

Astra Microwave Products

Estimate change 

TP change 

Rating change 

Bloomberg	ASTM IN
Equity Shares (m)	95
M.Cap.(INRb)/(USDb)	85.8 / 0.9
52-Week Range (INR)	1196 / 584
1, 6, 12 Rel. Per (%)	-7/-15/27
12M Avg Val (INR M)	490

Financials Snapshot (INR b)

Y/E March	2026E	2027E	2028E
Sales	11.1	13.7	17.2
EBITDA	2.8	3.6	4.5
Adj. PAT	1.5	2.2	2.8
Adj. EPS (INR)	16.4	23.7	30.2
EPS Gr. (%)	0.5	44.5	27.6
BV/Sh.(INR)	133.0	156.7	186.9

Ratios

RoE (%)	13.1	16.3	17.6
RoCE (%)	12.0	14.2	15.3

Valuations

P/E (x)	55.3	38.2	30.0
P/BV (x)	6.8	5.8	4.8
EV/EBITDA (x)	30.6	24.6	19.8

Shareholding pattern (%)

As of	Dec-25	Sep-25	Dec-24
Promoter	6.5	6.5	6.5
DII	14.8	14.6	15.4
FII	6.3	6.5	5.2
Others	72.4	72.5	72.9

FII includes depository receipts

CMP: INR906

TP: INR1,150 (+27%)

Buy

Better than expected performance

Astra Microwave (ASTRA)'s 3QFY26 results were ahead of our estimates on better-than-expected margins. Order inflow was strong at INR4.7b (standalone basis) in 3QFY26, with another INR5-6b expected in 4QFY26. The company is rightly positioned to benefit from a strong addressable market of INR250b over the next 4-5 years. We expect ASTRA to get orders from DPSUs and DRDO for various platforms such as QRSAM, Tejas, Su-30 upgrade, etc. We maintain our estimates and expect revenue/EBITDA/PAT CAGR of 18/19/23% over FY25-28. We believe ASTRA's revenue growth is likely to accelerate over FY27-30, as larger platform orders are finalized by DPSUs and MoD. We consider ASTRA as a long-term investment opportunity and maintain our BUY rating with a revised TP of INR1,150 (earlier INR1,100), rolling forward to 38x Mar'28E EPS.

Strong beat on profitability

ASTRA's revenue was in line, while EBITDA and PAT beat our estimates. Revenue was broadly flat YoY at INR2.6b, in line with our estimate. Gross margin expanded 730bp YoY to 55.3%, above our estimate of 47.0%. This led to an EBITDA beat of 34% at INR825m (+8% YoY), while margin expanded 220bp YoY to 31.7% vs. our estimate of 23.5%. However, a higher tax rate compared to last year led to a 1% YoY dip in PAT to INR468m. This was still much better than our expectation of INR305m (54% beat). For 9MFY26, revenue/EBITDA/ PAT increased 5%/15%/9% YoY, while EBITDA margin expanded 220bp YoY to 25.4%. The company received orders worth INR6.6b during the quarter, taking the consolidated order book to INR25.7b.

Defense segment continues to be key contributor

Defense segment's revenue declined 3% YoY to INR2.1b, while order inflows stood at INR2.9b, taking the total order book to INR14.8b. The company has secured key subsystem wins such as DCPD for EW suites for platforms like Sukhoi. Several EW systems, where ASTRA has been qualified, such as Nayan, Samudrika, and Dharashakti, are entering production stages, which can enhance revenue stability. This transition from development to production is likely to support margin sustainability over time. We expect the segment to grow at a CAGR of 29% over FY25-28.

Meteorology segment to drive diversification

Meteorology segment's revenue increased 27% YoY to INR88m, while inflows stood at INR1.5b, taking the total order book to INR3.7b. The company is actively involved in Mission Mausam under the Indian Meteorological Department, with multiple contracts already under execution. The overall opportunity is expected to be rolled out through 4-5 tenders over the next few years. Order finalization is likely to take two years, while execution may be spread out over three to four years. Continued participation in national weather infrastructure projects strengthens the company's execution beyond defense. We expect the segment's revenue to clock a CAGR of 51% over FY25-28.

Space segment growth to be prolonged

Space segment revenue declined 21% YoY to INR68m, with order inflows of INR174m taking the order book to INR2.5b. Most orders in the current order book are related to satellite payload electronics, with only ~5% linked to launch vehicle systems. The company expects repeat orders over the next 2-3 years in similar configurations. It is also working toward developing its own satellite, with a potential launch timeline of around two years. Partnerships with startups are being pursued to strengthen capabilities in propulsion and satellite technologies. We expect the segment's current revenue levels to sustain over the medium term and grow meaningfully beyond FY28 once the company launches its own satellite.

Export segment execution to remain moderated on selective approach

Export revenue increased 38% YoY to INR299m, while order inflows stood at INR204m, taking the segment order book to INR1.3b. The company has consciously shifted away from low-margin high-value export contracts (BTP) to design-led high-margin business (BTS). As a result, export revenue has moderated in recent years but margins have improved. New opportunities are emerging following trade agreements with Europe and the US, with renewed discussions currently underway. However, these opportunities may take time to convert into firm orders due to long qualification and negotiation cycles. Consequently, the company's selective approach is expected to keep execution moderated in the export segment.

MoU with Bharat Electronics

The company has signed a memorandum of understanding with BHE to jointly design, develop, and manufacture advanced defense systems. This partnership focuses on strengthening indigenous capabilities in radar, electronic warfare, and related technologies. Through this arrangement, the company aims to integrate more deeply into major DPSU-led programs, particularly in areas requiring complex RF, microwave, and mission critical electronics. Overall, this partnership supports long-term order visibility while reinforcing the company's competitive positioning.

Guidance

FY26 revenue is guided to grow 10% YoY with healthy margins. The company expects order inflows worth INR5.5b-6b in 4QFY26, taking the FY26 inflows to ~INR13b. Of this INR5.5b-6b, ~INR4.5b is expected to come from defense and ~INR1.2b from metrology. For FY27, the company has guided revenue growth of 15% YoY, with order inflows for the year reaching ~INR15b-16b. Majority of this will be from DPSUs like BHE which are expecting some large-size inflows in 1QFY27 for QRSAM, as well as from DRDO where ASTRA is participating in few R&D programs. Export order inflows are expected to be ~INR1b-1.3b in FY27.

JV performance

The Astra-Rafael joint venture reported an order book of ~USD80m and executed orders worth ~USD18.2m in 3QFY26. For FY26, the JV is expected to generate revenue of ~INR3.5b, rising to ~INR4b+ in FY27. PBT margin is estimated at 10%-12%. The JV has secured two major orders worth over INR3b during the quarter. Its strong execution track record supports sustainable growth over the next five to six years.

Financial outlook

We maintain our estimates and expect the company's revenue/EBITDA/PAT to clock a CAGR of 18%/19%/23% over FY25-28. With margins to sustain at current strong levels, we expect its RoE and RoCE to remain at comfortable levels of 15-18% by FY28.

Valuation and view

ASTRA is currently trading at 38.2x/30x P/E on FY27E/FY28E EPS. We **reiterate our BUY rating on the stock** with a revised TP of INR1,150 (earlier INR1,100) on roll forward to 38x Mar'28E EPS.

Key risks and concerns

Key risks include delays in awarding of larger platforms, lower-than-expected spending from the government on the defense sector, slower export momentum, and supply-chain related constraints.

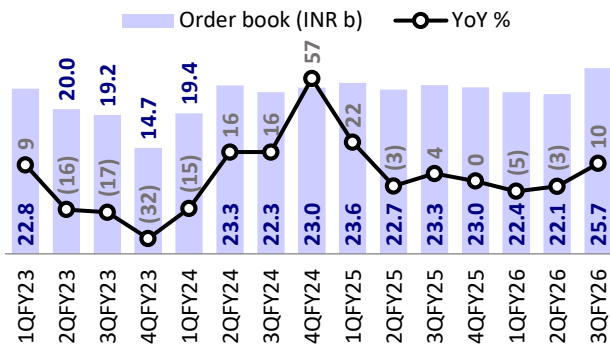
Consolidated - Quarterly earning

Consolidated - Quarterly earning												(INR m)
Y/E March	FY25				FY26E				FY25	FY26E	FY26E	Est
INR m	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE			3QE	Var (%)
Gross Sales	1,552	2,296	2,585	4,079	1,997	2,146	2,602	4,383	10,512	11,129	2,620	-
YoY Change (%)	16.0	20.8	11.9	15.2	28.7	-6.5	0.7	7.5	15.7	5.9	1.4	
Total Expenditure	1,312	1,804	1,823	2,883	1,588	1,667	1,777	3,258	7,822	8,290	2,005	-11
EBITDA	240	492	762	1,196	410	478	825	1,126	2,690	2,839	616	34
YoY Change (%)	679.4	18.2	15.2	48.1	70.6	-2.8	8.3	-5.9	40.4	5.5	-19.2	
Margins (%)	15.5	21.4	29.5	29.3	20.5	22.3	31.7	25.7	25.6	25.5	23.5	
Depreciation	82	62	95	111	93	101	114	91	350	399	100	14
Interest	104	126	149	192	146	135	130	236	571	647	170	-24
Other Income	21	22	23	110	25	57	32	33	175	148	30	10
PBT before EO expense	75	326	540	1,003	195	300	614	831	1,944	1,941	375	64
Extra-Ord expense	0	0	0	0	0	0	0	0	0	0	0	
PBT	75	326	540	1,003	195	300	614	831	1,944	1,941	375	64
Tax	21	83	141	256	48	85	194	178	502	505	99	97
Rate (%)	28.7	25.5	26.2	25.6	24.6	28.2	31.7	21.4	25.8	26.0	26.3	
MI & P/L of Asso. Cos.	-19	-11	-76	11	-15	-23	-49	-20	-94	-108	-28	72
Reported PAT	72	254	474	735	163	239	468	673	1,535	1,543	305	
Adj PAT	72	254	474	735	163	239	468	673	1,535	1,543	305	54
YoY Change (%)	NM	-15.4	9.3	35.1	125.9	-5.9	-1.3	-8.4	26.8	0.5	-35.7	
Margins (%)	4.6	11.1	18.3	18.0	8.1	11.1	18.0	15.4	14.6	13.9	11.6	

Y/E March INR m	FY25				FY26E				FY25	FY26E	3Q YoY
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE			
Segmental revenue											
Defense	1,012	1,839	2,198	3,366	1,726	1,661	2,129	3,210	8,415	8,725	-3
Space	178	113	85	209	48	43	68	231	585	390	-21
Metrology/Civil Telecom/Others	22	57	70	195	8	124	88	393	344	614	27
Exports (including deemed exports)	326	269	217	284	200	305	299	477	1,096	1,281	38
Other	14	18	16	-45	16	13	18	3	3	50	17
Total Revenues	1,552	2,296	2,585	4,079	1,997	2,146	2,602	4,383	10,512	11,129	1

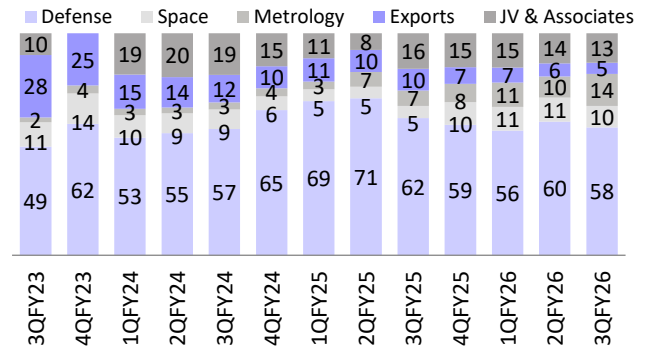
Key Exhibits

Exhibit 1: Order book remains strong increasing 12% YoY



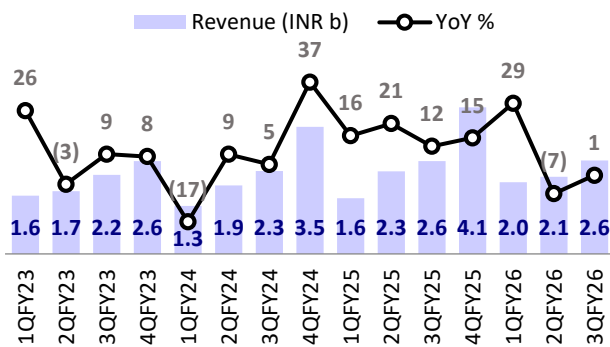
Source: MOFSL, Company

Exhibit 2: Order book segmental split (%)



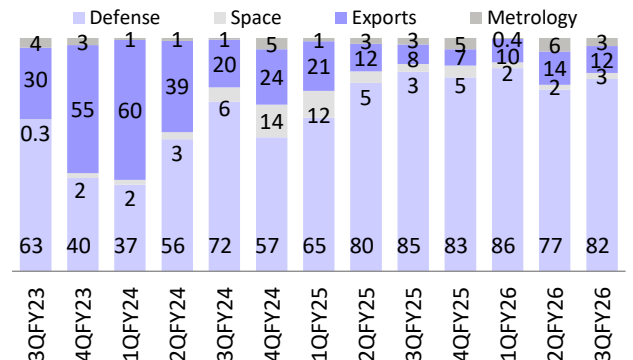
Source: MOFSL, Company

Exhibit 3: Revenue was broadly flat YoY



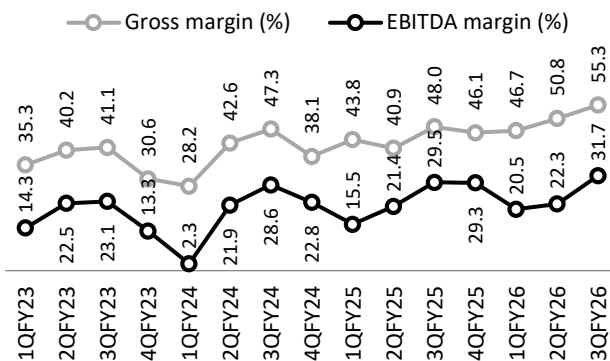
Source: MOFSL, Company

Exhibit 4: Revenue segmental split (%)



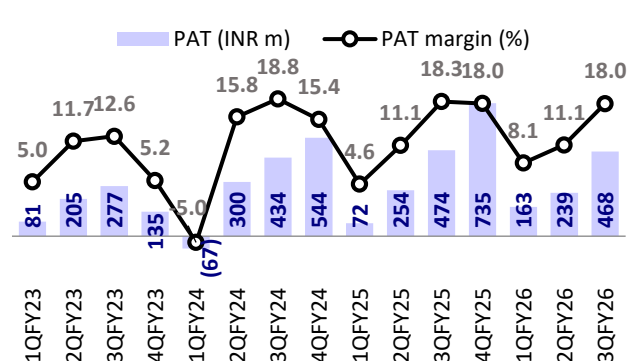
Source: MOFSL, Company

Exhibit 5: EBITDA margin expanded 220bp YoY



Source: MOFSL, Company

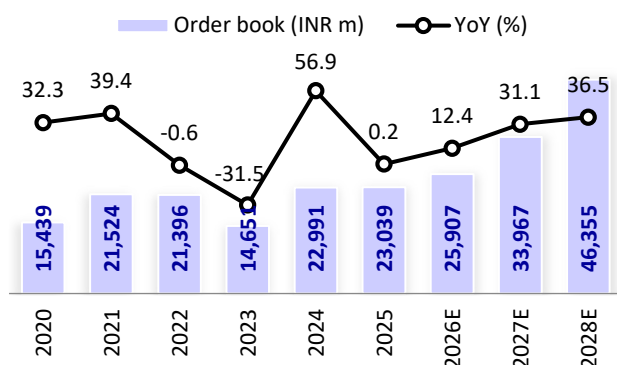
Exhibit 6: PAT declined 1% YoY



Source: MOFSL, Company

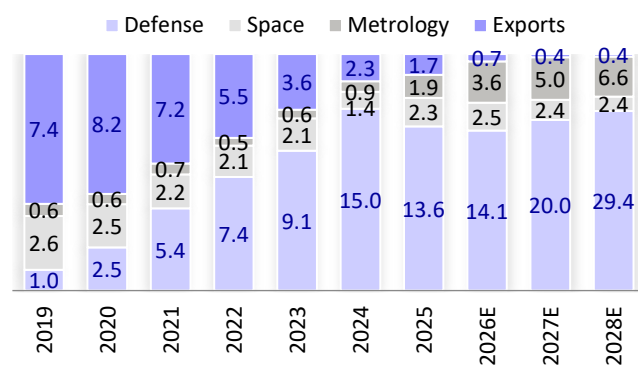
Financial outlook

Exhibit 7: We expect ASTRA's OB to post a 26% CAGR over FY25-28



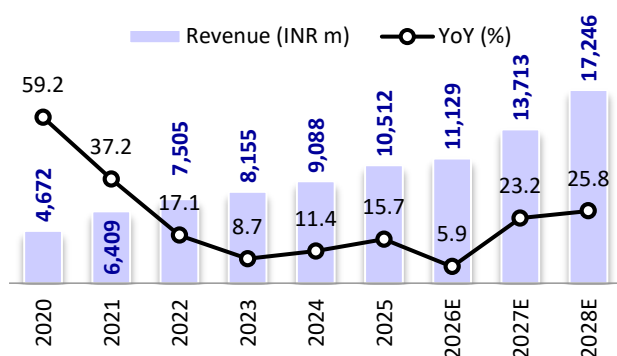
Source: Company, MOFSL

Exhibit 8: Growth in OB to be fueled by the defense segment (INR b)



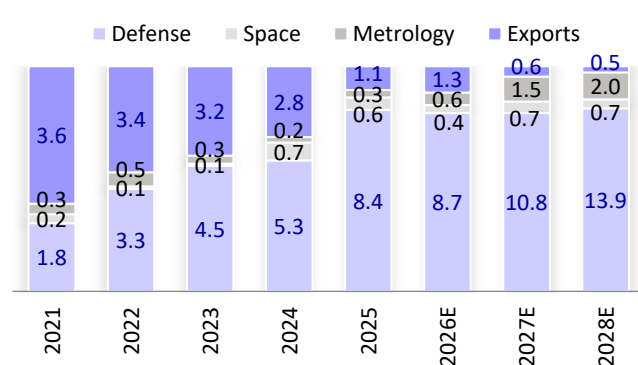
Source: Company, MOFSL

Exhibit 9: We expect 18% revenue CAGR over FY25-28 for ASTRA, driven by execution ramp-up



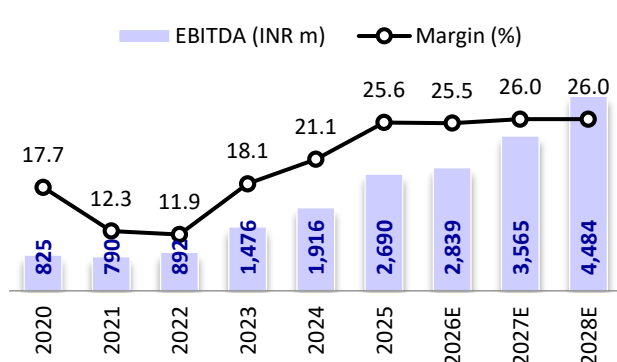
Source: Company, MOFSL

Exhibit 10: We expect this growth to be driven by the increased share of defense segment revenues (INR b)



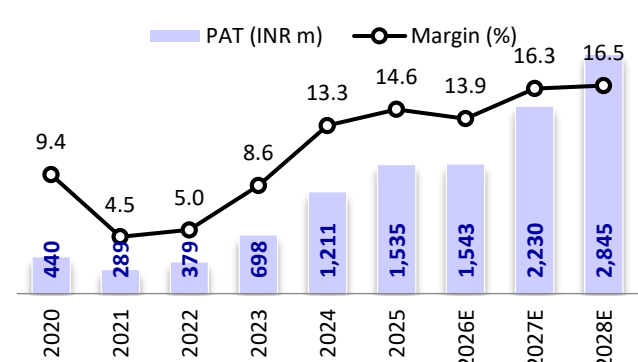
Source: Company, MOFSL

Exhibit 11: We expect margins to remain at comfortable levels (%)



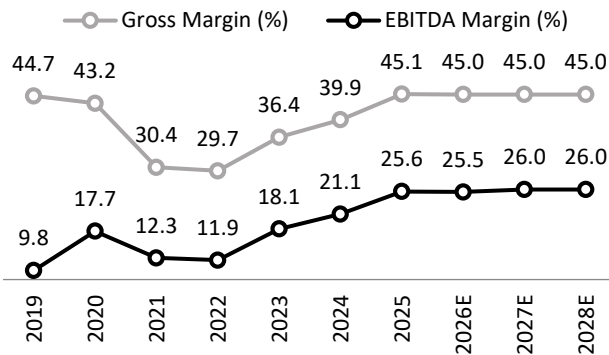
Source: MOFSL, Company

Exhibit 12: We expect PAT to post a CAGR of 23% over FY25-28



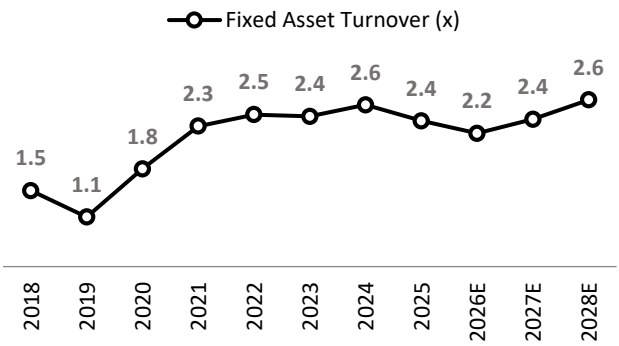
Source: MOFSL, Company

Exhibit 13: We expect gross margin to remain strong as ASTRA starts benefiting from RM costs



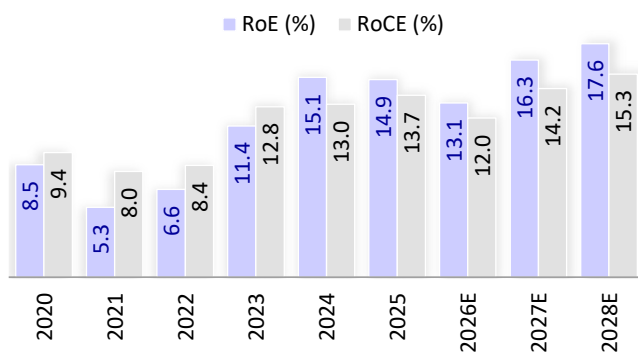
Source: MOFSL, Company

Exhibit 14: We expect fixed asset turnover to remain at current strong levels (x)



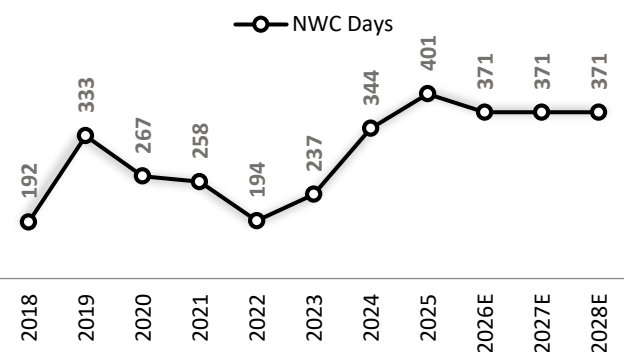
Source: MOFSL, Company

Exhibit 15: We expect RoE and RoCE to be in the range of 13-18%



Source: MOFSL, Company

Exhibit 16: NWC spike to come down from FY26, but we expect it to remain high around 370 days going forward



Source: MOFSL, Company

Financials and valuation

Consolidated - Income Statement

(INR m)

Y/E Mar	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Total Income from Operations	6,409	7,505	8,155	9,088	10,512	11,129	13,713	17,246
Change (%)	37.2	17.1	8.7	11.4	15.7	5.9	23.2	25.8
Total Expenditure	5,619	6,612	6,679	7,172	7,822	8,290	10,148	12,762
% of Sales	87.7	88.1	81.9	78.9	74.4	74.5	74.0	74.0
EBITDA	790	892	1,476	1,916	2,690	2,839	3,565	4,484
Margin (%)	12.3	11.9	18.1	21.1	25.6	25.5	26.0	26.0
Depreciation	235	220	237	250	350	399	453	516
EBIT	554	672	1,240	1,666	2,340	2,440	3,113	3,968
Int. and Finance Charges	249	211	305	313	571	647	647	647
Other Income	109	64	55	117	175	148	327	254
PBT bef. EO Exp.	414	525	989	1,470	1,944	1,941	2,792	3,575
EO Items	0	0	0	0	0	0	0	0
PBT after EO Exp.	414	525	989	1,470	1,944	1,941	2,792	3,575
Total Tax	97	123	261	379	502	505	730	931
Tax Rate (%)	23.4	23.5	26.4	25.8	25.8	26.0	26.1	26.0
Minority Interest	0	0	0	0	0	0	0	0
Reported PAT	289	379	698	1,211	1,535	1,543	2,230	2,845
Adjusted PAT	289	379	698	1,211	1,535	1,543	2,230	2,845
Change (%)	-34.5	31.3	84.4	73.4	26.8	0.5	44.5	27.6
Margin (%)	4.5	5.0	8.6	13.3	14.6	13.9	16.3	16.5

Consolidated - Balance Sheet

(INR m)

Y/E Mar	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Equity Share Capital	173	173	173	190	190	190	190	190
Total Reserves	5,414	5,683	6,253	9,472	10,795	12,338	14,568	17,413
Net Worth	5,587	5,856	6,426	9,662	10,985	12,528	14,758	17,603
Minority Interest	0	0	0	0	0	0	0	0
Total Loans	1,216	704	1,863	2,376	4,235	4,235	4,235	4,235
Deferred Tax Liabilities	-28	-69	-91	-111	-114	-114	-114	-114
Capital Employed	6,775	6,491	8,199	11,927	15,105	16,649	18,879	21,723
Gross Block	2,781	3,060	3,357	3,526	4,431	5,031	5,731	6,531
Less: Accum. Deprn.	1,257	1,474	1,696	1,852	2,202	2,601	3,054	3,570
Net Fixed Assets	1,524	1,586	1,661	1,674	2,229	2,430	2,677	2,962
Capital WIP	0	1	22	130	31	31	31	31
Total Investments	302	138	110	238	322	322	322	322
Curr. Assets, Loans&Adv.	7,599	7,890	8,687	12,588	15,816	17,351	20,144	23,811
Inventory	3,296	4,193	4,191	5,146	6,159	6,521	8,035	10,105
Account Receivables	2,668	2,051	2,836	5,052	7,861	7,408	9,128	11,480
Cash and Bank Balance	425	775	1,109	1,309	982	2,561	1,919	890
Loans and Advances	0	0	0	0	0	0	0	0
Other Current Asset	1,209	871	551	1,081	814	862	1,062	1,335
Curr. Liability & Prov.	2,650	3,125	2,281	2,703	3,292	3,486	4,295	5,402
Account Payables	377	554	458	838	767	812	1,000	1,258
Other Current Liabilities	2,213	2,493	1,715	1,722	2,312	2,448	3,017	3,794
Provisions	60	78	108	143	213	226	278	350
Net Current Assets	4,948	4,765	6,406	9,885	12,524	13,866	15,849	18,409
Appl. of Funds	6,775	6,491	8,199	11,927	15,105	16,649	18,879	21,723

Financials and valuation

Ratios

Y/E Mar	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
Basic (INR)								
EPS	3.3	4.4	8.1	12.9	16.3	16.4	23.7	30.2
Cash EPS	6.0	6.9	10.8	15.5	20.0	20.6	28.5	35.7
BV/Share	64.5	67.6	74.2	102.6	116.6	133.0	156.7	186.9
DPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Payout (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valuation (x)								
P/E	271.9	207.1	112.3	70.4	55.6	55.3	38.2	30.0
Cash P/E	149.7	130.9	83.9	58.4	45.2	43.9	31.8	25.4
P/BV	14.0	13.4	12.2	8.8	7.8	6.8	5.8	4.8
EV/Sales	12.4	10.4	9.7	9.5	8.4	7.8	6.4	5.1
EV/EBITDA	100.3	87.8	53.6	45.1	32.9	30.6	24.6	19.8
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FCF per share	-3.3	10.0	-6.8	-23.3	-17.4	23.6	0.1	-4.0
Return Ratios (%)								
RoE	5.3	6.6	11.4	15.1	14.9	13.1	16.3	17.6
RoCE	8.0	8.4	12.8	13.0	13.7	12.0	14.2	15.3
Working Capital Ratios								
Fixed Asset Turnover (x)	2.3	2.5	2.4	2.6	2.4	2.2	2.4	2.6
Asset Turnover (x)	0.9	1.2	1.0	0.8	0.7	0.7	0.7	0.8
Inventory (Days)	188	204	188	207	214	214	214	214
Debtor (Days)	152	100	127	203	273	243	243	243
Creditor (Days)	21	27	21	34	27	27	27	27
Leverage Ratio (x)								
Current Ratio	2.9	2.5	3.8	4.7	4.8	5.0	4.7	4.4
Interest Cover Ratio	2.2	3.2	4.1	5.3	4.1	3.8	4.8	6.1
Net Debt/Equity	0.1	-0.0	0.1	0.1	0.3	0.1	0.1	0.2

Consolidated - Cashflow Statement

(INR m)

Y/E Mar	FY21	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
OP/(Loss) before Tax	385	502	959	1,590	2,037	2,048	2,960	3,775
Depreciation	235	220	237	250	350	399	453	516
Interest & Finance Charges	249	211	305	313	571	647	647	647
Direct Taxes Paid	-78	-208	-256	-378	-410	-505	-730	-931
(Inc)/Dec in WC	-1,012	383	-1,526	-3,401	-3,114	237	-2,625	-3,589
CF from Operations	-219	1,108	-281	-1,626	-564	2,826	705	419
Others	-27	39	26	-189	-337	0	0	0
CF from Operating incl EO	-246	1,147	-255	-1,815	-901	2,826	705	419
(Inc)/Dec in FA	-37	-279	-337	-380	-741	-600	-700	-800
Free Cash Flow	-283	868	-591	-2,195	-1,643	2,226	5	-381
(Pur)/Sale of Investments	-58	146	0	0	0	0	0	0
Others	87	-127	55	-56	-22	0	0	0
CF from Investments	-8	-260	-282	-436	-763	-600	-700	-800
Issue of Shares	0	0	0	2,182	0	0	0	0
Inc/(Dec) in Debt	619	-512	1,076	487	2,016	0	0	0
Interest Paid	-178	-172	-206	-192	-412	-647	-647	-647
Dividend Paid	-104	-104	-122	-153	-191	0	0	0
Others	0	0	0	0	0	-0	0	0
CF from Fin. Activity	338	-787	748	2,324	1,413	-647	-647	-647
Inc/Dec of Cash	84	100	211	73	-252	1,579	-642	-1,029
Opening Balance	91	69	168	379	452	982	2,561	1,919
Other Bank Balances	250	607	729	857	781	0	0	0
Closing Balance	425	775	1,109	1,309	982	2,561	1,919	890

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

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 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, 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/NCDX); 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 dp grievances@motilaloswal.com.