Corporate finace solutions essay sample

Finance

1. Sydney Industries, Inc., is considering a new project that costs $30 million. The project will generate after-tax (year-end) cash flows of $8 million for five years. The firm has a debt-to-equity ratio of 0. 25. The cost of equity is 12 percent and the cost of debt is 7 percent. The corporate tax rate is 40 percent. It appears that the project has the same risk of the overall firm. Should Sydney undertake the project?

2. Here is some data for three firms in the restaurant industry: Firm #1: $100 million in debt, $200 million in equity, current estimated equity beta of 3. 0 Firm #2: $200 million in debt, $200 million in equity, current estimated equity beta of 3. 0 Firm #3: $300 million in debt, $100 million in equity, current estimated equity beta of 4. 0 There are no corporate or personal taxes

(a) For each firm, calculate unlevered.
(b) Using your answer in part (a), what would you predict the equity beta to be for a firm in the restaurant industry with $300 million in debt and $600 million in equity? (Hint: Adopt the method we used in the Marriott case.)

3. We want to determine cost of equity for Firm A. We know that Firm A’s target debt-toequity ratio is 1. 50. We also know that there is a comparable firm which has exactly same lines of business and therefore is expected to have the same level of business risk as Frim A. The equity beta of the comparable firm is known to be 1. 80. The market value of equity and the market value of debt of the comparable firm are $400 million and $200 million, respectively. The corporate tax rate is 20%. Based on the information given, answer following questions.

(a) What would be your estimate of equity beta for Frim A?

(b) If you find that equity beta is different between Frim A and its comparable firm in (a), how would you explain the difference? If you expect no difference explain why they are not different. 4. The shareholders of the Spartan Corp. are electing seven individuals to serve as directors on their board. There are 2 million shares outstanding. How many shares would you need to hold to be certain that you can elect at least one director assuming that

(a) Spartan has straight voting

(b) Spartan has cumulative voting

5. Consider two firms A and B that are identical in all respects except capital structure. Firm A has $160 million in equity outstanding and $40 million in bonds outstanding. Firm B has $200 million in equity outstanding and $0 million in bonds outstanding.

(a) Suppose an investor has an $8 million investment in the stock of firm A. What alternative $8 million investment that includes firm B’s stock will give the investor the same cash flow payoff in future years as his current investment in firm A’s stock? (Hint: I am looking for the amount of cash you would invest in firm B’s stock and the amount of cash you would either invest in other securities or borrow from other sources so that $8 million comes out of your pocket today and you get the exact same cash payoff down the road as the current $8 million investment in firm A’s stock.) (b) Suppose an investor has a $16 million investment in the stock of firm B. What alternative $16 million investment that includes firm A’s stock will give the investor the same cash flow payoff in future years as his current

investment in firm B’s stock? (Hint: I am looking for the amount of cash you would invest in firm A’s stock and the amount of cash you would either invest in other securities or borrow from other "sources so that $16 million comes out of your pocket today and you get the exact same cash payoff down the road as the current $16 million investment in firm B’s stock.)

6. [10 points] New World Corp. and Old World Corp. are identical in all respects except capital structure. New World’s bonds have a market value of $200 million while Old World’s bonds have a market value of $500 million. These firms operate in a perfect world where markets are perfectly efficient and there are no taxes or financial distress/bankruptcy costs. Both firms have 10 million shares outstanding. If the stock price for New World is $120, what do you predict for the stock price of Old World? 7. Buckeye Corp. is currently an all-equity firm with a market value of equity of $100 million. The current expected return on Buckeye’s equity is 25%. Buckeye operates in a world with no taxes. Buckeye is planning on issuing $10 million in debt with an interest rate of 10% and using the cash to repurchase $10 million in shares.

(a) After Buckeye repurchases the stock, what will be the expected return on the firm’s stock? (b) After Buckeye repurchases the stock, what will be the firm’s weighted average cost of capital? 8. [20 points] A firm currently has no debt. The firm has 10 million shares outstanding and those shares currently have a market price of $30 per share. The firm is contemplating selling $50 million in bonds and using the proceeds to repurchase shares of stock. If they undertake this action, the firm intends to keep this level of debt financing for the foreseeable future. Assume that the corporate tax rate is

40%. Given this data, if the firm announces that they will sell the bonds and repurchase equity what:

(a) do you expect the stock price to be immediately after the announcement? (b) will be the firm’s total market value of equity immediately after the announcement? (c) do you expect the stock price to be after the bond issue/repurchase are completed? (d) will be the firm’s total market value of equity after the bond issue/repurchase are completed?