

- ~~Suppose the tax savings from the debt, after including investor taxes, is equal to 10% of the expected payoff of the debt. The proceeds from the debt, as well as the value of any tax savings, will be paid out to shareholders immediately as a dividend when the debt is issued. Which debt level in part (b) is optimal for Remel?~~
16. ~~Which of the following industries have low optimal debt levels according to the tradeoff theory? Which have high optimal levels of debt?~~
- ~~Tobacco firms~~
 - ~~Accounting firms~~
 - ~~Macroe restaurant chains~~
 - ~~Lumber companies~~
 - ~~Cell phone manufacturers~~
19. ~~According to the managerial entrenchment theory, managers choose capital structure so as to preserve their control of the firm. On the one hand, debt is costly for managers because they risk losing control in the event of default. On the other hand, if they do not take advantage of the tax shield provided by debt, they risk losing control through a hostile takeover. Suppose a firm expects to generate free cash flows of \$90 million per year, and the discount rate for these cash flows is 10%. The firm pays a tax rate of 40%. A raider is poised to take over the firm and finance it with \$750 million in permanent debt. The raider will generate the same free cash flows, and the takeover attempt will be successful if the raider can offer a premium of 20% over the current value of the firm. What level of permanent debt will the firm choose, according to the managerial entrenchment hypothesis?~~
20. Info Systems Technology (IST) manufactures microprocessor chips for use in appliances and other applications. IST has no debt and 100 million shares outstanding. The correct price for these shares is either \$14.50 or \$12.50 per share. Investors view both possibilities as equally likely, so the shares currently trade for \$13.50. IST must raise \$500 million to build a new production facility. Because the firm would suffer a large loss of both customers and engineering talent in the event of financial distress, managers believe that if IST borrows the \$500 million, the present value of financial distress costs will exceed any tax benefits by \$20 million. At the same time, because investors believe that managers know the correct share price, IST faces a lemons problem if it attempts to raise the \$500 million by issuing equity.
- Suppose that if IST issues equity, the share price will remain \$13.50. To maximize the long-term share price of the firm once its true value is known, would managers choose to issue equity or borrow the \$500 million if
 - They know the correct value of the shares is \$12.50?
 - They know the correct value of the shares is \$14.50?
 - Given your answer to part (a), what should investors conclude if IST issues equity? What will happen to the share price?
 - Given your answer to part (a), what should investors conclude if IST issues debt? What will happen to the share price in that case?
 - How would your answers change if there were no distress costs, but only tax benefits of leverage?
21. ~~During the internet boom of the late 1990's, the stock prices of many internet firms soared to extreme heights. As CEO of such a firm, if you believed your stock was significantly overvalued, would using your stock to acquire non-internet stocks be a wise idea, even if you had to pay a small premium over their fair market value to make the acquisition?~~