

Session 22a: Post Class tests

1. Vaughn Enterprises is an all-equity funded firm with 100 million shares outstanding, trading at \$10/share. The company is planning on borrowing \$400 million and buying back shares. The marginal tax rate for the firm is 40% and the cost of bankruptcy as a percent of unlevered firm value is 30%. If the new market capitalization for the firm will be \$700 million, after the buyback, what is the probability of bankruptcy after the buyback? (Use the standard APV assumption about the tax benefits of debt)
 - a. 0%
 - b. 10%
 - c. 18.18%
 - d. 20%
 - e. 28.57%
 - f. None of the above
2. Lizzie Inc. is an apparel manufacturer with 200 million shares outstanding, trading at \$15/share and \$1.2 billion in debt outstanding (in market value terms). If the marginal tax rate for the firm is 40%, the cost of bankruptcy is 20% of current firm value and the probability of bankruptcy at the current debt level is 25%, what is the unlevered value of the firm?
 - a. \$2,670 million
 - b. \$3,930 million
 - c. \$4,200 million
 - d. \$4,470 million
 - e. None of the above
3. Sizzle Media is a media company that has a market capitalization of \$900 million and debt outstanding of \$100 million. The average debt ratio for media companies is 37%. Which of the following provides a likely explanation for why Sizzle Media should have a lower debt ratio than the average media company?
 - a. Sizzle Media has a higher effective tax rate than the typical media company
 - b. There are fewer insider investors in Sizzle Media than in the typical media company
 - c. Sizzle Media has more stable income than the typical media company
 - d. Sizzle Media is a larger company than the typical media company
 - e. Sizzle Media is more dependent on movie making and has fewer physical assets than the typical media company
 - f. None of the above
 - g. All of the above
4. You have run a regression of debt to capital ratios against independent variables, across all companies in the market, and arrived at the following:
Debt to Capital Ratio = $0.40 + 0.25(\text{Effective Tax Rate}) - 0.15(\text{Insider holdings as \% of shares outstanding}) - 0.20(\text{Standard deviation in operating earnings})$
Felter Inc. has an effective tax rate of 30%, insider holdings are 10% of outstanding shares and you have estimated a standard deviation of 50% in the firm's operating earnings. What is the optimal debt ratio for Felter Inc., based

upon the market regression? (Enter the percentage values as decimals; thus, 20% is entered as 0.20)

- a. 36%
 - b. 39%
 - c. 40%
 - d. 56%
 - e. None of the above
5. Assume that you have found Galloway Inc. is under levered, with an actual debt ratio of 10% and an optimal debt ratio of 40%. Galloway is a mid-cap company that pays substantial dividends. It generated a ROC of 15% in the most recent year, higher than its cost of capital of 9%. The stock has also generated a Jensen's alpha of 8% and has relatively high insider holdings (as a percent of the outstanding stock). Which of the following would you recommend that the company do?
- a. Borrow money immediately and buy back stock
 - b. Borrow money immediately and pay dividends
 - c. Borrow money gradually over time and pay higher dividends
 - d. Borrow money gradually over time and take projects
 - e. Borrow money gradually and buy back stock