

Estimate changes

TP change

Rating change



Motilal Oswal values your support in the Asiamoney Brokers Poll 2021 for India Research, Sales, Corporate Access and Trading team. We [request your ballot](#).



Bloomberg	EXID IN
Equity Shares (m)	850
M.Cap.(INRb)/(USD\$)	151.8 / 2
52-Week Range (INR)	221 / 150
1, 6, 12 Rel. Per (%)	-2/-21/-23
12M Avg Val (INR M)	755

Financials & Valuations (INR b)

Y/E MARCH	2021	2022E	2023E
Net Sales	100.4	118.4	133.4
EBITDA	13.6	15.4	18.9
Adj. PAT	7.6	8.8	11.6
Adj. EPS (INR)	8.9	10.4	13.6
EPS Gr. (%)	-10.0	16.3	31.0
BV/Sh. (INR)	81.1	88.3	98.7

Ratio

Net D:E	-0.1	-0.3	-0.3
RoE (%)	11.0	11.8	13.8
RoCE (%)	11.8	12.6	14.7
Payout (%)	22.4	30.8	23.5

Valuations

P/E (x)	20.0	17.2	13.1
P/BV (x)	2.2	2.0	1.8
Div Yield (%)	1.1	1.8	1.8
FCF Yield (%)	7.1	9.1	6.4

Shareholding pattern (%)

As On	Jun-21	Mar-21	Jun-20
Promoter	46.0	46.0	46.0
DII	23.3	24.6	22.9
FII	11.8	12.0	9.1
Others	18.9	17.5	22.1

FII Includes depository receipts

CMP: INR179
TP: INR215 (+20%)
Buy

Revenue beat; margin impacted by higher RM cost

Captive smelters dilute higher lead prices

- EXID's topline performance was driven by growth in both Auto and Industrial segments in 1QFY22, while margin was restricted due to commodity cost inflation. We expect a cyclical recovery in demand from the OEM segment in FY22, along with strength in the Aftermarket segment, with a continuous shift from the unorganized to the organized segment.
- We largely maintain our earnings estimate. We maintain our **Buy** rating, with a TP of ~INR215/share (~14x FY23 EPS + INR25/share for the Insurance business).

Higher lead cost inflation hurt margin

- Revenue/EBITDA/PAT declined by 15%/37%/49% QoQ (+61%/+75.5%/+185% YoY) to INR24.9b/INR2.6b/INR1.25b in 1QFY22.
- Gross margin contracted by 280bp QoQ (+20bp YoY) to 31.5% (est. 34.5%) due to lead cost inflation.
- EBITDA margin fell 350bp QoQ (+90bp YoY) to 10.5% (est. 11.1%). This was due to operating deleverage and higher staff costs (up by 110bp QoQ to 7.4% as a percentage of sales). EBITDA declined by 37% QoQ (+75.5% YoY) to INR2.6b (est. INR2.2b).
- Adjusted PAT declined by 49% QoQ (+185%YoY) to ~INR1.25b (est. ~INR1b).

Highlights from the press release

- Growth was achieved by both the Automotive and Industrial divisions, despite COVID-related disruptions in 1QFY22.
- Replacement volumes for both Automotive and UPS batteries were robust.
- Demand from Infrastructure, OEM, and Export markets exceeded the company's expectations.
- The company is focusing on sales transformation and various cost control measures as core strategies to boost profits.

Valuation and view

- We largely maintain our earnings estimates. EXID would see a lesser impact of lead price inflation on account of its captive smelter. It should have a better mix, owing to a higher Aftermarket share.
- We prefer EXID as it offers a superior risk-reward considering its market leadership, technological alliances, backward integration, and better mix.
- Lithium batteries pose a risk to the 2W and 3W segment (~15% of revenue) and Industrial segment (~26% of revenue).
- The stock trades at 17.2x/13.1x FY22E/FY23E standalone EPS. We cut our P/E multiple to 14x from 15x to account for risk from EVs. Valuing it ~14x standalone Mar'23E EPS + INR25/share for the Life Insurance business, we maintain our **Buy** rating with a TP of ~INR215 per share.

Standalone quarterly performance

(INR m)

Y/E March	FY21				FY22E				FY21	FY22E	FY22E
	1Q	2Q	3Q	4Q	1Q	2QE	3QE	4QE			1QE
Net Sales	15,476	27,534	28,010	29,388	24,864	30,012	31,371	32,166	1,00,408	1,18,413	20119
Growth YoY (%)	-44	5	16	43	61	9	12	9	2	17.9	30
EBITDA	1,485	3,920	4,028	4,123	2,606	3,722	4,368	4,690	13,556	15,387	2223
Change (%)	-64	7	26	53	76	-5	8	14	-1	13.5	50
Depreciation	914	953	953	974	1009	1050	1070	1089	3794	4,218	1000
Interest	14	63	76	85	109	80	60	71	238	320	75
Non-Operating Income	70	148	201	235	152	225	250	276	654	902	230
PBT after EO Exp.	627	3,052	3,200	3,300	1,640	2,817	3,488	3,806	10,179	11,752	1378
Tax	188	764	786	859	385	702	870	973	2596	2,930	344
Effective Tax Rate (%)	30	25	25	26	24	25	25	26	26	24.9	25
Adj. PAT	440	2,288	2,414	2,441	1,254	2,115	2,619	2,834	7,583	8,821	1035
Change (%)	-80	-4	13	45	185	-8	8	16	-10	16.3	135

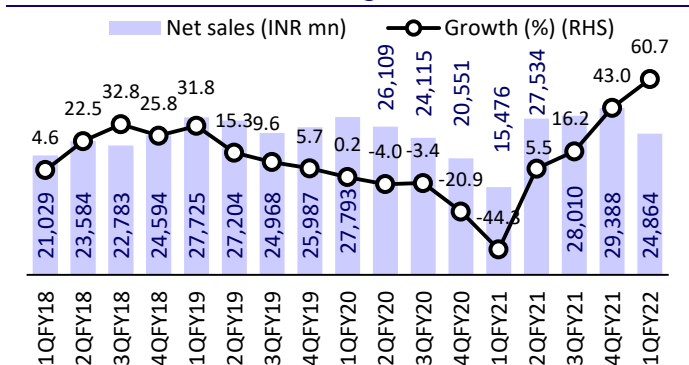
Key performance indicators

Cost Break-up											
RM (%)	68.8	65.0	64.1	65.7	68.5	67.5	66.0	65.2	65.5	66.7	65.5
Employee cost (%)	9.0	6.9	7.4	6.3	7.4	6.5	6.4	6.3	7.2	6.6	8.4
Other Exp. (%)	12.6	13.9	14.1	14.0	13.6	13.6	13.7	13.9	13.8	13.7	15.0
Gross Margin (%)	31.2	35.0	35.9	34.3	31.5	32.5	34.0	34.8	34.5	33.3	34.5
EBITDA Margin (%)	9.6	14.2	14.4	14.0	10.5	12.4	13.9	14.6	13.5	13.0	11.1
EBIT Margin (%)	3.7	10.8	11.0	10.7	6.4	8.9	10.5	11.2	9.7	9.4	6.1
Lead Price (INR/kg)	127.4	139.2	140.3	146.7	156.2				138.4	156.2	154.7
Change (%)	-2.8	-2.5	-3.6	9.9	22.6				0.1	12.8	21.4

E: MOFSL estimates

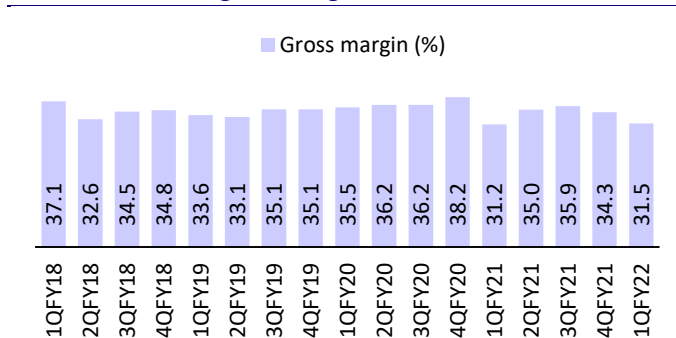
Key exhibits

Exhibit 1: Trend in revenue and growth



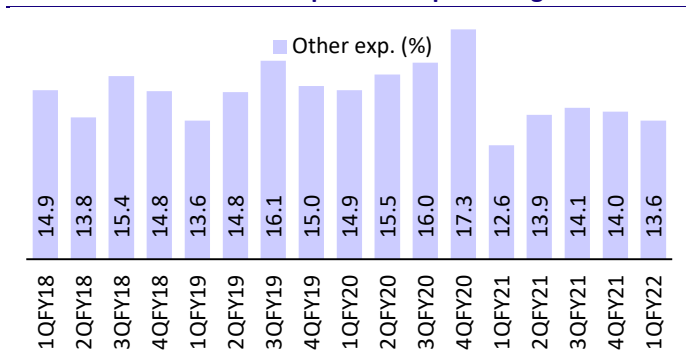
Source: Company, MOFSL

Exhibit 2: Trend in gross margin



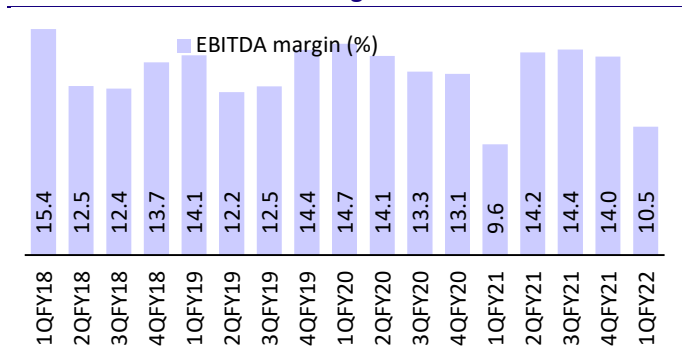
Source: Company, MOFSL

Exhibit 3: Trend in other expense as a percentage of sales

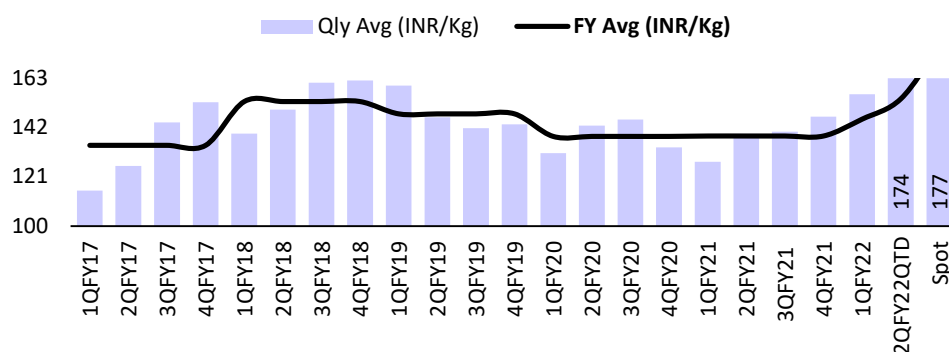


Source: Company, MOFSL

Exhibit 4: Trend in EBITDA margin



Source: Company, MOFSL

Exhibit 5: Spot lead prices are ~13% higher than its 1QFY22 average

Source: Company, MOFSL

Valuation and view

- Industry structure remains a duopoly; EXID leads:** While the industry structure remains largely a duopoly, EXID is the largest lead acid Battery manufacturer in India, with leadership in Auto OEMs and the Replacement segment. Over FY13-17, EXID clocked 5.9%/7.3% CAGR in net sales/PAT, below competitor AMRJ's CAGR of 15.9%/13.1%. This was due to AMRJ's technological innovations – it was the first to introduce maintenance free, factory-charged, extended-warranty batteries – and unique distribution model (franchisee-based), supported by operational efficiency-led competitive pricing. However, EXID has largely caught up with competitors by investing in technology and being more proactive in terms of customer service and about plugging the gaps in its product portfolio.
- EXID to defend top position:** With a recovery in demand from Auto OEMs and the Industrial segment, EXID should improve its market share. OEM demand has started showing signs of recovery by the end of Jun'21 after the gradual opening of markets that were shut due to localized lockdowns imposed by states. We expect value migration from unorganized to organized players such as EXID and AMRJ in the Replacement segment, driven by tax reforms such as GST, and lower corporate tax rates. Healthy replacement demand would lead to better capacity utilization and margin.
- Electrification of 2Ws/3Ws a risk for lead acid Battery players:** The government is pushing for the electrification of 3Ws/2Ws from CY23/CY25. The incentives offered by the government (FAME-2), coupled with the recently announced EV policies of states, have brought e-2W prices almost at similar levels as its ICE counterparts. Unlike e-Cars, e-2Ws/e-3Ws do not require a lead acid battery as an auxiliary battery. This would impact 15-20% of revenue of lead acid Battery players. Lithium also poses a risk to the industrial batteries (~26% of revenue). Some concrete steps in this direction would potentially lead to the de-rating of the P/E multiple (due to a decline in terminal growth).
- Valuation and view:** We maintain our FY22E/FY23E EPS, factoring in stronger revenue and gross margin. EXID would see a higher benefit from lead prices v/s AMRJ due to its captive smelter. EXID should have a better mix, owing to higher Aftermarket share. We prefer EXID as it offers a superior risk-reward considering its market leadership, technological alliances, backward integration, and better mix. The stock trades at 17.2x/13.1x FY22E/FY23E standalone EPS. We cut our

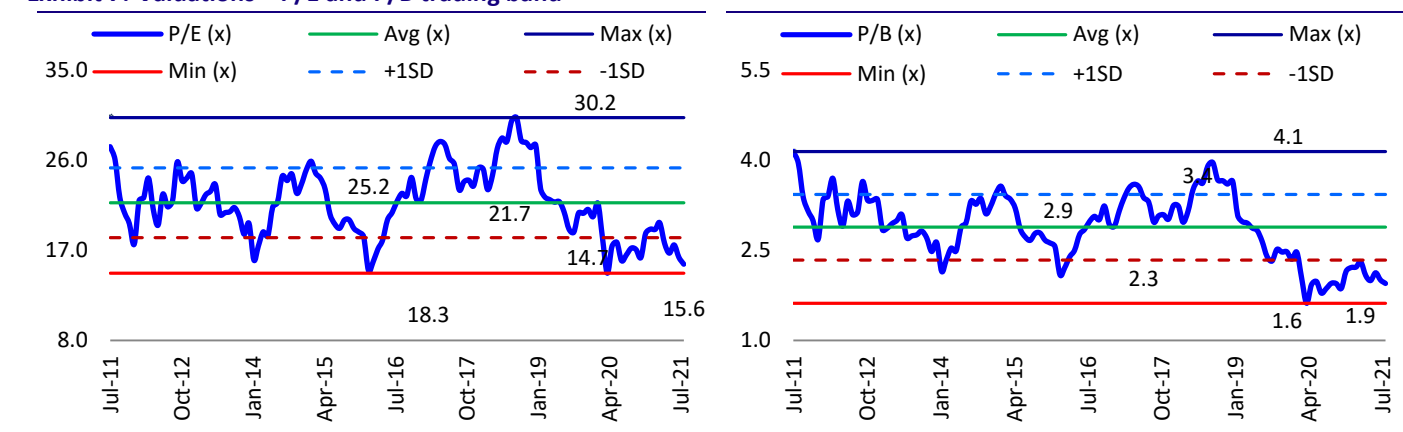
P/E multiple to 14x from 15x to account for risk from EVs. Valuing it ~14x standalone Mar'23E EPS + INR25/share for the Life Insurance business, we maintain our **Buy** rating with a TP of ~INR215 per share.

Exhibit 6: Revised estimates

(INR m)	FY22E			FY23E		
	Revised	Old	Change (%)	Revised	Old	Change (%)
Net Sales	1,18,413	1,14,906	3.1	1,33,411	1,29,695	2.9
EBITDA Margin (%)	13.0	13.1	-10bp	14.1	14.0	20bp
PAT	8,821	8,704	1.4	11,553	11,024	4.8
EPS (INR)	10.4	10.2	1.4	13.6	13.0	4.8

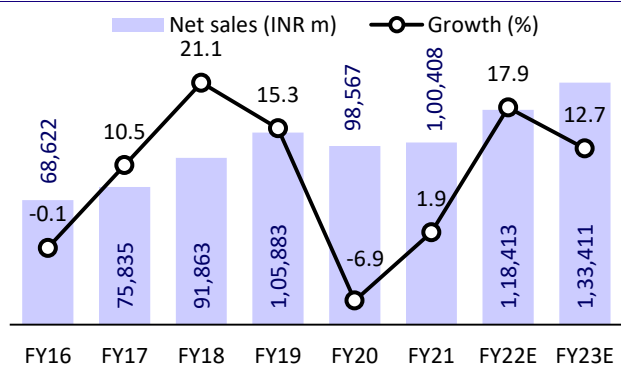
Source: MOFSL

Exhibit 7: Valuations – P/E and P/B trading band



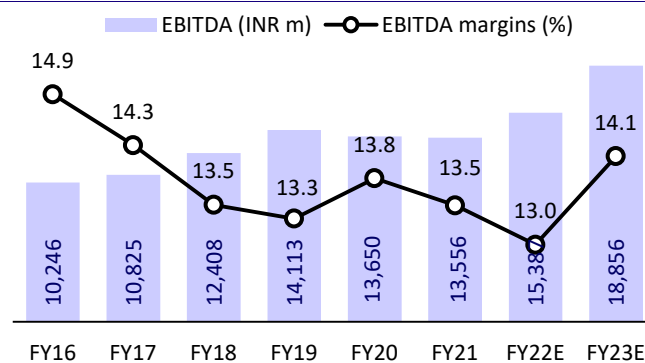
Story in charts

Exhibit 8: Trend in revenue and growth



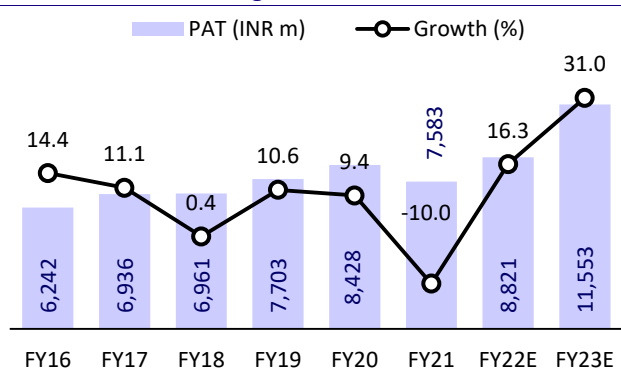
Source: Company, MOFSL

Exhibit 9: Trend in EBITDA and EBITDA margin



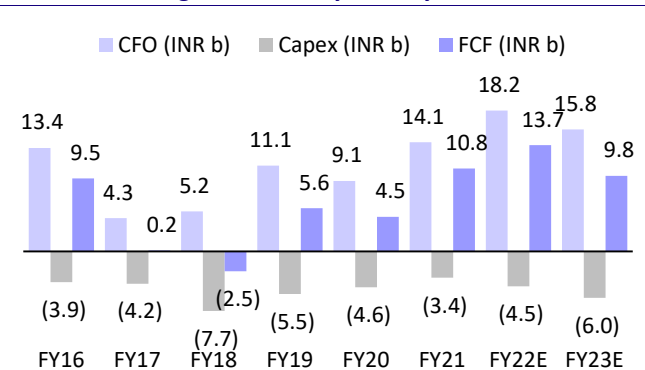
Source: Company, MOFSL

Exhibit 10: PAT and PAT growth trend



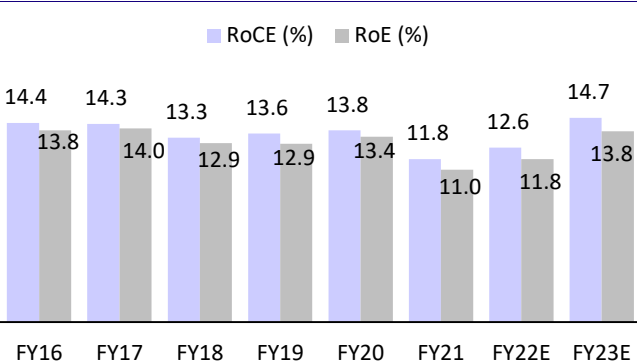
Source: Company, MOFSL

Exhibit 11: Strong FCF driven by healthy CFO



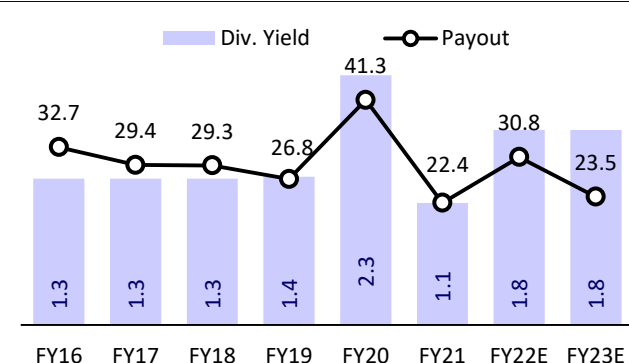
Source: Company, MOFSL

Exhibit 12: Trend in return ratios



Source: Company, MOFSL

Exhibit 13: Dividend yield and dividend payout (%) trend



Source: Company, MOFSL

Financials and valuations

Income Statement							(INR Million)	
Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E
Net Sales	68,477	75,835	91,863	1,05,883	98,567	1,00,408	1,18,413	1,33,411
Change (%)	-0.3	10.7	21.1	15.3	-6.9	1.9	17.9	12.7
Total Expenditure	58,376	65,010	79,456	91,770	84,916	86,852	1,03,025	1,14,554
EBITDA	10,246	10,825	12,408	14,113	13,651	13,557	15,388	18,857
EBITDA Margins (%)	14.9	14.3	13.5	13.3	13.8	13.5	13.0	14.1
Change (%)	12.2	5.7	14.6	13.7	-3.3	-0.7	13.5	22.5
Depreciation	1,579	2,063	2,459	3,135	3,626	3,794	4,218	4,540
EBIT	8,666	8,762	9,948	10,978	10,025	9,763	11,170	14,317
Interest Charges	3	43	52	61	94	238	320	200
Other Income	416	1,039	584	385	639	654	902	1,268
EO Exp/(Inc)	-	-	418	(1,083)	217	-	-	-
PBT	9,080	9,757	10,062	12,386	10,352	10,179	11,752	15,383
Tax	2,837	2,821	3,378	3,945	2,097	2,596	2,930	3,830
Effective Rate (%)	31.2	28.9	33.6	31.9	20.3	25.5	24.9	24.9
Rep. PAT	6,242	6,936	6,683	8,440	8,255	7,583	8,821	11,553
Change (%)	14.4	11.1	-3.6	26.3	-2.2	-8.1	16.3	31.0
Adj. PAT	6,242	6,936	6,961	7,703	8,428	7,583	8,821	11,553
Change (%)	14.4	11.1	0.4	10.6	9.4	-10.0	16.3	31.0

Balance Sheet							(INR Million)	
Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E
Share Capital	850	850	850	850	850	850	850	850
Reserves	44,264	48,786	53,043	59,020	62,111	68,085	74,186	83,020
Net Worth	45,114	49,636	53,893	59,870	62,961	68,935	75,036	83,870
Loans	1,025	1,702	0	0	0	0	0	0
Deferred Tax Liability	1,270	1,552	1,405	1,751	1,019	771	1,123	1,585
Capital Employed	47,409	52,890	55,298	61,621	63,980	69,706	76,159	85,454
Application of Funds								
Gross Fixed Assets	14,206	19,058	25,588	32,069	36,823	41,285	44,792	50,792
Less: Depreciation	1,551	3,598	6,005	9,097	10,107	13,901	18,118	22,659
Net Fixed Assets	12,654	15,460	19,583	22,973	26,716	27,384	26,674	28,133
Capital WIP	1,858	1,414	2,335	2,549	2,969	2,008	3,000	3,000
Investments	26,978	26,755	19,690	21,994	20,708	30,586	33,086	35,586
Curr.Assets	20,680	24,143	32,361	34,208	35,008	36,978	44,897	53,803
Inventory	11,335	15,274	17,602	18,040	21,923	23,462	20,114	22,662
Sundry Debtors	6,039	6,217	9,434	10,812	8,154	8,875	11,355	12,793
Cash & Bank Balances	738	196	872	736	1,546	914	9,032	13,396
Loans & Advances	228	235	272	322	322	383	452	509
Other Current Assets	2,340	2,222	4,181	4,299	3,064	3,345	3,945	4,444
Current Liab. & Prov.	14,762	14,881	18,671	20,103	18,441	26,582	30,917	34,489
Sundry Creditors	7,449	7,679	10,787	11,428	10,361	16,483	19,438	21,900
Other Liabilities	4,184	4,556	5,091	5,539	4,478	6,856	7,137	8,041
Provisions	3,129	2,647	2,793	3,136	3,602	3,244	4,342	4,548
Net Current Assets	5,918	9,262	13,690	14,105	16,567	10,396	13,979	19,315
Application of Funds	47,409	52,890	55,298	61,621	66,960	70,373	76,739	86,034

E: MOFSL Estimates

Financials and valuations

Ratios

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E
Basic (INR)								
EPS	7.3	8.2	8.2	9.1	9.9	8.9	10.4	13.6
Cash EPS	9.2	10.6	11.1	12.8	14.2	13.4	15.3	18.9
Book Value per Share	53.1	58.4	63.4	70.4	74.1	81.1	88.3	98.7
DPS	2.4	2.4	2.4	2.4	4.1	2.0	3.2	3.2
Payout (Incl. Div. Tax) %	32.7	29.4	29.3	26.8	41.3	22.4	30.8	23.5
Valuation (x)								
P/E	24.3	21.9	21.8	19.7	18.0	20.0	17.2	13.1
Cash P/E	19.4	16.9	16.1	14.0	12.6	13.3	11.6	9.4
EV/EBITDA	12.2	11.7	10.6	9.1	9.5	8.9	7.1	5.5
EV/Sales	1.8	1.7	1.4	1.2	1.3	1.2	0.9	0.8
Price to Book Value	3.4	3.1	2.8	2.5	2.4	2.2	2.0	1.8
Dividend Yield (%)	1.3	1.3	1.3	1.4	2.3	1.1	1.8	1.8
Profitability Ratios (%)								
RoE	13.8	14.0	12.9	12.9	13.4	11.0	11.8	13.8
RoCE	14.4	14.3	13.3	13.6	13.8	11.8	12.6	14.7
RoIC	30.1	29.4	23.2	21.8	21.3	19.4	24.9	33.3
Turnover Ratios								
Debtors (Days)	32	30	37	37	30	32	35	35
Inventory (Days)	60	74	70	62	81	85	62	62
Creditors (Days)	40	37	43	39	38	60	60	60
Working Capital (Days)	53	66	65	60	73	58	37	37
Gross Fixed Asset Turnover (x)	4.8	4.0	3.6	3.3	2.7	2.4	2.6	2.6
Leverage Ratio								
Net Debt/Equity (x)	-0.2	-0.2	-0.1	-0.1	0.0	-0.1	-0.3	-0.3

Cash Flow Statement

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E
								(INR Million)
OP/(Loss) before Tax	9,019	9,757	10,062	12,386	10,352	10,179	11,169	14,316
Interest/Dividends Received	-413	-898	-358	-217	-429	-362	902	1,268
Depreciation & Amortisation	1,579	2,063	2,459	3,135	3,626	3,794	4,218	4,540
Direct Taxes Paid	-2,684	-2,812	-3,503	-3,733	-2,494	-2,721	-2,578	-3,368
(Inc)/Dec in Working Capital	5,783	-3,840	-3,563	-468	-2,155	3,044	4,535	-971
CF from Oper. Activity	13,398	4,311	5,166	11,121	9,137	14,134	18,246	15,784
CF after EO Items	13,398	4,311	5,166	10,038	9,137	14,134	18,246	15,784
(Inc)/Dec in FA+CWIP	-3,948	-4,158	-7,714	-5,510	-4,646	-3,384	-4,500	-6,000
Free Cash Flow	9,450	153	-2,548	5,611	4,491	10,750	13,746	9,784
(Pur)/Sale of Invest.	-7,512	1,086	7,433	-2,147	1,397	-9,385	-2,500	-2,500
CF from Inv. Activity	-11,460	-3,072	-280	-7,656	-3,249	-12,769	-7,000	-8,500
Interest Rec./ (Paid)	-13	-37	-58	-61	-100	-289	-320	-200
Dividends Paid	-2,334	-2,417	-2,449	-2,459	-4,986	-1,700	-2,720	-2,720
CF from Fin. Activity	-1,497	-1,782	-4,209	-2,520	-5,086	-1,989	-3,040	-2,920
Inc/(Dec) in Cash	441	-543	676	-138	802	-623	8,206	4,364
Add: Beginning Balance	298	738	196	785	647	1,449	826	9,032
Closing Balance	739	195	872	647	1,449	826	9,032	13,396

E: MOFSL Estimates

NOTES

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.