CHAPTER SUMMARY

- *<u>CHAPTER 5– RESIDUAL INCOME VALUATION</u>*

- Residual income is net income – equity charge (shareholder’s opportunity cost in generating net income).
- The income statement dos not deduct
  - Dividends
  - Other charges to equity capital
- There are two approaches to calculate residual income
  - Refer to page 210-213
- Equity charge = Equity capital x cost of equity capital
- Debt charge = debt x after tax cost of debt
- Total capital charge = debt charge + equity charge
  - Do example 5.1 page 211 – 212, work through page 210-213

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- When income is >its cost to generate it, then residual income is positive and there is creation of value.
- When income is <its cost to generate it, then residual income is negative and there is destroying of value
- All else equal higher (lower) residual income should be associated with higher (lower) valuations
- A company that generates positive economic profit (residual income) should have a market value in excess of the accounting book value
- $MVA = \text{Market value of company-Total capital}$
- EVA=NOPAT –(C% X TC) refer to page 214

- THE RESIDUAL INCOME MODEL
  - Intrinsic value = current book value + present value of expected residual income. Refer to page 215-218, do example 5-2 & 5-3
  - Residual income model (1)

$$V_0 = B_0 + \sum_{t=1}^{\infty} \frac{RI_t}{(1+r)^t}$$

$$= B_0 + \sum_{t=1}^{\infty} \frac{E_t - rB_{t-1}}{(1+r)^t}$$

- The residual income model has a relationship with other valuation models e.g. DDM
- Clean surplus relationship states among earnings, dividends an book value as; $B_t = B_{t-1} + E_t - D_t$

- Clean surplus accounting – the condition that income
  - » Reflects all changes
  - » In book value of equity
  - » Other than ownership transactions
- Residual income model (2) refer to page 219-222, example 5-4

$$V_0 = B_0 + \sum_{t=1}^{\infty} \frac{(ROE_t - r) \times B_{t-1}}{(1+r)^t}$$

- Fundamental determinates of residual income, refer to pg223-224
- Single-stage residual income model (1)
  - Example 5-6 page 224
- Single-stage residual income model (2)
  - Example 5-7 page 225

- Multistage residual income valuations
  - Estimating a terminal value is based on continuing residual income at the end of that time horizon
  - Continuing residual income is residual income after forecast horizon.
  - Following assumptions concerning continuing residual income
    - Residual income continues indefinitely at a positive level.
    - Residual income is zero from the terminal year forward.
    - Residual income declines to zero as ROE reverts to the cost of equity through time.
    - Residual income reflects the reversion of ROE to some mean level.
  - Refer to page 225-230

- Strengths and weakness of the residual income model
  - Refer to pages 232-233
- Broad guidelines for using a residual income model
  - A residual model is most appropriate when,
  - A residual model is least appropriate when
  - Refer to pages 233-234
- Read through pages 234-249

- Read through SUMMARY on pages 250-251

- ADDITIONAL QUESTIONS
  - Question 1,5-10, 13-14, 17