

COMPANY VALUATION METHODS

1. Discounted Cash Flow (DCF) Valuation

Estimates the present value of a company's future cash flows, taking into account the time value of money.

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n}$$

Pros:

- Values a company based on its expected future cash flows.
- Widely used and accepted by financial analysts.

Cons:

- Requires detailed financial projections and assumptions.
- Sensitive to changes in discount rates and growth projections.

2. Comparable Company Analysis (CCA)

Compares a company's valuation metrics to those of similar publicly traded companies to determine its fair market value.

$$\text{Valuation Multiple} = \frac{\text{Company's Metric}}{\text{Comparable Company's Metric}}$$

Various financial ratios like P/E, P/S, or P/B ratios are used for comparison:

$$P/E \text{ Ratio} = \frac{\text{Market Price per Share}}{\text{Earnings per Share}}$$

$$P/S \text{ Ratio} = \frac{\text{Market Price per Share}}{\text{Revenue per Share}}$$

$$P/B \text{ Ratio} = \frac{\text{Market Price per Share}}{\text{Book Value per Share}}$$

Pros:

- Uses market prices and ratios for valuation.
- Easier and quicker than DCF.

Cons:

- Relying on market comparables may not account for unique company factors.
- Valuation heavily depends on the accuracy of comparable company data.

3. Precedent Transactions Analysis

Examines the target company's financial metrics in relation to metrics from past comparable transactions.

$$\text{Valuation Multiple} = \frac{\text{Transaction Price}}{\text{Company's Relevant Metric}}$$

Similar to CCA, uses financial ratios derived from transaction prices, revenue multiples, or EBITDA multiples.

Pros:

- Based on prices paid in actual past transactions.
- Reflects market dynamics at the time of the transactions.

Cons:

- Availability of relevant precedent transactions may be limited.
- Dependent on market conditions at the time of past transactions.

4. Asset-Based Valuation

Calculates a company's worth based on its tangible and intangible assets.

$$\text{Asset Value} = \text{Fair Market Value of Assets} - \text{Liabilities}$$

Pros:

- Focuses on the company's tangible assets.
- Relatively simpler, especially for asset-heavy companies.

Cons:

- Ignores the value of intangible assets like brand and goodwill.
- May not be suitable for companies in dynamic industries.

5. Earnings Multiples

Uses multiples of earnings or EBITDA to value a company in relation to its profitability.

$$P/E \text{ Ratio} = \frac{\text{Market Price per Share}}{\text{Earnings per Share}}$$

$$EV/EBITDA \text{ Ratio} = \frac{\text{Enterprise Value}}{EBITDA}$$

Pros:

- Reflects market sentiments and expectations.
- Provides a quick comparison between companies.

Cons:

- Relies on accurate and sustainable earnings.
- Multiples can vary significantly between industries.

6. Liquidation Valuation

Liquidation valuation estimates a company's worth based on the assumption that its assets are sold and liabilities paid off.

$$\text{Liquidation Valuation} = \text{Fair Market Value of Assets} - \text{Total Liabilities}$$

Pros:

- Provides a valuation based on the assumption of liquidating assets.
- Useful for troubled companies facing bankruptcy.

Cons:

- Ignores the value of the company as a going concern.
- Market values of assets in a liquidation scenario may differ.

7. Weighted Average Cost of Capital (WACC)

Financial metric that represents the average rate of return a company is expected to pay to its investors (both debt and equity) to finance its assets.

$$WACC = \frac{E}{V} \cdot Re + \frac{D}{V} \cdot Rd \cdot (1 - Tc)$$

Pros:

- Reflects the cost of capital for a company.
- Helps in discounting future cash flows in DCF analysis.

Cons:

- Requires accurate estimation of the cost of equity and cost of debt.
- Sensitivity to changes in these inputs.

where:

- E is the market value of equity,
- V is the total market value of equity and debt,
- Re is the cost of equity,
- D is the market value of debt,
- Rd is the cost of debt,
- Tc is the corporate tax rate.