## Stock Market Simulation

## An Interactive Qualifying Project Report:

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#### Abstract

A stock market simulation was run over the course of seven to ten weeks to find out which strategies fare more favorably throughout the market. Individual group members researched trading practices and applied trading strategies to result in the best possible outcome. Investment results of each strategy were analyzed to conclude which strategy produced the most profitable outcome.


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## 1. Introduction

### 1.1 Goals and Methods

The main goal of this project is for our group members to gain a fundamental knowledge of the stock market, how it works and how to invest, using a simulation program. In the ten-weeks the simulation will run we will learn about the different types of funds and the strategies in investing in them. We plan on doing this by each taking our initial two-hundred fifty thousand dollars and investing it according to our pre-decided methods. After the course of our ten-weeks has expired we will analyze our methods and come to a conclusion as to why or why not they fared well.

### 1.2 History of the Stock Market

The roots of the stock market go back many centuries before there was any kind of established market. Some of the most primitive roots could most likely be seen by the Native Americans who used forms of trading to get fur for clothing or food. Many times two people would desire or need goods which the other had, so they would barter and come to a trading agreement. A French historian by the name of Fernand Braudel claims that the Muslim and Jewish merchants of $11^{\text {th }}$ century Egypt (particularly Cairo) began the ideas of credit and payment installments. They also instituted different types and forms of trading. The people of $12^{\text {th }}$ century France can be considered the first brokers because they were the first to use the concept of debt. A group known as the "courratiers
de change" worked with the bank to regulate and manage debts owed by agriculturalists to the bank.

Trade was formally organized in the $13^{\text {th }}$ century in the town of Brugse, Belgium. Traders would meet informally on a constant basis with no real organization until a man named Van der Buerse held a formal meeting at his home in Brugse. The idea of organized trade then began to branch off into the neighboring country of Amsterdam and continued to spread from there. Bankers in certain city-states of Italy began trading in government securities, which was possible because they were run by a group of citizens rather than one leader such as a duke.

The first company to go public and allow normal citizens to own a part of the company was the Dutch India Trading Company. This was the first commercial company to sell stocks and bonds, which took place on the Amsterdam Stock Exchange. In the $17^{\text {th }}$ century this was the first stock exchange to offer constant, day-to-day trading of stocks and bonds, just like the stock markets. From this model other stock markets began to pop up all over the world, introducing new types of trading and new companies to invest in, transforming the most primitive trading styles into the vast and complex market of today.

These ideas of trading and investment eventually spread to the United States where a few different stock exchanges were begun [10].

### 1.3 Types of Common Stock

Blue-Chip Stocks

These stocks refer to companies that have a long history of sustained earnings and dividend payments. They are usually the leaders in their type of industry and because they are so important and large their earnings are usually stable as well as their dividend records. Most of the companies that are in the Dow Jones Industrial are blue-chip companies. Some examples are Wal-Mart, ExxonMobil and Merck. Wal-Mart isn't a typical blue-chip company because it doesn't pay out that much for dividends, whereas ExxonMobil and Merck historically have had growing sales and earnings and pay out a higher percentage of their earnings in dividends [4].

Blue-chip companies are the companies that an investor looks for if they would like a lower-risk stock. Their usually always making a steady increase in earnings and dividends and have a positive turn out. Even in bear markets they tend to decline a lot less than the higher-risk companies. Finally, investors that choose these companies have a history of having a regular dividend payment [4].

## Income Stocks

Income stocks have a high dividend payout, and these companies are usually in the mature stage of their industry life cycles. This means that there stocks usually appreciate slower than the newer companies that are growing much more rapidly like a blue-chip company. Some examples are utility companies and real estate investment
trusts like American Electric Power that has a dividend of $\$ 1.40$, Ameren Corp. with a dividend of $\$ 2.54$, and NiSource with a dividend of $\$ 0.92$ [4].

## Growth Stocks

Growth stocks consist of companies that are expected to have sustained high rates of growth sales and earnings. They usually have a higher price-earnings ratio and do not pay out dividends. Home Depot and Intel grew at high double-digit rates during the 1990s and at that time were considered growth stocks. Now they are more like blue-chip companies because they are higher in their industry and pay out small dividends. Usually there is no dividend pay out in a growth stock like Cisco Systems, which had annual sales in the 30 to 50 percent range in the 1990s technology boom. Cisco's stock price ended up rising to 130,000 percent from its IPO in February 1990 to March 2000. The reason why they are often referred to as "high-price-earnings-ratio stocks" is because their excessive growth makes investors more willing to buy them at higher prices looking for capital appreciation [4].

## Value Stocks

Value stocks are low $\mathrm{P} / \mathrm{E}$ (price-earnings) ratio stocks that investors are not particularly fond of. Because investors have such low expectations for these companies to grow, the stocks are usually bought at relatively low prices. Investors of value stocks have to be patient and willing to stick it out for the long haul waiting for their prospective earnings to increase. If growth stocks cannot hold their high growth rates their stock prices usually fall by greater amounts as well, which could bring it to a value stock. For
instance, Pfizer, the pharmaceutical company, received higher earnings when its big time drugs Lipitor, Viagra, and Celebrex hit the market. However, after the long chain of heart problems in the patients taking Lipitor and Celebrex, the P/E ratio dropped heavily and it became a value stock [4].

## Cyclical Stocks

Cyclical stocks are ones that move relative to the changes in economic activity. They usually reach their high and low points before the respective peaks and troughs of the economy. As the economy prospers, the earnings of the cyclical companies soar as well; moreover, as the economy suffers, there is a steady decline in company's earnings. Examples of cyclical stocks are companies that are tied to the economy like home builders, automobile companies, and equipment companies. When there was a decline in the economy in 1999, the stocks of John Deere and Cummins Engine were reported to steadily decline as most of the investors sold their stocks [4].

## Defensive Stocks

Defensive stocks hold their price even when the economy suffers; however, they also don't increase as quickly as other stocks when the economy is soaring. Companies that hold their value even when the economy drops are considered to be defensive companies. Examples are drug companies, food and beverage companies, utility companies, and auto parts manufacturers. These are things that everyone needs no matter how bad the economy may be. These are for investors looking for a safer type of stock, and they have to wait longer to see the appreciation [4].

## Speculative Stocks

Speculative stocks have the possibility of a very large return, but they also carry a larger amount of risk if something was to happen to the company and it was to fold quickly. They are usually issued by new companies that have promising ideas and look like they are developing rapidly. They can be hit or miss because they could expand rapidly and give the investor great returns or they could fold just as quickly. These highrisk stocks are usually left to more educated investors with room to take risks [4].

## Penny Stocks

Penny stocks are similar to speculative stocks except their value is much less. They are usually priced under a dollar and are a risky investment. They could either prosper or fail just like a speculative stock. Investors could buy when they think the time is right at $\$ 0.25$, and if the company does well and rises to $\$ 0.50$ they have made a 100 percent return; however, if the company tanks then they lose everything [4].

## Foreign Stocks

Foreign stocks come from companies that are outside the country of origin. Even though the U.S. stock markets still account for the largest market capitalization of all the stock markets in the world, the foreign stocks are growing rapidly and increasing in market share. The investor can buy the stocks directly form the foreign market, or they can use the American depository receipts (ADRs) of the foreign company. The ADR is a negotiable receipt that contains the value of the stocks that are held in custody in a
foreign country. The receipts are then traded in place of foreign stock. This is a good way for an investor to diversify their portfolio [4].

## Large-, Medium-, and Small-Cap Stocks

The word "Cap" is short for market capitalization, which is the market value of a company. The way to get the market value of a company is to multiply the market stock price by its number of outstanding shares. As a result, the classifications can change over time depending on how well the company does [4].

Large-Cap stocks have companies that have considerable earnings and have large amounts of common stock outstanding. The market cap for this group is greater than 50 billion. Large-cap stocks are in the Dow Jones and the S\&P 500 Index and they account for more than half the total value of the U.S. equity markets. Typically, they are bluechip because they are established and can be either a growth or a value company. Some examples of these types of companies are Intel, Microsoft, IBM, General Motors, and ExxonMobil [4].

Medium-Cap stocks are the stocks of the medium-sized companies that have a capitalization of $\$ 1$ billion to $\$ 5$ billion. These companies have the safety net of having a steady increase in earnings but aren't as well known as the Large-Cap companies. Some examples are Tyson foods, Outback Steakhouse, Starbucks, and Borders [4].

Small-Cap stocks are the stocks of companies that have a cap under $\$ 1$ billion. These companies usually aren't name brands or aren't nearly as popular as the previous caps. They sometime have a greater return than the Large-Cap stocks because they have a greater risk so their stocks sell higher. Some Small-Cap companies could turn out to be
the next Microsoft or Intel, and others could fold quickly and result in a larger loss. That is why investors must be careful with a Small-Cap stock [4].

## Hedge Funds

A hedge fund is basically an actively managed private investment fund that usually attracts a positive return. There can be both aggressive and conservative strategies to trading with hedge funds. They are very tricky to work with and are usually managed by professional investors. Most managers have a significant amount of their own wealth invested into the hedge fund as well, which gives the investor a feeling of comfort knowing that if the hedge fund tanks the manager loses his money as well [3].

The term "hedge fund" was introduced in the 1940s when Alfred Winslow Jones established the first one by employing long and short strategies that were enhanced with leverage. The Securities and Exchange Commission has defined the hedge fund as "a general, non-legal term used to describe private, unregistered investment pools that traditionally have been limited to sophisticated, wealthy investors" (p. 4). Hedge funds are not like mutual funds because they are not registered with the SEC, which means that they are subject to very few of the regulatory rules. Also, the managers of hedge funds do not need register with the SEC, and as a result of this lack of oversight, hedge funds have usually been limited to those accredited investors through high investments minimums of around $\$ 1$ million [3].

The hedge fund business has grown rapidly over the last couple of decades. In 1990, hedge funds managed nearly $\$ 40$ billion in assets. Around 15 years later, the hedge
funds managed more than $\$ 975$ billion, which is an astonishing growth rate. The majority of this increase came from the new money, or cash inflows, and the appreciation of principle. In today's market, the growth rate in new assets is $10-11$ percent each year [3].

New assets have been pouring into the hedge funds, but the number of hedge funds has also increased drastically over the years. Since 1990, the number of hedge funds has increased to around 9,000 worldwide. The assets of these hedge funds have increased to approximately $\$ 1$ trillion with an average of over 612 new hedge funds being established every year [3].

The main objective of a hedge fund is to acquire long term growth of capital. Depending upon the type of investment strategy, this is usually the case. However, some of the reduced-risk strategies don't produce as much capital growth as desired. The best way to check on the status of the investment is a comparison with certain performance benchmarks. In order to do this properly, one must compare like styles of investing to make accurate assumptions and obtain useful results. This helps the manager, as well as the investor, see how they are doing. If the passive index has a return of 9 percent, and the manager is above that, then he is doing well; moreover, if he has a return that is below that, then his performance is questionable, and things may need to be discussed [3].

Hedge funds have performed extremely well over the past twenty years and have even had lower risk than that of the overall market. When looking at the number of months that the market and the hedge funds acquired positive returns, in the same period the market had a positive return two-thirds of the time and the hedge funds three-quarters of the time. Even though the market had a higher average monthly return, the average
monthly loss was very high as well, which allowed the hedge funds to make up some ground. Therefore, in the long run, the hedge funds outperformed the market in absolute return and in risk-adjusted return.

## 1. 4 Growth Investing: High Risk/High Reward

Growth investing is definitely one of the more popular investing styles where investors look for a company that has great credentials, a history of solid earnings growth, and a great projected growth of earnings. The most amount of time in this process is finding the right stocks. The investor must find these stocks that not only have a great past but a future that will continue at that pace or even better. This is the tricky part and takes a great deal of research. However, once the investment has been made, these portfolios can be checked only once a quarter if desired because they tend to bring great profit; however, it is always recommended to check them more frequently in case the research did not come through [5].

Investors that use the growth strategy have to have a high tolerance for risk because growth stocks have a much higher $\mathrm{P} / \mathrm{E}$ ratio. They can have a dramatic reversal if the stock is affected by any number of outside influences that the investor could not have seen coming. One example of this is Cisco Systems (CSCO). In the early 1990s its growth rate was 50 to 100 percent each year and the $\mathrm{P} / \mathrm{E}$ was around 30 , which allowed it to be a reasonably priced growth stock. Cisco continued at this rate for about 5 years, which made it seem like a favorable stock. Then, towards the late 1990s when the hyper growth of the Internet slowed down, Cisco systems started on a steady and very serious
decline, which lead to major losses. This doesn't mean that growth investing is not worth it, but there are definitely high risks that come with the high rewards of growth stocks [5].

### 1.5 Value Investing

Value investors are those that don't really like risk and don't like to pay full price for a stock. They are looking for a bargain in the market. This means that any time there is a stock that is out of favor with the market, they tend to buy. A company or sector experiences a loss of confidence by the investors due to a series of earnings disappointments that show a drop in the growth rate, problems within the company or industry, or even the perception that the stock or industry has lost its excitement. This is when the growth stocks turn into value stocks because the $\mathrm{P} / \mathrm{E}$ ratio drops and the stock prices take a beating. This is when the value investors will buy because they can accept the loss of confidence for the lower risk value [5].

The value investor wants the same return as the growth investor but without the risk. The value investor is different from the growth investor because they are willing to wait for the confidence to come back to the company or sector and for the undervalued stock to regain its value or even exceed it. This requires more patience and time than with a growth stock [5].

## 2. Ryan Thomann's Simulation

### 2.1 Introduction

## Trading Strategy

Given the timeframe of our project, I have decided to go with a swing trading approach. The swing trading strategy is a branch of day trading with the difference being the duration of time in which you are holding the stocks before selling. In the day trading strategy, it is self explanatory that you are buying and selling during the time that the market is open only. The swing strategy allows you to incorporate the day trading scheme but for longer periods of time, which are still not categorized as long term. I believe this will be an ideal approach to take for this project and it will provide me with the versatility that I need in order to turn successful profits in my trading. I will be using 6 or 8 different stocks during my simulation, and base my share positions that I will be holding in each company on their strength and background. I will start out by using 4 or 5 stocks and riding them out until they have either reached my profit objective, or cut them if they cause my overall investment in that particular company to drop 6\%. After that I will rotate in the other companies that I have interest in by following the chart trends on the market based on a supply and demand ranking. I have provided a table below with the stocks in which I am interested in, neglecting any order of interest.

### 2.2 Company Overviews

| Company | Symbol | Company Involvement |
| :--- | :--- | :--- |
| Inc. | OSIR | Therapeutics |
| Home Depot Inc | HD | Hopplier <br> supeutics |
| Geron Corporation | GERN | Embryotic Stem Cells |
| Google Inc. | GOOG | Internet Search Engine |
| Dendreon Co. | DNDN | Retailer |
| Wal-Mart Stores Inc. | WMT |  |

Table 2.1.1: Stocks of interest

My first three stocks that I have chosen to run the first part of my swing method stock simulation are: Home Depot, Geron Corporation and Google. I invested \$150,000 into shares of the Google stock, and received roughly 296 shares. I invested $\$ 50,000$ into Home Depot stock and received 1329 shares. My last investment for the first couple weeks of the swing method investment method was Geron Co. I invested $\$ 50,000$ into this stock and received 6393 shares.

## HOME DEPOT

Home Depot Inc. is a Delaware corporation that was incorporated in 1978 (Marketwatch.com). It is a home improvement retailer, whose stores sell a wide assortment of building materials, home improvement, lawn, and garden products etc, which is only in the United States. Their products are mainly bought by professional business contractors, businesses, and municipalities. I figured this would be a great company to invest in during the summer months, due to the high level of building and reconstructing activities that are carried out during this time.


Fig 2.2.1: Home Depot Stock 1 year history

## GOOGLE

Google Inc. was founded in 1998 and is headquartered in Mountain View, CA. Google Inc. provides targeted advertising and internet search solutions worldwide. It is the most frequently used search worldwide. It lets viewer both upload and download a wide variety of information that can be viewed by anyone worldwide when a search is performed. It is a very popular stock which boomed in the last few years, and I felt it would be a very reliable profit maker.


Figure 2.2.2: Google Stock m1 year history

## GERON CORPORATION

Geron Corp is a biopharmaceutical company that develops therapeutic products for the treatment of cancer, and chronic degenerative diseases such as spinal cord injury, heart failure, diabetes, and HIV. They are developing an anti-cancer drug and a cancer vaccine that target the enzyme telomerase through a series of clinical trials. Furthermore, the development of a human embryonic stem cell, which through therapies could help cure spinal cord injuries. The company was founded in 1990 and its headquarters resides in Menlo Park, CA.


Figure 2.2.3: Geron Stock 1 year history

## WAL-MART

Wal-Mart stores Inc is a retail store in various formats worldwide. It has three different segments including Wal-Mart, Sam's Club, and International. Wal-Mart offers general merchandise including apparel, domestics, fabrics, books, shoes, house wares, hardware, electronics, sporting goods, toys etc. The store was founded in 1945 in Bentonville, AK.


Figure 2.2.4: Wal-mart stock 1 year history

## OSIRIS THERAPEUTICS

Osiris Therapeutics Inc. is a biotechnology company which commercializes stem cell products from adult bone marrow in the U.S. It develops and markets products to treat medical conditions involving inflammatory, orthopedic, and cardiovascular areas. The company has a strategic alliance with JCR Pharmaceuticals Co, and a collaboration agreement with Boston Scientific Corporation to develop applications of MSC technology to treat acute myocardial infraction and chronic ischemia. The company was founded in 1992 and is headquartered in Baltimore, MD.


Figure 2.2.5: OSIRIS stock 1 year history

## DENDREON CORP

Dendreon Corp, formerly known as Activated Cell Therapy Inc., is another biotech company, which engages in the discovery, development and commercialization of therapeutics that harness the immune system to fight cancer. The company has collaborative agreements with Genentech, Inc for the preclinical research, clinical development, and commercialization of products derived from trp-p8, which is an ion channel found in prostate cancer cells. The company was founded in 1992 in Seattle, Washington.


Figure 2.2.6: Dendreon stock 1 year history

## GENERAL DYNAMICS

General Dynamics Co provides land and expeditionary combat vehicles, systems, armaments, munitions, business aviation, shipbuilding, and marine systems for the United States Department of Defense. GD is comprised of four different segments: Aerospace, Combat Systems, Marine Systems, and Information and Technology systems. GD operates in North America, Europe, Latin America, the Middle East, Africa, and Asia. IT was founded in 1899 and is based in Falls Church, VA.


Figure 2.2.7: GD stock 1 year history

## RAYTHEON CO.

Raytheon Co is involved with the design, development, manufacturing, integration, and support of tech products, services, and solutions for governmental and commercial customers in the U.S and internationally. They primarily deal with military defense innovations in weaponry and systems. The company has six segments: Integrated Defense Systems, Intelligence and Info Systems, Missile Systems, Network Centric Systems, Space and Airborne Systems and Technical Services. Raytheon was founded in 1922 and is headquartered in Waltham, MA.


Figure 2.2.8: Raytheon Stock 1 year history

### 2.3 Trading

## TRADING RECORD

| Date | Symb | $\begin{gathered} \text { Buy/S } \\ \text { ell } \end{gathered}$ | Price | Share <br> s | Net Cost | Pro/Los | T. Cash | T. Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6/12/07 | GERN | Buy | \$7.81 | 6172 | \$48,203 | 0 | \$201,797 | \$250,000 |
| 6/12/07 | HD | Buy | \$37.55 | 1329 | \$49,903 | 0 | \$151,894 | \$250,000 |
| 6/12/07 | GOOG | Buy | \$506.34 | 296 | \$149,876 | 0 | \$2,018 | \$250,000 |
| 6/13/07 | GERN | Sell | \$7.51 | 6172 | \$46,351 | $(\$ 1,852)$ | \$49,988 | \$248,148 |
| 6/13/07 | GERN | Buy | \$7.81 | 6393 | \$49,929 | 0 | \$59 | \$248,148 |
| 6/21/07 | HD | Sell | \$39.88 | 1329 | \$53,000 | \$3,097 | \$53,059 | \$251,245 |
| 6/25/07 | GOOG | Sell | \$530.05 | 296 | \$156,894 | \$7.02 | \$209,953 | \$258,263 |
| 7/9/07 | GERN | Sell | \$7.31 | 6393 | \$46,732 | $(\$ 3,197)$ | \$256,685 | \$255,066 |
| 7/11/07 | WMT | Buy | \$47.58 | 2100 | \$99,918 | 0 | \$156,767 | \$255,066 |
| 7/11/07 | OSIR | Buy | \$12.87 | 3875 | \$49,871 | 0 | \$106,896 | \$255,066 |
| 7/11/07 | DNDN | Buy | \$7.84 | 6130 | \$48,059 | 0 | \$58,837 | \$255,066 |
| 7/11/07 | OSIR | Buy | \$12.72 | 1966 | \$25,007 | 0 | \$33,830 | \$255,066 |
| 7/13/07 | GOOG | Buy | \$548.01 | 55 | \$30,140 | 0 | \$3,690 | \$255,066 |
| 7/16/07 | DNDN | Sell | \$7.73 | 6000 | \$46,380 | (\$722) | \$50,070 | \$254,344 |
| 7/20/07 | DNDN | Sell | \$7.36 | 130 | \$956.80 |  | \$51,026 | \$254,344 |
| 7/26/07 | OSIR | Sell | \$12.85 | 5841 | \$75,057 | \$179 | \$223,715 | \$251,870 |
| 8/3/07 | GD | Buy | \$80.32 | 1000 | \$80,320 | \$0 | \$143,395 | \$251,821 |
| 8/3/07 | RTN | Buy | \$58.75 | 2000 | \$117,500 | \$0 | \$25,836 | \$250,900 |

Table 2.1.2: Trading record

## Week 1 trading

I am up on the week in all three companies stocks. My best gains were in Geron Co, followed by Home Depot, and then Google. I bought into Home Depot at a price of $\$ 37.55$ and it closed out the week at I have not yet saw any major jumps in my profit, nor any major losses where I needed to sell due to my $6 \%$ profit loss margin that I set as one of my boundaries.

| $6 / 12 / 07$ | GERN | Buy | $\$ 7.81$ | 6172 | $\$ 48,203$ | 0 | $\$ 201,797$ | $\$ 250,000$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $6 / 12 / 07$ | HD | Buy | $\$ 37.55$ | 1329 | $\$ 49,903$ | 0 | $\$ 151,894$ | $\$ 250,000$ |
| $6 / 12 / 07$ | GOOG | Buy | $\$ 506.34$ | 296 | $\$ 149,876$ | 0 | $\$ 2,018$ | $\$ 250,000$ |

Table 2.1.3: Week 1 Trading

## Week 2 Trading

Geron Co. had a week low of $\$ 7.50$ /share, but closed out at $\$ 7.94 /$ share at the end of this week. I made a gain thus far of $\$ 836.20$ profit in my stocks with Geron Co., and will hold my shares in this company for another week.

Google had a week low of $\$ 498.69 /$ share, but also closed the week with a new high for my shares at 505.89 /share. I have $\$ 82.88$ profit with this company, and will keep it for another week as well, although it may be my first trade.

Home Depot had a week low of $37.37 /$ share, and also finished out the week up at $\$ 37.95 /$ share, leaving me with a profit of $\$ 584.76$ thus far in my stocks with this company. I will keep it for another week, but am also looking to trade out of some stocks in this company this week.

## Week 3 trading

This week I made my first sell on my initial three stocks that I was running my simulation with. I sold out my shares in Google, and Home Depot and made \$5,394 in Google, as well as $\$ 3,069$ in Home Depot stock. Tomorrow when the market opens I will search for two or three more stocks to buy into and will update my status in next weeks report. I will keep my 6393 stocks in Geron corporation, in which I am currently
loosing in, and see how it plays out tomorrow with the start of the market in order to see if I can change it into a profit before I get out.

| $6 / 13 / 07$ | GERN | Sell | $\$ 7.51$ | 6172 | $\$ 46,351$ | $(\$ 1,852)$ | $\$ 49,988$ | $\$ 248,148$ |
| ---: | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| $6 / 13 / 07$ | GERN | Buy | $\$ 7.81$ | 6393 | $\$ 49,929$ | 0 | $\$ 59$ | $\$ 248,148$ |

Table 2.1.4: Week 3 Trading

## Week 4 trading

This week I sold my Home Depot stock and turned a $\$ 3,097$ profit. I also sold out my Google shares and made a profit of $\$ 7,018$.

| $6 / 21 / 07$ | HD | Sell | $\$ 39.88$ | 1329 | $\$ 53,000$ | $\$ 3,097$ | $\$ 53,059$ | $\$ 251,245$ |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| $6 / 25 / 07$ | GOOG | Sell | $\$ 530.05$ | 296 | $\$ 156,894$ | $\$ 7.02$ | $\$ 209,953$ | $\$ 258,263$ |

Table 2.1.5: Week 4 Trading

## Week 5 trading

This week I sold my Geron shares and lost $\$ 3,197$, but I got out before it had an even bigger dip in price. I also bought 2100 shares of Wal-Mart stock this week, 5841shares of Osiris Therapeutics, 6130 shares of Dendreon Co. stock, and bought back 55 shares of Google stock. See Table 2.1 for transaction history.

| $7 / 9 / 07$ | GERN | Sell | $\$ 7.31$ | 6393 | $\$ 46,732$ | $(\$ 3,197)$ | $\$ 256,685$ | $\$ 255,066$ |
| ---: | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| $7 / 11 / 07$ | WMT | Buy | $\$ 47.58$ | 2100 | $\$ 99,918$ | 0 | $\$ 156,767$ | $\$ 255,066$ |
| $7 / 11 / 07$ | OSIR | Buy | $\$ 12.87$ | 3875 | $\$ 49,871$ | 0 | $\$ 106,896$ | $\$ 255,066$ |
| $7 / 11 / 07$ | DNDN | Buy | $\$ 7.84$ | 6130 | $\$ 48,059$ | 0 | $\$ 58,837$ | $\$ 255,066$ |
| $7 / 11 / 07$ | OSIR | Buy | $\$ 12.72$ | 1966 | $\$ 25,007$ | 0 | $\$ 33,830$ | $\$ 255,066$ |
|  |  |  |  |  |  |  |  |  |
| $7 / 13 / 07$ | GOOG | Buy | $\$ 548.01$ | 55 | $\$ 30,140$ | 0 | $\$ 3,690$ | $\$ 255,066$ |

Table 2.1.6: Week 5 Trading

## Week 6 Trading

During this week's trading, I sold off my 6130 shares with Dendreon Co, and also sold my 5,841 shares of Osiris corp. All I have left is 55 shares of Google stock, and I will be looking to make some big moves in the last week of my simulation so that I finish with a decent enough profit.

| $7 / 16 / 07$ | DNDN | Sell | $\$ 7.73$ | 6000 | $\$ 46,380$ | $(\$ 722)$ | $\$ 50,070$ | $\$ 254,344$ |
| :---: | :--- | :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| $7 / 20 / 07$ | DNDN | Sell | $\$ 7.36$ | 130 | $\$ 956.80$ |  | $\$ 51,026$ | $\$ 254,344$ |
| $7 / 26 / 07$ | OSIR | Sell | $\$ 12.85$ | 5841 | $\$ 75,057$ | $\$ 179$ | $\$ 223,715$ | $\$ 251,870$ |

Table 2.1.7: Week 6 trading

## Week 7 trading

This week I made two trades and bough into Raytheon Co. Stock, as well as General Dynamics Stock. I bought 1000 shares of GD stock, and 2000 shares of RTN stock. I didn't make any profit off of these companies, and only reported losses in my final week of trading.

| $8 / 3 / 07$ | GD | Buy | $\$ 80.32$ | 1000 | $\$ 80,320$ | $\$ 0$ | $\$ 143,395$ | $\$ 251,821$ |
| ---: | :--- | :--- | :--- | :--- | ---: | ---: | ---: | :--- |
| $8 / 3 / 207$ | RTN | Buy | $\$ 58.75$ | 2000 | $\$ 117,500$ | $\$ 0$ | $\$ 25,836$ | $\$ 250,900$ |

Table 2.1.8: Week 7 Trading

### 2.3 Conclusion + Analysis

In the last ten weeks I have gained substantial knowledge about the way the stock market works. Through use of the stock simulation website I used on market watch, I was able to test the swing trading strategy in an attempt to turn profits. I was able to research companies and make the assumption on weather or not there was going to be a big jump or fall in the stock price. My assumptions were not always correct, but his helped me learn from my mistakes and will allow me to avoid the same types of mistakes
in the future. All in all I started out with $\$ 249,708$ total investment with three companies, Home Depot, Geron Co, and Google, and ended up with $\$ 252,436$. This is not the type of profit margin I was looking to produce with my trading method; however I still made $\$ 2700$, which is still a profit. Although I spent 7 weeks of trading in an attempt to both gain knowledge of the market and turn a successful profit, it was too short a period to learn all of the ins and outs that the market is made up of, and it was only the tip of the iceberg.

## 3. Ryan LaFalam's Simulation

### 3.1 Introduction

The approach that I am going to take for this simulation was is based on the trend following style of trading. I am going to pick companies that I think will be successful and stick with them for most of the simulation. At certain times during the simulation these companies could be on a temporary downfall where they could be traded I took more of a day-to-day trading mentality. However, I will keep the stocks through these temporary falls and keep them for a longer period of time. I will base my trading style on long-term trends rather than short-term. The values of stocks change on a daily basis and so they are quite near impossible to predict on a daily basis. There will always be gains and always be loses on a day to day basis.

The idea of my trading style is to ignore these daily changes and focus more on the longer term changes. These are the larger changes that occur over a longer period of time. With this type of mentality it will be easier to understand the process of stock trading by observing the activity of a few certain companies for weeks at a time. I will be able to determine what relations, if any occur between the drops in stock value and the activity that is going on in the company. For instance, maybe a new and inventive product put out by a certain company will cause a rise in stock value, or maybe it will cause a decline in stock value if no one buys the product.

The time for trading will come after a minimum of two or three weeks owning a certain companies' stocks. If the company is on a constant decline after a few weeks, the
stocks will most likely be sold, as this is qualified as a trend of decline. If a company is doing well then its stocks will obviously be kept for as long as it is successful. If the stocks of a certain company have a rapid decline, the shares will not be sold until after a period of at least a couple weeks. This allows for redemption of the stocks value. It gives the stock a chance to increase back to its original value and hopefully become profitable. These are the long term fluctuations that my trading style will be based on.

### 3.2 Company Selection

The companies that I selected for the simulation are Home Depot, IBM (International Business Machines). The Home Depot appeared to hold a somewhat consistent stock value. Over the past three years the value of a stock has remained within about a ten dollar change window. The consistency of the company means there is little risk investing in the company, and the chances of a big loss is minimal. At the same time, this means that the chances of a large increase are also minimal, so a large change in value either way is unlikely.

IBM is a company whose stock value has a history of fluctuation. Over the past two years, the value of stock has fluctuated by about forty dollars. This is a change of around 30 or 40 percent, which is mostly increase over the past few years. It appears that this company will be a good investment because judging by history, the stock value is increasing. The history of the stock, however, does not tell the future of the value. Even though it appears that the stock is on the rise, it could fall drastically in the blink of an eye. The large changes in value make this investment more of a risk, but at the same time, it could be more of a money maker.

The third company selected for the simulation is Focus Media Hldg. Ltd., which seems to be an up and coming company. It is a fairly new media company out of China whose stock has climbed from around five dollars about two years ago to the current value of about forty-five. Similar to IBM, the history of rise in stock value can not be relied on to continue that rise in the future. There will be some falls and some rises, but to be a successful investment, the stock increases must outweigh the decreases.

### 3.3 Weekly Reports

## Week 1

The first week of investment was not very profitable. The stock value of all three companies decreased over the week. 1,104 shares were bought of Focus Media at $\$ 45.38$ per share. After the first week, there was a total loss of $\$ 1,611.84$. There were 2,153 shares of Home Depot bought at $\$ 39.80$ per share. This stock value also decreased with a total loss of $\$ 4,649.05$. For IBM, there were 940 shares bought at $\$ 106.55$ per share. For the week, the overall change also resulted in a loss, which totaled $\$ 3,271.20$. The losses from the three company investments combined to give an overall loss of $\$ 9,532.09$ for the week. This is equivalent to a total return of $-3.85 \%$. Table 3.3.1 shows a summarization of the stocks that were purchased at the start of the simulation.

| Date | Symbol | Buyl <br> Sell | Price | Shares | Net Cost | Total <br> Cash | Total Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $6 / 4 / 07$ | FMCN | Buy | $\$ 45.38$ | 1,104 | $\$ 50,099.52$ |  | $\$ 0$ |
| $6 / 4 / 07$ | HD | Buy | $\$ 39.80$ | 2,513 | $\$ 100,017.40$ | $\$ 0,273.92$ |  |
| $6 / 4 / 07$ | IBM | Buy | $\$ 106.55$ | 940 | $\$ 100,157.00$ |  |  |

Table 3.3.1 Purchasing of Stocks

The following Table 3.3.2 displays the performance of the stocks from the start of the simulation to the end of the first week.

| Date | Symbol | Price | Shares | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $6 / 8 / 07$ | FMCN | $\$ 45.38$ | 1,104 | $(\$ 1,611.84)$ |  |  |
| $6 / 8 / 07$ | HD | $\$ 39.80$ | 2,513 | $(\$ 4,649.05)$ | $\$ 0$ | $\$ 240,741.83$ |
| $6 / 8 / 07$ | IBM | $\$ 106.55$ | 940 | $(\$ 3,271.20)$ |  |  |

Table 3.3.2 First Week Trading

## Week 2

The second week of the simulation was only slightly more successful than the first, with a rise in the stock of Focus Media, but again a loss in the other two companies of Home Depot and IBM. At the end of the week the price of Focus Media was $\$ 45.77$ per stock, which corresponds to a gain of $\$ 430.56$ from the initial investment in the company. The following graph displays the stock activity of Focus Media for the past business week.


Figure 3.3.1 - Focus Media Week 2

The beginning of the week started out slow, but the stock value rose as the week went on.
The other two companies were not as profitable. Home Depot finished the week at $\$ 37.95$ per stock which is almost two dollars less than its purchased value. This results in a total loss of $\$ 4,649.05$ for the company for the first two weeks of investment. The following graph shows the activity of the Home Depot stock for the past business week.


Figure 3.3.2 - Home Depot Week 2

Although there was a decent rise in the value of this stock, the price still fails to reach the initial cost of \$39.80.

The IBM stock was also unprofitable finishing out the week at a value of $\$ 105.09$ per stock. This results in a total loss of $\$ 1,372.40$ for the first two weeks of investment in IBM. The following graph displays the variation in stock value for IBM over the past business week.


Figure 3.3.3 - IBM Week 2

The graph shows that the stock value rose from the start to the end of the week, but like the Home Depot stock, it hasn't come close to its original cost. This most likely means that the time of purchase of these stocks was not very good. They must have been purchased at a time where the stock value was at a high point and much greater than the average value of the stock.

| Date | Symbol | Price | Shares | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $6 / 8 / 07$ | FMCN | $\$ 45.38$ | 1,104 | $\$ 430.56$ | $\$ 0$ | $\$ 235,150.94$ |
| $6 / 8 / 07$ | HD | $\$ 39.80$ | 2,513 | $(\$ 4,649.05)$ |  |  |
| $6 / 8 / 07$ | IBM | $\$ 106.55$ | 940 | $(\$ 1,372.0$ |  |  |

Table 3.3.3 Week 2 Trading

## Week 3

Week 3 was profitable for Focus Media Inc. but again disappointing for Home Depot and IBM. At the end of the week the value of IBM was $\$ 104.44$ per share which corresponds to an even greater loss from the previous week. Total loss for IBM totals \$1,983.40.

Home Depot's market value increased from week 2 to 39.36, but did not reach its initial purchase value, ending the week with a total loss of 1,105.72.

On the bright sight, Focus Media had a profitable return. The stock value at the end of the business week was 47.27 a $3.28 \%$ increase from week 2 and a total increase of $4.16 \%$, bringing the total market gain to $2,086.56$. Total loss is $\$ 1002.56$.

Focus Media is continuously on the rise due to the success of summer movie releases. With the decrease of stock of Home Depot and IBM it is time for a trade. The wisest move for trend following trading strategy is to sell these stocks and buy shares in other stocks on the rise.

| Date | Symbol | Price | Shares | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $6 / 8 / 07$ | FMCN | $\$ 45.38$ | 1,104 | $\$ 2,086.56$ | $\$ 230$ | $\$ 234,148.38$ |
| $6 / 8 / 07$ | HD | $\$ 39.80$ | 2,513 | $(\$ 1,105.72)$ |  |  |
| $6 / 8 / 07$ | IBM | $\$ 106.55$ | 940 | $(\$ 1,983.40)$ |  |  |

Table 3.3.4 Week 3 Trading

## Week 4

In week 6 of the simulation a few transactions were made in an attempt to increase profit. The shares of Focus Media were kept as the value of the stock continues to increase, providing an increasing profit for that particular stock. On the other hand, the shares of Home Depot were sold because they were not producing any profit, and actually maintained a value under cost which caused a loss of money. Even though IBM stock has also been disappointing over the past few weeks, all of the shares were kept. The reasoning behind this is that the computer and technologies industry is rapidly changing. There is a better and faster computer released to the market every few months. When these new technologies are released, they create a big stir in the market and most often the company which produced that product increases its worth by a large amount. This in turn increases the value of the stock. So then, the bottom line for keeping this stock is the anticipation of a new product from IBM.

Focus media stock again increased by a decent amount. It rose to $\$ 50.49$, which is a $\$ 3.22$ increase from week 5. This leads to a total gain of $\$ 5635.92$ between all the shares of Focus Media.

IBM is still on the disappointing side. The value of each share at the end of the week was $\$ 105.25$ which is 81 cents less than the value of last week. The overall loss from the 940 shares of IBM totals up to be $\$ 1,222.00$.

I made the decision on Monday to purchase another stock from a company that has had a previous trend of increasing stock value. The company selected was Apple, Inc. and the reasoning behind the decision was the release of the much anticipated iPhone. It is a new product that is supposed to revolutionize the cellular telephone
industry. The iPhone is a combination cell phone/portable computer/mp3 player that should be very popular in today's society. Eight hundred and eight shares of this stock were bought at $\$ 121.20$ per share. Table 3.3 .5 shows a summary of week 4's transactions and performance.

| Date | Symbol | Buyl <br> Sell | Price | Shares | Net Cost/ <br> Proceeds | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $6 / 29 / 07$ | HD | Sell | $\$ 39.35$ | 2,513 | $\$ 98,886.55$ | $(\$ 1,130.85)$ |  |  |
| $6 / 29 / 07$ | FMCN |  | $\$ 45.38$ | 1,104 |  | $\$ 5635.92$ | $\$ 98,886.55$ | $\$ 253,556.99$ |
| $6 / 29 / 07$ | IBM |  | $\$ 106.55$ | 940 |  | $(\$ 1,222.00)$ |  |  |
| $7 / 2 / 07$ | AAPL | Buy | $\$ 121.20$ | 808 | $\$ 97,929.60$ |  | $\$ 956.95$ | $\$ 253,556.99$ |

Table 3.3.5 Week 4 Trading

## Week 5

The purchase of the stocks of Apple, Inc. turned out as expected at least for the first week and proved to be a good investment. The following figure displays the stock value of the past week from Monday, July $2^{\text {nd }}$ to Friday July $6{ }^{\text {th }}$.


Figure 3.3.4 Apple's Progress

As the graph shows, only about a day and a half after the stock was bought its value began to rise. On Friday the stock began to settle out and remain about constant for the day.

Both Focus Media is still on the rise, it is increasing on a very slow pace. This is a company that is good to have an investment in using the trend following method of trading because its value remains constant for the most part. Since initial investment in the stock it has gradually increased and has not had any major downfalls so it is safe to keep this stock as something to fall back on if for the other companies fall through. Focus Media finished out the week at with a value of

IBM has also been a profitable investment over the past few weeks. Although the profit from the shares has not been excessive, they have been profits none the less. This is
somewhat different from the history of the stock which, as mentioned earlier, varied quite a bit. This is proof that the future of the stock market cannot be predicted by studying its past. IBM finished out the week with a profit of $\$ 2,415.80$.

Although these companies have been profitable, it may be smart to trade either half of each stock or one whole stock and invest in a company that appears to be on the rise. Keeping part or one of these companies provides somewhat of insurance for a solid portion of the money invested. Half of this money can be kept constant while the other half can be put at more of a risk with a company whose stock value fluctuates more often.

| Date | Symbol | Price | Shares | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $7 / 8 / 07$ | FMCN | $\$ 45.38$ | 1,104 | $\$ 2,616.48$ |  |  |
| $7 / 8 / 07$ | AAPL | $\$ 121.20$ | 808 | $\$ 8,968.80$ | $\$ 56.95$ | $\$ 254,513.94$ |
| $7 / 8 / 07$ | IBM | $\$ 106.55$ | 940 | $\$ 2,415.80$ |  |  |

Table 3.3.6 Week 5 Trading

For this week, I made profit on all of my investments. FCMN finished the week at $\$ 47.75$, which gave me a profit of $\$ 2,616.48$. IBM finished the week at $\$ 109.12$ leaving me a profit of $\$ 2,415.80$, and AAPL finished the week at $\$ 132.30$, which lead to a profit of $\$ 8,968.80$. My overall gains are for this week are $\$ 14,001.08$.

## Week 6

At the end of week 6 the price of Focus Media stock was at $\$ 49.54$, which is a $\$ 1.75$ increase from the end of last week. The Apple, Inc. stock finished the week at $\$ 139.26$, which is quite an increase of $\$ 6.96$ from last week. IBM finished week 6 with a
stock value of $\$ 109.53$, which is only a 41 cent increase from last week. These share values correspond to the week's profit for each of the stocks as shown in the following table.

| Date | Symbol | Price | Shares | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $7 / 15 / 07$ | FMCN | $\$ 45.38$ | 1,104 | $+\$ 4,592.64$ |  |  |
| $7 / 15 / 07$ | AAPL | $\$ 121.20$ | 808 | $\$ 14,592.48$ | $\$ 956.95$ | $\$ 262,455.02$ |
| $7 / 15 / 07$ | IBM | $\$ 106.55$ | 940 | $+\$ 2,801.20$ |  |  |

Table 3.3.7 Week 6 Trading

The total week's profit ended up being $\$ 7,941.08$, which contributes to the total asset of $\$ 262,455.02$. With an initial investment very close to $\$ 250,000$ and a total asset of $\$ 262,455.02$, my total profit after week 6 is approximately $\$ 12,455.02$. After the Home Depot Stocks were sold it seems as though profits hit an all time high, with each one of the stocks doing well.

## Week 7

This week was not quite as profitable as the past few weeks. All three of the stocks have decreased in value since week six. Focus Media plummeted with respect to previous changes in value ending the week at $\$ 42.93$ which is a decrease of $\$ 6.61$. This causes an overall loss from the Focus Media stock of $\$ 2,704.80$. The following graph displays behavior of the stock over the past month.


Millions

Figure 3.3.5 Focus Media's Progress over the Weeks

The value of the stock has been very steady without much variation all along until just recently. It has only varied by no more than two dollars or so, until this fall of about seven dollars. With this amount of decrease it could be time to sell this stock and invest on a company on the rise.

IBM ended the business week at $\$ 116.29$, which corresponds to an increase of $\$ 6.76$ per share from last week and an overall profit of $\$ 9,155.60$. This is a great increase for IBM as they have also been fairly constant in terms of stock value over the past few weeks.

The Apple, Inc. stock seemed to hit a peak somewhere in the past week as it is now decreasing by large amounts. The graph below shows the value of the stock over the past five days.


Figure 3.3.6 Apple's Increase in week 7
The graph shows how the stock value increased to a peak around the middle to the end of the week, and then dropped to finish out the week. It ended the week at $\$ 140.44$, which is still an increase of $\$ 1.18$ from last week but it could have potentially been quite a bit more if it had remained at its mid-week value instead of plummeting right at the end of the week. There is no need to sell the stock because it is still making money with an overall profit of $\$ 15,545.92$. This stock is by far the most profitable investment out of them all.

The table below shows a summary of this weeks performance, which turned out very successful with IBM, but not as successful for Focus Media or Apple, Inc.

| Date | Symbol | Price | Shares | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $7 / 22 / 07$ | FMCN | $\$ 45.38$ | 1,104 | $(\$ 2,704.80)$ |  |  |
| $7 / 22 / 07$ | AAPL | $\$ 121.20$ | 808 | $\$ 15,545.92$ | $\$ 956.95$ | $\$ 262,465.42$ |
| $7 / 22 / 07$ | IBM | $\$ 106.55$ | 940 | $\$ 9,155.60$ |  |  |

## Table 3.3.8 Week 7 Trading

## Week 8

This week there was some profit but not much at all. Focus Media is still in decline with another loss of value of $\$ 2,958.72$ since last week. At the beginning of the simulation this stock was very successful increasing in value each week. However, over the past few weeks it has been a major downfall as its value has dropped far below its cost. At the start of week one there were 1,104 shares of Focus Media bought at $\$ 45.38$ per share. That was an initial investment of exactly $\$ 50,099.52$. That value has decreased to $\$ 44,436.00$ for an overall decrease of $\$ 5,663.52$. Although at first this seemed like a profitable investment; and it could have been if the shares were sold when their value was up, it turns out that coming up on the end of the simulation, they will not be very profitable.

Apple still proves to be successful with another week's increase of $\$ 2,755.28$. This stock has been increasing since it was purchased a few weeks ago. If the simulation were to continue for a longer period of time a smart move would be to sell the shares of Focus Media and shift the money into Apple, Inc. since it appears to be so successful. However, this move would only be smart because it follows the method of trend following. It would not exactly be the most successful move to make. Any day the values of both Focus Media and Apple could reverse. Focus Media could increase
"through the roof" while Apple has a major downfall and falls below its initial cost. This is the completely unpredictable nature of the stock market.

IBM stocks continue their decrease in value as they fall again this week by $\$ 629.80$. Although this is somewhat of an insignificant amount in proportion to the initial investment, it adds to the rest of the decreases that have occurred the past few weeks. However, there is still a great profit in this stock because there was so much of an increase in the early weeks of the simulation. The overall profit from this stock is $\$ 8,525.80$. The following table 3.3.9 summarizes the gains and losses from the week and the overall value invested in the stock market.

| Date | Symbol | Price | Shares | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $7 / 29 / 07$ | FMCN | $\$ 45.38$ | 1,104 | $(\$ 2,958.72)$ |  |  |
| $7 / 29 / 07$ | AAPL | $\$ 121.20$ | 808 | $\$ 2,755.28$ | $\$ 56.95$ | $\$ 262,589.13$ |
| $7 / 29 / 07$ | IBM | $\$ 106.55$ | 940 | $(\$ 629.80)$ |  |  |

Table 3.3.9 Week 8 Trading

### 3.4 Conclusions and Analysis

The final outcome of this stock market simulation was profitable. At the close of the simulation, the overall changes in value from each of the companies were as follows. Focus Media produced an overall loss of $\$ 5,663.52$. IBM produced an overall profit of $\$ 8,525.80$. Home Depot, which was sold about mid-way through the simulation ended with an overall loss of $\$ 1,130.85$. The most profitable company was Apple, Inc. which finished with an overall profit of $\$ 18,301.20$. Altogether, the total profit resulted in about $\$ 20,000$. With this kind of result, I suppose it can be said that this was a successful run at
the stock market, because there was an overall profit. This profit could have changed quickly, however, if the simulation was continued into further weeks, because of the complete unpredictability of the stock exchange [2].

## 4. John Piccolomini's Simulation

### 4.1 Introduction

The strategies that I decided to employ were to take the more dominant companies and sit on them for the entire simulation. The companies I chose dominate their industries and have so much action and investment that the changes are usually subtle, resulting in either a slight increase or a slight loss in the value of the stock. I looked for companies that were on the rise with the idea that they would continue to rise over time. Also, I picked popular companies that I had heard of before so I knew they were dependable.

I also did a second simulation towards the end with a different strategy of buying more companies and then selling them sooner to see if I could make a quick profit. This made me look into companies that were growing faster and less popular. It gave me more insight into what trading in the stock market is really like and the stresses that people go through each day. Luckily, I was only using a simulation.

### 4.2 Company Selection

When it came to picking my companies, I looked at companies that I thought weren't too risky for an initial investor and would give a hopefully profitable pay out. I wanted companies that I could invest in with real money when I was first starting out. For that main reason I looked for companies that were of low risk and companies that have shown reports of steady earnings.

When I looked at Johnson \& Johnson I found that they were a defensive stock as well as a blue-chip and growth stock. This caught my attention because it had a high
reward with very little risk. Also, in the reading that I have done I have found that pharmaceutical companies are usually smart investments because so many people need their products.

Nike was an investment that I made due to Peter Lynch's style of investing. While reading his book, I found myself looking for stocks in companies that I purchase products from. I love Nike products, and many of my friends buy Nike attire as well, so I figured it would be a logical investment [1].

Tyco International came from my father. My father works for Tyco and owns stock in the company himself. I purchased this stock so I could track its records and talk to my dad about advice on the company and what to do with the stocks. I was curious to see how his company was doing and wanted to watch the progress.

### 4.3 Weekly Reports

| Date | Symbol | Price | Shares | Total <br> Cash | Total <br> Asset |
| :---: | :--- | :--- | :--- | :--- | :--- |
| $6 / 4 / 07$ | JNJ | $\$ 62.12$ | 750 | $\$ 46,590.00$ | $\$ 46,590.00$ |
| $6 / 4 / 07$ | TYC | $\$ 32.68$ | 3,040 | $\$ 99,347.20$ | $\$ 145,937.20$ |
| $6 / 4 / 07$ | NKE | $\$ 54.58$ | 2000 | $\$ 109,160.00$ | $\$ 255,097.20$ |

Table 4.1: Purchasing of Stocks

## Week 1

| Date | Symbol | Price | Shares | Net Cost/ <br> Proceeds | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :--- | :---: | :---: | :---: | :--- | :--- | :--- |
| $6 / 10 / 07$ | JNJ | $\$ 60.73$ | 750 | $\$ 46,687.50$ | $\$ 7.50$ | $\$ 46,597.50$ | $\$ 255,104.70$ |
| $6 / 10 / 07$ | TYC | $\$ 34.21$ | 3,040 | $\$ 102,842.20$ | $\$ 3,404.80$ | $\$ 102,752.00$ | $\$ 258,509.50$ |
| $6 / 10 / 07$ | NKE | $\$ 52.95$ | 2000 | $\$ 105,880.50$ | $(\$ 3,240.00)$ | $\$ 105,920.00$ | $\$ 255,269.50$ |

Table 4.2: Week 1 Trading


Figure 4.1 Charts for Week 1 Johnson \& Johnson

This is the stock chart for Johnson and Johnson that shows my earnings over the past few days. Right now Johnson and Johnson is up .13. The gain/loss ratio is $+\$ 7.50$ and the percent equity is 18.63 . Johnson and Johnson seem to be on the incline as shown in the charts.


Figure 4.2 Charts for Week 1 Tyco International

These are the charts for Tyco International, which show that the progression this week has been on a slow incline. Tyco has given me my largest profit this week, which is keeping me in the green. Tyco had a change of +1.17 , which led to a gain/loss ratio of $+\$ 3,404.80$ and a percent equity of 41.09 .


Figure 4.3 Chart for Week 1 Nike
Nike was a company that has been making less money than it usually does. This could be a risk; however, after reviewing charts and looking at the company's prospects, Nike looks to be coming back from its debt that it had before. I like Nike products and continue to buy them, so I am hoping they will bounce back.

This week hasn't been the best for Nike, and the change is at -1.14 . The gain/loss ratio put us at $-\$ 3,240$ and the percent equity is 42.35 . I'm hoping to see a rise in the stock price in the next few days.

## Week 2

| Date | Symbol | Price | Shares | Net Cost/ <br> Proceeds | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :--- | :---: | :---: | :---: | :--- | :--- | :--- |
| $6 / 17 / 07$ | JNJ | $\$ 62.78$ | 750 | $\$ 46,153.00$ | $\$ 487.50$ | $\$ 47,085.00$ | $\$ 255,757.00$ |
| $6 / 17 / 07$ | TYC | $\$ 35.41$ | 3,040 | $\$ 107,778.40$ | $\$ 4,895.60$ | $\$ 107,647.60$ | $\$ 260,652.60$ |
| $6 / 17 / 07$ | NKE | $\$ 51.8$ | 2000 | $\$ 103,545.30$ | $(\$ 2,320.00)$ | $\$ 103,600.00$ | $\$ 258,332.60$ |

Table 4.3 Week 2 Report
This week turned out to be much more profitable than last week. Both Johnson and Johnson and Tyco have given me profits, and Nike was my only loss. After adding up the $\$ 487.50$ and the $\$ 4,895.60$ and subtracting the loss from Nike of $\$ 2,320.00$, I was left with an overall profit on the week of $\$ 3,063.10$. This leaves me with a total return of $1.23 \%$. This was my first week of having a positive return, and based on the graphs it looks like the companies should continue to increase their earnings.

## Week 3

| Date | Symbol | Price | Shares | Net Cost/ <br> Proceeds | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :--- | :---: | :--- | :--- | :--- | :--- | :---: |
| $6 / 24 / 07$ | JNJ | $\$ 61.39$ | 750 | -1.38 | $(\$ 1,042.50)$ | $\$ 46042.50$ | $\$ 257,290.10$ |
| $6 / 24 / 07$ | TYC | $\$ 36.94$ | 3,040 | 0.94 | $\$ 4,651.20$ | $\$ 112,298.80$ | $\$ 261,941.30$ |
| $6 / 24 / 07$ | NKE | $\$ 50.17$ | 2000 | -1.14 | $(\$ 3,260.00)$ | $\$ 100,340.00$ | $\$ 258,681.30$ |

Table 4.4 Week 3 chart

## Week 4

| Date | Symbol | Price | Shares | Net Cost// <br> Proceeds | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| $7 / 1 / 07$ | JNJ | $\$ 60.89$ | 750 | $\$ 45,597.00$ | $(\$ 375.00)$ | $\$ 45,667.50$ | $\$ 258,306.30$ |
| $7 / 1 / 07$ | TYC | $\$ 38.05$ | 3,040 | $\$ 115,713.50$ | $\$ 3,374.40$ | $\$ 115,673.20$ | $\$ 261,680.70$ |
| $7 / 1 / 07$ | NKE | $\$ 53.88$ | 2000 | $\$ 107,850.30$ | $\$ 7,420.00$ | $\$ 107,760.00$ | $\$ 269,100.70$ |

Table 4.5 Week 4 Chart

This week was very strong for Nike, as they had a profit of $\$ 7,420.00$. This put me in the green with a return on the week of $4.02 \%$ and a total return of $4.13 \%$. My total asset now is $\$ 269,100.70$.

## Week 5

| Date | Symbol | Price | Shares | Net Cost/ <br> Proceeds | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :--- | :---: | :---: | :---: | :--- | :--- | :--- |
| $7 / 8 / 07$ | JNJ | $\$ 60.88$ | 750 | $\$ 45,613.50$ | $(\$ 7.70)$ | $\$ 45,659.80$ | $\$ 269,093.00$ |
| $7 / 8 / 07$ | TYC | $\$ 39.16$ | 3,040 | $\$ 119,152.20$ | $\$ 3,374.40$ | $\$ 119,047.60$ | $\$ 272,467.40$ |
| $7 / 8 / 07$ | NKE | $\$ 54.47$ | 2000 | $\$ 108,973.00$ | $\$ 1,180.00$ | $\$ 108,940.00$ | $\$ 273,647.40$ |

Table 4.6 Week 5 Chart
This week was decent overall because NKE and TYC both had a large profit, and JNJ's loss of $\$ 7.70$ didn't really hurt me that much. After calculating the profit and loss from each company, I was left with a total profit this week of $\$ 4,546.70$, which proved week 5 to be a great week for me.

## Weeks 6-8

My blue-chip companies JNJ and TYC didn't fair so well these last few weeks with JNJ losing \$1,762.50 and TYC losing \$1,489.60. Nike, however, has been doing great and ended the week at $\$ 110,660.00$. Therefore, the total asset for these weeks came to $\$ 272,115.30$, which gives me a profit of $\$ 17,018.10$.

| Date | Symbol | Price | Shares | Net Cost/ <br> Proceeds | Profit/Loss | Total <br> Cash | Total <br> Asset |
| :---: | :--- | :---: | :---: | :---: | :--- | :--- | :---: |
| $7 / 27 / 07$ | JNJ | $\$ 58.53$ | 750 | $\$ 43,792.00$ | $(\$ 1,762.50)$ | $\$ 43,897.30$ | $\$ 271,884.90$ |
| $7 / 27 / 07$ | TYC | $\$ 38.67$ | 3,040 | $\$ 117,472.30$ | $(\$ 1,489.60)$ | $\$ 117,558.00$ | $\$ 270,395.30$ |
| $7 / 27 / 07$ | NKE | $\$ 55.33$ | 2000 | $\$ 110,685.20$ | $\$ 1,720.00$ | $\$ 110,660.00$ | $\$ 272,115.30$ |

Table 4.7 Weeks 6-8

## Week 9

This last week I sold my companies and finished my simulation. Both JNJ and NKE did really well for me in the last week. TYC had a rough week and dropped $\$ 3,312.50$, which surprised me because TYC was doing so well over the entire simulation. The total profit made from TYC throughout the entire simulation was $\$ 14,898.30$, and Nike gave me a profit of $\$ 5,349.95$. My only loss came with JNJ, which dropped $\$ 1,029.77$.

| Date | Symbol | buyl sell | Price | Shares | Net Cost/ Proceeds | Profit/ Loss | Total Cash | Total Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8/07/07 | JNJ | Sell | 60.75 | 750 | 46,490.43 | 1662.93 | \$45,560.23 | \$273,778.23 |
| 8/07/07 | TYC | Sell | 37.58 | 3,040 | 114,220.81 | -3312.50 | \$114,245.50 | \$270,465.73 |
| 8/08/07 | NKE | Sell | 57.25 | 2000 | 114,729.95 | 3849.95 | \$114,509.95 | \$274,315.68 |

## Table 4.8 Week 9

## Weeks 6-8 Second Simulation

These last few weeks I decided to do something different. My strategies before had been to take the bigger companies and sit on them for a long period of time to slowly watch them grow. The first three companies that I chose were making me profits with that type of strategy; however, I decided that I wanted to learn more about the stock market, the companies, and the way they rise and fall each day. To do this I decided to buy some new stocks and watch them closely. All the stocks that I bought were at a constant rate as the graphs above show, and they looked reasonably steady. Unfortunately, all of them slowly started to decline as the weeks went on. I decided that I didn't want to sell any of them because I wanted to wait for them to make a slight comeback. This strategy hurt me because last week was a horrible week for my companies, as almost all of them dropped significantly. Now I will have to wait for next
week to sell and take a loss or hopefully see a comeback. This goes to show that you never really know when the companies are going to bounce back or if they are going to keep declining. There is so much to watch and read about to stay on top of your companies and how they are doing. It would have been a really tough lesson if this was my real money.


Figure 4.4 UBS chart

UBS AG was founded on June $29^{\text {th }} 1998$, with the merger of Union Bank of Switzerland and Swiss Bank Corporation. It operates under Swiss Company Law and Swiss Federal Banking Law as a corporation that has issued shares of common stock to investors. It is a global financial services company and focuses on wealth and asset management, investment banking, and securities businesses. The first shares of UBS that

I bought were at $\$ 59.96$, and I bought 200 shares for a total of $\$ 11,996$. With the horrible past few days of the stock market, the shares dropped to $\$ 54.40$ for a total loss of \$1,112.00.


Figure 4.5 HMC Chart

Honda Motor Co., Ltd. is a limited liability, joint stock corporation that was started on September 24, 1948. It was formed to succeed the business of an unincorporated enterprise established in 1946 by Soichiro Honda for the purpose of manufacturing motors for motorized bikes. They make engines and motor products for a variety of different cars and purposes. Approximately 19.5 million Honda engines were sold worldwide in the fiscal year that ended on March $31^{\text {st }}$, 2006. I own a 2004 Honda Civic and have been completely happy with it. I liked the company and decided to try them out. I purchased 200 shares of HMC stock at $\$ 36.56$ a share for a total of $\$ 7,318.00$. The shares are now at $\$ 35.65$ for a total loss of $\$ 182.00$.


Figure 4.6 ERIC chart

Ericsson Telephone Company was incorporated on August 18, 1918, and is a provider of telecommunications equipment and related services to mobile and fixed network operations globally. Ericsson has been a big hit recently with their walkman related cell phone products. I traveled to Europe to find that many people had these cell phones, which made me think they would be on steady rise of profit. I purchased 420 ERIC shares at $\$ 41.47$ for a total of $\$ 17,417.40$. The shares dropped to $\$ 37.23$ which gave a loss of \$1,781.40.


BASF is a transnational chemical company and has five separate business segments: Chemicals, plastics, performance products, agricultural products, and nutrition oil and gas. They offer one of the plastic industries most comprehensive product ranges. They are organized into three main subdivisions: Styrenics, Performance Polymers, and Polyurethanes. I read a lot about BASF and heard only good things so I decided to take a shot with them. I purchased 10 BF shares at $\$ 131.80$ for a total of $\$ 1,138.00$. They dropped to $\$ 124.12$ for a total loss of $\$ 76.80$, which was the smallest loss that I had.

| Date | Sym | buyl sell | Price | Shares | Net Cost/ Proceeds | Profit/ Loss | Total Cash | Total Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7/10/07 | UBS | Buy | 54.4 | 200 | 10,880.00 | 0 | \$10,880.00 | \$192,887.00 |
| 7/10/07 | HMC | Buy | 35.65 | 200 | 7,130.00 | 0 | \$7,130.00 | \$192,887.00 |
| 7/10/07 | ERIC | Buy | 37.23 | 420 | 15,636.60 | 0 | \$15,636.60 | \$192,887.00 |
| 7/10/07 | WPO | Buy | 790 | 200 | 158,000.00 | 0 | \$158,000.00 | \$192,887.00 |
| 7/10/07 | BF | Buy | 124.12 | 10 | 1,241.20 | 0 | \$1,241.20 | \$192,887.00 |
| 8/07/07 | ERIC | Sell | 37.97 | 420 | 15,836.95 | 311.35 | \$15,947.95 | \$193,198.35 |
| 8/07/07 | BF | Sell | 132.86 | 10 | 1,335.35 | 87.35 | \$1,328.55 | \$193,285.70 |
| 8/08/07 | UBS | Sell | 57.59 | 200 | 11,528.65 | 637.95 | \$11,517.95 | \$193,923.65 |
| 8/08/07 | HMC | Sell | 35.08 | 200 | 7,002.65 | -114.05 | \$7,015.95 | \$193,809.60 |
| 8/08/07 | WPO | Sell | 801.84 | 200 | 160,471.55 | 2367.95 | \$160,367.95 | \$196,177.55 |

Table 4.9 The Second Simulation

As I had hoped, the companies came back this week and last week was just a bad week. Most of the companies came back strong so I figured I would sell right away before I lost more money, which was a strategy that Peter Lynch constantly talks about. I started out with $\$ 192,887.00$, and after I sold my shares this week I actually made a profit. My final assets turned out to be $\$ 196,177.55$, which left me with a total profit of $\$ 3,290.55$. While doing this different style of trading, I figured out that there are easier ways to make money faster, but it requires more time and effort. I constantly was watching to see if the companies were rising or falling, and I was constantly doing research on the companies. This ended up being very interesting because there is so much going on all the time. It was hard to stay on top of everything, but you learn a lot very quickly. I learned that if you have the money, you can go for the larger companies like WPO, and you will lose money or gain money very quickly. I ended up making a total profit of $\$ 2367.95$ on just WPO alone. It's a risky investment, but it was fun to research.

### 4.4 Conclusion

I started at $\$ 255,097.20$ invested in these three companies, and overall I finished with $\$ 274,315.68$ for a total profit of $\$ 19,218.48$. I was pleased with this overall profit considering the fact that it was my first time investing and I acquired a decent amount of assets. The best company that I invested in was Tyco, which made a total of $\$ 14,898.30$. My strategy of investing in the blue-chip, dominant companies seemed to turn over a pretty favorable amount of profit; however, based on this result I feel that when trading with this style, one must invest over a longer period of time. These companies do rise over time, but Peter Lynch was right when he said that these companies rise slowly. Also, the investor has to sit through the losses and wait for the overall profit, because these companies do fluctuate a lot. This makes it difficult to trade for a short time with these companies, and the investor must make sure that the profits will be larger than the losses. Given the time period, I feel that I made a decent profit off these companies and that it was a relatively smart strategy. Overall, it seems like this would be a safe investing strategy for a long term investor.

## 5. Levi Wade's Simulation

### 5.1 Introduction

While it is obvious that certain investment strategies fare better in the open market than others, this 10 -week simulation will pit strategy against itself. It seems almost intuitive that methods of investing, by numbers alone, would vary with company size. To put a test to this theory; companies have been chosen in two totally different markets. Two companies from the communications sector and two from transportation have been picked for market similarity and difference in size. The idea is that the investment scheme will favor the larger companies. The investment strategy is as follows. Each week market indexes will be reviewed. Buy/Sell days will be Monday, Wednesday and Friday. If the market shows an upward trend, the stocks in that market will be bought. However, the moment a market shows signs of a decline with a downward trend, the stocks in that market will be sold. With the larger companies having a greater effect on market because of their size the larger company should fare better.

Markets will be benchmarked by specific indexes. Over the next 10 -weeks analysis of the S\&P 500 and the Dow Jones Transportation average will control investment. The S\&P has been chosen due to its average of highly technology based stocks. Cellular phone companies are popular in this index and it reflects their general status well. The Dow Jones Transportation average is just that. It reflects the transportation industry. As air carriers are a major part of the transportation business it will also reflect their market well. The initial investments have been chosen relative to the size of the company. As a more sizable investment is needed proportionally, it has been broken down as follows:

### 5.2 Company Selection

Company
Sprint Nextel Corp. (S)
AllTel Corp. (AT)
Southwest Airline Co. (LUV)
Alaska Air Group, Inc. (ALK)

Initial Investment
\$93,750.00
\$31,250.00
\$93,750.00
\$31,750.00

## Total Money Invested $\quad \$ \mathbf{2 5 0 , 0 0 0 . 0 0}$

The two companies were selected with a specific purpose. Both Sprint and Southwest are large companies within their market. Comparatively Alltel and Alaska Air Group are relatively small companies within their markets. Both Sprint and Alltel are listed in the S\&P 500 Index while Southwest and Alaska Air Group are listed in the Dow Jones Transportation Index. This way, the markets can be charted and trades can be made accordingly.

### 5.3 Weekly Reports

Week 1 (June $4^{\text {th }}-$ June $8^{\text {th }}$ )

## Market Performance



Figure 5.1: Week 1 Dow Jones Transportation Average

This week was a little different as far as trades went. Being as money was to be invested on June $4^{\text {th }}$ money was instantly lost. If the trading method was followed from the beginning, stocks would not have been purchased until June $8^{\text {th }}$. So, transportation stocks were purchased on June $4^{\text {th }}$. When Wednesday came the market had shown a continuing downturn and they were sold. Friday the $8^{\text {th }}$ showed market growth and stocks were again purchased.


Figure 5.2: Week 1 S\&P 500 Index
Trades began in the communications sector this week on Monday, June $4^{\text {th }}$. Almost instantly the market showed signs of decline and the money was taken out of investments that following Wednesday, June $6^{\text {th }}$. When Friday came, the market was showing an upward trend and communications stocks were repurchased.

## Transactions

| Symbol | Buy/Sell | Date | Shares | Price | Buy/Sell Value | Total Earnings <br> per Stock |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| S | B | 4-Jun | 4104.64 | 22.84 | $\$ 93,750.00$ | $\$ 0.00$ |
| S | S | 6-Jun | 4104.64 | 22.62 | $\$ 92,846.98$ | $-\$ 903.02$ |
| S | B | 8-Jun | 4212.66 | 22.04 | $\$ 92,846.98$ | $-\$ 903.02$ |
| AT | B | 4-Jun | 454.68 | 68.73 | $\$ 31,250.00$ | $\$ 0$ |
| AT | S | 6-Jun | 454.68 | 68.45 | $\$ 31,122.69$ | $-\$ 127.31$ |
| AT | B | 8-Jun | 457.35 | 68.05 | $\$ 31,122.69$ | $-\$ 127.31$ |
| LUV | B | 4-Jun | 6578.95 | 14.25 | $\$ 93,750.00$ | $\$ 0$ |
| LUV | S | 6-Jun | 6578.95 | 14.22 | $\$ 93,552.63$ | $-\$ 197.37$ |
| LUV | B | 8-Jun | 6447.46 | 14.51 | $\$ 93,552.63$ | $-\$ 197.37$ |
| ALK | B | 4-Jun | 1094.95 | 28.54 | $\$ 31,250.00$ | $\$ 0$ |
| ALK | S | 6-Jun | 1094.95 | 27.41 | $\$ 30,012.70$ | $-\$ 1,237.30$ |
| ALK | B | 8-Jun | 1099.77 | 27.29 | $\$ 30,012.70$ | $-\$ 1,237.30$ |

## Table 5.1: Week 1 Transactions

For a first week of trading, this was very discouraging. All the stocks went down. Almost instantly after investing money on June $4^{\text {th }}$ both markets showed signs of decline and the money was pulled out. However, as the table shows, money was not pulled out quickly enough and money was lost. This week a total of $\$ 2,267.63$ was lost.

## Week 2 (June 11th - June 15th)



Figure 5.3: Week 2 Dow Jones Transportation Average

While transportation stocks were purchased at the end of last week. The market showed a decline at the end of the day on Monday, June $11^{\text {th }}$ and money was pulled out. Again on Wednesday, June 13 the market bounced back and again stocks were purchased.


Figure 5.4: Week 2 S\&P 500 Index
This week showed a relative upward trend. While there was a dip mid week, the index continually climbed. Because of this, no communications stocks were traded this week.

Transactions

| Symbol | B/S | Date | Shares | Price | Buy/Sell Value | Total Earnings per Stock |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| LUV | S | 11-Jun | 6447.46 | 14.53 | $\$ 93,681.58$ | $-\$ 68.42$ |
| LUV | B | 13-Jun | 6528.33 | 14.35 | $\$ 93,681.58$ | $-\$ 68.42$ |
| ALK | S | 11-Jun | 1099.77 | 27.02 | $\$ 29,715.76$ | $-\$ 1,534.24$ |
| ALK | B | 13-Jun | 1120.93 | 26.51 | $\$ 29,715.76$ | $-\$ 1,534.24$ |

Table 5.2 Week 2 Transactions
This week the S\&P 500 showed a continual increase so stocks in the communications sector were not sold. However, the Dow had a few fluctuations and
trades were made accordingly. Unfortunately again, more money was lost than made. The total loss up to this point is $\$ 2,632.99$.

## Week 3 (June 18th - June 22nd)

## Market Performance



Figure 5.5: Week 3 Dow Jones Transportation Average
This week opened with a loss in the transportation sector. Money was pulled out of investments at the end of the day Monday, June $18^{\text {th }}$. While come Thursday, June $21^{\text {st }}$ the Dow showed signs of resurgence, come closing bell on Friday it again posted losses.


Figure 5.6: Week 3 S\&P 500 Index

This week began well with relatively upward trends. Wednesday, June $20^{\text {th }}$ saw a rather sharp turn downward and communications stocks were sold. While the market almost recovered on Thursday, June $21^{\text {st }}$ it saw another fall on Friday, June $22^{\text {nd }}$. At the end of the week stocks were not repurchased.

## Transactions

| Symbol | B/S | Date | Shares | Price | Buy/Sell Value | Total Earnings per Stock |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| S | S | 20-Jun | 4212.658 | 21.99 | $\$ 92,636.35$ | $-\$ 1,113.65$ |
| AT | S | 20-Jun | 457.35 | 67.7 | $\$ 30,962.62$ | $-\$ 287.38$ |
| LUV | S | 20-Jun | 6528.33 | 14.88 | $\$ 97,141.60$ | $\$ 3,391.60$ |
| ALK | S | 20-Jun | 1120.93 | 28.19 | $\$ 31,598.92$ | $\$ 348.92$ |

## Table 5.3 Week 3 Transactions

This week has marked the first profit seen in trading. Southwest and Alaska Air Group has covered the losses of Spring and AllTel. While proving the trading theory has still to be proven, one set of companies have illustrated the theory. Hopefully next week the communications sector will fall into place.

Week 4 (June 25th - June 29th)
Market Performance


Figure 5.7: Week 4 Dow Jones Transportation Average

The beginning of this week showed market growth and transportation stocks were purchased at the end of the day Monday, June $25^{\text {th }}$. While the next day the market shrunk again, it bounced back on Wednesday, June $27^{\text {th }}$ and no transportation stocks were moved. The end of the day Friday, June $29^{\text {th }}$ again showed signs of a decline and stocks were sold at the end of the day.


Figure 5.8: Week 4 Dow S\&P 500 Index
The beginning of this week continued the trend from the previous week. The market was still steadily declining until about Wednesday, June $27^{\text {th }}$ when a sharp jump showed and upward trend. Communications stocks were purchased and held on to for the rest of the week.

## Transactions

| Symbol | B/S | Date | Shares | Price | Buy/Sell Value | Total Earnings per Stock |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| S | B | 27-Jun | 4282.771 | 21.63 | $\$ 92,636.35$ | $-\$ 1,113.65$ |
| AT | B | 27-Jun | 458.43 | 67.54 | $\$ 30,962.62$ | $-\$ 287.384$ |
| LUV | B | 25-Jun | 6476.11 | 15 | $\$ 97,141.60$ | $\$ 3,391.60$ |
| LUV | S | 29-Jun | 6476.11 | 14.91 | $\$ 96,558.75$ | $\$ 2,808.75$ |
| ALK | B | 25-Jun | 1149.05 | 27.5 | $\$ 31,598.92$ | $\$ 348.92$ |
| ALK | S | 29-Jun | 1149.05 | 27.86 | $\$ 32,012.58$ | $\$ 762.58$ |

Table 5.4 Week 4 Transactions

This week was much of an extension of last week. Some money was made, some money was lost but there have been no notable gains or losses. The transportation sector has still illustrated the trading theory however the communications stocks have not.

## Week 5 (July 2nd - July 6th)

## Market Performance



Figure 5.9: Week 5 Dow Jones Transportation Average
After the up and down week trends of last week, week five has shown continual growth.
Transportation stocks were purchased at the end of the day Monday, July $2^{\text {nd }}$ and no more moves were made this week.


Figure 5.10: Week 5 S\&P 500 Index

This week continued last week's trend as a growing market. No movements were made this week in the communications sector.

## Transactions

| Symbol | Buy/Sell | Date | Shares | Price | Buy/Sell Value | Total Earnings per Stock |
| :--- | :--- | :---: | :--- | ---: | ---: | ---: |
| LUV | B | 2-Jul | 6463.10 | 14.94 | $\$ 96,558.75$ | $\$ 2,808.748$ |
| ALK | B | 2-Jul | 1124.43 | 28.47 | $\$ 32,012.58$ | $\$ 762.579$ |

## Table 5.5 Week 5 Transactions

This was another bland week of trading. After the Dow showed signs of decline last week things have turned upwards. The two airline stocks have really shown a good representation of the trading theory.

## Week 6 (July 9th - July 13th)

## Market Performance



Figure 5.11: Week 6 Dow Jones Transportation Average


Figure 5.12: Week 6 S\&P 500 Index
No stocks were traded this week. While there was a dip mid-week, both markets have shown relative upward trends and thus no moves were made.

## Week 7 (July 16th - July 20th)

## Market Performance



Figure 5.13: Week 7 Dow Jones Transportation Average
This week showed continual upward trends much of the week. Friday, July $20^{\text {th }}$ however showed a sharp downfall. As a result transportation stocks were sold at the end of the day Friday.

## Figure 5.14: Week 7 S\&P 500 Index

After last week the market showed signs of decline and stocks were sold on Monday, July $16^{\text {th }}$. No real change occurred throughout the week and thus no more moves were made.

## Transactions

| Symbol | Buy/Sell | Date | Shares | Price | Buy/Sell Value | Total Earnings per Stock |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| S | S | 16-Jul | 4282.771 | 22.37 | $\$ 95,805.60$ | $\$ 2,055.60$ |
| AT | S | 16-Jul | 458.43 | 67.85 | $\$ 31,104.73$ | $-\$ 145.27$ |
| LUV | S | 20-Jul | 6463.10 | 16.35 | $\$ 105,671.72$ | $\$ 11,921.72$ |
| ALK | S | 20-Jul | 1124.43 | 27.73 | $\$ 31,180.50$ | $-\$ 69.50$ |

Table 5.6 Week 7 Transactions
Finally the investments have shown some rather solid proof of the investment theory. The larger companies have made money considerable amounts of money while the small companies have made considerably less.

## Week 8 (July 23rd - July 27th)

## Market Performance



## Figure 5.15: Week 8 Dow Jones Transportation Average

Monday, July $23^{\text {rd }}$ showed signs of a growing market and transportation stocks were purchased. However, the rest of the week showed sharp declines and stocks were dumped for the rest of the week.


Figure 5.16: Week 8 S\&P 500 Index
The market showed signs of recovery Monday, July $23^{\text {rd }}$. Stocks were purchased at the end of the day. While the market declined Tuesday, it looked like things were back on the up Wednesday so money was left invested. Not until Friday, July $27^{\text {th }}$ when the

Market took a steep fall was money taken out.

## Transactions

| Symbol | Buy/Sell | Date | Shares | Price | Buy/Sell Value | Total Earnings per Stock |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: |
| S | B | 23-Jul | 4350.845 | 22.02 | $\$ 95,805.60$ | $\$ 2,055.60$ |
| S | S | 25-Jul | 4350.845 | 21.66 | $\$ 94,239.29$ | $\$ 489.29$ |
| AT | B | 23-Jul | 463.21 | 67.15 | $\$ 31,104.73$ | $-\$ 145.27$ |
| AT | S | 25-Jul | 463.21 | 66.13 | $\$ 30,632.25$ | $-\$ 617.75$ |
| LUV | B | 23-Jul | 6435.55 | 16.42 | $\$ 105,671.72$ | $\$ 11,921.72$ |
| LUV | S | 25-Jul | 6435.55 | 16.29 | $\$ 104,835.10$ | $\$ 11,085.10$ |
| ALK | B | 23-Jul | 1122.00 | 27.79 | $\$ 31,180.50$ | $-\$ 69.50$ |
| ALK | S | 25-Jul | 1122.00 | 27.09 | $\$ 30,395.10$ | $-\$ 854.90$ |

## Table 5.7 Week 8 Transactions

This week has been rather rough for trading. The two markets have been in a general decline and thus the stocks have been in decline. While it is possible to trade in a manner to make money while a market is in decline this trading strategy does not address that directly. To date the total money made from trading is $\$ 10,101.74$.

## Week 9 (July 30th - August 3rd)

## Market Performance



Figure 5.17: Week 9 Dow Jones Transportation Average

This week wasn't a rollercoaster but it wasn't a steady week either. Early gains in the week in the market caused the purchase of transportation stocks which, almost instantly, lost money. Another upward trend mid-week caused the investments to stay in place until Friday when the market fell sharply. Overall, not a good week for a strategy that trades on Mondays, Wednesdays and Fridays as all the downward trends took place in off days.


Figure 5.18: Week 9 S\&P 500 Index
The S\&P 500 chart for week 9 is almost identical to the Dow chart by means of upward and downward trends. Money was invested at the beginning of the week. By the end of the week stocks were sold and money was lost.

## Transactions

| Symbol | Buy/Sell | Date | Shares | Price | Buy/Sell Value | Total Earnings per <br> Stock |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| S | B | 30-Jul | 4502.594 | 20.93 | 94239.29 | 489.29 |
| S | S | 3-Aug | 4502.594 | 19.77 | 89016.28 | -4733.72 |
| AT | B | 30-Jul | 458.84 | 66.76 | 30632.25 | -617.746 |
| AT | S | 3-Aug | 458.84 | 67.09 | 30783.67 | -466.329 |
| LUV | B | 30-Jul | 6552.19 | 16 | 104835.10 | 11085.1 |
| LUV | S | 3-Aug | 6552.19 | 15.6 | 102214.22 | 8464.223 |
| ALK | B | 30-Jul | 1243.66 | 24.44 | 30395.10 | -854.904 |
| ALK | S | 3-Aug | 1243.66 | 23.15 | 28790.77 | -2459.23 |

Table 5.8: Week 9 Transactions
Week 10 (August $6^{\text {th }}-$ August $\mathbf{1 0}^{\text {th }}$ )

## Market Performance



Figure 5.19: Week 10 Dow Jones Transportation Average
This week began well and again very quickly turned sour. The market steadily gained until Wednesday where it began to shoot down. Again not favorable to the trend following Monday, Wednesday, Friday buy/sell day scheme, the market tanked after closing on Wednesday causing stock sales on Friday.


Figure 5.20: Week 10 S\&P 500 Index
The S\&P this week followed much of the same trends as the Dow Jones Transportation Average. Early week gains sparked stock purchases while end of week losses caused sales.

## Transactions

| Symbol | B/S | Date | Shares | Price | Buy/Sell Value | Total Earnings per Stock |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| S | B | 6-Aug | 4473.18 | 19.9 | $\$ 89,016.28$ | $-\$ 4,733.72$ |
| S | B | 10-Aug | 4473.18 | 18.85 | $\$ 84,319.44$ | $-\$ 9,430.56$ |
| AT | B | 6-Aug | 457.07 | 67.35 | $\$ 30,783.67$ | $-\$ 466.33$ |
| AT | S | 10-Jun | 457.07 | 65.9 | $\$ 30,120.92$ | $-\$ 1,129.08$ |
| LUV | B | 6-Aug | 6552.19 | 15.6 | $\$ 102,214.22$ | $\$ 8,464.22$ |
| LUV | S | 10-Aug | 6552.19 | 16.6 | $\$ 108,766.42$ | $\$ 15,016.42$ |
| ALK | B | 6-Aug | 1262.75 | 22.8 | $\$ 28,790.77$ | $-\$ 2,459.23$ |
| ALK | S | 10-Aug | 1262.75 | 25.06 | $\$ 31,644.59$ | $\$ 394.59$ |

Table 5.9: Week 10 Transactions

### 5.4 Conclusion

In the past ten weeks the market as a whole has been in a state of turbulence. Be it outside influences from politics to consumer tendencies, it has been a rollercoaster. Leaving behind the inherit fluctuations of the open market, the trend based trading strategy has concluded at somewhat of a draw. While the goal of any investor is to make money, this was not necessarily the case in this simulation. Simply a greater gain, or
similarly as lesser loss, was needed to be maintained by the larger company for a success. However, the results are not that clear.

In the beginning it seemed is if the method was playing out as it should. Sprint and Southwest were both making money while Alltel and Alaska Air group were either making less or none at all. When the project came to a close in week ten however, this was not the case. While Southwest blew Alaska Air Group out of the water in the final week, Sprint lost an astounding nine-thousand dollars while Alltel only lost about fivehundred. These losses can be chalked up to many factors. This unhappy investor is going to place the blame with the competing introduction of AT\&T's iPhone.

Disregarding the final weeks for the telecommunications investments the simulation has succeeded. While other factors may have influenced results it can be comfortably stated that due to a larger market share, following market trends can produce greater profit within the larger company.

## 6. Jan Thomas' Simulation

### 6.1 Introduction

## Momentum Trading

For the next few weeks I decided to take a closer look into momentum trading in order to successfully invest in the market. Using the momentum trading method needs quite a great deal of knowing indicators. For me, being a novice on the market floor that means I need a good amount of research before starting to invest. This research consists of how to use the method plus the importance of the indicator. In addition one need to find the right stocks that show the right patterns and characteristics needed to have a profitable solution [8].

Momentum trading focuses on short term investment. The most important tools with this method are the exponential moving average (EMA) which is a lagging indicator, or trend follower, and the moving average convergence/divergence (MACD) histogram also a lagging indicator but with leading elements. The EMA is an indicator for the stock's inertia. It consists of additions of averages over a certain period of time. Basically it depicts the trend or inertia of the stock. The MACD includes the differences of moving averages over a certain period of time this can also be seen as the momentum of the stock, which make up for the leading elements [9]. The use of these two indicators seems fairly simple, though when using this method one has to be very focused on the stocks chosen to catch the right moment to buy or sell. The plan is to find a stock for which the trends of both indicators fall in the same direction. An incline indicates a bullish movement of the price, which means that more stocks are being bought. On the other
hand a decline shows a bearish movement, which means that more stocks are being sold [9].

The goal I'm setting with this method is primarily to see if I am able to choose the right stocks and the right moments of trading. Of course the main purpose is to gain a profit from that solution.

### 6.2 Company Selection

Throughout my search for stocks I came across a few interesting companies. In particular I am looking into companies from Europe. This is due to the fact that I am from Germany and I would like to see how the market is doing. A few things to mention are that I am looking for foreign companies that are represented on the NYSE (New York Stock Exchange). I am also looking especially into technological companies, although I will have a variety of different companies lined up to have a greater range of possible investigations. For this matter I also picked a few communication or oil providers and a bank. Here is an overview of the companies that I will be using throughout the simulation.

| Companies | Symbol | Market |
| :--- | :--- | :--- |
| Deutsche Telekom | DT | NYSE |
| Vodafone | VOD | NYSE |
| Sprint Nextel Cp | S | NYSE |
| Nokia | NOK | NYSE |
| LG Philips LCD Ldt | LPL | NYSE |
| Siemens | SI | NYSE |
| Philips | PHG | NYSE |
| DaimlerChrysler | DCX | NYSE |
| British Patrol | BP | NYSE |
| Deutsche Bank | DB | NYSE |

Table 6. 1 : Companies Selection

I might not use every one of the stocks above, I will select the once that fit the best with using the momentum trading method. However as far as it looks, I will be starting tomorrow with investing into Siemens, Philips and DaimlerChrysler, though these companies showed a useful pattern in their trend over the past week. Siemens and Philips are two of the leading electrical companies worldwide. They both are big in development in manufacturing, design and installation in electric equipment reaching from lights to washing machines to $x$-ray tubes. Daimler Chrysler on the other hand is a leading automobile company. It has a wide range of different brands like Mercedes Benz, Jeep, Smart, Sterlin Trucks and more. I am personally interested in cars, which is a reason for me to choose Chrysler. Another reason is because they have been involved in the development in clean fuel cars, like hybrids. I will start my investing tomorrow splitting up $\$ 250,000$ among those three companies. I will choose the entering time when it seems the best during the day. This also counts for the amount I will invest in each company.

### 6.3 Weekly Reports

## Week 1

This week has been the first week to start the simulation. I decided to use a simulator on yahoo in order to track my transactions [7]. I started of with three companies Siemens, Philips and Daimler Chrysler. In total I had 250,000 dollars and I started of with investing the same amount for Siemens and Philips. I used $\$ 75,000$ for each of them and used the remaining $\$ 100,000$ to invest in Daimler. With these amounts I was able to buy 1,769 shares ( $\$ 42.40$ per share) from Philips, 558 shares ( $\$ 134.45$ per share) from Siemens and 1,094 shares ( $\$ 91.35$ per share) from Daimler. In the beginning of the week
the prices for my stocks went down pretty sharply, but leveled out a little bit. By Thursday I decided to trade in my Daimler shares, because they made the greatest damage. I decided to trade them for Vodafone shares. Vodafone is one of the biggest communication providers in Europe. I sold my 1,094 Daimler shares for $\$ 86.00$ per share leaving me with $\$ 94,084.00$. I had lost $\$ 6,000$ on this transaction. I bought 2,993 Vodafone stocks for $\$ 31.43$ per share. This came up to $\$ 94,069.99$. After Wednesday I found the prices for my stocks rising, so I decided to not take any more transactions. This week was very interesting as the first week for me to work some stocks. I also saw that I have to be even more careful with finding the right companies to invest in, and even more to find the right time to invest.

| Date | Symbol | buy/ sell | Price | Shares | Net Cost/ Proceeds | Profit/ Loss | Total Cash | Total Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4-Jun-07 | SI | Buy | 134.45 | 558 | 75,023.10 | 0 | 34.4 | 250,000.00 |
| 4-Jun-07 | PHG | Buy | 42.4 | 1,769 | 75,005.60 | 0 | 34.4 | 250,000.00 |
| 4-Jun-07 | DCX | Buy | 91.35 | 1,094 | 99,936.90 | 0 | 34.4 | 250,000.00 |
| 7-Jun-07 | DCX | Sell | 86 | 1,094 | 94,084.00 | -5,852.90 | 94,118.40 | 244,147.10 |
| 7-Jun-07 | VOD | Buy | 31.43 | 2,993 | 94,069.99 | 0 | 48.41 | 244,147.10 |

## Table 6.2: Week 1 Trading



Figure 6. 1 Siemens History


Figure 6. 2 Philip's History


Figure 6. 3 DaimlerChrysler History


Figure 6. 4 Vodafone History

## Week 2

This week of trading was a bit more successful than the first. I was able to win some of that money back that was lost during the first week. In the beginning of the week I kept the companies I had to wait for the right moment to sell. It seemed that the stocks
were going to loose their momentum soon. On Wednesday I finally sold my 558 Siemens shares making a loss of $\$ 1729.80$ and 1796 Philips shares making a loss of $\$ 2883.47$. Even though I lost money I was still pleased to see the prices to go up before I sold. I decided to invest right away. I decided to go for British Petroleum and LG Philips. British Petroleum is a crude oil provider that is involved in transportation fuel, marketing and refining. LG is an electronics company. Both companies seem to have a good momentum so I bought 1075 BP shares for 68.13 dollars per share and 3094 LG shares for 23.31 dollars per share. On Thursday I sold my BP stocks back, winning 795.50 dollars. I though that the Deutsche Bank showed a greater moment so I invested in it, buying 495 shares for 149.57 dollars per share.

I have a good feeling about this next week. The indicators look good in my favor. Vodafone does not seem to have a lot more momentum, so I am probably going to sell them early in the week. If I identify the EMA and the MACD correctly I will be buying Nstar shares, since they look very promising of doing a good jump.

| Date | Symbol | buyl |  |  |  |  |  |  |
| :---: | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| sell | Price | Shares | Net Cost/ <br> Proceeds | Profit/ <br> Loss | Total <br> Cash | Total <br> Asset |  |  |
| 13-Jun-07 | PHG | Sell | 40.77 | 1,769 | $72,122.13$ | $-2,883.47$ | $72,170.54$ | $241,263.63$ |
| 13-Jun-07 | LPL | Buy | 23.31 | 3,094 | $72,121.14$ | 0 | 49.4 | $241,263.63$ |
| 13-Jun-07 | SI | Sell | 131.35 | 558 | $73,293.30$ | $-1,729.80$ | $73,342.70$ | $239,533.83$ |
| 13-Jun-07 | BP | Buy | 68.13 | 1,075 | $73,239.75$ | 0 | 102.95 | $239,533.83$ |
| 14-Jun-07 | BP | Sell | 68.87 | 1,075 | $74,035.25$ | 795.5 | $74,138.20$ | $240,329.33$ |
| 15-Jun-07 | DB | Buy | 149.57 | 495 | $74,037.15$ | 0 | 101.05 | $240,329.33$ |

## Table 6.3: Week 2 Trading



Figure 6. 5 LG Philip's History


Figure 6. 6 British Petrol History


Figure 6. 7 Deutsche Bank History

## Week 3

This week I started of the week with selling my Vodafone shares making a profit of 2,663.77 dollars. By the end of the week it looked like I made the right decision with selling early, because the price when down quickly in the second half of the week. Following this transaction I invested \$96,766.62 into Nstar and bought 2927 shares for 33.06 dollars per share. Also, in the beginning of the week the graph for Nstar looked more promising to me. I will keep my shares for a little longer; they might still make a jump before I will get rid of them. I still kept my LG stocks, but I think I have to sell them soon the next week.

| Date | Symbol | buy/ sell | Price | Shares | Net Cost/ Proceeds | Profit/ Loss | Total Cash | Total Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18-Jun-07 | VOD | Sell | 32.32 | 2,993 | 96,733.76 | 2,663.77 | 96,834.81 | 242,993.10 |
| 18-Jun-07 | NST | Buy | 33.06 | 2,927 | 96,766.62 | 0 | 68.19 | 242,993.10 |

Table 6.4: Week 3 Trading


Figure 6. 8 NStar History

## Week 4

As I expected LG did not hold very well so, I sold my shares on Monday. I only made a small profit of $\$ 402.22$. During the week it seemed that it was good to sell them right away. Nstar however did not make any good progress, but it does not look to bad for coming back in profitable numbers. I looked into Nokia right from the beginning of the week, but I waited a few more days until I invested the $\$ 71,718.92$ in it. I bought 2,554 shares for a price of $\$ 28.09$ per share. Nokia is one of the world's leaders in mobility, expending the internet and communication industries. The three companies that I have now, that is Deutsche Bank, Nokia and Nstar look promising for the following weeks. Hopefully I will be able to regain the total loss of $\$ 6,604.68$.

| Date | Symbol | buy/ sell | Price | Shares | Net Cost/ <br> Proceeds | Profit/ Loss | Total Cash | Total Asset |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25-Jun-07 | LPL | Sell | 23.18 | 3,094 | 71,718.92 | 402.22 | 71,787.11 | 243,395.32 |
| 29-Jun-07 | NOK | Buy | 28.09 | 2,554 | 71,718.92 | 0 | 68.19 | 243,395.32 |

Table 6.5: Week 4 Trading


Figure 6.9 Nokia History

## Week 5

The companies that I invested in this past week did not go up as much as I thought they would. However the MACD histogram and the EMA are still predicting a rise in value. That is why I will stick with Nstar, Nokia and Deutsche Bank. This past week I gained a profit of $\$ 2,119.82$ from my Nokia shares. I m still losing $\$ 2,692.84$ with Nstar and I am $\$ 762.30$ down with my Deutsche Bank shares. This is not giving me an overall gain in my investments for this week as I hoped it would in the beginning of the week. I still think that the companies will regain their momentum during this upcoming week. I am a little bit concerned about Nstar with be down by over 2,000 dollars that it
will rise as quickly as I would like at and being worth keeping. So I will have to make a decision to keep it or not soon.

## Week 6

This week was pretty much exactly what I expected from the values of my holdings. Nstar, Nokia and Deutsche Bank all experienced a nice raise. Nstar is now giving me a profit of $\$ 292.70$ which is not a lot but compared to the loss I had with it in the beginning of the week I am really happy about this outcome, also because it seems that it still has some momentum left to even give me a higher gain in the beginning of this following week. My Deutsche Bank shares had not a lot of movement this week. I still have a loss of $\$ 569.25$ which is just about 200 dollars less then from the week before. It seems that DB is not experiencing the momentum I would like to have. I think I will sell my DB shares early in the week and find another solution to keep up the increase. Nokia kept looking very promising and raised my profit to $\$ 4,648.28$. It still has some momentum left. For the last few days I was thinking of taking all my money and look for one stock that indicates a high momentum and put everything on it to get the most out of that momentum.

## Week 7

This last week I was unable to reach a total positive earning as I thought I could. Nstar was looking like it would have a great upbeat. Last week it really helped me out to
keep my Nstar shares. In the beginning of this week it's still had a good looking trend, so I decided to invest all my money into this one company. On Monday I sold my 2,554 Nokia stocks for $\$ 29.88$ per share giving me a solid profit of $\$ 4,594.60$. I was really happy with this outcome also because the value dropped after I sold it. The same day I sold my Deutsche Bank stocks, 495 for $\$ 149.10$ each leaving me with a small loss of $\$ 232.65$. My total asset at that point was $\$ 246,952.83$. By the end of Monday I had $\$ 246,863.82$ of the total invested into in Nstar. This was a really bully move, but the EMA and the MACD histogram both showed a parallel upward trend so I thought I would take the risk and go for it. It did not start of good with Nstar and I was down by about 4,000 dollars. I thought about putting all on another company, however decided otherwise. The value of the stock rose in the middle of the week leaving me with about plus minus zero. On Friday it took a big hit which I did not noticed quickly enough and I ended up with loosing $\$ 2,924.30$ before I sold my 7,492 shares. This week was a lot of up and down but I wished it to be a little more up than down.

| Date | Symbol | buy/ |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| sell | Price | Shares | Net Cost/ <br> Proceeds | Profit/ <br> Loss | Total <br> Cash | Total <br> Asset |  |  |
| 16-Jul-07 | NOK | Sell | 29.88 | 2,554 | $76,313.52$ | $4,594.60$ | $76,381.71$ | $247,185.48$ |
| 16-Jul-07 | DB | Sell | 149.1 | 495 | $73,804.50$ | -232.65 | $150,186.21$ | $246,952.83$ |
| 16-Jul-07 | NST | Buy | 32.88 | 4,565 | $150,097.20$ | 0 | 89.01 | $246,952.83$ |
| 20-Jul-07 | NST | Sell | 32.56 | 7,492 | $243,939.52$ | $-2,924.30$ | $244,028.53$ | $244,028.53$ |

Table 6.6: Final Trading

### 6.4 Conclusion and Analysis

The last two month I really got to understand how the stock market works, the basics of trading and partially how to successfully invest with it, even though at the end I lost money. But I think I got the theory down. It is really difficult to get into this kind of work; at first one has to learn about the vocabulary that is used then graphs and indicators. There is more to it than I thought; many different strategies that tell you when to buy or sell and movements of graphs and histograms that indicate bullish or bearish movements. At the end I think it comes to weather you feel comfortable with what you doing or not. Momentum trading needs a lot of practice to efficiently be able to use this method. Now I see how in the beginning of the simulation I was struggling with finding the right time to enter a trade or exit one. From the trading summary I can see that I improved in the duration of the simulation. I regained my losses, however with a risky move in the last week lost about have of what I totally lost.

## 7. Analysis and Conclusion

After several weeks of investing, each individual gained a vast knowledge of the stock market, the companies researched and certain strategies to turn over a profit. Some trading strategies proved to be more profitable than others. This may have only been a result of the time frame that the trades and investments took place, or it could have been a general indication that certain strategies are in fact more successful than others. Since the time frame was so short, and investors can be in the stock market for years, it is difficult to assume which would be the be style of trading; however, based on our results, the style that produced the most profit was that of the successful Mr. Ryan LaFalam. The longterm trend following strategy proved most profitable. Investment in a company before release of a new product resulted in a large increase in stock value, such as the investment in Apple, Inc. prior to the release of their new iPhone. It is information like this that makes the big profits; however, others did well in the simulation too.

The overall conclusion resulting from this simulation is that the stock exchange is a completely unpredictable market. It can be very dangerous at times, yet very rewarding as well. One day might be a huge loss, and then the next day the investor could make all the money back and then turn over a profit. We all started from scratch not knowing anything about the Market, and we made a decent profit. Although it seems that those who research and know the stock market before they invest have the best luck with it, even those who dedicate their careers to this potentially lucrative industry can wind up bankrupt.

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