

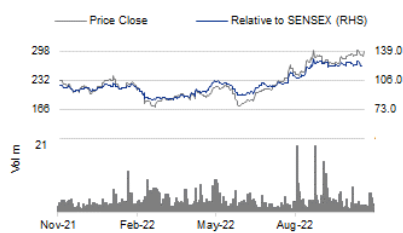
India

REDUCE (no change)

Consensus ratings*:	Buy 24	Hold 1	Sell 7
Current price:	Rs298		
Target price:	Rs252 ▲		
Previous target:	Rs217		
Up/downside:	-15.4%		
InCred Research / Consensus:	-14.3%		
Reuters:	APLO.NS		
Bloomberg:	APTY IN		
Market cap:	US\$2,331m		
	Rs189,070m		
Average daily turnover:	US\$10.8m		
	Rs873.1m		
Current shares o/s:	635.1m		
Free float:	62.7%		
*Source: Bloomberg			

Key changes in this note

- EBITDA raised by ~3% for FY23F-25F.
- Interest cost raised by 11-19% for FY23F-25F.
- EPS raised by 1% for FY23F-25F.



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	9.8	26.1	28.0
Relative (%)	2.8	22.0	24.8

Major shareholders	% held
Kanwar Family	37.3
Emerald Sage Investment Ltd.	9.9
White Iris Investment Ltd.	8.0

Analyst(s)



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

Hitesh THAKURANI
T (91) 22 4161 1554
E hitesh.thakurani@incredcapital.com

Apollo Tyres Ltd

Volume growth and interest cost challenges

- Consolidated 2QFY23 EPS rose by 2% qoq to Rs3.1, in line with our estimate, as EBITDA beat was only marginal - being hit by high interest cost qoq.
- Tight cost control and Europe energy cost hedging offers temporary relief, but we feel rising net debt and interest cost are areas of concern.
- Recent stock price rise driving forward P/BV valuation to +1 SD level. We reiterate REDUCE rating with a higher target price of Rs252 (Rs217 earlier).

In-line 2QFY23 performance

Apollo Tyres or ATL's 2QFY23 consolidated EBITDA rose 3% qoq to Rs7.1bn, in line with our/ Bloomberg consensus estimates. Higher raw material cost (+81bp qoq) was overcome by lower employee and manufacturing expenses, leading to a 40bp qoq EBITDA margin expansion to 12%. Europe business profitability improvement qoq was impressive while India business improvement qoq was in line with estimate. However, 12% qoq rise in interest cost and 8% qoq rise in net debt to Rs55bn are areas of concern. Normalized EPS rose 2% qoq to Rs3.1, in line with our estimate.

Management conference-call highlights

ATL's management indicated that a steep 5% tyre price hike taken in 2QFY23 led to loss of market share in Indian truck replacement radial tyre business which, it feels, will recover in 2HFY23F. The marginal dip in truck replacement tyre demand was overcome by OEM demand and exports. Indian sales volume was flattish in 2Q and entire sales growth was driven by pricing action and product mix. Price hike of 5-12% in Europe along with power cost hedging helped improve profitability qoq. Management stated that Europe volume growth seems to be easing due to the delayed winter season and economic slowdown.

Maintain EPS estimates because of higher interest cost impact

While the tyre industry's volume seems to be challenged in the short term, aggressive pricing action leads us to hold on to net sales and raise EBITDA margin by around 20-30bp for FY23F-25F. We expect India business EBITDA margin to recover to 12% by FY25F vs. 10% in 1HFY23. However, the sustained rise in net debt in a rising interest rate environment leads to a sharp 11-19% rise in our interest cost estimates for FY23F-25F.

Maintain REDUCE rating

The sharp run-up in tyre stock prices in recent months on hopes of easing raw material prices to drive profit margins, we feel, is an optimistic assumption and pushed the P/BV valuation to seven-year +1SD, above the mean level. Considering the highly competitive Indian truck tyre market, historical evidence indicates these savings will be quickly passed on to gain market share. With recent monthly industry volume growth momentum easing in India and Europe, ATL's growth will be challenged. We maintain REDUCE rating on ATL, rolling forward our P/E based target price to Rs252 (Rs217 earlier). Key upside risk is better-than- expected raw material cost reduction being retained as EBITDA margin.

Financial Summary

	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Revenue (Rsm)	172,006	209,475	250,761	287,202	321,980
Operating EBITDA (Rsm)	26,011	25,740	31,002	35,684	40,825
Net Profit (Rsm)	3,502	6,384	8,729	11,535	14,382
Core EPS (Rs)	11.5	10.1	13.7	18.2	22.6
Core EPS Growth	159.1%	(12.2%)	35.5%	32.1%	24.7%
FD Core P/E (x)	53.99	29.61	21.66	16.39	13.15
DPS (Rs)	3.5	5.0	6.0	7.5	9.0
Dividend Yield	1.18%	1.68%	2.02%	2.52%	3.02%
EV/EBITDA (x)	8.88	9.13	7.67	6.59	5.85
P/FCFE (x)	11.11	(48.85)	221.44	25.83	80.68
Net Gearing	36.7%	39.0%	39.9%	35.8%	36.0%
P/BV (x)	1.65	1.61	1.54	1.46	1.37
ROE	6.9%	5.6%	7.3%	9.2%	10.8%
% Change In Core EPS Estimates			0.98%	0.29%	0.77%
InCred Research/Consensus EPS (x)					

SOURCE: INCRED RESEARCH, COMPANY REPORTS

Volume growth and interest cost challenges

2QFY23 earnings-call highlights

India operations update: Management highlighted that the replacement tyre market in India in Jul-Aug 2022 remained subdued, and the uneven rainfall and price hikes did not help either. Replacement volume declined by mid-single digit while OEM demand and exports grew in double digits. The yoy growth was driven by improvement in product mix and price hikes. Management expects replacement demand to pick up with a growth in volume and revenue going ahead. It indicated that the commercial vehicle or CV industry is recovering well as government spending on infrastructure and roads continues, and it is also reflected in OEM order book. The order book for PCR (passenger car radials) has been filling up well and is higher than pre-Covid levels. Management expects PCR and TBR (truck-bus radials) to grow well in 3QFY23F and 4QFY23F. It also expects a recovery in EBITDA margin going ahead. For FY23F, it expects revenue to grow by ~20% yoy. The company is witnessing subdued demand from the export market, the revenue from which may taper down going ahead.

Pricing strategy: Management indicated that it would focus on profitable growth. ATL is the price leader in CV and PV segments and had established a considerable price premium over competitors because of which it lost some market share in 2QFY23. The price delta has now reduced to 3-4%, and with the recent launch of multiple stock-keeping units or SKUs, it expects to regain some market share. ATL has already launched electric vehicle or EV tyres in India, though the market is still small.

Europe: Europe operations recorded revenue of €181m (+31% yoy), with a 10% growth in volume and the remaining growth coming from improvement in the product mix and price hike. EBITDA stood at €28m with margins at 15.3% (+80bp qoq). Reifencor revenue stood at €46m while EBITDA achieved breakeven in 2QFY23. Price hike taken in Europe was in the mid-single digit range. The mix of UHP (ultra high performance) tyres in passenger cars now stands at ~40%, as compared to ~20% around four-to-five years ago. ATL has witnessed market share improvement across product segments and operating margin improved sequentially, despite the rise in raw material and energy cost. Management is seeing some slowdown in Europe and believes that its focus on premiumization should cushion some impact. 10-12m tyres that were coming from Russia into the European Union provides an opportunity for the company to replace some of that quantity. It highlighted that European unit is running at close to full capacity. The capacity of the Hungary plant of 16,000 tyres per day is operating at the level of 14,000-14,500 tyres per day. Management believes that there has been some shift of the winter season into 4QFY23F because of global warming, as a result of which it expects reasonable sales of winter tyres in 4QFY23F as well.

Margins: Management highlighted that margins of Indian as well as European operations were impacted by higher raw material (RM) prices and a steep increase in energy cost, especially in Europe. Lower staff cost in 2QFY23 was on account of lower production which, it feels, should normalize as demand picks up. The RM cost impact in 2QFY23 was 300bp, and management expects a positive impact in 3QFY23F to the tune of 300bp. It strategizes profitable growth along with improving ROCE and cash flow.

Capex: Management stated that capex in 1HFY23 was curtailed, considering the challenging business environment. The capex utilized in 1HFY23 was Rs4bn on a consolidated basis, which was less than 50% of the overall guidance. Going ahead, it expects to incur capex judiciously. It will, instead, focus on sweating out the assets.

R&D: Management has focused on new-age technologies to support ATL's premiumization journey. It has been working on improving the rolling resistance and noise reduction of EV tyres. It expects to launch EV tyres in the European

market soon. Management indicated that the company has been seeing a positive impact from the use of artificial intelligence, data science, etc.

Other key highlights:

- Net debt of India operations stood at Rs42bn, while on a consolidated basis it was at Rs55bn.
- The company has hedged 80% of its energy cost for FY23F and is reasonably hedged for FY24F as well, which is being monitored fortnightly by management.
- In 2QFY23, natural rubber prices stood at Rs185/kg, synthetic rubber prices were at Rs210/kg, carbon black prices were at Rs140/kg, and nylon fabric prices were at Rs385/kg.

Figure 1: Consolidated financial performance

FYE Mar (Rs m)	2QFY23	2QFY22	yoy % chg	1QFY23	qoq % chg	1HFY23	1HFY22	yoy % chg	Comments
Revenue	59,560	50,773	17.3	59,420	0.2	1,18,980	96,618	23.1	3% above our estimates.
Raw Materials	36,406	29,731	22.5	35,840	1.6	72,246	55,976	29.1	
RM as % of revenue	61.1	58.6	257	60.3	80.9	60.7	57.9	279	Gross margin was 492bp below our estimates.
EBITDA	7,120	6,380	11.6	6,898	3.2	14,018	12,048	16.4	2% below our estimates cushioned by lower employee costs.
EBITDA margin (%)	12.0	12.6	(61)	11.6	34.6	11.8	12.5	(69)	65bp below our estimates.
Depn & amort.	3,485	3,397	2.6	3,437	1.4	6,923	6,800	1.8	8% below our estimates.
EBIT	3,635	2,983	21.8	3,461	5.0	7,096	5,247	35.2	
Interest expense	1,320	1,036	27.4	1,182	11.6	2,502	2,082	20.2	9% above our estimates.
Other Income	69	289	(76.3)	106	(35)	175	693	(74.8)	
Pretax profit	2,383	2,236	6.6	2,384	(0.0)	4,768	3,859	23.5	
Tax	440	454	(3.2)	478	(7.9)	918	790	16.1	
Tax rate (%)	18.5	20.3	(187)	20.0	(158.3)	19.2	20.5	(123)	754bp lower than our estimates.
Normalised Net profit	1,944	1,782	9.1	1,907	1.9	3,850	3,069	25.5	In line with our estimates, cushioned by lower taxes.
Exceptionals	-	(44)	nm	-	nm	-	(54)	nm	
Reported net profit	1,942	1,736	11.9	1,907	nm	3,849	917	319.6	
Normalised EPS (Rs)	3.1	2.8	9.1	3.0	1.9	6.0	4.8	25.3	

SOURCE: INCRED RESEARCH, COMPANY REPORTS

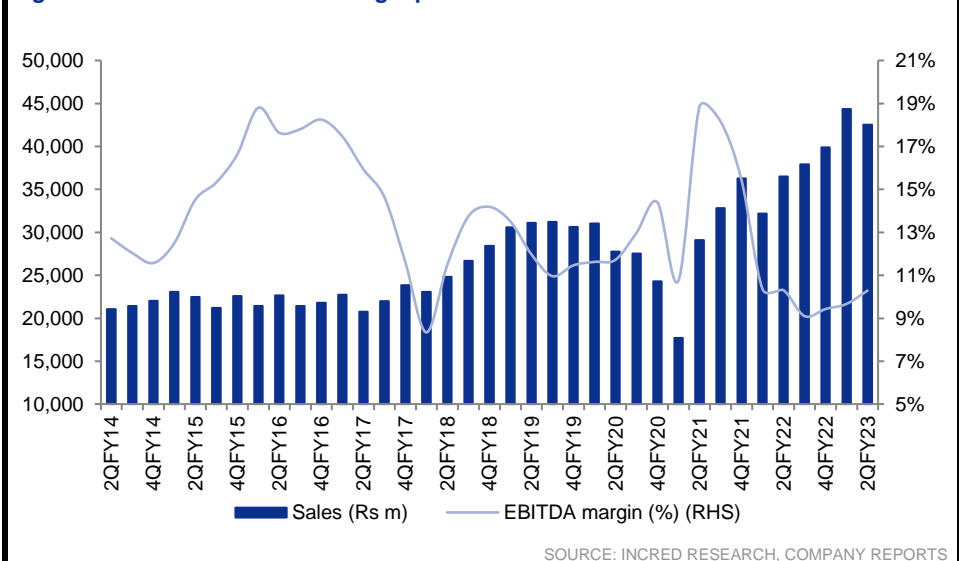
Figure 2: India business performance

In Rs m	2QFY23	2QFY22	yoy (%)	1QFY23	qoq (%)	1HFY23	1HFY22	yoy (%)
Sales	42,519	36,497	16.5%	44,362	-4.2%	86,882	68,697	26.5%
EBITDA	4,374	3,762	16.3%	4,288	2.0%	8,662	7,097	22.0%
EBITDA margin	10.3%	10.3%	(2)	9.7%	62	10.0%	10.3%	(36)
PAT	808	902	-10.4%	1,043	-22.6%	1,851	1,588	16.6%

SOURCE: INCRED RESEARCH, COMPANY REPORTS

EBITDA margin improves, despite RM cost pressure, as the company prioritized margins over market share. It has been the price leader in CV and PV tyre segments with a material delta in its prices compared to that of competitors. The focus on premiumization also helped to improve the mix.

Figure 3: Standalone EBITDA margin performance



SOURCE: INCRED RESEARCH, COMPANY REPORTS

EBITDA margin improved, despite RM and energy cost pressure, as management indicated that in the European market the company gained market share across product segments, improved capacity utilization level, took a mid-single digit price hike and improved its product mix towards the UHP segment.

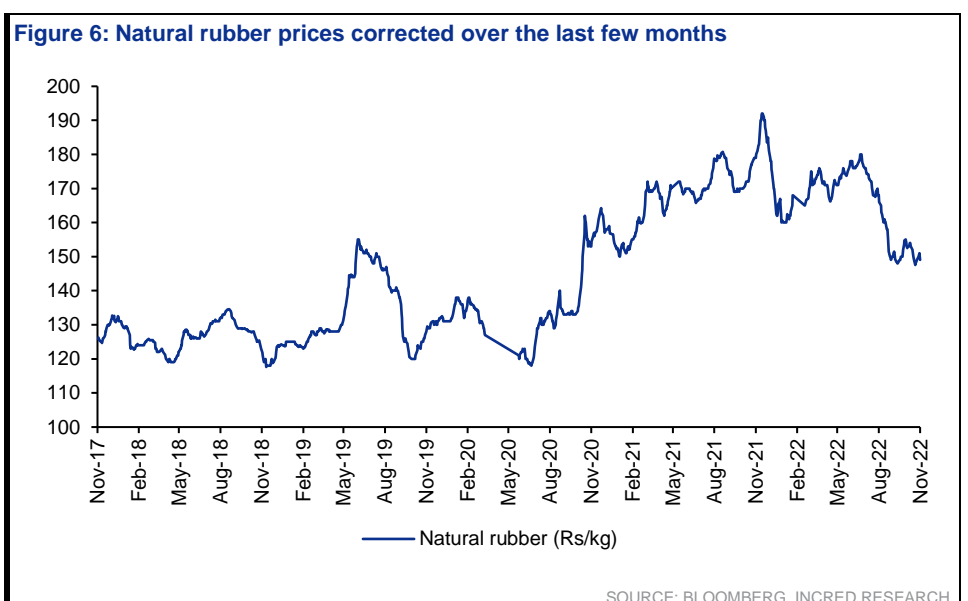
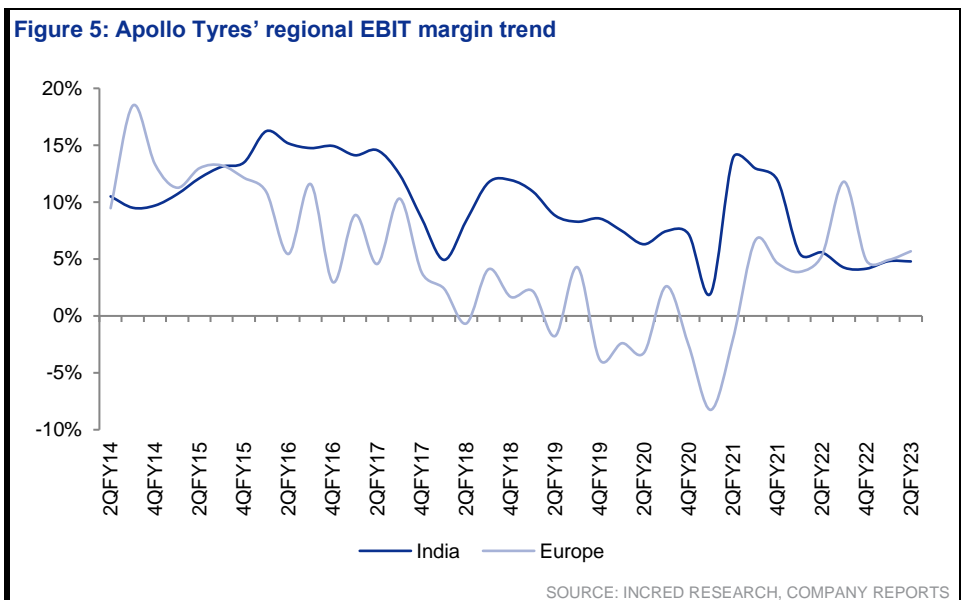
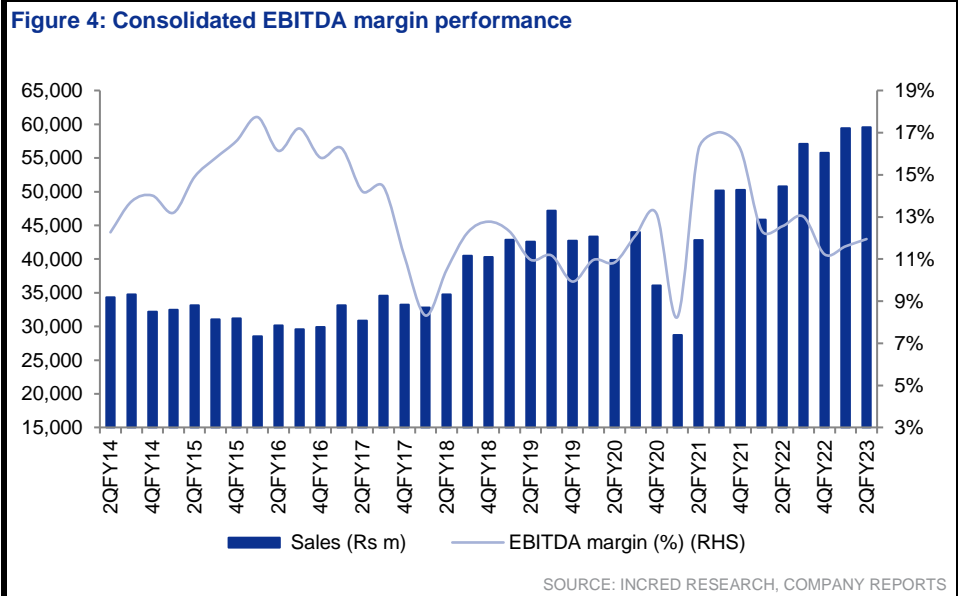


Figure 7: Demand trend for European replacement consumer tyres

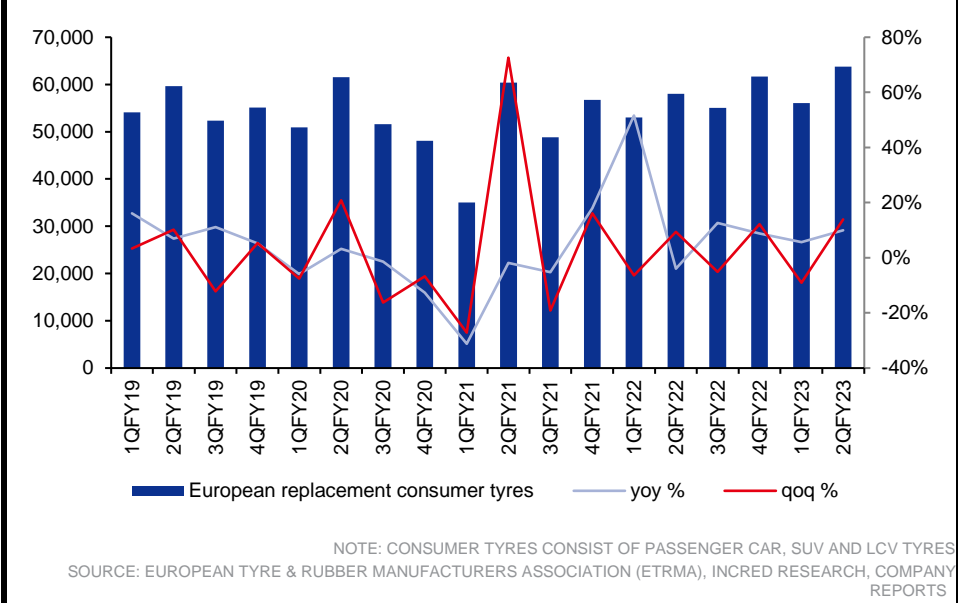
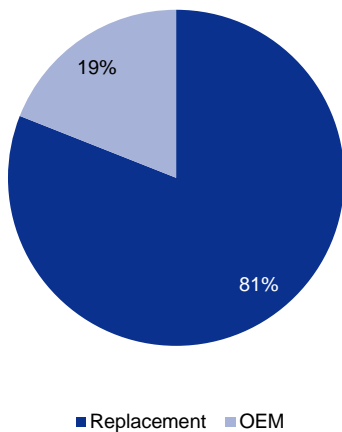
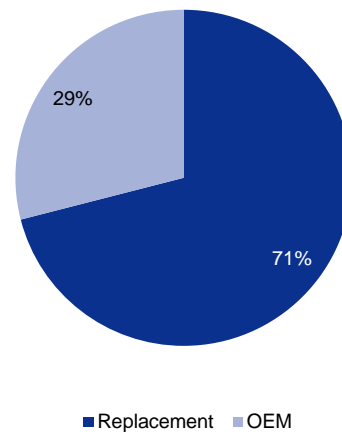


Figure 8: Apollo Tyres' consolidated mix by channel in FY22



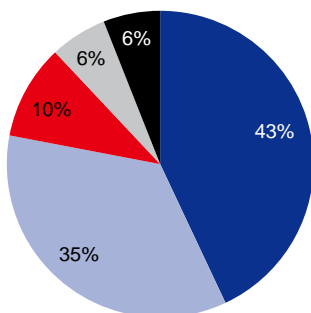
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 9: OEMs' share in the consolidated mix increases in 1HFY23



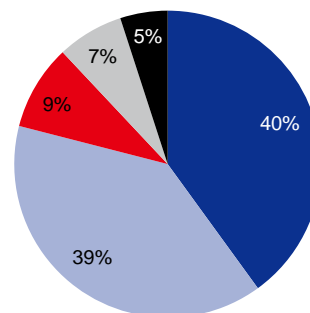
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 10: Apollo Tyres' consolidated mix by products in FY22



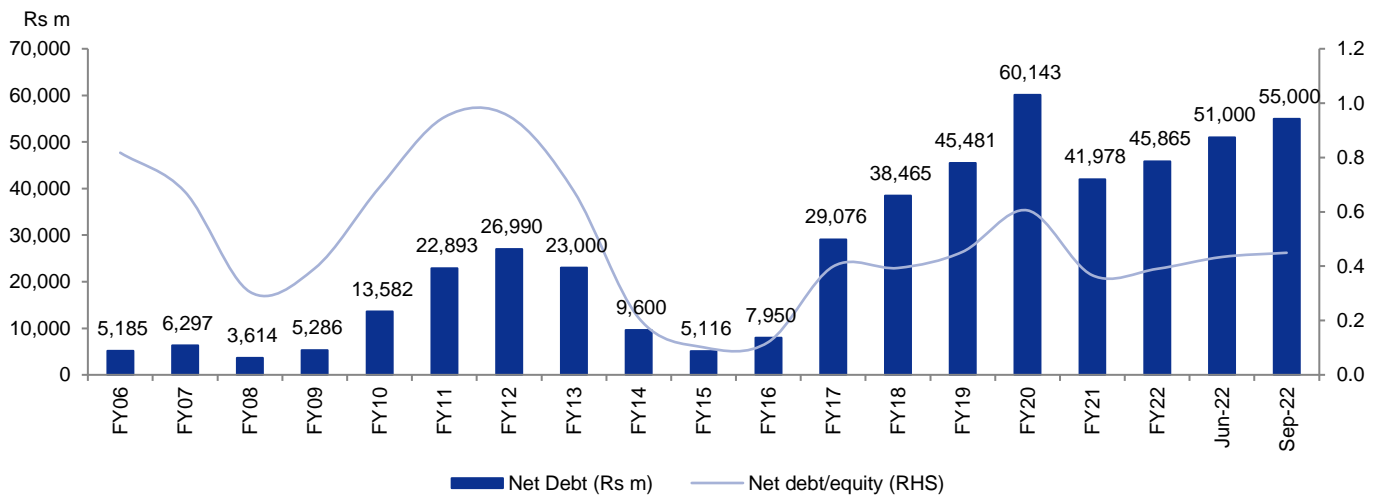
SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 11: Passenger vehicles' share in the consolidated mix increases in 1HFY23



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 12: Consolidated net debt (Rs m)



SOURCE: INCRED RESEARCH, COMPANY REPORTS

Figure 13: Revision in our earnings estimates for the consolidated entity

Consolidated (Rs m)	FY23F		FY24F		FY25F	
	Old	New	Old	New	Old	New
Net Sales	2,49,742	2,50,761	2,84,345	2,87,202	3,18,961	3,21,980
Change (%)		0.4%		1.0%		0.9%
EBITDA	30,064	31,002	34,825	35,684	39,437	40,825
Change (%)		3.1%		2.5%		3.5%
EBITDA Margin	12.0%	12.4%	12.2%	12.4%	12.4%	12.7%
bp Change		33		18		32
Interest Expense	4,496	5,160	4,585	5,100	4,320	5,123
Change (%)		14.8%		11.2%		18.6%
Normalised PAT	8,644	8,729	11,501	11,535	14,272	14,382
Change (%)		1.0%		0.3%		0.8%

SOURCE: INCRED RESEARCH ESTIMATES, COMPANY REPORTS

Figure 14: Key drivers

	FY21A	FY22A	FY23F	FY24F	FY25F
India sales (MT)	7,47,161	8,59,236	9,53,752	10,39,589	11,22,756
Growth(%)	5.0%	15.0%	11.0%	9.0%	8.0%
ASP (Rs/kg)	155.2	170.5	187.4	194.3	201.5
Growth(%)	-0.2%	9.9%	9.9%	3.7%	3.7%
India Sales (Rsm)	1,15,952	1,46,494	1,78,723	2,01,957	2,26,191
India EBIT margin(%)	11.4%	4.8%	5.2%	6.4%	7.2%
Europe sales (Rsm)	56,138	65,563	75,397	85,953	97,987
Europe EBIT margin(%)	1.2%	6.8%	7.2%	6.2%	5.9%
Consolidate EBIT margin(%)	7.5%	5.6%	6.3%	6.7%	7.2%

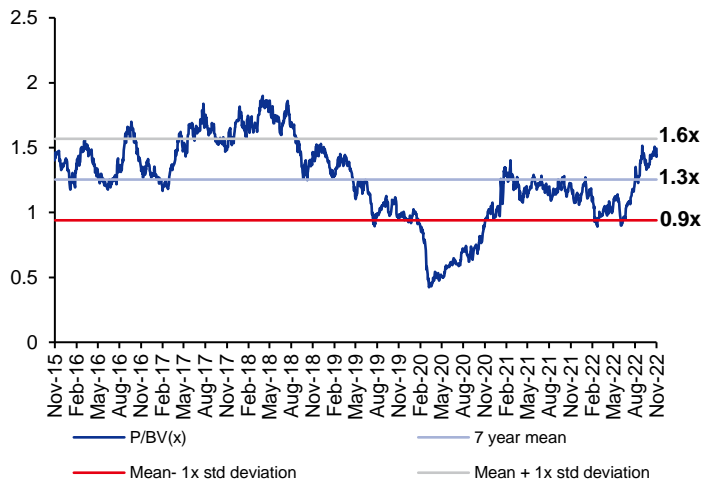
SOURCE: INCRED RESEARCH ESTIMATES, COMPANY REPORTS

Figure 15: Target price calculation methodology

1-year forward EPS (Rs.)	21.0
P/E(x)	12.0
Target Price (Rs.)	252

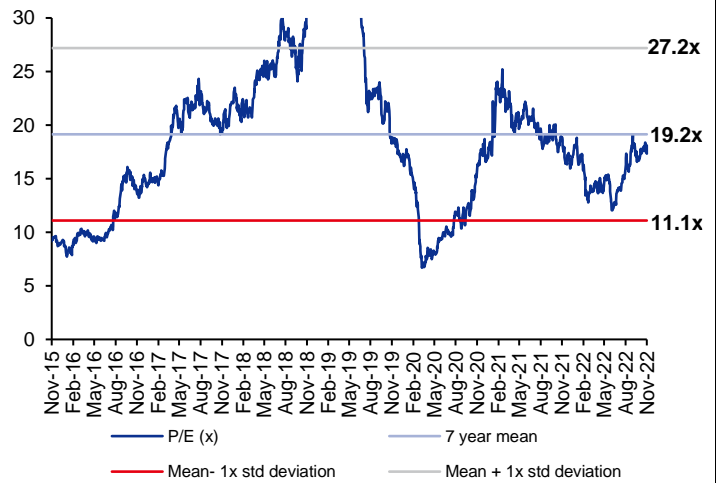
SOURCE: INCRED RESEARCH ESTIMATES, COMPANY REPORTS

Figure 16: Forward P/BV valuation near +1 SD



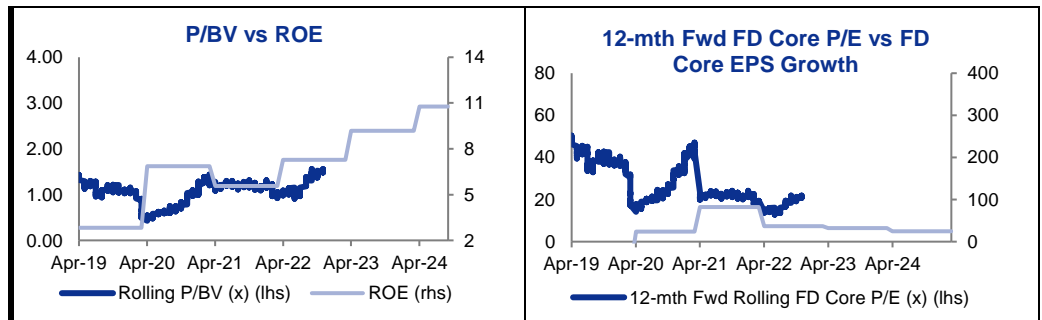
SOURCE: BLOOMBERG, INCRED RESEARCH ESTIMATES, COMPANY REPORTS

Figure 17: Forward P/E valuation near mean level



SOURCE: BLOOMBERG, INCRED RESEARCH ESTIMATES, COMPANY REPORTS

BY THE NUMBERS



Profit & Loss

(Rs mn)	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Total Net Revenues	172,006	209,475	250,761	287,202	321,980
Gross Profit	78,061	85,620	105,320	123,497	141,027
Operating EBITDA	26,011	25,740	31,002	35,684	40,825
Depreciation And Amortisation	(13,150)	(13,997)	(15,315)	(16,372)	(17,775)
Operating EBIT	12,861	11,744	15,687	19,313	23,050
Financial Income/(Expense)	(2,522)	(3,209)	(4,049)	(3,933)	(3,874)
Pretax Income/(Loss) from Assoc.					
Non-Operating Income/(Expense)					
Profit Before Tax (pre-EI)	10,339	8,534	11,638	15,379	19,176
Exceptional Items					
Pre-tax Profit	10,339	8,534	11,638	15,379	19,176
Taxation	(3,005)	(2,091)	(2,910)	(3,845)	(4,794)
Exceptional Income - post-tax	(3,833)	(59)			
Profit After Tax	3,502	6,384	8,729	11,535	14,382
Minority Interests					
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax					
Net Profit	3,502	6,384	8,729	11,535	14,382
Recurring Net Profit	7,335	6,443	8,729	11,535	14,382
Fully Diluted Recurring Net Profit	7,335	6,443	8,729	11,535	14,382

Cash Flow

(Rs mn)	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
EBITDA	26,011	25,740	31,002	35,684	40,825
Cash Flow from Invt. & Assoc.					
Change In Working Capital	(549)	(2,663)	(12,074)	(4,892)	(7,315)
(Incr)/Decr in Total Provisions	12,117	374	1,460	1,550	1,350
Other Non-Cash (Income)/Expense					
Other Operating Cashflow	1,908	1,235	1,111	1,167	1,249
Net Interest (Paid)/Received	(4,430)	(4,444)	(5,160)	(5,100)	(5,123)
Tax Paid	(2,068)	(948)	(2,328)	(3,076)	(3,835)
Cashflow From Operations	32,989	19,294	14,011	25,333	27,151
Capex	(17,437)	(20,877)	(11,500)	(16,500)	(23,000)
Disposals Of FAs/subsidiaries					
Acq. Of Subsidiaries/investments					
Other Investing Cashflow	4,773	872	(1,657)	(1,512)	(1,808)
Cash Flow From Investing	(12,664)	(20,005)	(13,157)	(18,012)	(24,808)
Debt Raised/(repaid)	(3,302)	(3,160)			
Proceeds From Issue Of Shares	63				
Shares Repurchased					
Dividends Paid	(2,223)	(3,176)	(3,811)	(4,763)	(5,716)
Preferred Dividends					
Other Financing Cashflow					
Cash Flow From Financing	(5,462)	(6,335)	(3,811)	(4,763)	(5,716)
Total Cash Generated	14,863	(7,046)	(2,957)	2,558	(3,373)
Free Cashflow To Equity	17,022	(3,870)	854	7,321	2,343
Free Cashflow To Firm	24,754	3,733	6,014	12,421	7,466

SOURCE: INCRED RESEARCH, COMPANY REPORTS

BY THE NUMBERS...cont'd

Balance Sheet					
(Rs mn)	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Total Cash And Equivalents	22,359	15,313	12,356	14,914	11,541
Total Debtors	13,808	16,104	20,611	23,606	26,464
Inventories	33,185	41,554	50,839	56,654	63,514
Total Other Current Assets	13,637	10,539	12,500	14,200	16,200
Total Current Assets	82,989	83,510	96,306	109,373	117,719
Fixed Assets	173,057	179,938	176,123	176,251	181,476
Total Investments	195	399	439	483	531
Intangible Assets	2,204	2,158	2,158	2,158	2,158
Total Other Non-Current Assets					
Total Non-current Assets	175,456	182,495	178,720	178,892	184,165
Short-term Debt	3,033	17,093	17,093	17,093	17,093
Current Portion of Long-Term Debt					
Total Creditors	28,067	36,069	37,786	41,703	44,107
Other Current Liabilities	40,150	38,610	40,410	42,210	44,010
Total Current Liabilities	71,250	91,772	95,289	101,006	105,210
Total Long-term Debt	61,304	44,085	44,085	44,085	44,085
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities					
Total Non-current Liabilities	61,304	44,085	44,085	44,085	44,085
Total Provisions	11,460	12,627	13,213	13,964	14,713
Total Liabilities	144,014	148,483	152,587	159,055	164,008
Shareholders Equity	114,431	117,521	122,439	129,211	137,877
Minority Interests					
Total Equity	114,431	117,521	122,439	129,211	137,877

Key Ratios					
	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
Revenue Growth	6.6%	21.8%	19.7%	14.5%	12.1%
Operating EBITDA Growth	51.0%	(1.0%)	20.4%	15.1%	14.4%
Operating EBITDA Margin	15.1%	12.3%	12.4%	12.4%	12.7%
Net Cash Per Share (Rs)	(66.10)	(72.22)	(76.87)	(72.84)	(78.15)
BVPS (Rs)	180.18	185.04	192.79	203.45	217.09
Gross Interest Cover	2.90	2.64	3.04	3.79	4.50
Effective Tax Rate	29.1%	24.5%	25.0%	25.0%	25.0%
Net Dividend Payout Ratio	30.3%	49.3%	43.7%	41.3%	39.7%
Accounts Receivables Days	24.62	26.06	26.72	28.10	28.38
Inventory Days	126.76	110.13	115.93	119.83	121.19
Accounts Payables Days	99.38	94.50	92.67	88.62	86.54
ROIC (%)	5.0%	4.6%	5.9%	6.9%	8.1%
ROCE (%)	7.1%	6.3%	8.3%	9.9%	11.4%
Return On Average Assets	3.7%	3.3%	4.2%	5.0%	5.7%

Key Drivers					
	Mar-21A	Mar-22A	Mar-23F	Mar-24F	Mar-25F
ASP (% chg, main prod./serv.)	(0.2%)	9.9%	9.9%	3.7%	3.7%
Unit sales grth (% , main prod./serv.)	5.0%	15.0%	11.0%	9.0%	8.0%

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. INH000007793. 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/ Associates
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.