Can the world's **least profitable** carmaker **turnaround?**

CASE STUDY

VALUATION MASTER CLASS

by

A. Stotz INVESTMENT RESEARCH

Valuation Master Class

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Ask Ajarn Andrew

Focus on hybrids; the world is not ready for full EV yet

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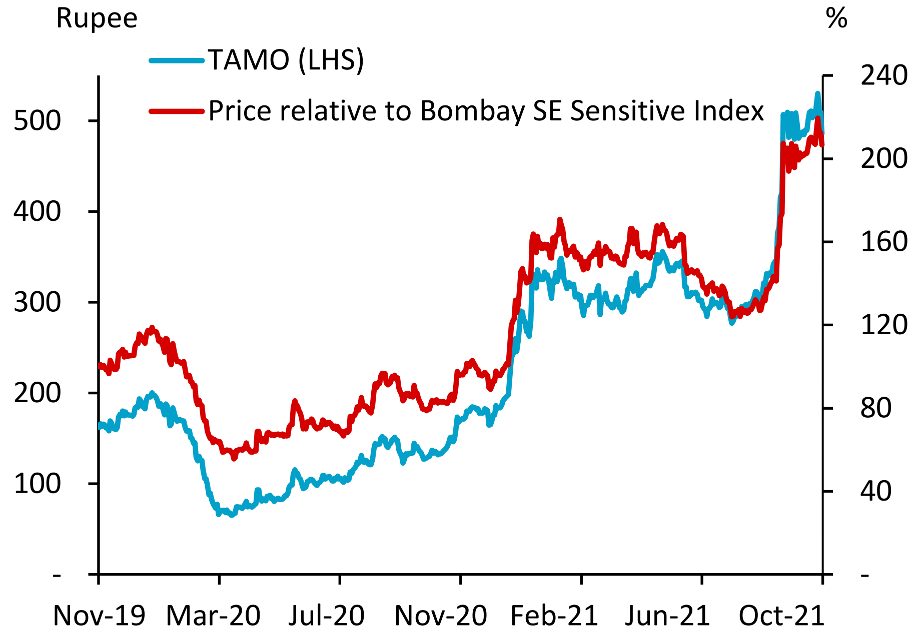
TATA MOTORS



3 things to know about this company

- ★ Restructuring is challenged by immense cost pressures
- ★ Pure play approach to ride EV momentum
- ★ Easing of supply constraints fosters revenue rebound

Key statistics

Analyst consensus (30)	PB ratio	Dividend yield
INR535 (Upside 7.3%)	**2.1x**	**0%**

HOLD

Sources: A. Stotz Investment Research, Refinitiv

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Revenue breakdown 2021

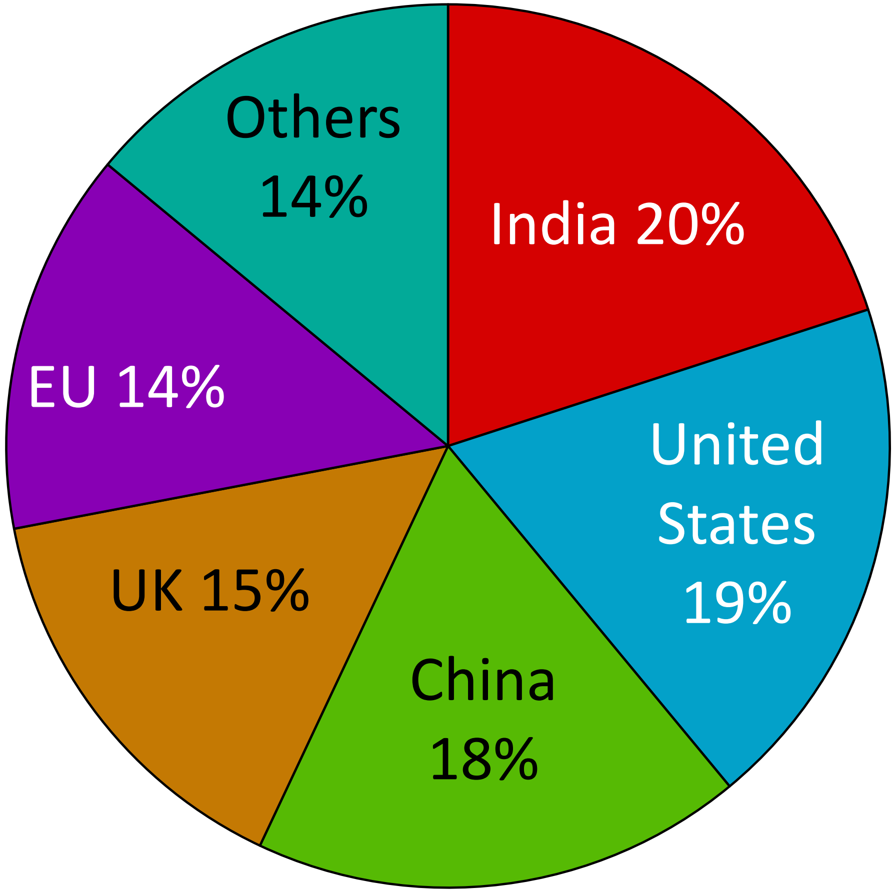
Jaguar 78%

Commercial 13%

Passenger 7%

Financing 2%

Breakdown by region



Sources: A. Stotz Investment Research, company data

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Restructuring is challenged by immense cost pressures

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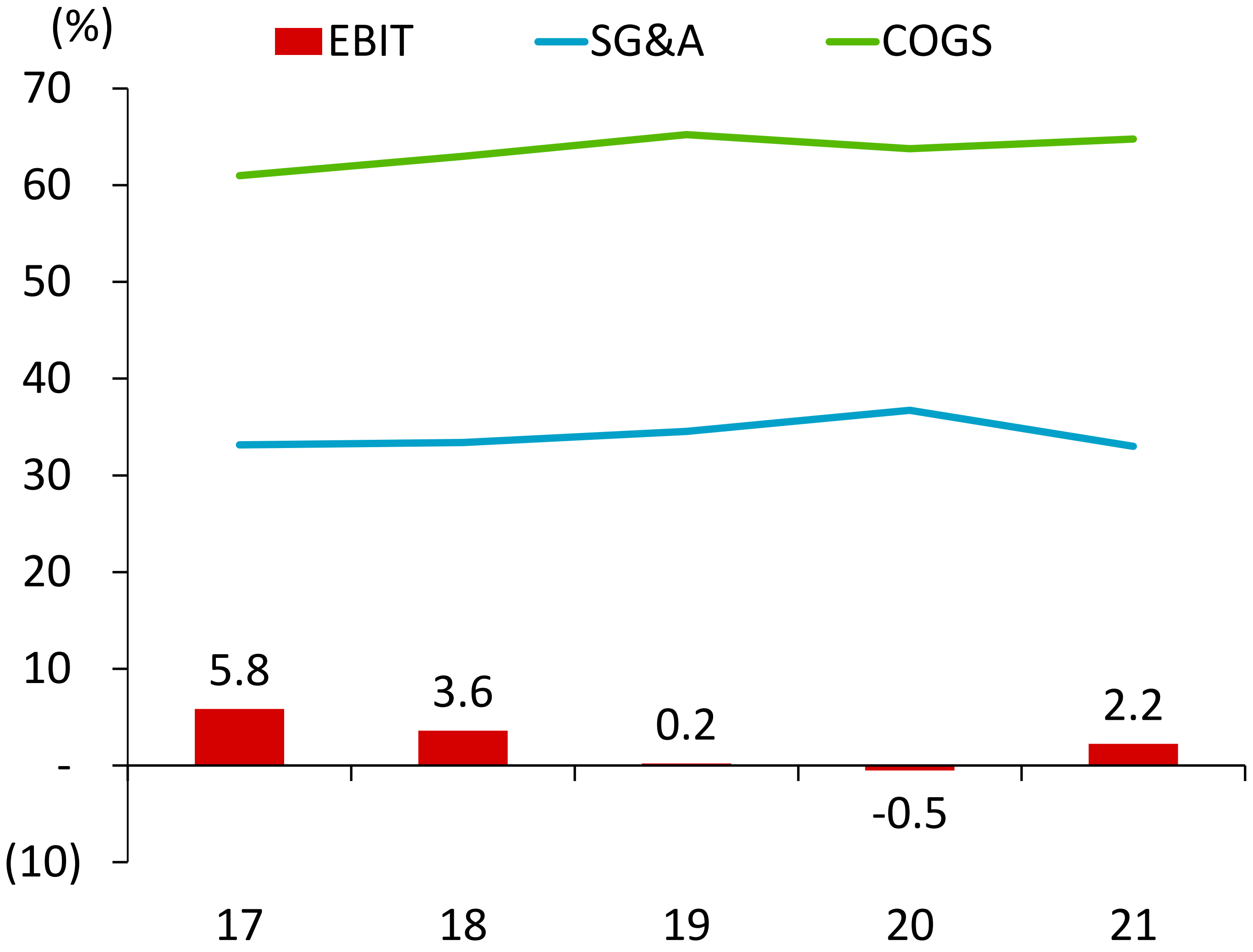


- Tata has been loss-making for the past 3 years mainly due inefficiencies of its subsidiary Jaguar Land Rover
- The 5-year average operating margin is with 2.3% far behind competitors
- Under its "Reimagine" strategy, Tata puts a high focus on reducing costs
  - **It has cut back its CAPEX program and aims to reduce its labor force**

Sources: A. Stotz Investment Research, company data

CAPEX cut should help to improve profitability

Sales

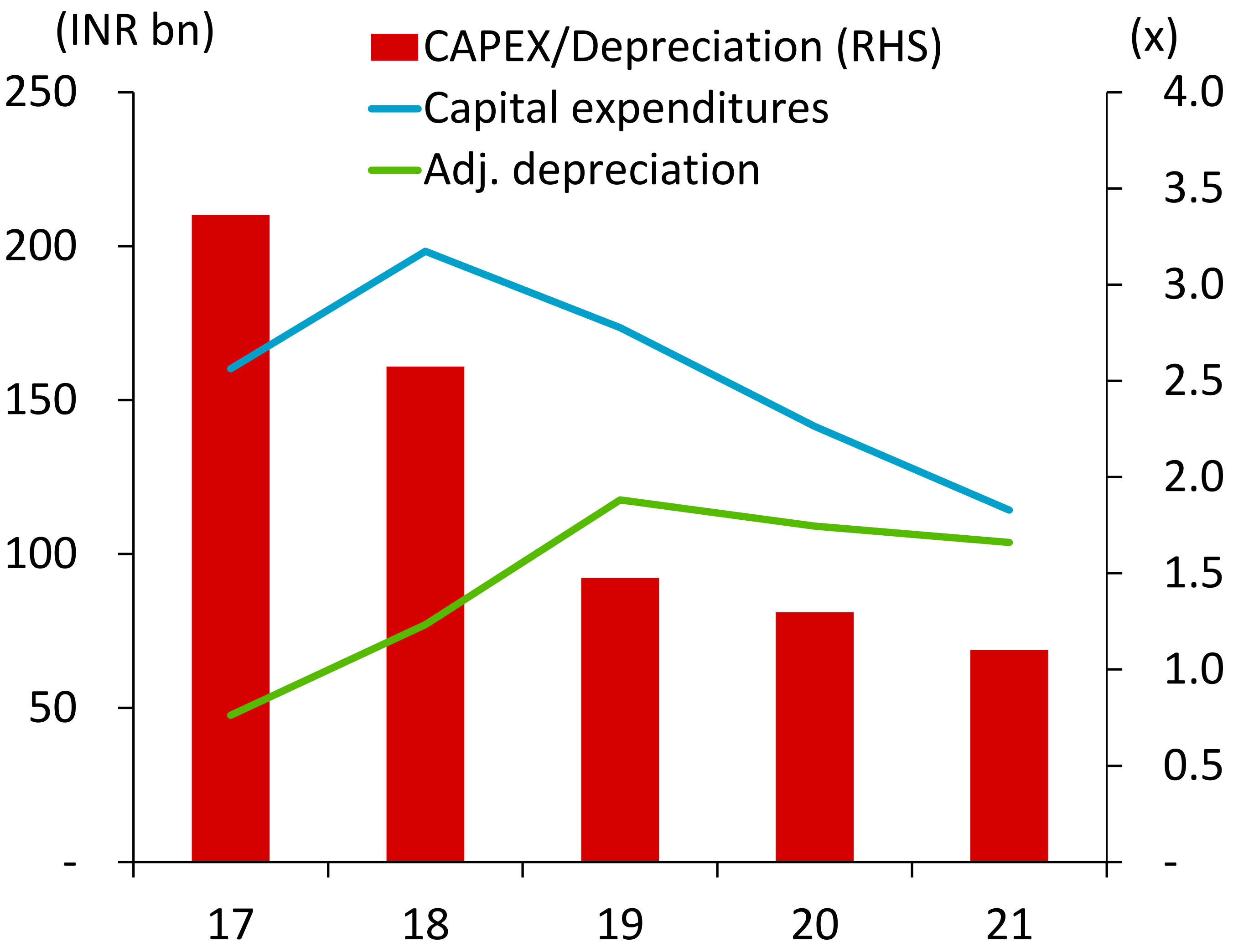
Story

FVMR

Value

WCB

Risks



- ★ Tata continues to cut its CAPEX program in its attempt to enhance efficiency
- ★ This means that Tata quits its strategy of "Growth at any price"
  - **The focus is now on reasonable investments with high-margin**
  - **But this also means that it's leaving its high growth stage**

Sources: A. Stotz Investment Research, company data

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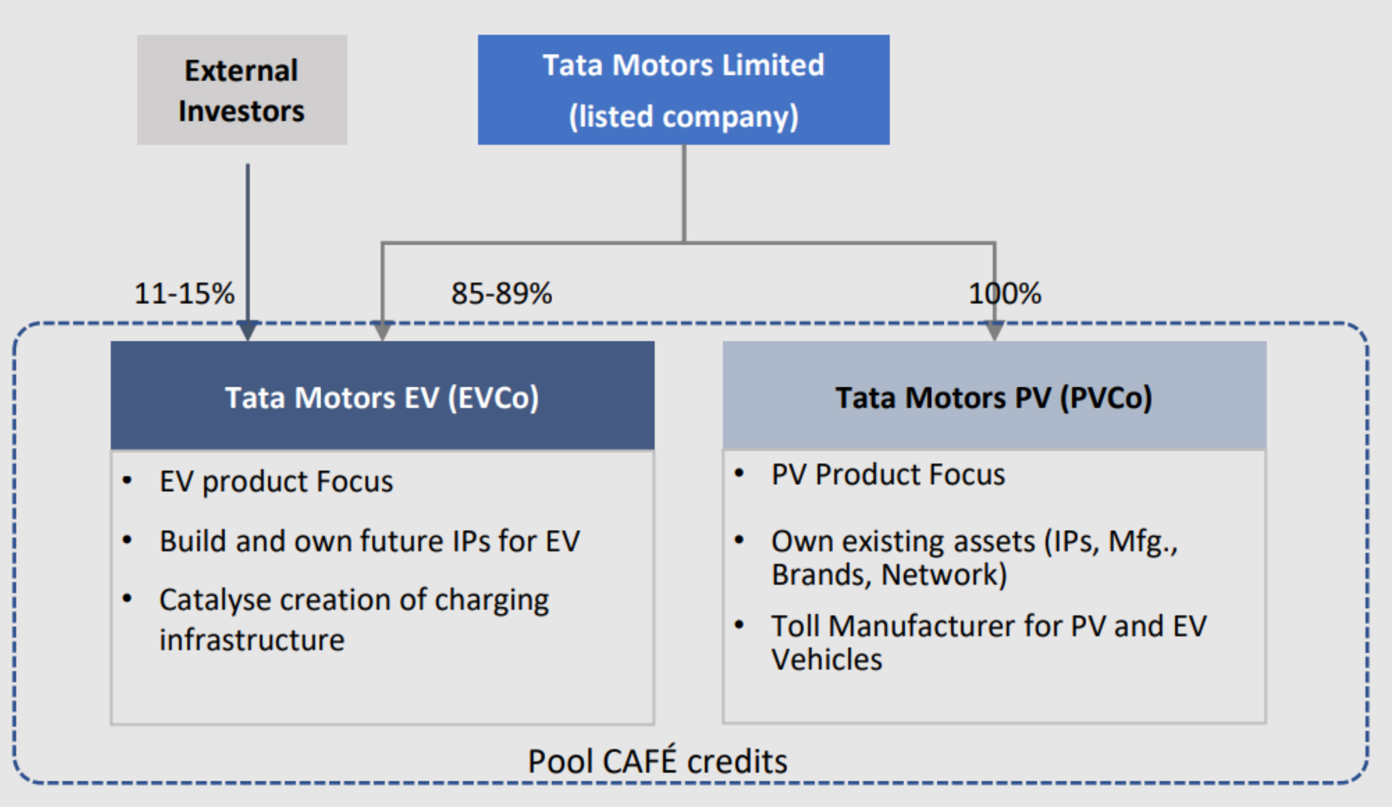
What can the CAPEX-to-depreciation ratio tell us?

- **Growth firms**
  - Capex should be more than the annual P&L depreciation charge, maybe around 150% of it
- **Very high growth firms**
  - Capex could much more than 150% of depreciation
- **Low or no growth firm**
  - Capex about equal to annual depreciation charge

Ask Ajarn Andrew

Pure play approach to ride EV momentum



- ★ Tata will set up a new subsidiary in 2020, in its attempt to move forward EV
  - **This entity is separate from other passenger vehicles**
- ★ It raises $1bn new capital through the private equity fund TPG Rise Climate for a 11% stake
  - **This means that Tata's EV business is roughly valued at $9.1bn**
  - **Tata's share price on the announcement date jumped by more than 20%**

Sources: A. Stotz Investment Research, company data

2 Demand rebound makes up for lost production

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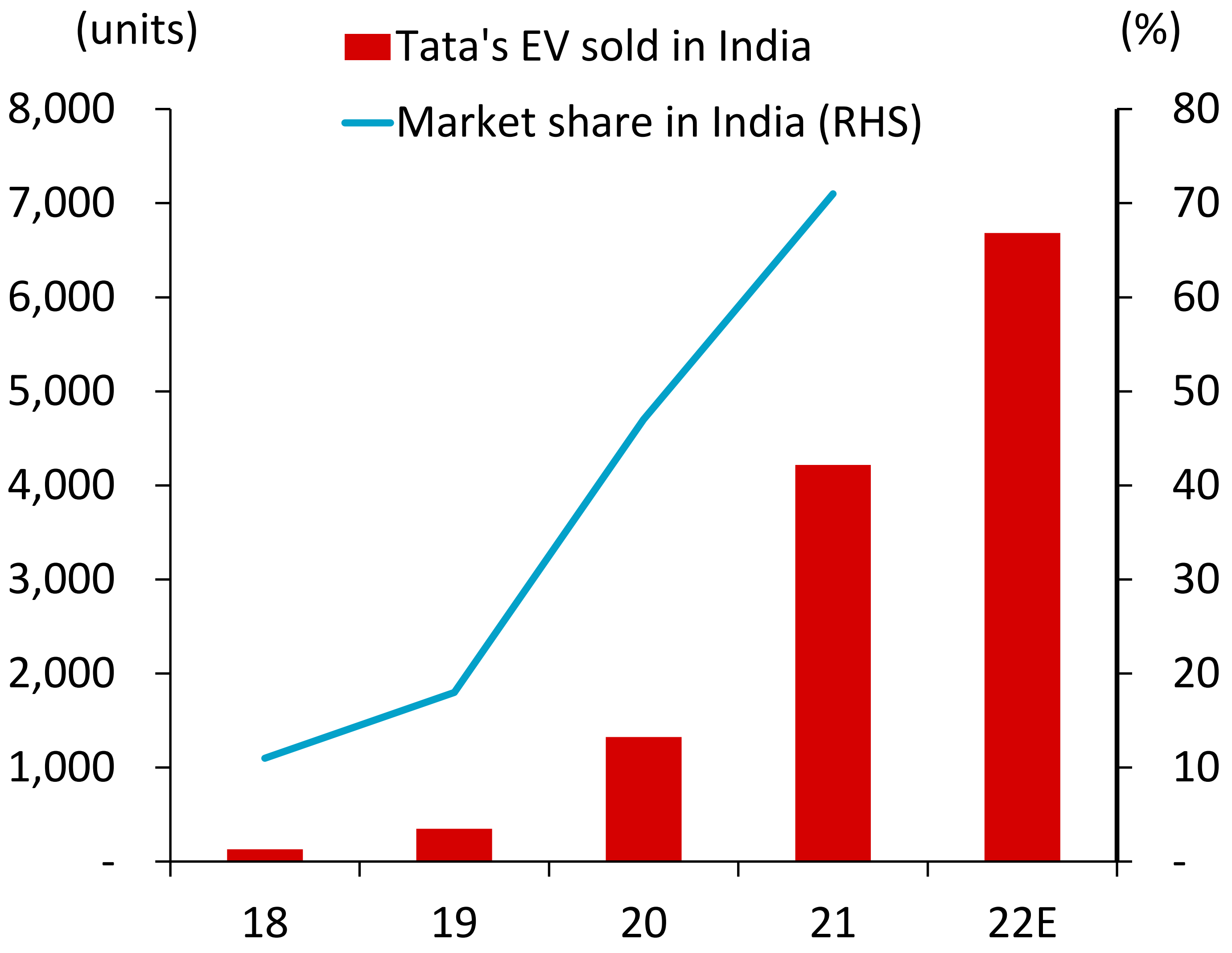
- FVMR
- Value
- WCB
- Risks



- ★ The new capital will be used for the battery development, charging infrastructure and manufacturing
- ★ By 2026, Tata plans to roll out 10 electric vehicles models
  - **This should help to bring EV contribution to 20% of total sales by the end of 2026**
  - **Also, Tata is likely to maintain its current dominant market share of 70% in India**

Sources: A. Stotz Investment Research, company data

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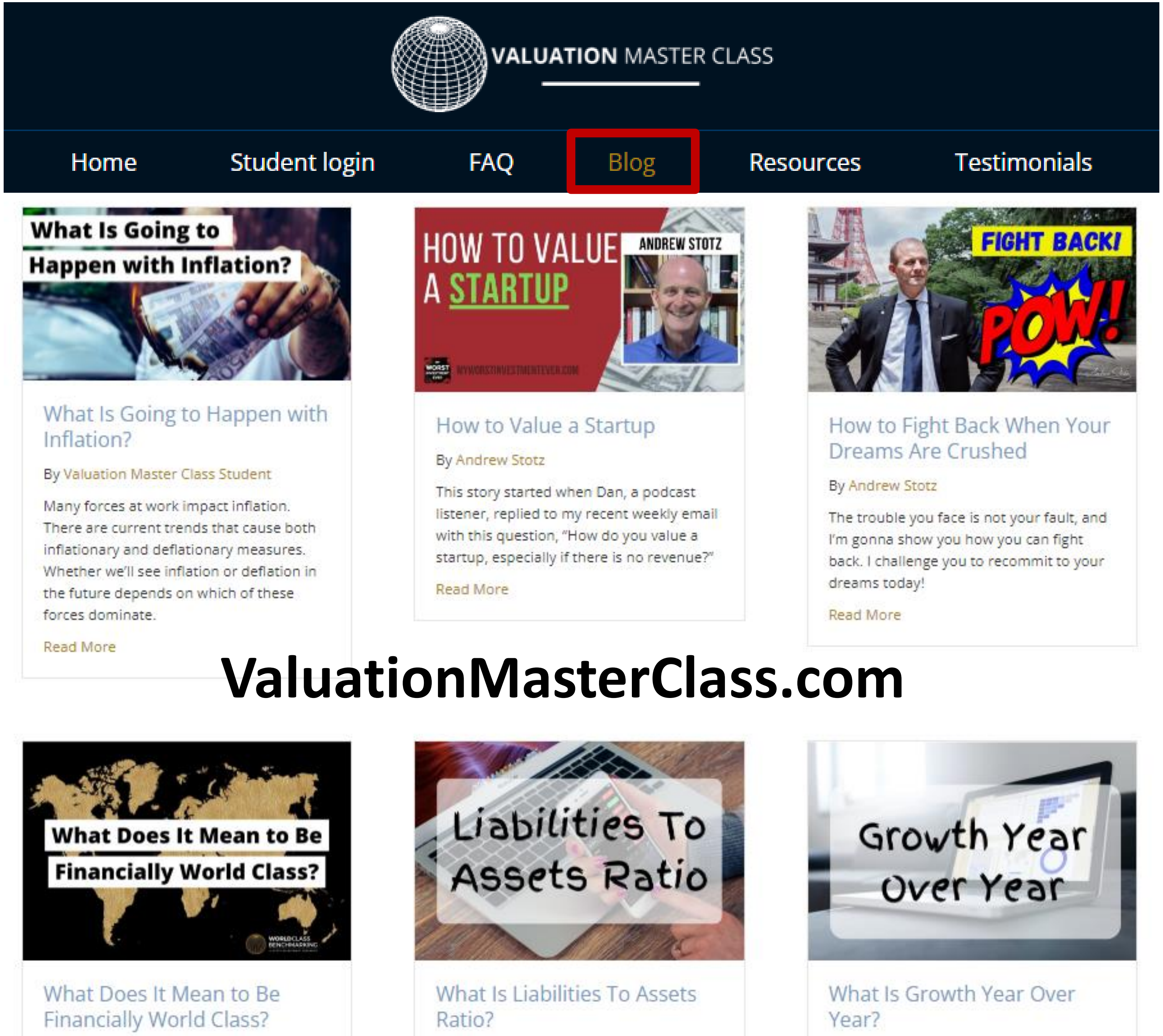
★ Semiconductor shortages have led to a limited production of 64k vehicles of its subsidiary Jaguar Land Rover in 2Q22

- **This is down 18% YoY**

★ However, at the same time, it recognized a record order of 125k, which ensures strong revenue in the near term

- **Riding the demand wave could bring double-digit revenue growth for the next 2 years**



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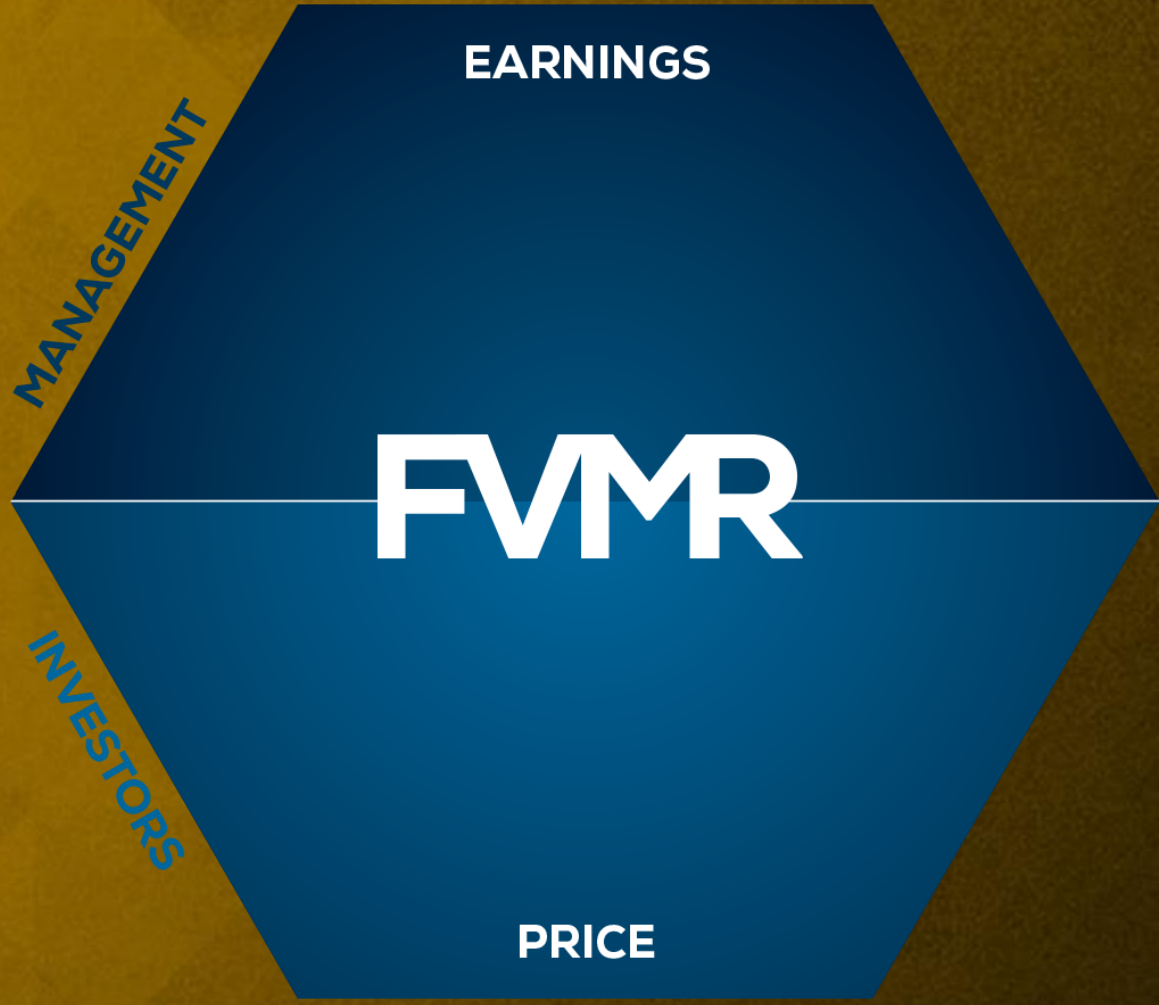
To download today's slide deck, find it in the Blog section!

FVMR Scorecard

- Measures a stock's attractiveness relative to all other companies
- Attractiveness is based on four elements
  - Fundamentals, Valuation, Momentum, and Risk
- Scale from 1 (Best) to 10 (Worst)



Positive momentum could drive stock price further

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	Worst	Neutral	Best
Rank relative to all other companies*			

Fundamentals

(%)	Mar-18	Mar-19	Mar-20	Mar-21	PTM**
Operating profit margin	3.0	0.1	(6.8)	(4.3)	2.8
Recurring net margin	2.4	1.8	(6.4)	(6.0)	(0.4)
Asset turnover	97.6	35.3	71.1	73.7	93.9
Return on assets	2.3	0.6	(4.6)	(4.4)	(0.4)
Recurring return on equity	9.2	2.1	(13.9)	(15.1)	(2.4)

Valuation

(x)	Mar-18	Mar-19	Mar-20	Mar-21	PTM**
Price-to-sales	0.4	0.9	0.6	2.3	0.6
Price-to-earnings	15.6	47.1	nm	nm	nm
Price-to-book	1.2	2.7	1.4	6.1	4.4
PE-to-EPS growth (PEG)	nm	nm	nm	nm	nm
EV/EBIT	13.7	116.9	nm	nm	36.2

Momentum

(%)	Mar-18	Mar-19	Mar-20	Mar-21	PTM**
Revenue growth	7.6	(76.6)	(36.5)	7.1	32.9
Recurring EPS growth	(53.0)	(82.3)	(319.9)	4.4	91.9
Operating profit margin chg. (bps)	(761)	(287)	(691)	254	520
	6mth	3mth	1mth	3wk	1wk
Price change	62.8	80.0	3.8	5.4	0.5

Risk

(x)	Mar-18	Mar-19	Mar-20	Mar-21	PTM**
Current ratio	0.9	0.6	0.5	0.6	1.0
Net debt-to-equity (%)	42.2	75.0	99.4	103.9	191.5
Times-interest-earned	1.8	0.0	(1.5)	(0.9)	nm
	5yr	3yr	1yr	6mth	3mth
Beta	1.8	1.8	2.1	2.4	2.3

Note: Benchmarking against 740 non-financial companies in India.

Sources: A. Stotz Investment Research, Refinitiv. Notes: *Bars are decile rankings of the most recent period. **Past 12 months of published data. na = not available, nm = not meaningful. Valuation is based on historical prices.

Improvements in fundamentals and share price

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Momentum

W									B

(%)	Mar-16	Mar-17	Mar-18	Mar-19	PTM**
Revenue growth	7.6	(76.6)	(36.5)	7.1	32.9
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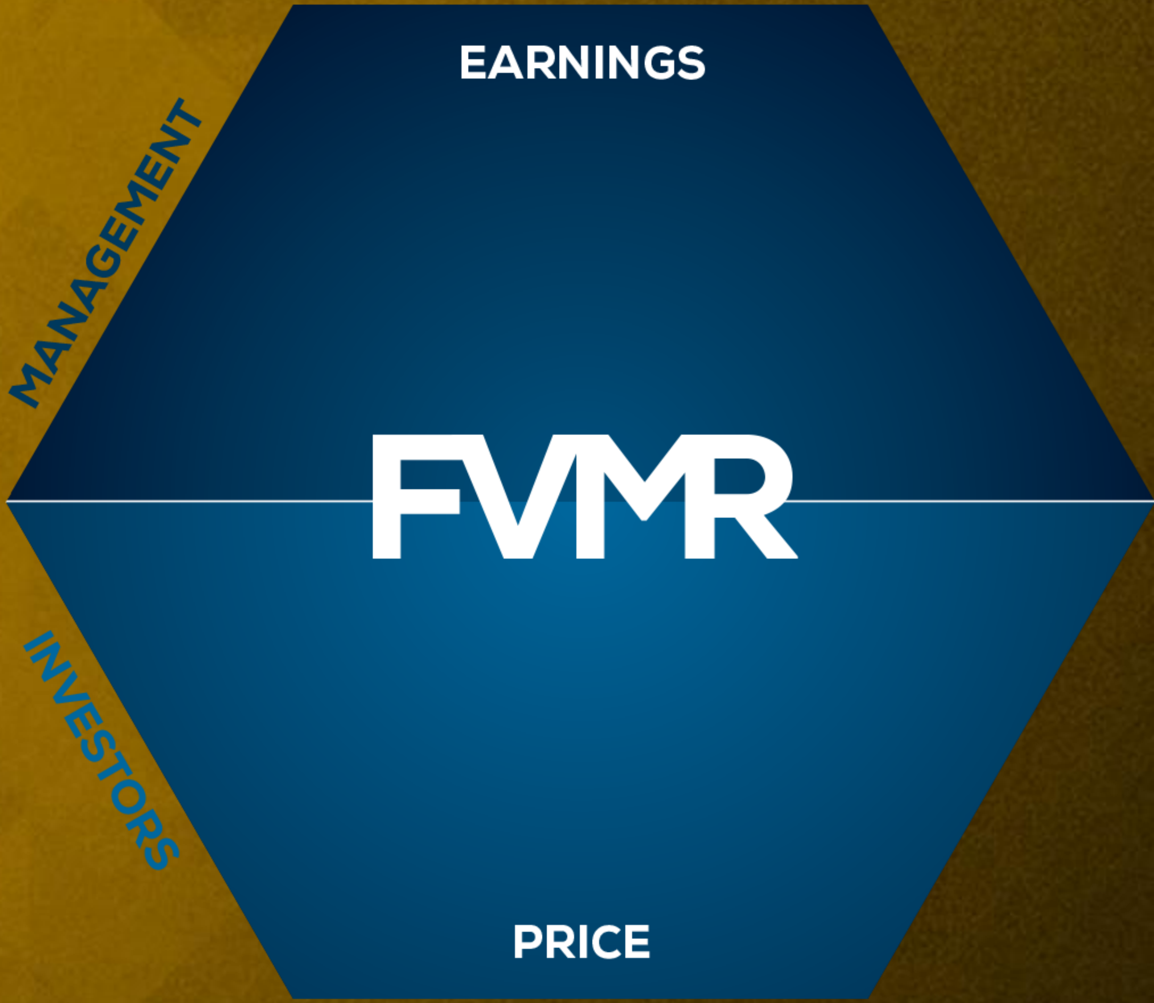
Recently, I created a short online course explaining my FVMR investing approach

Get $97 value for FREE (limited offer)



Consensus remains optimistic regarding carmaker recovery

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Analyst consensus valuation

Recommendation	**Aug-21**	**Sep-21**	**Oct-21**	**Current**
Strong buy	11	11	14	14
Buy	7	7	8	9
Hold	6	6	5	5
Sell	4	5	1	1
Strong sell	2	1	1	1
Average score	2.3	2.3	1.9	1.9

Price target	**Aug-21**	**Sep-21**	**Oct-21**	**Current**
Median	368	368	500	551
Mean	353	354	463	535

#30 analysts

Upside: 7.3%

Analyst consensus 3-year forecast

(%)	**18**	**19**	**20**	**21E**	**22E**	**23E**
Revenue growth	2.5	(13.5)	(4.3)	16.7	25.4	10.5
Gross margin	34.8	36.2	35.2	36.0	36.3	37.0
EBIT margin	0.2	(0.5)	2.2	1.9	5.9	6.5
Net margin	(9.5)	(4.6)	(5.4)	(0.1)	3.6	4.5

- Analyst consensus does not see much further upside
  - **The stock price has shown strong momentum recently**
- They are optimistic that Tata can converge its profitability to its peers over time

Sources: A. Stotz Investment Research, Refinitiv

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Profit & loss statement

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Risks

(YE Mar, Rupee m)	2020A	2021A	2022E	2023E
Revenue	2,610,680	2,497,948	2,797,701	3,357,241
Cost of goods & services	(1,664,830)	(1,617,862)	(1,818,506)	(2,148,635)
Gross profit	**945,850**	**880,086**	**979,195**	**1,208,607**
SG&A	(958,937)	(824,172)	(923,241)	(1,040,745)
Other operating (exp)/inc	(0)	-	-	-
EBIT	**(13,087)**	**55,913**	**55,954**	**167,862**
Interest expense (net)	(50,635)	(67,764)	(73,650)	(67,486)
Other non-operating inc/(exp)	10,514	14,872	14,872	14,872
Earnings before taxes (EBT)	**(53,208)**	**3,021**	**(2,823)**	**115,248**
Income tax	(3,953)	(25,419)	-	(34,574)
Earnings after taxes (EAT)	**(57,161)**	**(22,397)**	**(2,823)**	**80,674**
Equity income/Minority interest	(956)	(4,353)	732	1,183
Earnings from cont. operations	**(58,117)**	**(26,750)**	**(2,091)**	**81,857**
Forex/Exceptionals before tax	(62,591)	(107,764)	(25,017)	-
Net profit	**(120,709)**	**(134,514)**	**(27,108)**	**81,857**

- Tata is likely to recognize in 2022 for the 4th year in a row
- However, we expect that the company can turnaround its profitability in 2023
  - **Strong car sales and enhanced cost-cutting program should lead to a higher margin**

Sources: A. Stotz Investment Research, Refinitiv

Balance sheet - assets

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Risks

(YE Mar, Rupee m)	2020A	2021A	2022E	2023E
Cash & short-term investments	441,588	650,972	379,997	461,221
Accounts receivable	121,084	137,577	155,428	195,839
Inventories	382,387	376,313	404,112	477,474
Other current assets	250,814	304,015	279,770	335,724
Total current assets	**1,195,873**	**1,468,876**	**1,219,307**	**1,470,258**
Long-term investments	44,189	42,008	42,848	43,705
Net fixed assets	927,577	945,079	1,001,475	1,064,220
Intangible assets	691,946	643,600	660,707	679,524
Goodwill	7,771	8,037	8,037	8,037
Other long-term assets	353,857	323,658	326,895	330,164
Total assets	**3,221,213**	**3,431,258**	**3,259,269**	**3,595,909**

- ★ The company has a strong cash position, holding around 19% of its assets in cash as of 2021
- ★ Net fixed assets grow gradually as Tata committed to a slowing CAPEX program

Sources: A. Stotz Investment Research, Refinitiv

Balance sheet - liabilities

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(YE Mar, Rupee m)	2020A	2021A	2022E	2023E
Overdrafts & short-term loans	363,091	436,057	229,853	236,748
Accounts payable	663,982	760,402	732,454	865,422
Other current liabilities	377,468	381,033	405,667	486,800
Total current liabilities	**1,404,541**	**1,577,492**	**1,367,973**	**1,588,970**
Long-term debt	884,786	985,248	1,047,106	1,078,519
Other long-term liabilities	259,645	267,228	269,901	272,600
Total liabilities	**2,548,971**	**2,829,968**	**2,684,979**	**2,940,089**
Minority interest	**8,136**	**15,735**	**15,843**	**15,517**
Paid-up capital - Common shares	234,731	260,846	260,846	260,846
Paid-up capital - Preferred shares	-	-	-	-
Retained earnings	388,247	194,790	167,682	249,538
Revaluation/Forex/Others	41,128	129,919	129,919	129,919
Total equity	**664,106**	**585,555**	**558,446**	**640,303**
Total liab & shareholders' equity	**3,221,213**	**3,431,258**	**3,259,269**	**3,595,909**

- ★ Tata has a relatively high leverage
  - **Liabilities-to-assets ratio stood at 82% in 2021**
- ★ Retained earnings continue to decline in 2022 as Tata is likely to record a net loss again; we expect a turnaround in 2023

Cash flow statement

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Risks

(YE Mar, Rupee m)	2020A	2021A	2022E	2023E
Net income	(120,709)	(134,514)	(27,108)	81,857
Depreciation & amortization	214,254	235,467	282,433	305,796
Calculated chg in net working capital	2,281	36,365	(24,720)	44,375
Other non-cash & balancing items	170,503	152,687	(732)	(1,183)
Operating cash flow	**266,329**	**290,005**	**229,873**	**430,844**
Capital expenditures	(295,306)	(198,548)	(273,078)	(296,215)
(Inc)/dec in other investments	(46,397)	(62,714)	(3,237)	(3,269)
Investing cash flow	**(341,702)**	**(261,263)**	**(276,314)**	**(299,484)**
Increase/(dec) in debt	70,982	154,547	(144,347)	38,309
Dividend paid	-	(16)	-	-
Change in equity	38,888	26,025	-	-
Others	(75,974)	(81,515)	2,672	2,699
Financing cash flow	**33,896**	**99,042**	**(141,675)**	**41,008**
Net inc/(dec) in cash & cash equi	**(41,477)**	**127,785**	**(188,117)**	**172,368**
Beginning cash	416,638	441,588	650,972	379,997
Adjustment for historic data	66,426	81,599	(82,858)	(91,144)
Ending cash	**441,588**	**650,972**	**379,997**	**461,221**

- ★ Given its losses over the past years, it did not pay out any dividends since 2016
- ★ We assume that there will be no dividends at least for the next 3 years

Sources: A. Stotz Investment Research, Refinitiv

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Ratios

(YE Mar)	2020A	2021A	2022E	2023E
General growth (YoY, %)				
Revenue	(13.5)	(4.3)	12.0	20.0
Assets	4.9	6.5	(5.0)	10.3
Gross profit	(9.9)	(7.0)	11.3	23.4
Operating profit	(301.5)	527.2	0.1	200.0
Attributable profit	58.1	(11.4)	79.8	402.0
EPS	59.3	(4.9)	80.5	402.0
Recurring EPS	nm	56.2	48.2	660.7
Du Pont analysis (%)				
Net profit margin	(4.6)	(5.4)	(1.0)	2.4
Revenue per Rupee100 of assets	83.0	75.1	83.6	97.9
Assets/equity (x)	5.0	5.3	5.8	5.7
Return on equity	(19.1)	(21.5)	(4.7)	13.7

- ★ Revenue was hit during the pandemic, but order backlog is sufficient to generate double-digit revenue growth at least for the next 2 years
- ★ Net margin could finally turn positive in 2023

Sources: A. Stotz Investment Research, Refinitiv

Ratios (cont.)

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(YE Mar)	2020A	2021A	2022E	2023E
Internal liquidity (x)				
Current ratio	0.9	0.9	0.9	0.9
Quick, or acid test ratio	0.6	0.7	0.6	0.6
Working cap. mgmt (Days)				
Inventory conversion period	85	84	77	74
Receivables collection period	22	19	19	19
Days from raw mat to coll	107	103	96	93
Payables deferral period	150	158	148	134
Cash conversion cycle	(44)	(55)	(52)	(41)
Profitability ratios (%)				
Gross profit margin	36.2	35.2	35.0	36.0
EBIT margin	(0.5)	2.2	2.0	5.0
EBIT return on avg assets	(0.4)	1.7	1.7	4.9
Return on average assets	(3.8)	(4.0)	(0.8)	2.4
Financial risk (x)				
Liabilities-to-assets (%)	79.1	82.5	82.4	81.8
Debt-to-equity	1.9	2.4	2.3	2.1
Net debt-to-equity	1.2	1.3	1.6	1.3
Times-interest-earned	3.2	4.0	4.2	6.6
Effective interest rate (%)	5.4	5.4	5.9	5.5

- ★ Tata has been among the worst profitable car companies in the past years
  - **It will be a challenge for the company to drive its EBIT margin to the industry average of 7-9%**
- ★ The company has relatively high leverage

Sources: A. Stotz Investment Research, Refinitiv

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Free cash flow

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Risks

(YE Mar, Rupee m)	2020A	2021A	2022E	2023E
EBIT	(13,087)	55,913	55,954	167,862
Est tax rate (%)	-	-	*50*	*30*
NOPAT	**(13,087)**	**55,913**	**27,977**	**117,503**
Add: Depre & amort	214,254	235,467	282,433	305,796
Cash NOPAT	**201,167**	**291,380**	**310,410**	**423,299**
Chg in A/R	78,222	(16,493)	(17,851)	(40,411)
Chg in inventory	19,529	6,074	(27,799)	(73,362)
Chg in oth curr assets	(34,362)	(53,200)	24,244	(55,954)
Chg in A/P	(64,003)	96,419	(27,948)	132,969
Chg in oth curr liabs	2,895	3,565	24,634	81,133
Less: Chg in working cap	**2,281**	**36,365**	**(24,720)**	**44,375**
Less: CAPEX	(141,477)	(114,251)	(136,223)	(145,675)
Free cash flow to firm	**61,971**	**213,494**	**149,468**	**322,000**

- Despite the net losses, FCFF remained positive throughout the pandemic
- CAPEX is likely to stay much lower than 2017 to 2019 level

Sources: A. Stotz Investment Research, Refinitiv

Value estimate

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Forecast assumptions

3-year average	Consensus	My assumptions
Revenue growth (CAGR)	17.4	13.9
Gross margin	36.4	35.7
EBIT margin	4.8	4.3
Net margin	2.6	1.6

My valuation method

Market: India	
Market risk-free rate	7.5
Market equity risk premium	5.0
Market return	**12.5**
Company beta (x)	1.3
COE	**13.8**
WACC	9.5
Terminal growth rate	4.0

Valuation Method: FCFF

- ★ Global car sales likely to see strong rebound over the next 3 years
- ★ Profitability is suppressed in the short run by higher raw material prices and semiconductor shortages
  - **Plus, cost cutting measures implemented by Tata may take time to turn beneficial**

Sources: A. Stotz Investment Research, Refinitiv

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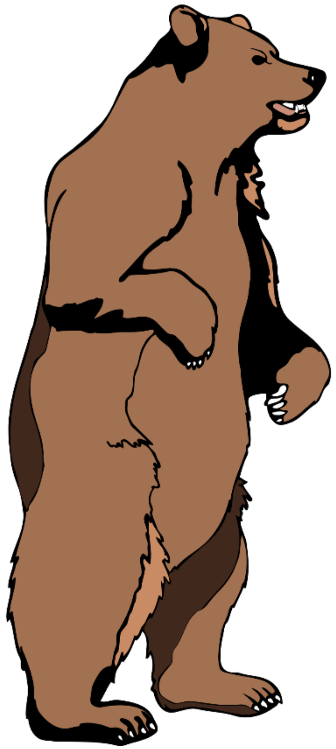
Value estimate

Bear	Base	Bull
INR416	**INR447**	**INR479**
(Downside 16.3%)	(Downside 10.1%)	(Downside 3.6%)



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World Class Benchmarking Scorecard

- Identifies a company's competitive position relative to global peers
- Combined, composite rank of profitability and growth, called "Profitable Growth"
- Scale from 1 (Best) to 10 (Worst)

Ranked among the worst in the world

Profitable Growth				
'18	'19	'20	'21	PTM
9	9	10	10	9

Benchmarked against 1,000 large Cons. Disc. companies worldwide.

Sources: A. Stotz Investment Research, Refinitiv

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Bad profitability drags score

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Profitable Growth

'18	'19	'20	'21	PTM
9	9	10	10	9

Bad margin

Growth rebound

Profitability

'18	'19	'20	'21	PTM
8	9	10	10	9

Growth

'18	'19	'20	'21	PTM
9	10	10	4	5

Benchmarked against 1,000 large Cons. Disc. companies worldwide.

Sources: A. Stotz Investment Research, Refinitiv

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Key risk is ongoing supply chain disruptions

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Risks

- ★ Ongoing supply chain disruptions create shortages (e.g., semiconductor chips) and increase production costs
- ★ Failure to implement adequate cost cutting measures
- ★ EV investment could not be sufficient to keep up with competitors

Sources: A. Stotz Investment Research, company data

CONCLUSION

- Value addition through newly formed EV subsidiary might be overhyped
- Slowing CAPEX plan could constraint production growth
- No dividend policy requires return generation from price