Ch. 16 Practice Questions

July 18, 2013

Question 1

Kelso Electric is debating between a leveraged and an unleveraged capital structure. The all equity capital structure would consist of 40,000 shares of stock. The debt and equity option would consist of 25,000 shares of stock plus $280,000 of debt with an interest rate of 7 percent. What is the break-even level of earnings before interest and taxes between these two options? Ignore taxes.

Question 2

Sewer's Paradise is an all equity firm that has 5,000 shares of stock outstanding at a market price of $15 a share. The firm's management has decided to issue $30,000 worth of debt and use the funds to repurchase shares of the outstanding stock. The interest rate on the debt will be 10 percent. What are the earnings per share at the break-even level of earnings before interest and taxes? Ignore taxes.

Question 3

Pewter & Glass is an all equity firm that has 80,000 shares of stock outstanding. The company is in the process of borrowing $600,000 at 9 percent interest to repurchase 12,000 shares of the outstanding stock. What is the value of this firm if you ignore taxes?

Question 4

Winter's Toyland has a debt-equity ratio of 0.65. The pre-tax cost of debt is 8.7 percent and the required return on assets is 16.1 percent. What is the cost of equity if you ignore taxes?

Question 5

Jefferson & Daughter has a cost of equity of 14.6 percent and a pre-tax cost of debt of 7.8 percent. The required return on the assets is 13.2 percent. What is the firm's debt-equity ratio based on M & M II with no taxes?

Question 6

The Corner Bakery has a debt-equity ratio of 0.62. The firm's required return on assets is 14.2 percent and its cost of equity is 16.1 percent. What is the pre-tax cost of debt based on M & M Proposition II with no taxes?

Question 7

L.A. Clothing has expected earnings before interest and taxes of $48,900, an unlevered cost of capital of 14.5 percent, and a tax rate of 34 percent. The company also has $8,000 of debt that carries a 7 percent coupon. The debt is selling at par value. What is the value of this firm?

Question 8

Johnson Tire Distributors has debt with both a face and a market value of $12,000. This debt has a coupon rate of 6 percent and pays interest annually. The expected earnings before interest and taxes are $2,100, the tax rate is 30 percent, and the unlevered cost of capital is 11.7 percent. What is the firm's cost of equity?

Question 9

New Schools, Inc. expects an EBIT of $7,000 every year forever. The firm currently has no debt, and its cost of equity is 15 percent. The firm can borrow at 8 percent and the corporate tax rate is 34 percent. What will the value of the firm be if it converts to 50 percent debt?

Question 10

Tool Manufacturing has an expected EBIT of $73,000 in perpetuity and a tax rate of 35 percent. The firm has $145,000 in outstanding debt at an interest rate of 7.25 percent, and its unlevered cost of capital is 11 percent. What is the value of the firm? Should the company change its debt-equity ratio if the goal is to maximize the value of the firm?

Question 11

Cavo Corporation expects an EBIT of $19,750 every year forever. The company currently has no debt, and its cost of equity is 15 percent. What is the current value of the company? Suppose the company can borrow at 10 percent. If the corporate tax rate is 35 percent, what will the value of the firm be if the company takes on debt equal to 50 percent of its unlevered value? What if it takes on debt equal to 100 percent of its unlevered value? What will the value of the firm be if the company takes on debt equal to 50 percent of its levered value? What if the company takes on debt equal to 100 percent of its levered value?

Question 12

The Veblen Company and the Knight Company are identical in every respect except that Veblen is not levered. Veblen has projected EBIT of $500,000 and a market value of stock of $3.1M. Knight has projected EBIT of $500,000, interest expense of $78,000, market value of stock of $2.05M, and market value of debt of $1.3M. All earnings are in perpetuity, and neither firm pays taxes. Both firms distribute all earnings available to common stockholders immediately. An investor who can borrow at 6 percent per year wishes to purchase 5 percent of Knight's equity. Can he increase his dollar return by purchasing 5 percent of Veblen's equity if he borrows so that the initial net costs of the strategies are the same? Given the two investment strategies, which will the investor choose? When will this process cease?