

Zen Technologies

Estimate change	↓
TP change	↓
Rating change	↔

Bloomberg	ZEN IN
Equity Shares (m)	90
M.Cap.(INRb)/(USD\$)	121 / 1.4
52-Week Range (INR)	2628 / 945
1, 6, 12 Rel. Per (%)	-16/-13/-28
12M Avg Val (INR M)	1131

Financials Snapshot (INR b)

Y/E MARCH	FY26E	FY27E	FY28E
Sales	5.8	11.1	15.4
EBITDA	2.0	4.1	5.7
EBITDA Margin (%)	35.0	37.0	37.0
PAT	1.9	3.7	4.8
EPS (INR)	21.6	40.5	53.3
EPS Growth (%)	-26.0	87.6	31.8
BV/Share (INR)	208.6	249.1	302.4

Ratios

Net D/E	-0.7	-0.6	-0.6
RoE (%)	10.9	17.7	19.3
RoCE (%)	10.8	17.7	19.3

Valuations

P/E (x)	62.1	33.1	25.1
P/BV (x)	6.4	5.4	4.4
EV/EBITDA (x)	53.9	26.6	18.8

Shareholding pattern (%)

As On	Sep-25	Jun-25	Sep-24
Promoter	48.5	49.1	51.3
DII	7.9	8.8	8.1
FII	6.4	6.5	6.2
Others	37.2	35.7	34.5

FII Includes depository receipts

CMP: INR1,340 TP: INR1,400 (+4%) Neutral
Inflows remain weak in 1HFY26

Zen Technologies (ZEN) posted weak numbers in 2QFY26, with a miss on revenue but a beat on PAT due to higher-than-expected other income. Inflows in 1HFY26 remained weak; however, management expects inflows to revive in 2H due to the finalization of the pending simulator order and improved tendering activity for anti-drone systems under the emergency procurement programs. In addition to its core business, the order book has been strong for ZEN's subsidiaries, and a combined revenue contribution of ~INR2.5b is expected for FY26 with a fairly strong profit profile. ZEN is already building up capabilities to expand into marine simulators and eventually into air simulation, too. To bake in its 1HFY26 performance, we cut our estimates for ZEN by 25%/11%/ 12% for FY26/FY27/FY28. We also trim our TP to INR1,400 (from INR1,550), based on 30x Sep'27E EPS. The stock is currently trading at a P/E of 62.1x/33.1x/25.1x on FY26/ FY27/ FY28E EPS. Our estimates bake in a revenue/PAT CAGR of 18%/22% over FY25-28 with a strong EBITDA margin of 37% by FY28. We reiterate our Neutral rating on the stock. We would look for order inflow announcements for further sustainability of revenue going forward.

Beat on PAT due to higher other income and lower tax rate

ZEN's revenue decreased 48% YoY to INR1.2b, missing our estimate by 10%. Gross margin was 140bp below our expectation at 55.1% vs. our estimate of 57.5%. Absolute EBITDA declined 47% YoY to INR418m, indicating a miss on our estimates by 13%. EBITDA margin at 33.5% expanded 60bp YoY, though it was below our estimates. However, the company's PAT dipped 29% YoY, beating our estimates by 16%. PAT stood at INR462m vs. our estimate of INR398m, fueled by higher-than-expected other income and a lower tax rate. ZEN's PAT margin expanded 1,000bp YoY to 37.0% vs. our estimate of 28.9%. For 1HFY26, its revenue/EBITDA/PAT declined 52%/56%/40% YoY, while EBITDA margin contracted 290bp YoY to 33.9%. As of 1HFY26, ZEN's OCF/FCF turned positive to INR1.3b/1.2b, compared to net cash outflows in the previous year. The company is now debt-free.

Recovery in inflows expected in 2HFY26

The company exited 1HFY26 with a consolidated order book of ~INR6.8b, comprising INR3.8b of equipment orders and the balance from AMC. Of this, standalone accounts for INR4.8b, while subsidiaries UTS/ARI/Vector contribute INR980m/INR920m/INR10m. Order inflows remained muted due to delays in simulator tenders and a shift in focus on emergency procurements. However, orders are expected to pick up in 2HFY26 as the pending simulator orders worth INR6.5b and anti-drone tenders move forward. The company maintains its cumulative revenue guidance of INR60b for FY26-FY28, though achieving this will require a sharp pick-up in inflows through FY27-28. ZEN's robust net cash position, operational preparedness, and alignment with the government's IDDM framework position it well to capitalize on emerging opportunities over the medium to long term. However, the current softness in ordering momentum suggests a slower pace of execution in the near term. We thus expect a moderate standalone revenue CAGR of 18% to factor in ZEN's 1H performance.

Export opportunities to offer diversification

Export engagement continues to strengthen, supported by increasing inquiries from Africa, the Middle East, CIS, and Southeast Asia. ARI's Singapore base is helping open new channels, particularly for simulation and anti-drone solutions. While exports could become a meaningful contributor over the medium term, conversion timelines in defense exports are typically long, and competition from established global OEMs remains a factor. ZEN's focus on developing end-to-end solutions with full IP ownership aligns well with the government's broader push to promote defense exports. We believe export traction could help diversify the order book and reduce dependence on domestic procurement cycles, though meaningful revenue contribution is likely to be gradual.

Building a connected portfolio through its subsidiaries

Subsidiaries now form a meaningful part of ZEN's ecosystem, contributing about INR1.9b to the consolidated order book. UTS and ARI enhance simulation and export capabilities, while Vector, AI Turing, and Bhairav Robotics add depth in remote weapon and autonomous systems. These acquisitions complement ZEN's integrated defense systems strategy and help the company offer complete, end-to-end solutions under one umbrella. Management highlighted that subsidiaries such as AI Turing and Vector have already participated in recent trials, demonstrating integrated hard-kill capabilities. While most subsidiaries are still scaling up and their revenue contribution remains modest, their technological complementarity enhances ZEN's qualification strength for larger, more complex tenders. Management expects ~INR2.5b of combined revenue contribution from its subsidiaries in FY26, with strong prospects for the following years.

Financial outlook

We trim our estimates by 25%/11%/12% for FY26/27/28 to factor in the slowdown in execution due to delayed ordering activity. We expect a CAGR of 18%/22%/22% in revenue/EBITDA/PAT during FY25-28. This will be supported by 1) finalization of orders across simulators and anti-drones; 2) EBITDA margin of 35%-37% for FY26-28; and 3) control over working capital due to improved collections.

Valuation and view

The stock currently trades at 62.1x/33.1x/25.1x P/E on FY26/27/28E earnings. While we remain positive about the company and its ability to capitalize on the upcoming demand for simulators and anti-drones, we cut our estimates to factor in a slowdown in inflows during 1H. **We thus reduce our TP to INR1,400** (from INR1,550 earlier), **based on 30x Sep'27E earnings. Reiterate Neutral.**

Key risks and concerns

Any slowdown in procurement from the defense industry, especially for simulators, can expose the company to the risk of reduced order inflows and hinder its growth. ZEN is also exposed to foreign currency risks for its export revenue.

Standalone - Quarterly Earnings Model

(INR m)

Y/E March	FY25				FY26E				FY25	FY26	FY26E	Est
	1Q	2Q	3Q	4Q	1Q	2Q	3QE	4QE			2QE	Var (%)
Net Sales	2,540	2,417	1,415	2,935	1,111	1,247	1,391	2,047	9,307	5,794	1,379	(10)
YoY Change (%)	91.7	277.4	44.3	116.3	(56.3)	(48.4)	(1.7)	(30.3)	116.3	(37.7)	(42.9)	
Total Expenditure	1,508	1,623	1,048	1,991	730	829	925	1,283	6,169	3,766	896	(8)
EBITDA	1,032	794	367	944	380	418	466	764	3,137	2,028	483	(13)
Margins (%)	40.6	32.9	26.0	32.2	34.3	33.5	33.5	37.3	33.7	35.0	35.0	
Depreciation	22	23	26	29	31	33	32	33	101	130	32	5
Interest	10	21	27	36	14	4	2	2	94	22	25	(83)
Other Income	30	84	220	244	199	230	185	126	578	740	135	70
PBT	1,030	835	534	1,122	535	610	617	855	3,520	2,617	561	9
Tax	288	182	147	273	164	149	158	200	890	670	163	(9)
Rate (%)	28.0	21.8	27.6	24.3	30.6	24.4	25.6	23.4	25.3	25.6	29.0	
Reported PAT	742	652	386	849	371	462	459	655	2,630	1,947	398	16
Adj PAT	742	652	386	849	371	462	459	655	2,630	1,947	398	16
YoY Change (%)	57.4	276.1	21.9	177.3	(50.0)	(29.2)	18.8	(22.8)	107.3	(26.0)	(38.9)	
Margins (%)	29.2	27.0	27.3	28.9	33.4	37.0	33.0	32.0	28.3	33.6	28.9	

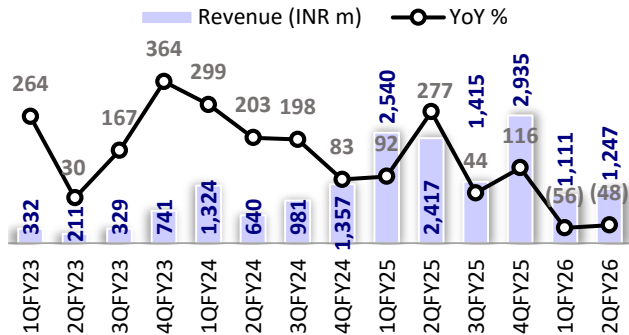


Key highlights from the management commentary

- **Weak performance:** The quarter remained weak for Zen Technologies, as revenues decreased, largely due to delayed government orders following the focus on emergency procurements post-Operation Sindoor. Despite lower topline, EBITDA margins stayed healthy at 34%, supported by cost efficiency and an asset-light model.
- **Strong financial resilience:** Zen maintained a strong balance sheet with INR11b in net cash and zero debt. Management reiterated that the company continues to operate efficiently with stable margins and strong liquidity, ensuring it remains well-positioned to scale up when order inflows improve.
- **Anti-drone edge:** Management reiterated that Zen's anti-drone systems are fully indigenous, cost-competitive, and technically superior. They emphasized ownership of complete IP and wideband jamming capability, which allows detection and neutralization across frequencies where global competitors often fall short.
- **Simulator demand revival:** Management highlighted strong medium-term growth in the simulator segment, driven by global rearmament and training needs amid heightened geopolitical tensions. The company sees sustained demand over the next 4-5 years, with regular replacement cycles keeping the opportunity recurring.
- **Potential export opportunities:** Exports are emerging as a strong growth lever, with traction building across Africa, the Middle East, CIS, and Southeast Asia. Leveraging ARI's presence in Singapore, Zen expects meaningful export orders in both simulation and anti-drone systems over the next few quarters.
- **AI-Driven innovation:** Management spoke about embedding AI into both internal processes and core products. In simulators, AI is being used to create adaptive one-on-one training experiences, while in anti-drone systems, it enhances threat classification and autonomous response capabilities.
- **Order book visibility:** While 1HFY26 was muted, the company expects strong traction in 2HFY26 and 1HFY27, driven by simulator and anti-drone orders under emergency procurement. Management guided that each order under this scheme typically remains under INR3b, with most finalizations expected before Mar'26.
- **Long-term guidance reiterated:** Management reaffirmed its cumulative revenue guidance of INR60b over FY26-FY28, stating that most of the execution will occur in FY27 and FY28. The company ruled out any spill-over to FY29 and remains confident that the pipeline will support this scale-up.

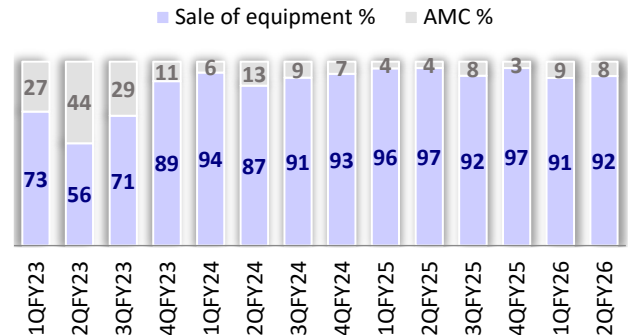
Key Exhibits

Exhibit 1: Total revenue declined 48% YoY on slower-than-expected execution



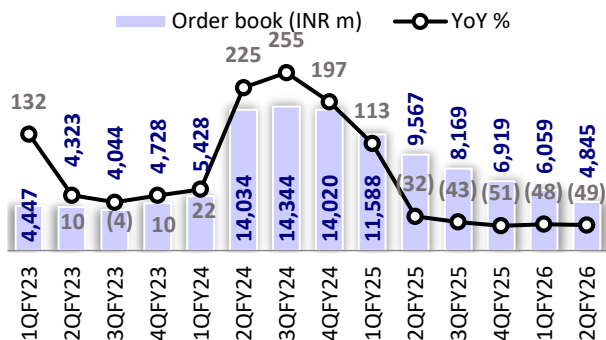
Source: Company, MOFSL

Exhibit 2: Share of revenue from equipment sales remained a major contributor



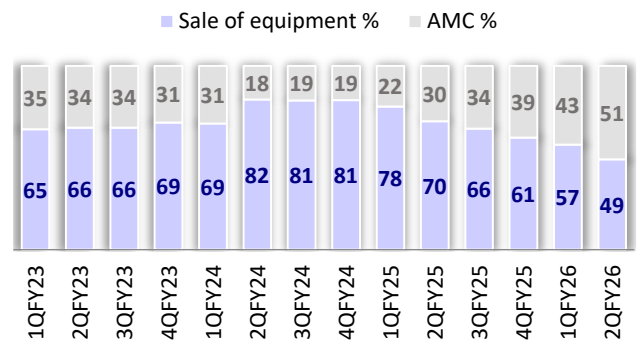
Source: Company, MOFSL

Exhibit 3: Order book decreased 49% YoY, mainly due to delayed ordering from the government



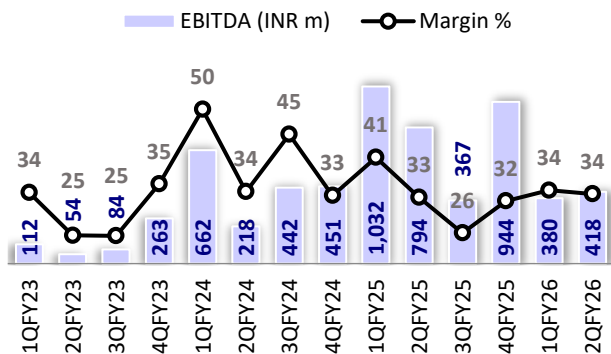
Source: Company, MOFSL

Exhibit 4: Share of AMC has been on the rise since 1QFY25 due to faster execution of equipment orders



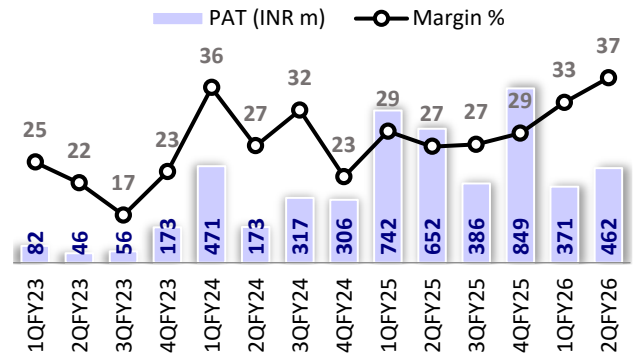
Source: Company, MOFSL

Exhibit 5: EBITDA declined 47% YoY, while margin expanded 60bp YoY to 33.5%



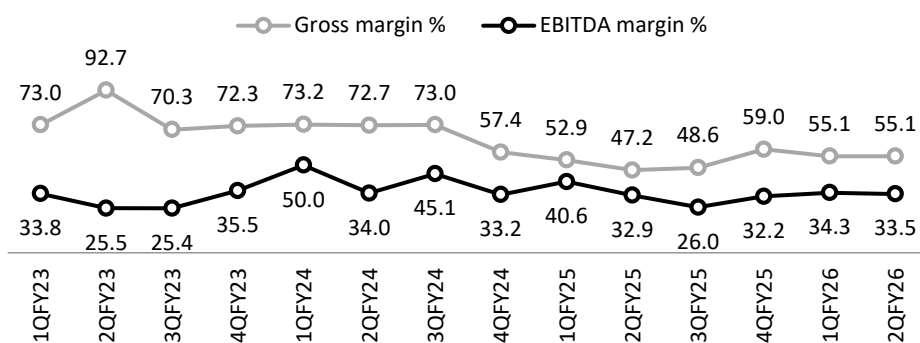
Source: Company, MOFSL

Exhibit 6: PAT decreased 29% YoY, while PAT margin expanded 1,000bp YoY to 37.0%



Source: Company, MOFSL

Exhibit 7: Gross margin expanded 790bp YoY, while EBITDA margin expanded 60bp YoY



Source: Company, MOFSL

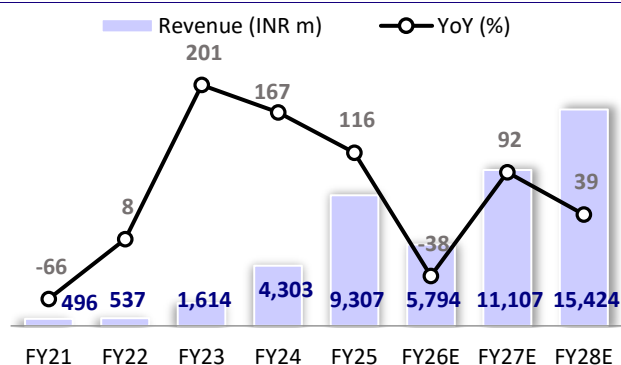
Exhibit 8: We cut our estimates to factor in the absence of orders in 1H, thereby providing lower visibility of execution

(INR m)	FY26E			FY27E			FY28E		
	Rev	Old	Chg (%)	Rev	Old	Chg (%)	New	Old	Chg (%)
Net Sales	5,794	8,112	(28.6)	11,107	13,116	(15.3)	15,424	18,236	(15.4)
EBITDA	2,028	3,001	(32.4)	4,110	4,853	(15.3)	5,707	6,747	(15.4)
EBITDA (%)	35.0	37.0	-200 bp	37.0	37.0	0 bp	37.0	37.0	0 bp
Adj. PAT	1,947	2,610	(25.4)	3,653	4,109	(11.1)	4,814	5,516	(12.7)
EPS (INR)	21.6	28.9	(25.4)	40.5	45.5	(11.1)	53	61.1	(12.7)

Source: MOFSL

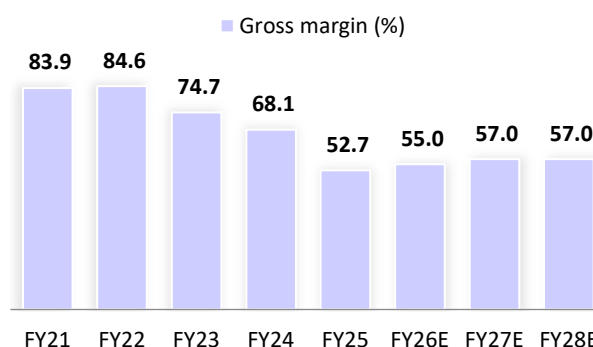
Financial outlook

Exhibit 9: We expect ZEN to clock 25% revenue CAGR over FY25-FY28



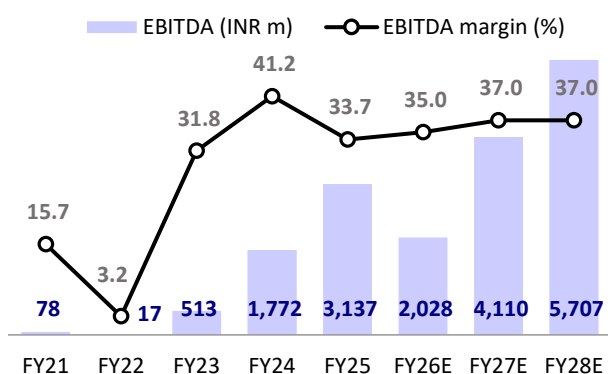
Source: Company, MOFSL

Exhibit 10: Gross margin to normalize and remain at comfortable levels beyond FY25



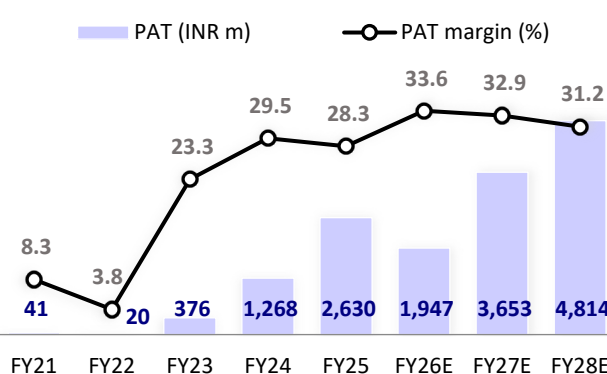
Source: Company, MOFSL

Exhibit 11: EBITDA margin to remain above 35%



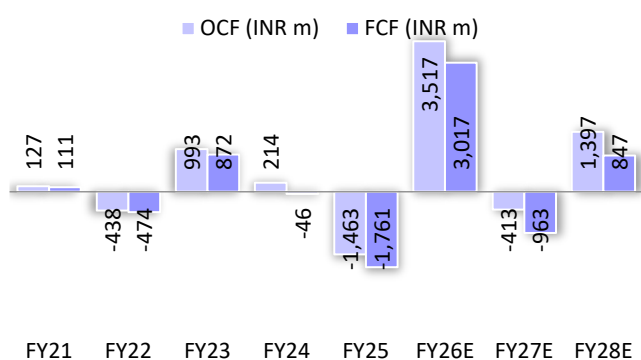
Source: Company, MOFSL

Exhibit 12: We expect 28% PAT CAGR over FY25-28



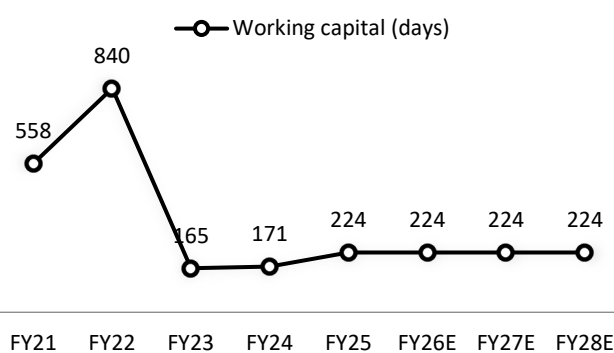
Source: Company, MOFSL

Exhibit 13: OCF and FCF to be lumpy over the years



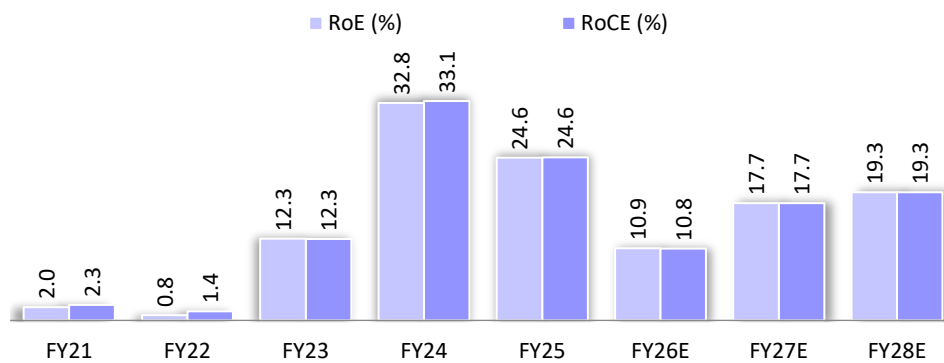
Source: Company, MOFSL

Exhibit 14: NWC to stabilize on improved collections



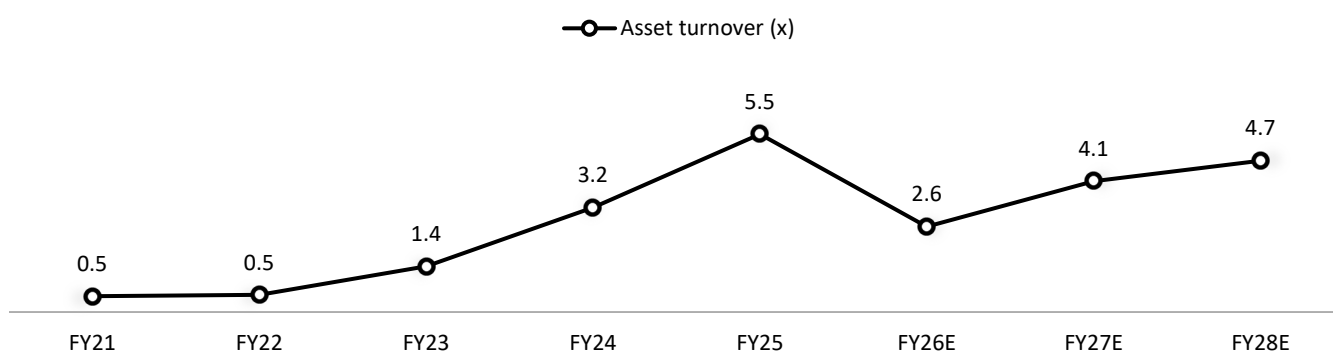
Source: Company, MOFSL

Exhibit 15: ROE and ROCE expected to reach near 20% levels



Source: Company, MOFSL

Exhibit 16: With an improved product mix, we expect the asset turnover ratio to improve



Source: Company, MOFSL

Financials and valuations

Standalone - Income Statement

(INR m)

Y/E Mar	FY20	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Total Income from Operations	1,470	496	537	1,614	4,303	9,307	5,794	11,107	15,424
Change (%)	59.4	-66.3	8.4	200.6	166.5	116.3	-37.7	91.7	38.9
Raw Materials	390	80	83	408	1,373	4,402	2,607	4,776	6,632
Gross Profit	1,080	416	454	1,206	2,930	4,904	3,187	6,331	8,792
Employee Cost	167	127	148	228	432	570	464	777	1,080
Other Expenses	278	211	289	465	726	1,197	695	1,444	2,005
Total Expenditure	834	418	520	1,102	2,530	6,169	3,766	6,997	9,717
% of Sales	56.7	84.3	96.8	68.2	58.8	66.3	65.0	63.0	63.0
EBITDA	636	78	17	513	1,772	3,137	2,028	4,110	5,707
Margin (%)	43.3	15.7	3.2	31.8	41.2	33.7	35.0	37.0	37.0
Depreciation	38	40	37	44	73	101	130	165	202
EBIT	599	38	-20	469	1,699	3,036	1,898	3,945	5,505
Int. and Finance Charges	32	10	14	20	18	94	22	0	0
Other Income	19	29	53	91	139	578	740	965	965
PBT bef. EO Exp.	586	57	19	539	1,820	3,520	2,617	4,910	6,470
EO Items	-1	0	-2	14	-24	0	0	0	0
PBT after EO Exp.	587	57	20	525	1,844	3,520	2,617	4,910	6,470
Total Tax	-20	16	-2	163	552	890	670	1,257	1,656
Tax Rate (%)	-3.3	27.8	-7.9	31.0	29.9	25.3	25.6	25.6	25.6
Reported PAT	606	41	22	362	1,292	2,630	1,947	3,653	4,814
Adjusted PAT	605	41	20	376	1,268	2,630	1,947	3,653	4,814
Change (%)	214.4	-93.2	-50.5	1,753.7	237.0	107.3	-26.0	87.6	31.8
Margin (%)	41.2	8.3	3.8	23.3	29.5	28.3	33.6	32.9	31.2

Standalone - Balance Sheet

(INR m)

Y/E Mar	FY20	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Equity Share Capital	77	80	80	80	84	90	90	90	90
Total Reserves	1,910	2,052	2,837	3,112	4,447	16,800	18,746	22,399	27,213
Net Worth	1,988	2,132	2,917	3,192	4,531	16,890	18,837	22,490	27,304
Minority Interest	0	0	0	0	0	0	0	0	0
Total Loans	9	9	123	59	0	522	0	0	0
Deferred Tax Liabilities	-203	-206	-201	-134	63	2	2	2	2
Capital Employed	1,794	1,935	2,839	3,117	4,595	17,414	18,839	22,492	27,306
Gross Block	995	1,012	1,016	1,142	1,326	1,689	2,189	2,739	3,289
Less: Accum. Deprn.	351	391	425	468	541	642	772	937	1,139
Net Fixed Assets	644	621	591	674	785	1,047	1,417	1,802	2,151
Goodwill on Consolidation	0	0	0	0	0	0	0	0	0
Capital WIP	0	0	25	19	107	70	70	70	70
Total Investments	159	241	243	243	263	2,185	2,185	2,185	2,185
Curr. Assets, Loans & Adv.	1,128	1,169	2,517	3,394	6,029	15,452	16,001	20,034	25,122
Inventory	104	86	142	411	1,334	510	318	609	846
Account Receivables	444	174	196	662	1,691	3,784	2,356	4,516	6,271
Cash and Bank Balance	185	333	761	1,472	1,422	8,392	11,605	11,608	13,421
Loans and Advances	299	563	1,404	812	1,564	2,753	1,714	3,285	4,562
Other Current Asset	96	13	15	36	17	13	8	16	22
Curr. Liability & Prov.	138	95	538	1,213	2,589	1,340	835	1,600	2,222
Account Payables	111	78	520	1,190	2,559	1,309	815	1,562	2,170
Other Current Liabilities	16	17	18	23	0	0	0	0	0
Provisions	10	1	0	0	31	31	19	37	52
Net Current Assets	990	1,074	1,979	2,181	3,440	14,112	15,166	18,434	22,900
Appl. of Funds	1,793	1,935	2,839	3,117	4,595	17,414	18,839	22,492	27,306

Financials and valuations

Ratios									
Y/E Mar	FY20	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Basic (INR)									
EPS	6.7	0.5	0.2	4.2	14.0	29.1	21.6	40.5	53.3
Cash EPS	7.1	0.9	0.6	4.7	14.9	30.2	23.0	42.3	55.6
BV/Share	22.0	23.6	32.3	35.4	50.2	187.1	208.6	249.1	302.4
DPS	0.4	0.1	0.1	0.2	1.0	2.0	0.0	0.0	0.0
Payout (%)	5.1	19.4	39.2	4.2	6.6	6.9	0.0	0.0	0.0
Valuation (x)									
P/E	199.8	2,949.5	5,957.1	321.4	95.4	46.0	62.1	33.1	25.1
Cash P/E	188.1	1,494.8	2,099.5	287.9	90.1	44.3	58.2	31.7	24.1
P/BV	60.8	56.7	41.5	37.9	26.7	7.2	6.4	5.4	4.4
EV/Sales	82.2	243.3	224.0	74.0	27.8	12.1	18.9	9.8	7.0
EV/EBITDA	189.9	1,554.2	6,993.7	233.1	67.4	36.0	53.9	26.6	18.8
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
FCF per share	6.9	1.3	-5.2	9.7	-0.5	-19.5	33.4	-10.7	9.4
Return Ratios (%)									
RoE	35.6	2.0	0.8	12.3	32.8	24.6	10.9	17.7	19.3
RoCE	33.4	2.3	1.4	12.3	33.1	24.6	10.8	17.7	19.3
RoIC	42.2	1.9	-1.4	20.3	56.9	47.4	24.0	43.1	40.4
Working Capital Ratios									
Fixed Asset Turnover (x)	1.5	0.5	0.5	1.4	3.2	5.5	2.6	4.1	4.7
Asset Turnover (x)	0.8	0.3	0.2	0.5	0.9	0.5	0.3	0.5	0.6
Inventory (Days)	26	64	96	93	113	20	20	20	20
Debtor (Days)	110	128	133	150	143	148	148	148	148
Creditor (Days)	28	57	353	269	217	51	51	51	51
Leverage Ratio (x)									
Current Ratio	8.2	12.3	4.7	2.8	2.3	11.5	19.2	12.5	11.3
Interest Cover Ratio	18.8	3.8	-1.4	23.1	92.3	32.2	86.3	NA	NA
Net Debt/Equity	-0.2	-0.3	-0.3	-0.5	-0.4	-0.6	-0.7	-0.6	-0.6

Standalone - Cashflow Statement							(INR m)		
Y/E Mar	FY20	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
OP/(Loss) before Tax	586	57	19	539	1,844	3,520	2,617	4,910	6,470
Depreciation	38	40	37	44	73	101	130	165	202
Interest & Finance Charges	23	-15	-30	-48	12	59	22	0	0
Direct Taxes Paid	-114	-28	-12	-87	-321	-984	-670	-1,257	-1,656
(Inc)/Dec in WC	111	74	-452	537	-1,405	-3,778	2,159	-3,265	-2,653
CF from Operations	643	127	-439	985	204	-1,082	4,257	553	2,363
Others	1	0	1	8	10	-381	-740	-965	-965
CF from Operating incl EO	644	127	-438	993	214	-1,463	3,517	-413	1,397
(Inc)/Dec in FA	-23	-10	-36	-121	-260	-298	-500	-550	-550
Free Cash Flow	622	117	-474	872	-46	-1,761	3,017	-963	847
(Pur)/Sale of Investments	-26	-82	-3	-25	-42	-1,922	0	0	0
Others	-62	-84	-393	119	-518	-6,404	740	965	965
CF from Investments	-110	-176	-432	-27	-820	-8,624	240	415	415
Issue of Shares	0	0	0	0	0	9,802	0	0	0
Inc/(Dec) in Debt	-154	-1	865	-64	-58	507	-522	0	0
Interest Paid	-32	-5	-9	-16	-12	-44	-22	0	0
Dividend Paid	-23	-32	-8	-8	-17	-90	0	0	0
Others	-5	134	25	-97	26	-7	0	0	0
CF from Fin. Activity	-214	97	873	-184	-62	10,169	-544	0	0
Inc/Dec of Cash	321	47	3	782	-668	82	3,213	3	1,813
Opening Balance	-225	96	144	147	929	261	8,392	11,605	11,608
Other Bank Balances	89	189	614	543	1,161	8,050	0	0	0
Closing Balance	185	333	761	1,472	1,422	8,392	11,605	11,608	13,421

Investment in securities market is 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 and BSE enlistment no. 5028. 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 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 and is a member of Association of Portfolio Managers in India (APMI) for distribution of PMS products. Details of associate entities of Motilal Oswal Financial Services Ltd. are available on the website at <http://online.reports.motilaloswal.com/Dormant/documents/Associate%20Details.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>. As per Regulatory requirements, Research Audit Report is uploaded on www.motilaloswal.com > MOFSL-Important Links > MOFSL Research Analyst Compliance Audit Report.

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

- Research Analyst and/or his/her relatives do not have a financial interest in the subject company(ies), as they do not have equity holdings in the subject company(ies). MOFSL has financial interest in the subject company(ies) at the end of the week immediately preceding the date of publication of the Research Report: Yes.
Nature of Financial interest is holding equity shares or derivatives of the subject company
- Research Analyst and/or his/her relatives do not have actual/beneficial ownership of 1% or more securities in the subject company(ies) at the end of the month immediately preceding the date of publication of Research Report.
MOFSL has actual/beneficial ownership of 1% or more securities of the subject company(ies) at the end of the month immediately preceding the date of publication of Research Report: No
- Research Analyst and/or his/her relatives have not received compensation/other benefits from the subject company(ies) in the past 12 months.
MOFSL may have received compensation from the subject company(ies) in the past 12 months.
- Research Analyst and/or his/her relatives do not have material conflict of interest in the subject company at the time of publication of research report.
MOFSL does not have material conflict of interest in the subject company at the time of publication of research report.
- Research Analyst has not served as an officer, director or employee of subject company(ies).
- MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months.
- MOFSL has not received compensation for investment banking /merchant banking/brokerage services from the subject company(ies) in the past 12 months.
- MOFSL may have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company(ies) in the past 12 months.
- MOFSL may have received compensation or other benefits from the subject company(ies) or third party in connection with the research report.
- 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 alterations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, nor its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, 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, enlistment as RA with Exchange 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.motilaloswal.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@motilaloswal.com, Contact No.:022-40548085.

Grievance Redressal Cell:

Contact Person	Contact No.	Email ID
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com
Mr. Ajay Menon	022 40548083	am@motilaloswal.com
Mr. Neeraj Agarwal	022 40548085	na@motilaloswal.com
Mr. Siddhartha Khemka	022 50362452	po.research@motilaloswal.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, BSE enlistment no. 5028, AMFI registered Mutual Fund Distributor and SIF Distributor: ARN : 146822. IRDA Corporate Agent – CA0579, APMI: APRN00233. 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@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.