

## Key to Quiz B: 3/21/12

**Quiz:** Assume that yesterday Firms A and B were identical and that both were funded with 95% equity and 5% debt. However, this morning, firm B issued massive amounts of debt and used the funds to repurchase shares of stock. As a result, firm B is now funded with 95% debt. Based on the information in chapter 16, what differences would you expect to see in the future decisions made by these firms? What is the reason (or reasons) for each of these differences?

1) Firm B will likely undertake <sup>✓✓✓</sup> (more high-risk projects)

Reason: stockholders have a residual claim but with limited liability

=> (stockholders get the upside) associated with a project's risk but are (not hurt once the value of the firm drops below what is owed the firm's bondholders)

2) Firm B may <sup>✓✓✓✓</sup> (pass up more positive NPV projects)

Reason: if default is likely, the firm's (bondholders get much if not all of the project's benefit)

=> (stockholders have no incentive to fund the project) since they (might receive very little of the benefit)

3) Firm B may begin to <sup>✓✓✓✓</sup> (pay out more cash to stockholders) through dividends and stock repurchases

Reason:

✓✓ a) the combined value of the firm's outstanding stocks and bonds fall by an amount equal to the dividend

b) (as long as bond values drop), the (value of the firm's stock will drop less than the dividend)

✓ Note: this is likely since there will be less cash to repay bondholders if cash is paid out by the firm

c) (stockholders have a net gain) since they (receive the entire dividend) but their stock value drops less than the dividend

~~21A~~  
21A

$$13 = 50$$

$$12 = 49$$

$$11 = 48$$

$$10 = 46$$

$$9 = 44$$

$$8 = 42$$

$$7 = 40$$

$$4 = 35$$

$$2 = 30$$

$$0+ = 25$$