WACC – Weighted Average Cost of Capital

Assignment for You (Real-time Practice):

💼 **Company: Tata Motors Ltd (India) – Assume it's for project finance evaluation.**

Your task: Calculate the WACC for Tata Motors using:

1. **Market Data (as of today – approximate values):**
   - Market Capitalization: ₹180,000 crore
   - Total Debt (from balance sheet): ₹65,000 crore
   - Cost of Equity: Use **CAPM Formula**: $Re=Rf+\beta(Rm-Rf)$

Assume:

- Risk-Free Rate (Rf): 6.8% (10-year Indian Govt Bond)
- Beta (β): 1.3
- Market Return (Rm): 12%

2. **Cost of Debt:**
   - Use average debt interest rate: 7.5%
   - Tax Rate: 25%
3. **Tasks:**
   - ✅ Calculate Cost of Equity using CAPM
   - ✅ Compute proportions of Equity and Debt
   - ✅ Plug into WACC formula
   - ✅ Conclude whether a project requiring 11% IRR is viable based on this WACC

Solution:

Input Data	
	Cr
Market Cap	180000
Total Debt	65000
Debt	
Interest	7.50%
Tax rate	25%
CAPM	$Re=Rf+\beta(Rm-Rf)$

WACC - Tata Motors

Risk free Rate	6.87%
Market Risk Premium	12.00%
Beta	1.3

Now let us calculate WACC from the above input data:

(in Crs)	Amount
Cost of Equity	13.54%
Cost Debt	5.63%
Equity	1,80,000.00
Debt	65,000.00
Total Capital	2,45,000.00
Equity/(Equity+Debt)	0.734693878
Debt/(Equity+Debt)	0.265306122
WACC	11.44%

Conclusion or Analysis from the WACC (11.44%)

1. **WACC as Benchmark (Hurdle Rate):**
   The Weighted Average Cost of Capital of **11.44%** represents the **minimum return** Tata Motors must earn on its investments to satisfy its equity holders and debt providers.

2. **Project Viability Insight:**
   Any **project or investment** by Tata Motors that yields an **IRR (Internal Rate of Return) greater than 11.44%** will **create shareholder value**.
   If a project's IRR is **below 11.44%**, it will **destroy value** and should be reconsidered.

3. **Cost Structure Interpretation:**
   The higher weight of equity (~73%) and the relatively higher cost of equity (13.54%) indicates Tata Motors has a **more equity-heavy capital structure**, making its overall cost of capital somewhat expensive.

4. **Debt Efficiency:**
   The after-tax cost of debt is significantly lower (5.63%), which means **debt is currently a cheaper source of capital** compared to equity. Tata Motors could potentially **optimize its capital structure** by strategically using more debt — if financially prudent — to lower its WACC.

5. **Investment Strategy Direction:**
   With a WACC of 11.44%, Tata Motors should focus on:

   - Projects with **high return on capital employed (ROCE)**
   - Initiatives that **improve margins or reduce volatility**
   - Investments in **high-growth segments** like EVs or global expansion, if they yield returns >11.44%

PS: This was just an exercise to practice the WACC method. This is not based on actual financial values.

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