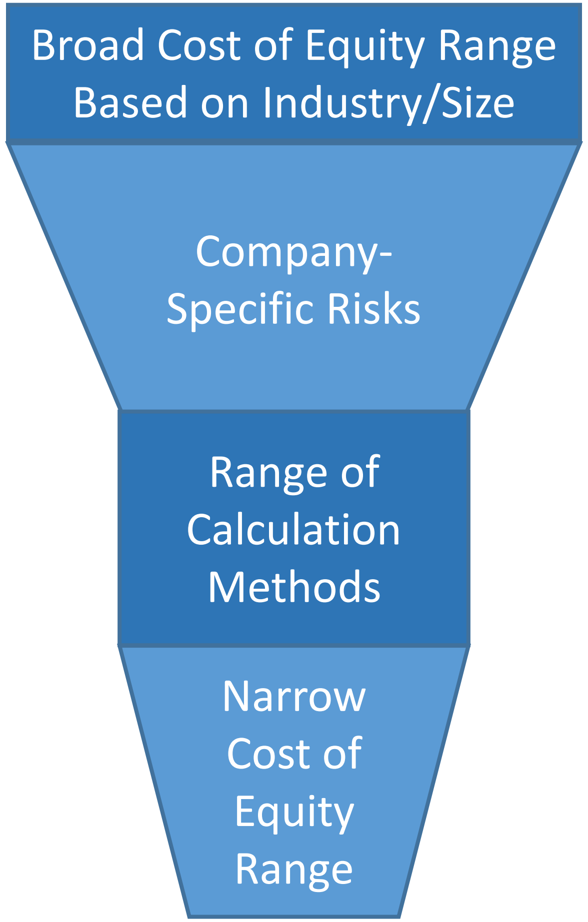

The Cost of Equity in Valuations for Public Companies, Startups, and More

Which Bucket Are You In, and How Do You Filter the Bucket?

If you want this tutorial in writing, along with screenshots, the Excel examples, and the company documents, go to this URL (**pinned in the comments**):

https://breakingintowallstreet.com/kb/valuation/cost-of-equity/

The Short Answer…

- **Cost of Equity:** To a company, the cost of issuing *additional Common Stock* to operate (cash costs + dilution)

- **Cost of Equity:** To investors, the expected or targeted annualized rate of return from buying the Common Stock

- **Cost of Equity > Cost of Debt:** Higher risk and potential returns
- **Formula:** Risk-Free Rate + Equity Risk Premium * Levered Beta

- **Risk-Free Rate:** 10-year government bond yield corresponding to the company's currency (e.g., U.S. Treasuries for U.S. companies)

The Short Answer…

- **Equity Risk Premium:** The additional percentage the stock market is expected to return *over* this Risk-Free Rate in the long term ([Damodaran has the best data, updated each year])

- **Levered Beta:** How risky *this specific company is* relative to the entire market (both operational + financial risk; can find on plenty of sites, like Google/Yahoo Finance, FinViz, etc.)

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- **EX:** RFR of 4.0% + ERP of 5.0% * LB of 1.2 = 10.0%

- **Most Common Uses:** WACC calculation in a DCF and related analyses (Levered DCF, Dividend Discount Model, etc.)

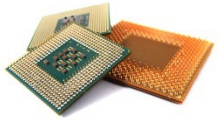
The Short Answer…

- **The "Why":** Goal is to start with a *broad idea* of the company's risk and potential returns and then *narrow it* to a **2 – 3% spread**


5 – 10% Cost of Equity

Company-Specific Adjustments and Range of Calculation Methods

Narrower Range (e.g., 5 – 7%)




10 – 15% Cost of Equity

Company-Specific Adjustments and Range of Calculation Methods

Narrower Range (e.g., 10 – 12%)


15%+ Cost of Equity

Company-Specific Adjustments and Range of Calculation Methods

Narrower Range (e.g., 25 – 30%)

Cost of Equity: Lesson Plan

• **Part 1:** Real-Life Examples (WES and STLD)	**6:20**
• **Part 2:** Cost of Equity Based on Dividends and Net Income	**9:55**
• **Part 3:** Startups, Speculative Companies, and Other Uses	**12:44**
• **Part 4:** How Does the Cost of Equity Change When…	**14:31**

Part 1: Real-Life Examples (WES and STLD)

- **Risk-Free Rate and Equity Risk Premium:** Very simple to find

- **Levered Beta:** Could calculate in at least 3 different ways!

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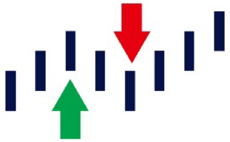
- **Historical Levered Beta:** Take from online sources; based on company's stock price history



- **Re-Levered Beta:** "Un-lever" Beta for the peer companies to separate operational and financial risk and then re-lever it for the subject company based on its capital structure *or* the capital structure of the comps

Part 1: Real-Life Examples (WES and STLD)

- **Unlevered Beta** = Levered Beta / (1 + Debt / Equity * (1 – Tax Rate) + Preferred / Equity)

- **Numbers:** Should always be less than or equal to Levered Beta; we want *just* the operational risk

- **Process:** Calculate for all companies and take the median

- **Re-Levered Beta** = Unlevered Beta * (1 + Debt / Equity * (1 – Tax Rate) + Preferred / Equity)

Part 2: K_e Based on Dividends and Net Income

- **Cost of Equity =** Projected Dividend Yield + Dividend Growth Rate

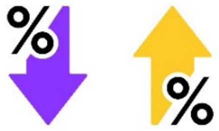
- **Cost of Equity** = Projected Net Income / Current Equity Value

- **Dividend Method:** Best for stable, mature companies that **issue regular Dividends** (utilities, banks, etc.)

- **Net Income Method:** Used for EPS accretion/dilution in M&A

- **Pros / Cons:** Useful to narrow down the range but require a real projection model to use

Part 3: Startups and Speculative Companies



- **Startups, Distressed Companies, Emerging Markets:** The Cost of Equity could be almost anything!

- **Rough Ranges for Startups (High Failure Rates):**

- **Seed:** 50 –70%
- **Series A:** 30 – 50%
- **Series B:** 20 – 30%
- **Series C / D / Beyond:** 10 – 20%

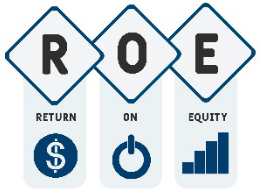
- **Normal Approach:** Start high and reduce it over time

Part 3: Startups and Speculative Companies

- **Project Finance and Real Estate:** Cost of Equity is often based on the investors' *targeted equity returns*

- **EX:** If the targeted Equity IRR of new 100 MW solar plant developments is 12%, that's the Cost of Equity

- **Uses:** Can compare the actual Equity IRR to the Cost of Equity; can also compare Return on Equity to Cost of Equity for financial firms, such as banks and insurers



Part 4: How the Cost of Equity Changes When…

- **Common Interview Question:** "How do the Cost of Equity and WACC change when the [RFR / ERP / Beta / Tax Rate] changes?"

- **Key:** Think intuitively about **the risk** and whether this change increases or reduces it

Changes to the DCF Analysis and the Impact on Cost of Equity, Cost of Debt, WACC, and Implied Value:

NOTE that there are exceptions and special cases with all these rules. These are *general rules of thumb* that often, but do not always, hold up in real life. See the written explanations below.

DCF Change:	Cost of Equity:	Cost of Debt:	WACC:	Implied Value from Unlevered DCF:
Smaller Company	Higher	Higher	Higher(*)	**Lower(*)**
Bigger Company	Lower	Lower	Lower(*)	**Higher(*)**
Emerging Market	Higher	Higher	Higher	**Lower**
No Debt to Some Debt	Higher	Higher	Lower, then Higher	**Higher, then Lower**
Some Debt to No Debt	Lower	Lower	Depends	**Depends**
Count Operating Leases as Debt	Lower(**)	N/A	Lower(**)	**Depends; Usually Similar**
Higher Risk-Free Rate	Higher	Higher	Higher	**Lower**
Lower Risk-Free Rate	Lower	Lower	Lower	**Higher**
Higher Equity Risk Premium	Higher	N/A	Higher	**Lower**
Lower Equity Risk Premium	Lower	N/A	Lower	**Higher**
Higher Beta	Higher	N/A	Higher	**Lower**
Lower Beta	Lower	N/A	Lower	**Higher**
Higher Tax Rate	Lower(***)	Lower(***)	Lower(***)	**Depends; Usually Lower**
Lower Tax Rate	Higher(***)	Higher(***)	Higher(***)	**Depends; Usually Higher**

Recap and Summary

- **Part 1:** Real-Life Examples (WES and STLD)

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- **Part 2:** Cost of Equity Based on Dividends and Net Income


- **Part 3:** Startups, Speculative Companies, and Other Uses


- **Part 4:** How Does the Cost of Equity Change When…