MOTILAL OSWAL
FINANCIAL SERVICES

10 February 2025
3QFY25 Results Update | Sector: Automobiles

Happy Forgings

Estimate changes	↔
TP change	↔
Rating change	↔

Bloomberg	HAPPYFOR IN
Equity Shares (m)	94
M.Cap.(INRb)/(USDb)	90.2 / 1
52-Week Range (INR)	1300 / 813
1, 6, 12 Rel. Per (%)	-4/-18/-12
12M Avg Val (INR M)	93

Consol. Financials & Valuations (INR b)

Y/E March	FY25E	FY26E	FY27E
Sales	14.2	16.6	19.6
EBITDA	4.1	4.9	5.8
Adj. PAT	2.6	3.3	4.0
EPS (INR)	27.9	35.3	42.4
EPS growth %	8.2	26.3	20.3
BV/Sh. (INR)	194	224	259
Ratios			
RoE (%)	15.3	16.9	17.6
RoCE (%)	14.4	15.9	16.4
Payout (%)	17.0	17.0	17.0
Valuations			
P/E (x)	34.5	27.3	22.7
P/BV (x)	5.0	4.3	3.7
EV/EBITDA (x)	21.8	18.6	15.8
Div. Yield (%)	0.5	0.6	0.7

Shareholding Pattern (%)

As On	Dec-24	Sep-24	Dec-23
Promoter	78.6	78.6	78.6
DII	17.1	17.1	5.8
FII	2.3	2.3	2.1
Others	2.1	2.0	13.5

CMP: INR958 TP: INR1,140 (+19%) Buy

Operationally in-line; dependency on core business to reduce further

Announced INR6.5b capex for heavy forgings, commissioning by FY27

- Happy Forgings' (HFL) 3QFY25 results were operationally in line, though Adj. PAT was lower due to lower other income. Despite weakness in the domestic CV industry and subdued exports, revenue grew 4% YoY, while EBITDA margin expanded 80bp YoY to 28.6%, driven by growth in its industrials division, which continues to support profitability.
- In line with its plan to expand in the heavyweight industrials division, HFL has announced a capex of up to INR6.5b. This will not only drive long-term growth but will also de-risk exposure from its cyclical CV/FE segment and expand margins. New plant is likely to be commissioned by FY27, catering to diverse non-auto industries such as power, marine, and mining.
- Our FY25E/26E EPS estimates remain largely unchanged, as weakness in CV and exports is expected to be offset by growth in Industrials and ramp-up of new capacities. We reiterate our BUY rating on the stock with a TP of INR1,140 (based on 28x Dec'26E EPS).

ASP-led revenue growth of 4% YoY amid flat volumes

- HFL's revenue/EBITDA/adj. PAT grew 4%/7%/11% YoY to INR3.5b/INR1.02b/INR0.65b (est. INR3.6b/INR1.05b/INR0.68b). 9MFY25 revenue/ EBITDA/ adj. PAT grew 4%/5%/10% YoY.
- During the quarter, revenue from the CV segment (both domestic and exports), coupled with farm equipment and off-highway (exports), declined. However, this was partially offset by better demand in industrials and growth in the PV segment.
- Overall volume growth for the quarter remained flat while realizations improved ~4% YoY.
- Gross margins expanded 250bp (-90bp QoQ) to 58%, mainly due to a better mix (higher machining mix at 88% in 9MFY25, up from 84% in 9MFY24).
- This has resulted in a margin expansion of 80bp YoY to 28.6% (est. 29.2%).
- Lower other income led to Adj. PAT miss at INR645m (up 11% YoY, est. INR683m).
- Excluding the impact of high-realization on one order (due to air freight) in 9MFY24 and a non-recurring income of INR480m (post-tax) in 9MFY25, Revenue, EBITDA, and PAT grew 5.5%, 8.2%, and 14.3% YoY, respectively.
- Machining mix for 9MFY25 improved to 88% (84% in 9MFY24). Share of exports stood at 19% in 9MFY25 (flat YoY).

Highlights from the management interaction

- **CVs:** Domestic CV sector remained weak due to fund release delays and slow financing, with M&HCV volumes down 7% YoY in 9MFY25. Recovery is expected in 4Q, driven by infra push and export incentives. HFL launched new CV products on its 14k-ton press line, with revenues expected from April onwards.

Amber Shukla - Research analyst (Amber.Shukla@MotilalOswal.com)
Aniket Mhatre - Research analyst (Aniket.Mhatre@MotilalOswal.com)

- **Industrial Segment:** Despite a global industrial slowdown, this segment is expected to contribute 18-20% of total revenue over the next two years (from 14% currently), with the potential to exceed 30% in 4-5 years if new capex ramps up on expected lines.
- **Exports & Tariffs:** Exports contribute ~19% directly and ~9% indirectly to revenue. While the EU and NA CV and FE sectors are experiencing a downturn, HFL's direct exposure to NA remains low at ~4%. Testing for new PV segment products is ongoing as planned, with no immediate tariff concerns.
- **Capex:** HFL announced an INR6.5b capex plan to establish advanced forging capabilities for heavyweight components (>250kg), catering to power generation, marine, mining, oil & gas, wind energy, and aerospace & defense. The company is targeting 7-8% of the INR100b global market, currently dominated by a European player with a 40% share.

Valuation & view

- HFL is expected to outperform the industry, driven by new client additions, product expansion, and capacity growth. Strong order wins in Industrials and Exports will enhance the business mix. Its superior financial track record vs. its peers reflects strong operational efficiencies, providing a key competitive edge.
- Our FY25E/26E EPS estimates remain largely unchanged as weakness in CV and exports is expected to be offset by growth in Industrials and the ramp-up of new capacities. We estimate a 13%/14%/ 18% CAGR in the standalone revenue/EBITDA/PAT during FY24-27. **We reiterate our BUY rating on the stock with a TP of INR1,140 (based on 28x Dec'26E EPS).**

Quarterly (Standalone) **(INR Million)**

	FY24				FY25E				FY24	FY25E		Variance
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE			3QE	(%)
Net operating income	**3,298**	**3,431**	**3,420**	**3,433**	**3,415**	**3,611**	**3,543**	**3,653**	**13,582**	**14,222**	**3,591**	**-1.3**
Change (%)			16.2	13.5	3.5	5.3	3.6	6.4	13.5	4.7	5.0	
RM/Sales (%)	43.0	44.7	44.5	43.5	43.5	41.2	42.0	41.8	43.9	42.1	41.0	
Staff Cost (%)	7.5	8.5	9.0	8.6	8.5	8.5	9.3	9.2	8.4	8.9	8.8	
Other Exp. (%)	19.1	19.5	18.7	19.6	19.4	21.2	20.1	20.1	19.1	20.2	21.0	
EBITDA	**1,002**	**938**	**952**	**971**	**976**	**1,054**	**1,015**	**1,056**	**3,875**	**4,100**	**1,049**	**-3.2**
EBITDA Margins (%)	30.4	27.3	27.8	28.3	28.6	29.2	28.6	28.9	28.5	28.8	29.2	
Non-Operating Income	34	7	33	72	77	83	66	69	134	295	82	
Interest	27	44	38	9	14	16	21	16	118	67	14	
Depreciation	155	162	171	160	180	197	191	198	647	766	200	
EO Exp						-48						
PBT after EO items	**855**	**738**	**777**	**875**	**859**	**973**	**868**	**911**	**3,244**	**3,563**	**917**	
Tax	214	185	198	217	220	259	223	232	814	933	234	
Eff. Tax Rate (%)	25.1	25.1	25.5	24.8	25.6	26.6	25.7	25.4	25.1	26.2	25.5	
Rep. PAT	**640**	**553**	**579**	**658**	**639**	**714**	**645**	**679**	**2,430**	**2,629**	**683**	
Change (%)			39.2	29.7	-0.3	29.3	11.4	3.3	18.3	8.2	17.9	
Adj. PAT	**640**	**553**	**579**	**658**	**639**	**666**	**645**	**679**	**2,430**	**2,629**	**683**	**-5.5**
Change (%)			39.2	29.7	-0.3	20.6	11.4	3.3	16.4	8.2	17.9	

E: MOFSL Estimates

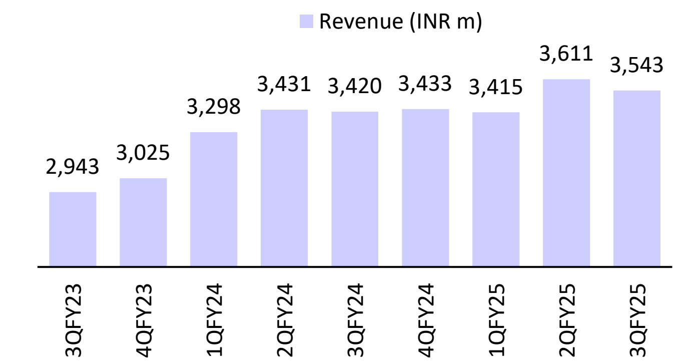
CONFERENCE CALL

Highlights from the management interaction

- **CVs:** The domestic CV sector remained weak due to fund release delays and slow financing, with M&HCV volumes down 7% YoY in 9MFY25. Recovery is expected in 4Q, driven by infra push and export incentives.
  - EU and NA heavy-duty truck sales declined by 10-15% in CY24, with leading OEMs reporting a 9% decline in deliveries for 9MCY24. Despite this, HFL's CV sales saw only a marginal decline, outperforming broader market trends.
  - HFL launched new CV products on its 14k-ton press line, with revenues expected from April onwards.
- **Farm equipment:** The domestic FE segment showed signs of recovery, with HFL's sales outperforming industry production growth in 9MFY25. However, exports remained weak due to a significant decline in EU and North American markets. Strong OEM relationships and recent client additions position HFL well for a rebound when demand recovers.
- **Industrial segment:** Despite a global industrial slowdown, this segment is expected to contribute 18-20% of total revenue over the next two years (from 14% currently), with the potential to exceed 30% in 4-5 years if new capex ramps up on expected lines.
- **Passenger vehicles:** It has secured an INR1.4b order from a leading Indian OEM, with deliveries starting in FY26 and peak annual revenue expected at INR0.3-0.5b. Deliveries of e-axle components for NA clients began in 3Q. On the back of its new order wins, this segment is expected to contribute 8-10% (~4% now) of revenue over the next few years.
- **Exports & Tariffs:** Exports contribute ~19% directly and ~9% indirectly to revenue. While the EU and NA CV and FE sectors are experiencing a downturn, HFL's direct exposure to NA exposure remains low at ~4%. Testing for new PV segment products is ongoing as planned, with no immediate tariff concerns.
  - However, the potential tariff impositions on Mexico, Brazil, and Canada remain unclear for India, making it too early to assess any impact.
- **New product development:** HFL is developing small crankshafts for portable gensets and the power sector, marking a new segment for the company. It is expanding into heavy axle programs in Europe, targeting industrial, material handling, mining, and excavator applications. Lightweighting initiatives are underway in PVs, and pilot lots for front axle beams in CVs have been completed. The company plans to set up a ring rolling line for the bearing segment, though no business has been finalized yet.
- **RM:** Steel price decline impacted revenue by INR100m in 3Q and INR340m in 9M. The company also faced a scrap price hit of INR1.5-1.8b as this is not a pass-through in OEM contracts. Inventory correction is largely completed, and steel prices are unlikely to rise in the next 1-2 quarters unless demand from the infrastructure sector strengthens.
- **Capex:** HFL announced an INR6.5b capex plan to establish advanced forging capabilities for heavyweight components (>250kg), catering to power generation, marine, mining, oil & gas, wind energy, and aerospace & defense. The company is targeting 7-8% of the INR100b global market, currently dominated by a European player with a 40% share.

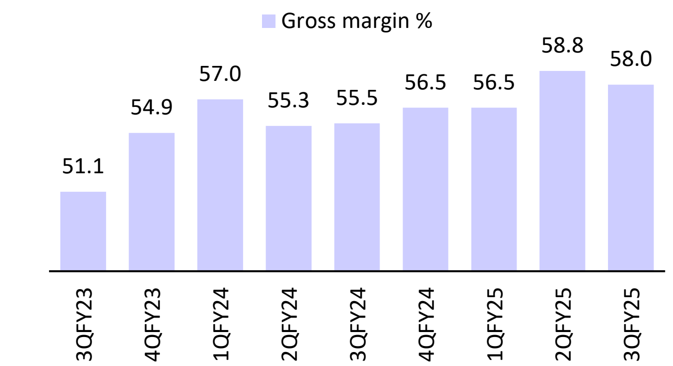
- Over 50% of this capex will likely be spent in FY26, with the remainder in FY27. The facility, set to be operational by FY27, will be one of the largest in Asia.
- It expects asset turns for the new heavy-duty forging business to reach 1.2-1.3x at full scale. Even at 0.8x utilization, RoCE is projected to exceed 30%, with ASP of over INR500/kg. Initial ramp-up to 0.5-0.6x utilization is expected in two years, with 0.8x utilization achievable in three years. Large orders in discussion could accelerate this timeline for which clarity is expected over the next 1-2 quarters.
- **Overall, for FY26, capex is expected to be INR4b**, which includes investments in heavy-duty forging lines and additions of the 10k-ton and 4k-ton press lines for forgings and machining. Utilization on the 14k-ton press line stands at ~57-58%.
- INR0.3-0.4b would be routine capex (included in total capex). The majority of new capex is focused on export-oriented non-auto large components (250kg-3T).
- The Jammu facility is awaiting government approval, with proposals filed for INR1.6b. The formation of a subsidiary has been completed but election delays have impacted the execution.

Exhibit 1: SA revenue trend



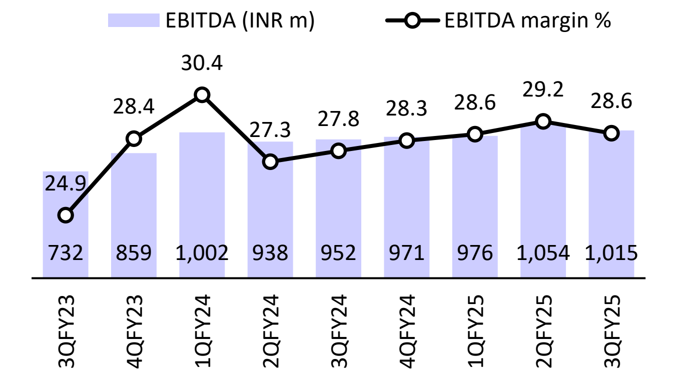
Source: Company, MOFSL

Exhibit 2: SA gross margin trend



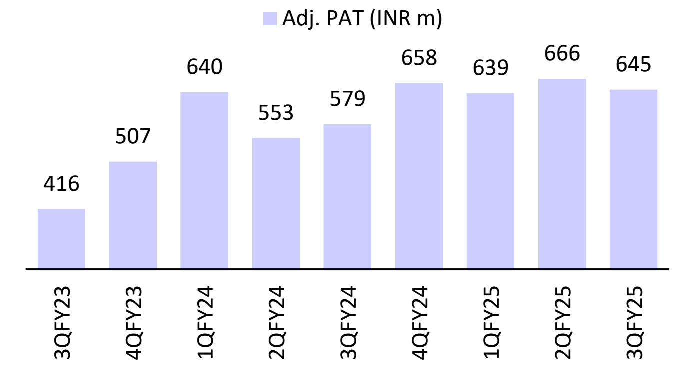
Source: Company, MOFSL

Exhibit 3: EBITDA and margin trends



Source: Company, MOFSL

Exhibit 4: Adj. PAT trend over the quarters



Source: Company, MOFSL

Valuation and view

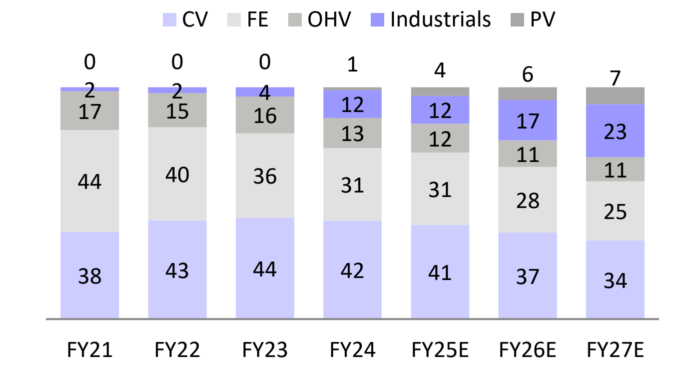
- **Ability to deliver safety-critical, complex forged and machined products:** HFL embarked on its journey by manufacturing basic forged components, and evolved to manufacture complex and safety-critical products with tight tolerances. This transformation involved expanding capabilities in both light and heavy forgings as well as machining processes. It is the second company in India to have a 14k-ton forging press and one of the four companies to have an 8k-ton or higher press. It is a supplier to each of the top five Indian OEMs in the M&HCV industry. It has now announced a capex of INR6.5b to expand in the heavyweight forgings, which further indicates its commitment to grow in the high-margin industrials category. Transitioning from solely a forgings player, HFL has now evolved into a fully machined player, with its machining mix increasing to 88% in 9MFY25 from 53% in FY14.
- **Well-diversified mix to help offset cyclical uncertainty**: Over the years, HFL has successfully diversified its user industry across segments and customers. Its exports have surged to 19% in 9MFY25 from just 13% in FY23. Additionally, the contribution from its Industrials segment increased to 14% in 9MFY25 from just 4% in FY23. This diversified customer base has helped HFL reduce cyclicality to its core segments, such as CVs and tractors. It is noteworthy that despite weak demand in CVs and tractors, HFL has been able to deliver healthy revenue growth of ~13.5% YoY in FY24 due to a strong performance in the Industrials (non-tractor) segment.
- **New orders to drive near-term weakness in core Autos:** HFL's major revenue share is attributed to CV and Farm Equipment, constituting 38% and 32%, respectively, in 9MFY25. While the near-term demand outlook for its core division appears challenging, we believe structural drivers are in place for recovery in FY26. HFL has already secured orders from both domestic and global PV OEMs. This is expected to help drive outperformance in its core auto segments. We expect HFL's CV/tractor segment revenue to register a CAGR of 5% each over FY24-27, well ahead of our industry forecasts.
- **Industrials and exports to be the key growth drivers for HFL:** Following the successful installation of its 14k MT press, HFL experienced a major influx of new orders from the Industrials segment. This led to a spike in the segment's revenue contribution, which rose to 14% in 9MFY25 from just 4% in FY23. Further, due to its relatively low manufacturing costs and favorable government policies promoting localization, India is now emerging as the key beneficiary of this trend. Like its peers, HFL is also positioned as one of the beneficiaries. This is evident from its healthy share of exports in the order book. Accordingly, management expects the export contribution to rise to 30-35% by FY25 from the current level of 19%.
- **Valuation & view:** Given its stable performance in CVs and healthy outlook for domestic tractors, we expect HFL to continue to perform well. Further, its healthy order wins in the Industrials and Exports segments will help drive an improved mix. HFL's superior financial track record compared to its peers serves as a testament to its inherent operational efficiencies and is likely to be a key competitive advantage going forward. We expect a 13%/14%/18% CAGR in the standalone revenue/EBITDA/PAT during FY24-27E. **We reiterate our BUY rating on the stock with a TP of INR1,140 (based on 28x Dec'26E EPS).**

Exhibit 5: Our revised forecasts

(INR b)	FY25E			FY26E		
	Rev	Old	Chg (%)	Rev	Old	Chg (%)
Net Sales	14.2	14.3	-0.6	16.6	16.7	-0.7
EBITDA Margin (%)	**28.8**	**29.0**	**-20bp**	**29.2**	**29.2**	**0bp**
PAT	2.6	2.7	-2.9	3.3	3.4	-3.1
EPS (INR)	27.9	28.7	**-2.9**	35.3	36.4	**-3.1**

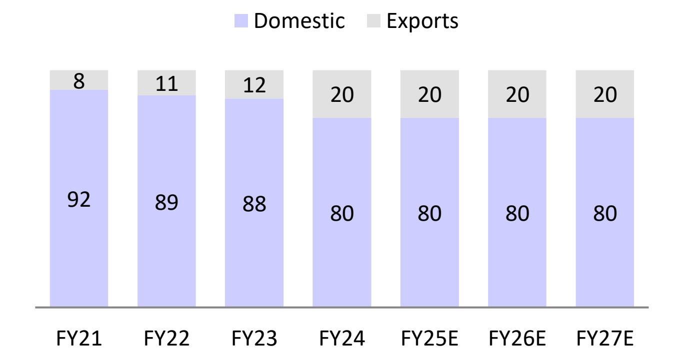
Key operating indicators

Exhibit 6: Revenue mix % – Share of industrials to rise



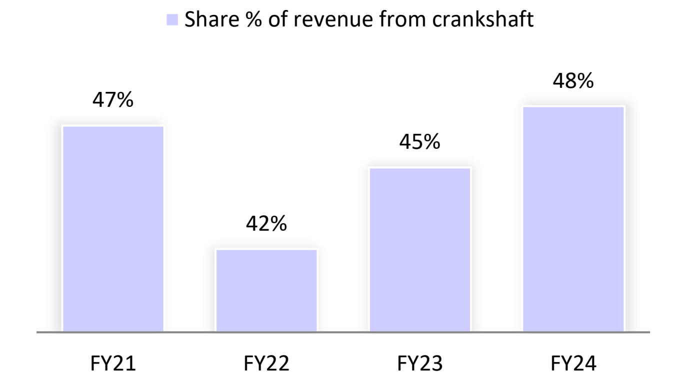
Source: Company, MOFSL

Exhibit 7: Revenue share % of exports has been growing



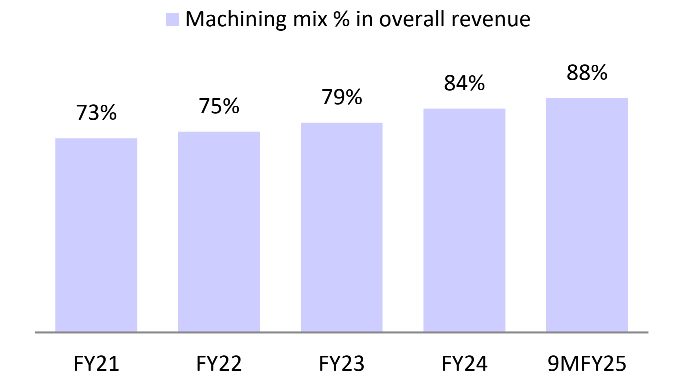
Source: Company, MOFSL

Exhibit 8: Crankshaft contribution at ~48% of revenue



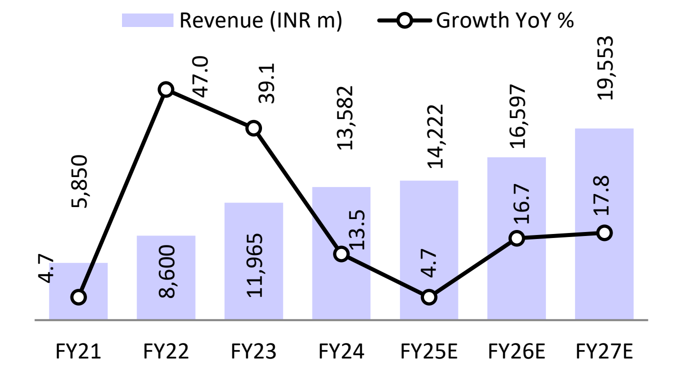
Source: Company, MOFSL

Exhibit 9: Focusing on increasing the machining mix



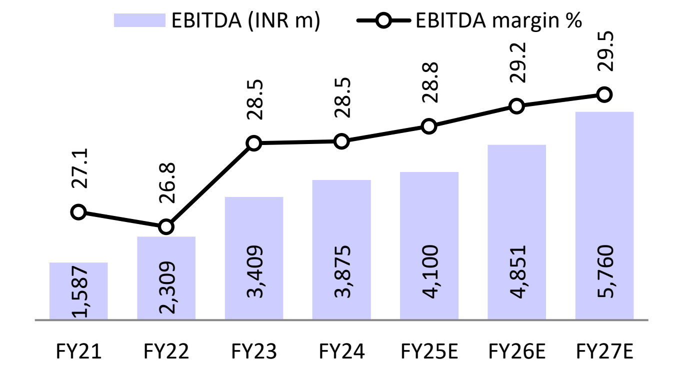
Source: Company, MOFSL

Exhibit 10: Revenue to register ~13% CAGR over FY24-27



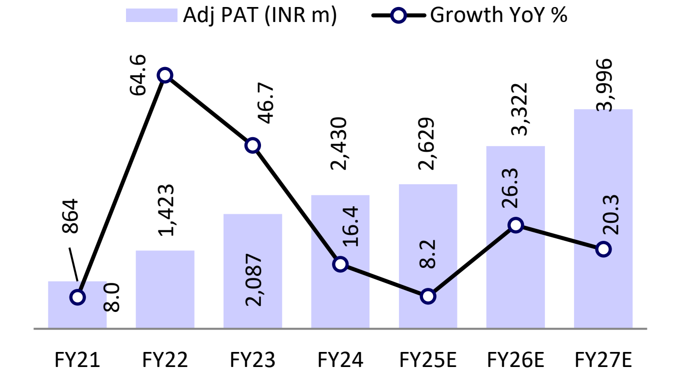
Source: Company, MOFSL

Exhibit 11: EBITDA margin to expand ~100bp over FY24-27



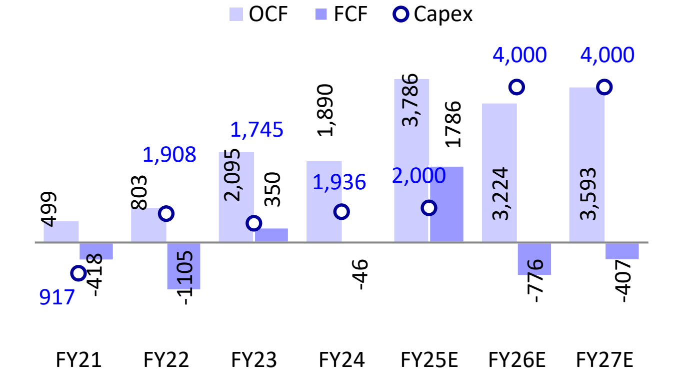
Source: Company, MOFSL

Exhibit 12: PAT to register ~18% CAGR over FY24-27



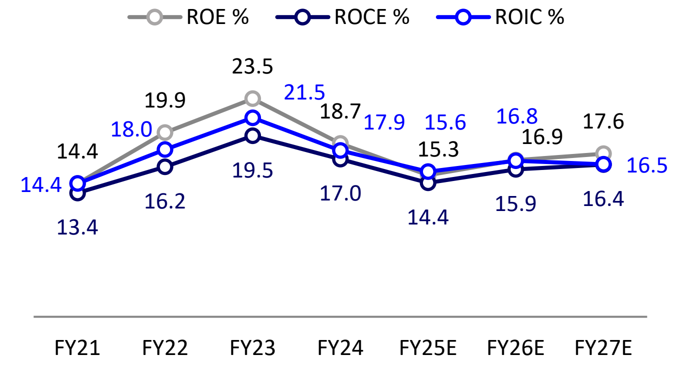
Source: Company, MOFSL

Exhibit 13: FCF/OCF expected to increase over the years



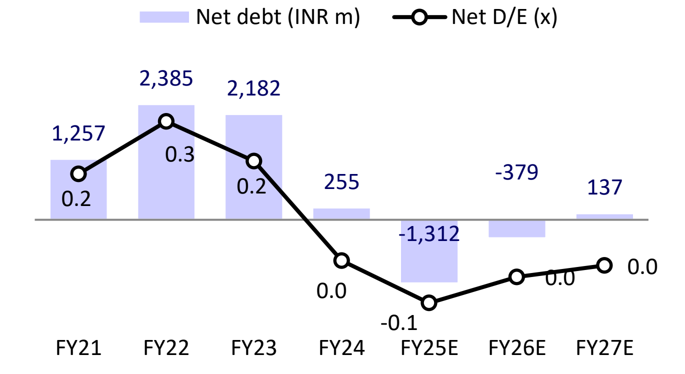
Source: Company, MOFSL

Exhibit 14: Returns to improve steadily in the coming years



Source: Company, MOFSL

Exhibit 15: Overall debt continues to decline



Source: Company, MOFSL

Financials and valuations

Income Statement							(INR M)
Y/E March	**FY21**	**FY22**	**FY23**	**FY24**	**FY25E**	**FY26E**	**FY27E**
Net Sales	**5,850**	**8,600**	**11,965**	**13,582**	**14,222**	**16,597**	**19,553**
Change (%)	4.7	47.0	39.1	13.5	4.7	16.7	17.8
EBITDA	**1,587**	**2,309**	**3,409**	**3,875**	**4,100**	**4,851**	**5,760**
Margin (%)	27.1	26.8	28.5	28.5	28.8	29.2	29.5
Depreciation	358	377	542	647	766	888	1,073
EBIT	**1,230**	**1,931**	**2,868**	**3,228**	**3,334**	**3,963**	**4,687**
Int. and Finance Charges	118	72	125	118	67	59	79
Other Income	59	61	58	134	295	468	650
PBT after EO Exp.	**1,171**	**1,920**	**2,800**	**3,244**	**3,563**	**4,371**	**5,258**
Current Tax	316	471	685	748	933	1,049	1,262
Deferred Tax	-10	27	29	65.67	-	-	-
Tax Rate (%)	26.2	25.9	25.5	25.1	26.2	24.0	24.0
Reported PAT	**864**	**1,423**	**2,087**	**2,430**	**2,629**	**3,322**	**3,996**
Adj PAT	**864**	**1,423**	**2,087**	**2,430**	**2,629**	**3,322**	**3,996**
Change (%)	8	65	47	16	8	26	20

Balance Sheet							(INR M)
Y/E March	**FY21**	**FY22**	**FY23**	**FY24**	**FY25E**	**FY26E**	**FY27E**
Equity Share Capital	90	179	179	188	188	188	188
Total Reserves	6,362	7,697	9,704	15,937	18,119	20,876	24,193
Net Worth	**6,452**	**7,876**	**9,883**	**16,125**	**18,307**	**21,065**	**24,381**
Deferred Liabilities	202	229	230	316	316	316	316
Total Loans	1,535	2,404	2,185	1,430	1,230	1,730	2,230
Capital Employed	**8,188**	**10,509**	**12,299**	**17,871**	**19,854**	**23,111**	**26,927**
Gross Block	5,066	5,858	8,591	9,880	11,880	15,880	19,880
Less: Accum. Deprn.	919	1,296	1,807	2,444	3,210	4,098	5,171
Net Fixed Assets	**4,147**	**4,562**	**6,784**	**7,437**	**8,671**	**11,782**	**14,710**
Capital WIP	404	2,123	748	1,267	1,267	1,267	1,267
Total Investments	**0**	**4**	**0**	**1**	**2,001**	**1,501**	**1,501**
Curr. Assets, Loans&Adv.	**4,214**	**4,610**	**5,730**	**10,155**	**8,938**	**9,747**	**10,840**
Inventory	1,216	1,840	1,696	2,242	2,062	2,406	2,834
Account Receivables	1,658	2,220	3,081	3,569	3,397	3,797	4,393
Cash and Bank Balance	278	15	3	1,174	541	608	592
Loans and Advances	1,062	535	950	3,170	2,939	2,936	3,020
Curr. Liability & Prov.	**576**	**790**	**963**	**988**	**1,023**	**1,186**	**1,390**
Creditors	379	442	477	555	541	631	743
Other Current Liabilities	178	321	448	388	438	511	602
Provisions	19	27	38	45	45	45	45
Net Current Assets	**3,638**	**3,821**	**4,767**	**9,167**	**7,915**	**8,561**	**9,450**
Appl. of Funds	**8,188**	**10,509**	**12,299**	**17,871**	**19,854**	**23,111**	**26,927**

Financials and valuations

Ratios

Y/E March	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
Basic (INR)							
EPS	**19.3**	**15.9**	**23.3**	**25.8**	**27.9**	**35.3**	**42.4**
Cash EPS	27.3	20.1	29.4	32.7	36.0	44.7	53.8
BV/Share	144.2	88.0	110.4	171.2	194.3	223.6	258.8
DPS	-	-	-	4.0	4.7	6.0	7.2
Payout (%)	-	-	-	15.5	17.0	17.0	17.0
Dividend Yield (%)	-	-	-	0.4	0.5	0.6	0.7
FCF per share	-9.3	-12.4	3.9	-0.5	19.0	-8.2	-4.3
Valuation (x)							
P/E	49.8	60.5	41.3	37.3	34.5	27.3	22.7
Cash P/E	35.2	47.8	32.8	29.5	26.7	21.5	17.9
P/BV	6.7	10.9	8.7	5.6	5.0	4.3	3.7
EV/Sales	7.6	10.3	7.4	6.7	6.3	5.4	4.6
EV/EBITDA	27.9	38.3	25.9	23.5	21.8	18.6	15.8
Return Ratios (%)							
RoE	14.4	19.9	23.5	18.7	15.3	16.9	17.6
RoCE (Post-tax)	13.4	16.2	19.5	17.0	14.4	15.9	16.4
RoIC	14.4	18.0	21.5	17.9	15.6	16.8	16.5
Working Capital Ratios							
Fixed Asset Turnover (x)	1.2	1.5	1.4	1.4	1.2	1.0	1.0
Inventory (Days)	62	65	54	53	55	49	49
Debtor (Days)	95	82	81	89	89	79	76
Creditor (Days)	37	17	14	14	14	13	13
Working Capital (Days)	169	152	131	171	197	169	157
Leverage Ratio (x)							
Net Debt/Equity	0.2	0.3	0.2	0.0	-0.1	0.0	0.0

Cash Flow Statement **(INR M)**

Y/E March	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
Operating PBT	1,171	1,921	2,800	3,244	3,563	4,371	5,258
Depreciation	358	377	542	647	766	888	1,073
Interest/Div paid	-118	-72	-125	118	67	59	79
Direct Taxes Paid	-399	-431	-638	-839	-933	-1,049	-1,262
(Inc)/Dec in WC	-825	-1,088	-779	-1,230	619	-578	-905
Other items	312	96	295	**-50**	**-295**	**-468**	**-650**
CF from Operations	**499**	**803**	**2,095**	**1,890**	**3,786**	**3,224**	**3,593**
(inc)/dec in FA	-917	-1,908	-1,745	-1,936	-2,000	-4,000	-4,000
Free Cash Flow	**-418**	**-1,105**	**350**	**-46**	**1,786**	**-776**	**-407**
(Pur)/Sale of Investments	288	230	15	-2,770	-2,000	500	-
Others	41	21	5	**12**	**295**	**468**	**650**
CF from Investments	**-587**	**-1,657**	**-1,725**	**-4,694**	**-3,705**	**-3,033**	**-3,350**
Issue of Shares	-	-	-	3,810	-	-	-
Inc/(Dec) in Debt	351	895	-251	-755	-200	500	500
Interest Paid	-254	-68	-119	-130	-67	-59	-79
Dividend Paid	-	-	-	-116	-447	-565	-679
CF from Fin. Activity	**97**	**825**	**-370**	**2,809**	**-714**	**-124**	**-258**
Inc/Dec of Cash	**8**	**-29**	**-0**	5	-633	67	-16
Add: Beginning Balance	20	29	0	**0**	**1,174**	**541**	**608**
Closing Balance	**29**	**0**	**0**	**5**	**541**	**608**	**592**

E: MOFSL Estimates

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") (UEN 201129401Z), which is a holder of a capital markets services license and an exempt financial adviser in Singapore.This report is distributed solely to persons who (a) qualify as "institutional investors" as defined in section 4A(1)(c) of the Securities and Futures Act of Singapore ("SFA") or (b) are considered "accredited investors" as defined in section 2(1) of the Financial Advisers Regulations of Singapore read with section 4A(1)(a) of the SFA. Accordingly, if a recipient is neither an "institutional investor" nor an "accredited investor", they must immediately discontinue any use of this Report and inform MOCMSPL .

In respect of any matter arising from or in connection with the research you could contact the following representatives of MOCMSPL. In case of grievances for any of the services rendered by MOCMSPL write to grievances@motilaloswal.com.

Nainesh Rajani
Email: nainesh.rajani@motilaloswal.com
Contact: (+65) 8328 0276

.

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.