

A Comparative Study of Capital Structure Decisions: JSW Steel vs Tata Steel

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Abstract

The capital structure decisions of large corporations significantly influence their long-term financial stability, growth trajectory, and resilience to market fluctuations. In the Indian steel industry—one of the most capital-intensive and cyclical sectors—these financing choices carry substantial operational and financial risk implications. This study presents a comparative evaluation of the capital structure strategies of India's two prominent steel manufacturers: JSW Steel and Tata Steel. Utilizing secondary financial data from FY2019–20 through FY2023–24, this paper evaluates leverage patterns, debt-equity compositions, interest coverage metrics, and risk-return trade-offs. The empirical analysis demonstrates that while both firms possess similar gross indebtedness profiles (~₹85,000–87,000 crores), JSW Steel manages a more aggressive, growth-driven leverage model supported by robust domestic operational profitability. Conversely, Tata Steel adopts a balanced capital structure, but remains highly susceptible to financial stress due to volatile earnings stemming from its international operations. The findings reveal that capital structure sustainability is heavily dependent on operational earnings stability rather than the mere volume of debt.

Keywords: Capital Structure, Leverage, Debt–Equity Ratio, Interest Coverage, Financial Risk, Corporate Finance, Tata Steel, JSW Steel.

I. Introduction

1.1 Background of the Study

Within the realm of corporate finance, designing an optimal capital structure—the chosen proportion of debt and equity—remains a core executive challenge. For highly capital-intensive, cyclical industries exposed to macroeconomic and geopolitical fluctuations, capital structure management dictates organizational survival. The steel industry is characterized by significant capital expenditure requirements, lengthy asset gestation periods, volatile raw material inputs, and severe commodity price cycles. Consequently, firms operating in this sector must continuously adjust their financial leverage to ensure liquidity during market downturns while maintaining capacity expansion during economic upswings.

In the Indian macroeconomic context, the steel sector has experienced robust demand over the past two decades, driven by infrastructure development and rapid urbanization. Two market leaders, JSW Steel and Tata Steel, represent contrasting corporate philosophies, growth trajectories, and risk-management styles, providing an ideal foundation for a comparative financial analysis.

1.2 Profiles of the Target Corporations

- **Tata Steel:** A premier entity within the Tata Group with over a century of operating history, Tata Steel is an integrated producer with a major global footprint. Its legacy is characterized by large-scale international acquisitions, notably Corus (Europe) and Bhushan Steel (India). These cross-border expansions have introduced vast asset portfolios alongside complex, long-term debt obligations, forcing the firm into periodic deleveraging cycles.
- **JSW Steel:** The flagship entity of the JSW Group, JSW Steel has achieved rapid market scaling through aggressive organic capacity building and the strategic acquisition of distressed domestic assets (e.g., Bhushan Power & Steel). JSW adopts a fluid financing framework, utilizing debt to finance massive domestic expansions during growth cycles while aggressively paying down liabilities during price peaks.

II. Literature Review

The academic discourse surrounding capital structure is anchored by several foundational and contemporary theories:

1. **Irrelevance and Tax-Shield Foundations:** Modigliani and Miller (1958) originally argued that capital structure is irrelevant to firm value under perfect market assumptions. However, they revised this stance in 1963 by introducing corporate tax-deductible interest payments, indicating a clear benefit to utilizing debt. Durand (1963) countered that financial distress and bankruptcy costs constrain infinite debt accumulation.
2. **Information Asymmetry and Agency Theories:** Jensen and Meckling (1976) formulated Agency Theory, illustrating how leverage minimizes managerial inefficiencies but amplifies conflicts between equity owners and creditors. Myers and Majluf (1984) proposed the Pecking Order Theory, postulating that due to information asymmetry, corporations prioritize internal accruals, followed by debt, and issue equity only as a last resort.
3. **Empirical Drivers in Capital-Intensive Sectors:** Rajan and Zingales (1995) verified that asset tangibility, firm size, profitability, and growth opportunities are the four universal determinants of leverage. In capital-intensive sectors, Barclay and Smith (1995) observed that long-term debt instruments are strongly preferred to match extended asset maturities and mitigate refinancing risks.

4. **Emerging Markets and Steel Industry Context:** Emerging market studies (Booth et al., 2001; Handoo & Sharma, 2014) point out that Indian firms rely heavily on banking institutions due to distinct structural frameworks. In the Indian steel environment, Agrawal (2016) demonstrated that moderate leverage enhances shareholder returns via tax shields, but excessive debt creates acute liquidity vulnerabilities during downward commodity cycles.

III. Research Methodology

3.1 Research Design & Objectives

This study implements a quantitative, descriptive, and analytical research design to evaluate the practical execution of financing theories. The primary research objectives are:

- To evaluate and compare the capital structure compositions and leverage ratios of JSW Steel and Tata Steel.
- To measure the distinct impacts of capital structure choices on profitability and financial risk.
- To evaluate the long-term debt servicing capabilities of both corporations under varying operational environments.

3.2 Hypotheses Development

To guide the empirical framework, three core hypotheses were established:

- **Hypothesis 1 (H_1):** There are statistically distinct differences in the capital structure choices made by JSW Steel and Tata Steel due to their divergent growth strategies.
 - *Null Hypothesis (H_0):* There is no significant difference in the capital structure configurations.
- **Hypothesis 2 (H_1):** Capital structure configurations exercise a significant influence over operational profitability and overall corporate financial risk.
 - *Null Hypothesis (H_0):* Capital structure choices do not exert a significant impact on profitability and financial risk.
- **Hypothesis 3 (H_1):** Tata Steel executes a conservative, stability-oriented financing structure, whereas JSW Steel utilizes an aggressive, expansion-driven structure.
 - *Null Hypothesis (H_0):* There is no observable variance in risk posture between the two entities.

3.3 Data Collection and Variables

The study relies strictly on audited secondary financial data spanning a five-year operational horizon (FY2019–20 to FY2023–24). Data points were extracted from consolidated annual reports, BSE/NSE stock exchange disclosures, and corporate databases.

- **Independent Variables:** Total Debt, Shareholders' Equity, Long-Term Borrowings, Short-Term Borrowings, Finance Costs, Asset Base.
- **Dependent Variables:** Profitability (Return on Equity, Return on Assets), Debt-Servicing Metrics (Interest Coverage Ratio), Composition of Capital Structure.

IV. Data Analysis and Interpretation

4.1 Comparative Financial Snapshot (FY2023–24)

A detailed comparative extraction of key capital parameters for the financial year ending March 31, 2024, reveals structural differences:

Financial Metric	JSW Steel	Tata Steel
Total Borrowings	₹ 85,575 cr	₹ 87,082 cr
Total Equity	₹ 79,776 cr	₹ 92,433 cr
Net Debt	₹ 73,224 cr	~₹ 77,550 cr
Finance Costs	₹ 8,105 cr	₹ 7,508 cr
EBIT	₹ 21,485 cr	₹ 6,361 cr
Profit Before Tax (PBT)	₹ 13,380 cr	-₹ 1,147 cr
Debt–Equity Ratio	1.07x	0.94x
Interest Coverage Ratio	2.65x	0.85x

4.2 Debt & Leverage Trend Analysis (2019–2024)

An analysis of JSW Steel's multi-year borrowing profile indicates a steady upward progression:

- **FY 2019–20:** Total Debt = ₹65,477 cr | Net Debt = ₹53,473 cr
- **FY 2020–21:** Total Debt = ₹69,771 cr | Net Debt = ₹56,950 cr
- **FY 2021–22:** Total Debt = ₹74,271 cr | Net Debt = ₹56,880 cr
- **FY 2022–23:** Total Debt = ₹81,876 cr | Net Debt = ₹61,157 cr
- **FY 2023–24:** Total Debt = ₹86,506 cr | Net Debt = ₹73,916 cr

Interpretation: JSW Steel's debt expanded by over 32% across the reviewed period. This accumulation reflects a continuous capital expenditure program aimed at expanding capacity and acquiring domestic operations. Conversely, Tata Steel maintained gross borrowings between ₹80,000 cr and ₹90,000 cr, keeping its leverage trend flatter due to periodic structural deleveraging initiatives.

4.3 Key Financial Ratio Evaluation

Debt-Equity Ratio (D/E)

The D/E ratio serves as a primary gauge of financial leverage:

$$\text{Debt-Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

JSW Steel consistently operated with a D/E ratio exceeding 1.0x (reaching 1.07x in FY24), confirming an aggressive long-term financing posture. Tata Steel maintained its ratio within a lower 0.8x to 1.0x threshold (0.94x in FY24). This validates **Hypothesis 3**, proving JSW behaves more aggressively regarding capital structure expansion.

Interest Coverage Ratio (ICR)

The ICR tracks an enterprise's capability to cover finance obligations from core operating earnings:

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Finance Costs}}$$

A multi-year review reveals a diverging path between the two firms:

- JSW Steel preserved a historical buffer zone of 2.0x to 5.0x, finishing FY24 at a safe margin of 2.65x.

- Tata Steel experienced a contraction in FY24, falling to 0.85x. This drop was driven by asset impairment charges in its European subsidiaries, causing operating profits to fall below total annual interest obligations.

V. Discussion and Theoretical Synthesis

The empirical trends observed in both firms offer distinct insights into the real-world application of capital structure theory:

- **Trade-Off Theory vs. Operational Risk:** While debt usage delivers clear tax advantages, Tata Steel's performance demonstrates that even a lower debt-to-equity ratio (0.94x) can expose a firm to financial stress if operating cash flows decline. JSW Steel manages a higher D/E ratio (1.07x) more comfortably because its domestic cash flows remain resilient.
- **Pecking Order Deviations:** Both corporations frequently diverge from strict Pecking Order predictions. Rather than issuing equity as a final option during massive expansions, both steelmakers utilize long-term corporate debt instruments to avoid diluting promoter equity stakes, validating the importance of corporate control.
- **Geographic Structuring Effects:** JSW Steel's concentration on the expanding Indian domestic market ensures stable, predictable cash flows to service its debt. Tata Steel's exposure to volatile international jurisdictions introduces non-systemic earnings volatility, which directly impacts its debt-servicing ratios.

VI. Conclusion and Strategic Recommendations

6.1 Summary of Findings

This comparative research demonstrates that gross debt totals tell only part of the story when evaluating capital structure sustainability. While JSW Steel operates with higher financial leverage on paper, its stable operational metrics and stronger interest coverage make its debt structure more sustainable in practice. On the other hand, Tata Steel maintains lower structural leverage but faces higher financial risk during market downturns due to earnings volatility in its international operations.

6.2 Recommendations for Strategic Financial Planning

1. Enhancing Liquidity Buffers and Interest Management:

- *Tata Steel* must focus on rebuilding its interest coverage ratio above a 2.0x baseline. This can be achieved by prioritizing the paydown of high-yielding debt instruments using internal cash generated during commodity upswings.
- *JSW Steel* should implement proactive interest-rate hedging matrices to shield its large debt portfolio from unexpected macroeconomic tightening cycles.

2. Mitigating International Geographic Risk:

- *Tata Steel* should continue restructuring or divesting structurally underperforming overseas assets, particularly in volatile European markets, to shelter domestic cash flows from international headwinds.

3. Deploying Modern and Sustainable Financing Mechanisms:

- Both steel majors should explore green financing frameworks, such as ESG-linked loans and sustainability bonds. Given the environmental pressures on the steel sector, aligning capital structure expansion with decarbonization goals can provide access to lower-cost global capital pools.

4. Optimizing Working Capital Efficiencies:

- Firms should tighten their working capital cycles by improving receivable collections and optimizing inventory turnover. This minimizes the need for short-term bank borrowings, reducing unnecessary finance costs.

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