BUS-123 Spring 2015
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Common Stock Valuation
Worksheet 1

Name: KEY
Chap 6 Handout

1) The price of Weegot, Burnt & Howe is currently $32 per share. Their earnings per share (EPS) is $2.25. Their 5-year average P/E is 18. If WBH's earnings per share are expected to grow at 5% next year, what would you expect their price to be next year?

expected stock price = historical P/E ratio * Projected EPS (earnings per share)

Projected EPS = current EPS * (1 + EPS growth rate)

$18 * $2.25 * (1 + 5%) = 42.525

5% = 0.05, 1 + 0.05 = 1.05

≈ 42.53

2) WBH's cash flow per share (CFPS) is currently $2.80 per share. Their 5-year average Price-to-Cash Flow per Share ratio is 14. If we expect their cash flow per share to grow by 6% next year, what would you expect their price to be next year?

expected stock price = historical P/CF ratio * Projected CFPS (cash flow per share)

Projected CFPS = current CFPS * (1 + CFPS growth rate)

14 * $2.80 * (1 + 6%) = $41.552

6% = 0.06, 1 + 0.06 = 1.06

≈ $41.55

3) Finally, WBH's sales per share (SPS) is currently $3.20 per share. Their 5-year average Price-to-Sales per Share ratio is 13. If we expect their sales per share to grow by 8% next year, what would you expect their price to be next year?

expected stock price = historical P/S ratio * Projected SPS (sales per share)

Projected SPS = current SPS * (1 + SPS growth rate)

13 * $3.20 * (1 + 8%) = $44.928

8% = 0.08, 1 + 0.08 = 1.08

≈ 44.93

4) Indiana Electric Company pays $1.25 per year in dividends, has done so for many years, and we expect it to continue doing so well into the future. If our expected rate of return is 6%, how much would we be willing to pay for the stock? If the stock were selling for $20, would we consider it a good investment? Which dividend discount model did you use? Zero Growth Model

present value of stock = Annual Dividends / Required Rate of Return = $1.25 / 6% = $20.83333 ≈ $20.83

6% = 0.06

Yes, we would consider this a good investment since we believe the stock is worth more than the current price.

KEY

5) Pritcher's Pretty Good Pretzels is paying $0.85 per year in dividends. Their dividend growth rate has been very constant at 4%. Our expected rate of return is 9%. At what price would we consider Pritcher's to be a good investment? Which dividend discount model did you use? ← Constant Perpetual Growth Model

$$\text{present value of stock} = \frac{\text{Annual Dividends} * (1 + \text{Constant growth rate})}{\text{Required Rate of Return} - \text{Constant Growth Rate}} = \frac{\$0.85 * (1 + 4\%)}{9\% - 4\%} = \frac{\$0.884}{0.05} = \$17.68$$

(1.04; 0.04; 0.09 − 0.04)

what we believe is a good price the stock

6) Jimba Jomba Jumba Juice is currently selling for $56 per share. The dividends for the next three years are expected to be $1.80 for 2015, $2.00 for 2016, and $2.25 for 2017. We forecast the price per share to be approximately $75 at the end of 2017. If we desire a rate of return of 10%, using the Discounted Cash Flow Model, would we consider this a good investment?

Market price = $56.00

Year	Cash Flows		Present Value Multipliers PVM's 10%		Present values of cash flows
2015	$1.80	*	0.909	=	$1.6362
2016	$2.00	*	0.826	=	$1.652
2017	$2.25 + $75 ($77.25)	*	0.751	=	$58.0148
					$61.303 ≅ $61.30

Cash flows: Dividends and future value of stock

Yes, this is a good investment for us. We can purchase a stock that we believe is worth $61.30 for only $56.00.

7) The price of Biotechnology Nanotechnology is currently $15 per share. The company pays no dividends. We expect the price three years from now to be $35 per share. If our desired rate of return is 12%, would this be a good buy? (Hint: What is the only model you can use with the given information? How will you use it?)

with no dividends, we can still use the Dividends and Earnings Model

$$\frac{\text{expected stock price in 3 years}}{\$35} * \frac{\text{Present Value Multiplier 12\% for 3 years}}{0.712} = \$24.92$$

Yes, this is a good investment BUT VERY RISKY!