

Estimate change



TP change



Rating change



Motilal Oswal values your support in the Asiamoney Brokers Poll 2020 for India Research, Sales and Trading team. We request your ballot.



Bloomberg	BIOS IN
Equity Shares (m)	1,200
M.Cap.(INRb)/(USDb)	498.2 / 6.9
52-Week Range (INR)	455 / 211
1, 6, 12 Rel. Per (%)	-3/49/74
12M Avg Val (INR M)	1764

Financials & Valuations (INR b)

Y/E MARCH	2020	2021E	2022E
Sales	63.0	76.5	96.0
EBITDA	16.0	22.0	27.8
Adj. PAT	7.4	10.3	14.4
EBIT Margin (%)	16.7	19.4	20.7
Cons. Adj. EPS (INR)	6.2	8.6	12.0
EPS Gr. (%)	-0.4	39.2	39.6
BV/Sh. (INR)	55.9	62.0	70.4

Ratios

Net D:E	0.1	0.2	0.1
RoE (%)	12.1	14.6	18.1
RoCE (%)	9.1	10.6	13.5
Payout (%)	29.3	29.1	29.3

Valuations

P/E (x)	69.9	50.3	36.0
EV/EBITDA (x)	31.0	22.7	17.8
Div. Yield (%)	0.4	0.5	0.7
FCF Yield (%)	0.6	0.6	1.9
EV/Sales (x)	7.9	6.5	5.2

Shareholding pattern (%)

As On	Jun-20	Mar-20	Jun-19
Promoter	54.5	54.5	54.5
DII	18.5	21.2	22.3
FII	8.1	7.8	8.7
Others	18.8	16.5	14.5

FII Includes depository receipts

CMP: INR415
TP: INR450 (+8%)
Neutral

Healthy recovery in Biologics; Improved demand scenario for Generics

WIP for new growth driver for Generics

- Biocon (BIOS) has shown healthy improvement in Biosimilars revenue on a YoY as well as QoQ basis. The favorable demand scenario has led to better off-take of products in the Generics category. Capital investment and product development are on track for the Generics segment, additional growth levers for BIOS.
- We maintain our EPS estimates for FY21/FY22 and value BIOS at 30x (20% discount to its five-year avg.), arriving at TP of INR450. BIOS is well-placed to deliver a 39% earnings CAGR over FY20–22, led by new launches / increased market share for existing products in the Biologics segment and superior performance from the Generics / Research Services segment. However, we await a better entry point and hence maintain a Neutral rating on the stock.

Operationally in-line; Biologics improves sequentially

- Biocon reported a 14.6% YoY increase in revenue to INR16.7b (in-line) in 1QFY21, primarily led by: a) 16% YoY growth in Generics (36% of sales) and b) a 19%/60% YoY/QoQ increase in Biosimilars to INR7b (41% of sales). Growth was dragged down by a flat Research Services at INR4.2b (23% of sales).
- The gross margin (GM) contracted 290bp YoY to 63.9%. The EBITDA margin contracted at a higher rate of 530bp YoY to 24.7% (our est.: in-line). This was attributed to a change in the product mix and an increase in other expenses / R&D cost / employee cost (+120bp/+100bp/+30bp YoY as a percentage of sales).
- EBITDA was down 5.6% YoY to INR4.1b (our est.: in-line) for the quarter.
- PAT declined at a higher rate of 27.8% YoY to INR1.5b (our est.: INR1.9b), weighed by higher depreciation and tax rate.

Highlights from management commentary

- BIOS-Mylan's Trastuzumab biosimilar market share saw a positive trend and that for Pegfilgrastim was steady at 6% despite higher competition. New contracts, led by Mylan's efforts, would lead to better market share going forward.
- BIOS is on track with regard to developing Insulin Aspart.
- BIOS-Mylan is working with the USFDA on the pathway for the interchangeability of Insulin Glargine.
- BIOS guided for effective tax rate of 25% for FY21.

Valuation and view

- Over FY20–22, we expect an earnings CAGR of 39%, led by a CAGR of 43% in Biologics and 17% in Small Molecules, with a 350bp margin improvement.

Research Analyst: Tushar Manudhane (Tushar.Manudhane@motilalosal.com)

Hitakshi Chandrani (Hitakshi.Chandrani@MotilalOswal.com) / Bharat Hegde (Bharat.Hegde@motilalosal.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.motilalosal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

- We value BIOS at 30x (20% discount to its five-year average) and roll our TP to INR450 on a 12M forward earnings basis. BIOS is the leading company in the India-listed space to not only have product approvals but also see superior commercial benefit in Biosimilars. New customer additions and an increased number of projects from existing customers would drive the Research Services segment. Also, BIOS is in the process of building a product pipeline in the Generics segment. However, we maintain Neutral on limited upside from current levels.

Quarterly performance (Consolidated)

(INR m)

Y/E March	FY20				FY21E				FY20	FY21E	FY21E	vs Est
	1Q	2Q	3Q	4Q	1Q	2QE	3QE	4QE				
Net Sales	14,589	15,720	17,480	15,575	16,713	18,689	20,952	20,102	63,005	76,455	16,799	-0.5%
YoY Change (%)	29.8	19.0	13.4	1.9	14.6	18.9	19.9	29.1	14.3	21.3	14.6	
Total Expenditure	10,220	11,690	13,030	12,390	12,590	13,699	14,729	13,486	46,974	54,504	12,633	
EBITDA	4,369	4,030	4,450	3,185	4,123	4,990	6,223	6,616	16,031	21,952	4,166	-1.0%
YoY Change (%)	83.7	18.9	9.5	-22.3	-5.6	23.8	39.8	107.7	15.1	36.9	-5	
Margins (%)	29.9	25.6	25.5	20.4	24.7	26.7	29.7	32.9	25.4	28.7	24.8	
Depreciation	1,242	1,320	1,440	1,524	1,668	1,700	1,725	2,010	5,522	7,103	1,540	
EBIT	3,127	2,710	3,010	1,661	2,455	3,290	4,498	4,606	10,509	14,848	2,626	
YoY Change (%)	125.5	19.4	4.0	-42.8	-21.5	21.4	49.4	177.3	11.1	41.3	-16	
Interest	166	140	180	168	125	130	125	141	649	521	170	
Other Income	241	380	360	631	183	220	250	247	1,614	900	450	
Extraordinary income	0	675	0	0	0	0	0	0	675	0	0	
PBT	3,202	3,625	3,190	2,124	2,513	3,380	4,623	4,712	12,149	15,227	2,906	-13.5%
Tax	852	1,000	850	450	809	845	1,156	1,149	3,151	3,959	727	
Rate (%)	26.6	27.6	26.6	21.2	32.2	25.0	25.0	24.4	25.9	26.0	25.0	
Minority Interest	210	347	310	360	180	200	240	299	1,227	919	250	
PAT	2,061	2,448	2,030	1,230	1,488	2,335	3,227	3,263	7,771	10,313	1,930	-22.9%
Adj PAT	2,061	2,089	2,030	1,230	1,488	2,335	3,227	3,263	7,410	10,313	1,930	-22.9%
YoY Change (%)	72.7	14.2	-10.6	-42.7	-27.8	11.8	59.0	165.3	-0.4	39.2	-9.0	
Margins (%)	14.1	15.6	11.6	7.9	8.9	12.5	15.4	16.2	12.3	13.5	11.5	

*1Q and 4Q nos. have been re-stated this quarter and hence they do not sum up to FY20 annual nos.

Key performance indicators (Consolidated)

Y/E March	FY20				FY21E				FY20	FY21E	1QE
	1Q	2Q	3Q	4Q	1QE	2QE	3QE	4QE			
Cost Break-up											
RM Cost (% of Sales)	33.2	34.9	36.4	38.6	36.1	35.9	35.5	36.5	31.2	36.0	38.0
Staff Cost (% of Sales)	21.2	20.5	19.6	22.7	21.5	19.5	18.0	15.3	22.9	18.4	21.0
R&D Expenses(% of Sales)	5.4	6.6	7.5	8.0	6.4	6.5	6.8	5.8	6.9	6.4	6.2
Other Cost (% of Sales)	10.2	12.3	11.1	10.2	11.4	11.4	10.0	9.5	12.7	10.5	10.0
Gross Margins(%)	66.8	65.1	63.6	61.4	63.9	64.1	64.5	63.5	68.8	64.0	62.0
EBITDA Margins(%)	29.9	25.6	25.5	20.4	24.7	26.7	29.7	32.9	26.2	28.7	24.8
EBIT Margins(%)	21.4	17.2	17.2	10.7	14.7	17.6	21.5	22.9	16.7	19.4	15.6



Management call highlights

- Growth in Generic Formulations was led by healthy global demand in Formulations as well as API. Within the Generics segment, Formulations/API contributed in a 20:80 ratio.
- BIOS has a 60% procurement dependency on China in the Generics segment. It has very little dependency for raw material in the Biosimilars segment in China. It continues to look for alternate vendors to secure its supply chain.
- Post the easing of the lockdown, hospitals have started seeing better traction in patients.
- Net R&D spend is expected to continue at 11–12% of sales (ex-Syngene).
- BIOS stands by its capex plan at USD200m (ex-Syngene) for the next two years, split equally between Biosimilars and Generics. This would be utilized for the future product pipeline.

Key exhibits

Exhibit 1: Generics' PBT margin shows positive trend on YoY basis; Biosimilars margin improves on QoQ basis

PBT margin % (INR m)	1QFY21	1QFY20	%YoY Bp	4QFY20	%QoQ bp
Generics	16.6	15.0	160	12.6	400bp
Biosimilars	15.2	31.6	(1640bp)	-1.3	1650bp
Novel Biologics	0.0	0.0		0.0	
Research services	15.7	20.7	(500bp)	25.2	(950bp)

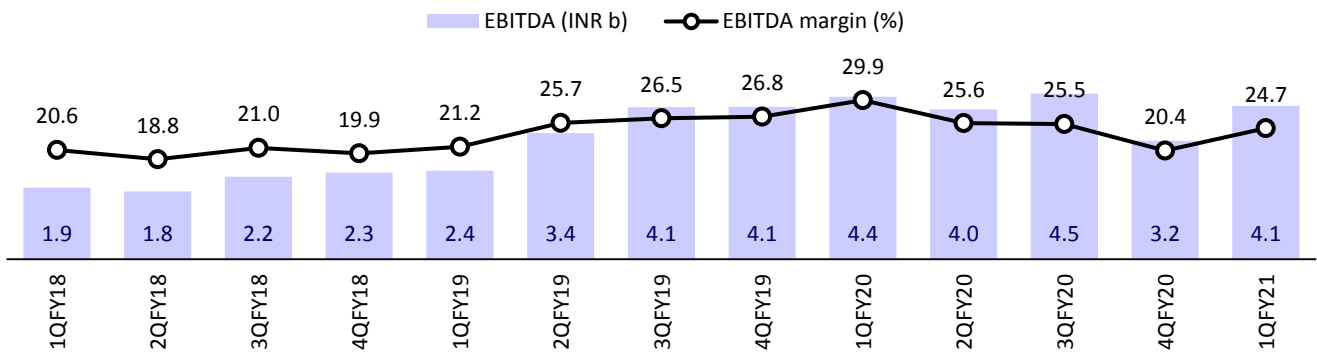
Source: MOFSL, Company

Exhibit 2: Syngene International's financials

(INR m)	1QFY21	1QFY20	%YoY	4QFY20	%QoQ
Total revenues	4,216	4,209	0.2	6,073	(30.6)
Material cost	897	1,055	(15.0)	1,442	(37.8)
Gross profit	3,319	3,154	5.2	4,631	(28.3)
Gross margin (%)	78.7	74.9	+380bp	76.3	+240bp
Staff cost	1,404	1,322	6.2	1,641	(14.4)
% of sales	33.3	31.4	+190bp	27.0	+630bp
Other expense	637	637	-	943	(32.4)
% of sales	15.1	15.1	0bp	15.5	(40bp)
EBITDA	1,278	1,195	6.9	2,047	(37.6)
EBITDA margin (%)	30.3	28.4	190bp	33.7	(340bp)
Depreciation	661	474	39.5	623	6.1
EBIT	617	721	(14.4)	1,424	(56.7)
Interest cost	74	71	4.2	93	(20.4)
Other income (net)	153	205	(25.4)	205	(25.4)
PBT before EO	696	855	(18.6)	1,536	(54.7)
EO expense	33	-16		6	
PBT	663	855	(22.5)	1,530	(56.7)
Income tax	83	151	(45.0)	328	(74.7)
Effective tax rate (%)	12.5	17.7	(520bp)	21.4	(890bp)
Adjusted PAT	609	707	(13.9)	1,207	(49.5)

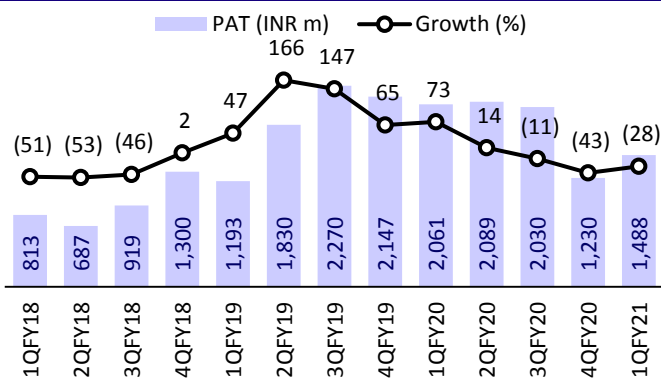
Source: MOFSL, Company

Exhibit 3: EBITDA margin impaired due to lower gross margin and higher opex on YoY basis



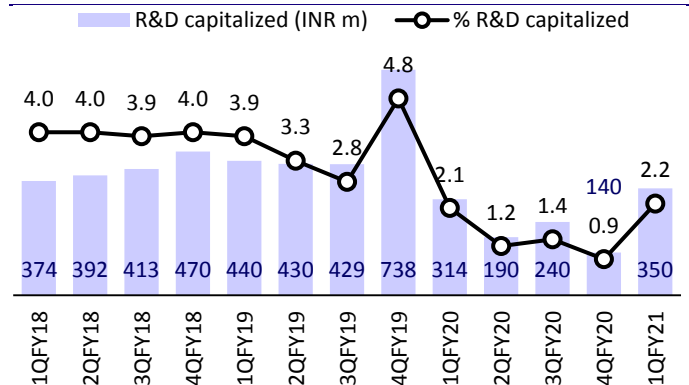
Source: MOFSL, Company

Exhibit 4: PAT down 28% YoY for 1QFY21



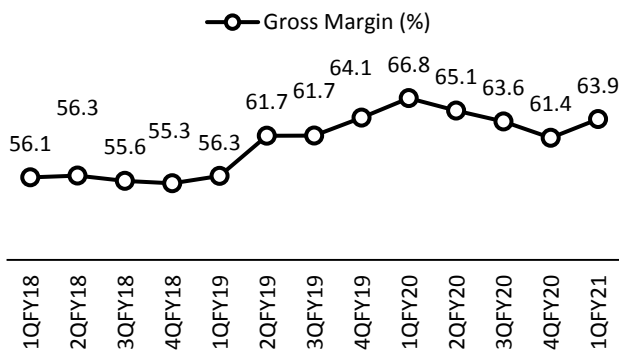
Source: MOFSL, Company

Exhibit 5: R&D capitalized at 2.2% of sales for the quarter



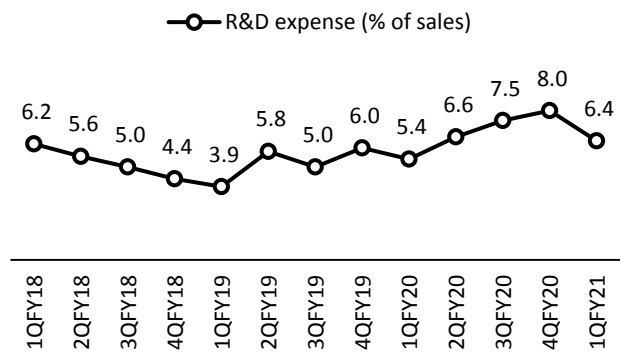
Source: MOFSL, Company

Exhibit 6: Gross margin contracts ~290bp YoY



Source: MOFSL, Company

Exhibit 7: Expensed R&D at 6.4% of sales



Source: MOFSL, Company

Valuation and view

Biosimilars – Healthy recovery, new launches provide superior growth prospects

In 4QFY20, segmental performance was dented due to the delayed off-take of products on account of COVID-19. However, the easing of lockdown across geographies and capacity expansions in place are expected to drive revival in Biologics sales. In fact, 1QFY21 performance already reflects part recovery with 19% YoY / 60% QoQ sales growth to INR7b. Furthermore, a) positive development on patent litigation, b) receipt of EIR at plants, and c) recent approval from the USFDA have increased the visibility of strong traction from the launch of Insulin Glargine

over the near term. BIOS’s Bevacizumab biosimilar filing (under review) is also progressing on track. Considering new launches and strong traction from existing products, we expect a 43% CAGR in revenue to INR40b over FY20–22.

Research Services – Muted performance in quarter; should pick up gradually

Research Services’ revenue was flat YoY at INR4.2b in 1QFY21. The segment posted strong growth with a 17% CAGR over FY16–20. The lackluster performance in this quarter is attributable to the COVID-19 crisis. An increase in the number of customers and better traction from existing customers are expected to drive a 12–13% CAGR in Research Services revenue over FY20–22E.

Generics / Small Molecules – WIP on new growth avenue

BIOS delivered 16% YoY growth in this segment, led by favorable demand for API. BIOS is building a fermentation-based API capacity with an investment of INR6b. It is also building a product pipeline in the Formulations space. Considering the gestation period before the commercial benefit starts to accrue from this investment, we expect an 11% CAGR in sales over FY20–22.

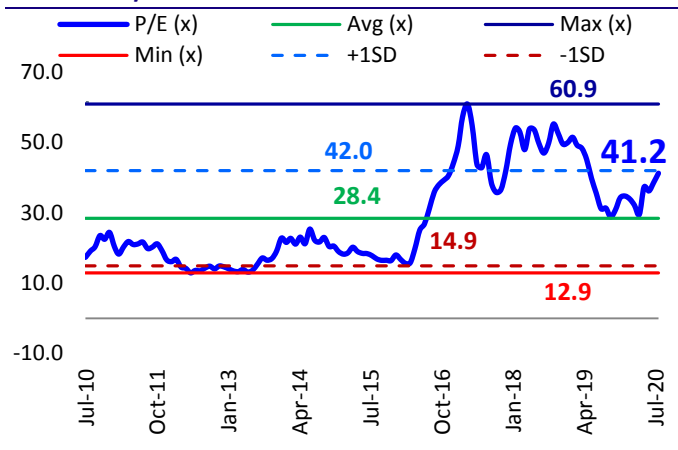
Robust earnings growth on the cards

Over FY20–22, we expect an earnings CAGR of 39%, led by a CAGR of 43% in Biologics and 17% in Small Molecules, with a 350bp margin improvement. Accordingly, we expect RoE to improve to 19% by FY22E from 12% in FY20.

Maintain Neutral

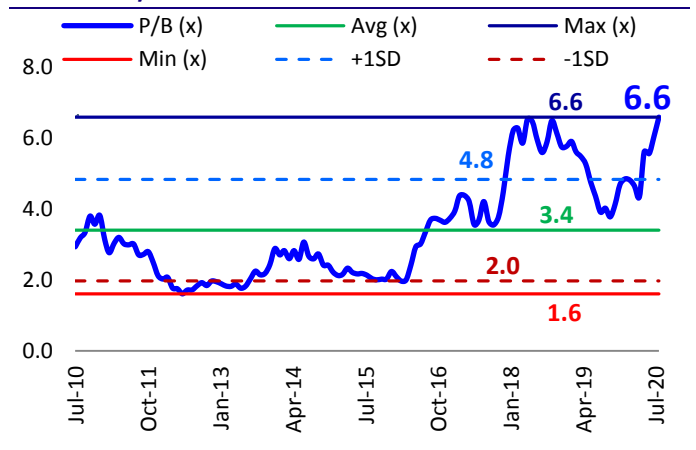
We value BIOS at 30x and roll our TP to INR450 on a 12M forward earnings basis. BIOS is the leading company in the India-listed space to not only have product approvals but also superior commercial benefit in Biosimilars. New customer additions and an increased number of projects from existing customers would drive the Research Services segment. Also, BIOS is in the process of building a product pipeline in the Generics segment. However, we maintain Neutral on limited upside from current levels.

Exhibit 8: P/E chart



Source: MOFSL, Company, Bloomberg

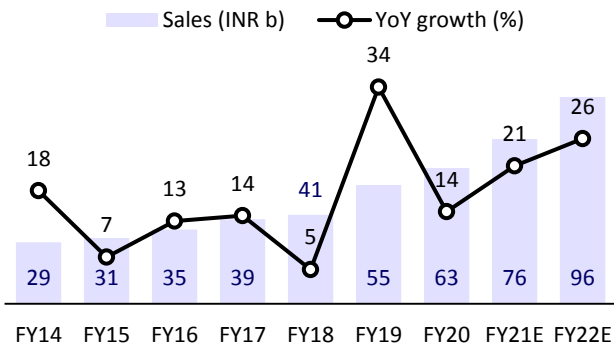
Exhibit 9: P/B chart



Source: MOFSL, Company, Bloomberg

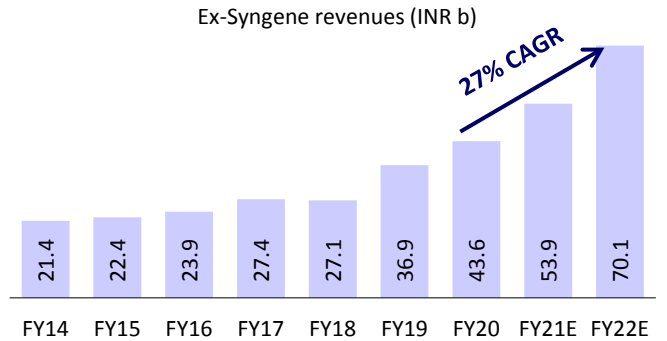
Story in charts

Exhibit 10: Expect revenue CAGR of ~23% over FY20–22E



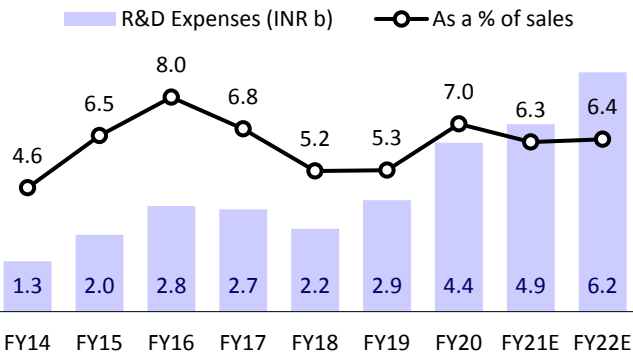
Source: MOFSL, Company

Exhibit 11: New launches to drive Ex-Syngene sales



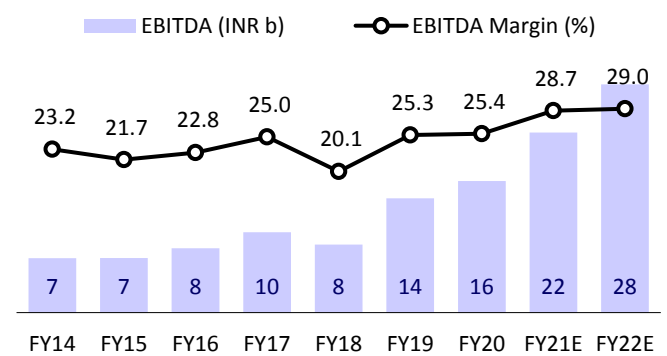
Source: MOFSL, Company

Exhibit 12: R&D spends to stabilize as % of sales



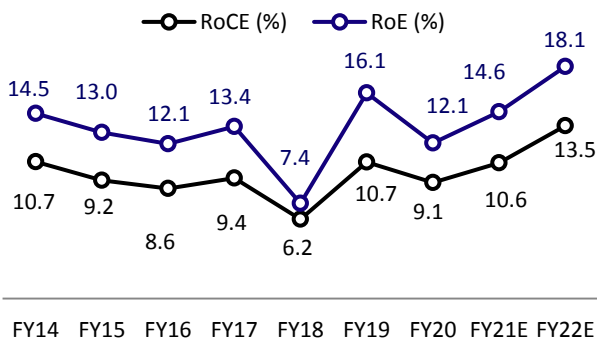
Source: MOFSL, Company

Exhibit 13: Superior product mix to drive margins



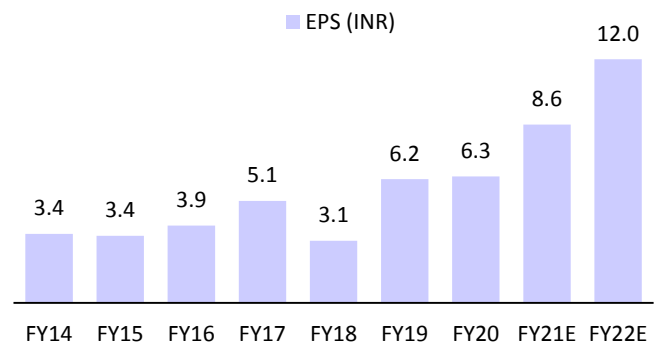
Source: MOFSL, Company

Exhibit 14: Return ratios on an upward trajectory



Source: MOFSL, Company

Exhibit 15: Expect EPS CAGR of 39% over FY20–22E



Source: MOFSL, Company

Financials and valuations

Income Statement (Consolidated)								(INR m)	
Y/E March	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E
Net Income	28,527	30,592	34,507	39,216	41,297	55,144	63,005	76,455	95,990
Change (%)	17.5	7.2	12.8	13.6	5.3	33.5	14.3	21.3	25.6
Total Expenditure	21,902	23,940	26,654	29,421	33,006	41,211	46,974	54,504	68,167
EBITDA	6,625	6,652	7,853	9,795	8,291	13,933	16,031	21,952	27,823
Change (%)	36.5	0.4	18.1	24.7	-15.4	68.0	15.1	36.9	26.7
Margin (%)	23.2	21.7	22.8	25.0	20.1	25.3	25.4	28.7	29.0
Depreciation	2,036	2,210	2,423	2,772	3,851	4,478	5,522	7,103	7,953
EBIT	4,589	4,442	5,430	7,023	4,440	9,455	10,509	14,848	19,870
Int. & Finance Charges	17	89	102	260	615	709	649	521	461
Other Income - Rec.	805	837	1,192	1,571	2,062	1,444	1,614	900	1,270
Extraordinary income	0	1,051	5,754	0	0	1,946	675		
PBT	5,377	6,241	12,274	8,334	5,887	12,136	12,149	15,227	20,679
Tax	1,069	957	2,569	1,616	1,569	2,123	3,151	3,959	5,273
Tax Rate (%)	19.9	15.3	20.9	19.4	26.7	17.5	25.9	26.0	25.5
Minority Interest	170	310	744	760	594	964	1227	919	1011
Adjusted PAT	4,137	4,023	4,646	5,958	3,690	7,441	7,410	10,313	14,395
PAT	4,137	4,084	4,411	5,958	3,724	9,053	7,771	10,313	14,395
Change (%)	26.5	-2.8	15.5	28.3	-38.1	101.7	-0.4	39.2	39.6
Margin (%)	14.5	13.4	12.8	15.2	8.9	16.4	12.3	13.5	15.0

Consolidated Balance Sheet								(INR m)	
Y/E March	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E
Equity Share Capital	1,000	1,000	1,000	3,000	3,000	3,000	6,000	6,000	6,000
Other Reserves	29,258	31,697	39,329	45,368	48,808	57,980	61,058	68,354	78,539
Net Worth	30,267	32,706	40,338	48,377	51,808	60,980	67,058	74,354	84,539
Loans	8,497	10,306	24,673	22,054	19,201	18,028	19,797	16,797	13,797
Minority Interest	823	1,722	2,658	3,761	4,677	6,089	6,773	7,692	8,703
Deferred liabilities	6558	5934	3489	1964	2167	5816	13794	13748	13748
Capital Employed	46,145	50,667	71,158	76,156	77,853	90,913	107,422	112,592	120,788
Gross Block	27,218	29,750	33,113	53,269	57,532	68,240	85,167	94,667	104,167
Less: Accum. Deprn.	11,711	13,943	16,302	17,740	21,235	25,713	31,235	38,338	46,292
Net Fixed Assets	15,507	15,807	16,811	35,529	36,297	42,527	53,932	56,329	57,875
Capital WIP	10,831	14,939	20,597	5,327	7,789	12,869	15,765	18,265	20,765
Investments	7,649	2,303	9,015	12,538	6,752	10,118	9,661	9,536	10,039
Intangibles	1,442	2,320	2,470	3,787	5,937	8,303	11,974	13,171	14,489
Curr. Assets	22,077	28,384	34,973	34,786	41,188	44,860	49,426	51,948	63,905
Inventory	3,766	4,527	5,424	6,353	7,225	10,316	14,359	16,338	19,724
Account Receivables	5,998	7,705	7,145	8,832	10,639	12,918	12,237	15,501	20,250
Cash and Bank Balance	8,044	9,375	15,386	10,443	13,228	10,572	9,986	5,237	5,260
Loans & Advances	4,269	6,777	7,018	9,158	10,096	11,054	12,844	14,872	18,672
Curr. Liability & Prov.	11,361	13,087	12,708	15,811	20,110	27,764	33,336	36,657	46,285
Account Payables	9,595	11,355	12,334	15,343	19,645	26,959	32,306	32,048	40,500
Provisions	1,766	1,732	374	468	465	805	1,030	4,608	5,786
Net Current Assets	10,716	15,297	22,265	18,975	21,078	17,096	16,090	15,291	17,620
Appl. of Funds	46,145	50,667	71,158	76,156	77,853	90,913	107,422	112,592	120,788

Financials and valuations

Ratios

Y/E March	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21E	FY22E
Basic (INR)									
EPS	3.4	3.4	3.9	5.1	3.1	6.2	6.2	8.6	12.0
Cash EPS	5.1	5.2	5.7	7.3	6.3	11.3	11.1	14.5	18.6
BV/Share	25.2	27.2	33.6	40.3	43.2	50.8	55.9	62.0	70.4
DPS	0.8	0.8	0.8	1.0	1.0	0.5	1.6	2.1	3.0
Payout (%)	28.3	25.2	25.1	11.8	19.0	7.8	29.3	29.1	29.3
Valuation (x)									
P/E	125.3	128.8	111.6	84.7	139.2	69.6	69.9	50.3	36.0
Cash P/E	83.9	82.3	75.8	59.4	68.7	38.3	39.0	29.7	23.2
P/BV	17.1	15.9	12.9	10.7	10.0	8.5	7.7	7.0	6.1
EV/Sales	17.1	16.1	14.3	12.6	12.0	8.9	7.8	6.5	5.1
EV/EBITDA	73.5	74.1	63.0	50.4	59.5	35.3	30.8	22.6	17.7
Dividend Yield (%)	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.5	0.7
Return Ratios (%)									
RoE	14.5	13.0	12.1	13.4	7.4	16.1	12.1	14.6	18.1
RoCE	10.7	9.2	8.6	9.4	6.2	10.7	9.1	10.6	13.5
RoIC	18.5	17.2	17.1	15.3	6.7	14.5	12.0	14.5	18.0
Working Capital Ratios									
Fixed Asset Turnover (x)	1.9	2.0	2.1	1.5	1.1	1.4	1.3	1.4	1.7
Debtor (Days)	77	92	76	82	94	86	71	74	77
Inventory (Days)	48	54	57	59	64	68	83	78	75
Working Capital (Days)	34	71	73	79	69	43	35	48	47
Leverage Ratio (x)									
Current ratio	1.9	2.2	2.8	2.2	2.0	1.6	1.5	1.4	1.4
Net Debt/Equity	0.0	0.0	0.2	0.2	0.1	0.1	0.1	0.2	0.1

Consolidated Cash Flow Statement

(INR m)

Y/E March	2014	2015	2016	FY17	FY18	FY19	FY20	FY21E	FY22E
Oper. Profit/(Loss) before Tax	6,625	6,652	7,853	9,795	8,291	13,933	16,031	21,952	27,823
Interest/Dividends Recd.	805	-114	-3,124	1,571	2,062	1,444	1,614	900	1,270
Direct Taxes Paid	800	-1,581	-5,014	-3,141	-1,366	1,526	4,827	-4,005	-5,273
(Inc)/Dec in WC	876	-3,251	-956	-1,653	682	1,326	420	-3,950	-2,306
CF from Operations	9,106	1,707	-1,241	6,572	9,669	18,229	22,892	14,896	21,514
(Incr)/Dec in FA	-11,031	-6,618	-9,085	-6,220	-7,081	-15,788	-19,823	-12,000	-12,000
Free Cash Flow	-1,925	-4,912	-10,326	352	2,588	2,441	3,069	2,896	9,514
(Pur)/Sale of Investments	-1,935	4,468	-6,862	-4,840	3,602	-5,475	-3,214	-1,072	-1,820
CF from investments	-12,966	-2,151	-15,946	-11,060	-3,479	-21,263	-23,037	-13,072	-13,820
Change in Net Worth	354	-554	4,094	2,783	443	2,433	920	0	0
(Inc)/Dec in Debt	6,009	2,397	14,559	-2,276	-2,531	-725	1,226	-3,000	-3,000
Interest Paid	-17	-89	-102	-260	-615	-709	-649	-521	-461
Dividend Paid	-1,170	-1,030	-1,107	-702	-702	-702	-2,273	-3,053	-4,210
CF from Fin. Activity	5,175	724	17,444	-455	-3,405	297	-776	-6,573	-7,670
Inc/Dec of Cash	1,315	280	257	-4,943	2,785	-2,737	-921	-4,749	23
Add: Beginning Balance	6,729	8,044	9,375	15,386	10,443	13,228	10,572	9,986	5,237
Closing Balance	8,044	8,324	9,632	10,443	13,228	10,559	9,817	5,237	5,260

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 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, 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.: INP00000670); 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.