

Quiz B for 2:30 Class: 11/20/13

Name _____

Short Answer 1 (15 points): What rate would you use when calculating PV(K) when determining the value of a possible expansion of a project over the next four years if cash flows exceed expectations? Be specific.

Short Answer 2 (15 points): Assume that Best Byte has debt that matures five years from today. When calculating the beta of Best Byte's assets, you must determine Δ . And when determining Δ , you must take the natural log (ln) of a ratio. What would you use for the numerator (number on top) of this ratio? Answer in words and be specific.

Problem (75 points): Use the following information to set up the calculations needed to determine the beta of a call on 3Million Products Inc. stock that expire three months from today with a strike price of \$20.

Current market values (on a per share basis): assets = \$35, stock = \$21, call = \$1.45, put = \$0.25

Betas: assets = 0.8, stock = 1.3, bonds = 0.3

Standard deviation of returns: assets = 35%, stock = 48%, bonds = 8%, call = 210%, put = 340%

Maturity: assets = 20 years (average), bonds = 15 years. Note the per-share maturity value of the bonds = \$15

Annual required returns: assets = 9%, stock = 14%, bonds = 4%

Annualized risk-free rates by maturity (all less than 1%): 1-month = 0.046%, 2-month = 0.030%,

3-month = 0.071%, 4-month = 0.066%, 5-month = 0.086%, 6-month = 0.091%, 7-month = 0.072%

Upcoming dividends on stock: two months = \$0.20, five months = \$0.25, eight months = \$0.26

Upcoming coupons (on a per share basis) on bonds: one month = \$0.05, seven months = \$0.05

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