

Investments homeword

[Finance](#), [Investment](#)



MGT 6080 Investments

Homework 1 Note: Due time/date for this homework is 4: 30pm on February

5. Please make online submission at T-square. 0. Today you bought 100 shares of ABC Inc. at \$100 per share. A year from now ABC will pay a dividend of \$2 per share for sure. The price of ABC a year from now is uncertain and depends on the state of the economy. A year from now the economy will either be in a recession, a state of “ normal” growth, or a boom with probabilities of 30%, 40%, and 30% respectively.

After analyzing ABC you determine that the price of ABC a year from now in these various states of the economy will be:

State of the Economy	Recession	Normal Growth	Boom
Price of ABC	\$80	\$110	\$130

What is the expected return over the next year to your investment in ABC? What is the standard deviation of that return?

You are considering buying equity in a firm. If you purchase the equity, in one year you will receive \$1.5 million with 40% probability and \$1.2 million with 60% probability. Currently the yield on one year T-bills is 4%. Suppose that you require a risk premium of 10% to invest in the equity of this firm.

- In other words, your minimum required return on this investment is 14%.
- What is the most you would be willing to pay for the equity?
- If you pay this, what is the expected rate of return on your investment?
- What is the standard deviation of the return to your investment in the firm?

Based on your examination of the historical record, you calculate that the expected return on the S&P500 over the next year is 6% over T-bills with a standard deviation of 15%. Currently a T-bill with one year to maturity and face value of \$10,000 is selling for \$9,615.

You have \$1 million to invest and you will put all of your money in some combination of the S&P500 and one-year T-bills. Calculate the expected return and standard deviation of that return for 3 different portfolios. (a) Portfolio #1 is invested 100% in the S&P500. (b) Portfolio #2 is invested 50% in the S&P500. (c) Portfolio #3 is invested 10% in the S&P500.

Do the following recommended problems. (You don't have to submit the solution for this part.) End of chapter problem sets in your textbook, Investments by BKM Chapter 2: Chapter 3: 6, 9, 11, 9, 16, 17