

Market snapshot



Equities - India	Close	Chg. %	CYTD.%
Sensex	28,265	-4.1	-31.5
Nifty-50	8,254	-4.0	-32.2
Nifty-M 100	11,471	-2.0	-32.9
Equities-Global	Close	Chg. %	CYTD.%
S&P 500	2,527	2.3	-21.8
Nasdaq	7,487	1.7	-16.6
FTSE 100	5,480	0.5	-27.3
DAX	9,571	0.3	-27.8
Hang Seng	9,527	1.3	-14.7
Nikkei 225	17,819	-1.4	-24.7
Commodities	Close	Chg. %	CYTD.%
Brent (US\$/Bbl)	20	-4.8	-69.2
Gold (\$/OZ)	1,592	0.9	4.9
Cu (US\$/MT)	4,785	-3.1	-22.2
Almn (US\$/MT)	1,465	-1.9	-17.8
Currency	Close	Chg. %	CYTD.%
USD/INR	75.5	0.0	5.8
USD/EUR	1.1	-0.6	-2.2
USD/JPY	107.2	-0.3	-1.3
YIELD (%)	Close	1MChg	CYTDchg
10 Yrs G-Sec	6.1	0.00	-0.4
10 Yrs AAA Corp	7.3	-0.16	-0.3
Flows (USD b)	1-Apr	MTD	CYTD
FII's	-0.15	-8.03	-6.10
DII's	-0.06	7.42	10.14
Volumes (INRb)	1-Apr	MTD*	CYTD*
Cash	338	338	437
F&O	12,405	12,405	15,284

Note: *Average

Today's top research theme



Bulls & Bears: Nifty wraps up worst year in a decade

- ❖ The Nifty could not have had a worse finish to FY20. As the Coronavirus (COVID-19) pandemic spread across the world, the Nifty nosedived 23% in Mar'20 to close at 8,598 (-26% YoY), the worst since Oct'08.
- ❖ Further, in FY20, mid-caps were down 36% as against the Nifty's decline of 26%. Notably, over the last 5 years, mid-caps have underperformed the benchmark by 11%. The intensity of the decline was severe with the Nifty correcting ~40% (at its panic bottom) in Mar'20.
- ❖ Metals (-50%), Autos (-43%), PSU Banks (-42%), Capital Goods (-41%) and Real Estate (-35%) were the biggest losers.
- ❖ Given the nature of the crisis and consequent containment measures, forecasting corporate earnings for FY21E has become difficult with existing earnings estimates facing sharp downside risks. In this scenario, it is prudent to look at trailing valuation metrics. The Nifty is trading at a trailing P/E of 16.2x, the lowest in 6 years while trailing P/B of 2.1x is at its lowest since the Global Financial Crisis (GFC). Market-cap to GDP is at 54%, again at a level seen during the GFC.



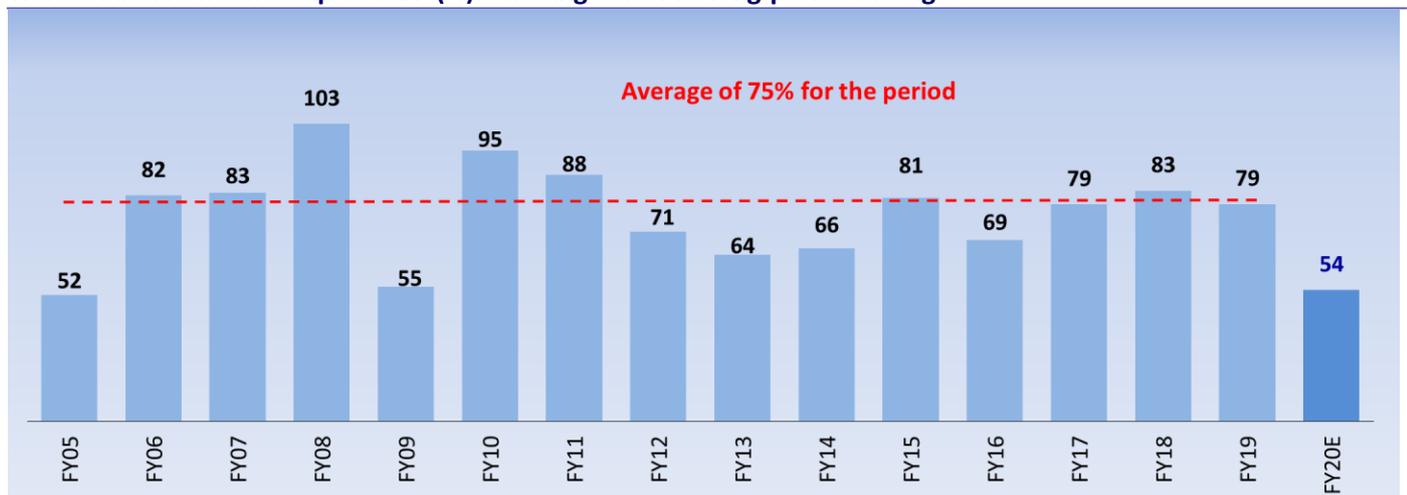
Research covered

Cos/Sector	Key Highlights
Bulls and Bears	Nifty wraps up worst year in a decade
Coal India	Dispatches decline even as production ramps up
Aurobindo Pharma	Inorganic growth takes hit
Bharat Electronics	Execution in top gear; Working capital remains key monitorable
Automobile	April-20 wholesales: TVS Motor
Expert Speak	HEALTHCARE: COVID-19 – Antibody tests to improve testing scenario in India
Consumer Durables	Timely end to lockdown key for future outlook



Chart of the Day: Market cap-to-GDP ratio corrects sharply, at its lowest since FY06

Trend in India's market cap-to-GDP (%) – trading below its long-period averages



Source: MOFSL, Company

Research Team (Gautam.Duggad@MotilalOswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.



Kindly click on textbox for the detailed news link

1

Govt mulls a phased unwinding of the 21-day lockdown, general guidelines likely today

The Union government is looking at a phased unwinding of the 21-day lockdown that has shuttered businesses and brought life to a standstill and has sought suggestions from states to evolve a common approach...

2

Oil posts biggest one-day gains after Trump touts Saudi-Russia deal

Crude prices posted their biggest-one day gains on record on Thursday after President Donald Trump said he expects Russia and Saudi Arabia to announce a major oil production cut, and Saudi state media said the kingdom was calling an emergency meeting of producers to deal with the market turmoil...

3

Exporters seek nod to restart ops with 50% staff, essential tag

Exporters have sought that they be allowed to restart operations with 50% staff, in order to help pay wages, prevent migrant labourers from returning to their hometowns and stop loss of market share to China...

4

World Bank approves \$1 bn emergency financing for India to tackle coronavirus

The World Bank on Thursday approved USD 1-billion emergency financing for India to tackle the coronavirus outbreak, which has claimed 76 lives and infected 2,500 others in the country...

5

Reliance Industries to raise Rs25,000 crore via NCDs

Oil-to-telecom conglomerate Reliance Industries on Thursday said its board has approved a proposal to raise up to Rs 25,000 crore through non-convertible debentures (NCDs)...

6

Telcos subscriber adds plunge in March

Reliance Jio, Bharti Airtel and Vodafone Idea are expected to have added just half a million subscribers cumulatively in March, a sharp fall from the monthly average of up to 3 million additions in a good month, as the Covid-19 induced lockdowns take a toll, say industry players and analysts...

7

Easing supply blues: Airlines get approval to carry goods

In an attempt to normalise cargo movement across the country, the government has allowed airlines, including private carriers, to carry goods in their aircraft...

Strategy: Markets – Nifty wraps up worst year in a decade; Coronavirus takes toll

- Coronavirus pandemic takes a toll; Nifty ends FY20 with big losses:** The Nifty could not have had a worse finish to FY20. As the Coronavirus (COVID-19) pandemic spread across the world, the Nifty nosedived 23% in Mar'20 to close at 8,598 (-26% YoY), the worst since Oct'08. While DII inflows at USD17.9b (v/s USD10.3b in FY19) were robust in FY20, FII inflows were weak at USD1b. Notably, in Mar'20, DII inflows (at USD7.5b) and FIIs outflows (at USD8.2b) were at record high. Further, in FY20, mid-caps were down 36% as against the Nifty's decline of 26%. Notably, over the last 5 years, mid-caps have underperformed the benchmark by 11%. The intensity of the decline was severe with the Nifty correcting ~40% (at its panic bottom) in Mar'20..
- Government announces three-week lockdown to fight COVID-19; Several relief measures announced:** The Prime Minister, Mr. Narendra Modi, has announced an unprecedented three-week lockdown in the country (effective 25th Mar'20) in a bid to contain the spread of COVID-19. The Finance Minister has also announced several measures to ease the regulatory/compliance burden for taxpayers. Further, the FM has promised an economic relief package, which will be unveiled soon to alleviate the pain of lockdown in the economy. The Reserve Bank of India (RBI) has likewise joined the central government in providing relief to the Indian economy battered by the Covid-19 pandemic. After earlier announcements by the FM on various welfare/relief measures, the RBI unleashed series of steps to soften interest rates, improve liquidity and offer some immediate relief to borrowers. The RBI's announcements include reducing the policy rate by 75bp, providing liquidity in the system, allowing moratorium of term loans for three months to support the affected sections and increasing credit flow in the economy. Moreover, steps have also been taken to iron out issues in the bond markets.
- Broad-based correction in Mar'20:** All key global markets – Brazil (-30%), India-Nifty (-23%), Indonesia (-17%), MSCI EM (-16%), Taiwan (-14%), the UK (-14%), the US (-13%), Korea (-12%), Japan (-11%), Russia (-9%) and China (-5%) – closed lower in local currency terms in Mar'20. Over the last 12 months, MSCI EM (-20%) outperformed MSCI India (-26%). Notably, over the last 10 years, MSCI India has outperformed MSCI EM by 55%. MSCI India's P/E is at a premium of 50% to MSCI EM's P/E, near its historical average premium of 52%.
- Sectoral trends for FY20 – Metals, Autos, PSU Banks top laggards:** For FY20, Metals (-50%), Autos (-43%), PSU Banks (-42%), Capital Goods (-41%) and Real Estate (-35%) were the biggest losers. In the Nifty, Nestle (+48%), Bharti Airtel (+44%), HUL (+35%), Dr Reddy's (+12%) and Asian Paints (+12%) were the only positive performers. IndusInd Bank (-80%), Zee Ent (-72%), Vedanta (-65%), Tata Motors (-59%) and M&M (-58%) were the top laggards. In this edition, we take a deep-dive into the valuation metrics of the healthcare sector.
- Valuations attractive but near-term earnings unpredictable:** Given the nature of the crisis and consequent containment measures, forecasting corporate earnings for FY21E has become difficult with existing earnings estimates facing sharp downside risks. In this scenario, it is prudent to look at trailing valuation metrics. The Nifty is trading at a trailing P/E of 16.2x, the lowest in 6 years while trailing P/B of 2.1x is at its lowest since the Global Financial Crisis (GFC). Market-cap to GDP is at 54%, again at a level seen during the GFC. As and when the government lifts the existing lockdown, we expect the situation to gradually return to normalcy. The second and third order impacts of the lockdown should keep rearing their heads and impact corporate earnings. Given the global nature of the crisis, institutional flows assume greater importance for the near-term market direction. Relatively less damage to currency, high forex reserves and sharp correction in crude oil prices provide a silver lining in an otherwise gloomy environment. In the past crisis, we note that combination of extreme fear and attractive valuations provided good foundation for healthy long-term equity returns. We are recommending continued defensive approach to portfolio construction with preference for Consumer, IT, Pharma and select large private banks. We expect Cyclical, Infrastructure and Commodities to continue to underperform till we see more stability in global and domestic economy.
- Top Ideas: Large-caps:** HUL, Bharti Airtel, ICICI Bank, SBI, HDFC Life, Infosys, HCL Tech, RIL, Titan and Eicher Motors. **Mid-caps:** Jubilant Foodworks, Trent, Crompton Consumer, Tata Consumer, ABFRL, Alkem Labs and Indian Hotels.



Coal India

BSE SENSEX
28,265

S&P CNX
8,254

CMP: INR139 TP: INR202 (+45%)

Buy



Stock Info

Bloomberg	COAL IN
Equity Shares (m)	6,207
M.Cap.(INRb)/(USDb)	859.1 / 11.4
52-Week Range (INR)	271 / 119
1, 6, 12 Rel. Per (%)	9/-2/-14
12M Avg Val (INR M)	1992
Free float (%)	31.0

Financials Snapshot (INR b)

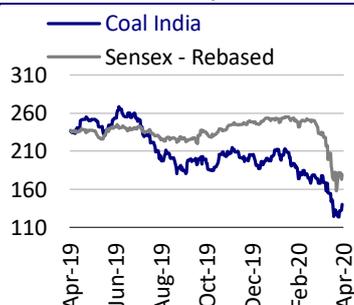
Y/E Mar	2020E	2021E	2022E
Net Sales	942.1	879.9	1,030.5
EBITDA	236.3	203.0	308.9
PAT	140.2	110.7	184.1
EPS (INR)	22.7	18.0	29.9
Gr. (%)	-19.7	-21.0	66.3
BV/Sh (INR)	52.0	59.2	69.7
RoE (%)	43.7	30.3	42.9
RoCE (%)	51.9	34.9	49.2
P/E (x)	6.1	7.8	4.7
EV/EBITDA (x)	2.5	2.7	1.5

Shareholding pattern (%)

As On	Dec-19	Sep-19	Dec-18
Promoter	69.1	69.3	72.9
DII	19.5	19.2	17.6
FII	8.6	8.7	6.0
Others	2.8	2.8	3.5

FII Includes depository receipts

Stock Performance (1-year)



Dispatches decline even as production ramps up

Foresee near-term headwinds as power demand plummets

Dispatches decline ~10% YoY in Mar'20, ~4% YoY in FY20

- Coal India's (COAL) dispatches declined 10.3% YoY to 53.5mt in Mar'20 due to a sharp fall in demand from the power sector. On the other hand, production was up 6.5% YoY at 84.4mt led by growth in its key subs (SECL: +22%; MCL+6%).
- For FY20, the company's dispatches were down 4% YoY at 582mt, while production declined ~1% YoY to 602mt.

Lower power demand to impact dispatches amid inventory buildup

- India's nation-wide lockdown comes at a time when (a) power demand has largely remained muted (11MFY20: +1.5% YoY) and (b) production at COAL's mines has been ramped up following a heavy monsoon season. Accordingly, inventories at both coal mines and power plants have risen (refer to Exhibits 1/2) – a general trend at the onset of summer, but higher than usual.
- On the other hand, with Industrial and Commercial consumers accounting for nearly ~50% of India's power demand, generation has been severely dented over the past one week. A look into March 22nd–30th data (Exhibit 3) indicates demand declined ~21% v/s daily three-year averages (2017–19). *In contrast, for the first 21 days in March, demand was up 2.5%.* In fact, following the country-wide lockdown (March 25th–30th), the decline stands steeper at ~25%.
- Furthermore, given the must-run status for renewables in the country, the brunt of the demand decline is being borne by coal-based plants. Generation from coal-based plants fell ~40% YoY over March 25th–30th (Exhibit 4).
- On account of such a sharp demand drop and higher coal inventories at power plants, we build in lower dispatches for COAL in FY21 (-5.5% YoY v/s earlier: +6.5% YoY) (Exhibit 5). While we also anticipate a decline in coal imports (especially from the non-power sector), a subsequent fall in global coal prices may pose a risk and eventually impact COAL's e-auction realizations. We build in e-auction realizations of INR2,000/t for FY21 (FY20E: INR 2,200/ FY19: INR2,632).

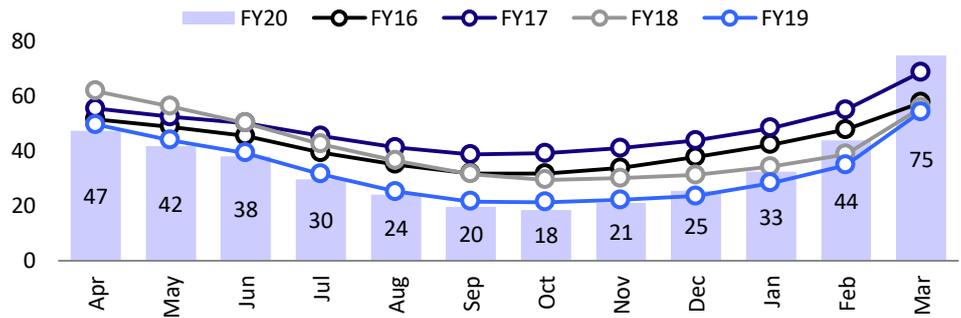
Foresee near-term headwinds as negative operating leverage may kick in

- A large proportion of COAL's cost is fixed, with employee cost accounting for ~50% of expenses. Moreover, we expect the company to focus on OBR-removal activities (if lower demand persists) and continue to utilize contractual employees. Thus, with lower dispatches, negative operating leverage is likely to kick in.
- Working capital could also be stretched with elevated receivables as cash issues due to lower demand materialize within the power value chain. Furthermore, we do not expect production to fully mirror the nosedive in demand in the near term. As a result, inventories could pile up in the interim.

■ We cut our FY21/22 adj. EBITDA estimate by 24%/5%, given the sharp fall in demand. However, we expect COAL to tide over the situation in the near term, given its large cash position (net cash: ~INR300b). We value the stock on 3.5x Sep'21E EV/EBITDA (v/s 4.5x FY21E EV/EBITDA earlier), given the uncertainty surrounding demand recovery, implying a target price of INR202/sh. The stock trades attractively at ~2x FY22E EV/adj. EBITDA (v/s historical average of 7x), P/E of 5x (v/s average of ~13x), and offers a dividend yield of ~8%. Maintain Buy.

Inventory at Coal India's mines has risen. While it is a general trend, the number is higher than that from previous years.

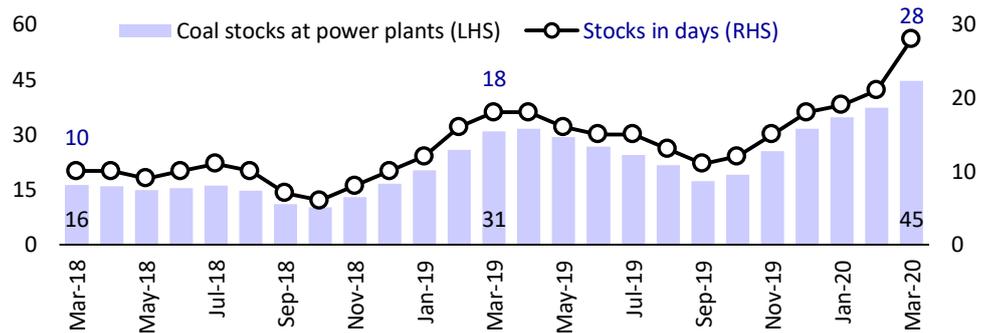
Inventory at Coal India's mines



Source: Company, MOFSL

Moreover, coal stocks at power plants have increased.

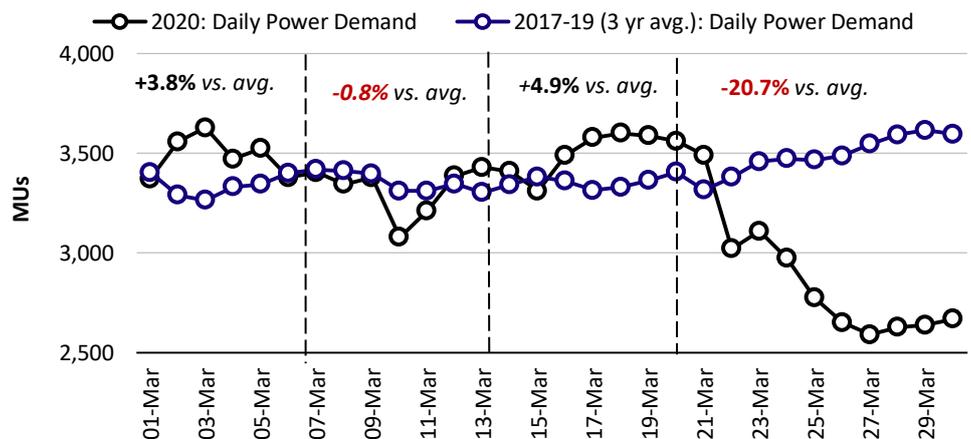
Coal stocks at power plants



Source: CEA, MOFSL

India's power demand declined sharply as the nation headed into a lockdown.

India's daily power demand



Source: Ministry of Power, MOFSL



Aurobindo Pharma

BSE SENSEX 28,265
S&P CNX 8,254

CMP: INR392 **TP: INR450 (+15%)** **Buy**



Stock Info

Bloomberg	ARBP IN
Equity Shares (m)	586
M.Cap.(INRb)/(USDb)	229.8 / 3.2
52-Week Range (INR)	838 / 281
1, 6, 12 Rel. Per (%)	4/-6/-23
12M Avg Val (INR M)	2134
Free float (%)	48.1

Financials Snapshot (INR b)

Y/E MARCH	2020E	2021E	2022E
Sales	233.3	235.9	251.8
EBITDA	48.8	50.2	52.9
Adj. PAT	28.1	29.9	31.2
EBIT Margin (%)	16.7	16.8	16.4
Cons. Adj. EPS (INR)	48.0	51.0	53.2
EPS Gr. (%)	11.2	6.2	4.5
BV/Sh. (INR)	281.9	330.4	380.1

Ratios

Net D:E	0.3	0.2	0.1
RoE (%)	18.5	16.6	15.0
RoCE (%)	12.6	11.5	10.9
Payout (%)	5.3	4.9	6.6

Valuations

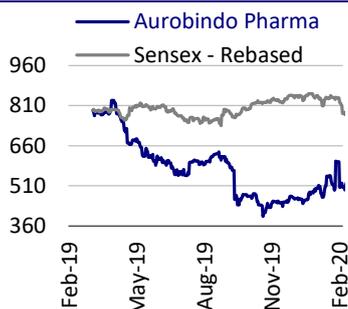
P/E (x)	8.2	7.7	7.4
EV/EBITDA (x)	5.9	5.3	4.8
Div. Yield (%)	0.6	0.6	0.9
FCF Yield (%)	-2.7	9.8	7.5
EV/Sales (x)	1.2	1.1	1.0

Shareholding pattern (%)

As On	Dec-19	Sep-19	Dec-18
Promoter	51.9	51.9	51.9
DII	13.2	13.0	14.4
FII	21.4	22.0	20.1
Others	13.5	13.2	13.6

FII Includes depository receipts

Stock Performance (1-year)



Inorganic growth takes hit

Reduced financial leverage soothes blow to some extent

- Aurobindo Pharma (ARBP) and Sandoz have mutually terminated a definitive agreement related to the acquisition of the US-based generic oral solids and dermatology businesses.
- Sandoz's portfolio was expected to be among the key inorganic growth drivers for ARBP over the next 12–15M. The attractive valuation also provided further support.
- While termination of the agreement would dent earnings growth, reduced financial leverage (as this deal is expected to be funded with debt of USD900m) would alleviate the balance sheet to some extent.
- We reduce our earnings estimate for FY21/FY22 by 19%/18% to INR51/INR53 to factor termination of acquisition. We continue to value ARBP at 8x 12M forward earnings and arrive at a price target of INR450. We remain positive on the robust abbreviated new drug application (ANDA) pipeline for US generics and the improving profitability of the Europe business. Maintain Buy.

What Sandoz deal would have brought to the table

ARBP had entered into a definitive agreement with Sandoz, USA, to acquire its generic oral solids and dermatology businesses for an upfront purchase price of USD 900m in cash, with additional near-term potential earn-outs on pipeline products in outer years. The portfolio that was to be acquired had a revenue contribution of 70% from oral solids and 30% from dermatology. It posted sales of USD1.2b in CY17 and USD600m in 1HCY18. ARBP had guided for sales of USD900m in the first 12 months following closure of transaction, adjusting for the expiration of certain in-licensed product contracts and rationalization of acquired products. The target businesses were to be acquired on a 'debt-free, cash-free' basis, fully funded by debt, with the management expecting the transaction to be EPS-accretive to normalized EPS from the first full year of ownership. The acquisition would have added ~300 products, including those already commercialized and those yet to be approved. The deal would have also added two derma-dedicated manufacturing facilities (including a derma-dedicated R&D facility) in the US.

Regulatory developments at key sites over the past 12–15 months

In the last year, the USFDA has inspected nine sites. Units 1, 11, and 7 have been classified as Official Action Indicated (OAI), and Unit 9 has recently been issued a warning letter. Units 5 and 8 were inspected in Oct'19 and classified as Voluntary Action Indicated (VAI). The inspection classification at Unit 4 was recently revoked, as a result of which we await further clarity from a compliance perspective.

Strong track record of ANDA filings and approvals

ARBP filed 63 ANDAs in FY19, of which 21 were for injectables. It had filed 38 ANDAs YTD, including nine for injectables. It had received 16 ANDA approvals YTD, of which 10 were for injectables. It launched 30 products, including seven injectables. Till date, it had 572 cumulative ANDA filings, with final approval for 391 and tentative approval for 27; 154 of them were under review.

Valuation and view

We are positive on ARBP owing to its strong ANDA pipeline (154 pending approval) and operating leverage for the EU business. However, we reduce our earnings estimate by 19%/18% for FY21/FY22 to reflect the Sandoz deal's termination. Accordingly, we revise our TP to INR450 (prior: INR530). Maintain **Buy**.

Inspection history and unit-wise ANDA filings

Site	API/Formulation	FA	TA	UR	Total	Remarks
Unit XII	Penicillin Oral & Injectables	20			20	❖ Inspected in Feb'20. Received form 483 with six observations.
Unit IV	Injectables & Ophthalmics	63		47	110	❖ The company received form 483 with 14 observations in Nov'19. USFDA recently revoked classification of inspection and indicated inspection to be open and still under review.
Unit VIII	API					❖ The company has received a 'Form 483' with four observations in Oct'19.
Unit V	API					❖ The company received 'Form 483' with four observations in Oct'19.
Unit VII (SEZ)	Oral Formulations	137	14	18	169	❖ The company received 'Form 483' with seven observations in Sep'19. Inspection classified as OAI.
Unit III	Oral Formulations	115	10	2	127	❖ The company received 'Form 483' with 10 observations in Jun'19.
Unit I	API					❖ Inspected in Feb'19. Inspection classified as OAI.
Unit IX	API					❖ Inspected in Feb'19. Issued warning letter.
Unit XI	Intermediate facility					❖ Inspected in Feb'19. Inspection classified as OAI.
APL Healthcare	Oral Formulations			12	12	❖ Inspected in Dec'18. EIR in place.
Aurolife & Aurolife - I	Oral Formulations	21		12	33	❖ Inspection closed with VAI classification in Jun'18.
Eugia	Oral & Injectable Formulations	7	1	19	27	❖ Inspected in Jun'18. EIR in place.
Silicon	API					❖ Inspected in Mar'18. EIR in place.
AuroNext	Penem Injectables	2			2	❖ Inspected in Feb'18. EIR in place.
Unit VIB	Cephalosporins Oral	11		1	12	❖ Inspected in Sep'17. EIR in place.
Unit X	Oral Formulations	7	2	42	51	❖ Inspected in Apr'17. Zero 483.
Auropeptide	API					❖ Inspected in Aug'16. EIR in place.
Total		391	27	154	572	

Source: Company, USFDA, MOFSL



Bharat Electronics

BSE SENSEX 28,265 S&P CNX 8,254

CMP: INR69 TP: INR86 (+25%) Buy



Stock Info

Bloomberg	BHE IN
Equity Shares (m)	2,437
M.Cap.(INRb)/(USDb)	168.2 / 2.4
52-Week Range (INR)	122 / 56
1, 6, 12 Rel. Per (%)	20/-9/-1
12M Avg Val (INR M)	1175
Free float (%)	44.7

Financials & Valuations (INR b)

Y/E Mar	2020E	2021E	2022E
Sales	128.5	137.9	159.4
EBITDA	24.2	25.8	29.0
PAT	15.8	17.5	19.9
EBITDA (%)	18.9	18.7	18.2
EPS (INR)	6.5	7.2	8.2
EPS Gr. (%)	(17.9)	10.3	13.7
BV/Sh. (INR)	40.7	44.6	48.9

Ratios

Net D/E	(0.1)	(0.1)	(0.1)
RoE (%)	15.9	16.1	16.7
RoCE (%)	16.7	16.9	17.5
Payout (%)	40.0	40.0	40.0

Valuations

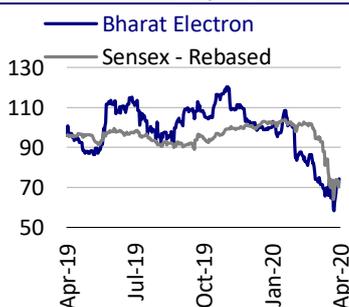
P/E (x)	10.6	9.6	8.5
P/BV (x)	1.7	1.5	1.4
EV/EBITDA (x)	6.6	6.0	5.2
Div Yield (%)	3.8	4.2	4.7
FCF Yield (%)	4.9	7.8	7.1

Shareholding pattern (%)

As On	Dec-19	Sep-19	Dec-18
Promoter	55.3	55.9	61.9
DII	25.3	25.0	20.8
FII	12.2	11.4	7.1
Others	7.2	7.6	10.3

FII Includes depository receipts

Stock Performance (1-year)



Execution in top gear; Working capital remains key monitorable

- FY20 revenues at record highs:** In a communication to the stock exchanges, Bharat Electronics (BEL) has mentioned that it ended FY20 with record turnover of over INR125b (+6% YoY). The BEL management has further stated that execution could have been higher, if not for the COVID-19 outbreak and the economic slowdown. Execution/acceptance of some major projects could not be completed due to force majeure. Adjusted for the VVPAT/EVM revenue of INR26b last year, FY20 revenue growth stands at 35% YoY. For 4QFY20, the implied execution is likely at INR57.3b (+48% YoY) and better than our expectation. Overall, FY20 revenue is ~9% above our estimate for the full year.
- Execution of large ticket size orders leads revenue beat:** Key projects executed in FY20 include Command & Control Systems, Thermal Imagers for tanks, Upgrades of communication systems, Land-based EW systems, Weapon Repair Facility, Electronic Fuses, various Radars, Smart City Projects, Delhi CCTV project, Schilka upgrade, Avionics Package for LCA, Classroom Jammers, Real Time Information System for Railways and LRSAM. We believe that LRSAM orders entering execution mode now has supported the strong execution.
- Order inflows at INR130b:** The total order inflows for FY20 stood at INR130b. Key new orders include Akash (7 Sqdn), Coastal Surveillance Systems (CSS), Upgrade for EW systems, Radars, AMCs for Radars and Weapon systems, Software Defined Radio (SDR), Sonars, Advanced Communication Systems, etc.
- Order book remains robust at INR518b:** FY20 order book stood at INR518b (flat YoY). This translates into Ob/Rev ratio of 4x, providing strong revenue visibility over the next 3 years. BEL has demonstrated strong execution capability over the years and is well placed in the current troublesome time of COVID-19.
- Working capital remains key monitorable:** While we remain confident of BEL's execution capability and believe it is the best play in the Indian defense sector, we believe the company's re-rating depends on its working capital management. Working capital has deteriorated from 9.8% in FY17 to ~34% currently, leading to negligible FCF generation over the past 4 years. With the government's fiscal deficit likely to come under pressure owing to the economic downturn and COVID-19 related spending, there are risks of working capital worsening further.
- Better placed in turbulent times of COVID-19:** We see limited impact of COVID-19 on India's defense sector spending, which has already been curtailed to the lowest level (as % of GDP). According to media articles, BEL may be roped in for manufacturing ventilators. If this materializes, it can open up a new ~INR10b revenue stream for the company over the next 2 months, which can offset part of the revenue loss, if any, due to the COVID-19 lockdown.
- Valuation and view:** We increase our FY20 earnings estimate by 9% owing to the revenue beat, but largely maintain our FY21/FY22E estimates. We forecast revenue/EBITDA/PAT CAGR of 11%/9%/12% over FY20-22E. We lower our target multiple to 12x from 16x earlier, which is 1SD below its long-term average due to concerns over working capital cycle. Maintain **Buy** with reduced TP of INR86 (Prior: INR115) based on 12x Mar'21E EPS.

Automobiles



TVS Motor

CMP: INR278

TP: INR337 (+21%)

Neutral

Stock Info

Bloomberg	TVSL IN
Equity Shares (m)	475
M.Cap.(INRb)/(USD b)	132.1 / 1.9
52-Week Range (INR)	525 / 275
1, 6, 12 Rel. Per (%)	-10/-8/-15

Financials Snapshot (INR b)

Y/E MARCH	2020E	2021E	2022E
Sales	162.4	171.9	190.8
EBITDA	13.6	14.8	18.9
Adj. PAT	6.1	6.2	9.0
EPS (INR)	12.8	13.1	19.0
EPS Gr. (%)	-9.2	2.2	45.5
BV/Sh (INR)	78.8	87.0	101.3
RoE (%)	17.2	15.8	20.2
RoCE (%)	17.9	18.0	23.7

Valuations

P/E (x)	21.7	21.2	14.6
P/BV (x)	3.5	3.2	2.7
EV/EBITDA. x	10.6	9.7	7.4

Below estimate at 144.7k units (-55.5% YoY)

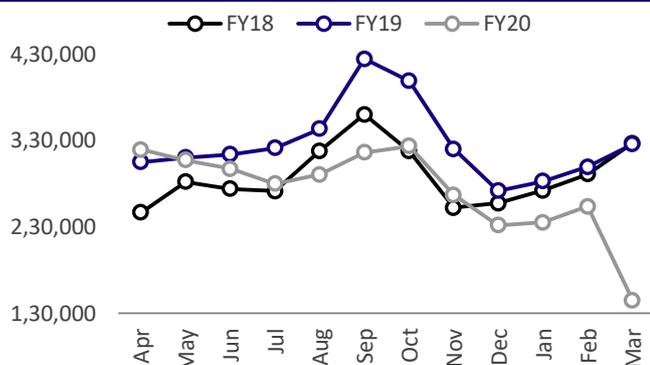
Domestic volumes down ~62% YoY, exports decline ~34% YoY

- TVS Motor's (TVSL) wholesales of 144.7k units declined 55.5% YoY (v/s est. 188.6k units) in Mar'20.
- Domestic volumes declined ~62% YoY, while exports decreased 34% YoY.
- Motorcycle volumes declined ~53% YoY to ~66.7k units (v/s est. 84.6k units).
- Scooter volumes were down ~65% YoY to 34.2k units (v/s est. 51k units).
- Moped dispatches declined ~53.6% YoY to 33.1k units (v/s est. 40.6k units).
- 3W volumes declined ~25.6% YoY to ~10.7k (v/s est. 12.4k units).
- An extract from TVSL's press release states, "International market demand was good for both 2W and 3W categories. However, due to the lockdown, there was significant loss in production, and also vehicle stock in the factory for both domestic and international markets, which could not be dispatched."
- We have lowered our estimates for FY21/FY22E by ~25%/16% to factor the impact of the Coronavirus on demand.
- The stock trades at 21.2x/14.6x FY21/FY22E EPS. Maintain **Neutral**.

Snapshot of volumes for Mar-20

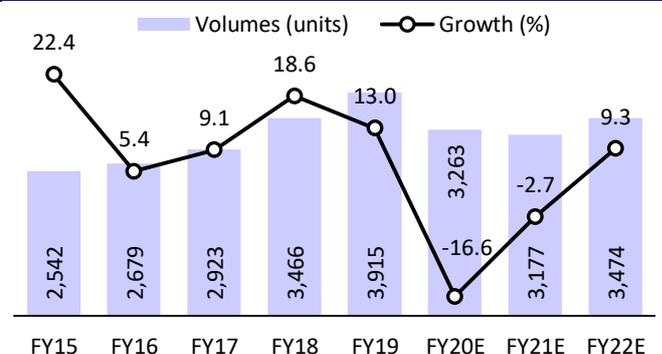
Company Sales	YoY			MoM		FY20 YTD	FY19 YTD	(% chg)	FY20	Gr. (%)
	Mar-20	Mar-19	YoY (%) chg	Feb-20	MoM (%) chg					
TVS Motor	1,44,739	3,25,345	-55.5	2,53,261	-42.8	32,63,468	39,13,763	-16.6	32,63,468	-16.6
Motorcycles	66,673	1,41,086	-52.7	1,18,514	-43.7	13,63,579	15,59,297	-12.6	13,63,579	-12.6
Scooters	34,191	98,477	-65.3	60,633	-43.6	10,75,219	13,01,115	-17.4	10,75,219	-17.4
Mopeds	33,124	71,338	-53.6	56,744	-41.6	6,50,759	8,96,917	-27.4	6,50,759	-27.4
Three-Wheelers	10,751	14,444	-25.6	17,370	-38.1	1,73,911	1,56,434	11.2	1,73,911	11.2
Total Domestic	94,542	2,48,940	-62	1,70,384	-44.5	24,22,650	31,52,025	-23.1	24,22,650	-23.1
Total Exports	50,197	76,405	-34.3	82,877	-39.4	8,40,818	7,61,738	10.4	8,40,818	10.4

Trend in monthly volumes



Source: Company, MOFSL

Trend in annual volumes



Source: Company, MOFSL



Expert Speak

COVID-19 – Antibody tests to improve testing scenario in India

Antigen test only if patient's Antibody test shows positive result

To understand recent developments in the COVID-19 testing scenario in India, we interacted with the Chief Operating Officer of KRISHGEN, Dr. Kalpesh Jain. Key insights from the meeting highlighted below:

- While the supply of kits for the polymerase chain reaction (PCR) tests would increase in the coming days, the Antibody tests would also enhance the pace of testing across India.
- According to a World Health Organization (WHO), countries where citizens have been administered BCG vaccines are less susceptible to the COVID-19 virus. Also, a tropical climate is not conducive for the spread of the virus. Thus, India may benefit due to these two factors.
- The government has ramped up its testing capacity. Testing is likely to increase in week 3 (13th Apr'20) and week 4 (20th Apr'20) as it takes 7-14 days for the disease and also for the antibodies to set in.

Anti-body test to reduce load on Antigen tests

- There are two types of tests: Antigen (PCR-based) and Antibody.
- The government is planning to start Antibody tests in India soon. The more targeted and accurate – the Antigen/PCR test – will be undertaken for cases that show positive results in the Antibody test.
- Antibody tests take under 30 minutes to produce results while PCR tests have machine testing time of 2-3 hours. In this way, India can likely scale up to more than 1m Antibody tests per day. Such tests need to be administered by a medical practitioner as the virus is highly contagious.
- Capacity for PCR tests is ~10k per day, which can easily be scaled up to 25k per day. Although kits and reagents would be available in the market over the short term, logistics still remain a challenge.

Specific factors may control spread of Coronavirus in India

- Recently, According to a World Health Organization (WHO), countries where citizens have been administered BCG vaccines are less susceptible to the COVID-19 virus. Additionally,
- In addition, the intensity with which the viruses in general transmit reduces as the temperature increases.
- These two factors are likely to keep the immunity of Indians at higher level in the fight against COVID-19.
- Rains do not have any effect on the spread of COVID-19 virus.

Other highlights of the call

- The lockdown is necessary to isolate and reduce cross-contamination to healthy people.
- The lockdown also gives government time to prepare for large-scale Antigen/PCR testing in a more structured manner rather than undertaking random testing.
- The Indian Council of Medical Research (ICMR) has already released guidelines for rapid testing/Antibody testing ([link](#)) and states are in the process of procuring the required kits. Large-scale rapid testing along with increased PCR testing is likely to begin next week.



Dr. Kalpesh Jain,
COO of Krishgen Biosystems

Dr. Kalpesh Jain, the Chief Operating Officer of Krishgen Bio Systems (KRISHGEN), has been associated with the firm for over 17 years. Dr. Jain is experienced in technology and marketing and is an expert in assays. He was also invited as a technical expert by the ICMR committee for academy- industry transfer of technology.

KRISHGEN is one of the 15 companies to have received ICMR's approval for SARS-CoV-2 Coronavirus Real Time RT-PCR (RTqPCR) Detection Kit to be used for testing in India. It is a privately-owned biotech firm with academic linkages to provide tools to scientists. Established in 2003, its business interests involve medical diagnostics, drug discovery research, biopharma, cosmetics, food, and plant science. It also manufactures assays and reagents for leading companies based in EU and Japan.

- Dr. Jain believes that COVID-19 cases are expected the peak around 13th-20th Apr'20 as a geometric progression trend. Thus, it is likely that the government would extend the lockdown by a week.
- Logistics remain a challenge as companies are finding it difficult to transport the raw materials required to make reagents within the country. In fact, reagents are available from Thermo Fisher (a leading global supplier); however, the challenge remains to bring it to India.
- Based on ongoing R&D work, a vaccine for COVID-19 will take at least six months, even under emergency approval, as there are necessary clinical trials that are required to be carried out.
- KRISHGEN makes real-time PCR test kits as well as the Antibody test kit. The capacity for the Antibody test kit is currently at ~20k/week. The company expects to grow this by at least 30-40% this year.
- Primer and probes are being manufactured in India while the master mix is being imported from Europe, the US and China. For the Antibody tests, it takes 1-3 months to make the protein, and hence, proteins are being imported by the company as other countries were already ahead in developing them. Other materials such as sheets of paper, cassettes and chemicals are being developed in India.
- Raw material costs have also increased 3-4x and transport costs too are higher, which reduces the government's ability to lower the price of the tests. Prices are likely to reduce by 10-20% as input costs decline.

Background on Antigen and Antibody tests

- There are two types of tests – (a) The Antigen/PCR test, which tests for the virus in real time, and (b) The Antibody test, which tests if a person was ever exposed to the antigen and has developed antibodies in response. The 15min Coronavirus test for which Abbott received the USFDA's approval recently is an Antibody test.
- Currently, there are 19 companies which have approval to supply the test kits, including 12 companies that are currently developing Antibody tests. While PCR tests have close to 100% accuracy, Antibody tests have an accuracy rate of 80-90%. Quality of the Indian test kits is superior to those being imported in Europe from China; besides, the test kits are thoroughly vetted by the ICMR.
- Antibody tests are the serological tests being discussed in Europe and the U.S. Antibodies are present in everybody who contracts the virus, irrespective of whether he/she develops COVID-19. These antibodies are present in the body for some time even after a person recovers. Antibodies help people to develop immunity against the virus, which prevents such people from contracting the virus again, depending on how long the immunity lasts.

COVID-19 cases have spread aggressively in the U.S. and Europe

Country	Total Cases	Total Active Cases	Total recovered	Total Deaths	Deaths/1 M Population
USA	215,357	201,366	8,878	5,113	15
Italy	110,574	80,572	16,847	13,155	218
Spain	110,238	73,492	26,743	10,003	214
China	81,589	1,863	76,408	3,318	2
Germany	79,465	59,331	19,175	959	11
France	56,989	42,022	10,935	4,032	62
Iran	50,468	30,597	16,711	3,160	38
UK	2,474	26,987	135	2,352	35
Switzerland	18,267	13,749	4,013	505	58
Turkey	15,679	15,069	333	277	3
India	2,032	1,824	150	58	1

Source: Worldometers.info

Consumer Durables

Timely end to lockdown key for future outlook

With India under a three-week lockdown amid a COVID-19 outbreak, we hosted a discussion with Mr Kanhaiyalal Mulchandani, owner of Snehanjali Electronics (Snehanjali), to understand the current state of the consumer durables sector and his take on the road ahead:

- **Preemptive measures to tackle COVID-19 impact were not possible:** After increasing YoY in both January and February, air conditioner (ACs) and refrigerator sales took a hit in March amid rising concerns about the spread of COVID-19 in India. It was not possible to take preemptive measures (such as liquidation of inventory) to circumvent the impact on sales as the event was the first of its kind in the last few decades. That said, with a delayed summer and favorable current temperatures, lost ACs sales could still be recouped if businesses resume operations by 15th April. However, for air coolers, Snehanjali has cancelled its orders with manufacturers. Note that there is some demand for ACs in lean season too, which is not the case with air coolers.
- **High AC inventories due to supply side concerns:** During the initial period when a COVID-19 outbreak was being witnessed in China, many dealers and retailers stocked up on inventory of seasonal products such as ACs due to supply side concerns, such as factory closures in China. **Hence, Snehanjali's AC inventory stands at ~75 days.** Normally, inventory levels during this season are 30–40 days. Also, since Gudi Padwa fell in the first week of lockdown, expected festive sales were lost. The company sells around 20,000 units of ACs in Mumbai annually, 12,000 of which are sold in the peak summer season (March–May). Voltas, LG and Daikin are fast-moving brands, with Voltas maintaining its leadership position.
- **Refrigerators, washing machines at lower risk:** Refrigerator sales are at its peak in the months of June and July. Whirlpool has a good range of SKUs in refrigerators and is the best brand in the market up to 350 liter categories. Washing machine sales are non-seasonal, and Snehanjali has achieved single-digit growth in this category MoM. LG leads the top-load washing machines category, followed by Samsung, Whirlpool, Godrej, and Lloyd. IFB, Siemens, and LG are the preferred brands in the front-load segment.
- **Growing consumer financing:** Consumer financing for Snehanjali stands at 85%. The company's paper finance sales stand at ~50%, followed by credit card finance sales (~30%). Bajaj Finance leads in paper finance (followed by IDFC), whereas HDFC is foremost in credit card finance. Bajaj Finance holds 55–60% of Snehanjali's paper finance business. The former is highly efficient in carrying out money transfers within 2–3 hours of purchase. Credit card sales usually reflect only on the following day, making paper finance better for business.
- **Relief measures and the road ahead:** An extended lockdown could result in inventory liquidation and price wars. Snehanjali expects the government to implement relief measures such as interest-free loans and rental holidays. On the other hand, brands are expected to introduce good finance schemes, free installations and warranty extension measures. The company could comfortably meet its rental payments and other fixed costs if the lockdown ends on 14th April.



BIOCON: GETTING 'VOLUNTARY ACTION INDICATED' STATUS FOR MALAYSIAN UNIT A KEY DEVELOPMENT; Kiran Mazumdar Shaw, CMD

- This is an important EIR that we have received (Malaysian unit in terms of production of Glargine) and it is a good because it makes us feel confident that we will get the approval sooner than later.”
- Regarding timeline, have always said that it will be in the first half of this year. So, that is what company sticks by.
- Do have an opportunity to play very strongly in this segment. It is a USD 7 billion business globally and in US itself, it is a USD 4 billion business. So from that point of view, it has a huge opportunity and it is growing.
- Post COVID-19, there will be a huge effort to bring down healthcare costs and biosimilars are certainly going to be extremely important in this effort. Believe insulin therapies are also going to play a very important role in cost cutting and biosimilar glargine, insulins and others are going to be extremely important.
- (Regarding private labs conducting COVID-19 tests) The biggest worry is the way state governments are restricting private labs from testing. In Karnataka, we have cleared the way. Maharashtra has become extremely difficult. All the state governments, Maharashtra, Telangana, Gujarat, West Bengal, they have come on very heavily on to private labs. If you don't allow private labs to test large numbers, you are defeating the purpose of including private labs into this testing arena.

[➔ Read More](#)



THREE BIG QUESTIONS AFTER A WEEK'S LOCKDOWN

- The 21-day lockdown announced by Prime Minister Narendra Modi enters its second week on Tuesday. The entire healthcare sector has been stretched beyond state-capacity from an emergency-lockdown imposed across states. Testing kits and private protective gear for the medical staff still remain acutely short in supply while images of stranded daily-wage, migrant workers walking on highways in the hope of returning to their homes, evoked an emotive imagery. If one takes a step back to reason (and understand) both the cause and effect of India's measure of announcing a blanket lockdown to counter the spread of coronavirus, three big unknowns still remain a mystery, warranting a government explanation. The first unknown is in establishing a reasonable cause behind the announcement of a blanket 21-day nationwide lockdown by the Prime Minister. Even at this stage, we do not have enough public-health data, nor justification provided that could have alarmed a central government to an extent that it take such a draconian measure, and do so without consulting all state chief ministers or planning the likely ramifications in advance. The Indian Council of Medical Research (ICMR) still denies any evidence of community-level transmission of the virus and rejects the idea to pursue mass-scale, random testing. Was such a wide-scale and prolonged lockdown even needed in the Indian context? As observed in the recent numbers released by the health ministry on Covid-19 affected cases, the fatality rate of the virus in the Indian strain remains pretty low (at 2.6%), whereas, in Italy the strain of the virus has a fatality rate of 10%.

[→ Read More](#)

NOTES

Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	> - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

Disclosures:

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations). Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd., (PIMPL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOFSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://onlinereports.motilaloswal.com/Domain/documents/Associate%20Details.pdf>. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>. MOFSL, its associates, Research Analyst or their relative may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst may have actual/beneficial ownership of 1% or more securities in the subject company in the past 12 months. MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein, (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report. Research Analyst may have served as director/officer, etc. in the subject company in the past 12 months. MOFSL and/or its associates may have received any compensation from the subject company in the past 12 months.

In the past 12 months, MOFSL or any of its associates may have:

- a) managed or co-managed public offering of securities from subject company of this research report,
- b) received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- c) received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- d) Subject Company may have been a client of MOFSL or its associates in the past 12 months.

MOFSL and its associates have not received any compensation or other benefits from the subject company or third party in connection with the research report. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This report, however, not be treated as endorsement of the views expressed in the report. MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, it does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collateral, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures. Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, it does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collateral, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Disclosure of Interest Statement	Companies where there is interest
Analyst ownership of the stock	No

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to subject company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Financial Services Limited (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.:

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act") and together with the 1934 Act, the "Acts", and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited, ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered/qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore:

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co.Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore, as per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisers Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Disclaimer: The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alterations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, nor its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any of its affiliates and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No: 022 71934200/ 022-71934263; Website www.motilaloswal.com.
 CIN No.: L67190MH2005PLC153397. Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai- 400 064. Tel No: 022 7188 1000. Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: IN2000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579 ;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC); PMS (Registration No.: INP00000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML); PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.:022-71881085.* MOFSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Ben

