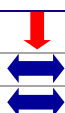


CIE Automotive

Estimate change

TP change

Rating change



Bloomberg	CIEINDIA IN
Equity Shares (m)	379
M.Cap.(INRb)/(USD\$)	183.5 / 2.2
52-Week Range (INR)	580 / 279
1, 6, 12 Rel. Per (%)	0/20/42
12M Avg Val (INR M)	523

Financials & Valuations (INR b)

INR b	CY22	CY23E	CY24E
Sales	87.5	95.5	105.8
EBITDA (%)	13.4	15.6	16.2
Adj. PAT	6.8	8.5	10.2
EPS (INR)	18.1	22.5	27.1
EPS Growth (%)	69.3	24.3	20.6
BV/Share (INR)	135	153	174
Ratio			
RoE (%)	13.3	15.6	16.6
RoCE (%)	10.7	13.8	14.6
Payout (%)	13.3	16.7	16.7
Valuations			
P/E (x)	26.7	21.5	17.8
P/BV (x)	3.6	3.2	2.8
Div. Yield (%)	0.5	0.8	0.9
FCF Yield (%)	3.7	1.7	4.3

Shareholding pattern (%)

As On	Jun-23	Mar-23	Jun-22
Promoter	65.7	68.9	74.9
DII	14.8	11.2	8.1
FII	7.5	8.6	6.9
Others	12.0	11.3	10.2

FII Includes depository receipts

CMP: INR484
TP: INR575 (+19%)
Buy

Muted growth in US and India leads to a miss

Mixed bag for growth expectations; margin drivers are in place

- CIEINDIA's 3QCY23 result disappointed due to weak revenue growth in both India (flat YoY) and EU (+5% YoY). While healthy demand for SUVs and a rebound in 2W demand are projected to drive growth in India, EU's recovery is expected to be more gradual owing to the weak outlook for Metalcastello business in the near term and a slow pickup in the region.
- We lower our consolidated EPS estimates for CY23/CY24 by 6%/7% as we factor in weaker-than-estimated growth in both EU and India, and high interest costs. Reiterate BUY with a TP of INR575 (based on ~18x CY25E consol. EPS).

Weaker growth across geographies

- CIEINDIA's 3QCY23 consol. revenue/EBITDA/PAT grew 2%/18%/11% YoY. 9MCY23 consol. revenue/EBITDA/PAT grew 8%/25%/20% YoY.
- 3QCY23 consol. revenue grew just ~2% YoY to ~INR22.8b (est. INR24.7b), due to weaker growth in both geographies. India remained flat YoY (est. +8%), while EU grew just 5% YoY (est. +15%). EBITDA stood at INR3.45b (est. INR3.85b), up 18% YoY. EBITDA margins stood at 15.2% (est. 15.6%). Adj. PAT stood at INR1.9b (est. INR2.3b), up 11% YoY.
- **India business:** Revenue remained flat YoY at ~INR15.35b (est. INR16.5b). EBITDA margin stood at 15.1% (est. 15.5%). Tractor production declined 10% YoY, while 2W production saw a moderate decrease of 2% YoY.
- **EU business:** Revenue grew 6% YoY on like to like term basis as gains on Fx were offset by impact of commodity. There was weakness at Metalcastello (down 15-20% YoY). In 3Q, margins stabilized at 15.3%, indicating a return to normalcy (vs. 2Q margins of 17.8%). This shift was influenced by a substantial stock generation for the summer period in 2Q.

Highlights from the management commentary

- **Metalcastello:** It is currently at the bottom of the cycle and the company expects it to suffer a drop for the next couple of quarters. 3Q revenue declined 15-20% YoY and a similar decline is expected in 4Q due to a cyclical slowdown. A recovery is expected in 2Q/3QCY23 onward.
- **EV orders:** EV orders account for ~74%/10% of total orders in EU/India. The contribution of EV orders in Metalcastello is ~50%. Metalcastello has two orders worth INR28-30m. The other orders are for CIE forgings, steel plates and aluminium forgings. All these 4-5 orders should start ramping up from CY24-25 onward.
- **There is scope for EBITDA margin improvement,** driven by better internal efficiencies and the execution of many delayed projects in the coming quarters and new products, which are more complex. The gap between India and overseas operation is still wide and the company expects margin for India business to reach close to CIE's margin.

- The company has incurred annual growth capex of INR2-2.5b in India for the last 2-3 years. All of this is against the committed orders, which have not yet ramped up completely and are expected to see full ramp-up in the coming period.

Valuation and view

- CIEINDIA's growth story is on track, driven by its organic initiatives (new products and customers in the India business). Moreover, cost-cutting measures in both India and the EU and a recovery in domestic 2W demand should drive margin expansion going forward.
- We believe that the increasing contribution of EVs to the overall business through the execution of new orders and growth in the EV portfolio can drive a re-rating. The stock trades at 21.5x/17.8x CY23E/CY24E consolidated EPS. Reiterate BUY with a TP of INR575 (premised on ~18x CY25E consol. EPS).

Quarterly performance (Consol.)

									(INR Million)		
(INR m)	CY22				CY23E				CY22	CY23E	
Y/E December	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE			3QE
Net Sales	20,608	22,160	22,294	22,468	24,402	23,203	22,794	25,113	87,530	95,512	24,658
YoY Change (%)	-5.9	8.5	6.6	34.6	18.4	4.7	2.2	11.8	29.4	9.1	10.6
EBITDA	2,804	3,058	2,934	2,924	3,806	3,704	3,454	3,902	11,720	14,867	3,847
Margins (%)	13.6	13.8	13.2	13.0	15.6	16.0	15.2	15.5	13.4	15.6	15.6
Depreciation	717	747	731	767	825	833	783	829	2,962	3,270	805
Interest	40	-1	109	79	240	221	310	250	227	1,020	215
Other Income	107	98	134	244	160	195	200	226	583	781	202
Share of profit from associates	4	11	3	4	3	-3	-2	9	22	7	5
PBT before EO expense	2,155	2,409	2,229	2,321	2,901	2,846	2,561	3,050	9,114	11,359	3,029
EO Exp/(Inc)	0	0	0	-379	0	0	0	0	-379	0	0
PBT after EO exp	2,155	2,409	2,229	2,700	2,901	2,846	2,561	3,050	9,492	11,359	3,029
Tax Rate (%)	23.9	23.8	24.9	28.0	24.2	24.9	27.0	25.3	25.3	25.3	25.0
Adj. PAT	1,643	1,847	1,676	1,664	2,203	2,136	1,867	2,286	6,829	8,492	2,275
YoY Change (%)	7.7	35.6	12.4	96.5	34.1	15.7	11.4	37.4	69.3	24.3	35.0
Revenues											
India	12,811	13,778	15,311	13,977	14,449	14,348	15,354	16,199	55,862	60,350	16,500
Growth (%)	15	47	34	23	13	4	0	16	29	8	7.8
EU	7,768	8,315	7,094	8,491	9,954	8,855	7,440	8,899	31,668	35,148	8,158
Growth (%)	-28	-25	-25	51	28	6	5	5	26	11	15.0
EBITDA Margins											
India	13.4	13.3	13.4	16.9	15.0	14.8	15.1	16.0	14.3	15.3	15.5
EU	14.0	14.7	12.3	11.0	16.4	17.8	15.3	15.6	13.0	16.3	15.8



Key takeaways from the management interaction

India business

- 3QCY23 sales grew ~1% YoY, while 9MCY23 sales grew ~6% YoY, without taking into account the impact of a 3% drop in steel prices. Production growth for underlying OEM was ~4% YoY in 9MCY23.
- There is still a scope for EBITDA margin improvement, driven by better internal efficiencies, the execution of many delayed projects in the coming quarters and the addition of new complex products. The gap between India and overseas operation is still very high and the company expects margin for India business to reach close to CIE's margin.

Europe business:

- Revenue for EU operations grew ~7% YoY as gains on INR were offset by the impact of commodity. This growth was in line with the industry growth. On QoQ basis, the company's revenue declined ~15% vs. a decline of ~17% for the underlying industry.
- IHS has guided for flat growth in the light vehicle industry for next four to five years at ~17m vehicles. However, the new project allocation in EVs will help CIE to outperform the industry.

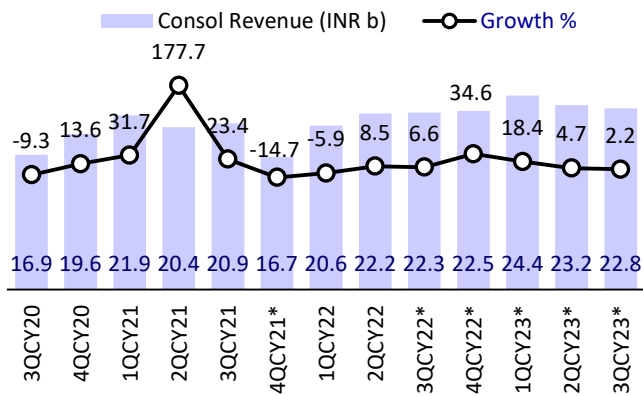
Metalcastello:

- It is currently at the bottom of the cycle and expects to suffer a drop for the next couple of quarters. 3Q revenue declined 15-20% YoY and a similar decline is expected even in 4Q due to a cyclical slowdown in the US.
- A recovery is expected to happen next year, specifically from 2Q/3Q onward. However, any weakness in the business will be offset by growth in EVs. The ramp-up of EV will happen next year.

Other highlights:

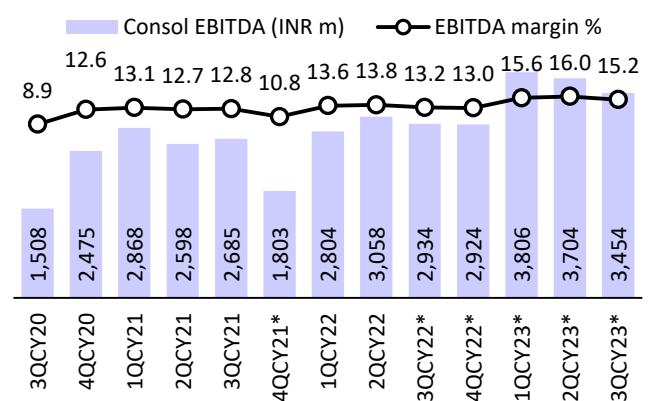
- EV orders- Metalcastello has 2 orders amounting to INR28-30m. The other orders are for CIE forgings, steel plates and aluminium forgings. All these 4-5 orders should start ramping up from CY24-25 onward.
- In Europe, new EV orders contribute ~74% of total orders. In Metalcastello, 50% of the orders are for EVs. New EV orders in Metalcastello will have better margin due to high value add. New orders in EU are mostly for the replacement of existing ICE components.
- In India, 10% of the orders are for EVs.
- The ramp-up of these orders would be key, as orders for new EVs have been delayed by customers.
- Net debt stood at INR1.1b in Sep'23. Cash from the sale of German operations will be received in Oct'23, which will be used to reduce debt.
- The company has incurred annual growth capex of INR2-2.5b in India for last 2-3 years. All of this is against the committed orders, which have not yet ramped up completely and are expected to see a full ramp-up in the coming period.
- M&A- It is an integral part of the business and the company is looking for an opportunity in India, including in areas such as 4W aluminium, new customers, etc.
- Aluminium forging- The company is already doing it in Europe. These are for chassis parts, which are being done from the same machineries but using different process. In India, its use is very limited. If production of premium cars increases in India, then the need for aluminium forged parts will also increase.
- Plastic- The company will go through the M&A route. It is already seeing success in composites, especially in the EV 3W segment.
- The impact of a strike at Ford, Stellantis and General Motors in the US was very limited in Sep'23. So far in Oct'23, the impact have been just 10% for customers.
- CIE India- There is some impact on forging activity in Mexico for supplies to GM through Tier-1.

Exhibit 1: Trend in consolidated revenue



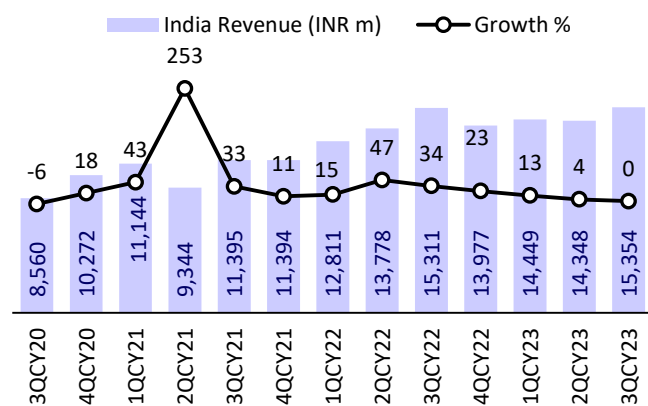
Source: *Excludes MFE, Company, MOFSL

Exhibit 2: Trend in consolidated EBITDA



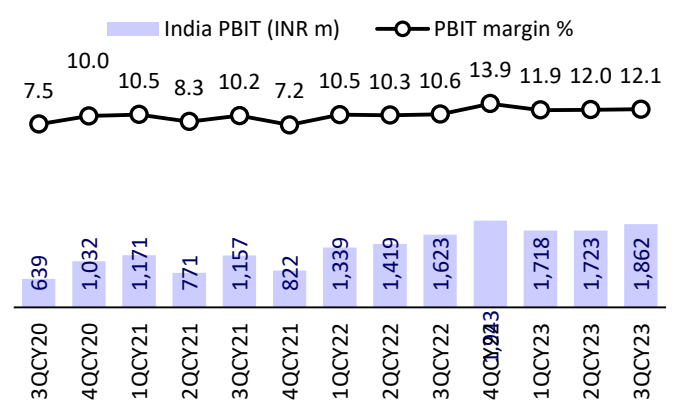
Source: *Excludes MFE, Company, MOFSL

Exhibit 3: Trend in India revenue



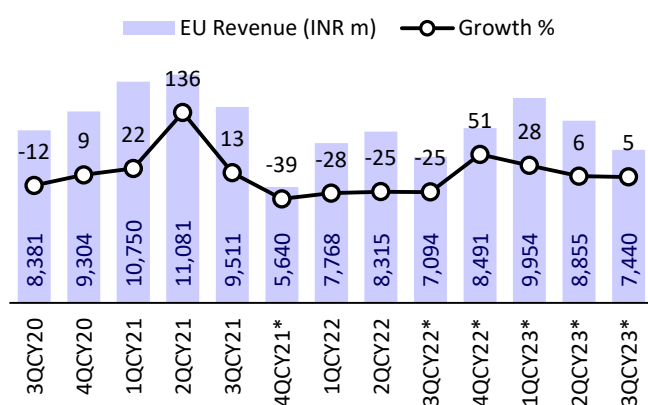
Source: Company, MOFSL

Exhibit 4: Trend in India PBIT margin



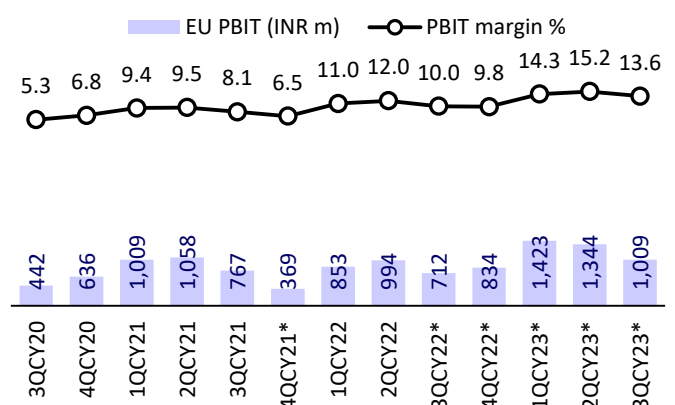
Source: Company, MOFSL

Exhibit 5: Trend in the EU revenue



Source: *Excludes MFE, Company, MOFSL

Exhibit 6: Trend in the EU PBIT margin



Source: *Excludes MFE, Company, MOFSL

Valuation and view

- India a growth driver; focus is on consolidating operations in the EU:** MACA has been diversifying its India revenue and rationalizing costs, both domestically and in its EU business. India is expected to be the key growth driver, led by value-added products (machined castings, higher grade magnets, complex gears, etc.), exports, and new products and customers. We expect margin expansion to be driven by an improvement in the mix, optimization of product process location, and operating leverage. Since MACA has achieved its 15% EBITDA margin target in India, it is aiming for 18-19% (at which its parent operates). Considering the lack

of growth in the EU business, the focus is on: a) rationalizing the German business portfolio to improve margin, b) matching costs with revenue in a cyclical market to retain margin in the Italy business, and c) maintaining margin in Spain and Lithuania.

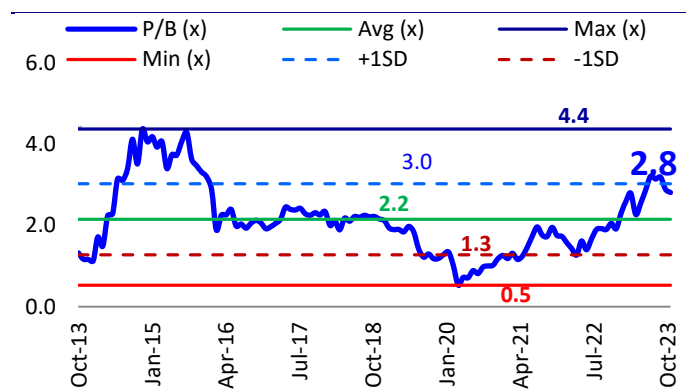
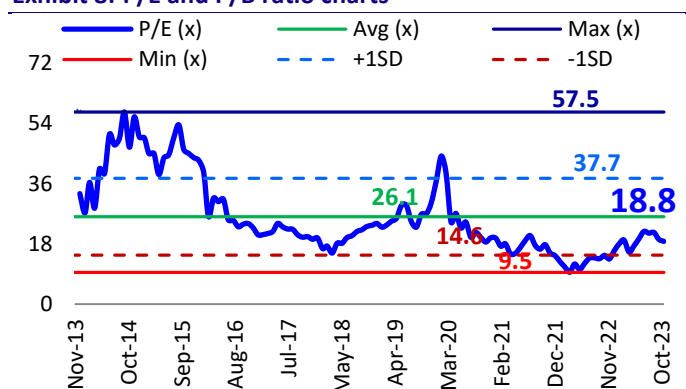
- **Strong, focused, and a disciplined parent:** CIE is a focused global player in auto components, with diversified technologies and multi-location offerings. It has demonstrated its ability to achieve inorganic profitable growth across geographies, while delivering value-accretive growth by adhering to strict financial discipline. MACA benefits from CIE's expertise in driving operational improvements and is working toward achieving the latter's financial objectives.
- **Set for growth post-consolidation phase:** Over the last three-to-four years since acquiring MACA, CIE has embarked on restructuring and consolidating all operations under the former. With Phase I of the consolidation largely complete, MACA is now focusing on growth in Phase II. In the India business, it is targeting both organic and inorganic growth. In the Europe business, it will invest selectively for growth purposes. MACA is CIE's vehicle for expansion in Southeast Asia and for sourcing forging technologies worldwide.
- **Financial discipline key to its M&A-led strategy:** M&A has been an integral tool for MACA in achieving its strategic objectives and growth. For MACA, M&A will be the key driver: a) to fill gaps in areas of strategic technologies – aluminum and plastics; b) for access to key players in the India PV segment (Maruti, Hyundai, etc.); and c) for entry into ASEAN markets. CIE has displayed a strict acquisition discipline, with criteria of less than 3x EV/EBITDA over three years, and targets a minimum RoI of ~20%.
- **Maintain BUY with a TP of INR575:** MACA's growth story is on track, led by its organic initiatives (new products/customers) and M&A focus. Under CIE's parentage, MACA has been able to improve its efficiencies, cut costs, and improve profitability. The stock trades at 21.5x/17.8x CY23E/CY24E consolidated EPS. **Reiterate BUY with a TP of INR575 (premised on CY25E consol. EPS).**

Exhibit 7: Our revised estimates

(INR M)	CY23E			CY24E		
	Rev	Old	Chg (%)	Rev	Old	Chg (%)
Net Sales	95,512	98,461	(3.0)	1,05,789	1,08,886	(2.8)
EBITDA	14,867	15,425	(3.6)	17,134	17,787	(3.7)
EBITDA margin %	15.6	15.7	-10bp	16.2	16.3	-10bp
Adj. PAT	8,492	9,038	(6.0)	10,243	10,974	(6.7)
EPS	22.5	23.9	(6.0)	27.1	29.0	(6.7)

Source: MOFSL

Exhibit 8: P/E and P/B ratio charts



Key operating indicators

Exhibit 9: Expect consolidated revenue to recover

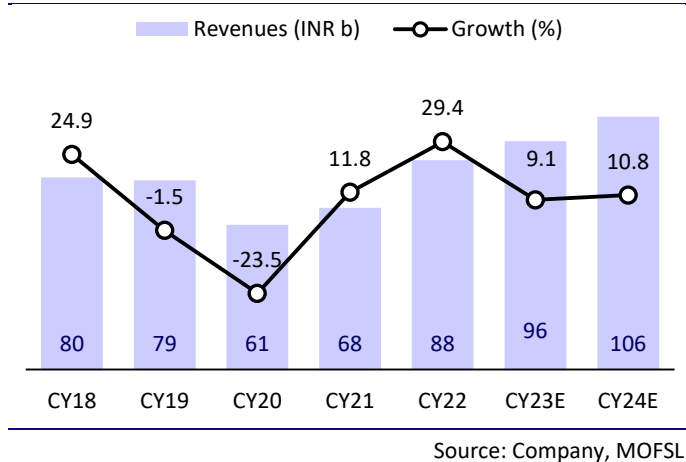


Exhibit 10: Expect EBITDA margin to recover in CY23

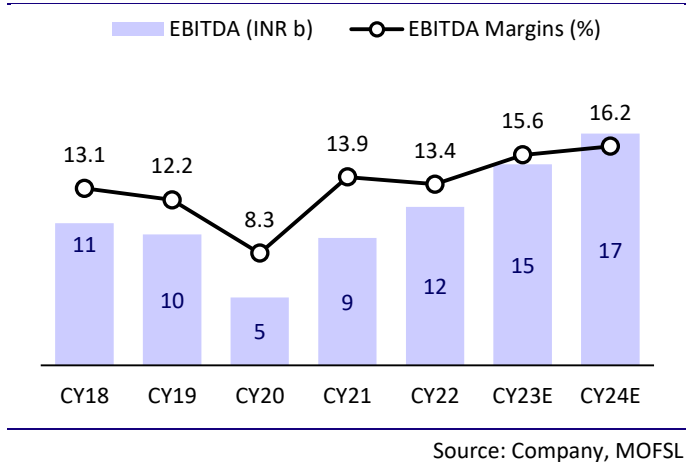


Exhibit 11: EPS and EPS growth

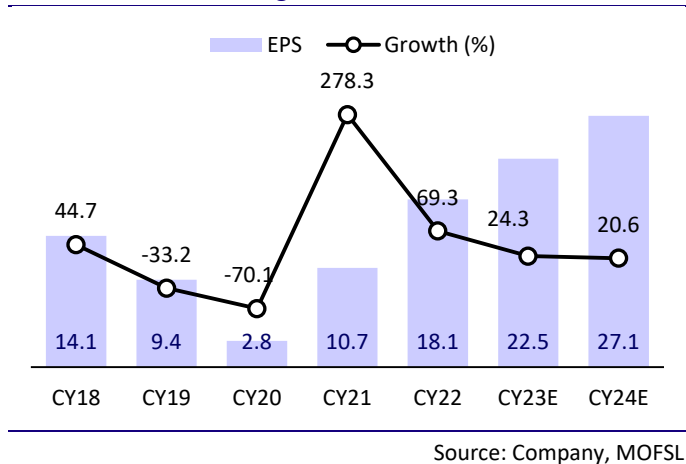


Exhibit 12: Expect net debt to reduce substantially by CY23

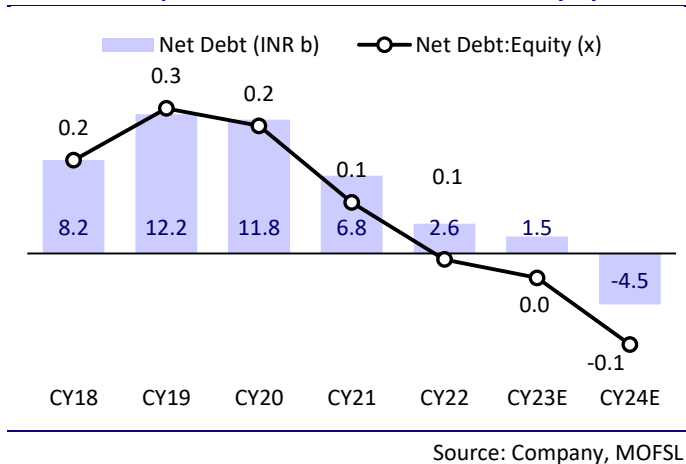


Exhibit 13: Expect RoE to continue to improve

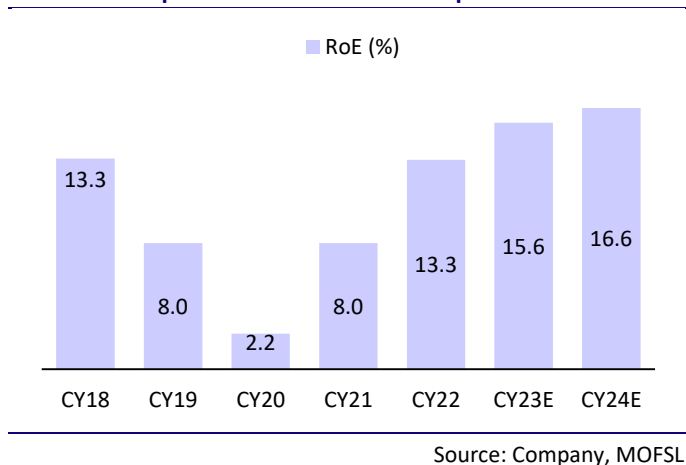


Exhibit 14: FCF to remain at healthy levels

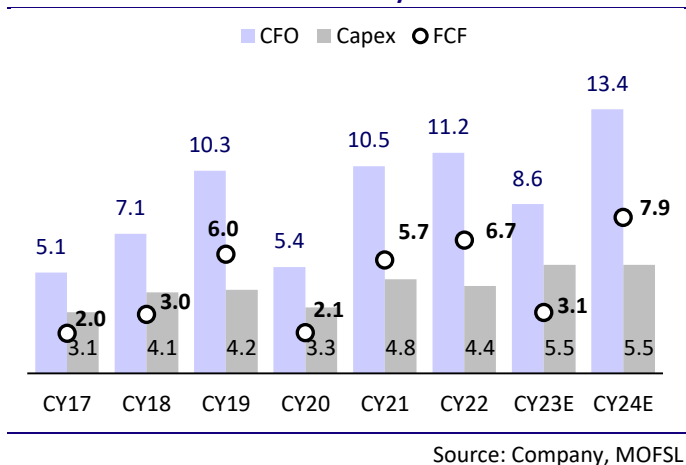


Exhibit 15: Key operating metrics

INR m	CY17	CY18	CY19	CY20	CY21	CY22	CY23E	CY24E
Revenues								
Forgings	45,474	56,290	50,892	38,119	49,639	64,345	71,569	76,876
Growth (%)	25	24	-10	-25	30	30	11	7
India (ex BFL)	4,364	5,312	4,265	2,911	4,988	7,745	8,365	9,285
Growth (%)	13	22	-20	-32	71	55	8	11
BFL	6,917	8,737	8,776	6,898	9,238	12,553	13,432	15,044
Growth (%)	295	26	0	-21	34	36	7	12
MFE Europe	17,316	21,384	17,889	13,291	16,488	19,491	21,791	23,006
Growth (%)	8	23	-16	-26	24	18	12	6
CIE Europe	16,876	20,857	19,962	15,019	18,925	24,557	27,982	29,542
Growth (%)	14	24	-4	-25	26	30	14	6
Gears	4,716	7,904	7,893	5,128	8,326	9,830	10,945	12,425
Growth (%)	-8	68	0	-35	62	18	11	14
India	828	2,333	2,240	1,717	2,836	3,230	3,779	4,346
Growth (%)	-44	182	-4	-23	65	14	17	15
Metalcastello	3,888	5,571	5,653	3,411	5,490	6,600	7,165	8,079
Growth (%)	7	43	1	-40	61	20	9	13
Stampings	8,015	10,077	8,410	5,265	8,980	12,859	13,759	15,685
Growth (%)	26	26	-17	-37	71	43	7	14
Castings	4,177	5,269	4,237	3,152	5,021	6,527	7,049	7,895
Growth (%)	14	26	-20	-26	59	30	8	12
Composites	907	1,092	1,069	746	1,227	1,722	1,860	2,083
Growth (%)	3	20	-2	-30	64	40	8	12
Magnets	1,292	1,210	1,068	984	1,342	1,613	1,742	1,969
Growth (%)	-3	-6	-12	-8	36	20	8	13
Aluminum (AEL)			6,385	7,265	9,636	10,060	11,167	12,507
Growth (%)				14	33	4	11	12
Total Consol Revenues	64,279	80,315	79,078	60,501	67,652	87,530	95,512	1,05,789
Growth (%)	21	25	-2	-23	12	29	9	11
EBITDA Margins	12.7	13.1	12.2	8.3	13.9	13.4	15.6	16.2
EBIT Margins	8.5	9.5	8.2	3.2	9.9	10.0	12.1	12.7
Adj. EPS (INR/Sh)	9.8	14.1	9.4	2.8	10.7	18.1	22.5	27.1
Growth (%)	111	45	-33	-70	278	69	24	21

Source: Company, MOFSL

Financials and valuations

Consolidated - Income Statement

(INR Million)

Y/E December	CY18	CY19	CY20	CY21	CY22	CY23E	CY24E
Total Income from Operations	80,315	79,078	60,501	67,652	87,530	95,512	1,05,789
Change (%)	24.9	-1.5	-23.5	11.8	29.4	9.1	10.8
EBITDA	10,511	9,677	5,016	9,417	11,720	14,867	17,134
Margin (%)	13.1	12.2	8.3	13.9	13.4	15.6	16.2
Depreciation	2,867	3,161	3,064	2,733	2,962	3,270	3,697
EBIT	7,643	6,516	1,952	6,684	8,758	11,597	13,437
Int. and Finance Charges	502	523	548	348	227	1,020	777
Other Income	387	331	549	468	583	781	896
PBT bef. EO Exp.	7,529	6,324	1,953	6,805	9,114	11,359	13,556
EO Items	-504	-46	0	-128	379	0	0
PBT after EO Exp.	7,025	6,279	1,953	6,677	9,492	11,359	13,556
Total Tax	2,043	2,741	886	2,731	2,401	2,874	3,328
Tax Rate (%)	29.1	43.7	45.4	40.9	25.3	25.3	24.5
Share of profit from associate	0	0	0	12	22	7	15
Reported PAT	4,981	3,538	1,066	3,958	7,113	8,492	10,243
Adj. PAT	5,339	3,564	1,066	4,034	6,829	8,492	10,243
Change (%)	44.7	-33.2	-70.1	278.3	69.3	24.3	20.6
Margin (%)	6.6	4.5	1.8	6.0	7.8	8.9	9.7

Consolidated - Balance Sheet

(INR Million)

Y/E December	CY18	CY19	CY20	CY21	CY22	CY23E	CY24E
Equity Share Capital	3,788	3,790	3,790	3,791	3,793	3,793	3,793
Total Reserves	39,103	42,548	45,290	48,175	47,192	53,985	62,179
Net Worth	42,891	46,338	49,080	51,966	50,985	57,778	65,973
Total Loans	16,134	14,691	16,476	12,816	9,234	9,235	9,236
Deferred Tax Liabilities	-1,565	912	1,236	2,459	3,199	3,199	3,199
Capital Employed	57,460	61,941	66,792	67,241	63,418	70,212	78,408
Gross Block	32,235	42,936	53,135	50,226	48,348	54,042	59,542
Less: Accum. Deprn.	12,294	17,619	23,204	20,624	20,921	24,191	27,887
Net Fixed Assets	19,941	25,316	29,931	29,602	27,427	29,851	31,654
Goodwill on Consolidation	29,111	35,260	37,554	36,265	28,040	28,040	28,040
Capital WIP	960	542	123	1,247	1,195	1,001	1,001
Total Investments	6,808	955	2,340	4,380	5,756	5,756	5,756
Curr. Assets, Loans&Adv.	26,455	23,553	23,686	26,712	36,780	31,843	40,914
Inventory	12,286	10,566	10,062	13,486	12,108	13,036	14,331
Account Receivables	7,414	7,368	7,054	6,687	8,608	9,159	10,144
Cash and Bank Balance	1,127	1,499	2,380	1,595	859	2,007	7,976
Loans and Advances	5,628	4,120	4,190	4,943	15,205	7,641	8,463
Curr. Liability & Prov.	25,815	23,686	26,843	30,965	35,780	26,278	28,957
Account Payables	16,838	14,771	14,590	19,385	21,350	17,897	19,674
Other Current Liabilities	5,038	4,745	7,909	7,605	12,876	6,686	7,405
Provisions	3,939	4,170	4,344	3,976	1,553	1,695	1,877
Net Current Assets	640	-133	-3,157	-4,253	1,000	5,565	11,957
Appl. of Funds	57,460	61,941	66,791	67,240	63,418	70,213	78,409

Financials and valuations

Ratios

Y/E December	CY18	CY19	CY20	CY21	CY22	CY23E	CY24E
Basic (INR)							
EPS	14.1	9.4	2.8	10.7	18.1	22.5	27.1
Cash EPS	21.7	17.8	10.9	17.9	25.9	31.1	36.9
BV/Share	113.4	122.6	129.8	137.4	134.8	152.8	174.5
DPS	0.0	0.0	0.0	2.5	2.5	3.7	4.5
Payout (%)	0.0	0.0	0.0	23.9	13.3	16.7	16.7
Valuation (x)							
P/E	34.2	51.2	171.3	45.3	26.7	21.5	17.8
Cash P/E	22.3	27.2	44.2	27.0	18.7	15.5	13.1
P/BV	4.3	3.9	3.7	3.5	3.6	3.2	2.8
EV/Sales	2.5	2.5	3.3	2.9	2.2	2.0	1.7
EV/EBITDA	18.8	20.3	39.3	20.6	16.3	12.8	10.8
Dividend Yield (%)	0.0	0.0	0.0	0.5	0.5	0.8	0.9
FCF per share	7.9	15.9	5.4	15.1	17.8	8.1	20.8
Return Ratios (%)							
RoE	13.3	8.0	2.2	8.0	13.3	15.6	16.6
RoCE (Post-tax)	10.9	6.5	2.1	6.3	10.7	13.8	14.6
RoIC	11.5	6.8	1.8	6.5	11.3	14.8	16.2
Working Capital Ratios							
Fixed Asset Turnover (x)	2.5	1.8	1.1	1.3	1.8	1.8	1.8
Asset Turnover (x)	1.4	1.3	0.9	1.0	1.4	1.4	1.3
Inventory (Days)	56	49	61	73	50	50	49
Debtor (Days)	34	34	43	36	36	35	35
Creditor (Days)	77	68	88	105	89	68	68
Leverage Ratio (x)							
Net Debt/Equity	0.2	0.3	0.2	0.1	0.1	0.0	-0.1

Consolidated - Cash Flow Statement

(INR Million)

Y/E December	CY18	CY19	CY20	CY21	CY22	CY23E	CY24E
OP/(Loss) before Tax	7,025	6,279	1,953	6,689	9,514	11,366	13,571
Depreciation	2,898	3,168	3,064	3,431	3,537	3,270	3,697
Interest & Finance Charges	525	525	548	533	454	238	-119
Direct Taxes Paid	-1,444	-1,161	-503	-1,053	-1,981	-2,874	-3,328
(Inc)/Dec in WC	-1,769	1,556	761	1,364	-97	-3,417	-423
CF from Operations	7,235	10,367	5,823	10,963	11,427	8,583	13,398
Others	-155	-94	-430	-452	-245	0	0
CF from Operating incl EO	7,080	10,273	5,393	10,511	11,182	8,583	13,398
(Inc)/Dec in FA	-4,101	-4,238	-3,343	-4,778	-4,434	-5,500	-5,500
Free Cash Flow	2,979	6,035	2,050	5,733	6,749	3,083	7,898
(Pur)/Sale of Investments	-6,201	-1,871	-1,376	-1,880	-1,273	0	0
Others	129	219	502	-967	-661	781	896
CF from Investments	-10,173	-5,890	-4,217	-7,625	-6,368	-4,719	-4,604
Issue of Shares	57	30	0	10	36	0	0
Inc/(Dec) in Debt	4,089	-3,545	506	-2,787	-3,936	1	1
Interest Paid	-525	-525	-477	-465	-378	-1,020	-777
Dividend Paid	0	0	0	0	-948	-1,415	-1,707
Others	0	0	-409	-385	349	0	0
CF from Fin. Activity	3,621	-4,040	-380	-3,627	-4,877	-2,434	-2,483
Inc/Dec of Cash	528	343	796	-740	-63	1,430	6,310
Opening Balance	719	1,247	1,590	2,386	1,646	1,583	3,013
Closing Balance	1,247	1,590	2,386	1,646	1,583	3,013	9,324

Investment in securities market are subject to market risks. Read all the related documents carefully before investing

NOTES

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

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

Disclosures

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

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Depository participant services & distribution of various financial products. MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://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 at the end of the month immediately preceding the date of publication of the Research Report or date of the public appearance.
- received compensation/other benefits from the subject company in the past 12 months
- any other potential conflict of interests with respect to any recommendation and other related information and opinions; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.
- Served subject company as its clients during twelve months preceding the date of distribution of the research report.

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

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

Analyst Certification

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

Terms & Conditions:

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

Disclaimer:

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

This report is meant for the clients of Motilal Oswal only.

Investment in securities market are subject to market risks. Read all the related documents carefully before investing.

Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 - 71934200 / 71934263;

www.motilaloswal.com. Correspondence Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad (West), Mumbai- 400 064. Tel No: 022 71881000.

Details of Compliance Officer: Neeraj Agarwal, Email Id: na@motilaloswal.com, Contact No.:022-40548085.

Grievance Redressal Cell:

Contact Person	Contact No.	Email ID
Ms. Hemangi Date	022 40548000 / 022 67490600	query@motilaloswal.com
Ms. Kumud Upadhyay	022 40548082	servicehead@motilaloswal.com
Mr. Ajay Menon	022 40548083	am@motilaloswal.com

Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412 . AMFI: ARN : 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products.

Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dpgrievances@motilaloswal.com.