Exercises on Financial Leverage.

1. EBIT and Leverage. Money, Inc., has no debt outstanding and a total market value of $275,000. Earnings before interest and taxes, EBIT, are projected to be $21,000 if economic conditions are normal. If there is strong expansion in the economy, then EBIT will be 25 percent higher. If there is a recession, then EBIT will be 40 percent lower. Money is considering a $99,000 debt issue with an interest rate of 8 percent. The proceeds will be used to repurchase shares of stock. There are currently 5,000 shares outstanding. Ignore taxes for this problem.

a. Calculate earnings per share, EPS, under each of the three economic scenarios before any debt is issued. Also calculate the percentage changes in EPS when the economy expands or enters a recession.

b. Repeat part (a) assuming that Money goes through with recapitalization. What do you observe?

2. EBIT, Taxes, and Leverage. Repeat parts (a) and (b) in Problem 1 assuming a 35% tax rate.

3. ROE and Leverage. Suppose the company in Problem 1 has a market-to-book ratio of 1.0.

a. Calculate return on equity, ROE, under each of the three economic scenarios before any debt is issued. Also calculate the percentage changes in ROE for economic expansion and recession, assuming no taxes.

b. Repeat part (a) assuming the firm goes through with the proposed recapitalization.

c. Repeat parts (a) and (b) of this problem assuming the firm has a tax rate of 35 percent.

4. Break-Even EBIT. Rolston Corporation is comparing two different capital structures, an all-equity plan (Plan I) and a levered plan (Plan II). Under Plan I, Rolston would have 265,000 shares of stock outstanding. Under Plan II, there would be 185,000 shares of stock outstanding and $2.8 million in debt outstanding. The interest rate on the debt is 10 percent and there are no taxes.

a. If EBIT is $750,000, which plan will result in the higher EPS?

b. If EBIT is $1,500,000, which plan will result in the higher EPS?

c. What are the break-even EBIT?

6. Break-Even EBIT and Leverage. Kolby Corp. is comparing two different capital structures. Plan I would result in 900 shares of stock and $65,700 in debt. Plan II would result in 1,900 shares of stock and $29,200 in debt. The interest rate on the debt is 10 percent.

a. Ignoring taxes, compare both of these plans to an all-equity plan assuming that EBIT will be $8,500. The all-equity plan would result in 2,700 shares of stock outstanding. Which of the three plans has the highest EPS? The lowest?

b. In part (a) what are the break-even levels of EBIT for each plan as compared to that for an all-equity plan? Is one higher than the other? Why?

c. Ignoring taxes, when will EPS be identical for Plans I and II?

d. Repeat parts (a), (b), and (c) assuming that the corporate tax rate is 40 percent. Are the break-even levels of EBIT different from before? Why or why not?

7. Ignoring taxes in problem 6, what is the price per share of equity under Plan I Plan II? What principle is illustrated by your answers?