

Dalmia Bharat

Estimate change	↔
TP change	↔
Rating change	↔

Motilal Oswal values your support in the Asiamoney Brokers Poll 2020 for India Research, Sales and Trading team. We request your ballot.



Bloomberg	DALBHARA IN
Equity Shares (m)	193
M.Cap.(INRb)/(USDb)	105.9 / 1.4
52-Week Range (INR)	1149 / 406
1, 6, 12 Rel. Per (%)	5/-12/-36
12M Avg Val (INR M)	-

Financial Snapshot (INR bn)

Y/E MARCH	2020	2021E	2022E
Sales	96.7	87.1	108.5
EBITDA	21.1	17.2	21.9
Adj. PAT	2.2	-1.1	2.0
EBITDA Margin (%)	21.8	19.8	20.2
Adj. EPS (INR)	11.5	-5.5	10.1
EPS Gr. (%)	-27.3	-148.2	-283.0
BV/Sh. (INR)	541.6	536.1	542.6

Ratios

Net D:E	0.3	0.3	0.1
RoE (%)	2.1	-1.0	1.9
RoCE (%)	3.3	2.1	3.5
Payout (%)	17.2	0.0	29.3

Valuations

P/E (x)	48.8	-101.2	55.3
P/BV (x)	1.0	1.0	1.0
EV/EBITDA(x)	5.7	7.6	5.5
EV/ton (USD)	63.0	56.1	48.3
Div. Yield (%)	0.4	0.0	0.5
FCF Yield (%)	8.8	1.9	14.4

Shareholding pattern (%)

As On	Mar-20	Dec-19	Mar-19
Promoter	54.3	54.3	54.3
DII	5.6	6.4	4.5
FII	15.3	14.3	18.1
Others	24.9	25.0	23.2

FII Includes depository receipts

CMP: INR560 TP: INR705 (+26%) Buy

Capacity expansion to drive market share gains

Healthy cash flow to lead deleveraging

- Dalmia Bharat's (DBL) results highlight its market share gains with volume growth of 3% YoY in FY20, when industry volumes declined ~2% YoY. We expect this to continue, driven by ~30% capacity expansion in 18 months.
- We maintain our FY21/FY22E estimates and **Buy** rating. The commissioning of new capacities and ongoing deleveraging should drive re-rating.

Volume in line; EBITDA/t misses estimates

- Volumes declined 7.2% YoY to 5.17mt, in line with our estimate.
- Blended realization fell 5.9% YoY to INR4,803/t (+1.3% QoQ), 3% below our estimate of INR4,962/t.
- Total cost per ton (t) fell 3% YoY (in-line) to INR3,820/t (-0.6% QoQ), led by lower power and raw material costs.
- EBITDA per ton declined 16% YoY to INR983/t (+10% QoQ), 11% below our estimate of INR1,107/t due to miss on realization.
- EBITDA, thus, declined 22% YoY to INR5.1b (+11% QoQ), 10% below est. INR5.66b; EBITDA margin stood at 20.5% (-2.38pp YoY, +1.6pp QoQ).
- The company has changed its method of depreciation in North Eastern capacities from straight line to written down value method from 1st Jul'19. As a result, depreciation charge for 4QFY20 and FY20 is higher by INR670m and INR2.2b, respectively.
- Adj. PAT post minority interest stood at INR260m (-89% YoY) v/s est. INR252m.
- FY20 revenue/EBITDA/Adj. PAT came in at INR96.7b/INR21.1b/INR2.2b with YoY change of +2%/ +8.5%/ -27% YoY.
- Net debt fell to INR28.25b in FY20, implying Net Debt/EBITDA of 1.34x as compared to 1.61x in FY19. FCF for FY20 stood at INR9.4b (+24% YoY).

Highlights from management commentary

- Due to the COVID-19 lockdown, DBL lost 0.8mt volume in Mar'20, which led to INR1.5b loss of EBITDA in 4QFY20.
- In 4QFY20, there was an increase in raw material cost due to increase in slag prices (by 9% QoQ) and purchase of clinker. This was offset by lower power and fuel cost (from lower pet coke price) and lower freight cost.
- Gross debt stood at INR59.7b and net debt stood at INR28.25b for FY20. Due to uncertainty from COVID-19, DBL drew down additional debt and raised cash balances further in 4QFY20. Subsequently, some debt repayments have been made in 1QFY21.
- Incentive booked in revenue was INR1.25b in FY20 while INR4.09b of incentives (including old receivables) was received in FY20. Outstanding incentive receivable stands at INR7.0b as of Mar'20.
- 3.0mt new clinker line has been commissioned at Rajgangpur (Odisha), while commissioning of grinding units in Bihar and Orissa have been pushed ahead by 3-6 months to Dec'20 due to labor issues.

Amit Murarka - Research analyst (Amit.Murarka@motilaloswal.com) +91 22 6129 1538

Basant Joshi - Research analyst (Basant.Joshi@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.

Valuation and view

- DBL with its recent clinker expansion in East India is well placed to gain market share in the region. We estimate DBL's volume at 6% CAGR in FY20-22E, much higher than the industry's growth rate.
- We expect this growth to, however, come at the cost of lower price and margins, resulting in lack of EBITDA growth during this period.
- DBL should, however, still be able to generate strong FCF (in FY22E) and reduce its net debt substantially from ~INR28b currently. The stock trades at an attractive valuation of 5.5x FY22E EV/EBITDA and USD53/t of EV/capacity. Thus, we rate it a Buy and value the stock at 7.5x FY22E EV/EBITDA to arrive at a target price of INR705 (implied EV/t of USD60 on FY21E capacity).

Quarterly Performance (Consolidated)

(INR Million)

Y/E March	FY19				FY20				FY19	FY20	FY20	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q			4QE	Var (%)
Sales Dispatches (m ton)	4.51	4.13	4.47	5.57	4.55	4.47	5.10	5.17	18.68	19.23	5.11	1
YoY Change (%)	13.0	13.5	7.7	7.5	0.9	8.2	14.1	-7.2	10.1	3.0	-8.2	
Realization (INR/ton)	5,251	5,082	4,841	5,102	5,576	5,002	4,741	4,803	5,077	5,030	4,962	-3
YoY Change (%)	2.5	0.8	-2.9	0.6	6.2	-1.6	-2.1	-5.9	0.3	-0.9	-2.7	
QoQ Change (%)	3.5	-3.2	-4.7	5.4	9.3	-10.3	-5.2	1.3			4.7	
Net Sales	23,680	20,990	21,640	28,420	25,370	22,360	24,180	24,830	94,840	96,740	25,363	-2
YoY Change (%)	15.9	14.3	4.6	8.1	7.1	6.5	11.7	-12.6	10.5	2.0	-10.8	
Total Expenditure	18,440	17,090	17,840	21,930	18,710	17,610	19,610	19,750	75,420	75,680	19,703	
EBITDA	5,240	3,900	3,800	6,490	6,660	4,750	4,570	5,080	19,420	21,060	5,660	-10
Margins (%)	22.1	18.6	17.6	22.8	26.3	21.2	18.9	20.5	20.5	21.8	22.3	
Depreciation	3,050	3,030	3,320	3,560	3,420	4,060	4,050	3,750	12,960	15,280	4,422	
Interest	1,620	2,250	720	920	1,160	1,030	950	1,240	5,510	4,380	1,125	
Other Income	430	740	640	630	440	490	680	560	2,440	2,170	490	
PBT before EO Expense	1,000	-640	400	2,640	2,520	150	250	650	3,390	3,570	602	8
Extra-Ord expense	0	0	0	0	0	0	0	0	0	0	0	
PBT after EO Expense	1,000	-640	400	2,640	2,520	150	250	650	3,390	3,570	602	
Tax	460	-670	90	10	1,000	-210	-10	410	(100)	1,190	101	
Rate (%)	46.0	104.7	22.5	0.4	39.7	-140.0	-4.0	63.1	-2.9	33.3	16.7	
Reported PAT (pre minority)	540	30	310	2,630	1,520	360	260	240	3,490	2,380	502	-52
Minority + associate	0	40	30	350	50	90	20	-20	410	140	250	
PAT Adj for EO items	540	-10	280	2,280	1,470	270	240	260	3,080	2,240	252	3
YoY Change (%)	-25.0	-105.4	-47.2	78.1	172.1	-2,883.5	-14.3	-88.6	5.5	-27.3	-89.0	

E: MOFSL Estimates

Per ton analysis (blended) INR/t

Y/E March	FY19				FY20				FY19	FY20	FY20	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q			4QE	Var (%)
Sales Dispatches (m ton)	4.51	4.13	4.47	5.6	4.55	4.47	5.10	5.17	18.68	19.23	5.11	
YoY Change (%)	13.0	13.5	7.7	7.5	0.9	8.2	14.1	-7.2	10.1	3.0	-8.2	
Net realization	5,251	5,082	4,841	5,102	5,576	5,002	4,741	4,803	5,077	5,030	4,962	-3
YoY Change (%)	2.5	0.8	-2.9	0.6	6.2	-1.6	-2.1	-5.9	0.3	-0.9	-2.7	
RM Cost	980	860	817	1,118	930	841	845	998	956	908	822	21
Employee Expenses	373	400	356	280	380	378	331	317	347	351	363	-13
Power, Oil & Fuel	898	1,039	1,040	820	1,020	962	898	747	940	904	937	-20
Freight and Handling Outward	1,031	949	1,013	932	1,013	924	1,006	983	979	985	861	14
Other Expenses	807	891	765	786	769	834	765	776	816	810	872	-11
Total Expenses	4,089	4,138	3,991	3,937	4,112	3,940	3,845	3,820	4,037	3,958	3,855	-1
EBITDA	1,162	944	850	1,165	1,464	1,063	896	983	1,040	1,072	1,107	-11

Highlights from management commentary**COVID-19 Impact**

- Due to COVID-19 lockdown, DBL lost 0.8mt volume in Mar'20, which led to INR1.5b EBITDA loss in 4QFY20.
- Volumes have recovered in May'20, driven by pent-up demand and strength in the rural markets. Industry is, however, still operating at only 40-45% capacity utilization while DBL is operating at 15-20% below its potential utilization level.
- East India is seeing higher utilization as demand from IHB segment is strong due to movement of migrant labor back to their hometowns in the East. Among the East India states, Bihar and Jharkhand have the best demand.
- Floods in the North East had no impact on DBL's operations.
- DBL is currently not facing any issue regarding transportation, raw material and fuel availability.
- Management, however, remains cautious on demand outlook and is closely watching the evolving demand landscape post COVID-19.

Cost and pricing insights

- In 4QFY20, there was an increase in raw material cost due to increase in slag prices (by 9% QoQ) and purchase of clinker. This was offset by lower power, fuel cost (from lower pet coke price) and freight cost.
- Pet coke prices have softened further in 1QFY21 (from USD66/t in 4QFY20) and are expected to remain in the range of USD60-70/t in FY21.
- Slag and fly ash prices are also expected to remain stable.
- **Pricing:** 1QFY21 saw price hikes as almost every player raised prices to cover the higher cost of production; however, prices are still lower than May'19 prices.

Debt

- Gross debt stood at INR59.7b and net debt stood at INR28.25b for FY20.
- In order to safeguard liquidity in the wake of uncertainty from COVID-19, DBL drew down additional debt of INR6b in Mar'20 and raised cash balances further. Subsequently, INR3b debt repayment have been made in 1QFY21.
- Debt repayment of INR11.5b is scheduled for FY21, of this, INR7.0b has already been repaid in the current quarter.
- Current debt/EBITDA is 1.34x and management does not expect net debt to increase in FY21.

Capex

- 3.0mt new clinker line has been commissioned at Rajgangpur (Odisha), while commissioning of 4.5mt grinding units in Bihar and Orissa has been pushed ahead by 3-6 months to Dec'20 due to labor issues.
- Due to uncertainty of cash flows, DBL has not provided any capex guidance for FY21. Acquisition of Murli Industries will require INR4.0b payment in Jul'20.

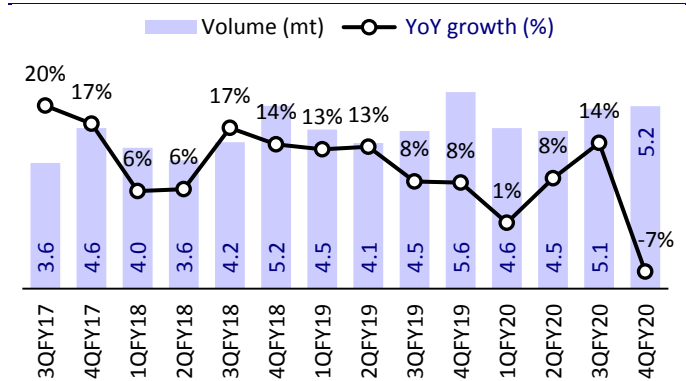
Others

- Incentive booked in revenue was INR1.25b in FY20 while INR4.09b of incentives (including old receivables) was received in FY20. Outstanding incentive receivable stands at INR7.0b as of Mar'20.

- Out of INR4.39b interest cost for FY20, INR0.58b is non-cash item; for 4QFY20, INR0.46b was non-cash item on account of forex fluctuation, which can be reversed going forward.
- Murli's cement plant would be operational over the next 12 months. The team is already in place to take care of business as when the plant starts.
- Green fuel stood at 6% of total fuel consumption in FY20 and management expects to take it to the level of 9-10% in FY21.
- The mutual fund issue is under resolution and timeline of the same is uncertain.

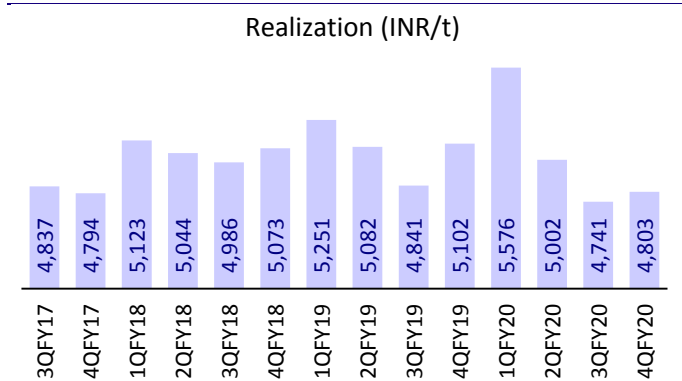
Key exhibits

Exhibit 1: Volumes down ~7% YoY in 4QFY20



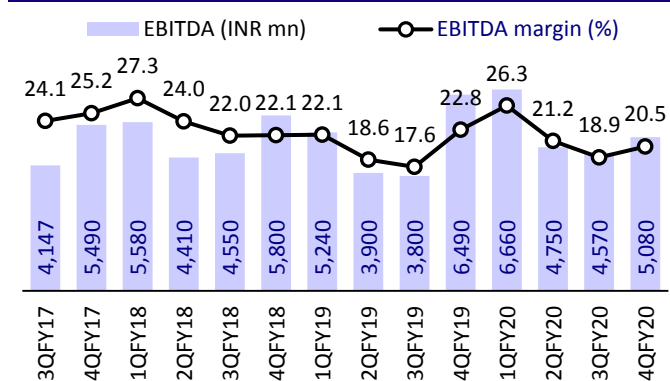
Source: Company, MOFSL

Exhibit 2: Blended realizations increased 1% QoQ



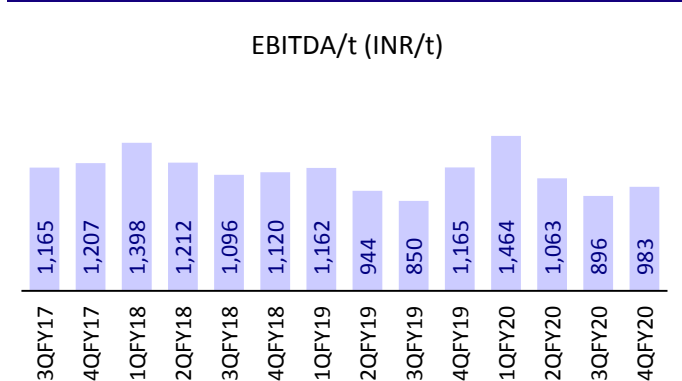
Source: Company, MOFSL

Exhibit 3: Trend in margins



Source: Company, MOFSL

Exhibit 4: Trend in EBITDA/t



Source: Company, MOFSL

Exhibit 5: DBEL — key operating indicators (incl. Management Services)

INR/Ton	4QFY20	4QFY19	YoY (%)	3QFY20	QoQ (%)
Realization	4,803	5,102	-6%	4,741	1%
RM Cost	998	1,118	-11%	845	18%
Power & Fuel	747	820	-9%	898	-17%
Staff Cost	317	280	13%	331	-4%
Freight & Forwarding	983	932	5%	1,006	-2%
Other Expenditure	776	786	-1%	765	1%
Total Expenditure	3,820	3,937	-3%	3,845	-1%
EBITDA	983	1,165	-16%	896	10%

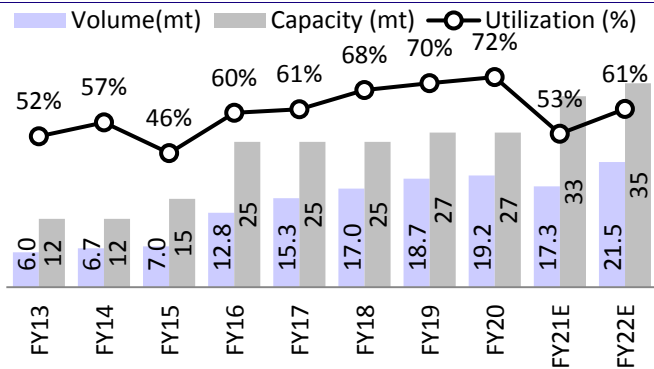
Source: Company, MOFSL

Valuation and view

- **Capacity addition in the East to drive volume growth:** DBL is currently expanding its cement capacity in East India by 8mt (30%) at capex of USD70/t; the capacity should get commissioned in phases over the next 6-18 months. A new clinker line of 3mt to support these cement grinding units has already been commissioned. Thus, we expect volumes to increase at 6% CAGR in FY20-22E, driven by market share gains in the region. The company has also received approval for acquiring Murli Industries, which has 3mt cement capacity in Maharashtra and would give DBL an exposure to the West India market.
- **High exposure to the East to keep margins in check:** With the capacity expansion, share of the East (including North East) in DBL's volume mix is estimated to increase from current levels of 60% to 65% in FY22E. This does not bode well for the company as the eastern region is likely to witness the highest amount of capacity addition (30% over next two years), which should keep pricing gains muted. We expect this growth to, however, come at the cost of lower price and margins, resulting in a lack of EBITDA growth during this period.
- **Valuation and View:** DBL should, however, still be able to generate strong FCF (in FY22E) and reduce its net debt substantially from ~INR28b currently. The stock trades at an attractive valuation of 5.5x FY22E EV/EBITDA and USD53/t of EV/capacity. Thus, we rate it a **Buy** and value the stock at 7.5x FY22E EV/EBITDA to arrive at a target price of INR705 (implied EV/t of USD60 on FY21E capacity).

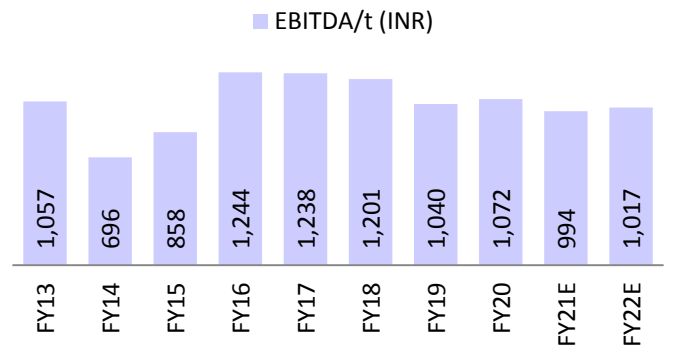
Story in Charts

Exhibit 6: Volume CAGR of ~6% over FY20-22E



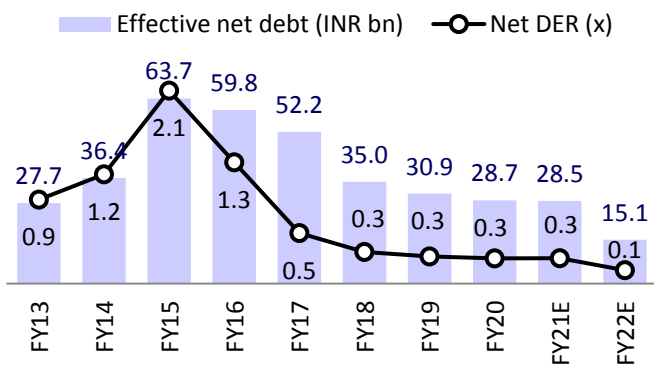
Source: MOFSL, Company

Exhibit 7: Trend in EBITDA/t



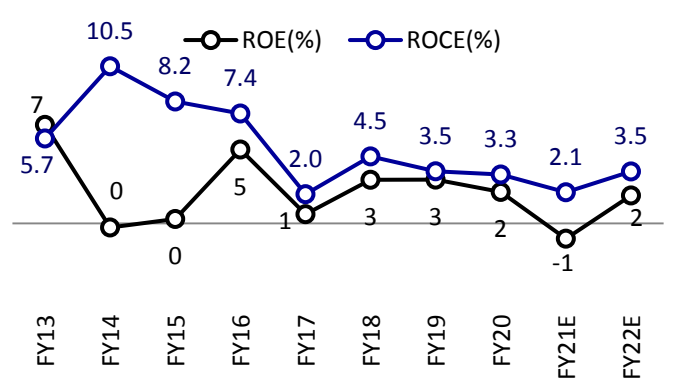
Source: MOFSL, Company

Exhibit 8: Net debt to reduce led by strong OCF in FY22E



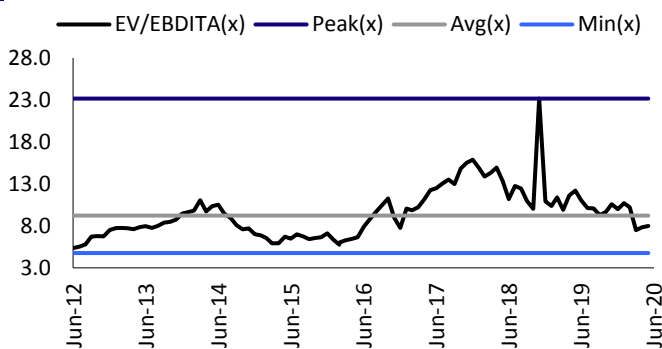
Source: MOFSL, Company

Exhibit 9: Trend in RoE/RoCE



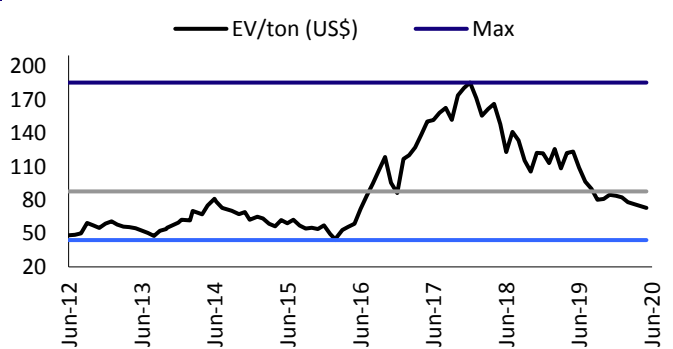
Source: MOFSL, Company

Exhibit 10: DBL's EV/EBITDA trend



Source: MOFSL, Company

Exhibit 11: DBL's EV/t trend



Source: MOFSL, Company

Financials and valuations

Income Statement							(INR Million)	
Y/E March	2015	2016	2017	2018	2019	2020	2021E	2022E
Net Sales	35,141	64,113	74,470	85,800	94,840	96,740	87,097	108,467
Change (%)	16.5	82.4	16.2	15.2	10.5	2.0	-10.0	24.5
EBITDA	6,025	15,916	18,940	20,360	19,420	21,060	17,231	21,894
Margin (%)	17.1	24.8	25.4	23.7	20.5	21.8	19.8	20.2
Depreciation	2,716	5,809	12,260	12,130	12,960	15,280	16,251	17,730
EBIT	3,309	10,107	6,680	8,230	6,460	5,780	980	4,164
Int. and Finance Charges	4,344	7,302	8,560	7,080	5,510	4,380	4,379	4,604
Other Income - Rec.	933	2,295	2,960	2,740	2,440	2,170	2,460	3,260
PBT bef. EO Exp.	-101	5,100	1,080	3,890	3,390	3,570	-939	2,820
EO Expense/(Income)	61	0	0	0	0	0	0	0
PBT after EO Exp.	-162	5,100	1,080	3,890	3,390	3,570	-939	2,820
Current Tax	134	1,323	740	1,080	1,120	1,140	0	705
Deferred Tax	335	1,132	0	-100	-1,220	50	0	0
Tax Rate (%)	-82.3	25.9	68.5	27.8	33.0	31.9	0.0	25.0
Reported PAT	-631	2,645	340	2,910	3,490	2,380	-939	2,115
Minority and Associates	661	-745	100	10	-410	-140	-140	-140
PAT Adj for EO items	92	1,900	440	2,920	3,080	2,240	-1,079	1,975
Change (%)	-208.9	1,972.1	-76.8	563.6	5.5	-27.3	-148.2	-283.0
Margin (%)	0.3	3.0	0.6	3.4	3.2	2.3	-1.2	1.8

Balance Sheet							(INR Million)	
Y/E March	2015	2016	2017	2018	2019	2020	2021E	2022E
Equity Share Capital	175	178	385	385	390	390	390	390
Total Reserves	30,527	45,715	95,905	1,02,965	1,06,000	105,220	104,141	105,420
Net Worth	30,702	45,893	96,290	1,03,350	1,06,390	105,610	104,531	105,810
Deferred capital invesment subsidy	273	1,439	1,120	1,200	1,290	1,400	1,400	1,400
Deferred Liabilities	4,006	16,746	12,860	13,250	11,880	12,050	12,050	12,050
Minority Interest	7,470	5,259	-290	-300	110	250	390	530
Total Loans	84,804	87,672	80,390	72,660	58,780	59,660	59,660	49,660
Capital Employed	1,27,254	1,57,009	1,90,370	1,90,160	1,78,450	178,970	178,031	169,450
Gross Block	1,03,767	1,30,273	1,69,740	1,62,870	1,66,210	165,420	186,600	193,180
Less: Accum. Deprn.	25,891	6,104	14,580	22,500	30,470	41,550	53,801	67,531
Net Fixed Assets	77,876	1,24,169	1,55,160	1,40,370	1,35,740	123,870	132,799	125,649
Capital WIP	19,142	2,360	1,280	1,730	5,200	17,020	5,000	2,000
Current Investment	15,829	25,547	26,410	34,080	23,150	26,980	26,980	26,980
Non current Investment	1,040	1,119	990	970	1,090	930	930	930
Curr. Assets, Loans&Adv.	30,147	26,502	27,920	35,510	39,300	36,590	35,804	43,134
Inventory	7,293	6,976	6,520	7,790	10,320	9,740	8,769	10,921
Account Receivables	5,101	5,100	5,300	5,640	5,490	3,970	4,295	5,349
Cash and Bank Balance	5,281	2,336	1,750	3,540	4,690	4,030	4,213	7,620
Loans and Advances	12,472	12,090	14,350	18,540	18,800	18,850	18,526	19,244
Curr. Liability & Prov.	16,781	22,687	21,390	22,500	26,030	26,420	23,482	29,243
Account Payables	15,833	18,745	19,140	20,970	23,430	24,380	21,645	26,955
Provisions	949	3,942	2,250	1,530	2,600	2,040	1,837	2,287
Net Current Assets	13,366	3,815	6,530	13,010	13,270	10,170	12,322	13,891
Appl. of Funds	1,27,254	1,57,009	1,90,370	1,90,160	1,78,450	178,970	178,031	169,450

E: MOFSL Estimates

Financials and valuations

Ratios

Y/E March	2015	2016	2017	2018	2019	2020	2021E	2022E
Basic (INR) *								
EPS	1.0	21.4	2.3	15.2	15.8	11.5	-5.5	10.1
Cash EPS	32.1	86.8	66.0	78.1	82.3	89.8	77.8	101.0
BV/Share	350.9	516.8	500.6	536.2	545.6	541.6	536.1	542.6
DPS	2.2	3.4	2.2	1.7	2.0	2.0	0.0	3.0
Payout (%)	NM	15.7	96.4	11.2	12.5	17.2	0.0	29.3
Valuation (x) *								
P/E					35.5	48.8	-101.2	55.3
Cash P/E					6.8	6.2	7.2	5.5
P/BV					1.0	1.0	1.0	1.0
EV/Sales					1.4	1.2	1.5	1.1
EV/EBITDA					6.9	5.7	7.6	5.5
EV/Ton (US\$)					70	63	56	48
Dividend Yield (%)					0.4	0.4	0.0	0.5
Return Ratios (%)								
RoIC	8.1	7.0	1.5	3.8	2.9	2.8	0.7	2.3
RoE	0.3	5.0	0.6	2.9	2.9	2.1	-1.0	1.9
RoCE	8.2	7.4	2.0	4.5	3.5	3.3	2.1	3.5
Working Capital Ratios								
Asset Turnover (x)	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.6
Inventory (Days)	76	40	32	33	40	37	37	37
Debtor (Days)	53	29	26	24	21	15	18	18
Leverage Ratio (x)								
Current Ratio	1.8	1.2	1.3	1.6	1.5	1.4	1.5	1.5
Debt/Equity	2.8	1.9	0.8	0.7	0.6	0.6	0.6	0.5

Cash Flow Statement

Y/E March	2015	2016	2017	2018	2019	2020	2021E	2022E
(INR Million)								
OP/(Loss) before Tax	-162	5,100	1,080	3,890	3,390	3,570	-939	2,820
Depreciation	2,716	5,809	12,260	12,130	12,960	15,280	16,251	17,730
Interest & Finance Charges	4,344	7,302	8,560	7,080	5,510	3,640	4,379	4,604
Direct Taxes Paid	-1,354	-304	-190	-860	-240	-660	0	-705
(Inc)/Dec in WC	677	3,054	-280	-3,590	1,500	2,740	-1,975	1,851
CF from Operations	6,221	20,961	21,430	18,650	23,120	24,570	17,716	26,301
Others	-772	-1,812	-2,680	-2,590	-2,220	-1,710	-2,460	-3,260
CF from Operating incl EO	5,448	19,149	18,750	16,060	20,900	22,861	15,256	23,041
(Inc)/Dec in FA	-4,953	-4,141	-3,920	-3,930	-13,290	-13,450	-13,160	-7,580
Free Cash Flow	496	15,008	14,830	12,130	7,610	9,411	2,096	15,461
(Pur)/Sale of Investments	-26,143	-13,567	1,680	3,950	10,320	-4,970	71	-157
Others	740	616	394	1,350	2,870	820	2,460	3,260
CF from Investments	-30,356	-17,093	-1,846	1,370	-100	-17,600	-10,629	-4,477
Issue of Shares	0	11	-390	40	40	0	0	0
Inc/(Dec) in Debt	34,985	4,129	-9,000	-7,730	-13,870	120	-65	-9,856
Interest Paid	-5,432	-8,607	-8,100	-7,620	-5,420	-4,680	-4,379	-4,604
Dividend Paid	-209	-534	0	-330	-400	-930	0	-696
Others	0	0	0	0	0	-430	0	0
CF from Fin. Activity	29,345	-5,002	-17,490	-15,640	-19,650	-5,920	-4,443	-15,157
Inc/Dec of Cash	4,437	-2,945	-586	1,790	1,150	-660	183	3,407
Opening Balance	844	5,281	2,336	1,750	3,540	4,690	4,030	4,213
Closing Balance	5,281	2,336	1,750	3,540	4,690	4,030	4,213	7,620

Explanation of Investment Rating	
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 - MOSL) 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/Dormant/documents/List%20of%20Associate%20companies.pdf>

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

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. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

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 Securities (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 Advisors 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.

Specific Disclosures

- 1 MOFSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- 2 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOFSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company
- received compensation/other benefits from the subject company in the past 12 months
- 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.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 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)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

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, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

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.

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.

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 alternations 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, not 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, any 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 errors 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)*: INZ000158836(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.: INP000000670); 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.

* MOSL 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 Bench.