

- 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?

$$\begin{aligned} \text{expected stock price} &= \text{historical P/E ratio} * \text{Projected EPS (earnings per share)} \\ &= 18 * \text{current EPS} * (1 + \text{EPS growth rate}) \\ &= 18 * \$2.25 * (1 + 5\%) \\ &= 18 * 2.25 * 1.05 = 42.525 \\ &\approx \underline{42.53} \end{aligned}$$

- 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?

$$\begin{aligned} \text{expected stock price} &= \text{historical P/CF ratio} * \text{Projected CFPS (cash flow per share)} \\ &= 14 * \text{current CFPS} * (1 + \text{CFPS growth rate}) \\ &= 14 * \$2.80 * (1 + 6\%) \\ &= 14 * 2.80 * 1.06 = 41.552 \\ &\approx \underline{41.55} \end{aligned}$$

- 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?

$$\begin{aligned} \text{expected stock price} &= \text{historical P/s ratio} * \text{Projected SPS (sales per share)} \\ &= 13 * \text{current SPS} * (1 + \text{SPS growth rate}) \\ &= 13 * \$3.20 * (1 + 8\%) \\ &= 13 * 3.20 * 1.08 = 44.928 \\ &\approx \underline{44.93} \end{aligned}$$

- 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

$$\text{present value of stock} = \frac{\text{Annual Dividends}}{\text{Required Rate of Return}} = \frac{\$1.25}{6\%} = \frac{\$1.25}{0.06} = \$20.83333 \approx \$20.83$$

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

- 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

$$\text{present value of stock} = \frac{\text{Annual Dividends} * \left(1 + \frac{\text{Constant growth rate}}{\text{Required Rate of Return} - \text{Constant Growth Rate}}\right)}{\text{Required Rate of Return} - \text{Constant Growth Rate}} = \frac{\$0.85 * \left(1 + \frac{1.04^{0.04}}{0.09 - 0.04}\right)}{0.09 - 0.04} = \frac{\$0.884}{0.05} = \$17.68$$

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 2013, \$2.00 for 2014, and \$2.25 for 2015. We forecast the price per share to be approximately \$75 at the end of 2015. 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	PVms	Present values of cash flows
2013	\$1.80	0.909	10%	\$1.6362
2014	\$2.00	0.826		\$1.652
2015	\$2.25 + \$75	0.751		\$58.0148
	Dividends and future value of stock			\$61.303 ≈ \$61.30

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

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

Yes, this is a good investment BUT VERY RISKY!