

# IPCA Laboratories

**BSE SENSEX**  
 62,028

**S&P CNX**  
 18,315

**CMP: INR695**
**TP: INR760 (+9%)**
**Neutral**


Bloomberg	IPCA IN
Equity Shares (m)	254
M.Cap.(INRb)/(USDb)	176.2 / 2.1
52-Week Range (INR)	1034 / 687
1, 6, 12 Rel. Per (%)	-19/-20/-43
12M Avg Val (INR M)	343

**Financials & Valuations (INR b)**

Y/E March	FY23E	FY24E	FY25E
Sales	61.7	76.4	94.2
EBITDA	9.9	11.9	16.6
Adjusted PAT	5.7	6.7	9.1
EBIT Margin (%)	11.8	11.4	13.5
Cons. Adj EPS (INR)	22.3	26.4	35.9
EPS Gr. (%)	-38.7	18.6	35.6
BV/Sh. (INR)	233.2	255.7	286.2

**Ratios**

Net D-E	0.0	0.1	0.1
RoE (%)	9.9	10.8	13.2
RoCE (%)	9.1	9.9	12.2
Payout (%)	37.2	28.6	30.3

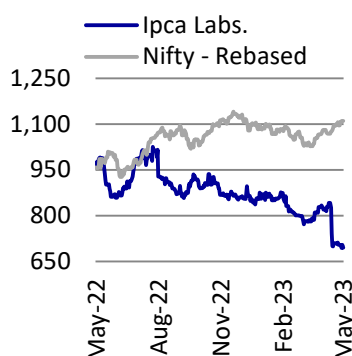
**Valuation**

P/E (x)	31.1	26.2	19.4
EV/EBITDA (x)	18.0	14.9	10.7
Div. Yield (%)	1.1	1.1	1.6
FCF Yield (%)	0.7	-7.5	2.9
EV/Sales (x)	2.9	2.3	1.9

**Shareholding pattern (%)**

As On	Mar-23	Dec-22	Mar-22
Promoter	46.3	46.3	46.3
DII	34.1	33.7	32.9
FII	10.6	10.8	11.0
Others	9.1	9.2	9.8

FII Includes depository receipts

**Stock's performance (one-year)**

**Long road ahead for USFDA compliance**

We analyzed the form 483 issued to IPCA Lab (IPCA) at Piparia formulation site by USFDA.

- USFDA inspected the Piparia site of IPCA between April 18<sup>th</sup> and 26<sup>th</sup> and issued form 483 with three observations.
- The observations are related to Out-of-specification (OOS), Out-of-Trends (OOT), documentation of investigations/corrective and preventive action (CAPA) and responsibilities/authority toward Quality unit operations.
- We believe additional efforts would be necessary to address these regulatory concerns.
- Since most of the ANDAs held by IPCA are linked to its own API site at Ratlam, which is currently under import alert, it would be crucial to address the USFDA compliance issues at Ratlam to resume business in the US.
- We value IPCA at 21x 12M forward earnings to arrive at a price target of INR760. We reiterate our Neutral rating on the stock, owing to the expensive Unichem acquisition, gradual pick-up in generics exports, and limited upside potential from its current levels.

**Form 483 snapshot**

- Following an inspection conducted between April 18<sup>th</sup> and 26<sup>th</sup>, 2023, USFDA issued form 483 with three observations to IPCA at its Piparia formulation site. One of the observations made by the USFDA at IPCA's Piparia formulation site is related to OOS results. In one instance, it was found that a non-validated analytical method was used to determine the reason for OOS results. Even in the case of OOT, form 483 cites that the company failed to follow an established procedure for OOT identification and investigation.
- Another observation at the site was related to documentation related deviation investigation and associated corrective and preventive actions.
- One another observation made during the inspection was related to the quality unit (including quality assurance and quality control), not initiating and closing corrective and preventive actions (CAPA) in a timely manner.

**Multiple milestones to be crossed for revival of US generics business**

- IPCA lab has been under import alert at its three sites (formulation: Silvasa/Piparia and API: Ratlam) since FY15.
- This has been the first inspection at IPCA's site since then.
- Based on our interaction with regulatory experts, it seems that resolving the issues highlighted in the recent form 483 will require additional efforts, in addition to the ongoing remediation measures on resolving the import alert/warning letter.
- IPCA's in-house manufacturing of API for most of its approved ANDAs makes regulatory compliance at Ratlam crucial for any recovery in US generics business from its formulation sites, subject to USFDA inspection,.
- Even Unichem's sites are due for USFDA inspection, since they were last inspected almost three years back in Feb'20.

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

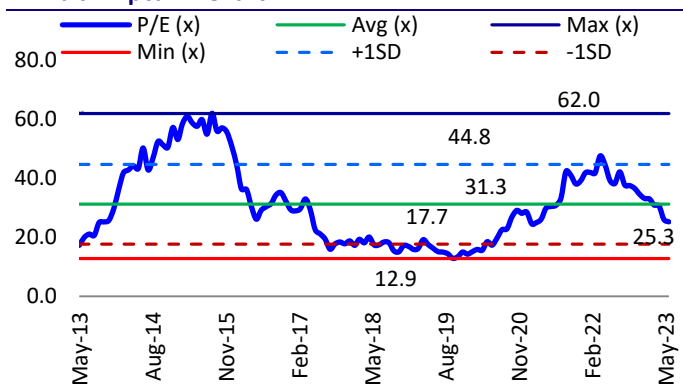
**Research Analyst: Sumit Gupta** (Sumit.G@MotilalOswal.com) | **Akash Manish Dobhada** (Akash.Dobhada@MotilalOswal.com)

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

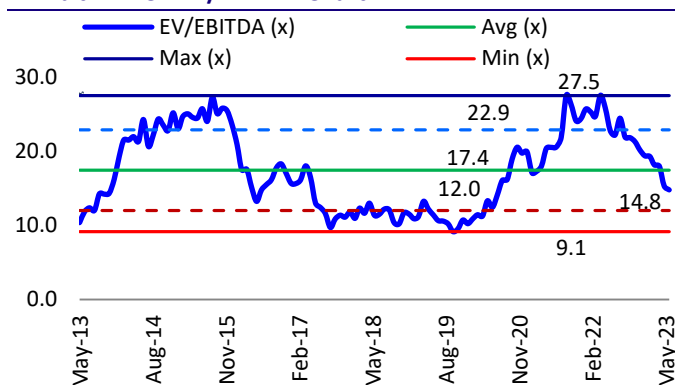
 Motilal Oswal research is available on [www.motilaloswal.com/Institutional-Equities](http://www.motilaloswal.com/Institutional-Equities), Bloomberg, Thomson Reuters, Factset and S&P Capital.

**Valuation and view**

- While IPCA continues to outperform the industry in branded generics segment (52% of sales), the generics exports and API business are expected to pick up gradually.
- We continue to value IPCA at 21x 12M forward earning to arrive at a price target of INR760. We reiterate our Neutral rating on the stock as there is limited upside potential from its current levels.

**Exhibit 1: Ipca PE Chart**

Source: Company, MOFSL

**Exhibit 2: IPCA EV/EBITDA Chart**

Source: Company, MOFSL

**Exhibit 3: USFDA inspection history of Unichem**

Sr No	Plant	Inspection End Date	Classification
1	Roha	Feb'20	NAI
2	Goa	Jan'20	VAI
3	Kolhapur	Sept'19	NAI
4	Roha	Sept'19	NAI
5	Pithampur	Sept'19	NAI
6	Ghaziabad	Aug'19	VAI
7	Goa	Jul'19	VAI
8	Ghaziabad	Mar'19	NAI

Source: Company, MOFSL

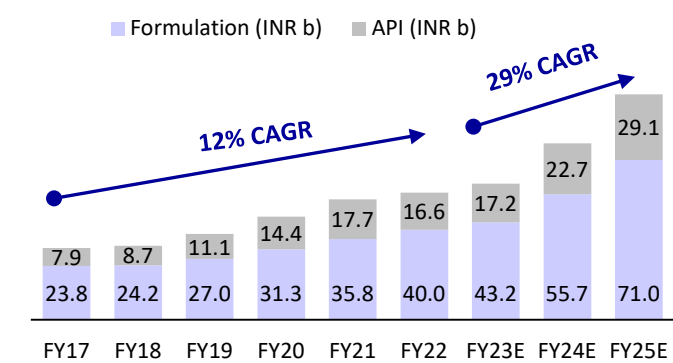
**Exhibit 4: Import alert restricted US business from IPCA's sites**

Sr No	Site	Date	Inspection Conclusion
1	Ratlam	Jan'15	Import Alert
2	Silvassa	Mar'15	Import Alert
3	Pithampur	Mar'15	Import Alert

Source: Company, MOFSL

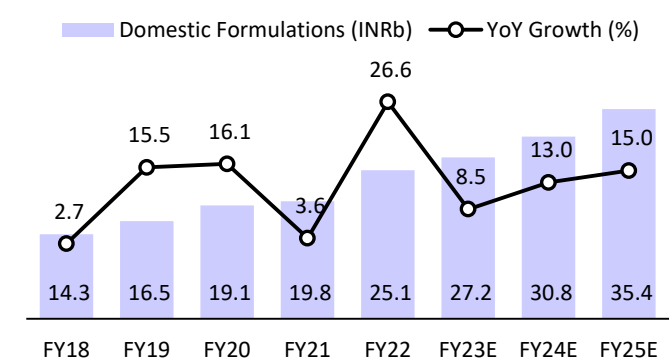
## Story in charts

**Exhibit 5: Total sales to see 29% CAGR over FY23-25**



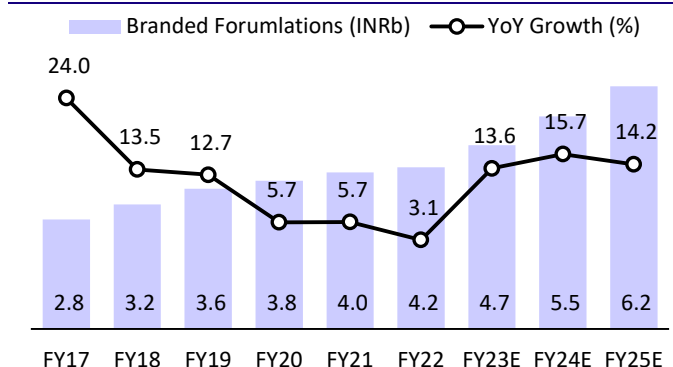
Source: Company, MOFSL

**Exhibit 6: DF sales to post 15% CAGR over FY23-25**



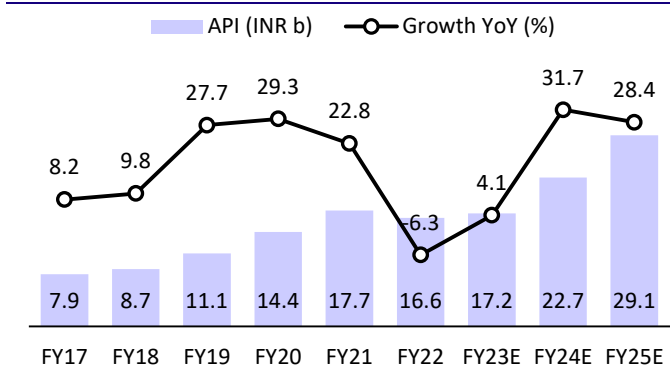
Source: Company, MOFSL

**Exhibit 7: BF sales to record 15% CAGR over FY23-25**



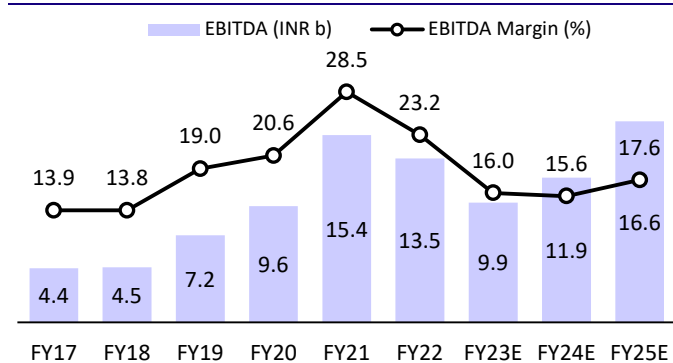
Source: Company, MOFSL

**Exhibit 8: API sales to clock 16% CAGR over FY23-25**



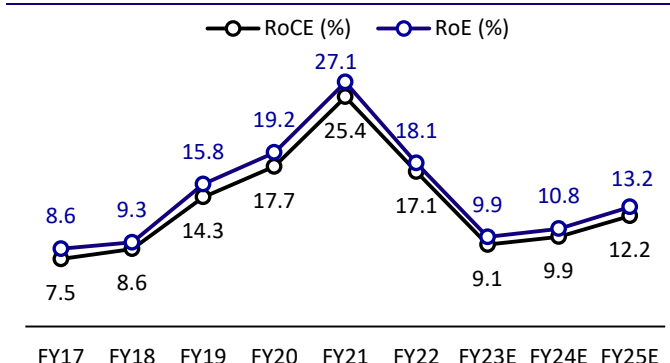
Source: Company, MOFSL

**Exhibit 9: Expect margin to decrease in FY24**



Source: Company, MOFSL

**Exhibit 10: Return ratios to remain in check**



Source: Company, MOFSL

## Financials and valuations

### Income Statement

(INR m)

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E	FY25E
<b>Net Revenues</b>	<b>28,850</b>	<b>32,106</b>	<b>32,836</b>	<b>37,732</b>	<b>46,487</b>	<b>54,200</b>	<b>58,298</b>	<b>61,715</b>	<b>76,395</b>	<b>94,227</b>
Change (%)	-8.2	11.3	2.3	14.9	23.2	16.6	7.6	5.9	23.8	23.3
<b>EBITDA</b>	<b>3,417</b>	<b>4,448</b>	<b>4,547</b>	<b>7,170</b>	<b>9,580</b>	<b>15,444</b>	<b>13,509</b>	<b>9,874</b>	<b>11,918</b>	<b>16,584</b>
Margin (%)	11.8	13.9	13.8	19.0	20.6	28.5	23.2	16.0	15.6	17.6
Depreciation	1,722	1,730	1,777	1,824	2,105	2,092	2,324	2,564	3,176	3,901
<b>EBIT</b>	<b>1,695</b>	<b>2,718</b>	<b>2,770</b>	<b>5,346</b>	<b>7,475</b>	<b>13,352</b>	<b>11,184</b>	<b>7,310</b>	<b>8,742</b>	<b>12,683</b>
Int. and Finance Charges	316	241	240	189	165	90	77	384	256	457
Other Income - Rec.	169	226	418	483	578	457	666	1,200	1,050	550
<b>PBT before EO Expense</b>	<b>1,548</b>	<b>2,703</b>	<b>2,948</b>	<b>5,640</b>	<b>7,888</b>	<b>13,719</b>	<b>11,773</b>	<b>8,126</b>	<b>9,536</b>	<b>12,775</b>
EO Expense/(Income)	395	0	0	157	445	-171	416	419	0	0
<b>PBT after EO Expense</b>	<b>1,153</b>	<b>2,703</b>	<b>2,948</b>	<b>5,483</b>	<b>7,442</b>	<b>13,890</b>	<b>11,357</b>	<b>7,708</b>	<b>9,536</b>	<b>12,775</b>
Current Tax	228	533	614	1,218	1,406	2,487	2,070	2,357	2,527	3,322
Deferred Tax	-42	142	-102	-176	-53	-85	178	163	191	256
Tax	186	675	511	1,042	1,353	2,401	2,248	2,519	2,718	3,577
Tax Rate (%)	12.0	25.0	17.3	18.5	17.2	17.5	19.1	31.0	28.5	28.0
<b>Reported PAT</b>	<b>967</b>	<b>2,028</b>	<b>2,436</b>	<b>4,441</b>	<b>6,090</b>	<b>11,488</b>	<b>9,110</b>	<b>5,189</b>	<b>6,817</b>	<b>9,197</b>
Less: Minority Interest	35	0	42	18	78	91	269	190	110	100
<b>Net Profit</b>	<b>933</b>	<b>2,028</b>	<b>2,394</b>	<b>4,423</b>	<b>6,012</b>	<b>11,398</b>	<b>8,841</b>	<b>4,999</b>	<b>6,707</b>	<b>9,097</b>
<b>Adj PAT</b>	<b>1,328</b>	<b>2,028</b>	<b>2,394</b>	<b>4,580</b>	<b>6,485</b>	<b>11,255</b>	<b>9,218</b>	<b>5,655</b>	<b>6,708</b>	<b>9,097</b>
Adj PAT growth (%)	-46.9	52.8	18.1	91.3	41.6	73.6	-18.1	-38.7	18.6	35.6

### Balance Sheet

(INR m)

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E	FY25E
Equity Share Capital	252	252	252	252	252	254	254	254	254	254
Total Reserves	22,340	24,300	26,633	30,971	35,903	46,763	54,666	58,915	64,617	72,351
<b>Net Worth</b>	<b>22,592</b>	<b>24,553</b>	<b>26,886</b>	<b>31,224</b>	<b>36,275</b>	<b>47,017</b>	<b>54,920</b>	<b>59,168</b>	<b>64,871</b>	<b>72,604</b>
Deferred liabilities	1565	1705	1580	1457	1398	1316	1506	1668	1859	2114
Total Loans	6,691	5,290	4,731	3,505	4,328	1,988	8,027	7,631	9,414	8,879
<b>Capital Employed</b>	<b>30,848</b>	<b>31,548</b>	<b>33,196</b>	<b>36,342</b>	<b>42,137</b>	<b>50,466</b>	<b>65,222</b>	<b>68,468</b>	<b>76,143</b>	<b>83,598</b>
Gross Block	22,121	23,508	24,969	26,657	30,268	31,872	37,647	41,147	60,747	62,247
Less: Accum. Deprn.	1,628	3,350	5,127	6,951	9,056	11,148	13,472	16,036	19,212	23,113
<b>Net Fixed Assets</b>	<b>20,493</b>	<b>20,158</b>	<b>19,842</b>	<b>19,706</b>	<b>21,212</b>	<b>20,724</b>	<b>24,175</b>	<b>25,111</b>	<b>41,535</b>	<b>39,134</b>
Capital WIP	936	621	418	361	708	2,348	3,064	3,064	1,564	1,564
Investments	258	1,358	869	1,204	2,719	4,711	9,892	9,892	1,392	1,392
<b>Curr. Assets</b>	<b>17,230</b>	<b>17,458</b>	<b>20,027</b>	<b>24,217</b>	<b>27,939</b>	<b>32,881</b>	<b>39,237</b>	<b>41,053</b>	<b>44,838</b>	<b>57,771</b>
Inventory	8,374	8,822	8,806	10,725	13,231	15,948	18,580	19,771	24,070	29,172
Account Receivables	4,459	5,002	6,023	6,815	8,952	8,118	9,108	10,483	13,605	17,296
Cash and Bank Balance	1,755	359	1,506	2,823	1,809	3,651	6,407	5,219	885	3,558
Loans & Advances	2,641	3,276	3,693	3,854	3,947	5,164	5,143	5,580	6,279	7,745
<b>Curr. Liability &amp; Prov.</b>	<b>8,069</b>	<b>8,047</b>	<b>7,960</b>	<b>9,147</b>	<b>10,441</b>	<b>10,198</b>	<b>11,147</b>	<b>10,652</b>	<b>13,186</b>	<b>16,264</b>
Account Payables	7,245	7,141	7,029	8,190	9,182	8,781	9,704	9,469	11,721	14,457
Provisions	824	906	931	957	1,259	1,417	1,443	1,184	1,465	1,807
<b>Net Current Assets</b>	<b>9,160</b>	<b>9,410</b>	<b>12,068</b>	<b>15,070</b>	<b>17,498</b>	<b>22,682</b>	<b>28,091</b>	<b>30,401</b>	<b>31,652</b>	<b>41,507</b>
<b>Appl. of Funds</b>	<b>30,848</b>	<b>31,548</b>	<b>33,196</b>	<b>36,342</b>	<b>42,137</b>	<b>50,466</b>	<b>65,222</b>	<b>68,468</b>	<b>76,143</b>	<b>83,598</b>

E: MOSL Estimates

## Financials and valuations

### Ratios

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E	FY25E
<b>EPS (INR)</b>	<b>5.2</b>	<b>8.0</b>	<b>9.4</b>	<b>18.1</b>	<b>25.6</b>	<b>44.4</b>	<b>36.3</b>	<b>22.3</b>	<b>26.4</b>	<b>35.9</b>
Cash EPS	10.5	14.9	16.5	24.8	32.2	53.2	44.0	29.8	39.0	51.2
BV/Share	89.5	97.3	106.5	123.7	143.2	185.3	216.5	233.2	255.7	286.2
DPS	0.0	0.5	0.5	0.5	3.6	6.8	6.6	7.7	7.8	11.1
Payout (%)	0.0	6.2	5.2	2.8	14.8	14.9	18.3	37.2	28.6	30.3
<b>Valuation (x)</b>										
P/E	132.6	86.8	73.5	38.4	27.2	15.6	19.1	31.1	26.2	19.4
P/BV	7.8	7.1	6.5	5.6	4.8	3.7	3.2	3.0	2.7	2.4
EV/Sales	6.2	5.5	5.4	4.7	3.8	3.3	3.0	2.9	2.3	1.9
EV/EBITDA	52.0	39.9	39.1	24.8	18.5	11.5	13.2	18.0	14.9	10.7
Dividend Yield (%)	0.0	0.1	0.1	0.1	0.5	1.0	1.0	1.1	1.1	1.6
<b>Return Ratios (%)</b>										
RoE	5.9	8.6	9.3	15.8	19.2	27.1	18.1	9.9	10.8	13.2
RoCE	5.5	7.5	8.6	14.3	17.7	25.4	17.1	9.1	9.9	12.2
RoIC	5.3	7.1	7.7	14.0	18.0	28.7	21.1	10.5	10.2	12.2
<b>Working Capital Ratios</b>										
Fixed Asset Turnover (x)	1.5	1.6	1.6	1.9	2.3	2.6	2.6	2.5	2.3	2.3
Debtor (Days)	56	56	66	65	70	54	56	62	65	67
Inventory (Days)	106	100	98	104	104	107	116	117	115	113
Working Capital Turnover (Days)	94	103	117	118	123	128	136	149	147	147
<b>Leverage Ratio (x)</b>										
Interest Cover Ratio	5.4	11.3	11.5	28.3	45.3	147.7	145.4	19.1	34.2	27.7
Debt/Equity	0.2	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1

### Cash Flow Statement

Y/E March	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23E	FY24E	FY25E
Oper. Profit/(Loss) before Tax	3,417	4,448	4,547	7,170	9,580	15,444	13,509	9,874	11,918	16,584
Interest/Dividends Recd.	169	226	418	483	578	457	666	1,200	1,050	550
Direct Taxes Paid	-364	-535	-636	-1,165	-1,412	-2,484	-2,058	-2,357	-2,527	-3,322
(Inc)/Dec in WC	2,622	-1,647	-1,510	-1,686	-3,442	-3,343	-2,652	-3,498	-5,585	-7,182
<b>CF from Operations</b>	<b>5,844</b>	<b>2,491</b>	<b>2,819</b>	<b>4,803</b>	<b>5,304</b>	<b>10,075</b>	<b>9,464</b>	<b>5,220</b>	<b>4,855</b>	<b>6,631</b>
EO Expense / (Income)	395	0	0	157	445	-171	416	419	0	0
<b>CF from Oper. incl EO Exp.</b>	<b>7,087</b>	<b>2,819</b>	<b>3,411</b>	<b>5,010</b>	<b>5,643</b>	<b>10,246</b>	<b>9,048</b>	<b>4,801</b>	<b>4,855</b>	<b>6,631</b>
(inc)/dec in FA	5,079	-1,072	-1,258	-1,632	-3,958	-3,244	-6,491	-3,500	-18,100	-1,500
<b>Free Cash Flow</b>	<b>12,165</b>	<b>1,747</b>	<b>2,154</b>	<b>3,379</b>	<b>1,685</b>	<b>7,002</b>	<b>2,557</b>	<b>1,301</b>	<b>-13,245</b>	<b>5,131</b>
(Pur)/Sale of Investments	-96	-1,100	489	-336	-1,515	-1,992	-5,181	0	8,500	0
Others	-7,166	684	-586	317	376	0	0	0	0	0
<b>CF from Investments</b>	<b>-2,183</b>	<b>-1,488</b>	<b>-1,354</b>	<b>-1,651</b>	<b>-5,097</b>	<b>-5,236</b>	<b>-11,672</b>	<b>-3,500</b>	<b>-9,600</b>	<b>-1,500</b>
Issue of shares	0	0	0	0	0	1	0	0	0	0
(Inc)/Dec in Debt	-1,594	-1,401	-560	-1,070	804	-2,331	6,663	-1,165	1,782	-535
Interest Paid	-316	-241	-240	-189	-165	-90	-77	-384	-256	-457
Dividend Paid	0	-126	-126	-126	-902	-1,710	-1,670	-1,933	-1,950	-2,790
<b>CF from Fin. Activity</b>	<b>-4,615</b>	<b>-1,591</b>	<b>-1,304</b>	<b>-1,832</b>	<b>-1,305</b>	<b>-3,169</b>	<b>5,222</b>	<b>-2,488</b>	<b>410</b>	<b>-2,456</b>
<b>Inc/Dec of Cash</b>	<b>288</b>	<b>-260</b>	<b>753</b>	<b>1,528</b>	<b>-758</b>	<b>1,841</b>	<b>2,598</b>	<b>-1,187</b>	<b>-4,335</b>	<b>2,675</b>
Add: Beginning Balance	1,037	1,689	1,428	2,181	3,709	2,954	4,795	7,393	6,206	1,870
Forex/ Business acquisition	364	0	0	0	3	0	0	0	0	0
<b>Closing Balance</b>	<b>1,689</b>	<b>1,428</b>	<b>2,181</b>	<b>3,709</b>	<b>2,954</b>	<b>4,795</b>	<b>7,393</b>	<b>6,206</b>	<b>1,870</b>	<b>4,545</b>
Bank balances / Mutual fund (gain)/ loss	67	-1,070	-676	-886	-1,145	-1,145	-986	-986	-986	-986
<b>Closing Balance</b>	<b>1,755</b>	<b>359</b>	<b>1,506</b>	<b>2,823</b>	<b>1,809</b>	<b>3,650</b>	<b>6,407</b>	<b>5,219</b>	<b>885</b>	<b>3,559</b>

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](http://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](http://www.nseindia.com), [www.bseindia.com](http://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 at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance.
- received compensation/other benefits from the subject company in the past 12 months
- any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report.

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

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

#### Analyst Certification

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

#### Terms & Conditions:

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

#### Disclaimer:

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

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.