

STOCK MARKET SIMULATION

An Interactive Qualifying Project Report:

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Abstract

Four Methods of stock trading were researched and then simulated over a seven week period. Each group member chose one trading method and applied it in the stock market simulation to maximize profit. At the end of the seven week trading period all trading methods and portfolios were analyzed and compared to find out their differences in simulation outcomes.

Acknowledgements

We would like to thank our advisor Dalin Tang, our professors and our families for their continual support in our educations and our careers.

1 Introduction

1.1 Project Goals

The goal of this project is to learn about and understand the stock market through a seven week hands-on trading experience. Each member of the group started with \$100,000 in initial capital and chose a different method of stock trading. For the seven-week trading period, each member applied the method and tried to make the most using their chosen trading method. Details of our individual trading methods and activities are covered in depth in the following chapters. Trading results from the four methods were compared and analyzed to determine which methods are best based on our individual results.

1.2 Brief History of the Stock Market

The stock market of the modern age first started in 1602 when the Dutch East India Company issued its first shares. This made the Dutch East India Company the first company to issue stocks and bonds. To handle the trading of its stock the Dutch East India Company founded Amsterdam Stock Exchange making it the first of its kind. As time passed more and more companies required a means to raise capital and started issuing stocks and bonds.

It was not till 1792 that a stock exchange was started in America with the signing of the Buttonwood Agreement which created the New York Stock & Securities Board. It was not until 1817 that this group passed its first constitution which many experts consider the

official beginning of the organization. It was not until 1971 that the organization became known as the NYSE and is now named NYSE Euronext but still referred to as the NYSE. Since its inception the NYSE has grown by leaps and bounds, it first surpassed the 1 million daily share volume mark in 1886 and currently trades at a daily share volume exceeding 5 billion.

2 Swing Trading (Brendan)

2.1 Introduction

Swing trading is a trading method where an investor rides swings in a stock and buys or short sells to profit from these swings. A swing trader buys and holds a stock generally for a period between a few days and a couple of weeks. This positions swing trading, in terms of how long an investor holds a stock, as a medium between day traders and long term trend followers. In order to profit as much as possible off of each trade swing traders use an exponential moving average (EMA) as a baseline. EMAs are used by swing traders over simple moving averages because there is more weight put on the recent the activity of the stock allowing an EMA to react more quickly to recent changes. This baseline is used in conjunction with the observed trend of the stock to decide when to make trades. If a stock has an upward trend a swing trader will buy at the baseline and if a stock has a downward trend a swing trader will short sell at the baseline. The best type of stocks for swing trading are stocks that are have a large market capitalization because they are very actively traded and commonly have large swings allowing for greater profit. In conclusion swing trading is a trading method that rewards an investor's ability to buy and sell at exactly the right time to make profit [4,7].

2.2 Stocks Chosen

Market Cap: 229.72B. Microsoft Corporation develops manufactures licenses and supports a range of software products for computing devices. The Company's software

products include operating systems for servers, personal computers and intelligent devices, server applications for distributed computing environments, information worker productivity applications, business solution applications, high-performance computing applications and software development tools and video games. It provides consulting and product support services, and trains and certifies computer system integrators and developers [1].

Microsoft Corporation (MSFT)



Figure 2.2.1 Microsoft Corporation

Market Cap: 142.90B. Cisco Systems, Inc. designs, manufactures and sells Internet protocol (IP)-based networking and other products related to the communications and information technology (IT) industry, and provides services associated with these

products and their use. The Company provides a line of products for transporting data, voice, and video within buildings, across campuses, and around the world [1].

Cisco Systems, Inc. (CSCO)



Figure 2.2.2 Cisco Systems, Inc

Market Cap: 141.23B. Google Inc. maintains an index of Websites and other online content, and makes this information freely available to anyone with an Internet connection. The Company's automated search technology helps people obtain nearly instant access to relevant information from its online index. Google generates revenue primarily by delivering online advertising [1].

Google Inc. (GOOG)



Figure 2.2.3 Google Inc

Market Cap: 124.83B. Apple Inc. designs, manufactures, and markets personal computers, portable digital music players, and mobile communication devices and sells a variety of related software, services, peripherals, and networking solutions [1].

Apple Inc. (AAPL)



Figure 2.2.4 Apple Inc

Market Cap: 118.19B. Hewlett-Packard Company (HP), is a provider of products, technologies, software, solutions and services to individual consumers, small- and medium-sized businesses (SMBs) and large enterprises, including in the public and education sectors. HP's offerings span personal computing and other access devices; imaging and printing-related products and services; enterprise information technology infrastructure, including enterprise storage and server technology and software that optimizes business technology investments, and multi-vendor customer services, including technology support and maintenance, consulting and integration and outsourcing services [1].

Hewlett-Packard Company (HPQ)

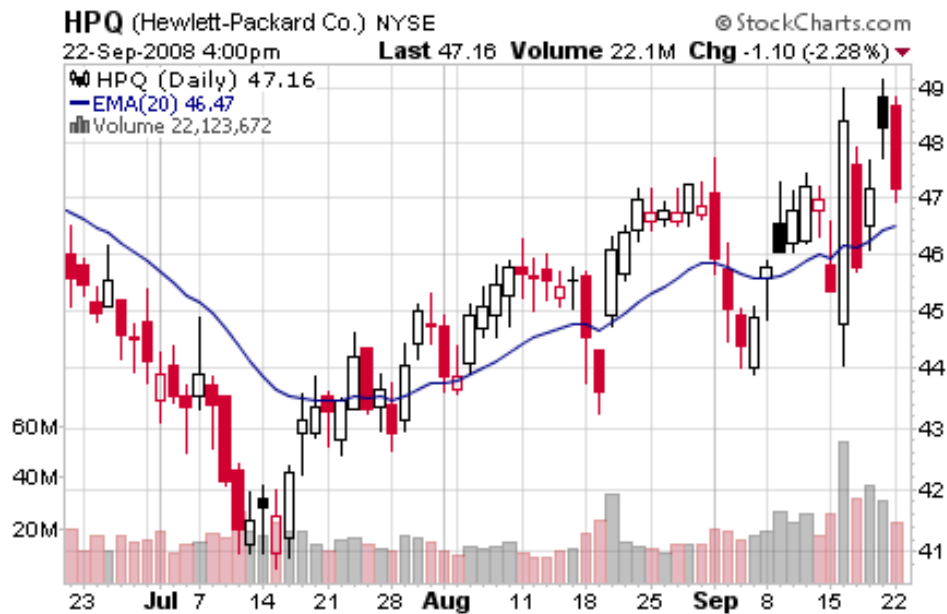


Figure 2.2.5 Hewlett-Packard Company

Market Cap: 108.11B. Intel Corporation is a semiconductor chip maker, developing advanced integrated digital technology products, primarily integrated circuits, for industries, such as computing and communications. The Company's products include chips, boards and other semiconductor products that are the building blocks integral to computers, servers, consumer electronics and handheld devices, and networking and communications products [1].

Intel Corporation (INTC)



Figure 2.2.6 Intel Corporation

Market Cap: 103.60B. Oracle Corporation (Oracle) is an enterprise software company. The Company develops, manufactures, markets, distributes and services database and middleware software, as well as applications software that help organizations to manage their businesses [1].

Oracle Corporation (ORCL)



Figure 2.2.7 Oracle Corporation

Market Cap: 32.57B. Dell Inc. (Dell) is a technology company, which offers a range of product categories, including desktop personal computers (PC), servers and networking products, storage, mobility products, software and peripherals, and services [1].

Dell Inc (Dell)



Figure 2.2.8 Dell Inc

2.3 Simulation

Since swing trading is best used on large market cap companies that have a high trade volume and the industry I follow the closest is the technology industry I decided to buy into some of the largest technology companies. Also contributing to these stock choices is current instability in the financial sector of the market due to the subprime real estate crisis which most analysts believe will not affect the technology industry.

Starting on September 22nd I invested as close to \$20,000 in each company that was currently below their EMA and showed an upward trend. These companies were Dell, Google, Intel, and Microsoft, all very big players in the technology field.

During the week of September 22nd half of my investments loss as the subprime mortgage situation grew. Microsoft posted an 8.9% increase followed by Dell with a 2.22% increase. The losses were led by Google which fell 4.03% while Intel lost .16%. On September 25th I bought approximately \$10,000 worth of Cisco as its price reached the EMA and the stock prices had been in an upward swing for a few days. This was a risky move because the stock was actually at its EMA, and not below it, but looking at how it had stuck very close to the EMA lately I decided to invest to see if it would go up the next day. On September 26th Cisco did indeed rise and I sold for a 3.09% or \$309.08 return.

Results of Stocks Chosen

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
22-Sep							100000.00	
22-Sep	MSFT	Buy	26.22	760	19937.20		80062.80	
22-Sep	GOOG	Buy	454.13	44	19991.72		60071.08	
22-Sep	INTC	Buy	19.17	1040	19946.80		40124.28	
22-Sep	DELL	Buy	16.76	1190	19954.40		20169.88	
25-Sep	CSCO	Buy	23.06	433	9994.98		10174.9	
26-Sep	CSCO	Sell	23.82	433	10304.06	309.08	20478.96	309.08

Table 2.3.1 Week of 9/22/08

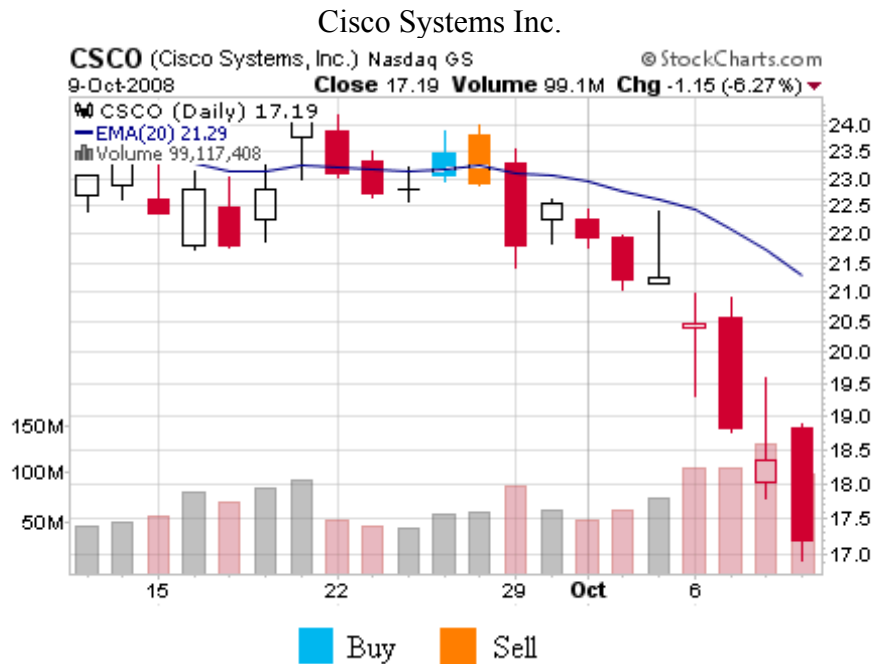


Figure 2.3.1 Cisco 9/25-9/26

On September 29th the federal bailout bill was stalled resulting in a decline across all markets, including the NASDAQ, which listed all of my current investments, fell 9.14%. This same day I bought approximately \$10,000 worth of Apple, the stock was below the

EMA and had not lost over the last couple of days and looked ready to make a comeback. I also bought because of their revamped line of iPods launched the week before and rumors of a new laptop or sub-laptop being introduced in the coming weeks. Since Apple is now the number one laptop on college campuses I figure these rumored new products will be big sellers, especially during the upcoming holiday season. Buying Apple on this day turned out to be a terrible move as the stock plummeted 17.92% on this day and 24.31% total for the week. On October 1st I sold all of my shares of Microsoft as it rose above its EMA, the sale resulted in a 1.69% or \$337.20 return. I decided to sell for this somewhat small return because of the uneasy climate due to the bailout not passing. I decided to hold the rest of my stocks as they had not reached their EMAs yet and with the bailout going to be passed soon in the future they will be in position to rise. The stocks I choose to hold did not perform very well this week; Dell led, losing 10.29%, followed closely by Google, losing 10.24%, and lastly Intel, with a 9.84% decrease, but I still feel these companies will perform well in the upcoming weeks. Dell for one is America's most popular home PC maker and with the holiday season soon approaching I expect them to sell a good amount of their improved PCs. Google has the upcoming launch of the first mobile phone to use its Android operating system, the HTC Dream, on October 22nd. This new OS is open source, a movement that has been gaining a lot of support in the last few years, and is backed by the Google name which draws both developers and customers to it. Intel has just recently become the largest chip manufacturer that both designs and fabricates its own chips as its long time rival AMD recently split its two divisions.

Results of Stocks Chosen

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
29-Sep	AAPL	Buy	128.24	77	9884.48		10594.48	
1-Oct	MSFT	Sell	26.69	760	20274.40	337.20	30868.88	646.28

Table 2.3.2 Week of 9/29/08

Microsoft Corporation



Figure 3.2.2 Microsoft 9/22-10/1

The week of October 6th was another poor week for my stocks as most of them had major drops. Google was again a top loser dropping 14.19% followed by Dell and Intel, losing 12.85% and 12.25% respectively, and Apple, which fell only .28% after its flop last week.

The week of October 13th started with my first selling of stocks for a loss. On October 14th Apple surpassed its EMA and I sold as analysts are expecting slower holiday sales due to the economy, this especially affects Apple as they sell premium products. I sold all of my stock in Apple for \$107.17 per share, after commissions the sale resulted in a 16.62% or \$1,642.39 loss. Also on October 14th Google reached its EMA and I sold seeing as how the market is doing so poorly and some analysts have recently called Google overvalued. I sold all of my Google shares for \$371.87 per share, after commissions the sale resulted in an 18.2% or \$3,639.44 loss. I am not very eager to invest this new money and my remaining money soon because the market is doing so poorly. Although Intel gained 2.04% this week I am not selling as it is not close to its EMA. Dell once again lost, declining 1.88% this week.

Results of Stocks Chosen

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
14-Oct	AAPL	Sell	107.17	77	8242.09	(1642.39)	39110.97	(996.11)
14-Oct	GOOG	Sell	371.87	44	16352.28	(3639.44)	55463.25	(4635.55)

Table 2.3.3 Week of 10/13/08

Apple Inc.



Figure 2.3.3 Apple 9/29-10/14

Google Inc.



Figure 2.3.4 Google 9/22-10/14

The week of October 20th was a devastating week as both of my stocks had considerable falls and I have still not found suitable stocks to invest my remaining capital in. Leading the losses was Dell losing 11.81% followed by Intel losing 7.87%. I am waiting for a rebound from the current market wide slide at which point I will invest the rest of my capital.

The week of October 27th was a bounce back week, both of my current investments rebounded. Intel led with a 12.26% increase followed by Dell with 6.09%. The large increases my stocks experienced this week resulted in Intel reaching and exceeding its EMA on October 30th. The following day, a Friday, Intel fell .86% and I decided to sell fearing a fall on the following Monday. I sold all of my shares of Intel for \$15.99 per share resulting in a 16.68% or \$3,327.20 loss. This week was a good week for swing trading as many companies had large increases after long downward slides. One example is Apple which I had previously owned and lost money on. On October 28th Apples price rose and was approaching its EMA when I bought approximately \$20,000 worth of shares. The stock climbed the following two days and was over its EMA when it fell slightly on October 31st when I decided to sell. I sold all my shares of Apple at \$107.61 per share resulting in an 11.9% or \$2,368.78 profit. On October 28th I also invested approximately \$10,000 in Cisco as its stock jumped and was approaching its EMA when I bought. Over the next two days Cisco fell 2.84% so I decided to sell on October 30th. I sold all of my shares of Cisco at \$18.04 per share resulting in a 6.62% or \$641.92 profit. On October 29th I bought approximately \$20,000 worth of shares in Hewlett-Packard as it had a huge increase the day before and was quick approaching its EMA. Since I bought the shares they have had a 9.04% increase and the price is currently at its EMA but the

stock has not gone down for four days straight so I am going to hold this stock until next week.

Results of Stocks Chosen

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
28-Oct	AAPL	Buy	96.07	207	19896.49		35566.76	
28-Oct	CSCO	Buy	16.92	591	10009.72		25557.04	
29-Oct	HPQ	Buy	35.09	569	19976.21		5580.83	
30-Oct	CSCO	Sell	18.04	591	10651.64	641.92	16232.47	(3993.63)
31-Oct	INTC	Sell	15.99	1040	16619.60	(3327.20)	32852.07	(7320.83)
31-Oct	AAPL	Sell	107.61	207	22265.27	2368.78	55117.34	(4952.05)

Table 2.3.4 Week of 10/27/08

Cisco Systems Inc.



Figure 2.3.5 Cisco 10/28-10/30

Intel Corporation



Figure 2.3.6 Intel 9/22-10/31

Apple Inc.



Figure 2.3.7 Apple 10/28-10/31

The week of November 3rd was the final week of trading for the project so I was looking for the best time to sell off my investments. The previous week I held Hewlett-Packard even though it had reached its EMA and this wait paid off as it went up on Monday but the following day, November 4th, it went down and I sold all of my shares. The sale of Hewlett-Packard resulted in an 8.59% or \$1,715.45 gain. On November 4th Dell was almost at its EMA and instead of selling I held it to see how it would perform. Unfortunately it went down the next day so I sold all of my shares. Selling off Dell resulted in a 22.4% or \$4470.60 loss.

Results of Stocks Chosen

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
4-Nov	HPQ	Sell	38.14	569	21691.66	1715.45	76809.00	(3236.60)
5-Nov	DELL	Sell	13.02	1190	15483.80	(4470.60)	92292.80	(7707.20)

Table 2.3.5 Week of 11/2/08

Hewlett-Packard Corporation

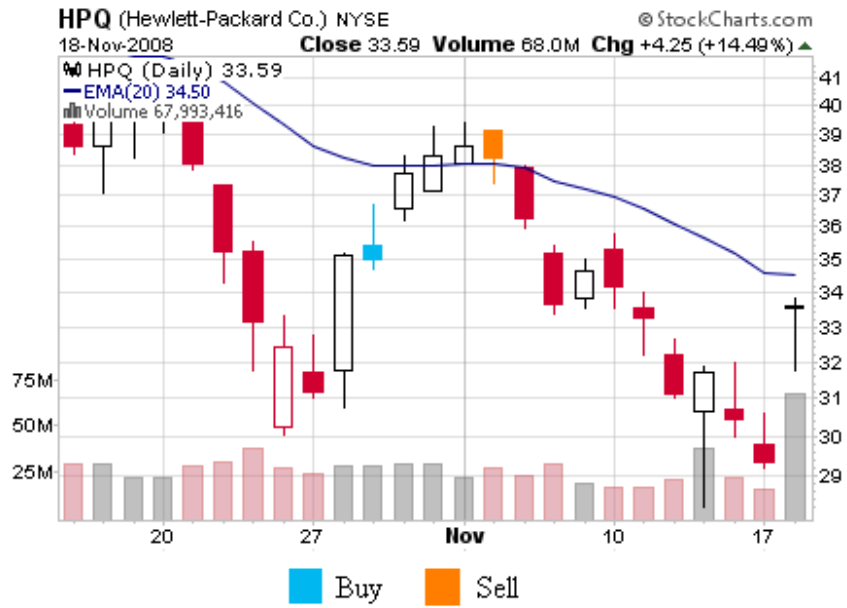


Figure 2.3.8 Hewlett-Packard 10/29-11/4

Dell Inc.



Figure 2.3.9 Dell 9/22-11/5

2.3 Results and Conclusions

After trading for seven weeks the simulation was over and I had sold off all of my stocks and ended with \$92,292.80, a 5.15% percent loss from the \$100,000 that I started with. For comparison during the simulation period the NASDAQ, which lists all of my stocks, went down 27.55%, the S&P 500 went down 25.82%, and the Dow Jones went down 21.47%. When placed in this context my losses do not seem quiet as bad. The main reason I came out of this simulation losing money is the current economic climate. Since the beginning of the simulation there has been a crisis in all financial markets stemming from subprime mortgage crisis and leading to the failure of large banks. When starting the simulation I invested in the technology sector because at the time it was unaffected by the financial crisis, this did not last as is visible by the nearly28% loss by the NASDAQ. The EMA adjusts to current market trends better then the simple moving average but when the market started its downward trend the EMA still took time to lower near the stock prices. This resulted in me not being able to trade as much as I would have liked to, stocks of large companies that were trading in large volumes were all hit hard by the crisis and their EMAs stayed up as their prices fell. This happened to most of my investments leaving me to hold stocks as they lost money and selling them off at losses when the stock showed upward movement. For the seven weeks of the simulation period the smartest investment would have been to not invest in companies, as I did, at all due to overall market performance.

3 Long Term Investing (Nick)

3.1 Introduction

Long Term Investing is a method of trading in which one invests in a particular stock for several months or even years. The purpose of purchasing stock for a long period of time is to sell your stock at a price higher than which you paid for it. For this reason it is extremely important that one invests his or her money in a corporation that he or she believes is going to flourish over the extent of the investment period. Long term trading is easy yet stressful to manage. It's easy to manage because all one has to do is make the initial purchase and then all that is left to be done is to wait for the market to do its part. It can be frustrating because in most cases one's stock will not steadily increase or steadily decrease, rather it will most likely fluctuate. Because of the fluctuating market it is difficult to know the perfect time to sell. If one sells too soon, they could miss out on a lot of money. However if one sells too late, they could lose their stock value. So in order to prevent frustration it is important to find a corporation that seems to be flourishing during the period of investment.

3.2 Stocks Chosen

Exxon Mobil (XOM)

The Exxon Mobil Corporation is the leading manufacturer and transporter of crude oil, natural gas and petroleum products. The Exxon Mobil Corporation operates in the United States, Canada, Europe, Africa, Asia-Pacific, the Middle East, Russia/Caspian region,

and South America but its headquarters are located here in the United States in Irving, Texas. The Company was founded in 1870 and has a distinct history as a corporation that delivers profitable stocks. The graph below shows Exxon Mobil's stock activity September of 2005 (Any and all stock research was done through Google Finance and Yahoo Finance).

Exxon Mobil

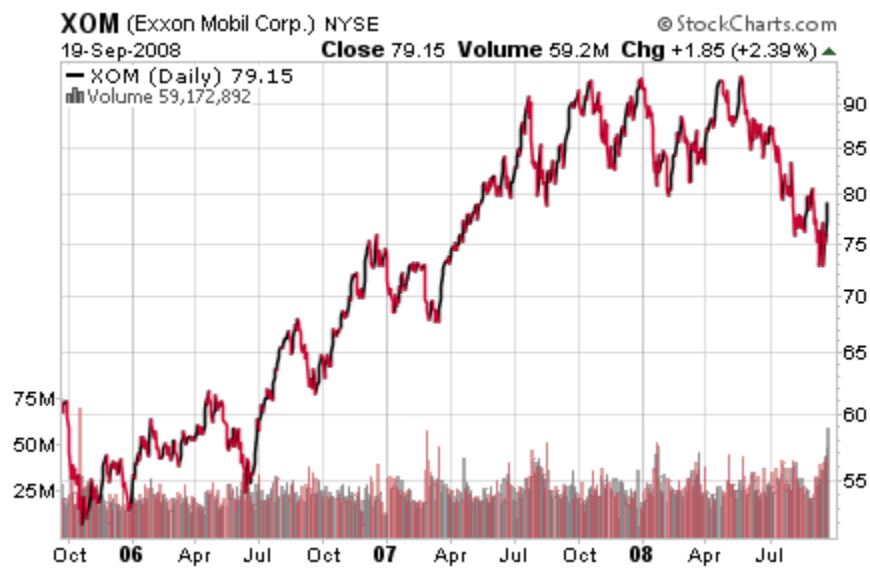


Figure 3.2.1 Exxon Mobil September 2005 – September 2008

General Electric (GE)

General Electric Co. is one of the most premiere technology, media and financial based company in the world. GE offers thousands of products and services for the average consumer and for other businesses. The technology based portion of the company designs and implements new technologies in all major fields. The financial portion offers small

loans, home loans, credit card accounts, personal and corporate banking to all those who seek it. GE's media based sub-company, NBC, is a leader of entertainment and telecommunications. Like Exxon Mobil, it has a history of profitable stocks. Below is a chart which shows the trends of General Electric's stock from October of 2005 to October of 2007 (Any and all stock research was done through Google Finance and Yahoo Finance).

General Electric



Figure 3.2.2 General Electric October 2005 – October 2007

United States Heating Oil Fund (UHN)

The United States Heating Oil Fund is “an exchange traded security that is designed to track in percentage terms the movements of heating oil prices. UHN issues units that may be purchased and sold on the NYSE Arca.” UHN's stock reflects the current rise and fall

of heating oil prices as they are imported into New York Harbor. The cost of petroleum has sky-rocketed in the past two years, and hopefully this stock will benefit from the rise in heating oil prices. Below is UHN's stock trend since the stock began in April of this year (Any and all stock research was done through Google Finance and Yahoo Finance).

United States Heating Oil

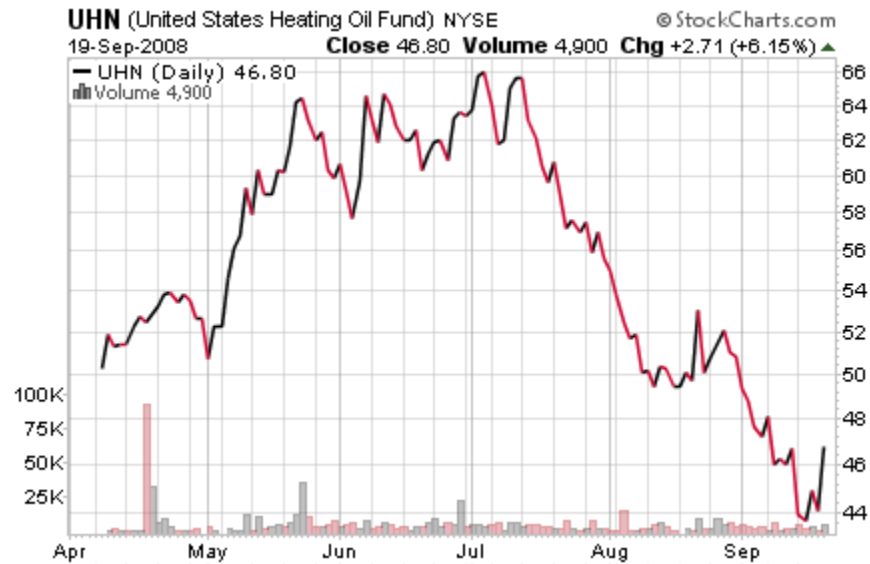


Figure 3.2.3 United States Heating Oil April 2008 – September 2008

3.3 Simulation

When deciding which stocks to purchase, I used The Warren Buffet Approach. Warren Buffet is one of the world's greatest investors and currently has a net worth of around 50 billion dollars. There are several guidelines that Warren Buffet suggests when purchasing stocks over the long term. Buffet looks for businesses that have shown

success in the past several years with an average rate of return of around 15%. He also looks for companies that either are a monopoly of their market or dominate their market. These companies are able to adjust their prices as they wish. Other criteria that Buffet suggests are a strong upward trend in earnings and a high level of retained earnings. Although it is difficult to find corporations that encompass all of his criteria, I tried to choose stocks that best fit his model [5,6].

I chose three different corporations to invest in this fall: Exxon Mobil Corp., General Electric Co., and United States Heating Oil. Exxon Mobil Corp. and General Electric Co. encompass most of the terms in the philosophy of the Warren Buffet Approach. Both companies are quite successful with strong upward trends. About seven years ago, General Electric Co. had a dip in the stock markets, and now the stock is beginning to rise again making it the perfect time to buy [1,3]. Exxon Mobil Corp. has always been a strong company and most years it has had a higher average rate of return than the previous year [5,6].

The third company that I chose to invest in was United States Heating Oil. This company does not encompass many of the terms of Warren Buffets philosophy; however I'm willing to take the risk of straying away from his philosophy. United States Heating Oil began just this past April. I'm very interested to see how this new market will perform in the stock markets, especially as we approach the cold winter months when heating is necessary in many regions of the U.S.

I had the option of investing up to one-hundred-thousand dollars this fall however I chose to play it safe and only invest forty-five-thousand dollars; fifteen-thousand dollars

in each corporation. Due to the current state of the economy, I chose to invest much less than previously desired. I did not think it was smart to pour all of my money into such an unstable market. Even if my long term stocks all fail, I'll still have around fifty-five thousand dollars to invest with after [5,6].

Initial Cash Spent on Stocks

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
							100000	
22-Sept	XOM	Buy	80.6	186	15001.6		85008.4	
22-Sept	UHN	Buy	47.82	313	14977.66		70030.74	
22-Sept	GE	Buy	26.66	562	14992.92		55037.82	

Table 3.3.1 Week of September 22, 2008

From September 22 until October 12, the stock market has been functioning quite poorly. Each of my three stock purchases has yet to become profitable. Exxon Mobil corporation dropped from \$78.88 a share to \$62.35 a share from the time of purchase until October 10th; that's over 16\$ in only three weeks [1,3]. United States Heating Oil dropped from \$48.44 a share to \$35.56 a share during this period and General Electric dropped from \$26.15 a share to \$21.50 a share [1,3]. The stocks are doing so poorly due to a retreat in the stock market. Investors are becoming worrisome over the state of the economy, and

thus they are pulling their money out of stocks. Technology corporations are being hit especially hard lately, which does not bode well for me seeing as though I have placed \$15,000 into one of the countries leading technology advancement corporations. However, General Electric has a great track record for long term investing. Figures 3.3.2, 3.3.3 and 3.3.4 show the drop in stock prices for the three corporations over the first three week period [1-3].

Exxon Mobil Corporation

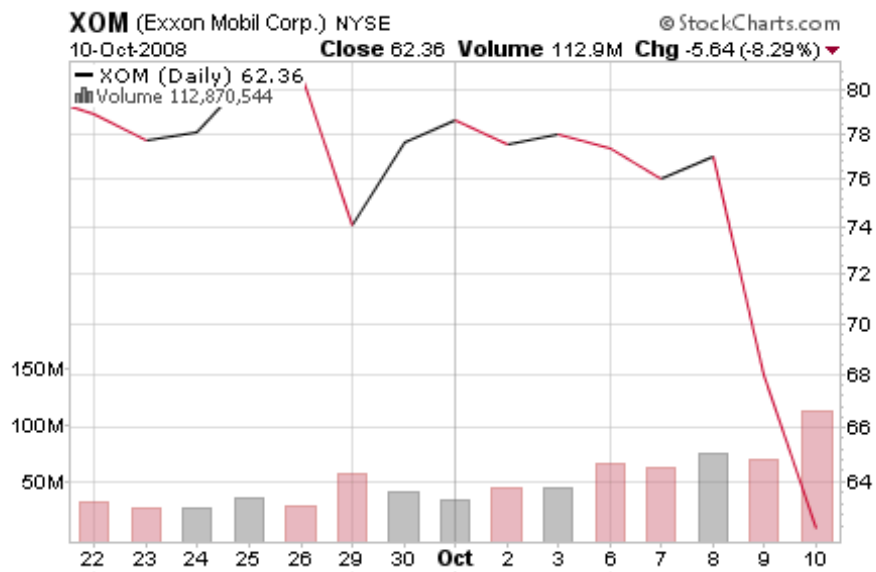


Figure 3.3.2 Exxon Mobil Corporation, September 22 – October 10

United States Heating Oil



Figure 3.3.3 United States Heating Oil, September 22 – October 10

General Electric Co.



Figure 3.3.4 General Electric Co., September 22 – October 10

During the week of Monday October 13, the dread of the previous three weeks seemed to begin to clear away. Exxon Mobil Corp. rose by just over ten dollars per share putting the stock price at \$73.08. GE and US Heating Oil did not do as well in the market this day as Exxon Mobil, but a general trend of a healing economy was beginning to be felt. However, these positive trends in the market did not last nearly as long as I had hoped [1,2].

Closing out the month of October, we were definitely beginning to doubt early favorable results in our long term investments. It has been over a month since we have begun investing, and neither General Electric, Exxon Mobil Corp. nor United States Heating Oil has become profitable. The following page shows charts which show the price of the stocks from each corporation since the stocks were purchased on September 22, 2008 [2].

Exxon Mobil Corporation

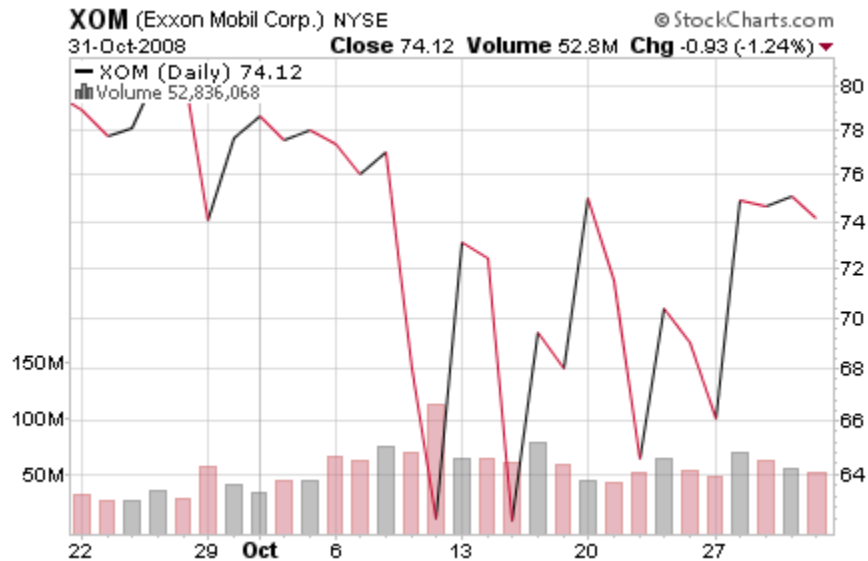


Figure 3.3.5 Exxon Mobil Corporation, September 22 – October 31

Exxon Mobil has been hit hard this October, with gas prices lower than they have been for quite some time. The “healing of the economy” that was felt in previous weeks is not being felt quite as much now. From October 8th to the 28th one can see that there were drastic changes in stock prices from day to day. The upward trend that was noticed before was merely a part of this daily up and down scheme. This is a direct result of the uneasy economy that has evolved this year. Since I have started investing in Exxon Mobil I have lost \$1213.68 [1-3].

General Electric Co.

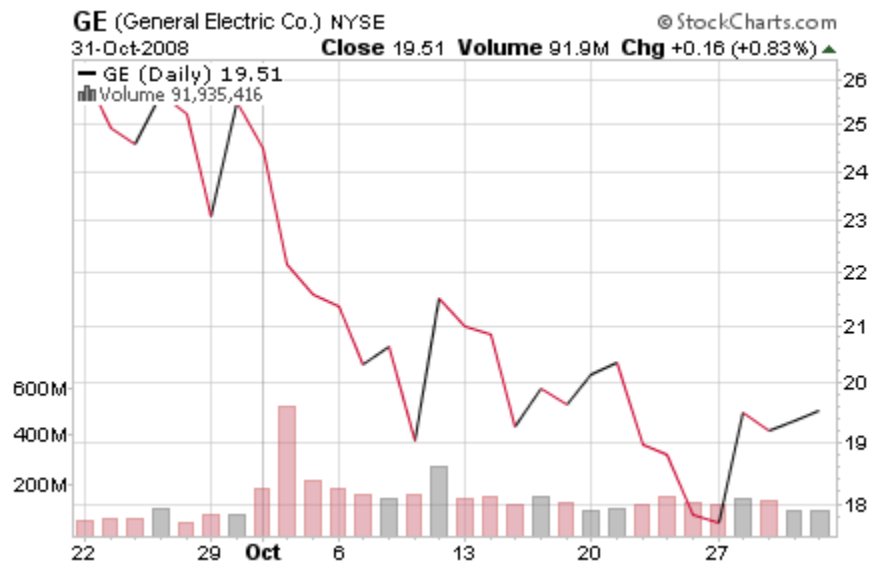


Figure 3.3.6 General Electric Co., September 22 – October 31

United States Heating Oil



Figure 3.3.7 United States Heating Oil, September 22 – October 31

General Electric and United States Heating Oil have also both been hit quite hard this season. Both stocks show general downhill trends over the past six weeks, with no signs of any immediate improvement. I originally chose to invest in United States Heating Oil, hoping that the cold fall/winter season would benefit the stock. However, this benefit is meant to be seen. Since I have begun investing, I have lost \$4035.38 with General Electric and \$4739.86 with United States Heating Oil (10/31/08). This brings my total profit to date (10/31/08) -\$9988.92 [1-3]. Having lost \$10,000 in only six weeks, I am quite skeptical in my investments. However this is the reason why I only chose to invest 45% of my available funds. To back out now and sell my stocks for their much smaller price would go against the fundamentals of long term investing [6]. No matter how anxious I become to rid myself of these currently “not so profitable” stocks, I need to try to stick with the original plan [1,2,6].

During the final week of our scheduled trading period, each of my stocks failed to improve. I am becoming quite frustrated; however I know the importance of sticking with my guns when purchasing long-term stocks. General Electric's stock price dropped from \$19.73 per share to \$18.86 per share just this past week; United States Heating Oil and Exxon Mobil both did just as poorly bumping down about a dollar in stock price each [1,3].

On the following page are the graphs of the prices per stock for each of the corporations for the week of November 3, 2008 [2].

Exxon Mobil Corporation

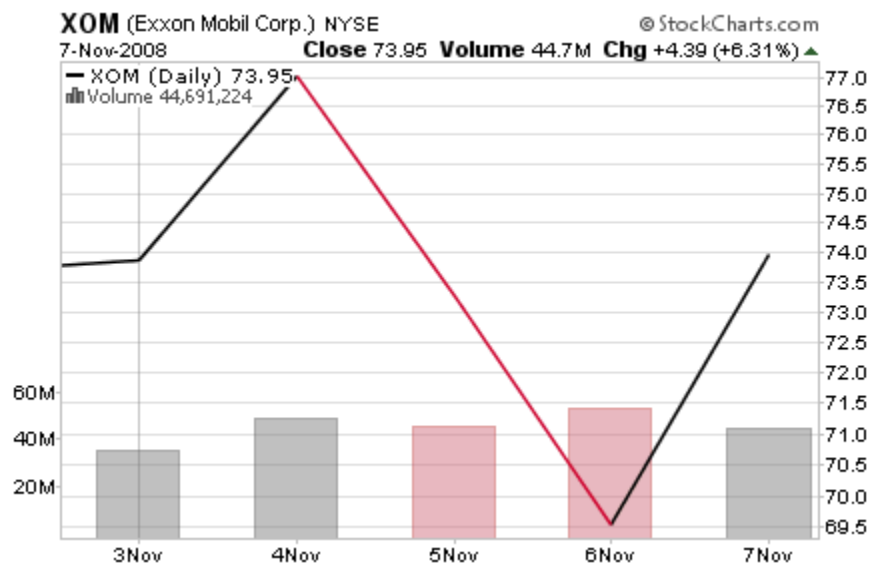


Figure 3.3.8 Exxon Mobil Corporation, November 3 – November 7

General Electric Co.

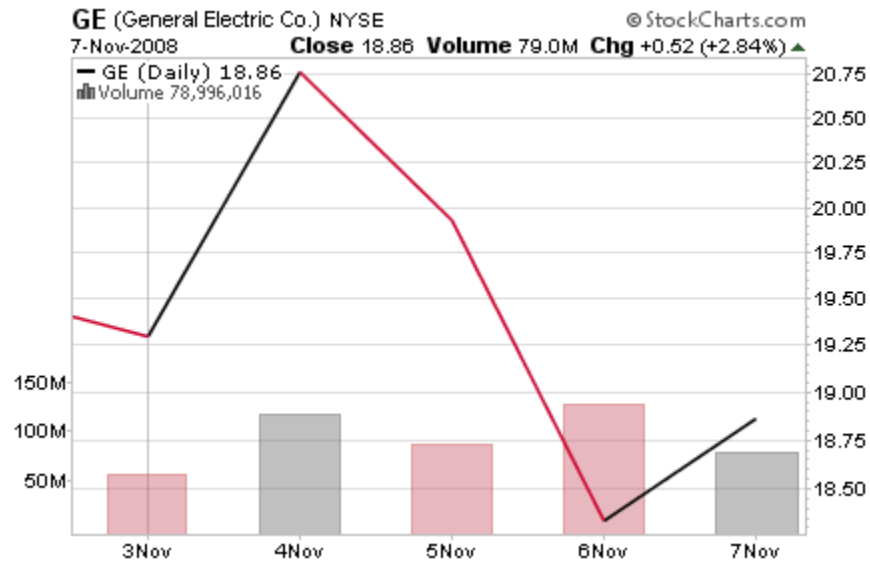


Figure 3.3.9 General Electric Co., November 3 – November 7

United States Heating Oil

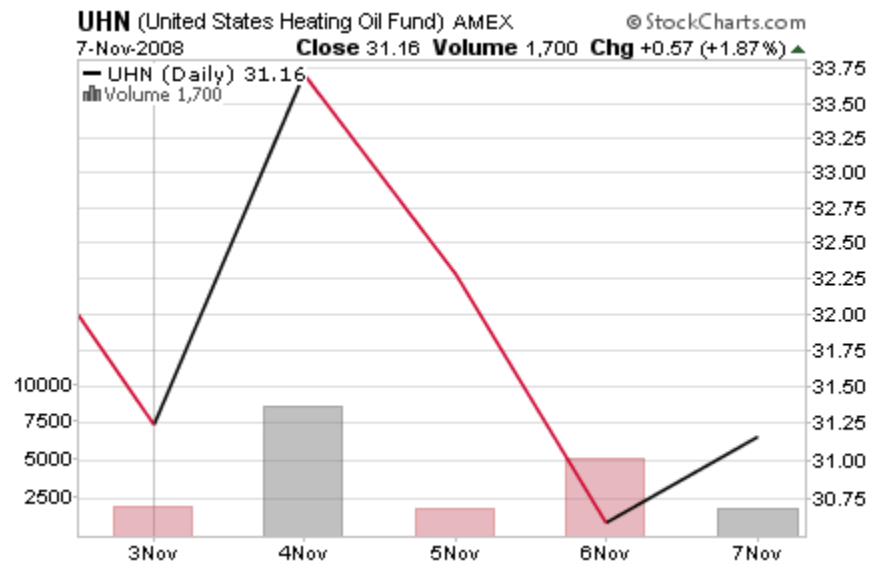


Figure 3.3.10 United States Heating Oil, November 3 – November 7

Clearly these records show no support that the stocks are improving soon, however I must be patient. It has only been seven weeks. And although seven weeks was the amount of time we gave ourselves to simulate stock market trading, long term trading calls for more time than that. The Warren Buffet approach specifically states that one should not choose to invest in a corporation based on its performance over a few weeks or even a few months, but rather one should invest in a stock with good potential over the next several months or years. So although it is tempting to pull out of my stocks at this point and count my losses, I know that sunnier days are ahead for me and my stocks [1,3,6].

3.4 Results and Conclusions

My financial results for our seven week trading period are not successful. Approximately \$15,000.00 was invested into each of the three companies (Exxon Mobil, General Electric and United States Heating Oil), none of which have made any profit. Exxon Mobil did the best out of my three investments by only losing \$1,246.90 [2]. General Electric lost \$4,393.60 and United States Heating Oil did the worst by losing \$5,224.58 bringing me to a grand loss of \$10,865.08 [2]. Warren Buffet makes it quite clear that a poor initial start when investing long term should not discourage one from continuing to invest in the stocks which one invested in. The Warren Buffet approach states that one should invest in a small number of corporations that the investor can know and understand extensively. The companies should have management which operates to benefit the shareholders. If these circumstances were to change, then it would be time to

sell the stocks says Warren Buffet. He also says that one may choose to change their investments, if another trading method proves to be more profitable. However, after viewing the results of the trading methods that my colleagues selected, I would not say that their methods prove to be better than long term investing [5-6].

4 CAN SLIM (John)

4.1 Introduction

The CAN SLIM method of investing is a very objective method of investing as opposed to a lot of other methods that also relay on multiple layers of subjective information to make a decision whether or not to invest in a stock. The name CAN SLIM is an acronym for the seven common characteristics all great performing stock have before they make their biggest gains. These characteristics are current quarterly earnings per share, annual earnings per share, new products/management/highs, supply and demand, leaders, institutional sponsorship, and the market. After identifying these characteristics the CAN SLIM method gives you a range of values that these characteristics should ideally fall within to display positive conditions for the market's future performance.

4.2 Stocks Chosen

ViaSat, Inc. engages in the production of satellite and other wireless communications and networking systems for government and commercial customers. The company's Government Systems segment develops and produces data links, including MIDS terminals, and MIDS JTRS development and unmanned vehicle technologies; information security and assurance products and services, which enable military and government users to communicate secure information over secure and non-secure networks; and government satellite communication systems and products, including UHF DAMA satellite communications products consisting of modems, terminals, and network

control systems, and broadband solutions for government customers. The company's Commercial Networks segment provide satellite communication and other wireless communications equipment solutions, including consumer broadband products and solutions to customers based on DOCSIS or DVB-RCS-based technology; mobile broadband products and systems for airborne, maritime, and ground mobile broadband applications; enterprise VSAT networks products; satellite networking systems design and technology development; and antenna systems for commercial and defense applications and customers. It also provides commercial satellite network engineering, gateway construction, and remote terminal manufacturing for various interactive communications services. The Satellite services segment offers managed broadband services that provide terrestrial and satellite connections through a call center and network management operation for everyday enterprise networking or backup protection for primary networks; mobile broadband services, which include network management services for its customers utilizing mobile communication systems, and through its network management center; and wholesale broadband services over a Ka-band spot beam satellite in North America. The company was founded in 1986 and is headquartered in Carlsbad, California.

Market Cap: 653.81M [3].

Viasat Inc. (VSAT)



Figure 4.2.1 Viasat Inc over the Past Five Months

UDR, Inc. formerly United Dominion Realty Trust, Inc., operates as a self-administered equity real estate investment trust (REIT). It owns, acquires, renovates, develops, and manages middle-market apartment communities. The company targets young professionals, blue-collar families, single parent households, older singles, immigrants, and non related parties. As of June 30, 2005, the company's portfolio included 263 communities with 77,289 apartment homes nationwide. As a REIT, the company would not be subject to federal income taxes to the extent it distributes 90% of its REIT taxable income to its stockholders. UDR, Inc. was founded in 1949 and is headquartered in Highlands Ranch, Colorado.

Market Cap: 3.00B [3].

UDR Inc (UDR)



Figure 4.2.2 UDR Inc over the Past Five Months

Raser Technologies, Inc. operates as a geothermal power development and technology licensing company in the United States. The company operates in two segments, Power Systems, and Transportation and Industrial Technology. The Power Systems segment seeks to develop geothermal electric power generating plants and bottom-cycling operations. The Transportation and Industrial Technology segment focuses on commercializing its Symetron technology to improve the efficiency of electric motors and related components. It provides electromagnetic machine and power electronic drive technology, which is applied to industrial AC induction motors, and drives; permanent magnet synchronous motors; AC generators; and automotive alternators for use in industrial and transportation applications, hybrid-electric and electric vehicle propulsion systems, and other applications where the efficiency of electricity-to-motion or motion-to-electricity power conversions can be improved. The company was founded in 2002 and is based in Provo, Utah [3].

Raser Technologies (RZ)



Figure 4.2.3 Raser Technologies over the Past Three Months

TeamStaff, Inc. operates as a staffing provider serving the medical industry and governmental agencies. It specializes in placing professionals into temporary and permanent positions. The company, through its subsidiaries, TeamStaff Rx and TeamStaff Government Solutions, provides medical professionals, such as travel nursing, ultrasound, radiology, and sonographer jobs. In addition, it fulfills Government contract orders by staffing pharmacist jobs, pharmacy technician jobs, nursing jobs, and warehouse floor supervisor jobs. TeamStaff was founded in 1969. The company is headquartered in Somerset, New Jersey with additional offices in Clearwater, Florida; Memphis, Tennessee; Monroe, Georgia; and Atlanta, Georgia.

Market Cap: 12.06M [3].

Teamstaff Inc. (TFTS)



Figure 4.2.4 Teamstaff Inc over the Past Three Months

Emergent BioSolutions, Inc., a biopharmaceutical company, together with its subsidiaries, develops, manufactures, and commercializes immunobiotics in the United States, the United Kingdom, and Vietnam. The company operates in two segments, Biodefense and Commercial. The Biodefense segment offers products for use against biological agents that are potential weapons of bioterrorism and biowarfare; and BioThrax, a vaccine for the prevention of anthrax infection. Its product candidates include Anthrax Immune Globulin therapeutic for the treatment of post-symptomatic anthrax infection; Next Generation anthrax vaccine; recombinant Botulinum vaccine, a prophylactic vaccine for illness caused by botulinum toxin; and Botulinum immune globulin to protect from the effects of botulinum toxin. The commercial segment develops products for use against infectious diseases. Its product candidates include Typhoid vaccine, a single-dose drinkable vaccine; and Group B streptococcus vaccine, a product in for administration to women of childbearing age for protection of the fetus and newborn babies. In addition, this segment offers Hepatitis B therapeutic vaccine, for the treatment of chronic carriers of hepatitis B infection; and Chlamydia vaccines, a product for administration to adolescents to prevent illness caused by strains of Chlamydia trachomatis. The company has license, co-development, and collaboration agreement with Sanofi Pasteur, S.A. to develop Neisseria meningitis B vaccine candidate; and the United Kingdom Health Protection Agency to develop a human Botulinum immune globulin candidate. Emergent BioSolutions, formerly known as BioPort Corporation, was founded in 1998 and is based in Rockville, Maryland [3].

Emergent Biosolutions Inc



Figure 4.2.5 Emergent Biosolutions Inc over the Past Three Months

American Science and Engineering, Inc., together with its subsidiaries, engage in the development, manufacture, marketing, and sale of X-ray and other inspection solutions primarily for homeland security markets in the United States and internationally. It offers CargoSearch Inspection Systems, including non-intrusive inspection and screening devices that are used for the screening of trucks, cars, cargo containers, pallets, and air cargo to combat trade fraud, drug trafficking, weapons smuggling, and terrorism at border crossings, seaports, military bases, railroad centers, airports, and cargo and transportation hubs. The CargoSearch product family includes OmniView gantry system, a cargo and vehicle inspection system; Z Portal, an inspection system for scanning cars, vans, trucks, and cargoes for threats and contraband; and PalletSearch, a conveyORIZED X-ray inspection system to perform non-intrusive inspection of mixed cargo shipped on

pallets or in air cargo containers. The company also offers Z Backscatter imaging systems, such as Z Backscatter Van, a mobile X-ray screening system to produce photo-like images of plastic explosives or other anomalies of the contents of a vehicle or cargo containers. In addition, it offers ParcelSearch inspection systems for the non-intrusive X-ray scanning of parcels, baggage, and mail; and SmartCheck, a personnel screening system for the screening contraband and threats hidden under a persons clothing, such as guns and knives, plastic explosives, composite weapons, and drugs. Further, the company provides maintenance, warranty, research, engineering, and training services, as well as offers various contract research and development programs. It serves port and border security, aviation security agencies, military organizations, and high threat commercial and government facilities. The company was founded in 1958 and is headquartered in Billerica, Massachusetts [3].

American Science and Engineering



Figure 4.2.6 American Science and Engineering Inc over the Past Six Months

4.3 Simulation

Week 1

UDR is a leader in using new technologies to increase the visibility of their properties. This is a huge advantage because the highest percentage of renters range from age 20 to 34 which is also the age group that is on the cutting edge of new communication technology. On Sept 22nd UDR created a website specifically designed to be used to access through Apple's ever popular iPhone [1].

Untied Dominion Realty Trust Trend

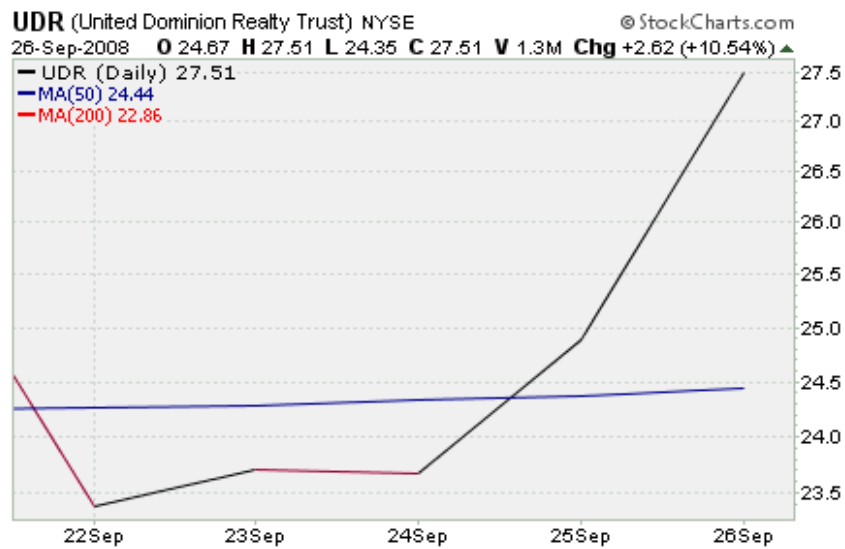


Figure 4.3.1 UDR (Sept 22-26)

Raser Technologies has a strong outlook including recommendations from many different investment firms as well as the company's recent award of a contract to develop 100,000 acres of geothermal resources that should generate approximately 110 megawatts of geothermal power in West Java, Indonesia's most populated island [1].

Raser Technologies Inc. Trend



Figure 4.3.2 Raser Technologies (Sept 22-26)

ViaSat announced this Friday that there was an order for an additional \$7 million of Multifunctional Information Distribution System (MIDS) terminals from the Space and Naval Warfare Systems Command (SPAWAR) [1]

ViaSat Inc Trend

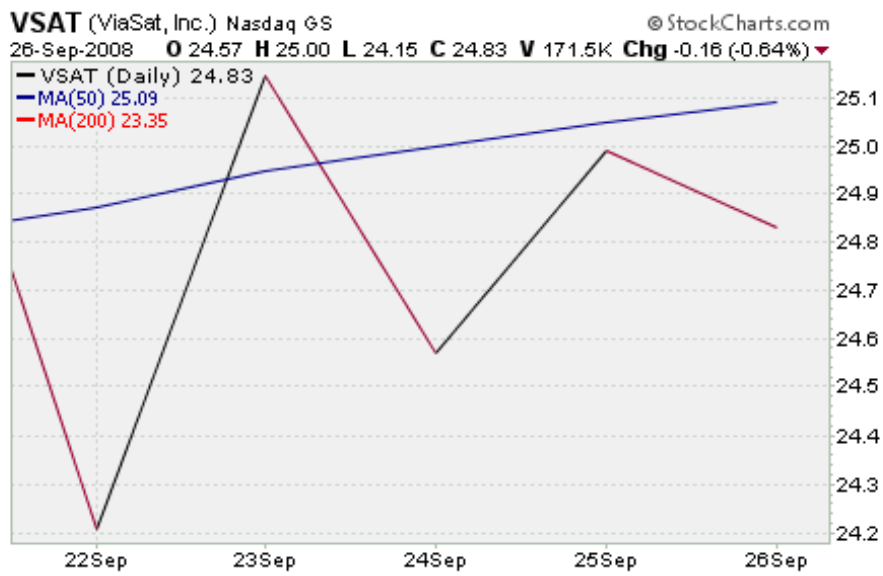


Figure 4.3.3 ViaSat, Inc (Sept 22-26)

Week 2

Raser is up 0.01 points for the week; I feel that their stock will perform better in the future so I have decided to hold it [1].

Raser Technologies Trend



F

Figure 4.3.4 Raser Inc (Sept 29 – Oct 3)

ViaSat was recently awarded an additional order valued at approximately \$7 million for Multifunctional Information Distribution System (MIDS) terminals from the Space and Naval Warfare Systems Command (SPAWAR), in San Diego. This is in addition to an earlier order valued at \$52 million [1].

ViaSat Inc Trend



Figure 4.3.5 ViaSat, Inc (Sept 29 – Oct 3)

Although UDR is selling off some of their stock and it caused the price to drop they will be investing part of the money raised into investing capital. UDR's excellent track record makes me feel comfortable that they will make proper use of it and see a return and hence a subsequent rise in their stock [1].

United Dominion Realty Trust Trend

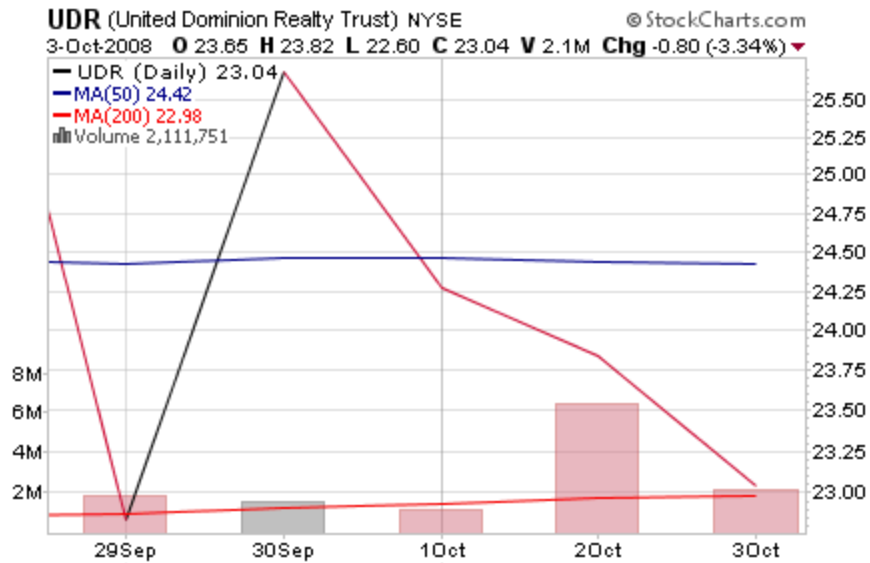


Figure 4.3.6 UDR (Sept 29 – Oct 3)

TeamStaff has had a lot of recent activity in its management department with the promotions of Dale West as president of TeamStaff Rx Division and Kevin Wilson to President of Government Staffing Subsidiary. These well qualified candidates will surely bring a boost to the company and strong earnings [1].

TeamStaff Inc Trend

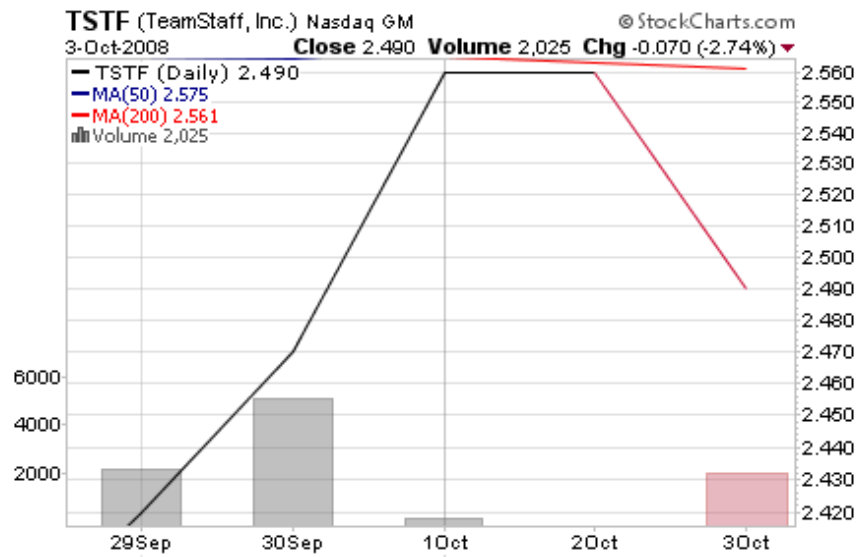


Figure 4.3.7 TSTF (Sept 29 – Oct 3)

Week 3

Although the stock lost 0.16 points I feel that this is just a temporary sell of that will be recovered from [1].

Raser Technologies Trend

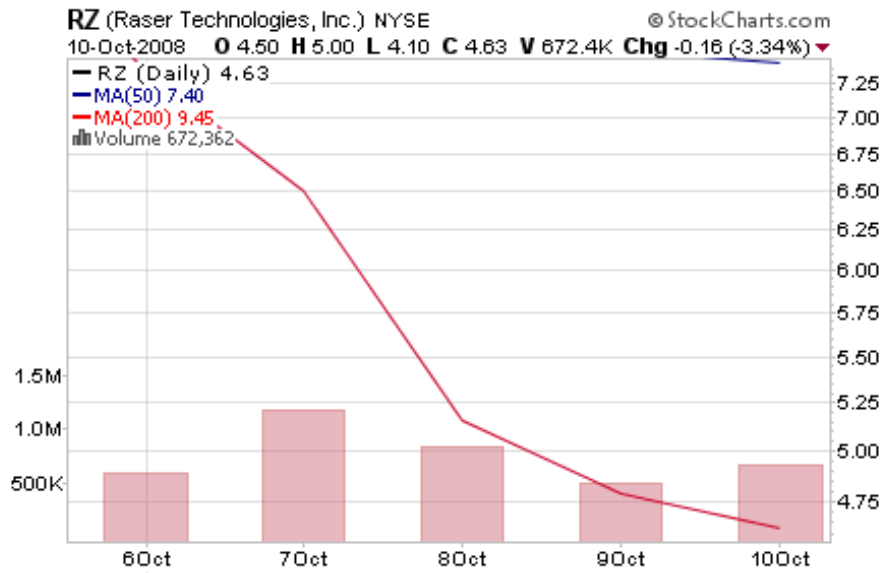


Figure 4.3.8 Raser Technologies (Oct. 6-10)

UDR launched its myspace website and revealed its plans to increase its visibility on other popular websites such as Digg.com and Facebook [1].

United Dominion Realty Trust Trend

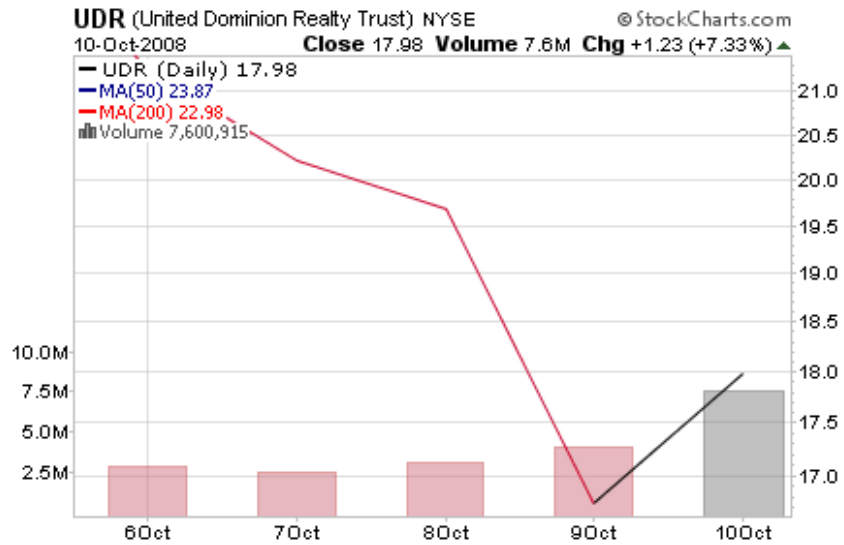


Figure 4.3.9 UDR (Oct. 6 – 10)

I will be holding on to my ViaSat stock this week due to the announcement this week that the company is nearly doubling the coverage area for its mobile broadband network by expanding to the North Pacific Ocean region. The coverage area includes Alaska the west coasts of Canada, the US Hawaii and extends into northeast Asia [1].

ViaSat Inc Trend



Figure 4.3.10 VSAT (Oct. 6 – 10)

Due to the poor performance of the Team Staff stock as well as the fact that they haven't released any positive news recently has lead to my decision that it is not a stock that I want to hold on to through such a turbulent market [1].

TeamStaff Inc Trend

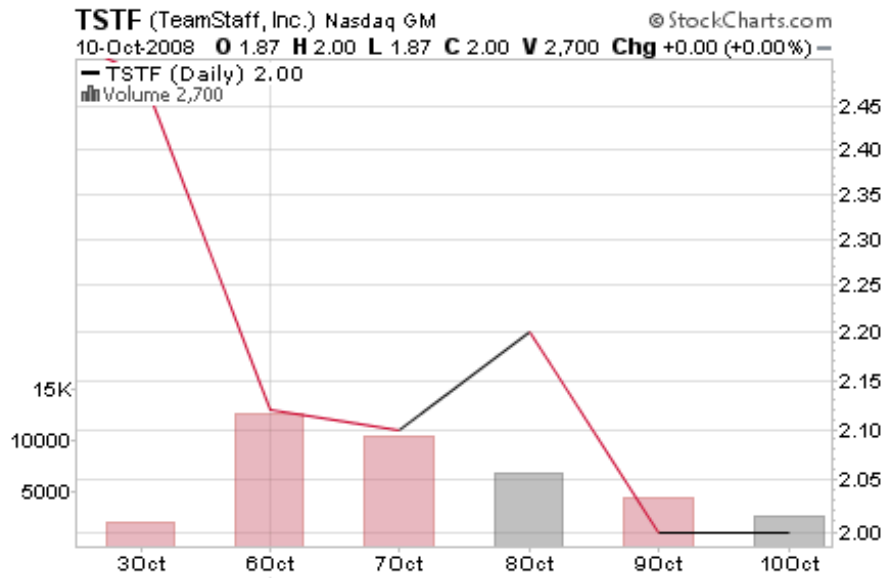


Figure 4.3.11 TeamStaff Inc (Oct. 6 – 10)

Week 4

Emergent BioSolutions Inc. (EBS) recently signed a contract with BARDA/NIAID, valued up to \$29.7 million, to fund the further development of AV7909, a next generation anthrax vaccine. A few days after this announcement Emergent BioSolutions announced it will provide 14.5 million more doses of its BioThrax anthrax vaccine to HHS under a multiyear contract valued at \$364 million to \$404 million. This shows incredible potential for both future revenues as well as future growth. This along with the strong gains shown in recent days is what tipped me off to this hopefully large pay off [1].

Emergent BioSolutions Inc. Trend

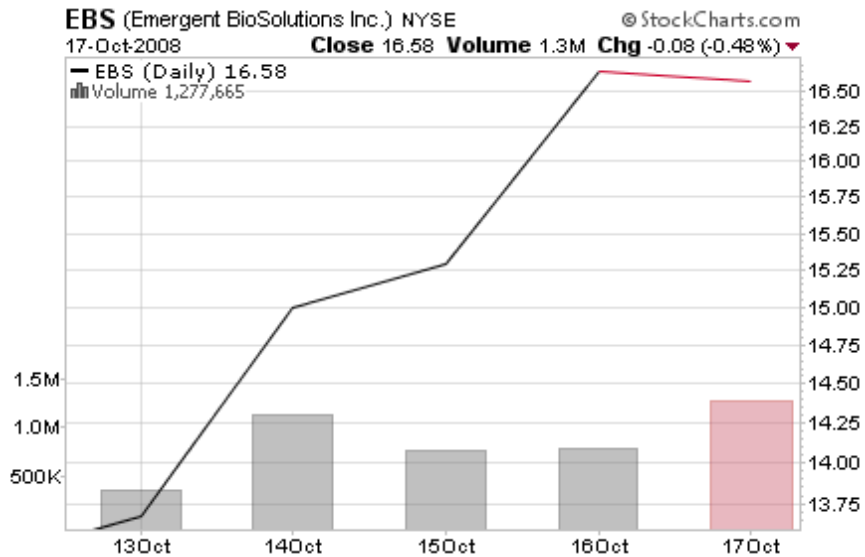


Figure 4.3.12 Emergent BioSolutions Inc (Oct. 13 – 17)

American Science and Engineering, Inc., a leader in X-ray detection technology, announced on Oct. 6th that the Company has received a \$4.4 million order from the U.S. Government for multiple Z Backscatter Vans -- the industry's top-selling mobile X-ray screening system. The contract includes ZBV operator training, service, and warranty. This as well as the relatively good performance of the technology sector led me to believe this would be a wise investment [1].

American Science and Engineering Trend

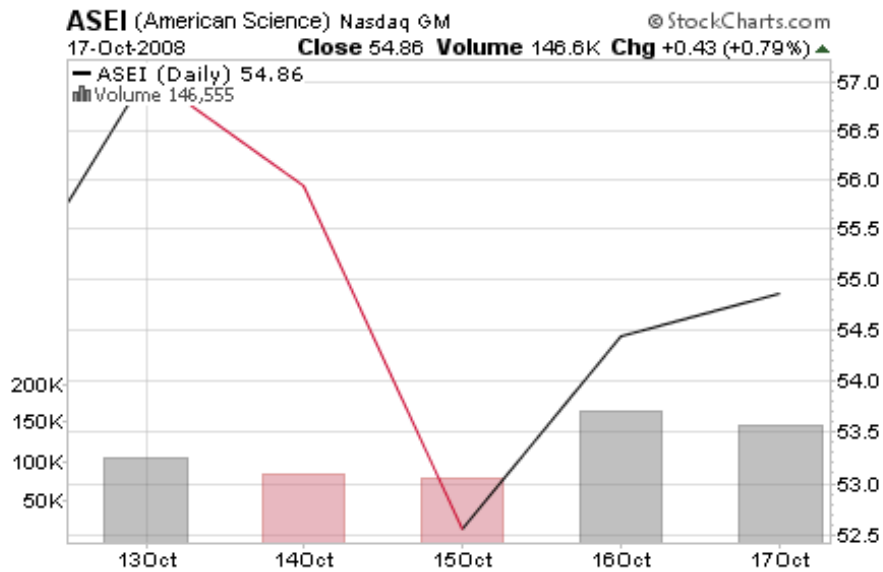


Figure 4.3.13 American Science and Engineering (Oct. 13 – 17)

I held on to this stock long enough to receive the dividend but the money made from the dividend did not make up for the amount of money I lost holding on to the stock until this point [1].

United Dominion Realty Trust Trend

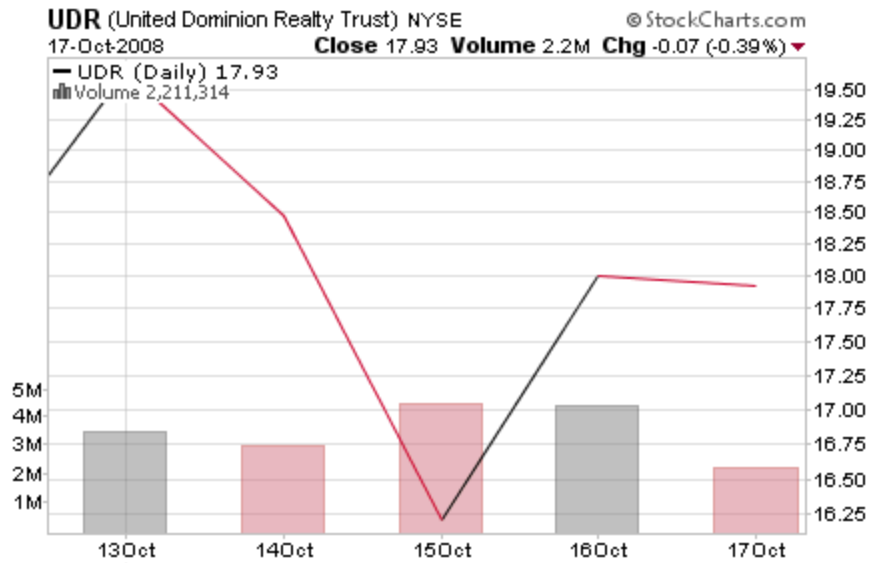


Figure 4.3.14 UDR (Oct. 13 – 17)

This stock took a bit of a hit this week for its value and there have been no new big updates from the company. I will be holding on to this stock though as the recent advancements in the companies policy and a few large geothermal plants in the works I feel that the drop in price is due to people over selling the stocks in reaction to market conditions [1].

Raser Technologies Inc. Trend

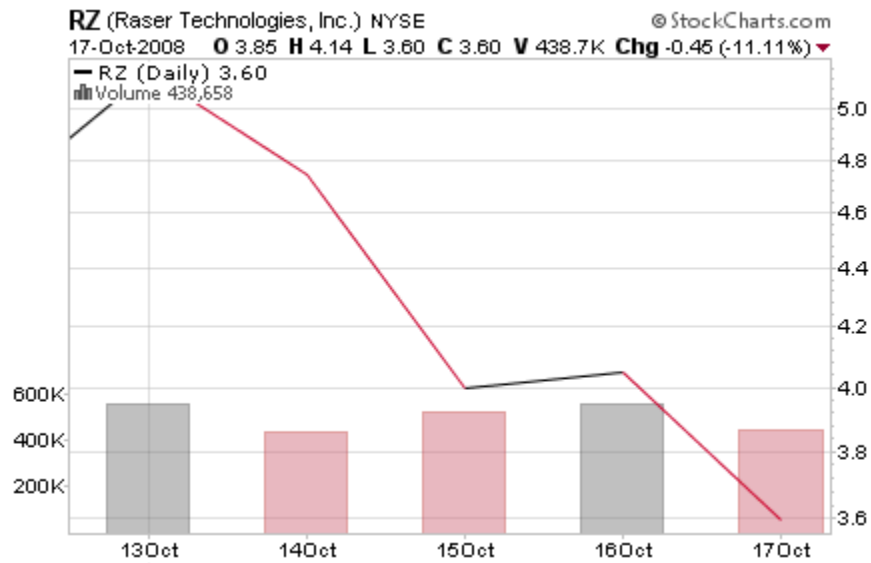


Figure 4.3.14 Raser Technologies (Oct. 13 – 17)

ViaSat was awarded a \$1.5 million contract to manufacture their KG-200 and KG-201 In Line Media Encryptors for desktops and laptops respectively, by the Department of Defense and the National Security Agency. This is a large contract to win and shows that ViaSat's activities are not being too poorly affected by the current recession. Although the company is performing very well the drop in its stock price is keeping me from investing more money into the company [1].

ViaSat Inc Trend

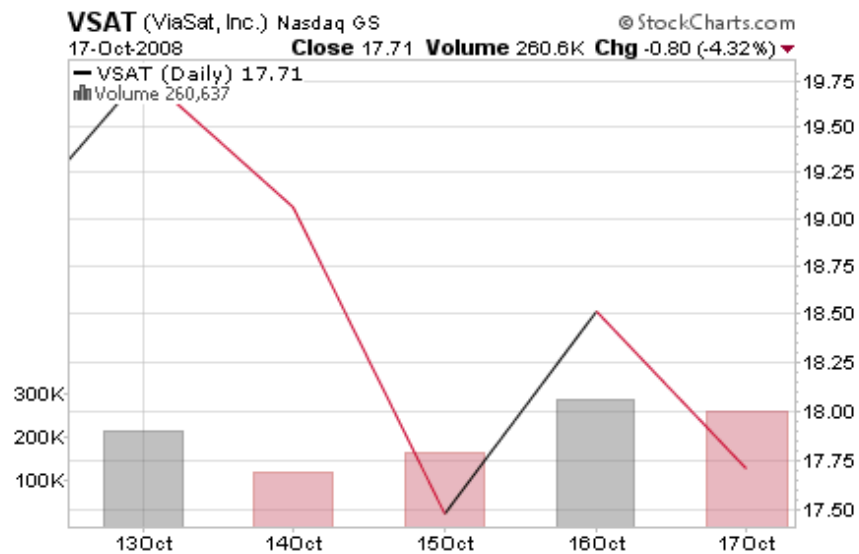


Figure 4.3.15 ViaSat Inc (Oct. 13 – 17)

Week 5

Raser Technologies announced this week that it received the final \$21 million installment of the tax equity payment that provides financing and tax equity capital for Raser’s 10 megawatt thermo geothermal power project near Beaver, Utah [1].

Raser Technologies Inc Trend

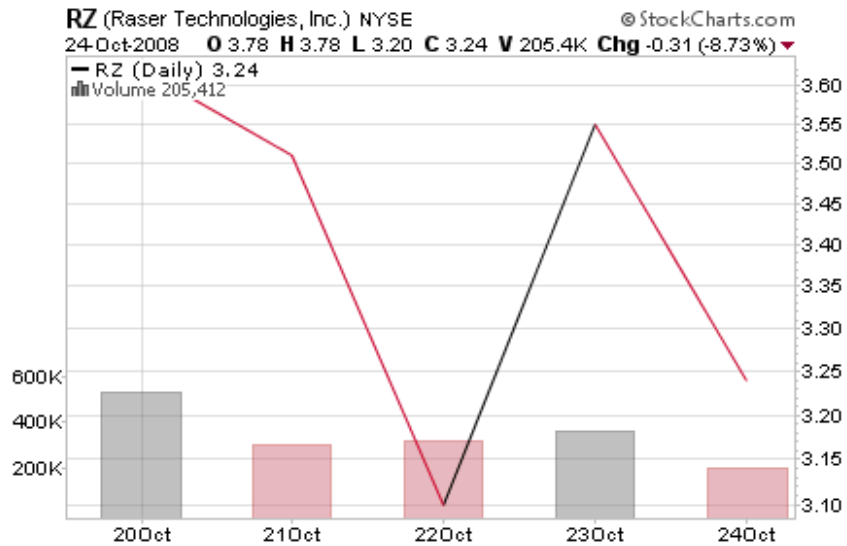


Figure 4.3.16 Raser Technologies Inc (Oct. 20 – 24)

ViaSat Ku-band Mobile Broadband Satellite Communications Network for Business Aviation Passes 100,000 Flight Hours. This is a huge step because it shows the reliability of the system that ViaSat has put in place and is currently working on expanding. The ability for the company to provide data download speeds of up to 10 Mbps to the aircraft and up to 512 kbps uploads. ViaSat also announced plans to expand its ArcLight network to provide worldwide coverage by the end of 2009, working with maritime service provider KVH Industries. Mobile broadband coverage of the North Pacific is planned for the end of the year with coverage of Japan and Southeast Asia to follow soon [1].

ViaSat Inc Trend



Figure 4.3.17 ViaSat Inc (Oct. 20 – 24)

There were no updates from Emergent BioSolution in regards to the company's current endeavors, although the stock price it is moving slowly up it is still outperforming the market [1].

Emergent BioSolutions Inc. Trend

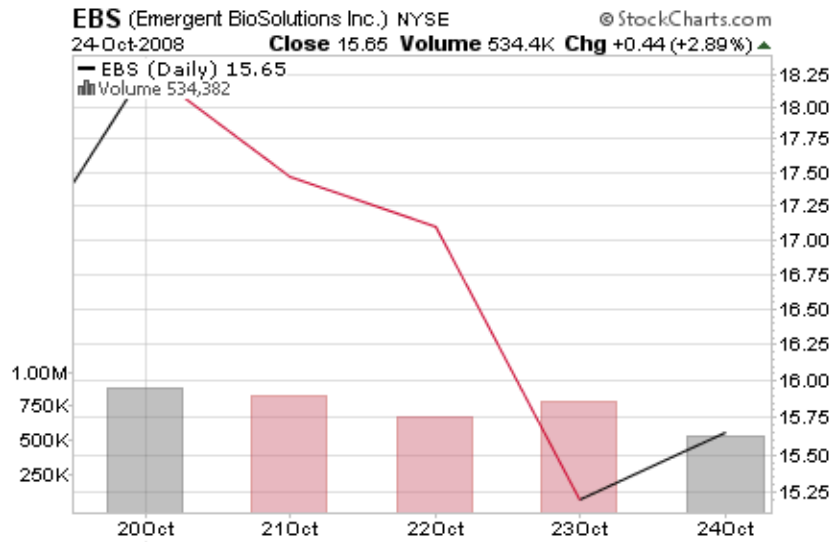


Figure 4.3.18 Emergent BioSolutions Inc (Oct. 20 – 24)

I will be holding on to my ASEI stock this week

On Oct. 16th ASEI announced that it has been selected by Australia's Department of Infrastructure to pilot test the SmartCheck Personnel Screening System at Sydney International Airport. ASEI's SmartCheck provides optimum security by safely screening for a wide variety of threats concealed on a passenger, while ensuring their privacy. This is a huge deal at such a large international airport has definitely increased market awareness as well as presence of the ASEI company [1].

American Science and Engineering Trend

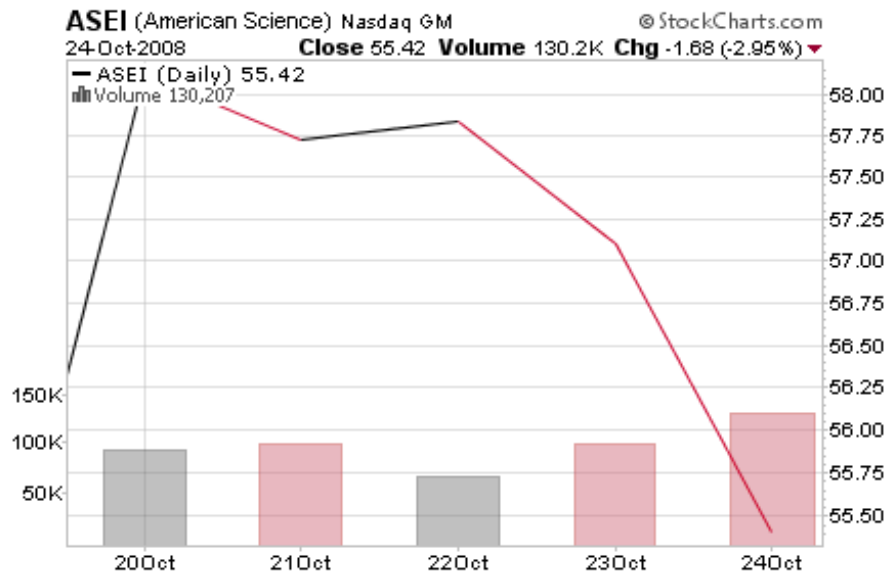


Figure 4.3.19 American Science and Engineering (Oct. 20 – 24)

Week 6

There have been no recent advancements in ASEI's activities as a company, but I will be holding on to their stock because of their strong performance in the stock I will be holding my stock in this company [1].

American Science and Engineering Trend

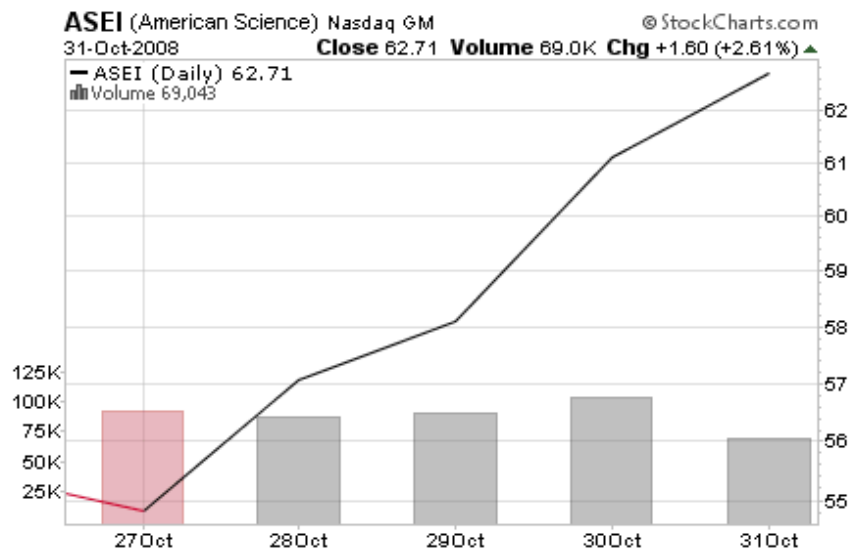
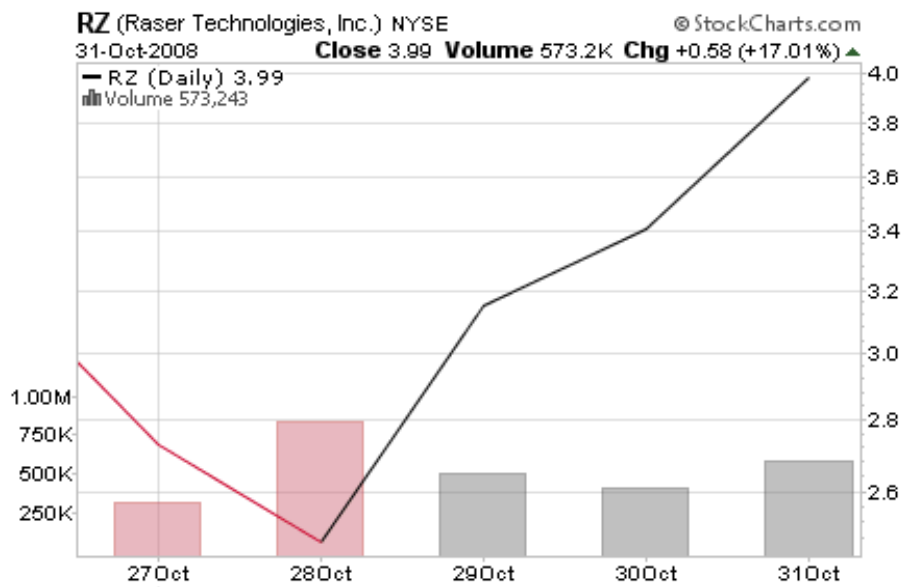


Figure 4.3.20 American Science and Engineering (Oct. 27 – 31)

Raser's stock price climbed 17.01% this week, overall regaining a lot of ground that I've lost with their recent slew of losses in regards to stock price. I will hopefully be able to ride this strong increase for a while longer before it starts to plateau [1].

Raser Technologies Trend



F

Figure 4.3.21 Raser Technologies (Oct. 27 – 31)

Strong increases from my stocks across the board and hope of riding this wave until the end of our trading period led me to increase my stake in ViaSat.

ViaSat Inc. Trend

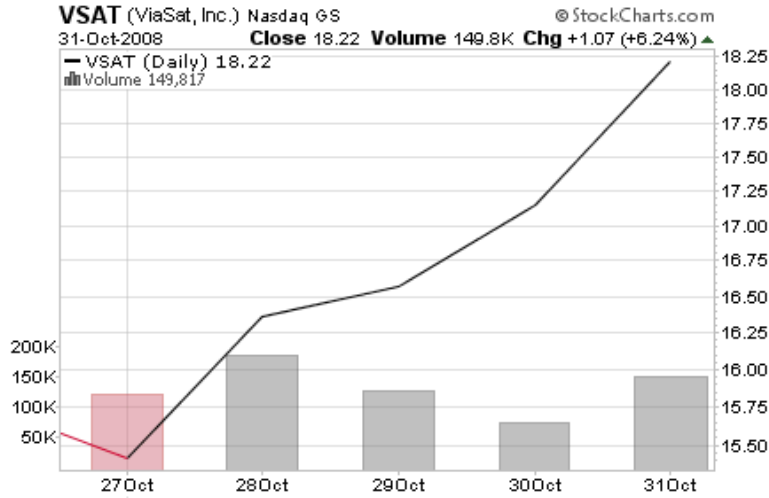


Figure 4.3.22 ViaSat Inc (Oct. 27 – 31)

Emergent BioSolutions has a history of performance that makes me feel very comfortable in relation to increasing my investment in hopes of making a little extra money towards the end of the trading period.

Emergent BioSolutions Inc Trend

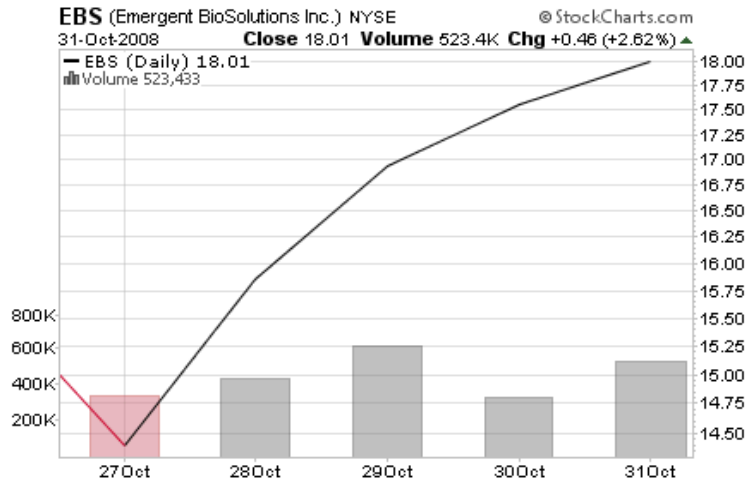


Figure 4.3.23 Emergent BioSolutions Inc (Oct. 27 – 31)

There is no recent change in the company, but their stock is still increasing so I will hold on to this stock until the final week.

American Science and Engineering Trend

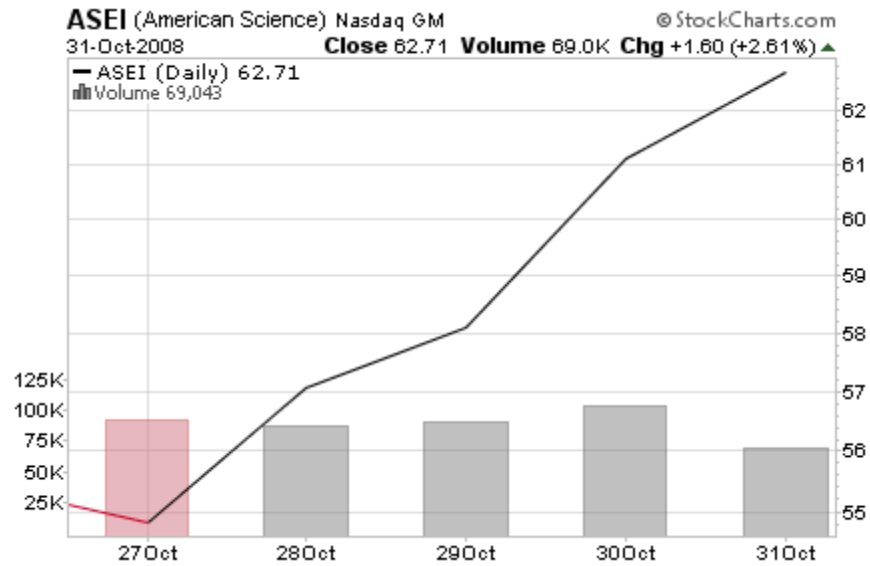


Figure 4.3.24 American Science and Engineering Inc (Oct. 27 – 31)

Week 7

These are the graphs for the final week of trading; there is no synopsis on my decisions this week because I sold them all at the end of the week to determine the profitability of my term of investment.

Raser Technologies Trend

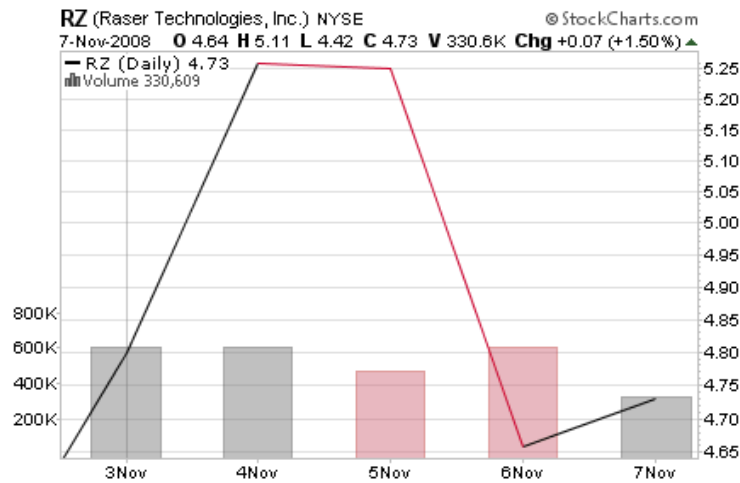


Figure 4.3.25 Raser Technologies Inc (Nov. 3 – 7)

ViaSat Inc. Trend



Figure 4.3.26 ViaSat Inc. (Nov. 3 – 7)

Emergent BioSolutions Trend

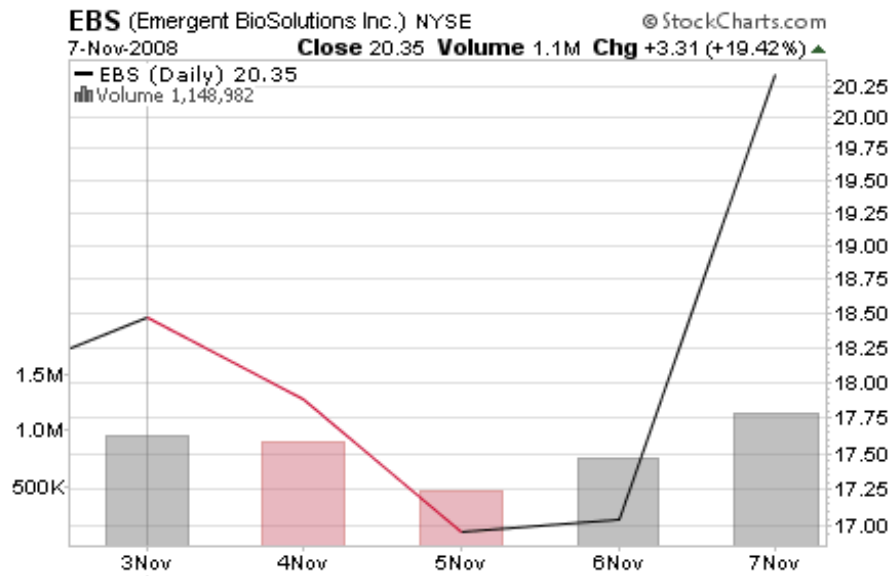


Figure 4.3.27 Emergent BioSolutions Inc (Nov. 3 – 7)

American Science and Engineering Inc Trend

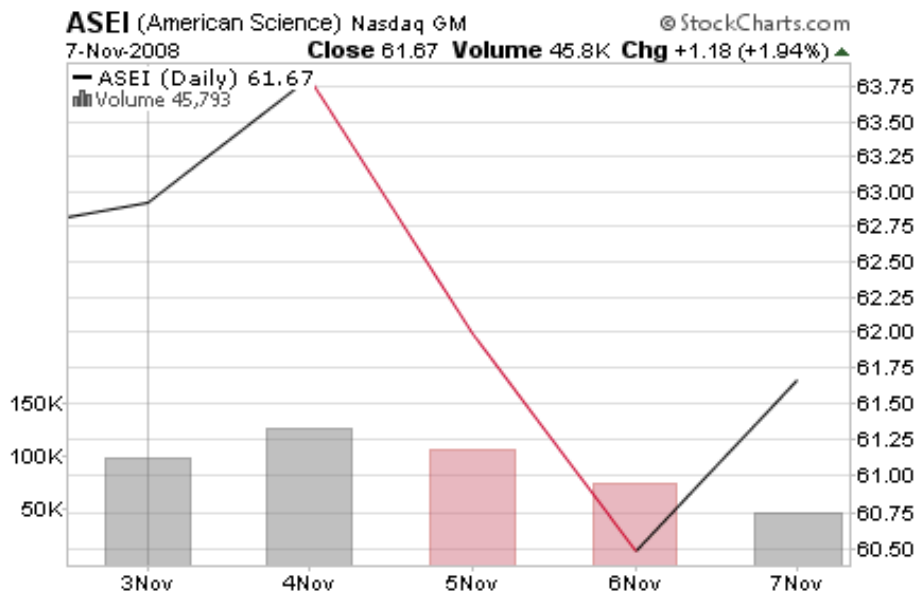


Figure 4.3.28 American Science and Engineering Inc (Nov. 3 – 7)

Results of Stocks Chosen

Date	Symb	Buy/Sel	Pric	Share	Net	Profit/Lo	Total	Total
22-					(includes fee)		100,000	0
	RZ	Buy	5.33	4,000	-21310		78,690	
	VSAT	Buy	24.3	1,000	-24380		54,310	
	UDR	Buy	26.2	1,000	-26260		28,050	
29-	RZ	Hold	6.24	4,000			28,050	
	VSAT	Hold	24.8	1,000			28,050	
	UDR	Hold	26.2	1000			28,050	
	TSTF	Buy	2.2	4000	-8790		19,260	
3-Oct	RZ	Hold	8.01	4000			19,260	
	VSAT	Hold	21.2	1000			19,260	
	UDR	Hold	23.4	1000			19,260	
	TSTF	Hold	2.49	4000			19,260	
10-	RZ	Hold	4.79	4000			19,260	
	VSAT	Hold	18.8	1000			19,260	
	UDR	Hold	18.3	1000			19,260	
	TSTF	Sell	2	4000	7990	-800	27,250	-800
13-	EBS	Buy	13.6	1000	-13690		13,560	
	ASEI	Buy	57.2	50	-2873		10,687	
15-	UDR	Dividen	0.33	1000	330	330	11,017	-470
	UDR	Sell	16.2	1000	16210	-10050	27,227	-10520
17-	RZ	Hold	3.6	4000			27,227	
	VSAT	Sell	17.7	500	8855	-3340	36,082	-13860
	VSAT	Hold	17.7	500			36,082	
	EBS	Hold	16.5	1000			36,082	
	ASEI	Hold	55.0	50			36,082	
24-	RZ	Hold	3.24	4000			36,082	
	VSAT	Hold	15.7	500			36,082	
	EBS	Hold	15.6	1000			36,082	
	ASEI	Hold	55.5	50			36,082	
29-	EBS	Buy	16.9	500	-8465		27617	
31-	RZ	Hold	3.99	4000			27,617	
	VSAT	Buy	18.2	500	-9110		18,507	
	VSAT	Hold	18.2	500			18,507	
	EBS	Hold	18.0	1500			18,507	
	ASEI	Hold	62.9	50			18,507	
7-Nov	RZ	Sell	4.73	4000	18920	-2390	37,427	-16250
	VSAT	Sell	19.6	500	715	-11475	38,142	-27725
	EBS	Sell	20.3	1000	20350	6660	58,492	-21065
	EBS	Sell		500	10175	1710	68,667	-19355
	ASEI	Sell	45.6	50	2283	2283	70,950	-17072

Table 4.3.1 Stocks Bought and Sold

4.4 Results and Conclusions

I lost a total of \$17,072 in the stock market during our investment period. I attribute a lot of my losses to the fact that our group invested through out the stock market fall out and fearful investing style that caused stock prices to drop across the board. My wisest investment came at the end where I invested in both American Science and Engineering Inc. and Emergent BioSolutions which we're my only two investments that resulted in positive returns. Although I made some extra money through dividends it didn't make up for the money that I lost by holding on to the stocks as their prices fell. Part of the problem with the CAN SLIM Investing method is that it is more of a long term method of investing, and the turbulent market conditions that took place during our simulation period was a time where quick trades that catch trends could have made a large amount of profit, but most stocks fell in the long run over the course of the simulation. The losses across the board are apparent when you look at the NASDAQ and Dow Jones which dropped 27.55% and 21.47% respectively.

5 Short Term Trading (Lena)

5.1 Introduction

The guidelines to follow in order to be successful in the method of short-term stock market trading are very simple. However, many can fail in earning a profit if they do not have an understanding of capital, planning, and risk management. The amount of money invested and the number of stocks bought are not as important as knowing the right stocks to invest in, when to invest and when to trade. Firstly, to be successful in short-term trading one should consider the present and past success of the stocks. Obviously one should not invest in a stock that has been decreasing in profit for some time. They might want to invest in some that have had good results in the past and that are presently increasing in profit. Once the stocks have been chosen, one should invest their money in those stocks. The amount of money placed in the stock is not as important as making sure that the rules of short term trading is followed. That main rule of short term trading is that one trades their stocks only after a few days, no matter the success of the stock. Although short term stock market trading may not make one a large amount of money in the short term, it is a safe and long term profitable method of trading.

5.2 Stocks Chosen

The first week of short term trading I decided to invest in Dry Ships Inc., First Solar Inc and Berkshire Hathaway Inc. First Solar is the largest manufacturer of thin film solar

modules. First Solar was formed in 1999 and launched production of commercial products in 2002. Dry Ships Inc. is a global shipping transportation company specializing in the transportation of dry bulk cargoes. Berkshire Hathaway is a multinational holding company stationed in Omaha, Nebraska, U.S., that looks over and manages a number of secondary companies. Berkshire Hathaway's core business is insurance, including property and victim insurance, reinsurance and specialty nonstandard insurance [7].

For the second week of short term trading I decided to invest in Microsoft Inc., Google inc., and Celgene Corporation. Microsoft Inc. is a multinational computer technology corporation that develops, manufactures, licenses, and supports a wide range of software products for computing devices. Headquartered in Redmond, Washington, USA, its most popular selling products are the Microsoft Windows operating system and the Microsoft Office software. Google Inc. is an American public corporation, earning revenue from advertising related to its Internet search, online mapping, e-mail, office productivity, social networking, and video sharing services as well as selling advertising-free versions of the same technologies. The Google headquarters, called Googleplex, is located in Mountain View, California. Celgene Corporation is a manufacturer of drug therapies for cancer and inflammatory disorders. It is incorporated in Delaware and headquartered in Summit, New Jersey [7].

The third week of short term trading I decided to invest in Texas Roadhouse Inc., Exxon Mobil Corporation., and Anheuser Busch Companies Inc. Texas Roadhouse is a publicly traded chain restaurant that specializes in steak and ribs, and promotes a family fun and western theme. Texas Roadhouse Corporation is headquartered in Louisville, Kentucky. The Exxon Mobil Corporation is an American oil and gas corporation and a direct

descendant of John D. Rockefeller's Standard Oil company. Anheuser-Busch, Inc. is the largest brewing company in the United States. It holds a 48.8% share of beer sales by volume in the United States. The company operates 12 breweries in the United States and nearly 20 others in other countries [7].

The fourth week of short term trading I decided to invest in General Electric Company, Royal Dutch Shell-A, and Burlington Northern Santa Fe Corp. The General Electric Company is a multinational American technology and services conglomerate incorporated in the State of New York. As of September 30, 2008, GE was the world's third largest company and also second in the Brand Z ranking. Royal Dutch Shell, more commonly known as Shell, is a multinational oil company of Dutch and British origins. It is the second largest private sector energy corporation in the world. Burlington Northern Santa Fe Corporation was incorporated in 1993 to facilitate the merger of Burlington Northern, and is parent of the Burlington Northern Railroad, and Santa Fe Pacific Corporation [7].

The fifth week of short term trading I decided to invest in Molson Coors Brewing Company, Cisco Systems Inc., and Revlon Inc. Molson Coors Brewing Company is a company that was created by the merger of two of North America's largest breweries: Molson of Canada, and Coors of the United States, on February 9, 2005. Cisco Systems, Inc. is a multinational corporation with more than 66,000 employees and annual revenue of US \$39 billion as of 2008. Headquartered in San Jose, California, it designs and sells networking and communications technology and services under five brands, namely Cisco, Linksys, WebEx, IronPort, and Scientific Atlanta. Lastly, Revlon is an American cosmetics company [7].

The sixth week of short term trading I decided to invest in Hershey Foods Corporation Sunoco Inc., and Raytheon. The Hershey Company which is simply called Hershey's is the largest chocolate manufacturer in North America. Sunoco, formerly known as Sun Company Inc is an American petroleum and petrochemical manufacturer headquartered in Philadelphia, Pennsylvania. Raytheon Company is a major American defense contractor and industrial corporation with core manufacturing concentrations in defense systems and defense and commercial electronics [7].

For the final week of short term trading I decided to invest in Boston Beer Corporation, Dell Inc, and Barnes and Noble. The Boston Beer Company is America's leading brewer of handcrafted, full-flavored beers. Founder and Brewer, Jim Koch, brews Samuel Adams beers using the time-honored, traditional four-vessel brewing process, and the world's finest all-natural ingredients. Dell Inc. is a multinational technology corporation that develops, manufactures, sells, and supports personal computers and other computer-related products. Barnes and Noble, Inc. is the largest book retailer in the United States, operating mainly through its Barnes and Noble Booksellers chain of bookstores headquartered in lower Fifth Avenue in Manhattan [7].

5.3 Simulation

With a total of \$100,000 to invest, I decided to stick to investing about \$20,000 in three different stocks. Therefore, for the first week of short term trading I decided to invest about \$20,000 dollars in Dry Ships Inc., First Solar Inc. and Berkshire Hathaway Inc.

Results of Stocks Chosen during the First Week

DATE	SYMBOL	BUY/SELL	PRICE	SHARES	NET COST	PROF/LOST	TOTAL COST	TOTAL PROFIT/LOSS
09/22/2008	DRYS	BUY	\$51.81	386	\$19,998.66		\$57,656.74	
09/27/2008	DRYS	SELL	\$39.92	386	\$15,409.12	\$4,589.54		
09/22/2008	FSLR	BUY	\$226.80	88	\$19,958.04			
09/27/2008	FSLR	SELL	\$201.61	88	\$17,741.58	\$2,216.72		\$6,806.26
09/22/2008	BRK	BUY	\$4425.01	4	\$17,700.04			
09/27/2008	BRK	SELL	\$4439	4	\$17,596	\$104.04		\$6,910.30

Table 5.3.1: September 22 - September 27

Shown below is the downward slope of DRYS during the week of September 22, 2008 to September 27, 2008 [2]. A total of \$4,589.54 was lost in just five days from investing in Dry Ships Inc.

Dry Ships Inc Decline Trend



Figure 5.3.2: DRYS (Sept 22-Sept 27)

First Solar also experienced an overall negative outcome in profit over the week of September 22, 2008 to September 27, 2008 [2]. I lost a total of \$2,216.72 within five days from investing in First Solar Inc.

First Solar Inc Decline Trend

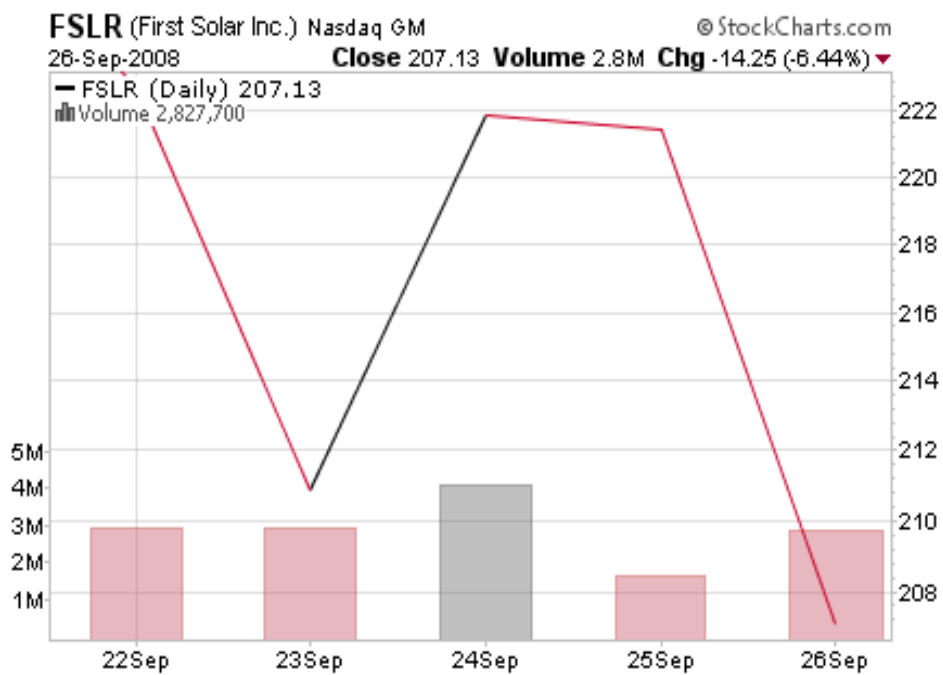


Figure 5.3.3: FSLR (Sept 22-Sept 27)

Berkshire Hathaway decreased in value a rather high amount in the first two days but then spiked up in half a day to a greater value than when I invested my money [2].

However, it steadily started to decline and I took out my money at negative \$104.04.

Berkshire Hathaway Inc Decline Trend

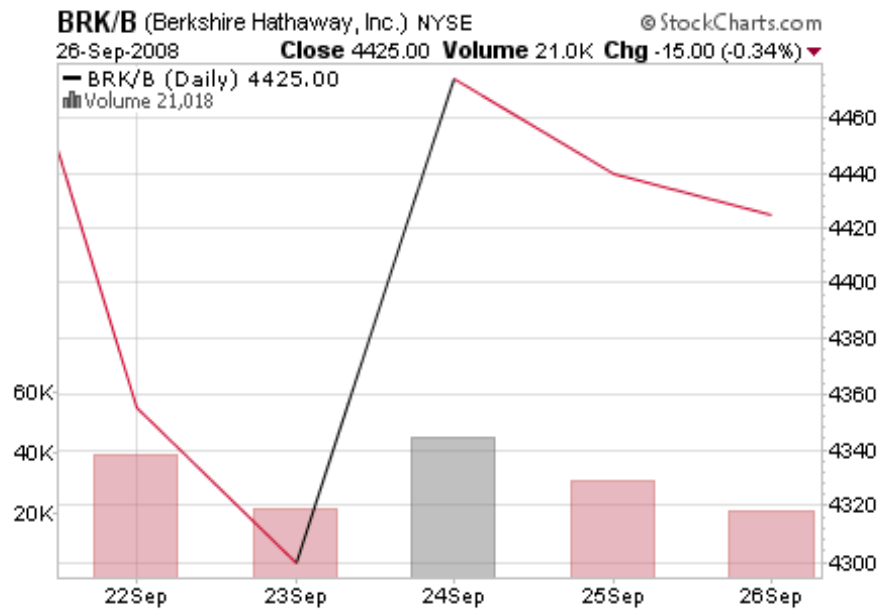


Figure 5.3.4: BRK (Sept 22-Sept 27)

During the First week of trading I lost a total of \$6,910.30. Although I expected to make a profit from short term trading with the state of the economy at this time it is almost impossible to have a positive outcome from one week of trading.

The graph shown below displays the current stock market decline trend. About five years ago the stock market reached even lower than where it is today. This was due to the .com bubble. However, because this is a ferocious bear market the stock market trend could definitely come back to its highest point.

Stock Market Decline Trend

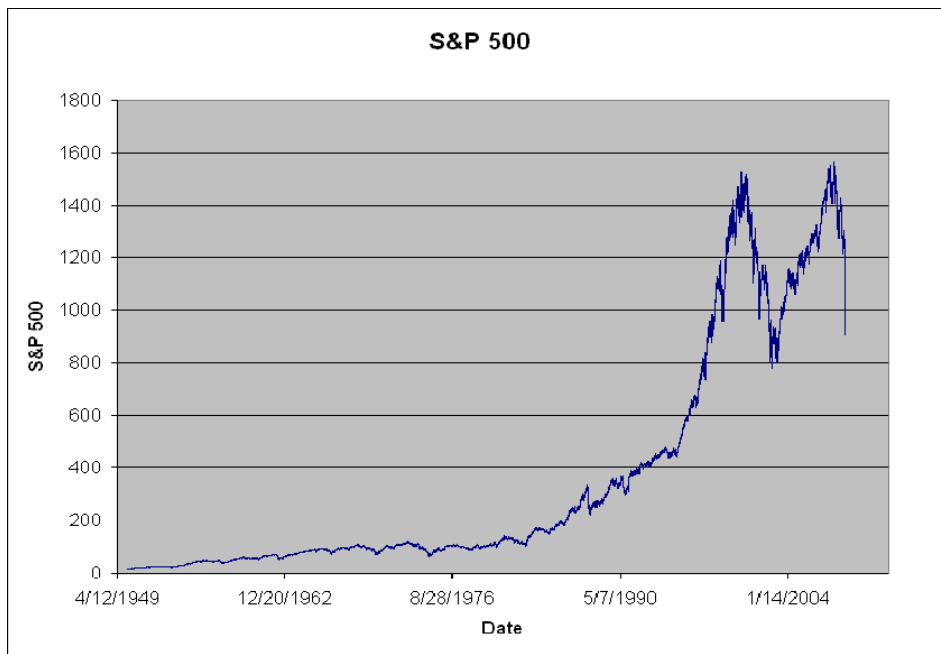


Figure 5.3.5: Stock Market over the Past Years

With a new total of \$93,089.70 to invest, I decided to stick to investing about \$20,000 in three different stocks. Therefore, for the second week of short term trading I decided to invest about \$20,000 dollars in Microsoft Inc., Google inc., and Celgene Corporation.

Results of Stocks Chosen during Week Two

DATE	SYMBOL	BUY/SELL	PRICE	SHARES	NET COST	PROF/LOST	TOTAL COST	TOTAL PROFIT/LOSS
09/29/2008	MSFT	BUY	\$26.71	748	\$19,979.08		\$59,935.74	
10/03/2008	MSFT	SELL	\$27.08	748	\$20,255.84	\$276.76		
09/29/2008	GOOG	BUY	\$400.59	49	\$19,628.91			
10/03/2008	GOOG	SELL	\$386.91	49	\$18,958.59	\$670.32		\$393.56
09/29/2008	CELG	BUY	\$63.77	313	\$19,647.01			
10/03/2008	CELG	SELL	\$62.37	313	\$19,521.81	\$125.20		\$518.76

Table 5.3.6: September 29- October 3

Shown below is the result of Microsoft during the week of September 29, 2008 to October 3, 2008 [2]. A positive total of \$276.76 was made in just five days from investing in Microsoft.

Microsoft Corporation

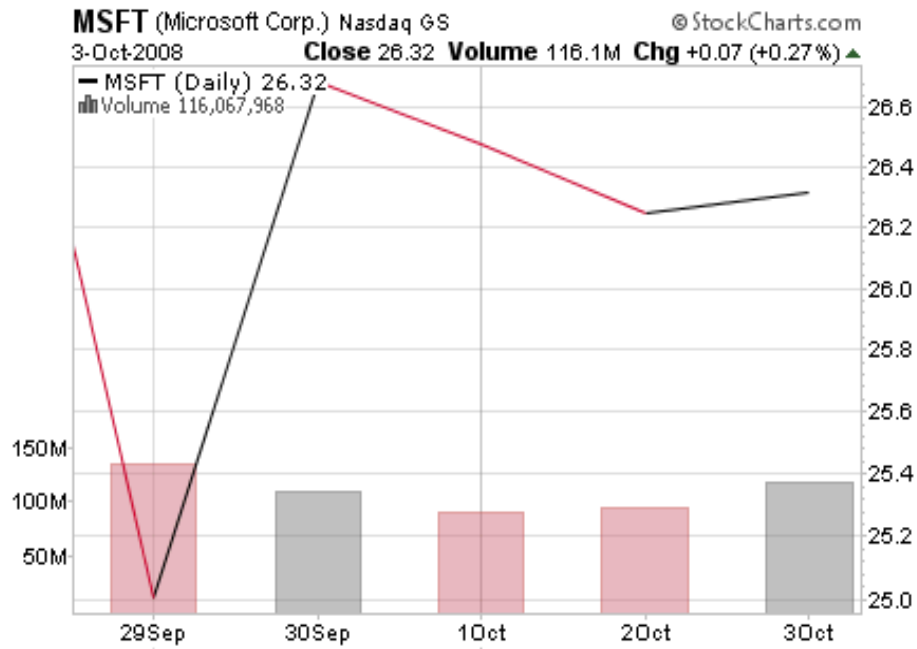


Figure 5.3.7: MSFT Incline Trend

Google decreased in value a rather high amount in the first day but then increased greatly in a time period of two days [2]. However, it steadily started to decline and I took out my money at negative \$670.32.

Google Inc.

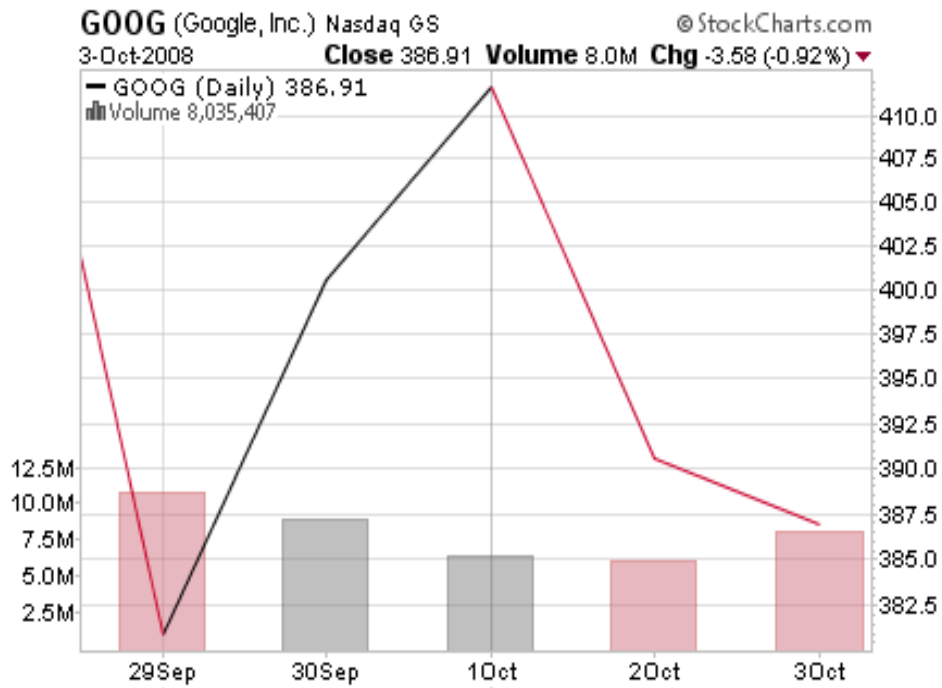
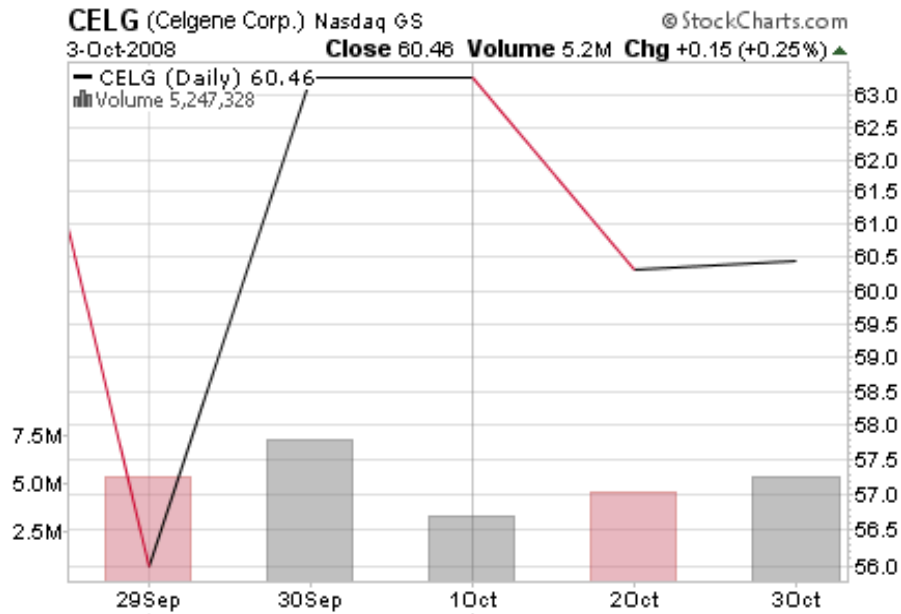


Figure 5.3.8: GOOG Decline Trend

Celgene Corporation decreased in value within the first 12 hours of investing my money but then spiked up and increased in value within the next 24 hours [2]. It remained at this value for a little more than a day and then decreased a bit [2]. I took out my money at a

value a bit less than when I invested it. Therefore, I lost a total of \$125.20 in just five days from investing in Celgene Corporation.

Celgene Corporation



5.3.9: CELG Decline Trend

During the second week of trading I lost a total of \$518.76. When taking in consideration the first week of trading, I have now lost a grand total of \$7,429.06. The main reason why money is being lost mostly every week is due to the state of the market during this time.

With a new total of \$92,570.94 to invest, I decided to stick to investing about \$20,000 in three different stocks. Therefore, for the third week of short term trading I decided to invest about \$20,000 dollars in Texas Roadhouse Inc., Exxon Mobil Corporation., and Anheuser Busch Companies Inc.

Results of Stocks Chosen during the Third Week

DATE	SYMBOL	BUY/SELL	PRICE	SHARES	NET COST	PROF/LOST	TOTAL COST	TOTAL PROFIT/LOSS
10/06/2008	TXRH	BUY	\$8.03	2490	\$19,994.70		\$59,942.79	
10/10/2008	TXRH	SELL	\$7.38	2490	\$18,376.20	\$1,618.50		
10/06/2008	XOM	BUY	\$77.32	258	\$19,948.56			
10/10/2008	XOM	SELL	\$62.68	258	\$16,171.44	\$3,777.12		\$5,395.62
10/06/2008	BUD	BUY	\$63.09	317	\$19,999.53			
10/10/2008	BUD	SELL	\$58.95	317	\$18,687.15	\$1,312.38		\$6,708

Table 5.3.10: October 6 –October 10

Shown below is the result of Texas Roadhouse Inc during the week of October 6, 2008 to October 10, 2008 [2]. A negative total of \$1,618.50 was lost in just five days from investing in Texas Roadhouse Inc.

Texas Roadhouse Inc.

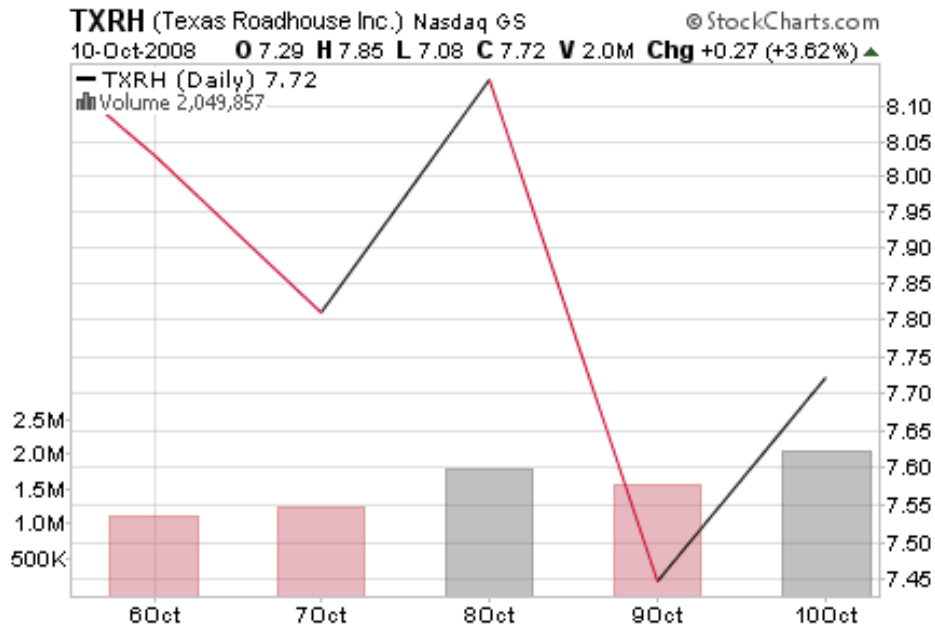


Figure 5.3.11: TXRH Decline Trend

Exxon Mobile stayed at a steady value for about three days but then decreased in sharply in value in just two days [2]. I took out my money during the downward slope of the stock's value [2]. Therefore, I lost \$3,777.12 within five days from investing in Exxon Mobile.

Exxon Mobile Corporation

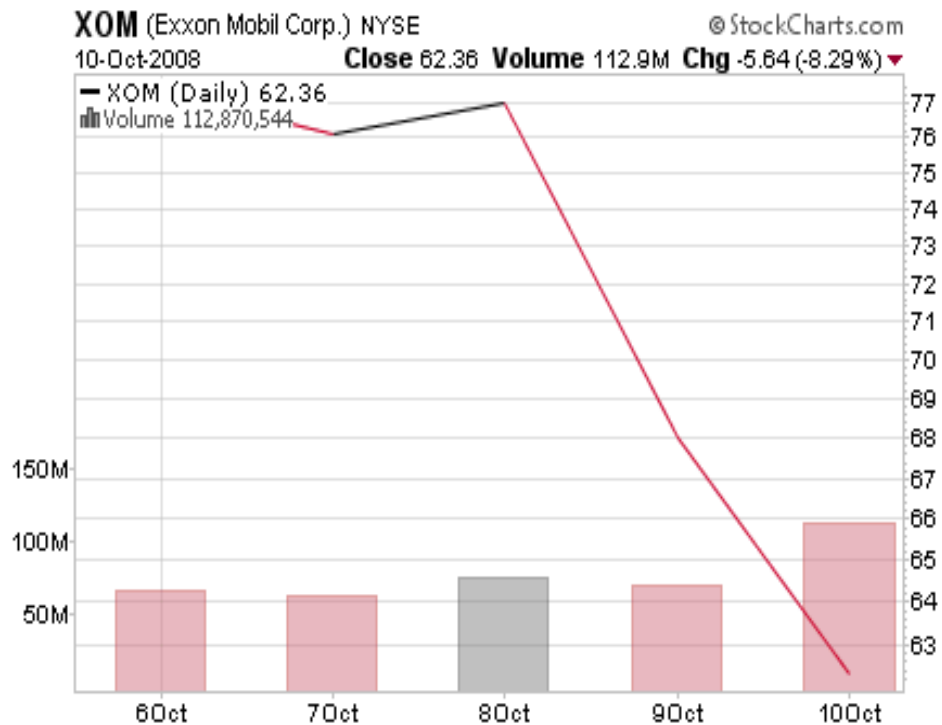


Figure 5.3.12: XOM Decline Trend

Anheuser Busch Companies Inc followed almost the same pattern as Exxon Mobile this week [2]. It stayed steady for about three days then had a sharp decrease in value at the

point where I took out my money [2]. Therefore, a grand total of \$1,312.38 was lost in just five days from investing in Anheuser Busch Companies Inc.

Anheuser Busch Inc.

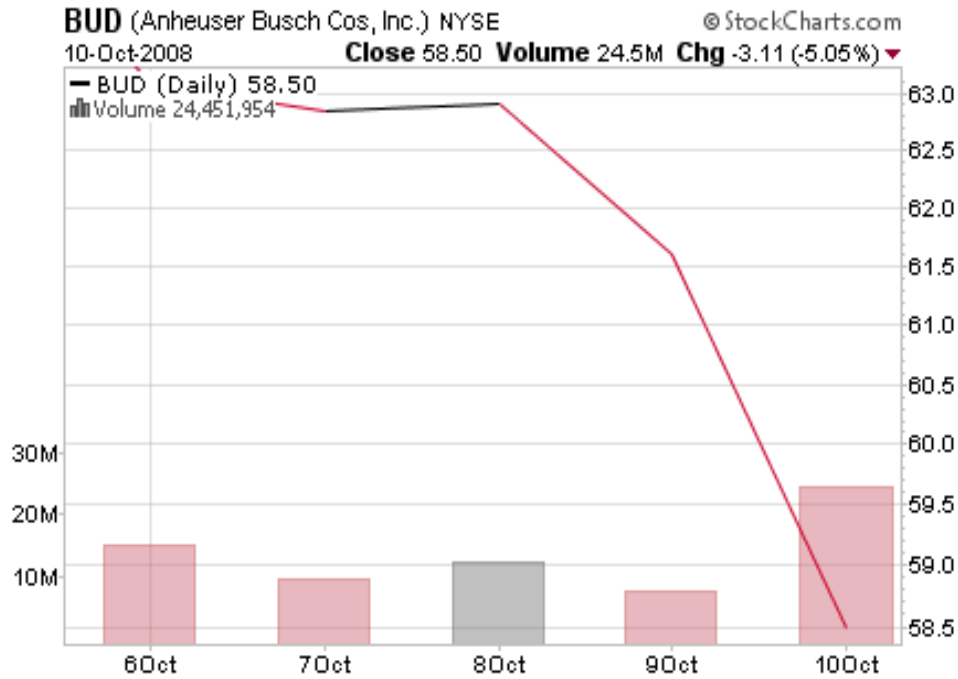


Figure 5.3.13: BUD Decline Trend

During the third week of trading I lost a total of \$6,708. When taking in consideration the first two weeks of trading, I have now lost a grand total of \$14,137.06. Again money was lost this week mainly due to the state of the market and not the method of trading or the because of the stocks chosen.

With a new total of \$85,862.94 to invest, I decided to stick to investing about \$20,000 in three more different stocks. Therefore, for the Fourth week of short term trading I decided to invest about \$20,000 dollars in General Electric Company, Royal Dutch Shell-A, and Burlington Northern Santa Fe Corp.

Results of Stocks Chosen during the Fourth Week

DATE	SYMBOL	BUY/SELL	PRICE	SHARES	NET COST	PROF/LOST	TOTAL COST	TOTAL PROFIT/LOSS
10/13/2008	GE	BUY	\$21.50	930	\$19,995		\$59,935.74	
10/17/2008	GE	SELL	\$19.89	930	\$18,497.70	\$1,497.30		
10/13/2008	RDS.A	BUY	\$44.70	447	\$19,980.90			
10/17/2008	RDS.A	SELL	\$48.11	447	\$21,505.17	\$1,524.27		\$26.97
10/13/2008	BNI	BUY	\$80.16	249	\$19,959.84			
10/17/2008	BNI	SELL	\$80.10	249	\$19,944.90	\$14.94		\$12.03

Table 5.3.14: October 13- October 17

Shown below is the result of General Electric Company during the week of October 13, 2008 to October 17, 2008 [2]. A negative total of \$1,497.30 was lost in just five days from investing in General Electric Company.

General Electric Corporation

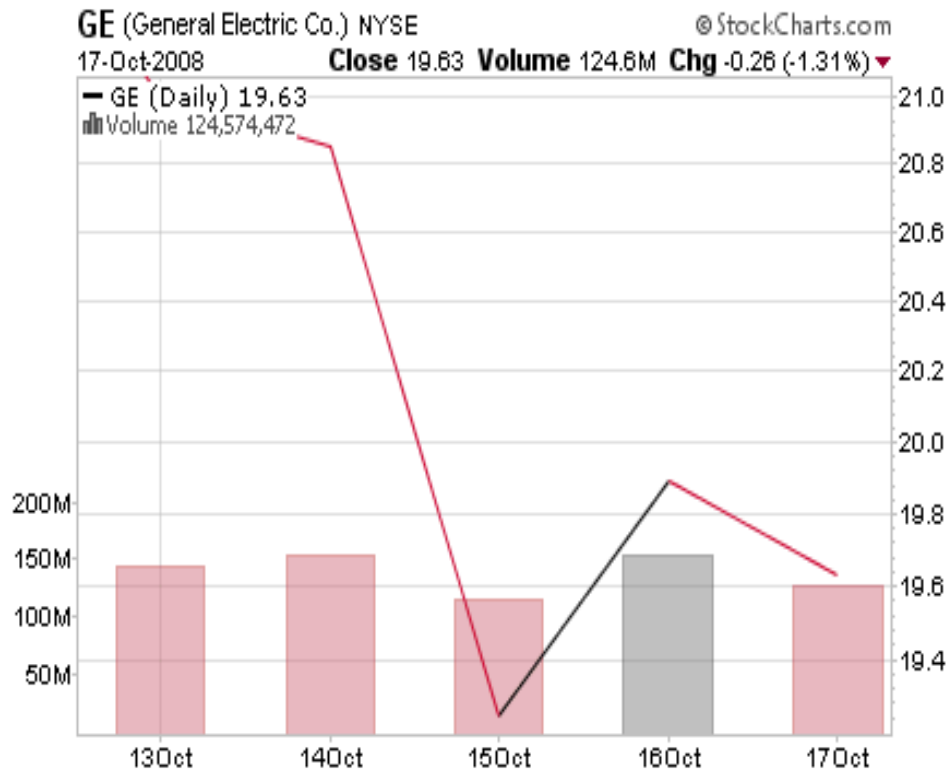


Figure 5.3.15: GE Decline Trend

Royal Dutch Shell/A increased rapidly in value in the first 12 hours of me investing in the stock [2]. But then within 48 hours the stock's value was below the price I first investing

my money at [2]. However, in the last two days it the value of the stock started to increase and I took out my money with a profit of \$1,524.27 [2].

Royal Dutch Shell

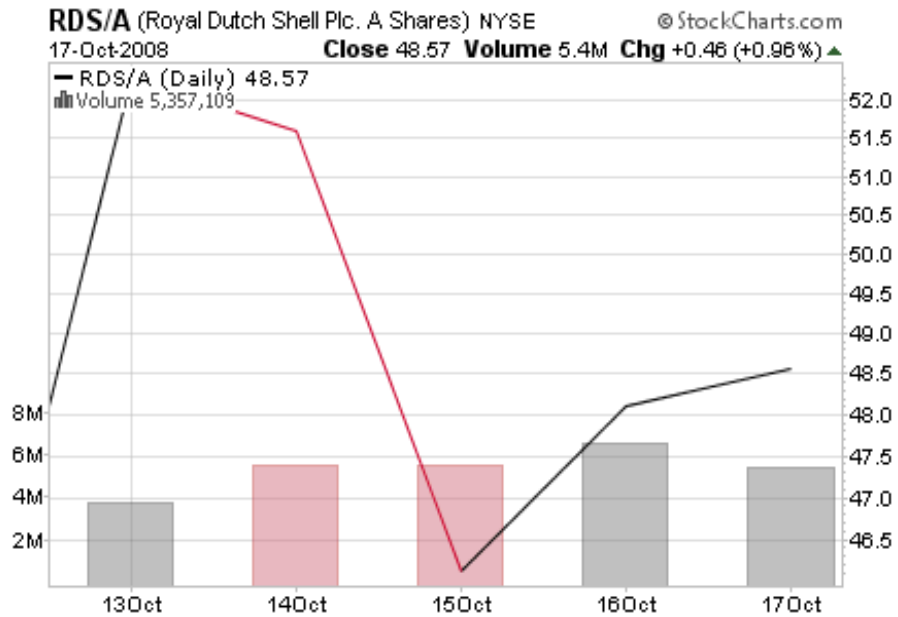


Figure 5.3.16: RDS/A Incline Trend

Burlington Northern Santa Fe Corp decreased in value for the first two and half days of investing but then increased for the next 24 hours but never reached the value that I first invested with [2]. By the end of the week I had lost a total of \$14.94 from investing in Burlington Northern Santa Fe Corp.

Burlington Northern Santa Fe Corporation

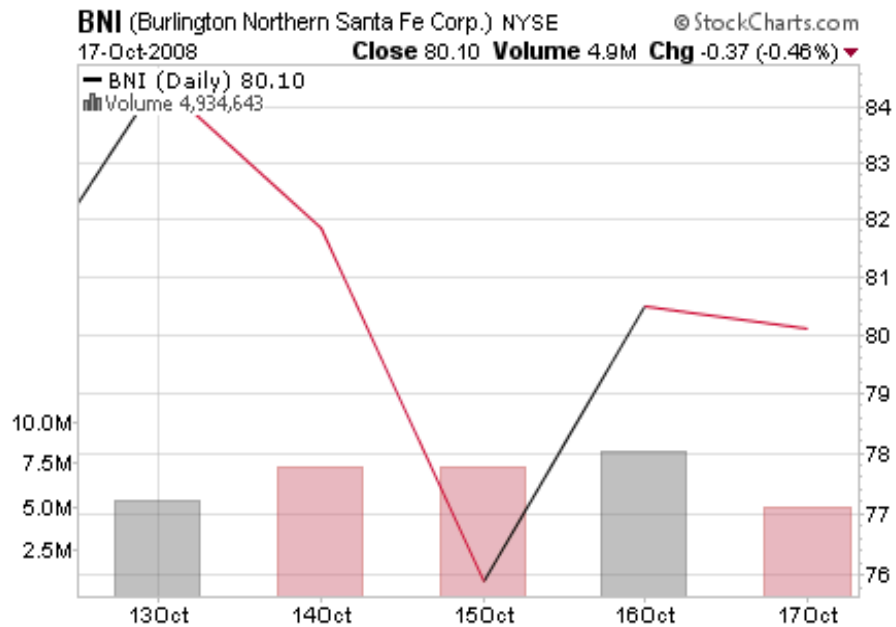


Figure 5.3.17: BNI Decline Trend

During the fourth week of trading I made a profit of \$12.03. When taking in consideration the first three weeks of trading, I have now lost a grand total of \$14,125.03. Although I made a profit this week it was too small to allow me to have a positive overall profit thus far.

With a new total of \$85,874.97 to invest, I decided to stick to investing about \$20,000 in three different stocks. Therefore, for the Fifth week of short term trading I decided to invest about \$20,000 dollars in Molson Coors Brewing Company, Cisco Systems Inc., and Revlon Inc.

Results of Stocks Chosen during the Fifth Week

DATE	SYMBOL	BUY/SELL	PRICE	SHARES	NET COST	PROF/LOST	TOTAL COST	TOTAL PROFIT/LOSS
10/20/2008	TAP	BUY	\$38.81	515	\$19,987.15		\$59,965.78	
10/24/2008	TAP	SELL	\$38.14	515	\$19,642.10	\$345.05		
10/20/2008	CSCO	BUY	\$17.86	1119	\$19,985.34			
10/24/2008	CSCO	SELL	\$16.31	1119	\$18,250.89	\$1,734.45		\$2,079.50
10/20/2008	REV	BUY	\$12.63	1583	\$19,993.29			
10/24/2008	REV	SELL	\$10.73	1583	\$16,985.59	\$3,007.70		\$5,708.20

Table 5.3.18 October 20- October 24

Shown below is the result of Molson Coors Brewing Company during the week of October 20, 2008 to October 24, 2008 [2]. A negative total of \$345.05 was lost in just five days from investing in Molson Coors Brewing Company.

Molson Coors Brewing Corporation

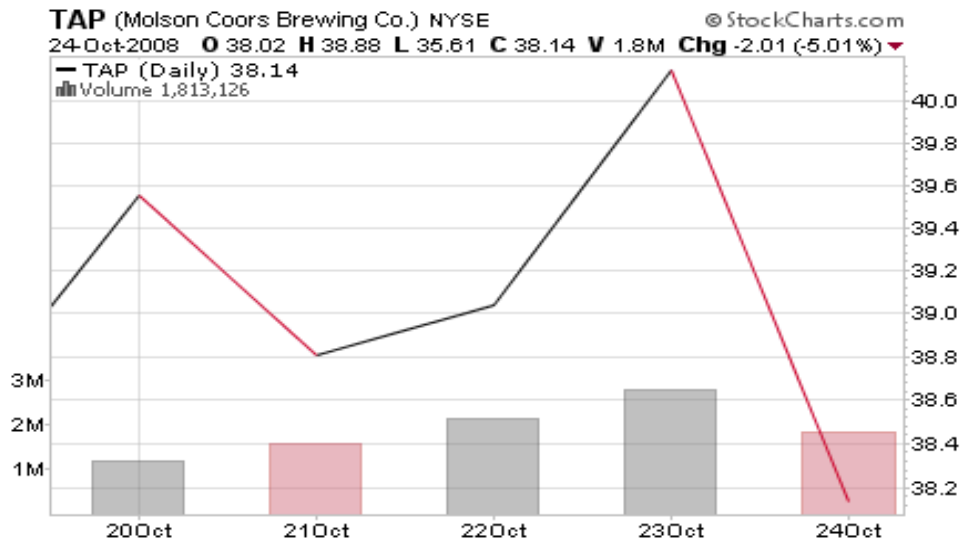


Figure 5.3.19: TAP Decline Trend

Cisco Systems Inc. increased a bit in the first 15 hours but then steadily declined in value for the rest of the week [2]. Therefore, I took out my money with a loss of \$1,734.45.

Cisco Systems Inc.

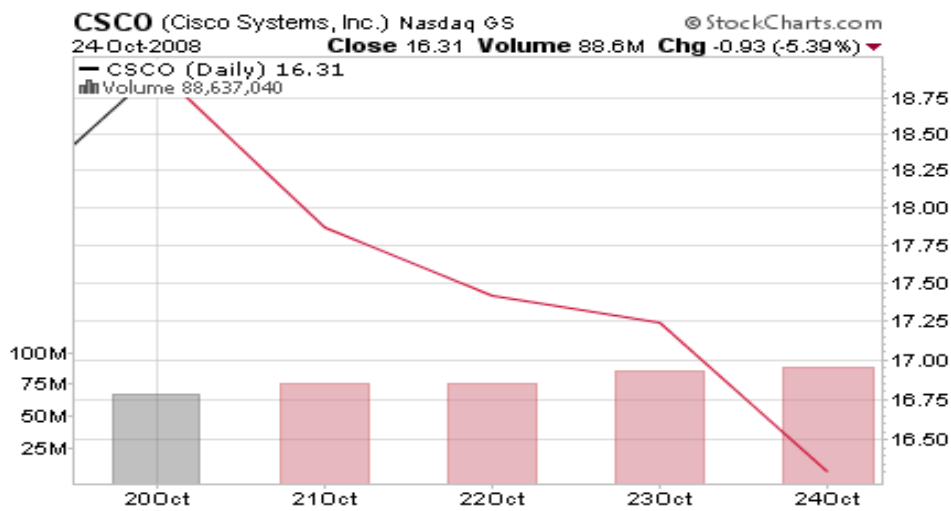


Figure 5.3.20: CSCO Decline Trend

Revlon Inc increased a bit for the first 48 hours but by the end of the second day it steadily declined in value until I took out my money at the end of the week [2]. By the end of the week I had lost a total of \$3,007.70 from investing in Revlon Inc.

Revlon Inc.

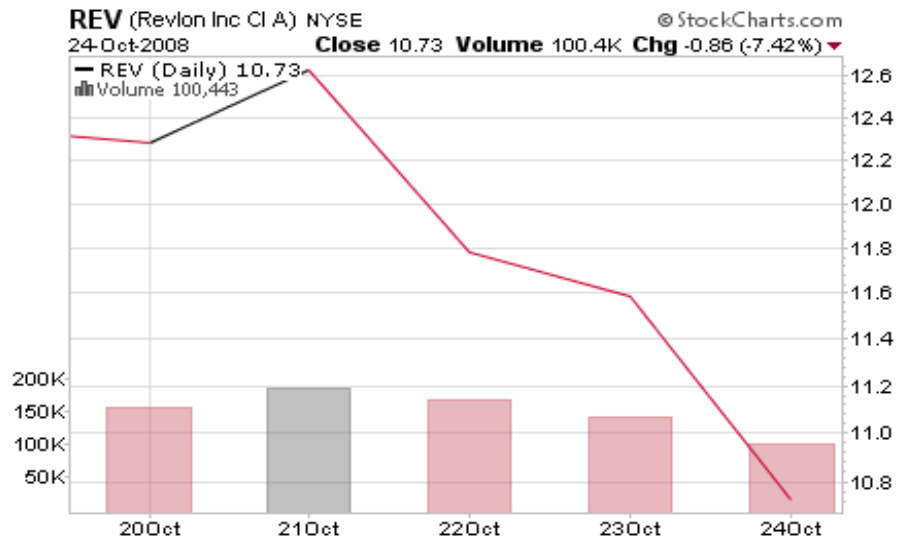


Figure 5.3.21: REV Decline Trend

During the fifth week of trading I lost a total of \$5,708.20. When taking in consideration the first four weeks of trading, I have now lost a grand total of \$19,833.23.

With a new total of \$80,166.77 to invest, I decided to stick to investing about \$20,000 in three different stocks. Therefore, for the sixth week of short term trading I decided to invest about \$20,000 dollars in Hershey Foods Corporation, Sunoco Inc, and Raytheon.

Results of Stocks Chosen during Week Six

DATE	SYMBOL	BUY/SELL	PRICE	SHARES	NET COST	PROF/LOST	TOTAL COST	TOTAL PROFIT/LOSS
10/27/2008	HSY	BUY	\$33.62	594	\$19,970.28		\$59,932.08	
10/31/2008	HSY	SELL	\$37.44	594	\$22,239.36	\$2,269.08		
10/27/2008	SUN	BUY	\$24.37	820	\$19,983.40			
10/31/2008	SUN	SELL	\$29.45	820	\$24,149	\$4,165.60		\$6,434.68
10/27/2008	RTN	BUY	\$44.20	452	\$19,978.40			
10/31/2008	RTN	SELL	\$50.02	452	\$22,609.04	\$2,630.64		\$9,065.32

Table 5.3.22 October 27- October 31

Shown below is the result of Hershey Foods Corporation during the week of October 27, 2008 to October 31, 2008 [2]. A positive total of \$2,269.08 was made in just five days from investing in Hershey Foods Corporation.

Hershey Foods Corporation

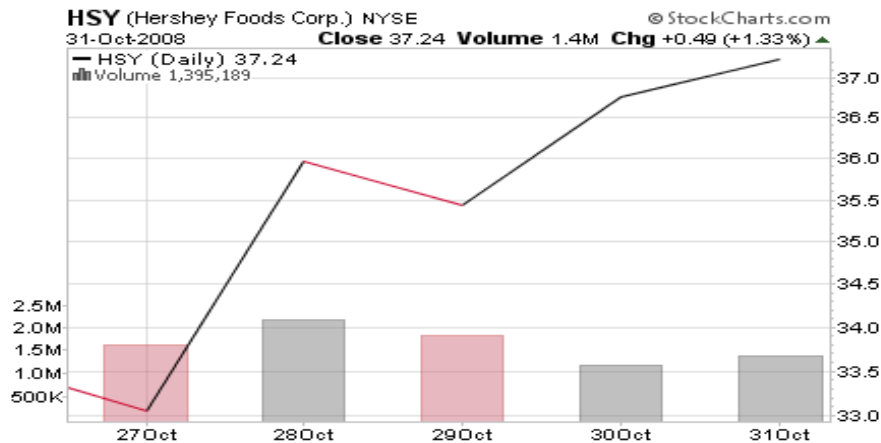


Figure 5.3.23: HSY Incline Trend

Sunoco Inc increased everyday within the time period that invested my money [2].

Therefore, I made \$4,165.60 in one week of investing in Sunoco Inc.

Sunoco Inc.



Figure 5.3.24: SUN Incline Trend

Raytheon increased sharply in value for the first 36 hours but then started to decline in value for about 24 hours [2]. However for the last two and a half days it steadily increased in value [2]. By the end of the week I had made a total of \$2,630.64 from investing in Raytheon.

Raytheon

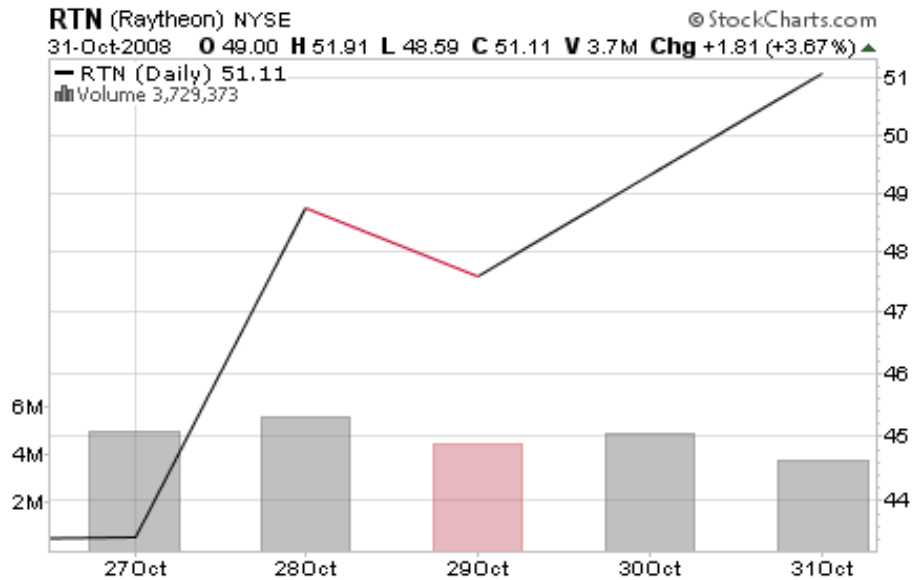


Figure 5.3.25: RTN Incline Trend

During the sixth week of trading I made a total of \$9,065.32. When taking in consideration the first five weeks of trading, I have now lost a grand total of \$10,767.91.

With a new total of \$89,232.09 to invest, I decided to stick to investing about \$20,000 in three different stocks. Therefore, for the final week of short term trading I decided to invest about \$20,000 dollars in Boston Beer Corporation, Dell Inc, and Barnes and Noble.

Results of Stocks Chosen during Week Seven

DATE	SYMBOL	BUY/SELL	PRICE	SHARES	NET COST	PROF/LOST	TOTAL COST	TOTAL PROFIT/LOSS
11/3/2008	SAM	BUY	\$37.79	529	\$19,990.91		\$59,980.63	
11/7/2008	SAM	SELL	\$33.46	529	\$17,700.34	\$2,290.57		
11/3/2008	DELL	BUY	\$12.20	1639	\$19,995.80			
11/7/2008	DELL	SELL	\$12.55	1639	\$20,569.45	\$573.65		\$1,716.92
11/3/2008	BKS	BUY	\$18.88	1059	\$19,993.92			
11/7/2008	BKS	SELL	\$18.49	1059	\$19,580.91	\$413.01		\$2,129.93

Table 5.3.26: November 3- November 7

Shown below is the result of Boston Beer Co. Inc during the week of November 3, 2008 to November 7, 2008 [2]. A negative total of \$2,290.57 was lost in just five days from investing in Boston Beer Co. Inc.

Boston Beer Corporation

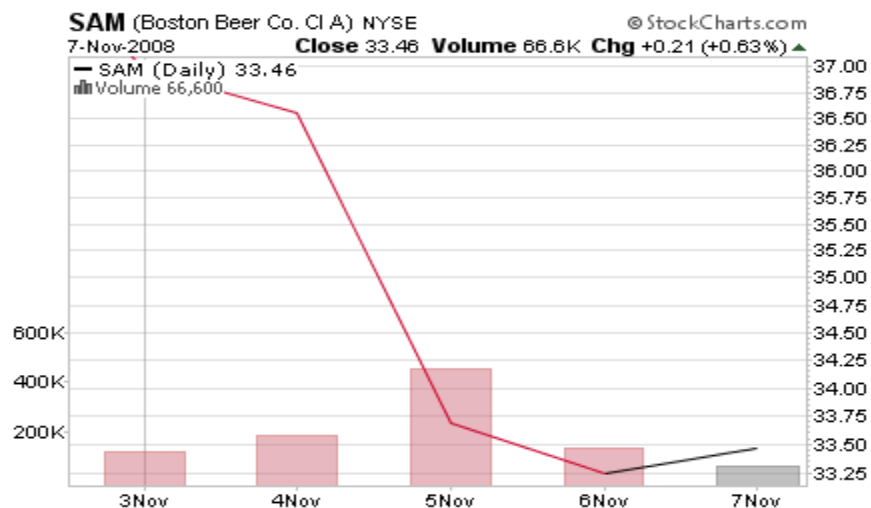


Figure 5.3.27: SAM Decline Trend

Dell Inc increased within the time period that invested my money [2]. Therefore, I made \$573.65 in one week of investing in Dell Inc.

Dell Inc

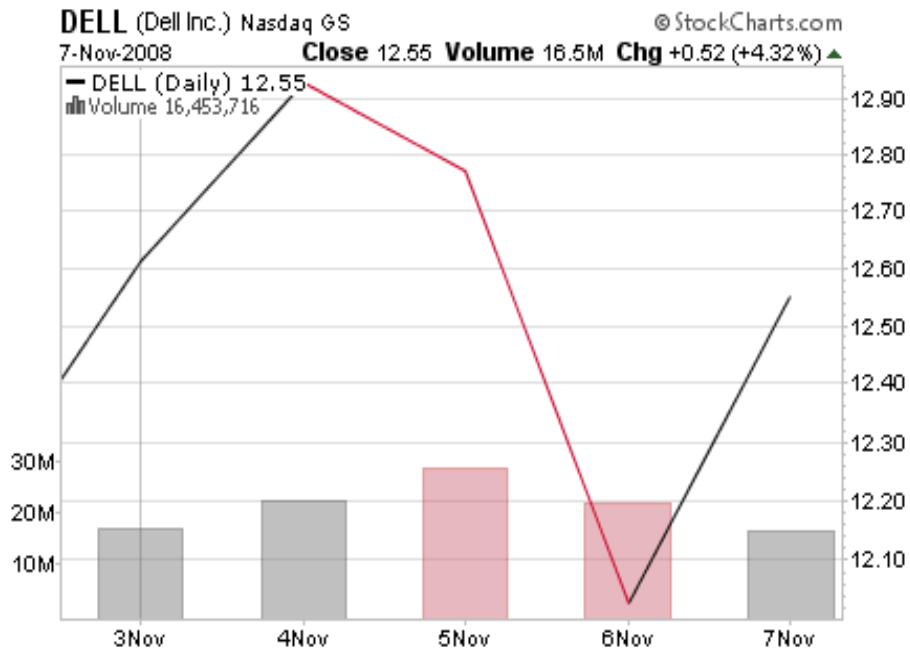


Figure 5.3.28: DELL Incline Trend

Barnes and Noble decreased in value over the five days I invested my money [2]. By the end of the week I had lost a total of \$413.01 from investing in Barnes and Noble.

Barnes and Noble

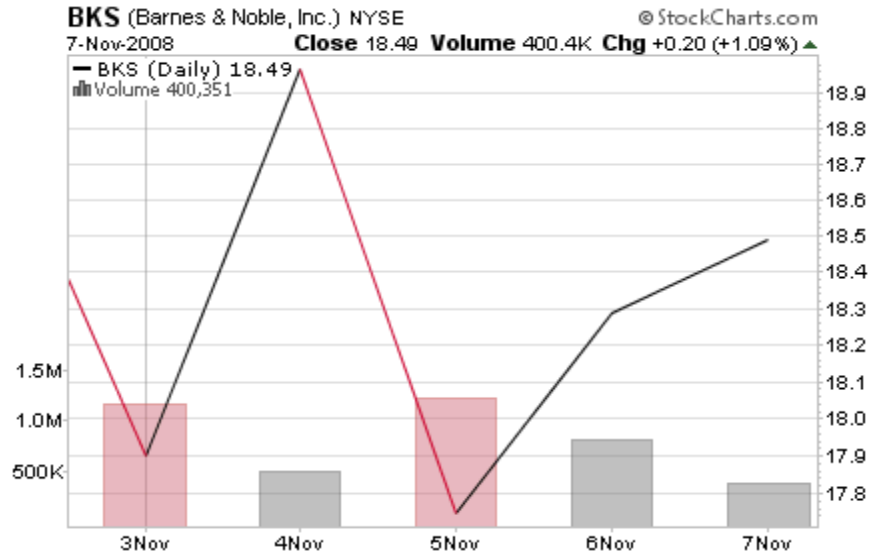


Figure 5.3.29: BKS Decline Trend

During the seventh week of trading I lost a total of \$2,129.93. When taking in consideration the first six weeks of trading, I have now lost a grand and final total of \$12,777.63.

5.4 Results and Conclusions

The prediction that short term trading may not make one a large amount of money in the short term, but that it is a safe and long term profitable method of trading was proven to be false. A profit, not necessarily large, was expected from investing use the short term method. However, due to the state of the market during the time of trading, after only seven weeks of short term trading I lost 12.77% of \$100,000 dollars. Each week I invested about \$60,000 dollars from the original \$100,000 dollars into three

different stocks. Although there were many weeks with a positive outcome, the negative weeks overshadowed the positive weeks. Choosing stocks that correspond to what was going on in the world at the time of trading was a big reason for the profitable weeks. For example investing in Hershey Foods Corporation during the week of Halloween seemed reasonable and it produced a profitable week. Although money was lost after the seven weeks I believe that if the market was in a better state and we had more time to trade, then short term investing would have produced a profit. Because we only traded for seven weeks, short term trading may not be the best method because one usually only makes a lot of money in the long run of short term trading. In conclusion, after starting with \$100,000 dollars, the remaining balance after seven weeks of short term trading was \$87,222.37.

6 Comparisons

Over this seven week simulation all of our trading methods lost money as did all the major indexes. Swing trading had lost the least with a 5.15% decrease. Swing trading succeeded in part because it is an easy method to pick up because of its simplicity and its reliance on the basic principle of buy low, sell high. Swing trading leaves very little judgment to the investor because the investor uses the EMA and the stocks current momentum, which are pretty concrete figures, to decide their action. This means in theory that skill level and experience will have little to do with an investors results but more so their discipline.

Short term trading had the second lowest loss at 12.77%. Short term trading partially succeeded because stocks were changed each week, not allowing a huge loss in an individual stock to occur. Therefore, one benefit of short term trading is that one is not obligated to keep their money in the same stocks for the entire a long period of time. Another benefit of short term trading is that one can plan when they are going to invest in certain stocks based on the time of the year. The two main reasons that short term trading did not produce a profit was the bad state of the market and the short amount of time that we had to trade, only seven weeks.

Long term trading had by far the worst results of the chosen stock trading methods with a loss of 24.14%. I chose this method of stock trading because of its highly profitable history. When done correctly, long term trading can provide a highly profitable outcome without absorbing too much of the trader's time. Other stock trading methods call for weekly or even daily trading; however after the initial purchase of a long term

stock, all that needs to be done is view the stocks behaviors to know when to sell. This stock trading method is ideal for people who work full time and have families who wish to trade stocks.

Table of Comparison

Trading Method	Percent Change
Swing Trading (Brendan)	(5.15%)
Long Term Trading (Nick)	(24.14%)
CAN SLIM (John)	(17.07%)
Short Term Trading (Lena)	(12.77%)

Table 6.1.1 Simulation Results

7 Conclusion

The goal of this project was to learn about and understand the stock market through a seven week hands on simulation. By completing this project we have learned a lot about the stock market especially because of the turbulence during our simulation period. Our start date of September 22nd 2008 was nine days after the failure of Lehman Brothers, the first bank to fail during the financial crisis. Trading during this time period was difficult for our group given our lack of experience but this time was also difficult for professional traders.

All members of our group did lose money with their respective trading methods, but when compared to major indexes performance over the same time period our losses are not as surprising. Besides long term trading all of our other methods beat the three major indexes, NASDAQ, S&P 500, and Dow Jones, by a significant margin. These indexes dropped 27.55%, 25.82%, 21.47% respectively. The best of the worst was swing trading but through this simulation we have learned that there is no general best stock trading method but performance relies more on the investors discipline and experience.

The project did not allow us to create our own time frame for trading. Both the start date and the finish date were predetermined. This meant that we were not able to wait on buying stocks but instead bought when our simulation started and were forced to sell as the simulation ended regardless of the performance of the stocks at the time.

Although no one in our group saw a positive return on their investments the project was still very successful because we reached our goal of understanding the stock market.

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