Valuation: Basis

- The use of valuation models in investment decisions (on which assets are undervalued and which are overvalued) are based upon
  - A perception that markets are inefficient and make mistakes in assessing value.
  - An assumption about how and when these inefficiencies will get corrected.

FCF Analysis

- Assumption: Every asset has an intrinsic value that can be estimated on the basis of its characteristics in terms of cash flows, growth and risk.
- Variables in FCF analysis
  - Life of the assets
  - Cash flows from the assets
  - WACC for present value calculation

FCF Analysis for Firm

- When to use?

  FCF analysis fits well with firms that
  - Has positive cash flows.
  - Can be estimated with some reliability for future periods.
  - Has a reasonably obtainable proxy of risk measure.

  FCF analysis serves well for those investors who
  - Have a long-term investment horizon.
  - Are capable of providing the catalyst needed to move price to value.

FCF Analysis for Firm

- Free Cash Flow Analysis for Firm
  - The total value of a firm, V_F, equals the present value of the free cash flows, FCF, that the firm is expected to provide investors, discounted by the firm's weighted average cost of capital, WACC.

$$\boxed{V_F = \sum_{t=1}^{\infty} \frac{FCF_t}{(1+WACC)^t}}$$

FCF Analysis for Firm

- Identifying FCF (FCFF):

  Free Cash Flows to the Firm =

  EBIT × (1 – tax rate)

  \+ Depreciation and other non-cash expenses

  \- Capital Expenditures

  \- Change in Working Capital
- Discount rate = **WACC**

$$\boxed{V_F = \sum_{t=1}^{\infty} \frac{FCF_t}{(1+WACC)^t}}$$

FCFE (RCF) Analysis for Firm

- Identifying FCFE:

  Free Cash Flows to the Equity (Residual Cash Flow) =

  Net Income

  \+ Depreciation and other non-cash expenses

  \- Capital Expenditures

  \- Change in Working Capital

  \+ Cash Flow from New Debt Financing
- Discount rate = $\mathbf{r_e}$

$$\boxed{V_F = \sum_{t=1}^{\infty} \frac{FCFE_t}{(1+r_e)^t}}$$

FCF Analysis for Firm

- Advantages
  - FCF analysis reflects an asset's fundamentals
  - FCF analysis should be less vulnerable to market moods and perceptions.
  - In terms of "business" transaction – NOT "stock" transaction – FCF analysis is the right approach.
  - FCF analysis helps you to focus on the underlying characteristics of the firm and to understand the nature of its business.
- Disadvantages
  - FCF analysis requires far more inputs and information.
  - FCF analysis is vulnerable toward data manipulations by the analysts.
  - There is no guarantee that anything will emerge as undervalued or overvalued after the analysis.