

Note: There are no points for solving this problem. All points are for setting up the equations, plugging in the relevant numbers, and stating what you want to solve for (if you are not simply solving the equation).

Assume that capital markets are perfect and that you currently own \$300,000 of stock in Election Spending Corporation. Assume also that Election has total shares outstanding worth \$30 million and that it has debt outstanding worth \$10 million. The beta of Election's stock is 1.3 and the expected return on Election's stock is 13.4%. The beta of Election's debt is 0.3 and the cost of capital on the debt is 5.4%. Finally, assume that Election has announced that they intend to issue \$10 million of equity and to use the proceeds to repurchase its outstanding debt.

- If you do nothing, how much will your stock be worth after Election's equity issue/debt repurchase?
- What will the expected return on your shares be after the equity issue/debt repurchase?
- What will the beta be on your shares after the equity issue/debt repurchase?
- When Election issues the equity and repurchases the debt, what changes will you need to make so that the risk you face and the expected return you will earn remain unchanged?

Wall Street Journal Questions are on the back of this page.

- a. \$ ⁺⁹ 300,000
- b. $E(R_V) = \left(\frac{10}{30+10} \right)^{+5} 5.4 + \left(\frac{30}{30+10} \right)^{+5} 13.4 + 3$ (23)
- c. $\beta_V = \left(\frac{10}{30+10} \right)^{+5} 0.3 + \left(\frac{30}{30+10} \right)^{+5} 1.3 + 3$ (23)
- d. Borrow \$100,000 ⁺⁵ (2) buy \$100,000 of additional Election shares. ⁺⁵ +10 for both

Alternative solutions

- b. $13.4 = E(R_V) + \frac{10}{30} (E(R_V) - 5.4) + 3$ (23)
- c. $1.3 = \beta_V + \frac{10}{30} (\beta_V - 0.3) + 3$ (23)