

Lecture 9



**ASSIGN
BUSTER**

If a firm increases its plowback ratio, this will probably result in _____ P/E ratio. The answer cannot be determined from the information given.

The value of Internet companies is based primarily on _____ growth opportunities

New-economy companies generally have higher _____ than old-economy companies P/E multiples

A firm has current assets that could be sold for their book value of \$10 million. The book value of its fixed assets is \$60 million, but they could be sold for \$95 million today. The firm has total debt at a book value of \$40 million, but interest rate changes have increased the value of the debt to a current market value of \$50 million. This firm's market-to-book ratio is _____.

equity = $\frac{\text{total assets} - \text{debt market value}}{\text{book value of equity}} = \frac{50}{30} = 1.67$

A stock has an intrinsic value of \$15 and an actual stock price of \$13.50. You know that this stock _____ will generate a positive alpha

bill, jim, and Shelly are all interested in buying the same stock that pays dividends. Bill plans on holding the stock for 1 year. Jim plans on holding the stock for 3 years. Shelly plans on holding the stock until she retires in 10 years. Which one of the following statements is correct? All three should be willing to pay the same amount for the stock regardless of their holding period.

A firm cuts its dividend payout ratio. As a result, you know that the firm's _____ earnings retention ratio will increase

_____ is the amount of money per common share that could be realized by breaking up the firm, selling its assets, repaying its debt, and distributing the remainder to shareholders. liquidation value per share

An underpriced stock provides an expected return that is _____ the required return based on the capital asset pricing model (CAPM). greater than

Stockholders of Dogs R Us Pet Supply expect a 12% rate of return on their stock. Management has consistently been generating an ROE of 15% over the last 5 years but now believes that ROE will be 12% for the next 5 years. Given this, the firm's optimal dividend payout ratio is now _____. 100%

The constant-growth dividend discount model (DDM) can be used only when the _____ growth rate is less than the required return

You want to earn a return of 10% on each of two stocks, A and B. Each of the stocks is expected to pay a dividend of \$4 in the upcoming year. The expected growth rate of dividends is 6% for stock A and 5% for stock B. Using the constant-growth DDM, the intrinsic value of stock A _____ will be higher than the intrinsic value of stock B

You are considering acquiring a common share of Sahali Shopping Center Corporation that you would like to hold for 1 year. You expect to receive both \$1.25 in dividends and \$35 from the sale of the share at the end of the year.

The maximum price you would pay for a share today is _____ if you wanted to earn a 12% return. \$32.37

$$v_0 = (1.25 + 35.00) / (1 + .12) = 32.37$$

The market capitalization rate on the stock of Aberdeen Wholesale Company is 10%. Its expected ROE is 12%, and its expected EPS is \$5. If the firm's plowback ratio is 60%, its P/E ratio will be _____. 14.29

$$\begin{aligned} \text{Dividend payout ratio} &= 1 - .46 = .54 \\ \text{Expected dividend} &= .54 \times \$5 = \$2.70 \\ \text{Growth rate} &= .6 \times 12\% = 7.2\% \\ \text{Value} &= \$2.70 / (.10 - .072) = \$71.43 \\ \text{P/E} &= \$71.43 / \$5 = 14.29 \end{aligned}$$

Gagliardi Way Corporation has an expected ROE of 15%. If it pays out 30% of its earnings as dividends, its dividend growth rate will be _____. 10.5%

$$b = 1 - .3 = .7 \quad g = b \times \text{ROE} = .7 \times 15\% = 10.5\%$$

Fundamental analysis use information concerning the current and prospective profitability of a company to assess its fair market value.

Market value how much are investors willing to pay as of now?

Market value formula = per share stock price * number of shares outstanding.

Investors try to estimate the fair market value to identify mispricing (trading opportunities) in the stock market

The most important tool: financial statement analysis • The Balance Sheet • The Income Statement • Statement of Cash Flows

Book value the net worth of common equity reported on the balance sheet.

Book value of equity = Book value of assets - book value of liabilities

Book value of assets = Original costs for purchasing the assets -
accumulated depreciation

- Book value of assets is normally stale, so it is not a good measure for true current value (market value)

Investors calculate the book to market ratio (B/M) as a key characteristic for a stock.

- Very rarely, some firms can have negative book value of equity, but still traded at positive prices
- Liquidation value: net amount that can be realized by selling the assets of a firm and paying off the debt.
- Normally considered as a floor (lower bound) of the market value for stocks

Replacement cost: cost to replace a firm's assets (setting up an identical firm)

- Market value should not deviate too far above the replacement cost of assets minus liabilities

The ratio of market value of a firm (equity plus liabilities) to replacement costs for assets is called Tobin's q

In the long run, Tobin's q should tend toward 1

tobin q = $\frac{MV \text{ liabilities} + MV \text{ equity}}{\text{replacement cost assets}}$

Intrinsic value: the present value of future cash flows generated by owning the stock, discounted at the appropriate discount rate k .

Intrinsic value is forward-looking, and is the per share fair market value.

Dividends and firm profit (earnings): dividend is part of earnings

dividend payout ratio $\text{div}/\text{earnings}$

plowback ratio $1 - \text{dividend payout ratio}$

The discount rate " k " should match the risk level of the stock:

the CAPM expected return is the investor's required rate of return (market capitalization rate):

$$k = r_f + \beta * [e(r_m) - r(f)]$$

- Denote the intrinsic value as V_0 the expected value for next period's dividend as $E(D_1)$ and price as $E(P_1)$ $v_0 = E(D_1) + E(P_1) / 1+k$

dividend discount model (DDM) $v_0 = [d_1/(1+k)] + [d_2/(1+k)^2]$ and so on

The Constant-Growth DDM assuming all future dividends are growing at a constant rate g over time

The Constant-Growth DDM $v_0 = d_1/(1+k) + [d_1(1+g)]/[(1+k)^2] + [d_1(1+g)^2] / [(1+k)^3]$ ETC

The Constant-Growth DDM: special case when $g = 0$, $v_0 = d_1/k$ it's a perpetuity (fixed amount of money every year)

The Constant-Growth DDM: special case when $g > k$, $v = \text{infinity}$ The dividend is growing so fast that the stock is worth infinity. can't use this

In order to have good growth, there has to be two things: enough plowback (denoted as b), and good investment opportunities (normally measured by return on equity (ROE)).

g (growth rate of dividends) = $b \cdot \text{roe}$

if b is neg then g will decrease must have positive b and high roe to have growth

present value of growth opportunity (PVGO) = value per share with growth - value per share without growth

- Only increasing retained earnings is not enough to have positive PVGO (higher share value).

Price-earnings ratio price per share/earnings per share

a measure to gauge whether a stock is "expensive" or "cheap".

High P/E indicates good growth opportunity when the stock is fairly valued

The higher PVGO is the higher the P/E

The higher ROE is the higher the P/E

Stocks with high risk have lower P/E, all else equal

However, high plowback (B) will result in higher P/E only if $\text{ROE} > k$

When the investment opportunity is bad (roe

Price-to-book High ratio indicates a large premium over book value, and a ‘floor’ value that is often far below market price

Price-to-cash flow P/Cash Flow instead of P/E; less subject to accounting manipulation

Price-to-sales Useful for firms with low or negative earnings in early growth stage

An alternative way to evaluate stocks:

market value of equity =

total market value of the firm (enterprise value) – value of debt

An alternative way to evaluate stocks:

enterprise value =

PV (all future CF generated by the firm, discounted by an appropriate discount rate)

- Cash flows generated by the firm is called free cash flows.
- The appropriate discount factor is WACC (weighted average cost of capital).
- The details of estimating free cash flows and WACC are covered in the course Corporate Finance.

Chapter 13 Argumentative