APOLLO TYRES

Valuation Case Study
Investment Decision Dilemma

APOLLO TYRES' CURRENT POSITION

- Business Strategy and Growth: Apollo has grown significantly through organic expansion and strategic acquisitions, and it aims to become a global top-10 tire manufacturer.

- Financial Performance: Between 2008-2012, Apollo’s capacity and sales grew substantially, but profit growth lagged due to factors like rubber price volatility, competition, and currency fluctuations.

- Market Segments: Apollo’s revenue primarily comes from the replacement market (56%), OEM(34%) and exports(10%), and is segmented by geography: India (67%), Europe (23%), and Africa (10%).

EXPANSION AND COMPETITION:

- Business Strategy and Growth: Apollo has grown significantly through organic expansion and strategic acquisitions, and it aims to become a global top-10 tire manufacturer.
- Financial Performance: Between 2008-2012, Apollo’s capacity and sales grew substantially, but profit growth lagged due to factors like rubber price volatility, competition, and currency fluctuations.

- **From 2008 to 2011, Appollo’s production grew from 920MT/day to 1595MT/day. Sales CAGR increased 26% and net-profit CAGR increased a modest 11%.**

MACRO-ECONOMIC INFLUENCES

- Raw Material Prices: Tires are heavily dependent on rubber and oil derivatives, and their price volatility directly affects Apollo's production costs. Price hikes in these materials can reduce margins if Apollo cannot pass costs to customers.
- Economic Sensitivity: Apollo's business is influenced by economic cycles. For example, in recessionary periods or low consumer demand phases, tire replacements and new vehicle purchases decrease, impacting revenue.

FINANCIAL STRATEGY

- Apollo is balancing substantial debt from past acquisitions and expansion efforts. Managing debt efficiently is crucial, especially with fluctuating interest rates and currency risks associated with foreign debt.

- In recent years, the company has focused on optimizing cash flows and reducing reliance on debt financing to ensure stability and improve its credit rating.

GROWTH POTENTIAL AND CHALLENGES:

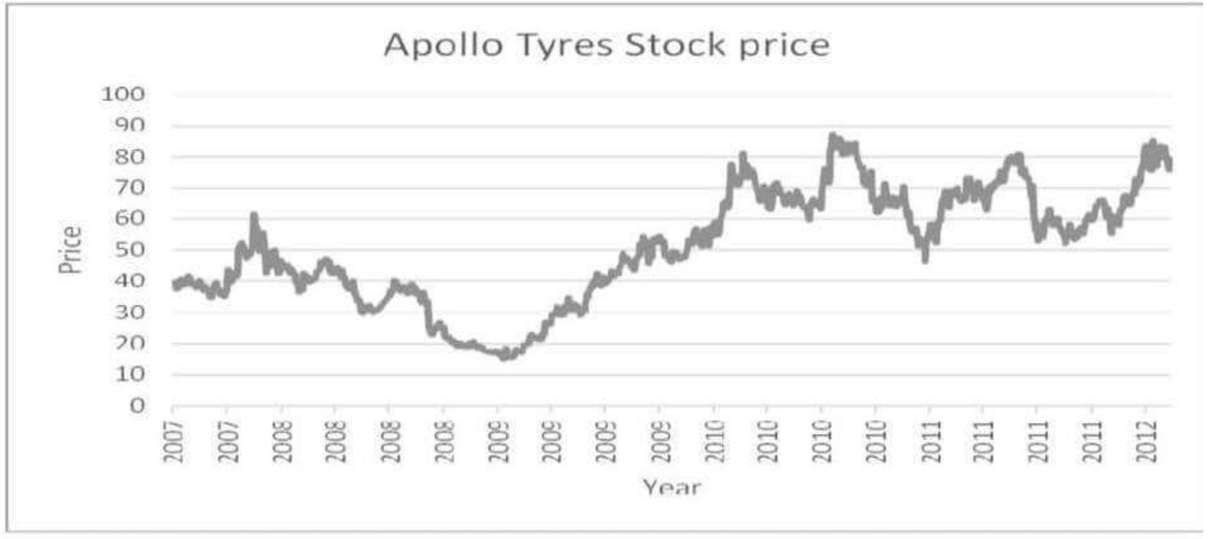
- Innovation and R&D: Apollo is investing in developing high-performance and eco-friendly tires to meet shifting consumer preferences and regulatory pressures in different markets, especially Europe. This R&D investment is a double-edged sword; it creates long-term value but impacts short-term cash flows.
- Digital Transformation: Apollo is working on digitizing its supply chain and enhancing its customer engagement platforms, which, while costly, are aimed at creating more efficient operations and improved customer experience.

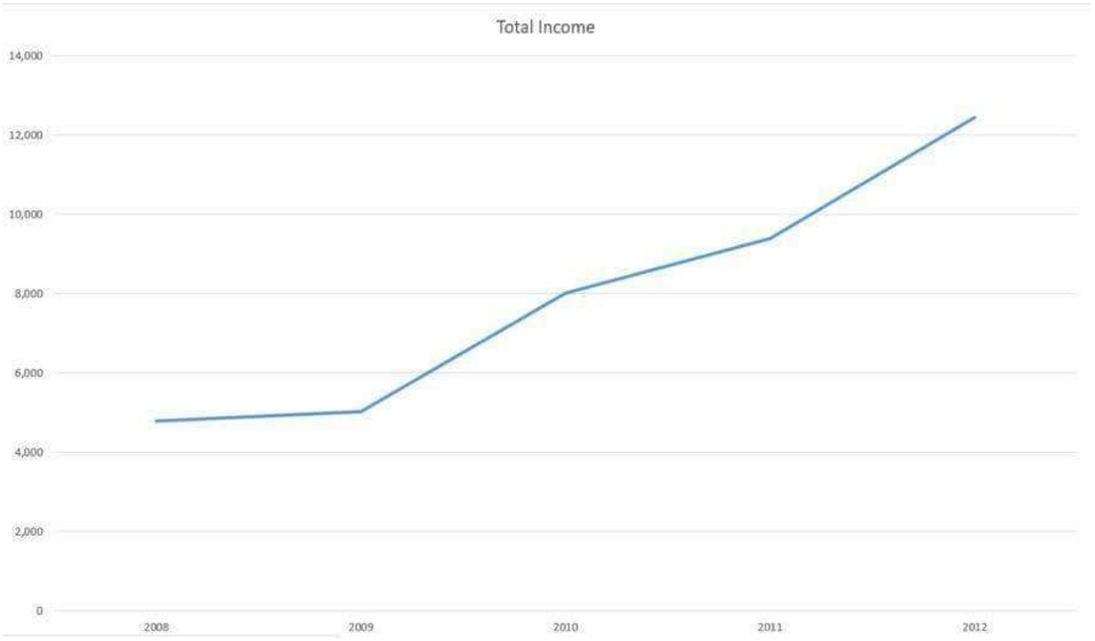
PURPOSE OF VALUATION:

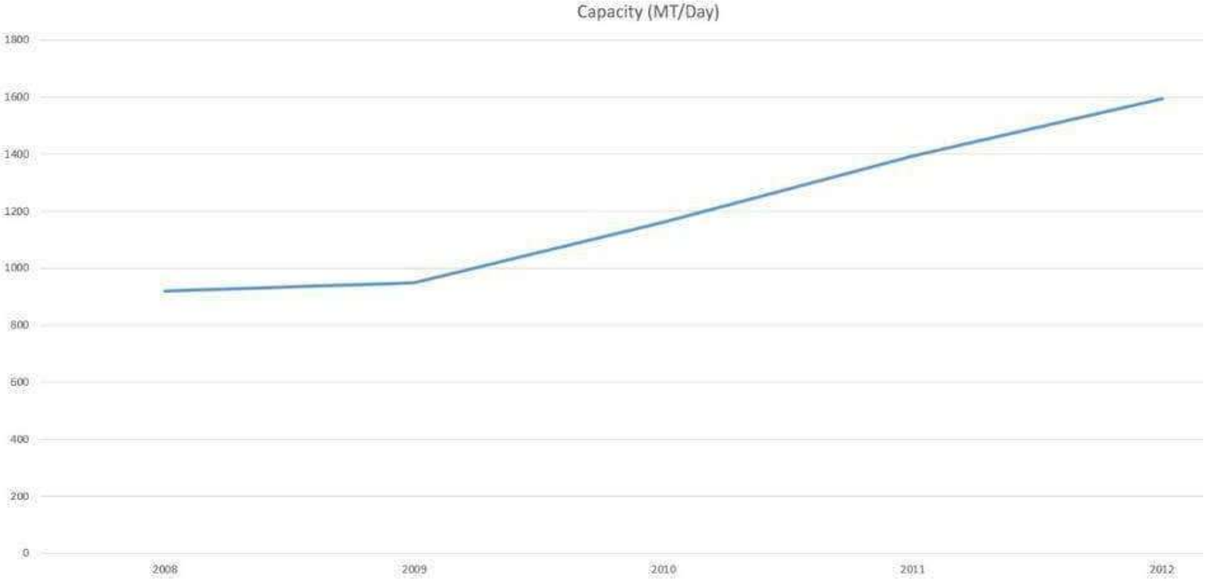
This valuation analysis seeks to establish Apollo Tyres' intrinsic value, reflecting its current and future earning potential, as well as the risks and opportunities unique to the tire industry.

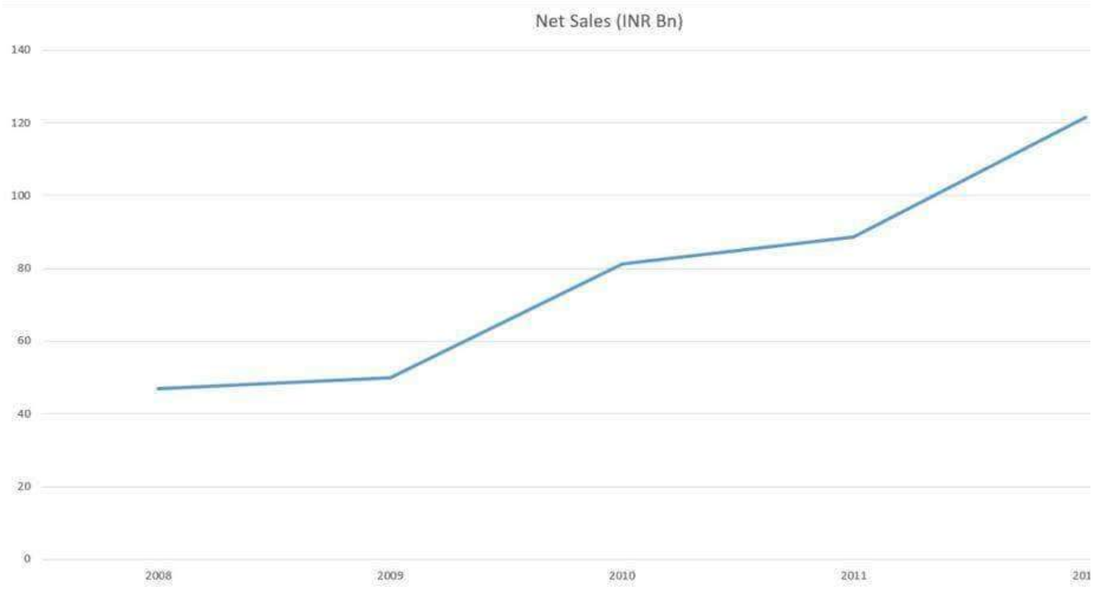
By applying Discounted Cash Flow (DCF) analysis we aim to validate whether Apollo's stock is fairly valued, overvalued, or undervalued in the market, providing insights for both investors and Apollo's strategic decision-makers.

EXHIBIT 1: APOLLO TYRES STOCK PRICE



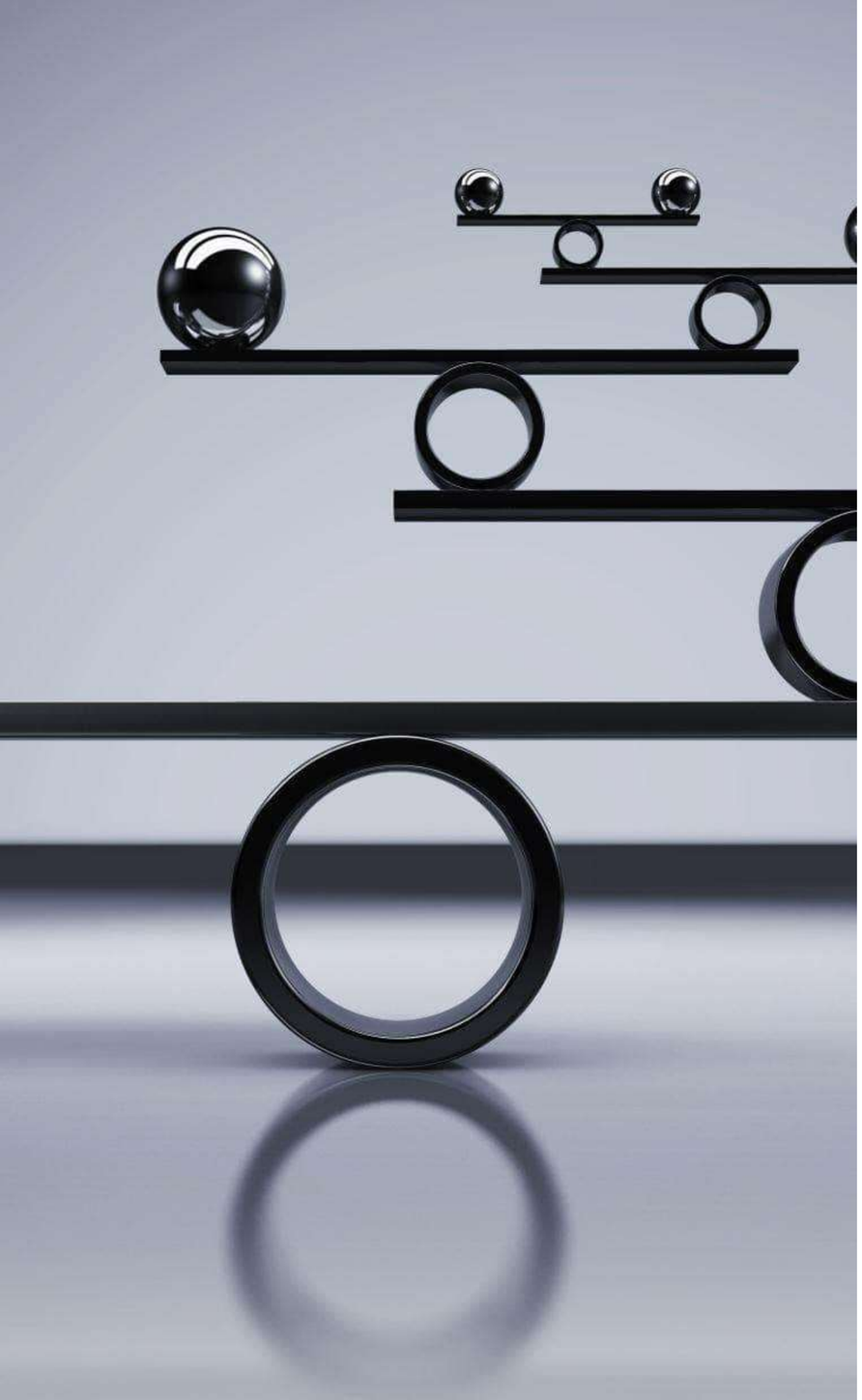






STEPS

- First, we will calculate the weighted average cost of capital.
- Then we will calculate the FCF for each year and their present values.
- We will calculate equity value using the net debt.
- We will find the Intrinsic value of the share and compare it with the market price to judge if it’s undervalued or overvalued.



WEIGHTED AVERAGE COST OF CAPITAL

• WACC represents the minimum return that a company must earn on its existing assets to satisfy its investors. It blends the costs of equity and debt based on their respective weights.

1) **Cost of Equity = Risk Free Rate + (Beta * Equity Market Premium)**
2) **Cost of Debt = Based on bond yields and adjusted for taxes.**

Hence, WACC can be expressed as:

3) **WACC = (E/E+D) * Cost of Equity + (D/E+D) * Cost of Debt**

1) Cost of Equity

Using the Capital Asset Pricing Model (CAPM):

Cost of Equity = Risk - Free Rate + (Beta * Equity Market Premium)

Risk-Free Rate: 8.53% (Indian government 10-year bond yield) Beta: 0.928 (for Apollo)
Equity Market Premium: 5%

Substituting values:

Cost of Equity = 8.53% + (0.928 * 5%) = 8.53% + 4.64% = 13.17%

2) Cost of Debt

- The cost of debt incorporates an AA credit rating spread over government bonds:

- Cost of Debt = 8.53% + 1.46% = 9.99%

- After adjusting for a 30% tax rate:

- **After-Tax Cost of Debt = 9.99% * (1 - 0.30) = 6.99%**

3) WACC

Assuming a debt-to-equity ratio of 1:1 (based on Apollo's 2012 financials):

WACC = $\frac{E}{E+D}$ x Cost of Equity + $\frac{D}{E+D}$ x After-Tax Cost of Debt

Substituting the values with equal weighting (50% each for equity and debt):

WACC = (0.5 * 13.17%) + (0.5 * 6.99%) = 6.585% + 3.495% = **10.08%**

FREE CASH FLOWS (FCF) FOR 2013-2017

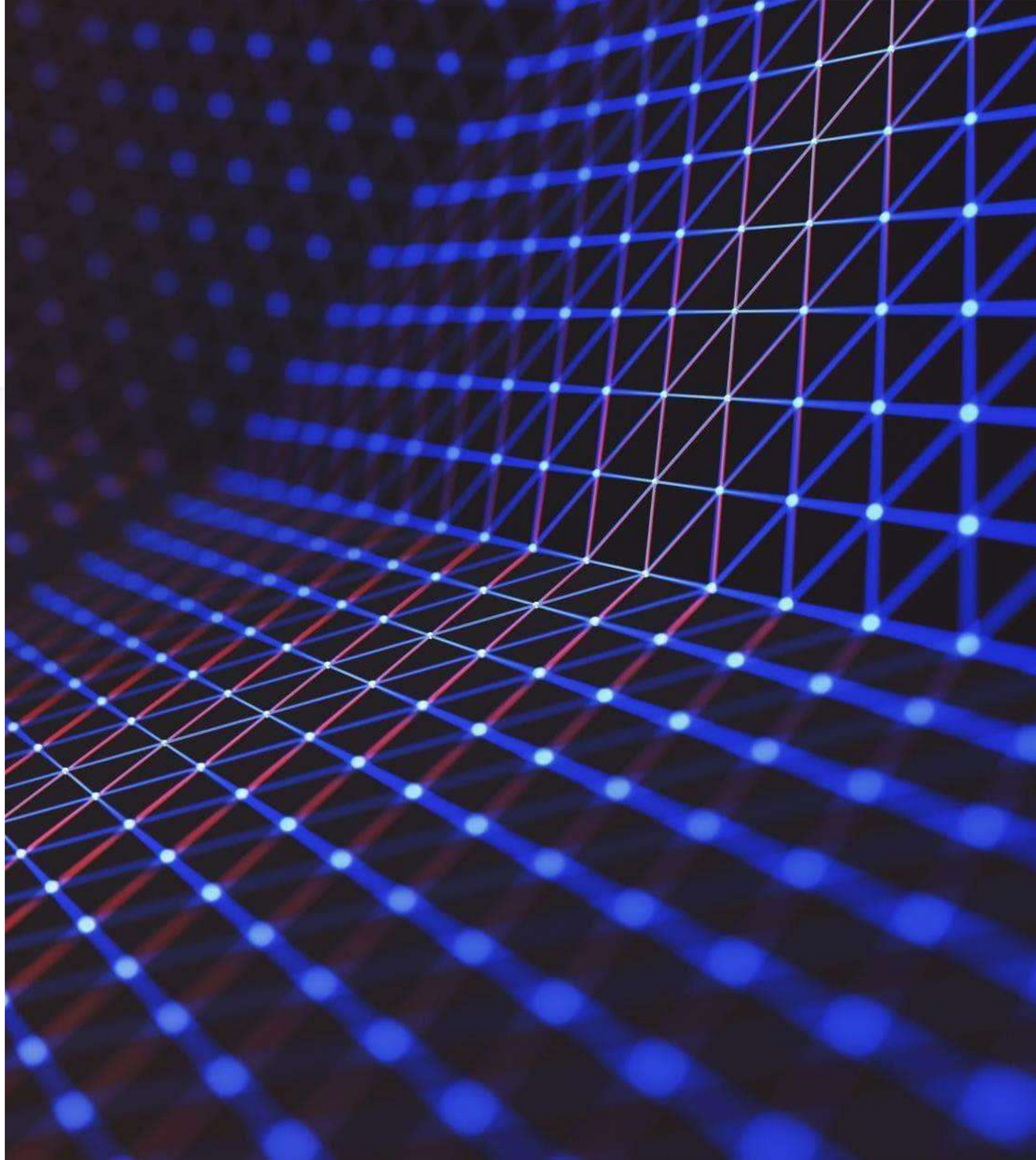
Now that we have the WACC, we'll forecast Apollo's free cash flows based on a 12% revenue growth assumption, stable cost ratios, and investment levels.

1. **Revenue Growth:** Starting with the 2012 revenue of INR 124.5 billion and assuming 12% growth annually (same as the expected market growth rate).

2. **Operating Expenses:** Assuming operating expenses are 90.5% of revenue based on 2012 data.

3. **CapEx:** Assuming as 5% of revenue.

4. **Free Cash Flow Calculation:** FCF = EBITDA - CapEx (assuming stable working capital requirements).



1) REVENUE AND OPERATING EXPENSES

Using a 12% growth rate on 2012 revenue:

YEAR	REVENUE(INR BILLION)	OPERATING EXPENSES (90.5% OF REVENUE)
2013	139.44	126.1932
2014	156.1728	141.33638
2015	174.9135	158.2968
2016	195.9032	177.2924
2017	219.4115	198.5674

2) EBITDA CALCULATION

EBITDA = Revenue - Operating Expenses

Year	Revenue (INR Billion)	Operating Expenses (90.5% of Revenue)	EBTIDA (INR Billion)
2013	139.44	126.1932	13.2468
2014	156.1728	141.33638	14.836416
2015	174.9135	158.2968	16.61679
2016	195.9032	177.2924	18.6108
2017	219.4115	198.5674	20.8441

3) CAPTIAL EXPENDITURE

Assuming CapEx is 5% of revenue:

Year	Revenue (INR Billion)	Capital Expenses (5% of Revenue)
2013	139.44	6.972
2014	156.1728	7.80864
2015	174.9135	8.745677
2016	195.9032	9.795158
2017	219.4115	10.97058

4) FREE CASH FLOW (FCF) CALCULATION

FCF = EBITDA - CapEx

Year	EBTIDA (INR Billion)	Capital Expenses (5% of Revenue)	FCF (INR Billion)
2013	13.2468	6.972	6.2748
2014	14.836416	7.80864	7.027776
2015	16.61679	8.745677	7.871109
2016	18.6108	9.795158	8.815642
2017	20.8441	10.97058	9.873519

Terminal value of FCF

Using the perpetual growth method with a 5% growth rate (g):

Terminal Value $_{2017} = \frac{FCF_{2017} \times (1-g)}{WACC - g}$

5)PV OF FREE CASH FLOW (FCF)

Year	FCF (INR Billion)	Discount Factor (@ WACC)	PV of FCF (INR Billions)
2013	6.2748	1.1008	5.700218
2014	7.027776	1.2129	5.7941924
2015	7.871109	1.3361	5.891108
2016	8.815642	1.4718	5.989701
2017	9.873519	1.6239	6.080128
Terminal value (@ 5%)	184.5880806	1.6239	113.6696106
Total PV of FCF			143.1249577

EQUITY VALUE CALCULATION

$$Net\ Equity\ value = Total\ PV\ of\ FCF - Total\ Debt$$

Net debt = 28.72 Billion INR (Given in Balance Sheet)

Net Equity = 143.1249577 - 28.72 = 114.4049577 Billion INR

Current Share Price = Rs 79.65 /share

Current Market Valuation = Rs 40 Billion

Current Shares Outstanding = Market Valuation/Share Price = 502.19 Million shares

$$Intrinsic\ Share\ Price = Net\ Equity\ /\ Shares\ Outstanding$$

FINAL DECISION

On substituting the calculated values:-

Intrinsic Share Price = **Rs 227.80**

This value is more than the current offering price, making this stick an undervalued stock. Hence, it would be a good investment for Santanu

THANK YOU