

Alembic Pharma

Estimate change

TP change

Rating change



Bloomberg	ALPM IN
Equity Shares (m)	189
M.Cap.(INRb)/(USDb)	155.9 / 2.1
52-Week Range (INR)	1150 / 721
1, 6, 12 Rel. Per (%)	2/-39/-55
12M Avg Val (INR M)	394

Financials & Valuations (INR b)

Y/E MARCH	2021	2022E	2023E
Sales	53.9	53.5	59.1
EBITDA	15.6	10.7	13.5
Adj. PAT	11.8	7.1	9.0
EBIT Margin (%)	25.5	15.9	18.5
Cons. Adj. EPS (INR)	59.9	35.9	45.6
EPS Gr. (%)	36.3	-40.1	26.8
BV/Sh. (INR)	260.9	284.8	318.3

Ratios

Net D:E	0.0	0.0	0.0
RoE (%)	29.7	13.7	15.7
RoCE (%)	21.6	12.3	14.2
Payout (%)	20.1	33.5	26.4

Valuations

P/E (x)	13.4	22.3	17.6
EV/EBITDA (x)	11.8	17.1	13.4
Div. Yield (%)	1.3	1.3	1.3
FCF Yield (%)	0.0	0.0	0.0
EV/Sales (x)	3.4	3.4	3.1

Shareholding pattern (%)

As On	Sep-21	Jun-21	Sep-20
Promoter	69.5	69.5	69.8
DII	11.4	11.3	9.4
FII	5.5	6.4	7.0
Others	13.6	12.9	13.8

FII Includes depository receipts

CMP: INR793

TP: INR860 (+8%)

Neutral

Weakness in US outweighs strong performance in DF

Injectables business traction hinges on successful compliance

- Alembic Pharma (ALPM) delivered in-line 2QFY22 earnings. Subdued performance in US/API was offset by a better-than-expected show in the Domestic Formulation (DF) segment. The YoY declining trend in the US business has reached a trough with the limited impact of price erosion and an increased pace of launches going forward.
- We lower our FY22E/FY23E EPS estimate by 7.5%/5.8%, factoring in a) a delay in successful compliance at injectables sites, b) gradual revival in US sales, and c) higher RM/logistics costs. We value ALPM at 18x 12M forward earnings to arrive at our revised TP of INR860. We maintain our Neutral rating on a limited upside from current levels.

Second consecutive quarter of earnings decline on YoY basis

- 2QFY22 revenues were down 11% YoY to INR12.9b (est. INR13.1b). Muted performance for the quarter was attributable to 40% YoY decline in US sales (INR3.5b; 27% of sales) and 9% YoY decline in API sales (INR2.4b; 18% of sales). Non-US export sales (15% of sales) were flat YoY at INR2b. DF sales grew 23% YoY to INR5.1b (39% of sales).
- The gross margin contracted 440bps YoY to 74.2% on a change in the sales mix.
- However, the EBITDA margin contracted at a higher rate of 1050bp YoY to 19.9% (est. 19.1%), largely due to higher opex. Employee costs / Other expenses / R&D costs were up 380bp/220bp/30bp as a percentage of sales.
- EBITDA declined 42% YoY to INR2.6b (est. INR2.5b).
- Adj. PAT declined 49% YoY to INR1.7b (est. INR1.7b).

Highlights from management commentary

- ALPM believes the current US sales figures (USD47m per quarter) are the new base, and these are expected to improve hereafter, led by new launches.
- ALPM aims to file 20–25 ANDAs and launch 15 in FY22.
- US revenue during the quarter has seen the full impact of the incremental competition in Theophylline.
- Acute therapies in the DF segment witnessed primary growth of 27% on a YoY basis. Excluding Azithral, overall DF sales grew 35% on a YoY basis.
- The USFDA recently inspected the F-3 site once again (the last inspection was in Feb'21) and issued Form 483 with 10 observations. The USFDA has visited the site for three of its products in total now.

Valuation and view

- We lower our FY22E/FY23E earnings estimate by 7.5%/5.8%, factoring in a) slow improvement in US business prospects, b) delay in the successful compliance of injectables facilities, and c) higher operational costs on higher raw material and transportation costs.

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

Research Analyst: Bharat Hegde, CFA(Bharat.Hegde@motilaloswal.com) | Gaurang Sakare(Gaurang.Sakare@motilaloswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

MotilalOswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

- We expect 13% compounded earnings decline over FY21–23 due to increased competition in Sartans and the deferral of injectables commercialization, offset (to some extent) by industry outperformance in the DF segment.
- We value ALPM at 18x 12M forward earnings to arrive at our TP of INR860.
- We maintain our Neutral stance on a limited upside from current levels.

Quarterly perf. (Consol.)

Y/E March	(INR m)											
	FY21				FY22				FY21	FY22E	FY22E	
	1Q	2Q	3Q	4Q	1Q	2Q	3QE	4QE			2QE	vs Est
Net Sales	13,413	14,571	13,143	12,804	13,260	12,923	12,975	14,316	53,931	53,475	13,120	-1.5%
YoY Change (%)	41.3	17.4	8.7	6.1	-1.1	-11.3	-1.3	11.8	17.1	-0.8	-10.0	
Total Expenditure	9,340	10,137	9,493	9,387	10,900	10,351	10,289	11,230	38,356	42,770	10,614	
EBITDA	4,074	4,434	3,651	3,417	2,360	2,572	2,686	3,086	15,575	10,705	2,506	2.7%
YoY Change (%)	80.9	28.3	12.3	4.3	-42.1	-42.0	-26.4	-9.7	27.3	-31.3	-43.5	
Margins (%)	30.4	30.4	27.8	26.7	17.8	19.9	20.7	21.6	28.9	20.0	19.1	
Depreciation	415	438	470	512	532	546	550	561	1,835	2,188	520	
EBIT	4,489	4,872	4,121	3,929	2,892	3,118	3,236	3,647	17,410	12,893	3,026	
YoY Change (%)	72.2	27.7	12.3	5.7	-35.6	-36.0	-21.5	-7.2	26.1	-25.9	-37.9	
Interest	67	45	23	26	21	46	40	41	160	148	21	
Other Income	3	32	25	40	19	22	22	17	100	80	20	
PBT	3,595	3,984	3,183	2,919	1,826	2,003	2,118	2,502	13,681	8,449	1,985	0.9%
Tax	668	730	591	545	342	395	424	529	2,533	1,690	393	
Rate (%)	18.6	18.3	18.6	18.7	18.7	19.7	20.0	21.1	18.5	20.0	19.8	
MI & P/L of Asso. Cos.	-87	-80	-334	-133	-162	-86	-50	-3	-634	-300	-100	
Reported PAT	3,015	3,334	2,926	2,507	1,646	1,693	1,744	1,975	11,781	7,059	1,692	0.1%
Adj PAT	3,015	3,334	2,926	2,507	1,646	1,693	1,744	1,975	11,781	7,059	1,692	0.1%
YoY Change (%)	100.4	35.4	24.9	7.4	-45.4	-49.2	-40.4	-21.2	36.3	-40.1	-49.3	
Margins (%)	22.5	22.9	22.3	19.6	12.4	13.1	13.4	13.8	21.8	13.2	12.9	

Key performance Indicators (Consolidated)

Y/E March	FY21E				FY21E				FY21	FY22E	FY22E	
	1Q	2Q	3Q	4Q	1Q	2Q	3QE	4QE			2QE	vs Est
India	3060	4150	4180	3580	4810	5090	4556	4052	14966	18509	4524	12.5%
YoY Change (%)	(5.6)	6.1	13.6	4.7	57.2	22.7	9.0	13.2	5.0	23.7	9.0	
Exports	7,710	7,790	6,830	7,090	5,660	5,450	5,969	7,635	29,420	24,714	5,916	-8%
YoY Change (%)	70.2	20.6	2.9	(0.1)	(26.6)	(30.0)	(12.6)	7.7	19.0	(16.0)	(24.1)	
APIs	2,640	2,630	2,140	2,135	2,790	2,390	2,450	2,623	9,545	10,253	2,680	-10.8%
YoY Change (%)	53.5	28.9	20.9	37.7	5.7	(9.1)	26.2	22.9	34.8	7.4	(8.7)	
Cost Break-up												
RM Cost (% of Sales)	25.2	21.4	22.3	24.6	29.0	25.8	26.5	28.1	23.3	27.4	28.8	
Staff Cost (% of Sales)	20.5	18.9	20.0	18.5	21.9	22.7	21.5	19.3	19.5	21.3	21.5	
R&D Expenses (% of Sales)	10.6	12.7	11.3	15.2	12.6	13.0	12.8	12.8	12.4	12.8	12.7	
Other Cost (% of Sales)	13.3	16.5	18.7	15.0	18.7	18.7	18.5	18.2	15.9	18.5	17.9	
Gross Margins(%)	74.8	78.6	77.7	75.4	71.0	74.2	73.5	71.9	76.7	72.6	71.2	
EBITDA Margins(%)	30.4	30.4	27.8	26.7	17.8	19.9	20.7	21.6	28.9	20.0	19.1	
EBIT Margins(%)	33.5	33.4	31.4	30.7	21.8	24.1	24.9	25.5	32.3	24.1	23.1	

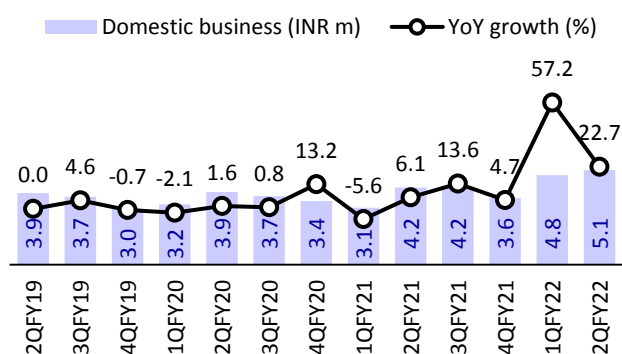


Key takeaways from the management interaction

- The growth in DF would come from Gastro, Cardiac and Anti-Diabetic therapies.
- In 2QFY22, 10 SKUs were launched in India. Launched 15 SKUs in 1HFY22.
- ALPM has filed 2 injectable products from its F-2 facility and that should trigger pre-approval inspection soon.
- ALPM incurred INR1.3b capex in 2QFY22. Cumulative Capex for ongoing projects INR19.1b till date.
- ALPM hasn't seen the impact of higher raw material prices and other important commodities yet.
- ALPM intends to charge entire costs to P&L of new injectables facilities post commercialization.
- Higher share from DF in total business has helped to bring debtor days down in 1HFY22.

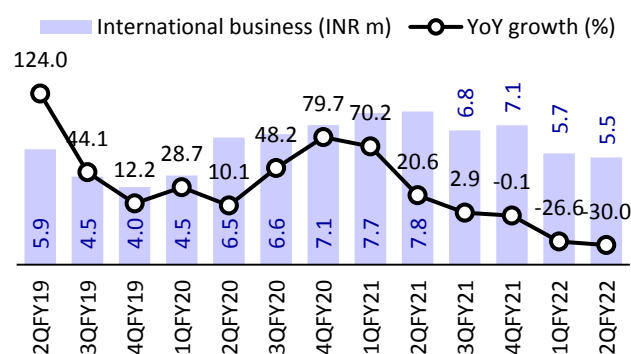
Key exhibits

Exhibit 1: DF sales up 23% YoY in 2QFY22



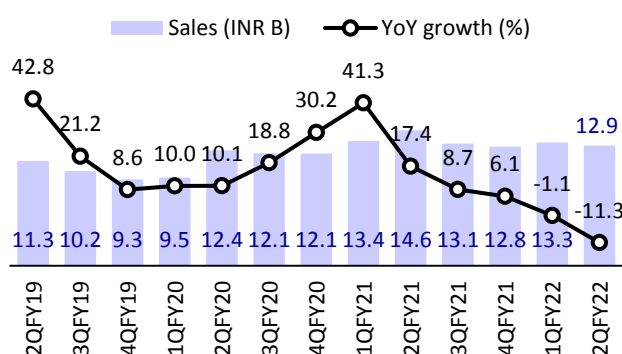
Source: MOFSL, Company

Exhibit 2: Decline in US weighs on the international business



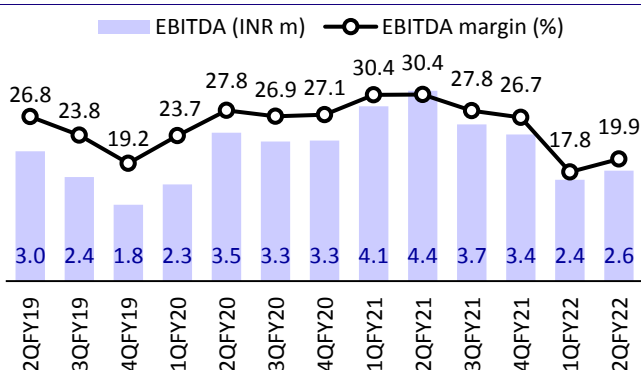
Source: MOFSL, Company

Exhibit 3: YoY sales growth on a downtrend



Source: MOFSL, Company

Exhibit 4: EBITDA margin contracts ~1,050bp YoY



Source: MOFSL, Company

Benefits from DF more than offset by the US business

US business growth hinges on successful regulatory compliance

- ALPM's US sales declined by 40% YoY to USD97m in 2HFY22. Performance in 2HFY22 was impacted because of incremental competition in Theophylline and Sartans. ALPM will continue to file 20-25 ANDAs while the increased pace of launches will be contingent on the new injectables facilities being approved by the USFDA
- ALPM had its F-3 general injectable facility inspected by the USFDA post which the USFDA issued 10 observations. ALPM expects to address the observations

within stipulated timeline. ALPM has also filed 2 products from F-2 facility which will trigger USFDA inspection at this site as well. Successful outcomes from these inspections will determine the performance of US business over medium term. We expect 8% compounded decline in US sales to USD244m over FY21-23E compared to 26% sales CAGR over FY18-21.

Broad based efforts to drive healthy industry outperformance

ALPM recorded a strong growth (37% YoY) in DF in 2HFY22. This was led by superior performance in cardiology, gynaecology, anti-diabetic, orthopaedic as well as acute therapies. The performance was partly on account of COVID led low base of past year. As the covid cases have been coming down across the country chronic therapy growth has picked up pace and Alembic has outperformed the market growth. With better outlook and enhanced marketing efforts, we expect 17% sales CAGR over FY21-23E.

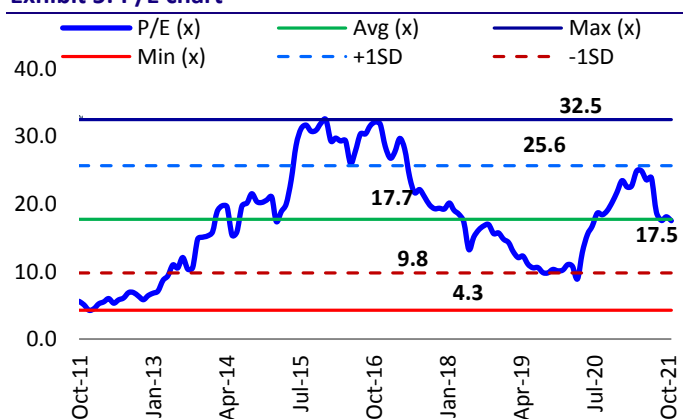
New launches to drive non-US sales on a higher base

Non-US sales grew 6% YoY for 1HFY22. Sales are being driven by partnerships and new launches in key markets of Europe, Canada, Brazil, Australia, and South Africa. We expect 10% sales CAGR to INR9.5b over FY21-23E.

Remain Neutral on limited upside from current valuation

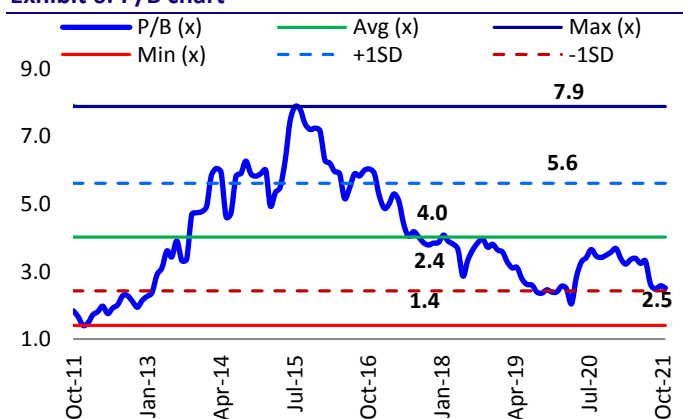
- We have lowered our FY22E/FY23E earnings estimate by 7.5%/5.8% to factor slow improvement in US business prospects, delay in successful compliance of injectable facilities, and higher operational cost on account of raw material, transportation cost.
- We expect 13% compounded decline in earnings over FY21-23, led by increased competition in sartans, deferral of injectables commercialization offset to some extent by industry out-performance in DF segment.
- We value ALPM at 18x 12-months forward earnings to arrive at our TP of INR860.
- We maintain our Neutral stance on limited upside from current levels.

Exhibit 5: P/E chart



Source: MOFSL, Company, Bloomberg

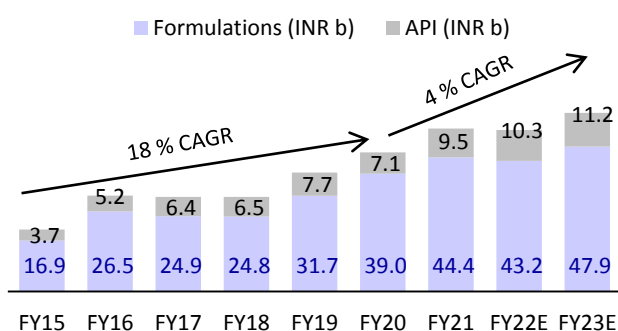
Exhibit 6: P/B chart



Source: MOFSL, Company, Bloomberg

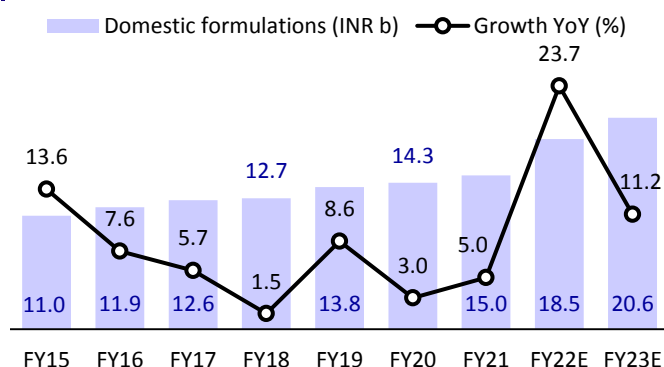
Story in charts

Exhibit 7: Expect Formulation sales CAGR of 4% over FY21-23E



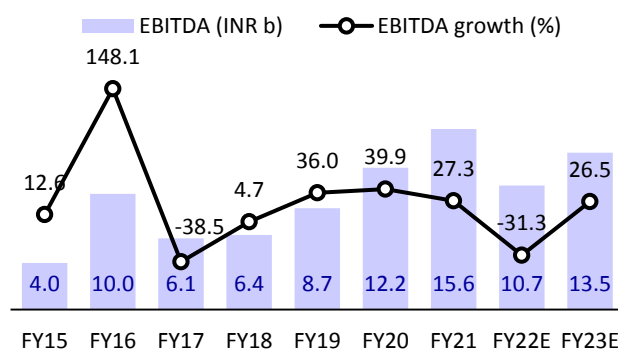
Source: MOFSL, Company

Exhibit 8: Expect DF to exhibit 17% CAGR over FY21-23E



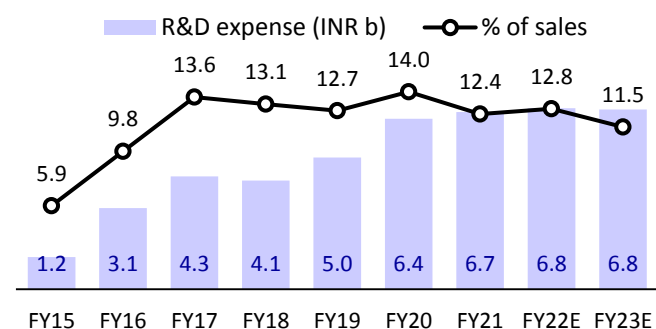
Source: MOFSL, Company

Exhibit 9: EBITDA decline to form trough in FY22



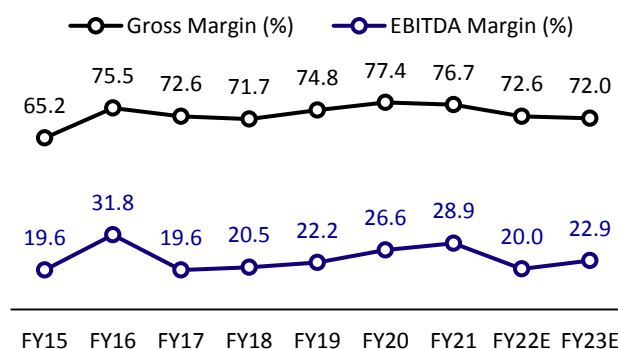
Source: MOFSL, Company

Exhibit 10: R&D spends to be steady on absolute basis



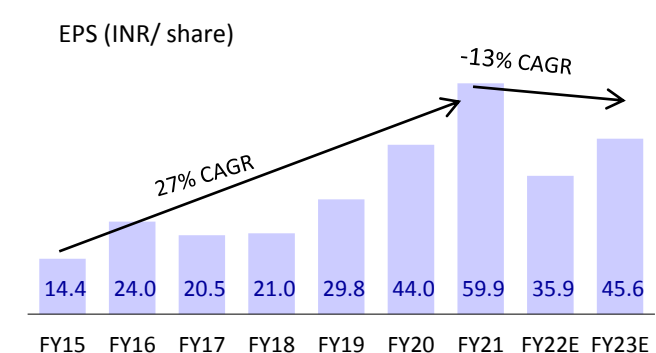
Source: MOFSL, Company

Exhibit 11: Margin to moderate with higher opex



Source: MOFSL, Company

Exhibit 12: EPS on a gradual downtrend



Source: MOFSL, Company

Financials and valuations

Consolidated Income Statement

(INR m)

Y/E March	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E
Net Sales	20,527	31,416	31,345	31,310	39,357	46,060	53,931	53,475	59,120
Change (%)	10.2	53.0	-0.2	-0.1	25.7	17.0	17.1	-0.8	10.6
Total Expenditure	16,501	21,427	25,199	24,877	30,611	33,827	38,356	42,770	45,582
% of Sales	80.4	68.2	80.4	79.5	77.8	73.4	71.1	80.0	77.1
EBITDA	4,026	9,988	6,146	6,433	8,746	12,233	15,575	10,705	13,539
Change (%)	12.6	148.1	-38.5	4.7	36.0	39.9	27.3	-31.3	26.5
Margin (%)	19.6	31.8	19.6	20.5	22.2	26.6	28.9	20.0	22.9
Depreciation	444	722	830	1,055	1,152	1,573	1,835	2,188	2,576
EBIT	3,582	9,266	5,316	5,378	7,594	10,660	13,741	8,516	10,963
Int. and Finance Charges	18	37	51	34	184	272	160	148	173
Other Income - Rec.	26	91	25	70	94	49	100	80	89
PBT bef. EO Exp.	3,591	9,320	5,290	5,415	7,503	10,437	13,681	8,449	10,878
EO Expense/(Income)	0	0	0	0	0	436	0	0	0
PBT after EO Exp.	3,591	9,320	5,290	5,415	7,503	10,001	13,681	8,449	10,878
Current Tax	764	1,986	1,224	1,236	1,781	2,046	2,629	1,943	2,502
Deferred Tax	0	174	-2	-33	-214	-54	-96	-253	-218
Tax Rate (%)	21.3	23.2	23.1	22.2	20.9	19.9	18.5	20.0	21.0
MI and P/L of Asso. Cos.	-2.0	6.0	39.2	82.8	82.0	-284.7	-633.5	-300.0	-360.0
Reported PAT	2,829	7,154	4,029	4,128	5,854	8,294	11,781	7,059	8,954
PAT Adj. for EO items	2,829	4,720	4,029	4,128	5,854	8,643	11,781	7,059	8,954
Change (%)	20.1	66.8	-14.6	2.5	41.8	47.7	36.3	-40.1	26.8
Margin (%)	13.8	15.0	12.9	13.2	14.9	18.8	21.8	13.2	15.1

Consolidated Balance Sheet

(INR m)

Y/E March	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E
Equity Share Capital	377	377	377	377	377	377	393	393	393
Total Reserves	8,469	15,628	18,634	21,824	26,811	31,820	50,883	55,576	62,164
Net Worth	8,846	16,005	19,011	22,201	27,188	32,197	51,276	55,970	62,559
Minority Interest	0	0	1	3	-8	-290	-606	-606	-606
Deferred Liabilities	314	501	369	354	188	122	42	-211	-429
Total Loans	2,385	1,325	802	7,078	9,284	18,208	2,715	2,215	2,115
Capital Employed	11,546	17,832	20,184	29,637	36,652	50,237	53,426	57,367	63,638
Gross Block	8,756	11,190	12,548	11,726	15,156	20,700	24,909	50,552	56,769
Less: Accum. Deprn.	3,132	3,878	4,554	2,456	3,608	5,181	7,016	9,204	11,780
Net Fixed Assets	5,978	7,748	8,264	10,928	11,585	15,518	17,893	41,347	44,990
Capital WIP	323	925	3,693	9,108	15,512	18,462	21,817	2,674	2,956
Total Investments	23	21	502	416	488	179	2,363	2,363	2,363
Curr. Assets, Loans and Adv.	10,089	15,900	14,408	18,959	20,193	25,734	25,017	26,971	30,978
Inventory	3,828	5,776	6,328	7,339	9,673	11,875	14,862	16,648	18,595
Account Receivables	3,612	3,505	3,375	5,263	4,889	8,648	3,486	3,956	4,049
Cash and Bank Balance	268	4,508	1,596	899	2,056	808	1,058	766	2,599
Loans and Advances	2,381	2,111	3,110	5,457	3,576	4,404	5,612	5,601	5,734
Curr. Liability and Prov.	4,866	6,762	6,683	9,774	11,125	9,656	13,663	15,988	17,648
Account Payables	3,109	5,664	5,232	7,593	6,443	6,259	6,688	7,788	8,805
Other Current Liabilities	715	656	755	1,429	3,838	2,270	5,601	5,553	6,139
Provisions	1,042	443	696	752	844	1,127	1,375	2,646	2,704
Net Current Assets	5,223	9,138	7,725	9,185	9,068	16,078	11,354	10,983	13,329
Appl. of Funds	11,546	17,832	20,184	29,637	36,652	50,238	53,426	57,367	63,638

Financials and valuations

Ratios

Y/E March	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E
Basic (INR)									
EPS	14.4	24.0	20.5	21.0	29.8	44.0	59.9	35.9	45.6
Cash EPS	17.4	28.9	25.8	27.5	37.2	54.2	69.3	47.0	58.7
BV/Share	46.9	84.9	100.8	117.8	144.2	170.8	260.9	284.8	318.3
DPS	3.5	4.0	4.0	4.0	5.5	10.0	10.4	10.4	10.4
Payout (%)	28.1	12.7	22.5	22.0	21.3	27.4	20.1	33.5	26.4
Valuation (x)									
P/E	55.6	33.4	39.1	38.1	26.9	18.2	13.4	22.3	17.6
Cash P/E	46.1	27.7	31.1	29.1	21.5	14.8	11.6	17.0	13.7
P/BV	17.1	9.4	7.9	6.8	5.6	4.7	3.1	2.8	2.5
EV/Sales	9.0	5.7	5.8	6.0	4.8	4.3	3.4	3.4	3.1
EV/EBITDA	45.7	17.9	29.5	29.2	21.6	16.3	11.8	17.1	13.4
Dividend Yield (%)	0.4	0.5	0.5	0.5	0.7	1.2	1.3	1.3	1.3
Return Ratios (%)									
RoE	36.3	37.9	22.8	19.6	23.4	30.1	29.7	13.7	15.7
RoCE	29.6	50.3	22.1	17.3	18.5	19.7	21.6	12.3	14.2
RoIC	30.4	61.1	30.5	24.9	31.8	34.6	38.0	17.1	16.1
Working Capital Ratios									
Asset Turnover (x)	1.8	1.8	1.6	1.1	1.1	0.9	1.0	0.9	0.9
Inventory (Days)	68	67	74	86	90	94	101	114	115
Debtor (Days)	64	40	39	61	45	69	24	27	25
Creditor (Days)	55	66	61	89	60	50	45	53	54
Leverage Ratio (x)									
Net Debt/Equity	0.2	-0.2	0.0	0.3	0.3	0.5	0.0	0.0	0.0

Consolidated Cash Flow Statement

Y/E March	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22E	FY23E
(INR m)									
Net Profit/(Loss) Before Tax	3,591	9,360	5,291	5,413	7,493	9,998	13,681	8,449	10,878
Depreciation	444	722	830	1,055	1,152	1,573	1,835	2,188	2,576
Interest and Finance Charges	-9	54	52	34	184	272	160	68	84
Direct Taxes Paid	676	1,970	1,180	1,351	1,665	2,361	2,454	1,943	2,502
(Inc.)/Dec. in WC	-1,184	1,389	-1,656	-1,809	1,116	-5,844	2,395	78	-513
CF from Operations	2,166	9,555	3,337	3,342	8,281	3,638	15,617	8,840	10,524
CF from Operations incl. EO	1,718	9,477	3,286	3,124	8,119	4,491	14,634	8,840	10,524
(inc.)/dec. in FA	-2,215	-3,011	-5,101	-7,494	-6,539	-6,726	-6,592	-6,500	-6,500
Free Cash Flow	-497	6,466	-1,816	-4,369	1,580	-2,235	8,041	2,340	4,024
(Pur.)/Sale of Investments	0	-64	48	14	39	23	-1,796	0	0
Others	-341	24	287	-1,364	-1,055	-613	0	80	89
CF from Investments	-2,556	-3,051	-4,766	-8,844	-7,556	-7,316	-8,388	-6,420	-6,411
(Inc.)/Dec. in Debt	1,149	-1,404	-336	6,194	2,203	5,949	-12,586	-200	260
Interest Paid	-18	-52	-52	-260	-703	-1,111	6,611	-147	-173
Dividend Paid	-794	-787	-901	-908	-909	-3,260	0	-2,366	-2,366
Others	530	-17	-93	0	0	0	0	-61	-61
CF from Fin. Activity	867	-2,260	-1,382	5,026	590	1,579	-5,974	-2,773	-2,340
Inc./Dec. in Cash	29	4,166	-2,862	-694	1,154	-1,246	272	-354	1,773
Add: Beginning Balance	240	228	4,393	1,531	899	2,053	718	1,058	766
Closing Balance	269	4,393	1,531	837	2,053	807	990	705	2,538
Total Cash and Cash Eq.	268	4,508	1,596	899	2,056	718	1,058	766	2,599

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://onlinereports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf>

MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report

MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act") and together with the 1934 Act, the "Acts), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (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 Advisors 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, 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.

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.