

Introduction to Valuation Methods

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Purpose: Provide a clear, organized overview of the main techniques used to determine the economic value of assets, businesses, or projects.

1. Why Valuation Matters

Reason	What It Helps With
Investment decisions	Assess whether an asset is under? or over?priced
Mergers & acquisitions (M&A)	Set fair purchase or sale prices
Financial reporting	Meet accounting standards (e.g., IFRS, GAAP)
Litigation & dispute resolution	Provide objective evidence of value
Tax planning	Determine basis for capital gains, estate, or gift taxes
Strategic planning	Prioritize projects, allocate capital, evaluate divestitures

2. Core Valuation Approaches

Approach	Key Concept	Typical Use Cases
Discounted Cash Flow (DCF)	Value = present value of expected future cash flows	Long?term projects, mature businesses, infrastructure
Comparable Company Analysis (Comps)	Value derived from market multiples of similar firms	Public?company benchmarking, quick market?based checks
Precedent Transaction Analysis	Value based on prices paid in comparable past deals	M&A negotiations, private?company valuations
Asset?Based Valuation	Value equals net asset value (assets – liabilities)	Real estate, holding companies, liquidation scenarios
Option?Based Valuation (Real Options)	Value of flexibility to make future decisions	R&D projects, natural resource extraction, tech start?ups
Sum?of?the?Parts (SOTP)	Value = sum of individual business unit valuations	Conglomerates, diversified corporations

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3. Discounted Cash Flow (DCF) Method

3.1 Steps

1. Forecast Free Cash Flows (FCF)

- *Operating cash flow – capital expenditures – change in working capital*
- Usually 5-10 years, then a terminal period.

2. Choose a Discount Rate

- **Weighted Average Cost of Capital (WACC)** for firm-wide valuation.
- **Cost of Equity** (CAPM) for equity-only valuation.

3. Calculate Present Value (PV)

$$[PV = \sum_{t=1}^n \frac{FCF_t}{(1+WACC)^t} + \frac{TV}{(1+WACC)^n}]$$

4. Determine Terminal Value (TV)

- **Perpetuity growth model:** $(TV = \frac{FCF_n \times (1+g)}{WACC - g})$
- **Exit multiple method:** Apply an industry multiple to the final year metric.

5. Perform Sensitivity Analysis

- Vary key inputs (growth rate, WACC, margins) to see impact on value.

3.2 Advantages & Limitations

Advantages

Focuses on cash generation

Works for any industry

Captures time value of money

Limitations

Highly sensitive to assumptions

Requires reliable forecasts

Complex for non-stable cash flows

4. Comparable Company Analysis (Comps)

4.1 Process

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1. **Select Peer Group** – Similar size, geography, industry, growth profile.
2. **Gather Market Data** – Share price, enterprise value (EV), earnings, EBITDA, etc.
3. **Calculate Multiples** – Common ones: EV/EBITDA, P/E, EV/Sales, Price/Book.
4. ****Apply Median/Mean**