## Stock Market Simulation

# An Interactive Qualifying Project Report: <br> Submitted to the faculty of the <br> Worcester Polytechnic Institute in partial fulfillment of the requirements for the Degree of Bachelor Science 

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#### Abstract

Three different strategies of trading stock were compared via experimentation. Each individual group member researched a specific trading method and then practiced their techniques over an eight-week trading period. At the end of the session, each method was analyzed and compared with the others, in order to conclude one trading style a more efficient and profitable strategy.


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## 1. Introduction

### 1.1 Goals and Overall Plan for the IQP

The main goal of this IQP is to achieve an understanding of the stock market through research of various trading techniques, and using these techniques in a mock trading simulation. Every member in the group will use a different trading technique (penny stocks/short term trading, swing trading, and trend following), and trade with that technique over an eight-week period. Each member starts with a total of $\$ 250,000$ faux dollars, which they will invest into several different companies, and try to make a $10 \%$ return on their investments. This means that by the end of the trading period, we should each have a total in our portfolio above $\$ 275,000$. To help keep track of our investments, we will be using an online simulation program called Virtual Stock Exchange by the company MarketWatch Inc. ${ }^{9}$ Every Sunday, we will give a weekly report to Professor Dalin Tang detailing what we did in the past week. This includes all of the stocks that we bought/sold, how much money we made/ lost, and our objectives for the upcoming week.

### 1.2 Beginning of the Stock Market

There are many speculations on where and when the trading of stocks actually began. Some say it was in early Greece, and Rome. People would lend money to a business and expect a return with interest. Many historians say that the beginnings of the stock market as we know it now was the New York Stock Exchange (NYSE). I have found a few scholars that have evidence that the act of trading stocks actually happened well before the NYSE.

The first people who traded debts can be traced all the way back to $11^{\text {th }}$ century France. These first brokers kept records of the debts for the farmers. The farmers would need money to start farming, planting seeds and things like that, and would pay the debt back when the crop grew. So they would borrow it from the local banks. The first brokers would pay off other banks and debts that they owed, with different debts owed to them. In essence they used the loan notes to pay off their debt. Some people consider this the first form of trading.

Another group of scholars believe that Van der Burse started the first stock market. He would gather many wealthy businessmen, who owned businesses and parts of businesses, in any one of his many homes. They would gather and trade parts of companies for other parts of different companies. These trading sessions were to be known as "Bruges Bourse." This idea caught on in a few cities like Amsterdam and Ghent. In the $14^{\text {th }}$ century bankers would trade different promissory notes from different governments especially in cities like Pisa, Verona, Genoa and Florence.

$\underline{\text { http://www.apai.fr/images/Bourse_origine/2_Placedelabourse.jpg }}$
Figure 1.2.1, One of Van der Burse's Homes

In 1602 the first stocks and bonds were used in the Netherlands. They allowed people to buy a part of the company and give them a "share" of the profit. This was a major breakthrough in the stock market. The very first company to have shares bought and sold was the East India Trading Company on the Dutch market. Trading like this did not start in London until 1688.

What is now one of the largest and busiest stock exchanges in the world, the NYSE, actually had it beginnings with the Dutch immigrants. In 1653 the Dutch immigrants built a wall to ward off Indian attacks. In 1685 the wall was demolished and a new road was built in its stead. They named the new road Wall Street. In 1792 under a buttonwood tree twenty brokers signed an agreement called "the Buttonwood Agreement," agreeing to trade securities on a commission basis. This was the beginning of the NYSE. People would come and trade shares right in the middle of a dirt road know as Wall Street.

http://online.wsj.com/media/info-nysetech05-buttonwood.jpg
Figure 1.2.2 The Signing of the Buttonwood Agreement

The NYSE grew very quickly. A constitution was adopted in 1817. A few of the rules of this constitution was that there will be a "call the market," where the president reads all stocks due to be traded for the day and each broker trades their stocks in turn, much different then the mass confusion today in the market place. Another rule used was that there would be two trading sessions during the day on in the morning and one in the afternoon. It was very structured and calm. In 1832 the stock market was changed forever. They passed a rule in which people could not trade outdoors. They must trade indoors. In 1884 the telegraph was invented. This invention revolutionized trading in the NYSE much like the Internet has revolutionized trading now. Wealthy businessmen could now keep in touch with their broker much more easily. Also brokers could find new clients out of the New York area.

http://newsdesk.si.edu/images full/images/museums/nmah/treasures/morse telegraph key.jpg
Figure 1.2.3 An early Telegraph

It is incredible to think that the NYSE had its humble beginnings on a dirt road with twenty brokers. It has grown to be one of the largest stock exchanges in the world. It is funny that the telegraph allowed brokers to keep in touch with their clients and now computers have eliminated that need or contact all together. People can now trade almost instantly on any market. I wonder if the twenty men that started the NYSE on that dirt road ever thought that it would have turned into this?

http://www.borev.net/nyse.jpg
Figure 1.2.4 Modern NYSE

### 1.3 Methods of Investing

Our group will be using three different methods to invest in the stock market. These three methods are penny stocks/short term trading, swing trading, and trend following. Penny stocks are stocks that are bought for around one dollar each. They are usually small or new companies that need money to continue or start, meaning they will either flourish or go bankrupt. Swing trading is the technique where traders try to capture short term moves in the stock market to make a profit. ${ }^{17}$ These traders aren't very
interested in the specific companies and what they sell, but rather they are interested in the price trends and patterns of the stocks. They typically only hold stocks for only a few days, but if they need to they can hold them for a few weeks to months. The third method of trading is trend following. In this method, an investor will keep a close watch on what the most popular stocks being bought and sold are and he will do what everyone else is doing. The difficult part of this technique is to figure out when the best time to sell the stock for a profit.

## 2. Short Term Penny Trading

by John Desrosier

### 2.1 Introduction and Goals

This short term trading is very risky. You want to buy stocks that you think will increase very quickly. Generally one does not want hold on to stocks for very long while doing this type of trading. Once the stock has risen, even a little bit, one should sell the stock for a profit. I will start out with $\$ 250,000$ dollars and try to increase my earnings by ten percent. I plan not to hold on to any one stock for more than a week. This type of trading is all about research. I plan to take this next week to do research on some companies that I believe will be on the rise next week. I will start trading stocks on Monday the $9^{\text {th }}$ of June and continue to monitor my choices until July $21^{\text {st }}$, giving a weekly report on the progress of my stocks every Sunday.

### 2.2 Stocks Chosen

I researched and bought a few penny stocks and short-term stocks and found out that the unemployment rate has gone up $.5 \%$. I bought a few penny stocks and one stock that I believe has an upward trend but may soon plummet. I will keep an eye on that one particular stock. I will wait a few days to see what goes on with the market now that the new unemployment rate has been posted.

Short term Trading
I used a website that gives tips for short term trading (http://shorttermtrading.blogspot.com/). The Energy SPDR, which is a conglomerate of petroleum, oil and energy companies. The site said that the stock had an upward channel. I feel that
with the summer coming and children getting out of school soon, there will be much more energy/gas/oil used. I feel that this will continue to rise, but I feel that this could turn any day so I will keep a close eye on the stock and sell it as soon as it takes a turn for the worst. I will buy $\$ 50,000$ worth of this stock, which comes out to 581 shares.

I believe with the unemployment rate up $.5 \%$, the stock market will not do well in the next few days. I think I will hold on to my money for the short term trading and wait until Wednesday or so. I want to see if everything will go down and if not what will still be on an upward trend.

### 2.3 Trades and Investments

Week $1-6 / 9 / 08$ to $6 / 15 / 08$
Penny stocks are stocks that are bought for around one dollar each. These stocks could either pay off very well or bust. There is a lot of gray area when dealing with penny stocks. They generally do not have much information about them. Penny stocks are usually small or new companies that need money to continue or start. This means that the new or small companies could either flourish or they could go bankrupt. Since they are so small or new, not much information is known about them. I have found a website (http://www.allpennystocks.com/aps_us/index.asp) that researches penny stocks and posts it for free. For my first few days I will rely on this site until I get the hang of this type of trading (22).

Allpennystocks.com says that the Minera Andes Inc. (MNEAF) has just found a large deposit of copper in one of its exploration fields. This could be the breakthrough this company needs. It is trading at $\$ 1.46$ and is down $\$ 0.07$ but I feel that it will
increase. I will buy $\$ 50,000$ worth of this stock, which is equal to 34,246 shares of stock (22).


Figure 2.3.1.1. Six-month price chart of MNEAF on June 6, 2008.

Another company recommended by this site is Soyo Group Inc. (SOYO). This company sells electronic equipment to consumers. It sells LCD televisions and computer monitors, as well as other electronic devices. I feel this is a very good industry to be in. I am thinking about buying this stock later in the week but will see how it looks (23).


Figure 2.3.1.2. Six-month price chart of SOYO on June 6, 2008.

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11-Jun-08 | MNEAF | BUY | 34,246 | $\$ 1.50$ | $(\$ 51,379.00)$ | - |
| 11-Jun-08 | XLE | BUY | 581 | $\$ 87.01$ | $(\$ 50,562.81)$ | - |
| 11-Jun-08 | ACGI | BUY | 75,000 | $\$ 0.41$ | $(\$ 30,760.00)$ | - |
| 13-Jun-08 | MNEAF | SELL | 34,246 | $\$ 1.43$ | $\$ 48,981.78$ | $(\$ 2,397.22)$ |
| 13-Jun-08 | BOCX | BUY | 35,800 | $\$ 0.48$ | $(\$ 17,194.00)$ | - |
| 13-Jun-08 | BIDU | BUY | 153 | $\$ 328.89$ | $(\$ 50,330.17)$ | - |
| Total Profit |  |  |  |  |  | $(\$ 2,397.22)$ |
| Cash in Hand |  |  |  |  |  | $\$ 98,755.80$ |

Table 2.3.1, First week of trading, Short term penny stocks (\$10 commission included in trade).

Week $2-6 / 16 / 08$ to $6 / 22 / 08$
Biocurex Inc (BOCX) has just started an upward swing I will watch this stock the next few days. I feel that it will increase. This is a short-term stock and has risen. I have made $\$ 716$ and will sell the stock Monday morning on June 23 and we will see what happens (23).


Figure 2.3.2.1. Weekly price chart of BOCX on June 13, 2008.

The Energy SPDR (XLE) went upward for a few days but I went on vacation for three days and missed it. It has since dropped and I have lost $\$ 732.06$ I feel that this stock will raise again in the next few days. I will keep an eye on it and once it makes a profit I will sell it.


Figure 2.3.2.2. Weekly price chart of XLE on June 13, 2008.

Americore Group Inc (ACGI) has stayed right around where I bought it. It is staying pretty steady. I have to catch it on a good day and sell for a profit or at least less of a loss than $\$ 375$.

Intellect Neuroscience Inc (ILNS) is a company that I have researched. As of June $20^{\text {th }}$ the stock sells for $\$ .80$. This company has found a new way to close wounds using tissue bonding. I just think that closing a cut without a suture, staple, or glue is just cool. Also this company has been on an upward trend the last few days. I am not sure how much longer this stock will rise (22).


Figure 2.3.2.3. Weekly price chart of ILNS on June 13, 2008.

Superclick Inc (SPCK) is an Internet provider that focuses on hotels and businesses. It seems to be very unsteady but pikes and drops very quickly. I feel that it is in a trough but will peak soon because of its past history. I will buy $\$ 8,392.45$ worth of this stock at $\$ .18$ dollars per share (24).


Figure 2.3.2.4. Weekly price chart of SPCK on June 13, 2008.

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 22-Jun-08 | BOCX | SELL | 34100 | $\$ 0.49$ | $\$ 16,699.00$ | $\$ 331.00$ |
| 22-Jun-08 | ILNS | BUY | 37,500 | $\$ 0.76$ | $(\$ 28,510.00)$ | - |
| 22-Jun-08 | SPCK | BUY | 47,900 | $\$ 0.16$ | $(\$ 7,654.00)$ | - |


| Weekly Profit | $\$ 331.00$ |
| :--- | ---: |
| Total Profit | $(\$ 2,066.22)$ |
| Cash in Hand | $\$ 79,290.80$ |

Table 2.3.2, Second week of trading, Short term penny stocks (\$10 commission included in trade).

Week $3-6 / 23 / 08$ to $6 / 29 / 08$
On June $24^{\text {th }}$, Intellect Neuroscience Inc (ILNS) has gone from $\$ .8$ to $\$ .83$ per share. This gives me an increase of $\$ 2,625$ I am going to sell this. Also XLE it looks as if I missed the highest peak for this stock. I believe it will go on a downward trend soon, so I will sell this stock at an $\$ 842.45$ profit.

Today I believe I will cut my losses and try again. I am going to sell all my stocks and research new ones for this coming week. I have Monday and Tuesday off from my job so I will have plenty of time to research new stocks to invest in. I am looking into Yahoo (YHOO); they have reorganized their company and plan to have new products coming out. I feel that their stocks will increase in the immediate future, even if Yahoo does not change anything, people will think that they did. This will be a shortterm stock. Once I have a profit I will sell it.


Figure 2.3.3.1. Weekly price chart of YHOO on June 20, 2008.

International Isotopes Inc. (INIS) is a penny stock. The company makes medical calibration machines among many other things. I will buy approximately $\$ 40,000$ dollars worth of this stock at $\$ .78$ per stock. It seems to have an upward trend this past month. It had a dip this morning but finished strong at $\$ .02$ above the previous day. I will be spending much time tomorrow finding more stocks to buy (22 and 24).


Figure 2.3.3.2. Monthly price chart of INIS on June 20, 2008.

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24-Jun-08 | ILNS | SELL | 37,500 | $\$ 0.83$ | $\$ 31,115.00$ | $\$ 2,605.00$ |
| 24-Jun-08 | XLE | SELL | 581 | $\$ 88.27$ | $\$ 51,294.87$ | $\$ 732.06$ |

Table 2.3.3, Third week of trading, Short term penny stocks (\$10 commission included in trade).

Week $4-6 / 30 / 08$ to $7 / 6 / 08$
This week I planned to get rid of all the leftover stocks that I was holding onto hoping that they would eventually increase. I sold all of my SPCK, ACGI and BOCX. These were not bad choices. Although I had a net loss for all of theses stocks, at one time during a day the stock did increase to more than I bought it for. I work during the day so I only see where the stock market closes each day. If I could have watched the market all day then I would have been able to sell these stocks for a profit but I only see the closing prices. The closing prices were not nearly as good as the prices during the day. Once I "missed" the upward trend these stocks went down and did not show any signs of increasing. I felt that I had to cut my losses and stop holding on to these stocks.

I did buy the INIS as I planned. Once I saw that the stock had increased $\$ .04$ over what I had bought it for so I sold it for a $\$ 2,025.28$ profit. The stock has stayed pretty steady this week even after I sold them. Here is the chart for the last days.


Figure 2.3.4.1. Weekly price chart of INIS on July 3, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp

This week I had some free time to research a few stocks. One that caught my interest was Yahoo (YHOO). They had just come out with a plan to increase revenue. They are going to work with Microsoft Co. I feel that announcing this plan will give people new confidence in this failing company. Although Yahoo is well under the industry average, which this chart below clearly shows, I will still buy stock in it.

Figure 2.3.4.2. Three-month price chart of YHOO on July 1, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp

I feel that with this new plan there will be an upward trend with this stock. That is why I bought some of this stock so far it has not worked out like I had hoped. I will see what happens early next week. Hopefully I can catch the stock while it is at least up to where I bought it.

Another company that I researched was the Drinks Americas Company. It nationally distributes drinks all across America. They own several types of alcoholic and non-alcoholic drinks. Not only do they own but also they market and distribute their own creations. I just thought it was cool. In their recent history their stock has not had a consistent pattern. I feel that I can buy this stock and catch it at one of its high points. The key is finding it at a high point. I did not buy it this week because I did not feel that I
could monitor it they way I would like. I will buy this stock Sunday night so that I can monitor this stock Tuesday and Wednesday on my days off (24).


Figure 2.3.4.3. Weekly price chart of DKAM on July 2, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp

Another company that I researched was the General Motors Company (GM). Its stocks are almost at an all time low but they plan to release the Chevrolet Beat concept car into the United States market. This car will get 40 miles to a gallon that is very important considering today's gas prices. I feel that this will boost their stock especially if Americans finally start buying gas efficient cars much like Europe has done (24).


Figure 2.3.4.4. Weekly price chart of GM on July 3, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp
That is my plan for next week and here is my trading from last week.

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30-Jun-08 | BIDU | SELL | 153 | $\$ 316.97$ | $\$ 48,486.41$ | $(\$ 1,843.76)$ |
| 30-Jun-08 | INIS | BUY | 50,632 | $\$ 0.76$ | $(\$ 38,470.32)$ | - |
| 30-Jun-08 | SPCK | SELL | 45,800 | $\$ 0.13$ | $\$ 5,944.00$ | $(\$ 1,384.00)$ |
| 30-Jun-08 | ACGI | SELL | 65,600 | $\$ 0.38$ | $\$ 24,918.00$ | $(\$ 1,978.00)$ |
| 1-Jul-08 | BOCX | SELL | 1,700 | $\$ 0.46$ | $\$ 772.00$ | $(\$ 44.00)$ |
| 1-Jul-08 | SPCK | SELL | 2,100 | $\$ 0.12$ | $\$ 242.00$ | $(\$ 94.00)$ |
| 1-Jul-08 | INIS | SELL | 50,632 | $\$ 0.80$ | $\$ 40,495.60$ | $\$ 2,025.28$ |
| 1-Jul-08 | ACGI | SELL | 9,400 | $\$ 0.38$ | $\$ 3,562.00$ | $(\$ 292.00)$ |
| 2-Jul-08 | YHOO | BUY | 2,394 | $\$ 21.52$ | $(\$ 51,508.88)$ | - |

Table 2.3.4, Fourth week of trading, Short term penny stocks (\$10 commission included in trade).

Week $5-7 / 7 / 08$ to $7 / 13 / 08$
This week my idea to buy stocks in Yahoo paid off. Yahoo went all the way up to $\$ 24.25$ on Wednesday. I should have sold the stock once I saw an increase but I got greedy. I held on to the stock for too long. Now it closed on Friday at $\$ 21.52$. This gives me an approximately $\$ 5,000$ profit. I would have had almost $\$ 6,500$ dollar profit had I sold them on Wednesday.


Figure 2.3.5.1. Weekly price chart of YHOO on July 11, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp?symb=YHOO\&time

I am still going to sell all of my stocks in Yahoo first thing Monday morning, so that I will not lose any more of the profit.

Drinks Americas did very well this week as you can see below.


Figure 2.3.5.2. Weekly price chart of DKAM on July 11, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp?symb=DKAM\&time

The stock has raised a cent since I bought it. This means a net gain of $\$ 1,237$. I will sell this stock first this Monday morning for this profit. Even though it has only raised a cent, since it was so cheap I was able to buy a lot of this particular stock that in turn produced a sizable profit.

I guess that the announcement of a 44-mile per gallon vehicle was not enough to break GM from its current slump. I took a big hit on this stock, not only because it went down but also because I accidentally bought it twice. I bought double the amount and
paid two $\$ 10$ commissions. This was a very valuable lesson. If I had been trading online with my own money I could have spent double what I meant to spend. GM went down from the $\$ 10.68$ per share to $\$ 9.92$ per share that gives me a net loss of around $\$ 4,200$. I am going to hold on to it until Tuesday. If it has not risen before then I will cut my losses and try again with something else. (GM chart below)


Figure 2.3.5.3. Weekly price chart of GM on July 11, 2008. http://www.marketwatch.com/tools/quotes/intchart.asp?symb=GM\&time

For this coming week I have researched a company called drugstore.com (DSCM). They are one of the best online health and beauty providers. It is on an upward
trend and I believe will continue this trend in the immediate future. I will buy 15,706 shares of this stock first thing Monday morning. I was not as active this week as I would have liked to be. I had two midterms in my two other classes that I am taking this summer. This up coming week I have plenty of free time and I should be very busy in the market. Below are the DSCM chart and the chart of my activities from this week (22).


Figure 2.3.5.4. Weekly price chart of DSCM on July 11, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp?symb=DSCM\&time

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9-Jul-08 | GM | BUY | 2,782 | $\$ 10.67$ | $(\$ 29,673.94)$ | - |
| 9-Jul-08 | GM | BUY | 2,782 | $\$ 10.67$ | $(\$ 29,673.94)$ | - |
| 9-Jul-08 | DKAM | BUY | 123,700 | $\$ 0.23$ | $(\$ 28,441.00)$ | - |
|  |  |  |  |  |  | Weekly Profit |

Table 2.3.5, Fifth week of trading, Short term penny stocks (\$10 commission included in trade).

Week $6-7 / 14 / 08$ to $7 / 20 / 08$
I did well this week with a total profit of $\$ 9,147.62$. Yahoo was a major success although I did hang on to it for a little too long. I was greedy and did not stick to my trading technique. I did not hold on to it for more than a week but I should have sold it earlier than I did. It started to drop a little by the time I sold it. General Motors was also a huge success. My mistake paid out in the end. I accidentally made two transactions and bought double I had intended but the stock rose and I made out with a profit of $\$ 5,907.84$. I thought I was going to take a big hit but it worked out in the long run. Drugstore.com is holding fairly steady. It is up a little from $\$ 1.93$ to $\$ 1.95$. I will sell this first thing Monday morning for a profit around $\$ 314$. Over all this week was a success although I did have one loser. Drinks Americas lost money, but I did not put too much money into the stocks so it was not a really large hit.


Table 2.3.6, Sixth week of trading, Short term penny stocks (\$10 commission included in trade).

One stock that I looked into this week was Sallie Mae. I actually had to do business with them so I thought I would look them up. I also heard that one of the major student loan companies folded and it would be harder to get student loans. I thought since the other business folded more students would be looking for loans earlier. This was the main reason I chose Sallie Mae. I also looked at their one-year chart (below).


Figure 2.3.6.1. Yearly price chart of SLM on July 17, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp?symb=SLM\&time

I also compared it to the one-month chart (below).


Figure 2.3.6.2. Monthly price chart of SLM on July 17, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp?symb=SLM\&time

The monthly had just matched its yearly low. I felt that the stock had nowhere to go but upward especially with school starting back up. It seemed August is the turn around month for this company and I thought I could catch it at its absolute low and ride it until it increases. That was my idea but so far I have lost $\$ 785$ but I feel this stock will turn around. I will watch it closely this week.

Another stock in which I researched was the Citigroup Inc. (C). I found out that they were going to announce their second quarter earning of 62 cents a share. I felt that that would give a new confidence to stock holders and encourage the public to buy the stock. During the last five days the stock has climbed quite a bit. I feel this stock will continue to climb but I feel will flatten out shortly. I will keep an eye on this stock very
closely. If it starts to go downward I will get rid of it quickly because they are at an all time low for the year (Below) (22).


Figure 2.6.3.3. Yearly price chart of YHOO on July 18, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp?symb=C\&time

Chart for the last five days.


Figure 2.3.6.4. Weekly price chart of C on July 18, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp?symb=C\&time

Week $7-7 / 21 / 08$ to $7 / 27 / 08$
This week was not a very good week for me although I had two of my stocks sell for a large profit; Sallie Mae dropped way below their yearly low.


Figure 2.3.7.1. Weekly price chart of SLM on July 25, 2008.

This drop on Thursday was not what I was hoping for. I thought the stock would start rising because people are going to start to need student loans for the beginning of the school year. On Friday in ended up moving up to $\$ 17$ a share, cutting my losses in half of what they were on Thursday. I still feel that Sallie Mae will turn around. Although my type of trading is short term I feel that hanging on to this will pay off in the long run. I will again decide to keep this stock for the upcoming week, at least for the beginning.

Citigroup Inc. was a success. Their stock rose as you can see in the chart below.


Figure 2.3.7.2. Weekly price chart of C on July 25, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp?symb=C\&time

I timed this trade well. I work during the week so it is hard to watch the market go up and down. I sold this stock at the highest closing price. The day after I sold it the price dropped dramatically. If I had waited another day I would have lost as much as I made. The short-term method worked great.

I also sold Drugstore Com Inc. I saw that I had made a profit of $\$ 1,413$ so I sold it following the pattern of the short term trading. I made a profit but I sold it prematurely.

If I had held on to it I would have made an additional $\$ 3,000$ dollars. The stock climbed all week long. (see chart below)


Figure 2.3.7.3. Weekly price chart of DSCM on July 25, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp?symb=DSCM\&time

Another stock that I researched was the Adidas Company. I tried to make another trade this week but the trade was expired and did not happen, so first thing tomorrow morning I will make that trade and hopefully Adidas will continue on an upward trend the way it finished this week. It rose to $\$ 61.28$ (24).

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22-Jul-08 | DSCM | SELL | 15,706 | $\$ 2.02$ | $\$ 31,716.12$ | $\$ 1,413.54$ |
| 22-Jul-08 | C | SELL | 1,112 | $\$ 20.75$ | $\$ 23,064.00$ | $\$ 1,000.80$ |
| 24-Jul-08 | JAVO | BUY | 36,363 | $\$ 0.60$ | $(\$ 21,807.80)$ | - |
|  Weekly Profit $\$ 2,414.34$$\quad \$ 13,901.60$ |  |  |  |  |  |  |

Table 2.3.7, Seventh week of trading, Short term penny stocks (\$10 commission included in trade).

Week $8-7 / 28 / 08$ to $8 / 03 / 08$
This is the final week of trading. It did not go so well for me. Sallie Mae did not turn around but it at least leveled out and stopped going downward as you can see in this 5-day chart of this last week.


Figure 2.3.8.1. Weekly price chart of SLM on August 1, 2008.
http://www.marketwatch.com/tools/quotes/intchart.asp?symb=SLM\&time

Another stock that I had invested in was the JAVO Beverage Company. It was a penny stock. I also lost money on this transaction. I checked it on Thursday night and it looked like it was on an upward swing but then on Friday it fell off the charts.



Thousands

Figure 2.3.8.2. Weekly price chart of JAVO on August 1, 2008. $\underline{\text { http://www.marketwatch.com/tools/quotes/intchart.asp?symb=JAVO\&time }}$

Overall this was a slow week for me. My other classes that I am taking are finishing up and was very time demanding. I still believe with school starting up soon Sallie Mae will make an upswing. If I had held on to it for a while longer (although it is contrary to my trading style) it would have panned out for me.

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $8 / 1 / 2008$ | JAVO | SELL | 36,363 | $\$ 0.56$ | $\$ 20,373.28$ | $(\$ 1,454.52)$ |
| $8 / 1 / 2008$ | SLM | SELL | 2,182 | $\$ 17.20$ | $\$ 37,540.40$ | $(\$ 2,495.66)$ |

Table 2.3.8, Eighth week of trading, Short term penny stocks (\$10 commission included in trade).

### 2.4 Results and Conclusions

Penny trading was interesting. You can buy a lot of stocks, especially if they were only $\$ .20$. If the stock raises just a few cents, since you have so many of them you can make a lot of money quickly but the reverse is also true. If the stock goes downward even a few cents then you can lose a few thousand dollars very quickly. If you are in penny stocks it helps to be able to watch the stock market during the day so you can see any fluctuation in price because a small fluctuation means you either gain a lot of money or lose a lot of money. There were a few times during these past seven weeks where the stock had raised a few cents at noon time but then dropped back to where I bought it at closing. Since I work 40 hours a week I generally could only purchase or sell the stocks at closing and opening prices.

Short term trading was also very interesting. I found it hard not to hold on to stocks too long. I wanted to see what would happen one more day, whether it was going down or up. When it is going down you always think it will turn around if you give it one more day and when it is going up you think how much it will rise the next day. You have to have self-restraint in order to stick to this game plan. A few times I sold a stock
and then the next day it continued to rise and I kicked myself but then there were also a few times where the stock plummeted the day after I sold it. I guess it all evens out in the end.

Overall this was a very good seven weeks. The most interesting part of this project was not actually doing the project. Whenever I was complaining that I had to write my weekly reports to people, they always had two cents to put in about the stock market. It is funny to think about how little many people know about the stock market. Some of the conversations with other people were absolute ridiculous and others were very helpful and gave me a few tips that worked. I am not sure if the stocks that I chose rose because of the reason I bought them or if it was just luck but it was fun. I am very glad I did not lose money although $2.16 \%$ increase in money, it was an increase. If it were not for that last week I would have done much better (Sallie Mae killed me). It was a very enjoyable seven weeks but I am very glad it is over.

## 3. Swing Trading Technique

by Ryan Adams

### 3.1 Introduction and Goals

Swing trading is the style of trading that is the medium between day trading and trend following. Stock is bought and generally held for a few days to a few weeks. The best kinds of stocks to invest in for this strategy are large-cap stocks that are traded actively such as those in the Fortune 500 like Microsoft and Google. The trader will buy stocks when a lot of other people are buying stock because this increases the total amount each share is worth. ${ }^{18}$ I will start the project with an investment of $\$ 250,000$ dollars into 4-6 different companies, and try to increase the initial investment by $10 \%$, bringing the total amount up to $\$ 275,000$ by the end of the trading period. In the upcoming week, I will research what companies I want to invest in for a profit, and learn more about the swing trading technique. I will start trading my stocks on Monday June $9^{\text {th }}$, and trade them for seven weeks until July 27th, giving weekly reports every Sunday on my progress.

### 3.2 Stocks Chosen

A swing trader trades with the swings within the overall trend. I will be using the Traders Action Zone, which is the area in between the 10 sma and the 30 ema , to determine when to buy and sell my stocks. When there is a reversal back to the upside within the Traders Action Zone, I will purchase stocks. I will sell them when they are on a downswing within the Traders Action Zone, for a profit. ${ }^{18}$

In the upcoming week starting June 9, 2008, I plan to start my stock market simulation. On Monday, I plan to purchase my stocks from 4 different companies. I plan to buy them from Home Depot (HD), Anheuser-Busch Companies Inc (BUD), Apple Inc. (AAPL) and Google Inc. (GOOG). I may change these around a little bit tomorrow when I actually buy my stocks, depending where they stand. I don't want to put any money into a company that is going to loose me money. During the next week, I plan to buy $\$ 200,000$ to $\$ 250,000$ worth of stocks. If I'm going to make a profit, I may sell some of these stocks off and invest them into new companies to try and make some money from them. To keep track of all of my stocks, I will be using a free program online called the Virtual Stock Exchange by MarketWatch Inc. It can be found at http://vse.marketwatch.com. ${ }^{12}$ By the time of the next progress report on Sunday, I will have bought stocks in four different companies. I will also have sold around 2-3 of these for a profit. I will turn this money around and invest it into new companies I believe will make money.

Company Overview:
Home Depot, Inc.
Home Depot is an American retailer that was founded in 1978. It is the largest home improvement retailer in the United States, which specializes in construction products and services. They are the second-largest general retailer in the United States, behind Wal-Mart. In North America, there are 2,141 stores that employ over 355,000 people. Their revenue from 2006 alone was $\$ 90.837$ billion. ${ }^{16}$ Since it is summertime, I believe people will want to be outside more, and will be more willing to do work. The place lots of people shop for their tools and supplies is Home Depot, so I hope this makes
their stocks do well. As seen in figure 3.2.1, the stock has been dropping for the past year, but it was high last summer, so I hope it will be high again this summer.


Figure 3.2.1. One-year price chart for HD on July 10, 2008.

Google Inc.
Google is an American public corporation of approximately 20,000 employees, which earns revenue from advertising related to its Internet and computer software such as Internet search, web-based e-mail, and online mapping. It also sells advertising-free versions of the same technologies. Two PhD students at Stanford University in California founded it as a privately held company in September 1998. Its initial public offering took place in August 2004, raising $\$ 1.67$ billion. The market cap is $\$ 179.07$ billion dollars as of 2008. Google is a very volatile stock that has gone as low as $\$ 412$ per share all the way up to $\$ 747$ in the past year alone, ${ }^{15}$ which can be seen in figure 3.2.2, which is a one-year chart of the stocks ${ }^{4}$. On a daily basis, the stock will fluctuate
about $\$ 20$ per share. I feel that if I can catch it in an upswing, I can make a lot of money, but if the stock fails, than I will lose a lot of money.


Figure 3.2.2. One-year price chart for GOOG on July 10, 2008.

## Anheuser-Busch InBev (formerly Anheuser-Busch)

Anheuser-Busch is the largest brewing company in the United States with almost a $50 \%$ share of beer sales by volume. On June $11^{\text {th }}, 2008$ a Belgium company called InBev offered Anheuser-Busch $\sim \$ 65$ per share, which was more than $\$ 10$ a share more than the price of the stock. There was a lot of fighting about a fair price, which made the price per share go up. On July $14^{\text {th }}$, after almost a month of negotiations, InBev was successful in buying Anheuser-Busch for $\$ 70$ per share totaling approx. $\$ 52$ billion. This turned the company into the world's largest brewer, passing SABMiller. ${ }^{14}$ The stock performance for Anheuser-Busch over the past year can be seen in figure 3.2.3. ${ }^{4}$


Figure 3.2.3. One-year price chart for BUD on Aug 15, 2008.

### 3.3 Trades and Investments

Week $1-6 / 9 / 08$ to $6 / 15 / 08$

This week was my first week of trading and I thought it went very well. I bought stock in four different companies that I thought would do well in the upcoming week. On Wednesday June 11, I bought stocks in Google (GOOG), Apple (AAPL), Home Depot (HD), and Anheuser-Busch Companies, Inc (BUD). I bought 1,000 shares of BUD at $\$ 56.93$ per share because it is summertime, and I felt people would be drinking more beer. I got really lucky with this buy because the next day, InBev offered AnheuserBusch $\$ 46.3$ billion ( $\$ 65$ per share) for the company which made stocks rise about $6 \%{ }^{13}$ On Friday June 13, I sold all of my 1,000 shares for $\$ 61.12$ per share and made $\$ 4,170$ after the $\$ 10$ trade commission. Anheuser-Busch's stock performance for this week can be seen in figure 3.3.1.1. ${ }^{4}$


Figure 3.3.1.1. Weekly stock chart for BUD on June 13, 2008.

Google and Home Depot also did well last week. I felt Home Depot would do well because it is summertime, and people will want to make repairs and do projects in the nice weather. On Friday, the stock was up $\$ 1$ per share from when I bought it, so I sold 1,000 shares and made $\$ 980$. I still have 1,000 shares left in HD that I can analyze next week. Last weeks stock performance for HD can be seen in Figure 3.3.1.2. ${ }^{4}$


Figure 3.3.1.2. Weekly stock chart for HD on June 13, 2008.

Google has always seemed to do rather well in the stock market, so I bought 150 shares at $\$ 554.50$ per share. On Friday, the stocks were $\$ 571.51$ per share, which is up $\$ 17.01$ per share from two days before. I capitalized on this by selling $2 / 3$ of my 150 shares to make a profit of $\$ 1,681$. This will still leave me with 50 shares to work with next week. Google's stock performance for last week can be seen in Figure 3.3.1.3. ${ }^{4}$


Figure 3.3.1.3. Weekly stock chart for GOOG on June 13, 2008.

The last company I invested into was Apple because I believed that the release of the new iPhone would make its stock go up. I bought 270 shares at $\$ 183.53$ per share totaling $\$ 49,563.10$. At the end of the week, the stock had actually dropped in price, which can be seen in figure 3.3.1.4. ${ }^{4}$ I decided to hold onto my shares for a little while longer, hoping the price will go back up again.


Figure 3.3.1.4. Weekly stock chart for AAPL on June 13, 2008.

Overall, I made $\$ 6,831$ this week. I feel that this is very good for my first week of trading. Next week I will buy some more stock into companies such as Adobe, who is predicted to have a great week. I will also keep analyzing the stocks I have ( 50 GOOG , 1000 HD , and 270 AAPL ) to see if I will sell them. I have $\sim \$ 150,000$ I can use to buy more stocks. I plan to invest this into 1-3 more companies. My trades for the previous week can be seen in Table 3.3.1.

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11-Jun-08 | GOOG | BUY | 150 | $\$ 554.50$ | $(\$ 83,185.00)$ | - |
| 11-Jun-08 | HD | BUY | 2,000 | $\$ 26.50$ | $(\$ 53,010.00)$ | - |
| 11-Jun-08 | AAPL | BUY | 270 | $\$ 183.53$ | $(\$ 49,563.10)$ | - |
| 11-Jun-08 | BUD | BUY | 1,000 | $\$ 56.93$ | $(\$ 56,940.00)$ | - |
| 13-Jun-08 | GOOG | SELL | 100 | $\$ 571.51$ | $\$ 57,141.00$ | $\$ 1,681.00$ |
| 13-Jun-08 | BUD | SELL | 1,000 | $\$ 61.12$ | $\$ 61,110.00$ | $\$ 4,170.00$ |
| 13-Jun-08 | HD | SELL | 1,000 | $\$ 27.50$ | $\$ 27,490.00$ | $\$ 980.00$ |


| Symbol | Volume |
| :--- | ---: |
| GOOG | 50 |
| HD | 1,000 |
| AAPL | 270 |

Table 3.3.1, First week of trading, Swing Trading (\$10 commission included in trade).

Week $2-6 / 16 / 08$ to $6 / 22 / 08$
This week of trading went very well for me. I had 50 shares of Google (GOOG), 1,000 shares of Home Depot (HD), and 270 shares of Apple (AAPL) left over from my trading last week. On Tuesday, June 17, I sold the 50 shares of Google that I had left over from last week for $\$ 576.35$ per share. This is $\$ 21.85$ more than I bought it for on June 11, so I made $\$ 1,082.50$ off the trade. It is a good thing that I held on to those 50 shares for an extra 2 days, because they made me an extra $\$ 5$ per share than when I sold the 100 shares on $6 / 13$. Google's stock performance for last week can be seen in Figure 3.3.2.1. ${ }^{4}$


Figure 3.3.2.1. Weekly stock chart for GOOG on June 20, 2008.

This week, I also sold the rest of my 1,000 Home Depot shares, whose performance last week can be seen in Figure 3.3.2.2. ${ }^{4}$ I bought them for $\$ 26.50$ per share on $6 / 11$ and sold them for $\$ 27.05$ per share on $6 / 19$ for a total profit of $\$ 540$.


Figure 3.3.2.2. Weekly stock chart for HD on June 20, 2008.

I read in the Wall Street Journal that Adobe was going to have a good mid-week, so I bought 1,850 stocks on the upswing. I sold all 1,850 stocks two days later to make a quick return on my money. I made $\$ 0.95$ per share for a total profit of $\$ 1,737.50$. Adobe's performance for this past week can be seen in Figure 3.3.2.3. ${ }^{4}$ It is a deceiving chart because it is only displaying the closing price, and not showing the activity throughout the day. The overall trend can still be seen.


Figure 3.3.2.3. Weekly stock chart for ADBE on June 20, 2008.

I am still waiting for my Apple stocks to come out of the negative. I am going to hold on to them until I at least break even (I hope). On Friday, June 20th, I bought 1,500 shares of stock with Genzyme Corp. (GENZ), which is the company that I have an internship at for the summer. This stock is a very volatile one, which has been known to go up and down as much as 2 dollars on a daily basis. I have been watching GENZ stocks for a while, and I think I can make a lot of money off of them. The performance for last week can be seen in Figure 3.3.2.4. ${ }^{4}$ Hopefully next week, the stocks will be going up because they just submitted a new drug to be approved by the FDA.


Figure 3.3.2.4. Weekly stock chart for GENZ on June 20, 2008.

I will keep looking at the companies I have already bought stock in, and buy more stocks in them because they have done very well so far. I am going to buy some more stock in Anheuser-Busch and hold on to it until the fourth of July weekend because I feel I can make a large profit then, when people are going to be buying beers for parties. The trades I made this week can be seen in Table 3.3.2. ${ }^{4}$

| Date Symbol Action Volume Price Cost/Proceeds Profit <br> 17-Jun-08 GOOG SELL 50 $\$ 576.35$ $\$ 28,807.50$ $\$ 1,082.50$ <br> 18-Jun-08 ADBE BUY 1,850 $\$ 40.81$ $(\$ 75,508.50)$ - <br> 19-Jun-08 HD SELL 1,000 $\$ 27.05$ $\$ 27,040.00$ $\$ 540.00$ <br> 20-Jun-08 ADBE SELL 1,850 $\$ 41.76$ $\$ 77,246.00$ $\$ 1,737.50$ <br> 20-Jun-08 GENZ BUY 1,500 $\$ 68.05$ $(\$ 102,085.00)$ - |
| :--- |
| Stock I Own: 06/22/08  Weekly Profit |
| Symbol |
| Volume |
| AAPL |

Table 3.3.2, Second week of trading, Swing Trading (\$10 commission included in trade).

Week $3-6 / 23 / 08$ to $6 / 29 / 08$
This past week has been my best week of trading so far in this simulation. I started the week off with 270 shares of Apple (AAPL), and 1,500 shares of Genzyme Corp. (GENZ). In the beginning of the week, I bought stock in Adobe (ADBE), Anheuser-Busch (BUD), and Home Depot (HD). I bought 1,000 shares of BUD for $\$ 61.30$ per share. By the end of the week, the stock was already up a dollar more per share than when I bought it on Monday, June 23. I could have sold it for a profit, but I'm going to hold on to it longer and hopefully my patience will be rewarding with the July $4^{\text {th }}$ weekend coming up. This week's performance for BUD can be seen in Figure $3.3 .3 .1{ }^{4}$


Figure 3.3.3.1. Weekly stock chart for BUD on June 27, 2008.

I bought 600 shares in ADBE at $\$ 40.55$ per share on Monday also, because it was lower than what I had bought it for a week before, and it was on an upswing. I sold all 600 shares two days later for a profit of $\$ 1,000$. The weekly performance of ADBE can be seen in Figure 3.3.3.2. ${ }^{4}$


Figure 3.3.3.2. Weekly stock chart for ADBE on June 27, 2008.

The HD stock was also a very good buy for me. I bought 900 shares of it on Thursday June 24 for $\$ 25$ per share and sold it the very next day at $\$ 26.14$ per share for a total profit of $\$ 1,006$. Home Depots trading performance for last week can be seen in Figure 3.3.3.3. ${ }^{4}$ This isn't a very good chart because these are the closing prices, and it looks like the overall trend is going down.


Figure 3.3.3.3. Weekly stock chart for HD on June 27, 2008.

The best stock that I have had so far in this mock trading period has been the Genzyme stock, whose stock performance for last week can be seen in Figure 3.3.3.4. ${ }^{4}$ I bought 1,500 shares back on Fri, June 20 for $\$ 68.05$ per share. The stock rose all week, and I almost sold it on Wednesday because it started going down a little. On Thursday, it was lower than Wednesday and stayed pretty constant. Then on Friday, it climbed back up again and I sold all of my stock for $\$ 73.19$ per share. With the 1,500 shares of GENZ I had for one week, I made a profit of $\$ 7,690$ !


Figure 3.3.3.4. Weekly stock chart for GENZ on June 27, 2008.

I still have 270 shares of AAPL, which are about $\$ 10$ less per share than when I had bought them back in the first week. Hopefully the AAPL stock will go up so I can at least break even. At the end of the week, I had made a total of $\$ 9,816$, which is almost as much as I had made in my first two weeks of trading, combined. Right now I am very close to my goal of making $\$ 25,000$ in the trading period. After the third week, I have made just under $\$ 20,000$. Next week I plan to sell the BUD stocks. I will keep buying stock in the companies I have already bought in because they seem to be doing well.

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 23-Jun-08 | ADBE | BUY | 600 | $\$ 40.55$ | $(\$ 24,340.00)$ | - |
| 23-Jun-08 | BUD | BUY | 1,000 | $\$ 61.30$ | $(\$ 61,310.00)$ | - |
| 24-Jun-08 | HD | BUY | 900 | $\$ 25.00$ | $(\$ 22,510.00)$ | - |
| 25-Jun-08 | HD | SELL | 900 | $\$ 26.14$ | $\$ 23,516.00$ | $\$ 1,006.00$ |
| 25-Jun-08 | ADBE | SELL | 600 | $\$ 42.26$ | $\$ 25,346.00$ | $\$ 1,006.00$ |
| 27-Jun-08 | GENZ | SELL | 1,500 | $\$ 73.19$ | $\$ 109,775.00$ | $\$ 7,690.00$ |


| Stock I Own: 06/29/08 |  |
| :--- | :--- |
| Symbol | Volume |
| AAPL | 270 |
| BUD | 1,000 |

Table 3.3.3, Third week of trading, Swing Trading (\$10 commission included in trade).

Week $4-6 / 30 / 08$ to $7 / 6 / 08$
This was a short week of trading for me. This weekend I am going on vacation to Cape Cod, so I will not be able to do any trades on Thursday or Friday as I had previously planned, even though the stock exchange will be closed on Friday because it is a national holiday. I should have sold my Anheuser-Busch (BUD) stock last Friday or on Monday. This week, it didn't do so well because the talks with InBev about buying Anheuser-Busch didn't do very good, with Anheuser-Busch not liking the offer InBev gave. My original plan was to keep the BUD stock until the $4^{\text {th }}$ of July, hoping it would go up so I could make a profit, but instead it started going down on Tuesday. I sold all my 1,000 shares on Tuesday for $\$ 62.15$ per share and still ended up making $\$ 830.00$, which isn't bad. The BUD performance can be seen in Figure 3.3.4.1. ${ }^{4}$


Figure 3.3.4.1. Weekly stock chart for BUD on July 3, 2008.

When I checked my stocks on Wednesday, I saw that the AAPL stocks were higher than they had been in the past two weeks, so I decided to sell 120 of my 270 shares for a loss of $\$ 6.13$ per share totaling a $\$ 745.60$ loss. I still have 150 shares to use at my discretion. The iPhone will be coming out on July $11^{\text {th }}$, and I'm really hoping that will boost the stock prices. It is very hard to tell, since Apple has some new competition for the iPhone from Sprint, who just unveiled their own version of the iPhone that has many of the same eye-catching features. At least I got rid of some of my shares, and I'll have more money to work with. The stock performance of Apple for this week can be seen in Figure 3.3.4.2. ${ }^{4}$


Figure 3.3.4.2. Weekly stock chart for AAPL on July 3, 2008.

Genzyme Corporation (GENZ) seems to be on another upswing, but it is very hard to tell with this company. On Wednesday, I bought 700 shares at $\$ 72.45$ per share, and I read the swing right, because it kept going up to $\$ 74.50$ per share at midday on Thursday and closed at $\$ 73.68$. I decided to sell it at the price that it closed at and made a profit of $\$ 841.00$, which will offset my loss earlier in the week selling the AAPL stocks. The stock performance for Genzyme this week can be seen in Figure 3.3.4.3. ${ }^{4}$


Figure 3.3.4.3. Weekly stock chart for GENZ on July 3, 3008.

Next week I plan to be more active in my trading. I will try to check my stocks more often daily, so that I will be able to make more profit by selling at better times than I have been. I have also started getting a subscription to the Wall Street Journal, which I will be reading over on a daily basis. I will keep tracking the six companies next week that I have invested in so far, looking for the upswing so I can buy.

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-Jul-08 | BUD | SELL | 1000 | $\$ 62.15$ | $\$ 62,140.00$ | $\$ 830.00$ |
| 2-Jul-08 | AAPL | SELL | 120 | $\$ 177.40$ | $\$ 21,278.00$ | $(\$ 745.60)$ |
| 2-Jul-08 | GENZ | BUY | 700 | $\$ 72.45$ | $(\$ 50,725.00)$ | - |
| 3-Jul-08 | GENZ | SELL | 700 | $\$ 73.68$ | $\$ 51,566.00$ | $\$ 841.00$ |
| Stock I Own: 07/06/08 |  | Weekly Profit | $\$ 925.40$ |  |  |  |
| Symbol | Volume |  | Total Profit | $\$ 20,818.40$ |  |  |
| AAPL | Cash in Hand | $\$ 243,278.90$ |  |  |  |  |

Table 3.3.4, Fourth week of trading, Swing Trading (\$10 commission included in trade).

Week $5-7 / 7 / 08$ to $7 / 13 / 08$
This week I bought stock in Genzyme Corp. (GENZ), Home Depot (HD), and Google Inc. (GOOG). I also sold $1 / 3$ of my Apple (AAPL) Shares. On Monday I bought 700 shares of Genzyme stock for $\$ 71.95$ per share. As seen in Figure 3.3.5.1, the stock rose over the course of the week. ${ }^{4}$ I will analyze it on Monday, and if it starts going down, I will sell it. Either way, I'm going to make sure that I get a profit from the buy by selling it for at least $\$ 72$ per share.


Figure 3.3.5.1. Weekly stock chart for GENZ on July 10, 2008.

I got rid of some more of my Apple stock this week. I started the week off with 150 shares, and ended up selling 50 shares on Wednesday, for a small loss. The new Apple iPhone came out on Friday, and I'm hoping this will drive up the stock's value in the next week. I will analyze it next week, and hopefully I will be able to at least break
even on the 100 shares I still have. Apple's stock performance for this week can be seen in Figure 3.3.5.2. ${ }^{4}$


Figure 3.3.5.2. Weekly stock chart for AAPL on July 10, 2008.

On Friday, July 11, I bought stock in Home Depot and Google, because both companies were lower than they normally are, and I believe that they will go back up again next week, so that I can make some money. I bought 200 shares of Google for $\$ 520.01$ per share for a total of $\$ 104,112$. Google's stock performance for last week can be seen in Figure 3.3.5.3. ${ }^{4}$


Figure 3.3.5.3. Weekly stock chart for GOOG on July 10, 2008.

All of the trades I made this week can be seen in Table 3.3.5.

| Date Symbol Action Volume Price Cost/Proceeds Profit <br> 7-Jul-08 GENZ BUY 700 $\$ 71.95$ $(\$ 50,375.00)$ - <br> 9-Jul-08 AAPL SELL 50 $\$ 180.20$ $\$ 9,000.00$ $(\$ 176.50)$ <br> 11-Jul-08 GOOG BUY 200 $\$ 520.01$ $(\$ 104,012.00)$ - |
| :--- |
| Stock I Own: 07/13/08  Weekly Profit $(\$ 176.50)$ <br> Symbol Volume  Total Profit |
| AAPL |
| GENZ |
| GOOG |

Table 3.3.5, Fifth week of trading, Swing Trading (\$10 commission included in trade).

This week of trading went very well for me. I started off the week with 100 shares of Apple (AAPL), 700 shares of Genzyme (GENZ), and 200 shares of Google (GOOG). On Monday, July $14^{\text {th }}$, I decided to buy 2,000 shares of HD for $\$ 21.50$ per share to see how they would do over the week. Last week, HD was on an upswing when they closed, so I figured that upswing would keep going into this week. This could be a hit or miss buy, because I wasn't able to see how the stock were going to perform this week. The stocks steadily rose all week like I had predicted, by following the uptrend from last week. I sold all 2,000 shares on Friday, July 18 for $\$ 23.50$ per share. I made a profit of just under $\$ 4,000$ from this one trade. The stock performance for HD this week can be seen in figure 3.3.6.1. ${ }^{4}$


Figure 3.3.6.1. Weekly stock chart for HD on July 17, 2008.

On Tuesday, July $15^{\text {th }}$, I bought 1,300 shares of Adobe (ADBE) for $\$ 40.01$ per share, because it was on an upswing for the day, which can be seen in Figure 3.3.6.2. I watched it over the course of the week, and it kept on rising steadily. I decided on Friday, July $18^{\text {th }}$, that I was going to sell all 1,300 shares I had for $\$ 41.90$ per share, totaling a profit of $\$ 2,437 .{ }^{4}$ I'm glad I read the upswing right on this stock, and that it continued to rise after I had bought the stock.


Figure 3.3.6.2. Weekly stock chart for ADBE on July 17, 2008.

On Tuesday, July $15^{\text {th }}$, I decided to sell my GENZ stock after a $\$ 2.00$ per share jump in stock prices from the day before. I'm not sure why the stock jumped that much in a single day, but I decided to capitalize from it. The jump in stock prices can be seen in Figure 3.3.6.3. ${ }^{4}$ I had bought 700 shares back on Monday, July $7^{\text {th }}$ for $\$ 71.95$ per share, and when I sold the 700 shares on Tuesday July $15^{\text {th }}$, the stock price was $\$ 79.40$ per share. This gave me a profit of $\$ 5,195$, which is my second biggest profit over the
trading period, and is from the same exact company. I am going to keep buying this stock because it is doing very well for me.


Figure 3.3.6.3. Weekly stock chart for GENZ on July 17, 2008.

On Wednesday, July $16^{\text {th }}$, I sold the 200 shares of Google for $\$ 532.05$ per share that I had bought back on Friday July $11^{\text {th }}$ for $\$ 520.01$ per share. As seen in Figure 3.3.6.4, the stock didn't do very well on Tuesday, so when I saw that it went back up on Wednesday; I sold all of it for a profit of $\$ 2,388$. It is very good that I did this, because two days later, on Friday, the price had plummeted to the mid $\$ 480$ per share range. ${ }^{4}$ That would have been a huge loss for me if I didn't sell earlier in the week. On Monday morning next week, I am going to buy shares in Google because the price is very low, and I know it has the capability of going back just as fast as it went down.


Figure 3.3.6.4. Weekly stock chart for GOOG on July 17, 2008.

I think I will loose a little bit of money in the 100 shares of AAPL that I still own.
As seen in Figure 3.3.6.5, the price per share still isn't near the $\$ 183.53$ that I bought it for in the first week of trading. ${ }^{4}$ The new iPhone isn't doing as well as it was predicted to do, because there are so many new competitors from companies such as Sprint.


Figure 3.3.6.5. Weekly stock chart for AAPL on July 17, 2008.

After six weeks of trading, I have made a profit of $\$ 34,641.90$. I think this is very good, considering my goal was to make a profit of $\$ 25,000$ over a seven-week period. This week alone I made a profit of $\$ 14,000$ ! My trading for the past week can be seen in

Table 3.3.6.

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14-Jul-08 | HD | BUY | 2,000 | $\$ 21.50$ | $(\$ 43,010.00)$ | - |
| 15-Jul-08 | GENZ | SELL | 700 | $\$ 79.40$ | $\$ 55,570.00$ | $\$ 5,195.00$ |
| 15-Jul-08 | ADBE | BUY | 1,300 | $\$ 40.01$ | $(\$ 52,023.00)$ | - |
| 16-Jul-08 | GOOG | SELL | 200 | $\$ 532.05$ | $\$ 106,400.00$ | $\$ 2,388.00$ |
| 18-Jul-08 | ADBE | SELL | 1,300 | $\$ 41.90$ | $\$ 54,460.00$ | $\$ 2,437.00$ |
| 18-Jul-08 | HD | SELL | 2,000 | $\$ 23.50$ | $\$ 46,990.00$ | $\$ 3,980.00$ |


| Symbol | Volume |
| :--- | ---: |
| AAPL | 100 |

Table 3.3.6, Sixth week of trading, Swing Trading (\$10 commission included in trade).

This was my last week of trading that can be seen in Table 3.3.7, and it didn't go as well as some of my previous weeks had gone. Every week of trading so far, I have made a profit at the end of the week, but this week I lost money overall. This is OK though, because this is how the stock market works. There are winners, people who make money, and there are losers, those who lose money. It can't be expected that you are to win every week in something like this, someone has to lose eventually. At least I am still positive over the initial amount I had started with. This week has been a pretty average trading week with the companies that I have been looking at over this trading period. On Monday, July 21, I bought 1,000 shares of BUD stock for $\$ 67.25$ per share, because it looked like it was on an upward swing as seen in figure 3.3.7.1. ${ }^{4}$ At the end of the week, I sold all 1,000 shares for a mere gain of $\$ 0.40$ per share, which gave me an overall profit of $\$ 380$ after the $\$ 10$ trade commissions.


Figure 3.3.7.1. Weekly stock chart for BUD on July 24, 2008.

On Wednesday, July 23, ADBE had a huge jump in the price of its stock as seen in Figure 3.3.7.2. ${ }^{4}$ I figured I would try to jump on this upward swing to make some money. The stock kept going up after I had bought it and stayed up all day. When I checked it on Thursday, the price went down and mellowed out until Friday, when I sold all the stock I had. I ended up losing $\$ 0.75$ per share on 1,000 shares for a total loss of $\$ 770$.


Figure 3.3.7.2. Weekly stock chart for ADBE on July 24, 2008.

Since this was my last week of trading, I was forced to sell the remaining 100 shares of AAPL stock that I had kept from the first week of trading. I had originally bought the stock back in week 1 of trading for $\$ 183.53$ per share, and sold it on Friday, July 25 the last day of trading, for $\$ 162.53$ per share. I lost $\$ 21$ per share on these last 100 shares, which I should have sold in the previous weeks when I got rid of the rest of the AAPL stocks. This gave me a loss of $\$ 2,110$ and an overall loss of just over $\$ 3,000$
for buying the stock in AAPL. This week's stock performance for Apple Inc. (AAPL) can be seen in Figure 3.3.7.3. ${ }^{4}$


Figure 3.3.7.3. Weekly stock chart for AAPL on July 24, 2008.


Table 3.3.7, Seventh week of trading, Swing Trading (\$10 commission included in trade).

Week $8-7 / 28 / 08$ to $8 / 03 / 08$
I wasn't able to make any trades this week because I was in the hospital recovering from an appendectomy. I didn't have a computer, or any other access to see stocks prices, so therefore I couldn't make any trades.

### 3.4 Results and Conclusions

After seven weeks of trading, I feel that I have learned a lot about the stock market. When I started off the seven-week mock trading period, I had no idea how the stock market worked, and now I feel like I can actually make real money off the stock market. Every week of trading, I ended up making money, except for the fifth week and the last week. I didn't lose much either week, and on the last week, I was forced to sell off my remaining stocks due to the mock stock market trading period being completed. I feel the swing trading technique is a very profitable one, and is very easy for people new to the stock market that don't know the ins and outs of it yet.

It is a very simple trading method, in that when the values of the stocks are on an upward rise, you buy the stock and hope that the price keeps rising. After the price of the stock crests and starts to fall, you sell the stock above the original price it was bought for to make a profit. Something that I like about this technique is that normally the stock is traded every 2-3 days, but stocks can be held anywhere from 1-3 weeks if necessary. Another thing I like about this trading method is that it is very upbeat and needs to be checked constantly throughout the day to maximize the profit earned. It helped out a lot that I had an internship at a company where I had access to a computer throughout the
day. I was constantly on Marketwatch.com checking my stocks to see how they were doing. I had so much fun, and treated my stocks as if they were real money.

Because I treated my stocks as if they were my own money, I tried really hard not to lose any money on them. If my stock was below the amount I had bought it for, I held on to it until it made a profit. The only stock I lost a significant amount of money on was the stock I bought from AAPL back in the first week of trading. This was back when I was inexperienced and didn't really know what to look for. I was only looking at shortterm rises in stock prices (less than one day), and this wasn't very good because for the next two weeks or so, the price kept going down every day. I kept holding on, hoping it would go back up so I could break even, but it never ended up making it. I sold it off on three different weeks for different losses in price every time totaling an overall loss of just over $\$ 3,000$.

The best company I invested into over this seven-week mock trading period was for the company I had worked at an internship for over the summer, Genzyme Corp. (GENZ). It seemed like every time I bought it on an upswing, it kept rising and rising. After all of the trades I made with Genzyme over the seven-week period, I made just under $\$ 14,000$. This is almost as much as I made in my best week of trading.

Another company that was a good buy for me was to buy stock in AnheuserBusch Inc. I bought 1,000 shares in week one and two days later the stock prices went up $\sim \$ 4.50$ per share netting me a profit of just over $\$ 4,000$.

My goal at the beginning of this mock stock trading period was to make a $10 \%$ profit of the initial $\$ 250,000$ I invested. I ended up making a profit of $\$ 32,141.90$, which
gave me a final value of $\$ 282,141.90$. This is a $12.86 \%$ increase. All of the trades made throughout this seven-week trading period can be seen in Table 3.4.1.

| Date | Symbol | Action | Volume | Price | Cost/Proceeds | Profit |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11-Jun-08 | GOOG | BUY | 150 | $\$ 554.50$ | $(\$ 83,185.00)$ | - |
| 11-Jun-08 | HD | BUY | 2,000 | $\$ 26.50$ | $(\$ 53,010.00)$ | - |
| 11-Jun-08 | AAPL | BUY | 270 | $\$ 183.53$ | $(\$ 49,563.10)$ | - |
| 11-Jun-08 | BUD | BUY | 1,000 | $\$ 56.93$ | $(\$ 56,940.00)$ | - |
| 13-Jun-08 | GOOG | SELL | 100 | $\$ 571.51$ | $\$ 57,141.00$ | $\$ 1,681.00$ |
| 13-Jun-08 | BUD | SELL | 1,000 | $\$ 61.12$ | $\$ 61,110.00$ | $\$ 4,170.00$ |
| 13-Jun-08 | HD | SELL | 1,000 | $\$ 27.50$ | $\$ 27,490.00$ | $\$ 980.00$ |
| 17-Jun-08 | GOOG | SELL | 50 | $\$ 576.35$ | $\$ 28,807.50$ | $\$ 1,082.50$ |
| 18-Jun-08 | ADBE | BUY | 1,850 | $\$ 40.81$ | $(\$ 75,508.50)$ | - |
| 19-Jun-08 | HD | SELL | 1,000 | $\$ 27.05$ | $\$ 27,040.00$ | $\$ 540.00$ |
| 20-Jun-08 | ADBE | SELL | 1,850 | $\$ 41.76$ | $\$ 77,246.00$ | $\$ 1,737.50$ |
| 20-Jun-08 | GENZ | BUY | 1,500 | $\$ 68.05$ | $(\$ 102,085.00)$ | - |
| 23-Jun-08 | ADBE | BUY | 600 | $\$ 40.55$ | $(\$ 24,340.00)$ | - |
| 23-Jun-08 | BUD | BUY | 1,000 | $\$ 61.30$ | $(\$ 61,310.00)$ | - |
| 24-Jun-08 | HD | BUY | 900 | $\$ 25.00$ | $(\$ 22,510.00)$ | - |
| 25-Jun-08 | HD | SELL | 900 | $\$ 26.14$ | $\$ 23,516.00$ | $\$ 1,006.00$ |
| 25-Jun-08 | ADBE | SELL | 600 | $\$ 42.26$ | $\$ 25,346.00$ | $\$ 1,006.00$ |
| 27-Jun-08 | GENZ | SELL | 1,500 | $\$ 73.19$ | $\$ 109,775.00$ | $\$ 7,690.00$ |
| 1-Jul-08 | BUD | SELL | 1000 | $\$ 62.15$ | $\$ 62,140.00$ | $\$ 830.00$ |
| 2-Jul-08 | AAPL | SELL | 120 | $\$ 177.40$ | $\$ 21,278.00$ | $(\$ 745.60)$ |
| 2-Jul-08 | GENZ | BUY | 700 | $\$ 72.45$ | $(\$ 50,725.00)$ | - |
| 3-Jul-08 | GENZ | SELL | 700 | $\$ 73.68$ | $\$ 51,566.00$ | $\$ 841.00$ |
| 7-Jul-08 | GENZ | BUY | 700 | $\$ 71.95$ | $(\$ 50,375.00)$ | - |
| 9-Jul-08 | AAPL | SELL | 50 | $\$ 180.20$ | $\$ 9,000.00$ | $(\$ 176.50)$ |
| 11-Jul-08 | GOOG | BUY | 200 | $\$ 520.01$ | $(\$ 104,012.00)$ | - |
| 14-Jul-08 | HD | BUY | 2,000 | $\$ 21.50$ | $(\$ 43,010.00)$ | - |
| 15-Jul-08 | GENZ | SELL | 700 | $\$ 79.40$ | $\$ 55,570.00$ | $\$ 5,195.00$ |
| 15-Jul-08 | ADBE | BUY | 1,300 | $\$ 40.01$ | $(\$ 52,023.00)$ | - |
| 16-Jul-08 | GOOG | SELL | 200 | $\$ 532.05$ | $\$ 106,400.00$ | $\$ 2,388.00$ |
| 18-Jul-08 | ADBE | SELL | 1,300 | $\$ 41.90$ | $\$ 54,460.00$ | $\$ 2,437.00$ |
| 18-Jul-08 | HD | SELL | 2,000 | $\$ 23.50$ | $\$ 46,990.00$ | $\$ 3,980.00$ |
| 21-Jul-08 | BUD | BUY | 1,000 | $\$ 67.25$ | $(\$ 67,260.00)$ | - |
| 23-Jul-08 | ADBE | BUY | 1,000 | $\$ 41.80$ | $(\$ 41,810.00)$ | - |
| 25-Jul-08 | AAPL | SELL | 100 | $\$ 162.53$ | $\$ 16,243.00$ | $(\$ 2,110.00)$ |
| 25-Jul-08 | BUD | SELL | 1,000 | $\$ 67.65$ | $\$ 67,640.00$ | $\$ 380.00$ |
| 25-Jul-08 | ADBE | SELL | 1,000 | $\$ 41.05$ | $\$ 41,040.00$ | $(\$ 770.00)$ |
|  |  |  |  |  | $T o t a l ~ P r o f i t ~$ | $\$ 32,141.90$ |
|  |  |  |  |  | Total Asset | $\$ 282,131.90$ |
|  |  |  |  |  |  |  |

Table 3.4.1, All seven weeks of trading, Swing Trading (\$10 commission included in trade).

## 4. Trend Following

by Ian Schwartz

### 4.1 Introduction and Goals

Trend following is a very straightforward method of stock exchange. In the trend following technique, an investor will keep a close watch on what the most popular stock being bought and sold are. He will do what everyone else is doing. The theory behind this method is that, if many other people are investing in the same stock, its value will go up. The difficult part is knowing when to sell. It is important to hold on to the stock long enough to let it raise value but not too long so its value goes down. I plan to start with an investment of \$250,000 pseudo-dollars. I will first research companies and stocks, find a proper trading host, and then invest for a total of eight weeks, with a goal of a $10 \%$ profit by the end of the session. I will start trading my stocks on Monday June $9^{\text {th }}$, and trade them for six weeks until July $21^{\text {st }}$, giving weekly reports every Sunday on my progress.

### 4.2 Stocks Chosen

I have chosen to work with the Virtual Stock Exchange as a trading host. It can be found at http://vse.marketwatch.com/. It is free, easy to use, and has excellent customer service as well as many positive recommendations. The Virtual Stock Exchange (VSE) is also very user friendly and tracks all necessary data, as well as allows you to compare your stocks with others. After in depth research via the internet, television, and newspaper, I have decided to invest in three companies to begin with: Ethos, Apple, and Take-Two Interactive.

### 4.3 Trades and Investments

Week $1-6 / 9 / 08$ to $6 / 15 / 08$

## Initial Investments

## Ethos Fuel Reformulator

Ethos Fuel Reformulator ${ }^{5}$ is a type of liquid that a person puts in his car in order to make the fuel in his tank more efficient. The website claims to save a customer $20 \%$ of his gas wages. I speculate that many people will begin investing in this stock and buying the product due to the high gas prices and continuing growth of prices. Seen in figure 4.3.1.1, the company has been in a downfall for the past six months. I hope the new wave of alternate fuel and high gas prices will change this. Also, ABC had a short clip on this company recently, and I believe that will increase their publicity.


Figure 4.3.1.1. One-year price chart of ETEV on June 6, 2008. ${ }^{4}$

Google
I have chosen Google for a couple reasons. Firstly I wanted to invest in a very large Fortune 500 company and this seemed like the best choice. It is one of the most powerful and prominent companies in the world today. Many people have invested in its stock and I believe more will continue to do so due to its innovative advertising techniques and revolutionary internet products. Google continues to grow by creating new sites and buying more and more smaller companies ${ }^{15}$. Seen in figure 4.3.1.2 is Google's 1-year growth chart.


Figure 4.3.1.2. One-year price chart of GOOG on June 6, 2008. ${ }^{4}$

## Take-Two Interactive Software

Lastly, I have chosen the video game developing company Take-Two Interactive ${ }^{10}$. Since the release of Grand Theft Auto IV, their sales have gone up $\$ 1.52$ during the second quarter and they predict an increase of 45 to 55 cents during the third quarter.

Knowing that this game is very popular amongst gamers, I predict that its sales will continue. Seen in figure 4.3.1.3 is the stock for this company in the past fiscal year.


Figure 4.3.1.3. One-year price chart of TTWO on June 6, 2008. ${ }^{4}$

I have chosen these three stocks as a base, and will save some money to spare, since towards the end of this week the market has gone down and the unemployment rate has gone up. I plan to invest the remainder of my funds within the next week

| Date | Symbol | Action | Volume | Price on <br> Mon/Buy | Cost/Proceeds | Price on <br> Fri/Sale | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8-Jun-08 | ETEV | BUY | 100,000 | $\$ 0.42$ | $(\$ 42,000.00)$ | $\$ 0.33$ | $(\$ 9,010.00)$ |
| 8-Jun-08 | TTWO | BUY | 2,500 | $\$ 27.30$ | $(\$ 68,250.00)$ | $\$ 26.63$ | $(\$ 1,685.00)$ |
| 8-Jun-08 | GOOG | BUY | 150 | $\$ 568.06$ | $(\$ 85,209.00)$ | $\$ 571.51$ | $\$ 507.50$ |

Stock I Own: 06/15/08

| Symbol | Volume |
| :--- | ---: |
| ETEV | 100,000 |
| TTWO | 2,500 |
| GOOG | 150 |

Table 4.3.1, First week of trading, Trend following (\$10 commission included in trade).

End-of-the-week analysis and trades
Table 4.3.1 shows my data for this week's stock trading experiment. Clearly either I did not invest in the right stocks or the stock market is not swaying in my favor. Ethos has not been doing as well as I had hoped and neither is Take-Two Software. Google remains to climb, which is good. I will watch the stocks for a few more days and then decide what to do.

Weekly data
Seen below in figure 4.3.1.4 (ETEV), 4.3.1.5 (TTWO), and 4.3.1.6 (GOOG) are the weekly charts for my stock holdings.


Figure 4.3.1.4. Weekly price chart of ETEV on June 13, 2008. ${ }^{4}$


Figure 4.3.1.5. Weekly price chart of TTWO on June 13, 2008. ${ }^{4}$


Figure 4.3.1.6. Weekly price chart of GOOG on June 13, 2008. ${ }^{4}$

Week $2-6 / 16 / 08$ to $6 / 22 / 08$
Mid-week trades and investments

On Thursday I had had enough with Ethos. They had gone down $30 \%$ since I bought the stock last week. I have sold all my shares.

| Date | Symbol | Action | Volume | Price on Mon/Buy | Cost/Proceeds | Price on Fri/Sale | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19-Jun-08 | ETEV | SELL | 100,000 | \$0.33 | \$33,000.00 | \$0.30 | (\$3,010.00) |
| 22-Jun-08 | GOOG | SELL | 150 | \$571.51 | \$85,726.50 | \$547.94 | $(\$ 3,532.50)$ |
| 22-Jun-08 | TTWO | SELL | 2,500 | \$26.63 | \$66,575.00 | \$26.53 | (\$260.00) |
| 22-Jun-08 | ABT | BUY | 500 | \$53.68 | (\$26,840.00) | \$53.68 | (\$10.00) |
| 22-Jun-08 | BMY | BUY | 7,500 | \$19.60 | (\$147,000.00) | \$19.60 | (\$10.00) |
| 22-Jun-08 | MO | BUY | 3,000 | \$20.79 | (\$63,409.50) | \$20.79 | (\$10.00) |
|  |  |  |  |  |  | Weekly Profit | (\$6,845.50) |
|  |  |  |  |  |  | Total Profit Cash in Hand | $\begin{array}{r} (\$ 17,033.00) \\ \$ 3,183.00 \end{array}$ |
| Stock I Own: 06/22/08 |  |  |  |  |  | Total Equity | \$232,967.00 |
| Symbol | Volume |  |  |  |  |  |  |
| ABT | 500 |  |  |  |  |  |  |
| BMY | 7,500 |  |  |  |  |  |  |
| MO | 3,000 |  |  |  |  |  |  |

Table 4.3.2, Second week of trading, Trend following (\$10 commission included in trade). ${ }^{4}$

End-of-the-week analysis and trades
At the end of the week I analyzed my data. The first and most important thing to note is the general decline of the stock market as a whole this week. On Thursday alone, the market decreased by over $3 \%{ }^{12}$. Google dropped $\sim \$ 24$ since last week ${ }^{12}$ and they are not projected to go back up soon. I sold all of my Google stock, which was the only stock making me money in the previous week. Take-Two has hit a standstill and I sold that stock too and plan on starting fresh.

This time my plan of attack is to find some websites with stock trading tips and follow them. The three most commonly named stocks said to continue to rise were Abbot Laboratories (figure 4.3.2.1), Altria Group (figure 4.3.2.2), and Bristol-Myers Squibb Company (figure 4.3.2.3). Their previous 1 -year stock values are shown below, respectively labeled.
ABT Daily

Figure 4.3.2.1. One-year price chart of ABT on June 13, 2008. ${ }^{4}$


Figure 4.3.2.2. One-year price chart of MO on June 13, 2008. ${ }^{4}$


Figure 4.3.2.3. One-year price chart of BMY on June 13, 2008. ${ }^{4}$

Weekly data
This week, all three of my stocks decreased. I lost a lot of money with ETEV (figure 4.3.2.4) and GOOG (figure 4.3.2.5). TTWO slightly decreased in value, as seen in figure 4.3.2.6.


Figure 4.3.2.4. Weekly price chart of ETEV on June 20, 2008. ${ }^{4}$


Figure 4.3.2.5. Weekly price chart of GOOG on June 20, 2008. ${ }^{4}$


Figure 4.3.2.6. Weekly price chart of TTWO on June 20, 2008. ${ }^{4}$

Week $3-6 / 23 / 08$ to $6 / 29 / 08$
Mid-week trades and investments
Thursday is when I made most of my trades this week. Bristol-Myers had gone up 70 cents since I bought it ${ }^{12}$; I decided to sell all of my shares in order to avoid having what happened with Google happen again. I wanted to get out while I was ahead. On the other hand, Abbott had gone down almost a dollar per share since Monday, so I naturally sold my stocks.

Anheuser-Busch Brewing Companies, Incorporated
With a chunk of the money I had from selling BMY, I decided to invest in Anheuser-Busch ${ }^{14}$. This is the largest beer manufacturing company in the world. They own companies like Budweiser, Bud Light, Busch, and Michelob. There are two big
reasons why I chose this stock. The first reason is the one that caught my attention: they were in the news for making a very dominant choice not to buy InBev: a European brewing company. They claimed that it was not sufficient enough for the AnheuserBusch standard. This boosted their stocks greatly. This caused me to look at their previous stock values (figure 4.3.3.1), and I noticed they had been increasing for a couple of months. This to me meant that good things are coming.


Figure 4.3.3.1. One-year price chart of BUD on June 20, 2008. ${ }^{4}$


Table 4.3.3, Third week of trading, Trend following (\$10 commission included in trade).

End-of-the-week analysis and trades
Overall, this was a great week in the stock market for me. I profited over five thousand dollars. I carefully reviewed Altria's previous company history and it looked optimistic considering the recent downfall of the economy. I have gained a small amount of profit from this company in the past week. I doubled my shareholdings for this company using all of my leftover cash.

Weekly data
This week's data for Altria (figure 4.3.3.2) and my other stocks are shown in figure 4.3.3.3 (Bristol-Myers), 4.3.3.4 (Abbott), and 4.3.3.5 (Anheuser-Busch).


Figure 4.3.3.2. Weekly price chart of MO on June 29, 2008. ${ }^{4}$


Figure 4.3.3.3. Weekly price chart of BMY on June 29, 2008. ${ }^{4}$


Figure 4.3.3.4. Weekly price chart of ABT on June 29, 2008. ${ }^{4}$


Figure 4.3.3.5. Weekly price chart of BUD on June 29, 2008. ${ }^{4}$

Week $4-6 / 30 / 08$ to $7 / 6 / 08$
Mid-week trades and investments
At the end of the day on Monday I had had enough with the decreasing value of MO. I decided to sell two thirds of my shares. With the profit, I invested in Abbott Laboratories for the second time.

After two more days, I analyzed my stocks on more time. It seems as if BUD was at a steady decrease, because all of the news hype had gone down. I saw no reason to keep my BUD stocks, so I sold all of my shares. The company I chose to invest in is the company I currently have an internship with: General Dynamics.

General Dynamics (GD)
General Dynamics is a leading national defense contracting company. They design and build weaponry for the United States government. They had been selected by the Navy to build their most powerful ship, the Littoral Combat Ship, which is due this summer. I believe that if this ship proves to be successful, their stock will rise. Also, by analyzing their previous two years data, their stock fluctuates some, but continues to increase as a whole. The fluctuation may prove to be beneficial to me, since I am trading rather quickly, and right now it seems as if it is at a low and prone to rise. Figure 4.3.4.1 shows their past two years data.


Figure 4.3.4.1. Two-year price chart of GD on June 27, 2008. ${ }^{4}$

| Date | Symbol | Action | Volume | Price on <br> Mon/Buy | Cost/Proceeds | Price on <br> Fri/Sale | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30-Jun-08 | MO | SELL | 4,000 | $\$ 20.97$ | $\$ 85,977.00$ | $\$ 20.56$ | $(\$ 1,650.00)$ |
| 30-Jun-08 | ABT | BUY | 1,640 | $\$ 52.97$ | $(\$ 86,076.25)$ | $\$ 54.75$ | $\$ 2,909.20$ |
| 2-Jun-08 | BUD | SELL | 1,800 | $\$ 62.26$ | $\$ 112,068.00$ | $\$ 61.68$ | $(\$ 1,054.00)$ |
| 2-Jun-08 | GD | BUY | 1,300 | $\$ 81.86$ | $(\$ 112,148.20)$ | $\$ 83.22$ | $\$ 1,758.00$ |
| 3-Jun-08 | MO | - | 2,000 | $\$ 20.97$ | $\$ 41,940.00$ | $\$ 20.12$ | $(\$ 1,700.00)$ |


| Symbol | Volume |
| :--- | ---: |
| MO | 2,000 |
| ABT | 1,640 |
| GD | 1,300 |

Table 4.3.4, Fourth week of trading, Trend following (\$10 commission included in trade).

## Weekly Data

This was a short week for the stocks because of the July $4^{\text {th }}$ holiday. It turns out I sold my MO at the right time because it declined more during the week, as seen in figure 4.3.4.2. ABT had a breakthrough in stent research ${ }^{12}$, which helped their stocks greatly,
and they made it onto an article for the greatest increased stocks for the week. A stent is a device used to unclog veins and arteries; and Abbott Labs had announced that they improved the device by adding a lubricating gel to the stent that allowed for a more permanent opening of the vessel. Seen in figure 4.3.4.3 is this week's data for ABT. BUD stocks slowly declined and leveled off at the end of the week. It is unknown what will happen in the future of this stock. Their data can be seen in figure 4.3.4.4. Lastly, General Dynamics’ stock increased by $\sim \$ 1.40$ since I purchased it on Wednesday ${ }^{12}$. Their data is seen in figure 4.3.4.5.


Figure 4.3.4.2. Weekly price chart of MO on July 3, 2008. ${ }^{4}$


Figure 4.3.4.3. Weekly price chart of ABT on July 3, 2008. ${ }^{4}$


Figure 4.3.4.4. Weekly price chart of BUD on July 3, 2008. ${ }^{4}$


Figure 4.3.4.5. Weekly price chart of GD on July 3, 2008. ${ }^{4}$

## Week $5-7 / 7 / 08$ to $7 / 13 / 08$

Mid-week trades and investments
This week I decided that I like all three of my stocks. I did some trading to make sure I have the same amount of money invested in each of them.


Table 4.3.5, Fifth week of trading, Trend following (\$10 commission included in trade).

Weekly data
My stocks did very well this week as a whole. GD was the only one that declined. This is interesting to me because in their recent history they have not done this much declining. The value went down over $\$ 1.40$ a share ${ }^{12}$. The weekly data for GD is seen in figure 4.3.5.1. ABT had a very large increase on Tuesday. It is unknown why this jump happened, but it is good news. The rest of the week was quite steady and I gained almost thee thousand dollars this week from ABT. Their week's data is seen in figure 4.3.5.2. Lastly, MO did great this week as well. They have been gradually increasing daily since Monday. I am glad I invested more money into their company. I hope next week goes as well as this one. The week's data is seen in figure 4.3.5.3.


Figure 4.3.5.1. Weekly price chart of GD on July 11, 2008. ${ }^{4}$


Figure 4.3.5.2. Weekly price chart of ABT on July 11, 2008. ${ }^{4}$


Figure 4.3.5.3. Weekly price chart of MO on July 11, 2008. ${ }^{4}$

Week $6-7 / 14 / 08$ to $7 / 20 / 08$
Mid-week trades and investments
At the end of Monday I decided to sell all of my MO investments. Their stock had been decreasing rapidly for too long, and there was no new business for them in the news that I noticed. I did discover that the other companies invested in the new stent research production were doing very well. This caused me to investigate a new company called Johnson and Johnson (JNJ) research.

John and Johnson
JNJ is the most prominent pharmaceutical drug company in the world. They manufacture many prescription products, medical breakthroughs, and household drugs. Their stock has been steady increasing for the past year, and continues to increase. With
the new era of prescription drugs along with the stent breakthrough technology, I believe that JNJ will continue to grow steadily and is therefore a valuable stock to invest in at this time. Their one-year stock past is seen in figure 4.3.6.1.


Figure 4.3.6.1. One-year price chart of JNJ on July 18, 2008. ${ }^{4}$

| Date | Symbol | Action | Volume | Price on <br> Mon/Buy | Cost/Proceeds | Price on <br> Fri/Sale | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14-Jul-08 | MO | SELL | 3,530 | $\$ 21.26$ | $\$ 75,473.00$ | $\$ 20.97$ | $(\$ 1,033.70)$ |
| 14-Jul-08 | JNJ | BUY | 1,110 | $\$ 66.44$ | $(\$ 75,409.40)$ | $\$ 67.82$ | $\$ 1,521.80$ |
| 20-Jul-08 | GD | - | 950 | $\$ 81.05$ | $\$ 82,671.00$ | $\$ 82.07$ | $\$ 959.00$ |
| 20-Jul-08 | ABT | - | 1,590 | $\$ 56.43$ | $\$ 88,877.25$ | $\$ 57.58$ | $\$ 1,818.50$ |

Stock I Own: 07/20/08

| Symbol | Volume |
| :--- | ---: |
| GD | 950 |
| JNJ | 1,110 |
| ABT | 1,590 |

Table 4.3.6, Sixth week of trading, Trend following (\$10 commission included in trade).

Weekly data
This was another successfully week for me in the stock market. The three socks I chose to remain invested in went way up. I made over one thousand dollars in each stock. I kept my strategy of having an equal amount of money invested in each stock because I did not know which one would go up or down. It proved to be the right decision. Altria stock went down again as I had predicted, so I am glad that I sold it. Its weekly holdings are seen in figure 4.3.6.2. JNJ kept going up steadily as predicted and their stock is seen in figure 4.3.6.3. Abbott labs had a big jump and overall went up as seen in figure 4.3.6.4; GD stock also rose as depicted in figure 4.3.6.5.


Figure 4.3.6.2. Weekly price chart of MO on July 20, 2008. ${ }^{4}$


Figure 4.3.6.3. Weekly price chart of JNJ on July 20, 2008. ${ }^{4}$


Figure 4.3.6.4. Weekly price chart of ABT on July 20, 2008. ${ }^{4}$


Figure 4.3.6.5. Weekly price chart of GD on July 20, 2008. ${ }^{4}$

Week $7-7 / 21 / 08$ to $7 / 27 / 08$
Mid-week trades and investments
On Monday I analyzed my stock status again. Although I was happy with the way things were going, and I could probably have done well by sticking with the same stocks, I decided that, for the sake of the project, I would invest in another stock. I did a good amount of research before investing. I decided to buy an equal amount of Tupperware stock.

Tupperware (TUP)
Tupperware has been around for several decades. However, they only decided to sell stock investments in $1997{ }^{12}$. Since then, their stock has decreased, mainly in 1998 and 1999. Since 2003, the value of the company has been increasing at a good rate and
has almost tripled since then. I believe this alone is a good reason to invest in the company. Most of their increases have taken place in the past year. This product is used by virtually every home in America and therefore can be considered very stable. It is the original and most well known brand of this type of product. Money-zine.com listed that Tupperware is one of the five best stocks to invest in this year ${ }^{6}$. The one-year data for TUP can be seen below in figure 4.3.7.1.


Figure 4.3.7.1. One-year price chart of TUP on July 25, 2008. ${ }^{4}$

| Date | Symbol | Action | Volume | Price on <br> Mon/Buy | Cost/Proceeds | Price on <br> Fri/Sale | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21-Jul-08 | JNJ | SELL | 300 | $\$ 67.82$ | $\$ 20,346.00$ | $\$ 67.11$ | $(\$ 223.00)$ |
| 21-Jul-08 | GD | SELL | 250 | $\$ 82.07$ | $\$ 20,517.50$ | $\$ 82.02$ | $(\$ 22.50)$ |
| 21-Jul-08 | ABT | SELL | 350 | $\$ 57.58$ | $\$ 20,153.00$ | $\$ 56.78$ | $(\$ 290.00)$ |
| 21-Jul-08 | TUP | BUY | 1,670 | $\$ 36.21$ | $(\$ 61,194.90)$ | $\$ 39.06$ | $\$ 4,749.50$ |
| 27-Jul-08 | JNJ | - | 810 | $\$ 67.82$ | $\$ 56,629.70$ | $\$ 69.03$ | $\$ 980.10$ |
| 27-Jul-08 | GD | - | 700 | $\$ 82.08$ | $\$ 63,201.60$ | $\$ 89.19$ | $\$ 4,977.00$ |
| 27-Jul-08 | ABT | - | 1,240 | $\$ 57.58$ | $\$ 70,535.50$ | $\$ 57.42$ | $(\$ 198.40)$ |


| Stock I Own: 07/20/08 |  |
| :--- | ---: |
| Symbol | Volume |
| JNJ | 810 |
| GD | 700 |
| ABT | 1,240 |
| TUP | 1,670 |

Table 4.3.7, Seventh week of trading, Trend following (\$10 commission included in trade).

Weekly data
This was an amazing week in the stock market for me. On Monday things were not looking too good but the end of the week really picked up for my stocks. At the beginning of the day on Tuesday, ABT skyrocketed from $\$ 56 /$ share to almost $\$ 59{ }^{12}$. However, it slowly dwindled down for the next couple of days until it was back to where it was at the beginning of the week. I broke almost even for the week with ABT. The 5day data for ABT is seen in figure 4.3.7.2.

The GD stock did great this week. It rose almost every single day. Its biggest climb was on Wednesday when it went from $\$ 82 /$ share to $\$ 89{ }^{12}$. This is because the government has invested in several new aircrafts to be made by General Dynamics; they have announced a very large increase in revenue from the past fiscal year and except an increase in profit for the next quarter. The weekly data for GD is seen in figure 4.3.7.3.

JNJ did great this week as well. Like ABT, it had a large climb on Tuesday morning due to the stent research and constant increases in drug companies' profit predictions. Their stock rose over $\$ 1 /$ share during the course of the week ${ }^{12}$ and they continue to be one of the most reliable companies at the current time as far as a steadilyincreasing stock is concerned. Their weekly stock chart can be seen in figure 4.3.7.4.

Lastly, my new Tupperware stock proved to be a good investment. I profited almost five thousand dollars this week from the one stock alone. On Tuesday afternoon is when most of the gain occurred. The stock value per share rose from $\$ 35.50$ to $\$ 39{ }^{12}$. I hope that this stock continues to grow over the course of the next week. The weekly data for TUP is seen in figure 4.3.7.5.

I am very happy with my recent stock trades and current investments. I will keep my investments in the four companies I currently have money in hopefully for the entire next week until the conclusion of the project. This week is the first time I will be over the even mark of $\$ 250,000$ and this makes me extremely happy. I am very confident in my current investments and I only wish that I had real money invested in these stocks.


Figure 4.3.7.2. Weekly price chart of ABT on July 27, 2008. ${ }^{4}$


Figure 4.3.7.3. Weekly price chart of GD on July 27, 2008. ${ }^{4}$


Figure 4.3.7.4. Weekly price chart of JNJ on July 27, 2008. ${ }^{4}$


Figure 4.3.7.5. Weekly price chart of TUP on July 27, 2008. ${ }^{4}$

Week $8-7 / 28 / 08$ to $8 / 03 / 08$
Mid-week trades and investments
I have changed my mind since the end of last week. Since this is the final week of trading, I want to try a new approach to trend following. I will sell all of my stocks and invest in three new companies. This time I will use a professional site that involves a monthly subscription. I, however, will only be using the two-week trial period for free. The site is Investor's Business Daily ${ }^{8}$. This site is a great trading utility and has many different tools, analyses, charts, and graphs to use to help you invest, along with several daily and weekly newsletters that can be sent to you via email. My favorite is "The IBD 100 "; a spreadsheet consisting of their favorite 100 stock companies based on the past and future of each company. This list is the main reference from which I will choose my investments for the week: Graham Corporation, Titan Machinery Incorporated, and Bucyrus International Incorporated.

Graham Corporation (GHM)
Graham Corporation designs and builds vacuum and heat transfer systems. As quoted from their site:
"You need more than just a product. Determining the best way to integrate that product into your process is the engineering answer. We will analyze your specific vacuum and heat transfer requirements to maximize the efficiency, reliability and performance of your process. That is the answer you need." ${ }^{4}$

It is clear that they strive to hold a professional status among their customers. I also feel that, given the increase of the need for engineering in our modern day society, this company has a lot of room to grow. They were rated as the \#2 company to invest in on the IBD 100 list ${ }^{8}$. Although the company has had stock since the 70 's and has been
around for even longer, it wasn't until the past two years when the stock grew significantly. It went from $\sim \$ 10 /$ share to $\sim \$ 90^{4}$ and it predicted to keep growing ${ }^{8}$. The two-year stock report for GHM is seen in figure 4.3.8.1.


Figure 4.3.8.1. Two-year price chart of GHM on July 31, 2008. ${ }^{4}$

## Titan Machinery Incorporated (TITN)

Titan Machinery manufactures and distributes agricultural, construction, and other types of machinery—mainly large utility vehicles. Their website ${ }^{11}$ labels them as a wholesale distributor for many sites in the Midwest. This means that they have much room to grow as a company. Their site cites several places where they plan on growing, including a unique website for each of their forty-eight outlet stores.

Titan Machinery stock was not available until the end of 2007. However, it started off with a large value per share of $\$ 10^{4}$. It is now valued at approximately $\$ 30 /$ share ${ }^{12}$. Hence, it is quickly growing. I believe that the value of this stock will
continue to grow; there is a lot of room for gain. The lifetime stock chart of TITN is seen in figure 4.3.8.2.


Figure 4.3.8.2. Lifetime price chart of TITN on July 31, 2008. ${ }^{4}$

## Bucyrus International Incorporated (BUCY)

Bucyrus international is a mining equipment manufacturer that has been around since the 1800 's. Through many merges and changes, they have developed into a largescale international development company for large mining equipment. However, it wasn't until a few years ago that stock became available for the company. Since its birth, their stock has been consistently growing and is now worth over $\$ 70 /$ share ${ }^{12}$. There has never been any a significant drop or long-term losses. I consider this to be an excellent long-term investment, however, for my sake I hope to make some quick money during the course of the week. The one-year data for BUCY can be seen below in figure 4.3.8.3.


Figure 4.3.8.3. One-year price chart of BUCY on July 31, $2008 .{ }^{4}$

| Date | Symbol | Action | Volume | Price on <br> Mon/Buy | Cost/Proceeds | Price on <br> Fri/Sale | Profit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 28-Jul-08 | JNJ | SELL | 810 | $\$ 69.03$ | $\$ 55,468.80$ | $\$ 68.48$ | $(\$ 455.50)$ |
| 28-Jul-08 | GD | SELL | 700 | $\$ 89.19$ | $\$ 61,537.00$ | $\$ 87.91$ | $(\$ 906.00)$ |
| 28-Jul-08 | ABT | SELL | 1,240 | $\$ 57.42$ | $\$ 69,700.40$ | $\$ 56.21$ | $(\$ 1,510.40)$ |
| 28-Jul-08 | TUP | SELL | 1,670 | $\$ 39.06$ | $\$ 64,595.60$ | $\$ 38.68$ | $(\$ 644.60)$ |
| 28-Jul-08 | GHM | BUY | 1,000 | $\$ 83.86$ | $(83,860.00)$ | $\$ 101.97$ | $\$ 18,100.00$ |
| 28-Jul-08 | TITN | BUY | 3,225 | $\$ 25.90$ | $(83,527.50)$ | $\$ 26.76$ | $\$ 2,763.50$ |
| 28-Jul-08 | BUCY | BUY | 1,190 | $\$ 70.17$ | $(83.502 .30)$ | $\$ 69.64$ | $(\$ 640.70)$ |


| Symbol | Volume |
| :--- | :--- |
| GHM | 1,000 |
| TITN | 3,225 |
| BUCY | 1,190 |

Table 4.3.8, Eighth week of trading, Trend following (\$10 commission included in trade).

Weekly data
This was a phenomenal week in the stock market for me and was a great way to end the project. Following my plan of investing in IBD's Top 100 list was a great success, mainly because of my GHM stock. I gained over sixteen thousand dollars in one week.

GHM had announced on Friday that their second quarter profits are over double of what was projected. This cause the stock value to skyrocket by $14.5 \%$ profiting me about eighteen thousand dollars ${ }^{12}$. The weekly data for GHM is seen in figure 4.3.8.4.

TITN did very well and gained me nearly three thousand dollars over the course of the week. They have been increasing very steadily for quite some time so this was expected. The weekly data for the TITN stock is shown in figure 4.3.8.5.

Lastly, BUCY stayed relatively level but turned out to be a slight loss. It was nothing compared to the gains that I have achieved from the other stocks this week. Its weekly progress chart is seen in figure 4.3.8.6.


Figure 4.3.8.4. Weekly price chart of GHM on August 3, 2008. ${ }^{4}$
TITN 15-Minute

Figure 4.3.8.5. Weekly price chart of TITN on August 3, 2008. ${ }^{4}$


Figure 4.3.8.6. Weekly price chart of BUCY on August 3, 2008. ${ }^{4}$

### 4.4 Results and Conclusions

Overall, I am very happy with my trading results. I tried several different methods of trend following, and I ended up profiting over $\$ 21,000$, which is near my initial goal of $\$ 25,000$. I finally sold the remainder of my stock holdings. These sales and their data are listed below in table 4.4.1, along with my total net profit and total equity for the project:

| Date | Symbol | Action | Volume | Price on Fri/Sale | Proceeds |
| :---: | :---: | :---: | :---: | :---: | ---: |
| 3-Aug-08 | GHM | SELL | 1,000 | $\$ 101.97$ | $\$ 101,970.00$ |
| 3-Aug-08 | TITN | SELL | 3,225 | $\$ 26.76$ | $\$ 86,301.00$ |
| 3-Aug-08 | BUCY | SELL | 1,190 | $\$ 69.64$ | $\$ 82,871.60$ |
|  |  |  |  |  |  |
|  |  | Total Net Profit | $\$ 21,726.20$ |  |  |
|  |  | Cash in Hand | $\$ 271,726.20$ |  |  |
|  |  |  | Total Equity | $\$ 271,726.20$ |  |

Table 4.4.1, Final sales and results, Trend following (\$10 commission included in trade).

In the eight weeks of trading, I have learned a great deal about the stock market. At the start of this project, I did not know how to read the numbers, statistics, and charts. Now, I can properly analyze them and use the information to make the best possible choice for my money.

I noticed some important things in the stock market this summer. For one, patterns are very telling, but can also be very dangerous. Some companies tend to increase or decrease every fiscal quarter when they announce their gains or losses. This is very important to watch and predict. Also, most companies' stock increases when they announce the release of a new product that is predicted to be successful. Hence, following, researching, and knowing more about the company helps a great deal when choosing to invest.

I believe that trend following is a very simple and efficient method of trading stocks for a novice trader, or for someone who just doesn't have enough time to do all the research. It is very easy to subscribe to a website or just see what is popular on the news and to do what everyone else is doing. This strategy works because if you buy at the time when many others are buying, the stock will continue to increase. Then, theoretically, if you sell when the population is selling, you will get rid of your stock before the price drops drastically. This is how I made my profit. I saw when stocks were rising and when they made the news for breakthrough products or research, and I bought. Then, when I saw that the stocks were falling and the company's trade or specific product was not doing so well, I sold. This proved to be very beneficial.

I enjoyed this method of trading and I am glad I made the right decision. If I choose to invest in the near future, I will surely use this method of trading to help make
my investing decisions. I am very glad to have done this project as it was fun and served a great purpose for me in the long run.

## 5. Conclusions

### 5.1 Analysis of Goals

We had a very successful and rewarding outcome at the end of our stock market trading period. Although only one group member actually reached the goal of $10 \%$ profit in the eight-week session, all three members ended up with a net profit. More importantly, however, we each learned a great deal about the stock market, company values, trading strategies, researching, and many other vital skills.

Each member in our group successfully followed their trading strategy for eight weeks and tested its benefits and deficiencies. We also successfully and efficiently remained in contact with our advisor throughout the duration of the experiment to ensure a proficient and knowledgeable project. We quickly established methods of reporting our trades and profits each week, along with providing clean, accurate, and relevant information for each of the companies we invested in.

### 5.2 Comparison of Methods

During the seven-week mock trading period, three different methods were used between the three traders, each which made a significant amount of money in the end. The one that made the most amount of money was the swing trading technique, which is the technique where the buyer purchases stock on the upswing and sells it after it has crested and is starting to go back down in value. This technique is probably the easiest for a person who is new to the stock market. The technique that made the second-most amount of money during the mock trading period was the Trend following technique.

This is where the buyer looks at what the most popular stocks being bought and sold are, and then does what everyone else is doing. The theory behind this technique is that if many other people are investing in the stock, the value will go up. The only hard part of this technique is to know when to sell. The last technique, short term penny trading didn't do as well as the first two techniques, but it still made money in the end. In this technique, the buyer buys stocks that are generally less than a dollar, meaning that they buy many more than normal stocks. When the stocks go up by one or two cents, the buyer can make $\$ 1,000$ 's of dollars because of the volume of stocks. Because it is so easy to make money, the buyer can lose that much money as well. If we were going to do this trading again, it would be a good idea to merge some of these methods together to make a super-technique. This could be where the buyer buys penny-stocks on an upswing when many other people are doing the same thing.

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