Valuation

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Equity Value and Enterprise Value

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Enterprise Value vs. Equity Value

Enterprise Value = Equity Value + Net Debt (Total Debt – Cash & ST Securities)

Enterprise Value

- EV represents the value of the company's core business operations to all investors
- On a practical level EV also implies how much you would have to pay to acquire the entire business. I.e., buying out the interests of both debt and equity investors
- Not influenced by financing actions

Equity Value

- Equity Value represents the value of all a company's assets, but only to the company's equity investors
- Includes non-operating assets and liabilities
- Equity Value is influenced by financing actions

Net Debt and Financial Obligations

When moving from Enterprise Value to Equity Value (and Vice Versa) we want to consider the impacts of non-operating assets and liabilities

Easy Formula	Complex Formula
• **Enterprise Value** = Equity Value + Total Debt – Excess Cash	• **Enterprise Value** = Equity Value + Total Debt + Non-Controlling Interest + Preferred Stock + Financing Leases Unfunded Pension Obligations – Excess Cash – Net Operating Losses – Equity Investments

Perpetuity Formula

A company's value is measured based off its cash flow, discount rate, and future growth

$$\text{Value} = \frac{Cash\ Flow}{Discount\ Rate - Growth\ Rate}$$

- Give a constant WACC and growth rate, we can estimate the value of the company
  - Use WACC and ULFCF for Enterprise Value
  - Use Cost of Equity and LFCF for Equity Value
- We will dive into what these terms are later in the lecture
- Note: this formula is really important for interviews

1. Note: This formula is simply an infinite geometric sum assuming the present value of the future cash flows approaches 0 into perpetuity

Advanced Perpetuity Formula

We can further disaggregate the value drivers of a company

$$Value = \frac{NOPAT * \left(1 - \left(\frac{g}{ROIC}\right)\right)}{WACC - G}$$

- Re-Investment Rate = (g/ROIC)
  - Free Cash Flow = NOPAT * (1 – Re-Investment Rate)
  - This is disaggregating free cash flow into growth and returns on capital which we will cover later

Intrinsic vs Relative Valuation

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Intuition of Valuation

Why do we care and what do we use it for?

- The entire theory of value investing is purchasing shares in a business at a discount to actual value
- Less than high quality companies can become excellent investments given the right price
  - Highest quality of company can prove to be a poor investment given an egregious valuation
- Valuation is critical because it enables us to determine which companies are trading at the wrong price and which companies are trading at prices that could make them attractive investments
- There are two primary valuation methodologies: intrinsic valuation and relative valuation

Intrinsic Valuation vs. Relative Valuation

Intrinsic Valuation

- Intrinsically values a company based off expected future cash flow generation
- Works more through theory not the market
- Based heavily on modeled assumptions

Relative Valuation

- Bases the value of the firm off what its peer companies are valued at
- Determines this valuation off some "multiple" of a metric
- Ex: EV/EBITDA, EV/EBIT, EV/Revenue
- Include Comparable Companies, Precedent Transactions, etc…

Valuation in Practice

Intrinsic Valuation

- Use the company's historical financials to project revenue down to cash flows
- Determine the sum of the present value of those cash flows to arrive at a valuation

Relative Valuation

- Determine what multiples peer firms are trading at
  - Ex: EV = 8x EV/EBITDA, 6x EV/EBITDA, etc…
- Take the min, first quartile, median, etc… of the data set
- Apply multiple to company's metric
- Ex: Company ABC has 100 million EBITDA. Using the median 7x EV/EBITDA leads Enterprise Value to 700 million