

Granules India

Estimate change



TP change



Rating change



Bloomberg	GRAN IN
Equity Shares (m)	242
M.Cap.(INRb)/(USDb)	142.7 / 1.7
52-Week Range (INR)	593 / 288
1, 6, 12 Rel. Per (%)	16/29/57
12M Avg Val (INR M)	693

Financials & Valuations (INR b)

Y/E MARCH	FY24	FY25E	FY26E
Sales	45.1	49.6	56.9
EBITDA	8.8	10.8	13.0
Adj. PAT	4.2	5.8	7.7
EBIT Margin (%)	14.9	17.3	18.9
Cons. Adj. EPS (INR)	17.4	24.0	31.9
EPS Gr. (%)	-19.5	38.5	32.5
BV/Sh. (INR)	133.1	155.7	186.4

Ratios

Net D:E	0.4	0.3	0.3
RoE (%)	13.9	16.6	18.6
RoCE (%)	11.7	13.8	15.5
Payout (%)	7.0	4.9	3.7

Valuations

P/E (x)	33.9	24.5	18.5
EV/EBITDA (x)	11.3	9.1	7.3
Div. Yield (%)	0.2	0.2	0.2
FCF Yield (%)	0.7	2.2	4.7
EV/Sales (x)	2.2	2.0	1.7

Shareholding pattern (%)

As On	Jun-24	Mar-24	Jun-23
Promoter	38.9	42.0	42.0
DII	14.1	10.7	6.7
FII	20.4	19.6	21.4
Others	26.6	27.8	30.0

FII Includes depository receipts

CMP: INR589

TP: INR680 (+15%)

Buy

FD and low base doubled earnings YoY

Efforts underway towards portfolio enhancement

- Granules India (GRAN) posted in-line revenue in 1QFY25. However, it delivered better-than-estimated 1QFY25 EBITDA/PAT led by the increased share of formulation sales as well as a higher contribution from new launches.
- We tweak our earnings estimate by +2% for FY25 to factor in the steady traction from new launches and a weak outlook in the paracetamol business owing to higher API inventory at the industry level. We value GRAN at 18x 12M forward earnings to arrive at our TP of INR680.
- In addition to the shift towards higher formulation sales from its legacy molecules, GRAN is implementing efforts to: 1) build a pipeline in the space of oncology, large volume products, and innovation/tech-based products (enzyme/contract manufacturing), and b) backward integrate the manufacturing process of its legacy products. This augurs well for sustaining the earnings growth momentum beyond FY26 as well. **Reiterate BUY.**

Segment mix benefit partly offset by higher opex for the quarter

- Granules sales grew 20% YoY to INR11.8b (in line with estimates).
- FDF sales grew 65% YoY to INR9b (76% of sales). PFI sales fell 33% YoY to INR997m (10% of sales). API sales dipped 36% YoY to INR1.9b (14% of sales).
- The US sales (74% of sales) grew 45% YoY to INR8.7b. India sales (5% of sales) rose 15% YoY to INR569m. LATAM sales (5% of sales) grew 9% YoY to INR535m. The ROW sales (4% of sales) inched up 2% YoY to INR503m. However, Europe sales (13% of sales) declined 37% YoY to INR1.5b in 1QFY25.
- Gross Margin (GM) expanded 760bp YoY to 58.9% due to the change in segmental mix and lower RM costs.
- However, EBITDA margin expanded at a lower rate of 600bp YoY to 22% (our est: 20.8%), as gross margin improvement was partly offset by higher other expenses (up 200bp as a % of sales).
- EBITDA grew 64% YoY to INR2.6b (vs. our est: INR2.5b) for the quarter.
- Adjusted PAT came in at 2.1x YoY to INR1.3b (our estimate: INR1.2b).

Highlights from the management commentary

- GRAN indicated a 20% YoY growth in the US sales for FY25.
- The company expects EBITDA margin to improve QoQ and anticipates FY25 EBITDA margin to be ~22-23%.
- GRAN has launched five products in 1QFY25 in the US market. Further, it expects to launch 3-4 more products in the remaining of FY25.
- It expects that paracetamol would not contribute meaningfully over the next two quarters due to inventory buildup at the customers end.
- The sales of new products contributed ~35% in 1QFY25 vs. 25% in FY24 and 15% in FY23 in the FD segment.

Tushar Manudhane - Research Analyst (Tushar.Manudhane@MotilalOswal.com)

Akash Manish Dobhada - Research Analyst (Akash.Dobhada@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.

Quarterly Performance

(INR m)

Y/E March	FY24				FY25E				FY24	FY25E	FY25E	Var.
(Consolidated)	1Q	2Q	3Q	4Q	1Q	2QE	3QE	4QE			1QE	vs Est
Net Sales	9,855	11,895	11,556	11,758	11,799	12,180	12,575	13,000	45,063	49,554	11,806	-0.1
YoY Change (%)	-3.3	3.4	0.8	-1.6	19.7	2.4	8.8	10.6	-0.1	10.0	19.8	
Total Expenditure	8,276	9,765	9,051	9,201	9,206	9,513	9,834	10,199	36,293	38,751	9,351	
EBITDA	1,579	2,130	2,505	2,557	2,593	2,667	2,741	2,801	8,770	10,803	2,456	5.6
YoY Change (%)	-25.4	-12.3	8.3	8.3	64.2	25.2	9.4	9.5	-4.9	23.2	55.5	
Margins (%)	16.0	17.9	21.7	21.7	22.0	21.9	21.8	21.5	19.5	21.8	20.8	
Depreciation	492	525	524	532	529	555	560	580	2,073	2,224	550	
EBIT	1,086	1,605	1,981	2,025	2,064	2,112	2,181	2,221	6,697	8,579	1,906	8.3
YoY Change (%)	-35.4	-19.3	8.3	8.1	90.0	31.7	10.1	9.6	-9.2	28.1	75.4	
Margins (%)	11.0	13.5	17.1	17.2	17.5	17.3	17.3	17.1	14.9	17.3	16.1	
Interest	225	260	286	288	270	265	260	225	1,058	1,020	270	
Other Income	3	15	7	19	21	10	12	6	44	48	13	
PBT before EO expense	865	1,360	1,701	1,756	1,814	1,857	1,933	2,001	5,683	7,607	1,649	10.0
Extra-Ord expense	211	0	0	0	0	0	0	0	211	0	0	
PBT	654	1,360	1,701	1,756	1,814	1,857	1,933	2,001	5,472	7,607	1,649	
Tax	176	339	444	460	468	470	479	364	1,419	1,782	419	
Rate (%)	26.9	24.9	26.1	26.2	25.8	25.3	24.8	18.2	25.9	23.4	25.4	
(Profit)/Loss of JV/Asso. Cos.	0	0	0	0	0	0	0	0	0	0	0	
Reported PAT	479	1,021	1,257	1,296	1,346	1,388	1,454	1,637	4,052	5,825	1,230	9.5
Adjusted PAT	633	1,021	1,257	1,296	1,346	1,388	1,454	1,637	4,207	5,825	1,230	9.5
YoY Change (%)	-50.4	-29.6	1.1	3.4	112.7	35.9	15.7	26.3	-19.5	38.5	94.3	
Margins (%)	6.4	8.6	10.9	11.0	11.4	11.4	11.6	12.6	9.3	11.8	10.4	

E: MOFSL Estimates

Key performance Indicators (Consolidated)

Y/E March	FY24				FY25E				FY24	FY25E	FY25E
	1Q	2Q	3Q	4Q	1Q	2QE	3QE	4QE			1QE
FD	5,420	7,375	7,627	8,642	8,912	9,071	9,305	9,598	29,090	36,886	8,673
YoY Change (%)	-1.2	25.9	45.9	41.3	64.4	23.0	22.0	11.1	28.2	26.8	60.0
PFI	1,478	1,427	1,733	1,482	997	1,028	1,075	1,175	6,107	4,275	1,508
YoY Change (%)	-37.6	-39.2	-18.7	-31.8	-32.6	-28.0	-38.0	-20.7	-32.3	-30.0	2.0
API	2,957	2,974	2,196	1,633	1,890	2,082	2,196	2,226	9,823	8,394	1,626
YoY Change (%)	26.3	-10.0	-46.5	-55.5	-36.1	-30.0	0.0	36.3	-26.8	-14.6	-45.0
Cost Break-up											
RM Cost (% of Sales)	48.6	48.3	43.0	39.9	41.1	41.9	42.3	42.7	55.1	58.0	41.5
Staff Cost (% of Sales)	14.2	12.5	13.6	12.9	13.9	13.0	12.7	11.4	13.3	12.7	13.2
Other Cost (% of Sales)	21.1	21.2	21.7	25.4	23.1	23.2	23.2	24.4	22.4	23.5	24.5
Gross Margin (%)	51.4	51.7	57.0	60.1	58.9	58.1	57.7	57.3	44.9	42.0	58.5
EBITDA Margin (%)	16.0	17.9	21.7	21.7	22.0	21.9	21.8	21.5	19.5	21.8	20.8
EBIT Margin (%)	11.0	13.5	17.1	17.2	17.5	17.3	17.3	17.1	14.9	17.3	16.1

E: MOFSL Estimates

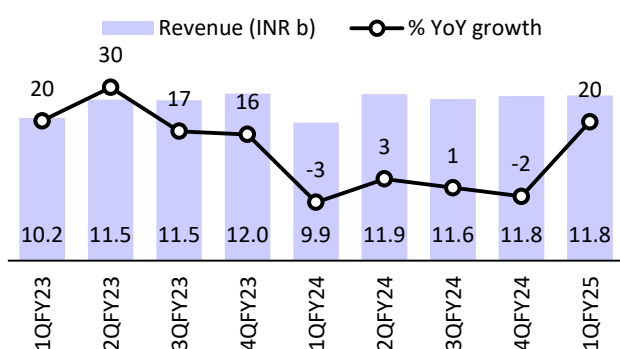


Conference call highlights

- While GRAN commissioned the DCDA pilot plant, it had some teething issues. It expects to resolve soon. Having said this, it has already ordered equipment for commercial scale manufacturing.
- For the full year, management expects gross margin to be ~60%.
- The company is focusing on building manufacturing infrastructure for the enzyme and fermentation segments. The capex would be completed within the next 14-18 months in this segment.
- It expects to start the validation of three molecules in enzymes from 3QFY25.
- GRAN expects API sales to pick up from FY26.
- R&D expenses were INR620m for the quarter. GRAN expects that R&D costs would increase going forward.
- The Red Sea issue affected the inventory days, resulting in the increase in working capital days.
- OTC sales witnessed double-digit growth, which was 15% of the overall formulation sales.

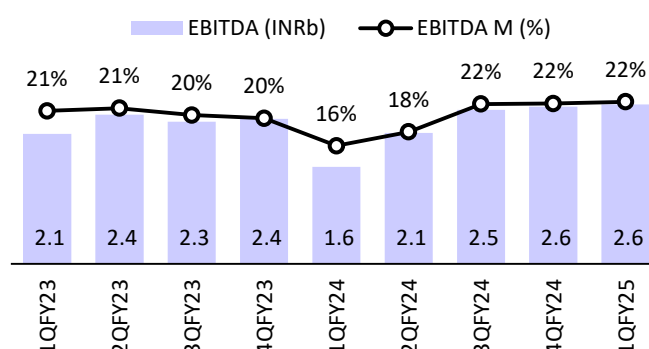
Key exhibits

Exhibit 1: Revenue grew 20% YoY in 1QFY25



Source: MOFSL, Company

Exhibit 2: EBITDA margin expanded 600bp YoY in 1QFY25



Source: MOFSL, Company

Moving up the value chain for better growth and profitability

Work in progress on building capacities to fuel growth over the medium term

- In 1QFY24, overall sales grew at 20% YoY at INR11.8b, due to strong growth in the FDF segment offset by a low base of the last year due to a cyber incident.
- GRAN anticipates increasing its capacity for both API and formulation (8 billion pills) in FY25. In addition, the company has plans for backward integration by manufacturing DCDA in-house.
- The company is also leveraging its technology alliances with Greenko to reduce carbon emissions. GRAN plans to start manufacturing multiple products, besides paracetamol, from this technology.
- Additionally, GRAN is investing in R&D to expand into new segments such as oncology, innovative products, and new dosage forms, including non-solid forms, liquids, and nasal sprays.
- For this, GRAN is building the capacity for Oncology in API and FDF dosage form, which is expected to start operations in FY26. It expects to start filing from this facility from FY26 onwards.

- The company is also building capacity for enzyme and fermentation, which would be completed over the next 14-18 months.

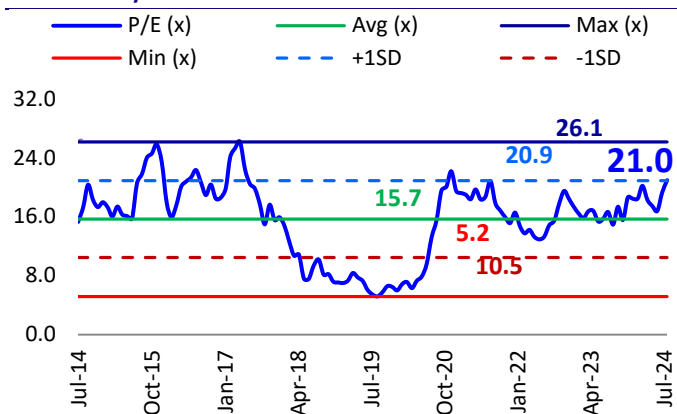
Focus on complex launches to drive growth over the medium term

- In 1QFY25, GRAN reported 45% YoY growth in the US to INR8.7b, largely due to new launches in Rx and OTC businesses. Europe revenue declined 37% YoY to INR1.5b due to price erosion in paracetamol.
- GRAN plans to file 3-4 in the Rx and OTC markets in the US, supported by launches in new dosage forms recently.
- It also plans to increase R&D expenditure going forward as it plans to file complex products, including onco, CNS/ADHD, and diabetes products in the US and the EU markets.
- The management expects to launch a couple of complex products in the regulated market, which would support overall growth for GRAN over the medium term.

Reiterate BUY with a TP of INR680

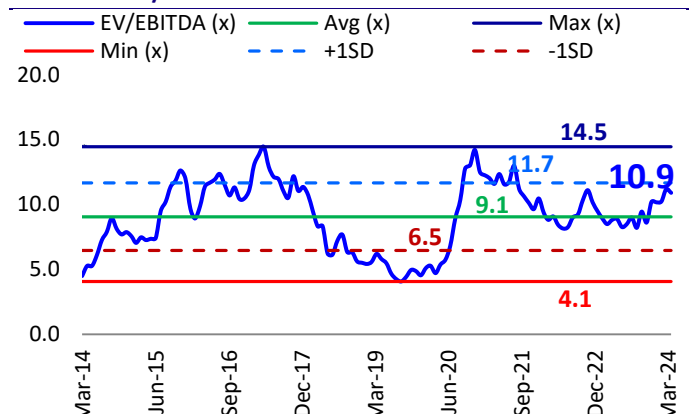
- We tweak our earnings estimate by +2% for FY25 to factor in the steady traction from new launches and a weak outlook in the paracetamol business owing to higher API inventory at the industry level. We value GRAN at 18x 12M forward earnings to arrive at our TP of INR680.
- In addition to the shift towards higher formulation sales from its legacy molecules, GRAN is implementing efforts to: 1) build a pipeline in the space of oncology, large volume products, and innovation/tech-based products (enzyme/contract manufacturing), and b) backward integrate the manufacturing process of its legacy products. This augurs well for sustaining the earnings growth momentum beyond FY26 as well. **Reiterate BUY.**

Exhibit 3: P/E chart



Source: MOFSL, Company, Bloomberg

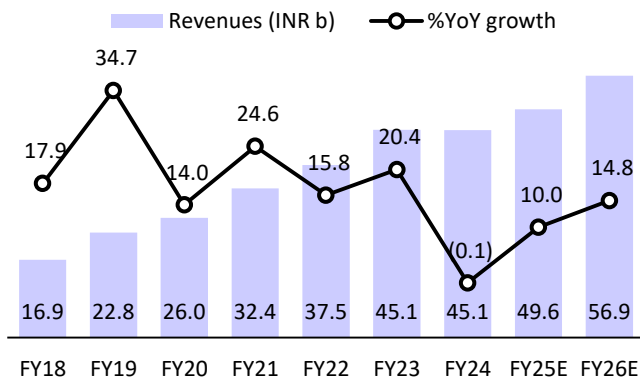
Exhibit 4: EV/EBITDA chart



Source: MOFSL, Company, Bloomberg

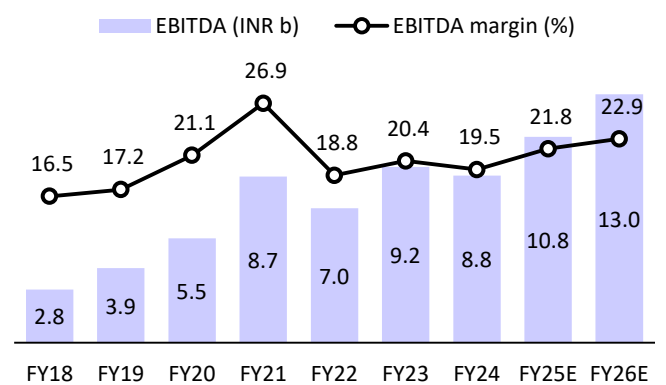
Story in charts

Exhibit 5: Expect revenue CAGR of 12.3% over FY24–26



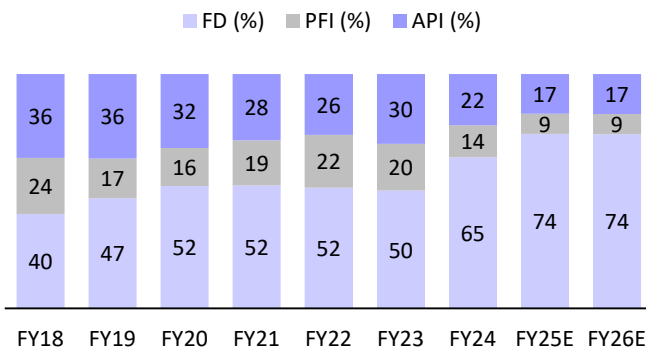
Source: MOFSL, Company

Exhibit 6: EBITDA margin to expand 340bp over FY24–26



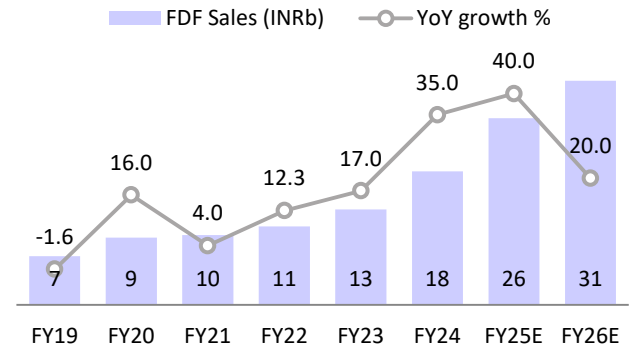
Source: MOFSL, Company

Exhibit 7: FD to further increase to 74% in FY26



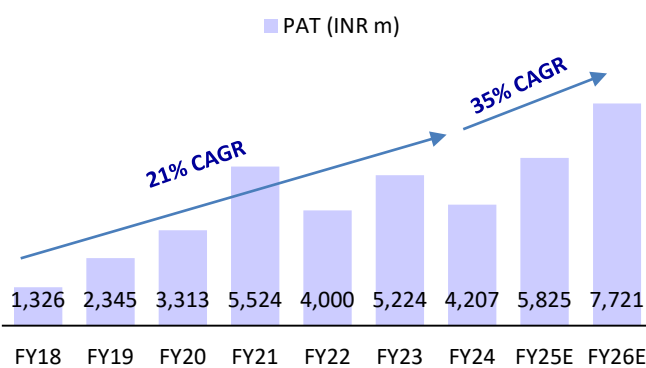
Source: MOFSL, Company

Exhibit 8: FDF sales to clock 30% CAGR over FY24-26



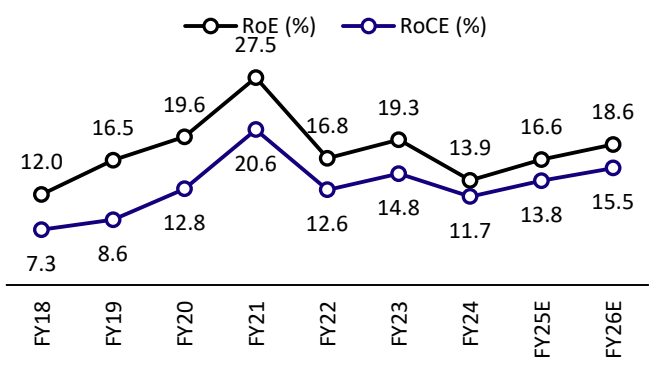
Source: MOFSL, Company

Exhibit 9: PAT to exhibit 35% CAGR over FY24-26



Source: MOFSL, Company

Exhibit 10: Return ratios rising steadily over FY24-26



Source: MOFSL, Company

Financials and valuations

Consolidated - Income Statement

								INRm
Y/E March	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E
Total Income from Operations	22,792	25,986	32,375	37,477	45,119	45,063	49,554	56,878
Change (%)	34.7	14.0	24.6	15.8	20.4	-0.1	10.0	14.8
Total Expenditure	18,872	20,513	23,665	30,427	35,901	36,293	38,751	43,853
% of Sales	82.8	78.9	73.1	81.2	79.6	80.5	78.2	77.1
EBITDA	3,920	5,473	8,710	7,050	9,218	8,770	10,803	13,025
Margin (%)	17.2	21.1	26.9	18.8	20.4	19.5	21.8	22.9
Depreciation	1,055	1,370	1,515	1,586	1,845	2,073	2,224	2,286
EBIT	2,866	4,104	7,195	5,464	7,373	6,697	8,579	10,739
Int. and Finance Charges	285	270	263	232	559	1,058	1,020	741
Other Income	267	366	152	176	138	44	48	56
PBT bef. EO Exp.	2,848	4,199	7,085	5,407	6,952	5,683	7,607	10,053
EO Items	-80	57	-40	173	-80	-211	0	0
PBT after EO Exp.	2,768	4,257	7,045	5,580	6,872	5,472	7,607	10,053
Current Tax	891	1,257	1,954	1,382	1,772	1,652	1,842	2,332
Deferred Tax	72	-100	-405	70	-66	-233	-60	0
Tax Rate (%)	34.8	27.2	22.0	26.0	24.8	25.9	23.4	23.2
Add: Associate income	487	255	0	0	0	0	0	0
Reported PAT	2,292	3,354	5,496	4,128	5,166	4,052	5,825	7,721
Adjusted PAT	2,345	3,313	5,524	4,000	5,224	4,207	5,825	7,721
Change (%)	76.8	41.3	66.8	-27.6	30.6	-19.5	38.5	32.5
Margin (%)	10.2	12.6	17.0	10.6	11.5	9.3	11.7	13.6

Consolidated - Balance Sheet

								INRm
Y/E March	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E
Equity Share Capital	254	254	248	248	242	242	242	242
Total Reserves	15,040	18,183	21,485	25,617	28,107	32,013	37,495	44,932
Net Worth	15,295	18,437	21,733	25,865	28,349	32,255	37,737	45,174
Minority Interest	0	0	0	6	0	0	0	0
Deferred Liabilities	655	482	11	139	77	231	231	231
Total Loans	9,330	7,932	7,504	10,928	11,362	13,151	12,355	11,559
Capital Employed	25,279	26,851	29,248	36,938	39,788	45,637	50,323	56,964
Gross Block	16,639	21,442	22,220	25,355	30,897	34,817	39,317	43,817
Less: Accum. Deprn.	5,473	6,842	8,357	9,943	11,788	13,861	16,085	18,372
Net Fixed Assets	11,167	14,600	13,863	15,412	19,109	20,956	23,232	25,446
Capital WIP	3,235	1,481	1,848	3,562	2,394	2,717	4,955	5,688
Total Investments	2,104	193	190	197	361	382	382	382
Curr. Assets, Loans&Adv.	13,279	15,957	21,226	25,945	27,168	30,783	31,451	36,588
Inventory	3,842	4,384	7,822	9,786	11,494	13,005	12,209	12,615
Account Receivables	6,735	6,620	7,654	9,250	9,485	9,858	10,997	12,622
Cash and Bank Balance	890	2,839	2,710	4,095	3,128	3,864	3,784	6,231
Loans and Advances	1,811	2,113	3,040	2,815	3,060	4,056	4,460	5,119
Curr. Liability & Prov.	4,548	5,432	7,887	8,191	9,258	9,573	10,069	11,511
Account Payables	3,235	3,569	5,410	6,386	7,821	7,495	7,963	9,131
Other Current Liabilities	1,144	1,589	2,160	1,294	998	1,580	1,738	1,995
Provisions	169	275	317	511	439	497	369	386
Net Current Assets	8,731	10,525	13,340	17,753	17,910	21,211	21,382	25,077
Appl. of Funds	25,279	26,852	29,248	36,938	39,788	45,637	50,323	56,964

E: MOFSL Estimates

Financials and valuations

Ratios

Y/E March	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E
EPS	9.7	13.7	22.8	16.5	21.6	17.4	24.0	31.9
Cash EPS	13.4	18.4	28.4	22.5	29.2	25.9	33.2	41.3
BV/Share	60.2	72.5	87.7	104.3	117.1	133.1	155.7	186.4
DPS	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Payout (%)	13.4	8.9	5.3	7.0	5.5	7.0	4.9	3.7
Valuation (x)								
P/E	60.9	43.1	25.8	35.7	27.3	33.9	24.5	18.5
Cash P/E	44.0	32.0	20.7	26.1	20.2	22.7	17.7	14.3
P/BV	9.8	8.1	6.7	5.6	5.0	4.4	3.8	3.2
EV/Sales	4.3	3.6	2.9	2.6	2.2	2.2	2.0	1.7
EV/EBITDA	25.0	17.3	10.8	13.7	10.6	11.3	9.1	7.3
Dividend Yield (%)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Return Ratios (%)								
RoE	16.5	19.6	27.5	16.8	19.3	13.9	16.6	18.6
RoCE	8.6	12.8	20.6	12.6	14.8	11.7	13.8	15.5
RoIC	10.2	14.4	24.0	15.1	17.6	13.7	16.4	19.2
Working Capital Ratios								
Asset Turnover (x)	0.9	1.0	1.1	1.0	1.1	1.0	1.0	1.0
Inventory (Days)	53	58	69	86	86	99	93	80
Debtor (Days)	103	94	80	82	76	78	77	76
Creditor (Days)	56	61	69	71	72	77	73	71
Leverage Ratio (x)								
Current Ratio	2.9	2.9	2.7	3.2	2.9	3.2	3.1	3.2
Interest Cover Ratio	10	15	27	24	13	6	8	14
Debt/Equity	0.6	0.4	0.3	0.4	0.4	0.4	0.3	0.3

Consolidated - Cash Flow Statement

Y/E March	FY19	FY20	FY21	FY22	FY23	FY24	FY25E	FY26E
OP/(Loss) before Tax	2,848	4,256	7,044	5,580	6,952	5,472	7,607	10,053
Depreciation	1,055	1,370	1,515	1,586	1,845	2,073	2,224	2,286
Interest & Finance Charges	18	207	139	232	559	1,058	972	686
Direct Taxes Paid	-891	-1,191	-1,914	-1,450	-1,758	-1,903	-1,842	-2,332
(Inc)/Dec in WC	-377	128	-2,749	-2,572	-103	-2,463	-250	-1,248
CF from Operations	2,652	4,769	4,034	3,376	7,495	4,238	8,711	9,445
Others	0	-7	291	-56	-27	156	0	0
CF from Operating incl EO	2,652	4,762	4,325	3,321	7,467	4,394	8,711	9,445
(inc)/dec in FA	-2,544	-1,843	-2,710	-3,967	-4,107	-3,788	-6,738	-5,232
(Pur)/Sale of Investments	-539	0	-2	0	2,035	159	0	0
Others	267	237	-59	166	158	28	48	56
CF from Investments	-2,816	-1,606	-2,771	-3,801	-1,914	-3,602	-6,690	-5,177
Issue of Shares	195	0	41	37	-3,084	32	0	0
(Inc)/Dec in Debt	-252	-1,534	-719	2,530	-600	1,435	-796	-796
Interest Paid	-285	-266	-263	-242	-533	-1,027	-1,020	-741
Dividend Paid	-306	-307	-247	-372	-186	-363	-284	-284
CF from Fin. Activity	-102	-2,129	-2,993	1,900	-4,403	77	-2,100	-1,821
Inc/Dec of Cash	-266	1,027	-1,440	1,419	1,151	869	-79	2,447
Opening Balance	1,156	890	2,839	2,711	4,095	3,128	3,863	3,784
FX	-30	921	1,312	-35	-2,118	-134	0	0
Closing Balance	891	2,839	2,711	4,095	3,128	3,863	3,784	6,231

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://online.reports.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.raiani@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, 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 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

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@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.