CHAPTER SUMMARY

- *CHAPTER 4 – FREE CASH FLOW VALUATION*
- Refer to page 148-150
- Analyst use free cash flow whenever one of the following conditions are met
  - The company does not pay dividends
  - The company pays dividends but the dividends paid differ significantly from the companies capacity to pay dividend
  - Free cash flows align with profitability within reasonable forecasts period with which the analyst is comfortable
  - The investor takes a control perspective

- Free cash flow to the firm (FCFF)
  - Cash flow available
  - To the company's suppliers of capital

  - After all operating expenses (including tax) have been paid
  - And necessary investments in working capital and fixed capital been made.
  - FCFF =cash flow from operations – capital expenditure

- Cash flow to equity
  - Cash flow avialable
  - To the company's holders of common equity
  - After all operating expenses, interest an principal payment have been paid
  - And necessary investments in working capital and fixed capital have been made
  - FCFE = cash flow from operations – capital expenditures-payments to debt holders

$$\text{Firm value} = \sum_{t=1}^{\infty} \frac{\text{FCFF}_t}{(1+\text{WACC})^t}$$

$$WACC = \frac{MV(debt)}{MV(debt)+MV(equity)} r_d(1-\text{tax rate}) + \frac{\text{MV(equity)}}{MV(debt)+MV(equity)} r$$

- Dividing firm value by number of shares issue you get value per share
- Equity value = Firm value- Market value of debt
- or
- $$\text{Equity value} = \sum_{t=1}^{\infty} \frac{\text{FCFE}_t}{(1+r)^t}$$

- SINGLE STAGE CONSTANT GROWTH FCFF & FCFE MODELS
  - $$\text{Firm value} = \frac{\text{FCFF}_1}{\text{WACC-g}}$$
    $$= \frac{FCFF_0(1+g)}{WACC-g}$$
  - $$\text{Equity value} = \frac{\text{FCFE}_1}{\text{r-g}}$$
    $$= \frac{FCFE_0(1+g)}{r-g}$$
  - Do example 4-1 on page 150

- COMPUTING FCFF
  - FCCF = Net income available to common shareholders (NI)
    Plus: Net noncash charges (NCC)
    Plus: interest expense x (1 – tax)
    Less : Investment in fixed capital (FCInv)
    Less: Investment in working capital (WCInv)

$$FCFF = \text{NI} + \text{NCC} + \text{Intr(1-Tax rate)-FCInv-WCInv}$$

- NI repesents income after depreciation, amortisation, interest expense, income taxes and payments of dividend to preferred shareholders
- Calculating FCFF from net income do example 4-2 on pages 153-154
- Calculating FCFF from CFO (cash flow from operation) do example 4-3 page 156

- $$FCFF = CFO + Int(1\text{-}Tax\ rate)\text{-}FCInv$$

- Calculating FCFE from FCFF
- FCFE = FCFF

  Less: interest expense x (1 –tax rate)

  Plus: Net borrowing

- $$FCFE = FCFF\text{-}Int(1\text{-}Tax\ rate) + Net\ borrowing$$
  $$= NI + NCC\text{-}FCInv\text{-}WCInv + net\ borrowing$$
  $$= CFO\text{-}FCInv + net\ borrowing$$
- FCFE is the amount that the company can afford to pay out as dividends
- Go through pages 163-194

- READ THROUGH SUMMARY on pages 194-196

- ADDITIONAL QUESTIONS pg
  - Questions 1,3, 5-9, 13 a & b