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

Name ____________________________

Key

Short Answer 1 (15 points): What would you use for S when calculating the beta of a call on OneExchange Inc that expires five months from today? Be specific.

\[ \text{market value of stock} \]

\[ +8/\% \]

Short Answer 2 (15 points): What rate would you use when calculating PV(K) when determining the value of being able to abandon a project over the next three years if the project’s cash flows end up being lower than expected? Be specific.

\[ \text{3-year risk-free rate} \]

\[ +8/\% \]

Problem (75 points): The beta of 3Million Products’ equity is 1.3. Use the following information to set up the calculations needed to determine the beta of 3Million Products’ assets and debt. Note: If you are solving for something other than the left-hand side of the equation, state what you are solving for.

Book values: equity = $15 million, debt = $8 million
Market values: equity = $35 million, debt = $6.5 million.
Promised payments on bonds: no coupons, but the bonds mature for $10 million five years from today
Annual returns on Treasury securities by maturity: 1-year = 0.15%, 2-year = 0.28%, 3-year = 0.59%, 4-year = 0.99%, 5-year = 1.25%, 10-year = 2.53%, 20-year = 3.51%, 30-year = 3.77%.
Return on bonds with the same credit rating as 3Million Products: 1-year = 5%, 2-year = 6%, 5-year = 9%, 10-year = 10%, 20-year = 12%, 30-year = 15%.
Standard deviation of returns on: equity = 39%, debt = 9%.

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