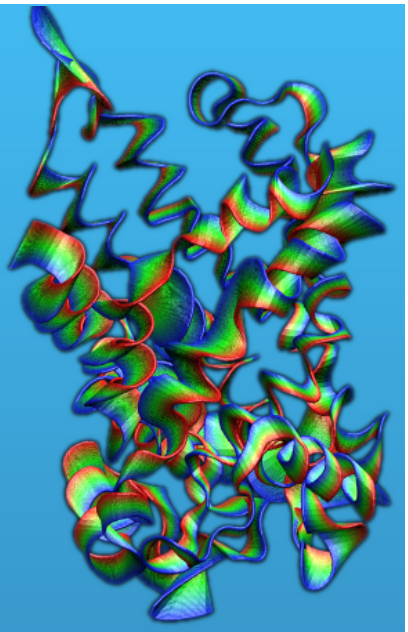

Evaluation and Presentation of Experimental Data –I

Dr. Pramod Abichandani

ENGR 201 – Biweekly Assignment 4

Financial Engineering – Stock Markets

Answer the questions listed below. Please include the relevant data and associated graphs to support your answers. Information about these stocks/indices can be obtained using Yahoo and Google finance websites.

1. Penny stocks are common shares of small public companies that trade at less than $1.00. A blue chip stock is the stock of a large company that has a long history of stable operation and solid stock performance. A great example of a blue chip stock is is General Electric. What are the pros and cons of investing in penny stocks? What are the pros and cons of investing in blue chip stocks? How are you going to leverage this knowledge to improve the performance of your portfolio? Explain your answers using relevant data analytics.
2. The S&P 500 (created in 1957) is a stock index published by Standard & Poor's. It is comprised of 500 U.S. stocks that are supposed to be representative of the overall stock market. The information about S&P 500 performance is widely available. How will you leverage this information to improve the performance of your portfolio?
3. Traditionally, one trades by buying a stock for a low price and selling it for a price higher than the buy price to make a profit. This type of trading is called *long trading*. There is another trading method called *short selling* wherein the trader borrows some stock from a brokerage and immediately sells it on the

market. After the stock price drops the trader buys some shares from the market and returns it to the brokerage. So the order of trading is reversed i.e. one sells first with the hope of the price of the share dropping below the selling price. Once the price of the share drops below the selling price, the trader can make profit. The following figure indicates this process.

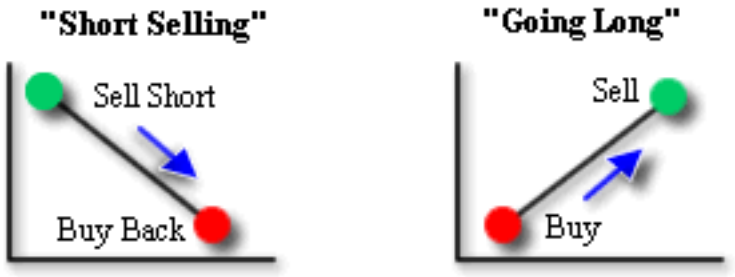

Figure: Short selling and long trading. The horizontal axis represents time and the vertical axis represents price of the stock.
Source: http://www.howthemarketworks.com/popular-topics/short-selling.php

It is clear that both long and short trading methods have their advantages and disadvantages. In long trading, the risk increases when the stock prices don't rise above the buy price. In short trading, one wants the stock prices to drop below the sell price to make a profit. Given this understanding, what is the best method to trade the stocks in your portfolio? Explain your answer using appropriate data analytics.

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