**FIN 440 LECTURE 9**

**STOCK VALUATION**

**CHAPTER REFERENCE – CHP 8**

**Q. WHAT IS STOCK VALUATION?**

**Q.WHAT ARE THE CHARACTERISTICS OF PREFERRED & COMMON STOCK?**

**Q. HOW DO WE CALCULATE THE VALUE OF STOCK?**

**Q. HOW DO WE CALCULATE PREFERRED RATES OF RETURN ON STOCK INVESTMENTS?**

**INTRINSIC VALUE - the present value of the stream of expected cash flows discounted at an appropriate**

**required rate of return**

|  |  |
| --- | --- |
| **PREFERRED STOCK** | **COMMON STOCK** |
| * it’s like common stock - no fixed maturity.   + technically, it’s part of equity capital. * it’s like debt - preferred dividends are fixed.   + missing a preferred dividend does not constitute default, but preferred dividends are cumulative.   - Dividends are fixed either as a  dollar amount or as a percentage of  par value   * Firms may have multiple classes of preferreds, each with different features.   - Priority: lower than debt, higher  than common stock.  - Cumulative feature: all past unpaid  preferred stock dividends must be  paid before any common stock  dividends are declared.   * Convertibility: many preferreds are convertible into common shares. * Adjustable rate preferreds have dividends tied to interest rates. * Participation: some (very few) preferreds have dividends tied to the firm’s earnings. * PIK Preferred: Pay-in-kind preferred stocks pay additional preferred shares to investors rather than cash dividends. | * is a variable-income security.   + dividends may be increased or decreased, depending on earnings. * represents equity or ownership. * includes voting rights. * Limited liability: liability is limited to amount of owners’ investment. * Priority: lower than debt and preferred * Claim on Income - a stockholder has a claim on the firm’s residual income. * Claim on Assets - a stockholder has a residual claim on the firm’s assets in case of liquidation. * Voting Rights - right to vote for the firm’s board of directors. |

**PREFERRED STOCK VALUATION**

* **A preferred stock can usually be valued like a perpetuity:**
* **Expected Rate of Return on Preferred stock**

***EXAMPLE (PREF. STOCK)***

**Xerox preferred pays an 8.25% dividend on a $50 par value.**

**Suppose our required rate of return on Xerox preferred is 9.5%.**

**If we know the preferred stock price is $40, and the preferred dividend is $4.125, the expected return is:**

**COMMON STOCK VALUATION**

**SINGLE HOLDING PERIODS**

**You expect XYZ stock to pay a $5.50 dividend at the end of the year. The stock price is expected to be $120 at that time.**

**If you require a 15% rate of return, what would you pay for the stock now?**

***Solution:***

**Vcs = (5.50/1.15) + (120/1.15)**

**= 4.783 + 104.348**

**= $109.13**

**MULTIPLE HOLDING PERIODS**

* **Constant Growth Model**

**Assumes common stock dividends will grow at a constant rate into the future.**

* **D1 = the dividend at the end of period 1.**
* **kcs = the required return on the common stock.**
* **g = the constant, annual dividend growth rate.**

***EXAMPLE (COMMON STOCK)***

* **XYZ stock recently paid a $5.00 dividend. The dividend is expected to grow at 10% per year indefinitely. What would we be willing to pay if our required return on XYZ stock is 15%?**

**D0 = $5, so D1 = 5 (1.10) = $5.50**

***Expected Return on Common Stock***

**We know a stock will pay a $3.00 dividend at time 1, has a price of $27 and an expected growth rate of 5%.**