

BUSINESS VALUATION

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The Context of Business Valuation

- Mergers and acquisitions
- Fundamental analysis for share valuation
- Evaluation of a business strategy

Perpetuity Formula

- Enterprise Value =
$$\text{FCF}_{t+1} / (\text{WACC} - g)$$
- Free cash flow (FCF) is the cash flow from operations reduced by incremental investment in fixed assets and working capital
- FCF is cash available for distribution to all investors
- g represents constant growth rate

Key Value Drivers

- Value =
$$\frac{[\text{NOPLAT}_{t=1} \times (1-g/\text{ROIC})]}{\text{WACC} - g}$$
- Value drivers : Growth; ROIC; and Cost of capital
- Net operating profit less adjusted tax (NOPLAT)

EVA Model

Value =

Invested capital + PV of
projected EVA

Multiples: P/E

- P/E is affected by capital structure
- Inverse of P/E is the capitalisation rate of a no-growth company
- P/E should be calculated using projected earnings for the next year
- $V = E/(r - g)$ or $r = E/V + g$

Drivers of Earnings Multiple

- $$\text{Value} = \frac{\text{NOPLAT}_{T=1} \times (1-g/\text{ROIC})}{\text{WACC} - g}$$
- $$\frac{\text{Value}}{\text{NOPLAT}_{t=1}} = \frac{(1-g/\text{ROIC})}{\text{WACC} - g}$$
- If $g = 0$, $\text{Value} / \text{NOPLAT}_{t=1} = 1/\text{WACC}$
- A Company's earnings multiple is driven by both its expected growth and its return on capital

Drivers of Market Value/ Book Value Multiple

➤ NOPLAT =

Invested Capital x ROIC

➤ Value =

$$\frac{\text{Invested Capital} \times \text{ROIC} \times (1 - g / \text{ROIC})}{\text{WACC} - g}$$

Drivers of Market Value/Book Value Multiple

$$\text{Value} = \frac{\text{ROIC} \times (1 - g / \text{RONIC})}{\text{WACC} - g}$$

Invested Capital

Drivers are : WACC; ROIC; and g

Two Stage Valuation

Enterprise Value =

PV of cash flow during explicit forecast period

Plus

Continuing Value

Length of the Forecast Period

- The explicit forecast period must be long enough for the company to reach a steady state
- Short explicit forecast period results in significant undervaluation of a company
- Long forecast faces the difficulty of forecasting individual line items

Explicit Forecast Period

- Split the explicit forecast into two periods
- A detailed five-to-seven year forecast
- A simplified forecast for the remaining years, focusing on a few important variables, such as revenue growth, margins, and capital turnover.

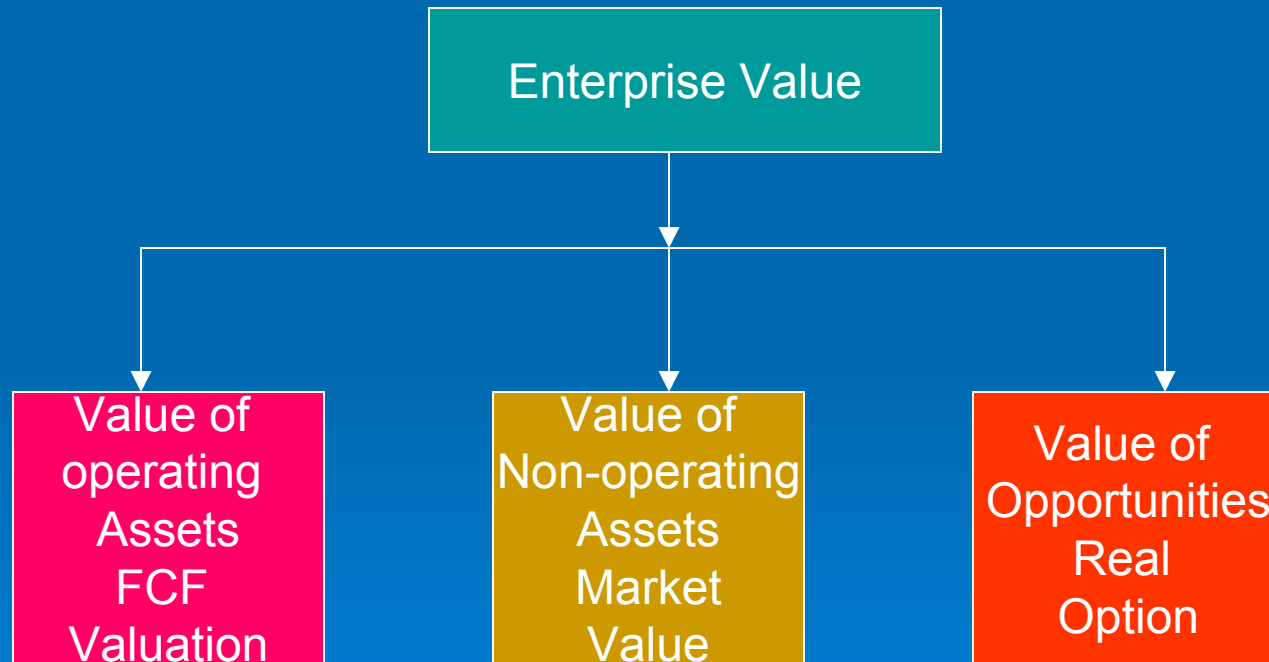
Forecasting Revenue

- Forecasting revenues over long time periods is imprecise because customer preferences, technologies and corporate strategies change.
- Constantly reevaluate whether the current forecast is consistent with industry dynamics, competitive positioning, and the historical evidence on corporate growth.
- Use multiple scenarios to model uncertainty

Forecasting Revenue

- Rely on professional forecasts
- Make an assessment on which companies have the capabilities and resources to compete effectively and capture share.
- Make an assessment of how the company is positioned for the future
- Find answers to such questions as 'does the company have products and services to capture share'.

Enterprise Value



Performance Metrics

