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COVID-19: India Macro and Market Outlook

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Executive Summary

Economic outlook grim but equity markets not so much

A looming global recession and an unprecedented drop in domestic economic activity owing to a 40-day **nationwide lockdown has altered India's growth outlook. Initial** signs are already visible in high-frequency macro indicators like monthly merchandise trade, auto sales, fuel sales and power generation and among others. 1QFY21 GDP is expected to witness a significant lockdown-induced contraction, with improvement thereon contingent on the efficacy of policy response and the pace at which normalcy returns. In this report, we provide a detailed assessment of the current macro environment and its impact on growth and markets, beginning with a quick note on the evolving spread of COVID-19 worldwide, leading to a worldwide recession, thanks to the response measures undertaken, with India among a handful of countries that might see positive growth in FY21.

Growth estimates have been sharply downgraded, with India now expected to grow at around 4% in FY20 (cf. **CSO's 2nd** Advance Estimate of 5%) and at sub-1% (base case) in FY21—the least seen in the post-liberalisation era, with risks tilted to the downside. The situation remains highly fluid and uncertain, and estimates may see meaningful revisions on either side. While the national lock-down is slated to be eased on May 3rd, decisions would differ across states depending on the spread and state of the infection curve. Apart from all the measures announced thus far, incremental fiscal policy response would have a bearing on the pace of recovery during FY21, specifically on vulnerable segments of the economy like MSMEs.

Pre-empting a massive COVID-19-induced uncertainty and global economic shock, equity markets worldwide fell sharply post mid-February until March 23rd, accompanied with heightened volatility, only to rise again in April amidst emerging signs of a flattening of COVID-19 curve globally and surge in fiscal/monetary intervention. Indian equity markets have been beaten down more, and are still down 25% YTD (Nifty 50) despite a near-term rally.

Near-term uncertainty and volatility apart, historical performance during sharp bear markets would point to a positive equity market outlook from a medium-term perspective. That said, market performance would also depend upon the extent of the COVID-19 outbreak and evolving macroeconomic fundamentals. Equity markets continue to be a sensible, liquid choice for investments, capital raising, hedging, and long-term wealth creation.

- Status of COVID-19 outbreak: As of April 26th, the SARS-Cov-2 virus has infected more than 2.9mn people globally, taking more than 200,000 lives. Originating from China—where the outbreak first started in Dec'19 and soon affected the neighbouring Asian countries (South Korea, Japan and Singapore)—is slowly gaining normalcy amid minimal new cases, the contagion has turned out to be much more severe in the Western developed economies, particularly the US and parts of Europe. India currently stands at ~27k positive cases and ~850 causalities (as on April 26th). Despite unfavourable demographics in these circumstances, daily known cases have risen at a slower pace in India compared to several other countries, partly attributed to slower pace of testing in the beginning, but also substantially due to the 40-day nationwide lockdown—amongst the strictest in the world. The spread in India also shows a relatively low positive rate, i.e., incidence of positive cases among the tested population.
- Global recession imminent—worst since the 1930s: Stringent projection measures adopted by countries across the world to contain the outbreak have severely impacted economic activity. A global recession is inevitable, as projected by global multilateral institutions, and reflected in several high frequency indicators such as Purchasing Managers Index (PMI), jobless claims in the US, trade volumes, retail sales, Q1 corporate earnings and commodity prices among others. The IMF expects global growth to contract by 3% in 2020, calling it the worst recession

since the Great Depression of 1930s. The World Trade Organisation expects trade volumes to fall by 13% (optimistic scenario) to 32% or more (worst case) in 2020.

- India expected to grow at sub-1% in FY21 in the base case: The official 21-day lockdown that began on March 25th and later extended by another 19 days has brought economic activity to a halt across several industries, leading to an unprecedented contraction in consumption that's foregone, and on investment demand. 4QFY20 GDP growth is now expected to fall to 1%, translating into a growth of 4% for the fiscal vs. the CSO's Second Advance estimate of 5.0%. For FY21, we expect GDP growth in the range of -0.3% to +1.7% depending on the extent of economic shock and pace at which normalcy returns, with base case estimate of 0.8% (implying an approx. loss in GDP of ~Rs8trn).

- An uncertain situation: As we write, the situation is highly fluid and uncertain, and estimates may, therefore, see meaningful revisions on either side. While the overall spread of the virus might is showing signs of peaking out, its distribution across the country remains disproportionately inclined towards the higher income (SDP) states like Maharashtra, Tamil Nadu and Gujarat. Even as the national lock-down is slated to end on May 3rd, this distribution would determine the willingness of states to follow suit.

- A step-up in policy response imperative: As a policy response to COVID-19, the RBI has slashed the policy repo rate by 75bps and the reverse repo rate by a much higher 115bps, and announced a slew of measures to boost liquidity and ease financial stress. That said, with inflation trajectory trending downwards and growth falling to unprecedented low levels, we expect the RBI to cut policy rates by another 50-75bps, *ceteris paribus*, besides taking further measures to ensure adequate liquidity in the system using conventional as well as unconventional tools.

  The Government's response through a Rs1.7trn relief package (0.8% of GDP) is currently restricted to the poor sections of the society. When compared with other developed and developing economies, the fiscal impulse in India has been relatively limited thus far and expected to be significantly stepped up, perhaps not in one go but over a longer period as the ramifications of the slowdown become clearer across the country. It is important that states take a bigger role in the rescue effort, particularly to address supply-side bottlenecks, ease stress in the MSME sector, revive exports, and address industry-specific issues.

- Market reaction a testament of an impending economic downturn: Pre-empting a massive COVID-19-induced global economic shock, equity markets worldwide fell sharply post mid-February until March 23rd, accompanied with heightened volatility, only to rise post that amid emerging signs of a flattening of COVID-19 curve globally and surge in fiscal/monetary intervention. Flight of capital to safe havens led to a rally in gold, gilts and US dollar. A sharp rise in credit spreads globally is signalling towards a potential credit crisis. Commodity prices, including crude oil prices, have crashed amid strengthening concerns of a global recession.

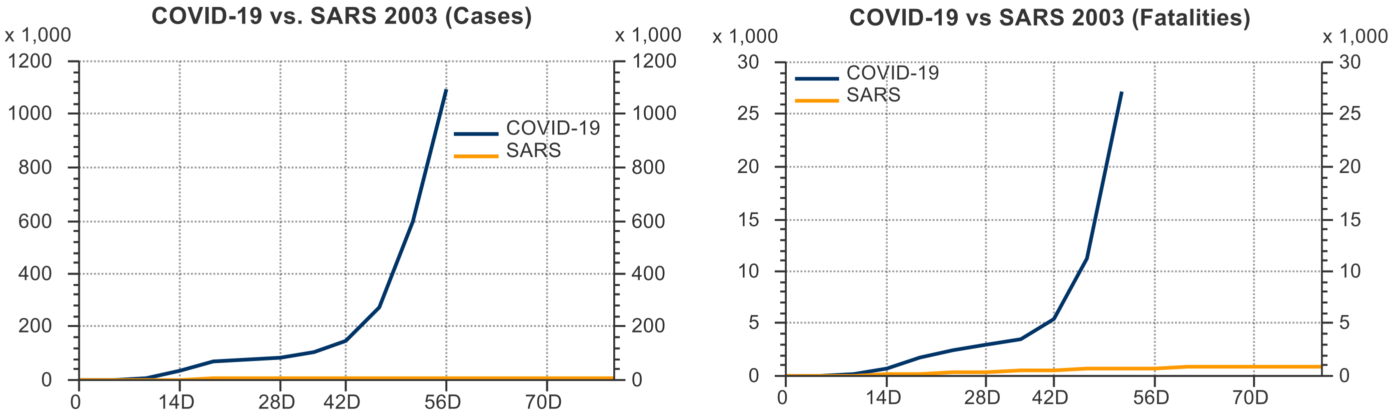
  Situation back home has been no better, with a) equity markets (Nifty 50) falling by 25% YTD despite a rally over the last few weeks, accompanied with a sharp rise in volatility (+235% YTD), b) widening corporate/G-sec spreads reflecting tight financial conditions, reduced risk appetite and demand-supply imbalance, and c) currency depreciating by 7% YTD amid a surge in foreign capital outflows.

- Equity markets remain a sensible, liquid choice for investments and capital raising:, Historical performance during sharp bear markets usually points to a positive equity market outlook from a medium-term perspective, especially when seen in the light of relative and absolute valuations, comparison between alternative asset classes (earnings and bond yields) and market cap to GDP ratio (lowest in the last 15 years). While that's history, market performance in future would also depend upon the extent of the COVID-19 outbreak in India and how domestic and global macroeconomic situation evolves, apart from near-term uncertainty and volatility. Nevertheless, equity markets continue to be a sensible, liquid choice for investments, capital raising, hedging, and long-term wealth creation.
- Now for some silver lining: While COVID-19 has drastically altered India's economic outlook, there are still some positives to take cognizance of that makes India relatively better placed to deal with the outbreak and attendant ramifications. In India, the depth and breadth of the COVID-19 spread has been lower as compared to several other emerging and developed economies. On the macro front, we have a) a comfortable inflation trajectory which is unlikely to be an impediment to rate cuts, b) a low external vulnerability, thanks to near record-high forex reserves adequately providing for imports for up to a year, near-1% current account deficit and low external debt, c) net benefits from low crude oil prices, notwithstanding some headwinds in the form of poor remittances, d) a relatively stable currency and e) an improving 'ease of doing business ranking'.

Status of COVID-19 Outbreak

COVID-19 deadlier than similar outbreaks in the past: As on April 26th, the virus has spread to 210 countries, inflecting 2.9mn people, taking more than 200,000 lives, implying a global fatality rate of 7%, even as aggressive testing and contact tracing is still underway which may eventually bring down the fatality rate. While close comparisons to COVID-19 are SARS (Severe Acute Respiratory Syndrome) in 2003 and MERS (Middle East Respiratory Syndrome) in 2008, the current outbreak has its closest comparison with the infamous Spanish flu of 1918. COVID-19 appears to be deadlier than previous such outbreaks in terms of way it spreads and delay in showing symptons, thereby making containment challenging. The R-naught (R0—represents average number of new infections generated by an infectious person) for COVID-19 is estimated in the range of 2 to 6, implying an infected person may pass on the infection to 2 to 6 people.

Figure 1: COVID-19 vs. SARS 2003: Cases and fatalities



Source: Refinitiv Datastream, NSE

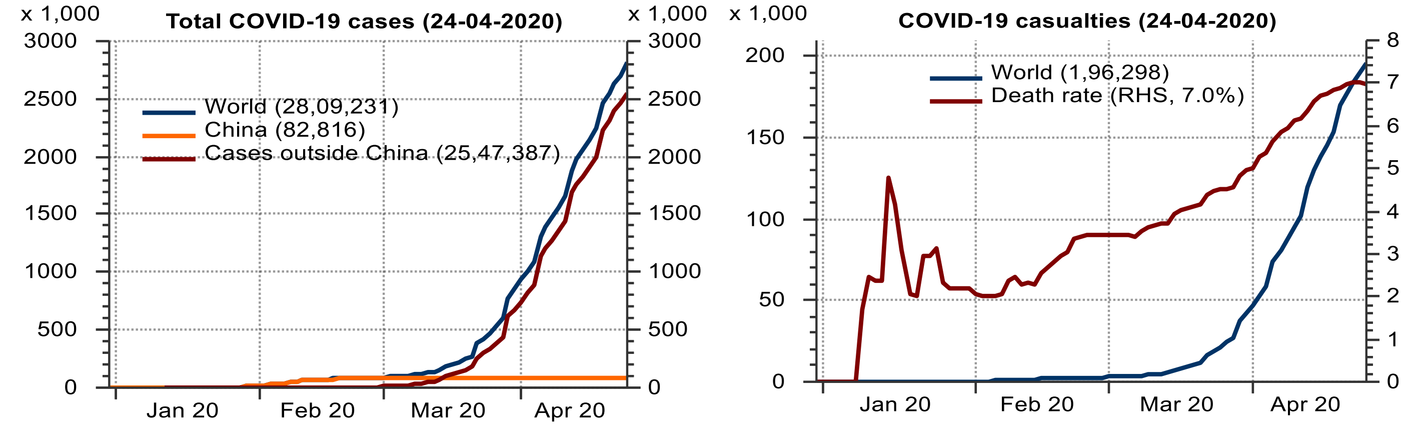
Figure 2: Comparison of COVID-19 with other outbreaks

Disease	Start of the outbreak	End of the outbreak	Cases	Fatalities	Case Fatality Rate
Spanish Flu	Mar-1918	Summer 1919	~500m	~50m	10%
SARS	Nov-2002	Jul-2003	8,096	774	9.6%
H1N1 Swine Flu*	Apr-2009	Aug-2010	1.6m	18,449	1.2%
MERS	Sep-2012		2,494	858	34.4%
Ebola	Dec-2013	Mar-2016	28,652	11,325	39.5%
Seasonal Flu	NA	NA	31-45mn/year	26k-53/year	0.1%
COVID-19	Dec-2019		2.9mn	200k	6.9%

Source: Centre fo Disease Controls and Prevention, World Health Organisation, Media reports, NSE. *Confirmed cases by WHO. **As of April 26th

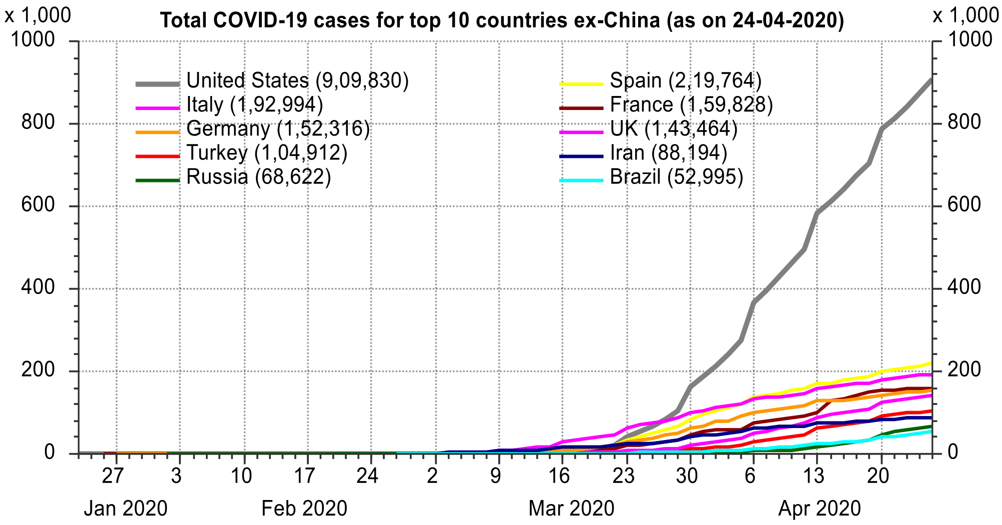
Outbreak much more severe in the western developed economies: While China, where the outbreak first started in Dec'19 and soon affected the neighbouring Asian countries (South Korea, Japan and Singapore), is slowly gaining normalcy, the contagion has turned out to be much more severe in western developed economies, particularly the US and Europe. The US has now more cases than Spain, France, Italy and Germany combined. The fatality rate, however, varies across countries (5% in the US, 10-13% in European countries, 1% in Russia). While total cases per mn of world population stands at ~300, deaths per mn world population is nearly 21, largely led by Euopean countries where the deaths/mn figure is as high as ~1,150 for San Marino, ~500 for Belgium and ~440 for Spain. On the positive side, daily infections are slowly inching downwards, indicating a flattening of the curve.

Figure 3: COVID-19 cases and casualties: China vs. rest of the world



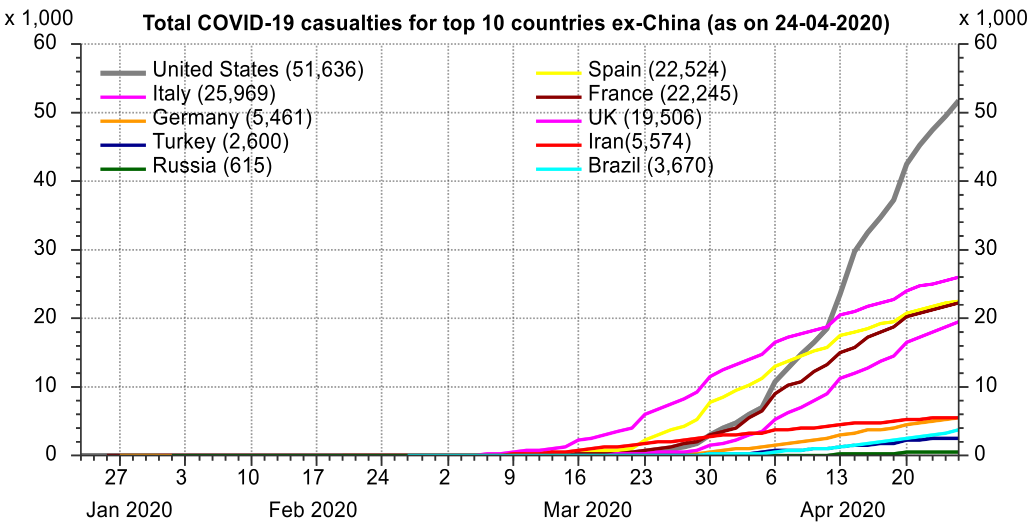
Source: Refinitiv Datastream, NSE

Figure 4: Total COVID-19 cases in the top-10 countries excluding China



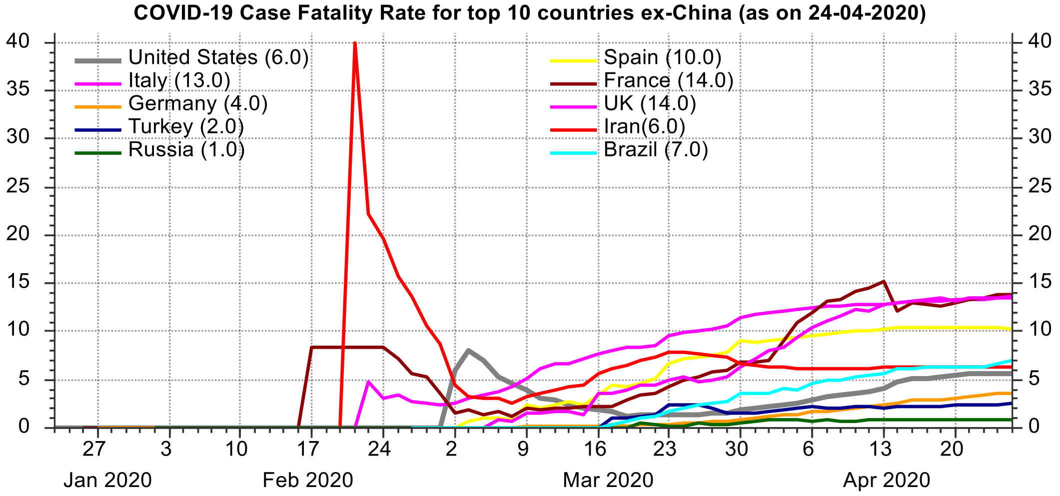
Source: Refinitiv Datastream, NSE

Figure 5: Total COVID-19 casualties in the top-10 countries excluding China



Source: Refinitiv Datastream, NSE

Figure 6: COVID-19 Case Fatality Rate in the top-10 countries excluding China

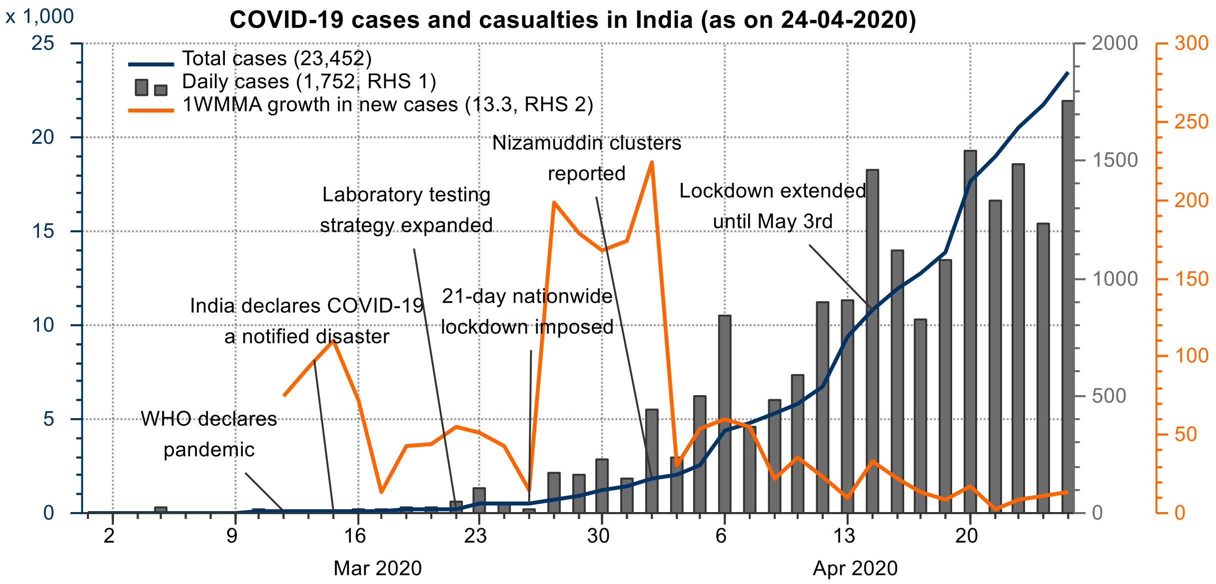


Source: Refinitiv Datastream, NSE

Cases in India rapidly rising as testing gathers pace: India has the fourth highest number of cases in Asia and 16th highest in the world, with over 27k positive cases and ~850 casualties as of April 26th, implying a Case Fatality Rate of 3.0%—lower than the global average of 7.0%. Nevertheless, the total cases per mn population is a mere 13, with deaths per mn population being less than 0.5. The number of daily cases reported reached record high on April 24th, with concerns rising in Maharashtra, Madhya Pradesh and Gujarat.

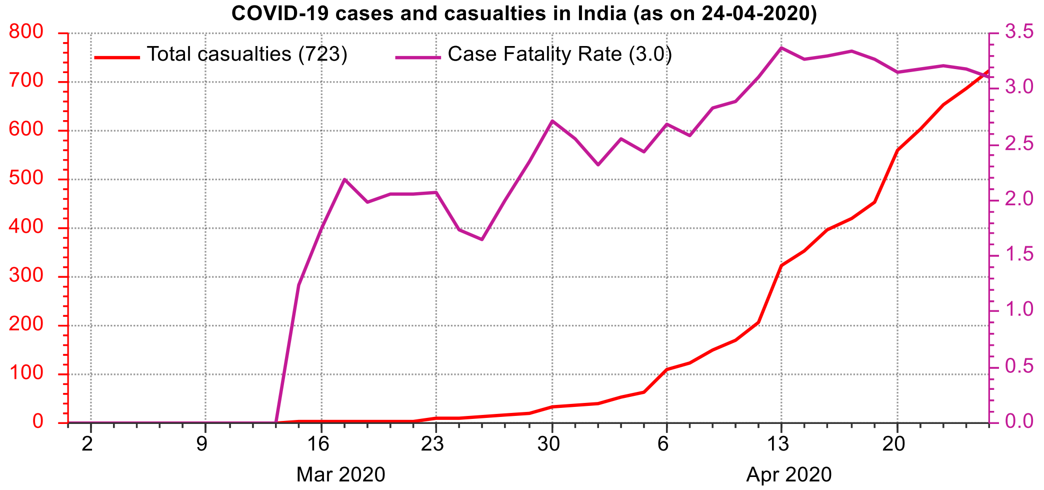
The Government timely implementation of a 21-day nation-wide lockdown on March 25th, which was later extended by another 19 days until May 3rd, but with some rebates for specific industries and services effective April 20th and adoption of çluster containment strategy has significantly helped contain the spread. According to the Health Ministry, cases would have risen to more than 0.8mn by April 15th sans lockdown. Moreover, weekly moving average growth in daily cases has been gradually coming off.

Figure 7: Total COVID-19 cases in India



Source: Refinitiv Datastream, NSE

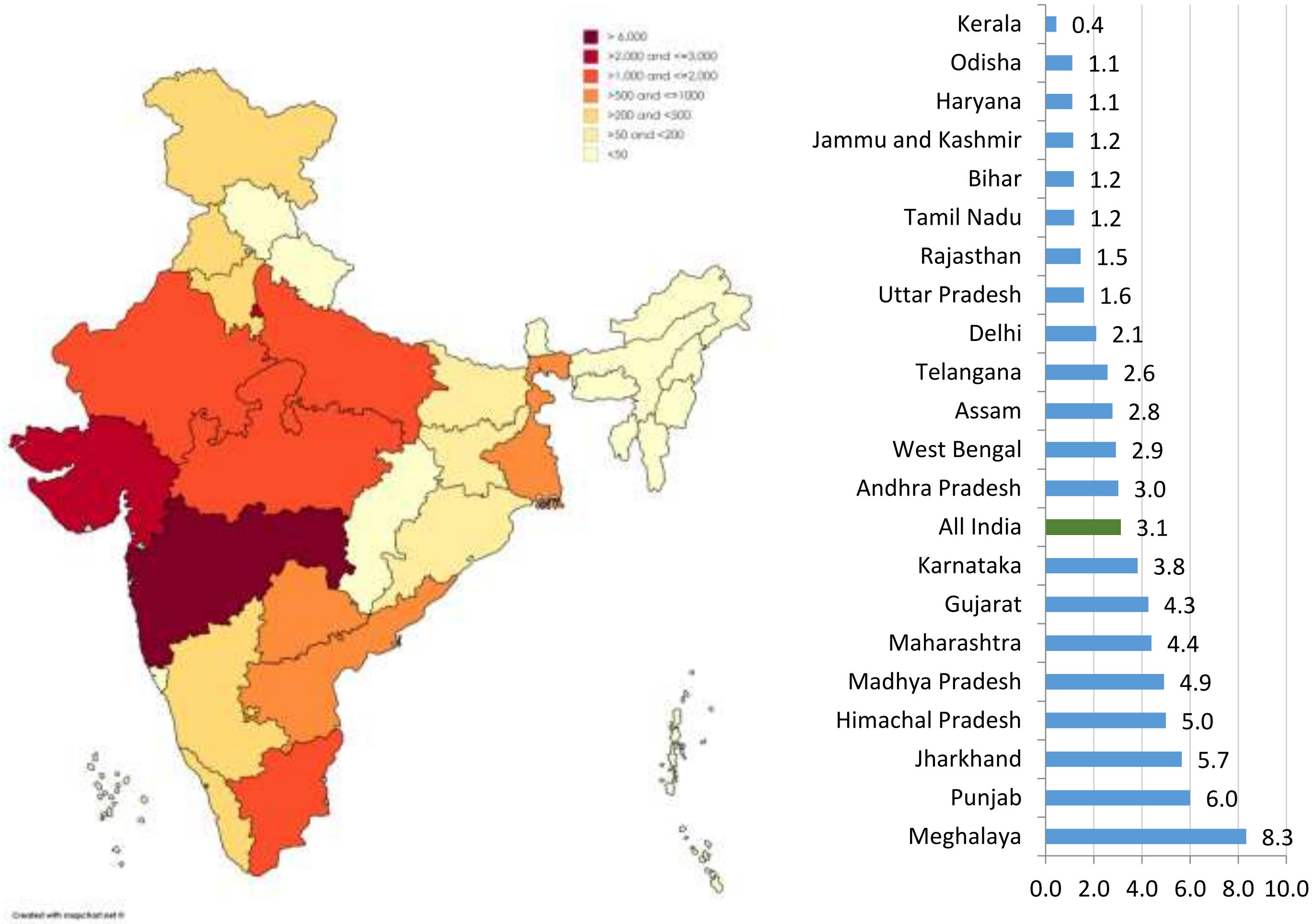
Figure 8: Total COVID-19 casualties in India



Source: Refinitiv Datastream, NSE

Figure 9: State-wise distribution of all COVID-19 cases and mortality rate as on April 23rd, 2020

Confirmed COVID-19 cases Mortality rate (%)

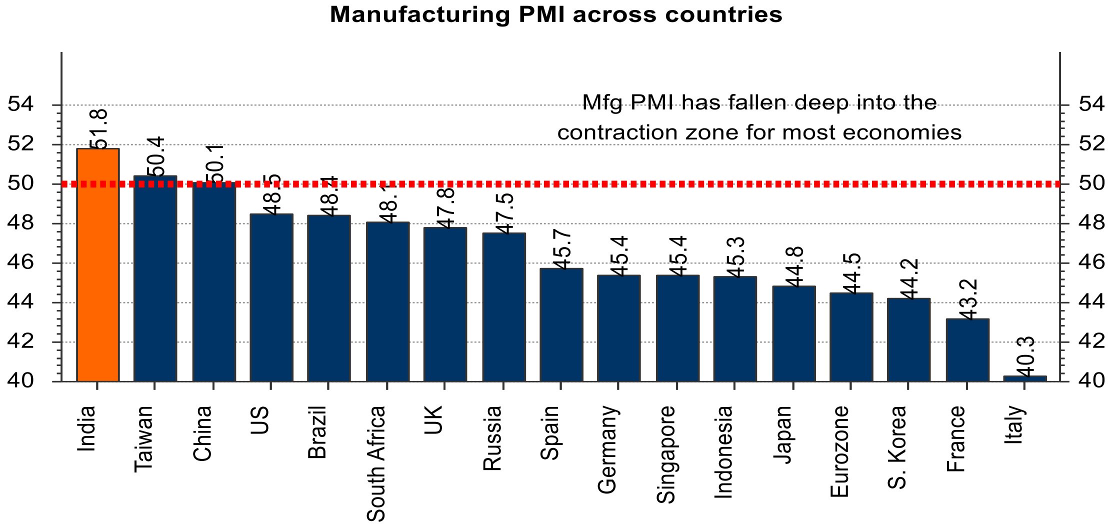


Source: covid19India.org

Global recession imminent—worst since 1930s

Economic indicators point to a worst global growth slowdown in decades: Amid partial/complete lockdown in several countries since Feb'20, leading to significant disruptions in global supply chains and industrial activity, the global growth outlook has deteriorated sharply, making a global recession in 2020 inevitable. The Manufacturing PMI (Purchasing Managers' Index—a survey-based indicator of the economic health of the manufacturing sector) has fallen deep into the contraction zone for most developed and emerging economies except for India, Taiwan and China.

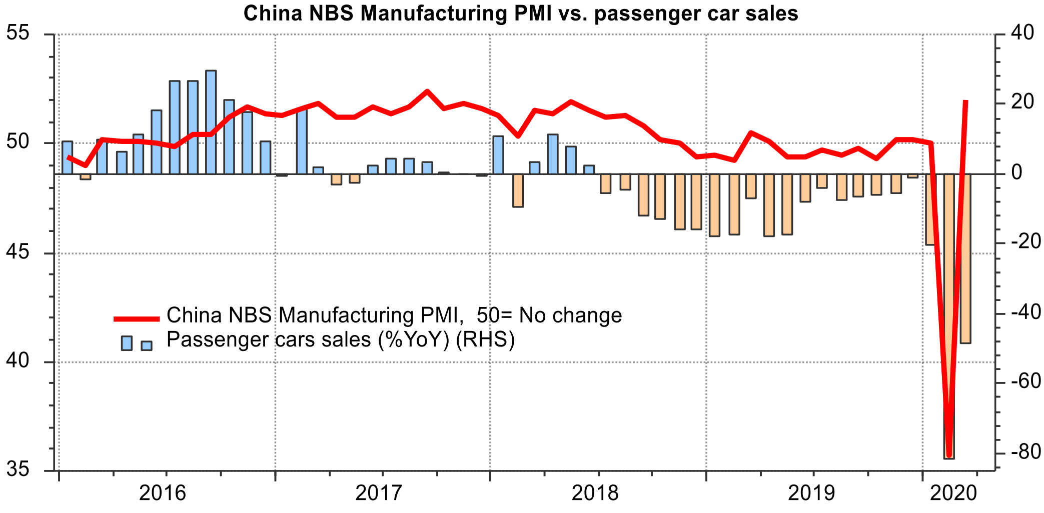
Figure 10: Global manufacturing PMI pointing to contraction across economies



Source: Refinitiv Datastream, NSE.

Impact on Chinese economy already visible in Q1 GDP figures: With China being the origin nation of the virus, its economic impact was already visible in a slew of indicators there before it hit the world, notwithstanding the structural slowdown that was already underway exacerbated by the trade-war with the US. The Official NBS (National Bureau of Statistics of China) Manufacturing Purchasing Managers' Index (PMI—a survey-based indicator of the economic health of the manufacturing sector) fell deep into the contraction zone in February 2020 before recovering back in March, passenger car sales declined by ~45% in Q1 2020, exports growth (rolling quarterly YoY growth) fell to the lowest in three decades, unemployment rate surged, and Q1 GDP contracted for the first time ever by 6.8%.

Figure 11: **China's manufacturing PMI and passenger car** sales



Source: Refinitiv Datastream, NSE

Figure 12: China quarterly GDP vs. exports growth trend

Source: Refinitiv Datastream, NSE

US amongst the worst hit, socially as well economically: The COVID-19 outbreak in the US has been the worst, accounting for 32% of the total cases worldwide vs. its population share of a little over 4%. The economic ramifications, therefore, have been huge. Unemployment rate surged to a three-year high of 4.4% in March, with the number of people seeking employment (jobless claims) rising to record-high levels amid rising job losses owing to business and factory shutdowns. Retail sales contracted by 3.8% YoY in March for the first time since the Global Financial Crisis, reflecting the impact of containment measures including lockdown, with consumer sentiment index hitting more than six years lows. Inflation has also seen a sharp drop owing to demand slowdown and plunge in commodity prices.

Figure 13: US unemployment rate and inflation (%)

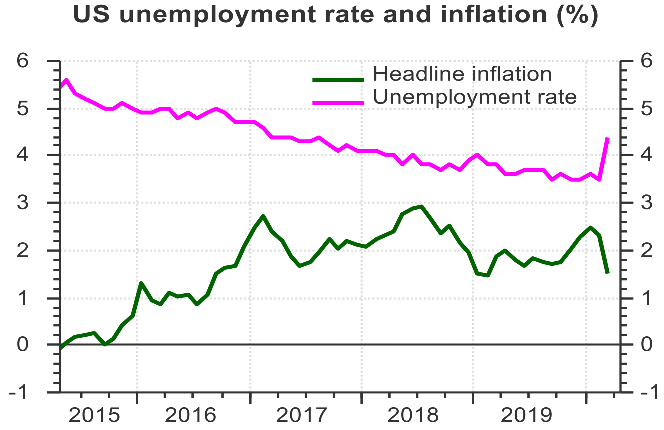
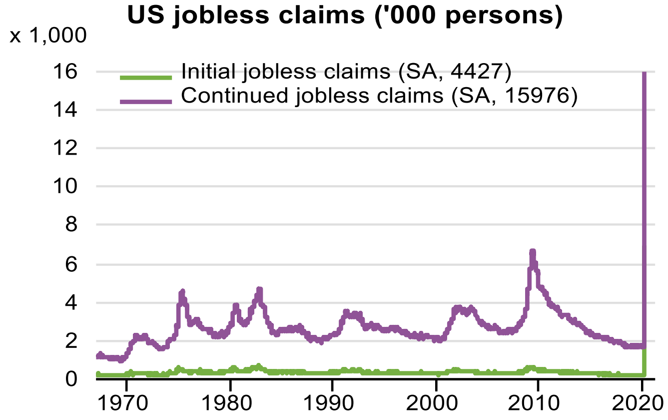
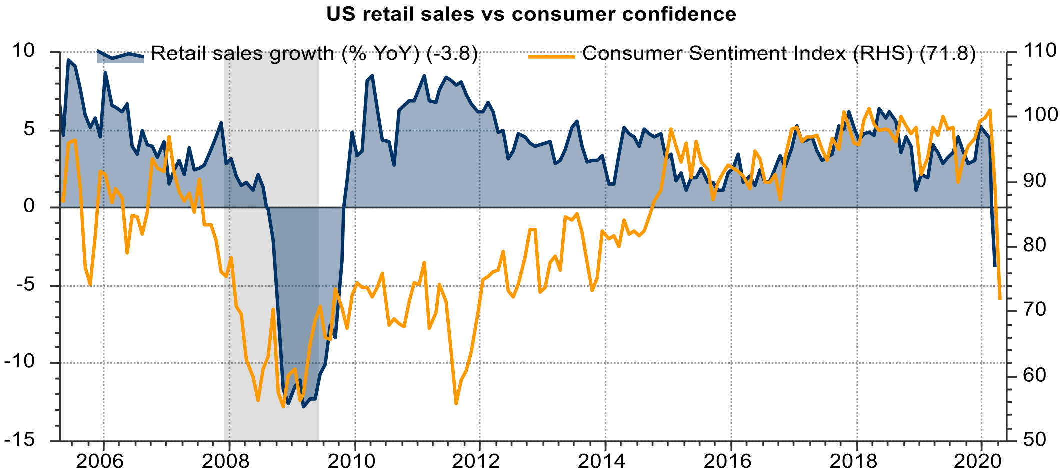


Figure 14: US jobless **claims ('000 persons)**



Source: Refinitiv Datastream, NSE

Figure 15: US Retail sales vs. Consumer Confidence



Source: Refinitiv Datastream, NSE

Sharp drop in commodity prices a reflection of demand slump: Commodity prices have declined sharply amid a significant drop in global demand. The generic brent crude oil has fallen by ~75% YTD to more than two-decade lows of US$16/bbl in the wake of a sharp fall in global demand, even as supply continues to remain huge despite the production cut by OPEC and Russia. In fact, the May futures for US West Texas International (WTI) crude fell into the negative territory for the first time in history to –US$38/bbl in the overnight trade, ahead of the expiry on May 21st, as COVID-induced demand destruction has left the world with surplus oil and not enough storage capacity. This effectively meant producers were actually paying buyers to take the deliveries ahead of the expiry.

Meanwhile, hard commodities such as aluminum, copper, lead and nickel have also fallen sharply, reflecting a pervasive demand slowdown. Gold on the other hand has recorded a signficant increase as global risk-off has led to flight of capital to safe havens.

Figure 16: Generic Brent crude vs. US WTI crude

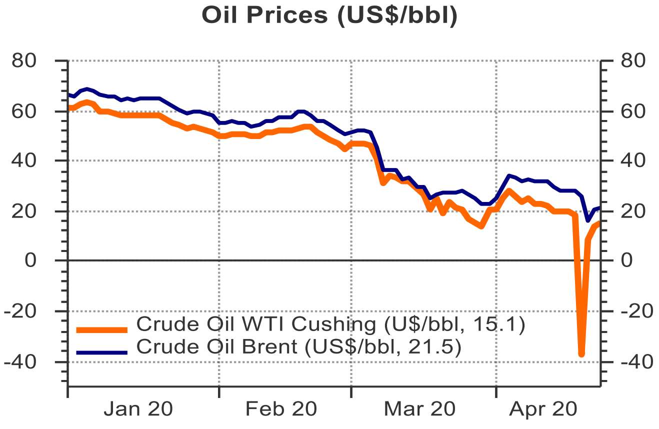
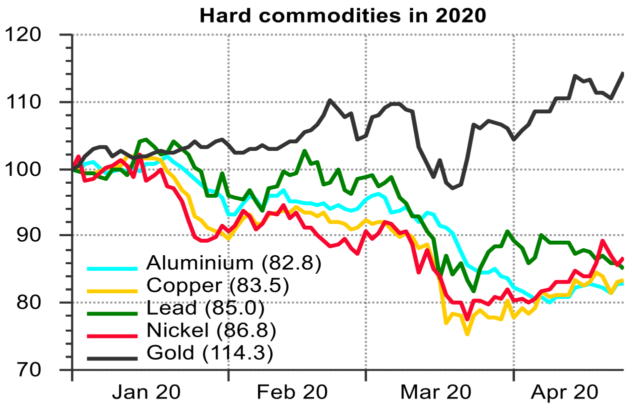


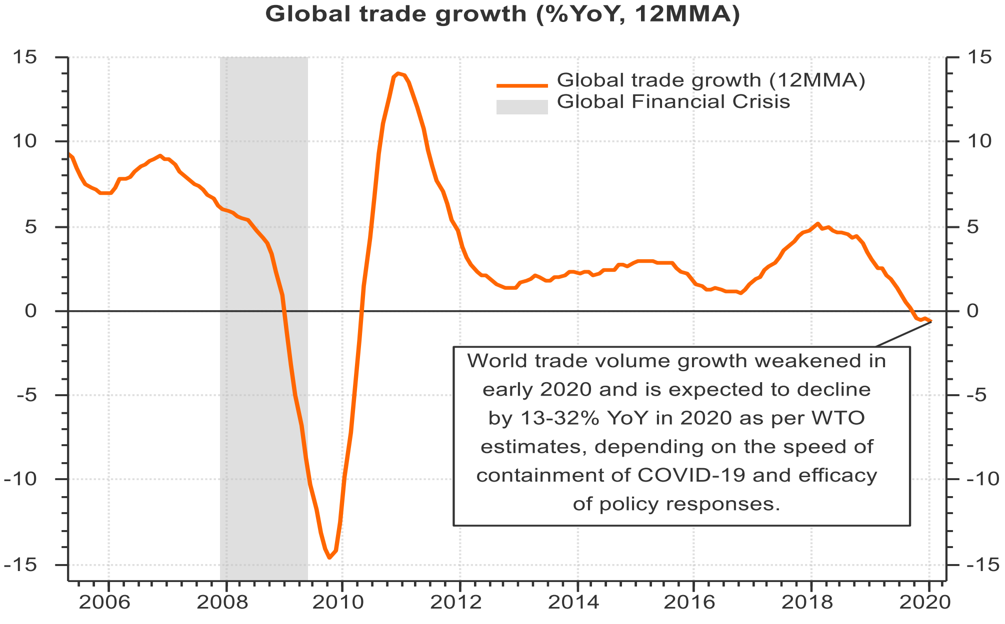
Figure 17: Hard commodities falling except Gold



Source: Refinitiv Datasream, NSE.

Global trade projected to fall sharply in 2020: World trade volume growth weakened in early 2020, with the 12-month moving average pointing to -0.6% growth in January 2020. According to World Trade Organisation, global merchandise trade is expected to fall by 13% YoY in 2020 in the optimistic scenario and by 32% or more if the pandemic is not brought under control and policy response is not effective enough.

Figure 18: Global trade projected to fall sharply in 2020



Source: Refinitiv Datasream, NSE.

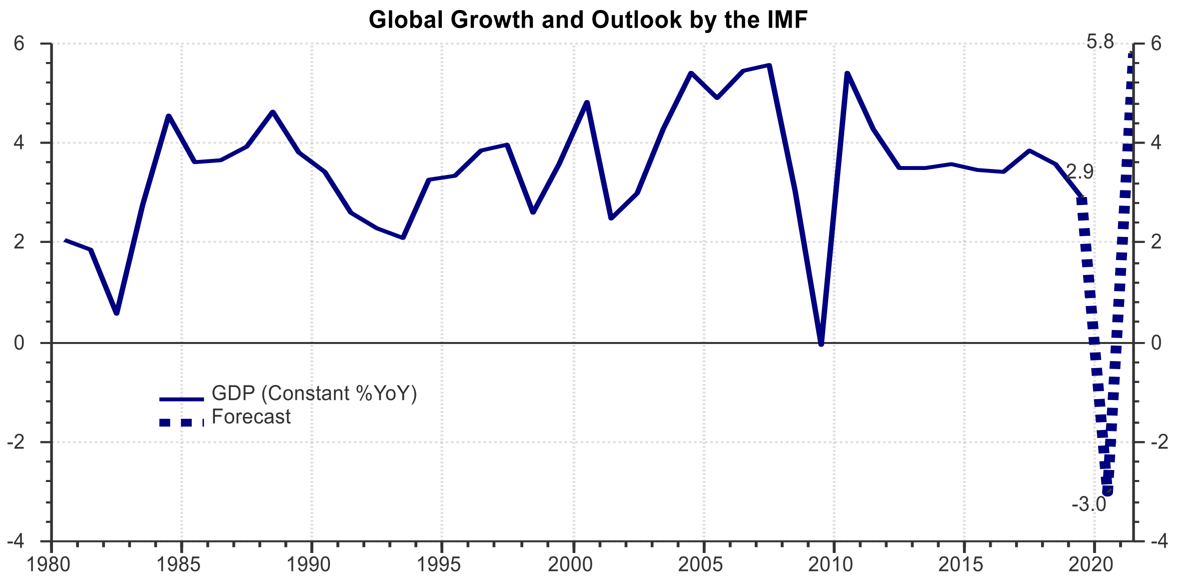
IMF expects global economy to witness recession in 2020: The IMF, in the latest World Economic Outlook report, has signficantly downgraded global growth forecasts. The Fund expects the global economy to contract sharply by 3% in 2020, much worse than that seen during the Global Financial Crisis and worst since the Great Depression of 1930s. Growth is expected to recover to +5.8% in 2021 in the baseline scenario assuming a return to normalcy in the second half as pandemic fades and containment efforts are gradually removed. Risks, however, are sharply tilted to the downside. A recovery is contingent on effectiveness of policy response and a strong multilateral cooperation.

Figure 19: Latest World Economic Outlook growth projections by the IMF

Countries	2019	2020E	2021E
World	2.9	-3.0	5.8
Advanced Economies	1.7	-6.1	4.5
United States	2.3	-5.9	4.7
Euro Area	1.2	-7.5	4.7
Germany	0.6	-7.0	5.2
France	1.3	-7.2	4.5
Italy	0.3	-9.1	4.8
Spain	2.0	-8.0	4.3
Japan	0.7	-5.2	3.0
United Kingdom	1.4	-6.5	4.0
Emerging Markets and Developing Economies	3.7	-1.0	6.6
China	6.1	1.2	9.2
India	4.2	1.9	7.4
Russia	1.3	-5.5	3.5
Brazil	1.1	-5.3	2.9
Mexico	-0.1	-6.6	3.0
South Africa	0.2	-5.8	4.0

Source: IMF World Economic Outlook April 2020

Figure 20: Global growth and outlook by the IMF



Source: Refinitiv Datastream, NSE.

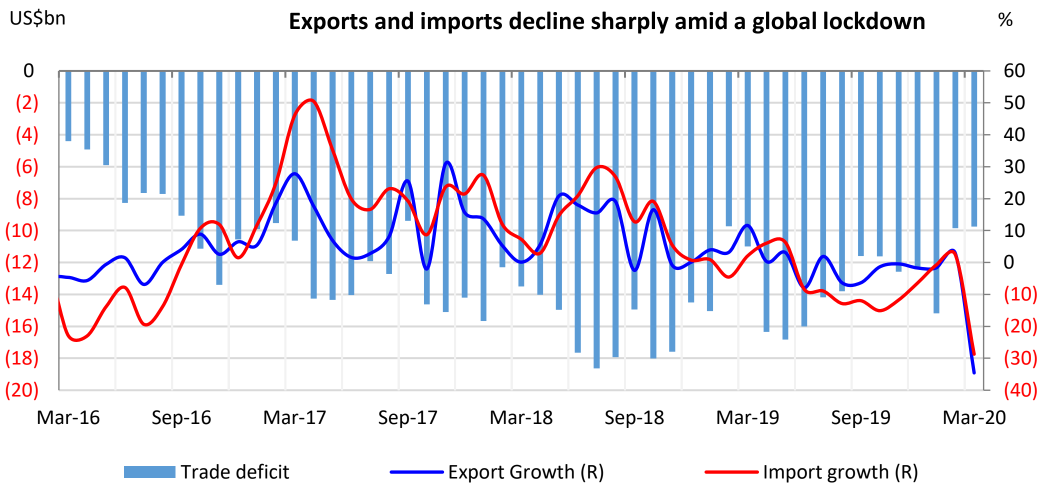
Impact of COVID-19 on Indian economy

Initial signs of a macro downturn visible: Expected economic recovery before the COVID-19 outbreak, thanks to transmission of past rate cuts, reduction in GST and corporate tax rates and measures taken by the Government to boost infrastructure spending, has now got significantly derailed. The pandemic has drastically altered India's growth outlook. The official 21-day lockdown that began on March 25th and later extended by another 19 days has brought economic activity to a halt across several industries, thereby massively hurting consumption as well as investment demand. This is reflected in several high frequency indicators such as monthly merchandise trade, auto sales, fuel consumption, GST tax collections, among others.

March trade data reflects the lockdown impact: March's trade figures provide a glimpse of the severity of economic shock caused by COVID-19. While the trade deficit remained broadly steady at US$9.8bn in March, it is the sharp drop in export and import bill that shows the impact of economic damage caused by the lockdown. Exports declined by 35% YoY in March—the steepest fall in the last two decades, while imports registered a 29% YoY drop—the highest in more than four years. Trade activity has been hit by large-scale disruptions in global supply chains and demand, thereby resulting in delays and cancellations of orders.

Trade figures are expected to be much worse in April given complete and stringent lockdown during the entire month. Except for major farm products and medical supplies that have started picking up only gradually, exports have essentially come to a halt. Meanwhile, a significant deterioration in domestic demand, particularly in discretionary items—coupled with a sharp fall in crude oil prices and supply disruptions in imported raw materials/inputs—is expected to result in a meaningful drop in India's import bill over the next several months.

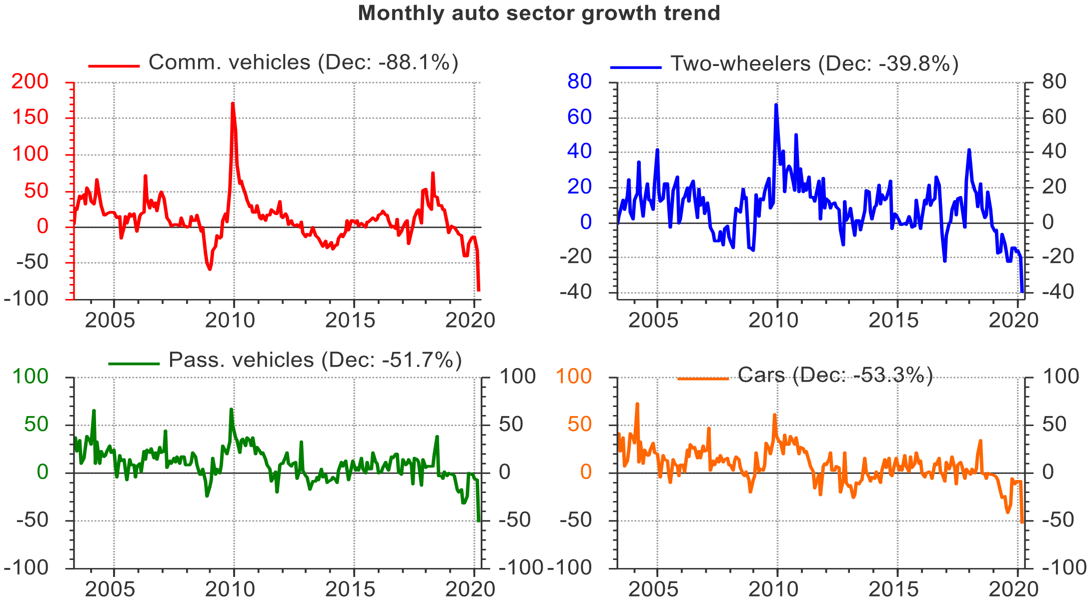
Figure 21: **India's monthly merchandise trade performance**



Source: CMIE Economic Outlook, NSE

Auto sales decline at the steepest pace in March: The already strained auto sector is reeling under further pressures owing to global supply chain disruptions leading to production cuts and a sharp deterioration in consumer confidence, notwithstanding tight financial conditions and industry-specific issues. Auto sales across categories have fallen at the steepest pace in March. Decline in household incomes as companies strive to stay afloat in these unprecedented circumstances is expected to keep the demand for automobiles lacklustre over the next few quarters.

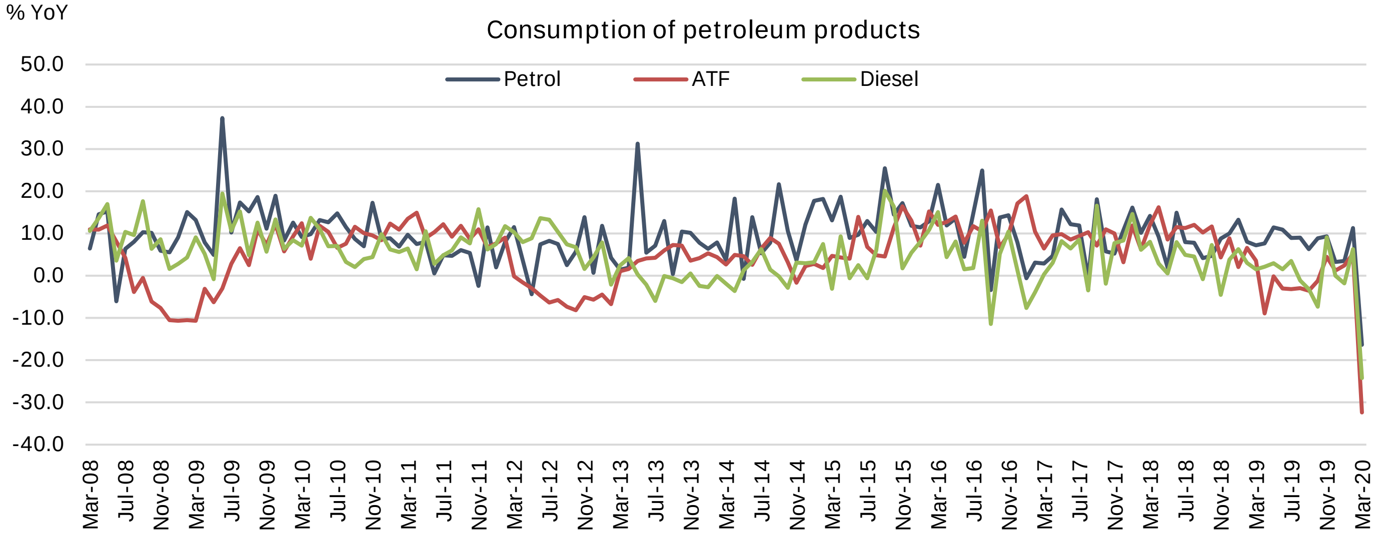
Figure 22: India monthly auto sales growth trend



Source: CMIE Economic Outlook, NSE

Fuel demand hit by nationwide lockdown…: Amid global and domestic lockdown, vehicular traffic has essentially come to a standstill, thereby having significant ramifications on the transport sector. This resulted in India's fuel consumption falling by ~18% in March 2020, with petrol/diesel/ATF (Aviation Turbine Fuel) consumption declining by 16%/24%/32% in March, the steepest decline reported in more than a decade. While demand for petrol/diesel should pick up once lockdown is lifted, ATF demand is expected to remain weak as tourism and foreign travel would takes longer to revive.

Figure 23: Consumption of petroleum products: YoY growth trend



Source: CMIE Economic Outlook, NSE

...and so is power demand amid a sharp drop in industrial activity: Emerging green shoots of an industrial recovery in Jan-Feb 2020 and consequently power demand were short-lived as power consumption has fallen sharply in March and April owing to a shutdown of industrial and commercial activities (accounts for nearly 50% of the country's overall power demand) during the lockdown. Power generation by conventional sources fell by 8.8% in March 2020, thanks to an 11% YoY decline in thermal power generation. This has translated into power generation growth from conventional sources falling to a 16-year low of 0.3% in FY20, with thermal power generation reporting a YoY decline for the first time ever.

Figure 24: Thermal power generation fell by 11% in **March 2020...**

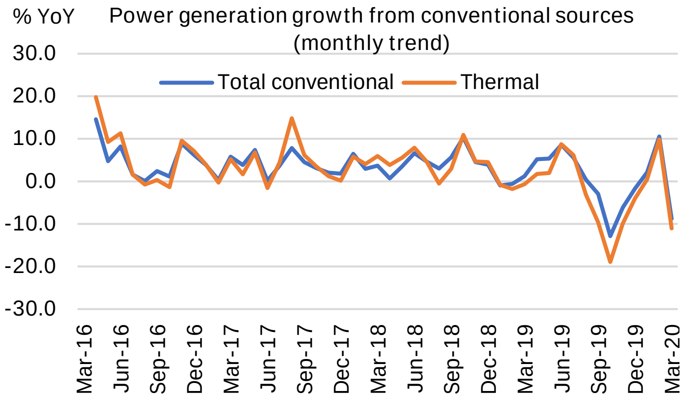
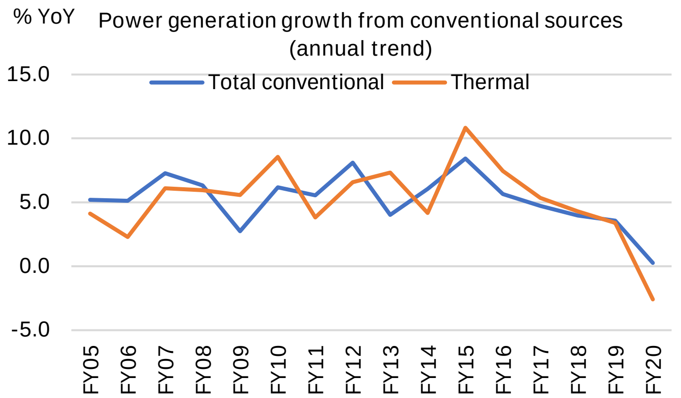


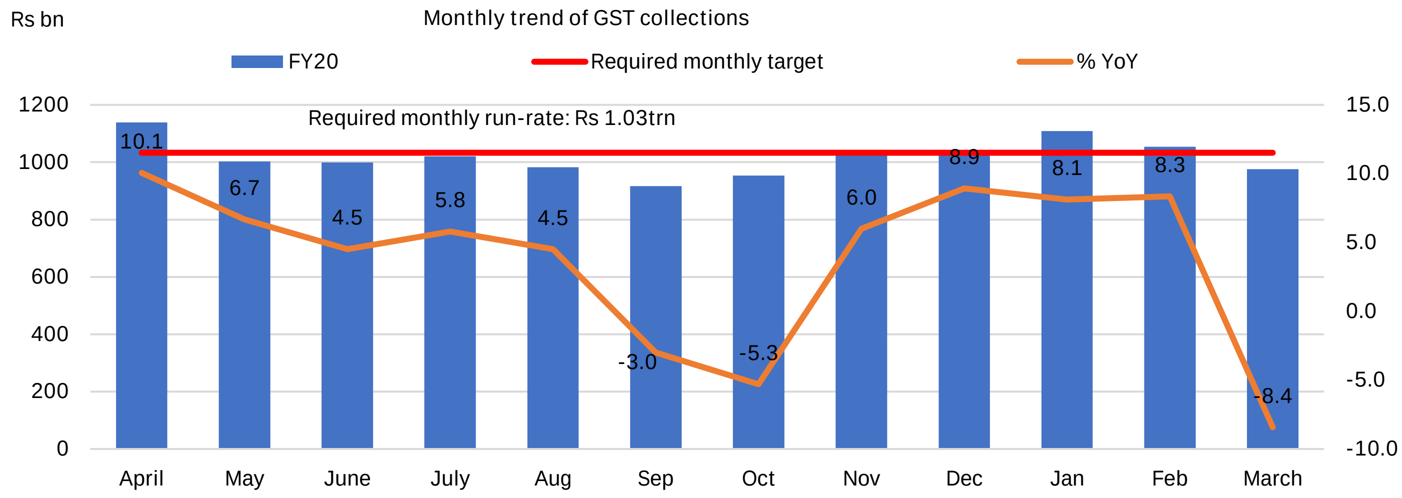
Figure 25: **...translating into a 15**-year low growth in conventional power generation



Source: CMIE Economic Outlook, NSE

GST collections fell below Rs1trn in March: After remaining north of Rs1trn over the previous four months, GST collections fell by 8.4% YoY/7.4% MoM in March to Rs 976bn. The drop reflects the impact of a slowdown in economic activity and shutdown of non-essential segments towards March-end. The decline in GST collections is expected to worsen over the coming months amid a) a nation-wide lockdown, b) deterioration in domestic demand and c) waiver of interest, late fees or penalties for SMEs for delays in GST filings.

Figure 26: Monthly GST collections trend



Source: CMIE Economic Outlook, CGA, PIB, NSE

Nearly two-thirds of the economy to see moderate to huge impact due to COVID-19: While all sectors of the economy and all walks of life are expected to get adversely impacted by the ongoing COVID-19 contagion and the attendant measures undertaken to contain the spread, including social distancing and complete/partial lockdowns, we have attempted at classifying all major sectors of the economy in terms of the extent of this impact. Nearly two-third of the economy is expected to witness a moderate to severe impact due to disruptions caused by the COVID-19 outbreak. This largely comprises of manufacturing, construction, trade, hotels & transport, logistics, financial, real estate and other business services. The balance one-third is likely to witness a relatively low impact.

- Agriculture: This is a busy season for the agriculture sector, when harvesting of *rabi* crops happen and fresh produce reaches the *mandis*. Despite weather-related vagaries, this year is set to be a bumper year for *rabi* crops. While there has been some supply chain disruptions owing to labour shortage and limited availability of transport infrastructure, the Government has taken measures to minimize the impact. The Government has exempted several agricultural operations, including movement of farmers/farm labourers, produce to the *mandis* as well as harvesting and sowing-related machines from the lockdown. The railways have been involved to ease logistic issues. The Government's agro-advisory body called ICAR (Indian Council for Agricultural Research) has been issuing crop-specific advisories to farmers, helping them with harvesting, post-harvesting, marketing and storage of *rabi* crops. Expectations of a normal monsoon this year also bodes well for the agriculture sector. Considering all this, we see agriculture sector to get relatively less impacted as compared to manufacturing and services.
- Industry: Industrial activity in India was already witnessing a slowdown before outbreak of COVID-19, thanks to a languishing consumption as well as investment demand, even as some faint signals of a recovery were visible in the IIP data over the last few months. The COVID-19 outbreak has now posed fresh challenges, significantly derailing the recovery in the industrial sector.
    - Manufacturing: Shutdown of factories and supply disruptions of inputs/raw materials from China, particularly to sectors relying heavily on imported raw materials such as pharmaceuticals, automobiles, and electronics, have severely impacted the manufacturing sector and much more so for the non-essential items. The impact has been much more severe on medium and small scale enterprises, with production cuts and demand slowdown hurting their working capital cycles, and current tight financial conditions are not helping either.
    - Mining: Impact on the mining sector, however, is expected to be relatively muted as it is covered under the Essential Commodities Act, even as slowing domestic and global demand may adversely hit volumes.
    - Utilities: Except for electricity, which is expected to be moderately hit owing to a sharp drop in industrial and commercial demand (accounting for ~49% of the overall demand), other utility services are likely to largely remain unaffected.
    - Construction: Construction has been amongst the worst hit sectors due to COVID-19 pandemic. The acute shortage of labour due to lockdown and lack of financing has brought the construction sector, particularly real estate, to a complete halt. Even post the lockdown, deterioration in real estate demand would continue to weigh on the sector. Moreover, with the Government focusing

on containing the spread and allocating resources for the vulnerable sections of the society, spending on infrastructure projects is expected to take a back seat. Private capex is also likely to get significantly impacted in this low demand environment.

- Services: Services sector is also expected to take a huge hit, particularly the trade, travel, tourism, entertainment and other business services, amid a sharp drop in discretionary demand as well as orders from overseas markets. This is already reflected in Services PMI, which fell down sharply from 85-month high of 57.5 in February to 49.3 in March. In the wake of an impending global recession, recovery is expected to be slow and gradual.
    - Trade, hotels, transport, storage & communication: Trade, hotels and transport are among the worst affected sectors due to global/domestic lockdown and travel restriction, and are most likely to take the longest time to recover. As global recession risks are looming high, global trade is expected to take a huge hit, thereby hurting India's exports to the world. Meanwhile, a significant deterioration in domestic demand, particularly in discretionary items—coupled with supply disruptions in imported raw materials/inputs—is expected to result in a meaningful drop in India's imports over the next several months. The Federation of Associations in Indian Tourism and Hospitality (FAITH) expects India's tourism industry to incur a loss of up to Rs 5trn and job cuts of 40-50mn people due to COVID-19 pandemic. With telecommunication being one of the essential services, broadband usage rising due to adoption of 'work from home' by several companies and TV viewership growing, the impact on communication & broadcasting sector is expected to low.
    - Financial service, real estate and business services: Being a part of the essential services, impact on financial services is expected to be mild to moderate, as many banking and other financial services are getting availed through digital channels, even as credit growth is expected to fall sharply amid reduced demand and low risk appetite of lending institutions. However, impact on real estate and other business services, is expected to be relatively higher in the wake of deterioration in demand real estate as well as professional services.
    - Public administration, defence and other services: Impact of COVID-19 on public administration and defence is likely to be mild. Other services, particularly personal services and arts, entertainment & recreation, are expected to get moderately impacted, except for health and social services where the activity has picked up due to COVID-19 outbreak.
- Industrial activity in India was already witnessing a slowdown before outbreak of COVID-19, thanks to a languishing consumption as well as investment demand, even as some faint signals of a recovery were visible in the IIP data over the last few months. The COVID-19 outbreak has now posed fresh challenges, significantly derailing the recovery in the industrial sector.

Figure 27: Classification of economic sectors by extent of potential impact of COVID-19

Sectors	% of GVA (FY18)	Potential impact
Agriculture	15	Low
Industry	31	
Mining & quarrying	3	Low
Manufacturing of essential products	5	Medium
Manufacturing of non-essential products	13	High
Electricity, gas, water supply & other utility services	2	Low
Construction	8	High
Services	53	
Trade, repair, hotels and restaurants	13	High
Air transport	0	High
Transport by other means	5	High
Storage	0	Low
Post & courier activities	0	High
Other communication & broadcasting services	1	Low
Ownership of dwellings	6	Medium
Financial services	6	Low
Real estate and business services	10	Medium
Public administration and defence	6	Low
Other services	7	Medium
Total GVA	100	
Impact-wise share of sectors		
Low	34	
Medium	27	
High	39	

Source: CMIE Economic Outlook, NSE

India to grow at sub-1% in FY21 in the base case: Based on the sector-wise impact assessment, GDP growth in Q4FY20 is now expected at 1%, translating into a growth of 4% for the fiscal—the lowest in 11 years, vs. the CSO's Second Advance estimate of 5.0%. The slowdown is expected to be much more severe in Q1FY21 due to a near-complete shutdown of activity in almost two-third of the sectors of the economy. Our estimates suggest a contraction in real GDP by anywhere between 9 to 14% depending on the pace at which activity resumes—marking the first contraction in the post-liberalisation era.

- In the base case scenario, where we assume a gradual return to normalcy post the 40-day lockdown and growth returning to near-pre-COVID days by the third quarter of FY21, India's GDP growth is expected to fall to 0.8% in FY21—the lowest in the last four decades. This implies an approximate loss in real GDP of about Rs 7.8trn.
- In the bull case scenario, where we assume the resumption of activity in some sectors before the lockdown ends and a relatively faster recovery and return to normalcy, India's GDP growth is expected a tad better at 1.7%.
- In the bear case scenario, where we assume an extension of a partial nation-wide lockdown until mid-May and a relatively slower recovery and return to normalcy, India's real GDP may contract by 0.3%. This may well be the first time

An uncertain situation: As we attempt to gauge the impact of COVID-19 on the Indian economy in different scenarios, the situation is highly fluid and uncertain, and estimates may, therefore, see meaningful revisions on either side. While the overall spread of the virus might is showing signs of peaking out, its distribution across the country remains disproportionately inclined towards the higher income (SDP) states like Mahrashtra, Tamil

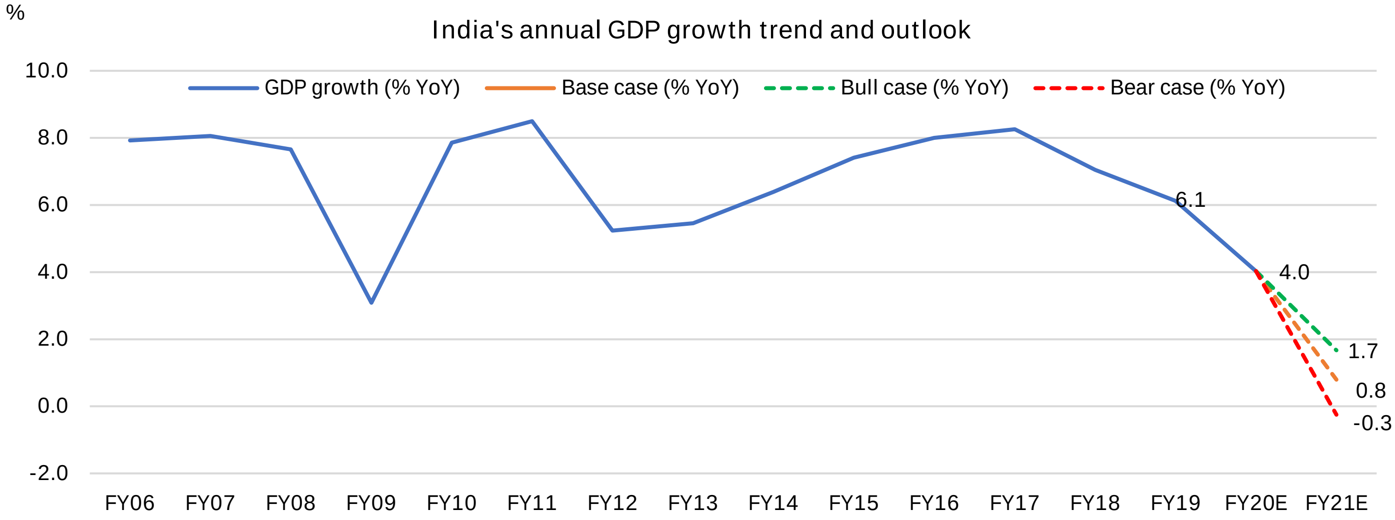
Nadu and Gujarat. Even as the national lock-down is slated to end on May 3rd, this distribution would determine the willingness of states to follow suit

Figure 28: Impact of COVID-**19 on India's FY21 GDP growth: A scenario analysis**

GDP growth forecasts	FY20E	Base case		Bull case		Bear case	
Assumptions		Gradual return to normalcy post the 40-day lockdown; growth to return to near-pre-COVID days by Q3FY21		Activity to resume in some sectors before the lockdown ends with a faster recovery and return to normalcy		Partial lock-down to get extended until mid-May, followed by a slower recovery and return to normalcy	
	FY20E	Q1FY21E	FY21E	Q1FY21E	FY21E	Q1FY21E	FY21E
Real GVA growth (% YoY)	3.9	-10.6	0.8	-9.3	1.7	-14.3	-0.3
Real GDP growth (% YoY)	4.0	-10.7	0.8	-9.4	1.7	-14.4	-0.3

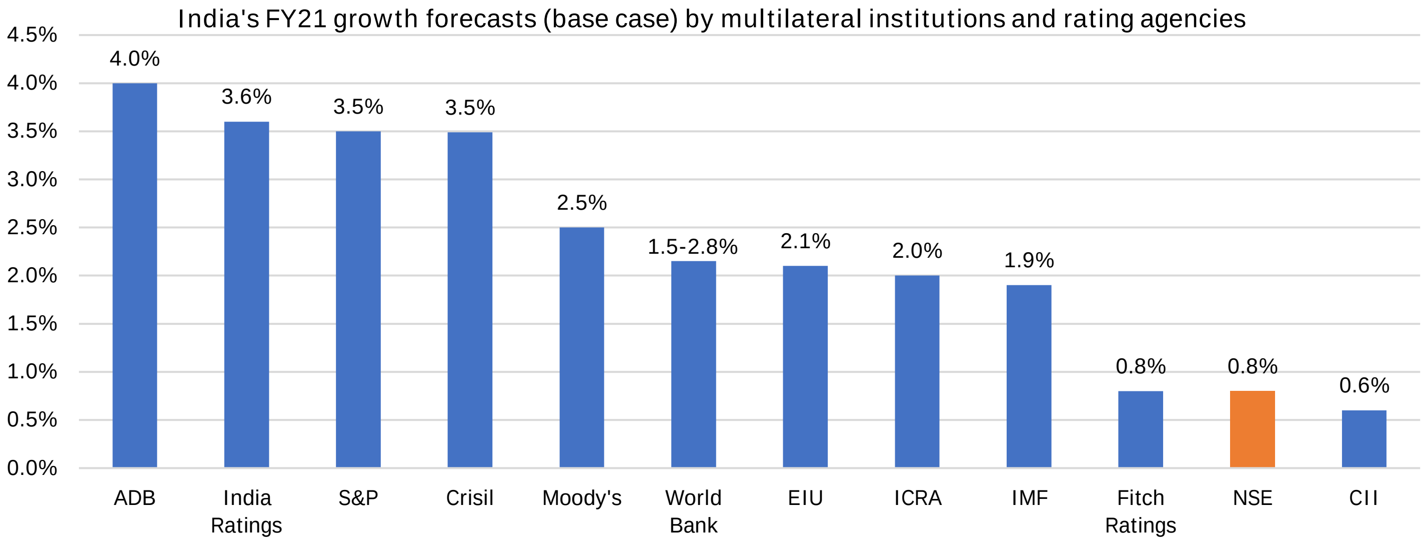
Source: NSE.

Figure 29: India annual GDP growth trend and outlook



Source: CMIE Economic Outlook, NSE.

Figure 30**: India's GDP growth forecasts for FY21 by different multilateral institutions and rating agencies**



Source: Media reports, NSE. ADB: Asian Development Bank, EIU: Economist Intelligence Unit, IMF: International Monetary Fund, CII: Confederation of Indian Industry.

A step up in policy response imperative

A slew of measures have been announced by the RBI and the Government to mitigate the economic shock casued by COVID-19. The extended nature of the Covid-19 response necessitates a fiscal impulse beyond the initial (0.9% of GDP) measures, and the liquidity measures taken by the central bank, particularly to replace the sharp drop in consumption, even if partially.

Containment measures undertaken by the Government: The Government over the last three months has issued several travel advisories, advising Indians from refraining to travel to select countries where the outbreak has been severe, making self-quarantine cumpulsory for all incoming international travellers and finally cancelling all scheduled international passenger flights w.e.f. March 22nd. Besides travel related restrictions, the Government also imposed several restrictions on mass gathering and made it stringent over time, closed educational and recreational establishments to enforce social distancing and finally imposed a 21-day nation-wide lockdown on March 25th, which was later extended till May 3rd. Please refer to Appendix 3 for details.

RBI responds through rate cuts and liquidity boost: The RBI, as a policy response to COVID-19, has slashed policy repo rate by 75bps and reverse repo rate by a much higher 115bps, and announced a slew of measures to a) inject adequate targeted liquidity through TLTROs (targeted long-term repo operations), enhanced borrowing limit under Marginal Standing Facility (MSF), special refinance facility for financial institutions (NABARD, SIDBI, NHB), enhancement in Ways and Means Advances (WMA) limits for the centre and states, a) facilitating and incentivising bank credit flows through cut in Cash Reserve Ratio by 100bps, a sharper cut in reverse repo rates, reduction in liquidity coverage ratio, and regulatory forbearance on NPA classification and resolution timeline for large default accounts, and c) easing financial stress by making debt servicing easier by allowing banks to grant three-month moratorium on terms loans and working capital facilitis. Please refer to Appendix 2 for details.

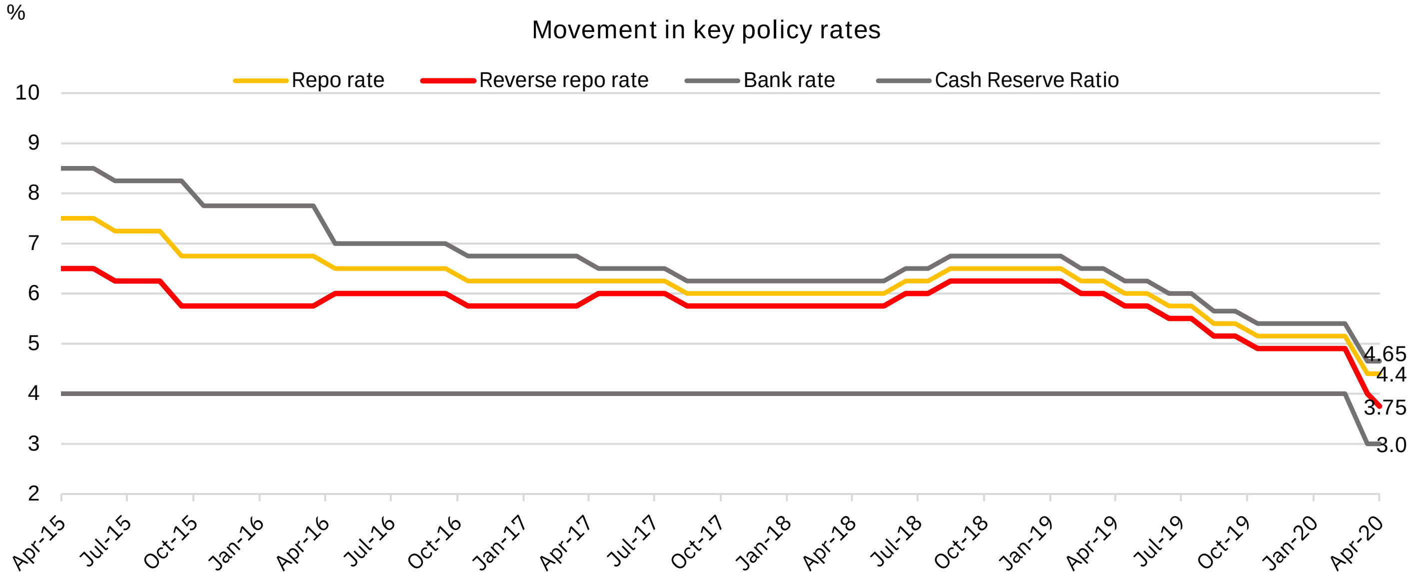
That said, with inflation trajectory trending downwards (impact of COVID-19 is expected to be deflationary in nature with RBI's estimate at sub-3% by Q3FY21) and growth falling to unprecedented low levels, we expect the RBI to cut policy rates by another 50-75bps, *ceteris paribus*, besides taking further measures to ensure adequate liquidity in the system using conventional as well as unconventional tools.

Please refer to our reports on India's policy response to COVID-19:

COVID-19 policy response: Rs 1.7trn fiscal push, Rs 3.74trn liquidity boost. (March 27th, 2020)

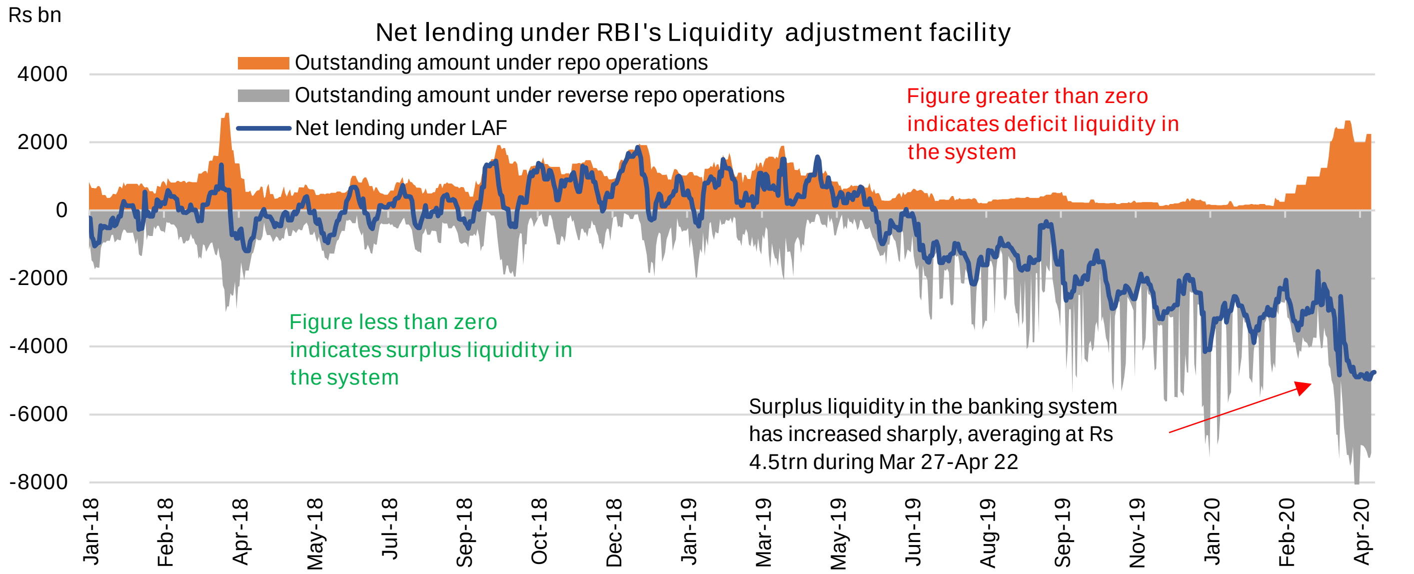
RBI steps up policy response, over to the Government now (April 17th, 2020). (April 17th, 2020)

Figure 31: Repo rate: -75bps to 4.4% on March 27th; Reverse repo rate: -115bps in two tranches to 3.75%



Source: RBI, CMIE Economic Outlook, NSE.

Figure 32: **Net lending under RBI's Liquidity Adjustment Facility**



Source: CMIE Economic Outlook, NSE

Figure 33: Total Long-term Repo Operations (LTROs) announced thus far

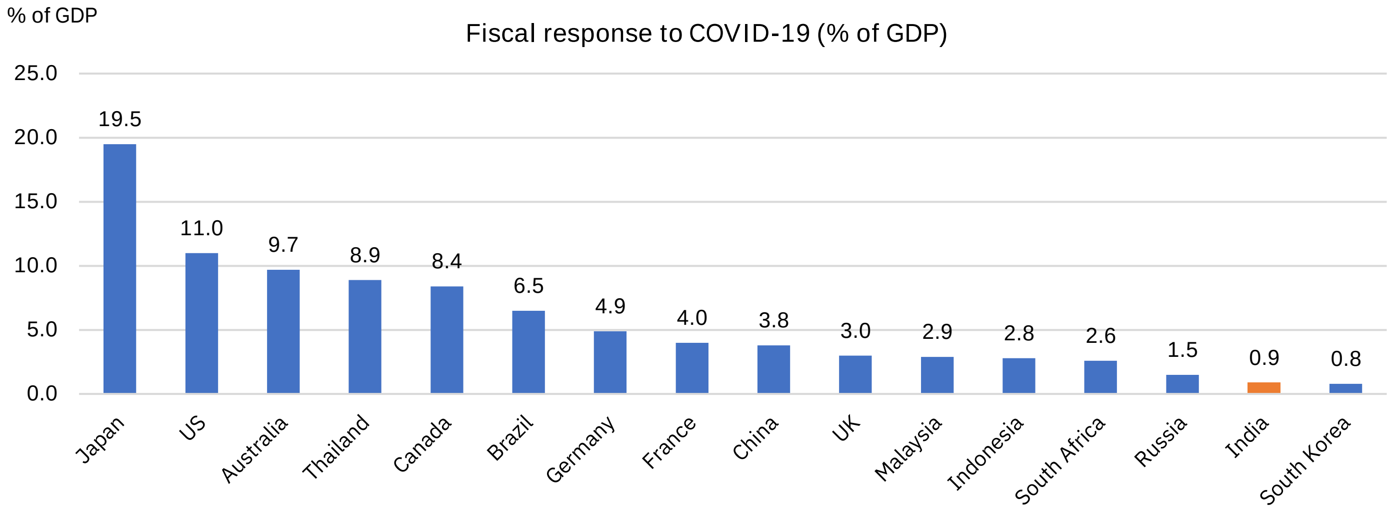
Date	Tenor	Category	Notified amount (Rs bn)	Bids received (Rs bn)	Amount allotted (Rs bn)
17-Feb-20	3-year	LTRO	250.0	1,944.1	250.4
24-Feb-20	1-year	LTRO	250.0	1,231.5	250.2
02-Mar-20	3-year	LTRO	250.0	1,719.7	250.3
09-Mar-20	3-year	LTRO	250.0	488.6	250.2
18-Mar-20	3-year	LTRO	250.0	271.0	250.1
27-Mar-20	3-year	TLTRO	250.0	605.0	250.1
03-Apr-20	3-year	TLTRO	250.0	997.6	250.1
09-Apr-20	3-year	TLTRO	250.0	1.134.5	250.1
17-Apr-20	3-year	TLTRO	250.0	614.2	250.1
23-Apr-20	3-year	TLTRO 2.0	250.0	128.5	128.5
Total			2,500.0	8,000.7	2,380.1

Source: RBI, NSE

Government responds to COVID-19 through a relief package of Rs1.7trn; more in the offing: Following the unprecedented announcement of a nation-wide lockdown for 21 days, the Government announced a Rs 1.7trn (-0.8% of GDP) relief package under the 'Pradhan Mantri Garib Kalyan Yojana' on March 26th to fight against the immediate economic stress from the COVID-19 pandemic and preventive lockdown. The relief package was primarily focused towards mitigating financial stress of farmers, households below poverty line, daily wage earners, health workers and small and medium-scale industries in the unorganised sectors. While some of these measures are not new (PM Kisan spending) and frontloaded, some (wage hike under MGNREGA) would only translate into relief after the nation-wide lockdown.

Relief measures taken by state governments, largely in the form of direct transfers, amount to approximately 0.2% of GDP on an aggregate basis. When compared with other developed and developing economies, the fiscal impulse in India has been relatively limited thus far and expected to be significantly stepped up, perhaps not in one go but over a longer period as the ramifications of the slowdown become clearer across the country. It is important that states take a bigger role in the rescue effort, particularly to address supply-side bottlenecks, ease stress in the MSME sector, revive exports, and address industry-specific issues.

Figure 34: Country-wise fiscal policy response to COVID-19 as % of GDP



Source: Statista, Internal Monetary Fund, NSE

Policy recommendations

- Minimise supply disruptions of essentials: Along with the relief packages announced for the poor and most vulnerable section, it is important for the government to minimise overall supply disruptions of essential goods and services with an emphasis on the urban areas. Although government has relaxed several norms in this regard, relaxation needs to be extended to several other sectors which are indirectly associated with the production and supply of those essentials.
- Incentivise logistics and delivery services: The logistics sector has been badly hit by COVID-19 due to operational constraints, even as some rebates have been provided for delivery of essential commodities. Reduced document scrutiny at check posts, exemption from toll collection and tax incentives are some of the measures the Government can take to reduce the impact on the logistics sector.

Meanwhile, contactless delivery models are extremely important to minimise contagion risks so that delivery of essential commodities is not disrupted.

- Tax concession on essential as well as non-essential goods: The adverse impact of COVID-19 on overall consumption, investment and export demand is expected to extend beyond the lockdown period. Hence, government should incentivise consumers by reducing GST on both essential and non-essential commodities which would facilitate recovery in the medium term.
- Credit support and bailout packages for MSMEs: So far, while the Government has focused more on the most vulnerable sections of the society through providing direct benefits in cash or kind, while RBI announced several measures to infuse liquidity in the system so that corporates can access credit at a cheaper rate and ease financial stress. MSMEs as a sector generates the highest employment in India, and would need more. MSMEs face acute shortage of capital in the lockdown and the situation is not expected to improve in a hurry even post the lockdown, leading to defaults and significant job losses. In such situation, additional credit support through banks and SIDBI, coupled with bailout packages for these firms to mitigate overall downfall of the shock, is extremely important. Refinancing mechanism can be made available for banks and NBFCs to extend repayment period for MSMEs.
- Additional sector-specific relief packages: The COVID-19 pandemic has severely affected several sectors like automobiles, FMCG, hospitality, retail and wholesale distribution and transportation. Hence, government should announce some sector specific relief packages.
    - For auto sector, the Government should extend the deadline of the BS-VI from April 1st by at least six months.
    - For aviation, the Government can announce GST holiday for the next quarter, a tax relief on Aviation Turbine Fuel and waiver of AAI and private airport space rentals, royalty, landing, parking and other related charges for the next quarter.
    - The transport, hospitality and tourism sectors should be treated as priority sector lending and any default of existing loans under these sectors should not be classified as NPA for the next six months. Similar benefits should be given in the real estate sector as well.
    - For chemical companies, working capital loans should be provided on flexible and favourable terms. Import duties should be reviewed on essential materials and anti-dumping duties should be revised to ensure competitiveness of downstream manufacturers from dumping supplies.
    - The Government should allow opening all wholesale and retail markets/malls with essential social distancing norms. Besides, it should create a public service awareness campaign through schools to restrict the spread of any further infections.
- Long-term measures: As infections start falling globally, many large MNCs would start looking at different ways to de-risk the future possibilities of global value chain disruptions by avoiding over concentration of their activities in a few countries. India should take this opportunity to attract those companies through a combination of policy incentives, easy rules and regulations, fast track enforcement, better infrastructure and easy access of land and labour.

Market reaction a testament of economic downturn

While economic indicators like GDP and trade would take longer to reflect the real impact of COVID-19, financial markets globally (equity, bond, and currencies) started giving indications of its severity from February 2020.

Equity markets worldwide declined sharply post the onset of COVID-19 outbreak**…**: Pre-empting a massive COVID-19-induced global economic shock, equity markets worldwide fell sharply post mid-February until March 23rd, accompanied with heightened volatility, only to rise post that amid emerging signs of a flattening of COVID-19 curve globally and surge in fiscal/monetary intervention.

Figure 35: Equity markets have fallen across developed **markets…**

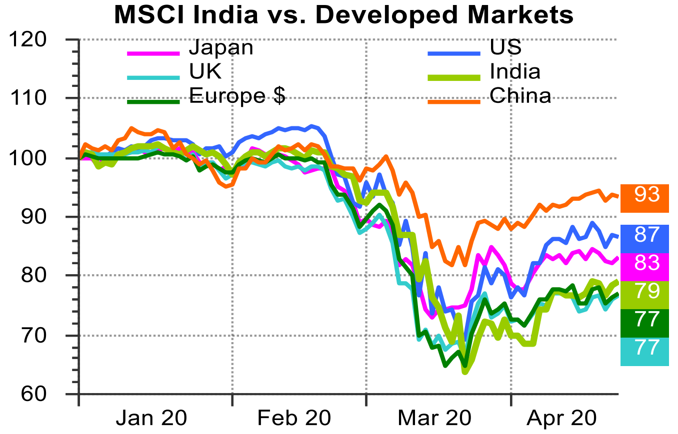
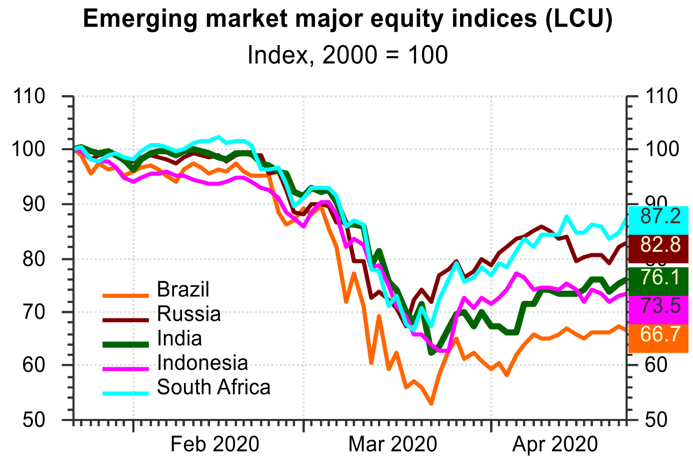


Figure 36**: …as well as emerging markets**



Source: Refinitiv Datastream, NSE

…and India has been no exception thanks to panic FPI selling…: Indian equity markets have been beaten down more as compared to developed markets and some developing economies, with Nifty 50 still down 25% YTD (as of April 24th) despite a 20% return over the last one month, accompanied with heightened volatility. The sell-off has been primarily on account of a panic selling by foreign institutional investors (FPIs) as looming concerns of a global recession has led to massive fall in global risk appetite, triggering flight of capital from risker assets such as emerging market equities to safe havens such as gold/gilts/US dollar. In fact, the month of March has seen the highest ever monthly outflows by FIIs from equity and debt markets combined. While equity markets have ended the fiscal with a modest net FII inflows of US$2.1bn, net outflows from debt markets have been the highest in last six years. The new fiscal has also started on a very weak note, with cumulative outflows from equity and debt markets standing at US$2.0bn and US$2.3bn respectively (as of April 22nd, 2020).

Domestic institutional investors (DIIs), however, have remained strong buyers thus far and have partially compensated for FII outflows in the market downturn, but continuing in April would tilt towards the economic consequences of the lockdown more than market uncertainty alone.

Figure 37: **A sharp decline in Indian equity markets…**

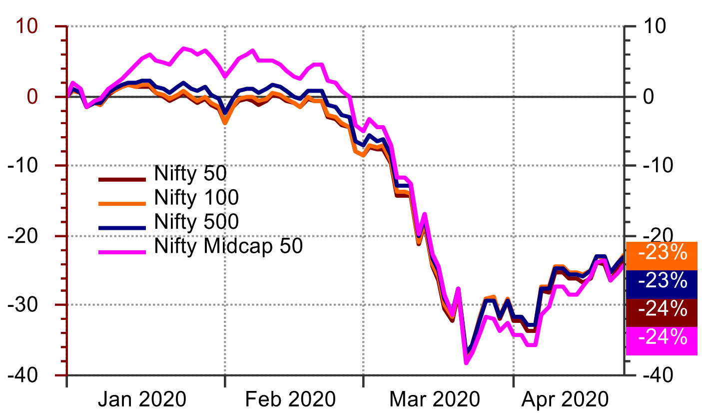
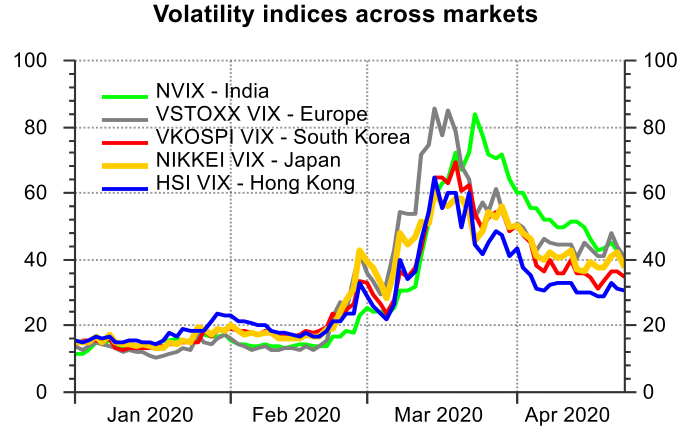
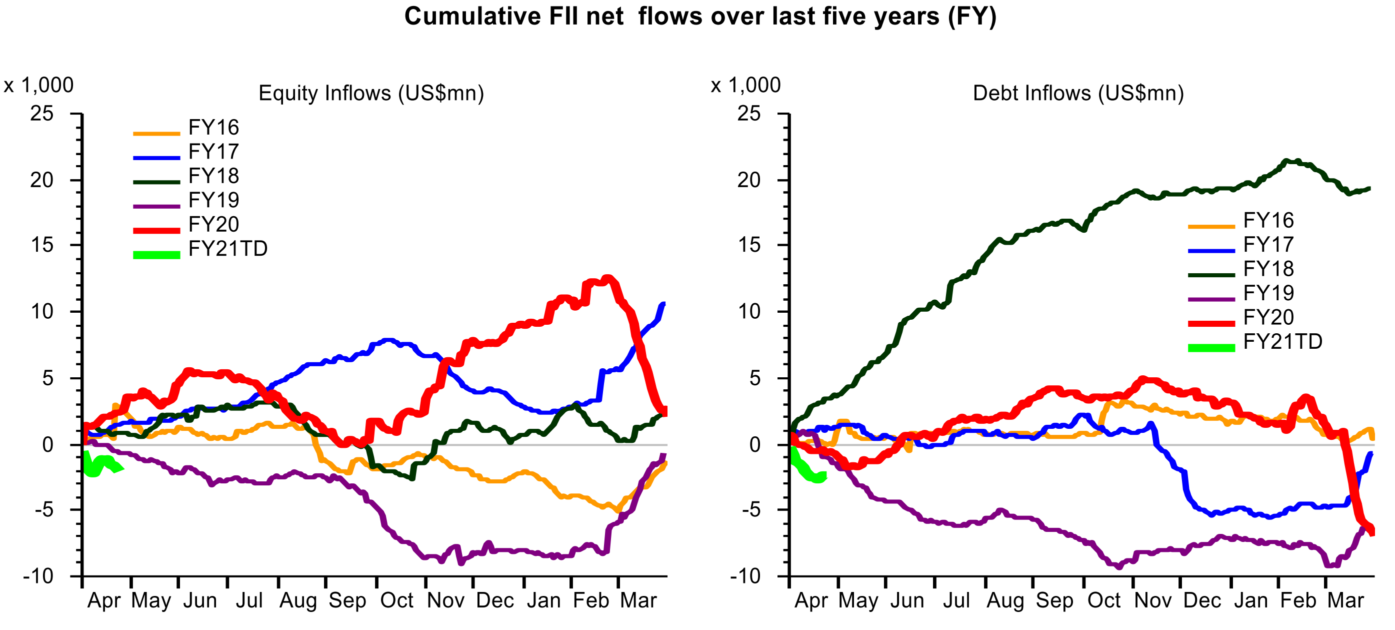


Figure 38: **…was accompanied by a sharp jump in** volatility



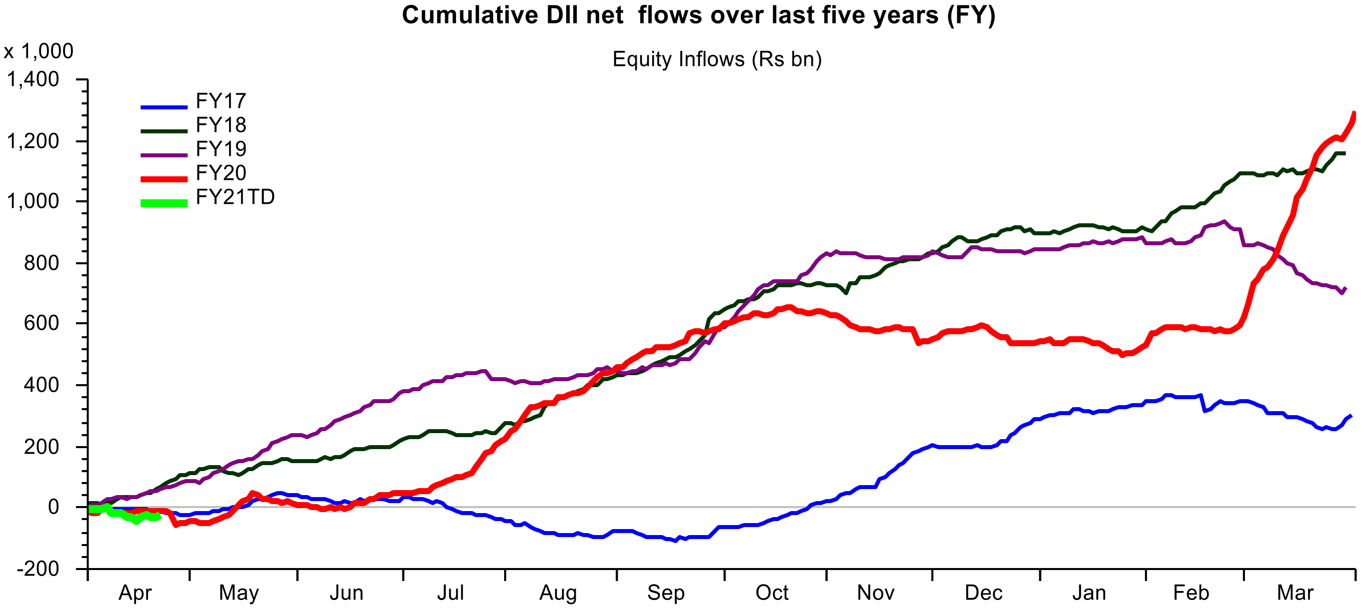
Source: Refinitiv Datastream, NSE

Figure 39: Cumulative FII net flows over the last five years (FY)



Source: Refinitiv Datastream, NSE.

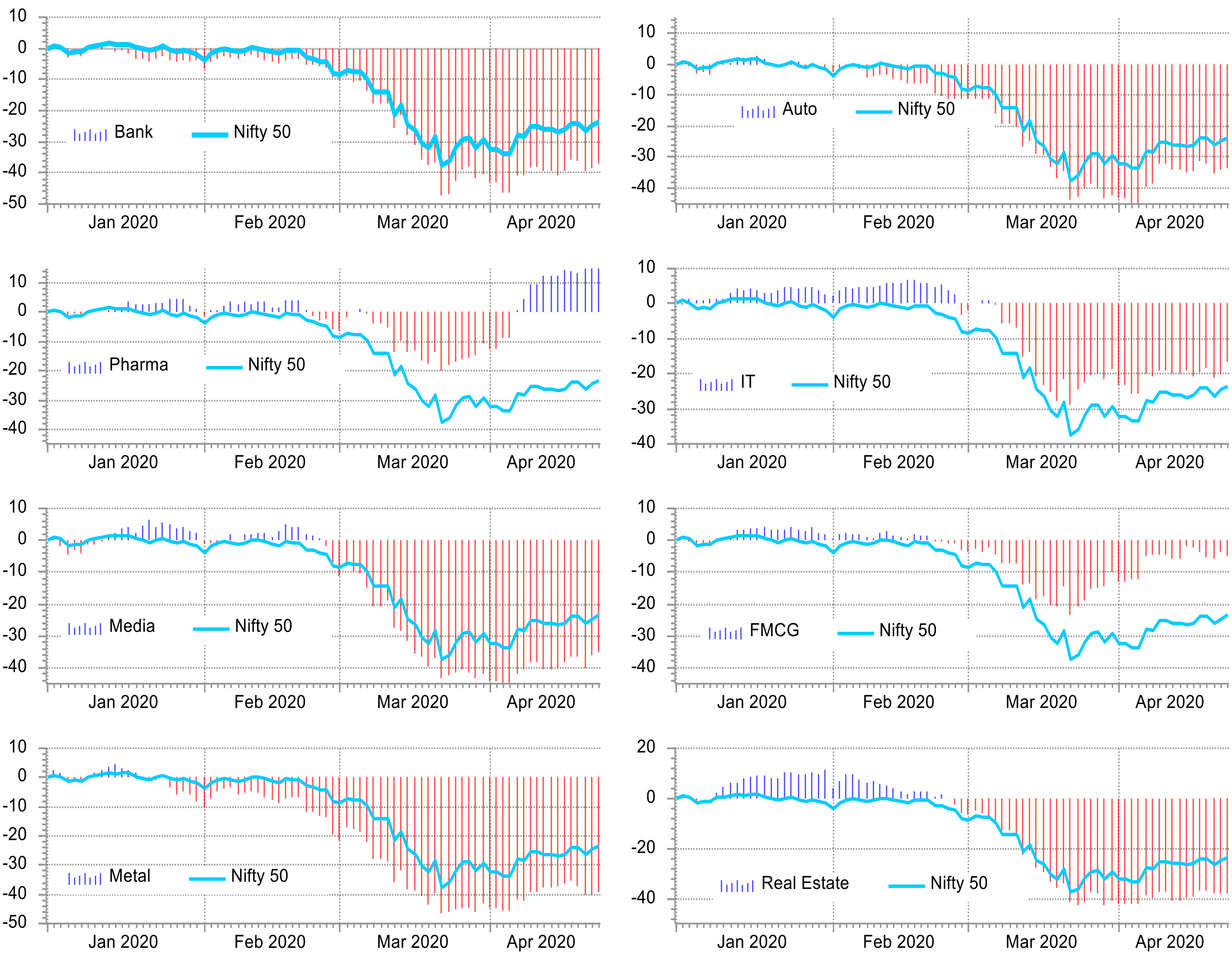
Figure 40: Cumulative DII net flows over the last five years (FY)



Source: Refinitiv Datastream, NSE.

...With selling seen across sectors: Except for Pharmaceuticals and FMCG sector, where selling has been moderate, all market sectors have reported huge losses in the year, falling by more than 30% in the first quarter of 2020, led by Banks, Metals, Autos, Media and Real Estate.

Figure 41: Performance of Nifty sectors in 2020 YTD (rebased to 0 on Jan 1st, 2020)



Source: Refinitiv Datastream, NSE.

Flight of capital to safe havens and aggressive monetary easing **driving gilts higher…:** Massive rate cuts by global central banks, coupled with resumption of quantitative easing by some and flight of capital to safe havens amid global risk-off, has led to a decline in government bond yields across the advanced economies. Meanwhile, G-sec yields in India have also fallen, thanks to a huge liquidity surplus and rate cuts by the RBI.

Figure 42: G-sec yields in advanced economies have fallen amid global risk-off..

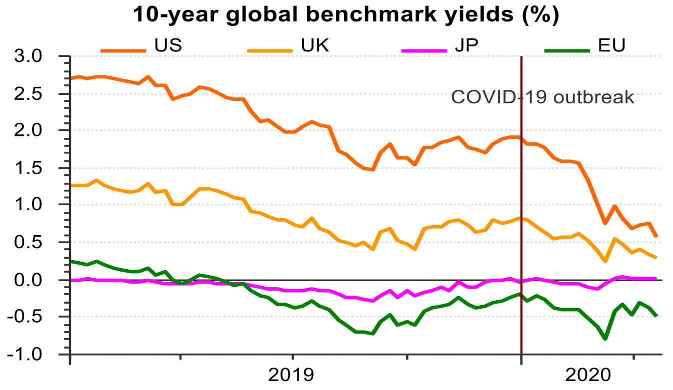
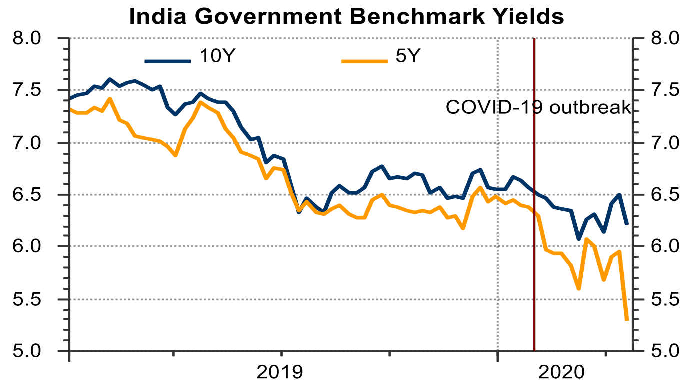


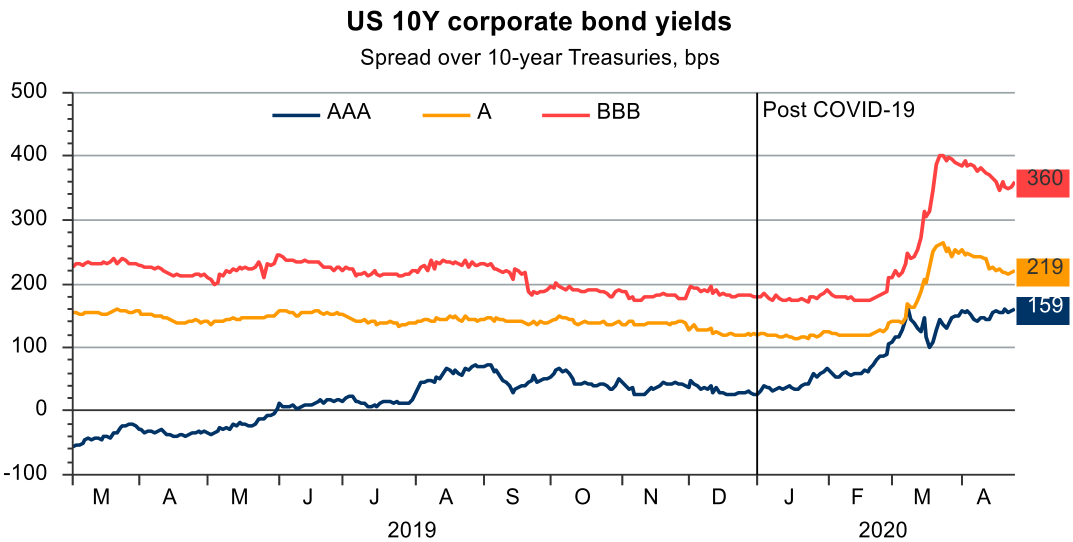
Figure 43: **...while G**-sec yields in India have benefited from rate cuts and huge liquidity surplus



Source: Refinitiv Datastream, NSE

...but credit markets are signalling a potential credit crisis: While treasury yields are declining as investors flee to safe havens, corporate bond spreads, both investment grade and high-yield have shot up after remaining fairly stable all through 2019, and more so for lower-rated companies, reflecting a huge stress in the economy and potential credit crisis in the offing. The Fed's decision to buy corporate bonds to boost liquidity and establish several facilities targeting investment grade corporate bonds has helped reduce the spread over the last one month, even as they still remain substantially higher than average spreads.

Figure 44: US 10-year corporate bond spreads



Source: Refinitiv Datastream, NSE

Spreads shot up in Indian fixed income markets in March but eased in April: Spreads across the board shot up in March amid tight liquidity conditions in the wake of surge in FPI outflows and redemption pressures in domestic mutual funds, as well as a sharp drop in trading activity. However, a slew or measures taken by the RBI over the last couple of weeks has helped ease liquidity in the system. While the TLTROs have led to an increase in demand for higher-rated corporate bonds by banks, thereby reducing the term and liquidity premia (not so much in the shorter tenor where spreads have widened as demand remains weak due to reinvestment risk), increase in the Ways and Means Advances (WMA) limits for states as well as centre has helped them manage their borrowings better.

Consequently, spreads have come off meaningfully for central government securities as well as state development loans in April thus far.

Figure 45: Spreads between G-sec yields and the policy rate shot up in March but fell in April...

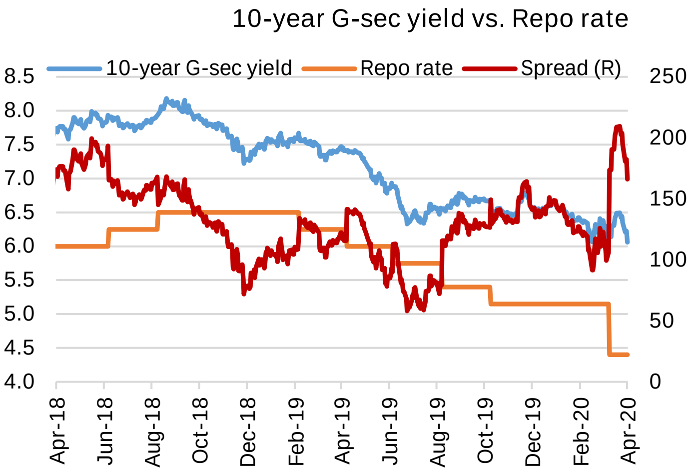
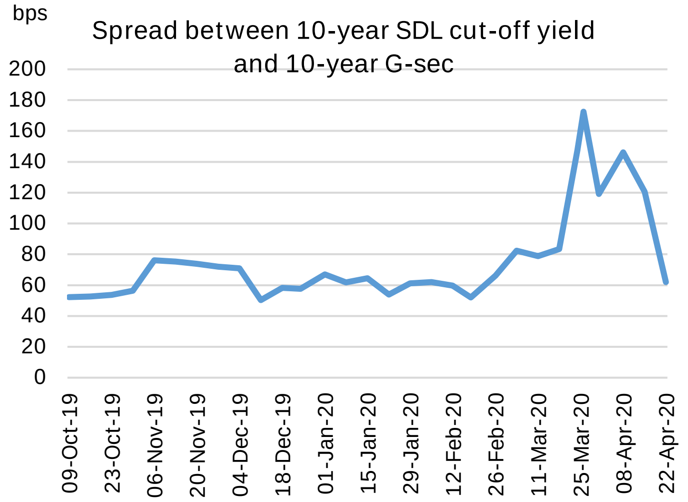
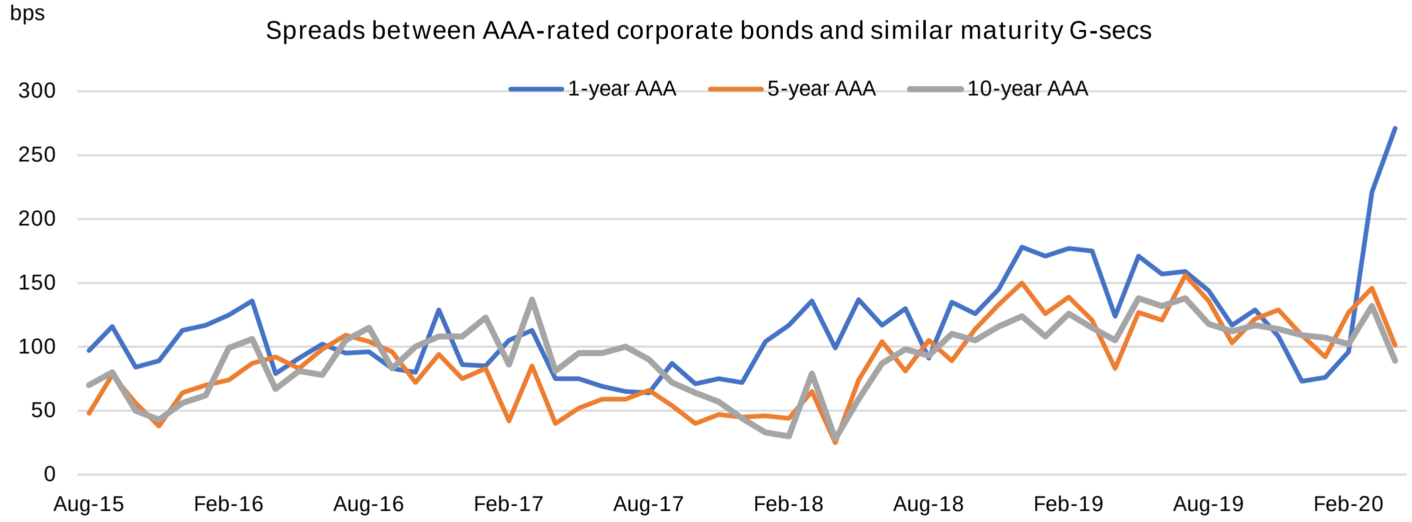


Figure 46: **...and so did s**preads between 10-year SDL cut-off yields and same maturity G-sec



Source: RBI, Refinitiv Datastream, NSE.

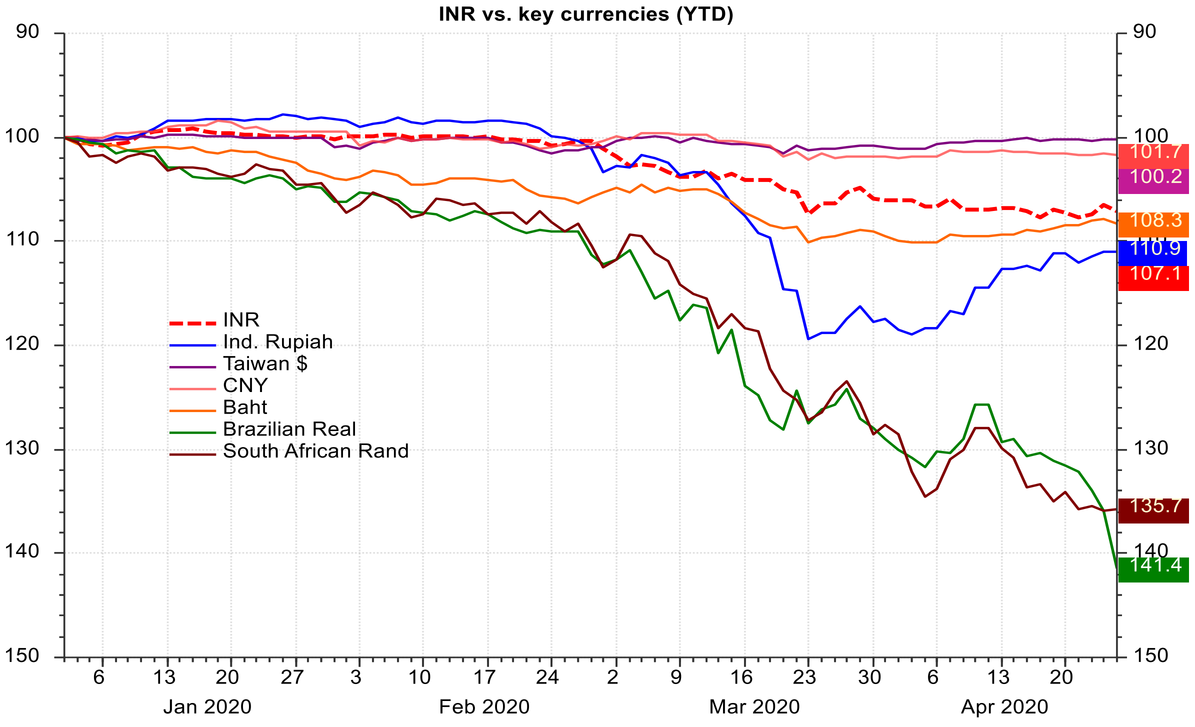
Figure 47: Credit spreads for AAA-rated corporate bonds



Source: CMIE Economic Outlook, NSE.

EM currencies have depreciated against the dollar amid foreign capital outflows: All major emerging market (EM) currencies have fallen against the US dollar in this year thus far, thanks to flight of capital from EMs to safe havens. The INR, however, has got relatively less impacted by the sell-off, depreciating 7% YTD vs. 36% and 41% all in the South African Rand and Brazilian Real respectively. This is largely attributed to better external environment and active RBI intervention.

Figure 48: Movement in key emerging currencies in 2020 till date



Source: Refinitiv Datasream, NSE.

A derailed recovery in corporate earnings

Recovery in corporate earnings derailed by COVID-19 outbreak: Nifty 50 earnings witnessed a modest improvement over the last few quarters until December 2019, supported by lower interest rates and corporate tax cuts, even as top-line growth remained muted amid weak consumption and investment demand as well as soft commodity prices. A sustained recovery in corporate earnings expected in FY21 has now got significantly derailed owing to a massive slowdown in economic and business activity due to COVID-19 outbreak.

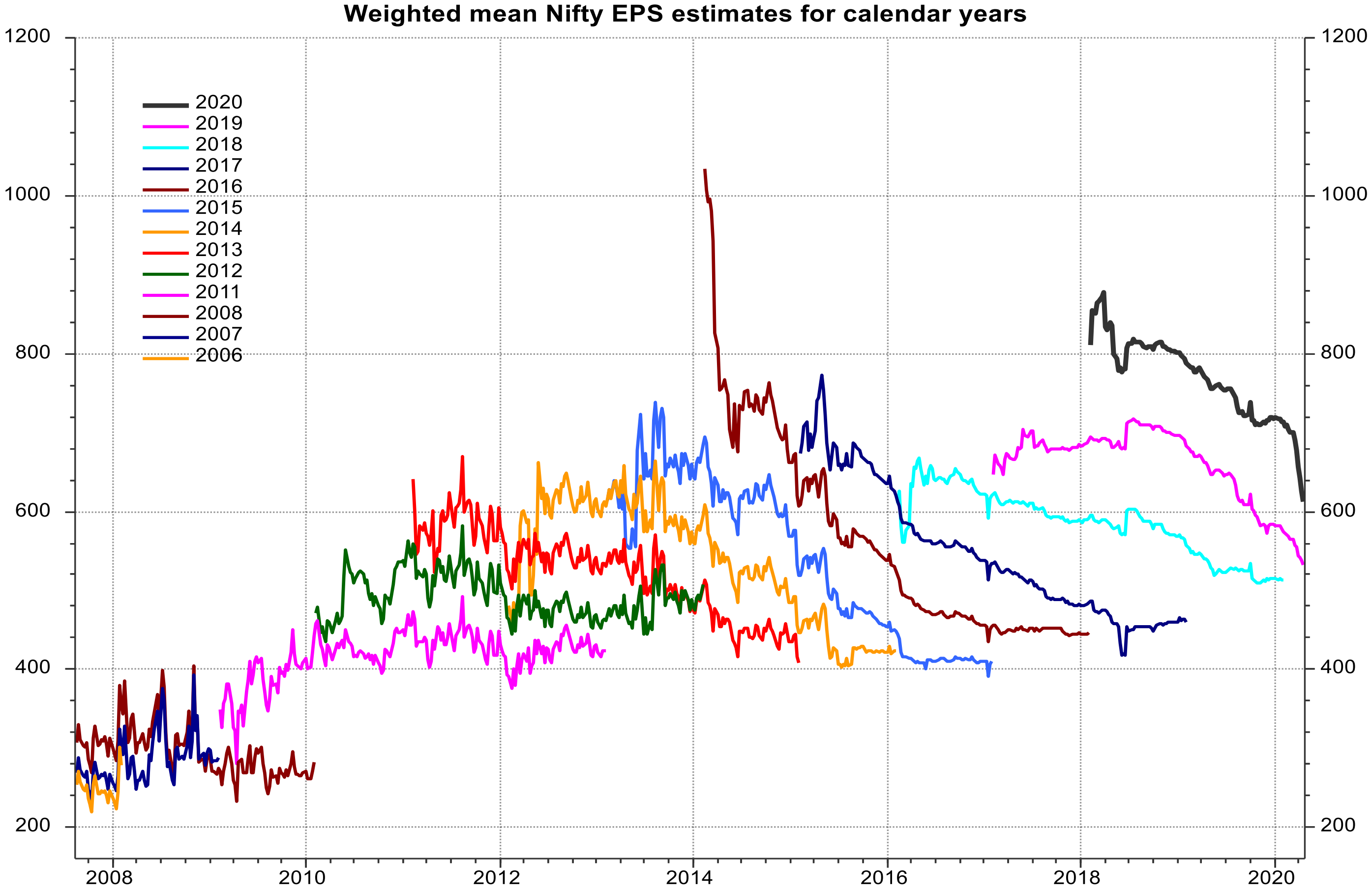
Consensus EPS numbers don't factor in Coronavirus impact as yet: The consensus EPS estimates for 2020/2021 (based on IBES estimates from Refinitiv Datastream) has been slashed by 15%/10% since the beginning of this year. In fact, nearly 84% of the earnings cut has come through in the month of March and April, probably reflecting the negative economic implications of containment measures adopted to control COVID-19 outbreak. Nevertheless, the consensus EPS estimate is still factoring in a ~15% earnings growth for 2020, and is therefore prone to significant downward revisions, particularly after the ongoing first quarter results as that would give a better indication of the extent of supply and demand shock due to COVID-19 contagion. Moreover, while an impending global recession is expected to badly hit exports, a sharp decline in commodity prices would hurt profitability of commodity sectors. That said, a confluence of monetary and fiscal measures that have been already taken and are in the offing, may help arrest the economic slowdown and consequent impact on corporate earnings to some extent.

Figure 49: Revisions in NIFTY 50 Consensus EPS estimates for 2020 and 2021

	As on January 1, 2020		As on April 24, 2020		% chg. in consensus est.	
	2020	2021	2020	2021	2020	2021
Consensus Nifty50 EPS estimates (Rs) *	719	826	612	740	-14.9	-10.4
% YoY (%)	23.3	14.9	14.8	20.9		
P/E (x)	17.0	14.8	15.0	12.4		

Source: Refinitiv Datastream, NSE. * Calendar year IBES EPS estimates from Refinitiv Datastream

Figure 50: Yearly trend of NIFTY 50 Consensus EPS estimates

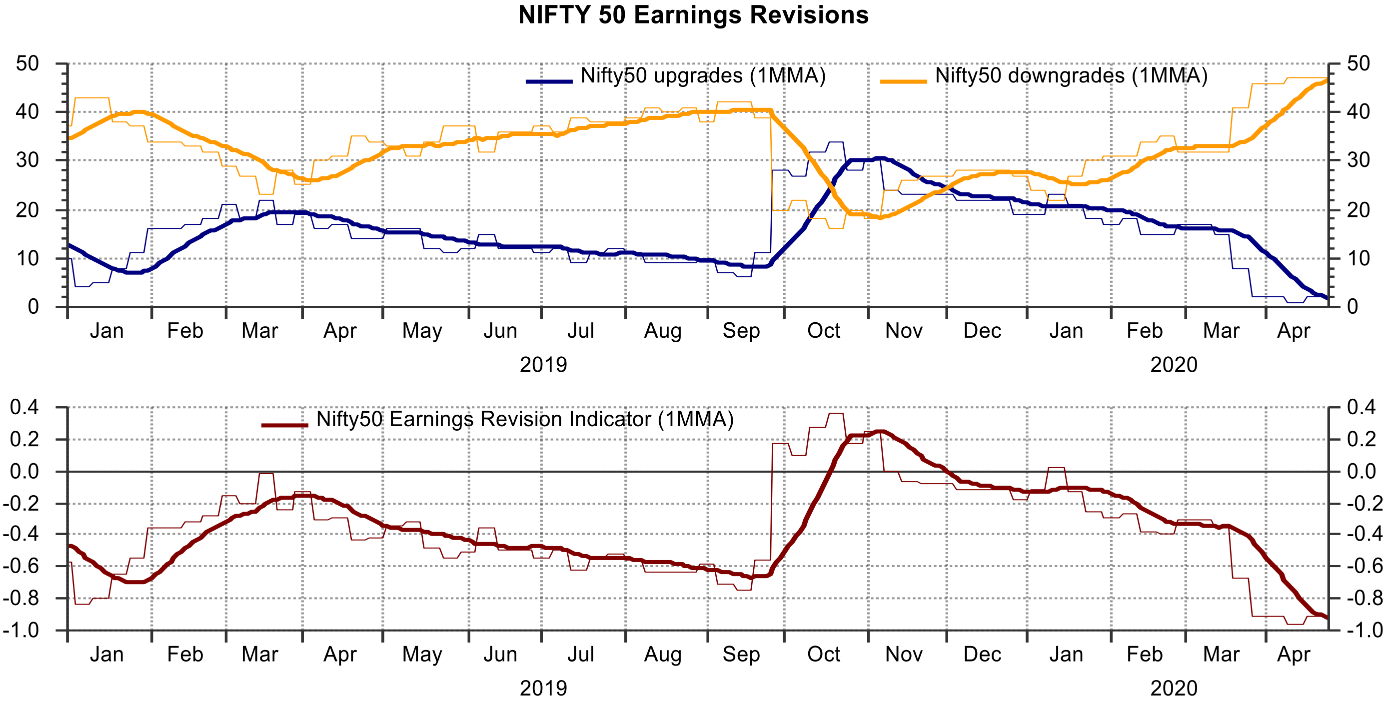


Source: Refinitiv Datastream, NSE

Nifty 50 Earnings Revision Indicator has moved deep into the negative zone: The Earnings Revision Indicator (ERI)[1] for the Nifty 50 universe has fallen deep into the negative zone to the lowest level since the data is available (2007), after remaining in the positive zone for a brief period post the corporate tax cut announcement in September 2019. This implies that there have been significantly far higher number of downgrades than upgrades, thanks to massive supply and demand disruptions caused by mass scale lockdowns worldwide. In fact, except for one or two companies, rest all the Nifty 50 companies have been witnessing significant earnings downgrades, taking ERI to its lower limit of -1.

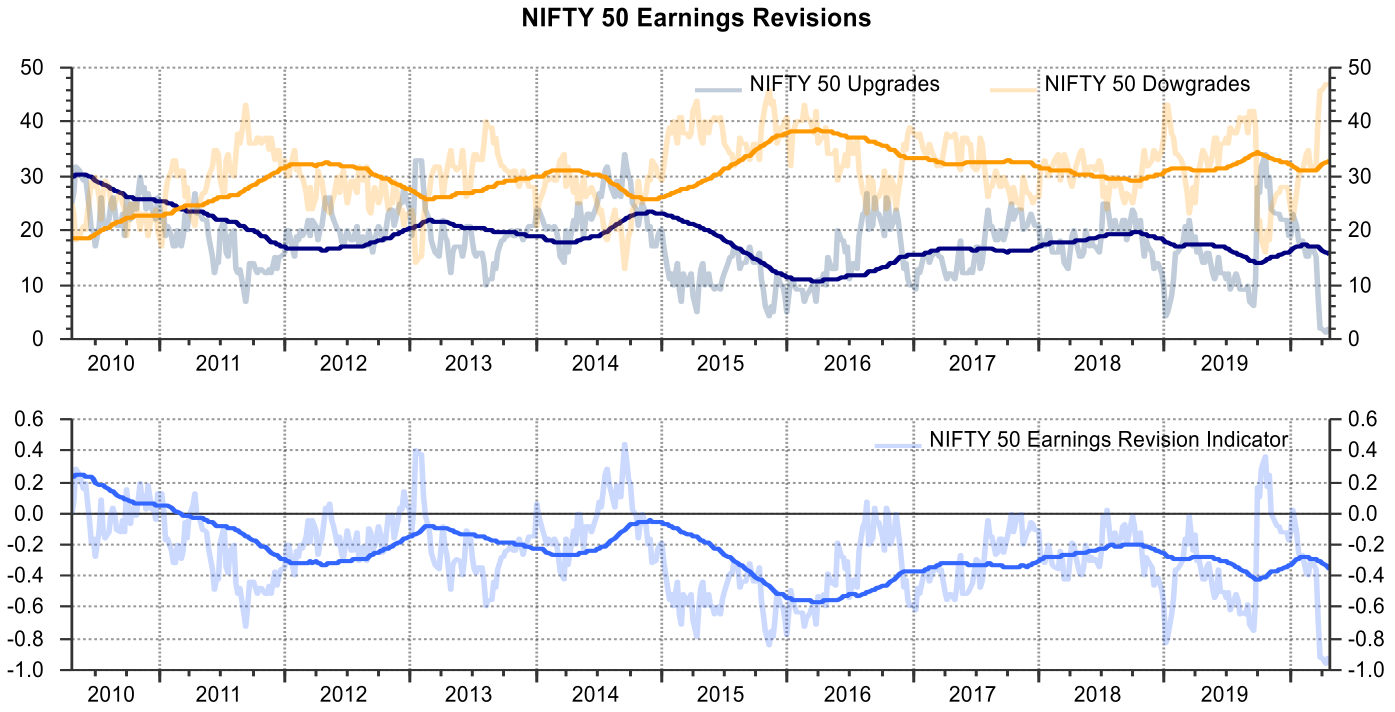
[1] The Earnings Revision Indicator (ERI) is calculated as "(number of upgrades – number of downgrades)/total number of upgrades and downgrades". It can range between -1 to 1.

Figure 51: Nifty 50 Earnings Revision Indicator (since January 2019)



Source: Refinitiv Datastream, NSE

Figure 52: Nifty 50 Earnings Revision Indicator (10-year trend)



Source: Refinitiv Datastream, NSE

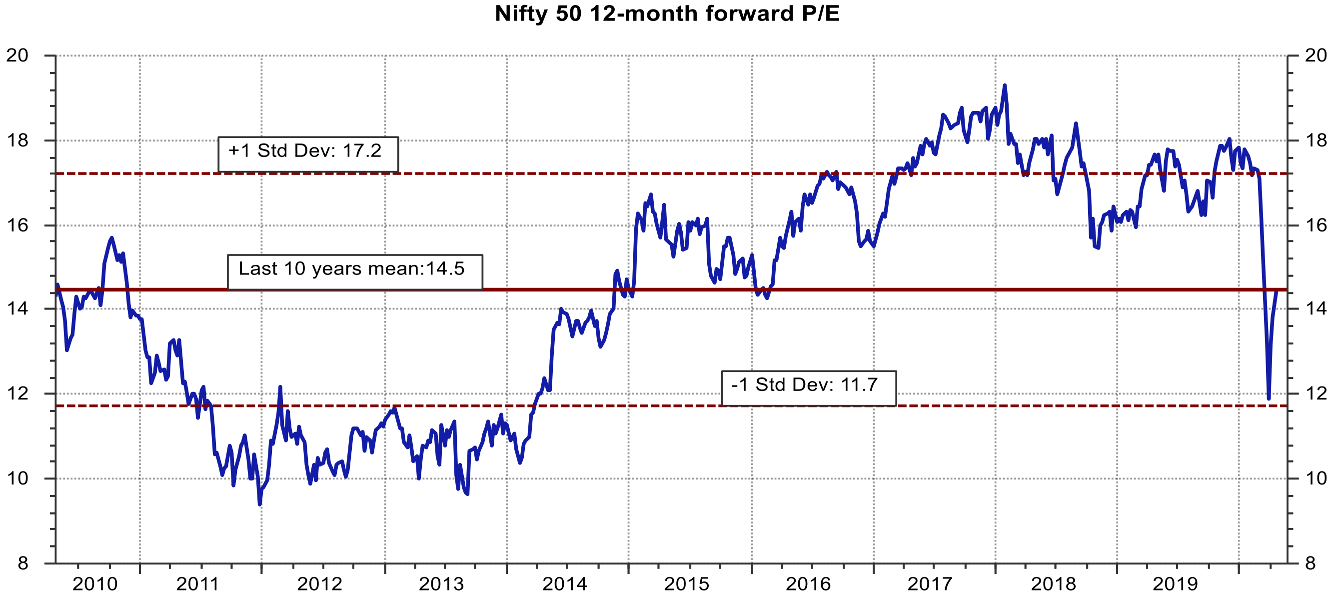
Equity markets remain a sensible, liquid choice for investments and capital raising

Nifty 50 index is still down ~25% YTD despite a strong rebound over the last few weeks. This is a reflection of rising number of cases in India, and economic consequences of the containment measures adopted to minimise the spread. Near-term uncertainty and volatility apart, historical performance during sharp bear markets points to a positive equity market outlook from a medium-term perspective when seen in the light of relative and absolute valuations and market cap to GDP ratio. That said, market performance in future would also depend upon the extent of the COVID-19 outbreak and how domestic macroeconomic situation evolves. Nevertheless, equity markets continue to be a sensible liquid choice for investments, capital raising, hedging, and long-term wealth creation.

a) Market decline leads to valuation de-rating: A sharp fall in equity markets in Q1 2020 has led to a signficant valuation de-rating. The 12-month forward price/earnings (P/E) fell from ~18x, a little over +1 std. dev. in the beginning of 2020, to closer to -1 std. dev. by March-end. A part of this is also attributed to incommensurate downgrade in earnings estimates. However, markets have rallied by nearly 20% over the last one month, in-line with global equity markets, erasing a part of the losses. This has led to market valuations moving back to the long-term average, further aided by sharp earnings downgrades over the last few weeks. However, market valuations based on book value per share are significantly below the historical average.

   The recent rally is in line with the historical performance that suggests that equity markets tend to bounce back quickly after a sharp fall and a huge valuation de-rating. For instance, the last two times when 12-month forward P/E fell to sub-12x, i.e. post taper-tantrum in 2013 and Global Financial Crisis in 2008, equity markets generated strong returns over the next two-year period. That said, the economic situation currently is very different. The future market performance would also depend on the duration of the outbreak, efficacy of monetary and fiscal measures taken thus far and evolving macroeconomic fundamentals.

Figure 53: Nifty 50 12-month forward price to earnings per share (P/E)

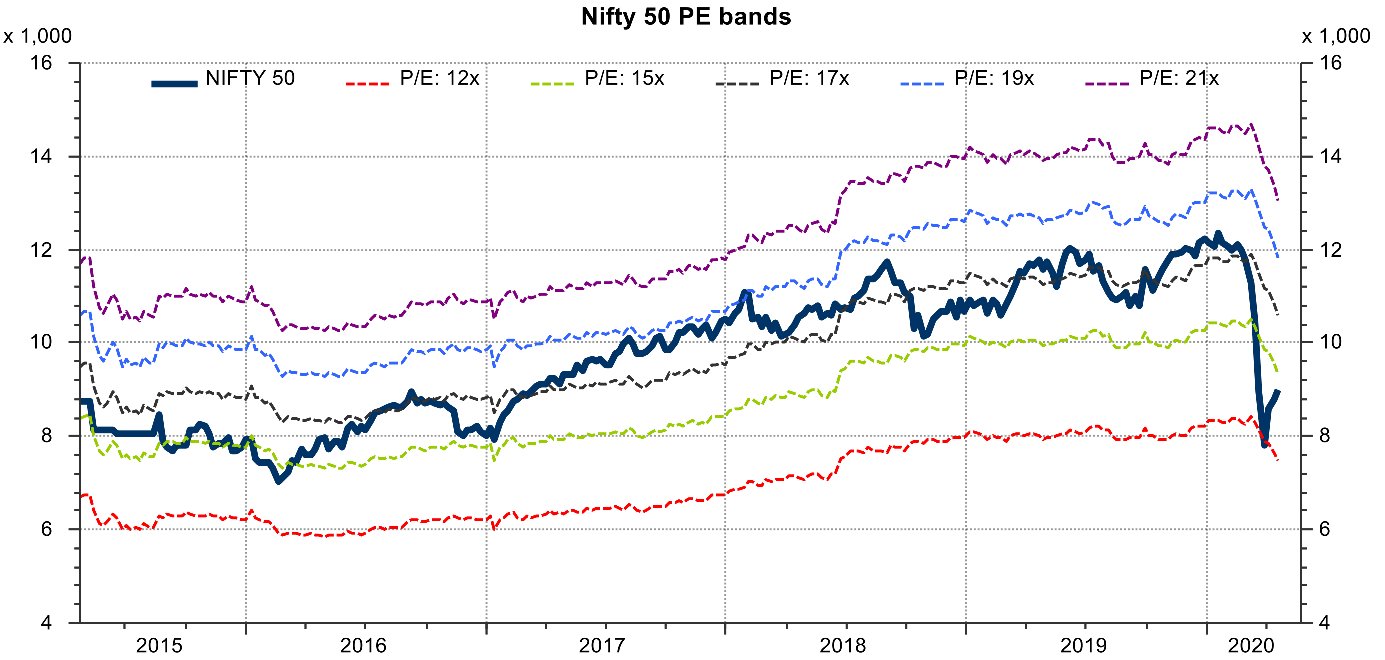


Source: Refinitiv Datastream, NSE

Figure 54: Nifty 50 12-month trailing price to earnings per share (P/E)

Source: Refinitiv Datastream, NSE

Figure 55: Nifty 50 P/E bands

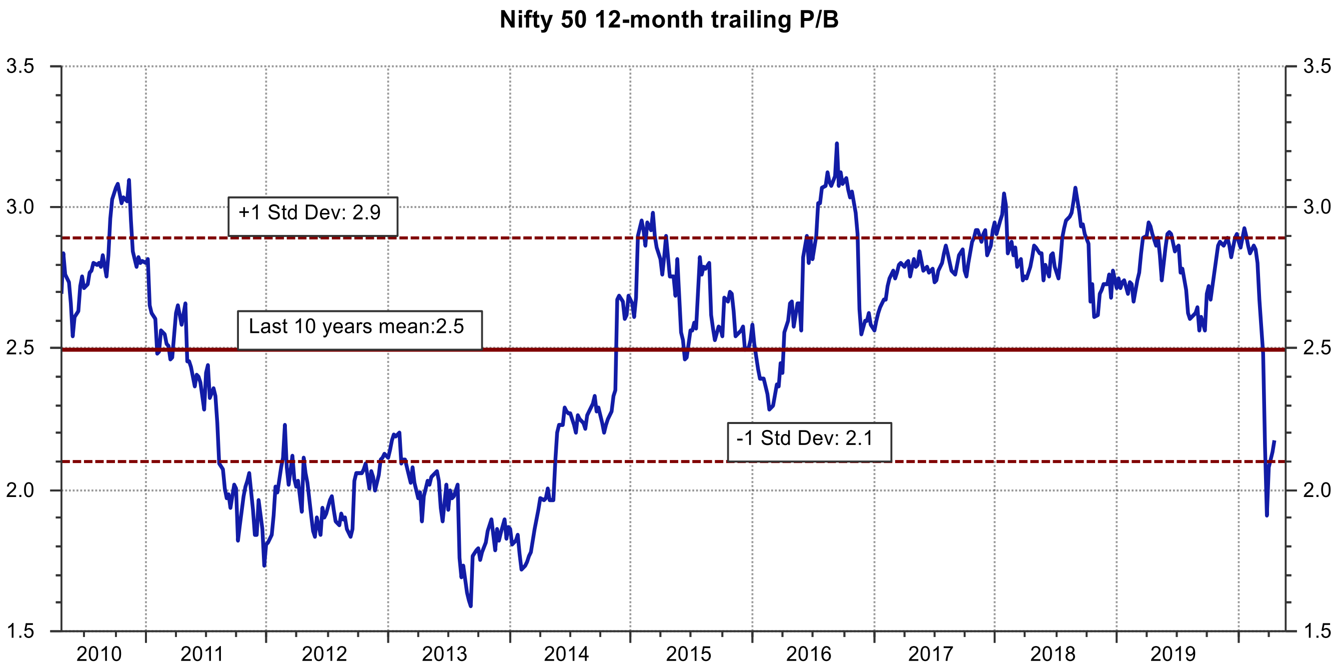


Source: Refinitiv Datastream, NSE

Figure 56: Nifty 50 12-month forward price to book value per share (P/B)

Source: Refinitiv Datastream, NSE

Figure 57: Nifty 50 12-month trailing price to book value per share (P/B)



Source: Refinitiv Datastream, NSE

Figure 58: Consumer Staples 12-month forward P/E

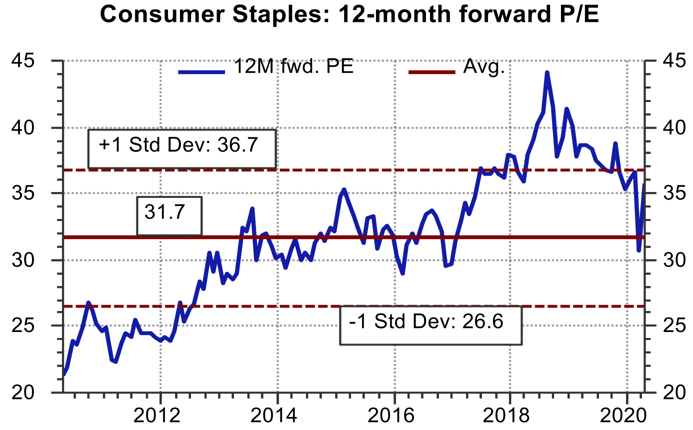
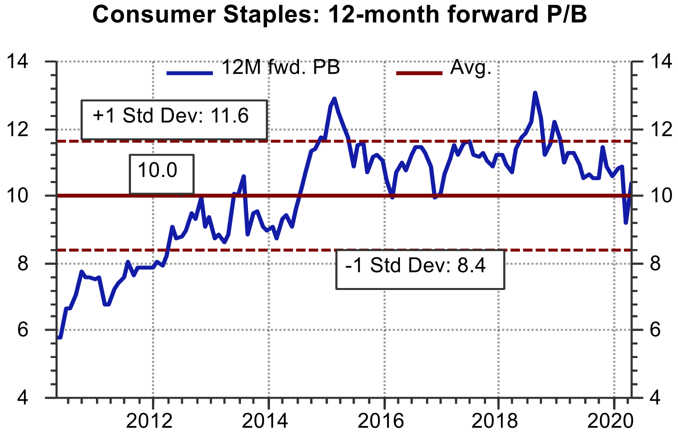


Figure 59: Consumer Staples 12-month forward P/B



Source: Refinitiv Datastream, NSE.

Figure 60: Consumer Discretionary 12M forward P/E

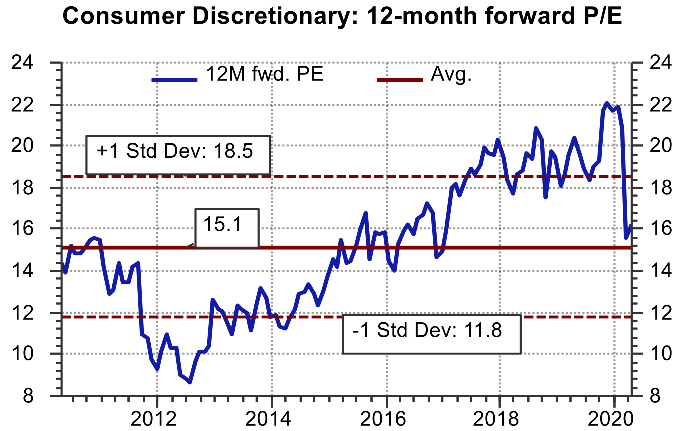
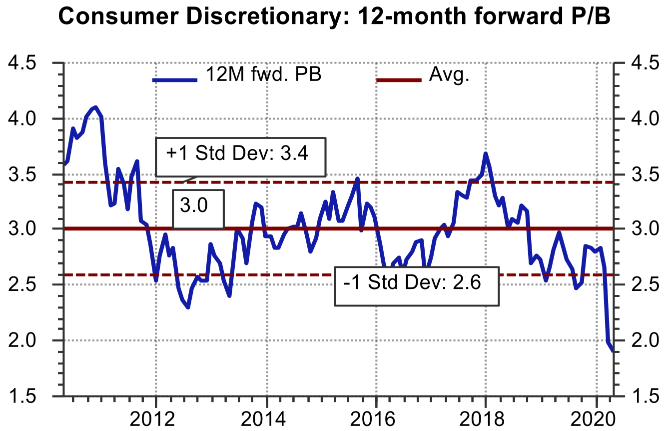


Figure 61: Consumer Discretionary 12-M forward P/B



Source: Refinitiv Datastream, NSE.

Figure 62: Financials 12-month forward P/E

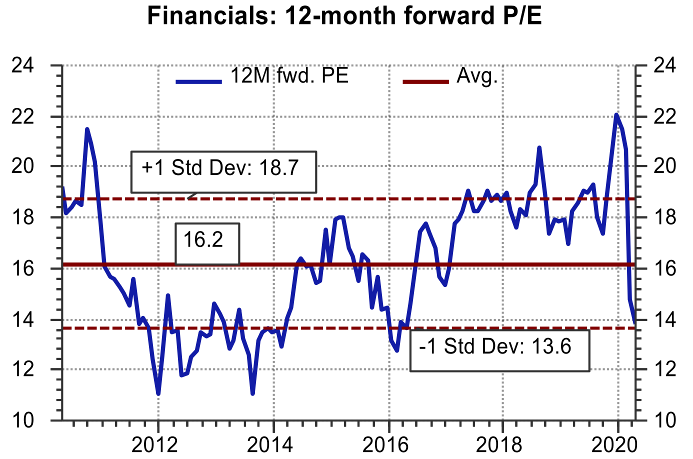
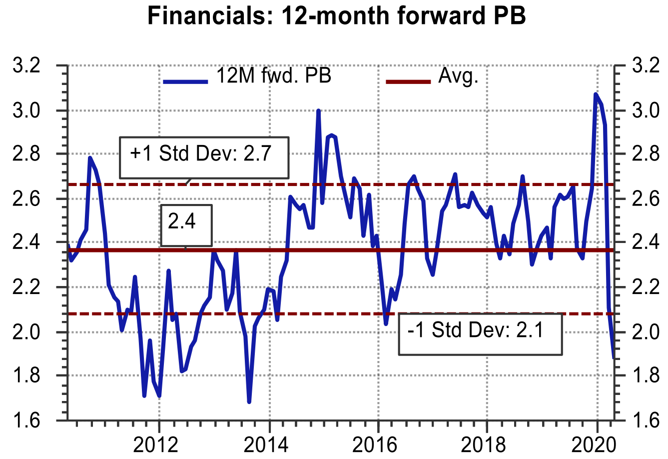


Figure 63: Financials 12-month forward P/B



Source: Refinitiv Datastream, NSE.

Figure 64: Healthcare 12-month forward P/E

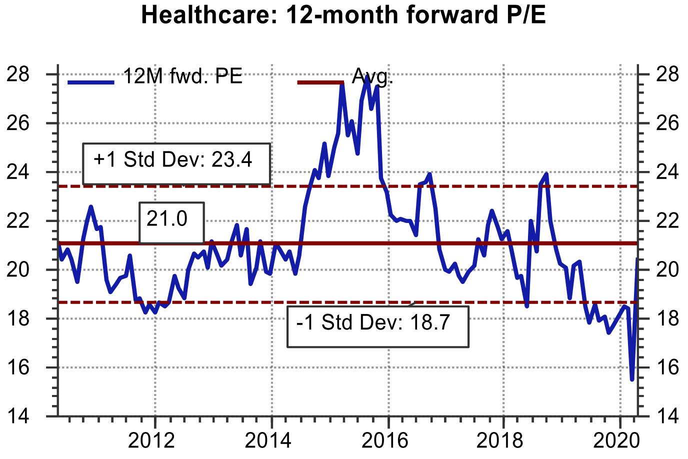
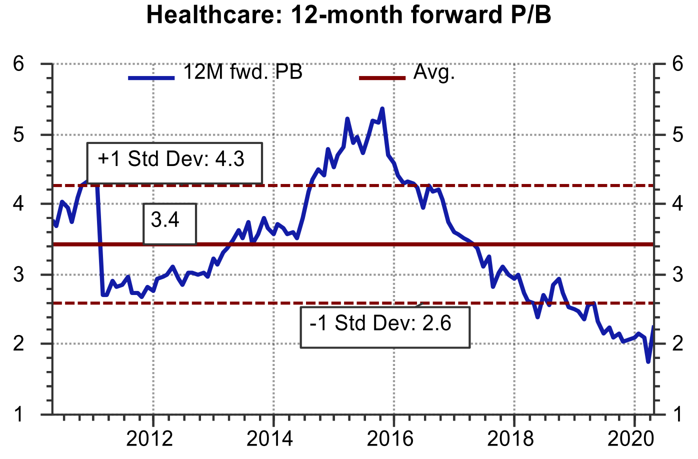


Figure 65: Healthcare 12-month forward P/B



Source: Refinitiv Datastream, NSE.

Figure 66: Energy 12-month forward P/E

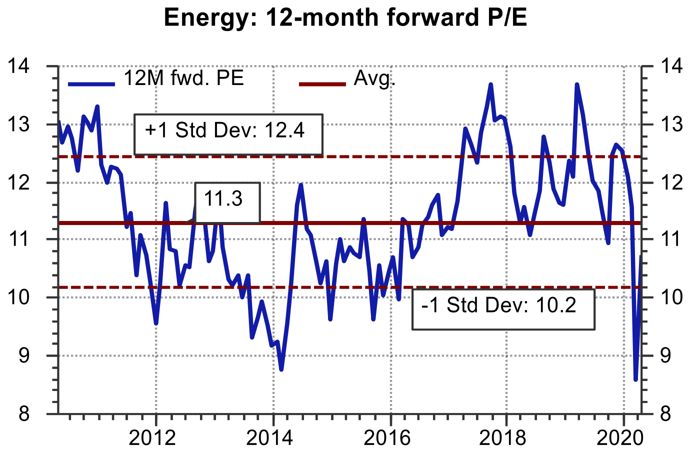
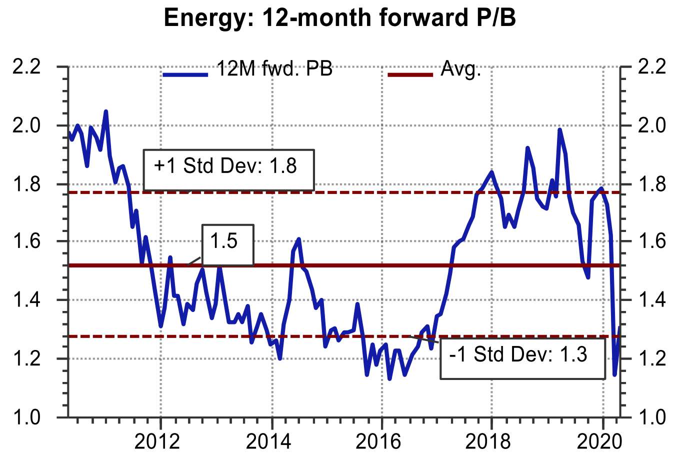


Figure 67: Energy 12-month forward P/B



Source: Refinitiv Datastream, NSE.

Figure 68: IT 12-month forward P/E

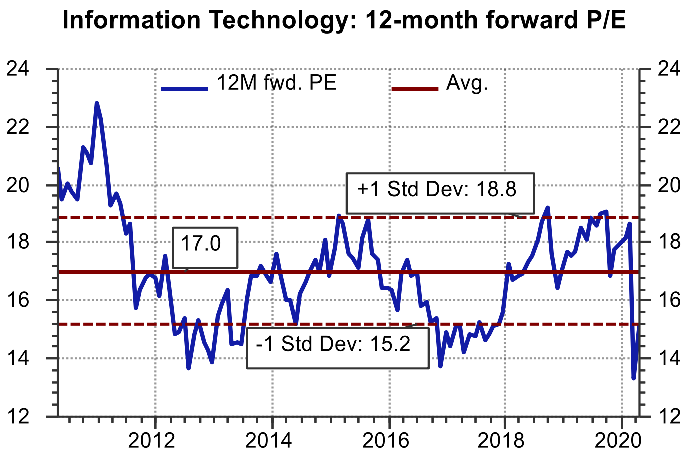
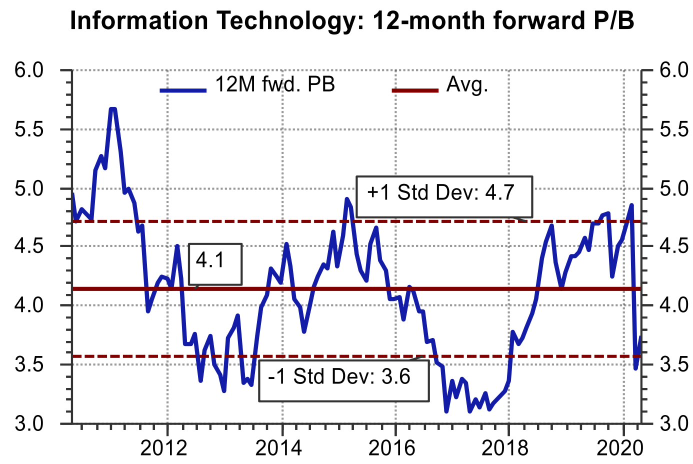


Figure 69: IT 12-month forward P/B



Source: Refinitiv Datastream, NSE.

Figure 70: Industrials 12-month forward P/E

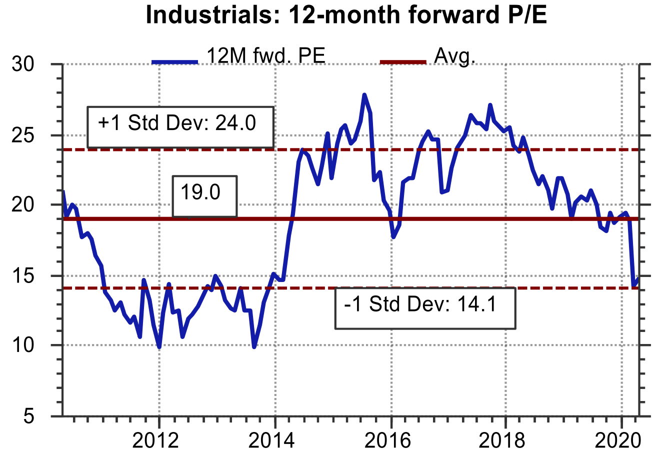
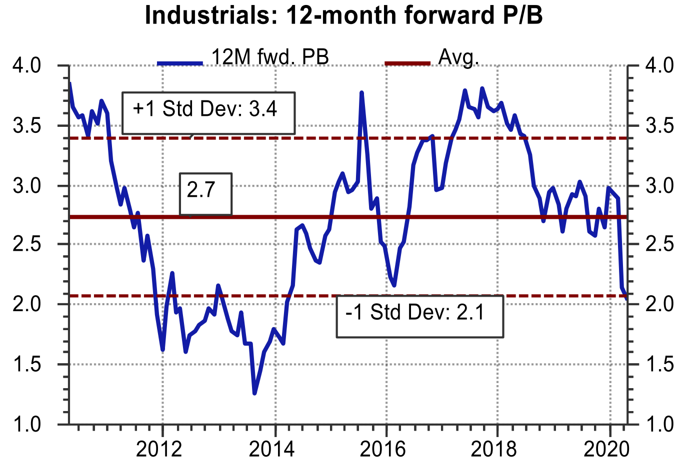


Figure 71: Industrials 12-month forward P/B



Source: Refinitiv Datastream, NSE.

Figure 72: Materials 12-month forward P/E

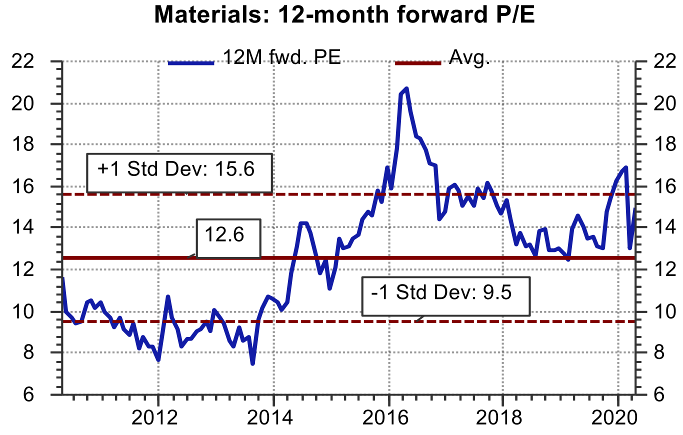
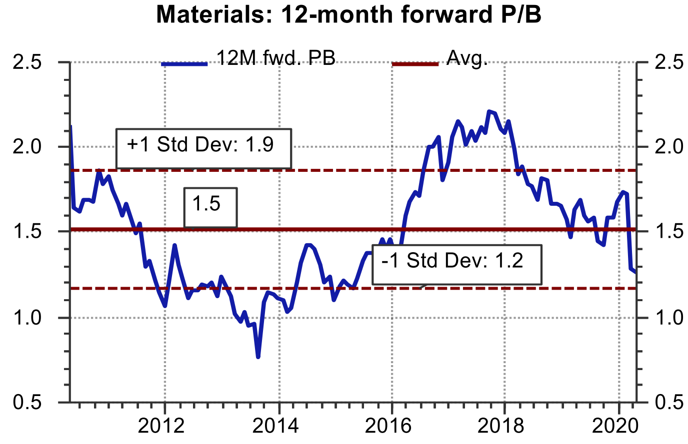


Figure 73: Materials 12-month forward P/B



Source: Refinitiv Datastream, NSE.

Figure 74: Utilities 12-month forward P/E

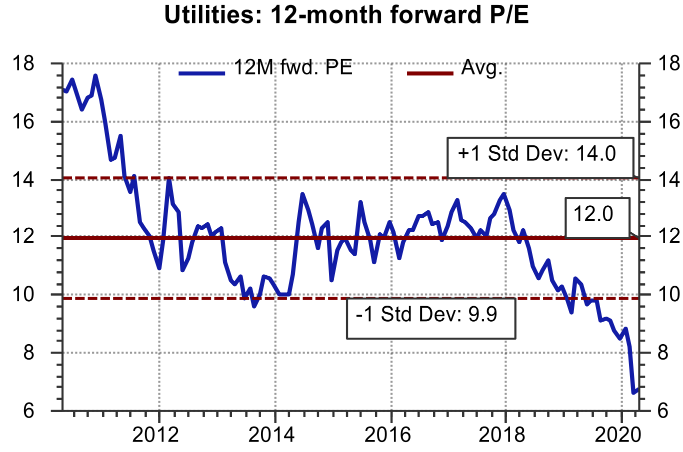
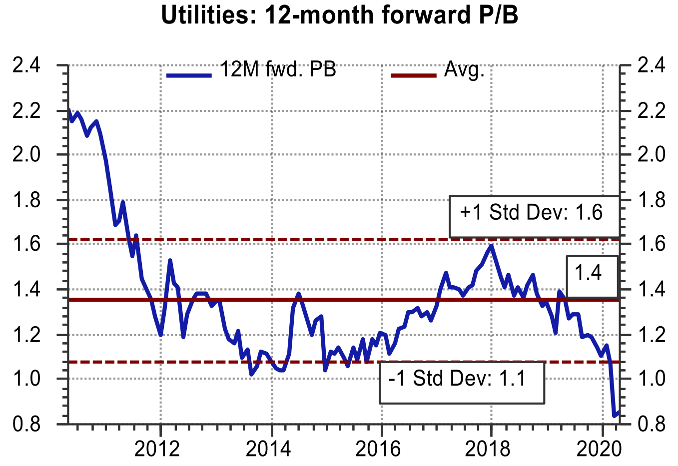


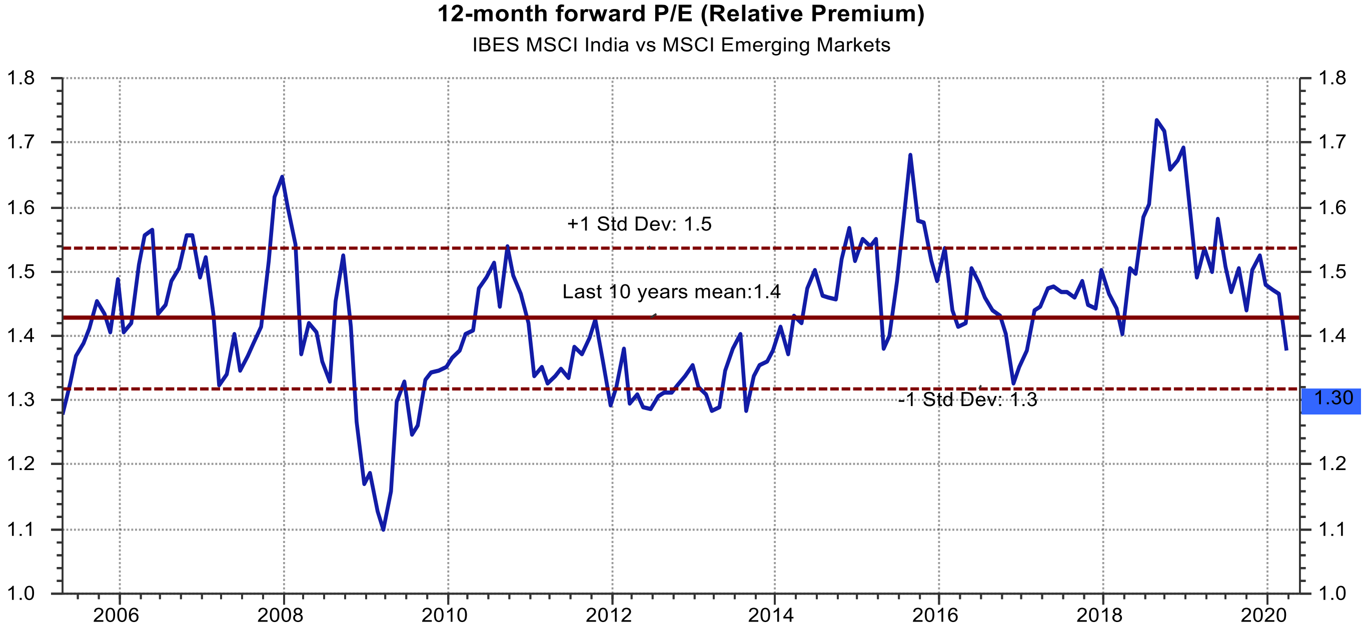
Figure 75: Utilities 12-month forward P/B



Source: Refinitiv Datastream, NSE.

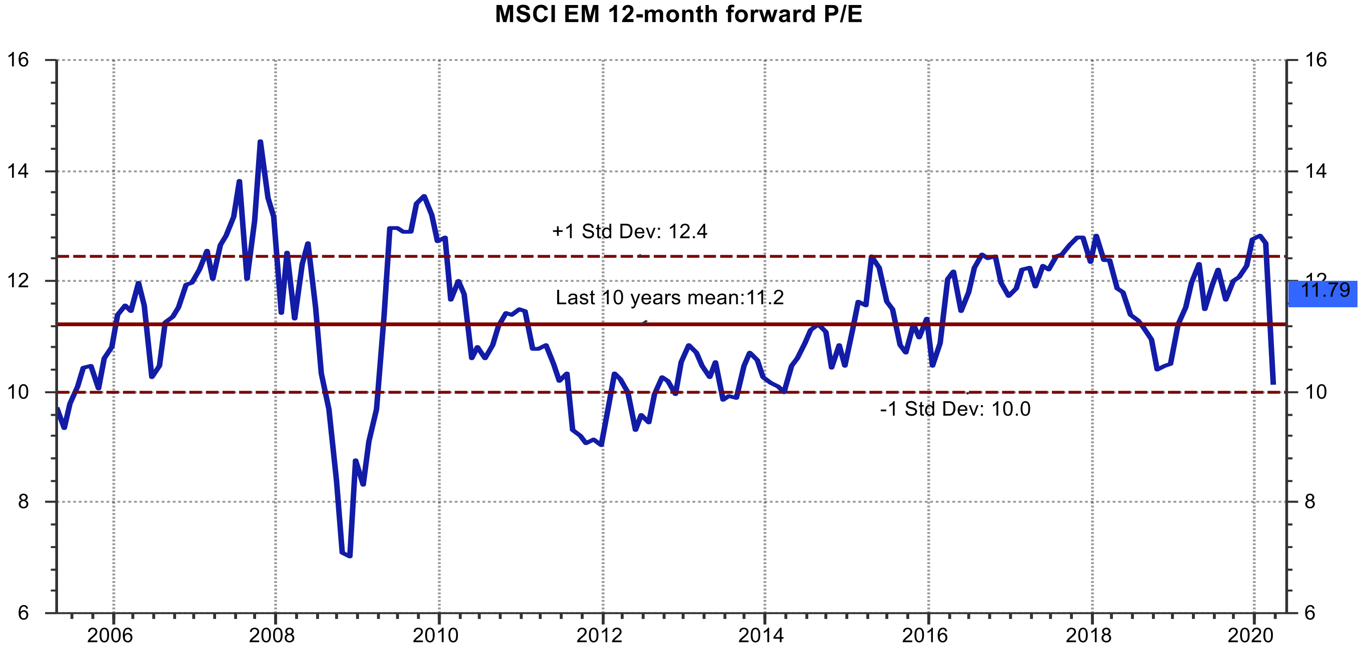
b) Valuation premium to MSCI EM at multi-year lows: Indian equity markets have underperformed the broader EM pack. This is primarily because of a strong recovery in Chinese equity markets which account for nearly one-third of the MSCI Emerging Market Index. As such, the relative valuation premia of Indian equity market has fallen to 1 std. dev below the last 10-year average, and is currently at seven-year lows.

Figure 76: MSCI India 12-month forward P/E valuation premium to MSCI EM



Source: Refinitiv Datastream, NSE

Figure 77: MSCI Emerging Market 12-month forward P/E trend



Source: Refinitiv Datastream, NSE

Figure 78: MSCI India 12-month forward P/B valuation premium to MSCI EM

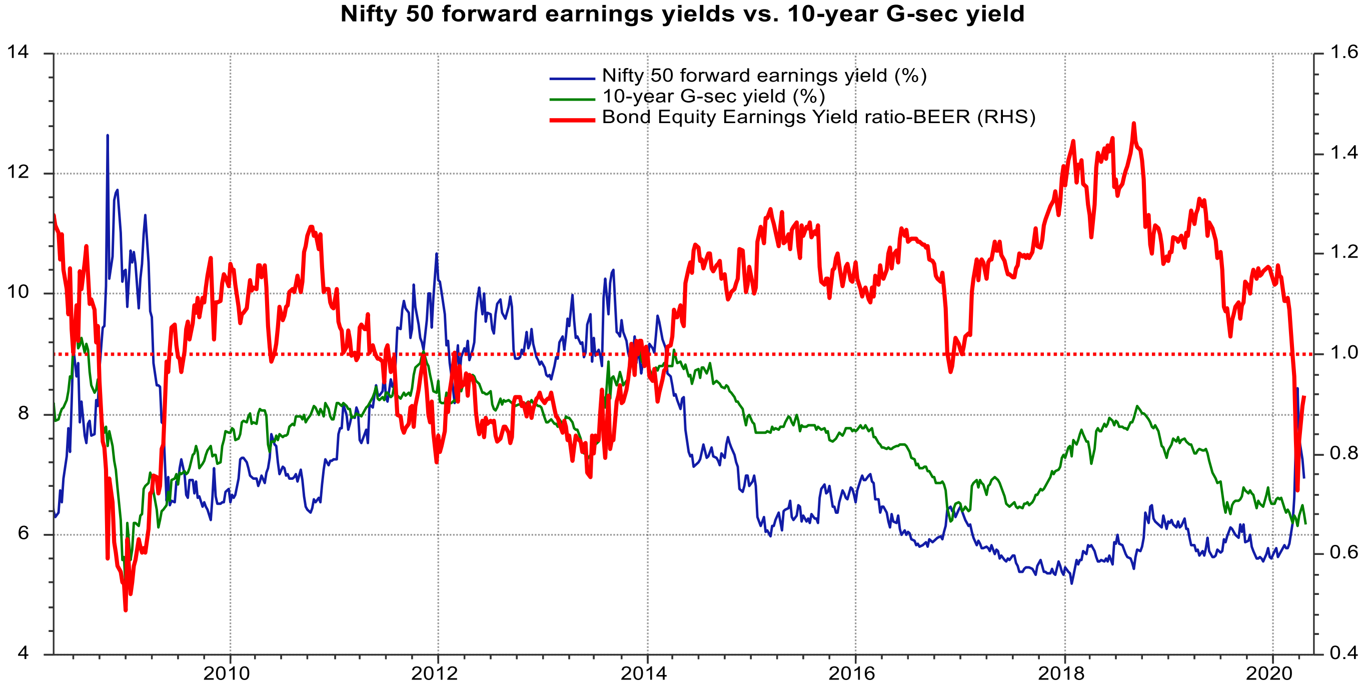
Source: Refinitiv Datastream, NSE

Figure 79: MSCI Emerging Market 12-month forward P/B trend

Source: Refinitiv Datastream, NSE

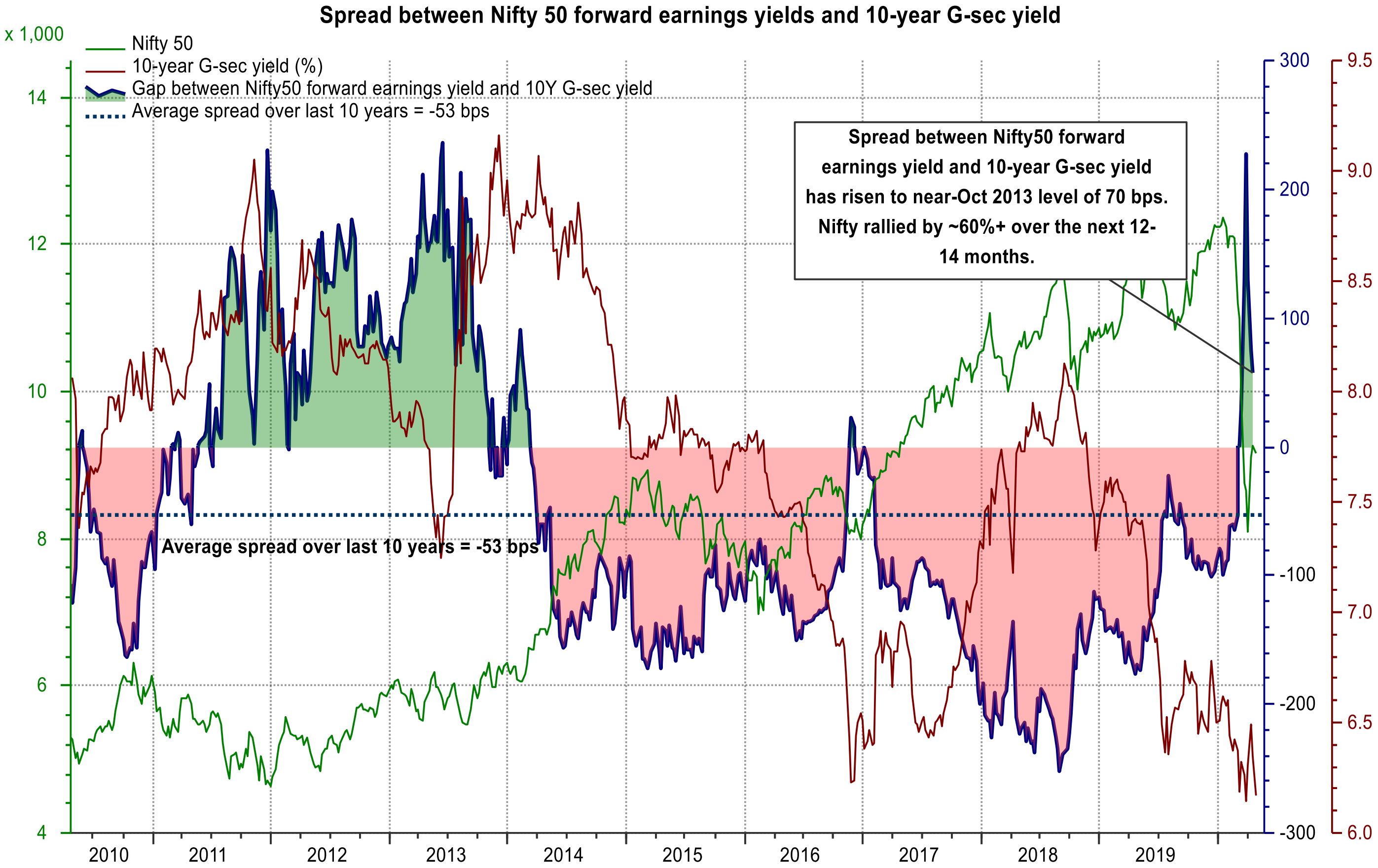
c) Positive differential between earnings yield and bond yield: The Bond Equity Earnings Yield Ratio (BEER), calculated as the ratio of benchmark bond yield (10-year G-sec yield) to 12-month forward earnings yield (inverse of P/E ratio), fell below 1 for the first time in six years. BEER based on 12-month trailing earnings has also fallen sharply. A BEER ratio less than 1 indicates that equity market is undervalued as compared to the bond market. Notably, the ratio is even lower when lower-tenor benchmark yields (1/5 year) are used. History suggests that when BEER falls below 1, equity markets generate strong returns over the subsequent 12-24 months.

Figure 80: Nifty50 12-month forward earnings yield vs. 10-year G-sec yield



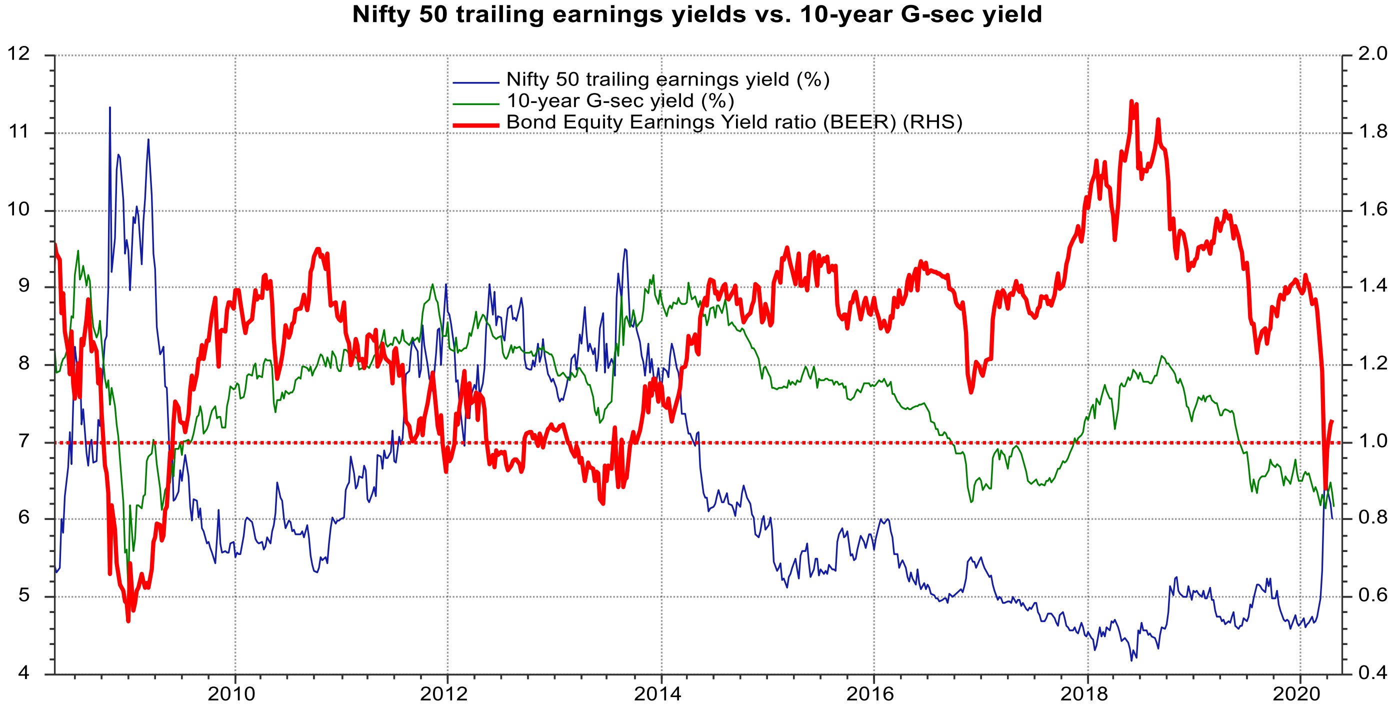
Source: Refinitiv Datastream, NSE

Figure 81: Spread between Nifty50 12-month forward earnings yield vs. 10-year G-sec yield



Source: Refinitiv Datastream, NSE

Figure 82: Nifty50 12-month trailing earnings yield vs. 10-year G-sec yield



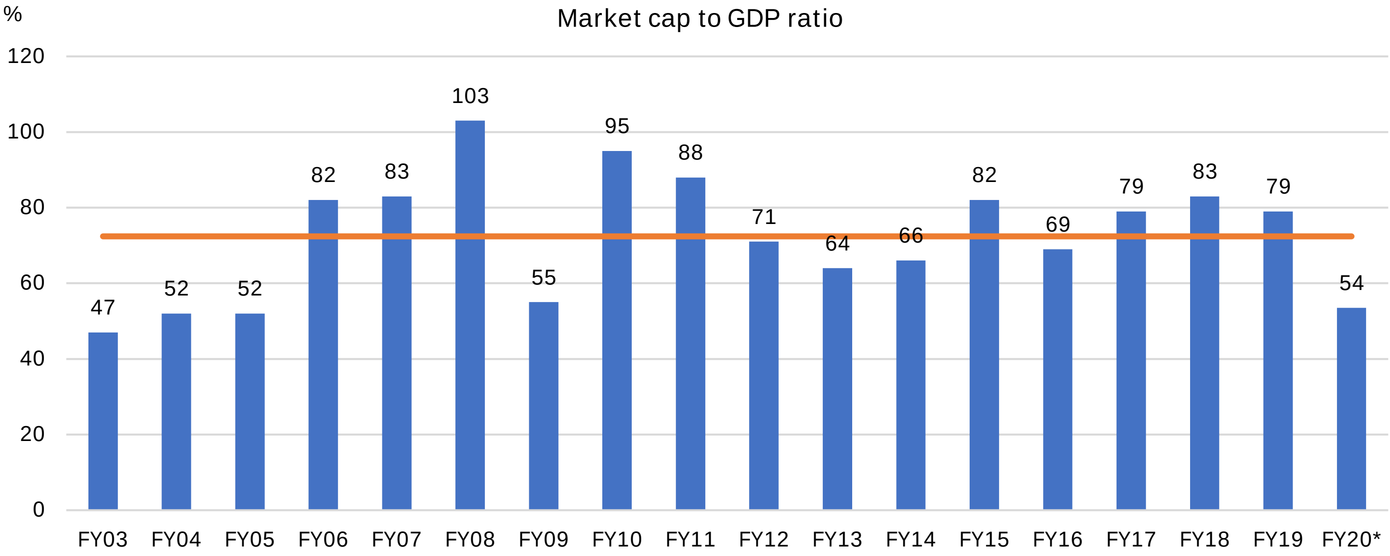
Source: Refinitiv Datastream, NSE

Figure 83: Spread between Nifty50 12-month trailing earnings yield vs. 10-year G-sec yield

Source: Refinitiv Datastream, NSE

d) Market-cap to GDP ratio lowest since FY05: The sharp fall in equity markets in the first quarter of 2020 has led to India's market cap to GDP ratio falling to 50%—the lowest in the last 15 years. In fact, it is lower than that seen post the global financial crisis.

Figure 84: India market-cap to GDP ratio has fallen to 15-year lows



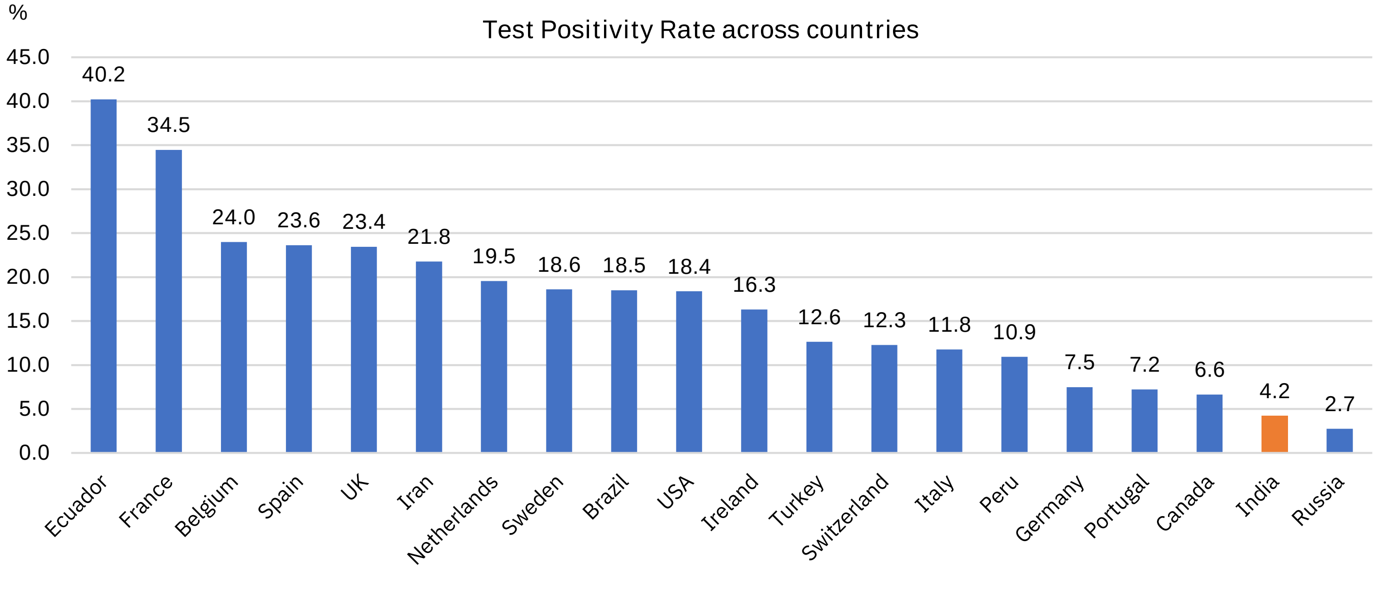
Source: CMIE Prowess, Bloomberg, CSO, NSE. FY20 data is based on market cap of 2,637 listed companies and CSO's Second Advance estimate for FY20 GDP.

Now for some silver lining

While COVID-19 has drastically altered India's macroeconomic outlook and impacted financial markets, there are still some positives to take cognizance of that makes India relatively better placed to deal with the outbreak and attendant ramifications. In India, the depth and breadth of the COVID-19 spread has been lower as compared to several other emerging and developed economies. On the macro front, we have a) a comfortable inflation trajectory which is unlikely to be an impediment to rate cuts, b) a low external vulnerability, thanks to near record-high forex reserves adequately providing for imports for up to a year, near-1% current account deficit and low external debt to GDP, c) net benefits from low crude oil prices, notwithstanding some headwinds in the form of poor remittances, d) a retatively stable currency and e) an improving 'ease of doing business ranking'.

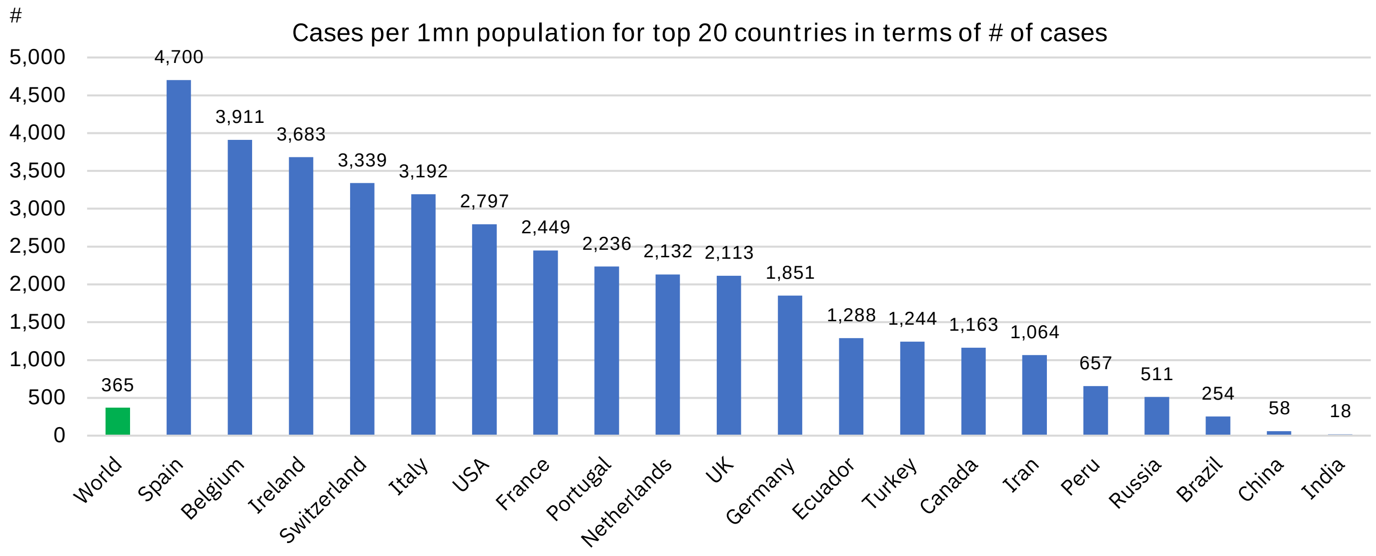
Depth and breadth of COVID-19 in India much lower than other countries: Despite a sharp rise in COVID-19 cases in India, the depth and breadth of the spread in India remains quite low when compared with the top-20 countries in terms of the number of positive cases reported till date. The proactive intervention by the Government, particularly in terms of implementing a timely lock-down, notwithstanding severe economic ramifications, and a pick-up in testing has helped contain the spread in India. In term of the test positivity rate, calculated as the ratio of total positive cases to total number of tests conducted, India fares much better than its counterparts. In terms of cases per mn population and deaths per mn population, India ranks the best amongst the top 20 countries in terms of number of cases.

Figure 85: Test Positivity Rate across top-10 countries in terms of # of cases (As of April 24th)



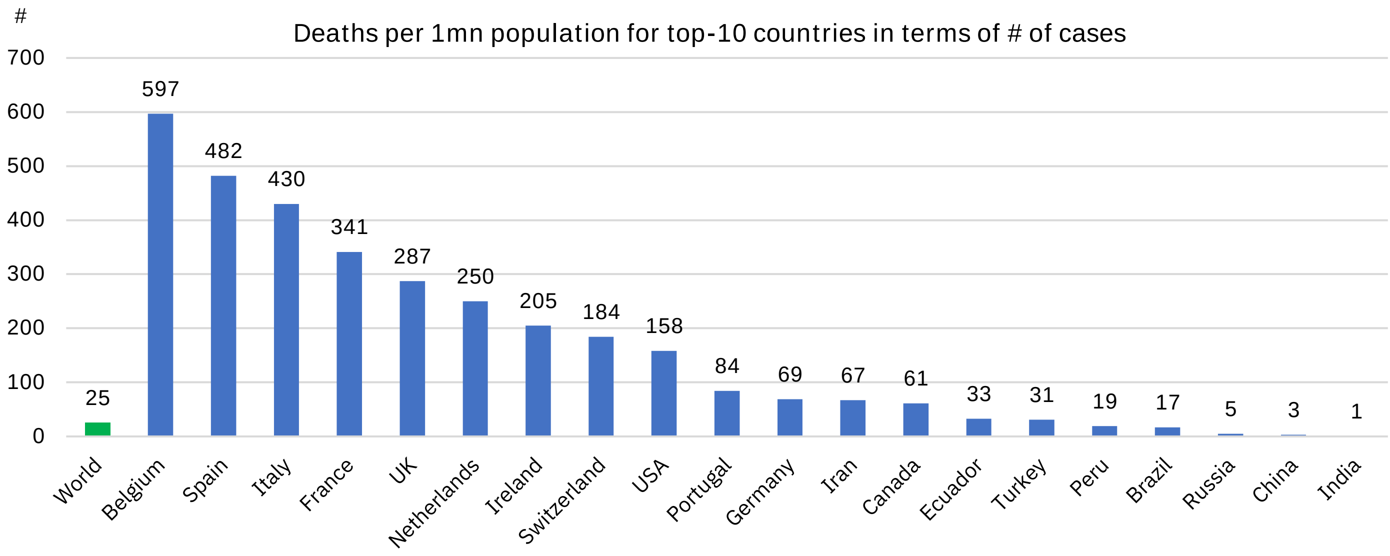
Source: worldometers.info

Figure 86: Cases per 1mn population for top-10 countries in terms of # of cases (As of April 24th)



Source: worldometers.info

Figure 87: Deaths per 1mn population for top-10 countries in terms of # of cases (As of April 24th)

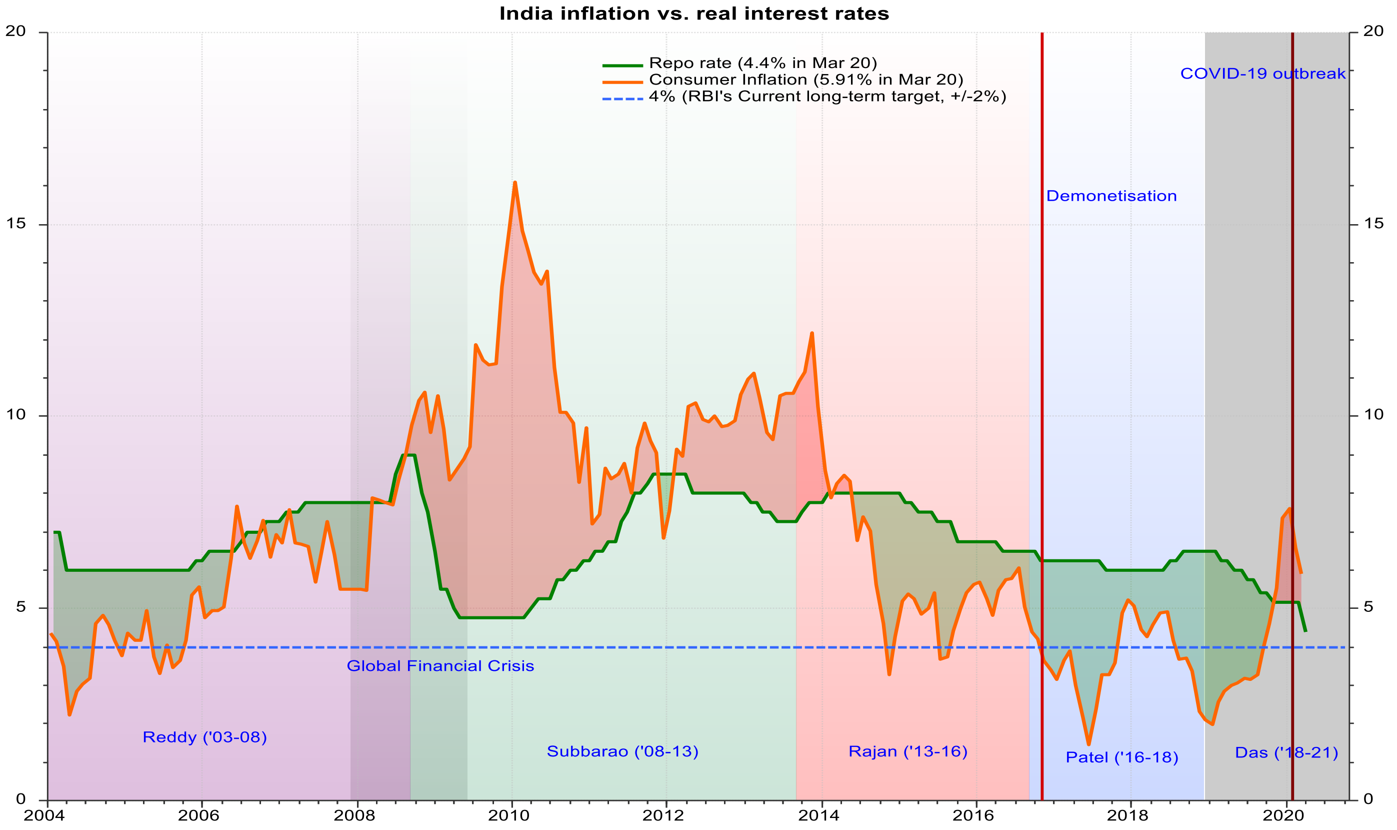


Source: worldometers.info

A comfortable inflation trajectory: A surge of liqudiity post the global financial crisis led to retai inflation rising to exteremely high levels as shown in the chart below. However, inflation came off post 2014 after the central bank imposed on itself a glide path for bringing down inflation. Subsequently in 2015, the RBI signed a Monetary Policy Framework Agreement (MPFA) with the Government, adopting a flexible inflation targeting framework under which maintaining price stability became the prime objective of the RBI. Under this framwork, the RBI got the mandate of brining down inflation in the medium-term to 4% with a tolerance band of +/- 2%. Inflation has since fallen, averaging below 4% since FY18, notwithstanding the recent spike led by a food prices, particularly in vegetables, reflecting the adverse impact of unseasonal and excessive rains.

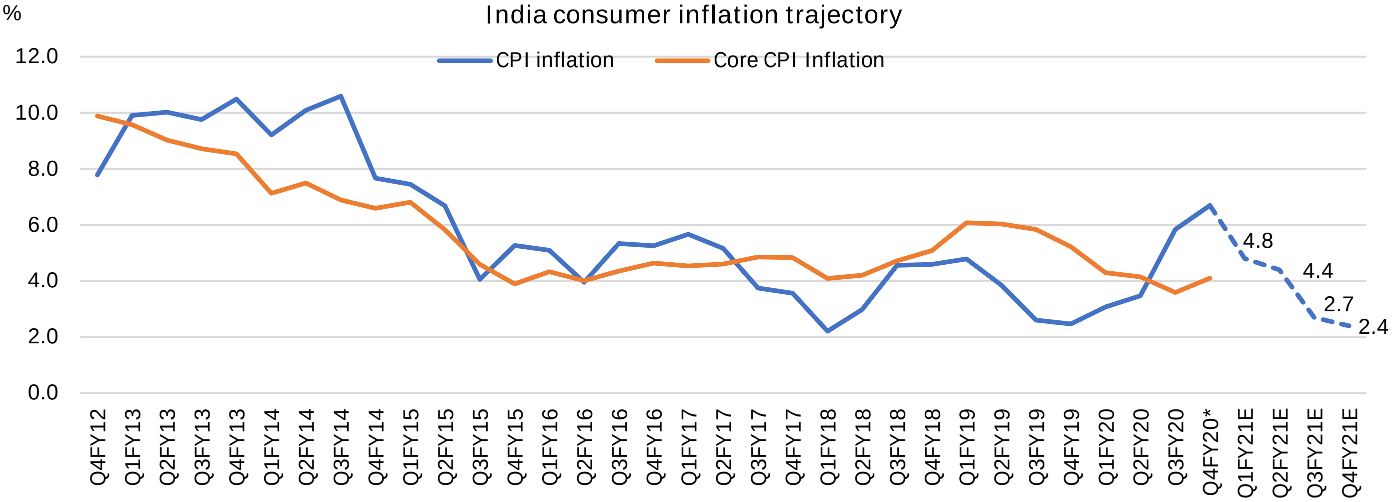
Even as the future outlook remains highly uncertain and is contingent on depth, spread and duration of the virus, and the severity of consequent supply and demand shock in the economy, the impact of COVID-19 is likley to be deflationary in nature. The recent plunge in crude oil prices, coupled with expectations of a normal monsoon and a weak demand environment, inflation trajectory is expected to head downwards and is unlikely to be an impediment to rate cuts in the forseable future. Considering current situation, the RBI expects inflation to ease to sub-3% by Q3FY21 (4.8%/4.4%/2.7%/2.4% in Q1/Q2/Q3/Q4FY21). For FY22, the RBI expects inflation to hover in the range of 3.6-3.8% assuming a normal monsoon and no major policy shocks. This is expected to keep the space open for further monetary easing as required.

Figure 88: India CPI inflation vs. interest rates: Long-term trend



Source: Refinitiv Datastream, NSE

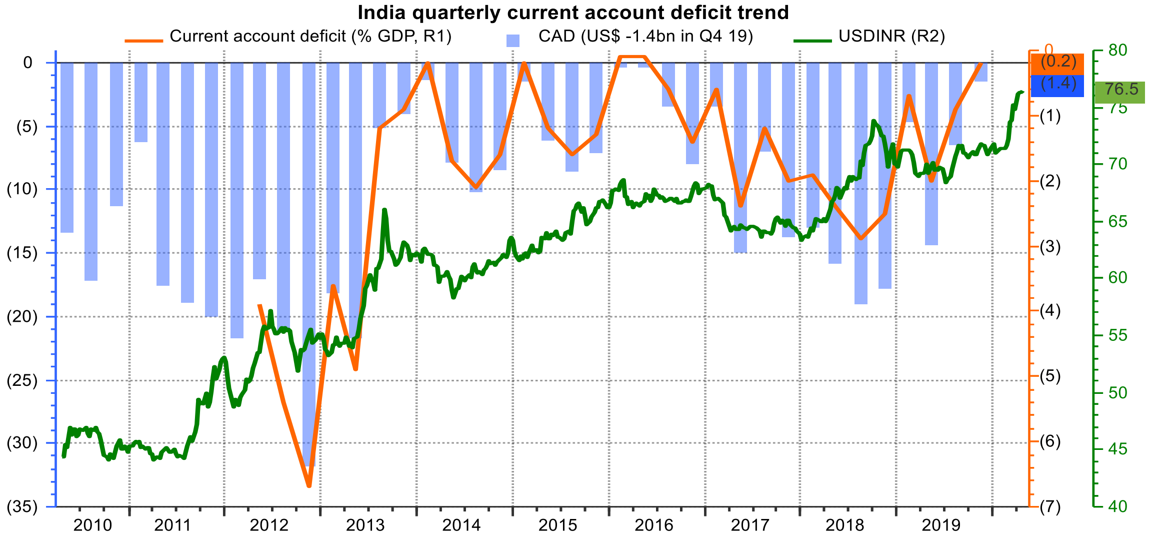
Figure 89: RBI expects headline inflation to fall to sub-3% by Q3FY21



Source: CMIE Economic Outlook, RBI Monetary Policy Report, NSE.

Low current account deficit: India's current account deficit (CAD) fell to a decadal low of 0.2% of GDP in Q3FY20, thanks to a) a lower trade deficit primarily attributed to a decline in crude oil prices and weak domestic demand and b) robust net services receipts. The monthly trade deficit data suggests that india's CAD is expected to fall to near-1% of GDP in FY20 vs. 2.1% in the previous fiscal, and may turn into surplus in FY21.

Figure 90: India quarterly current account deficit trend

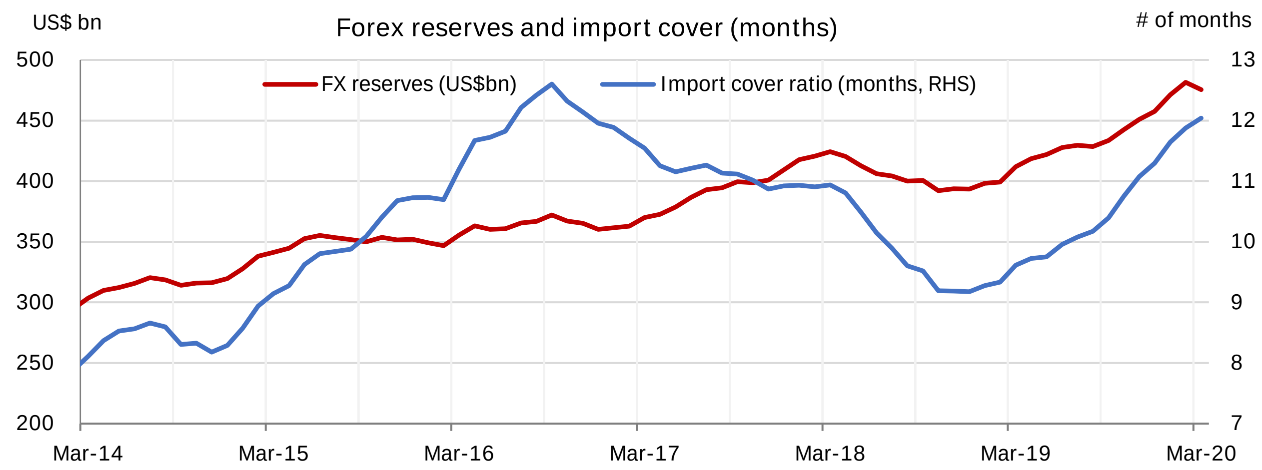


Source: Refinitiv Datastream, NSE

Tailwinds from lower crude oil prices: India imports more than 80% of its oil demand. In that context, a sharp drop in crude oil prices this year is a tailwind for India. A US$10/bbl drop in crude oil leads to a US$15bn decline in trade deficit, *ceteris paribus*. Low crude oil prices also bodes well for inflation. On the negative side, it may hurt inward remittances from Middle East countries whose economies are heavily dependent on crude.

Near-record high forex reserves: India's forex reserves have improved meaningfully over the years, and are currently hovering at near-record-highs of US$475bn (as of March-end), thanks to huge Balance of Payments surplus over the last few years. This has resulted in a significant improvement in India's import cover. After falling to eight months in 2014, India's import cover has improved sharply to 12 months now, thereby reducing India's external vulnerability

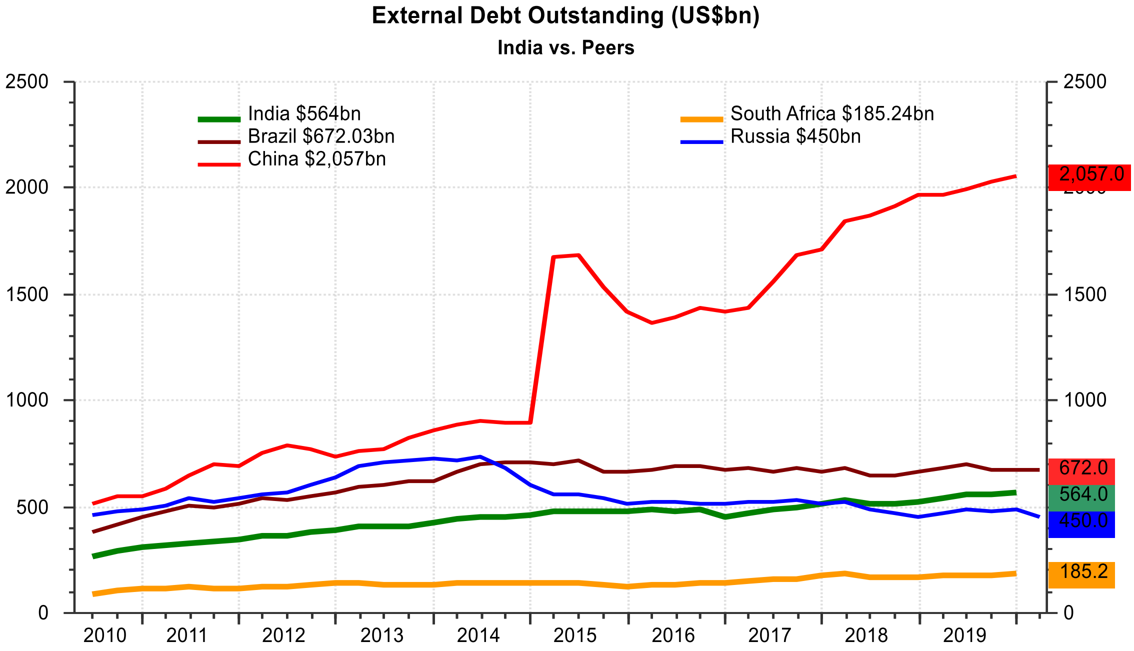
Figure 91: Forex reserves are near all-time high levels, leading to a comfortable import cover



Source: CMIE Economic Outlook, NSE. Import cover is calculated as the ratio of EOP forex reserves to average monthly imports over the last 12 months

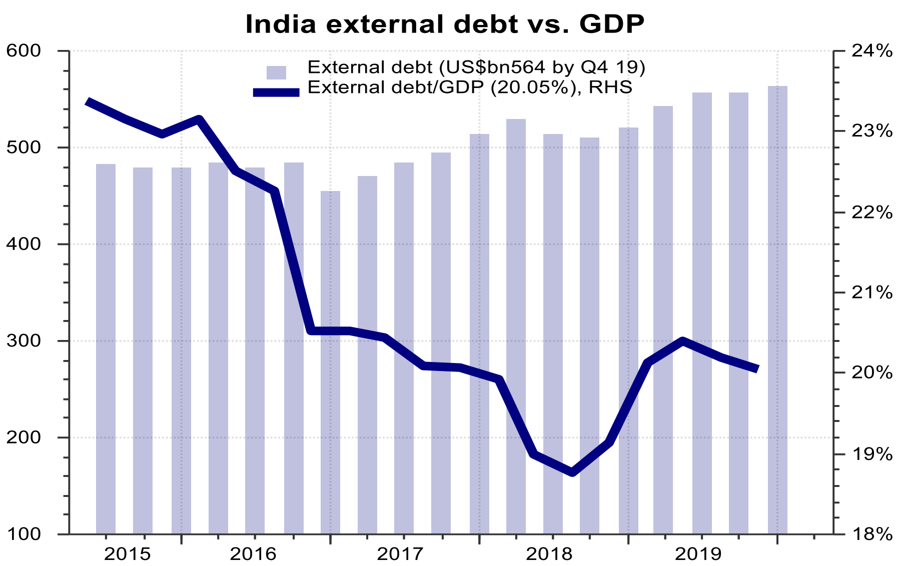
Low external debt as compared to other countries: India's external debt as % of GDP has been on a declining trend since last couple of years, and currently stands at 20%—much lower than other emerging markets. Moreover, India's external debt as a share of its forex reserves at 23.2% is the lowest in the last 10 years, and is nearly half the level that was in 2013 during the taper tantrum.

Figure 92: External debt in India in absoute terms **has been gradually rising...**



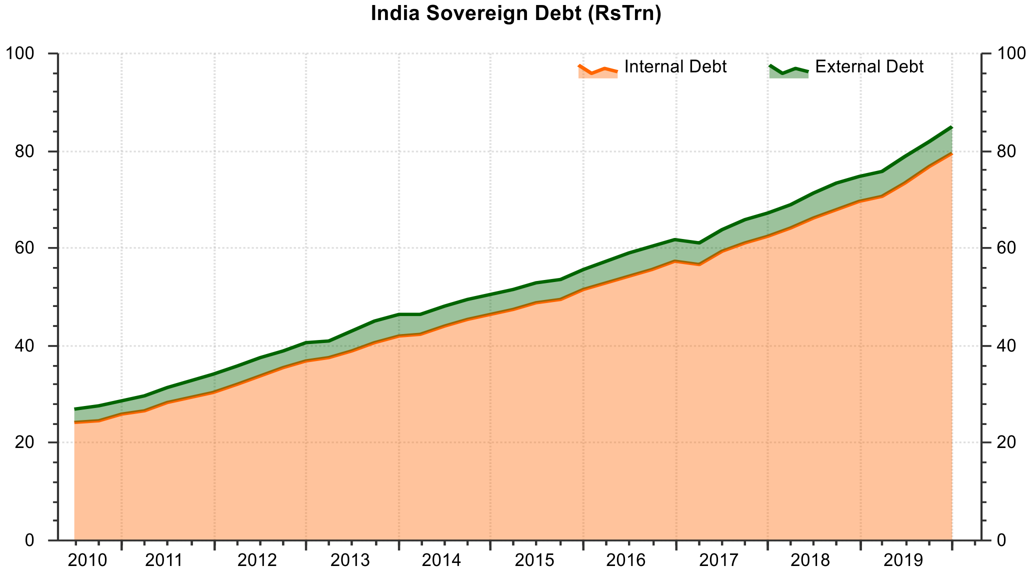
Source: CMIE Economic Outlook, NSE.

Figure 93: **...but** has been declining as % of GDP



Source: CMIE Economic Outlook, NSE.

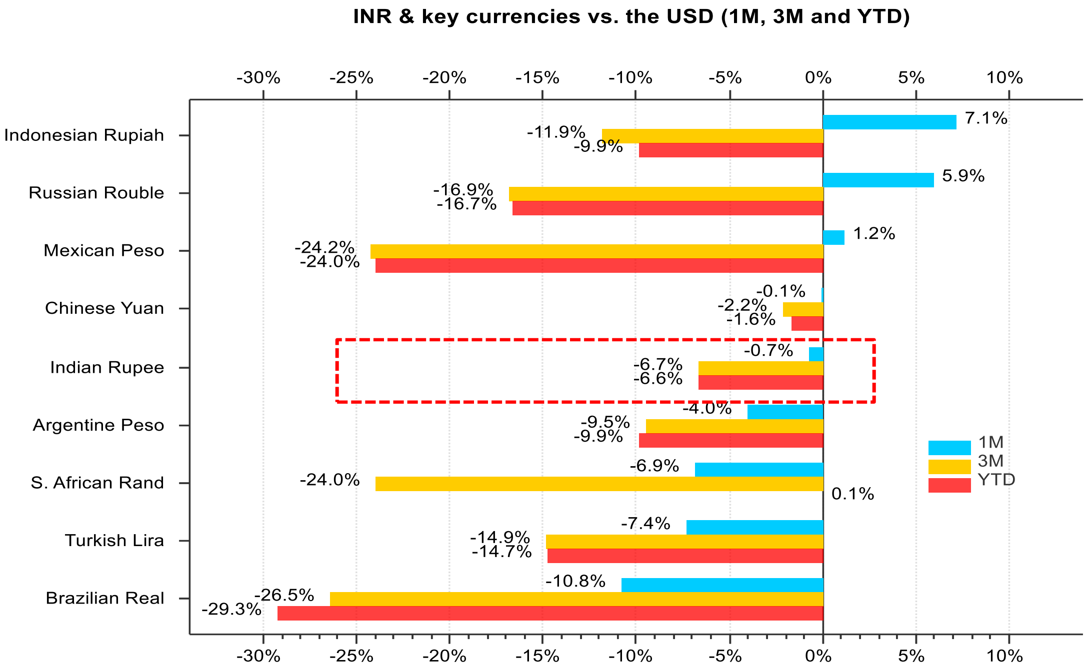
Figure 94: **A substantial part of India's** sovereign debt is internal in nature



Source: CMIE Economic Outlook, NSE.

A relatively stable currency: Even as the INR has depreciated ~7% YTD to all-time lows, the volatility has been much lower as compared to other EM currencies. Moreover, the INR has outperformed most major EM currencies despite large FPI outflows from equity as well as debt markets. This is largely on account of India's relatively better external position as compared to other EMs. The INR has also found support from RBI's active intervention in the forex market. While RBI's direct intervention has been through offering of long-term forex swaps, indirect intervention has been through dollar selling in the spot markets. With CAD expected to diminish in FY21, thanks to a sharp fall in crude oil prices, the INR is expected to fare better than its EM peers in the near-term.

Figure 95: INR vs. key emerging market currencies

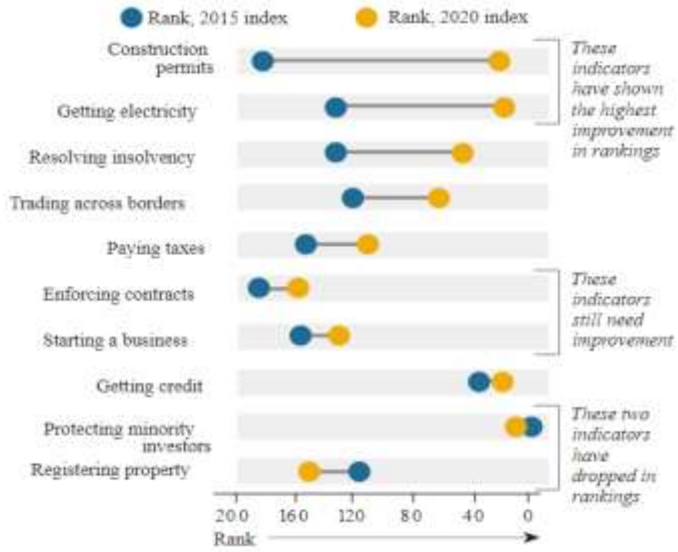


Source: Refinitiv Datastream, NSE.

Improvement in ease of doing business ranking: For the third consecutive year, India has remained among the top-10 countries witnessing an improvement in the 'ease of doing business' ranking. India's ease of doing business ranking has improved from 130 in 2013 to 63 in 2019, facilitated by a slew of reforms undertaken over the last few years. India has seen an improvement in eight out of ten indicators over last five years, with significant improvement registered in resolving insolvency, dealing with construction permits, getting electricity, trading across boards and paying taxes indicators. This has helped drive foreign direct investments into India.

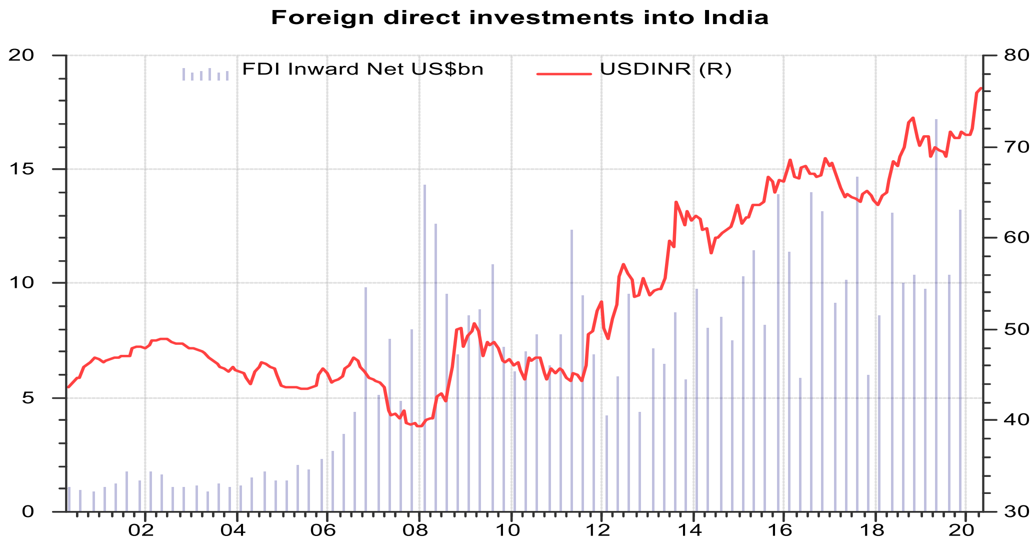
Figure 96: **India's ease of doing business ranking** has **improved meaningfully…**

Figure 97:with 8/10 indicators witnessing an improvement over the last five years…



Source: World Bank, NSE.

Figure 98:...making India a favoured investment destination



Source: Refinitiv Datastream, NSE

Appendix

Appendix 1: Containment masures announced by the Government of India

Announcements related to travel Advisory
1. First travel advisory was announced on January 17, 2020, informing all travellers to/from China about the COVID-19 outbreak and the precautionary measures to be adopted.
2. On Jan 25, the Govt. advised to cancel all non-essential travel to China. People coming from China advised to follow certain protocols like informing Airline officials about their health status and self-quarantining if they show symptoms.
3. On Feb 2nd, existing Visa of all foreign travellers from China were cancelled and Indians coming from China were quarantined on arrival.
4. On Feb 26th, similar travel advisory was made applicable for travellers from/to Singapore, Republic of Korea, Islamic Republic of Iran and Italy.
5. Similar travel restrictions were extended to Japan on March 2nd, with all existing visas from these countries cancelled until April 15th, 2020, except for diplomats, officials of UN and other International bodies, OCI cardholders and Aircrew from above countries.
6. As on March 10th, with Covid-19 spreading to over 100 countries globally, the Govt. made it compulsory for all incoming international passengers to self-monitor their health status and inform health authorities whenever necessary. Further, travellers having travel history to China, Hong Kong, Republic of Korea, Japan, Italy, Thailand, Singapore, Iran, Malaysia, France, Spain and Germany were advised to undergo a 14-day self-imposed quarantine from the date of their arrival.
7. These protocols were extended for all international cruise ships on March 10th and all passengers movement were suspended from the immigration land check posts located at Indo-Bangladesh, Indo-Nepal, Indo-Bhutan and Indi-Myanmar borders from March 15 and India-Pakistan Border from March 16.
8. Compulsory quarantine for a minimum period of 14 days was made applicable to passengers coming from/transiting through Afghanistan, Philippines and Malaysia since March 17th and UAE, Qatar, Oman, Kuwait, the European Union, the European Free Trade Association, Turkey and United Kingdom since March 18th.
9. All scheduled international commercial passenger aircrafts were cancelled effective March 22nd.
Announcement of containment measures for Indian citizens
1. Government imposed restrictions on mass gathering on March 5th to contain overall spread of the disease.
2. Detailed guidelines were issued on March 11th for home quarantine.
3. To enforce social distancing, educational establishments, gyms, museums, cultural and social centres, swimming pools and theatres were closed effective March 16th, and private companies were encouraged to give work from home facilities. They also advised to cancel all non-essential travel and maintain social distancing across the country.
4. The Government announce a nation-wide lockdown for 21 days w.e.f. March 25th.
5. The Government also developed the Aarogya Setu App which is a Bluetooth-based COVID-19 tracker. This app can determine risk based on the user's location and keeps them informed in case they have crossed any path with a COVID-19 case within 6-feet of proximity.
6. On April 14th, the Government extended the nation-wide lockdown till May 3rd. The lockdown may be partially lifted for select activities from April 20th in select areas, with strict rules and conditions in place.
7. The Government issued detailed guidelines for select additional activities to start from April 20th with strict lockdown compliance. According to the guideline, all health services, agriculture and related activities, MNREGA works, public utilities, government offices, financial sectors, transportation of goods/cargo (inter- and intra-state), IT, E-commerce, courier, cold storage, industries operating in rural areas, SEZs, export oriented units, construction activities, etc. will be allowed in non-containment zones from April 20th.

Source: Ministry of Home Affairs, Media reports.

Appendix 2: Monetary measures announced by the RBI

Details of the first round of monetary measures announced on March 25th

- MPC slashed policy repo rate by 75bps: In the rescheduled policy review meeting, the RBI's Monetary Policy Committee (MPC) reduced the policy repo rate by a steep 75bps to 4.4%—the lowest ever, following the footsteps of other global central banks to mitigate the adverse impact of COVID-19 pandemic on the economy and financial markets. With this, the MSF and Bank rate stand reduced to 4.65%. The MPC has reduced the reverse repo rate by a higher 90bps to 4%—75bps higher than the post-GFC low with an aim to encourage banks to lend rather than park the money with the central bank. This has resulted in the widening of the LAF corridor from 50bps to 65bps.

MPC reduced repo/MSF/ Bank rate by 75bps to 4.4%/4.65%/4.65% and reverse repo rate by 90bps to 4%.

- Incremental liquidity measures worth Rs3.74trn announced: Besides cut in key policy rates, the MPC also announced a slew of measures to provide adequate durable and systemic liquidity. These include: a) Targeted Long-term Repo Operations (TLTROs) of up to three years for a cumulative amount of up to Rs1trn at a floating rate linked to the policy repo rate. The banks would have to deploy liquidity availed under TLTRO in investment grade corporate bonds, commercial papers and non-convertible debentures equally distributed between primary and secondary market, thereby reducing liquidity premia on these instruments which has surged owing to redemption pressures. b) Reduction in Cash Reserve Ratio: The MPC reduced the CRR from 4% to record-low of 3% of net demand and time liabilities w.e.f. March 28, 2020 for a period of one-year, thereby releasing durable liquidity worth Rs 1.37trn. The minimum daily CRR requirement has also been cut from 90% to 80% until June 26, 2020, thereby reducing reporting pressures on banks. c) Expansion of borrowing limit under Marginal Standing Facility (MSF): As an additional liquidity relief to banks, the MPC expanded the overnight borrowing limit under the MSF window from current 2% of SLR to 3%, translating into additional liquidity injection of Rs 1.37trn. These three measures together, coupled with Rs 2.8trn worth of liquidity injected through LTROs/OMOs over the last couple of months, would lead into cumulative liquidity infusion of 3.2% of GDP.

MPC announced measures viz. TLTROs, CRR cut, MSF limit expansion to inject additional liquidity worth Rs3.74trn.

Total liquidity infusion since Feb 2020 to rise to 3.2% of GDP.

- Debt servicing and monetary transmission made easier: Besides liquidity measures, the RBI also announced several measures to make debt servicing easier, particularly for viable businesses and troubled borrowers who have been severely affected by disruptions caused by COVID-19 pandemic as well as improve monetary transmission. These include a) Moratorium on term loans: All lending institutions are permitted to allow a three-month moratorium on payment of instalments on term loans outstanding as on March 1, 2020 without resulting in asset classification downgrade. b) Easier working capital financing and servicing: Lending institutions are permitted to allow a deferment of three months on interest payment on working capital facilities sanctioned in the form of cash credit/ overdraft. Lending institutions may also recalculate drawing power of borrowers on cash credit/overdraft by reducing margins and/or reassessing working capital cycle. These would not result in asset classification downgrade or an adverse impact on the credit history. c) Deferment of implementation of Net Stable Funding Rate (NSFR): The implementation of 100% NSFR as per the Basel Committee guidelines has been deferred by six months to October 1, 2020. d) Deferment of last tranche of Capital Conservation Buffer (CCB): The implementation of the last tranche of CCB of 0.625% has been deferred by six months Sep 30, 2020.

The RBI made debt servicing and monetary transmission easier for businesses by permitting banks to offer 3-month moratorium on term loans/ working capital facilities and defer implementation of NSFR and CCB by six months.

- Banks allowed to participate in the NDF market to reduce rupee volatility: The RBI, in consultation with the Government, has decided to permit banks operating International Financial Services Centre (IFSC) Banking Units (IBUs) to participate in the offshore rupee derivative market (NDF market) w.e.f. June 1, 2020, thereby improving depth and price discovery in the forex market, consequently reducing undue volatility.

Details of the second round of monetary measures announced on April 17th

- TLTRO 2.0 and special refinance facility for All India Financial institutions announced to ease liquidity stress in the non-banking space: With Banks favouring investments in primary bond issuances by public sector entities and large corporates, NBFCs, MFIs and small and mid-sized corporates that have got severely impacted from disruptions caused by COVID-19 continue to face liquidity constraints. To address this, the RBI introduced TLTRO 2.0 worth Rs 500bn, earmarked for investments in bonds and commercial papers issued by NBFCs/MFIs and MFIs. The RBI also announced a special refinance facility worth Rs 500bn at the prevailing repo rate to NABARD (Rs 250bn for refinancing regional rural banks, cooperative banks and MFIs), SIDBI (Rs 150bn for on-lending/refinancing) and NHB (Rs 100bn for supporting housing financing companies).

TLTRO 2.0 worth Rs500bn announced, earmarked for investments in bonds issued by NBFCs.

Special refinance facility worth Rs 500bn for NABARD, SIDBI and NHB.

- Reverse repo rate cut by 25bps to spur bank lending: Amid surplus liquidity conditions, the amount of money parked by banks with the RBI through reverse repo operations has shot up meaningfully, touching Rs 6.9trn on April 15th. With an aim to encourage banks to lend, the RBI cut reverse repo rate by another 25bps, on top of the 90bps cut on March 27th, to 3.75%. This is still 50bps shy of the post-GFC (global financial crisis) low and may see further cuts if lending doesn't improve.
- WMA limit of states enhanced: States have been particularly struggling for liquidity and are borrowing from markets at unprecedented high spreads to central government securities (Figure 5). To provide comfort to states in terms of managing their market borrowings better, the RBI increased the WMA limit of states by 60% for six months ending September 30th, 2020.

Reverse repo rate slashed by 25bps to 3.75% to encourage banks to lend.

WMA limit for states enhanced by another 30%.

- Regulatory forbearance to ease financial stress: The RBI also announced a slew of regulatory measures to ease financial stress including a) Exclusion of three-month moratorium period until May-end from the NPA classification norms (90-day NPA) for accounts that were standard as on March 1st, 2020 but with a requirement of 10% additional provision on such accounts. b) Extension of relaxed NPA classification norms to NBFCs. c) Extension of resolution timeline for large default accounts by 90 days from current norm of 210 days. Failing to reach a resolution plan within 300 days (erstwhile 210 days) of default require lending institutions to maintain an additional 20% provision. d) Restriction on dividend pay-outs by scheduled commercial banks and cooperative until September 30, 2020. e) Reduction in liquidity coverage ratio (LCR) requirement from 100% to 80%, to be gradually restored back in two phases: 90% by October 1, 2020 and 100% by April 1, 2021. f) Extension of restructuring forbearance to loans given by NBFCs to commercial real estate, whereby like banks, NBFCs are also allowed to extend the date of commencement for commercial operations (DCCO) of commercial real estate projects which have got delayed beyond the promoters' control by an additional one year, without treating them as restructured accounts.

A slew of regulatory measures announced to ease financial stress on financial institutions and corporates.

Details of other measures taken by the RBI

Date	Announcements
March 30, 2020	Extension of the LAF window timings of Fixed Rate Reverse Repo and MSF operations to provide eligible market participants with greater flexibility in their liquidity management from 17:30-23:59 to 09:00-23:59.
April 01, 2020	• The realisation and repatriation period of exports made up to July 31, 2020 has been extended from 9 months to 15 months from the date of export. • WMA limit for the Centre as well as State governments increased by 30% for the period April 1 to September 30, 2020. • The activation period of countercyclical capital buffer (CCyB), where credit-to-GDP gap will be considered as a main indicator, is extended by one year.
April 03, 2020	Trading hours for RBI-regulated markets (fixed income, currency, interest rate derivatives and forex derivative markets) revised to 10am to 2pm
April 03, 2020	RBI in consultation with the Government allowed receipt of foreign inward remittances from non-residents to the 'Prime Minister's Citizen Assistance and Relief in Emergency Situations (PM-CARES) Fund', given that AD Cat-I banks shall directly credit the remittances to the Fund and maintain the full details of the remitters.
April 07, 2020	RBI increased the number of days for which States/UTs can be in overdraft from 14 working days to 21 working days. On a quarterly basis, the timeline for overdraft increased from 36 working days to 50 working days. These will be effective till September 30, 2020.
April 16, 2020	Revised trading hours of RBI regulated markets extended till May 3, 2020 in the wake of an extension in the nation-wide lockdown.
April 20, 2020	RBI revised the WMA limit for the Centre to Rs2trn for the remaining part of H1 FY21 (Apr-Sep 2020).

Source: RBI

Appendix 3: Fiscal measures announced by the Government

Details of Rs 1.7trn relief package announced on March 26th

Following the unprecedented announcement of a nation-wide lockdown for 21 days, the Government announced a Rs 1.7trn fiscal boost under the "Pradhan Mantri Garib Kalyan Yojana" on March 26th to fight against the immediate economic stress from the COVID-19 pandemic and preventive lockdown. The relief package is primarily focused towards mitigating financial stress of farmers, households below poverty line, daily labourers, health workers and small and medium scale industries in the unorganised sectors. Key highlights of the package are as follows:

- Insurance scheme for health workers fighting COVID-19: The Government announced an insurance scheme for all health workers including doctors, nurses, paramedics, technicians, specialists, safai karamcharis and ward-bods entailing a compensation of Rs5mn. This policy is estimated to cover around 2.2m health workers across all government health centres, wellness centres and hospitals.
- Direct cash transfer to the farmers: Disbursement of the first instalment of Rs2000 of the total cash transfer of Rs6000/year under the PM Kisan Yojana to nearly 87mn farmers would be front-loaded to April, translating into a total disbursement of Rs160bn.
- PM Garib Kalyan Yojana: Some of the new measures announced under this scheme include a) transfer of an ex-gratia payment of Rs500/month for the next three months to 204mn women account holders under the PM Jan Dhan Yojana, entailing a total disbursement of Rs310bn, b) distribution of free gas cylinders to 80m poor families for the next three months, with an expenditure of Rs130bn, c) the Government would bear the entire 24% provident fund contribution of both employer and employee for the next three months for people earning less than Rs15,000/month in businesses having less than 100 employees, translating into total spending of Rs50bn, d) distribution of one-time additional amount of Rs1000 in two instalments over a period of three months to 30mn senior citizens, persons with disabilities and widows, e) increase in MGNREGA wages from the Rs182 to Rs202 w.e.f. April 1st, 2020, benefiting ~136.2mn families with a cost of Rs56bn.
- Benefit to low-wage earners in organised sectors: The Government would bear the entire 24% provident fund contribution of both employer and employee for the next three months for people earning less than Rs15,000/month in businesses having less than 100 employees, translating into total spending of Rs50bn. Besides, the Government has also allowed workers to draw up to 75% non-refundable advance from credit in the EPFO account or three-month salary, whichever is lower.
- Food security measures: Around 800m poor families will get additional 5kg rice/wheat per person—double of what they are currently entitled to as well as 1kg pulses per family per month during the next three months free of cost.
- Benefit to women self-help groups: Women who are organised through self-help groups (SHGs) can get up to Rs2mn (vs. Rs1mn earlier) collateral-free loans which is estimated to benefit around 68.5m households.
- Augmented state spending on medical testing: The Government has also urged states to use the funds available under the District Mineral Fund (total amount accrued stood at Rs359bn as of January 2020) for supplementing and augmenting medical testing, screening and other activities. States have also been asked to utilise the Rs310bn available under the Building and Construction Workers Fund to support construction workers.

Government's Relief package

Measures/Schemes	Amount (Rs bn)
PM Kisan Yojana	160
PM Jan Dhan Yojana	310
Free gas cylinders	130
PF contribution	50
Cash transfer to other sections	30
NREGA wage hike	56
Food-grain distribution	400
Pulses distribution	50
District Mineral Fund	250
Construction Workers Fund	310
Total	1,746

Appendix 4: Compliance and statutory related relief for citizens and businesses

Income Tax related announcements

- Deadline for filing tax returns for FY2018-19 extended toby three months to June 30th, 2020.
- Interest rate on delayed tax payment made till June 30th, 2020 for FY2018-19 reduced from 12% to 9%.
- Reduced interest of 9% from 18% on delayed deposit of TDS till June 30th, 2020
- Deadline for Aadhaar-PAN linking extended till June 30th, 2020 from March 31st.
- Tax amnesty plan 'Vivad Se Vishwas Scheme' extended till June 30th, with no additional 10% charge.
- Due dates for issue of notice intimation/notification/approval order/sanction order/filing of appeal/applications/ any other documents extended to June 30th, 2020.
- Any compliance by the taxpayers, including investment in tax-savings instruments, capital gains for investment to claim capital gains exemption, compliance with STT law, equalisation levy law compliances, all extended to June 30th, 2020.

GST related announcements

- Deadline for filing GST returns for March, April and May 2020 extended to June 30th, 2020.
- Waiver of late fee, interest and penalty for late filing of GST returns for companies with annual turnover of less than Rs50mn. For companies with turnover higher than Rs50mn, penalty and late fee have been waived off while interest will be charged at a reduced rate.
- Date for opting out of composition scheme for FY2020-21 for small tax payers extended to June 30th, 2020.
- The time limit for any compliance under the GST laws between March 20th, 2020 and June 29th, 2020 extended to June 30th, 2020.

Customs and central excise related announcements

- Deadline for Sabka Vishwas scheme (for settling disputes under indirect tax regime) extended to June 30th, 2020 from March 31st.
- No interest fee will be charged for companies paying indirect taxes during this period.
- 24X7 custom clearance facility will be available till June 30th, 2020 for smooth EXIM trade.

Corporate affairs related announcements

- Waiver of additional fees during moratorium period from April 1st to September 30th, 2020 for late filing of documents, return statements etc., required to be filed in the MCA-21 Registry irrespective of its due date.
- Mandatory requirement for holding board meetings within a prescribed interval provided in the Companies Act 2013 extended by 60 days for the next two quarters i.e. September 30th, 2020.
- Caro 2020–a new format for issue of audit reports in case of statutory audits of companies under Companies Act, 2013–will be applicable from FY2020-21 instead for FY2019-20
- Absence of independent directions in even a single board meeting would not be treated as non-compliance under the Companies Act 2013.
- Deadline for filing declaration of commencement of business for newly incorporated companies extended to 12 months (from 6 months) from incorporation.
- Failure of compliance to minimum residency requirement of at least 182 days for a company director would not be treated as non-compliance under the Companies Act 2013.
- Deadline for maintaining a deposit reserve of 20% for deposits maturing during the FY2020-21 before April 30th, 2020 extended to June 30th.

- Deadline for investing 15% of debentures maturing during a particular year in specified instruments by April 30th, 2020 extended to June 30th, 2020.

IBC related announcements

- Threshold of payment defaults to trigger bankruptcy proceedings raised from Rs0.1mn to Rs10mn.
- Government may consider suspending Sections 7, 9, 10 of the Insolvency and Bankruptcy Code (IBC) for a period of six months after April 30th, 2020 if the situation continues to remain grim.

Banking related announcements

- Charges for ATM cash withdrawal from any bank shall be waived for the next three months for debit card holders.
- Minimum Account Balance fee for maintaining minimum bank balance shall be waived for the next three months.
- Bank charges for digital trade transactions for all trade finance consumers shall be reduced.

Import permit related announcements for fisheries

- All Sanitary Import Permits (SIPs) for import of shrimp brute stock or any aquaculture inputs which were to be expired between March 1st and 15th, 2020 shall be extended for three more months.
- Delay of one month in the arrival of imports will be condoned.
- Rebooking of quarantined cubicles in aquatic quarantine facilities in Chennai will be allowed without additional charges for cancelled consignments.

Verification of documents and grant of NoC for quarantine shall be relaxed from seven days to three days.

Appendix 5: Policy measures announced by the state governments

State	Relief measures
Kerala	The Kerala Government has taken several fiscal measures amounting to Rs.200bn comprising of loans to women self-help group, social security pension, Rs1,000 as direct cash transfer to people covered in social security scheme, free 10kg rice per family for both APL and BPL families, extension of due date of electricity and water bills by one month, waiver of fitness charges on vehicles of taxi and auto drivers and settling government arrears of Rs140bn pending in various sectors.
Maharashtra	1. Free ration for three months for BPL families. 2. The Government has set up 262 relief camps for migrant labourers who will be provided free food and shelter.
Uttar Pradesh	1. Direct cash transfer of Rs1,000 to 1.5m daily wage earners like small shop owners, hawkers and rickshaw pullers and 2.03m construction workers. 2. 20kg wheat, 15kg rice for MGNREGA workers, construction workers & small wage earners. 3. Advance payment of pension for two months to widows, old aged and disabled. 4. Government announced to settle all arrears to MGNREGA workers.
Delhi	DBT of Rs1,000 to ration card holders and free ration for 1 month to PDS card holders.
Himachal Pradesh	Free ration for two months to PDS card holders
Chhattisgarh	Students of Primary schools would get 4Kg rice, 800 Grams of Dal and Students of Higher secondary schools would get 6 Kg rice and 1.2 Kg Dal.
Punjab	1. Extension of the due dates for electricity, sewerage, water bills, taxes on vehicles. 2. Announced to waive delay charged on crop loans. 3. 1m free food packets containing 10kg flour, 2kg pulse and 2kg sugar to be distributed to needy people. 4. DBT of Rs3,000 to registered construction workers. 5. The Government has announced Rs200m from CM relief fund for food, medicine, etc. to poor people.
West Bengal	Free rice through ration shops to 75mn people for six months since April.
Tamil Nadu	1. Auto drivers and construction workers would get 15Kg rice, 1kg Pulse and free cooking oil. 2. Free sugar, rice, pulse and cooking oil for one month to ration card holders.
Gujarat	Free 3.5 Kg wheat, 1.5 Kg rice, 1Kg sugar, pulse and salt to ration card holders.
Madhya Pradesh	One month free ration for BPL families.
Haryana	1. DBT of Rs2,000 to registered for daily wage earners, construction workers, street vendors, etc. 2. Free ration to ration card holders and advance pension of Rs3,000 to old-aged, widow and disables people. 3. The CM has contributed Rs500 thousand to the Haryana relief fund. 4. All BPL families and construction workers who are not registered under the Mukhya Mantri Parivar Samriddhi scheme will get a DBT of Rs4,500.

Source: State websites, media reports.

Appendix 6: Policy measures by the SEBI

<table>
<tr><th>Date</th><th>Policy measures taken by SEBI</th></tr>
<tr><td>March 19, 2020</td><td>
SEBI granted relaxation from compliance of certain provisions under the EBI (Listing Obligations and Disclosure Requirements, LODR) Regulations to all listed entities.
Extension of timeline for filings:
<table>
<tr><td>Regulation and associated filing</td><td>Due date</td><td>Extended due date</td></tr>
<tr><td>Compliance certificate on share transfer facility</td><td>April 30, 2020</td><td>May 31, 2020</td></tr>
<tr><td>Statement of investor complaints</td><td>April 21, 2020</td><td>May 15, 2020</td></tr>
<tr><td>Secretarial Compliance report</td><td>May 30, 2020</td><td>June 30, 2020</td></tr>
<tr><td>Corporate Governance report</td><td>April 15, 2020</td><td>May 15, 2020</td></tr>
<tr><td>Shareholding Pattern</td><td>April 21, 2020</td><td>May 15, 2020</td></tr>
<tr><td>Financial Results</td><td>May 15, 2020 (Quarterly) /
May 30, 2020 (Annual)</td><td>June 30, 2020</td></tr>
</table>
SEBI has also exempted listed companies from observing the maximum time gap of 120 days between two board/Audit Committee meetings heled or proposed to be held between December 1, 2019 and June 30, 2020. However, at least four times a year, as specified under the LODR, is mandatory.
</td></tr>
<tr><td>March 23, 2020</td><td>
Additional relaxation from compliance with provisions under the SEBI LODR regulations:
Date of issuance of all Non-Convertible Debentures (NCDs) / Non-Convertible Redeemable Preference Shares (NCRPS)/ Commercial Paper(s) which were scheduled on or before March 31, 2020 are extended for 60 days.
Timelines for filing of all large corporates extended by 60 days and 45 days for initial disclosure and annual disclosure respectively to June 30, 2020.
Filing date of financial results of NCDs, NCRPS and CPs are extended by 45 days for half yearly disclosures and 30 days for annual disclosures to June 30, 2020.
For issuers of municipal debt securities, due date for filings Investor Grievance Report, Financial Results, Accounts maintained is extended to June 30, 2020.
</td></tr>
<tr><td>March 23, 2020</td><td>
SEBI has also extended the due date for regulatory filings and compliances for REIT and InvIT for the period ending March 31, 2020 by one month over and above the timelines, prescribed under SEBI (Infrastructure Investment Trusts) Regulations, 2014 and SEBI (Real estate Investment Trusts) Regulations, 2014.
Further, the regulator has relaxed several compliance criteria for mutual funds as well.
Due dates of filing half-yearly disclosures of unaudited financial results, Disclosure of commission paid to distributors, yearly disclosure of investor complaint are extended by one month.
The effective dates of implementing certain policy initiatives are extended by one month;
Risk management framework for liquid and overnight funds and norms governing investment in short term deposits.
Review of investment norms for mutual funds for investment in Debt and Money Market Instruments.
Review of investment norms for mutual funds for investment in Debt and Money Market Instruments,
Valuation of money market and debt securities.
</td></tr>
<tr><td>March 26, 2020</td><td>The due date for complying all regulations relating to holding of AGM by top 100 listed entities by market-cap for FY20 is extended from August 31st to September 30th. Further, SEBI has relaxed the last date for conducting Committee meetings –Nomination and Remuneration Committee, Stakeholders Relationship Committee and Risk Management Committee by three months to June 30, 2020.</td></tr>
<tr><td>March 27, 2020</td><td>The due date for filing disclosure related to the SEBI (Substantial Acquisition of Shares and Takeovers) Regulations is extended to June 01, 2020.</td></tr>
<tr><td>March 30, 2020</td><td>
The timeline for deadline for implementation of the circular on Stewardship Code for all Mutual Funds and all categories of AIFs is extended to July 1, 2020.
Due date for regulatory filings for AIFs and VCFs for the periods ending March 31, 2020 and April 30, 2020 was also extended by two months.
</td></tr>
<tr><td>Apr 13, 2020</td><td>The regulator has extended several timelines related to remat request, transmission request, and requests for consolidation/split/replacement of share/amalgamation of shares, submission date of audit reports and compliance reports for equal number of lock down days declared by the government.</td></tr>
</table>

Apr 16, 2020	SEBI extended the timelines for compliance with regulatory requirements by trading/clearing members related to reporting of client funding, AI & ML, margin trading risk-based supervision, audit reports, net worth certificates, penalty for non-collection and maintaining call recordings of orders and instructions received from clients till May 17, 2020.
Apr 17, 2020	SEBI has given additional relaxation on a) prior intimation to stock exchanges about meetings of the board, and b) intimation to stock exchanges regarding loss of share certificate and issue of duplicate certificates. Further, companies are allowed to use digital signature for any filing and submission under the LODR.
April21, 2020	The regulator has announced one-time relaxation for the validity of SEBI observations for six months in case they have expired/will expire between March 1 and September 30, 2020. Further, SEBI has permitted an issuer to increase/decrease its issue size by up to 50% of the estimated issue size without any fresh draft offer document. In a separate Circular, the regulator has relaxed certain provision of the SEBI (Issue of capital and disclosure requirements) Regulation. Under this condition, the eligibility criteria for Fast Track Rights Issue and the minimum subscription criteria are relaxed significantly. The minimum threshold requirement for not filing draft letter of offer with SEBI is relaxed from Rs100m to Rs250m.
April 23, 2020	During the lockdown period, SEBI has decided to offer temporary relaxation for the period of restriction provided in the Buy-back Regulations. Now, companies will be able to raise additional funds only after six months (instead of one year) from the date of expiry of the Buy-back.
April 23, 2020	SEBI has reviewed the provisions under the SEBI (Mutual Funds) Regulations, 1996 and issued a circular to offer a differential treatment to issuers in case of default, keeping in mind the negative impacts of nation-wide lockdown and three months moratorium permitted by RBI. According to this Circular, AMFI appointed valuation agency may not consider a delay in payment of interest/ principal or an extension of maturity by an issuer as default for the purpose of valuation of money market or debt securities held by mutual funds if the agency finds that the delay was solely due to the nation-wide lockdown and three months moratorium. This relaxation will be applicable till the period of moratorium by the RBI.

Source: SEBI

Appendix 7: Monetary measures announced by global central banks

Countries	Monetary measures
US	Fed Funds rate slashed by a total of 150bps in March to 0-0.25%.
	Rate of emergency lending at the discount window for banks lowered by 125bps to 0.25% and term of loans lengthened to 90 days. Banks provided additional flexibility to use their buffers to lend.
	Reserve requirement ratios reduced to 0% w.e.f. March 26th.
	QE relaunched to support the flow of credit to households and businesses with unlimited asset purchases, commercial mortgage-backed securities included in the programme.
	Establishment of Commercial Paper Funding Facility (CPFF)—a SPV that will purchase unsecured and asset-backed CPs rated A1/P1 directly from eligible companies as well as high-quality tax-exempt CPs. Pricing reduced.
	Establishment of a Primary Dealer Credit Facility (PDCF)—to offer overnight and term funding up to 90 days.
	Establishment of a Money Market Mutual Fund Liquidity Facility (MMLF)--to make loans available to eligible financial institutions secured by high-quality assets purchased from money market MFs. The eligible securities were later expanded to include municipal variable rate demand notes (VRDNs) and bank certificates of deposit.
	Pricing on the standing US dollar liquidity swap arrangements lowered by 25bps. Temporary dollar swap lines opened with central banks in nine new countries.
	Establishment of the Primary Market Corporate Credit Facility (PMCCF) and the Secondary Market Corporate Credit Facility (SMCCF) to support credit to large employers.
	Establishment of the Term Asset-Backed Securities Loan Facility (TALF) to support the flow of credit to consumers and businesses.
	Establishment of a temporary repurchase agreement facility for foreign and international monetary authorities (FIMA Repo Facility) to help support the smooth functioning of financial markets.
Eurozone (ECB)	New round of longer-term refinancing operations (LTROs) announced. Terms for targeted LTRO III eased during June 2020 to June 2021, coupled with reduced interest rate on TLTRO III by 25bps.
	Conditions for targeted longer-term refinancing operations (TLTRO III) eased, along with reduction in interest rate on TLTRO III, to support bank lending to businesses and households.
	Asset purchase programme expanded by EUR120bn by year end on top of EUR20/bn per month target. Non-financial commercial papers included in asset purchases.
	Banks allowed to use capital and liquidity buffers, including Pillar 2 guidance.
	Pandemic Emergency Purchase Programme (PEPP) worth EUR750bn launched. Purchases to continue until the end of 2020 and would include all eligible asset categories, including Greek Government debt.
	Collateral standards eased for ECB refinancing operations.
Japan	Special Funds-Supplying Operations introduced to facilitate corporate financing. Through this, BoJ will provide loans up to value of corporate debt pledged as the standing pool of eligible collateral.
	Increase in upper limit of CP/corporate bond purchases by Yen 2trn in total.
	Increase in ETF/J-REIT purchases by 2x at an annual pace of Yen 12trn/180bn.
	Regulatory concessions to banks to incentivise bank lending to corporates affected by COVID-19
UK	Bank rate reduced by a total of 65bps to 0.1%
	Increase in BoE's holdings of UK Govt. and corporate bonds by £200 bn to a total of £645 bn in 2020.
	New Term Funding Scheme introduced with additional incentives for SMEs (TFSME).
	UK countercyclical capital buffer rate reduced to 0% from 1% for at least next 12 months.
	US dollar repo operations enhanced in coordination with other central banks
	Supervisory guidance on dividends and other distributions issued.
	Other supervisory and prudential policy measures including cancellation of annual stress test of banks in 2020
	Covid Corporate Financing Facility (CCFF) launched to provide funding to businesses by purchasing CPs of up to one-year maturity.
	Contingent Term Repo Facility activated.
	Launch of guarantee schemes such as Coronavirus Business Interruption Loan Scheme and Coronavirus Large Business Interruption Loans Scheme to support SMEs and bigger firms impacted COVID-19 outbreak
South Korea	Base rate slashed by 50bps from 1.25% to 0.75%.

	Interest rate on the Bank Intermediated Lending Support Facility cut from 0.5-0.75% to 0.25% and the ceiling on the facility increased by 5trn won.
	Eligible collateral for open market operations expanded to include debentures issued by banks.
	Unlimited liquidity through weekly 91-day repo auctions.
	Forex market stability rules eased.
China	Yuan 1.7trn liquidity injected on Feb 3rd/4th.
	One-year loan prime rate cut from 4.15% to 4.05%, five-year rate cut from 4.80% to 4.75%.
	Interest rate on one-year medium-term lending facility worth 200bn yuan that lends to financial institutions cut from 3.25% to 3.15%.
	Further reduction in required reserve ratios
	7-day and 14-day reverse repo rate lowered by 30 and 10bps respectively
	Targeted RRR cut by 50bps-100bps for large- and medium-sized banks lending to smaller firms
Hong Kong	As a response to US Fed's rate cut, base rate reduced by a total of 64bps from 2% to 0.86% according to a pre-set formula.
	Countercyclical capital buffer (CCyB) reduced from 2.0% to 1.0%
	Provide US dollar funding to local banks by obtaining US dollars from the US Fed's new temporary repo facility.
	Deferment of various requirements under Basel III
	100% government guarantee for loans to SMEs
Singapore	US$60bn swap facility announced with US Fed as part of coordinated central bank actions.
	Support measures announced by banks including moratoriums on repayments for affected customers, extension of payment terms for trade finance facilities and additional working capital financing
	S$125mn support package to sustain and strengthen capabilities in the financial services and FinTech sectors.
Taiwan	The discount rate, the rate on accommodations with collateral, and the rate on accommodations without collateral reduced by 25bps to 1.125%, 1.50%, and 3.375%, respectively.
	Repurchase facility operations expanded by NT$200bn ($6.6bn) at 100bps lower than the policy rate on accommodations with collateral to support credit extension to SMEs.
Indonesia	7-day reverse repo rate, lending facility rate and deposit facility rate lowered by 50bps each to 4.5%, 5.25% and 3.75% respectively.
	Daily repo auctions of 12-month tenor introduced.
	Frequency of forex swap auctions increased.
	Triple intervention policy intensified to minimize the risk of increasing rupiah exchange rate volatility
	Reduction in FX reserve requirement from 8% to 4%.
	Reduction in rupiah reserve requirements by 50bps for banks financing export-import activity.
	Range of underlying transactions available to foreign investors expanded to provide alternative hedging instruments against rupiah holdings.
Thailand	Policy rate cut by 50bps from 1.25% to 0.75% and the contribution financial institutions to the FIDF was reduced from 0.46 to 0.23% of the deposit base.
	Repatriation threshold increased to US$1mn to help businesses reduce fund transfer cost and manage foreign exchange better.
	Soft loans by the central bank to financial institutions amounting to US$15bn for on-lending at 2% to SMEs not classified as NPLs
	Launch of Corporate Bond Stabilization Fund (BSF) amounting to US$12bn for providing bridge finance to high quality firms
Canada	Reduction is overnight policy rate by 150bps to 0.25%
	Extension of the bond buyback program across all maturities
	Expansion of the list of eligible collateral for Term Repo operations under Standing Liquidity Facility (SLF)
South Africa	Repo rate cut by a total of 125bps in this year to 5.25%.
	Standing Facilities lending rate – the rate at which the central bank provides liquidity to commercial banks – lowered to the repo rate, from the prevailing rate of the repo plus 100bps, coupled with easing of money market operations.
Australia	Cash rate target reduced by a total of 50bps this year to 0.25%.

	Purchases of G-secs and semi G-secs to be conducted across the yield curve to target 3-year g-sec yield at 0.25%.
	Three-year funding facility announced for authorised deposit-taking institutions at a fixed rate of 0.25% up to 3% of their existing outstanding credit.
	One- and three-month repo operations to be conducted on a daily basis. Long-term repo operations to be conducted of six-months maturity or longer at least on a weekly basis.
	Exchange settlement balances to be remunerated at 10 bps.
	Small businesses affected by COVID-19 can defer loan repayment for six months.
	Temporary swap facility with US Fed for providing US dollar liquidity.
Brazil	Selic rate lowered by a total of 50bps this year to 3.75%
	Reserve requirement ratio on time deposits reduced from 31% to 25%--to release BRL49bn of the banking system reserve requirements. This was coupled with an increase in share of reserve requirements to be taken into account for Liquidity Coverage Ratio (LCR)
	Increase in share of reserve requirements to be taken into account in Liquidity Coverage Ratio (LCR)
	The Central Bank announced $10bn credit to firms under stress and $5bn lending capacity to producers, agribusinesses and food processors.
	Overnight policy rate reduced to 0.25%.
	Provided Standing Short Term Liquidity Facility to financial institutions.

Source: Central bank websites, NSE.

Appendix 8: Fiscal measures announced by global economies

Country	Fiscal measures
USA	US$8.3bn spending bill announced on March 8th, referred to as 'Phase One' of stimulus efforts, to fund research on vaccine and provide capital to state and local governments to fight the spread of virus, among others.
	National Emergency declared on March 17th. $50bn to be distributed in aid to states, cities and territories.
	'Phase Two' of the stimulus bill passed on March 18th--included free virus testing, expanded employee benefits, additional funds for Medicaid and a provision to provide paid sick leave for some affected workers
	'Phase Three' of the stimulus package worth US$1trn announced on March 19th. Some of the proposals included $500bn in direct payments, $58bn in loans and loan guarantees for passenger and cargo airlines, and $300bn in loans to small businesses with under 500 employees with loans capped at $10mn and $150bn in loans and loan guarantees to other eligible businesses.
	The Senate passed a US$2trn fiscal package on March 25th comprising of payments to tax payers, jobless benefits and business bailouts. The bill would be tabled in the House on March 27th.
	The Senate approved US$484bn in fresh support to the US economy and hospitals affected by COVID-19, including expanded funding to small businesses.
United Kingdom	Fiscal stimulus totalling £30bn announced in the budget on March 11th, including welfare and business support, sick-pay changes and local assistance. This includes £7bn for businesses and families and £5bn for the National Health Service.
	Another large stimulus package for business and workers announced on March 17th. This includes unlimited loans and guarantees to support firms and help them manage cash flows. Initial funds of £330 billion in the form of guarantees, equivalent to 15% of UK GDP, will be made available.
	A three-month payment holiday to be offered to all households with difficulty paying mortgages.
Germany	Germany's state bank, KfW, to lend up to $610bn to companies.
	Spending by federal government of €156bn on healthcare equipment, hospital capacity and R&D, subsidy to preserve jobs and worker income, childcare benefits for low income parents, income support for self-employed, grants and interest-free tax deferrals to small businesses affected by COVID-19
	State governments announced measures amounting €48bn in direct support and €63bn in state-level loan guarantees
France	A €45($ 49bn) stimulus package announced on March 17th entailing social-security tax cuts, unemployment benefits, and financial aid to small businesses. Bank loan guarantees up to €300bn (US$327bn) would also be provided.
Spain	A financial aid of €200 bn ($220 bn, or 20% of GDP)—the highest ever—announced on March 17th, targeted towards providing liquidity for businesses (€100 bn), research activities for developing a coronavirus vaccine (€30 bn), providing moratorium on mortgage payments, and guaranteeing necessities like water, electricity and internet to vulnerable households.
Italy	A $28bn package announced on March 11th to be spent in two parts. The first package worth EUR12bn was passed on March 13th and rest would be reserved for future use. Key proposals included help for workers facing layoffs, guarantees to SMEs, compensation to firms facing 25%+ decline in turnover and moratorium to business and mortgage payments.
Japan	Japan announced the first emergency economic package worth $2.5bn on Feb 29th to fight the virus. The second package worth $15bn was announced on March 10th, largely targeted towards providing funding support to SMEs and health care system and financial help to working parents staying at home. The government enhanced the package to $1.01trn on April 7th.
Hong Kong	A significant fiscal stimulus package worth $15.4bn announced in the 2020-21 budget comprising of, among other things, a) US$1284 (HK$10,000) cash subsidy to all adult permanent residents, b) paying one month's rent for people living in public housing, c) cutting payroll, income, property and business taxes, d) low-interest, government-guaranteed loans for businesses, and e) extra one month allowance to people collecting old-age or disability benefits.
China	Earmarked $15.9bn on enhancing public health infrastructure. Funding support for virus-hit regions ramped up.
South Korea	A $9.8bn stimulus package announced targeted towards health system, subsidies to small and medium businesses and child-care subsidies. The government later expanded the stimulus package to $200bn.
Singapore	Stimulus package of S$60bn: S$800mn to Ministry of Health, S$5.7bn cash payout to citizens and additional payments to lower income individuals and unemployed, Stabilization and Support Package of S$31.5bn in the form of wage subsidies and enhancement of financing schemes for businesses, additional support in the form of loan capital and other economic resilience measures
Australia	Three economic stimulus packages totalling AUD194bn to be utilised over 4-year period. Measures include wage subsidies, income support to households, cashflow support to businesses etc.
	Free childcare to one million families
	Government guarantees (up to AUD20bn) for loans extended to SMEs
	Spend AUD5bn to strengthen health system

	Additional stimulus package by State and Territory governments amounting to AUD11.5bn, including payroll tax relief for businesses and relief for households
Switzerland	A financial aid of CHF65bn pledged targeted at small businesses and freelancers.
New Zealand	A stimulus package of $7.3bn announced comprising of wage subsidies ($3bn), income support ($1.7bn), business tax relief ($1.7bn) and relief for the airline industry ($360mn)
Thailand	The Cabinet has approved fiscal packages in three phases, amounting to a total of THB1.5trn or 8.9% of GDP, targeted towards a) health-related spending, b) assistance for workers, farmers, and entrepreneurs affected by COVID-19, c) providing support through soft loans to individual and businesses at 2% rate, lowering water and electricity bills and lowering social security contribution of employees and employers. This would require an additional borrowing of THB 1trn.
Indonesia	The first rescue package worth $727mn announced on February 26th to support consumer spending and tourism industry. The second emergency stimulus package worth $8bn was announced on March 8th, representing 0.8% of GDP, comprising of tax breaks to businesses ($1.4bn) and non-fiscal incentives to ease import and export activities. Additional social and health schemes and tax reliefs amounting to IDR255tn.
Canada	Government announced several tax and spending measures worth USD138bn (6% of GDP) which include a) USD1.125bn for the health system; b) direct aid to households, payments to workers; c) direct support to businesses, including tax deferrals and wage subsidies; d) 3 months Interest-free loans to small businesses; e) loan guarantee for term loans to SMEs.
South Africa	Unemployment Insurance Fund (UIF) and loan guarantee scheme for assisting companies and workers facing distress
Brazil	Fiscal measures amounting to 6.5% of GDP: Temporary income support to households, tax breaks and credit lines for firms, simultaneous auction of government securities.
IMF, World Bank	The IMF and World Bank have announced to provide USD50bn and USD14bn respectively through various financial facilities to their membership.

Source: Press releases, Media.

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