

Quiz B for 1:00 Class: 3/6/13

Name Key

Assume the corporate tax rate equals 30%, that the personal tax rate on equity income equals 10%, and that the personal tax rate on interest income equals 20%. Assume also that TaxFlow Inc. has a 20% chance of earning \$5 million per year, a 30% chance of earning \$10 million per year, a 35% chance of earning \$25 million per year, and a 15% chance of earning \$50 million per year. What is TaxFlow's optimal level of interest payments?

Note: You will need to perform calculations to justify your answer. Show your work in case you need partial credit.

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

$$\frac{10-25}{+4} \tau^* = 1 - \frac{(1 - (.5)(.3))(1 - .1)}{(1 - .2)} = +0.04375$$

$$\frac{25-50}{+4} \tau^* = 1 - \frac{(1 - (.15)(.3))(1 - .1)}{(1 - .2)} = -0.07438$$

\Rightarrow optimal = 25 +4

Note:

$$0-5: \tau^* = .2125$$

$$5-10: \tau^* = .145$$

$$50+: \tau^* = -.125$$