

Estimate changes

TP change

Rating change



CMP: INR475

TP: INR430 (-9%)

Neutral

Bloomberg	EXID IN
Equity Shares (m)	850
M.Cap.(INRb)/(USDb)	403.5 / 4.9
52-Week Range (INR)	496 / 204
1, 6, 12 Rel. Per (%)	4/53/104
12M Avg Val (INR M)	1642

Financials & Valuations (INR b)

Y/E MARCH	FY24	FY25E	FY26E
Net Sales	160.3	178.1	196.0
EBITDA	18.7	23.3	26.1
Adj. PAT	10.5	13.9	16.0
Adj. EPS (INR)	12.4	16.4	18.9
EPS Gr. (%)	16.5	32.1	15.2
BV/Sh. (INR)	154.6	167.7	183.4

Ratio

RoE (%)	8.0	9.8	10.3
RoCE (%)	8.9	10.3	10.7
Payout (%)	16.1	19.6	17.0

Valuations

P/E (x)	38.3	29.0	25.2
P/BV (x)	3.1	2.8	2.6
Div Yield (%)	0.4	0.7	0.7
FCF Yield (%)	3.7	2.0	3.5

Shareholding pattern (%)

As On	Mar-24	Dec-23	Mar-23
Promoter	46.0	46.0	46.0
DII	18.6	19.2	18.9
FII	13.6	12.9	12.3
Others	21.9	21.8	22.8

FII Includes depository receipts

Operational beat; LAB outlook upbeat

Outlook for lithium ion foray remains uncertain

- EXID's 4QFY24 operating performance beat our estimates, mainly led by an improved mix and lower RM costs. The company noted that all the verticals saw healthy growth, with the industrial division growing in double digits on a high base.
- We raise our FY25E/FY26E EPS by ~10%/13% to factor in an improved demand environment and a reduction in input costs. However, while the market seems to be upbeat about EXID's lithium ion foray, we remain circumspect about the returns from the business. After the recent run-up, the stock at ~29x/25x FY25E/FY26E EPS appears fairly valued. We, hence, maintain Neutral rating on the stock with a revised TP of INR430 (based on 20x FY26E EPS + INR52/share for HDFC Life stake).

Earnings beat driven by improved mix

- EXID's 4QFY24 revenue/EBITDA/adj. PAT grew 13%/41%/36.5% YoY to INR40.1b/INR5.2b/INR2.8b (vs. est. INR40.7b/INR4.9b/INR2.8b). Its FY24 revenue/EBITDA/adj. PAT grew 10%/19%/17% YoY.
- 4Q revenue growth was mainly driven by volumes. There was no price hike during the quarter.
- Gross margin expanded 320bp YoY (+150bp QoQ) to 33% (est. 31.8%) due to an improved mix and a decline in lead prices by 2% YoY. Further, despite higher other expenses (+80bp YoY; as a % of sales), EBITDA margin expanded 250bp YoY to 12.9% (est. 11%).
- Margins in 4Q were higher, driven by: i) favorable lead price movement, ii) a better mix of higher-margin products, iii) a higher replacement to OEM ratio, and iv) benefits of cost optimization initiatives.
- Despite lower other income, adj. PAT grew 36.5% YoY to ~INR2.8b (in line).
- FY24 FCFF rose to INR15.1b (vs. INR5b in FY23) due to better CFO at INR20b (vs. INR8.5b in FY23) despite higher capex of INR4.8b (vs. INR3.5b in FY23).
- The board declared a final dividend of INR2/share for FY24, flat YoY.

Highlights from the management commentary

- **LAB business outlook:** The outlook on both auto and industrial segments remains upbeat. The industrial segment will benefit from the power backup requirement for data centers. Thermal power generation is seeing a strong comeback and should see incremental demand with growth visibility for the next 5-6 years.
- 4Q witnessed **strong volume growth** across verticals of OEMs, exports, and aftermarket. The industrial segment grew in double digits on a high base of last year, mainly due to a push from the infra segment. **EXID did not hike prices in 4Q** but took calibrated price hikes in FY24.
Li-ion business outlook: EXID has already invested INR23.3b in EESL and would further invest INR30b, taking total investments to ~ INR50b. SOP for its plant will come by 4QFY25 and EXID is confident of garnering sufficient orders to ramp up the plant going forward.

Research analyst - Aniket Mhatre (Aniket.Mhatre@MotilalOswal.com)

Research analyst - Amber Shukla (Amber.Shukla@MotilalOswal.com) | Aniket Desai - (Aniket.Desai@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

- The lead acid battery business is seeing good demand momentum across both auto and industrial segments and EXID is expected to emerge as the key beneficiary of this upbeat demand given its market leadership in most segments.
- While its LAB business remains on a firm footing, we believe its foray into the lithium ion segment is froth with multiple challenges in the long run. Also, while the market seems to be upbeat about the lithium ion foray, we remain circumspect about the returns from the business. After the recent run-up, the stock at ~29x/25x FY25/26E EPS appears fairly valued. We, hence, maintain Neutral rating on the stock with a revised TP of INR430 (based on 20x FY26E EPS + INR52/share for HDFC Life stake).

S/A Quarterly Performance

Y/E March	FY23				FY24				FY23	FY24	4QE
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q			
Net Sales	38,994	37,189	34,121	35,430	40,726	41,067	38,405	40,094	1,45,919	1,60,292	40,737
Growth YoY (%)	56.8	13.0	6.7	3.7	4.4	10.4	12.6	13.2	17.6	9.8	15.0
RM(%)	72.1	69.5	67.7	70.2	71.7	68.9	68.5	67.0	69.9	69.1	68.2
Employee cost (%)	5.5	5.9	6.3	6.2	5.8	6.2	6.4	6.1	6.0	6.1	6.3
Other Exp(%)	12.5	13.5	14.3	13.3	11.8	13.1	13.6	14.1	13.4	13.1	13.5
Total Cost	35,127	33,065	30,111	31,758	36,404	36,235	34,006	34,932	1,30,239	1,41,578	35,868
EBITDA	3,866	4,124	4,010	3,672	4,322	4,831	4,399	5,162	15,680	18,714	4,869
EBITDA Margin(%)	9.9	11.1	11.8	10.4	10.6	11.8	11.5	12.9	10.7	11.7	12.0
Non-Operating Income	322	356	234	412	192	392	227	34	1,324	845	232
Interest	64	62	82	83	98	115	145	128	295	486	142
Depreciation	1,091	1,120	1,153	1,193	1,194	1,259	1,274	1,248	4,558	4,975	1,279
PBT after EO Exp	3,034	3,298	3,009	2,808	3,222	3,849	3,208	3,819	12,151	14,099	3,679
Effective Tax Rate (%)	25.4	25.3	25.8	26.0	24.9	25.4	25.1	25.7	25.6	25.3	24.9
Adj. PAT	2,263	2,462	2,232	2,078	2,419	2,870	2,403	2,838	9,036	10,530	2,763
Change (%)	80.5	5.1	9.4	-24.7	6.9	16.6	7.7	36.5	7.5	16.5	33.0
Key performance indicators											
Cost Break-up											
RM(%)	72.1	69.5	67.7	70.2	71.7	68.9	68.5	67.0	69.9	69.1	68.2
Employee cost (%)	5.5	5.9	6.3	6.2	5.8	6.2	6.4	6.1	6.0	6.1	6.3
Other Exp(%)	12.5	13.5	14.3	13.3	11.8	13.1	13.6	14.1	13.4	13.1	13.5
Gross Margin (%)	27.9	30.5	32.3	29.8	28.3	31.1	31.5	33.0	30.1	30.9	31.8
EBITDA Margin(%)	9.9	11.1	11.8	10.4	10.6	11.8	11.5	12.9	10.7	11.7	12.0
EBIT Margin(%)	7.1	8.1	8.4	7.0	7.7	8.7	8.1	9.8	7.6	8.6	8.8
Lead Price (INR/Kg)	169.2	157.6	173.4	175.6	174.0	180.1	176.4	172.3	169.0	175.7	
Change (%)	8.4	-8.8	-0.5	0.4	2.8	14.2	1.7	-1.9	-0.4	4.0	

E: MOFSL Estimates

Key takeaways from the management commentary

LAB business

- The outlook on both **auto and industrial segments remains upbeat**. In the auto segment, strong growth posted by the industry over the last three years is expected to translate into healthy replacement demand in the coming years. The industrial segment will benefit from **power backup requirements for data centers**. **Thermal power generation is seeing a comeback** and should see strong incremental demand with growth visibility for the next 5-6 years. Exports are seeing traction, especially from the Middle East regions. There is a shift

happening from diesel to lead acid business for the traction and motive power applications.

- 4QFY24 witnessed **strong volume growth** across verticals of OEMs, aftermarket and exports. The industrial segment grew in double digits on a high base of last year, mainly due to a push from the infra segment. **EXID did not hike prices in 4Q** but took calibrated price hikes in FY24.
- Margins in 4Q were higher, driven by: A) favorable lead price movement, b) a better mix of higher-margin products, c) a higher replacement to OEM ratio, and d) benefits of cost optimization initiatives.
- **Capex for LAB business would be INR5b** in FY25 similar to depreciation levels. It would be adjusting capacities as per customer demand.

Li-ion business:

- EXID's agreement with SVOLT encompasses four key aspects: 1) the transfer of IPs and designs of intended cells, 2) support for design and setup of Li-ion cell plant, 3) support for setting up supply chain in India, and 4) ramping up production to achieve specific yields. Four types of cells are being developed, which can be used both for auto and industrial applications. It does have some clauses on which geographies these cells could be exported but does not have a complete blanket restrictions.
- EXID would benefit from SVOLT's bulk sourcing of raw materials, which will help keep RM costs low. Given that the raw material supply chain would not be set up in India until a requisite scale is developed (of about 50 GW hr), most of the raw materials for cell manufacturing would be initially imported.
- Payments to SVOLT would be based on milestones and royalty (details not disclosed).
- It has already invested INR23b in EESL, of which INR 3b was in the module and pack making unit in earlier years. Of this, it has invested almost INR12.8b in FY24. The total capex for phase I is INR50b. It expects to invest another INR10b in FY25. The company is confident of funding the bulk of this capex through internal accruals but may need intermittent bridge financing from time to time.
- EXID has recently signed a non-binding agreement with Hyundai to supply prismatic LFP cells for one of its global EV platforms that would be produced in India. Given it is a non-binding agreement, a lot of details need to be worked on by both partners to make it a binding contract. Given that EXID would be producing a new cell for Hyundai, testing and validation is likely to take at least a year from commercial production. The management expects Hyundai to source only from EXID for this platform as OEMs usually do not sign up multiple vendors for a particular model
- The plant will get into SOP by FY25 end. The new plant is progressing as per the timelines and a team of 300 personnel have been hired across verticals. It expects this plant to break even at 50-60% capacity utilization. **Margins in this business would be in mid-teens at peak utilization (80-90%), as per the management.**
- It is in discussion with multiple 2W/3W/CV OEMs and, on the industrial side, with telecom tower players for supply of lithium ion cells. EXID is confident of winning orders in order to be able to ramp up its capacity once commissioned.
- EXID has not applied for PLI for cell manufacturing.

- The order book in EESL stands at INR6-7b and EXID is confident of ramping this up further in the coming years.

Others:

- Rooftop solar business would benefit from the government’s Surya ghar yojana.
- Almost 60-70% of EXID’s lead requirement is fulfilled by its subsidiary Chloride Metals.
- Aftermarket/OEM/Exports contribute 75%/20%/5% to the LAB business vertical.

Key exhibits

Exhibit 1: Trends in revenue and growth

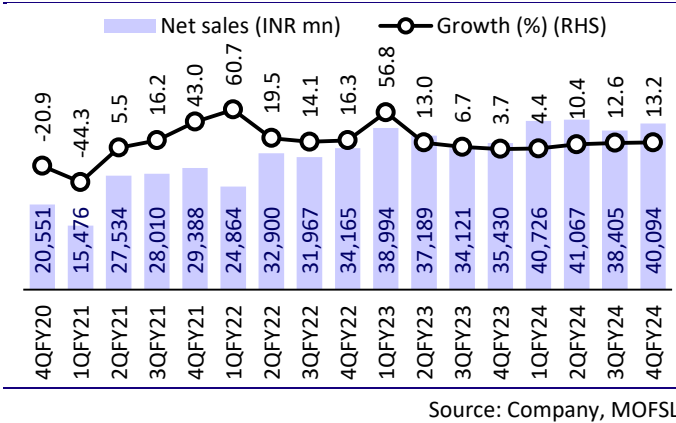


Exhibit 2: Trend in gross margin

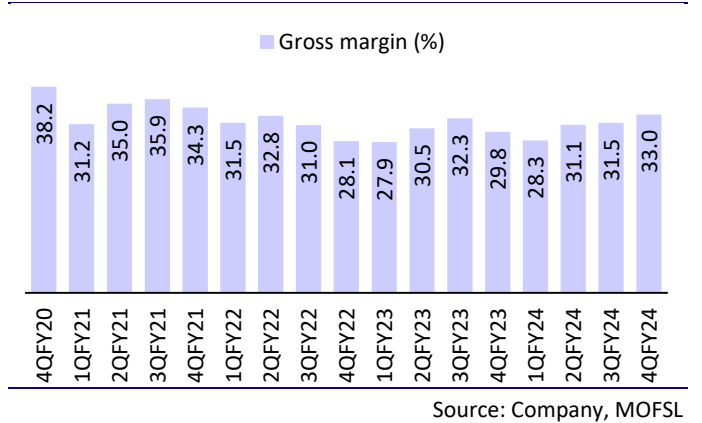


Exhibit 3: Trend in other expenses as a percentage of sales

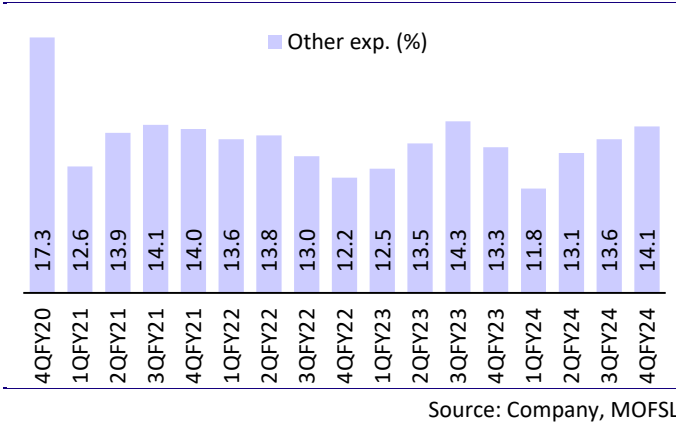


Exhibit 4: Trend in EBITDA margin

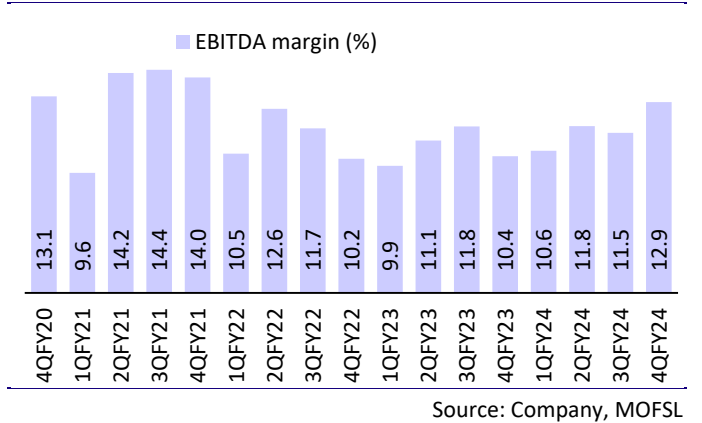
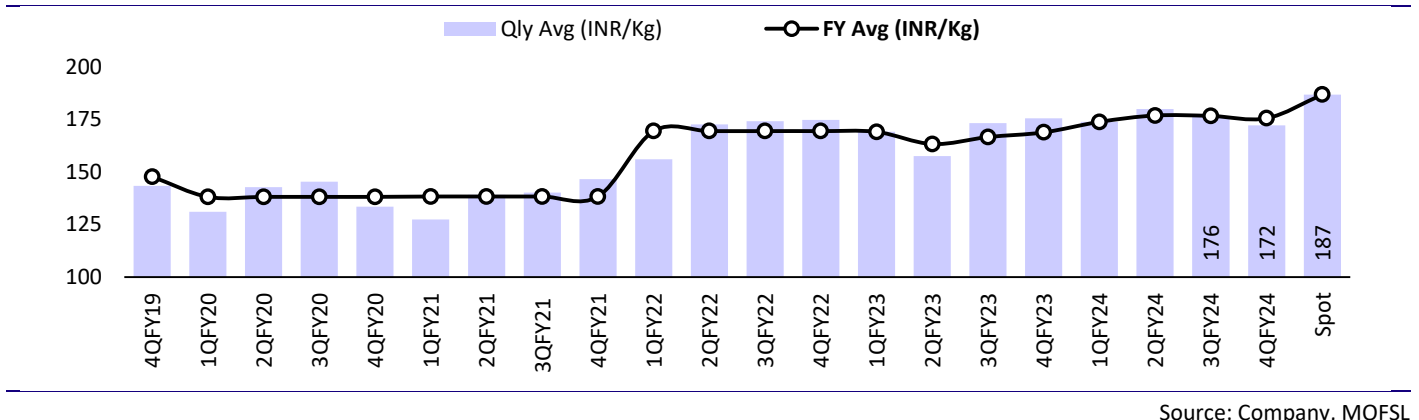


Exhibit 5: Lead price is expected to remain at elevated levels



Valuation and view

- **EXID continues to enjoy a strong position in LAB industry:** The company remains a market leader across all key segments in the LAB industry, except telecom. In the auto OEM segment, EXID has a dominant presence in both 2Ws and 4Ws. Even in the replacement battery segment, it is largely a duopoly market, with EXID being the market leader. It also has a strong position in both UPS and inverter segments. Apart from this, it is a dominant player in power and traction batteries. It has the largest distribution network in India with 115k channel partners. Through digitization initiatives, it is now able to give on the spot warranty resolutions, which is one of the USPs for EXID.
- **EXID to emerge as one of the major beneficiaries of strong outlook in LAB:** The outlook on both auto and industrial segments remains strong. In the auto segment, strong growth posted by the industry over the last three years is expected to translate into healthy replacement demand in the coming years. The industrial segment is expected to benefit from a surge in demand of power backup for data centers. Thermal power generation is seeing a comeback and should see strong incremental demand coming with growth visibility for the next 5-6 years. Exports are seeing traction, especially from the Middle East regions. There is a shift happening from diesel to lead acid business for the traction and motive power applications. Given its strong position in the lead acid battery market in the auto and industrial segments, we expect EXID to emerge as one of the beneficiaries of the robust demand outlook in the industry.
- **EV transition remains the real risk for LAB in the long run:** The transition to electrification globally and in India is emerging as a big risk for the lead acid battery players in the long run. The only saving grace for Indian players in the near term is the fact that the EV transition is picking up pace in 2Ws and 3Ws only, currently and it is likely to take a bit longer in PVs. However, lithium ion batteries are now increasingly finding application even in various industrial use cases, including telecom, traction, UPS, etc.
- **Foray into lithium ion will have its own challenges:** Given the significant imminent risk to its core business, EXID has forayed into manufacturing of lithium ion cells in partnership with S-Volt with a total investment of INR60b in two phases. Further, EXID recently announced that it has secured a non-binding partnership with Hyundai-Kia for the localization of LFP cells for one of its global platforms to be produced in India. While EXID can fund this venture through its internal accruals without needing any major funding requirement for this phase, we think EXID's foray into lithium ion cell manufacturing is likely to see multiple challenges in the coming years, which include: 1) most domestic PV OEMs either have their own lithium ion manufacturing plans or have existing tie-ups, limiting EXID's potential addressable market in this space; 2) the current partnership with Hyundai is non-binding, and hence we need to wait to understand whether this eventually moves into a binding partnership; 3) given EXID is setting up a greenfield plant for this segment without prior experience, we expect its facility to take at least a couple of years to stabilize operations as it goes through its testing and validation phase initially for interested OEMs; 4) EXID is not participating in PLI, which would limit its competitiveness relative to peers who qualify for the same; 5) given lithium ion cell manufacturing is a low-margin business globally, we expect this business to be return-dilutive for EXID in the

long run, even if this venture is successful; and 6) given the significant capital commitment required and given that one is still not sure if the lithium ion cell technology itself will emerge as a sustainable technology in the long run, we think the outcome of this venture remains highly uncertain at this stage.

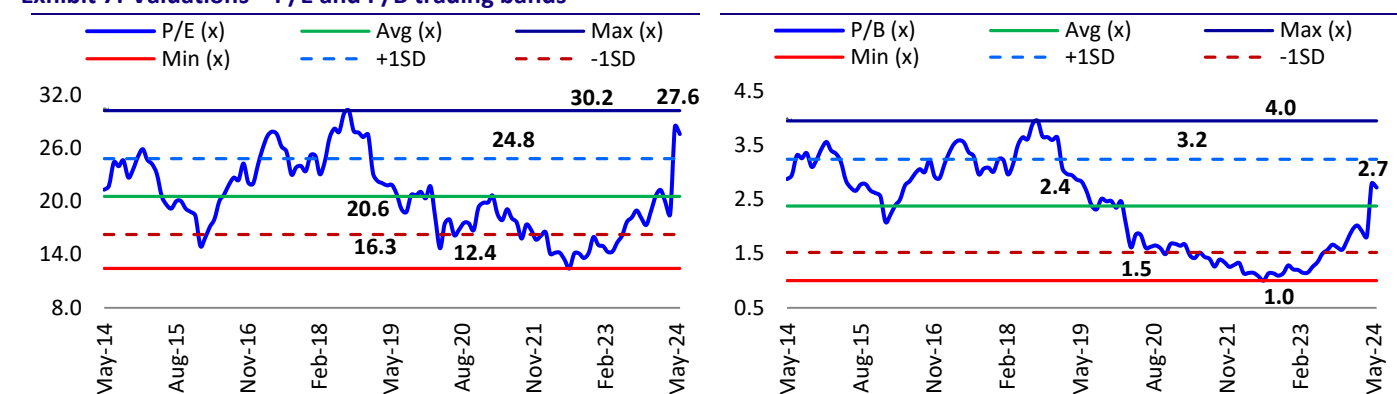
- Valuation and view:** We raise our FY25E/FY26E EPS by ~10%/13% to factor in an improved demand environment and a reduction in input costs. However, as highlighted earlier, while the market seems to be upbeat about EXID's lithium ion foray, we remain circumspect of the returns from the business. After the recent run-up, the stock at ~29x/25x FY25E/FY26E EPS appears fairly valued. We, hence, maintain Neutral rating on the stock with a revised TP of INR430 (based on 20x FY26E EPS + INR52/share for HDFC Life stake).

Exhibit 6: Our revised estimates

(INR m)	FY25E			FY26E		
	Rev	Old	Chg (%)	Rev	Old	Chg (%)
Net Sales	1,78,096	1,77,155	0.5	1,96,027	1,94,987	0.5
EBITDA Margin (%)	13.1	12.3	80bp	13.3	12.4	90bp
PAT	13,912	12,680	9.7	16,032	14,142	13.4
EPS (INR)	16.4	14.9	9.7	18.9	16.6	13.4

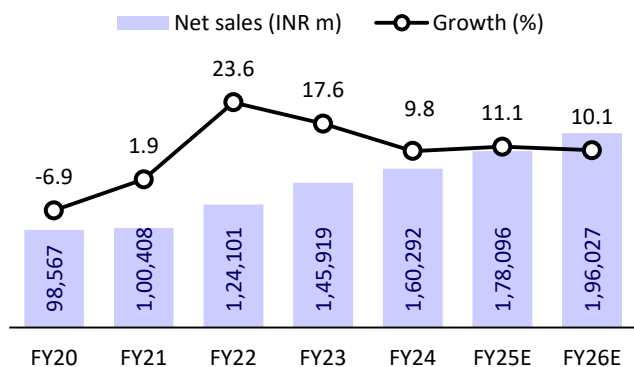
Source: MOFSL

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



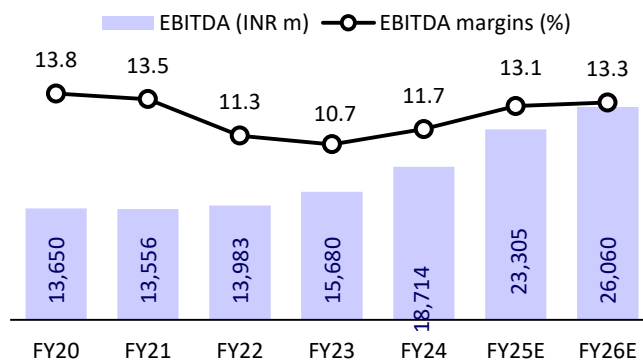
Story in charts

Exhibit 8: Trends in revenue and growth



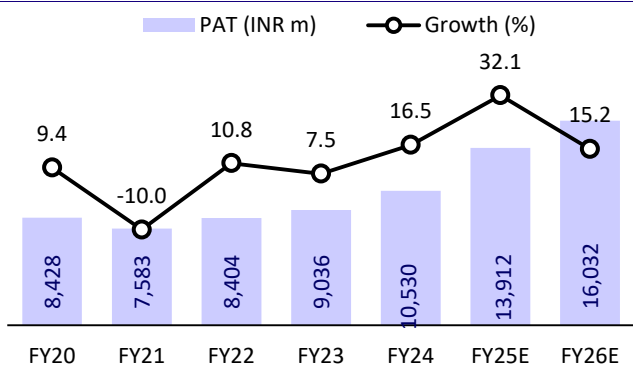
Source: Company, MOFSL

Exhibit 9: Trends in EBITDA and EBITDA margin



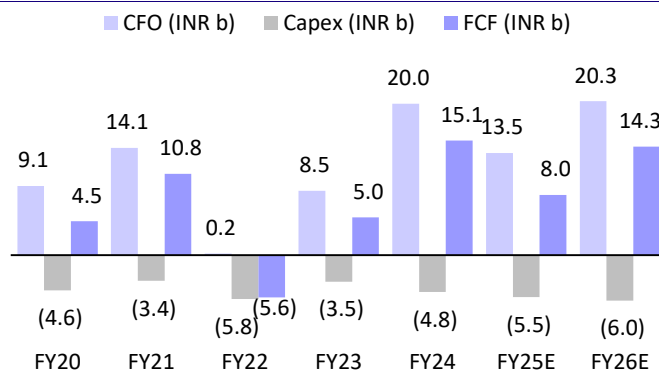
Source: Company, MOFSL

Exhibit 10: PAT and PAT growth trends



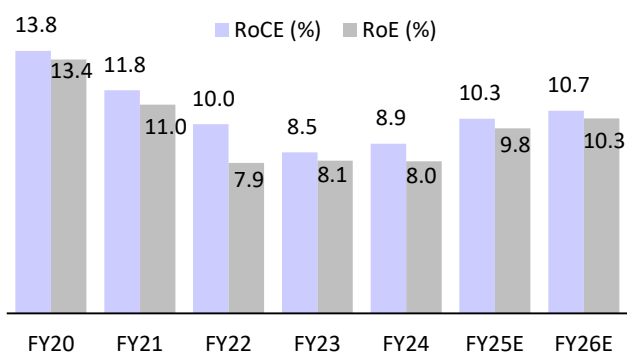
Source: Company, MOFSL

Exhibit 11: Strong FCF driven by healthy CFO



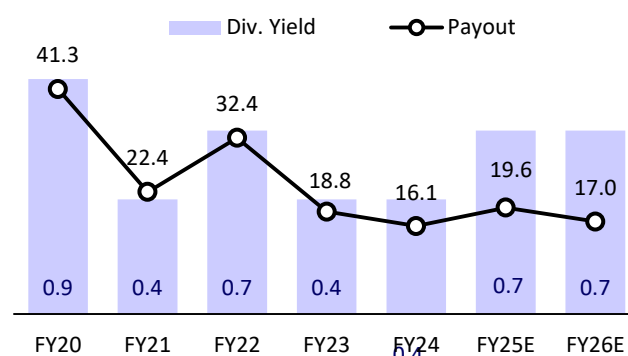
Source: Company, MOFSL

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 M)
Y/E March	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E
Net Sales	1,05,883	98,567	1,00,408	1,24,101	1,45,919	1,60,292	1,78,096	1,96,027
Change (%)	15.3	-6.9	1.9	23.6	17.6	9.8	11.1	10.1
EBITDA	14,113	13,651	13,557	13,984	15,681	18,715	23,306	26,061
EBITDA Margins (%)	13.3	13.8	13.5	11.3	10.7	11.7	13.1	13.3
Change (%)	13.7	-3.3	-0.7	3.1	12.1	19.3	24.5	11.8
Depreciation	3,135	3,626	3,794	4,131	4,558	4,975	5,355	5,620
EBIT	10,978	10,025	9,763	9,852	11,123	13,740	17,951	20,441
Interest Charges	61	94	238	394	295	486	550	525
Other Income	385	639	654	805	1,324	845	1,174	1,489
EO Exp/(Inc)	(1,083)	217	-	(46,938)	-	-	-	-
PBT	12,386	10,352	10,179	57,199	12,151	14,099	18,574	21,405
Tax	3,945	2,097	2,596	10,356	3,115	3,569	4,662	5,373
Effective Rate (%)	31.9	20.3	25.5	18.1	25.6	25.3	25.1	25.1
Rep. PAT	8,440	8,255	7,583	46,843	9,036	10,530	13,912	16,032
Change (%)	26.3	-2.2	-8.1	517.8	-80.7	16.5	32.1	15.2
Adj. PAT	7,703	8,428	7,583	8,404	9,036	10,530	13,912	16,032
Change (%)	10.6	9.4	-10.0	10.8	7.5	16.5	32.1	15.2

Balance Sheet								(INR M)
Y/E March	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E
Share Capital	850	850	850	850	850	850	850	850
Reserves	59,020	62,111	68,085	1,05,131	1,11,248	1,30,522	1,41,714	1,55,026
Net Worth	59,870	62,961	68,935	1,05,981	1,12,098	1,31,372	1,42,564	1,55,876
Loans	0	0	0	0	0	0	5,000	4,000
Deferred Tax Liability	1,751	1,019	771	-654	-1,160	-137	-137	-137
Capital Employed	61,621	63,980	69,706	1,05,327	1,10,938	1,31,236	1,47,428	1,59,740

Application of Funds								
Y/E March	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E
Gross Fixed Assets	32,069	36,039	42,740	48,245	53,473	58,597	63,114	69,114
Less: Depreciation	9,097	12,645	16,361	20,509	24,970	29,945	35,300	40,920
Net Fixed Assets	22,973	23,394	26,379	27,736	28,503	28,652	27,814	28,194
Capital WIP	2,549	2,969	2,008	3,124	1,009	2,017	3,000	3,000
Investments	21,994	21,050	30,924	60,695	63,414	86,206	96,206	1,06,206
Curr.Assets	34,208	35,008	36,977	41,430	46,425	51,652	57,978	63,693
Inventory	18,040	21,923	23,462	24,647	29,891	32,493	36,595	40,279
Sundry Debtors	10,812	8,154	8,874	11,945	12,745	12,650	14,638	16,112
Cash & Bank Balance	736	1,546	914	1,614	745	2,227	1,866	1,931
Loans & Advances	322	322	383	0	0	0	0	0
Other Current Assets	4,299	3,064	3,345	3,223	3,045	4,282	4,879	5,371
Current Liab. & Prov.	20,103	18,441	26,582	27,657	28,413	37,291	37,571	41,354
Sundry Creditors	11,428	10,361	16,483	16,268	15,360	23,199	21,957	24,168
Other Liabilities	5,539	4,478	6,856	8,191	9,670	10,312	11,710	12,889
Provisions	3,136	3,602	3,244	3,198	3,383	3,780	3,903	4,296
Net Current Assets	14,105	16,567	10,395	13,773	18,012	14,361	20,407	22,339
Application of Funds	61,621	63,980	69,705	1,05,327	1,10,938	1,31,236	1,47,428	1,59,740

E: MOFSL Estimates

Financials and valuations

Ratios

Y/E March	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E
Basic (INR)								
EPS	9.1	9.9	8.9	9.9	10.6	12.4	16.4	18.9
Cash EPS	12.8	14.2	13.4	14.7	16.0	18.2	22.7	25.5
Book Value per Share	70.4	74.1	81.1	124.7	131.9	154.6	167.7	183.4
DPS	2.4	4.1	2.0	3.2	2.0	2.0	3.2	3.2
Payout (Incl. Div. Tax) %	26.8	41.3	22.4	32.4	18.8	16.1	19.6	17.0
Valuation (x)								
P/E	52.4	47.9	53.2	48.0	44.7	38.3	29.0	25.2
Cash P/E	37.2	33.5	35.5	32.2	29.7	26.0	20.9	18.6
EV/EBITDA	27.0	27.9	27.4	24.4	21.6	16.8	13.3	11.5
EV/Sales	3.6	3.9	3.7	2.7	2.3	2.0	1.7	1.5
Price to Book Value	6.7	6.4	5.9	3.8	3.6	3.1	2.8	2.6
Dividend Yield (%)	0.5	0.9	0.4	0.7	0.4	0.4	40.7	0.7
Profitability Ratios (%)								
RoE	12.9	13.4	11.0	7.9	8.1	8.0	9.8	10.3
RoCE	13.6	13.8	11.8	10.0	8.5	8.9	10.3	10.7
RoIC	21.8	21.4	19.6	21.3	19.3	23.7	30.9	32.2
Turnover Ratios								
Debtors (Days)	37	30	32	35	32	29	30	30
Inventory (Days)	62	81	85	72	75	74	75	75
Creditors (Days)	39	38	60	48	38	53	45	45
Working Capital (Days)	60	73	58	60	68	50	60	60
Gross Fixed Asset Turnover (x)	3.3	2.7	2.3	2.6	2.7	2.7	2.8	2.8
Leverage Ratio								
Net Debt/Equity (x)	-0.1	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0

Cash Flow Statement

Y/E March	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E
(INR M)								
OP/(Loss) before Tax	12,386	10,352	10,179	57,199	12,151	14,099	17,950	20,440
Interest/Dividends Received	-217	-429	-362	-225	-233	-237	1,174	1,489
Depreciation & Amortisation	3,135	3,626	3,794	4,131	4,558	4,975	5,355	5,620
Direct Taxes Paid	-3,733	-2,494	-2,721	-10,472	-3,212	-3,707	-4,662	-5,373
(Inc)/Dec in Working Capital	-468	-2,155	3,044	-3,479	-4,538	4,874	-6,355	-1,867
Other Items	-1,065	237	200	-46,951	-242	-38	0	0
CF from Oper. Activity	10,038	9,137	14,134	205	8,484	19,965	13,462	20,310
(Inc)/Dec in FA+CWIP	-5,510	-4,646	-3,384	-5,783	-3,493	-4,844	-5,500	-6,000
Free Cash Flow	4,528	4,491	10,750	-5,579	4,991	15,122	7,962	14,310
(Pur)/Sale of Invest.	-2,147	1,397	-9,385	8,537	-5,385	-11,328	-10,000	-10,000
CF from Inv. Activity	-7,656	-3,249	-12,769	2,754	-8,878	-16,172	-15,500	-16,000
Interest Rec./ (Paid)	-61	-100	-289	-549	-461	-601	-550	-525
Dividends Paid	-2,459	-4,986	-1,700	-1,700	0	-1,700	-2,720	-2,720
CF from Fin. Activity	-2,520	-5,086	-1,989	-2,249	-461	-2,301	1,730	-4,245
Inc/(Dec) in Cash	-138	802	-623	709	-855	1,493	-308	65
Add: Beginning Balance	785	647	1,449	826	1,534	745	2,227	1,866
Closing Balance	647	1,449	826	1,534	679	2,238	1,919	1,931

E: MOFSL Estimates

Investment in securities market are subject to market risks. Read all the related documents carefully before investing

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 be 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, Depository participant services & distribution of various financial products. 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") (UEN 201129401Z), which is a holder of a capital markets services license and an exempt financial adviser in Singapore. This report is distributed solely to persons who (a) qualify as "institutional investors" as defined in section 4A(1)(c) of the Securities and Futures Act of Singapore ("SFA") or (b) are considered "accredited investors" as defined in section 2(1) of the Financial Advisers Regulations of Singapore read with section 4A(1)(a) of the SFA. Accordingly, if a recipient is neither an "institutional investor" nor an "accredited investor", they must immediately discontinue any use of this Report and inform MOCMSPL.

In respect of any matter arising from or in connection with the research you could contact the following representatives of MOCMSPL. In case of grievances for any of the services rendered by MOCMSPL write to grievances@motilaloswal.com.

Nainesh Rajani

Email: nainesh.rajani@motilaloswal.com

Contact: (+65) 8328 0276

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 at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance.
- received compensation/other benefits from the subject company in the past 12 months
- 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.
- 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.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report.

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.

This report is meant for the clients of Motilal Oswal only.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 - 71934200 / 71934263; www.motilalosal.com.

Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000. Details of Compliance Officer: Neeraj Agarwal,

Email Id: na@motilalosal.com, Contact No.:022-40548085.

Grievance Redressal Cell:

Contact Person	Contact No.	Email ID
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilalosal.com
Ms. Kumud Upadhyay	022 40548082	servicehead@motilalosal.com
Mr. Ajay Menon	022 40548083	am@motilalosal.com

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412 . AMFI: ARN : 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products.

Customer having any query/feedback/ clarification may write to query@motilalosal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilalosal.com, for DP to dpgrievances@motilalosal.com.