Cost of Capital Analysis of ABB India Limited: A Five-Year Trend Study with Peer Benchmarking (Fy2021–Fy2025)

Harman Choudhary
Mangement
Lovely professional university
Co-Author
Sahil Ashraf Khan
Mangement
Lovely professional university
Co-Author
Thameemul ansar PK
Mangement
Lovely professional university
Co-Author
Mohammed MP
Mangement
Lovely professional university

Abstract

This paper estimates the cost of capital of ABB India Limited for the five financial years FY2021 to FY2025, using standalone data compiled from the company's annual reports. The cost of equity is calculated with the Capital Asset Pricing Model (CAPM). Because the company's reported borrowings are very small, the ratio of interest to debt gives meaningless values for the cost of debt, so a market yield for AAA-rated bonds is used instead. The weighted average cost of capital (WACC) is then calculated with both book-value and market-value weights. ABB India is rated CRISIL AAA/Stable and its book debt-to-equity ratio stayed between 0.7% and 1.1%, so its WACC of about 11.8% is almost the same as its cost of equity. Siemens Limited and Hitachi Energy India Limited, the two peers used for benchmarking, also carry very little debt. After-tax return on capital employed was above WACC in every year from FY2022 to FY2025 and about equal to it in FY2021; the gap was widest in FY2024 and narrowed in FY2025. The estimate is highly sensitive to beta: using 1.49 instead of 0.70 raises WACC from 11.8% to 17.3%.

Keywords: *cost of capital, WACC, CAPM, capital structure, ABB India, cost of equity, cost of debt, peer benchmarking*

1. Introduction

The cost of capital is the minimum rate of return a firm must earn on its investments to satisfy the return expectations of the providers of its funds – shareholders, lenders, and, where applicable, preference shareholders. It is central to nearly every major corporate finance decision: it is the discount rate used to evaluate capital budgeting proposals, the benchmark against which Economic Value Added (EVA) is measured, and a key input into equity valuation and capital-structure planning (Chandra, 2019; Pandey, 2021). A firm which consistently earns returns above its cost of capital creates shareholder value; one which earns below it destroys value even while remaining accounting-profitable.

This paper performs a detailed, data-driven estimation of the cost of capital for ABB India Limited (NSE: ABB, BSE: 500002), the Indian listed subsidiary of the global technology group ABB Ltd, using the standard components of the cost of capital: cost of debt, cost of equity, cost of preference capital, and the Weighted Average Cost of Capital (WACC). It builds a five-year time series (FY2021–FY2025, the company's calendar-year accounting period) so that the evolution of the firm's financing mix and cost components can be observed alongside its rapidly changing profitability. The analysis is then benchmarked against two close industry peers, Siemens Limited and Hitachi Energy

India Limited, both of which are also majority-owned Indian subsidiaries of European/Japanese multinational engineering groups operating in the same "Heavy Electrical Equipment" industry classification.

The reason for selecting ABB India as the subject of a cost-of-capital study is that the company offers an unusual and analytically compelling case: in the terminology of financial data providers, it is "almost debt free." This is more than a minor detail – it fundamentally alters how WACC should be estimated and interpreted for the firm, and it raises questions, taken up later in this paper, about capital structure theory as it applies to MNC-controlled subsidiaries operating in India. The paper accordingly also explores why the conventional interest-expense/total-debt approach to estimating the cost of debt fails for such firms, and puts forward and applies a credit-rating-based alternative.
The rest of the paper is organised as follows. In Section 2, the company ABB India is profiled. The cost of capital and capital structure theories are analysed in Section 3. The methods and sources used for the data are outlined in Section 4. In Section 5, the computation of the cost of equity, cost of debt, and WACC for five years are illustrated alongside peer benchmarking, visual trends, and sensitivity analyses. The application of the results to investment decisions is discussed in Section 6. The weaknesses of this research are highlighted in Section 7, while Section 8 contains the conclusion.

2. Company Overview: ABB India Limited

ABB India Limited is a manufacturer of integrated electrification and automation equipment, based in Bengaluru, that provides products, systems, and services spanning its Electrification, Motion, Process Automation, and Robotics business areas (ABB India Limited, 2025). A 75% stake in the company is held by the ABB group (through ABB Asea Brown Boveri Ltd, Zurich), granting it access to global research and development, technology, and brand support in return for royalty payments (CRISIL Ratings, 2025) – an arrangement that is itself pertinent to the agency-theory discussion in Section 3.

During FY2021–FY2025, the company's standalone revenue climbed from ₹6,934 crore to ₹13,203 crore, a compound annual growth rate of approximately 17.5%, while net profit rose from ₹520 crore to ₹1,668 crore after peaking at ₹1,872 crore in FY2024 (see Figure 2). The operating margin rose to 19% in FY2024 and fell to 15% in FY2025 (Screener.in, 2026a; ABB India Limited, 2026). For the first nine months of 2025, CRISIL attributes the lower margin to product and revenue mix, a smaller price premium, higher import costs and exchange-rate effects (CRISIL Ratings, 2025). ABB India holds the highest possible domestic credit rating on its bank facilities, CRISIL AAA/Stable, and CRISIL describes the company as debt-free since 2018, with cash of about ₹4,000 crore at June 2025 (CRISIL Ratings, 2025).

3. Literature Review

3.1 The Concept and Components of Cost of Capital

A firm's cost of capital is typically expressed as a weighted average of the costs associated with its separate sources of finance – equity, debt, and preference capital – with the weights representing each source's share of the firm's total capital, calculated either at book value or, more desirably, at market value (Brealey, Myers, & Allen, 2020; Pandey, 2021). The cost of equity (Ke) is generally calculated through the Capital Asset Pricing Model (CAPM), $Ke = Rf + \beta(Rm - Rf)$, in which Rf stands for the risk-free rate, β captures the stock's systematic risk in relation to the market, and $(Rm - Rf)$ represents the equity risk premium. The cost of debt (Kd) is typically measured as the effective interest rate the firm pays on its borrowings, adjusted to account for the tax shield, because interest is deductible for tax purposes: $Kd(post\text{-}tax) = Kd(pre\text{-}tax) \times (1 - tax\ rate)$.

3.2 Capital Structure Theory

Modigliani and Miller's (1958) initial proposition maintained that, absent taxes, a firm's cost of capital and its value do not depend on its capital structure; their 1963 revision demonstrated that, once corporate taxes are brought in, the tax shield from debt makes greater leverage value-enhancing, up to a certain point (Modigliani & Miller, 1963). The trade-off theory that emerged subsequently weighs this tax advantage of debt against the growing expected costs of financial distress that accompany rising leverage (Myers, 1984). By contrast, the pecking-order theory holds that firms favour internal funds (retained earnings) over external financing, and debt over equity, owing to information asymmetry between managers and outside investors – firms turn to borrowing only when internal accruals fall short (Myers, 1984).

Agency theory introduces yet another dimension: Jensen and Meckling (1976) demonstrate that debt can discipline managers by tying future cash flows to fixed payments, yet wholly or majority-owned subsidiaries of multinational parents, like ABB India, might instead depend on parental oversight and internal capital allocation as a substitute governance mechanism, thereby lessening their need for external debt entirely.

As Section 5 will demonstrate, ABB India's almost complete reliance on equity financing aligns more closely with a pronounced pecking-order pattern – bolstered by parental financial discipline and consistently strong internal cash generation – than with the trade-off theory's expectation that a stable, highly profitable firm ought to lever up in order to capture available tax shields.

3.3 Cost of Capital in the Indian Context

Care is needed when estimating CAPM inputs in India. The risk-free rate is generally represented by the yield on the 10-year Government of India security; the equity risk premium is commonly estimated either from historical returns of a broad index like the Nifty 50 or through forward-looking "implied" methods of the type popularised by Damodaran (2026). Incwert (2026), an independent valuation firm, suggests an India equity risk premium of about 7% for valuation and cost-of-capital work. As for the cost of debt, when a firm's own recent borrowing history is too limited or too erratic to produce a meaningful average cost, the usual substitute is the credit-spread approach, which estimates the yield an issuer with the same rating would pay.

4. Research Methodology

This is a quantitative, descriptive financial analysis of a single company, supported by peer benchmarking and visual examination of trends. The data came from several sources: (a) standalone profit-and-loss and balance-sheet figures for ABB India Limited covering FY2021–FY2025, compiled by the financial-data aggregator Screener.in (2026a) from the company's annual reports (ABB India Limited, 2025, 2026) – complete extracts appear in Appendix A and Appendix B; (b) the company's credit-rating rationale as published by CRISIL Ratings (2025); (c) market inputs – the prevailing 10-year Government of India bond yield, quoted at roughly 6.95% as of September 2026 (Trading Economics, 2026), an India-specific equity risk premium of 7.0% (Incwert, 2026), and beta estimates from two independent data providers; and (d) comparable figures for Siemens Limited and Hitachi Energy India Limited, obtained from Screener.in (2026b, 2026c), StockAnalysis (2026) and their respective CRISIL rating rationales (CRISIL Ratings, 2026a, 2026b) (Appendix C).

The following formulae were applied consistently across all five years:
Cost of equity (CAPM): $K_e = R_f + \beta (R_m - R_f)$
Post-tax cost of debt: $K_{d(post)} = K_{d(pre)} \times (1 - t)$
WACC = $W_e \times K_e + W_d \times K_{d(post)}$
Here, W_e and W_d represent the shares of equity and debt within the total capital. Since the CAPM inputs disclosed by ABB India (risk-free rate, equity risk premium, and beta) exist only as current, point-in-time values and not as a reconstructed historical series, the same Rf, ERP, and beta were used for all five years of the study – a simplifying assumption that is stated explicitly and addressed as a limitation in Section 7. Book-value weights were derived directly from the balance sheet for each of the five years; market-value weights relied on the company's current market capitalisation (₹1,48,383 crore on 14 October 2026; Screener.in, 2026a) as the equity value, because year-end market capitalisation for each of those five years could not be reliably reconstructed from the available sources. Appendix D contains a complete, step-by-step worked example of the FY2025 Ke, Kd, and WACC calculation. Preference capital was left out, as ABB India, Siemens, and Hitachi Energy India had no preference share capital outstanding during the period under review.

5. Data Analysis and Findings

5.1 Capital Structure Trend, FY2021–FY2025

Table 1 sets out ABB India's standalone equity capital, reserves and surplus, and total borrowings for each of the five years, drawn from the company's balance sheet.

Table 1

ABB India Ltd – Capital Structure, FY2021–FY2025 (₹ Crore)

Year	Equity Capital	Reserves	Total Equity (Book)	Borrowings	D/E Ratio (Book)
FY2021	42	4,003	4,045	37	0.9%
FY2022	42	4,897	4,939	33	0.7%
FY2023	42	5,902	5,944	49	0.8%
FY2024	42	7,033	7,075	52	0.7%
FY2025	42	7,794	7,836	85	1.1%

Source: ABB India Limited annual reports, FY2021–FY2025, as compiled by Screener.in (2026a). Full balance sheet extract at Appendix B.

The book debt-to-equity ratio stayed between 0.7% and 1.1% throughout the period, as Figure 1 below illustrates. This is not a company managing leverage around a target; the "borrowings" figure of ₹33–85 crore is economically insignificant compared with a shareholders' fund base that rose from ₹4,045 crore to ₹7,836 crore. CRISIL describes ABB India as debt-free since 2018 (CRISIL Ratings, 2025), so this small balance most likely consists of lease liabilities recognised under Ind AS 116 rather than conventional working-capital or term borrowings.

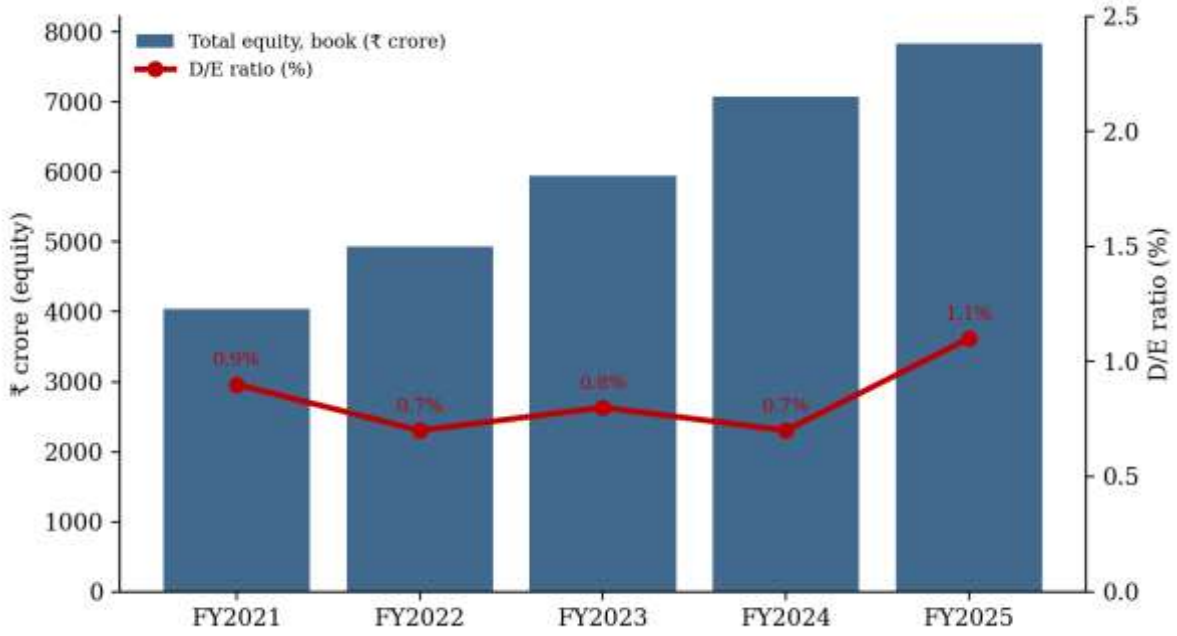


Figure 1: Equity base growth (bars, left axis) against the book debt-to-equity ratio (line, right axis), FY2021–FY2025. Source: Author's computation from Table 1.

Over the period, reserves increased from ₹4,003 crore to ₹7,794 crore, a compound annual rate of about 18%, financed completely from retained profits, while paid-up equity capital stayed the same at ₹42 crore – the company has not raised any fresh equity capital or taken on bank debt to fund its growth, instead financing itself almost wholly through internal accruals. This pattern offers a textbook example of the pecking-order theory covered in Section 3.2: profits are retained before being distributed or before the firm borrows, and external financing of either type is used only marginally, if at all. Figure 2 shows the growth in revenue and net profit behind this internal accrual, including the fall in net profit in FY2025.

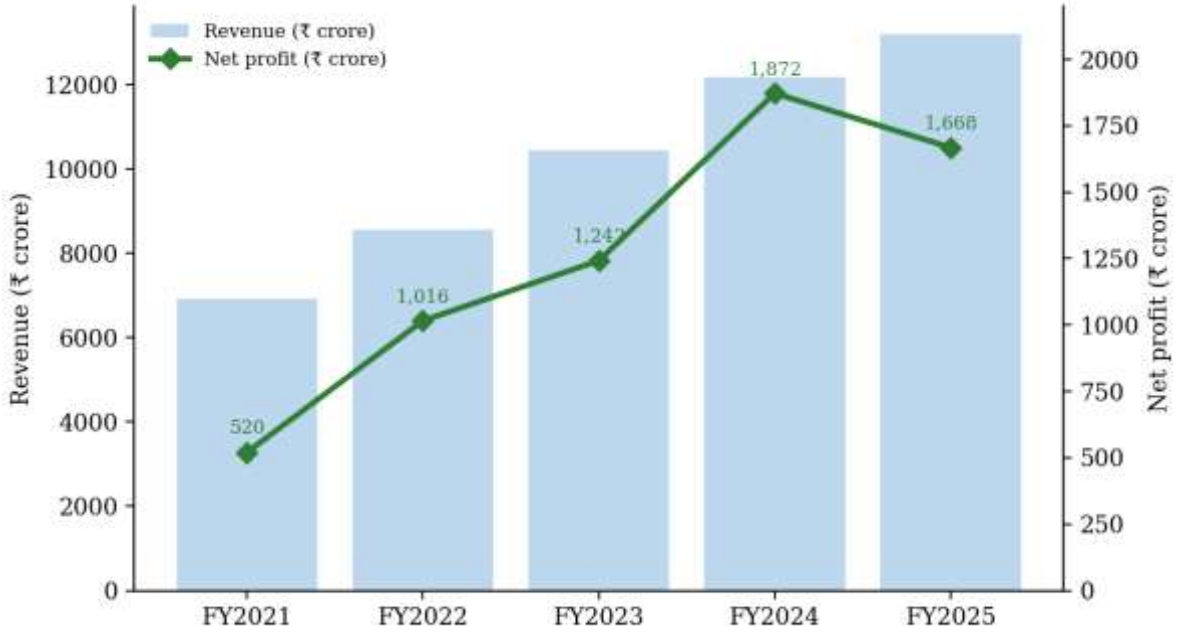


Figure 2: Revenue (bars, left axis) and net profit (line, right axis), FY2021–FY2025. Source: ABB India Limited annual reports, as compiled by Screener.in (2026a); full extract at Appendix A.

5.2 Cost of Equity (CAPM)

When the CAPM is applied using a risk-free rate of 6.95% (the 10-year Government of India bond yield in effect as of September 2026; Trading Economics, 2026) together with an India equity risk premium of 7.00% (Incwert, 2026), the resulting cost of equity hinges heavily on the beta chosen for ABB India. Two separate data providers give notably different beta estimates for this stock: Simply Wall St (2026) puts the beta at 0.68, whereas TipRanks (2026) gives a much higher beta of 1.49; the estimation windows used by the two providers were not compared, so the reason for the gap cannot be stated. Since the lower beta is also closer to the beta reported for Siemens Ltd (0.57; StockAnalysis, 2026), the only peer in Section 5.5 with an available beta, this paper takes $\beta = 0.70$ as its base case while expressly testing the higher estimate in the sensitivity analysis presented in Section 5.6.

$Ke = 6.95\% + 0.70 \times 7.00\% = 6.95\% + 4.90\% = 11.85\%$

In the absence of a reconstructible historical series for the risk-free rate, ERP, and beta specific to each of the five years, this 11.85% figure is applied as a constant across FY2021–FY2025 in Table 3 below – a simplifying assumption discussed further as a limitation in Section 7. A full step-by-step derivation is reproduced in Appendix D.

5.3 Cost of Debt: Why the Conventional Method Fails, and an Alternative

The standard approach to estimating the pre-tax cost of debt is Kd = Interest Expense ÷ Total Borrowings. Table 2 applies this formula to ABB India's reported figures for each year.

Table 2

Naive Cost of Debt Estimate, FY2021–FY2025 (₹ Crore)

Year	Interest Expense	Borrowings	Implied Pre-tax Kd
FY2021	19	37	51.4%
FY2022	15	33	45.5%
FY2023	13	49	26.5%
FY2024	16	52	30.8%
FY2025	20	85	23.5%

Source: Computed from ABB India Limited standalone P&L and balance sheet data (Screener.in, 2026a).

These implied costs of debt, ranging from 23.5% to 51.4%, do not make economic sense, and they show the weakness of applying the interest-expense method mechanically to a firm that has almost no debt. ABB India's borrowings line is

a small balance that most likely consists of lease liabilities recognised under Ind AS 116, while the interest item in the income statement may also include items such as interest on those leases and the unwinding of discount on long-term provisions. The numerator and denominator in the formula therefore do not relate to the same liability, and the resulting percentage is meaningless in economic terms. A company rated CRISIL AAA, the best domestic credit rating possible, cannot realistically have a cost of debt of 25–50%.

A more practical approach, when little debt has been borrowed from the market, is to estimate the cost of debt from the market yield that a company with an equivalent credit rating would be expected to pay. ABB India, like the two firms benchmarked below, has a credit rating of CRISIL AAA/Stable (CRISIL Ratings, 2025, 2026a, 2026b). In the second quarter of 2026, AAA-rated bonds were yielding about 7.0–8.3% (Gadekar, 2026). A pre-tax cost of debt of 7.6%, close to the middle of that range, and the firm's effective tax rate of 25% are used:

$$K_d(\text{post-tax}) = 7.6\% \times (1 - 0.25) = 5.70\%$$

This figure, rather than the distorted interest-expense ratio, is used as the cost of debt in the WACC computation that follows.

5.4 Weighted Average Cost of Capital, FY2021–FY2025

Combining the cost of equity (11.85%, held constant per Section 5.2), the post-tax cost of debt (5.70%, per Section 5.3), and the book-value weights for each year from Table 1 gives the WACC trend shown in Table 3.

Table 3

WACC Computation Using Book-Value Weights, FY2021–FY2025

Year	We (Book)	Wd (Book)	Ke	Kd (post-tax)	WACC
FY2021	99.1%	0.9%	11.85%	5.70%	11.79%
FY2022	99.3%	0.7%	11.85%	5.70%	11.81%
FY2023	99.2%	0.8%	11.85%	5.70%	11.80%
FY2024	99.3%	0.7%	11.85%	5.70%	11.81%
FY2025	98.9%	1.1%	11.85%	5.70%	11.78%

Source: Author's computation based on Tables 1–2. Full workings at Appendix D.

With current market-value weights, where the market capitalisation of ABB India is about ₹1,48,383 crore (14 October 2026; Screener.in, 2026a) against book debt of ₹85 crore in FY2025, the weight of equity exceeds 99.94% and the resulting market-value WACC (≈11.85%) is essentially equal to the book-value WACC. The main structural finding of the analysis is therefore that debt is economically insignificant in the capital structure of ABB India under both ways of weighting, so the firm's WACC is, for practical purposes, equivalent to its cost of equity. The tax deductibility of interest, the main benefit of financial leverage under the Modigliani and Miller (1963) approach, is available to ABB India but is hardly used: even if the whole FY2025 interest expense of ₹20 crore were treated as deductible debt interest, the tax saving at 25% would be only about ₹5 crore.

Over the five-year period, the WACC is basically flat (11.78% to 11.81%), since the D/E ratio moved only between 0.7% and 1.1%, which is too small a base to influence the blended rate. This steadiness stands in sharp contrast to the trajectory of the firm's underlying profitability, which is illustrated in Figure 4 and examined further in Section 5.7.

5.5 Peer Benchmarking

Table 4 presents a comparison of ABB India with two similar industry peers: Siemens Limited (75% owned by Siemens AG, Germany) and Hitachi Energy India Limited (71.3% owned by Hitachi Energy Ltd, Switzerland, a wholly owned subsidiary of Hitachi, Ltd., Japan; CRISIL Ratings, 2026a). Both companies fall under the same "Heavy Electrical Equipment" industry classification used by Screener.in as ABB India. The complete raw data for these peers is provided in Appendix C, and Figure 3 compares their leverage and beta.

Table 4

Peer Comparison – Capital Structure and Cost of Capital Indicators (Latest Available)

Company	D/E (Book)	Beta	Credit Rating	ROE	Est. Ke (CAPM)
ABB India Ltd	1.1%	0.68–0.70	CRISIL AAA/Stable	22.4%	≈11.85%
Siemens Ltd	1.1%	0.57	CRISIL AAA/Stable	11.8%	≈10.94%
Hitachi Energy India Ltd	1.7%	n/a*	CRISIL AAA/Stable	21.9%	≈11.85%*

**Beta for Hitachi Energy India Ltd was not available from the sources consulted; ABB India's 0.70 was assumed to obtain the illustrative Ke shown. Book D/E is borrowings divided by equity capital plus reserves at the latest reported year-end (ABB India: December 2025; Siemens, consolidated: September 2025; Hitachi Energy India: March 2026). ROE is the latest figure shown by Screener.in. Betas: Simply Wall St (2026) and TipRanks (2026) for ABB India; StockAnalysis (2026) for Siemens. Sources: Screener.in (2026a, 2026b, 2026c); CRISIL Ratings (2025, 2026a, 2026b).*

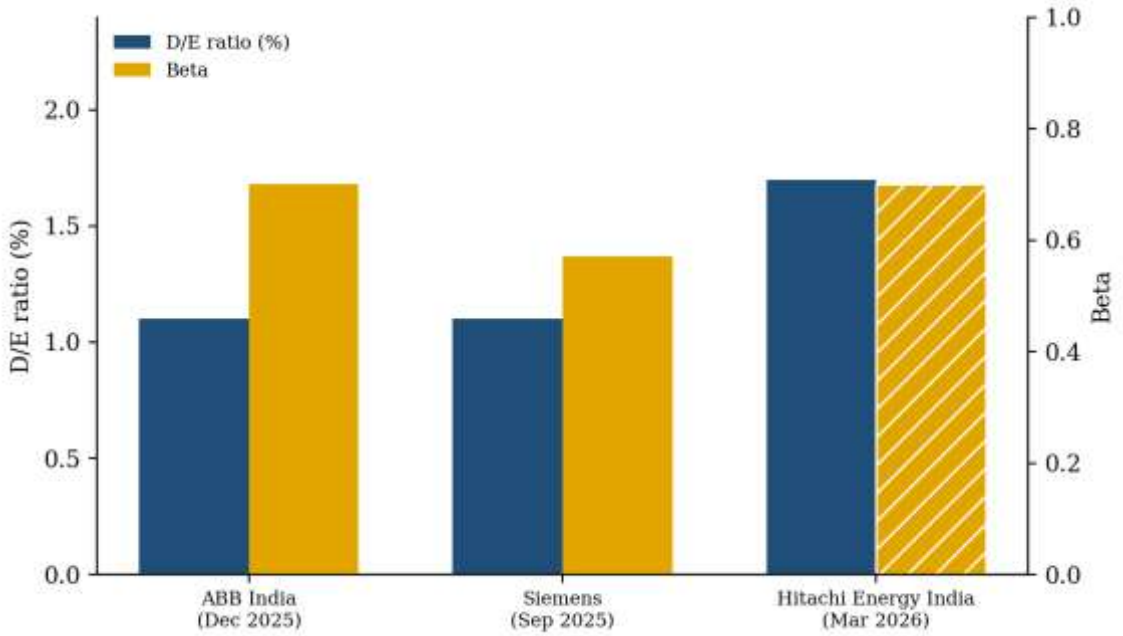


Figure 3: Leverage (D/E ratio, left axis) and beta (right axis) for ABB India and its two closest listed peers; the hatched bar is an assumed beta. Source: Table 4.

All three companies display a similar profile: each is an Indian subsidiary majority-owned by a global engineering group, each holds the top domestic credit rating (CRISIL AAA/Stable), and each runs with a book debt-to-equity ratio under 2%. CRISIL also notes the low debt and large cash balances of all three (CRISIL Ratings, 2025, 2026a, 2026b). This may point to a financing practice common among MNC-controlled capital-goods subsidiaries in India, or to parent-driven policy: growth is funded through retained earnings instead of market borrowing, which keeps financial-distress risk to a minimum even if it means giving up the debt tax shield. The estimated cost of equity of ABB India (11.85%) is about 0.9 percentage points above that of Siemens (10.94%), and the gap comes entirely from the higher beta used for ABB India (0.70 against 0.57). The ROE of Hitachi Energy India (21.9%) is close to that of ABB India (22.4%), while that of Siemens (11.8%) is much lower. Because the peer figures refer to different year-ends (see the note to Table 4), the comparison is indicative only.

5.6 Sensitivity Analysis of WACC to CAPM Assumptions

Since the CAPM inputs applied earlier—especially beta—differ considerably among data providers, Table 5 examines how sensitive the FY2025 WACC estimate is to plausible alternative assumptions.

Table 5

Sensitivity of FY2025 WACC to CAPM Inputs

Scenario	Rf	ERP	Beta	Ke	WACC (Book Weights)
Base case	6.95%	7.00%	0.70	11.85%	11.78%
Low-rate scenario	6.50%	7.00%	0.70	11.40%	11.34%
High-ERP scenario	6.95%	7.50%	0.70	12.20%	12.13%
High-beta scenario	6.95%	7.00%	1.49	17.38%	17.25%

Source: Author's computation. The cost of debt (5.70%) and the FY2025 book-value weights are held constant in all scenarios.

The WACC responds much more strongly to the beta assumption than to either the risk-free rate or the equity risk premium: shifting from the low beta estimate (0.68–0.70) to the high one (1.49) pushes the WACC up by more than five percentage points, from 11.78% to 17.25%, while reasonable variation in the risk-free rate or ERP on its own changes the WACC by considerably less than one percentage point. This highlights how important it is to rely on a defensible, well-sourced beta – preferably an average across data providers or one estimated directly through regression on a sufficiently long return series – instead of accepting a single vendor's figure without question.

5.7 WACC versus Return on Capital Employed: A Value-Creation Perspective

A firm's cost of capital is only useful in isolation to a certain extent; its true importance becomes apparent when it is set against the return the firm actually generates on the capital invested in its business. Table 6 and Figure 4 compare ABB India's WACC (about 11.8% in all years, as stated in Section 5.4) with its Return on Capital Employed (ROCE) in each of the five years, both before and after tax.

Table 6

ABB India Ltd – WACC versus ROCE, FY2021–FY2025

Year	ROCE (pre-tax)	ROCE (after tax)	WACC	Spread (after-tax ROCE − WACC)
FY2021	16%	11.7%	11.79%	−0.1 pp
FY2022	23%	17.3%	11.81%	+5.5 pp
FY2023	31%	23.3%	11.80%	+11.5 pp
FY2024	39%	29.3%	11.81%	+17.5 pp
FY2025	30%	22.5%	11.78%	+10.7 pp

Source: ROCE from Screener.in (2026a); WACC from Table 3. After-tax ROCE = ROCE × (1 − effective tax rate of the year: 27% in FY2021, 25% in the other years); it is approximate because ROCE is rounded to whole percentages.



Figure 4: Pre-tax ROCE (solid line), after-tax ROCE (dotted line) and WACC (dashed line), FY2021–FY2025. Source: Table 6.

Pre-tax ROCE rose from 16% in FY2021 to 39% in FY2024 and then fell to 30% in FY2025. Since WACC is an after-tax rate, the fairer comparison is with after-tax ROCE. On that basis FY2021 was close to break-even (after-tax ROCE of 11.7% against a WACC of 11.79%), the spread widened to 17.5 percentage points (pp) in FY2024, and it narrowed to 10.7 pp in FY2025, when net profit fell from ₹1,872 crore to ₹1,668 crore and the operating margin dropped from 19% to 15%. ABB India therefore earned more than its cost of capital in every year from FY2022 to FY2025, but the spread did not keep widening throughout the period. It remained well above zero in FY2025 on a capital base funded almost entirely by equity. The ROCE figures are Screener.in's ratios and are not adjusted for the large cash balance the company holds (about ₹4,000 crore at June 2025; CRISIL Ratings, 2025).

6. Discussion and Implications for Investment Decisions

The preceding analysis gives rise to three consequences. First, for equity analysts and investors who value ABB India through a discounted cash flow method, the suitable discount rate is effectively the company's cost of equity and not a blended WACC, because debt carries a negligible weight in the capital structure; applying a textbook WACC formula without acknowledging this would not significantly alter the figure, yet grasping the reason matters for properly interpreting the firm's risk profile and for steering clear of the mistake of presuming a meaningful tax shield where none exists.

Second, the positive gap between after-tax ROCE and WACC reported in Section 5.7 indicates that ABB India has earned more than its cost of capital from FY2022 onward, although the gap narrowed in FY2025 when the operating margin fell. Viewed through a capital-budgeting lens, this implies that many of ABB India's incremental investment opportunities – including those with only moderately appealing project-level returns – would probably show positive Net Present Values when discounted at the firm's actual cost of capital, which supports organic capacity expansion. The FY2025 decline is also a reminder that the spread depends on margins, which can change.

Third, the almost non-existent leverage seen at ABB India, and mirrored at its two nearest listed peers, poses a fair question for discussions of corporate governance and capital structure: does this financing approach serve the interests of minority shareholders, or is it a sign of a cautious, parent-led policy that gives up a modest yet genuine tax advantage of debt in return for a simpler balance sheet and lower financial risk for the promoter group? Considering how stable the cash flows are, the AAA credit rating, and how consistently this pattern appears across peers, a moderate rise in leverage (say, to finance a major capacity expansion) could probably be taken on without weakening the credit profile, given the

cash balances CRISIL reports (about ₹4,000 crore at June 2025; CRISIL Ratings, 2025), and could slightly reduce the blended cost of capital without meaningfully increasing financial risk – something the company's board may want to consider in future capital-structure decisions.

7. Limitations of the Study

A number of limitations ought to be acknowledged. First, the CAPM inputs (the risk-free rate, the equity risk premium, and beta) were obtainable only as present, point-in-time estimates and were then applied in the same way across all five years; a truly rigorous study would rebuild year-specific risk-free rates along with rolling betas. Second, beta estimates for ABB India differed considerably across data providers (0.68 as against 1.49), and although the paper's selection of the lower estimate can be defended on grounds of peer consistency, it remains a judgement call rather than an objectively "correct" figure. Third, the proxy adopted for the cost of debt is an indicative AAA-rated market yield, not the company's own actual borrowing cost, because ABB India's borrowings are negligible and mostly lease-related, which rules out a dependable direct estimate. Fourth, the capital-structure weights at market value were calculated from the company's current (October 2026) market capitalisation instead of a reconstructed year-end figure for each of the five years, as consistent historical market-capitalisation data covering all five years could not be obtained from the sources consulted. Fifth, the ROCE figures are Screener.in's pre-tax ratios, and the after-tax adjustment in Table 6 applies the effective tax rate to a rounded figure, so it is only approximate. Finally, the peer data refer to different year-ends (ABB India: December 2025; Siemens: September 2025; Hitachi Energy India: March 2026), and the betas and some other peer inputs come from data aggregators rather than from company filings.

8. Conclusion

This study estimated the cost of capital for ABB India Limited across FY2021–FY2025, applying CAPM for the cost of equity, a credit-rating-based proxy for the cost of debt, and both book-value and market-value weights for WACC. The key result is that ABB India is essentially debt-free and rated CRISIL AAA, with its WACC (roughly 11.8–11.9%) almost wholly determined by its cost of equity — a pattern also seen in its closest listed peers, Siemens Limited and Hitachi Energy India Limited. Measured against after-tax Return on Capital Employed, which rose from 11.7% in FY2021 to 29.3% in FY2024 and then eased to 22.5% in FY2025, the analysis indicates that ABB India earned returns above its cost of capital in every year from FY2022 to FY2025, with FY2021 close to break-even. The study further highlights a practical pitfall in estimating the cost of capital — the standard interest-expense approach to the cost of debt fails for nearly debt-free companies — and presents a credit-rating-based alternative that yields a much more economically sound result. Subsequent research could build on this analysis by reconstructing year-specific historical CAPM inputs, and by investigating whether a moderate rise in leverage would add value for ABB India, given its steady cash flows and top-tier credit rating.

References

ABB India Limited. (2025). *Integrated annual report 2024*. https://www.bseindia.com/xml-data/corpfiling/AttachHis/dd2b0650-5092-495e-9c42-f35f1e479dee.pdf

ABB India Limited. (2026). *Annual report 2025*. https://www.bseindia.com/xml-data/corpfiling/AttachHis/3e1f777e-4988-48f8-b545-f788c673245c.pdf

Brealey, R. A., Myers, S. C., & Allen, F. (2020). *Principles of corporate finance* (13th ed.). McGraw-Hill Education.

Chandra, P. (2019). *Financial management: Theory and practice* (10th ed.). McGraw Hill Education.

CRISIL Ratings. (2025, December 22). *Rating rationale: ABB India Limited*. https://www.crisil.com/mnt/winshare/Ratings/RatingList/RatingDocs/ABBIndiaLimited_December%2022_%202025_RR_385051.html

CRISIL Ratings. (2026a, June 19). *Rating rationale: Hitachi Energy India Limited*. https://www.crisil.com/mnt/winshare/Ratings/RatingList/RatingDocs/HitachiEnergyIndiaLimited_June%2019_%202026_RR_398707.html

CRISIL Ratings. (2026b, July 2). *Rating rationale: Siemens Limited*. https://www.crisil.com/mnt/winshare/Ratings/RatingList/RatingDocs/SiemensLimited_July%2002_%202026_RR_398759.html

Damodaran, A. (2026). *Equity risk premiums (ERP): Determinants, estimates and implications – The 2026 edition*. SSRN. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6361419

Gadekar, S. (2026, June 10). *Corporate bond interest rates in India 2026: Current rates by rating, sector, and how they compare to FDs*. BondScanner. https://bondscanner.com/blog/corporate-bond-interest-rates-india-2026

Incwert. (2026). *Equity risk premium 2026 – Independent valuation services*. https://incwert.com/equity-risk-premium-2026/

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *American Economic Review, 48*(3), 261–297.

Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: A correction. *American Economic Review, 53*(3), 433–443.

Myers, S. C. (1984). The capital structure puzzle. *The Journal of Finance, 39*(3), 574–592. https://doi.org/10.1111/j.1540-6261.1984.tb03646.x

Pandey, I. M. (2021). *Financial management* (12th ed.). Vikas Publishing House.

Screener.in. (2026a). *ABB India Ltd: Company financials, ratios and peer comparison*. https://www.screener.in/company/ABB/

Screener.in. (2026b). *Hitachi Energy India Ltd: Company financials, ratios and peer comparison*. https://www.screener.in/company/POWERINDIA/

Screener.in. (2026c). *Siemens Ltd: Company financials, ratios and peer comparison*. https://www.screener.in/company/SIEMENS/consolidated/

Simply Wall St. (2026). *ABB India Limited (NSEI: ABB) stock report*. https://simplywall.st/stocks/in/capital-goods/nse-abb/abb-india-shares

StockAnalysis. (2026). *Siemens (NSE:SIEMENS) statistics & valuation metrics*. https://stockanalysis.com/quote/nse/SIEMENS/statistics/

TipRanks. (2026). *ABB India Limited (IN:ABB): Stock statistics & valuation metrics*. https://www.tipranks.com/stocks/in:abb/statistics

Trading Economics. (2026). *India 10-year government bond yield*. https://tradingeconomics.com/india/government-bond-yield