Econ 353: Problem Set 3 Solution

1. If the expected path of 1-year interest rates over the next five years is 1 percent, 2 percent, 3 percent, 4 percent, and 5 percent, the expectations theory predicts that the bond with the highest interest rate today is the one with a maturity of
   A) two years.
   B) three years.
   C) four years.
   **D) five years.**

2. According to the liquidity premium theory of the term structure, which of the following statements is true?
   A) bonds of different maturities are not substitutes.
   **B) if yield curves are downward sloping, then short-term interest rates are expected to fall by so much that, even when the positive term premium is added, long-term rates fall below short-term rates.**
   C) yield curves should never slope downward.
   D) interest rates on bonds of different maturities do not move together over time.

3. If 1-year interest rates for the next five years are expected to be 4, 2, 5, 4, and 5 percent, and the 5-year term premium is 1 percent, then according to the liquidity premium theory, the 5-year bond rate will be
   A) 2 percent.
   B) 3 percent.
   C) 4 percent.
   **D) 5 percent.**

4. According to liquidity premium theory, an inverted yield curve predicts that short-term interest rates
   A) are expected to rise in the future.
   B) will rise and then fall in the future.
   C) will remain unchanged in the future.
   **D) will fall in the future.**

5. A stockholder's ownership of a company's stock gives her the right to
   A) vote and be the primary claimant of all cash flows.
   **B) vote and be the residual claimant of all cash flows.**
   C) manage and assume responsibility for all liabilities.
   D) vote and assume responsibility for all liabilities.

6. Using the Gordon growth formula, if \( D_1 \) is $2.00, \( k_e \) is 0.12, and \( g \) is 0.10, then the current stock price is
   A) $20.
   B) $50.
   **C) $100.**
   D) $150.
7. Terrorist attacks on the United States caused
   A) a decrease in stock prices due to lower expected growth and greater risk.
   B) a decrease in stock prices due to lower expected dividend growth and reduced uncertainty.
   C) an increase in stock prices due to an increased required return.
   D) an increase in stock prices due to higher expected dividend growth.

8. Which of the following statements is true?
   A) Shareholders have unlimited liabilities.
   B) **A company goes public means that the company issues stocks.**
   C) NYSE focuses more on small company and IT company stocks while NASDQ focuses on traditional large companies.
   D) Companies should pay dividends to its shareholders every year by law.

9. An expectation may fail to be rational if
   A) relevant information was not available at the time the forecast is made.
   B) **relevant information is available but ignored at the time the forecast is made.**
   C) information changes after the forecast is made.
   D) information was available to insiders only.

10. You read a story in the newspaper announcing the proposed merger of Dell Computer and Gateway. The merger is expected to greatly increase Gateway’s profitability. According to efficient market hypothesis, if you decide to invest in Gateway stock, you can expect to earn
     A) above average returns since you will share in the higher profits.
     B) above average returns since your stock price will definitely appreciate as higher profits are earned.
     C) below average returns since computer makers have low profit rates.
     D) **a normal return since stock prices adjust to reflect expected changes in profitability almost immediately.**

11. The spread between the interest rates on Baa corporate bonds and U.S. government bonds (i.e. the risk premium) is very large during the Great Depression years 1930-1933. Explain this difference using the bond supply and demand analysis. Hint: what happens to default risk for Baa bonds and the relative default risk for T-bonds?
    **Answer:**
    During the Great Depression many businesses failed. The default risk for the corporate bond increased compared to the default-free Treasury bond. The demand for corporate bonds decreased while the demand for Treasury bonds increased resulting in a larger risk premium.

12. Please refer to lecture notes.