

## Quiz 1: Financial Management

Answer all questions and show necessary work. Please be brief.

1. The following relate to corporate governance and risk measures and are multiple-choice questions. Please make only one choice per question. (1/2 point each)

a. The power that stockholders have to hold managers accountable can be affected by the ownership structure in the firm. In which one of the following ownership structures will stockholders be able to influence management decisions the most?

- i. There are a large number of small stockholders (individuals) in the firm
- ii. The government is the largest stockholder in the firm.
- iii. The employee pension fund is the largest stockholder in the company.
- iv. Mutual funds and pension funds hold a large proportion of the firm's shares.
- v. Activist investors (Hedge funds, private equity investors) hold a large proportion of the shares in the firm.

b. Based on the empirical evidence, the typical target firm in a hostile takeover is

- i. A badly managed firm that has under performed its peer group.
- ii. A well managed firm that has been performing soundly.

c. We draw a distinction between firm-specific risk and market risk in an investment.

Which of the following statements about the two types of risk is false?

- i. Most of the risk in individual firms is firm-specific risk.
- ii. As you diversify your portfolio, you reduce your exposure to firm-specific risk.
- iii. Market risk is risk that affects most or all stocks
- iv. Firm-specific risk arises primarily from macro-economic factors

d. In the post-war German and Japanese corporate governance system, managers bear the responsibility for disciplining poor performers in their midst. Relative to the stockholder-based systems in the US and the UK, these manager-based systems are

- i. More efficient in dealing with firm-specific management problems
- ii. More efficient in dealing with systematic, market-wide management problems
- iii. More efficient in dealing with all types of management problems
- iv. Less efficient in dealing with all types of management problems

2. You have been asked to compute the expected return and evaluate the investment potential of Broken Hill Mining, a copper mining company. You do not have access to the full regression but you do have the Bloomberg adjusted beta of 0.73 for the company.<sup>1</sup> The current treasury bill rate is 3%, the current 10-year treasury bond rate is 4.5% and the market risk premium is 4%.

- a. Estimate the expected annual return for the stock, assuming that the raw (regression) beta of the stock is the right beta. (1 point)

- b. If the stock price today is \$50 and it pays no dividend, and you expect the stock price to double in value over the next 10 years, is the stock a good investment? (2 points)

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<sup>1</sup> Bloomberg adjusted beta =  $1.00 \cdot (1/3) + \text{Raw Beta} \cdot (2/3)$

3. Patilla Enterprises is a firm that is in two businesses – cosmetics and apparel. It has asked you to estimate the beta to use in computing hurdle rates. You have collected the following information on the two businesses:

<i>Business</i>	<i>Patilla's revenues</i>	<i>Comparable firm data</i>	
		<i>Unlevered beta</i>	<i>EV/Sales</i>
Cosmetics	\$ 750 million	1.50	2.0
Apparel	\$ 800 million	0.90	1.25

The tax rate for Patilla is 40% and the firm has a debt to equity ratio of 25% currently.

a. Estimate the unlevered beta for Patilla Enterprises. (1 point)

b. Estimate the levered beta for Patilla Enterprises. (1 point)

c. Assume now that Patilla Enterprises plans to borrow \$ 500 million and buy an advertising company. The regression beta for this company is 1.232 and it has maintained a debt to equity ratio of 20% and a tax rate of 40% over the period of the regression. Assuming that the regression beta is a reasonable estimate of the true equity beta of the target company, estimate the levered beta for Patilla after the transaction. (3 points)