

India

**ADD** (no change)

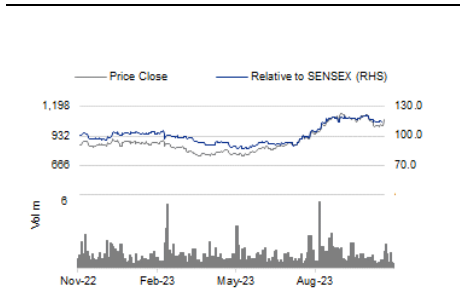
Consensus ratings\*: Buy 21 Hold 3 Sell 7

Current price:	Rs1,076
Target price:	Rs1,273
Previous target:	Rs1,110
Up/downside:	18.3%
InCred Research / Consensus:	21.8%
Reuters:	BFRG.NS
Bloomberg:	BHFC IN
Market cap:	US\$6,019m
	Rs500,834m
Average daily turnover:	US\$13.6m
	Rs1130.4m
Current shares o/s:	465.7m
Free float:	54.8%

\*Source: Bloomberg

**Key changes in this note**

- Net sales raised by 5-6% for FY24F-26F.
- EBITDA raised by 6-8% for FY24F-26F.
- PAT raised by ~1% for FY24F-26F.



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	(1.5)	17.9	25.8
Relative (%)	0.1	19.7	18.5

Major shareholders	% held
Kalyani Family	45.3
Kotak Mutual Fund	5.0
Mirae Asset Mutual Fund	3.1

**Analyst(s)**



**Pramod AMTHE**

T (91) 22 4161 1541  
E pramod.amthe@incredcapital.com

**Ravi GUPTA**

T (91) 02241611552  
E ravi.gupta@incredcapital.com

# Bharat Forge

## International business growth is impressive

- 2QFY24 consolidated EPS rose by 2% qoq, despite a seasonally weak quarter, which is impressive. 1HFY24 EPS formed 45% of our FY24F estimate.
- We raise FY24F-26F consolidated EBITDA by 6-8% because of resilient international operations and exports.
- We raise our DCF-based target price to Rs1,273 to reflect the benefits from an improving international order book and business momentum.

### Strong EBITDA margin performance in 2QFY24

The 2QFY24 standalone sales of Bharat Forge or BFL witnessed a 6% qoq rise, driven by export growth of 9%, which led to a 4% beat vs. our estimate. The car component sales growth improvement in domestic and export markets was impressive. The EBITDA margin expanded by 120bp qoq to 27.8%, 180bp above our estimate, leading to a 12% beat to our estimate. However, the sustained rise in interest costs (+3% qoq) and high net debt are the areas of concern. PAT grew 12% qoq to Rs3.5bn, 11% above our estimate, but in line with Bloomberg consensus estimate. The consolidated entity's PAT rose by 2% qoq to Rs2.17bn, despite a seasonally weak quarter for the international operations.

### Management conference-call highlights

Management indicated that the company's defence subsidiary, KSSL, recorded a 31% qoq rise in sales to Rs2.9bn (Fig. 3) as exports accelerated. Passenger car component exports scaled a new high at Rs3.3bn, up 18% qoq. Exports to Asia rose by 90% qoq, driven by new order wins. Management indicated Rs7.4bn of new order wins in 1HFY24, of which Rs3bn comprised orders for electrical vehicle components. Management reiterated that the acquisition momentum will sustain as it has deployed Rs5bn in last few years and scaled up the business of JS Auto and Sanghvi Forging.

### Raise consolidated EBITDA by 6-8% for FY24F-26F

The sustained strong sales performance driven by exports, despite global challenges, is impressive. We raise consolidated sales by 5-6% for FY24F-26F because of strong international operations. We raise consolidated EBITDA by 6-8% for FY24F-26F, as the drag caused by loss-making subsidiaries eases gradually. However, higher interest costs and tax rate limits the EPS upgrade to just around 1%.

### Reiterate ADD rating with a higher DCF-based target price of Rs1,273

The improvement in business momentum of car components and defence product exports is impressive. With strong export order wins giving visibility, we raise our discounted cash flow or DCF-based target price to Rs1,273 from Rs1,110 earlier. We reiterate our ADD rating, as the stock trades marginally above its 10-year mean P/BV and P/E levels. Key downside risk is the Middle East geopolitical tensions impacting the company's short-term export momentum.

### Financial Summary

	Mar-22A	Mar-23A	Mar-24F	Mar-25F	Mar-26F
Revenue (Rsm)	104,611	129,103	158,006	179,930	200,825
Operating EBITDA (Rsm)	20,159	17,675	24,807	28,069	32,132
Net Profit (Rsm)	13,738	4,037	9,702	12,514	15,367
Core EPS (Rs)	22.6	10.5	20.8	26.9	33.0
Core EPS Growth	471.9%	(53.4%)	97.7%	29.0%	22.8%
FD Core P/E (x)	36.46	124.09	51.63	40.03	32.60
DPS (Rs)	5.5	8.0	10.0	11.0	11.0
Dividend Yield	0.51%	0.74%	0.93%	1.02%	1.02%
EV/EBITDA (x)	26.09	30.19	21.12	18.54	16.01
P/FCFE (x)	126.84	58.08	106.90	142.38	87.74
Net Gearing	76.2%	86.2%	53.4%	42.9%	31.8%
P/BV (x)	7.62	7.47	5.48	4.75	4.07
ROE	17.6%	7.4%	12.2%	12.7%	13.4%
% Change In Core EPS Estimates			1.56%	0.45%	0.62%
InCred Research/Consensus EPS (x)					

SOURCE: INCRED RESEARCH, COMPANY REPORTS

## International business growth is impressive

### Management conference-call highlights ►

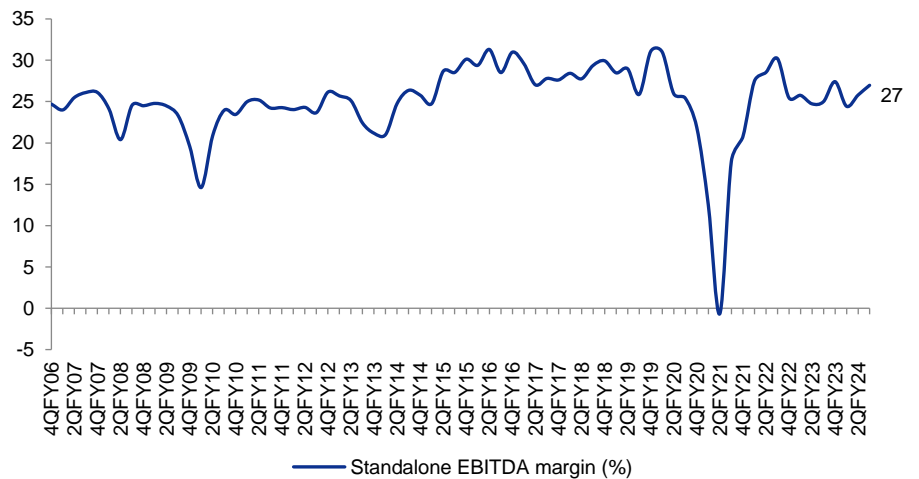
- **Outlook:** In 2QFY24, export and domestic revenue grew by 21% each while export growth was primarily driven by the passenger vehicle (PV) components segment (+39% yoy) and domestic growth was driven by the defence products business, which grew by 1.5x yoy. Going ahead, management remains positive on the back of a strong order book, new products, and new businesses while the geopolitical situation remains under pressure. In the domestic market management is positive on the PV and industrial segments whereas the weakness in oil and gas sector is likely to sustain.
- **Automotive business:** The commercial vehicle components' business revenue grew by 12% yoy, and the growth momentum is likely to sustain led by the government's spending on infrastructure and the PV components segment is likely to remain positive on account of the premiumization trend and rising disposable income of the country's middle-class population.
- **Export business:** The company's export business is likely to remain steady going ahead as North America Class-8 truck build rate, inventory level and sales remain steady while in the PV components business, management to focus on increasing the market share by tapping new geographies and customers. Excluding weakness in the European market, the profitability of the overseas business will be driven by profitability in the aluminum business and manufacturing optimization in the steel business, which is likely to materialize in the next 12-18 months.
- **Order book:** In 1HFY24, the standalone business secured new orders worth Rs7.4bn across segments, including Rs3bn for e-mobility programs. In the defence sector, the company won an additional new order worth Rs11bn, leading to a total order book worth Rs30bn, which is to be executed in the next two years. In the defence space, the company aims to achieve an EBITDA margin of 25% by FY25F.
- **Geographical performance:** Asian market saw a growth of 88% qoq led by new businesses and new orders. Management believes this growth is likely to sustain while the European market declined by 2.3% qoq on concerns over the high inflation rate and rising interest rates.
- **Capital expenditure:** On a standalone level, the company incurred Rs1.7bn of capex and Rs3bn at a consolidated level. Future capex is likely to be in the areas of defence, aluminum castings & forgings and EV components.

Figure 1: Standalone results comparison

Y/E Mar 23 (Rs m)	2QFY24	2QFY23	yoy % chg	1QFY24	qoq % chg	Comments for the quarter
Revenue	22,494	18,639	20.7	21,273	5.7	4.2% above our estimate.
Raw material costs	9,744	8,281	17.7	9,420	3.4	
RM as % of revenue	43.3	44.4	(11.1)	44.3	(96.1)	
<b>EBITDA</b>	<b>6,068</b>	<b>4,660</b>	<b>30.2</b>	<b>5,487</b>	<b>10.6</b>	<b>11.6% above our estimate.</b>
<i>EBITDA margin %</i>	<i>27.0</i>	<i>25.0</i>	<i>19.7</i>	<i>25.8</i>	<i>11.8</i>	<i>181bp above our estimate.</i>
Depreciation & amortization	1,128	1,066	5.9	1,089	3.6	In line with our estimate.
EBIT	4,940	3,595	37.4	4,398	12.3	
Interest expenses	726	357	103.2	705	3.0	11% above our estimate.
Other Income	424	477	(11.2)	472	(10.3)	6% below our estimate.
Pre-tax profit	4,637	3,715	24.8	4,165	11.3	
Tax	1,156	897	28.8	1,050	10.1	
Tax rate (%)	24.9	24.2	7.8	25	(2.8)	193bp above our estimate.
<b>Normalized net profit</b>	<b>3,481</b>	<b>2,817</b>	<b>23.6</b>	<b>3,115</b>	<b>11.7</b>	<b>11% above our estimate</b>
Extraordinary income/expenses	(21)	(136)	nm	-	nm	
Reported net profit	3,460	2,681	29.0	3,115	11.1	
Normalized EPS (Rs)	7.5	6.1	23.6	6.7	11.7	

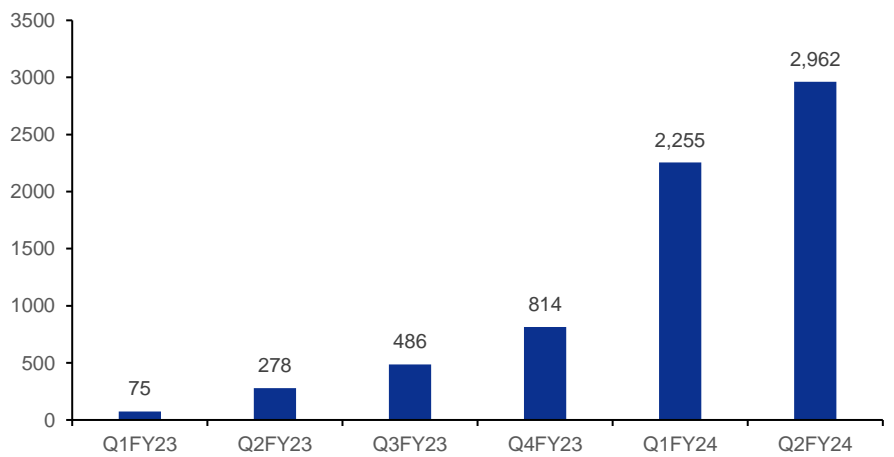
SOURCES: INCRED RESEARCH, COMPANY REPORTS

Figure 2: Standalone EBITDA margin is stable



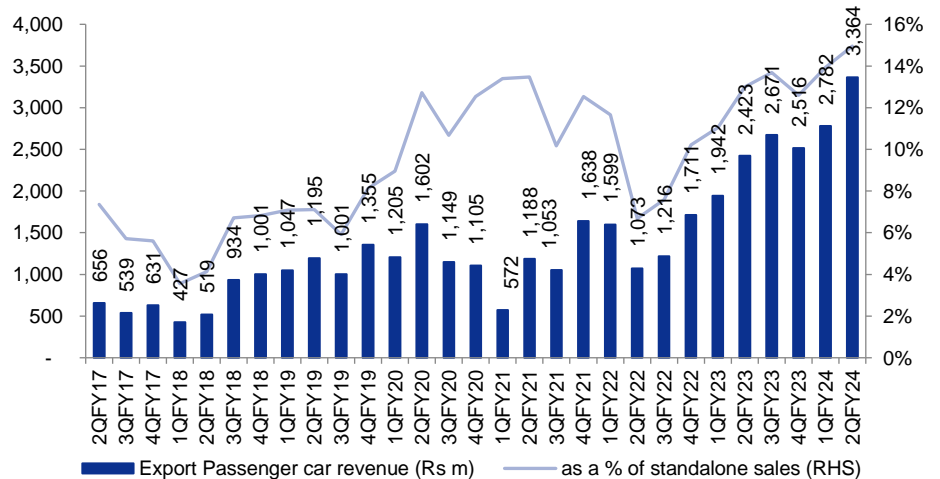
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 3: Significant jump in defence subsidiary KSSL's revenue in recent quarters (Rs m)



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 4: Bharat Forge's passenger car component exports scale a new high



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 5: North America's revenue correlation to Class-8 trucks' volume growth

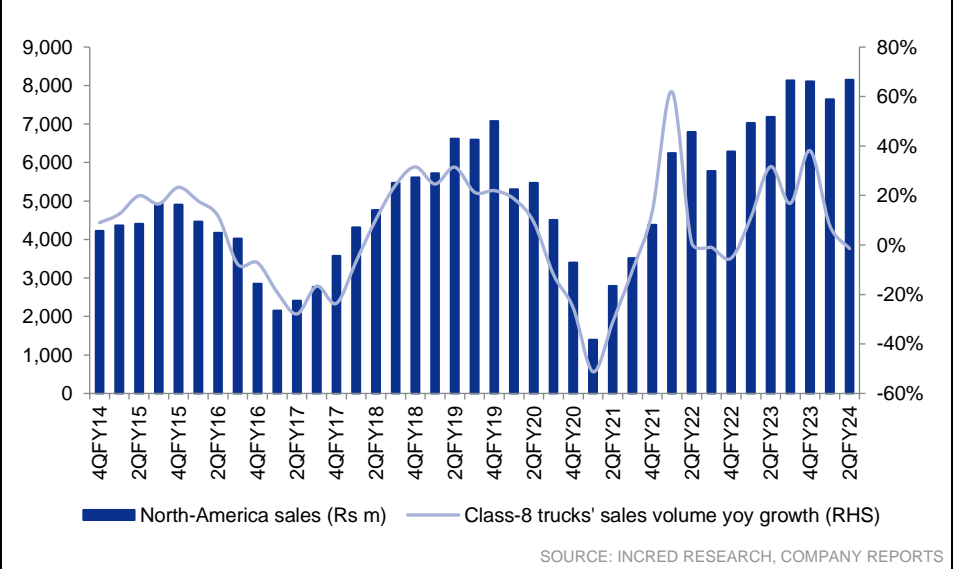


Figure 6: North America Class-8 truck net orders rise during the quarter, but a gradual inventory build-up is an area of concern

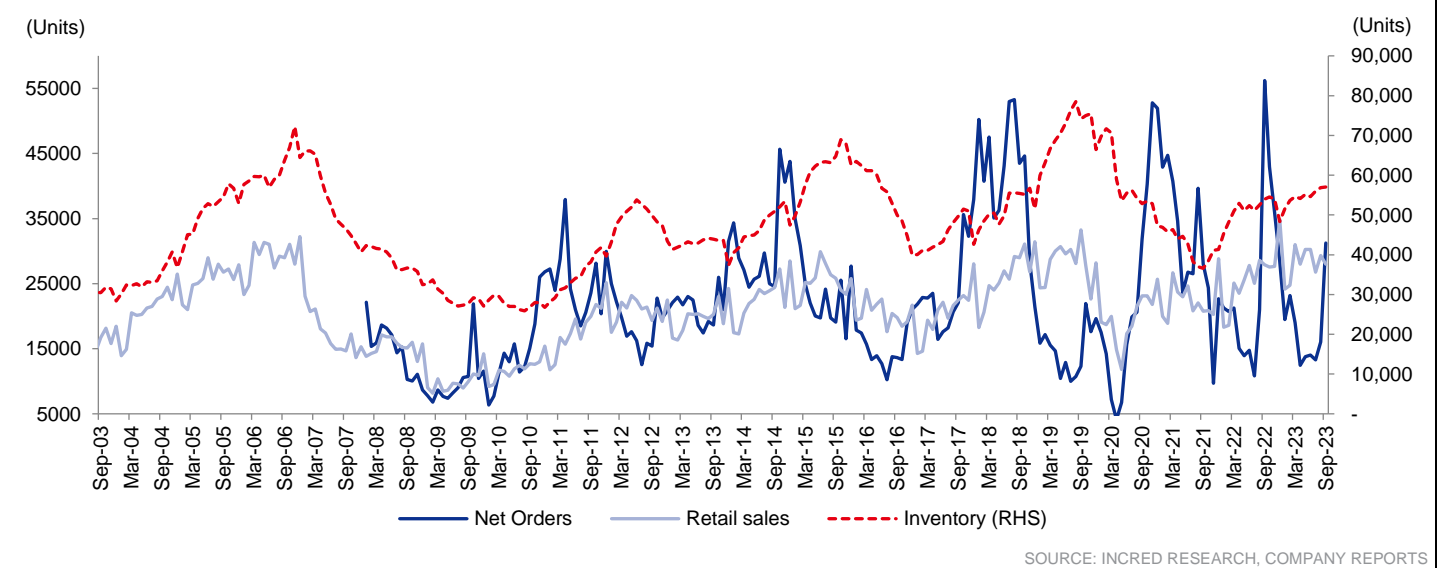
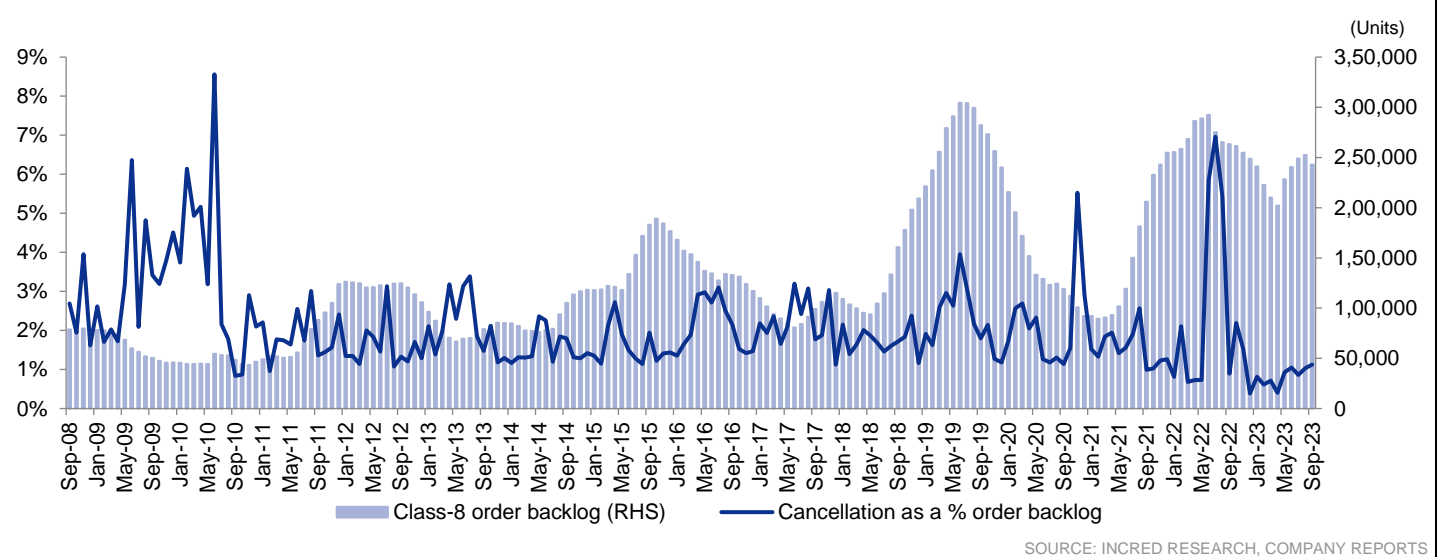
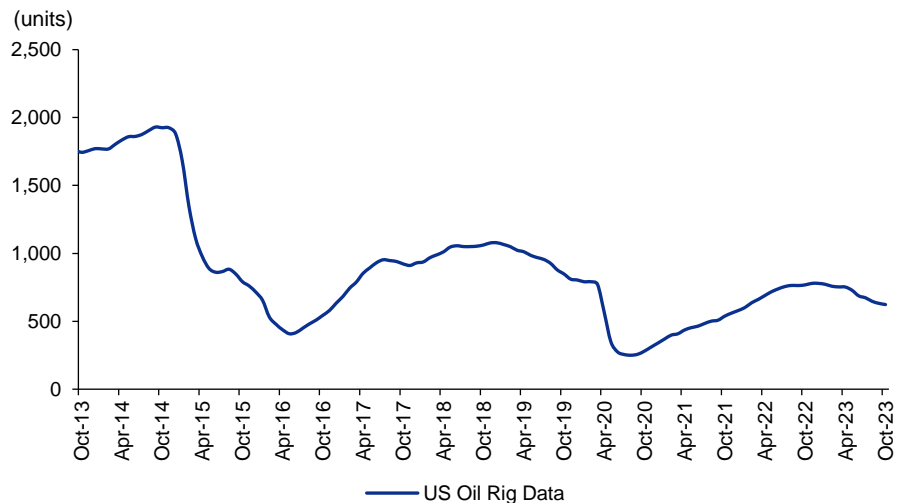


Figure 7: North America Class-8 truck order backlog is healthy, and cancellations rise marginally

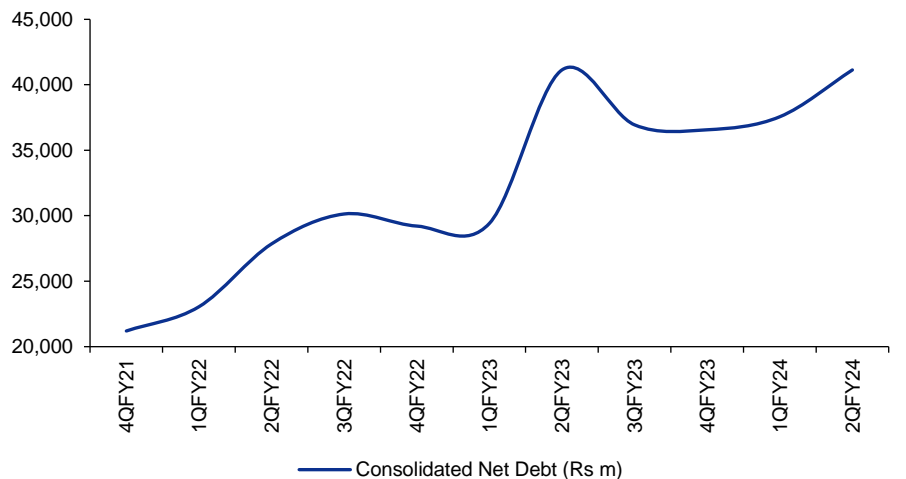


**Figure 8: US oil rig count flattens**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 9: Elevated level of consolidated net debt remains an area of concern**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 10: Revenue by segment (Rs m)**

	2QFY24	2QFY23	% yoy	1QFY24	% qoq	1HFY24	1HFY23	%yoy
<b>India Revenue</b>	<b>9,623</b>	<b>7,975</b>	<b>20.7%</b>	<b>9,484</b>	<b>1.5%</b>	<b>19,107</b>	<b>15,094</b>	<b>26.6%</b>
Commercial vehicle	2,603	2,428	7.2%	2,734	-4.8%	5,337	4,766	12.0%
Industrial	6,203	4,554	36.2%	6,126	1.3%	12,329	8,561	44.0%
Passenger car	817	993	-17.7%	624	30.9%	1,441	1,767	-18.4%
<b>International Revenue</b>	<b>12,871</b>	<b>10,664</b>	<b>20.7%</b>	<b>11,788</b>	<b>9.2%</b>	<b>24,659</b>	<b>21,139</b>	<b>16.7%</b>
Commercial vehicle	5,474	4,777	14.6%	5,151	6.3%	10,625	9,353	13.6%
Industrial	4,033	3,464	16.4%	3,855	4.6%	7,888	7,421	6.3%
Passenger car	3,364	2,423	38.8%	2,782	20.9%	6,146	4,365	40.8%

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 11: Wholly-owned subsidiaries' qoq turnaround provides comfort**

(Rs m)	2QFY24	2QFY23	% yoy	1QFY24	% qoq	1HFY24	1HFY23	% yoy
Total Income	12,053	9,470	27.3%	13,336	-9.6%	42,785	40,641	27.2%
EBITDA	90	-341	na	158	na	-961	3,947	na
margin %	0.7%	-3.6%	na	1.2%	na	-2.2%	9.7%	na
PBT	-1,156	-1,157	na	-930	na	-4,233	793	na
margin %	-9.6%	-12.2%	na	-7.0%	na	-9.9%	2.0%	na

SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 12: Consolidated entity's earnings revision summary

	FY24F		FY25F		FY26F	
	Old	New	Old	New	Old	New
Net sales (Rs m)	150,533	158,006	169,649	179,930	188,673	200,825
Change (%)		5.0%		6.1%		6.4%
EBITDA (Rs m)	22,881	24,807	26,465	28,069	30,188	32,132
Change (%)		8.4%		6.1%		6.4%
Normalized PAT (Rs m)	9,553	9,702	12,458	12,514	15,272	15,367
Change (%)		1.6%		0.5%		0.6%
Normalized EPS (Rs)	20.5	20.8	26.8	26.9	32.8	33.0
Change (%)		1.6%		0.5%		0.6%

SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 13: Standalone entity's EPS revision summary

	FY24F		FY25F		FY26F	
	Old	New	Old	New	Old	New
Net Sales (Rs m)	89,709	89,886	101,993	102,987	113,954	115,563
Change (%)		0.2%		1.0%		1.4%
EBITDA (Rs m)	23,235	23,550	26,824	27,086	30,426	30,855
Change (%)		1.4%		1.0%		1.4%
Normalized PAT (Rs m)	13,884	14,065	16,729	16,896	19,514	19,835
Change (%)		1.3%		1.0%		1.6%

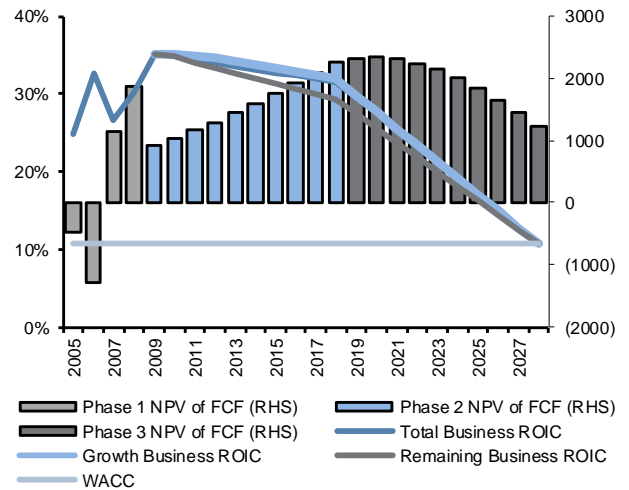
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 14: DCF-based target price

Economic Profit Valuation	Rs m	%
Adjusted Opening Invested Capital	117,105	18.7
NPV of Economic Profit During Explicit Period	7,789	1.2
NPV of Econ Profit of Remaining Business (1, 2)	21,912	3.5
NPV of Econ Profit of Net Inv (Grth Business) (1, 3)	478,512	76.5
Enterprise Value	625,317	100.0
Plus: Other Assets	0	0.0
Less: Minorities	36	0.0
Less: Net Debt (as at 06 Nov 2023)	32,440	5.2
Equity Value	592,841	94.8
No. Shares (millions)	466	
<b>Per Share Equity Value</b>	<b>Rs. 1,273</b>	

Discounted Cash Flow Valuation	Rs m	%
Value of Phase 1: Explicit (2024 to 2026)	7,957	1.3
Value of Phase 2: Value Driver (2027 to 2037)	307,946	49.2
Value of Phase 3: Fade (2038 to 2048)	254,978	40.8
Terminal Value	54,444	8.7
Enterprise Value	625,325	100.0
FCF Grth Rate at end of Phs 1 implied by DCF Valuat	0	10.1
FCF Grth Rate at end of Phs 1 implied by Current Pric	0	9.9

Returns, WACC and NPV of Free Cash Flow



Sensitivity Table

WACC		No of Years in Fade Period				
		6	9	11	13	16
9.1%		1303	1502	1637	1773	1979
10.1%		1165	1331	1442	1553	1718
11.1%		1042	1181	1273	1364	1497
12.1%		934	1051	1127	1201	1309
13.1%		839	937	999	1060	1147

Performance Summary

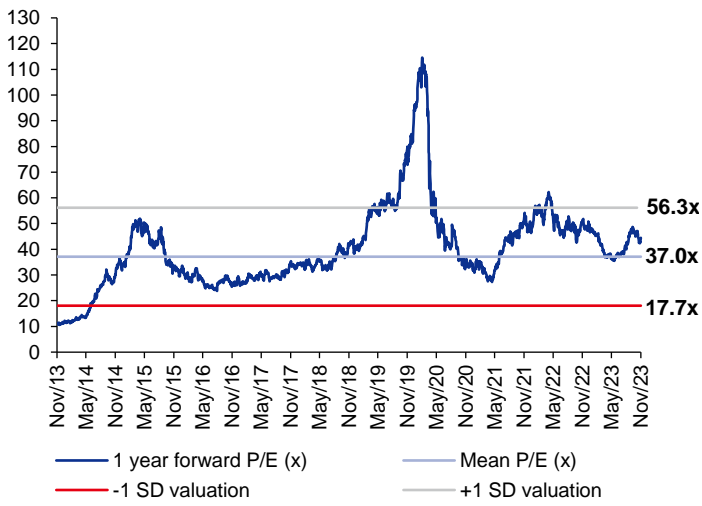
	Phase 2 Avg			
	2024	2025	2026	(2027 - 2037)
Invested Capital Growth (%)	17.9	9.9	9.6	8.9
Operating Margin (%)	11.9	12.0	12.7	12.0
Capital Turnover (x)	1.6	1.5	1.5	1.5

Note:

- In periods following the Explicit Period i.e. Phase 2 and Phase 3
- Remaining Business is defined as Capital as at the end of Phase 1 and capex = depreciation thereafter
- Net Investment is defined as capex over and above depreciation after Phase 1

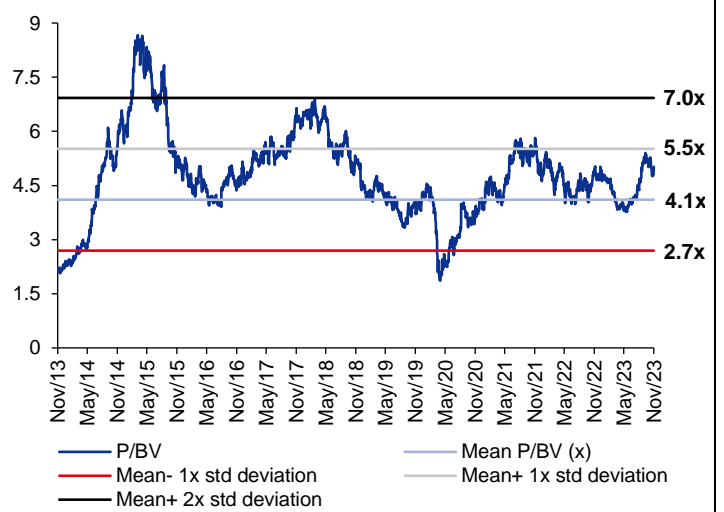
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 15: Forward P/E valuation below +1 SD valuation



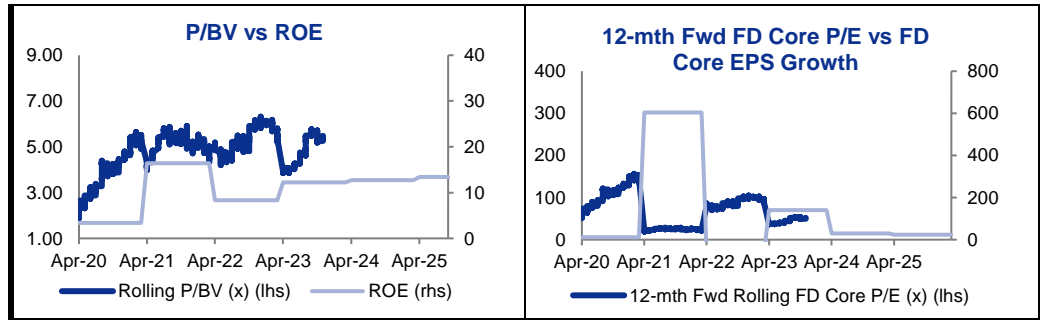
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 16: Forward P/BV valuation below +1x SD



SOURCE: INCRED RESEARCH, COMPANY REPORTS

BY THE NUMBERS



Profit & Loss

(Rs mn)	Mar-22A	Mar-23A	Mar-24F	Mar-25F	Mar-26F
<b>Total Net Revenues</b>	<b>104,611</b>	<b>129,103</b>	<b>158,006</b>	<b>179,930</b>	<b>200,825</b>
<b>Gross Profit</b>	<b>36,297</b>	<b>31,911</b>	<b>41,714</b>	<b>46,962</b>	<b>53,018</b>
<b>Operating EBITDA</b>	<b>20,159</b>	<b>17,675</b>	<b>24,807</b>	<b>28,069</b>	<b>32,132</b>
Depreciation And Amortisation	(7,303)	(7,356)	(8,565)	(9,010)	(9,308)
<b>Operating EBIT</b>	<b>12,856</b>	<b>10,319</b>	<b>16,242</b>	<b>19,059</b>	<b>22,824</b>
Financial Income/(Expense)	(1,604)	(2,986)	(4,250)	(2,860)	(2,586)
Pretax Income/(Loss) from Assoc.					
Non-Operating Income/(Expense)	1,959	1,729	2,581	2,607	2,643
<b>Profit Before Tax (pre-EI)</b>	<b>13,211</b>	<b>9,062</b>	<b>14,574</b>	<b>18,806</b>	<b>22,881</b>
Exceptional Items	3,892	(1,505)			
<b>Pre-tax Profit</b>	<b>17,103</b>	<b>7,557</b>	<b>14,574</b>	<b>18,806</b>	<b>22,881</b>
Taxation	(3,035)	(3,186)	(4,372)	(5,642)	(6,864)
Exceptional Income - post-tax					
<b>Profit After Tax</b>	<b>14,069</b>	<b>4,371</b>	<b>10,202</b>	<b>13,164</b>	<b>16,017</b>
Minority Interests	(330)	(334)	(500)	(650)	(650)
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax					
<b>Net Profit</b>	<b>13,738</b>	<b>4,037</b>	<b>9,702</b>	<b>12,514</b>	<b>15,367</b>
Recurring Net Profit	10,537	4,907	9,702	12,514	15,367
<b>Fully Diluted Recurring Net Profit</b>	<b>10,537</b>	<b>4,907</b>	<b>9,702</b>	<b>12,514</b>	<b>15,367</b>

Cash Flow

(Rs mn)	Mar-22A	Mar-23A	Mar-24F	Mar-25F	Mar-26F
<b>EBITDA</b>	<b>20,159</b>	<b>17,675</b>	<b>24,807</b>	<b>28,069</b>	<b>32,132</b>
Cash Flow from Invt. & Assoc.					
Change In Working Capital	(12,459)	(8,210)	(5,150)	(2,916)	(3,467)
(Incr)/Decr in Total Provisions	(5,643)	8,833	(7,144)	(1,000)	(800)
Other Non-Cash (Income)/Expense	273	(1,060)	3,348	1,081	1,180
Other Operating Cashflow	3,892	(1,505)			
Net Interest (Paid)/Received	355	(1,258)	(1,669)	(253)	57
Tax Paid	(3,530)	(3,952)	(2,915)	(3,761)	(4,576)
<b>Cashflow From Operations</b>	<b>3,048</b>	<b>10,523</b>	<b>11,277</b>	<b>21,220</b>	<b>24,526</b>
Capex	(10,567)	(13,581)	(14,300)	(16,800)	(17,600)
Disposals Of FAs/subsidiaries					
Acq. Of Subsidiaries/investments					
Other Investing Cashflow	720	(296)	17,875	4,848	5,033
<b>Cash Flow From Investing</b>	<b>(9,847)</b>	<b>(13,877)</b>	<b>3,575</b>	<b>(11,952)</b>	<b>(12,567)</b>
Debt Raised/(repaid)	10,748	11,978	(10,167)	(5,750)	(6,250)
Proceeds From Issue Of Shares	(86)	(534)	(861)	(650)	(650)
Shares Repurchased					
Dividends Paid	(2,561)	(3,725)	(4,656)	(5,122)	(5,122)
Preferred Dividends					
Other Financing Cashflow					
<b>Cash Flow From Financing</b>	<b>8,100</b>	<b>7,718</b>	<b>(15,684)</b>	<b>(11,522)</b>	<b>(12,022)</b>
Total Cash Generated	1,302	4,365	(831)	(2,254)	(703)
<b>Free Cashflow To Equity</b>	<b>3,949</b>	<b>8,625</b>	<b>4,686</b>	<b>3,518</b>	<b>5,709</b>
<b>Free Cashflow To Firm</b>	<b>(5,195)</b>	<b>(367)</b>	<b>19,103</b>	<b>12,128</b>	<b>14,545</b>

SOURCE: INCRED RESEARCH, COMPANY REPORTS



BY THE NUMBERS...cont'd

<b>Balance Sheet</b>					
<b>(Rs mn)</b>	<b>Mar-22A</b>	<b>Mar-23A</b>	<b>Mar-24F</b>	<b>Mar-25F</b>	<b>Mar-26F</b>
Total Cash And Equivalents	6,030	10,395	9,564	7,310	7,247
Total Debtors	21,736	30,988	36,796	40,423	44,016
Inventories	27,105	31,263	36,796	40,423	44,016
Total Other Current Assets	14,062	15,392	14,500	16,500	17,300
<b>Total Current Assets</b>	<b>68,933</b>	<b>88,038</b>	<b>97,656</b>	<b>104,655</b>	<b>112,580</b>
Fixed Assets	59,441	65,666	71,401	79,191	87,484
Total Investments	26,038	25,688	25,688	25,688	25,688
Intangible Assets	506	2,955	2,955	2,955	2,955
Total Other Non-Current Assets					
<b>Total Non-current Assets</b>	<b>85,985</b>	<b>94,309</b>	<b>100,044</b>	<b>107,834</b>	<b>116,126</b>
Short-term Debt					
Current Portion of Long-Term Debt					
Total Creditors	16,314	21,513	27,705	32,042	35,763
Other Current Liabilities	11,396	21,923	12,500	13,000	13,000
<b>Total Current Liabilities</b>	<b>27,710</b>	<b>43,436</b>	<b>40,205</b>	<b>45,042</b>	<b>48,763</b>
Total Long-term Debt	56,545	68,523	58,356	52,606	46,356
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities					
<b>Total Non-current Liabilities</b>	<b>56,545</b>	<b>68,523</b>	<b>58,356</b>	<b>52,606</b>	<b>46,356</b>
Total Provisions	4,395	2,971	7,705	9,287	10,467
<b>Total Liabilities</b>	<b>88,651</b>	<b>114,931</b>	<b>106,267</b>	<b>106,936</b>	<b>105,587</b>
Shareholders Equity	65,707	67,055	91,433	105,554	123,119
Minority Interests	561	361			
<b>Total Equity</b>	<b>66,268</b>	<b>67,416</b>	<b>91,433</b>	<b>105,554</b>	<b>123,119</b>

<b>Key Ratios</b>					
	<b>Mar-22A</b>	<b>Mar-23A</b>	<b>Mar-24F</b>	<b>Mar-25F</b>	<b>Mar-26F</b>
Revenue Growth	65.1%	23.4%	22.4%	13.9%	11.6%
Operating EBITDA Growth	133.9%	(12.3%)	40.3%	13.1%	14.5%
Operating EBITDA Margin	19.3%	13.7%	15.7%	15.6%	16.0%
Net Cash Per Share (Rs)	(108.48)	(124.83)	(104.78)	(97.28)	(83.99)
BVPS (Rs)	141.11	144.00	196.36	226.68	264.40
Gross Interest Cover	8.01	3.46	3.82	6.66	8.83
Effective Tax Rate	17.7%	42.2%	30.0%	30.0%	30.0%
Net Dividend Payout Ratio	26.0%	67.2%	48.0%	40.9%	33.3%
Accounts Receivables Days	62.69	74.53	78.29	78.32	76.73
Inventory Days	120.33	109.60	106.81	105.98	104.26
Accounts Payables Days	75.82	71.03	77.24	82.00	83.72
ROIC (%)	11.7%	7.3%	10.6%	10.4%	11.4%
ROCE (%)	11.4%	7.9%	11.2%	12.0%	13.5%
Return On Average Assets	7.9%	4.7%	6.9%	7.4%	8.0%

<b>Key Drivers</b>					
	<b>Mar-22A</b>	<b>Mar-23A</b>	<b>Mar-24F</b>	<b>Mar-25F</b>	<b>Mar-26F</b>
ASP (% chg, main prod./serv.)	25.9%	10.5%	7.6%	3.9%	4.5%
Unit sales grth (% , main prod./serv.)	36.0%	9.5%	10.4%	10.3%	7.3%

SOURCE: INCRED RESEARCH, COMPANY REPORTS

---

## DISCLAIMER

---

This report (including the views and opinions expressed therein, and the information comprised therein) has been prepared by Incred Research Services Private Ltd. (formerly known as Earnest Innovation Partners Private Limited) (hereinafter referred to as "IRSPL"). IRSPL is registered with SEBI as a Research Analyst vide Registration No. INH000011024. Pursuant to a trademark agreement, IRSPL has adopted "Incred Equities" as its trademark for use in this report.

The term "IRSPL" shall, unless the context otherwise requires, mean IRSPL and its affiliates, subsidiaries and related companies. 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 IRSPL and its affiliates/group companies to registration or licensing requirements within such jurisdictions.

This report is being supplied to you strictly on the basis that it will remain confidential. No part of this report may be (i) copied, photocopied, duplicated, stored or reproduced in any form by any means; or (ii) redistributed or passed on, directly or indirectly, to any other person in whole or in part, for any purpose without the prior written consent of IRSPL.

The information contained in this report is prepared from data believed to be correct and reliable at the time of issue of this report.

IRSPL is not required to issue regular reports on the subject matter of this report at any frequency and it may cease to do so or change the periodicity of reports at any time. IRSPL is not under any obligation to update this report in the event of a material change to the information contained in this report. IRSPL has not any and will not accept any, obligation to (i) check or ensure that the contents of this report remain current, reliable or relevant; (ii) ensure that the content of this report constitutes all the information a prospective investor may require; (iii) ensure the adequacy, accuracy, completeness, reliability or fairness of any views, opinions and information, and accordingly, IRSPL and its affiliates/group companies (and their respective directors, associates, connected persons and/or employees) shall not be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance thereon or usage thereof.

Unless otherwise specified, this report is based upon reasonable sources. Such sources will, unless otherwise specified, for market data, be market data and prices available from the main stock exchange or market where the relevant security is listed, or, where appropriate, any other market. Information on the accounts and business of company(ies) will generally be based on published statements of the company(ies), information disseminated by regulatory information services, other publicly available information and information resulting from our research. Whilst every effort is made to ensure that statements of facts made in this report are accurate, all estimates, projections, forecasts, expressions of opinion and other subjective judgments contained in this report are based on assumptions considered to be reasonable as of the date of the document in which they are contained and must not be construed as a representation that the matters referred to therein will occur. Past performance is not a reliable indicator of future performance. The value of investments may go down as well as up and those investing may, depending on the investments in question, lose more than the initial investment. No report shall constitute an offer or an invitation by or on behalf of IRSPL and its affiliates/group companies to any person to buy or sell any investments.

The opinions expressed are based on information which are believed to be accurate and complete and obtained through reliable public or other non-confidential sources at the time made. (Information barriers and other arrangements may be established where necessary to prevent conflicts of interests arising. However, the analyst(s) may receive compensation that is based on his/their coverage of company(ies) in the performance of his/their duties or the performance of his/their recommendations. In reviewing this report, an investor should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest. Additional information is, subject to the duties of confidentiality, available on request. The report is not a "prospectus" as defined under Indian Law, including the Companies Act, 2013, and is not, and shall not be, approved by, or filed or registered with, any Indian regulator, including any Registrar of Companies in India, SEBI, any Indian stock exchange, or the Reserve Bank of India. No offer, or invitation to offer, or solicitation of subscription with respect to any such securities listed or proposed to be listed in India is being made, or intended to be made, to the public, or to any member or section of the public in India, through or pursuant to this report.

The research analysts, strategists or economists principally responsible for the preparation of this research report are segregated from the other activities of IRSPL. Information barriers and other arrangements have been established, as required, to prevent any conflicts of interests.

The research analysts, strategists or economists principally responsible for the preparation of this research report are segregated from the other activities of IRSPL. Information barriers and other arrangements have been established, as required, to prevent any conflicts of interests.

IRSPL may have issued other reports (based on technical analysis, event specific, short term views etc.) that are inconsistent with and reach different conclusion from the information presented in this report.

Holding of Analysts/Relatives of Analysts, IRSPL and Associates of IRSPL in the covered securities, as on the date of publishing of this report

	Analyst/ Relative	Entity/ Associate s
any financial interests in the company covered in this report (subject company) and nature of such financial interest	NO	NO
actual/beneficial ownership of 1% or more in securities of 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;	NO	NO
any other material conflict of interest at the time of publication of the research report or at the time of public appearance	NO	NO
received any compensation from the subject company in the past twelve months for investment banking or merchant banking or brokerage services or investment advisory or depository or distribution from the subject company in the last twelve months for products/services other than investment banking or merchant banking or broker- age services or investment advisory or depository or distribution from the subject company in the last twelve months	NO	NO
managed or co-managed public offering of securities for the subject company in the last twelve months	NO	NO
received any compensation or other benefits from the subject company or third party in connection with the research report	NO	NO
served as an officer, director or employee of the subject company	NO	NO
been engaged in market making activity for the subject company	NO	NO

#### Analyst declaration

- The analyst responsible for the production of this report hereby certifies that the views expressed herein accurately and exclusively reflect his or her personal views and opinions about any and all of the issuers or securities analysed in this report and were prepared independently and autonomously in an unbiased manner.
- No part of the compensation of the analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations(s) or view(s) in this report or based any specific investment banking transaction.
- The analyst(s) has(have) not had any serious disciplinary action taken against him/her(them).
- The analyst, strategist, or economist does not have any material conflict of interest at the time of publication of this report.
- The analyst(s) has(have) received compensation based upon various factors, including quality, accuracy and value of research, overall firm performance, client feedback and competitive factors.

IRSPL and/or its affiliates and/or its Directors/employees may own or have positions in securities of the company(ies) covered in this report or any securities related thereto and may from time to time add to or dispose of, or may be materially interested in, any such securities.

IRSPL and/or its affiliates and/or its Directors/employees may do and seek to do business with the company(ies) covered in this research report and may from time to time (a) buy/sell the securities covered in this report, from time to time and/or (b) act as market maker or have assumed an underwriting commitment in securities of such company(ies), and/or (c) may sell them to or buy them from customers on a principal basis and/or (d) may also perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to such company(ies) and/or (e) solicit such investment, advisory or other services from any entity mentioned in this report and/or (f) act as a lender/borrower to such company and may earn brokerage or other compensation. However, Analysts are forbidden to acquire, on their own account or hold securities (physical or uncertificated, including derivatives) of companies in respect of which they are compiling and producing financial recommendations or in the result of which they play a key part.