

Laurus Labs

Estimate change

TP change

Rating change



Bloomberg	LAURUS IN
Equity Shares (m)	532
M.Cap.(INRb)/(USDb)	268.4 / 3.6
52-Week Range (INR)	724 / 333
1, 6, 12 Rel. Per (%)	-4/-28/18
12M Avg Val (INR M)	1835

Financials & valuations (INR b)

Y/E MARCH	2022E	2023E	2024E
Sales	48.4	58.7	70.9
EBITDA	14.6	18.9	23.4
Adj. PAT	8.7	11.7	14.9
EBIT Margin (%)	25.0	26.9	27.8
Cons. Adj. EPS (INR)	16.2	21.8	27.8
EPS Gr. (%)	-11.6	34.5	27.6
BV/Sh. (INR)	62.2	80.7	104.4

Ratios

Net D:E	0.4	0.3	0.1
RoE (%)	29.3	30.5	30.0
RoCE (%)	21.7	24.3	25.8
Payout (%)	15.1	15.1	15.1

Valuations

P/E (x)	30.8	22.9	18.0
EV/EBITDA (x)	19.2	14.8	11.7
Div. Yield (%)	0.4	0.5	0.7
FCF Yield (%)	1.1	1.3	2.8
EV/Sales (x)	5.8	4.8	3.9

Shareholding pattern (%)

As On	Dec-21	Sep-21	Dec-20
Promoter	27.3	27.3	28.8
DII	6.9	4.8	4.1
FII	22.1	22.8	19.9
Others	43.8	45.1	47.2

FII includes depository receipts

CMP: INR500
TP: INR580 (+16%)
Buy

3QFY22 miss; channel de-stocking impacts earnings

ARV outlook intact; Synthesis business in scale up mode

- LAURUS delivered a lower than expected 3QFY22, dragged by the adverse impact of inventory rationalization in the Anti-retroviral (ARV) segment. This was offset to some extent by improving performance in Synthesis and the other API segment. Its prospects remain strong in Synthesis/other API segment, led by higher orders from existing customers as well as new customer additions.
- We lower our FY22E/FY23E/FY24E EPS estimate by 15.4%/12.4%/11.8% to factor in: a) lesser demand on account of lower stocking by channel partners affecting both the API and Formulation businesses in the ARV segment, b) steadily increasing opex due to new capex, and c) lower operating leverage.
- We continue to value LAURUS at 24x 12-month forward earnings to arrive at our TP of INR580. We believe the inventory-related disruption in ARV is largely complete, leading to better volume led offtake going forward. LAURUS is progressing well on building Synthesis as an additional growth lever through its chemistry skill set and is subsequently building manufacturing capacity. We maintain our Buy rating.

Superior product mix benefit more than offset by lower operating leverage

- Revenue fell 20% YoY to INR10.3b (est. INR12b) in 3QFY22. Growth was dragged lower by a 42% YoY decline in API revenue (41% of sales). The ARV-API segment declined by 49% YoY to INR2b, Onco-API grew 33% to INR848m, and other API rose 37% YoY to INR1.4b.
- Formulation (FDF) sales fell 13% YoY (36% of sales) to INR3.7b. The Synthesis business grew 63% YoY to INR2b, offsetting some impact of the decline in API/FDF sales.
- Gross margin expanded by 400bp YoY to 59% due to a change in the product mix.
- However, EBITDA margin contracted by 540bp YoY to 27.7% (est. 29.7%) due to higher employee costs/other expenses (+400bp/540bp as a percentage of sales).
- EBITDA declined by 33% YoY to INR2.9b (est. INR3.6b).
- PAT declined by 43% YoY to INR1.5b (est. INR2b).
- Revenue grew 3% YoY to INR35b, while EBITDA/PAT declined by 5%/13% to INR10.2b/INR6b in 9MFY22.

Highlights from the management commentary

- The management is confident of achieving its USD1b sales target by FY23.
- It guided at 30% EBITDA margin in FY22 (achieved 29.2% in 9MFY22).
- By FY25, the CDMO/CS business is expected to contribute 25% to total revenue from the current contribution of 20%. This implies a sharp uptick in this business. The management expects this to be driven by a couple of products advancing in clinical trials, ramp-up of projects dedicated to a global life science company, new customer additions, and incremental business from new customers.

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

Gaurang Sakare - Research Analyst (Gaurang.sakare@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.

- Inventory rationalization impacted its 3QFY22 sales run-rate in the ARV-API segment. However, the management expects business to normalize over the near to medium term, driving INR15-16b sales on an annual basis.
- At present, 25% of the gross block is not contributing to revenue.

Valuation and view

- We lower our FY22E/FY23E/FY24E EPS estimate by 15.4%/12.4%/11.8% to factor in: a) de-stocking led pressure in the ARV business, b) increased cost pressure due to disruption in China, and c) lower operating leverage.
- We expect 31% earnings CAGR over FY22-24E, led by a 30%/27%/11% sales CAGR in the Synthesis/FDF/API segment and ~280bp margin expansion. We value LAURUS at 24x 12-month forward earnings to arrive at our TP of INR580.
- We remain positive on LAURUS on the back of: a) its Synthesis CDMO segment outlook and a strong client base, b) its potential in the Biologics CDMO segment, with capacity addition, c) product development/capacity addition in the Non-ARV segment, and d) healthy order book in the Non-ARV API business. We reiterate our Buy rating.

Consolidated quarterly earnings model

Y/E March	(INR m)											
	FY21				FY22				FY21	FY22E	FY22E	Var. (%)
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE			3QE	
Net Sales	9,743	11,388	12,884	14,119	12,785	12,035	10,288	13,292	48,135	48,400	12,070	-14.8
YoY Change (%)	77.0	59.9	76.6	68.3	31.2	5.7	-20.2	-5.9	70.0	0.5	-6.3	
Total Expenditure	6,960	7,650	8,621	9,397	8,832	8,584	7,435	8,933	32,628	33,783	8,485	
EBITDA	2,783	3,739	4,263	4,722	3,954	3,451	2,853	4,359	15,507	14,617	3,585	-20.4
YoY Change (%)	220.8	171.3	187.7	146.2	42.0	-7.7	-33.1	-7.7	174.7	-5.7	-15.9	
Margin (%)	28.6	32.8	33.1	33.4	30.9	28.7	27.7	32.8	32.2	30.2	29.7	
Depreciation	488	510	516	536	585	632	640	676	2,051	2,533	650	
EBIT	2,295	3,229	3,747	4,186	3,368	2,819	2,213	3,684	13,456	12,084	2,935	-24.6
YoY Change (%)	460.8	258.9	272.3	187.2	46.7	-12.7	-40.9	-12.0	256.7	-10.2	-21.7	
Margin (%)	23.6	28.4	29.1	29.6	26.3	23.4	21.5	27.7	28.0	25.0	24.3	
Interest	151	137	174	219	266	221	231	246	682	964	225	
Other Income	71	51	69	45	59	28	53	29	237	169	50	
PBT before EO expense	2,215	3,143	3,642	4,012	3,161	2,626	2,035	3,468	13,011	11,289	2,760	-26.3
PBT	2,215	3,143	3,642	4,012	3,161	2,626	2,035	3,468	13,011	11,289	2,760	-26.3
Tax	497	720	913	1,043	744	586	485	780	3,173	2,596	621	
Rate (%)	22.4	22.9	25.1	26.0	23.6	22.3	23.8	22.5	24.4	23.0	22.5	
Reported PAT	1,718	2,423	2,729	2,969	2,416	2,040	1,550	2,687	9,838	8,693	2,139	-27.6
Adj. PAT	1,718	2,423	2,729	2,969	2,416	2,040	1,550	2,687	9,838	8,693	2,139	-27.6
YoY Change (%)	1,038.0	328.4	271.4	169.6	40.7	-15.8	-43.2	-9.5	285.4	-11.6	-21.6	
Margin (%)	17.6	21.3	21.2	21.0	18.9	16.9	15.1	20.2	20.4	18.0	17.7	

Key performance indicators (Consolidated)

Y/E March	FY21				FY22				FY21	FY22E	FY22E	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE			3QE	
INR m												
API	5,220	5,710	7,310	8,053	5,490	5,270	4,240	5,988	26,210	20,988	5,000	
YoY Change (%)	40.3	22.4	104.0	90.0	5.2	(7.7)	(42.0)	(25.6)	62.9	(19.9)	(31.6)	
Custom Synthesis	1,000	1,160	1,270	1,760	1,950	1,550	2,070	2,587	5,285	8,157	1,800	
YoY Change (%)	37.0	36.5	62.8	18.9	95.0	33.6	63.0	47.0	66.7	55.0	41.7	
Formulation	3,520	4,520	4,300	4,300	5,210	4,950	3,730	4,414	16,640	18,304	5,000	
YoY Change (%)	232.1	182.7	47.2	60.9	48.0	9.5	(13.3)	2.7	101.6	10.0	16.3	
Cost Break-up												
RM Cost (as a percentage of sales)	45.8	44.0	45.3	44.5	43.3	44.3	41.2	44.0	44.8	43.3	44.5	
Staff Cost (as a percentage of sales)	11.5	9.5	7.8	8.1	10.0	10.2	11.9	9.1	9.0	10.2	9.6	
R&D Expenses (as a percentage of sales)	4.3	3.8	3.1	5.5	3.8	3.5	5.5	5.5	3.5	3.5	5.5	
Other Cost (as a percentage of sales)	14.2	13.7	13.8	14.0	15.8	16.9	19.2	14.0	13.9	16.3	16.2	
Gross Margin (%)	54.2	56.0	54.7	55.5	56.7	55.7	58.8	56.0	55.2	56.7	55.5	
EBITDA Margin (%)	28.6	32.8	33.1	33.4	30.9	28.7	27.7	32.8	32.2	30.2	29.7	
EBIT Margin (%)	23.6	28.4	29.1	29.6	26.3	23.4	21.5	27.7	28.0	25.0	24.3	

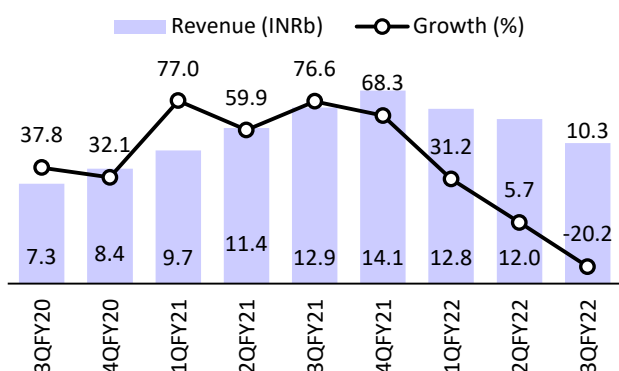


Other highlights from the management interaction

- LAURUS commissioned the remaining two Fermenters of 45KL each, taking its total operational capacity to 180KL as of Dec'21. Subsequent benefits of the full operational capacity will reflect from 4QFY22 onwards. This capacity will be used to supply to developed markets.
- Growth in other APIs was led by contract manufacturing by its European clients.
- The regime change from TDF to TAF is not happening as per its expectations in the ARV space.
- The margin pecking order is custom synthesis, FDF, other APIs, and ARV-APIs.
- Diabetes and Cardiovascular are areas where the new APIs and FDF approvals will come through for Europe and North America geographies.
- Current debt stands at INR17.5b and is expected to move up till Mar'22. However, its debt is expected to reduce from FY23 onwards as the recently incurred capex starts accruing commercial benefits.
- LAURUS incurred a capex of INR7.7b in 9MFY22. It is on track to undertake a capex of INR15b/INR17b over FY22/FY23.

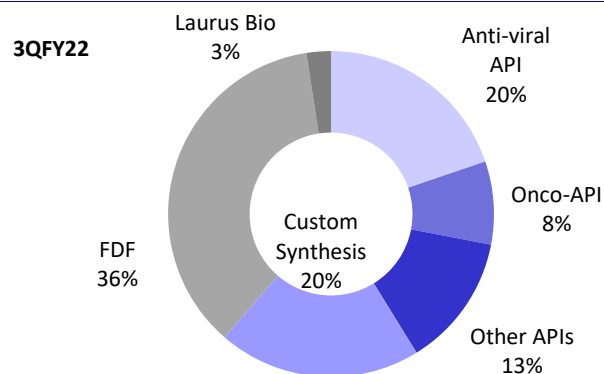
Key exhibits

Exhibit 1: ARV-API/FDF drag revenue down by 20% YoY



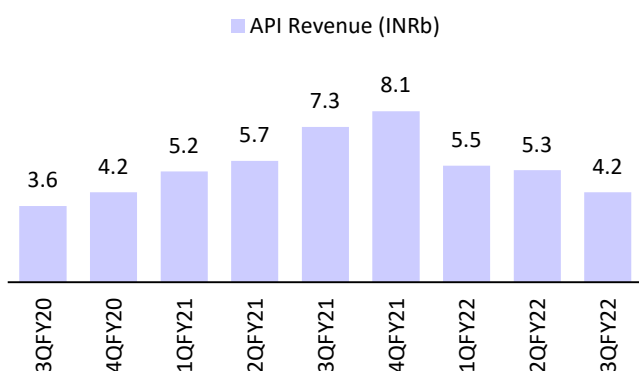
Source: MOFSL, Company

Exhibit 2: Share of API sales stood at 41%



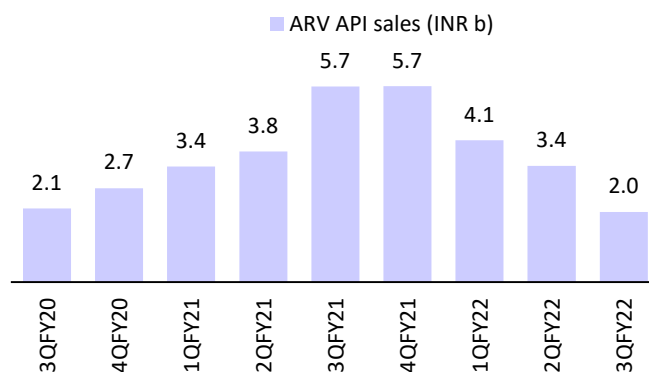
Source: MOFSL, Company

Exhibit 3: API sales decline by 20% YoY in 3QFY22

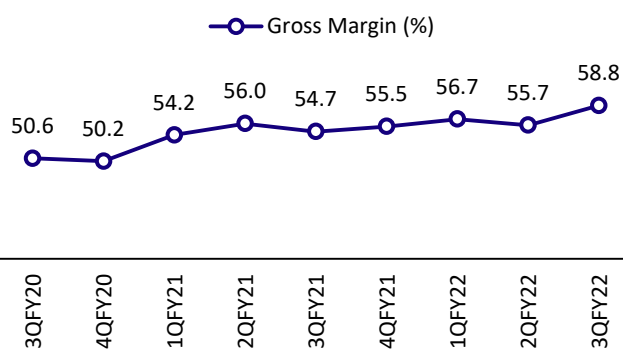


Source: MOFSL, Company

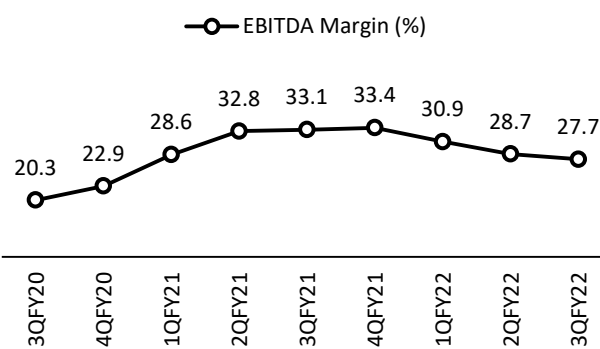
Exhibit 4: ARV-API sales decline by 64% YoY in 3QFY22



Source: MOFSL, Company

Exhibit 5: Gross margin expands by ~410bp YoY in 3QFY22

Source: MOSL, Company

Exhibit 6: EBITDA margin contracts by 540bp YoY in 3QFY22

Source: MOSL, Company

ARV segment bottomed out, on track to build Non-ARV levers

FDF – Building a Non-ARV pipeline for developed markets

- FDF revenue grew 13% YoY to INR13.9b in 9MFY22, but fell 13% in 3QFY22.
- LAURUS is investing in a brownfield/greenfield expansion program to double FDF capacity. This would cater to the requirements of both the Non-ARV as well as ARV segment. It has completed the debottlenecking exercise and the plant will be commercialized by 4QFY22, supporting growth in the near-term.
- It is building an ANDA product pipeline in therapeutic areas such as Cardiac/Diabetes and the Non-ARV segment (30 filed). It has 65 products under development for the US/EU, with an addressable market size of over USD39b. It plans to launch five/two products in the US/Europe in FY23.
- In addition to immediate-release Oral Solid products, it will launch modified release products in soon. In addition, it has started working on other complex dosage forms and delivery systems (injectables/steriles) and is building its development capabilities currently.
- We expect 27% sales CAGR over FY22-24E in FDF to INR30b by FY24E.

API – Sales to pick up from FY23

- The API business posted an 18% YoY decline to INR15b in 9MFY22 due to deterioration in its ARV-API performance. However, the revenue growth rate in Onco-API and other API remained in good stead in 9MFY22.
- LAURUS is building a portfolio of non-ARV APIs and has now filed 71 DMFs in the US till date. Notably, Onco API is expected to grow YoY in FY22, supporting API segment growth in FY22.
- We expect the API sales to pick up post the expected decline in FY22 and deliver 11% sales CAGR over FY22-24E on a low base of FY22, with a ramp up in Non-ARV API sales beginning from FY23E.

To drive exponential growth in the Synthesis segment

- LAURUS clocked sales of INR5.6b, up 62% YoY, in the Synthesis (CDMO) segment in 9MFY22. The strong growth was led by sustained new client additions and increased business from existing customers. The management is working with global innovators across clinical development and commercial supplies.
- It is undertaking greenfield investment to set up a dedicated R&D center in Hyderabad, which will be completed in FY23, and three manufacturing units in Visakhapatnam, which go on stream by FY24/FY25.

- The company is expected to leverage its process chemistry skills to strengthen its presence in the Nutraceuticals and Cosmeceuticals areas as well. Overall, we expect 30% sales CAGR in the CDMO segment over FY22-24E.

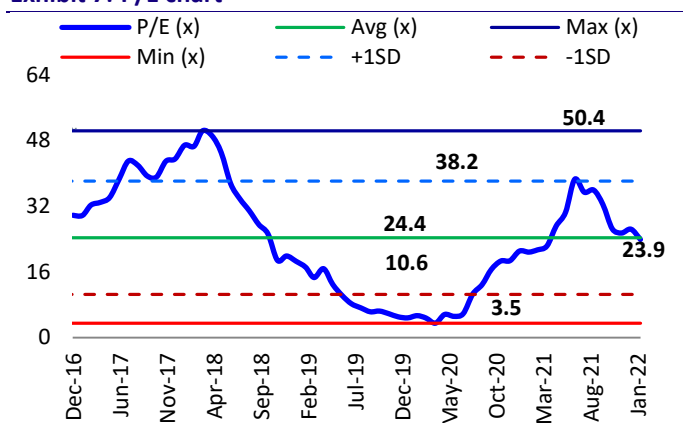
LAURUS BIO – niche business with a high potential

- LAURUS recorded a revenue of INR650m in the BIO segment in 9MFY22. It recently commissioned two Fermenters of 45KL each, taking its total operational capacity to 180KL as of Dec'21. Subsequent benefits of the full operational capacity will reflect from 4QFY22 onwards.
- LAURUS BIO already has strong relationships with clients in developed markets for the rapidly expanding food protein products. LAURUS can leverage the use of its existing custom synthesis relationships to grow this segment. LAURUS BIO remains a key driver for the company from FY24/FY25.

Expect 31% EPS CAGR over FY22-24E

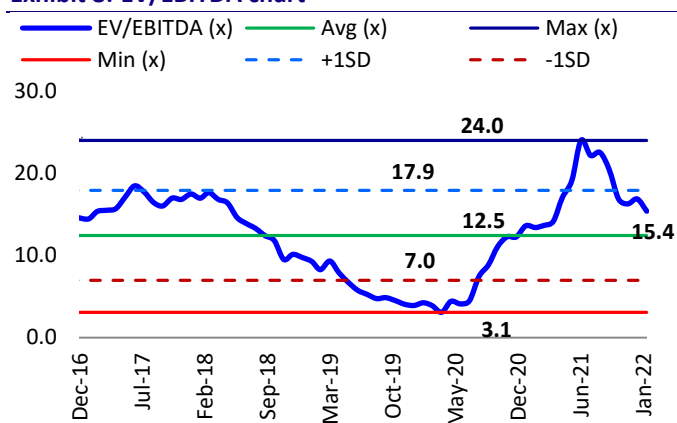
- We lower our FY22E/FY23E/FY24E EPS estimate by 15.4%/12.4%/11.8% to factor in: a) de-stocking led pressure in the ARV business, b) increased cost pressure due to disruption in China, and c) lower operating leverage.
- We expect 31% earnings CAGR over FY22-24E, led by a 30%/27%/11% sales CAGR in the Synthesis/FDF/API segment and ~280bp margin expansion. We value LAURUS at 24x 12-month forward earnings to arrive at our TP of INR580.
- We remain positive on LAURUS on the back of: a) its Synthesis CDMO segment outlook and a strong client base, b) its potential in the Biologics CDMO segment, with capacity addition, c) product development/capacity addition in the Non-ARV segment, and d) healthy order book in the Non-ARV API business. We reiterate our Buy rating.

Exhibit 7: P/E chart



Source: MOFSL, Company, Bloomberg

Exhibit 8: EV/EBITDA chart



Source: MOFSL, Company, Bloomberg

Financials and valuations

Consolidated Income Statement								(INR m)
Y/E March	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E	FY24E
Total Income from Operations	19,046	20,690	22,919	28,317	48,135	48,400	58,745	70,941
Change (%)	7.1	8.6	10.8	23.6	70.0	0.5	21.4	20.8
Total Expenditure	14,970	16,557	19,155	22,672	32,628	33,783	39,829	47,531
As a percentage of Sales	78.6	80.0	83.6	80.1	67.8	69.8	67.8	67.0
EBITDA	4,076	4,133	3,764	5,645	15,507	14,617	18,916	23,411
Margin (%)	21.4	20.0	16.4	19.9	32.2	30.2	32.2	33.0
Depreciation	1,060	1,255	1,642	1,873	2,051	2,533	3,093	3,671
EBIT	3,016	2,879	2,122	3,773	13,456	12,084	15,823	19,739
Int. and Finance Charges	999	796	882	896	682	964	969	896
Other Income	334	292	162	59	237	169	235	284
PBT bef. EO Exp.	2,352	2,374	1,402	2,936	13,011	11,289	15,089	19,128
EO Items	0	0	-204	0	0	0	0	0
PBT after EO Exp.	2,352	2,374	1,198	2,936	13,011	11,289	15,089	19,128
Total Tax	439	698	260	383	3,173	2,596	3,395	4,208
Tax Rate (%)	18.7	29.4	21.7	13.1	24.4	23.0	22.5	22.0
Minority Interest	11	0	0	0	0	0	0	0
Reported PAT	1,903	1,676	938	2,553	9,838	8,693	11,694	14,920
Adjusted PAT	1,903	1,676	1,097	2,553	9,838	8,693	11,694	14,920
Change (%)	42.3	-11.9	-34.5	132.6	285.4	-11.6	34.5	27.6
Margin (%)	10.0	8.1	4.8	9.0	20.4	18.0	19.9	21.0

Consolidated Balance Sheet								(INR m)
Y/E March	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E	FY24E
Equity Share Capital	1,058	1,060	1,064	1,069	1,073	1,073	1,073	1,073
Total Reserves	12,247	13,766	14,520	16,629	24,902	32,286	42,218	54,891
Minority interest					32	32	32	32
Net Worth	13,304	14,826	15,584	17,698	26,007	33,390	43,323	55,996
Total Loans	8,417	9,649	10,030	10,123	13,871	13,671	12,171	9,671
Deferred Tax Liabilities	-699	-529	-534	-739	192	192	192	192
Capital Employed	21,023	23,946	25,081	27,081	40,070	47,253	55,686	65,859
Gross Block	14,088	17,851	20,976	23,821	27,949	34,597	41,776	48,872
Less: Accum. Deprn.	1,886	3,141	4,783	6,655	8,706	11,239	14,332	18,003
Net Fixed Assets	12,202	14,711	16,193	17,166	19,243	23,357	27,444	30,869
Goodwill on Consolidation	97	97	97	97	2,463	2,463	2,463	2,463
Capital WIP	1,433	1,632	1,096	672	3,622	4,474	4,495	4,399
Total Investments	34	34	34	34	34	34	34	34
Curr. Assets, Loans, and Adv.	12,069	13,165	15,357	18,589	32,145	33,712	40,694	51,526
Inventory	5,090	5,848	6,819	9,052	15,755	16,590	20,187	24,482
Account Receivables	5,676	5,706	7,099	7,914	13,061	13,128	16,416	20,019
Cash and Bank Balance	41	31	30	17	485	1,134	618	2,833
Loans and Advances	1,262	1,580	1,408	1,605	2,845	2,860	3,472	4,193
Curr. Liability and Prov.	4,812	5,692	7,697	9,477	17,437	16,788	19,444	23,433
Account Payables	2,631	3,123	4,883	6,156	11,787	11,107	12,549	15,106
Other Current Liabilities	1,988	2,316	2,449	2,753	4,894	4,920	5,972	7,212
Provisions	193	253	365	568	757	761	923	1,115
Net Current Assets	7,257	7,473	7,660	9,112	14,708	16,924	21,250	28,094
Appl. of Funds	21,023	23,946	25,081	27,081	40,070	47,253	55,686	65,859

Financials and valuations

Ratios

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E	FY24E
Basic (INR)								
EPS	3.5	3.1	2.0	4.8	18.3	16.2	21.8	27.8
Cash EPS	5.5	5.5	5.1	8.2	22.2	20.9	27.6	34.6
BV/Share	24.8	27.6	29.0	33.0	48.5	62.2	80.7	104.4
DPS	0.3	0.0	0.3	0.6	2.3	2.0	2.7	3.5
Payout (%)	10.0	0.0	20.4	15.1	15.1	15.1	15.1	15.1
Valuation (x)								
P/E	142.5	159.9	244.2	105.0	27.2	30.8	22.9	18.0
Cash P/E	91.1	91.5	97.8	60.6	22.5	23.9	18.1	14.4
P/BV	20.1	18.1	17.2	15.1	10.3	8.0	6.2	4.8
EV/Sales	14.5	13.4	12.1	9.8	5.8	5.8	4.8	3.9
EV/EBITDA	67.8	67.2	73.9	49.3	18.1	19.2	14.8	11.7
Dividend Yield (%)	0.1	0.0	0.1	0.1	0.5	0.4	0.5	0.7
FCF per share	1.0	-1.0	0.7	2.0	0.9	5.5	6.5	14.1
Return Ratios (%)								
RoE	17.4	11.9	7.2	15.3	45.0	29.3	30.5	30.0
RoCE	13.4	9.7	7.1	12.5	30.6	21.7	24.3	25.8
RoIC	13.5	9.7	7.2	13.0	32.7	24.0	26.6	28.2
Working Capital Ratios								
Inventory (Days)	98	103	109	117	119	125	125	126
Debtor (Days)	109	101	113	102	99	99	102	103
Creditor (Days)	50	55	78	79	89	84	78	78
Leverage Ratio (x)								
Current Ratio	2.5	2.3	2.0	2.0	1.8	2.0	2.1	2.2
Interest Coverage Ratio	3.0	3.6	2.4	4.2	19.7	12.5	16.3	22.0
Net Debt/Equity ratio	0.6	0.6	0.6	0.6	0.5	0.4	0.3	0.1

Consolidated Cash Flow Statement

Y/E March	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E	FY24E
OP/(Loss) before Tax	2,352	2,374	1,198	2,936	13,011	11,289	15,089	19,128
Depreciation	1,060	1,255	1,642	1,873	2,051	2,533	3,093	3,671
Interest and Finance Charges	931	505	720	837	579	795	734	612
Direct Taxes Paid	-501	-698	-260	-383	-2,285	-2,596	-3,395	-4,208
(Inc.)/Dec. in WC	-525	-226	-187	-1,465	-5,941	-1,567	-4,842	-4,629
CF from Operations	3,317	3,209	3,113	3,797	7,415	10,453	10,679	14,573
Others	3	216	-136	-323	-85	0	0	0
CF from Operations incl. EO	3,320	3,425	2,977	3,474	7,330	10,453	10,679	14,573
(Inc.)/Dec. in FA	-2,774	-3,962	-2,589	-2,421	-6,839	-7,500	-7,200	-7,000
Free Cash Flow	546	-537	387	1,053	491	2,953	3,479	7,573
(Pur.)/Sale of Investments	-113	0	0	0	-2,584	0	0	0
Others	0	120	60	210	13	169	235	284
CF from Investments	-2,887	-3,842	-2,529	-2,211	-9,410	-7,331	-6,965	-6,716
Issue of Shares	2,860	3	4	5	74	0	0	0
Inc./(Dec.) in Debt	-2,387	1,278	429	139	3,804	-200	-1,500	-2,500
Interest Paid	-950	-796	-882	-896	-580	-964	-969	-896
Dividend Paid	-59	0	-191	-384	-750	-1,309	-1,761	-2,247
Others	0	-62	193	-140	0	0	0	0
CF from Fin. Activity	-536	422	-448	-1,277	2,547	-2,473	-4,230	-5,642
Inc./Dec. in Cash	-103	6	0	-14	467	650	-516	2,215
Opening Balance	127	23	29	28	15	483	1,132	616
Closing balance	23	29	28	15	483	1,132	616	2,832
Bank balance	18	2	2	2	2	2	2	1
Total Cash and Cash equivalent	41	31	30	17	485	1,134	618	2,833

NOTES

Explanation of Investment Rating	
Investment Rating	Expected return (over 12-month)
BUY	>=15%
SELL	< - 10%
NEUTRAL	< - 10 % to 15%
UNDER REVIEW	Rating may undergo a change
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation

*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd.. (PIMPL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://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") (Co.Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore. As per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisers Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Specific Disclosures

- 1 MOFSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- 2 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOFSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- 9 MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL has not engaged in market making activity for the subject company

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company
- received compensation/other benefits from the subject company in the past 12 months
- other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 71934200/ 022-71934263; Website www.motilaloswal.com; CIN no.: L67190MH2005PLC153397. Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai- 400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.:022-71881085.

* MOSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench.