Chapter 4 The Value of Common Stocks

OVERVIEW
This chapter:
- shows how present value concepts can be applied to the valuation of common stocks;

- provides a detailed explanation of the constant-dividend growth model; and

- explores the relationship between stock price, earnings per share and growth opportunity.

LEARNING OBJECTIVES
After studying this chapter, you must have
- learnt how to calculate the value of a common stock;

- been able to apply the present value formulas and concepts to the valuation of common stocks;

- explored the relationship between common stock prices, earnings and growth opportunities; and

- learnt the process of estimating the cost of equity

POINTS EMPHASISED IN THE LECTURE
How common stocks are traded
- The concepts of primary and secondary markets, organised exchanges, and the over-the-counter market were briefly introduced.

- A sample of *finance.yahoo.com* quotation for GE was provided.

How common stocks are valued
- The the start-of-period (present) value of a common stock equals the present value of dividends expected during the period plus the present value of the expected end-of-period price for a single-period investment.

- The current price is the present value of the stream of expected future dividends. Using this concept, generalized discounted-cash-flow (DCF) formula for the present value of a stock is developed.

Estimating the cost of equity capital
- The formula for the present value of a growing perpetuity to common stocks was applied.

- The capitalisation rate for stable-growth firms can be estimated as the sum of the current dividend yield and the long-run growth rate.

- Estimating the cost of equity for Northwest Natural Gas was demonstrated.

- DCF valuation for varying growth rates is discussed using numerical examples. Growth rates in dividends can vary for many reasons.

- We could estimate the price of common stock with many stages of growth rates by judiciously using a combination of present value of dividends and the constant growth formula when applicable.

The link between stock price and earnings per share
- The stock price can also be expressed as the capitalised value of average earnings from today's assets plus the present value of growth opportunities (PVGO).

- Growth versus income stock is distinguished. The valuation of growth opportunities was explained in detail using numerical examples.

Valuing a business by discounted cash flow
- The same methods used for valuing stocks can also be used for valuing an entire business. This was demonstrated through the valuation of Concatenator Business.

- The concept of free cash flows was explained. The methods of estimating the horizon value based on P/E ratio.

The general DCF formula can be expressed as $P_0 = (EPS_1 / r) + $ PVGO. The ratio EPS_1 / r is the PV of the earnings per share that the firm would generate under a growth policy and the PVGO is the NPV of the investments that the firm will make in order to grow.