

Quiz 1: Corporate Finance

Answer all questions and show necessary work. Please be brief. This is an open books, open notes exam.

1. Conflicts of interest and corporate governance issues come to the forefront when one publicly traded firm acquires another one. The following questions relate to some of these issues. Please pick only one of the answers for each question. (1/2 point each)

a. You are a stockholder in a firm that is planning to make a significant acquisition.

Which of the following compositions for the board of directors for your firm (the acquirer) is most likely to protect you against overpayment?

- i. Large board, with many insiders and the CEO as chairman
- ii. Small board, with many insiders and the CEO as chairman
- iii. Large board, with many insiders, with an independent chairman
- iv. Small board, with many insiders, with an independent chairman
- v. Large board, composed mostly of outsiders, with an independent chairman
- vi. Small board, composed mostly of outsiders, with an independent chairman

b. In a hostile acquisition, the managers of the target firm often adopt tactics designed to fight off the takeover. As a stockholder in the target firm, which of the following tactics is least likely to hurt you?

- i. Looking for a friendly bidder (white knight) who will compete with the hostile acquirer.
- ii. Greenmail, where the hostile acquirer is bought off by paying him/her a premium.
- iii. Anti-takeover amendments that make it more difficult to take over the company.
- iv. Poison pills, where you create securities that blow up in the event of a hostile acquisition.
- v. Golden parachutes, requiring that incumbent managers get large severance payments.

c. If markets are efficient, you should see the acquiring firm's stock price drop if it pays a premium over the market price to acquire a target firm.

- i. True
- ii. False

d. Many countries/states pass laws restricting or preventing hostile takeovers. When such laws are passed, which of the following groups is likely to be most negatively affected?

- i. Bondholders in potential acquirers
- ii. Bondholders in potential targets
- iii. Stockholders in all firms
- iv. Bondholders in all firms
- v. Stockholders in potential acquirers
- vi. Stockholders in potential targets

2. You are analyzing Gerdau, a Brazilian steel company, with ADRs listed on the New York Stock Exchange and have uncovered four regressions for the stock:

$$\text{Return}_{\text{Gerdau}} = 0.05\% + 1.30 \text{ Bovespa} \quad R^2 = 62\%$$

$$\text{Return}_{\text{Gerdau}} = -0.03\% + 0.70 \text{ S\&P 500} \quad R^2 = 23\%$$

$$\text{Return}_{\text{Gerdau}} = -0.08\% + 0.90 \text{ MSCI} \quad R^2 = 20\%$$

$$\text{Return}_{\text{Gerdau}} = 0.15\% + 1.20 \text{ GISTL} \quad R^2 = 70\%$$

(Bovespa: Brazilian equity index; MSCI: Global Equity Index; GISTL: Index of steel companies globally)

The Brazilian government has ten-year dollar denominated bonds, trading at 6% and ten-year Reals denominated bonds, trading at 10%; both bonds are rated BBB by S&P. The ten-year U.S. treasury bond rate is 4%. An analysis of the top investors in Gerdau indicates that 12 of the top 17 investors are global mutual funds. Finally, an assessment of the last two years of returns yields a standard deviation of 30% for the Bovespa (the Brazilian equity index) and 20% for the ten-year dollar denominated Brazilian bond. The historical equity risk premium for the US is 4.5%. Estimate a nominal Reai cost of equity for Gerdau Steel. (4 points)

3. You have been asked to assess the impact of Electronic Art's attempted acquisition of Take-Two and have collected the following information (in billions) on the two companies:

Company	Market value of Equity	Market value of debt	Cash	Regression beta	Business
Electronic Arts	10	0	3	1.12	Entertainment Software
Take-Two	2	0	0	2.40	Gaming

While you believe that the regression beta is a reasonable estimate of the beta for Electronic Arts as a company, you do not trust the regression beta for Take-Two. The average unlevered beta for the gaming business is 1.80 and the marginal tax rate for all firms is 40%.

a. Assuming that cash as a percent of Electronic Art's value has remained unchanged over the last two years (the regression period) and that the firm has never used debt, estimate the unlevered beta of just being in the entertainment software business. (1 point)

Spring 2008

Name:

b. Assume that Electronic Arts plans to use \$ 1 billion of its cash balance and \$ 1 billion of debt to buy Take-Two. Estimate the levered beta for Electronic Arts after the transaction. (3 points)