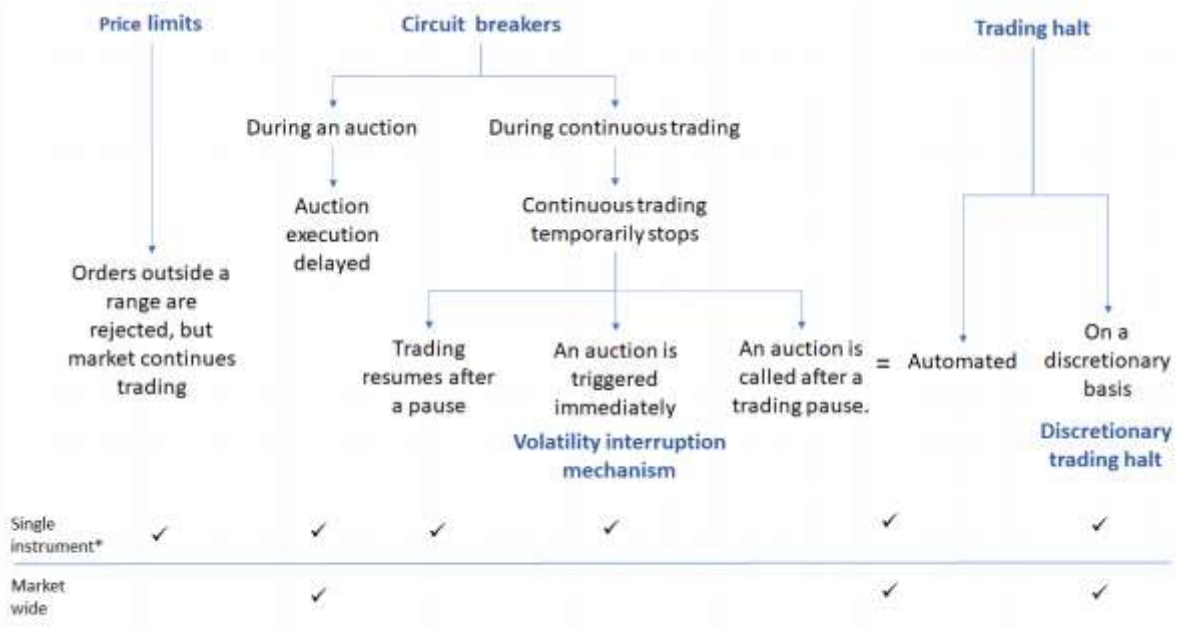
The study finds several interesting insights, including i) circuit breakers used by exchanges in different regions are based on their market characteristics and regulatory requirements, ii) circuit breaker rules differ across exchanges during opening/closing auction sessions and continuous trading session, iii) reference variable varies across exchanges to trigger circuit breaker, that includes price movements, average traded quantity, volume-weighted average price or volatility estimate, iv) duration of trading halt largely proportional with the level of thresholds, v) exchanges use multiple mechanisms to restrict price volatility, vi) a few of the exchanges are in favour of coordination across exchanges keeping in mind the arbitrage opportunities due to dual listing of same stocks in multiple exchanges, while others were in view of having independence to implement specific rules depending upon their own trading mechanisms, market practices and other unique characteristics.

Exchanges all over the world employ several techniques to prevent sharp volatility in the market which may hamper fair trading activities and integrity of the market. These techniques may range from trading halts for a specific time-period to pre-fixing pricing limits or bands. The trading halts may trigger a pause to the entire market (market-wide circuit breaker) or to individual instruments. These can happen during continuous trading session or while an auction is happening.

The market safeguards were first introduced by the NYSE following Black Monday in 1987. Since then, it has become a widespread mechanism to cool down market volatility in case of sudden rise or fall in prices, and its usage got elevated during the Global Financial Crisis in 2008. Similar trends were seen in March 2020 as the coronavirus pandemic surged globally and equity prices started plummeting in exchanges across all market sizes. Notable, US exchanges practiced trading halt four times, while the Korean and Brasil Bolsa Balcão (B3) experienced market halts two and four times, respectively. Moreover, several exchanges had revised their circuit breaker mechanism during that period. For instance, the Indonesia Stock Exchange (IDX) revised the circuit breaker mechanism from two-tier to three-tier, while the Athens Stock Exchange (ATHEX) increased the trading halt period from two minutes to ten minutes.

Figure 195: Major safeguards used by exchanges globally to maintain an orderly market

[31] The note is based on the following research paper:
Alderighi S., Gurrola-Perez P., Lin K., Speth B. Circuit breakers and other market safeguards. March, 2021. https://www.world-exchanges.org/storage/app/media/Circuit%20breakers%20taxonomy%20paper%20March%202021.pdf



In the case of derivatives, this includes a set of contracts with the same underlying asset.

Source: https://www.world-exchanges.org/storage/app/media/Circuit%20breakers%20taxonomy%20paper%20March%202021.pdf

As shown in the figure above, exchanges use several techniques to safeguard their trading activities from sudden spike in volatility or controlling sharp change in prices. Among all these methods, a) circuit breaker techniques are used more frequently, which is defined as *"a mechanism that temporarily stops continuous trading in one or more securities or contracts, or delays an auction execution, as a result of a market variable exceeding some pre-defined thresholds".* The rules are generally predetermined and applied automatically. Once the circuit breaker starts, the continuous trading can only resume only after a pre-specified time interval through an auction process.

b) Price limits or price bands is another method to restrict extra-ordinary price movements. Under this mechanism, trading activities continue but the trader can only put orders in certain price limits, while orders with price outside the price bands will automatically be cancelled.

c) Among other methods, Limit Up-Limit Down (LULD) was introduced by the US SEC in May 2012 on provisional basis to restrict trades in National Market System (NMS) securities from occurring outside predefined price limits. The LULD became a permanent rule in April 2019 that sets a price limit of 5% for Tier-1 level stocks with price greater than $3 and higher level for other stocks. If trades started occurring beyond the price bands for 15 seconds, then a 5-minute trading halt will be triggered for that stock. This is known as single-stock circuit breaker as well.

d) Besides, few exchanges use the Volatility interruption mechanisms which halts execution of trades, while allows continuous price discovery through auction process. Hence, it is a limited form of circuit breaker where trading halts and auction process is triggered automatically without a pre-call phase.

With this background, the WFE has conducted a primary survey to understand how exchanges used the above-mentioned circuit breaker and other market safeguards to

minimise market volatility and maintain fair trades in the system. The survey was conducted between June 2nd and November 30th, 2020 covering exchanges from Americas, Asia-Pacific (APAC), and the Europe, Middle East and Africa (EMEA) regions. Among all exchanges, a total of 43 exchanges responded. The major findings of the analysis are as follows.

First, circuit breakers used in different regions are based on their market characteristics and regulatory requirements. In US, exchanges are part of the National Market System and they are linked together under a common regulatory requirements and common price reporting facility. According to the regulation, market-wide circuit breaker is triggered when the S&P 500 index declines 7% (Level1), 13% (Level 2) and 20% (Level 3) from its previous closing price. While Level 1 and 2 trigger trading halt for 15-minutes for all stocks and ETFs and all equity derivative products, the Level 3 halt trades for the reminder of the day. Similarly, the single-stock circuit breakers or the LULD trigger when price of a particular stock or ETF changes outside a dynamic range based on an average of the last 5-minutes of trading for 15 seconds. This may trigger 5-minute trading halt for that stock.

The TMX Group, however, uses "*SPTSX Composite on U.S. holidays and the S&P 500 Index as their benchmark on all other trading days*". Exchanges from Canada, Mexico and Brazil use the 3-tier system of market halts like the US market-wide circuit breaker methods. But, the Bolsa Mexicana de Valores (BMV) uses a different technique, which is a combination of static and dynamic thresholds. Under this mechanism, orders outside dynamic limits switch to a call auction, while orders outside static limits cause a trading halt.

In Europe, the circuit breaker rules are broadly standardised, but the exchanges have flexibility to design the rules to their own requirements. They do not generally have any market-wide rules, instead they use individual instrument-based criteria like the volatility interruption type. In contrast, exchanges in the EMEA region use both market-wide and single-stock circuit breaker. They use 2-tier system of market halts in case of market-wide circuit breaker and continuous trading shifts to a call auction when certain price bands are breached in case of single-stock circuit breaker.

Second, circuit breaker rules differ across exchanges during opening/closing auction sessions and continuous trading session. Among 32 exchanges responded in the survey, a total of 14 exchanges have implemented circuit breaker rules during auction sessions as well as the continuous trading session. While five of them have implemented same rules for both the sessions, others opt to have different rules in the auction session. Some of them allow higher movements and higher volume during auction session.

Third, reference variable varies across exchanges. While most of the respondents use price movements, a few of them employ additional reference parameter like average traded quantity, volume-weighted average price or volatility estimate to trigger circuit breaker. Further, there is a difference in the way the reference price is considered. The survey finds that the reference period is more of less static in case of market-wide circuit breaker and considers the previous day's closing price as the reference price. In case of single-stock circuit breaker, while half of all the respondents use static reference either

the previous day's close price or the same day opening price, others use dynamic reference.

Fourth, duration of trading halt largely proportional with the level of threshold. One level threshold allows only a small variation in reference variable and generally triggers trading halt for a short while. Higher level threshold, on the other hand, requires higher variation in reference variable and trigger trading halts for a longer period.

Fifth, several exchanges have alternative or additional mechanisms to restrict price volatility. For instance, the Indonesia Stock Exchange has volume limits; that is, they reject orders if volumes in a single order is extraordinarily higher than usual. Nasdaq has several additional rules including pre-specified credit checks on market participants, automatic rejection of duplicate orders above certain parameters, rejection of orders above pre-fixed maximum order share size or price levels higher than 10% from the National Best Bid and Offer (NBBO) at entry.

Sixth, while asked about coordination of rules and procedures across exchanges, some of the respondents are in favour of coordination keeping in mind the arbitrage opportunities due to dual listing of same stocks in multiple exchanges. However, most of them were in favour of having independence to implement specific rules depending upon their own trading mechanisms, market practices and other unique characteristics.

During the first wave of the Covid-19 pandemic, most of the exchanges in Americas and EMEA regions triggered circuit breakers between 9th and 19th March, while exchanges from the APAC region triggered circuit breakers over the last week of the month. Several of them have changed their circuit breaker rules during the pandemic through change in threshold criteria, extension of the halting duration and removal of the upward limit of a circuit breaker.

Research Insights from the NSE-ISB Trading Lab

Paper 1: Mutual Fund Competition, Managerial Skill, and Alpha Persistence

Gerard Hoberg[32] Nitin Kumar[33] Nagpurnanand Prabhala[34]

1. Introduction

Over the years, multiple studies have attempted to examine whether mutual fund managers have the ability to consistently earn alpha. Their conclusions have been wide-ranging, from those concluding that fund managers do not perform any better than that expected by random chance *(Jensen, 1968[35])*, to those finding some evidence of persistent ability to generate alpha *(Bollen and Busse, 2005[36])*. The majority, however, acknowledge the lack of consistent outperformance.

In an attempt to understand the underlying economic forces, the authors of this paper test their hypothesis that buy-side competition from other mutual funds has a bearing on the fund manager's ability to persistently outperform. The authors establish a style space-based method to identify customized rivals for each fund and develop corresponding measures of competition and managerial skill. They find that funds which outperform their customized rivals generate future alpha, and the relation is stronger for funds facing lower competition.

2. Data and setting

The study's sample comprises actively managed open-ended US equity mutual funds from 1980 to 2012. While basic fund data is obtained from CRSP's survivor bias-free US mutual fund database, quarterly holdings are obtained from Thomson Reuters' mutual fund holdings database. Stock-level data is sourced from the CRSP/Compustat Merged Database. Post screening and pre-processing, the final sample consists of 387,143 fund-months for 3,390 unique mutual funds from July 1980 to June 2012.

The authors define a three-dimensional (3D) style space, with the axes representing size, book-to-market ratio and momentum. At the end of each quarter, each characteristic is standardized across stocks for zero mean and unit standard deviation, to provide a z-score for each stock. The raw z-scores are further orthogonalized to provide coordinates for each stock in the orthogonalized 3D style space. The corresponding coordinates for a mutual fund are the investment-weighted average of the coordinates of stocks in its portfolio.

Distance between two funds in the style space is calculated as the Euclidean distance between their coordinates, with a smaller distance implying higher similarity in styles. To avoid arbitrariness in determining the threshold distance for identifying a fund rival, authors determine the threshold by tallying the proportion of pair-wise rivals with that of the widely-used Lipper classification (8.858% of all fund pairs deemed as rivals). Measures of competition depicted are: (1) total number of rivals (*NPeers*), and (2) total similarity (*TSIM*).

To measure the skill of a fund manager, the authors define customized peer alpha (CPA), based on relative performance of gross (before expenses) returns amongst customized rivals. More specifically,

$$CPA_{Fund\ i} = Return_{Fund\ i} - \frac{\sum\ (Return_{Rival\ of\ Fund\ i})}{NPeers}$$

[32] Marshall School of Business, University of Southern California
[33] Indian School of Business
[34] Robert H. Smith School of Business, University of Maryland
[35] Jensen, M. C. 1968. The performance of mutual funds in the period 1945-1964. Journal of Finance 23
[36] Bollen, N., J. Busse. 2005. Short-term persistence in mutual fund performance. Review of Financial Studies 18

3. Results

The primary result of the paper is that a high CPA predicts high alpha for the fund in the future, with this relation being stronger for funds facing lower competition. Considering performance-based deciles at the end of each quarter (sorting the funds basis the past 12 months' average CPA), the next three months' average (future) Characteristic-Selectivity alpha[37] for the best-performing decile is 264bps (annualized) higher than that of the worst-performing decile. Further segmenting (independently) by competition-based terciles, the corresponding outperformance is 342bps in low competition markets and 54bps in high competition markets, implying that future outperformance is weaker when competition increases.

Additionally, regression analysis shows that a 100bps monthly increase in past CPA is associated with a 9.5bps monthly increase in future alpha. This performance persistence is significantly stronger in low competition markets.

The above-mentioned findings are robust to sub-periods of time, alternative measures of alpha and competition, alternative style dimensions, and controls for assets under management, market size, fund flows, family fixed effects and style-quarter fixed effects. Notably, the authors find that current outperformance predicts future alpha only in the style-based competition space, and not in the holdings overlap-based competition space.

To examine the economic channels underlying these results, the authors analyze the patterns of share accumulation. They find that funds in low competition markets, facing slower and less aggressive trading in the style space, are able to amass more shares (before profitable opportunities are dissipated) than funds in high competition markets. Such trading patterns observed explain how competition curbs alpha persistence. The authors also find evidence that managers which face less style competition earn higher management fees.

4. Conclusion

The paper makes three important contributions to the academic literature on mutual funds: (1) establishing new style-based methods to determine customized rivals for each fund, (2) developing a measure of managerial skill based on relative performance amongst customized rivals, and (3) discovering persistence of alpha generation by funds outperforming their customized rivals, more so in low competition environments.

Salience of buy-side competition in the fund-style space is consistent with economic theory, which suggests that competition is highly relevant when markets are contestable. With low barriers to entry and exit, and little differentiation between products, mutual funds investing in a similar style represent a contestable market. Greater competition, therefore, implies lower outperformance vis-à-vis markets with lesser competition.

For further research, the authors suggest the use of their framework for other asset classes and asset pricing anomalies as interesting extensions.

[37] Basis Daniel, Grinblatt, Titman and Wermers (1997), Characteristic-Selectivity alpha is measured as the fund's gross return less the fund's value-weighted characteristic benchmark return (specified by the characteristics of stock holdings in the portfolio)

Paper 2: Do Stock Prices Fully Reflect Information in Accruals and Cash Flows about Future Earnings?

Richard G. Sloan[38]

1. Introduction

According to the efficient market hypothesis, information which is publicly available must be fully reflected in the stock prices. However, this paper shows that stock returns imply that investors overestimate the persistence in accruals component of firms' earnings and underestimate the persistence in the cash flow component of firms' earnings. Consequently, stocks having a high accrual component are overpriced and stocks having a low accrual component are underpriced. A trading strategy that exploits this mispricing by going long on low-accrual stocks and going short on high-accrual stocks experiences a Jensen's alpha of 10.4% in the first year, 4.8% in the second year and 3.8% in the third year.

2. Data and setting

The motivation behind decomposing net income into two components - cash flow and accruals – is the difference in their underlying characteristics. Cash flow, as a measure of performance, is less subject to distortions than the earnings figure. This is because accruals (such as deferrals, allocations, and valuations) involve a high level of subjectivity. For this reason, accruals are less likely to persist in future periods' earnings.

The authors primarily use the following datasets in their study: (i) Company financials data from Compustat database (ii) Monthly stock returns from CRSP database. The authors construct a sample, with required information on company financials and stock returns, between 1962 to 1991. The authors define accruals as below:

$$\text{Accruals} = (\Delta\text{CA} - \Delta\text{Cash}) - (\Delta\text{CL} - \Delta\text{STD} - \Delta\text{TP}) - \text{Dep}$$

where ΔCA = change in current assets (Compustat item 4),

ΔCash = change in cash/cash equivalents (Compustat item 1),

ΔCL = change in current liabilities (Compustat item 5),

ΔSTD = change in debt included in current liabilities (Compustat item 34),

ΔTP = change in income taxes payable (Compustat item 71), and

Dep = depreciation and amortization expense (Compustat item 14).

The cash flow component is defined as the difference between earnings and the accrual component of earnings. All variables are standardized by firm size to facilitate comparison across firms.

Stock returns (including dividends) are measured four months after the end of the fiscal year from which the financial data is gathered. This ensures that all firms' financial statements are publicly available at the time of estimation, thus, preventing look-ahead bias. Stock returns are adjusted for size and risk by constructing size portfolios and calculating Jensen's alpha within size deciles for three years.

3. Results

The main results found by the paper are briefly summarized below:

The authors first replicate Freeman et al. (1982) to show that earnings performance persists into future earnings.

[38] University of Pennsylvania, USA

$$Earnings_{t+1} = \alpha_0 + \alpha_1 * Earnings_t + \nu_{t+1} \quad \ldots (1)$$

They find that $\alpha_1 = 0.84$ is significant and less than one, implying that earnings mean revert in the future period.

Further, they decompose earnings into Accrual and Earnings components and regress the below equation:

$$Earnings_{t+1} = \gamma_0 + \gamma_1 * Accruals_t + \gamma_2 * CashFlows_t + \nu_{t+1} \quad \ldots (2)$$

They find that $\gamma_1 = 0.765$ and $\gamma_2 = 0.855$ are both significant and less than one. However, $\gamma_1$is less than γ_2, thus proving that earnings persistence is explained to a greater extent by cash flow component than accruals component.

Finally, they show that stock prices do not fully reflect the higher persistence in earnings attributable to cash flow component of earnings and lower persistence in earnings attributable to the accrual component of earnings.

$$\text{AbnormalReturn}_{t+1} = \beta * (\text{Actual Earnings}_{t+1} - \text{Expected Earnings}_{t+1}) + \epsilon_{(t+1)} \quad \ldots (3)$$

$$AbnormalReturn_{t+1} = \beta * (\text{Actual } Earnings_{t+1} - \gamma_0 - \gamma^*{}_1 * Accruals_t - \gamma^*{}_2 * CashFlows_t) + \epsilon_{t+1} \quad \ldots (4)$$

The authors find that $\gamma^*{}_1$ = 0.911 is higher than γ_1 (from equation 2). This implies that investors overprice the expected earnings persistence due to the accruals component of earnings. Further, they find that $\gamma^*{}_2 = 0.826$ is lower than γ_2 (from equation 2). This implies that investors underprice the expected earnings persistence due to the cash flow component of earnings.

The authors conduct multiple robustness tests such as using decile rankings instead of actual values of accrual and cash flow components, conducting tests within industry, decomposing accruals into its components such as current assets, current liabilities and depreciation. They find that accruals component has significant explanatory power for stock returns in multiple specifications.

4. Conclusion

The authors show that investors do not correctly price the cash flow and accrual component of earnings in stock returns. However, this does not imply investor irrationality or unexploited profit opportunities. The authors note that information costs and processing costs associated with replicating the analysis in the paper is non-trivial (it may be significantly lower two decades hence). There may also be limited quantities of stock available for trading at available prices. But the findings in this paper do suggest the different information power in different components of financial statement analysis.

The findings contribute to two strands of literature: (i) Research linking stock prices to fundamental valuation attributes such as earnings (ii) Research on differential information content in cash flow and accrual components of earnings. Finally, the authors also note that future research can study the motivation for earnings management. This could explain the lower explanatory power of accruals for future earnings.

NSE Research Scholar Program

In its endeavour to be at the forefront of supporting financial research in India, the National Stock Exchange (NSE) had launched a research initiative in 2019, "The NSE Research Scholar Program". The program invited applications from universities, business schools and research institutions across India to get their promising students/researchers/faculty members to review the state-of-the-art on contemporary topics in the area of empirical finance, that are relevant to Indian financial markets. Under this program, aspirants could submit a monograph on a chosen topic and prepare a presentation, summarizing the key findings. The monograph should provide a survey of the current state of research, major development and results, and extant open questions. In this issue, we feature summary of the first of the three winning papers of 2020 program. To read the detailed working papers, please visit our website.

Paper 1: Impact of Mutual Fund Classification on Investors, Funds and Stock Market[39]

Abhilash B. Chowdary[40] Ashok Banerjee[41]

> *"It is desirable that different schemes launched by a Mutual Fund are clearly distinct in terms of asset allocation, investment strategy etc. Further, there is a need to bring in uniformity in the characteristics of similar type of schemes launched by different Mutual Funds. This would ensure that an investor of Mutual Funds is able to evaluate the different options available, before taking an informed decision to invest in a scheme."*
>
> *-SEBI (Circular - SEBI/HO/IMD/DF3/CIR/P/2017/114)*

On 6th October 2017, Securities Exchange Board of India (SEBI) issued a circular classifying mutual funds into specific categories. For example, the new regulation required Large cap funds to invest at least 80 percent of their total assets in equity and equity related instruments of top 100 companies in terms of full market capitalization. This classification of funds was meant to simplify mutual fund products, improve comparability and help customers make better decisions. In this essay, we study the impact of this regulation on fund performance, investor's fund flow-performance sensitivity and stock returns.

First, we find the investor fund flow sensitivity to performance has increased, indicating that investors are better able to compare funds post the new regulation. Second, this has resulted in an increase in competitive intensity among the funds. Accordingly, we find the performance of funds has increased. However, funds earlier with broad investment mandate would have to now follow narrow investment mandate which has negatively impacted their performance. Third, we find that the new regulation has negatively impacted market quality. The new regulation mandates AMFI (Association of Mutual Funds in India) to update the acceptable investment universe for market cap based mutual funds every six months. We find that this induces mutual funds into predictable patterns of buying and selling increasing return predictability of stocks.

We conclude that while the new regulation has had the desired effect of improving comparability across funds and increasing fund performance due to higher competition, it has resulted in predictable patterns of buying and selling stocks negatively impacting market quality.

[39] https://static.nseindia.com//s3fs-public/inline-files/WP_Impact_of_Mutual_Fund_Classification_on_Investors_BanerjeeChowdary.pdf
[40] PhD candidate, IIM Calcutta
[41] Professor of Finance, IIM Calcutta

Market Performance

Market Round-up

COVID resurgence weighs on Indian equity markets

The volatility triggered by surging US bond yields and second/third COVID waves across the globe, which engulfed the buoyant global equity markets in the end week of February, continued to exert pressure in the month of March as well. Alongside, collapse of a large US-based hedge fund added to the woes. Notwithstanding these bouts of volatility, global equity markets ended the month of March in green, supported by a significant progress of vaccination drives, strengthening signs of global economic recovery and passage of a massive stimulus package in the US worth 9% of GDP. The stimulus, besides boosting demand in the US, is also likely to have positive spill-over effects in key trading partners. While the MSCI World Index ended the month 3.1% higher (YTD: 4.5% as of April 12th; 2020: +14.1%), the MSCI EM Index ended 1.7% lower (YTD: +2%; 2020: +15.8%). Indian equities also remained subdued in Mar'21, with the Nifty 50 Index posting a mere 1.1% return (YTD: +5%). Strengthening concerns about the recent spike in COVID cases—resulting into a more virulent wave than the first one—and renewed restrictions disrupting the nascent growth momentum weighed on investor sentiments. Consequently, FIIs turned net sellers towards the end of the month.

Global fixed income markets remained under pressure, with yields rising across the board, thanks to stronger growth prospects stimulated by vaccination rollouts and significant expansion in fiscal policy support. The US 10-year benchmark yield rose sharply and ended the month of March at a 15-month high of 1.75% (+83bps YTD). Surging crude prices and US stimulus-driven expectations of inflation have been weighing on the global debt markets since Feb. Indian domestic bond markets, that had already been under pressure due to huge supply of Government paper, also bore the brunt of external forces. While yields rose in the first half of March, the RBI's support in the form of open market operations, Operation Twists and critical forward guidance brought down yields in the second half. The RBI's announcement to buy a specified amount of G-secs from the secondary market in the recent policy review further comforted market sentiments. As a result, Indian 10-year G-sec yield ended the month 5 bps lower at 6.18%, falling by another 17bps in April thus far (as on April 12th). Rally in commodities took a breather in March as the firm US Dollar and a new wave of infections coerced investors to exercise caution.

- Domestic equity market extended its gains, but risks weighed on sentiments: After making a strong comeback in February, Indian equity markets extended its gains in March 2021. Steady economic recovery supported by ongoing vaccination drive, and consequent upgrades in growth forecasts by multilateral agencies such as the OECD and the IMF, kept investor sentiments afloat despite a sharp spike in COVID infections. Positive global cues including the passage of a massive fiscal stimulus in the US and improvement in global growth outlook provided further support. An exponential rise in COVID infections in the second half of March—resulting into a more virulent wave than the first and consequent re-imposition of restrictive measures raised concerns on the ongoing economic recovery, thereby dwindling investors' risk appetite. Consequently, FIIs turned net sellers towards the end of the month. External headwinds in the form of surging US Treasury yields also continued to play the spoilsport.

  The Nifty 50 and Nifty 500 Index both posted limited gains of 1.1% each in March. Mid-caps and small-caps underperformed, with the Nifty Mid-cap 50 and Nifty Small-cap 50 declining by 0.4% and 0.8% respectively in March. In FY21, the Nifty 50 Index jumped by a huge 71% following a roller-coaster ride in FY20, supported by stimulus measures announced by the Government, RBI's liquidity measures and record investments by FPIs.

The Nifty 50/Nifty 500 rose by a modest 1.1% in March as elevated US bond yields and resurgence in fresh COVID cases kept investors' sentiment on tenterhooks.

Following an increase over the previous two months, average daily turnover in NSE's cash market fell by 18% MoM to Rs666bn in March, even as it rose by a huge 70% in FY21 to Rs618bn. Average daily derivative turnover in March also fell by 14% MoM to Rs1,431mn. In FY21, average daily equity derivative turnover rose by 31% to Rs1,219bn.

Sector-wise, defensives like FMCG (7.7%), IT (6.4%) and Pharma (2.9%) gained significant traction amidst risk-off trading environment while cyclicals like Auto (-3%), Banks (-4.3%), Media (-4.9%) and Real Estate (-4.5%) lost momentum. Metals was the only cyclical sector that inched higher and posted 4% returns.

- **Fixed income markets remained under pressure, but RBI's efforts imparted** some breather: Global fixed income markets continued to remain under pressure, with yields rising across the board, thanks to stronger growth prospects stimulated by vaccination rollouts and significant expansion in fiscal policy support. Surging crude prices and US stimulus driven expectations of inflation have been weighing on the US and global debt markets since February. Indian domestic bond markets—that were already under pressure owing to a huge supply of Government paper—also bore the brunt of external forces. While yields rose in the first half, the second half witnessed some softening of pressures post RBI measures in the form of OMOs, Operation Twist and critical forward guidance. A dovish policy, coupled with the RBI's commitment to buy a specified amount of G-secs from the secondary market, further comforted sentiments. Consequently, the yield curve saw some flattening during the month. While 10-year, 5-year and 1-year G-sec yields fell by 5bps, 7bps and 15bps respectively, 3-month T-bill yield hardened by 10bps.

  Global bond market upheaval weighed on local domestic bond markets that are already facing supply side pressures of massive gilt issuances to sustain India's countercyclical fiscal expansion

  With the Government front-loading 60% of its annual borrowings programme in H1FY22 and inflationary pressures persisting, the upward pressure on bond yields is likely to sustain. On the global front, movement in the US bond yields and crude oil prices are also likely to determine the trajectory in domestic bond yields.

  On the global front, China 10-year bond yield softened by 9bps in March, Japan 10-year bond yield softened by a slightly lower 7bps to 0.10%. The US 10-year benchmark yield shot up by 29bps to 1.75%, while Germany 10-year bond yield eased by merely 4bps to -0.30%.

- FII buying into Indian equities tapered in March: Acceleration in COVID-19 vaccination distribution drives, encouraging signs of constant pickup in global growth momentum and expansion in fiscal stimulus in the US prompted FII buying across risky asset classes for yet another month. However, FIIs turned net sellers towards the end of the month amidst a spike in COVID cases, increase in growth uncertainty and rising US treasury yields, leading to net FII buying falling to a six-month low of US$1.4bn in March (Source: Refinitiv Datastream). In FY21, net FII buying in Indian equites stood at a record high of US$37.3bn. FIIs, however, remained big sellers of Indian debt for the second month in a row, with net outflows at US$1.0bn in March. In FY21, net FII outflows from the debt market stood at US$8.9bn, marking the third consecutive year of net FII selling.

  Domestic institutional investors (DIIs) recorded inflows for the first time in six months at Rs52bn—the highest since March 2020, thanks to a sharp surge in retail

inflows to the SIP route. Net SIP inflows in the month of March stood at Rs91.8bn—the highest in last five years. Nevertheless, DIIs remained net sellers for the year as a whole, with net outflows at Rs1.4trn in FY21.

- Global equity markets ended the month in green, but volatility continued to dominate: The volatility triggered by surging US bond yields and the second/third COVID waves across the globe, which engulfed the buoyant global equity markets in the end week of February continued to exert pressure in the month of March as well. Alongside, building re-inflationary concerns in the US, accentuated by a massive expansion in fiscal support, coupled with the collapse of investment fund Archegos Capital, also added to the market volatility. Despite witnessing bouts of volatility, global equity markets continued to inch higher and ended the month of March with positive returns. Strengthening signs of global economic recovery accompanied by significant progress of vaccination drives across the globe continued to provide succour to investors' sentiments. The passage of President Biden's bumper stimulus package, worth 9% of US GDP, that has led to upgrades in consensus forecasts for US growth this year, further bolstered investor. The stimulus is not only likely to boost US demand but is also likely to have positive demand spill overs in key trading partners.

  While the MSCI World Index ended the month 3.1% higher (YTD: 4.5% as of April 12th; 2020: +14.1%), the MSCI EM Index ended 1.7% lower (YTD: +2%; 2020: +15.8%). According to Institute of International Finance (IIF), EMs witnessed net portfolio inflows of US$10.1bn in Mar'21—the lowest since April'20, as the rapid surge in longer term US bond yields weighed heavily on the broader EM complex, hurting flows across the board. Equity and debt inflows into EMs were US$3.9bn and US$6.2bn respectively, with China accounting for the bulk of these inflows (US$5bn in debt and US$3.8bn in equities).

The month of Mar witnessed volatility in global equity markets with indices moving sharply on both sides.

While the MSCI World Index rose by 3.1%, MSCI EM index ended 1.7% lower.

- *US*: US equity markets remained resilient and recorded another month of strong returns as investors applauded the final approval of US$1.9trn stimulus package. Alongside, investors continued to rejoice on the upbeat in macroeconomic indicators that demonstrated broad-based economic strength, further supported by significant progress in vaccination drives and the release of a massive fiscal stimulus. The anticipation of another infrastructure and jobs investment plan called the American Jobs Plan worth US$2.3trn, unveiled on March 31st, aided the sentiments further. Key US equity indices such as S&P 500 and Dow Jones touched fresh highs in March, ending the month 4.7% and 6.8% higher respectively. The collapse of investment fund Archegos Capital, however, weighed on market sentiments, leading to a significant volatility towards the end of the month.

  On the macro front, high frequency indicators continued to exhibit signs of continued growth recovery. The Manufacturing Purchasing Managers' Index (PMI) at 59.1 pointed to the second-highest growth in factory activity on record, while the Services PMI at 60.4 in Mar 2021 signalled the fastest output growth since July 2014. The unemployment rate fell to a one-year low of 6% in March from 6.2% in the previous month, with ~916k jobs added during the month—the most in seven months. Jobs print surpassed market expectations of 647K, amid easing business restrictions, falling COVID infection rates, a fast vaccine rollout and continued

support from the government. Consumer demand witnessed a setback, with retail sales declining by 3% MoM in Feb, partly attributed to an unusually cold weather.

On the monetary policy front, the US Federal Reserve maintained status quo. The Fed Chair Jerome Powell emphasized that the central bank is some distance away from reaching its economic objectives and the monetary policy is likely to be more "outcome based" and not "forecast based". Despite upward revisions made to inflation and growth forecasts, dot plot remained unchanged with the median indicating that the policy rates are likely to remain at current levels over 2021-23.

Europe: Following modest gains in February, European equities rallied sharply in March, thanks to better-than-expected incoming macro data accompanied with the ECB's decision to significantly expand the pace of liquidity injections in Q2 2021. Positive global cues around the passage of US stimulus package also supported market sentiments. On the negative side, inflationary concerns, spike in new COVID-19 cases and reintroduction of lockdown measures in some countries in the latter part of the month, and a lack of adequate vaccination supplies weighed on the momentum. While these factors attributed to volatility in the second half of the month, significant gains garnered from the first half drove DAX 30 higher by 8.9%, with the CAC 40 and the EuroStoxx 600 ending the month with gains of 6.38% and 6.08% respectively. FTSE 100, however, rallied by 3.6%.

On the macro front, economic recovery significantly picked up pace. Manufacturing PMI at 62.5 in Mar'21 vs. 57.6 in Feb'21 elucidated that the operating conditions have improved markedly. The pace of contraction in Services PMI eased significantly to 49.6 in March 2021, up from 45.7 in the previous month. The Euro area unemployment rate remained steady at 8.3%, with the number of unemployed edging up by 48k MoM to 13.57mn. The consumer confidence was confirmed at -10.8 in March 2021, the highest level since Feb'20, with households' expectations with respect to both general economic situation and their personal situation witnessing an improvement. Retail sales fell by a much lower 2.9% YoY in Feb'21 vs. a 5.2% YoY drop in Jan'21. The Eurozone's ECB maintained status quo on expected lines but indicated that it would ramp up its weekly purchases over March-June under its Pandemic Emergency Purchases Program (PEPP).

In the UK, economic prospects continued to improve amid rising vaccinations and falling numbers of daily COVID-19 infections and deaths. The Manufacturing PMI inched higher from 55.1 in Feb'21 to 58.9 in Mar'21, while the Services PMI jumped from 49.5 in Feb'21 to 56.3 in March. Retail sales fell by a lower 3.7% YoY in Feb from a much steeper 5.9% YoY fall witnessed in Jan. Consumer Confidence index rose seven points from the previous month to -16 in Mar'21. On the policy front, the Bank of England kept its benchmark interest rate on hold and left the bond-buying programme unchanged during its Mar'21 meeting, enunciating that the UK GDP was projected to recover strongly over 2021 towards pre-Covid levels and CPI inflation was expected to return towards the 2% target in the spring. While the pace of bond purchases is expected to remain at current levels, the central bank stands ready to increase it to ensure an effective monetary policy transmission.

Asia: The Asian markets generated muted returns in March as external headwinds in the form of rising US bond yields, and renewed growth concerns amid a

resurgence of new COVID cases across countries like Japan, India and South Korea weighed on investors' risk appetite, thereby leading to foreign capital outflows towards the latter part of the month. On the positive side, a steady progress of vaccination drives, continued economic recovery and passage of additional fiscal stimulus in the US kept the downside protected across the region. While Hang Seng Index (Hong Kong) and SSE Composite Index (China) underperformed the broader EM pack by generating losses of 2.1% and 1.9% respectively, Nikkei 225 Index (Japan), Nifty 50 Index (India) and Kospi Index (South Korea) performed relatively better by recording 0.7%, 1.1% and 1.6% returns respectively in March.

On the macro front, several high-frequency indicators in India indicated a loss in growth momentum in March. India's Manufacturing PMI Index fell to 55.4 in March 2021 from 57.5 in the previous month. The Services PMI declined to 54.6 in Mar of 2021 from 55.3 in the previous month, even as the reading pointed to the sixth straight month of expansion in the sector. Industrial recovery remained in fits and starts with industrial production recording a YoY contraction for the second month in a row in Feb'21. Consumption demand also seem to have slowed down as visible from moderation in non-oil non-gold imports and passenger vehicle sales. On the positive side, GST collections jumped to record-high levels of Rs1.25trn in March.

High frequency indicators in China showed mixed signals. While, the Manufacturing PMI fell to 50.6 in Mar'21—the lowest Apr'20, the service PMI picked up to a three-month high of 54.3 in Mar'21, amid a further recovery from the pandemic.

- Commodity prices moderated in March on firm dollar: Rally in commodity markets took a breather in March as the firm US Dollar and a new wave of infections coerced investors to exercise caution. Following a 18% jump in February, crude oil prices fell by 4% in March due to renewed concerns about a synchronous global recovery in the wake of surging COVID cases in some parts of the world that have induced restrictive measures to curb the spread. This, along with firming US dollar supported by a strong economic recovery in the US, kept crude oil prices under pressure. Hard commodities also suffered, with Copper and Nickel falling by nearly 4%. Safe-haven commodities also remained weak in March, with Gold and silver prices dipping by 1.3% and 8.4% respectively. Rising bond yields and constructive medium-term global economic outlook have prompted gold to lose its sheen.

The strength in the US dollar proved to be a headwind for commodities in March.

- EM currencies weighed down by a strong Dollar: US Dollar Index (DXY) rose for the third consecutive month, recording a gain of 2.6% in March—the highest since November 2016. The re-rating of the US macroeconomic landscape has been imparting strength in the dollar index (DXY). While other EM currencies came under pressure, the INR remained broadly range bound and ended the month at 73.1 against the dollar, cushioned by the war chest of forex reserves and lower external vulnerabilities. However, the INR has witnessed an abrupt depreciation of around 2% exceeding the 75 psychological level post the April MPC policy. While a part of this is attributed to an expected increase in money supply on the back of the RBI's commitment to buy G-secs, rising COVID cases and renewed growth concerns also added to the woes.

Dollar Index continued to dominate on expectations of widening growth differentials.

INR remained range bound in March but fell sharply in April.

Market performance across asset classes

Figure 196: Performance across equity indices, fixed income, currency and commodities

Indicator Name	Mar-21	1M ago	3M ago	12M ago	1M (%)	3M (%)	6M (%)	12M (%)	YTD (%)
Equity Indices									
NIFTY 50	14,691	14,529	13,982	8,598	1.1	5.1	30.6	70.9	5.1
NIFTY 500	12,314	12,181	11,518	6,997	1.1	6.9	31.8	76.0	6.9
MSCI INDIA	1,680	1,652	1,600	995	1.7	5.0	25.5	68.9	5.0
India Volatility Index (%)	21	28	21	64	-26.6	-2.1	5.7	-68.0	-2.1
MSCI WORLD	2,812	2,727	2,690	1,853	3.1	4.5	18.8	51.8	4.5
S&P 500 COMPOSITE	3,973	3,811	3,756	2,585	4.2	5.8	18.1	53.7	5.8
DOW JONES INDUSTRIALS	32,982	30,932	30,606	21,917	6.6	7.8	18.7	50.5	7.8
HANG SENG	28,378	28,980	27,231	23,603	-2.1	4.2	21.0	20.2	4.2
FTSE 100	6,714	6,483	6,461	5,672	3.6	3.9	14.5	18.4	3.9
NIKKEI 225	29,179	28,966	27,444	18,917	0.7	6.3	25.9	54.3	6.3
Fixed Income									
India 10YR Govt Yield (%)	6.18	6.23	5.89	6.14	-5bps	28bps	16bps	4bps	28bps
India 5YR Govt Yield (%)	5.71	5.77	5.10	5.68	-7bps	61bps	31bps	3bps	61bps
India 1YR Govt Yield (%)	3.93	4.07	3.76	4.80	-15bps	16bps	22bps	-87bps	16bps
India 3Month T-Bill Yield (%)	3.31	3.21	3.11	4.32	10bps	21bps	-4bps	-101bps	21bps
US 10YR Govt Yield (%)	1.75	1.46	0.91	0.70	29bps	83bps	107bps	105bps	83bps
Germany 10YR Govt Yield (%)	-0.30	-0.26	-0.58	-0.46	-4bps	28bps	22bps	16bps	28bps
China 10YR Govt Yield (%)	3.20	3.29	3.20	2.66	-9bps	0bps	5bps	54bps	0bps
Japan 10YR Govt Yield (%)	0.10	0.17	0.02	0.02	-7bps	7bps	8bps	8bps	7bps
Currency									
USD/INR	73.1	73.5	73.1	75.7	-0.5	0.1	-0.9	-3.4	0.1
EUR/USD	1.18	1.21	1.2	1.1	-3.2	-3.9	0.2	7.1	-3.9
GBP/USD	1.38	1.40	1.4	1.2	-1.3	0.9	6.7	11.3	0.9
USD/YEN	110.5	106.5	103.2	108.0	3.7	7.0	4.7	2.4	7.0
USD/CHF	1.1	1.1	1.1	1.0	-3.8	-6.1	-2.4	2.8	-6.1
USD/CNY	6.6	6.5	6.5	7.1	1.5	0.2	-3.8	-7.6	0.2
Commodities									
Brent Crude Oil (US$/bbl)	63.5	66.1	51.9	22.6	-3.9	22.4	55.0	181.1	22.4
LME Aluminium (US$/MT)	2,188	2,149	1,974	1,493	1.8	10.8	26.5	46.6	10.8
LME Copper (US$/MT)	8,788	9,139	7,749	4,939	-3.9	13.4	31.8	77.9	13.4
LME Lead (US$/MT)	1,953	2,039	1,976	1,734	-4.2	-1.2	8.4	12.6	-1.2
LME Nickel (US$/MT)	16,022	18,532	16,554	11,435	-13.5	-3.2	10.7	40.1	-3.2
LME Tin (US$/MT)	27,538	26,539	20,545	14,667	3.8	34.0	57.8	87.8	34.0
LME Zinc (US$/MT)	2,805	2,776	2,729	1,895	1.1	2.8	17.5	48.1	2.8
SHC Iron Ore Spot (US$/MT)	165	174	159	84	-5.2	4.1	37.5	96.4	4.1
Gold Spot Price (US$/troy ounce)	1,705	1,727	1,898	1,612	-1.3	-10.2	-10.3	5.8	-10.2
Silver Spot Price (US$/troy ounce)	24	27	26	14	-8.4	-7.5	5.1	74.5	-7.5
Platinum Spot Price (US$/ounce)	1,182	1,204	1,068	727	-1.8	10.7	33.7	62.6	10.7
Palladium Spot Price (US$/ounce)	2,625	2,362	2,342	2,307	11.1	12.1	12.4	13.8	12.1

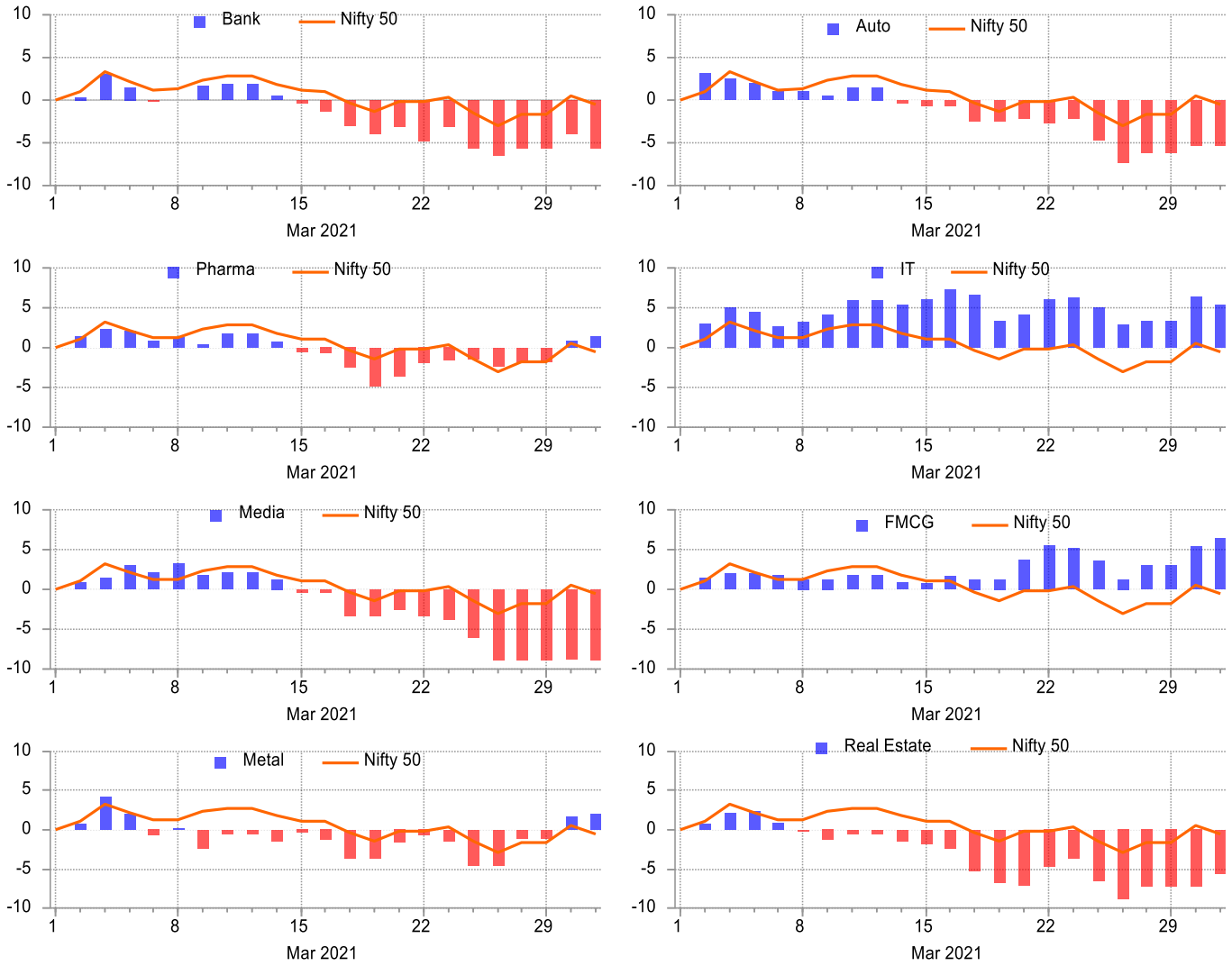
Source: Refinitiv Datastream, NSE.

Figure 197: Performance across NSE sector indices

Indicator Name	Mar-21	1M ago	3M ago	12M ago	1M (%)	3M (%)	6M (%)	12M (%)	YTD (%)
Auto	9,862	10,170	9,194	4,731	-3.0	7.3	24.7	108.5	7.3
Bank	33,304	34,804	31,264	19,144	-4.3	6.5	55.3	74.0	6.5
FMCG	34,932	32,443	34,177	27,319	7.7	2.2	17.1	27.9	2.2
IT	25,855	24,301	24,251	12,764	6.4	6.6	29.6	102.6	6.6
Media	1,545	1,625	1,649	1,040	-4.9	-6.3	-0.2	48.6	-6.3
Metals	3,977	3,823	3,255	1,586	4.0	22.2	77.4	150.8	22.2
Pharma	12,273	11,928	12,916	7,177	2.9	-5.0	4.2	71.0	-5.0
Real Estate	334	350	314	176	-4.5	6.5	57.7	90.4	6.5

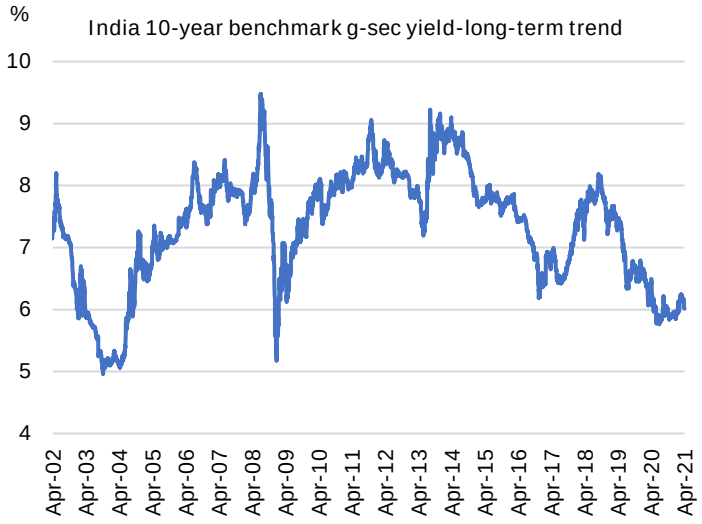
Source: Refinitiv Datastream, NSE.

Figure 198: NIFTY sector performance during March 2021 (rebased to 0)



Source: Refinitiv Datastream, NSE.

Figure 199: India 10Y G-sec yield—long-term trend



Source: Refinitiv Datastream.

Figure 200: India 10Y G-sec yield—last one-year trend

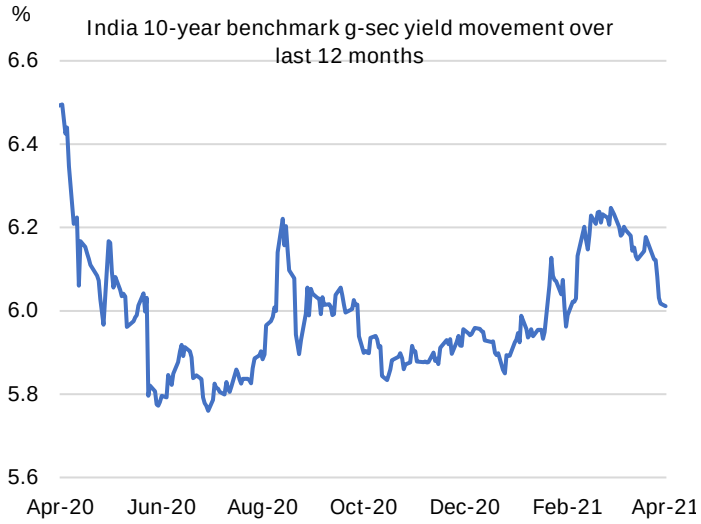
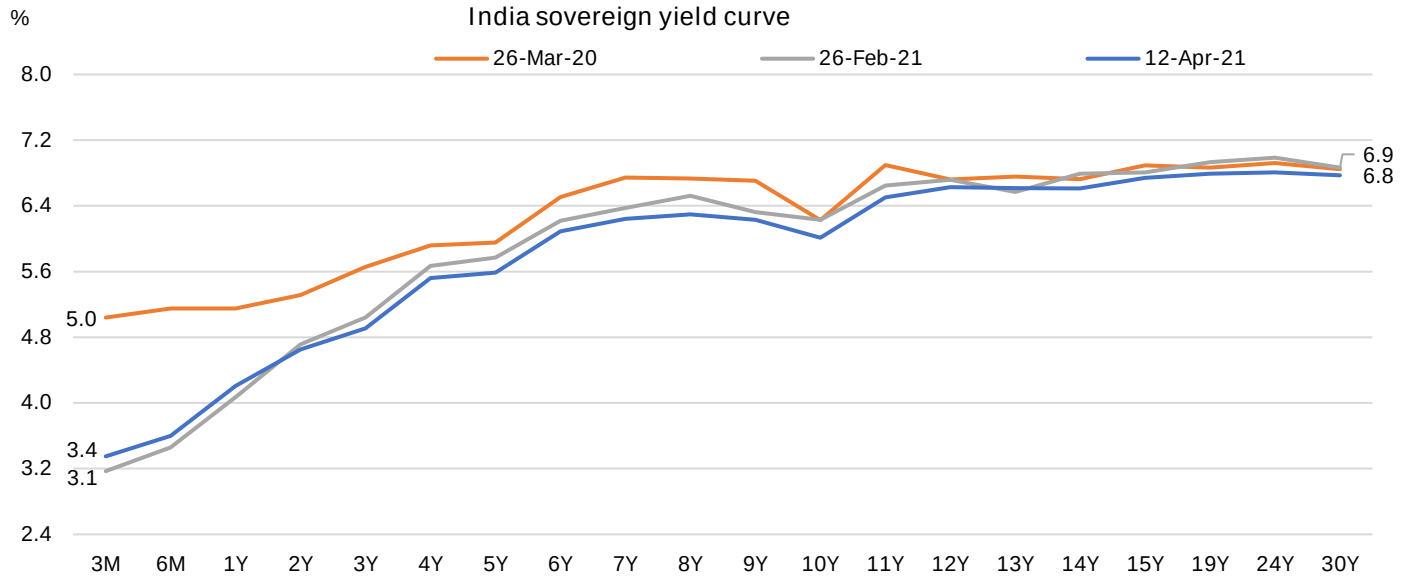


Figure 201: India sovereign yield curve

The RBI's commitment to maintaining an accommodative stance for as long as necessary, ensuring adequate liquidity in the system and announcement to buy a specified amount of G-secs from the secondary market led to a drop in bond yields across the curve.



Source: Refinitiv Datastream.

Figure 202: Sovereign yield curve across G20 countries as of March 31st, 2021

Dec 2020	3m	6m	1y	2y	3y	4y	5y	6y	7y	8y	9y	10y	30y
US	0.02	0.04	0.06	0.16	0.35		0.94		1.42			1.75	2.42
Japan	-0.10	-0.11	-0.13	-0.12	-0.13	-0.11	-0.09	-0.05	-0.02	0.03	0.07	0.10	0.67
Germany	-0.66	-0.65	-0.65	-0.70	-0.73	-0.70	-0.63	-0.60	-0.53	-0.45	-0.37	-0.29	0.26
France	-0.61	-0.61	-0.63	-0.66	-0.62	-0.56	-0.48	-0.39	-0.30	-0.20	-0.12	-0.05	0.81
UK	0.04	0.05	0.03	0.10	0.21	0.28	0.40	0.54	0.63	0.79	0.88	0.85	1.40
Italy	-0.50	-0.50	-0.44	-0.38	-0.26	-0.07	0.01	0.25	0.32	0.48	0.63	0.67	1.67
Canada	0.09	0.13	0.17	0.23	0.33	0.57	0.99		0.99			1.56	1.99
EU	-0.66	-0.65	-0.65	-0.70	-0.73	-0.70	-0.64	-0.60	-0.54	-0.46	-0.38	-0.30	0.25
Argentina			42.48			46.12			45.64				
Australia			0.04	0.09	0.12	0.50	0.75	1.01	1.28	1.45	1.65	1.81	2.75
Brazil	3.37	4.16	5.24	7.27	7.77		8.14			8.78		8.89	
China			2.54	2.85	2.85		3.03		3.19			3.20	3.74
India	3.27	3.47	3.93	4.54	4.93	5.59	5.71	6.15	6.31	6.43	6.33	6.18	6.76
Indonesia	3.11	3.23	3.81		5.52		5.97					6.81	7.44
South Korea			0.59	0.91	1.13	1.46	1.60					2.06	2.15
Mexico	4.18	4.33	4.81		4.95		5.64		6.22			6.89	7.82
Russia	4.83	5.07	5.29	5.63	6.30		6.85		7.04			7.13	
South Africa	4.87			5.31			7.48					9.49	11.35
Turkey	17.70	18.28	19.93	18.32	18.36		18.06					18.08	

Source: Refinitiv Datastream.

Figure 203: Sovereign yield curve across G20 countries as of March 31st, 2019

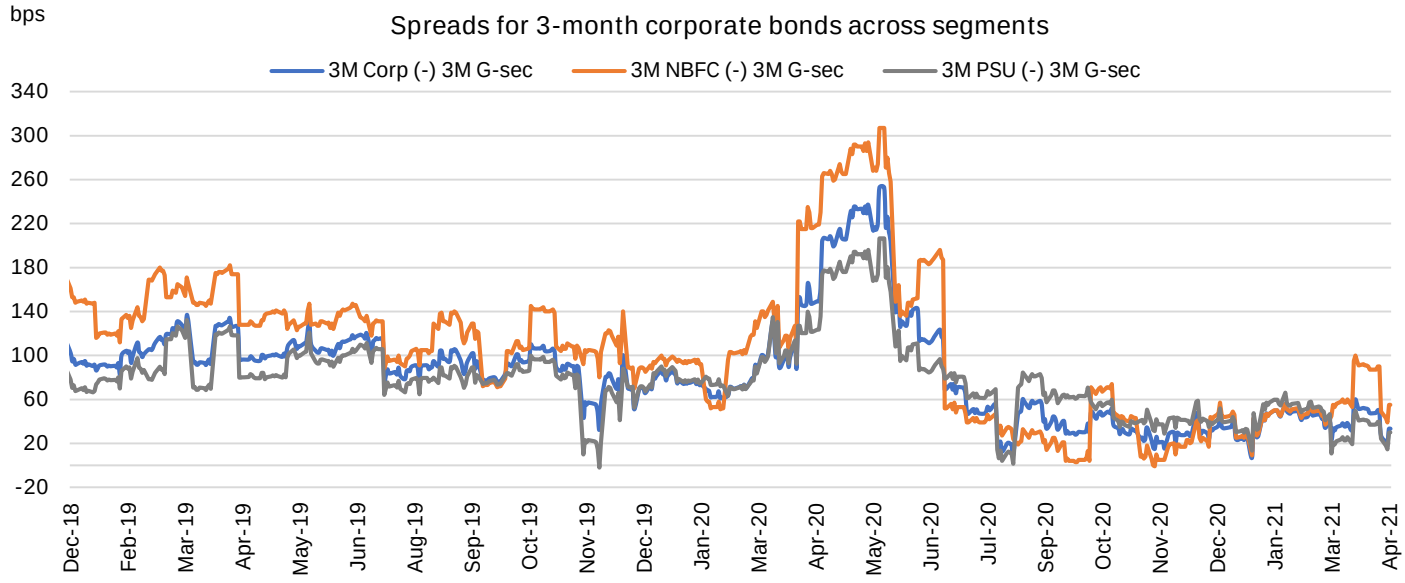
Dec 2018	3m	6m	1y	2y	3y	4y	5y	6y	7y	8y	9y	10y	30y
US	0.13	0.13	0.15	0.23	0.29		0.38		0.56			0.70	1.36
Japan	-0.21	-0.23	-0.14	-0.14	-0.13	-0.11	-0.11	-0.12	-0.13	-0.08	-0.01	0.02	0.42
Germany	-0.68	-0.71	-0.65	-0.68	-0.71	-0.65	-0.65	-0.64	-0.61	-0.56	-0.52	-0.47	0.02
France	-0.50	-0.49	-0.49	-0.57	-0.48	-0.43	-0.33	-0.24	-0.14	-0.11	-0.04	-0.01	0.84
UK	0.23	0.22	0.13	0.13	0.15	0.16	0.21	0.18	0.18	0.23	0.30	0.36	0.82
Italy	-0.02	0.02	0.13	0.39	0.46	0.67	0.86	1.05	1.13	1.24	1.40	1.53	2.45
Canada	0.26	0.36	0.38	0.42	0.50	0.57	0.59		0.63			0.70	1.31
EU	-0.68	-0.71	-0.72	-0.70	-0.71	-0.65	-0.65	-0.63	-0.60	-0.55	-0.52	-0.46	0.04
Argentina			20.34			56.91			52.28				
Australia			0.27	0.25	0.29	0.36	0.44	0.53	0.59	0.68	0.75	0.81	1.70
Brazil	3.43	3.24	3.63	4.43	5.87		6.68			7.33		7.65	
China				1.98			2.31		2.59			2.66	3.29
India	4.25	4.60	4.80	5.04	5.47	5.59	5.68	6.32	6.51	6.55	6.53	6.14	6.76
Indonesia	3.78	3.87	5.85		6.70		7.27					7.91	8.42
South Korea			0.99	1.06	1.07	1.28	1.30					1.55	1.67
Mexico	6.51	6.36	6.33		6.24		6.48		7.00			7.14	7.98
Russia			6.02	6.34	6.53		6.71		6.59			6.81	
South Africa	3.54			6.96			9.88					10.97	11.77
Turkey	10.19	10.37	11.13	11.27	11.11		12.59					13.12	

Source: Refinitiv Datastream.

Corporate bond market performance

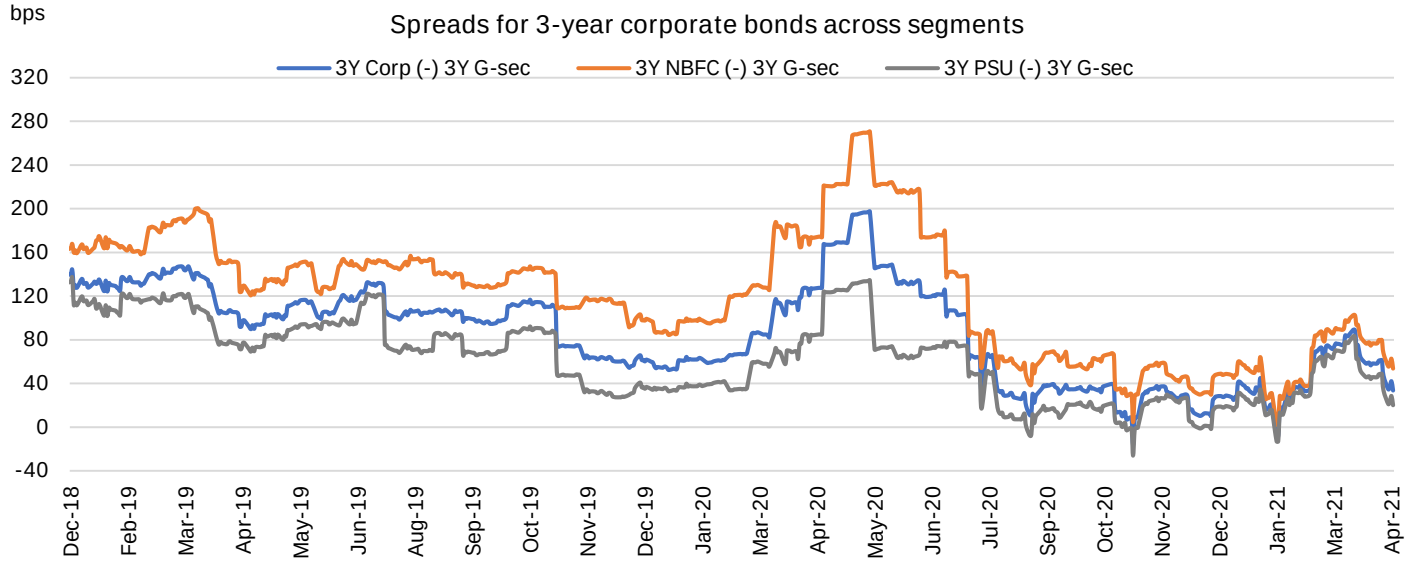
After a sharp rise in corporate bond yields this year until mid-March owing to a heavy G-sec supply and inflation woes, bond markets saw some softening of pressures in the second half of March, supported by measures taken by the RBI including outright open market purchases, Operation Twists and a clear forward guidance. The RBI's additional ammunition at keeping bond yields in check in the form of assured G-sec purchase programme, called G-SAP, further bond markets, leading to a sharp drop in corporate bond yields, prominently more so at the medium to long-end of the curve, leading to a marginal flattening of yield curves. However, rising US bond yields and persistence of inflationary pressures back home may keep bond yields elevated through the year.

Figure 204: Spreads for 3-month corporate bonds across segments



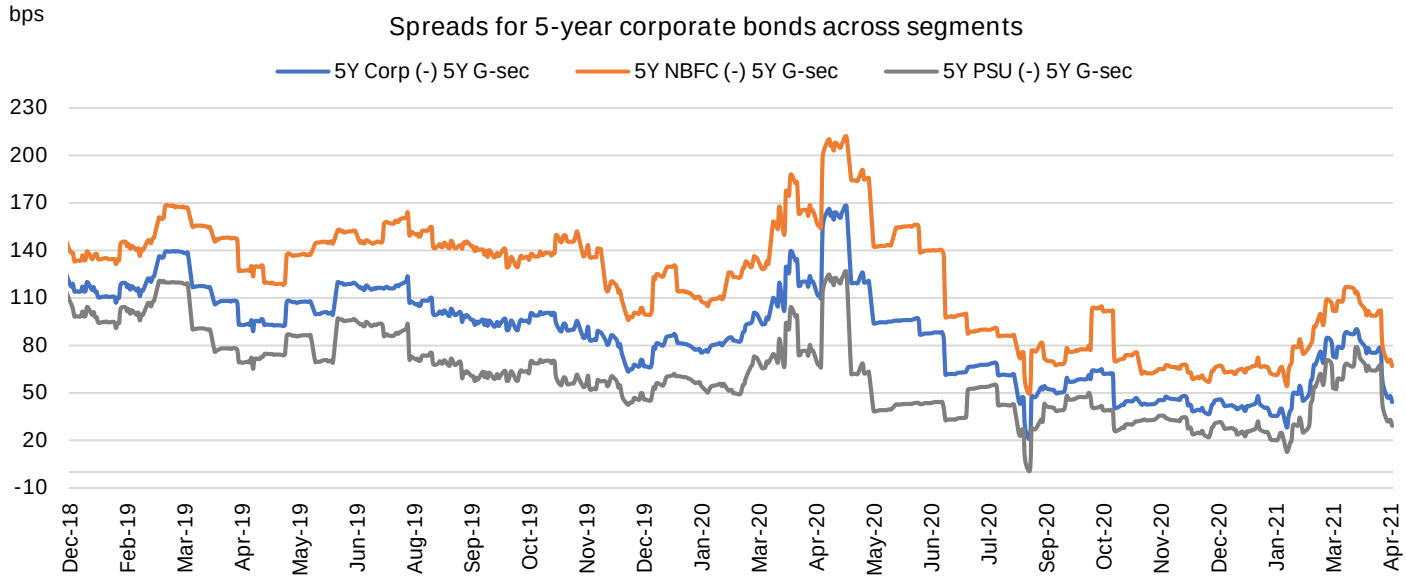
Source: Refinitiv Datastream, Bloomberg.

Figure 205: Spreads for 3-year corporate bonds across segments.



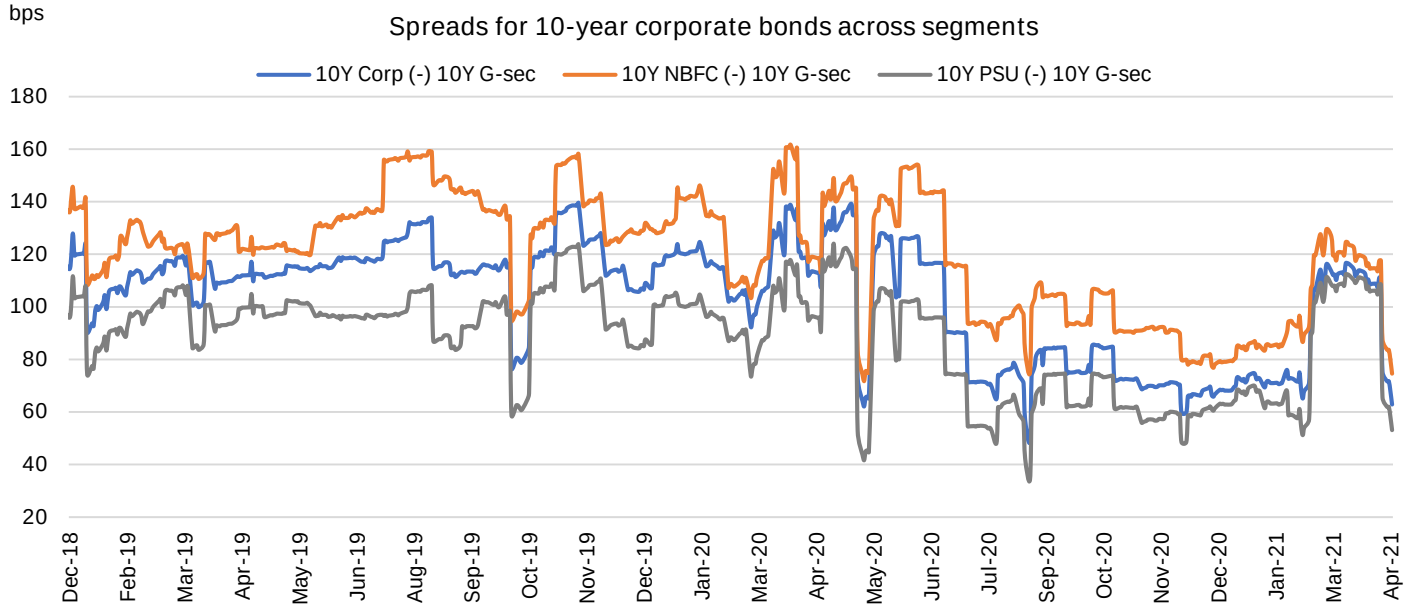
Source: Refinitiv Datastream, Bloomberg.

Figure 206: Spreads for 5-year corporate bonds across segments



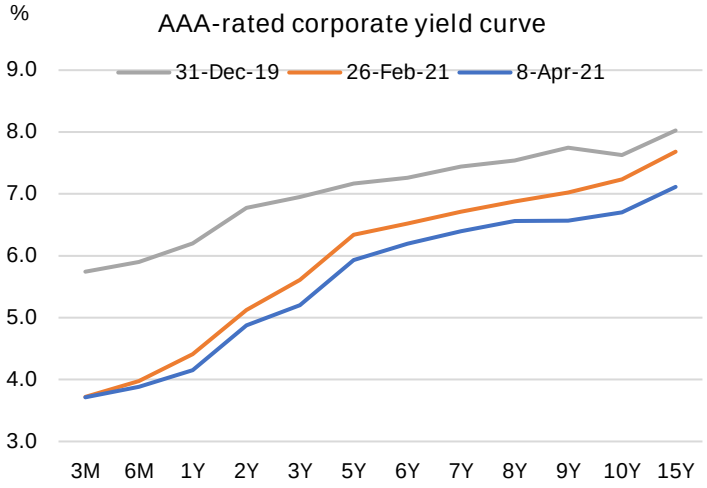
Source: Refinitiv Datastream, Bloomberg.

Figure 207: Spreads for 10-year corporate bonds across segments



Source: Refinitiv Datastream, Bloomberg.

Figure 208: AAA-rated corporate bond yield curve



Source: Bloomberg.

Figure 209: AA-rated corporate bond yield curve

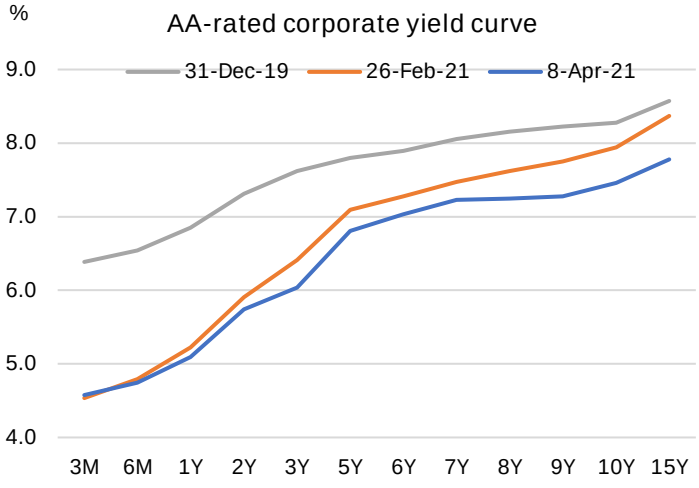
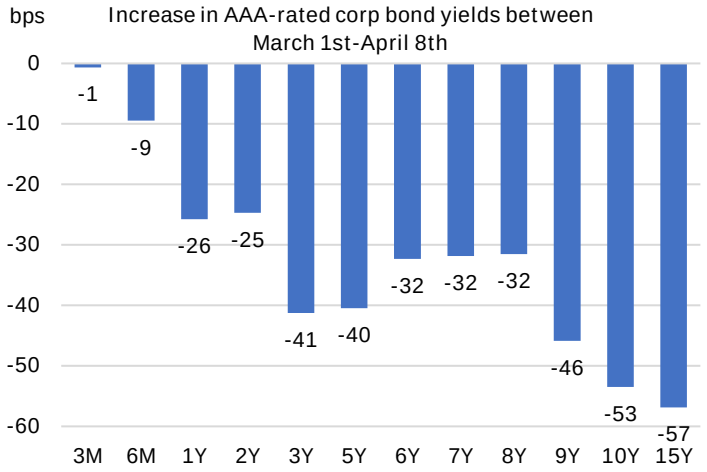


Figure 210: Change in AAA-rated corporate bond yields in 2021 thus far



Source: Bloomberg.

Figure 211: Change in AA-rated corporate bond yields in 2021 thus far

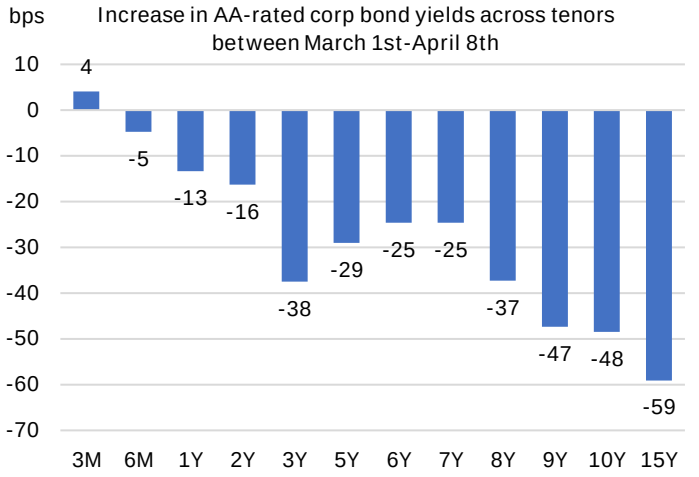
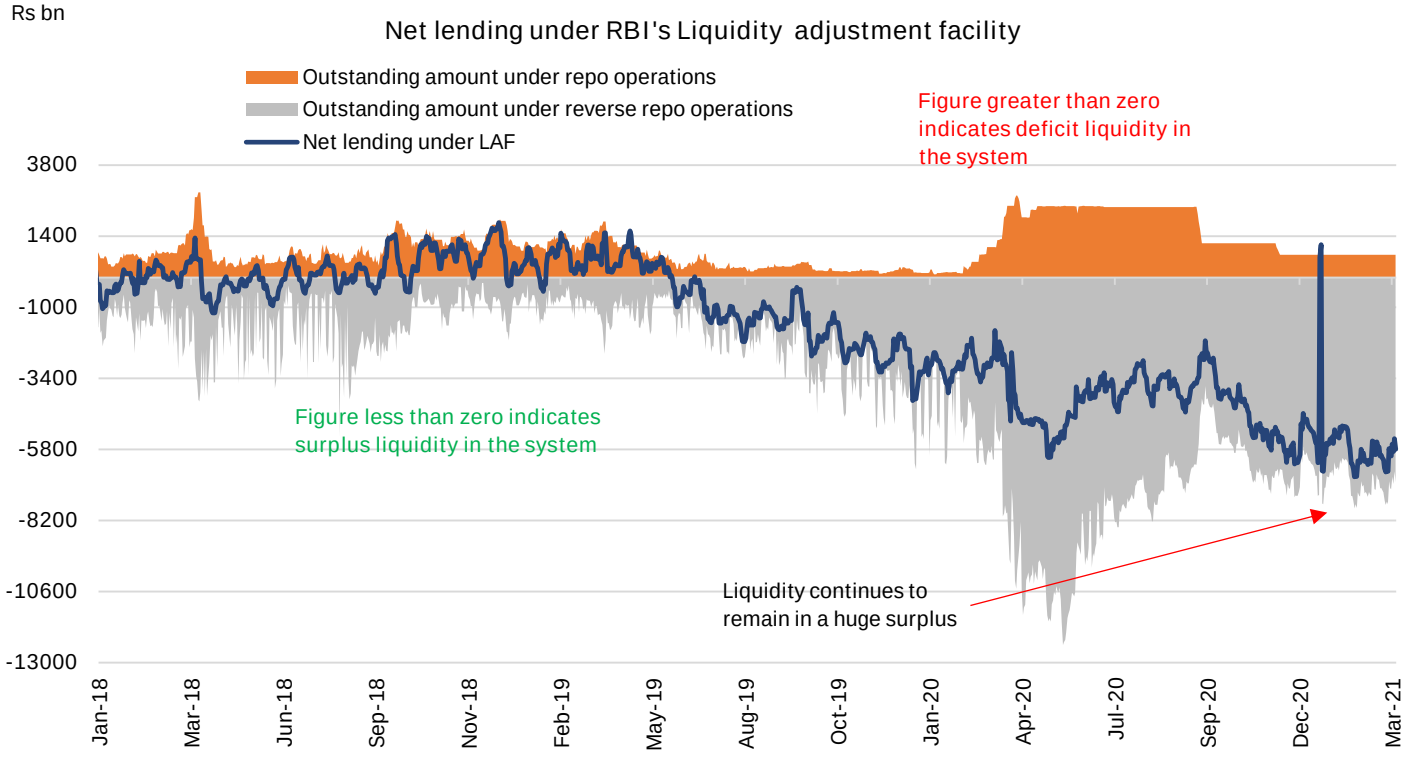


Figure 212: **Net lending under RBI's liquidity** adjustment facility
Surplus liquidity in the system has remained north of Rs5trn over the last three months.



Source: CMIE Economic Outlook.

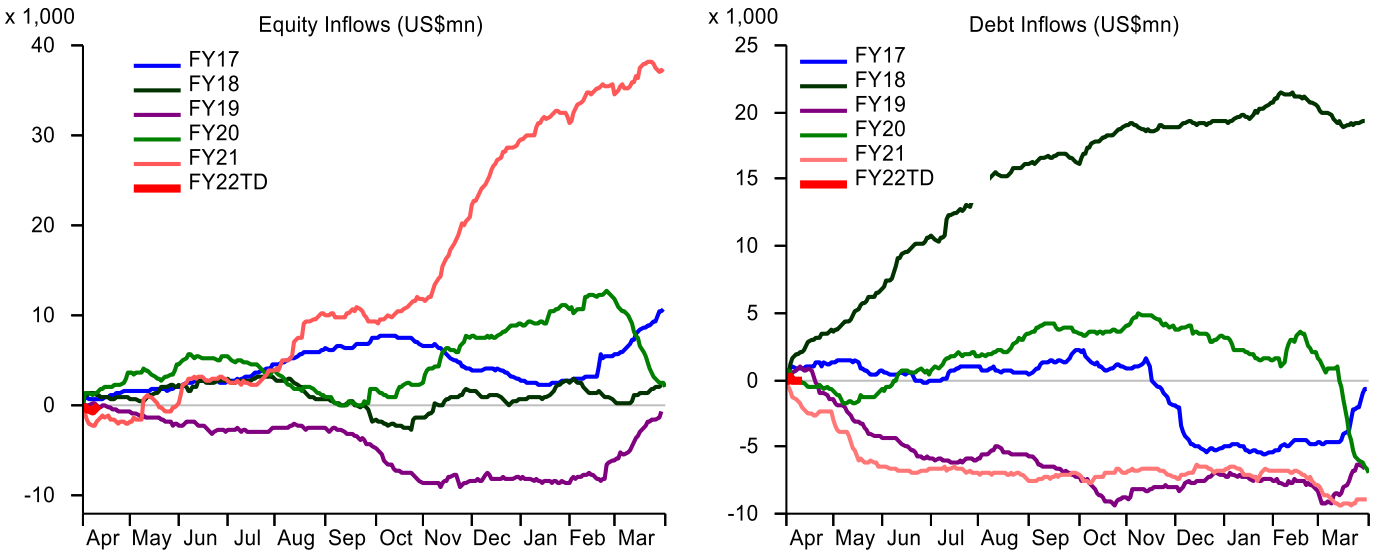
Institutional flows across market segments in India

In the equity segment, FIIs' net inflows increased to a record high in FY21...: Post several volatile fiscal years, FIIs' net investment recorded an all-time high in FY21, thanks to continuous rally in equity prices, and end the fiscal year at US$37.1bn, which is ~14 times higher than that of US$2.6bn in FY20. The situation has somewhat reversed in FY22 thus far due to sudden spike in total number of Covid-19 cases and announcements of fresh lockdowns in multiple cities which might hamper the pace of economic recovery in the near future.

...while, FIIs continued to remain net sellers in the debt segment: Unlike the equity market, FIIs' continued to sell in the debt segment and end the FY21 with US$8.9bn net outflows, as depicted in the following figure. The situation remained similar in FY22 thus far, as they have sold US$99bn worth of debt instruments as of April 9th, and there is no sign of improvement in the debt segment thus far amid deteriorating India's fiscal health condition, continuous rise in government debt globally, and rise in US benchmark yields. At the same time, there are increasing concerns of default of outstanding loans in the private sector given fresh restrictions on economic activities to contain the recent surge in the coronavirus cases.

Figure 213: Overall net inflows of FIIs in India

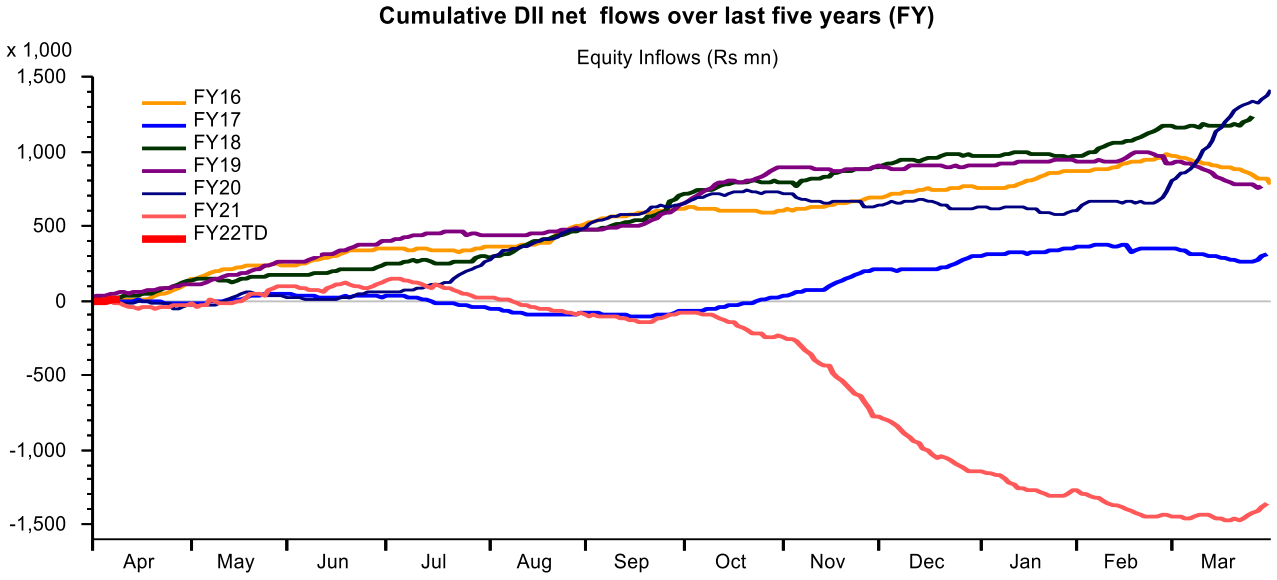
Cumulative FII net flows over last six years (FY)



Source: Refinitiv Datastream.

Unlike FIIs, DIIs were big sellers of Indian equities in FY21: In the equity market, after a significant rise in FY20, DIIs' net investment remained muted over the first half of FY21 followed by a continuous rise in net sales to end the fiscal year at an all-time low of -Rs1.4trn net investment. Their investment remained subdued in FY22 thus far and had net sales of Rs38bn as of April 9th.

Figure 214: Overall net inflows by DIIs in Indian equity markets



Source: Refinitiv Datastream.

Fund mobilisation through NSE

Market Statistics: Primary market

Funds raised through equity issuance increased for three months sequentially: Companies raised Rs199bn through equity issuances in March as compared to Rs182bn in February and Rs113bn in January. QIPs were the preferred mode for raising funds, amounting to Rs108bn or 54% of the total equity funds raised in March. While aggregate funds raised through IPOs were 15.6% lower than previous month, 11 companies including two (2) SMEs got listed through IPOs in March as compared to six (6) companies in the previous month. Fourteen (14) percent of total equity raised were through Preferential Allotment with 19 issues as compared to 28% (11 issues) in the previous month. Fund-raising by corporates through equity issuances (IPOs, Rights Issue, Preferential Allotment and QIPs) which had dropped in the first two months of this fiscal post a nation-wide lockdown picked up by the end of first quarter as lockdown restrictions were eased by the Government and business activities gathered momentum. Corporates have raised Rs2.1tn in this fiscal through equity, with QIPs and Preferential Allotment being the most preferred option (nearly 53% of the total equity issuances).

Funds raised by corporates through debt issuances increased for two months in a row: Fund raised by corporates through debt issuances increased 46.3% MoM during the month of March as compared to +36.4% MoM in the previous month. Total funds raised (total equity + total debt excl. public issue of G sec, T-Bills & SDLs) by corporates increased 40.8% MoM, with nearly 87% of the total funds or Rs1.5tn raised from the debt markets (CPs and NCDs) as compared to Rs1tn in February. Private placement of NCDs and CPs continued to be the most preferred option for raising debt among corporates, while public issues of corporate debt comprised of only 1% of the total funds raised by the corporates.

Figure 215: Funds mobilised through NSE platform

Particulars	Mar-21			Feb-21		
	No. of Issues	Amount Raised (Rsm)	Amount Raised (USDm)	No. of Issues	Amount Raised (Rsm)	Amount Raised (USDm)
Equity issuances						
IPOs	11	62,925	864	6	74,547	1,024
Rights Issue	2	345	5	1	29,986	412
Preferential Allotment	19	28,079	386	11	51,264	704
QIPs	5	107,747	1,480	4	26,452	363
Total equity raised		199,096	2,735		182,248	2,504
Debt issuances						
Public issue of NCDs	4	21,771	299	1	6,032	83
Public issue of G sec, T-Bills & SDLs	118	3,379,792	46,426	97	3,309,762	45,470
Private Placement of NCD	64	592,322	8,136	39	288,436	3,963
Private Placement of CPs	158	908,000	12,473	147	745,350	10,240
Total debt raised		4,901,885	67,334		4,349,580	59,755
Total funds raised (equity + debt)		5,100,981	70,068		4,531,828	62,259

Source: NSE. Note: In case of debt issuances, the above table reports no. of ISINs instead of issues. IPOs in the month of February 2021 includes one (1) REITs issuance.

New listings in the month

Eighteen new companies listed their equities on NSE in March: Eleven (11) companies were listed on NSE through IPOs (including two SMEs) and xx (xx) through direct listing in March. The month also witnessed migration of two (2) SME companies to the Main Board. Out of the 18 companies that debuted on the NSE Main Board in March, 12 companies gained on their respective listing dates.

Figure 216: Companies listed on NSE in March 2021

Listing Date	Security Name	Listing Gain %	Market Cap (Rsm)	Gross Turnover (Rsm)	Listing
03-Mar-21	Silgo Retail Limited	6.9	553	7	Migrated from SME to NSE Main Board
04-Mar-21	Bcl Industries Limited	0.8	3098	112	New listing
05-Mar-21	Heranba Industries Limited	43.5	32515	14,368	IPO
05-Mar-21	Party Cruisers Limited	5.9	287	1	SME-IPO
09-Mar-21	Pavna Industries Limited	0.4	1008	19	SME-IPO
10-Mar-21	DRC Systems India Limited	45.0	523	0	New listing
15-Mar-21	Mtar Technologies Limited	82.6	33297	16378	IPO
19-Mar-21	Easy Trip Planners Limited	13.5	22647	8953	IPO
19-Mar-21	Jubilant Ingrevia Limited	(75.0)	42799	205	New listing
22-Mar-21	Arvee Laboratories (India) Limited	4.9	480	0	Migrated from SME to NSE Main Board
24-Mar-21	Anupam Rasayan India Limited	(6.3)	52639	8495	IPO
25-Mar-21	Craftsman Automation Limited	(8.8)	30332	5002	IPO
25-Mar-21	Laxmi Organic Industries Limited	19.6	43359	10992	IPO
26-Mar-21	Kalyan Jewellers India Limited	(15.0)	77460	3966	IPO
26-Mar-21	Suryoday Small Finance Bank Limited	(4.3)	29483	1178	IPO
30-Mar-21	Nazara Technologies Limited	80.7	48481	13235	IPO
31-Mar-21	Suvidhaa Infoserve Limited	23.8	21305	13	New listing

Source: NSE.

Trend of NSE's turnover across different segments

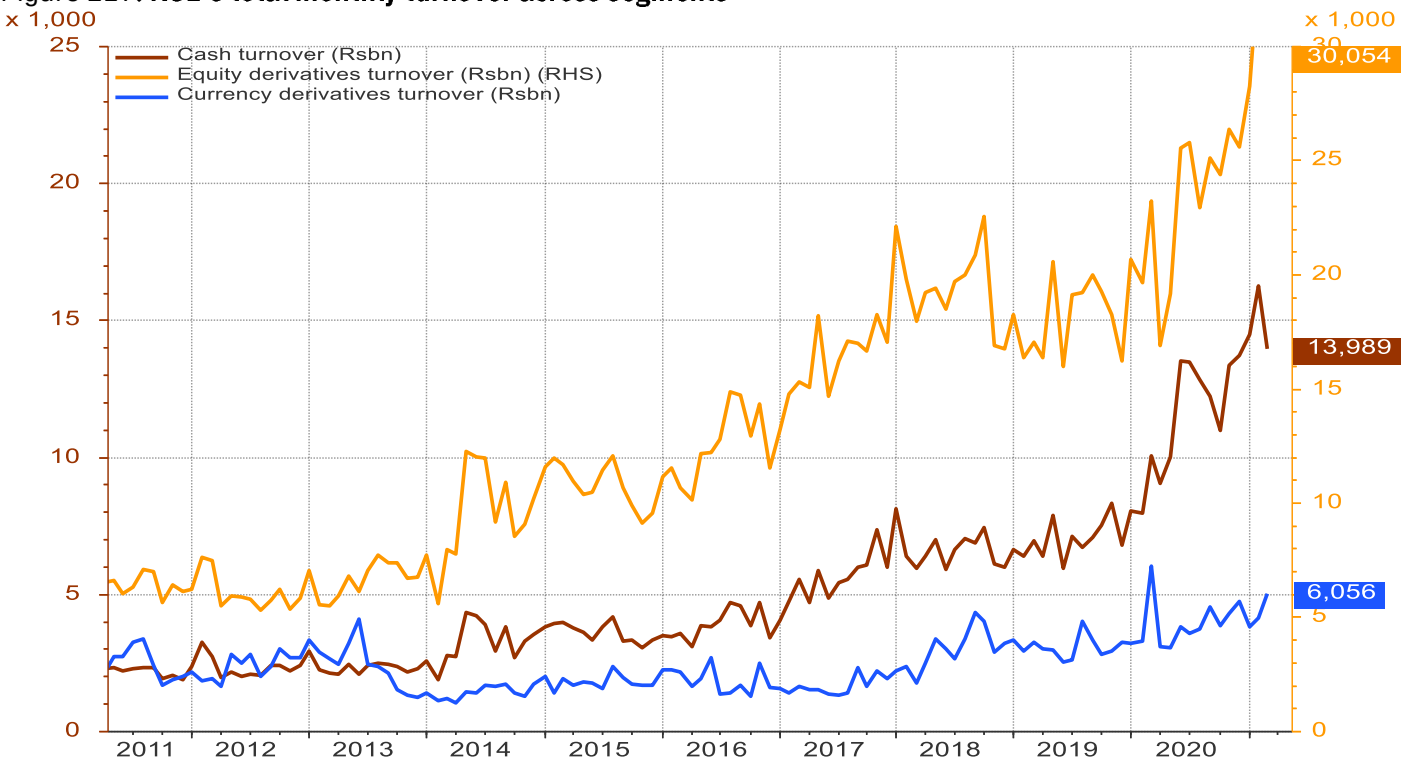
Impact of macro indicators on NSE's turnover

NSE's turnover recorded a sharp rise in the Cash market over the months during FY2020-21 largely led by surplus liquidity, thanks to policy easing measures by global central banks to counter the economic impact of the pandemic. Its monthly turnover grew by an average of 73.2% on an YoY basis over the period of Apr'20-Mar'21 and registered an average monthly turnover of Rs12.8trn during this period.

A similar long-term trend was witnessed in the equity derivatives segment. Post the roller coaster ride in 2019, NSE's monthly turnover recorded a strong growth in 2020, thanks to a sharp rise in volatility, a strong rally in global equity prices and a significant rise in total liquidity due to monetary policy easing by global central banks. In FY21, total turnover in equity derivatives segment recorded 32.8% growth on an YOY basis with an average growth in monthly turnover of 33.4% in current fiscal compared to 2.1% in the previous fiscal on a YoY basis.

The overall trend in the currency segment, however, has been different. Growth in monthly turnover languished during 2014-17, before rising gradually over the next three years. The monthly turnover grew by an average rate of -1.5% on an YoY basis during 2014-17 as compared to 37.8% post 2017 till date. In FY21, total turnover in currency derivatives segment recorded 23.2% growth till March on YOY basis.

Figure 217: **NSE's total monthly turnover across segments**

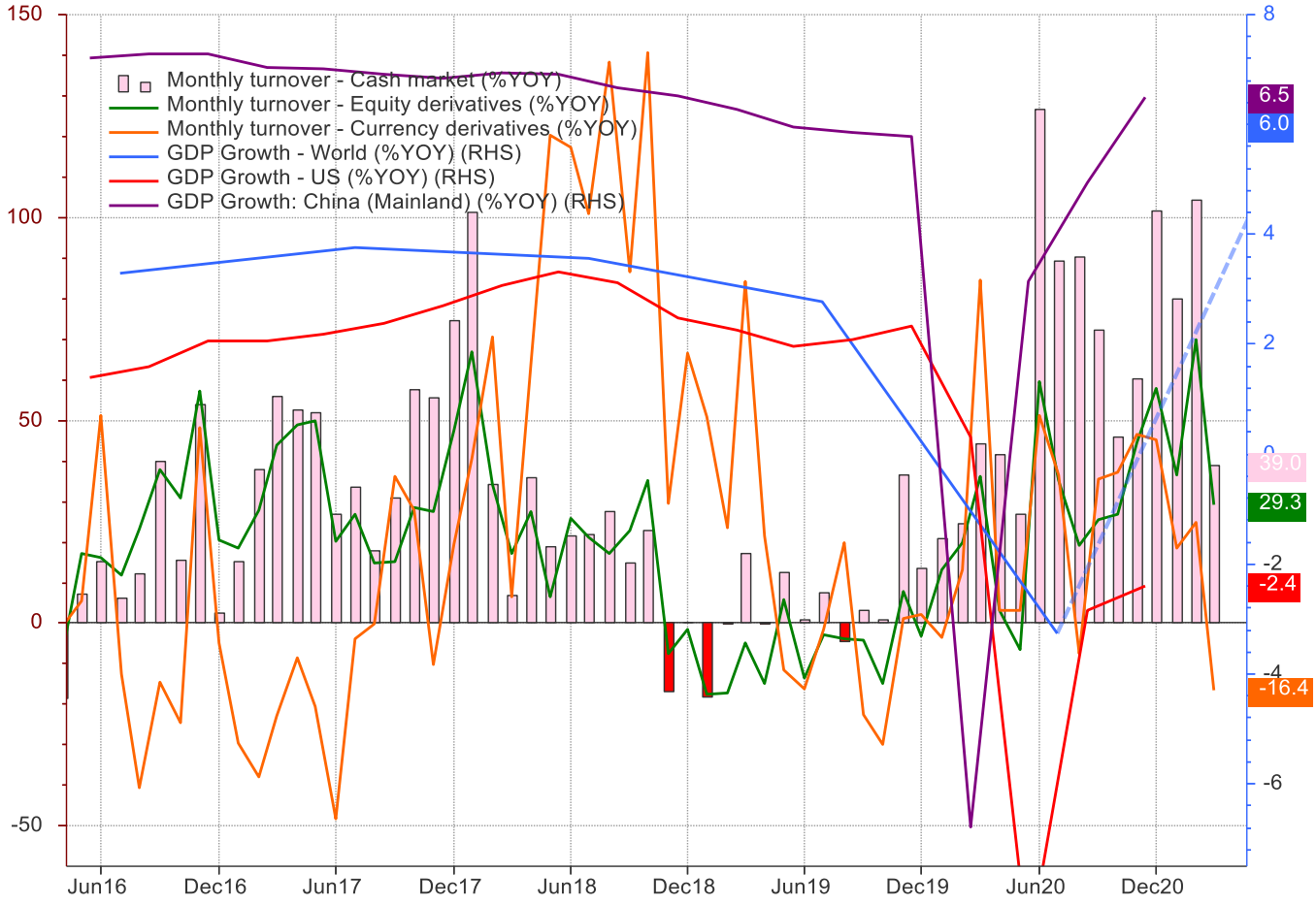


Source: NSE.
Note: Total turnover for derivatives includes gross traded value of futures and total premium turnover of options.

A recovery in economic growth momentum over the last three (3) quarters after normalisation of business and economic activities, and an ample liquidity push by global

central banks has given a boost to NSE's turnover across all segments during the current fiscal. A surge in trading by retail investors and FIIs, partly offset by substantial selling by DIIs, have led a rally in equity prices post a sharp correction in March'20.

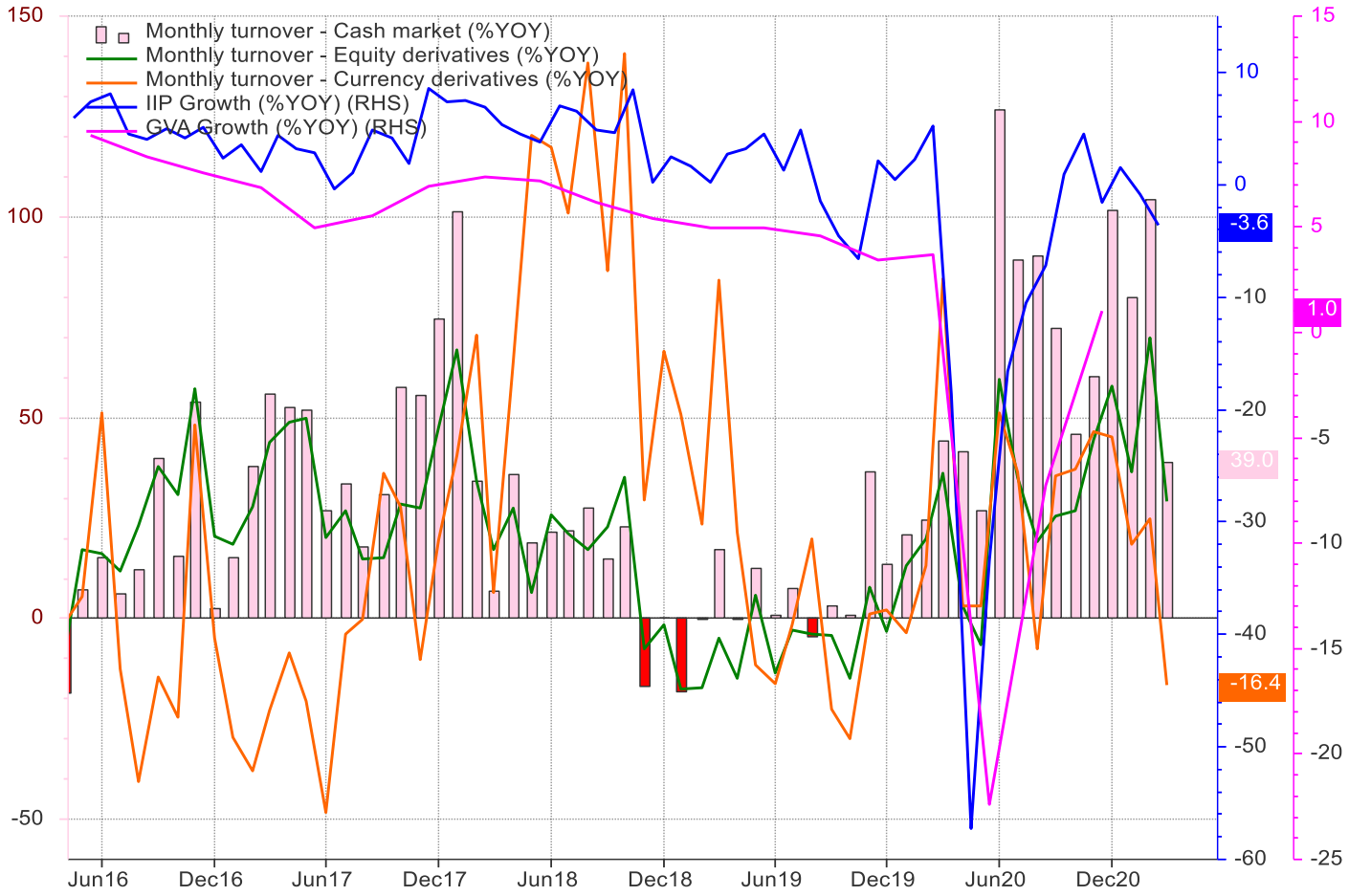
Figure 218: Impact of global slowdown on overall turnover growth across segments



Source: Refinitiv Datastream, NSE.

An improvement in economic activities, favourable growth outlook and surplus liquidity drove NSE's volumes higher in FY21. Several high frequency indicators that reflect a sharp economic recovery in India and ample liquidity support provided by the central bank of India may have driven NSE's volume growth.

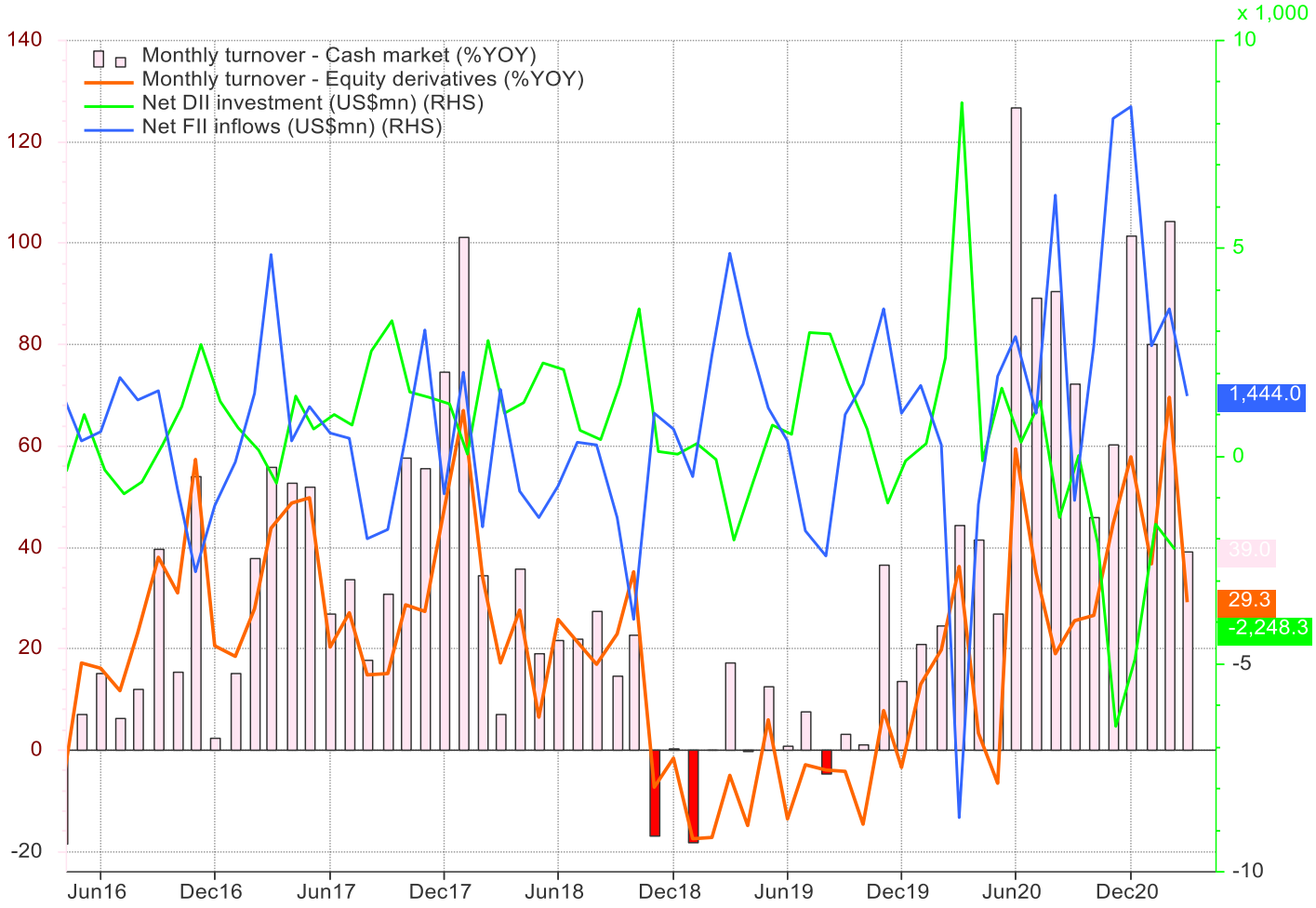
Figure 219: Growth rates of Cash turnover and economic slowdown in India (IIP and GVA growth)



Source: Refinitiv Datastream, NSE

A risk-on sentiment among FIIs amid enhanced policy support, favourable economic outlook and optimism over vaccine roll-out globally and domestically had led to a surge in NSE's turnover growth, even as DIIs net investment remained negative during the year due to redemption pressures and profit-booking. While FII net investments has been the highest this fiscal, DII net investment has been the lowest in FY21 as to compared to last five years.

Figure 220: **Growth of NSE's turnover vs. Institutional flows**



Source: Refinitiv Datastream, NSE.

Institutional investments through NSE platform

FIIs continued to buy in NSE's cash segment for six consecutive months: FIIs continued to buy on a net basis in the NSE's cash segment in March, albeit lower compared to the previous month. The net inflow in the NSE's cash market remained positive recording Rs40bn in March - ~72% lower than February when the new inflows touched Rs143bn. After remaining net sellers in equities for most part of the current fiscal due to redemption pressures and profit booking, DIIs turned net buyers in Indian equities, registering a net inflow of Rs34bn in NSE's cash segment. During FY2020-21, FIIs bought equities worth Rs1,601bn in NSE's cash segment. DIIs, however, sold equities worth Rs1,455bn during the same period in NSE's cash segment.

DII selling in the equity derivatives segment was offset by FII buying in March: While DIIs sold equity derivatives contracts worth Rs48bn, FIIs bought contracts worth Rs50bn in the month of March on a net basis. Institutional investors were net sellers in equity derivatives for two months sequentially. While FIIs bought equities in the cash segment during FY21, they remained net sellers in the equity derivatives segment.

FIIs were net buyers in currency derivatives contracts for two months sequentially: While DIIs were net sellers in the currency derivatives in March, FIIs were net buyers in currency derivatives for two consecutive months. FIIs bought currency futures worth Rs2bn on net basis and DIIs sold net currency futures worth Rs11bn. The institutional investors have been net sellers in currency futures segment for the current fiscal, selling contracts worth Rs111bn on a net basis. Institutional trading activity in the currency options contracts and interest rate derivatives continues to remain negligible.

Figure 221: Foreign and domestic institutional flows (Rs bn) up to Mar'**21**

	Mar-21			Feb-21			FY21			FY20		
Category	Buy	Sell	Net	Buy	Sell	Net	Buy	Sell	Net	Buy	Sell	Net
Cash Market												
DII	1,096	1,062	34	1005	1178	(174)	10,205	11,660	(1455)	9,777	8,650	1127
FII	1,844	1,804	40	1856	1,713	143	18,289	16,687	1601	13,166	14,154	(988)
Equity Futures												
DII	984	1,032	(48)	957	976	(19)	9,124	9,350	(226)	9,901	10,146	(246)
FII	4,908	4,858	50	5,306	5,374	(67)	58,898	59,203	(305)	53,860	53,703	157
Equity Options												
DII	0	1	(0)	0	0	(0)	6	5	1	7	9	(2)
FII	601	602	(1)	575	576	(0)	4,413	4,417	(4)	2,444	2,450	(6)
Currency Futures												
DII	105	117	(11)	69	73	(4)	694	740	(46)	1,007	999	8
FII	643	641	2	515	452	63	8,280	8,345	(65)	7,545	7,410	135
Currency Options												
DII	0	-	0	-	-	0	0	-	0	0	0	0
FII	2	1	0	1	1	1	9	5	5	5	2	3
Interest Rate Futures												
DII	5	4	0	4	4	(1)	61	60	1	174	178	(4)
FII	0	0	0	0	0	0	6	7	(2)	47	40	6
Interest Rate Options												
DII	-	-	0	-	-	0	-	-	0	-	-	0
FII	-	-	0	-	-	0	-	-	0	-	-	0

Source: NSE. * DII – Domestic Institutional Investors, FII – Foreign Institutional Investors; Above table reports premium turnover for Options contracts.

Figure 222: Foreign and domestic institutional flows (Rsbn) during FY20 and CY21

	FY20			CY21TD		
Category	Buy	Sell	Net	Buy	Sell	Net
Cash Market						
DII	9,777	8,650	1127	3,075	3,341	(267)
FII	13,166	14,154	(988)	5,323	5,049	274
Equity Futures						
DII	9,901	10,146	(246)	2,760	2,882	(122)
FII	53,860	53,703	157	14,735	14,783	(47)
Equity Options						
DII	7	9	(2)	2	2	(0)
FII	2,444	2,450	(6)	1,568	1,571	(2)
Currency Futures						
DII	1,007	999	8	224	247	(23)
FII	7,545	7,410	135	1,784	1,729	55
Currency Options						
DII	0	0	0	0	-	0
FII	5	2	3	4	2	1
Interest Rate Futures						
DII	174	178	(4)	12	12	(0)
FII	47	40	6	1	1	0
Interest Rate Options						
DII	-	-	0	-	-	0
FII	-	-	0	-	-	0

Source: NSE*DII – Domestic Institutional Investors, FII – Foreign Institutional Investors; Above table reports premium turnover for Options contracts

Total turnover in capital markets and derivatives segment of NSE

NSE turnover in cash and equity derivatives segment tapered in the month of March: After registering highest monthly traded value for two consecutive months sequential rise for four months, NSE's turnover in the month of March declined 14% MoM in the cash segment and 11.9% MoM in the equity derivatives segment. The phenomenal rise in the previous month, which was led by enthusiasm in the markets after the Union Budget announcement, was offset this month by concerns over higher inflationary pressures and likely lockdowns in certain regions due to the recent surge in COVID-19 caseloads.

NSE's turnover in the cash segment touched Rs13.9tn in the month of March, resulting in a YoY of growth of 71.7% in FY2020-21. Similarly, the turnover in the equity derivatives segment touched Rs30tn in the month of March, resulting in a growth of YoY growth of 32.8% YoY in FY2020-21. The rise in equity derivatives turnover in this fiscal can be attributed to a significant rise both in futures turnover (+26% YoY) and options premium turnover (+144% YoY) turnover. Ample global liquidity, positive news on the vaccine roll-out globally, better-than-expected economic recovery and risk-on sentiment among FIIs have contributed to a rally in Indian equities this fiscal, which has in turn helped the growth in NSE's turnover.

While the growth in cash and equity derivatives turnover tapered in the month of March, currency derivatives turnover rose 21.7% MoM. While currency futures turnover increased 21.6% MoM, premium turnover in currency options increased at a much higher rate of 58.4% MoM. During the fiscal period 2020-21, currency derivatives increased 19.1% YoY.

Figure 223: Total turnover in different segments (Rsbn) during FY2020-21

Segment	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
Cash Market	9,058	10,005	13,507	13,485	12,826	12,233	10,989	13,373	13,746	14,494	16,275	13,989
Equity futures	15,497	17,586	23,151	23,521	20,994	22,761	21,852	23,698	22,795	24,987	29,034	25,585
Index futures	5,947	6,406	8,597	7,772	6,212	7,407	7,391	8,263	6,915	7,327	9,107	9,132
Stock futures	9,550	11,180	14,554	15,749	14,782	15,354	14,461	15,434	15,880	17,660	19,927	16,453
Equity options	1,419	1,616	2,388	2,297	1,930	2,354	2,547	2,689	2,800	3,270	4,309	4,469
Index options	1,209	1,368	1,985	1,797	1,505	1,902	2,126	2,228	2,250	2,545	3,497	3,884
Stock options	210	248	403	500	425	453	421	461	550	725	812	585
Currency derivatives	3,733	3,687	4,573	4,305	4,484	5,445	4,651	5,156	5,710	4,604	4,978	6,056
Currency futures	3,722	3,678	4,562	4,294	4,472	5,431	4,639	5,143	5,698	4,594	4,966	6,037
Currency options	11	9	11	11	12	14	12	13	13	10	12	20
Interest rate derivatives	94	119	166	115	88	80	60	37	55	41	67	44
Interest rate futures	94	119	166	115	88	80	60	37	55	41	67	44
Interest rate options	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commodity futures	0.6	0.8	2.1	0.5	0.9	0.7	0.1	0.2	14.5	8.4	9.4	16.8

Source: NSE. *NA refers to not applicable as Interest rate options were launched in Dec'19; Above table reports premium turnover for Options contracts and excludes auction market turnover.

Average daily turnover (ADT) in capital markets and derivatives segment of NSE

NSE's ADT in cash market segment narrowed in the month of March: NSE's ADT in capital markets segment declined 18.1% MoM in the month of March to touch Rs666bn, after an increase of 12.3% MoM in the previous month when it touched highest average daily value on record. This resulted in an ADT of Rs618bn for this fiscal – an increase of 69.7% YoY over previous fiscal. The increase in average daily turnover in the current fiscal was broad-based, largely led by trading in SGBs (+246% YoY), InvIts (+109% YoY) and Equities (+69.5% YoY).

Figure 224: Average daily turnover in NSE Capital Market (Rsm)

Product	Mar-21	Feb-21	% Change	FY21	FY20	% Change	FY20	CY21TD
Capital Market	666,165	813,732	(18.1)	618,390	364,324	69.7	364,324	733,747
Equities (Main Board)	659,630	806,468	(18.2)	612,808	361,494	69.5	361,494	726,859
Exchange Traded Funds	3,216	3,411	(5.7)	2,638	2,069	27.5	2,069	3,136
SME Emerge	45	40	12.3	37	51	(27.9)	51	42
Sovereign Gold Bonds	48	36	32.8	36	10	246.2	10	43
InvITs	93	85	9.4	107	51	109.4	51	83
Mutual Funds (Close Ended)	3	3	13.1	2	1	59.0	1	3
Others	3,129	3,688	(15.2)	2,763	648	326.3	648	3,582

Source: NSE. Note: Average daily turnover (ADT) excludes auction market turnover. Equities (Main Board) include stocks in EQ, BE, BL and BZ series. Others include corporate and government debt instruments (excl. SGBs), REITs, preferential shares, partly paid-up shares, warrants etc., among others.

March witnessed a decline in equity derivatives trading: Average daily turnover (ADT) of NSE's equity derivatives declined by 14.2% MoM in-line with the cash segment, as compared to an increase of 18% MoM in February and 21.2% MoM in January, to touch Rs1,431bn as compared to Rs1,667bn in the previous month. The decline in average daily traded value, was largely led by single stock derivatives falling 21.8% MoM in the month of March. The decline in index derivatives was marginal (-1.6% MoM) due to increased trading in Nifty contracts.

The ADT in equity derivatives in the current fiscal, however, recorded a jump of 32% YoY to touch Rs1,219bn compared to Rs925bn during the same period last fiscal. While, average daily turnover of single stock derivatives surged 22.7% YoY to touch Rs750bn in the current fiscal, the average daily turnover of index derivatives increased by a much higher 49.4% YoY during the same period.

Figure 225: Average daily turnover in Equity derivatives (Rsm)

Product	Mar-21	Feb-21	% Change	FY21	FY20	% Change	FY20	CY21TD
Single stock derivatives								
Stock futures	783,465	996,351	(21.4)	726,842	602,216	20.7	602,216	885,893
Stock options	27,852	40,599	(31.4)	23,267	9,245	151.7	9,245	34,785
Index futures								
Bank Nifty	212,466	243,556	(12.8)	183,694	113,155	62.3	113,155	209,986
Nifty	221,594	210,458	5.3	179,320	157,060	14.2	157,060	207,746
FinNifty	797	1,342	(40.6)	339	0	NA	0	1,386
Nifty IT	0	0	NA	6	121	(94.9)	121	0
Index options								
Bank Nifty	112,758	114,552	(1.6)	62,966	22,493	179.9	22,493	101,216
Nifty	72,082	60,103	19.9	42,589	21,090	101.9	21,090	61,316
FinNifty	124	193	(36.1)	45	0	NA	0	185
Nifty IT	0	0	NA	0	0	(30.0)	0	0

Source: NSE. Above table reports premium turnover for Options contracts; FINNIFTY was launched on January 11th, 2021

Trading in USDINR contracts continued to aid the rise in ADT of currency derivatives: The average daily turnover of currency derivatives increased 10% MoM to Rs288bn as compared to an increase of 13.8% MoM in the previous month. While average daily currency options premium turnover increased 43.3% MoM to touch Rs936m, the currency futures turnover increased 10% MoM to touch Rs287bn. The USDINR contracts continued to be the highly traded contracts in March, both in futures and options segment, reaching an average daily value of Rs233bn – nearly 30% higher than the ADT for the current fiscal and 18% higher than the overall currency derivatives turnover in February.

Figure 226: Average daily turnover in Currency derivatives (Rsm)

Product	Mar-21	Feb-21	% Change	FY21	FY20	% Change	FY20	CY21TD
Currency futures								
EURINR	15,680	15,365	2.1	17,195	7,000	145.6	7,000	16,530
EURUSD	107	179	(39.9)	229	472	(51.5)	472	174
GBPINR	35,080	44,321	(20.8)	32,364	15,368	110.6	15,368	40,680
GBPUSD	234	493	(52.5)	345	514	(33.0)	514	372
JPYINR	4,014	3,702	8.4	4,189	3,109	34.7	3,109	3,761
USDINR	232,325	197,282	17.8	179,289	171,331	4.6	171,331	198,412
USDJPY	13	4	227.8	4	9	(50.7)	9	8
Currency options								
EURINR	1.02	1.64	(38.1)	0.46	0.06	612.6	0.06	1.28
EURUSD	0.00	0.00	NA	0.00	0.00	25.6	0.00	0.00
GBPINR	2.94	4.65	(36.8)	1.93	0.25	681.3	0.25	3.50
GBPUSD	0.00	0.00	NA	0.02	0.01	17.8	0.01	0.00
JPYINR	0.01	0.01	50.5	0.01	0.02	(59.8)	0.02	0.01
USDINR	932.90	647.38	44.1	600.22	548.49	9.4	548.49	699.09
USDJPY	0.00	0.00	NA	0.00	0.00	NA	0.00	0.00

Source: NSE. Above table reports premium turnover for Options contracts

Trading in interest rate derivatives remained lacklustre: Average daily turnover of interest rate futures in March declined 41% MoM to touch Rs2bn after surging 73.2% in the previous month. While six interest rate futures witnessed trading activity in this month, 577GS2030 continued to be the highly traded contract in this segment, even as the ADT of the contract declined 62.4% MoM from Rs3.5bn in February to Rs1.3bn in March.

Figure 227: Average daily turnover in Interest rate futures (Rsm)

Product	Mar-21	Feb-21	% Change	FY21	FY20	% Change	FY20	CY20
Interest rate futures (Rsm)								
577GS2030	1,329	3,539	(62.4)	994	0	NA	0	2,265
585GS2030	555	0	NA	48	0	NA	0	194
757GS2033	98	0	NA	28	18	54.9	7,903	34
795GS2032	65	0	NA	20	229	(91.3)	229	23
619GS2034	38	0	NA	6	0	NA	44	13

Source: NSE. Data for only those contracts which were traded in the month of March 2021 have been reported in the above table.

Turnover of top traded symbols over the month

The turnover of top 10 traded stocks declined 18.7% MoM in the month of March, resulting in a decline in the share of these stocks in the overall CM turnover by 120bps from 22.6% in February to 21.4% in March. Eight (8) out of the top 10 stocks witnessed a downtick in the total traded turnover in March, with State Bank of India and ICICI Bank declining 45% MoM and 28.3% MoM respectively in March after an increase of 157% and 61% MoM respectively in the previous month. Tata Motors continued to be the top traded stock for three consecutive months despite a decline in total traded value in March by 28.3% MoM

Figure 228: Top 10 symbols based on total turnover of Cash market (Rsm)

Symbol	Mar-21	Feb-21	%Change
TATAMOTORS	460,461	642,255	(28.3)
RELIANCE	406,899	483,910	(15.9)
SBIN	320,073	582,101	(45.0)
TATASTEEL	312,287	326,014	(4.2)
ICICIBANK	289,309	370,964	(22.0)
HDFCBANK	273,875	312,601	(12.4)
AXISBANK	245,211	309,078	(20.7)
BAJFINANCE	232,420	307,283	(24.4)
INFY	230,540	174,396	32.2
ADANIPORTS	224,522	174,936	28.3

Source: NSE

While the turnover of the top 10 traded stocks in the single stock futures segment declined 16.3% MoM in March, the turnover of top 10 single stock options declined by 25% MoM during the same period. While the turnover declined, the percentage share of top 10 traded stocks in stock futures turnover increased 40bps from 28.2% in February to 28.7% in March and the share of top 10 stocks in stock options turnover increased 144bps from 35.1% to 36.5% during the same period. Tata Motors was the highly traded stock in both stock futures and options segment. Turnover of seven (7) of the top 10 stocks in futures and options segment declined in this month on a MoM basis.

Figure 229: Top 10 symbols based on total turnover of Stock futures (Rsm)

Symbol	Mar-21	Feb-21	%Change
TATAMOTORS	627,142	837,187	(25.1)
SBIN	593,896	980,134	(39.4)
RELIANCE	580,169	668,110	(13.2)
TATASTEEL	498,427	599,514	(16.9)
ICICIBANK	493,787	642,695	(23.2)
HDFCBANK	415,176	442,547	(6.2)
BHARTIARTL	395,685	526,222	(24.8)
INFY	378,636	321,986	17.6
ADANIPORTS	375,960	334,792	12.3
ADANIENT	355,570	276,118	28.8

Source: NSE

Figure 230: Top 10 symbols based on total turnover of Stock options (Rsm)

Symbol	Mar-21	Feb-21	%Change
TATAMOTORS	37,437	59,805	(37.4)
SBIN	33,124	67,674	(51.1)
RELIANCE	30,655	37,661	(18.6)
TATASTEEL	26,584	30,962	(14.1)
ADANIENT	15,032	9,708	54.8
ICICIBANK	14,926	19,953	(25.2)
ADANIPORTS	14,745	10,313	43.0
BAJFINANCE	14,116	19,284	(26.8)
BHARTIARTL	13,581	22,717	(40.2)
TATAPOWER	13,522	6,954	94.4

Source: NSE

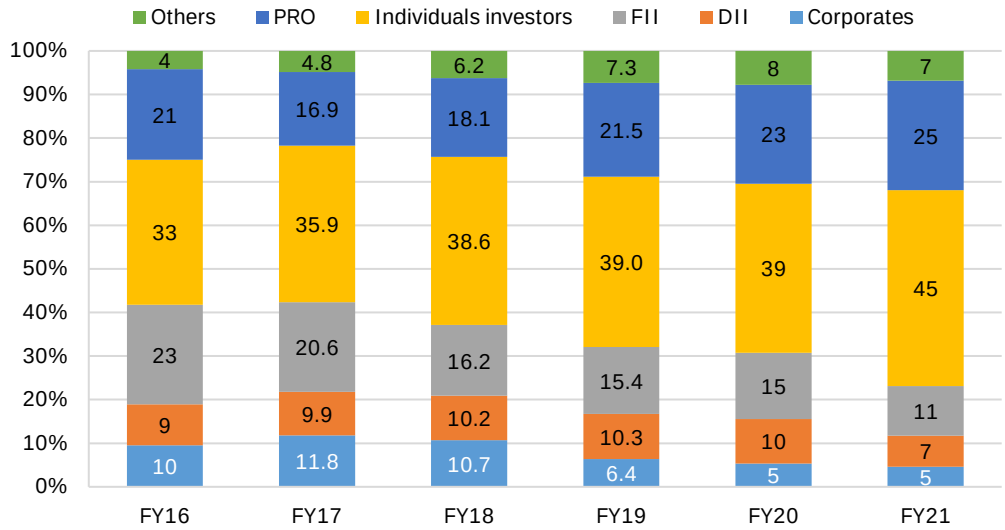
Client category-wise participation in total turnover

This section gives a detailed analysis on client-wise participation in total trading activities across all product segments at NSE. The clients are broadly classified into six categories, *viz*. Foreign institutional investors (FIIs), Domestic institutional investors (DIIs), Corporates, Proprietary traders, Individual investors and Others. The Individual investors category includes individual domestic investors, NRIs, sole proprietorship firms and HUFs. The category Others includes Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc. which are not included in any other categories mentioned above.

Retail participation through direct investing has risen steadily over the last six years: The last six (fiscal) years have witnessed a considerable change in the distribution of NSE's total turnover in capital market segment (cash segment) across different client categories. Notably, the market share of individual investors rose sharply by 12 percentage points from 33% in FY16 to 45% in FY21, rising sharply in the current fiscal, offsetting the decline in the share of FIIs and public and private corporates during the same period. The significant rise in the share of individual investors in FY21 can be attributed to the increase in new investor registrations witnessed in this fiscal. NSE has added nearly 90 lakh new investors in the current fiscal year.

While the percentage share of DIIs in the overall turnover was steady during FY16-FY20, it has witnessed a decline in the current fiscal to 7% of the overall market, as they lost market share to individual investors participating directly in the secondary markets. The percentage share of corporates has halved during this period from 10% to 5%. Notwithstanding a decline in market share for a brief period during FY17 (17%) and FY18 (18%) from 21% in FY16, Proprietary traders have maintained their market share between 22%-25% in the last three years.

Figure 231: Share of client participation in Capital Market at NSE (%)



Source: NSE.

Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc.

Individual investors and FIIs have gained prominence over corporates: The last six years has witnessed the share of individual investors increase in equity derivatives segment, in-line with the increase in their share in cash segment. While their share in equity derivatives premium turnover has increased nearly two (2) percentage points, their share in notional turnover has increased seven (7) percentage points during this period.

Contrary to the trend in cash segment, the share of FIIs in overall derivatives premium turnover has increased in the last six years. The FIIs share of total premium turnover in the segment jumped up from 16% in FY16 to 25% in FY20 and settling at nearly 21% in FY21. While the share of proprietary traders has declined marginally from 31% to 30%, the percentage share of corporates has nearly halved from 15% to 8% over the same period, which was primarily offset by the rise in participation by individual investors and FIIs. DIIs' contribution, however, remains low over the period due to the extant regulatory restrictions.

Figure 232: Share of client participation in Equity Derivatives (Notional Turnover) at NSE (%)

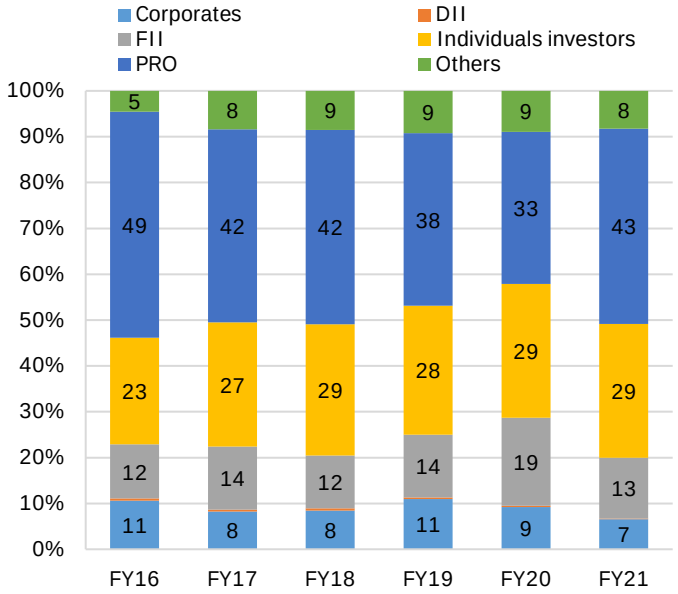
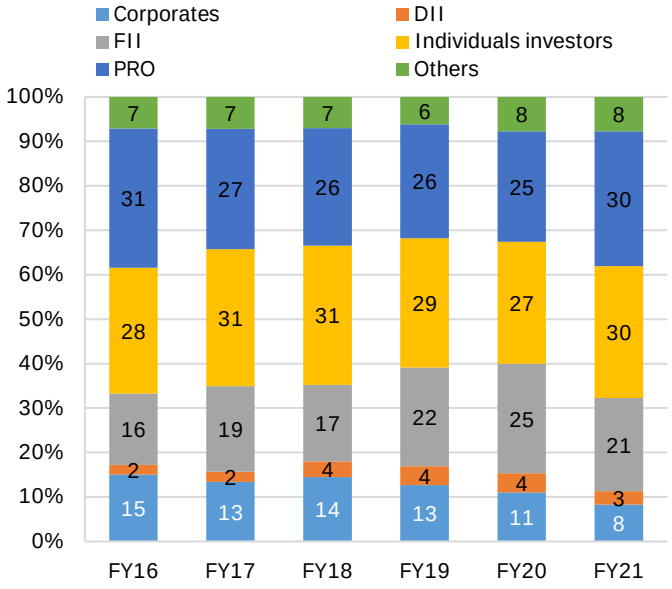


Figure 233: Share of client participation in Equity derivatives (Premium Turnover) at NSE (%)

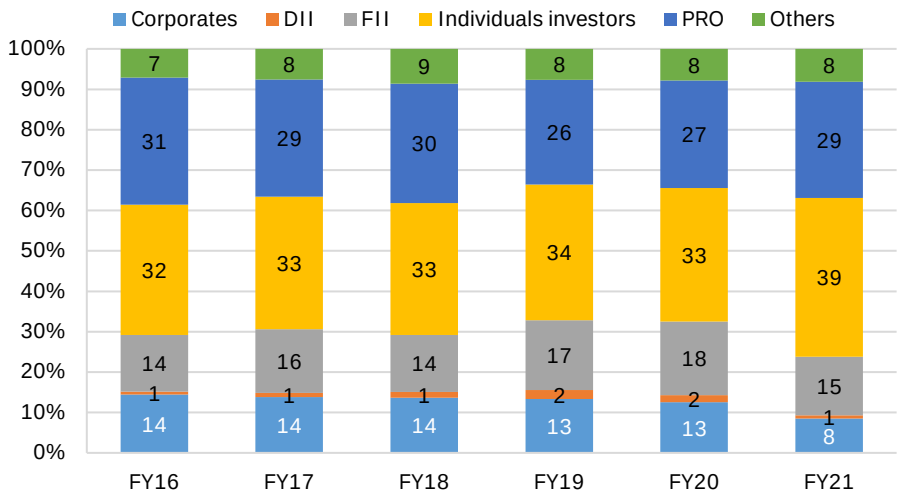


Source: NSE.

Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc.

Proprietary traders' and corporates' share in index futures fell in last six years: The market share of proprietary traders has gradually declined in terms of overall index futures notional turnover by three (3) percentage points from 31% in FY16 to 29% in FY21, followed by Corporates whose share has declined by six (6) percentage points from 14% to 8% over the same period. This overall fall in their shares has been largely compensated by an increased participation by individual investors from 32% to 39% during the same period. The share of FIIs rose marginally from 14% in FY16 to 15% in the current fiscal after touching 18% in the previous fiscal–the highest in last six years. The share of DIIs, however, remained low during this period, which can be attributed to the regulatory restrictions on their trading activities in the derivatives segment.

Figure 234: Share of client participation in Index Futures at NSE (%)



Source: NSE.

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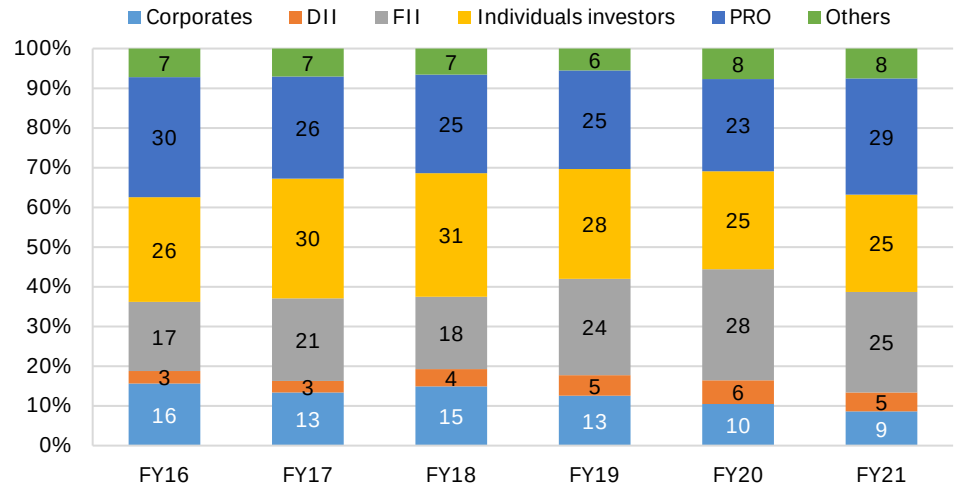
FII participation in single stock futures grew in the last six years: While DIIs' contribution in stock futures turnover has increased marginally from 3% in FY16 to 5% in FY21, the share of FII trading in stock futures during the same period has increased significantly from 17% to 25% Among other categories, Individual investors have maintained their share at 25% of the total trades in FY21 thus far - nearly at same level as FY16 - after rising to 31% in FY18. Proprietary traders and corporates have lost their share in the market, which was mainly offset by FIIs and DIIs. In FY21, Proprietary traders and Corporates accounted for 29% and 9% of total turnover and remaining 8% were traded by Others in the segment.

Figure 235: Share of client participation in Stock Futures at NSE (%)



Source: NSE.

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Proprietary traders and retail investors hold the largest share in Index options trading: While the share of proprietary traders in Index options declined nearly 14 percentage points from 53% of the total premium turnover in FY16 to 39% in FY21, they hold the largest share in index options premium turnover as on date. The fall in market share of prop traders was largely offset by a significant rise (10 percentage points) in the share of individual investors from 22% to 32% over the same period. Among other clients, share of Corporate declined nearly five (5) percentage points from 11% to 6% over the period, whereas FIIs' share increased from 11% to 16%. DIIs' investment remains negligible in the segment throughout the period due to regulatory restrictions in derivatives segment.

Figure 236: Share of client participation in Index Options (Notional Turnover) at NSE (%)

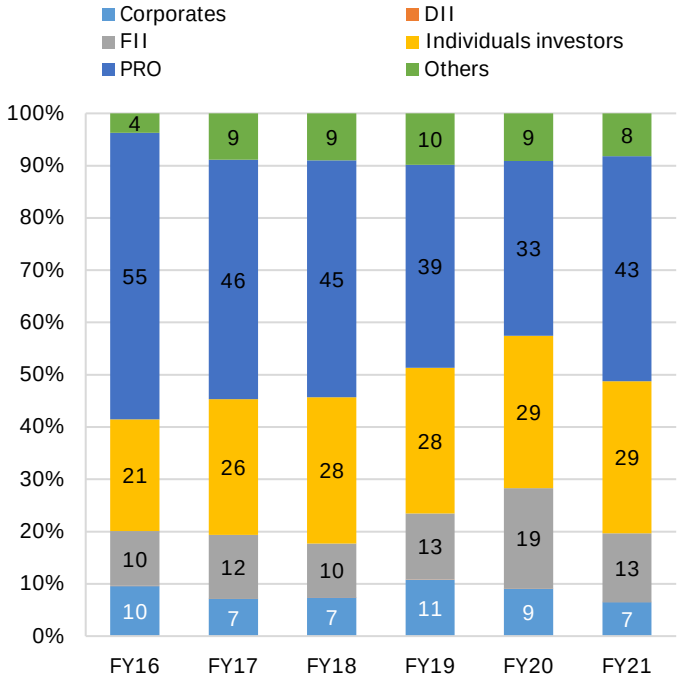
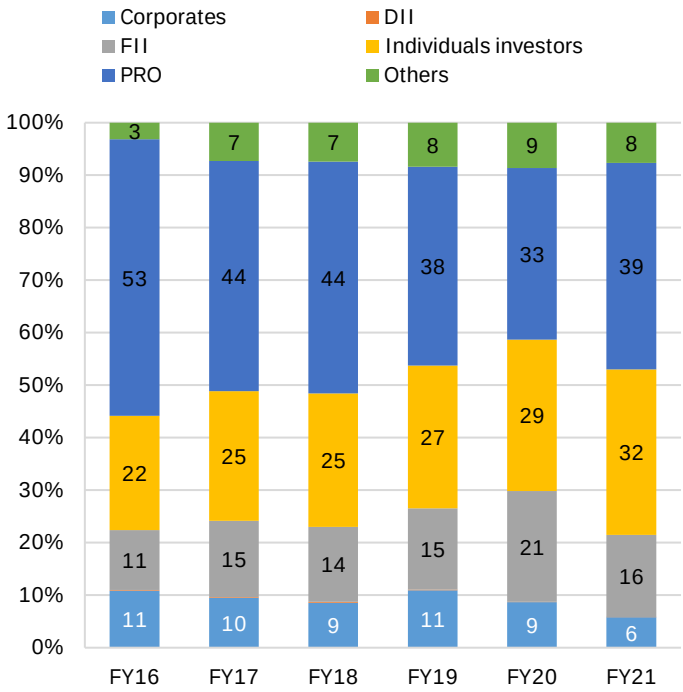


Figure 237: Share of client participation in Index Options (Premium Turnover) at NSE (%)



Source: NSE.

Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc.

FII's percentage share in stock options turnover has halved in last six years: While FIIs enjoy double-digit share in equity futures segment and index options segment, their share in stock options turnover has fallen significantly from 11% in FY16 to 5% in FY21, which was offset by proprietary traders and Individual investors. Out of total premium turnover in stock options, around 48% was contributed by Proprietary traders and 32% by Individual investors in FY21, which accounts for the largest share in equity options turnover.

Figure 238: Share of client participation in Stock Options (Notional Turnover) at NSE (%)

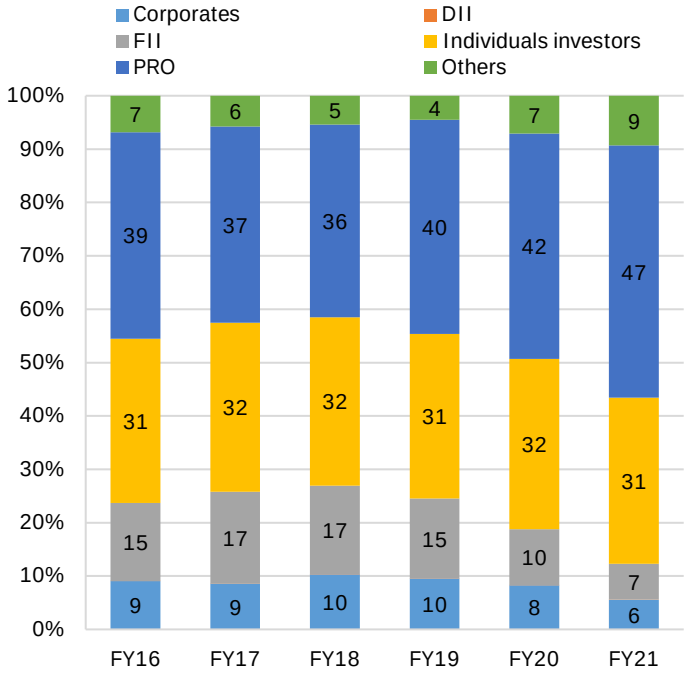
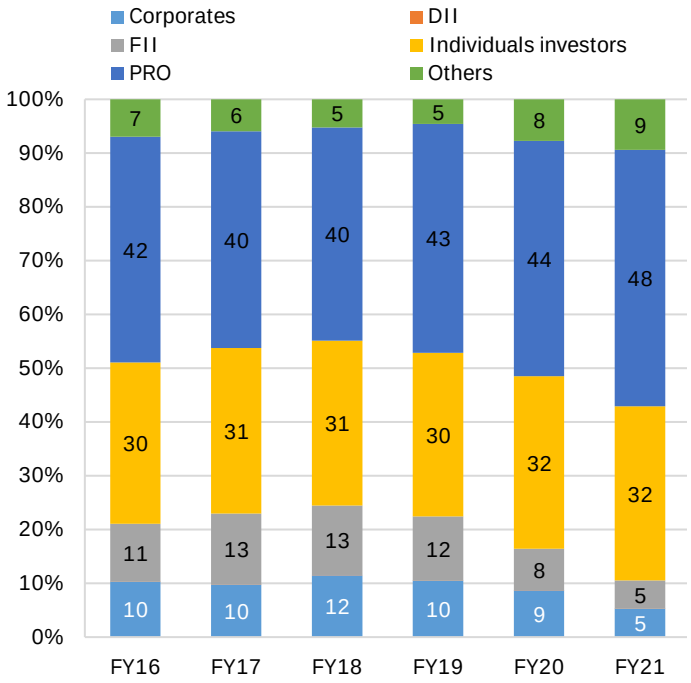


Figure 239: Share of client participation in Stock Options (Premium Turnover) at NSE (%)



Source: NSE.

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Proprietary traders-excl. banks maintained the highest market share in the currency segment, even as their share declined significantly over the last six years from 49% in FY16 to 43% in FY21, while share of banks' turnover declined from 16% to 8% respectively. Among other categories, Individual investors have been able to increase their share in these segments during this period from 12% in FY16 to 22% in FY21. FIIs have gained a significant share in Currency futures since FY19, while DIIs—excluding banks do not have much presence in both futures and options.

Figure 240: Share of client participation in Currency Derivatives (Notional Turnover) at NSE (%)

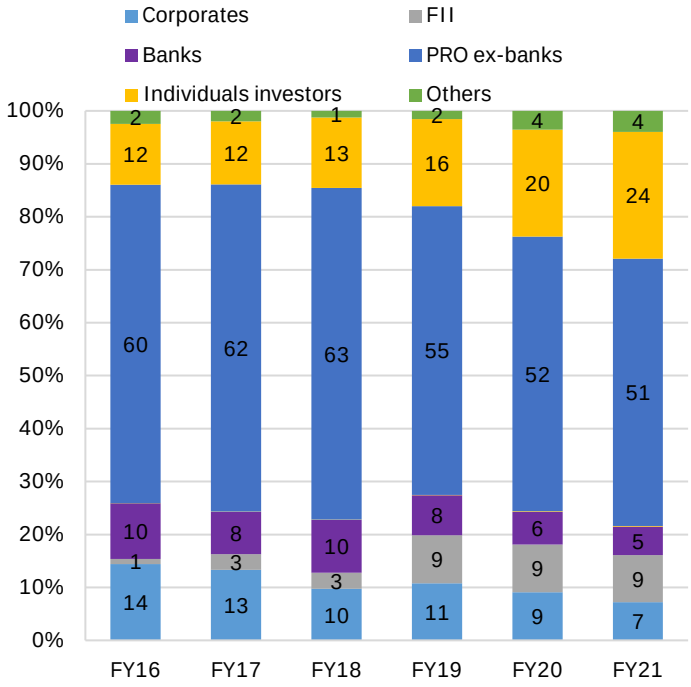
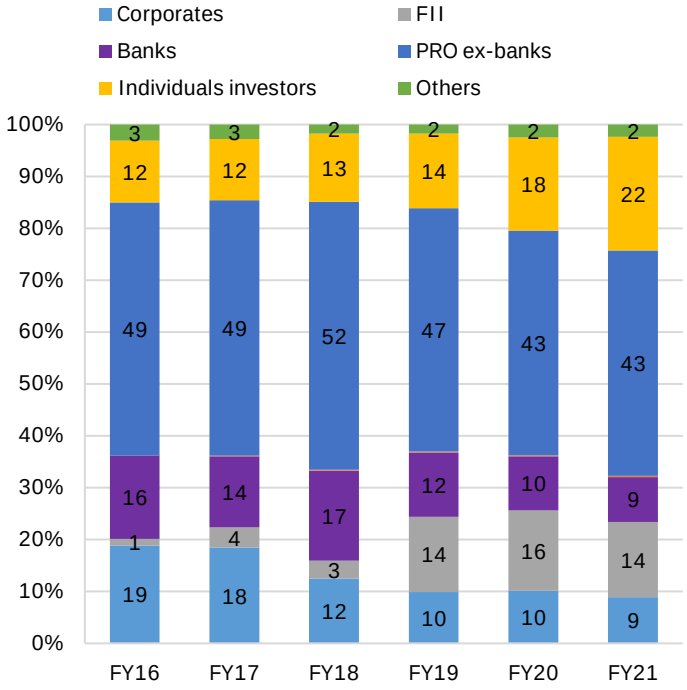


Figure 241: Share of client participation in Currency Derivatives (Premium Turnover) at NSE (%)



Source: NSE.

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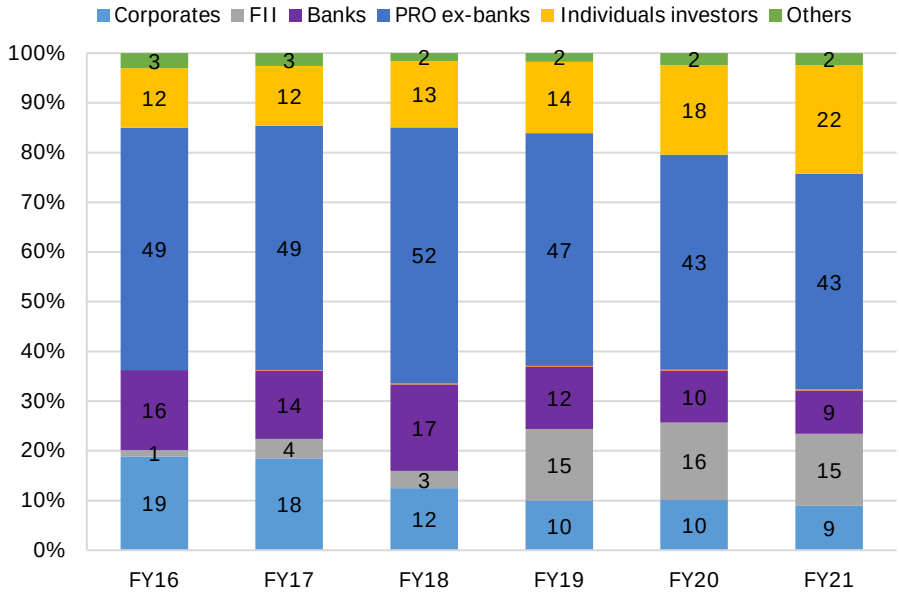
Figure 242: Share of client participation in Currency Futures at NSE (%)



Source: NSE.

Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc.

Figure 243: Share of client participation in Currency Options (Notional Turnover) at NSE (%)

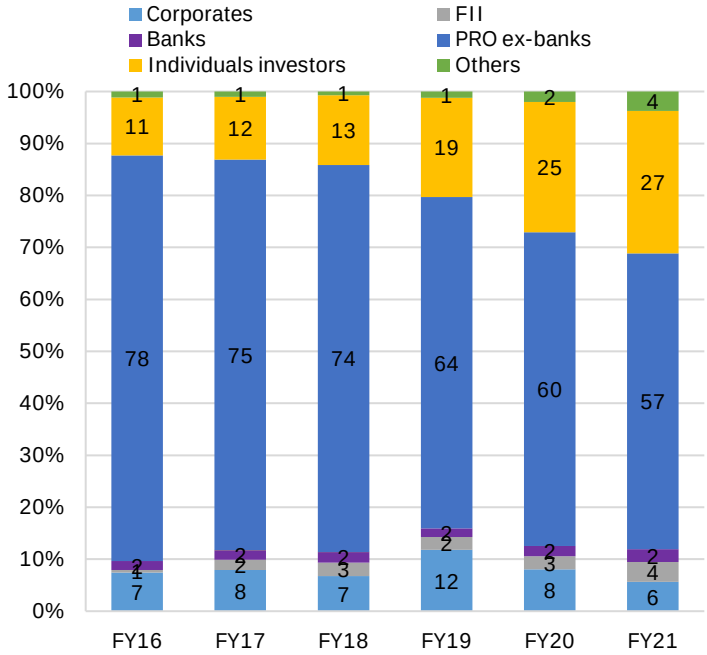
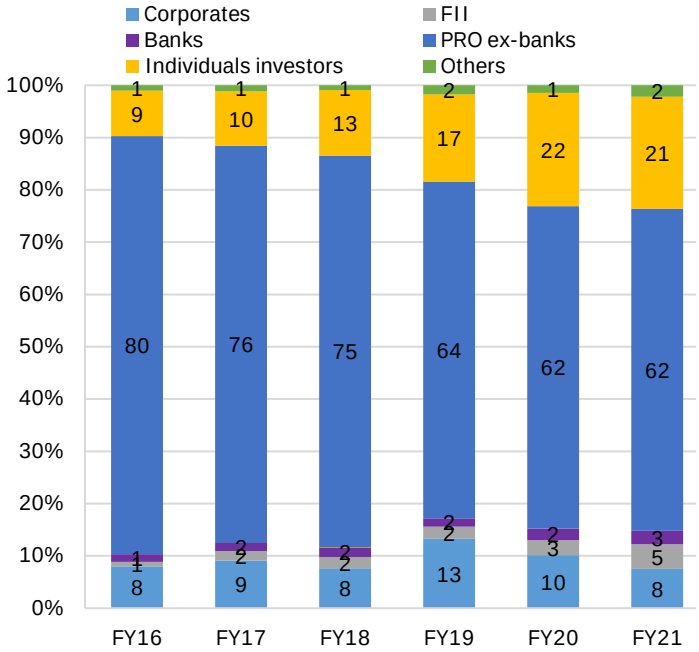


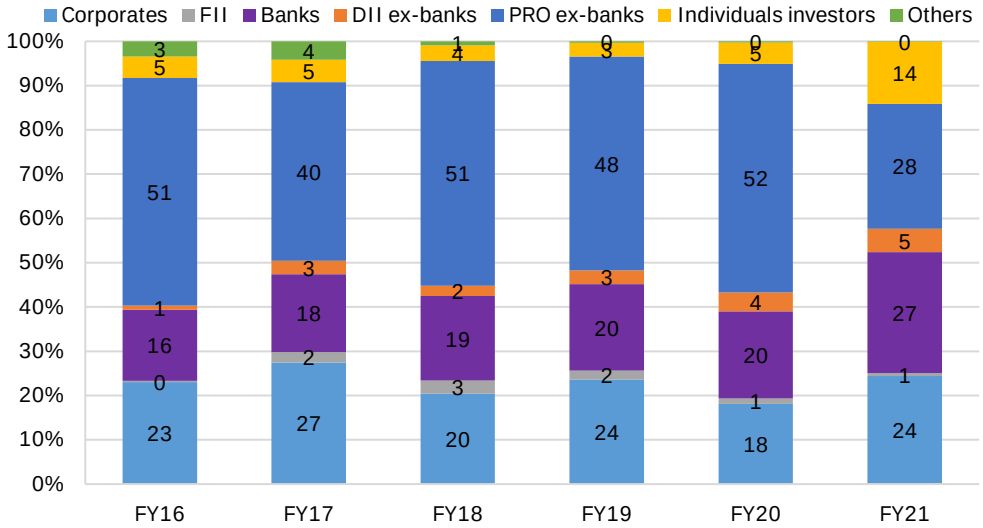
Figure 244: Share of client participation in Currency Options (Premium Turnover) at NSE (%)



Source: NSE. Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc.

The share of proprietary traders (ex-banks) was offset by banks and individual investors in IRFs: The distribution of turnover in interest rate futures across client categories changed significantly, particularly in FY21 as compared to the previous fiscal years. While, the participation of retail client, banks and corporate in the interest rate futures has inched up in FY21, the share of Proprietary traders—excluding banks declined 23 percentage points from 52% in FY19 to 28% in FY21. Notably, the market share of banks has risen from 16% in FY16 to 27% in FY21.

Figure 245: Share of client participation in Interest Rate Futures at NSE (%)



Source: NSE. Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc.

Figure 246: Share of client participation in Capital market segment of NSE (%)

Client category	Mar-21	Feb-21	Change	FY21	FY20	Change	FY20	CY21TD
Capital Market								
Corporates	4.3	4.4	(0.1)	4.6	5.3	(0.7)	5.3	4.3
DII	7.7	6.7	1.0	7.1	10.2	(3.1)	10.2	7.2
FII	13.0	11.0	2.1	11.4	15.2	(3.8)	15.2	11.6
Individuals investors	41.8	43.5	(1.8)	45.0	38.8	6.2	38.8	43.4
PRO	26.6	28.1	(1.6)	25.1	22.7	2.3	22.7	27.2
Others	6.6	6.3	0.3	6.9	7.7	(0.9)	7.7	6.3

Source: NSE.

Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc.

Figure 247: Share of client participation in Equity derivatives of NSE (%)

Client category	Mar-21	Feb-21	Change	FY21	FY20	Change	FY20	CY21TD
Equity Derivatives (Premium Turnover)								
Corporates	8.4	8.3	0.1	8.3	11.0	(2.7)	11.0	8.4
DII	3.4	2.9	0.5	3.0	4.4	(1.3)	4.4	3.1
FII	18.2	17.7	0.5	20.9	24.6	(3.7)	24.6	17.8
Individuals investors	25.5	26.8	(1.4)	29.7	27.4	2.3	27.4	26.8
PRO	35.7	35.6	0.0	30.3	24.9	5.4	24.9	35.1
Others	8.9	8.6	0.3	7.8	7.8	0.0	7.8	8.8
Equity Derivatives (Notional Turnover)								
Corporates	5.6	6.5	(0.9)	6.6	9.2	(2.6)	9.2	6.1
DII	0.1	0.1	(0.0)	0.1	0.3	(0.2)	0.3	0.1
FII	12.8	12.8	0.0	13.2	19.2	(6.0)	19.2	12.5
Individuals investors	26.2	27.2	(1.0)	29.2	29.1	0.1	29.1	27.1
PRO	48.2	46.3	1.9	42.6	33.2	9.4	33.2	46.9
Others	7.0	7.1	(0.1)	8.2	8.9	(0.7)	8.9	7.2

Source: NSE.

Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc.

Figure 248: Share of client participation in various segments of Equity derivatives of NSE (%)

Client category	Mar-21	Feb-21	Change	FY21	FY20	Change	FY20	CY21TD
Index Futures								
Corporates	9.4	8.2	1.2	8.5	12.5	(4.1)	12.5	8.9
DII	0.9	0.9	0.1	0.8	1.8	(1.0)	1.8	0.9
FII	14.4	13.2	1.2	14.6	18.2	(3.6)	18.2	13.5
Individuals investors	31.5	35.3	(3.8)	39.3	33.1	6.2	33.1	34.3
PRO	32.7	32.8	(0.2)	28.7	26.6	2.1	26.6	32.2
Others	11.1	9.7	1.5	8.2	7.8	0.3	7.8	10.2
Stock Futures								
Corporates	8.7	8.9	(0.2)	8.7	10.5	(1.8)	10.5	8.8
DII	5.6	4.5	1.2	4.7	5.9	(1.2)	5.9	4.8
FII	21.7	20.8	0.9	25.3	28.0	(2.7)	28.0	20.9
Individuals investors	20.8	22.2	(1.5)	24.5	24.7	(0.2)	24.7	22.3
PRO	35.2	35.4	(0.2)	29.2	23.2	6.0	23.2	34.7
Others	8.1	8.3	(0.2)	7.5	7.7	(0.1)	7.7	8.4
Index Options (Premium Turnover)								
Corporates	5.0	5.9	(0.9)	5.8	8.7	(2.8)	8.7	5.5
DII	0.0	0.0	0.0	0.0	0.1	(0.1)	0.1	0.0
FII	14.3	14.8	(0.5)	15.6	21.1	(5.4)	21.1	14.4
Individuals investors	30.6	30.1	0.5	31.5	28.8	2.7	28.8	30.7
PRO	42.8	41.5	1.3	39.3	32.7	6.6	32.7	41.9
Others	7.3	7.6	(0.4)	7.7	8.6	(1.0)	8.6	7.4
Index Options (Notional Turnover)								
Corporates	5.5	6.5	(1.0)	6.5	9.1	(2.6)	9.1	6.1
DII	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0
FII	12.8	12.7	0.0	13.1	19.2	(6.1)	19.2	12.5
Individuals investors	26.2	27.1	(0.9)	29.1	29.2	(0.0)	29.2	27.1
PRO	48.6	46.6	1.9	43.0	33.4	9.6	33.4	47.2
Others	7.0	7.0	0.0	8.2	9.1	(0.9)	9.1	7.1
Stock Options (Premium turnover)								
Corporates	5.6	5.0	0.6	5.3	8.7	(3.4)	8.7	5.1
DII	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0
FII	7.6	7.0	0.6	5.2	7.7	(2.5)	7.7	6.4
Individuals investors	30.2	30.7	(0.4)	32.4	32.0	0.3	32.0	31.4
PRO	50.7	48.8	1.9	47.7	43.8	4.0	43.8	49.2
Others	5.8	8.4	(2.6)	9.4	7.7	1.6	7.7	7.8
Stock Options (Notional turnover)								
Corporates	5.7	5.2	0.5	5.5	8.3	(2.7)	8.3	5.3
DII	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0
FII	9.4	8.6	0.7	6.8	10.5	(3.7)	10.5	8.1
Individuals investors	28.9	29.5	(0.6)	31.1	31.9	(0.8)	31.9	29.9
PRO	50.0	48.1	1.9	47.3	42.2	5.1	42.2	48.7
Others	6.0	8.5	(2.5)	9.3	7.1	2.2	7.1	8.0

Source: NSE. Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc.

Figure 249: Share of client participation in Currency derivatives of NSE (%)

Client category	Mar-21	Feb-21	Change	FY21	FY20	Change	FY20	CY21TD
Currency Futures								
Corporates	8.8	9.4	(0.6)	8.9	10.1	(1.2)	10.1	9.4
FII	10.6	9.7	0.9	14.5	15.6	(1.0)	15.6	11.3
Banks	10.5	11.9	(1.4)	8.7	10.4	(1.7)	10.4	10.6
DII ex-banks	0.3	0.4	(0.0)	0.2	0.2	0.1	0.2	0.4
PRO ex-banks	48.4	46.8	1.6	43.4	43.3	0.1	43.3	45.7
Individuals investors	19.8	19.6	0.2	21.9	17.9	4.0	17.9	20.7
Others	1.5	2.2	(0.7)	2.4	2.5	(0.1)	2.5	2.0
Currency Options (Premium Turnover)								
Corporates	8.0	8.7	(0.7)	7.5	10.1	(2.6)	10.1	8.6
FII	7.1	7.0	0.0	4.7	2.9	1.8	2.9	6.8
Banks	2.0	1.8	0.1	2.5	2.2	0.3	2.2	1.9
DII ex-banks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PRO ex-banks	60.5	57.7	2.8	61.6	61.7	(0.1)	61.7	58.8
Individuals investors	20.7	22.2	(1.5)	21.4	21.6	(0.2)	21.6	21.7
Others	1.8	2.5	(0.7)	2.2	1.5	0.7	1.5	2.1
Currency Derivates (Premium Turnover)								
Corporates	8.8	9.4	(0.6)	8.9	10.1	(1.2)	10.1	9.4
FII	10.6	9.7	0.9	14.5	15.5	(1.0)	15.5	11.2
Banks	10.5	11.9	(1.4)	8.7	10.4	(1.7)	10.4	10.5
DII ex-banks	0.3	0.4	(0.0)	0.2	0.2	0.1	0.2	0.4
PRO ex-banks	48.4	46.9	1.6	43.4	43.4	0.1	43.4	45.8
Individuals investors	19.8	19.6	0.2	21.9	17.9	4.0	17.9	20.7
Others	1.5	2.2	(0.7)	2.4	2.5	(0.1)	2.5	2.0
Currency Options (Notional Turnover)								
Corporates	5.4	6.0	(0.6)	5.6	8.1	(2.4)	8.1	5.8
FII	5.0	5.2	(0.2)	3.8	2.5	1.3	2.5	4.9
Banks	1.8	1.8	(0.0)	2.4	1.9	0.5	1.9	1.8
DII ex-banks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PRO ex-banks	59.1	54.3	4.8	57.0	60.4	(3.4)	60.4	56.2
Individuals investors	25.5	29.0	(3.4)	27.4	25.0	2.4	25.0	27.6
Others	3.2	3.8	(0.5)	3.7	2.0	1.7	2.0	3.6
Currency Derivatives (Notional Turnover)								
Corporates	6.8	7.5	(0.7)	7.2	9.1	(1.9)	9.1	7.4
FII	7.3	7.3	0.1	8.9	9.0	(0.1)	9.0	7.7
Banks	5.4	6.4	(1.0)	5.4	6.2	(0.8)	6.2	5.7
DII ex-banks	0.1	0.2	(0.0)	0.1	0.1	0.0	0.1	0.2
PRO ex-banks	54.6	50.9	3.8	50.5	51.9	(1.4)	51.9	51.6
Individuals investors	22.4	23.9	(1.5)	24.0	20.2	3.8	20.2	23.8
Others	3.3	3.9	(0.6)	3.9	3.6	0.4	3.6	3.7

Source: NSE.

Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc.

Figure 250: Share of client participation in Interest rate futures of NSE (%)

Client category	Mar-21	Feb-21	Change	FY21	FY20	Change	FY20	CY21TD
Interest rate futures								
Corporates	24.7	20.4	4.3	24.4	18.1	6.3	18.1	23.9
FII	0.8	0.5	0.3	0.7	1.2	(0.6)	1.2	0.7
Banks	26.5	26.9	(0.5)	27.3	19.7	7.6	19.7	26.2
DII ex-banks	8.4	4.4	4.0	5.3	4.3	1.0	4.3	6.2
PRO ex-banks	18.7	28.1	(9.4)	28.2	51.6	(23.4)	51.6	23.3
Individuals investors	21.0	19.7	1.3	14.0	4.9	9.1	4.9	19.7
Others	0.0	0.0	(0.0)	0.1	0.2	(0.1)	0.2	0.0
Interest rate options (Premium Turnover)								
Corporates	NA	NA	NA	41.6	22.4	19.1	22.4	NA
FII	NA	NA	NA	0.0	0.0	0.0	0.0	NA
Banks	NA	NA	NA	18.9	3.4	15.6	3.4	NA
DII ex-banks	NA	NA	NA	0.0	0.0	0.0	0.0	NA
PRO ex-banks	NA	NA	NA	33.0	58.9	(25.9)	58.9	NA
Individuals investors	NA	NA	NA	6.5	14.3	(7.9)	14.3	NA
Others	NA	NA	NA	0.0	0.9	(0.9)	0.9	NA
Interest rate options (Notional Turnover)								
Corporates	NA	NA	NA	47.2	25.3	21.9	25.3	NA
FII	NA	NA	NA	0.0	0.0	0.0	0.0	NA
Banks	NA	NA	NA	15.6	4.1	11.5	4.1	NA
DII ex-banks	NA	NA	NA	0.0	0.0	0.0	0.0	NA
PRO ex-banks	NA	NA	NA	30.5	57.7	(27.2)	57.7	NA
Individuals investors	NA	NA	NA	6.6	11.9	(5.2)	11.9	NA
Others	NA	NA	NA	0.0	1.0	(1.0)	1.0	NA
Interest rate derivatives (Premium Turnover)								
Corporates	24.7	20.4	4.3	24.4	18.1	6.3	18.1	23.9
FII	0.8	0.5	0.3	0.6	1.2	(0.6)	1.2	0.7
Banks	26.5	26.9	(0.5)	27.3	19.7	7.6	19.7	26.2
DII ex-banks	8.4	4.4	4.0	5.3	4.3	1.0	4.3	6.2
PRO ex-banks	18.7	28.1	(9.4)	28.2	51.6	(23.4)	51.6	23.3
Individuals investors	21.0	19.7	1.3	14.0	4.9	9.1	4.9	19.7
Others	0.0	0.0	(0.0)	0.1	0.2	(0.1)	0.2	0.0
Interest rate derivatives (Notional Turnover)								
Corporates	24.7	20.4	4.3	24.6	18.3	6.3	18.3	23.9
FII	0.8	0.5	0.3	0.6	1.2	(0.6)	1.2	0.7
Banks	26.5	26.9	(0.5)	27.2	19.3	7.9	19.3	26.2
DII ex-banks	8.4	4.4	4.0	5.2	4.2	1.1	4.2	6.2
PRO ex-banks	18.7	28.1	(9.4)	28.2	51.8	(23.5)	51.8	23.3
Individuals investors	21.0	19.7	1.3	13.9	5.1	8.9	5.1	19.7
Others	0.0	0.0	(0.0)	0.1	0.3	(0.2)	0.3	0.0

Source: NSE.

Note: DII: Domestic Institutional Investors, FII: Foreign Institutional Investors, Prop traders: Proprietary Traders, Individual investors: individual domestic investors, NRIs, sole proprietorship firms and HUFs, Others: Partnership Firms/LLP, Trust / Society, AIF, Depository Receipts, PMS clients, Statutory Bodies, FDI, OCB, FNs, QFIs, VC Funds, NBFC, etc. Interest options were introduced in December 2019.

Asset category-wise open interest (average daily volume)

Figure 251: Average daily volume of open interest in Equity derivatives (million contracts)

Product	Mar-21	Feb-21	% Change	FY21	FY20	% Change	FY20	CY20TD
Equity Derivatives								
FUTSTK	4,470	4,430	0.9	3,541	4,294	(17.5)	4,294	4,352
OPTSTK	2,998	3,106	(3.5)	2,190	1,490	47.0	1,490	3,015
Equity Derivatives - Index Futures								
BANKNIFTY	2.9	1.8	59.6	1.8	1.7	7.1	1.7	2.2
NIFTY	12.5	12.2	2.2	12.3	17.9	(31.5)	17.9	12.9
FINNIFTY	0.0	0.0	(30.5)	0.0	-	NA	-	0.0
NIFTYIT	-	-	NA	0.0	0.0	(97.0)	0.0	-
Equity Derivatives - Index Options								
BANKNIFTY	29.4	30.8	(4.6)	22.9	14.7	55.1	14.7	29.7
NIFTY	157.5	150.4	4.7	134.6	104.2	29.2	104.2	152.6
FINNIFTY	0.2	0.4	(33.4)	0.1	0.0	NA	0.0	0.3
NIFTYIT	-	-	NA	0.0	0.0	(95.9)	0.0	-

Source: NSE Note: FUTSTK: Stock Futures, OPTSTK: Stock Options

Figure 252: Average daily volume of open interest in Currency derivatives (no of contracts)

Category	Mar-21	Feb-21	% Change	FY21	FY20	% Change	FY20	CY20TD
Futures								
EURINR	177,649	195,120	(9.0)	202,587	74,622	171.5	74,622	211,038
EURUSD	2,476	2,544	(2.7)	5,343	34,538	(84.5)	34,538	3,445
GBPINR	261,361	346,476	(24.6)	147,064	74,553	97.3	74,553	283,648
GBPUSD	2,131	4,880	(56.3)	2,845	4,877	(41.7)	4,877	3,740
JPYINR	44,547	37,718	18.1	37,118	49,206	(24.6)	49,206	39,549
USDINR	4,750,769	4,913,479	(3.3)	3,248,736	3,123,879	4.0	3,123,879	4,442,225
USDJPY	368	81	354.3	96	297	(67.6)	297	193
Options								
EURINR	5,985	12,086	(50.5)	3,664	807	354.0	807	9,412
EURUSD	0	0	NA	0	0	(83.5)	0	0
GBPINR	24,412	32,077	(23.9)	10,551	1,770	496.1	1,770	24,308
GBPUSD	0	0	NA	5	3	102.3	3	0
JPYINR	91	112	(18.6)	100	170	(41.1)	170	92
USDINR	4,705,338	4,525,166	4.0	3,591,791	2,932,818	22.5	2,932,818	4,553,095

Source: NSE

Figure 253: Average daily volume of open interest in Interest rate derivatives II (no of contracts)

Category	Mar-21	Feb-21	% Change	FY21	FY20	% Change	FY20	CY20
Interest rate futures								
577GS2030	36,263	38,960	(6.9)	16,796	-	NA	NA	36,806
645GS2029	3,985	1,984	100.9	32,435	27,975	NA	67,979	2,222
726GS2029	-	-	NA	1,041	89,711	(98.8)	89,711	-
795GS2032	8,202	7,776	5.5	8,367	24,646	(66.1)	24,646	7,958
619GS2034	2,690	1,250	115.2	771	-	NA	4,525	1,754
577GS2030	36,263	38,960	(6.9)	16,796	-	NA	NA	36,806

Source: NSE; Data for only those contracts which were traded in the month of March 2021

Internet-based trading

Average daily turnover through internet trading declined for two consecutive months: ADT of internet-based trading (IBT) fell 19.1% MoM in cash segment and 14.6% MoM in equity derivatives segment, which was largely in-line with drop in NSE's overall turnover in the two segments. Barring the decline in the previous two months IBT in FY21 strengthened across all segments on NSE except interest rate derivatives as compared to the same period in the previous fiscal, largely led by increase in retail participation in these segments. On an average, daily turnover through internet-based trading rose by 70% YoY in Cash market to reach Rs154bn in FY21 (vs. Rs91bn over the same period in FY20),

A similar trend was recorded for Equity derivatives segment as well, where the average daily turnover rose by 43.1% YoY over the same period to reach Rs311bn in FY21 till February *vs* Rs217bn in the previous fiscal year. The trend in IBT has gained momentum since March'20 due to increased retail participation, particularly since the nationwide lockdown, as retail investors and traders started utilising this online platform to trade from their homes.

Average daily turnover in currency derivatives through IBT increased by 26% in FY21 on YoY basis. The trend, however, was quite different for Interest rate derivatives, which witnessed a fall in its daily average by 20% YoY to Rs1.2bn over Apr'20-Mar'21 as compared to Rs1.5bn over the same period in previous financial year.

Figure 254: Average daily turnover of internet-based trading (Rsm)

Segment	Mar-21	Feb-21	% Change	FY21	FY20	% Change	FY20	CY21TD
Cash Market	143,952	177,875	(19.1)	154,332	90,639	70.3	90,639	167,566
Equity Derivatives	320,462	375,326	(14.6)	311,085	217,432	43.1	217,432	345,627
Index Futures	137,070	145,964	(6.1)	132,632	82,859	60.1	82,859	135,559
Stock Futures	135,251	181,869	(25.6)	147,547	121,620	21.3	121,620	165,266
Index Options	42,749	39,620	7.9	26,022	10,875	139.3	10,875	37,945
Stock Options	5,391	7,873	(31.5)	4,884	2,078	135.0	2,078	6,856
Currency Derivatives	43,194	35,399	22.0	39,960	31,717	26.0	31,717	39,226
Currency Futures	42,967	35,233	22.0	39,829	31,610	26.0	31,610	39,050
Currency Options	226	165	36.8	130	108	20.9	108	175
Interest Rate Derivatives	1,106	1,568	(29.5)	1,195	1,495	(20.0)	1,495	1,149
Interest Rate Futures	1,106	1,568	(29.5)	1,195	1,494	(20.0)	1,494	1,149
Interest Rate Options	0	0	NA	0	0	(70.6)	0	0

Source: NSE. Note: Average daily trading volume is calculated as the average of gross traded value i.e., buy side turnover + sell side turnover. *Premium turnover is considered in case of options contracts. Cash market turnover excludes auction market turnover.

Record statistics

NSE registered yet another record in January: Index options premium turnover touched a new record on January 28th, 2021 of Rs186bn in a single day. Previous record high in Index options were registered on December 22nd, 2020 to touch Rs171bn after creating a record on November 11th, 2020 to touch Rs164bn and on August 31st (Rs160bn) and March 19th (Rs146bn) this year. Stock options premium turnover also touched highest record on January 13th, 2021 to touch Rs56bn after touching Rs33bn on December 21st.

The volatility in Indian equities measured by India Volatility Index increased 46% in the last 12 months as result of sharp rise in trading across several segments. NSE hit record turnover in the Cash market to touch Rs1,475bn on November 27th, 2020 vs Rs990bn on August 31st and Rs835bn on May 29th in 2020. While other segments have recorded a significant growth in their average turnover this year, they did not cross their previous record levels. Index futures had recorded its highest turnover of Rs860bn on September 20th, 2019 after the Finance Minister slashed the corporate tax rate from 30% to 22%.

Figure 255: Segment-wise record turnover till March 31st, 2021

Segment	Turnover (Rsbn)	Trading Date
Cash market	1,475	27-Nov-20
Index futures	860	20-Sep-19
Stock futures	1,954	25-Jan-18
Index options (premium)	186	28-Jan-21
Stock options (premium)	56	13-Jan-21

Source: NSE

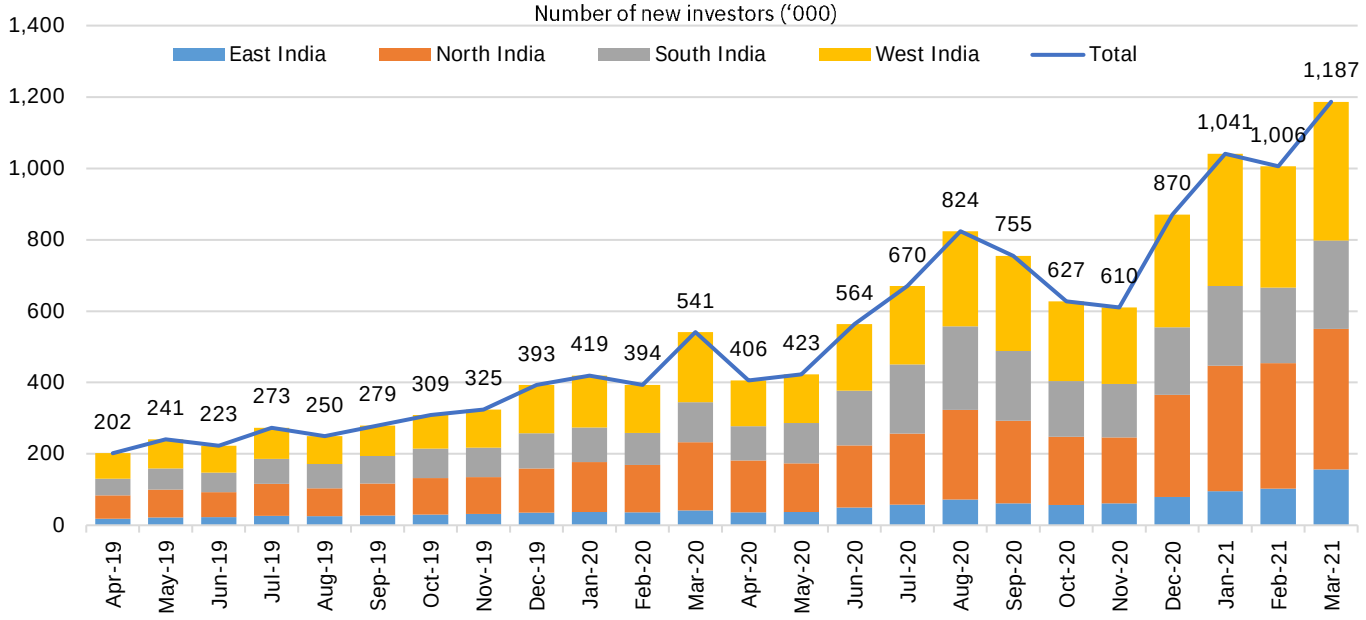
Spatial distribution of trading activities

Registration of new investors hit all-time high

Except a few months, total number of new registrations maintained a positive trajectory on average over the last two fiscal years. As shown in the following chart, monthly registration jumped up five times from 202 thousand in Apr'19 to 1,187 thousand in Mar'21 with a compound growth rate of 8% on MoM basis. In total, 3.8m investors were registered in FY20 which has increased to 9.0m in FY21 with ~122% growth over the year.

The distributional pattern across regions has somewhat changed over the last two fiscal years. In Mar'21, northern states contributed around 33% of total registration which is around 2.2 percentage point lower than Mar'20 (35.3%). Similar trend was observed for Western region as well. The share of total registration in western region fell from 36.4% in Mar'20 to 32.8% in Mar'21. South India has, however, maintained similar distribution and registered around 21% over both the periods. In contrast, East India's share has increased from merely 7.7% in Mar'20 to 13.2% in Mar'21.

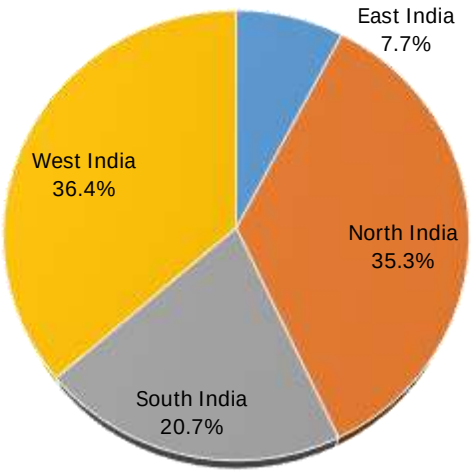
Figure 256: Region-wise distribution of new investors registered



Source: NSE.

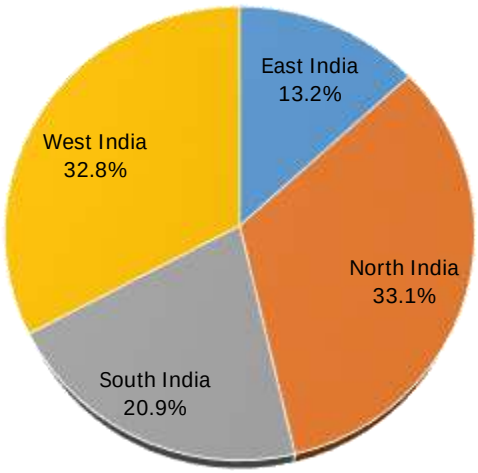
Note: East India is Mizoram, Odisha, West Bengal, Assam, Manipur, Arunachal Pradesh, Tripura, Nagaland, Meghalaya, Sikkim, Chhattisgarh; West India Is Maharashtra, Gujarat, Madhya Pradesh, Daman & Diu, Goa, Dadra & Nagar Haveli; North India Is Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Haryana, Delhi,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

Figure 257: Share of new investors across regions in Mar'**20**



Source: NSE.

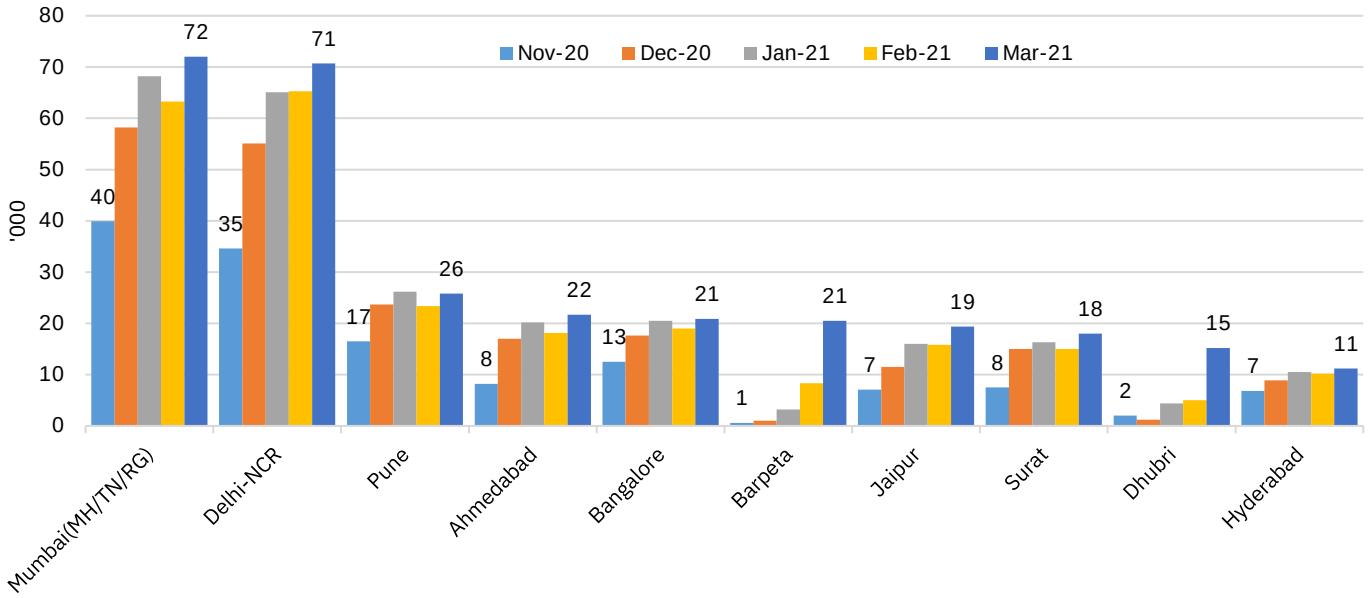
Figure 258: Share of new investors across regions in Mar'**21**



Source: NSE.

Total distribution of new registration is further concentrated in few districts, as shown in the following chart. Over the month of March, top ten districts have contributed a total of 25% of total registration. Among them, around 6.1% of all new investors are from Mumbai region, which is marginally higher than Delhi (6.0%). Among others, 2.2% of all registrations over the month happened in Pune, followed by Ahmedabad and Bangalore (1.8% each). Unlike previous months, two districts from the state of Assam—Barpeta and Dhubri have seen a sudden rise in new registration and contributed around 1.7% and 1.3% of total registration over the month. Besides, a significant number of investors are registered in Surat, Jaipur, and Hyderabad over the last month.

Figure 259: Number of new investors registered in top 10 districts



Source: NSE
Note: Top 10 districts are chosen based on the last month data.

Region-wise distribution of individual investor turnover in the cash market

Similar to investors registration, turnover of individual investors remained skewed across regions: In Mar'21, western and northern regions contributed 37% and 29% of total turnover by individual investors, which is much higher than the other two regions. While the southern region contributed around 29% of total individual investors' turnover, the eastern region contributed remaining 8.6% over the month. The distributional pattern remained somewhat similar over the last fiscal year.

Figure 260: Region-wise distribution of individual **investors' turnover in cash market (%)**

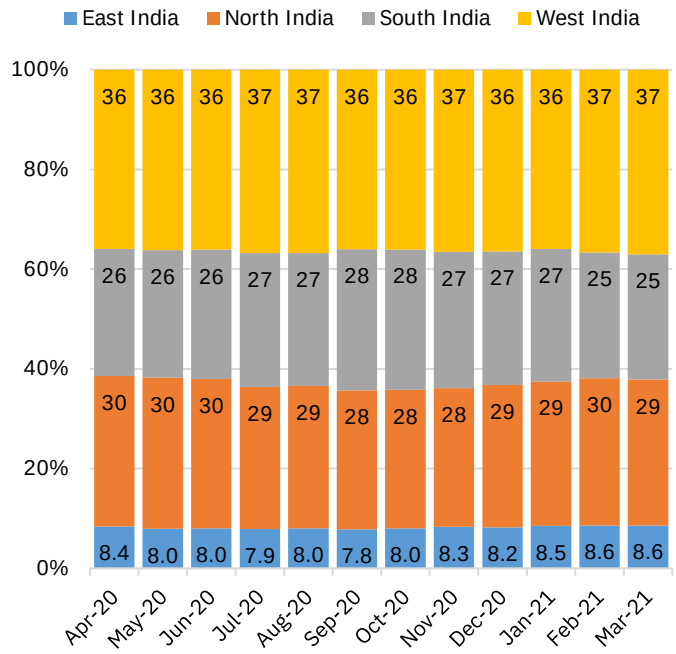
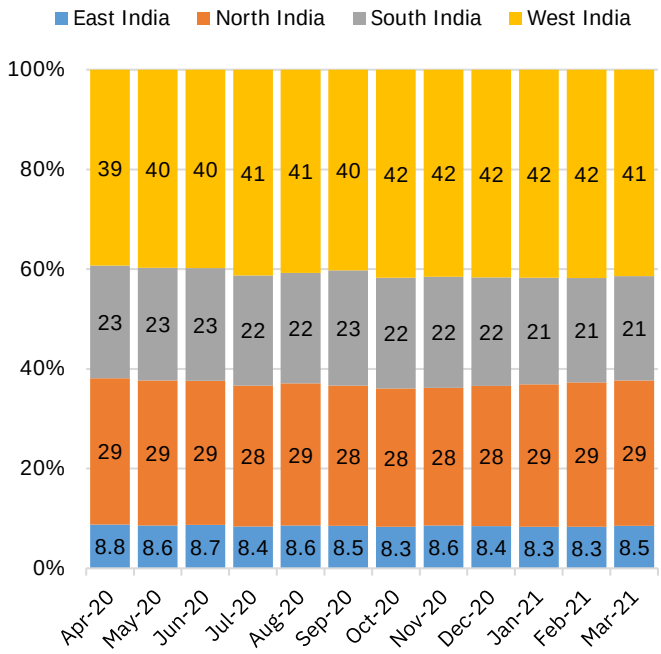


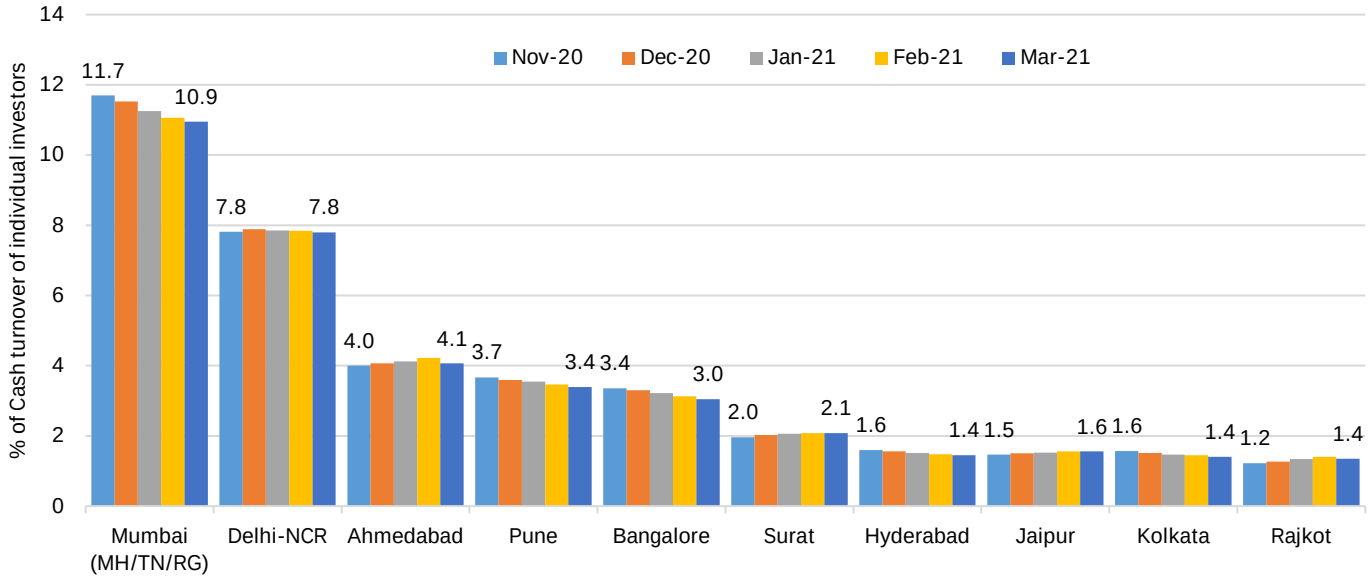
Figure 261: Region-wise distribution of individual **investors' traded volumes**



Source: NSE.

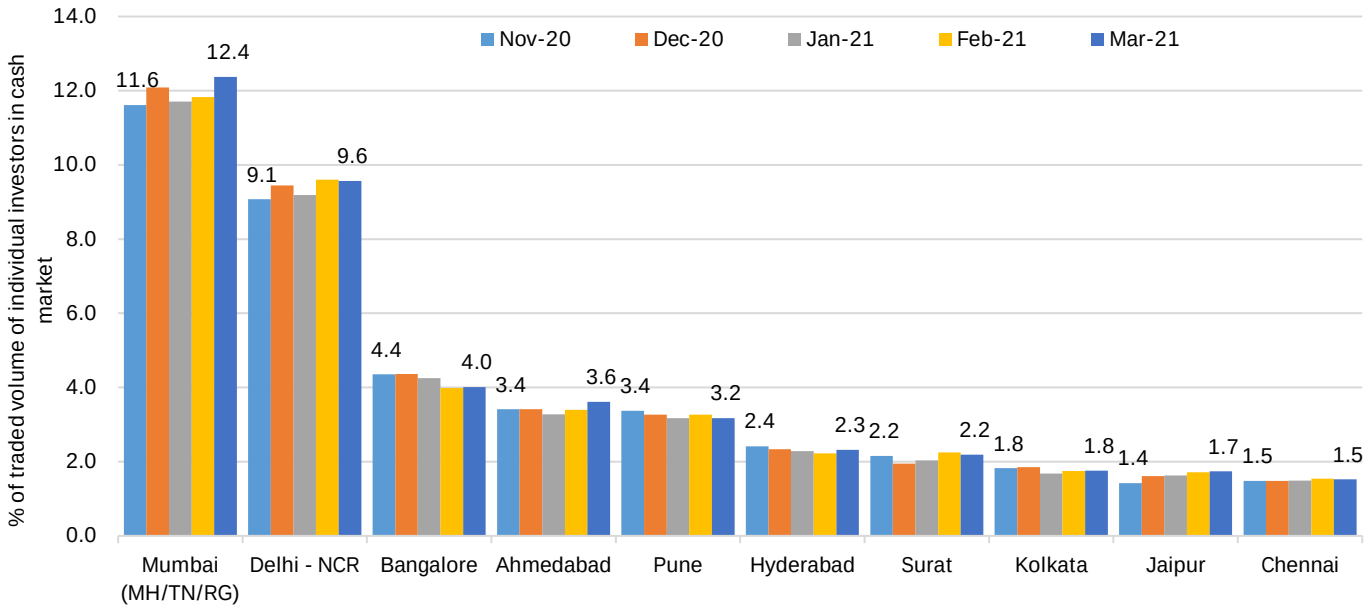
Total turnover and trade volume of individual investors are further concentrated in a few districts over the last fiscal year. Out of total turnover, top ten districts contributed ~37.1% in Mar'21—marginally lower than 37.7% over the previous month, while they contributed ~42.3% to retail trade volume over the month. Amongst them, Mumbai and Delhi have contributed around 10.9% and 7.8% of total turnover respectively over the month, which are somewhat similar than the previous months, while Ahmedabad contributed 4.1%, followed by Pune (3.4%) and Bangalore (3.0%) over the month.

262: Top 10 districts based on Cash turnover of individual investors



Source: NSE.
Note: Individual investors include Individual / Proprietorship firms and HUF. Top ten districts are chosen based on the last month data.

Figure 263: Top 10 districts based on individual investors traded



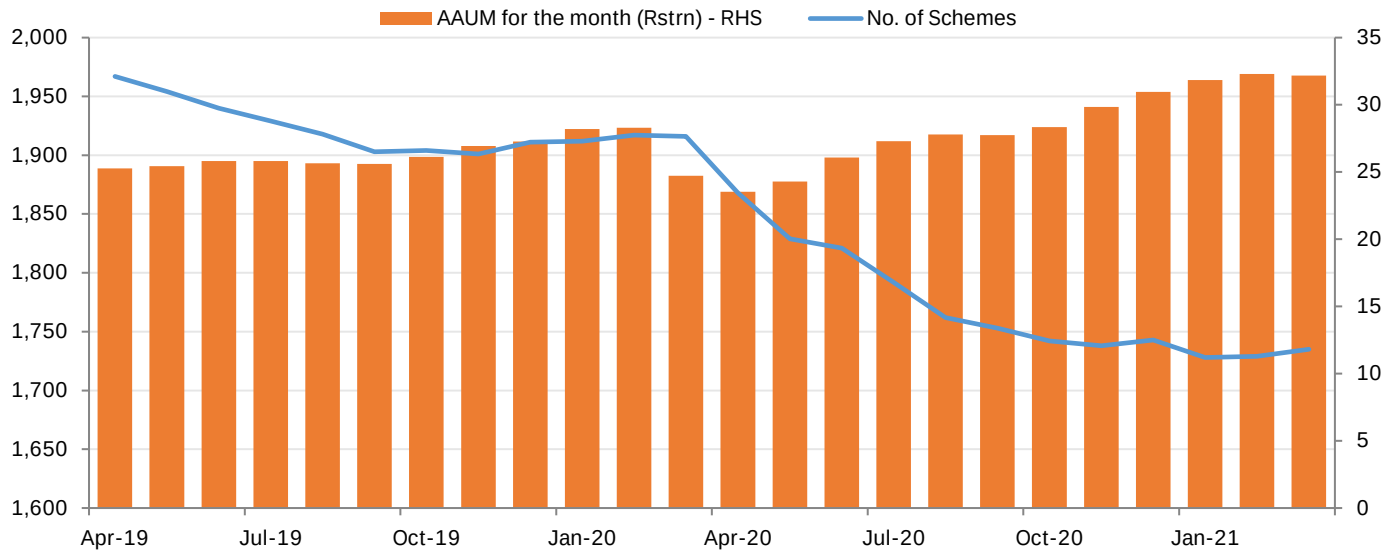
Source: NSE
Note: Individual investors include Individual / Proprietorship firms and HUF. Top ten districts are chosen based on the last month data.

Investment through mutual funds in India

Asset under management (AUM) of mutual funds (MFs) remained elevated in **Mar'21...:** Post a sharp contraction in average AUM over Mar-Apr'20, MFs registered a continuous recovery since May'20 with global market rally in equity prices, thanks to prompt fiscal and monetary responses in all major countries and continuous rise in FII net inflows over the period. Besides, the recent vaccination drives, continuous recovery in high frequency indicators reflects a sharp economic recovery globally. This has resulted MFs' average AUM to reach at a two-year high of Rs32.3trn in Feb'21 before declining it slightly to Rs32.2trn in Mar'21. However, the recent rise in coronavirus cases and slowdown in vaccination coverage in India may hamper the pace of economic recovery which may have negative impact on average AUM as well.

...while total number of MF schemes continued to be low over the period: While average AUM registered record rise since May'20, total number of MF scheme recorded a steady decline since March'20 from 1,916 to merely 1,735 in Mar'21, thanks to recategorization and rationalisation of mutual funds by the market regulator, rise in concentration to large-cap companies, and weakening debt market over the period.

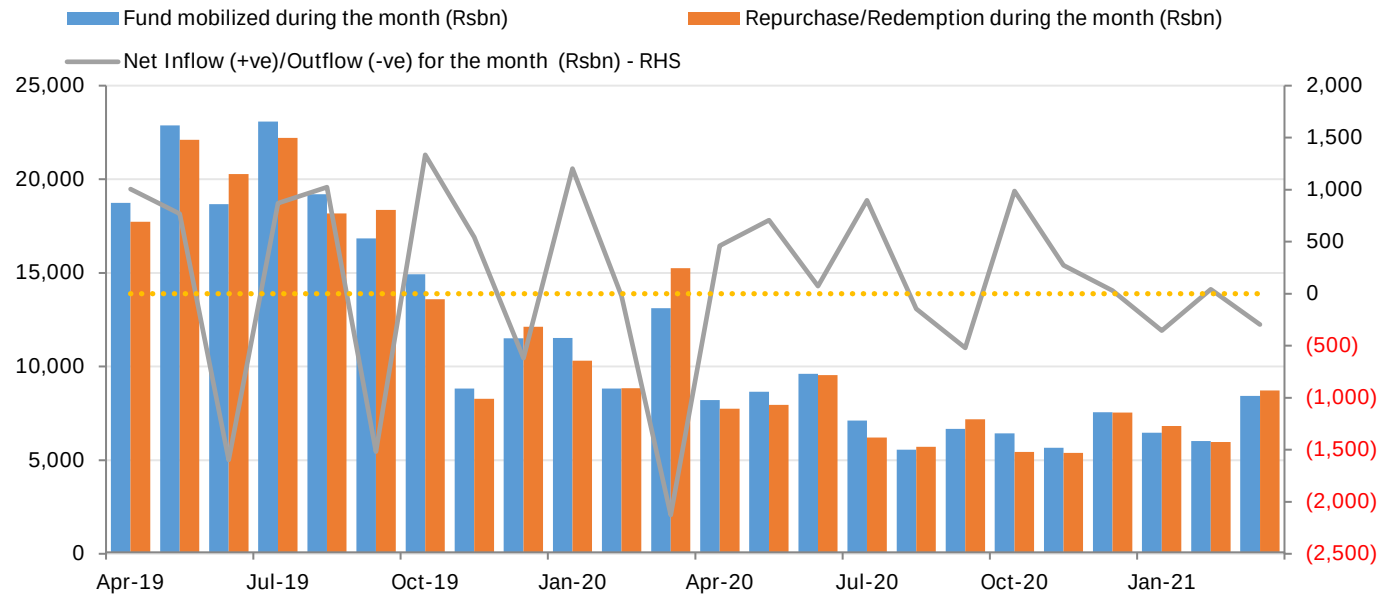
Figure 264: Monthly trend of total MF schemes and average AUM



Source: AMFI. *AAUM-Average Asset under Management.

MFs' net investment remained volatile over the last two fiscal years: There were several ups and downs in MFs' net investment over the last two fiscal years. Their net sales reached to a record high level of Rs2.1trn in Mar'20 before having Rs2.1trn net purchases over the next four months. Net investment again turned negative during Aug-Sep'20, followed by a temporary and marginal increase in net investment over Oct-Dec'20. Mutual funds turned net sellers in Q4-FY21 and recorded Rs612bn net sales over the period due to profit booking activities. In aggregate, however, MFs' net investment has been more than doubled in FY21 to Rs2.1trn as compare to Rs870bn in FY20.

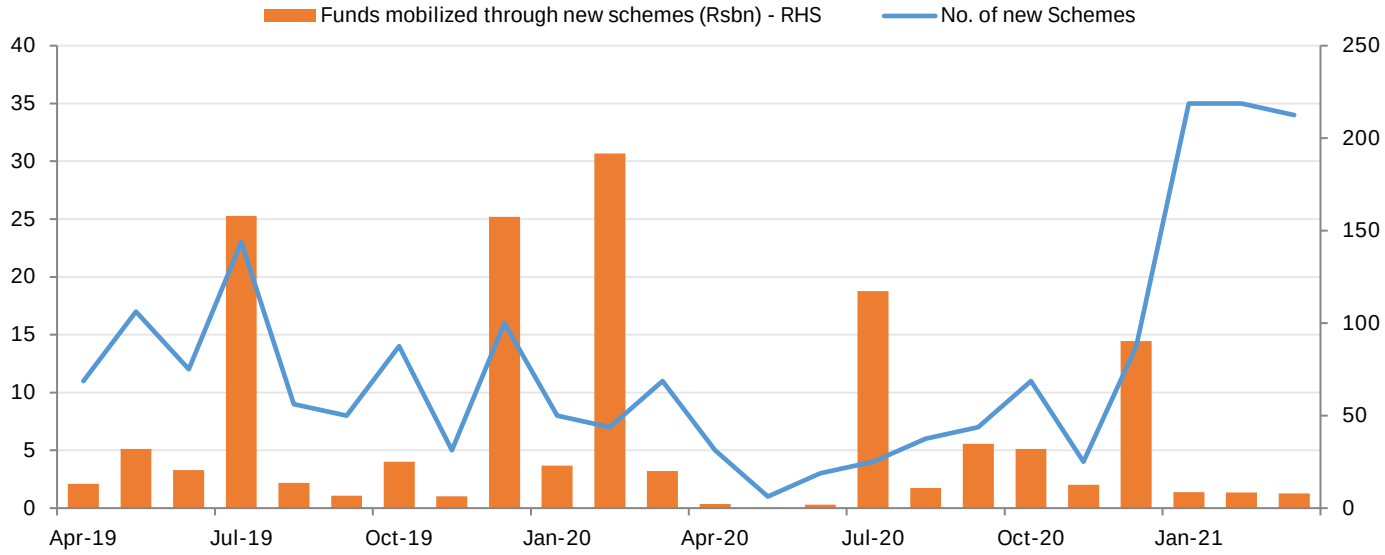
Figure 265: Monthly trend of total investment through mutual funds



Source: AMFI.

New MF schemes continued to be high over Jan-**Mar'21:** Total number of MF schemes increased significantly in Jan'21 with 35 new schemes, vs. six new schemes on average over the previous nine months. Total number of new schemes remained elevated over the next two months as economic situation started showing signs of recovery. The situation was, however, completely different in terms of total fund mobilisation through new schemes. The overall trend of fund mobilisation through new MFs didn't coincide with the number of new schemes. Average fund mobilisation through new funds was merely Rs8.4bn on average over Jan-Mar'21 as compared to Rs44bn on average over the previous three months.

Figure 266: Monthly trend of total investment through new schemes



Source: AMFI.

Policy developments

India

Policy measures by the SEBI during March 2021 [42]

March 3rd, 2021	Code of Conduct & Institutional mechanism for prevention of fraud or market abuse The report by the Committee on Fair Market Conduct had recommended appropriate Institutional Mechanism to ensure accountability of the management/designated persons in case of negligence/failure. SEBI has decided that the Code of Conduct and Institutional Mechanism for prevention of fraud or market abuse shall be applicable to Stock Exchanges, Clearing Corporations and Depositories (herein after collectively referred as 'MIIs'). The circular shall come into force with immediate effect.
March 4th, 2021	Circular on Mutual Funds SEBI had undertaken the exercise of revamping the SEBI (Mutual Funds) Regulations, 1996 (hereinafter called as "MF Regulations") and various circulars issued thereunder. The amendments to MF Regulations shall come into force on 30thday from the date of their publication in the Official Gazette. The amendments cover, among others, provisions pertaining to Cumulative Gross Exposure Limit, Investment Pattern, Change in Control of AMC, Go Green Initiatives, Filing of Annual Information Return etc.
March 5th, 2021	Guidelines for votes cast by Mutual Fund In order to improve transparency and encourage Mutual Funds/AMCs to exercise their voting rights in best interest of the unitholders and based on the deliberations in MFAC, SEBI has laid out additional guidelines for votes cast by Mutual Funds. Some of the key guidelines include: 1. Mutual Funds including their passive investment schemes shall be required to cast votes compulsorily in respect of resolutions pertaining to corporate governance, change in capital structure, stock options and management compensation, social and corporate responsibility, appointment/removal of directors, related-party transactions of the investee companies(excluding own group companies) and any other issue that may affect the shareholders in general and interest of the unit-holders in particular. 2. Mutual funds shall compulsorily cast their votes with effect from April 1st, 2022 for all remaining resolutions that are not mentioned above. 3. Mutual funds shall be exempted from compulsorily casting votes, if they have no economic interest on the day of voting. 4. The vote shall be cast at Mutual fund level, except, in case of strong differing view of any specific scheme against the views of the fund manager. In such case, voting at scheme level shall be allowed subject to conditions. 5. Fund Managers/Decision makers shall submit a declaration on quarterly basis to the Trustees that the votes cast by them have not been influenced by any factor other than the best interest of the unit holders, which shall be further confirmed in the Half Yearly Trustee Report. The circular shall be effective from April 1st, 2021.

[42] For more details, please visit http://www.sebi.gov.in

March 8th, 2021	Amendments to provisions on Unique Client Code (UCC) and mandatory requirement of Permanent Account Number (PAN) for trading on commodity derivative exchanges. SEBI has decided to modify certain provisions of SEBI circular dated September 16th, 2016 to rationalise he compliance requirement of collecting and maintaining copies of PAN of clients by their respective members and enhance the use of e-PAN. 1. e-PAN, members shall verify the authenticity of e-PAN with the details on the website of IT Department and maintain the soft copy of PAN in their records. 2. The exchanges having commodity derivatives segment shall ensure that the members of their exchanges shall verify the authenticity of e-PAN with the details on the website of IT Department and maintain the soft copy of PAN in their records and upload details of PAN or e-PAN so collected to the Exchanges as part of Unique Client code.
March 10th, 2021	Review of norms regarding investment in debt instruments with special features, and the valuation of perpetual bonds. The key norms decided by SEBI w.r.t. investment in debt instruments with special features, and the valuation of perpetual bonds by Mutual Funds are: 1. No Mutual Fund under all its schemes shall own more than 10% of such instruments issued by a single issuer. 2. A Mutual Fund scheme shall not invest more than 10% of its NAV of the debt portfolio of the scheme in such instruments and more than 5% of its NAV of the debt portfolio of the scheme in such instruments issued by a single issuer. The investment limit is within the overall limit for debt instruments issued by a single issuer. 3. The investments of mutual fund schemes in such instruments in excess of the limits mentioned above as on the date of the circular shall be grandfathered and shall not make any fresh investments until the overall investment in brought below the specified limit. 4. The debt schemes shall ensure that the Scheme Information Document (SID) of the scheme has provisions for segregated portfolio. 5. Asset Management Companies/Valuation Agencies shall ensure that the financial stress of the issuer and the capabilities of issuer to repay the dues/borrowings are reflected in the valuation of the securities from the trigger date. 6. Valuation of bonds (with call and put options shall be valued in-line with SEBI circular dated December 11th, 2008.
March 16th, 2021	Streamlining the process of IPOs with UPI in ASBA and redressal of investor grievances Due to certain issues identified in the current UPI system (as an additional payment mechanism with Application Supported by Blocked Amount (ASBA) for Retail Individual Investors), SEBI has decided to institute measures to further streamline the reconciliation process among intermediaries/SCSBs. The circular also provides a mechanism of compensation to investors.
March 22nd, 2021	Guidelines for Business Continuity Plan (BCP) and Disaster Recovery (DR) of Market Infrastructure Institutions (MIIs) SEBI has modified the existing framework for Business Continuity Plan (BCP) and Disaster Recovery Site (DRS) for Stock Exchanges, Depositories and Clearing Corporations. Key provisions in the circular include: 1. Stock Exchanges, Clearing Corporations and Depositories shall have in place BCP and DRS so as to maintain data and transaction integrity.

	2. Apart from DRS, all MIIs including Depositories shall also have a Near Site (NS) to ensure zero data loss. 3. The manpower deployed at DRS/NS shall have the same expertise as available at PDC. 4. Hardware, system software, application environment, network and security devices and associated application environments of DRS / NS and PDC shall have one to one correspondence between them. 5. DR drills should be conducted on a quarterly basis and should be closer to real life scenario (trading days) with minimal notice to DRS staff involved.
March 23rd, 2021	Review of delivery default norms SEBI circular dated September 21st, 2016 had prescribed, inter-alia, provisions for the levy of penalty in the event of delivery default. Based on the representations from market participants in the commodity derivatives segment for standardization of delivery default norms, strengthening the deterrent mechanism and ensuring adequate compensation to the non-defaulting counterparty, SEBI has put in place a new penal structure for commodity derivatives segment for delivery default. The circular shall be effective from the first trading day of the month of May 2021.
March 25th, 2021	Prior Approval for Change in control: Transfer of shareholdings among immediate relatives and transmission of shareholdings and their effect on change in control. SEBI has issued the guidelines w.r.t. transfer of shareholding among immediate relatives and transmission of shareholding by a SEBI registered entity. The guidelines cover: 1. Transfer/transmission of shareholding in case of unlisted body corporate intermediary. 2. Transfer/transmission of shareholding in case of a proprietary firm type intermediary. 3. Transfer/transmission of ownership interest in case of partnership firm type intermediary.
March 26th, 2021	Transfer of business by SEBI registered intermediaries to other legal entity SEBI has issued the guidelines w.r.t. transfer of business (SEBI regulated business activity) from one legal entity which is a SEBI registered Intermediary(transferor) to other legal entity (transferee). They key provisions include: 1. The transferee shall obtain fresh registration from SEBI in the same capacity before the transfer of business if it is not registered with SEBI in the same capacity. 2. In case of change in control pursuant to both regulatory process and non-regulatory process, prior approval and fresh registration shall be obtained by the entity. Same registration number shall be retained in case of granting fresh registration to same legal entity pursuant to change in control. 3. The certificate of registration shall be surrendered in case the transferor ceases to exist or complete transfer of business. The transferor can continue to hold the certificate in case of partial transfer.
March 31st, 2021	Reduction in unblocking or refund of application money SEBI has decided to reduce the timelines for refund of the moneys to the investors by the issuer to four days in case of non-receipt of minimum subscription and failure to obtain listing or trading permission from the stock exchanges.

Global policy developments

SEC announces enforcement task force focused on climate and ESG issues[43]

Keeping in mind the increased focus on climate and ESG-related disclosure and investment in recent times, the Climate and ESG Task Force in the Division of Enforcement will develop initiatives to proactively identify ESG-related misconduct. The task force will use sophisticated data analysis to identify potential violations, with an initial focus on identifying any material gaps or misstatements in issuers' disclosure of climate risks under existing rules. Analysing disclosure and compliance issues relating to investment advisers' and funds' ESG strategies will also come under the purview of this task force.

ESMA advises on framework for data reporting service providers[44]

The EU's security markets regulator published the advice to the European Commission related to data reporting service providers (DRSP). The advice focuses on the fees, fines and penalties applicable to DRSPs subject to EU supervision as well as the criteria determining whether certain DRSPs may be exempted from ESMA supervision (derogation criteria). It aims to provide a simple and clear framework by leveraging on the existing frameworks for Trade Repositories and Securitisation Repositories and by streamlining the approach for the assessment of the derogation criteria.

Announcements on the end of LIBOR[45]

The FCA has announced the all LIBOR settings will either cease to be provided by any administrator or no longer be representative immediately after 31 December 2021, in the case of all sterling, euro, Swiss franc and Japanese yen settings, and the 1-week and 2-month US dollar settings and immediately after 30 June 2023, in the case of the remaining US dollar settings. LIBOR rates will not be available beyond the dates mentioned above and publication of most of the LIBOR settings will cease immediately after these dates.

[43] https://www.sec.gov/news/press-release/2021-42
[44] https://www.esma.europa.eu/sites/default/files/library/esma71-99-1624_drsp_ta_press_release.pdf
[45] https://www.fca.org.uk/news/press-releases/announcements-end-libor

Comparison of trading activities across major exchanges globally

Except a few, major stock exchanged recorded a significant rise in their market sizes globally, thanks to continuous rally in global equity market, significant recovery in high frequency economic indicators, vaccination drive and availability of ample liquidity in the system. The International Monetary Fund has recently predicted a V-shaped recovery in major countries and several companies started showing recovery in their balance sheets as well. In this section, we have examined the overall trend of trading pattern in the securities market over the last two years in different segments across exchanges globally.

Here, we used data from World Federation of Exchanges (WFE) over the period Jan'19-Jan'21 that covers a total of 102 exchanges of which 58 are from the EMEA region, 24 from Asia-Pacific and the rest from the Americas region. The analysis has highlighted NSE's contribution in different segments across exchanges based on domestic market capitalisation and its trading activity in the cash/spot markets and different derivatives markets—Equity, Index derivatives and Currency segments. Major findings of the analysis are:

- Except London Stock Exchange (LSE), large exchanges recorded a decent growth in their market sizes over the past year: While several major exchanges recorded a YoY growth in their market cap, thanks to the positive momentum in the equity market globally, LSE's market cap deteriorated and recorded ~10% decline in market cap on YoY basis to end at US$3.6trn in Jan'21. Among top exchanges, Nasdaq – US recorded highest growth of 46% in its market size on YoY basis to reach at US$19.3trn in Jan'21, while Shenzhen Stock Exchange (SSE) and Hong Kong Exchanges and Clearing (HKEX) recorded 40% rise in their market caps to reach at US$4.9trn and US$6.5trn, respectively. Among others, Shanghai Stock Exchange (SSE) and NSE also performed quite well over the period with 27% and 19% rise in their market caps in Jan'21. These improvements were largely led by V-shape economic recovery in those countries, along with several monetary easing announced by the central banks, significant inflows by foreign investors and ample liquidity available in the system.

- NSE was ranked 11th **globally with US$2.6trn in Jan'21:** NYSE and Nasdaq-US are continued to be the largest stock exchanges globally, followed by Japan, Shanghai, Euronext and Hong Kong stock exchanges. Among others, London, Shenzhen, TMX, Tadawul continued to maintain their ranks in the global market. From India, NSE remained one of the largest exchanges globally with a market cap of US$2.6trn in Jan'21.

- Shenzhen Stock Exchange (SZSE) could maintain its top position throughout the last two years globally in Cash market: Even as all major exchanges recorded several ups and downs over the last two years, SZSE remained to be the largest exchange globally in Cash market with 710m number of trades in Jan'21, while Korea Stock exchange (KRX) and SSE were ranked second and third with 585m and 510m trades over the month, respectively. Over the month, most of the major exchanges recorded a MoM growth in Jan'21. Among them, Nasdaq-US recorded 15% growth over the month, followed by KRX and Cboe Global market with 13% and 11% growth respectively.

- **NSE's position in Stock futures gained one position to become 4th** largest **exchange globally in Stock futures...:** Distibution of total trade volume is quite diverse across exchnages for Stock futures. Post a magnificent rise in Nov'20,

trading activities of Borsa Istanbul has somewhat moderated during Dec-Jan'21. Still, the exchange could maintain its top position gloablly in since Oct'20. Among others, Korea Stock Exchange remained second large with 162m trades in the segment, followed by B3 - Brasil Bolsa Balcão, NSE and Moscow Stock Exchange (MOEX). Over the month, NSE gained one position to be placed as the 4th largest exchange globally with a slight increase in total contacts traded, while MOEX slipped to 5th position with a 13% decline in its contract traded over the month.

- **...while it was ranked** the 8th largest stock exchange in Stock options segment: Nasdaq-US maintained its top position in Jan'21 as well with 222m contracts traded in Stock options, which is ~7.7% higher than the previous month. Among others, B3 - Brasil Bolsa Balcão and CBOE Global ranked second and third with 164m and 146m contracts traded, respectively. Baring a few months, NSE was ranked 8th over the last two years, and had 36.8m contracts traded in Jan'20 with 17% rise on monthly basis.

- Unlike single stock derivatives, NSE is leading in the equity index options over the last two years...: NSE's global share in equity index options segment remained high at 76% in Jan'21—a tad lower than the previous month, and maintained its top position in the market over the last two years in terms of total number of contracts traded in the segment. Among others, KRX was ranked second with 9% share and 83m contracts traded in Jan'21, followed by CBOE Global and DBAG with 83m and 38m contracts traded, respectively over the month.

- **However, NSE's rank remained somewhat low in Equity index futures:** With merely 8m contracts traded, NSE was ranked the 11th largest stock exchange globally in Jan'21 that accounted only 1% market share over the month. In this segment, B3 - Brasil Bolsa Balcão retained its top position over the last two years with 309m contracts traded and 50% market share in Jan'21, followed by CME Group, DBAG and JPX.

- NSE is a clear winner in the Currency options market globally, while ranked third in Currency futures segment: NSE continued to be the largest exchange globally in the Currency options segment over the last two years and third largest in Currency futures in Jan'21. In the options segment, NSE captured 85% market share globally with 73.8m contracts traded in Jan'21, while Moscow Stock Exchange ranked second with merely 2% market share and 1.8m contracts traded. On the other hand, Moscow Exchange topped with 80.5m contracts traded in currency futures, followed by the B3 – Brasil Bolsa Balcão with 73.9m and NSE with 58.6m contracts traded over the month.

Figure 267: Domestic market cap of top ranked exchanges**

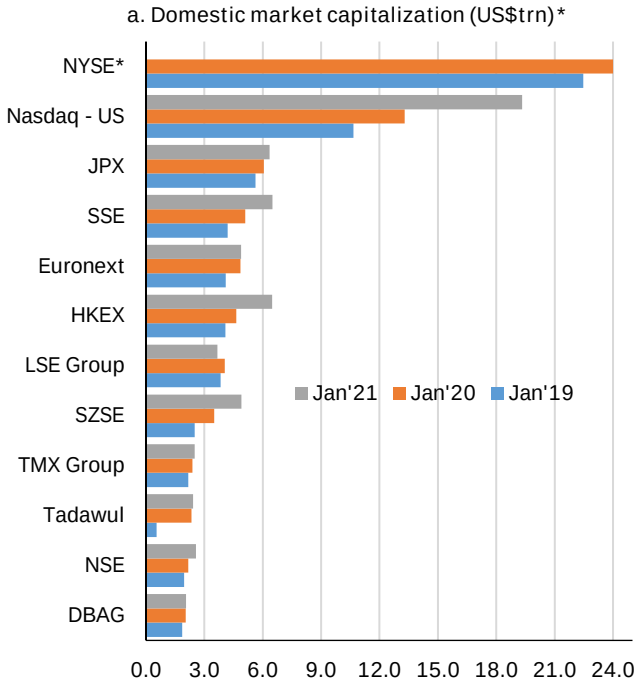


Figure 268: Number of trades in Cash market of top ranked exchanges**

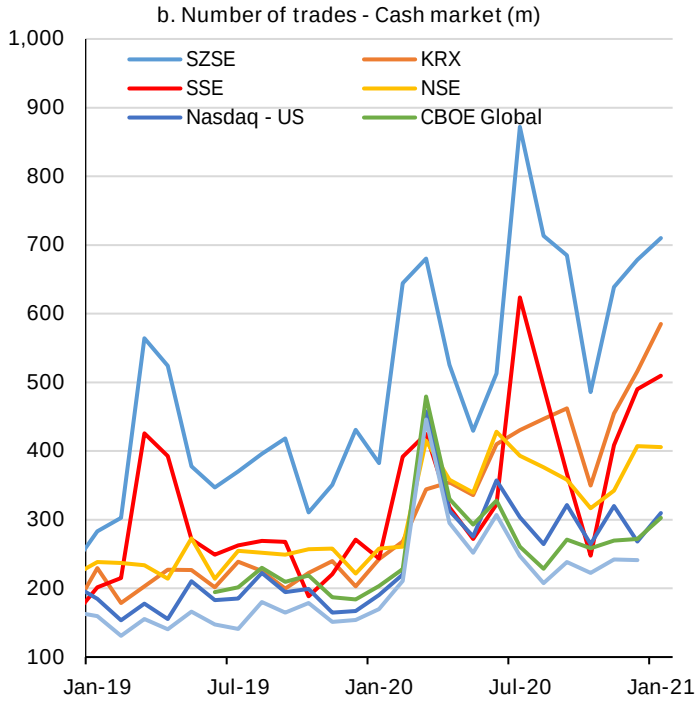


Figure 269: Number of contracts traded in Stock futures of top-ranked exchanges**

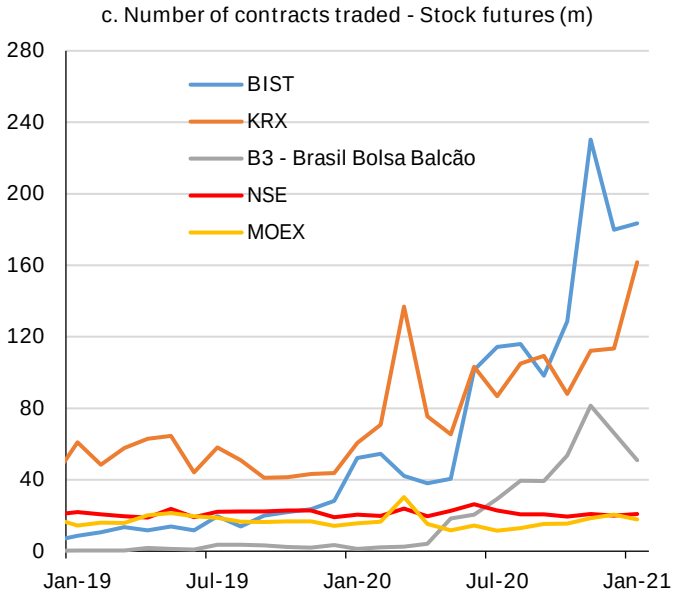


Figure 270: Number of contracts traded in Stock options of top-ranked exchanges**

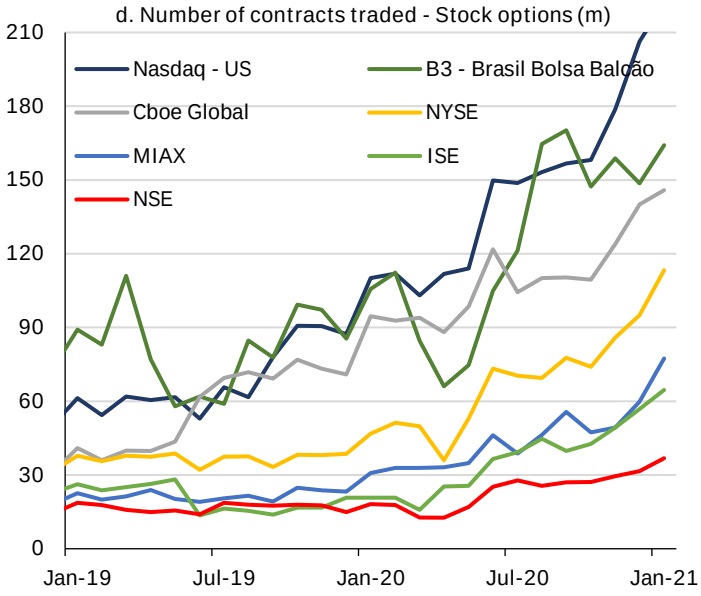


Figure 271: Number of trades in Index futures of top ranked exchanges**

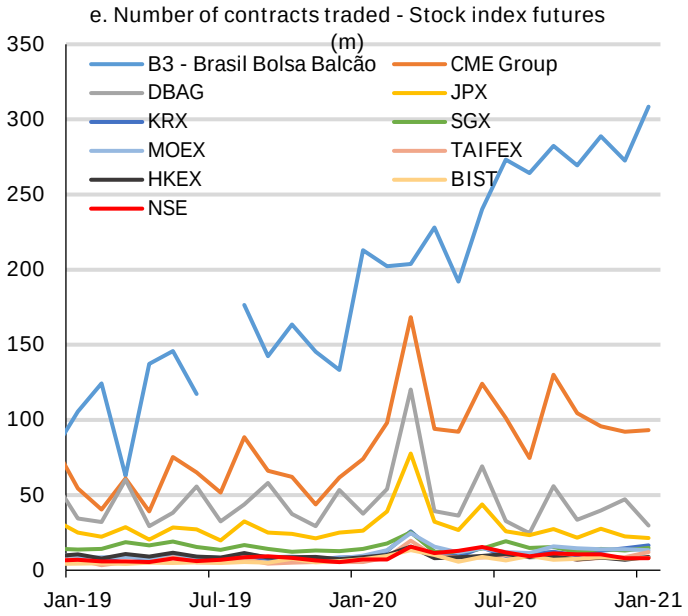


Figure 272: Number of trades in Index options of top ranked exchanges**

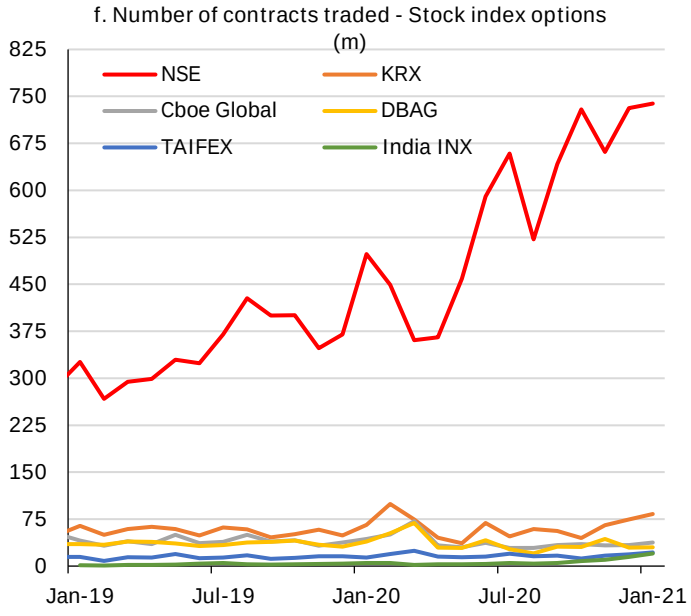


Figure 273: Number of trades in Currency futures of top ranked exchanges**

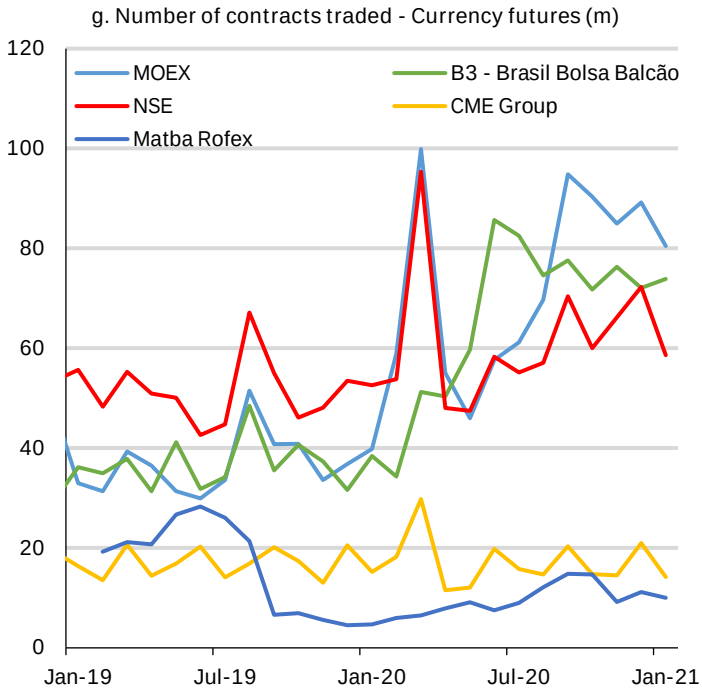
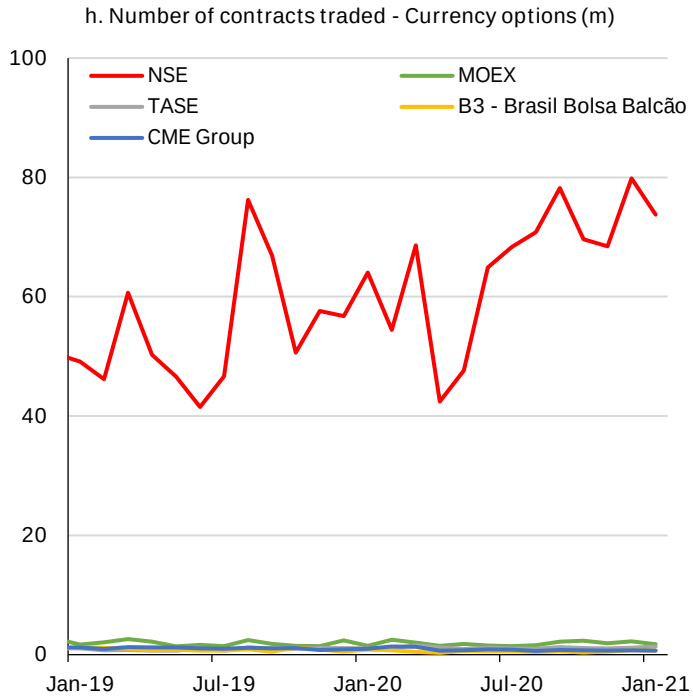


Figure 274: Number of trades in Currency options of top ranked exchanges**



Source: WFE monthly statistics.

Note: * NYSE market capitalisation data is missing for Jan'21.

** ASX - Australian Securities Exchange, BIST - Borsa Istanbul, BME - Spanish Exchanges, BSE - BSE India Limited, HKEX - Hong Kong Exchanges and Clearing, ISE - International Securities Exchange, JPX - Japan Exchange Group Inc., JSE - Johannesburg Stock Exchange, KRX - Korea Exchange, LSE – London Stock Exchange, MOEX - Moscow Exchange, NSE - National Stock Exchange of India Ltd., NYSE – New York Stock Exchange, SGX - Singapore Exchange, SSE - Shanghai Stock Exchange, SZSE - Shenzhen Stock Exchange, TMX – TMX Group, TSE - Tehran Stock Exchange, TFE - Taiwan Futures Exchange, Tadawul - Saudi Stock Exchange (Tadawul), TASE - Tel-Aviv Stock Exchange, MIAX - Miami International Securities Exchange, DBAG - Deutsche Boerse AG, India INX - India International Exchange. Only WFE member exchanges are included in the analysis.

Economic calendar for major countries (April 2021)

Date	Country	Indicator Name	Period	Reuters Poll	Prior Period	Unit
1 Apr 2021	Japan	Jibun Bank Mfg PMI	Mar		52.0	Index (diffusion)
1 Apr 2021	China (Mainland)	Caixin Mfg PMI Final	Mar	51.3	50.9	Index (diffusion)
1 Apr 2021	Russia	Markit Mfg PMI	Mar		51.5	Index (diffusion)
1 Apr 2021	Euro Zone	Markit Mfg Final PMI	Mar	62.4	62.4	Index (diffusion)
1 Apr 2021	United Kingdom	Markit/CIPS Mfg PMI Final	Mar	57.9	57.9	Index (diffusion)
1 Apr 2021	Brazil	Industrial Output YY	Feb	1.5%	2.3%	Percent
1 Apr 2021	Brazil	Markit Mfg PMI	Mar		58.4	Index (diffusion)
1 Apr 2021	United States	ISM Manufacturing PMI	Mar	61.3	60.8	Index
1 Apr 2021	Russia	GDP YY Quarterly Prelim	Q4	-2.2%	-3.4%	Percent
2 Apr 2021	United States	Non-Farm Payrolls	Mar	647k	379k	Person
2 Apr 2021	United States	Unemployment Rate	Mar	6.0%	6.2%	Percent
5 Apr 2021	Japan	Services PMI	Mar		46.3	Index (diffusion)
5 Apr 2021	India	IHS Markit Mfg PMI	Mar	56.8	57.5	Index (diffusion)
5 Apr 2021	Russia	Markit Services PMI	Mar		52.2	Index (diffusion)
5 Apr 2021	United States	ISM N-Mfg PMI	Mar	59.0	55.3	Index
6 Apr 2021	China (Mainland)	Caixin Services PMI	Mar		51.5	Index (diffusion)
6 Apr 2021	Euro Zone	Unemployment Rate	Feb	8.1%	8.3%	Percent
6 Apr 2021	Brazil	Markit Services PMI	Mar		47.1	Index (diffusion)
7 Apr 2021	India	Repo Rate	7 Apr	4.00%	4.00%	Percent
7 Apr 2021	India	IHS Markit Svcs PMI	Mar	54.5	55.3	Index (diffusion)
7 Apr 2021	Euro Zone	Markit Serv Final PMI	Mar	48.8	48.8	Index (diffusion)
9 Apr 2021	China (Mainland)	CPI YY	Mar	0.3%	-0.2%	Percent
12 Apr 2021	India	CPI Inflation YY	Mar	5.40%	5.03%	Percent
12 Apr 2021	India	Industrial Output YY	Feb	-3.0%	-1.6%	Percent
13 Apr 2021	United Kingdom	Industrial Output YY	Feb	-4.5%	-4.9%	Percent
13 Apr 2021	United States	CPI YY, NSA	Mar	2.5%	1.7%	Percent
14 Apr 2021	Euro Zone	Industrial Production YY	Feb	-0.9%	0.1%	Percent
15 Apr 2021	India	WPI Inflation YY	Mar	5.90%	4.17%	Percent
15 Apr 2021	Russia	Industrial Output	Mar	-1.0%	-3.7%	Percent
16 Apr 2021	China (Mainland)	Industrial Output YY	Mar	17.2%	35.1%	Percent
16 Apr 2021	China (Mainland)	GDP YY	Q1	19.0%	6.5%	Percent
16 Apr 2021	Euro Zone	HICP Final YY	Mar	1.3%	1.3%	Percent
20 Apr 2021	United Kingdom	ILO Unemployment Rate	Feb		5.0%	Percent
20 Apr 2021	Russia	Unemployment Rate	Mar	5.6%	5.7%	Percent
21 Apr 2021	United Kingdom	CPI YY	Mar		0.4%	Percent
21 Apr 2021	South Africa	CPI YY	Mar		2.9%	Percent
22 Apr 2021	Euro Zone	ECB Refinancing Rate	Apr	0.00%	0.00%	Percent
22 Apr 2021	Euro Zone	ECB Deposit Rate	Apr	-0.50%	-0.50%	Percent
22 Apr 2021	Euro Zone	Consumer Confid. Flash	Apr	-11.8	-10.8	Net balance
23 Apr 2021	United Kingdom	GfK Consumer Confidence	Apr		-16	Net balance
23 Apr 2021	Russia	Central bank key rate	Apr	4.75%	4.50%	Percent
27 Apr 2021	United States	Consumer Confidence	Apr		109.7	Index
27 Apr 2021	Japan	JP BOJ Rate Decision	27 Apr		-0.10%	Percent
28 Apr 2021	United States	Fed Funds Tgt Rate	28 Apr		0-0.25	Percent
29 Apr 2021	United States	GDP Advance	Q1		4.3%	Percent
30 Apr 2021	Japan	Unemployment Rate	Mar		2.9%	Percent
30 Apr 2021	Euro Zone	GDP Flash Prelim YY	Q1		-4.9%	Percent

Source: Refinitiv Datastream

Annual Macro Snapshot

	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21*
National income										
GDP (Current) (Rs trn)	87.4	99.4	112.3	124.7	137.7	153.9	170.9	188.9	203.5	195.9
GDP (Current) Growth (%)	14.4	13.8	13.0	11.0	10.5	11.8	11.0	10.5	7.8	-3.8
GDP (Constant) Growth (%)	5.2	5.5	6.4	7.4	8.0	8.3	6.8	6.5	4.0	-8.0
GVA (Constant) Growth (%)	5.2	5.4	6.1	7.2	8.0	8.0	6.2	5.9	4.1	-6.5
Agriculture growth (%)	6.4	1.5	5.6	-0.2	0.6	6.8	6.6	2.6	4.3	3.0
Industry growth (%)	3.6	3.3	3.8	7.0	9.6	7.7	5.9	5.3	-1.2	-8.2
Services growth (%)	5.9	8.3	7.7	9.8	9.4	8.5	6.3	7.2	7.2	-8.1
Per Capita GDP (Curr) (Rs)	71,609	80,518	89,796	98,405	1,07,341	1,18,489	1,30,061	1,42,328	1,51,760	144,503
Prices										
CPI Inflation (%)		10.1	9.3	5.9	4.9	4.5	3.6	3.4	4.8	6.2
CPI – Rural (%)		10.7	9.6	6.1	5.5	5.0	3.6	3.0	4.2	6.0
CPI – Urban (%)		9.5	9.1	5.4	4.1	4.0	3.6	3.9	5.4	6.4
WPI Inflation (%)	8.9	6.9	5.2	1.2	-3.7	1.7	3.0	4.3	1.7	1.2
Primary articles (%)	9.8	11.4	9.9	2.2	-0.4	3.5	1.3	2.8	6.8	1.5
Fuel & power (%)	13.9	7.1	7.1	-6.1	-19.7	-0.2	8.1	11.6	-1.8	-8.1
Manuf. prods (%)	7.3	5.3	3.0	2.5	-1.8	1.4	2.8	3.6	0.3	2.6
Money, banking & interest rates										
Money supply (M3) growth (%)	13.5	13.6	13.4	10.9	10.1	10.1	9.2	10.5	8.9	
Aggregate deposit growth (%)	13.5	14.2	14.1	10.7	9.3	15.3	6.2	10.0	7.9	
Bank credit growth (%)	17.0	14.1	13.9	9.0	10.9	8.2	10.0	13.3	6.1	
Non-food credit growth (%)	16.8	14.0	14.2	9.3	10.9	9.0	10.2	13.4	6.1	
Cash Reserve Ratio (%, eop)	4.8	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0
Bank Rate (%, eop)	9.50	8.50	9.00	8.50	7.75	6.75	6.25	6.50	4.65	4.25
Public Finance										
GOI rev. receipts growth (%)	-4.7	17.0	15.4	8.5	8.5	15.0	4.4	8.2	8.4	-7.7
Tax receipts growth (%)	12.1	16.5	9.9	9.3	16.9	17.9	11.8	8.4	-3.4	-5.5
GOI Expenditure growth (%)	8.9	8.1	10.6	6.7	7.6	10.3	8.4	8.1	16.0	28.4
Subsidies growth (%)	25.7	18.0	-1.0	1.4	2.3	-11.1	-4.4	-0.7	17.5	147.3
Interest expense growth (%)	16.7	14.7	19.5	7.5	9.7	8.8	10.0	10.2	5.1	13.2
External transactions										
Exports growth (%)	21.9	-1.8	4.9	-1.5	-15.5	5.1	10.1	8.8	-5.2	-7.5
POL exports growth (%)	34.9	8.7	4.3	-10.7	-46.1	3.4	18.8	24.5	-11.8	
Non-POL exports (%)	19.3	-4.2	5.1	0.8	-8.6	5.4	9.0	6.6	-4.1	
Imports growth (%)	32.4	0.2	-8.4	-0.3	-15.0	1.0	21.2	10.5	-7.8	-18.2
POL exports growth (%)	46.4	5.7	0.7	-16.4	-40.1	5.3	25.0	29.9	-7.5	-37.0
Non-POL exports growth (%)	26.8	-2.3	-13.0	9.1	-3.8	-0.2	20.1	4.5	-7.8	-10.9
Net FDI (US$bn)	21.9	19.8	21.6	31.3	36.0	35.6	30.3	30.7	43.0	
Net FII (US$bn)	17.2	26.9	4.8	42.2	-4.1	7.6	22.1	-0.6	-1.4	
Trade Balance – RBI (US$bn)	-189.7	-195.7	-147.6	-144.9	-130.1	-112.4	-160.0	-180.3	-157.5	
Current Acc. Balance (US$bn)	-78.2	-87.8	-32.4	-26.7	-22.1	-15.2	-48.7	-57.2	-24.6	
Forex Reserves (US$bn)	294.4	292.6	303.7	341.4	355.6	370.0	424.4	411.9	475.6	579.3
Exchange rate (USDINR)	47.95	54.45	60.50	61.15	65.46	67.09	64.45	69.89	70.88	74.20

Source: CMIE Economic Outlook, NSE. * FY21 GDP data pertains to Second Advance Estimates. FY21 public finance data are revised estimates.

Our reports on the economy and markets since the beginning of 2020

Sr. No.	Date	Report
1	12-Apr-21	Macro Review: IIP and Inflation
2	07-Apr-21	Macro Review: RBI Monetary Policy
3	01-Apr-21	Macro Review: Q3FY21 Balance of Payments
4	16-Mar-21	Macro Review: India Monthly Trade
5	16-Mar-21	Market Pulse March 2021: A monthly review of Indian economy and markets
6	25-Mar-21	India Ownership Tracker December 2020
7	12-Mar-21	Macro Review: IIP and Inflation
8	08-Mar-21	Conversations on Corporate Governance: Dialogue 6
9	01-Mar-21	Q2FY21 Corporate Performance Review
10	27-Feb-21	Macro Review: Q3FY21 GDP
11	15-Feb-21	Macro Review: IIP and Inflation
12	12-Feb-21	Market Pulse February 2021: A monthly review of Indian economy and markets
13	08-Feb-21	Conversations on Corporate Governance: Dialogue 5
14	05-Feb-21	Macro Review: RBI Monetary Policy
15	01-Feb-21	Union Budget FY2021-22
16	17-Jan-21	Macro Review: India Monthly Trade
17	11-Jan-21	Market Pulse January 2021: A monthly review of Indian economy and markets
18	11-Jan-21	Macro Review: FY21 GDP Advance Estimates
19	05-Jan-21	India Ownership Tracker September 2020
20	31-Dec-20	Macro Review: Q1FY21 Balance of Payments
21	16-Dec-20	Conversations on Corporate Governance: Dialogue 4
22	07-Dec-20	Market Pulse Nov-Dec 2020: A monthly review of Indian economy and markets
23	05-Dec-20	Macro Review: RBI Monetary Policy
24	28-Nov-20	Macro Review: Q1FY21 GDP
25	26-Nov-20	Q2FY21 Corporate Performance Review
26	13-Nov-20	Macro Review: IIP and Inflation
27	28-Oct-20	Conversations on Corporate Governance: Dialogue 3
28	28-Oct-20	Market Pulse **October** 2020: A monthly review of Indian economy and markets
29	16-Oct-20	Macro Review: India monthly trade
30	13-Oct-20	India Fiscal Stimulus 3.0
31	13-Oct-20	Macro Review: IIP and Inflation
32	09-Oct-20	Macro Review: RBI Monetary Policy

33	06-Oct-20	India Ownership Tracker June 2020
34	05-Oct-20	The State of States in India: A 360-degree view
35	30-Sep-20	Macro Review: Q1FY21 Balance of Payments
36	29-Sep-20	Conversations on Corporate Governance: Dialogue 2
37	28-Sep-20	Market Pulse September 2020: A monthly review of Indian economy and markets
38	16-Sep-20	Macro Review: India monthly trade
39	14-Sep-20	Macro Review: IIP and Inflation
40	01-Sep-20	Macro Review: Q1FY21 GDP
41	28-Aug-20	Conversations on Corporate Governance: Dialogue 1
42	26-Aug-20	Market Pulse August 2020: A monthly review of Indian economy and markets
43	22-Aug-20	Q1FY21 Corporate Performance Review
44	17-Aug-20	Macro Review: India monthly trade
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60	22-May-20	Macro Review: RBI Monetary Policy
61	17-May-20	Macro Review: India COVID-19 Stimulus Package (Fifth Tranche)
62	16-May-20	Macro Review: India COVID-19 Stimulus Package (Fourth Tranche)
63	15-May-20	Macro Review: India COVID-19 Stimulus Package (Third Tranche)
64	14-May-20	Macro Review: India COVID-19 Stimulus Package (Second Tranche)
65	13-May-20	Macro Review: India COVID-19 Stimulus Package (First Tranche)
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