

# STOCK MARKET SIMULATION

An Interactive Qualifying Project Report:

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By

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## **Abstract**

Through the use of tools and resources available from the internet as well as text and media references, a six-week stock-market simulation was conducted to investigate the validity and success of different trading strategies in the stock market. Companies were selected to follow and trade based on two strategies: day to day Beta Investment and the Countertrend Strategy. It was found that both methods tested were adequate in producing returns. However, the day-to-day Beta strategy was more user friendly.

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## **Chapter 1: Introduction**

The purpose of this IQP is to use basic investment strategies to get a broad scope of understanding how the stock market works. The versatility of the market demands for “defensive” investments such as healthcare or food industries but also incites and begs at an investor to take some risk and potentially reap the rewards. A diversity of market sectors will be invested in for benefits and safety belts that will be explained later, but also so that a taste of many different markets may be studied and researched in order to expand my novice general knowledge of the stock market. The primary purpose of this experience is to penetrate the subject matter so that an understanding of the setting of the stock market may be established and thus taking the first step towards advancing expertise of how the market works in hopes of one day being prepared to handle one’s own investments.

This six week simulation will be conducted by picking two investment strategies and then selecting companies to invest in based on the criteria illustrated in the strategies.



## **Chapter 2: Investment Definitions**

Throughout research on the market many terms come up that may seem alien to an inexperienced market researcher. The following are terms encountered throughout my project.

### **2.1 Stock**

Stock is capital raised by a corporation through the issue of shares entitling holders to an ownership interest.

### **2.2 Mutual Fund**

A mutual fund is pooled money that is invested in assets. It is a regulated investment with a pool of assets that regularly sells and redeems its shares

### **2.3 Securities**

An investment instrument, other than an insurance policy or fixed annuity, issued by a corporation, government, or other organization which offers evidence of debt or equity.

### **2.4 Risk Tolerance**

The degree of uncertainty that an investor can handle in regard to a negative change in the value of his or her portfolio.

### **2.5 Diversification**

A risk management technique that involves using a wide variety of market sectors within a portfolio.

## **2.6 Volatility**

A measure of the dispersion of returns for a given security or market index, the greater the volatility the greater the risk

## **2.7 Portfolio**

A grouping of financial assets, including stocks, bonds and cash equivalents

(All terms defined through reference [29])

## **Chapter 3**

### **3.1 Day to Day Beta Investment Strategy**

A stock's beta is the measure of the volatility of the stock's price compared to the rest of the market. The market as a whole has a beta of 1. Stocks with a beta greater than 1 have price volatility larger than the market and are considered more risky. Stocks with a beta less than 1 are less volatile and are thus considered less risky. Those that have a beta of 1 oscillate at the same rate as the market. However, it's more than just rating which stocks are high and low risks. Risk also involves reward, the greater the risk the greater the reward and vice versa, the lower the risk the lower the return [29].

For this simulation I will study the pros and cons of stocks with betas calculated slightly lower than 1 and slightly higher than 1. The hypothesis being that by choosing 8 companies, 4 greater and 4 less than the overall beta market measure of 1, the average of your "risky" investments compared to your "safe" investments should keep a steady balance between the two and thus give the investor the safest route to a successful portfolio.

### **3.2 Companies**

A variety of different companies were selected to invest in. Hitting volatile market sectors such as technology and energy allow for greater returns on investments. However some companies were chosen as safe investments to help ensure profit and not loss.

## Apple Inc

Apple Inc. is an American multinational corporation dedicated to the ongoing expansion of consumer electronics. Originally a company known for its design and sale of personal computers, Apple was in danger of being put out of business during the Microsoft boom throughout the 90's. However, in 2001 Apple released a portable media player, simply known as the iPod, which more or less singled handedly turned the company around. The slick look, catchy name, and the consumers love for music started an iPod craze, making iPod the universal standard for portable media players [30]. Following the iPod came a whole line of products consumers would jump at, including the iPad, iPhone, Apple TV. On top of Apples revolutionary products, their personal computers and software today are arguably the best money can buy. Whether it's the products slick design, marketing schemes, or just the quality of their products, Apple had established a diehard customer base dedicated to the Apple brand. Their popularity has named them the most admired company in the world 3 years running, according to Forbes magazine. With revenues reported in September 2010 at 65.22 billion and a beta of 1.35 Apple seems perfect for my beta strategy investing [1].



**Figure 3.1 Apple Inc. Year to date Stock prices**

## United Technologies Corporation

United Technologies Corporation offers high technology products and services to the building systems and aerospace industries. With operations in six different segments UTC has its fingers in everything from ventilation systems, to fire security, to aviation. The company also has over 5 billion in military contracts, developing missile systems and helicopters, including the famous Black Hawk. With such a wide array of services the company interacts with many different areas of the market creating a sense of stability and security for investors. The company has recently reported 53.61 billion in revenues and had a beta of 1.06 [2].



**Figure 3.2 United Technologies Year to Date Stock Prices**

## General Electric Company

General Electric Company is an American multinational conglomerate corporation that means that the company is extensive in its operations which facilitate through 5 segments, energy infrastructure, technology infrastructure, NBC Universal, capital finance, and consumer industrial. According to Forbes magazine when comparing total sales, profits, assets and overall market value GE is the second largest company in the world for 2010. GE was co-founded by Thomas Edison in 1892 which illustrates the stability of the company. Recent reports show revenues of 151.37 billion and the company has a beta of 1.69 [3].



**Figure 3.3 General Electirc Year to Date Stock Prices**

## Symantec Corporation

Symantec Corporation is the largest provider of security software for computers. The company is part of the reputable Fortune 500 list and is a member of the S&P market index. The majority of the company revenue is produced through enterprise software, or software designed for companies and large organizations. Although the consumer division, Norton security products, is very popular the vitality of the company is tied to its industry contracts with businesses and large organizations. These contracts symbolize long term relationships with Symantec's customers and therefore create a solid foundation for the company to remain profitable regardless of how the consumer division is doing. Reporting recent revenues of 5.99 billion and having a beta at .89 makes Symantec a solid choice to invest in [4].



**Figure 3.4 Symantec Corporation Year to Date Stock Prices**



### 3M Company

3M Company or the Minnesota Mining and Manufacturing Company, like GE, is an American multinational conglomerate corporation. Creating a wide array of products from adhesive materials, to medical products, to electronic circuits, 3M operates all over the world. Revenues were recently posted at 26.08 billion and the company beta sits at .8, making it an ideal company for my beta investment strategy [5].



Figure 3.5 3M Year to Date Stock Prices

## Nike Incorporated

Nike Inc. is a major publicly traded sportswear and equipment supplier. The Nike swoosh has become a universally recognized symbol for athletics. With such great brand recognition, the company usually sets the bar for competitors and owns the stat as the world's leading supplier of athletic shoes and apparel. Reporting revenues of plus 19 billion and having a beta of .97 makes Nike and attractive and seemingly safe investment [6].



**Figure 3.5 Nike Inc. Year to Date Stock Prices**

## Google Incorporated

Google Inc. is an American multinational public corporation invested in internet search, cloud computing and advertising technologies. Most notably known for its trademark search engine, Google generates most of its profit from advertising. The company goal being to “organize the world’s information and make it universally accessible and useful” has come a long way. As Google is now used to obtain all sorts of information, it is truly the unofficial answer to any question as the words, “Google it” become more and more popular. Google’s popularity and rapid growth has taken the company into a new range of products beyond its search engine, including Gmail email, Google Chrome, Google Buzz, and cool tools like Google earth. Reporting recent revenues of 27.55 billion along with a 1.14 beta makes Google a solid choice for my investment strategy [7].



**Figure 3.6 Google Inc. Year to Date Stock Prices**

## eBay Incorporated

eBay Inc. is an American Internet company whose website manages online auctioning and shopping. As a part of one of the many success stories of the dot-com boom, eBay is now a multibillion dollar business. The website has expanded from its original online auction format, to regular shopping online and also offers services such as ticket trading and money transferring. Recent revenue reports indicate upwards of 9 billion, eBay Inc. has a company beta of 1.63 [9].



**Figure 3.7 eBay Inc. Year to Date Stock Prices**

## Microsoft Corporation

Microsoft Corporation is an American public multinational corporation that develops products predominantly aimed at computing services. The company was most popular in the mid 80's and throughout the 90's. As far as Microsoft stock is concerned, it's reported the company has made some billionaires and several thousand millionaires out of investors. Recently expanding to the video game market and further increasing its brand recognition, it's hard to think computers and not think Microsoft. Recent revenues are reported at 65.76 billion and with a beta just under the market measure of 1 at .99, Microsoft is a very attractive investment for my beta strategy [11].



**Figure 3.8 Microsoft Co. Year to Date Stock Prices**

## Sony Corporation

Sony Corporation is a Japanese multinational conglomerate and is the 5<sup>th</sup> largest media conglomerate in the world. Sony is one of the most recognized brand of electronics and provides products for the consumer as well as professional markets. As one of the most comprehensive entertainment companies in the world, Sony has many different segments, including Sony Pictures, Computer, Music, Ericsson and Financial. Recent revenue reports are upwards of 87 billion, Sony has a beta of 1.6 [10].



**Figure 3.9 Sony Corporation Year to Date Stock Prices**

## Amazon.com Incorporated

Amazon.com Inc. is an American multinational electronic commerce company dedicated to online retail. It is America's largest online retailer with three times the sales of the next largest online retailer. Starting off as an online bookstore, Amazon has expanded to just about anything one would look to buy online. Amazon has also expanded geographically, setting up websites in countries all over the world. Revenue reports for 2010 so far record close to 31 billion, Amazon has beta of 1.10 [8].



**Figure 3.10 Amazon.com Inc. Year to Date Stock Prices**

## Spectra Energy Corporation

Spectra Energy Corporation is a company dedicated to the transmission, storage, distribution, gathering, and processing of natural gas. The S&P 500 company operates in the U.S. and Canada with over 19 thousand miles of transmission pipeline. Spectra Energy also owns 50% of one of the largest natural gas gatherers and processors in the U.S., DCP Midstream. The company has recently delivered 10 new expansions projects that are proposed to bring a 12% return on the investments. Spectra's attractive resume for investors is backed by a reported 4.86 billion in revenue plus a nice and safe beta measure of .94 [31].



**Figure 3.11 Spectra Energy Corporation Year to Date Stock Prices**



## Anheuser- Busch Companies Incorporated

Anheuser- Busch Companies Inc. is a wholly owned subsidiary of the Belgium based company. As the largest brewing company in the U.S. the company operates 12 breweries and close to 20 in other countries. Busch Entertainment Corporation was once also America's largest theme park operators. Budweiser beer is a staple in America and is the most recognized name in its market. Brand recognition has made it so when people think beer they think Budweiser. An investor with a passion for beer is further intrigued to invest with Anheuser Busch revenues reported at 36.12 billion, the company beta is .90 [12].



**Figure 3.12 Anheuser Busch Companies Inc. Year to Date Stock Prices**

## Hewlett-Packard Company

Hewlett-Packard Company is an American multinational information technology corporation. As one of the world's largest information technology companies, HP is dedicated to developing computing, data storage, networking hardware, designing software and delivering services. HP's top bread winners come from its personal computer, enterprise servers, and imaging divisions. According to IDC & Gartner, HP is the world's second largest IT services company. Revenues are reported at 126 billion, HP was the first IT company hit revenues over 100 billion, the company beta is 1.03 [13].



**Figure 3.13 Hewlett-Packard Year to Date Stock Prices**

## BP p.l.c

BP p.l.c. is a global oil and gas company and is the fourth largest company in the world when comparing revenues. BP has its fingers in every branch of the oil and gas industry and also develops renewable energy products such as biofuels, hydrogen, solar and wind power. With operations all over the world, BP's greatest division is BP America which is the country's largest producer of oil and gas. Its primary listing is on the London Stock Exchange and is a member of the FTSE 100 index. With revenues reported at 280.8 billion the company is clearly very secure. BP's beta is 1.11 [14].



**Figure 3.14 BP p.l.c. Year to Date Stock Prices**

### **3.3 Initial Investments**

My initial investments took place on October 4. I chose 6 companies, 3 with a beta slightly less than 1 and 3 with a beta greater than 1 but well under 2. Each investment made throughout this portfolio was approximately \$100,000. Total cash used for the initial investments was \$600,064.18, including the \$10 dollar charge for each transaction.

| Ticker | Beta | Buy/Sell | Price | Shares | Net Cost/<br>Proceeds | Profit/<br>Loss | Total<br>Cash | Total Profit |
|--------|------|----------|-------|--------|-----------------------|-----------------|---------------|--------------|
| AAPL   | 1.44 | Buy      | 281.6 | 355    | 99968                 | (\$10)          | 500036.2      | ---          |
| UTX    | 1.06 | Buy      | 71.95 | 1390   | 100010.5              | (\$10)          | 400025.7      | ---          |
| GE     | 1.68 | Buy      | 16.4  | 6098   | 100007.2              | (\$10)          | 300018.5      | ---          |
| SYMC   | 0.97 | Buy      | 15.39 | 6498   | 100004.22             | (\$10)          | 200014.3      | ---          |
| MMM    | 0.8  | Buy      | 87.29 | 1146   | 100034.34             | (\$10)          | 99979.92      | ---          |
| NKE    | 0.92 | Buy      | 79.92 | 1251   | 99979.92              | (\$10)          | 0             | ---          |

**Table 3. 1 Initial Investments Beta Strategy**

### **3.4 Simulation**

#### **Week 1**

The initial investments were the only transactions made this week.

The first six investments for this portfolio were made and the week was used to monitor my stocks and get a feel for how the simulation was going to go. Further research was done through the internet and by watching MSNBC on television. Over the course of the week my stocks rose with the exception of SYMC which only suffered a slight decrease [30]. My higher beta stocks are increasing as expected. I am pleased with GE going up almost a full point over the course of the week, but in particular AAPL is doing very well [1]. My other stocks are doing as expected, since their betas are so close to 1, staying right around their original purchased price.

| Ticker | Beta | Shares | Oct. 4 | Oct. 5 | Oct. 6 | Oct. 7 | Oct. 8 |
|--------|------|--------|--------|--------|--------|--------|--------|
| AAPL   | 1.44 | 355    | 281.6  | 282    | 289.59 | 290.34 | 291.71 |
| UTX    | 1.02 | 1390   | 71.94  | 71.31  | 72.38  | 72.82  | 72.99  |
| GE     | 1.68 | 6098   | 16.31  | 16.25  | 16.49  | 17     | 17.13  |
| SYMC   | 0.97 | 6498   | 15.39  | 15.22  | 15.25  | 14.96  | 15.01  |
| MMM    | 0.8  | 1146   | 87.29  | 87.31  | 88.66  | 89.86  | 89.82  |
| NKE    | 0.92 | 1251   | 79.92  | 80.6   | 81.03  | 81.27  | 80.94  |

**Table 3.1 Week 1 Stock Prices**

| Date    | Ticker | Beta | Buy/Sell | Price | Shares | Net Cost/Proceeds | Profit/Loss | Total Cash | Total Profit |
|---------|--------|------|----------|-------|--------|-------------------|-------------|------------|--------------|
| Oct. 13 | UTX    | 1.06 | Sell     | 73.51 | 1390   | 102178.9          | \$2,168.40  | 103062     | \$2,168.40   |
| Oct. 13 | GOOG   | 1.14 | Buy      | 547   | 183    | 100101            | (\$10)      | 2951       |              |
| Oct. 14 | GE     | 1.68 | Sell     | 17.39 | 6098   | 106044.22         | \$6,037.02  | 108995.22  | \$8,205.42   |
| Oct. 14 | EBAY   | 1.63 | Buy      | 25.02 | 3997   | 100004.94         | (\$10)      | 8980.28    |              |
| Oct. 15 | MMM    | 0.8  | Sell     | 89.75 | 1146   | 102853.5          | \$2,819.16  | 111833.78  | \$11,024.58  |
| Oct. 15 | MSFT   | 0.99 | Buy      | 25.36 | 3943   | 99994.48          | (\$10)      | 11839.3    |              |

Table 3.3 **Table 2 Week 2 Order Records**

## Week 2

Week 2 I made some moves and made some profit. Stocks with beta's around 1 had surprising increases so I sold them for small profits. UTX and MMM both reeled in over \$2,000 in profit. However the bread winner of the week was GE earning slightly more than \$6,000. Although I planned to hold on to GE for longer than I had, the dip it took in the middle of the week set off some red flags so I decided to sell it. I think the best move I made this week came with the purchase of MSFT. With its .99 beta I feel very comfortable that I could hold on to this stock for a while [29].

AAPL continues to increase significantly while the others stay pretty stagnant around their original purchase price.

| Ticker | Beta | Shares | Oct. 11 | Oct. 12 | Oct. 13 | Oct. 14 | Oct. 15 |
|--------|------|--------|---------|---------|---------|---------|---------|
| AAPL   | 1.44 | 355    | 294.74  | 295.41  | 300.2   | 301.69  | 307.44  |
| UTX    | 1.02 | 1390   | 73.11   | 72.6    | 73.51   | N/A     | N/A     |
| GE     | 1.68 | 6098   | 17.24   | 16.97   | 17.3    | 17.39   | N/A     |
| EBAY   | 1.63 | 3997   | N/A     | N/A     | N/A     | 25.02   | 25.69   |
| GOOG   | 1.14 | 183    | N/A     | N/A     | 547     | 544.18  | 599.27  |
| SYMC   | 0.97 | 6498   | 14.99   | 15.11   | 15.5    | 15.6    | 15.61   |
| MMM    | 0.8  | 1146   | 89.48   | 87.92   | 88.13   | 89.15   | 89.75   |
| NKE    | 0.92 | 1251   | 81.62   | 83      | 82.38   | 81.72   | 82.26   |
| MSFT   | 0.99 | 3943   | N/A     | N/A     | N/A     | N/A     | 25.36   |

Table 3.4 **Table 3**Week 2 Stock Prices

### Week 3

| Date       | Ticker | Beta | Buy/Sell | Price  | Shares | Net Cost/<br>Proceeds | Profit/Loss | Total Cash | Total Profit |
|------------|--------|------|----------|--------|--------|-----------------------|-------------|------------|--------------|
| Oct.<br>18 | AAPL   | 1.44 | Sell     | 318.47 | 355    | 113056.85             | \$13,088.85 | 124896.15  | \$24,113.43  |
| Oct.<br>18 | SNE    | 1.6  | Buy      | 32.6   | 3068   | 100016.8              | (\$10)      | 24869.35   |              |

Table 3.5 **Table 4**Week 3 Order Records

This week I finally decided to sell AAPL. I've watched it rise for a couple weeks now and feel satisfied with selling my shares and taking the profit of over \$13,000. I wanted to hold out longer, but I think it was wise to sell. With the sale of AAPL came the purchase of SNE, which seems like a good move seeing as its stock has been rising slightly for the last week. The only eye opener this week has been Google, which jumped a whole 8 points from the 18<sup>th</sup> to the 19<sup>th</sup>.

| Ticker | Beta | Shares | Oct. 18 | Oct. 19 | Oct. 20 | Oct. 21 | Oct. 22 |
|--------|------|--------|---------|---------|---------|---------|---------|
| AAPL   | 1.44 | 355    | 318.47  | N/A     | N/A     | N/A     | N/A     |
| EBAY   | 1.63 | 3997   | 25.85   | 25.61   | 25.54   | 27.47   | 27.26   |
| GOOG   | 1.14 | 183    | 600.55  | 608.85  | 608.14  | 611.51  | 611.92  |
| SNE    | 1.6  | 3068   | 32.6    | 32.76   | 32.91   | 33.54   | 33.58   |
| SYMC   | 0.97 | 6498   | 15.69   | 15.48   | 15.54   | 15.68   | 15.66   |
| MSFT   | 0.99 | 3943   | 25.59   | 25.27   | 25.26   | 25.4    | 25.52   |
| NKE    | 0.92 | 1251   | 82      | 80.46   | 81.04   | 81.62   | 82.11   |

Table 3.6 Table 5 Week 3 Stock Prices

#### Week 4

| Date       | Ticker | Beta | Buy/Sell | Price  | Shares | Net Cost/<br>Proceeds | Profit/Loss | Total<br>Cash | Total Profit |
|------------|--------|------|----------|--------|--------|-----------------------|-------------|---------------|--------------|
| Oct.<br>28 | GOOG   | 1.14 | Sell     | 620.05 | 183    | 113469.15             | \$13,368.15 | 138338.5      | \$37,481.58  |
| Oct.<br>28 | AMZN   | 1.1  | Buy      | 168.31 | 594    | 99976.14              | (\$10)      | 38352.36      |              |

Table 3.7 Table 6 Week 4 Order Records

Most of my stocks this week stayed pretty stagnant with the exception of GOOG which hit 620 on the 28<sup>th</sup>. After watching it increase for about a week, then dip on this past Tuesday only to finish the week strong, I figured Thursday was the time to sell before it dipped again. Google reeled me in plus wards of \$13,000. After the sale of GOOG I picked up AMZN which finished the week increasing.

| Ticker | Beta | Shares | Oct. 25 | Oct. 26 | Oct. 27 | Oct. 28 | Oct. 29 |
|--------|------|--------|---------|---------|---------|---------|---------|
| EBAY   | 1.63 | 3997   | 27.68   | 27.59   | 28.55   | 29.38   | 29.55   |
| GOOG   | 1.14 | 183    | 615.59  | 613.1   | 615.77  | 620.05  | N/A     |
| SNE    | 1.6  | 3068   | 33.69   | 33.82   | 33.76   | 33.68   | 33.88   |
| AMZN   | 1.1  | 594    | N/A     | N/A     | N/A     | 168.31  | 165.8   |
| SYMC   | 0.97 | 6498   | 15.8    | 15.66   | 15.71   | 16.55   | 16.36   |
| MSFT   | 0.99 | 3943   | 25.24   | 25.12   | 25.79   | 26.21   | 27.15   |
| NKE    | 0.92 | 1251   | 82.57   | 81.64   | 81.24   | 81.31   | 80.94   |



Table 3.8 **Table 7**Week 4 Stock Prices

Week 5

| Date   | Ticker | Beta | Buy/Sell | Price | Shares | Net Cost/Proceeds | Profit/Loss | Total Cash | Total Profit |
|--------|--------|------|----------|-------|--------|-------------------|-------------|------------|--------------|
| Nov. 5 | NKE    | 0.92 | Sell     | 83.24 | 1251   | 104133.24         | \$4,153.32  | 142485.6   | \$41,635     |
| Nov. 5 | SE     | 0.94 | Buy      | 24.65 | 4057   | 100005.05         | (\$10)      | 42470.55   |              |
| Nov. 5 | SYMC   | 0.97 | Sell     | 17.38 | 6498   | 112415.4          | \$12,411.18 | 154885.95  | \$54,046.08  |
| Nov. 5 | BUD    | 0.9  | Buy      | 61.61 | 1623   | 99993.03          | (\$10)      | 54882.92   |              |

Table 3.9 **Table 8**Week 5 Order Records

Week 5 had some good action and good profit with the sales of NKE and SYMC. NKE turning over \$4,000 dollars and SYMC over \$12,000, was rather exciting seeing as the beta of each stock was .92 and .97 respectively. Overall my stocks increased this week, with the acceptance of SE and BUD which I look forward to monitoring next week.

| Ticker | Beta | Shares | Nov. 1 | Nov. 2 | Nov. 3 | Nov. 4 | Nov. 5 |
|--------|------|--------|--------|--------|--------|--------|--------|
| EBAY   | 1.63 | 3997   | 29.46  | 29.56  | 29.96  | 30.35  | 30.18  |
| SNE    | 1.6  | 3068   | 32.93  | 32.79  | 32.62  | 33     | 33.41  |
| AMZN   | 1.1  | 594    | 164.45 | 163.75 | 165.4  | 169.86 | 169.35 |
| MSFT   | 0.99 | 3943   | 26.88  | 27.06  | 27.46  | 27.41  | 27.17  |
| SYMC   | 0.97 | 6498   | 16.28  | 16.53  | 16.69  | 16.51  | 17.3   |
| NKE    | 0.92 | 1251   | 81.88  | 81.8   | 81.73  | 82.72  | 83.24  |
| SE     | 0.94 | 4057   | N/A    | N/A    | N/A    | N/A    | 24.65  |
| BUD    | 0.9  | 1623   | N/A    | N/A    | N/A    | N/A    | 61.61  |

Table 3.10 **Table 9**Week 5 Stock Prices

## Week 6

| Date      | Ticker | Beta | Buy/Sell | Price | Shares | Net Cost/<br>Proceeds | Profit/Loss | Total Cash | Total Profit |
|-----------|--------|------|----------|-------|--------|-----------------------|-------------|------------|--------------|
| Nov.<br>8 | EBAY   | 1.63 | Sell     | 30.79 | 3997   | 123067.63             | \$23,062.69 | 177950.55  | \$77,108.77  |
| Nov.<br>8 | HPQ    | 1.03 | Buy      | 43.63 | 2292   | 99999.96              | (\$10)      | 77940.59   |              |
| Nov.<br>9 | SNE    | 1.6  | Sell     | 33.77 | 3068   | 103606.36             | \$3,589.56  | 181546.95  | \$80,698.33  |
| Nov.<br>9 | BP     | 1.11 | Buy      | 44.2  | 2262   | 99980.4               | (\$10)      | 81556.55   |              |

Table 3.11 **Table 10**Week 6 Order Records

This final week of my simulation for portfolio 1 turned out to be very profitable due the great success of EBAY. EBAY sold at 30.79 making me over \$23,000. SNE was also sold but only pulled in \$3,500. I picked up HPQ and BP. HPQ is somewhat of a regret seeing as it dropped towards the end of the week. BUD also fell but even as I prepare to cash out I feel comfortable that this entire portfolio will be profitable.

| Ticker | Beta | Shares | Nov. 8 | Nov. 9 | Nov. 10 | Nov. 11 | Nov. 12 |
|--------|------|--------|--------|--------|---------|---------|---------|
| EBAY   | 1.63 | 3997   | 30.79  | N/A    | N/A     | N/A     | N/A     |
| SNE    | 1.6  | 3068   | 33.52  | 33.77  | N/A     | N/A     | N/A     |
| AMZN   | 1.1  | 594    | 170.84 | 172.67 | 170.59  | 171     | 170.12  |
| HPQ    | 1.03 | 2292   | 43.63  | 44.64  | 44.51   | 43.79   | 42.72   |
| BP     | 1.11 | 2262   | 43.16  | 44.2   | 43.24   | 43.29   | 43.35   |
| MSFT   | 0.99 | 3943   | 26.68  | 26.81  | 27.01   | 26.68   | 26.47   |
| SE     | 0.94 | 4057   | 24.55  | 24.4   | 24.41   | 24.3    | 24.27   |
| BUD    | 0.9  | 1623   | 60.53  | 61.4   | 60.61   | 59.76   | 58.86   |

Table 3.12 Table 11 Week 6 Stock Prices

### 3.5 Results of Simulation

| Ticker | Beta | End Price | Shares | Net Cost  | Profit/Loss  | Total Cash | Total Profit |
|--------|------|-----------|--------|-----------|--------------|------------|--------------|
| AMZN   | 1.1  | 170.12    | 594    | 101051.28 | \$1,075.14   | 182607.83  | \$81,773.47  |
| HPQ    | 1.03 | 42.72     | 2292   | 97914.24  | (\$2,085.72) | 280522.07  | \$79,687.75  |
| BP     | 1.11 | 43.35     | 2262   | 98057.7   | (\$1,922.70) | 378579.77  | \$77,765.05  |
| MSFT   | 0.99 | 26.47     | 3943   | 104371.21 | \$4,376.73   | 482950.98  | \$82,141.78  |
| SE     | 0.94 | 24.27     | 4057   | 98463.39  | (\$1,541.66) | 581414.37  | \$80,600.12  |
| BUD    | 0.9  | 58.86     | 1623   | 95529.78  | (\$4,463.25) | 676944.15  | \$76,136.87  |

Table 3.13 Table 12 Simulation 1 Final Profits and Outcome

This portfolio was successful with a simulated profit of \$76,879.97.

## **Chapter 4**

### **4.1 The Countertrend Strategy**

This portfolio used the Countertrend Strategy to justify investments that were made over a six week period. The strategy involves making trades against the current trend in an attempt to make small gains [29]. In other words observe a stock, buy it when it's low and sell it when it's high. The presumption being that the stock will eventually swing back up above what it was originally purchased at. Determining which stocks would swing back was done by monitoring the company's year to date stock prices and by utilizing the "52-week range" stat. If the current price of the stock was on the low end to the middle of the range then it was purchased. The idea being that at some point the stock would start to swing towards the upper end of the range [29].

### **4.2 Companies**

This portfolio invested in similar market sectors compared to the first portfolio. However none of the same companies from the first portfolio were used in this one.

## Coca Cola Company

Coca cola is a beverage retailer and manufacturer. The company has over 500 brands in 200 countries. Coca cola's brand recognition is world renowned due to its widely successfully advertising campaigns. Since 1889 Coca Cola has been operating and as a member of S&P 500 is a staple in the beverage industry. With revenues reported at 32.14 billion, the stock was purchased on October 4<sup>th</sup> at 58.93 with a 52 week range of 49.47 – 64.97 [15].



Figure 4.1 Figure 0-1Coca Cola Year to Date Stock Prices

## Exxon Mobil Corporation

ExxonMobil is an American multinational oil and gas corporation. The company is one of the world's largest publically traded companies. As the largest oil giant on the planet, ExxonMobil produces approximately 4 million barrels of oil a day. Reported revenues are over 329 billion. The stock was bought on October 4<sup>th</sup> at 62.52 with a 52 week range of 55.94 - 72.75 [16].



Figure 4.2 Figure 0-2Exxon Mobil Corporation Year to Date Stock Prices

## Merck & Company Incorporated

Merck is one of the largest pharmaceutical companies in the world. The company is described as a global research driven pharmaceutical company. The company develops a wide array of products dedicated to improve human and animal health. Reported revenues are at 43.99 billion. The stock was purchased on October 4<sup>th</sup> at 36.49 with a 52 week range of 30.7 – 41.56 [17].



Figure 4.3 Figure 0-3Merck & Company Inc. Year to Date Stock Prices

## Verizon Communications Incorporated

Verizon communications is a global broadband and telecommunications company. The very profitable company is a component of the D&J industrial average. The company reports revenues at 107.26 billion. The stock was purchased on October 4<sup>th</sup> at 32.91 with a 52 week range of 25.99 – 34.82 [18].



Figure 4.4 Figure 0-4 Verizon Communications Inc. Year to Date Stock Prices



## Southwest Airlines Company

Southwest Airlines is an American airline and the world's largest low-cost carrier. The company has the fifth largest passenger intake among all the world's commercial airlines. It's also one of most profitable airlines in the world and plans on continuing that trend with the recent purchase of AirTran Airways. The company reports revenue of 11.7 billion and the stock was bought on October 8<sup>th</sup> for 12.92 with a 52 week range of 10.42 – 14.32 [19].



Figure 4.5 Figure 0-5 Southwest Airlines Co. Year to Date Stock Prices

## The Home Depot

The Home Depot is an American retailer of home improvement and construction products. With at most states having more than 1 store, the Home Depot is a nationwide recognizable company and furthermore is the largest home improvement retailer in the U.S. As a component of the D&J industrial average The Home Depot is a stable company and a safe investment. The stock was bought on October 13<sup>th</sup> for 31.63, it has a 52 week range of 26.62 – 37.03 [20].



Figure 4.6 Figure 0-6Home Depot Inc. Year to Date Stock Prices

## Procter & Gamble Co.

Procter and Gamble is an American multinational corporation that manufactures a wide array of products. The company is very attractive for investors as a Fortune 500 company. It's listed as the 6<sup>th</sup> most admired company according to Fortune. Reported revenues are at 79.25 billion. The stock was purchased on October 14<sup>th</sup> at 62.67 with a 52 week range of 39.37 – 64.58 [21].



Figure 4.7 Figure 0-7 Procter & Gamble Company Year to Date Stock Prices

## Best Buy Co. Inc.

Best Buy is a retailer of consumer electronics in the U.S. The company accounts for 19% of its market share and is currently the primary electronics retail store in the eastern U.S. Best Buy is a component of the S&P 500. Reported revenues are at 50.7 billion. The stock was purchased on October 14<sup>th</sup> at 41.02 with a 52 week range of 31.25 – 48.83 [22].



Figure 4.8 Figure 0-8Best Buy Co., Inc. Year to Date Stock Prices

## Toyota Motor Corporation

Toyota is a Japanese multinational corporation. Toyota is the world's largest automobile manufacturer by sales and production. However the company is expanding from strictly automotive to robotics, financial services, and biotechnology. Revenues are reported at 242.11 billion. The stock was purchased on October 21<sup>st</sup> at 71.46 with a 52 week range of 68.02 – 91.97 [23].



Figure 4.9

Figure 0-9Toyota Motor Corporation Year to Date Stock Prices

## United States Steel Corporation

U.S. steel is an integrated steel producer. By sales the company is the world's largest steel producer. The company is a former D&J industrial average component. Revenues are reported at 16.46 billion. The stock was purchased on October 22<sup>nd</sup> at 42.36 with a 52 week range of 36.93 – 70.95 [24].



Figure 4.10 Figure 0-10United States Steel Corporation Year to Date Stock Prices

## Boston Beer Company, Inc.

The Boston Beer Company brews and bottles Samuel Adams beer. The company is the largest American owned brewery in the United States. The popularity of the product and its brand recognition make it a promising investment. Reported revenues are at 455.25 million. The stock was bought on October 25<sup>th</sup> at 70.87 with a 52 week range of 30 – 96.67 [25].



Figure 4.11 Figure 0-11 Boston Beer Company Inc. Year to Date Stock Prices

## Johnson & Johnson

Johnson and Johnson is a global American pharmaceutical, medical devices and consumer packaged goods manufacturer. The company is a component of the D&J industrial average and is listed on the Fortune 500. Johnson and Johnson has a great reputation and is ranked as the world's most respected company by Barron's magazine. Revenues are reported at 62.49 billion. The stock was purchased on October 28<sup>th</sup> at 63.94 with a 52 week range of 56.86 – 66.2 [26].



Figure 4.12 Figure 0-12 Johnson & Johnson Year to Date Stock Prices



## Caterpillar Inc.

Most commonly known as “CAT”, this company designs and manufactures machinery and engines. As the world’s largest manufacturer of construction and mining equipment, Caterpillar is ranked number 1 in its industry and is a component of the D&J industrial average. Revenues are reported at 37.68 billion. The stock was purchased on November 5<sup>th</sup> at 83.25 with a 52 week range of 50.50 – 94.33 [32].



Figure 4.13 Figure 0-13Caterpillar Inc. Year to Date Stock Prices

## Dell Inc.

Dell is an American multinational information technology corporation. The company develops and sells computers and other related products. As one of the largest technological companies in the world Dell is #38 on the Fortune 500 and is also ranked 5<sup>th</sup> by Fortune as the most admired company. Reported revenue is at 60.7 billion. The stock was purchased on November 5<sup>th</sup> at 14.52 with a 52 week range of 11.34 – 17.52 [33].



Figure 4.14 **Figure 0-14Dell Inc. Year to Date Stock Prices**

### 4.3 Initial Investments

My initial investments took place on October 4. I chose 4 companies, and tried to make sure the common stock of each company fell somewhere on the low end or middle of its own 52 week range. Each investment made throughout this portfolio was approximately \$100,000. Total cash used for the initial investments was \$399917.94, including the \$10 dollar charge for each transaction.

| Ticker | 52wk Range    | Buy/Sell | Price | Shares | Net Cost/ Proceeds | Profit/Loss | Total Cash | Total Profit |
|--------|---------------|----------|-------|--------|--------------------|-------------|------------|--------------|
| KO     | 49.47 - 64.97 | Buy      | 58.93 | 1696   | 99945.28           | (\$10)      | 299962.66  | ---          |
| XOM    | 55.94 - 72.75 | Buy      | 62.52 | 1599   | 99969.48           | (\$10)      | 199983.18  | ---          |
| MRK    | 30.70 - 41.56 | Buy      | 36.49 | 2740   | 99982.6            | (\$10)      | 99990.58   | ---          |
| VZ     | 25.99 - 34.82 | Buy      | 32.91 | 3038   | 99980.58           | (\$10)      | 0          | ---          |

Table 4.1 **Table 13**Initial Investments Countertrend Strategy

### 4.4 Simulation

#### Week 1

| Date   | Ticker | 52wk Range    | Buy/Sell | Price | Shares | Net Cost/Proceeds | Profit/Loss | Total Cash | Total Profit |
|--------|--------|---------------|----------|-------|--------|-------------------|-------------|------------|--------------|
| Oct. 8 | VZ     | 25.99 - 34.82 | Sell     | 33.09 | 3038   | 100527.42         | \$546.84    | 100527.42  | \$546.84     |
| Oct. 8 | LUV    | 10.42 - 14.32 | Buy      | 12.92 | 7739   | 99987.88          | (\$10)      | 539.54     |              |

Table 4.2 **Table 14**Week 1 Order Records

Originally I wanted to use week 1 as time to monitor the market and my initial investments. However, after only half catching what was said on MSNBC about VZ dropping over the next couple weeks, I decided to take action and drop it immediately [30]. Not all was lost though, as VZ did turn a \$500 profit. I picked up LUV which was about 1 and 1/3 point lower than its 52 week range. For the most part my stocks seemed pretty stagnant with only minor increases and decrease throughout the week.

| Ticker | 52wk Range    | Shares | Oct. 4 | Oct. 5 | Oct. 6 | Oct. 7 | Oct. 8 |
|--------|---------------|--------|--------|--------|--------|--------|--------|
| KO     | 49.47 - 64.97 | 1696   | 58.93  | 59.15  | 59.63  | 59.67  | 59.48  |
| XOM    | 55.94 - 72.75 | 1599   | 62.52  | 62.59  | 63.18  | 63.96  | 63.81  |
| MRK    | 30.70 - 41.56 | 2740   | 36.49  | 36.86  | 37.04  | 37.35  | 36.82  |
| VZ     | 25.99 - 34.82 | 3038   | 32.91  | 33.2   | 33.14  | 33.57  | 33.09  |
| LUV    | 10.42 - 14.32 | 7739   | N/A    | N/A    | N/A    | N/A    | 12.92  |

Table 4.3 **Table 15Week 1 Stock Prices**

## Week 2

| Date    | Ticker | 52wk Range    | Buy/Sell | Price | Shares | Net Cost/Proceeds | Profit/Loss | Total Cash | Total Profit |
|---------|--------|---------------|----------|-------|--------|-------------------|-------------|------------|--------------|
| Oct. 13 | LUV    | 10.42 - 14.32 | Sell     | 13.04 | 7739   | 100916.56         | \$928.68    | 101456.1   | \$1,475.52   |
| Oct. 13 | HD     | 26.62 - 37.03 | Buy      | 31.63 | 3161   | 99982.43          | (\$10)      | 1463.67    |              |
| Oct. 14 | MRK    | 30.70 - 41.56 | Sell     | 37.27 | 2740   | 102119.8          | \$2,137.20  | 103593.47  | \$3,612.72   |
| Oct. 14 | PG     | 39.37 - 64.58 | Buy      | 62.67 | 1595   | 99958.65          | (\$10)      | 3624.82    |              |
| Oct. 14 | KO     | 49.47 - 64.97 | Sell     | 59.94 | 1696   | 101658.24         | \$1,712.96  | 105283.06  | \$5,325.68   |
| Oct. 14 | BBY    | 31.25 - 48.83 | Buy      | 41.02 | 2438   | 100006.76         | (\$10)      | 5266.3     |              |

Table 4.4 **Table 16**Week 2 Order Records

This week numerous trades were made and small profits gained. Unless I felt like keeping a stock on a hunch, if the price increased by more than a point I sold it to turn the small profit. LUV, MRK, and KO combined for a profit around \$4,800. The big earner was MRK which profited over \$2000. I picked up BBY, PG, and HD all over which increased as the week closed out except for HD which decreased slightly.

| Ticker | 52wk Range    | Shares | Oct. 11 | Oct. 12 | Oct. 13 | Oct. 14 | Oct. 15 |
|--------|---------------|--------|---------|---------|---------|---------|---------|
| KO     | 49.47 - 64.97 | 1696   | 59.56   | 59.34   | 59.72   | 59.94   | N/A     |
| XOM    | 55.94 - 72.75 | 1599   | 64.36   | 64.31   | 64.84   | 65.05   | 65.64   |
| MRK    | 30.70 - 41.56 | 2740   | 36.86   | 36.67   | 36.86   | 37.27   | N/A     |
| LUV    | 10.42 - 14.32 | 7739   | 13.02   | 12.79   | 13.04   | N/A     | N/A     |
| HD     | 26.62 - 37.03 | 3161   | N/A     | N/A     | 31.63   | 31.07   | 31      |
| PG     | 39.37 - 64.58 | 1595   | N/A     | N/A     | N/A     | 62.67   | 62.97   |
| BBY    | 31.25 - 48.83 | 2438   | N/A     | N/A     | N/A     | 41.02   | 41.35   |

Table 4.5 **Table 17**Week 2 Stock Prices

### Week 3

| Date    | Ticker | 52wk Range    | Buy/Sell | Price | Shares | Net Cost/ Proceeds | Profit/Loss | Total Cash | Total Profit |
|---------|--------|---------------|----------|-------|--------|--------------------|-------------|------------|--------------|
| Oct. 21 | PG     | 39.37 - 64.58 | Sell     | 63.59 | 1595   | 101426.05          | \$1,467.40  | 106692.35  | \$6,793.08   |
| Oct. 21 | TM     | 68.02 - 91.97 | Buy      | 71.46 | 1399   | 99972.54           | (\$10)      | 6709.81    |              |
| Oct. 22 | HD     | 26.62 - 37.03 | Sell     | 31.77 | 3161   | 100424.97          | \$442.54    | 107134.78  | \$7,235.62   |
| Oct. 22 | X      | 36.93 - 70.95 | Buy      | 42.36 | 2361   | 100011.96          | (\$10)      | 7112.82    |              |

Table 4.6 **Table 18**Week 3 Order Records

This week more small profits were made. PG and HD increased throughout the week so selling was appropriate. TM and X were picked up. The rest of my stocks all increased even if it was

just slightly. I think stocks to watch for significant profits compared to others are XOM and BBY. Further research was done this week via the internet and television.

| Ticker | 52wk Range    | Shares | Oct. 18 | Oct. 19 | Oct. 20 | Oct. 21 | Oct. 22 |
|--------|---------------|--------|---------|---------|---------|---------|---------|
| XOM    | 55.94 - 72.75 | 1599   | 65.19   | 65.59   | 65.47   | 66.29   | 66.51   |
| HD     | 26.62 - 37.03 | 3161   | 30.66   | 30.3    | 30.52   | 30.89   | 31.77   |
| PG     | 39.37 - 64.58 | 1595   | 62.88   | 62.98   | 62.88   | 63.59   | N/A     |
| BBY    | 31.25 - 48.83 | 2438   | 42.08   | 41.92   | 42.03   | 42.45   | 42.38   |
| TM     | 68.02 - 91.97 | 1399   | N/A     | N/A     | N/A     | 71.46   | 71.67   |
| X      | 36.93 - 70.95 | 2361   | N/A     | N/A     | N/A     | N/A     | 42.35   |

Table 4.7 **Table 19**Week 3 Stock Prices

#### Week 4

| Date    | Ticker | 52wk Range    | Buy/Sell | Price | Shares | Net Cost/ Proceeds | Profit/Loss | Total Cash | Total Profit |
|---------|--------|---------------|----------|-------|--------|--------------------|-------------|------------|--------------|
| Oct. 25 | BBY    | 31.25 - 48.83 | Sell     | 43.07 | 2438   | 105004.66          | \$4,997.90  | 112117.48  | \$12,233.52  |
| Oct. 25 | SAM    | 30 - 96.67    | Buy      | 70.87 | 1411   | 99997.57           | (\$10)      | 12109.91   |              |
| Oct. 28 | XOM    | 55.94 - 72.75 | Sell     | 66.43 | 1599   | 106221.57          | \$6,252.09  | 118331.48  | \$18,485.61  |
| Oct. 28 | JNJ    | 56.86 - 66.2  | Buy      | 63.94 | 1564   | 100002.16          | (\$10)      | 18319.32   |              |

Table 4.8 **Table 20**Week 4 Order Records

As predicted last week BBY and XOM were sold this week for the greatest profits this portfolio has seen thus far. XOM sold at 66.43 and turned in over \$6,500 dollars. BBY sold at 43.07 and turned in just under \$5,000. I picked up JNJ and a personal favorite SAM. Besides the large turn over's, the week was not to be celebrated as every other stock of mine decreased from Monday to Friday.

| Ticker | 52wk Range    | Shares | Oct. 25 | Oct. 26 | Oct. 27 | Oct. 28 | Oct. 29 |
|--------|---------------|--------|---------|---------|---------|---------|---------|
| XOM    | 55.94 - 72.75 | 1599   | 66.68   | 65.96   | 65.95   | 66.43   | N/A     |
| BBY    | 31.25 - 48.83 | 2438   | 43.07   | N/A     | N/A     | N/A     | N/A     |
| TM     | 68.02 - 91.97 | 1399   | 71.7    | 70.95   | 71.04   | 70.96   | 70.91   |
| X      | 36.93 - 70.95 | 2361   | 42.75   | 40.09   | 40.42   | 40.53   | 40.31   |
| JNJ    | 56.86 - 66.2  | 1564   | N/A     | N/A     | N/A     | 63.94   | 63.64   |
| SAM    | 30 - 96.67    | 1411   | 70.87   | 71.58   | 72.03   | 71.87   | 70.97   |

Table 4.9 Table 21Week 4 Stock Prices

### Week 5

| Date   | Ticker | 52wk Range    | Buy/Sell | Price | Shares | Net Cost/ Proceeds | Profit/Loss | Total Cash | Total Profit |
|--------|--------|---------------|----------|-------|--------|--------------------|-------------|------------|--------------|
| Nov. 5 | TM     | 68.02 - 91.97 | Sell     | 73.83 | 1399   | 103288.17          | \$3,315.63  | 121607.49  | \$21,801.24  |
| Nov. 5 | CAT    | 50.50 - 94.33 | Buy      | 83.25 | 1201   | 99983.25           | (\$10)      | 21614.24   |              |
| Nov. 5 | JNJ    | 56.86 - 66.2  | Sell     | 64.75 | 1564   | 101269             | \$1,266.84  | 122883.24  | \$23,068.08  |
| Nov. 5 | Dell   | 11.34 - 17.52 | Buy      | 14.52 | 6887   | 99999.24           | (\$10)      | 22874      |              |

Table 4.10 Table 22Week 5 Order Records

This week TM and JNJ were sold for small profits. After dropping slightly the previous week, this week the stocks turned around increasing steadily all the way till Friday. I decided not to press my luck over the weekend and sell. X and SAM did well as they too steadily increased



throughout the week; however I kept them to see how they would over the weekend. I picked up DELL and CAT.

| Ticker | 52wk Range    | Shares | Nov. 1 | Nov. 2 | Nov. 3 | Nov. 4 | Nov. 5 |
|--------|---------------|--------|--------|--------|--------|--------|--------|
| TM     | 68.02 - 91.97 | 1399   | 70.1   | 70.35  | 70.23  | 71.95  | 73.83  |
| X      | 36.93 - 70.95 | 2361   | 43.1   | 44.1   | 45     | 46.5   | 47.62  |
| JNJ    | 56.86 - 66.2  | 1564   | 63.88  | 63.94  | 63.99  | 64.32  | 64.75  |
| SAM    | 30 - 96.67    | 1411   | 72.06  | 73.09  | 73.24  | 74     | 74.68  |
| CAT    | 50.50 - 94.33 | 1201   | N/A    | N/A    | N/A    | N/A    | 83.25  |
| Dell   | 11.34 - 17.52 | 6887   | N/A    | N/A    | N/A    | N/A    | 14.52  |

Table 4.11 Table 23 Week 5 Stock Prices

## Week 6

| Date    | Ticker | 52wk Range    | Buy/Sell | Price | Shares | Net Cost/ Proceeds | Profit/Loss  | Total Cash | Total Profit |
|---------|--------|---------------|----------|-------|--------|--------------------|--------------|------------|--------------|
| Nov. 10 | CAT    | 50.50 - 94.33 | Sell     | 82.16 | 1201   | 98674.16           | (\$1,309.09) | 121548.16  | \$21,758.99  |
| Nov. 11 | DELL   | 11.34 - 17.52 | Sell     | 13.98 | 6887   | 96280.26           | (\$3,718.98) | 217828.42  | \$18,040.01  |

Table 4.12 Table 24 Week 6 Order Records

I had to sell CAT and DELL before the end of the week. Both were steadily decreasing and as I knew this was the last week of my simulation, I dropped them before weeks end to help save my profits. Despite those stocks falling, SAM and X saved my portfolio with increases throughout the week.

| Ticker | 52wk Range    | Shares | Nov. 8 | Nov. 9 | Nov. 10 | Nov. 11 | Nov. 12 |
|--------|---------------|--------|--------|--------|---------|---------|---------|
| X      | 36.93 - 70.95 | 2361   | 48.09  | 48.41  | 47.46   | 47.15   | 47.05   |
| SAM    | 30 - 96.67    | 1411   | 81.84  | 83.02  | 82.26   | 81.93   | 81.55   |
| CAT    | 50.50 - 94.33 | 1201   | 83.25  | 83.2   | 82.16   | N/A     | N/A     |
| Dell   | 11.34- 17.52  | 6887   | 14.38  | 14.26  | 14.35   | 13.98   | N/A     |

Table 4.13 **Table 25**Week 6 Stock Prices

#### **4.5 Results of Simulation**

| Ticker | 52wk Range    | End Price | Shares | Net Cost/ Proceeds | Profit/Loss | Total Cash | Total Profit |
|--------|---------------|-----------|--------|--------------------|-------------|------------|--------------|
| X      | 36.93 - 70.95 | 47.05     | 2361   | 111085.05          | \$11,073.09 | 328913.47  | \$29,113.10  |
| SAM    | 30 - 96.67    | 81.55     | 1411   | 115067.05          | \$15,069.48 | 443980.52  | \$44,182.58  |

Table 4.14 **Table 26**Simulation 2 Final Profits and Outcome

This portfolio was relatively successful with a simulated profit of \$44,062.58.

## **Chapter 5**

### **Analysis**

Comparing the two portfolios the obvious winner was that of simulation 1. Although both were profitable, portfolio 1 earned \$32,817.39 more than portfolio 2. I also found the beta strategy of portfolio 1 easier to maintain and handle. The countertrend strategy demanded more trades as the goal was to get multiple small returns. The beta strategy gave me a better perspective on how to expect my stocks to behave [29].

Although I preferred strategy 1 it's not necessarily more profitable than strategy 2, because I used different companies for each portfolio it would be difficult to say which strategy was more profitable. However if I was to choose I would choose the beta strategy, I felt like it was easier to pick out the winners. Stocks with beta's just less than 1 followed the market trend and suffered minimal losses if any at all. Stocks slightly over 1 reaped benefits due to the volatility of the market [29].

## **Chapter 6**

### **Conclusion**

Considering both portfolios after the six week simulation it can be concluded that both investment strategies were a success. Although the simulation was brief and most investments are meant to hold stocks for months, the experience was full of useful knowledge that will come in handy as I get older and look to invest for myself. Using what I learned from this simulation I feel confident that I will make smart investment decisions in the future. Having said that I realize the complexity behind playing the stock market is far vaster than what I have experienced in this six week simulation. To truly understand the workings of the stock market one would need to study it for years, in fact I would dare say that most who play the stock market today only know the tip of the iceberg when it comes to complete knowledge of the market.

I am satisfied with the amount I have learned from this simulation and will employ what I learned in future hopes of making my fortune on the stock market. Looking at today's banking atmosphere investing in the stock market is potentially a better alternative to normal banking. However the risk in doing so is much greater; the volatility of the market could make you rich one day and broke the next. This is why I feel my beta strategy, which basically monitors a company's volatility, is a profitable yet safe way to play the market. My results show how affective the beta strategy can be. Monitoring and studying a company's beta number provides a sense of stability in an investment. In a market that is ruthlessly volatile, finding stability in an investment can be priceless.

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