99B017I

99B017I

Project Number: DZT9902 - 49

Trading Stocks Over the Web

An Interactive Qualifying Project Report

submitted to the Faculty

of the

WORCESTER POLYTECHNIC INSTITUTE

in partial fulfillment of the requirements for the

Degree of Bachelor of Science

by

Kevin Flanagan

Kevin C. Flanagan

and

Jason M. Ingalsbe

Jason M. Ingalsbe

Date: December 08, 1999

Approved

12/14/99

Professor Dalin Tang, Advisor

1. Investing
2. World Wide Web
3. Stock Market

Abstract

This is a study and critique of stock market strategies and Internet-based market tools through research and an eight-week portfolio simulation. Topics include a discussion of common stock market strategies, opportunities offered by online resources, and results of the stock market simulation. Conclusions are based on investment choices and the outcome of those decisions.

Acknowledgements

Thanks to Professor Dalin Tang for being a mentor throughout our IQP and sharing his knowledge and experience with us.

Table of Contents

List of Tables

List of Figures

Chapter 1 – Introduction

The stock market is a tool used by companies to gain capital. Individuals use the stock market in order to buy shares of these companies, and therefore share in the company's success. The market has made, and on the same hand broken, many peoples' financial lives. Almost all of the United States' wealthiest people obtained their wealth from the market. So how can an average individual utilize these tools in order to try their hand at the market? What strategies can someone use? And most important, how can someone profit?

The primary goal of our Interactive Qualifying Project is to study and critique market strategies and Internet-based market tools through research and an eight-week portfolio simulation. We chose this IQP because the market has been doing extremely well over the last few years. Many seemingly average people have made a good sum of money by day trading and attempting to time the market. After our time at WPI we will hope to have achieved a point of financial independence, and therefore would like a share in this market success.

Another reason we chose this IQP was to research the increasingly popular Internet-based market tools available. Online trading sites, such as E*Trade, Ameritrade, or Eschwab, and online research libraries such as Yahoo! and CNNfn make trading very easy for an amateur investor. Trading fees are very low, it is very easy to make a trade, and years of investor research, graphs, and suggestions are available for free. With this much power available online it seems like anyone can easily become a professional investor, and possibly very wealthy.

Before we can do that we need to look at what exactly the stock market is. To thoroughly explain this, one must remove the multiple levels of abstraction. First, what is a share of stock? A share of stock is a "piece of the company." A company can sell shares of itself in order to gain capital. When an individual buys a share of a company they are now part owner, and the money they paid for the share goes to the company. Each share has a monetary value of worth associated with it. This worth is decided by many factors: what the company thinks it is worth, how much the investors want to spend on this company, how many people are interested in this company, and what this company's prospects are for future success.

Say someone buys a share of a company for ten dollars. This person's hope now is that something will happen that will make the value of the stock increase. Many things can cause a stock value to increase: good company profits, a new product by the company, and general market occurrences such as lowered interest rates, change in unemployment rate, etc. If the value of the stock increases to twelve dollars a share, and the individual sells it, they have made two dollars. Unfortunately it works the opposite way as well. If the value of the stock decreases to eight dollars a share, and they sell it, they have lost two dollars. This imaginary situation is the basis of the stock market.

Companies offer shares of themselves to investors. Investors do massive amounts of research about companies in an attempt to find out if they would be a good investment. If the investor believes the value of the company will increase they will buy a number of shares, hold them, and them sell them when they believe appropriate. This may sound relatively simple but the complicated part is attempting to figure out if a company is worth investing in, how much one should invest in them, and when one should sell their investment. There are millions of people that spend their lives trying to figure these variables out: professional investment analysts, brokers, or even just individual day traders.

There are actually many other variables involved in stock investing, such as, what type of stock should someone invest in? There are five main types. Blue chip stocks are large, established, and strong companies, such as General Motors, IBM, and AT&T. These stocks are the most expensive, but they are also the safest. Investors that buy these companies are not likely to lose money on them, but they are also not likely to make very much money from them. The second type of stocks are known as secondary issue stocks. These are companies that are a bit smaller than blue chips but are, nonetheless, established. Their stock values are not as high as blue chips, but are just as safe. The third type of stock is income stock. These are companies that have a history of giving good dividends to their investors. Their size and stock worth may vary though, and they may not be as sure of a bet as blue chips. Historically, utility companies are traded as income stocks. The next type of stock is growth stock. Growth stocks are smaller, less established companies that an investor buys because of the hope of future growth. Many of today's technology stocks are considered growth stocks. For example; Redhat, the distributor of the Linux operating system, is considered a growth stock. It is a very small, and very young company, but it's stock is doing very well because investors see much potential in it. The problem with stocks of this type is that they are very risky. Not all growth stocks may grow positively. The final type of stock is penny stock. Penny stocks are very small companies that are offering shares of stock at very low values. They are similar to growth stocks in that the hope of investors is that the company's stock value will increase dramatically. These stocks are very risky.

In order to trade stocks people have historically used brokers. Brokers buy and sell stocks at investors' wishes. They also offer investment advice. In the past this system has worked for brokers because they collect a fee for each trade, and it has worked for investors because they don't need to worry about leveraging the trade themselves. The online revolution wants to change this. There are millions of stock market web pages on the Internet. Individual investors no longer need to call their broker for tips, or read the Wall Street Journal every morning. Every major news page has a market section where the user can find specific news about any stock they wish. Using this they can keep track of their portfolios, and make more informed decisions about what to buy and sell.

Another valuable Internet resource is stock research. Anyone can look at graphs for any publicly traded company, find out what investors rate it as, and discover if it is a worthwhile company or not. In the past, only brokers had access to this information. Combine this access to research and news, with the ability to trade stocks on the web, and what we have is an easy way for anyone to become an investor.

Chapter 2 – Investment Strategies

2.1 The Stock Market and Risk

Poker is a game of calculated risk. You are dealt a hand and then forced to bet on how good you think your hand is compared to the other players' hands. If you feel your hand is very strong, you will bet more, otherwise you will keep your betting low, or not bet at all. Strategy comes in to play in two different ways. First, there is a hierarchy of how good hands are. Most players know that a pair is better than nothing, but still not a very strong hand. Equally, players know that a full house, aces high, is a very strong hand, and therefore very hard to beat. The second poker strategy is trying to guess what your opponent has. If he continues to bet more, there is a good chance he has a good hand, if he stays with the original bet, he may have a satisfactory hand. Then again, he may be bluffing.

The stock market is no different. In the end the goal of poker and the goal of the stock market is the same, to make money. The more money made, the better. One could easily argue that investing is no different than gambling. Perhaps there is not as much chance involved with investing as there is with a slot machine, but chance and a lot of luck is definitely a requirement if one wants to become rich off of the market.

This is because there is no magic formula for the market. No one knows for certain what a stocks' behavior will be. This is where prediction comes in. An investor will take in a number of variables, such as: stocks' previous performance, company success, how the market is doing, etc…, and use these variables to make an informed decision about if the stock is a good buy or not. Bare in mind that though the investor has all of this information about the stock, it is still nothing more than a prediction. For example, a meteorologist does the same thing when trying to predict they weather. They take certain variables and analyze them in order to fit this current situation to a previous one, then predict a result. Are weathermen always right? I think we know the answer to that.

So, there are no guaranteed formulas to make money in the stock market but there are many popular investment strategies. Independent of what strategy an investor chooses to use they will want to pick stocks that have a good potential of increasing in value. There is one very good method for finding out if a stock will be successful or not.

2.2 Stock Selection

This method of stock selection is called "Top-Down Approach." What this means is that the investor will look at very general factors then eventually move towards more specific facts, and finally they will pick a stock. For example, before choosing what specific stock or stocks an investor wishes to buy they will look at the economy as a whole, and current conditions in the market. Even if a stock looks like it is absolutely perfect, if the economy is doing poorly the market will follow. Twenty-five to fifty percent of variability in annual investor earnings is attributable to the overall economy. That is an undeniable force, so, if the economy is doing poorly one should wait before picking a stock.

Next, if the economy looks like it is doing well an investor should research industries. For example, if the pharmaceutical industry has been doing poorly in recent months, the investor will want to stay away from any stock in that industry. On the other hand, if internet stocks have be performing very well the investor might want to look into a company in that industry. This variability is attributable to the fact that business cycles effect industries differently.

Now that an investor has considered the entire economy, and specific industries it is time to look at individual stocks. There are many, many, factors which effect the potential of a stock. Generally the most important thing an investor can do is research the company they are thinking about buying stock in. Common sense tells us if they company has been steadily losing money over the last few years, they might not be a good company to invest in. Then again, maybe investors are expecting for the next quarter's report to show profit. Notice the similarities between the investor and the poker player I mentioned at the beginning of the chapter.

Once an investor has picked and purchased the stock he has researched the next step is to decide what to do with the stock. This is where actual market strategy comes in. There are two primary forms of stock market strategies: passive stock strategies, and active stock strategies.

2.3 Passive Stock Strategies

Passive stock trading relies on a belief in "efficient markets." This belief is that the market will always continue to improve over time, despite occasional bumps in the road. Perhaps the best example of this is the stock market crash that occurred in the winter of 1929, and eventually contributed to the Great Depression. Immediately after the crash most investors had lost almost everything they had put in the market. Many of them panicked and sold any remaining shares of stock they had left in an effort to cut their losses. On the other hand, if an investor had remained calm during that period, and simply held onto his stocks within a few years they would have all returned to their original value.

The belief that time and patience is a sure-bet to make anyone money in the stock market is exemplified in the graph below. This is a graph of the Dow Jones Industrial Average value since the late 1920s. Notice that the trend is undeniably positive, a best-fit line would definitely be positive.

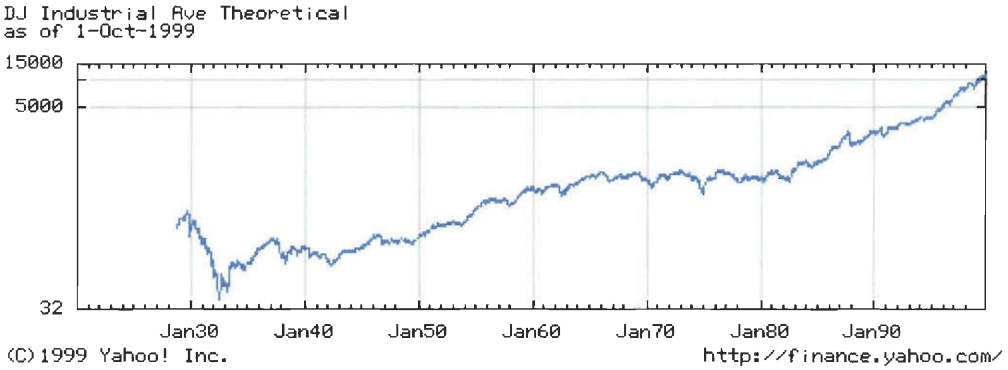

Figure 2.1 – History of DJIA

Another advantage of passive stock strategies is that the investor avoids costly transaction fees that someone who trades often incurs quite a bit. An investor must go through a broker in order to buy and sell all shares of stock they wish to work with. The broker makes money by charging a certain fee every time an investor goes through them in order to make a trade. Many brokerages charge a certain percentage of the trade. So, if an investor wishes to buy 100 shares of stock at $100/share, and the brokerage charges a 5% transaction fee, the investor will end up paying $10,500 for the stock, instead of $10,000. Granted, there are much cheaper transaction fees, such as E*Trade's flat rate of $4.95/trade, but most flat rate transaction brokerages have a bevy of rules and restrictions concerning how the investor can trade. Now, say an investor who does not follow a passive stock strategy makes a number of trades each month, and incurs $20 in brokerage transaction fees per month. That is $240 year, which an investor could use to buy more stock.

In addition to avoiding transaction fees an investor that follows a passive stock strategy has to spend far less time managing their portfolio. Most day-traders spend a good portion of their time watching their stocks, researching other stocks, trying to decide when to buy and sell, and actually dealing with the brokerage in order to perform transactions. This could easily take hours/day. On the other hand, a passive stock strategy investor would put their money into a few stocks, and then walk away. They would probably only check how their stocks are doing once a month or so because they realize that daily tracking of their portfolio makes little to no difference when they consider they'll be holding the same stocks for a number of years or so.

There are a number of programs that can aid in the success of a passive stock trader. The most common are mutual funds. Owning shares of a mutual fund is essentially like having a portfolio of hundreds of different companies, and having an army of investment advisors to look after them for you. When an investor puts money into a mutual fund they are giving money to an investment firm and basically saying "invest it where you think is best." All of the investors that put money into one mutual fund say the same thing, so the managers of the fund have a good sum of money to spread around the market. But how does an individual investor profit off of this? The fund managers calculate how much money the investors have given them, and then they calculate how much they currently have in the market. Whatever the percentage difference is, is the percentage the individual investor will gain or lose on what they've put in.

For example, say ten investors contribute $10,000 to a fund. The fund managers take $100,000 and invest it. Most of the time funds will invest in all different areas, such as stock, real estate, money markets, etc. Now, say a year later the fund managers look at how much they have, and discover they now have $114,000. This is a 14% increase, therefore if each investor were to cash out of they fund they would receive $11,400, plus or minus any transactions fees and penalties.

The advantages of investing in a mutual fund is that the operating cost is usually much lower than individual stock trading, they require much less management time, and almost always give some return, no matter how small, to investors. So, with mutual funds and all other passive market strategies promising a minimum-effort and cost-saving way for an investor to make money of the market, why would anyone chose another strategy? The answer is quite simple; people want to get very rich, very fast. There are countless stories of people who started to invest, and retired millionaires five years later. So how is it possible to make lots of money, really fast in the market?

2.4 Active Stock Strategies

The opposite of passive stock strategies is active stock strategies. Where passive stock strategies relied on the efficiency of the market over time, active stock strategies rely on the concept that certain stocks can inherently do much better than the market as a whole. These stocks may do better because they are an initial public offering, because the company is doing very well, or because investor interest in them is just very high. The primary idea for the investor is to buy the stock when it is relatively low, wait for it to reach a certain point, and then sell it as soon as it reaches that point. Because of this most active stock traders don't hold on to individual stocks for very long, most keep thing for a few days, weeks, or months, but never for much longer than a year.

In order to be successful at active stock trading an investor must choose their stocks very wisely. It is very easy to see how someone can lose a lot of money very fast if they invest in a stock that does not turn out to be what they expected. Therefore it is essential for investors that are interested in active stock trading to be relatively good at stock prediction. They must be able to forecast their expected return on a stock, and to set a selling point, otherwise if they buy a stock blindly they may not know when a stock's value will start rising, or when a good point to sell would be.

Unlike passive stock strategies an active stock trader would spend a good amount of time managing their portfolio, and spend a good amount of money in brokerage and transaction fees. This may sound like it is not worth it, but the hope of the active stock trader is that their returns more than make up for the time and money invested. In fact, many active stock traders don't have jobs, but instead spend their days managing their portfolio.

One method used within active stock strategy is the idea of sector rotation. The market is divided up into sectors based on how the stock generally performs under certain conditions. There are four primary sectors: interest-sensitive stocks, consumer durable stocks, capital goods stocks, and defensive stocks. Interest-sensitive stocks are stocks have a value that fluctuates with the current interest rate. Many banking and utility companies are considered interest-sensitive stocks. Consumer durable stocks are stocks of companies that make products for consumers that last roughly three or more years. These stocks are effected by current consumer spending. Most automotive companies would fit into this category. Capital goods stocks are stocks of companies that manufacture raw materials in order to produce a final product. These stocks are effected by how good consumer durable stocks are doing. Mining or oil companies are examples of companies that would fit into this classification. Finally, defensive stocks are stocks that are generally steadier than the rest of the market despite economic fluctuations. These stocks are steadier because of the industry they are in. For example food and utility companies are often considered defensive stocks because no matter how the economy is doing people will still need to buy food and utilities. Sector rotation is the idea that good returns rotate throughout these sectors. For example, capital goods may be offering high returns one quarter, and therefore an investor predicts that consumer durables may be doing well next quarter. Therefore the investor buys shares of companies within the consumer durables sector, and then hopes they increase as expected. If they do eventually increase the investor will sell these stocks right before the next sector is supposed to do well, then buy stock in that. So, the investor is constantly jumping around sectors, always trying to predict the rotation, and trying to catch the right time to buy and sell.

Sector rotation basically uses the idea of market timing. Market timing is the attempt by an investor to predict the future of the market by observing current prices, volumes, and the general state of the economy. The investor then takes all of these variables into consideration and tries to find when a situation similar to the current one happened in the past. The hope of the investor is that the market will react the same way now that it did when conditions were similar in the past. If this were a perfect strategy investors would be able to find patterns in the values of certain stocks, and always be able to predict what would happen next. This means they would always be able to buy low and sell high. Unfortunately no one has found a sure-fire pattern to the stock market yet, and therefore most market timing is simply an educated guess. Trading by market timing also involves a good amount of time and research that many investors do not want to spend.

In the end active stock strategies can make an investor very rich or very poor, but they always guarantee to frustrate. They do require a lot of time and money from investors, but many have proven that with enough patience the time and money is more than worth the returns one gets from trading actively.

2.5 Our Strategy

We started off our simulation with an imaginary $100,000 to invest. The first thing we decided was the diversification of our portfolio was very important. We decided this because after researching how to create portfolio every information source said that diversification is perhaps one of the most important qualities of a portfolio, because then an investor's entire portfolio isn't dependant on the performance of one stock, or sector. We decided that we would buy eight stocks, and we would put an even $12,500 into each stock. We realize that this meant we would have different shares of each stock, and therefore less expensive stocks' fluctuations would effect our portfolio more, but we felt that it was more important maintain this consistency across our portfolio. Next, we picked our stocks. We initially purchased TXB, HRC, BNBN, HSAC, ORCL, DELL, XRX, and LU. Here is our rational for purchasing each of these:

<u>TXB</u> (Texas Biotechnology Corp.): At the time we purchased it it's value was relatively low, but it had been almost double its current value in the past. We were relying on the fact that it could rebound back to that, and we could catch its return.

<u>HRC</u> (HEALTHSOUTH Corp.): We purchased HRC at 12 5/8, but it had been up to about 30. We were hoping the recent strength of HMO's would push this stock back up.

<u>BNBN</u> (BarnesAndNoble.Com): Barnes And Noble's new venture, BarnesAndNoble.Com is essentially the same idea as Amazon.com. Amazon.com had been doing fantastically in the past, so our hope was

that BNBN would offer competition to Amazon, and therefore lower Amazon's value and raise their own.

HSAC (High Speed Access Corp.): HSAC is a company started by one of the founders of Microsoft. They are a new company but their goal is to offer nationwide cable modem Internet access. We bought this stock based on the idea of the company alone. Internet access is a very hot area, and this company seemed like they had their thumb on the pulse of it.

ORCL (Oracle Corp.): We bought ORCL because it had been a steady gainer, and showed much promise of being a "safe buy" for us.

DELL (Dell Computer Corp.): Like ORCL, DELL seemed like a safe bet for us. In addition to that it's price had been getting fairly high, so we were hoping for a split during the time we owned it.

XRX (Xerox Corp.): Xerox was a very expensive stock, but had been performing very well. We decided to buy it to see if it's returns would negate the fact that it's so expensive.

LU (Lucent Technologies): Lucent was another of our "safe buy" choices. It had been increasingly relative steadily over the last quarter.

After a holding these eight stocks for a few weeks we decided to sell a few of them, and pick up some others that we were interested in. Therefore we qualified as active stock traders

Chapter 3 – Internet-Based Market Tools

3.1 Ameritrade (*http://www.ameritrade.com*)

3.1.1 Researching and Monitoring Stocks

Ameritrade, in order to aid its patrons, provides a series of the most common tools for researching stocks. Among the services offered are links to news articles describing events involving particular stocks and the market as a whole. This news service is provided by three sources: PR Newswire, Businesswire, and Dow Jones News. Ameritrade also provides company profiles for investors who are seeking quarterly or annual income statements, or simply wish to compare that company with others in the industry. Unlike most research tools, Ameritrade does not provide a pictorial representation of a stock's history via graphs and charts, however this feature is being advertised as one of the many improvements found in a near-future upgrade to the system. Ameritrade does provide key ratios and statistics concerning a stock's performance, as well as listings of insider trading. The one drawback to Ameritrade as a source for research is that the aforementioned opportunities are for customers only, meaning that one has to open an account by sending them money before he or she may have access to these features. For individuals seeking information only, there are two noteworthy areas of Ameritrade's web site that may be reached without logging in as a customer: a listing of brief internet and finance related articles and a glossary of investing terms.

Like most Internet tools, Ameritrade provides a means for obtaining stock quotes and tracking a portfolio. These features, like the majority of the research tools, are unfortunately only available to Ameritrade's customers and not to the general public. Customers are allocated 100 free, real-time quotes plus an additional 100 quotes for each internet order placed. Ameritrade's web site also provides an interface for investors to view their current portfolio position, as well as view a history of all transactions made through Ameritrade in the last sixty days.

3.1.2 Online Trading

The highlight of the Ameritrade experience is the ability to trade stocks over the Internet. Ameritrade requires a minimum equity of $2,000.00 in order to open an account. Ameritrade requires a flat rate, $8.00 commission for each trade, which they boast as being the lowest commission among their closest competitors. An additional $5.00 charge allows the customer to place a stop or limit order on a currently scheduled transaction. One nice feature that Ameritrade provides is e-mail confirmation of all completed transactions.

3.1.3 Overall Experience

For individuals who are new to the investing community, Ameritrade is an excellent option. While Ameritrade may not offer the most expansive research tools, it does offer the ability to trade stocks online at the lowest cost, an important aspect for people who would like to invest but don't have much to invest with. The Ameritrade web site has a clean, attractive design that makes it easy to find all of the features that are offered. When taken in combination with other sources for research, Ameritrade is a viable option.

3.2 Charles Schwab (*http://www.schwab.com*)

3.2.1 Researching and Monitoring Stocks

Schwab, like Ameritrade, provides various opportunities for researching stocks over the web. In addition to providing links to news articles and company profiles, Schwab also offers graphs and charts showing the history of a stock over various intervals. Schwab offers ratios and statistics as well as information describing insider trading, but it takes research one step further by offering insight into the opinions of professional analysts. Like Ameritrade, Schwab only offers these services to its paying customers. Schwab does, however, have a glossary of terms and links to information concerning asset allocation and market cycles, which are available to anyone, not just Schwab's customers. Schwab also has a mechanism for obtaining stock quotes. In fact, Schwab goes one step further than Ameritrade by allowing anyone to acquire stock quotes, however only Schwab customers may receive real-time quotes. Schwab also allows its customers to track portfolios containing lists of current or potential stocks. Customers may also view charts and graphs depicting a stock's history. Another feature of Schwab that makes it stand out is it's related product MySchwab. MySchwab is a web page powered by Excite.com that allows individuals, customers and non-customers alike, to customize a start page with investing information.

3.2.2 Online Trading

Schwab is another popular source for trading stocks online. Most of the features offered are similar to those offered by Ameritrade. Among the features provided are an account overview, account history, and the ability to view money transfers. Schwab's site also contains an asset allocation toolkit to aid its customers. Another powerful feature allows their customers to chat online with one of Charles Schwab's brokers. Unfortunately, Schwab's services come with a higher price than Ameritrade's. A minimum equity of $5,000.00 is required for their standard account and a $29.95 commission applies for each trade up to 1,000 shares and $0.03 for each additional share.

3.2.3 Overall Experience

Schwab is an excellent resource for people who would like to take a well-rounded approach to investing. One can find the majority of the information they seek within the confines of this site as well as the ability to trade online. The site has a more professional feel to it than Ameritrade, but this is more an indication of the amount of information that can be obtained rather than an indication of its reliability. The fact that Schwab is the extension of the well-known investment firm by the same name may, however, provide individuals with that extra bit of psychological reassurance. This reassurance is not cheap. Schwab is the most expensive solution, and the fact is that the average person probably can't afford to invest $5,000.00 when they are just learning how to invest.

3.3 E*TRADE (*http://www.etrade.com*)

3.3.1 Researching and Monitoring Stocks

E*TRADE, another major resource found on the Internet, offers the most extensive services for both paying and non-paying individuals. Instead of viewing people as either paying or non-paying, like Ameritrade and Schwab, E*TRADE has a three-tiered structure consisting of non-members, members, and customers. Non-members have restricted access to the E*TRADE web site, but are still offered much broader services than someone visiting Ameritrade or Schwab. The second group consists of members of the E*TRADE web site. Members have access to much more of the services available on the site. The best aspect of the membership is that it is absolutely free. The user must simply fill out a short application over the Internet to gain access to all of the membership privileges. The third group is E*TRADE's paying customers, who have unrestricted access to the full power of the site.

E*TRADE provides free access to many of the services that Ameritrade and Schwab provide to their customers only. Anyone may go to the E*TRADE web site an wander through the vast array of news articles concerning individual companies, specific industries, or the market altogether. E*TRADE offers free company profiles, as well as charts and graphs indicating a stock's performance over various intervals. Customers are given access to custom charting and technical analysis tools. E*TRADE supplies ratios and statistics in a snapshot view. Individuals who sign up for the free membership are granted access to advanced statistics dealing with performance, financials, key ratios, dividends and splits. Additional services that anyone can utilize include information on insider trading and an IPO Center for researching current and upcoming IPOs. Customers also have access to articles describing opinions of various market experts. E*TRADE also offers useful information, such as basic investing tips and advanced investing strategies, and excels with the opportunity to obtain quotes and track portfolios. Anyone may obtain a free stock quote, while members and customers are able to obtain unlimited free real-time quotes and make a portfolio to track their favorite stocks.

3.3.2 Online Trading

Customers who use E*TRADE as a method for trading stocks online have full access to all of E*TRADE's resources. Customers are able to trade stocks, options, mutual funds, and bonds. The trading experience also allows the customer to apply for IPOs online as well as obtain instant price, volume, and P/E ratios online or via e-mail. Customers are also able to post messages to other E*TRADE customers via a bulletin board system. Like Ameritrade and Schwab, E*TRADE requires a commission for each trade. The scheme that E*TRADE uses is very different, though. Within a single calendar quarter (i.e. January through March, April through June, etc.) E*TRADE charges $14.95 for trades 1-29, $9.95 for trades 30-74, and $4.95 for the 75th trade and all trades thereafter.

3.3.3 Overall Experience

E*TRADE is an appropriate site for all types of investors. For any person seeking information only, signing up for a free membership to E*TRADE is the best option offered on the Internet. It offers the best services for free, as well as a professional look and feel. Although the required commission for trades may be higher than Ameritrade, an active investor may take advantage of the lower rates for many trades within a calendar quarter.

3.4 Yahoo *(http://www.yahoo.com)*

3.4.1 Researching and Monitoring Stocks

In addition to being an Internet search engine, Yahoo provides a fast array of useful services including the ability to research and monitor stocks. Although Yahoo does not provide a means for trading stocks online, it does provide free access to the majority of services that previously mentioned sites usually offer only to customers. Yahoo has archives of news articles pertaining to the market and individual stocks. Yahoo provides free quotes, although these quotes are usually delayed by about twenty minutes. Charts and graphs depict the history of a stock and company profiles are just as accessible. Yahoo provides information concerning insider trading, as well. In addition to all of these free services, Yahoo also offers a free membership which allows individuals to keep multiple portfolios for tracking stocks as well as a bulletin board system for posting messages to other Yahoo members. One of the most useful features, however, is the fact that any member may download the Yahoo Messenger (formerly Yahoo Pager) and have their portfolio and its position downloaded to their desktop with about a twenty-minute delay.

3.4.2 Overall Experience

As mentioned, Yahoo does not offer the ability to trade online but it is an excellent way for interested individuals to have information delivered right to their desktop via the Yahoo Messenger. Information regarding any company is within reach at all times and, best of all, Yahoo's stock resources are integrated with its many other services that are offered through its free membership.

3.5 Other Resources

There are many additional web sites that offer vast amounts of information that can be used to research the market and individual stocks. Notable sites include CNNfn (http://cnnfn.com), DowJones.com (http://www.dowjones.com), and NASDAQ-AMEX.com (http://www.nasdaq-amex.com). CNNfn, the financial offshoot of CNN, provides an archive of news articles pertaining to every sector of the stock market. It also provides links to investment tips and information on U.S. and foreign markets. DowJones.com, like CNNfn, contains an archive of news articles and information on various industries. It also allows individuals to obtain stock quotes. NASDAQ-AMEX.com offers news pertaining to each of the respective markets as well as stock quotes.

3.6 Tools Used for this IQP

For this IQP we chose to use a combination of tools. Since it is not the purpose of this IQP to invest *real* money, we chose to track our stocks using

Yahoo and have the information at our fingertips with the Yahoo Messenger. We used Yahoo as a source of research, but we also signed up for the free membership to E*TRADE in order to take advantage of the powerful tools offered, including free real-time quotes and the IPO Center. We also used various other sources, such as CNNfn, in order to find any information that may have been absent on either Yahoo or E*TRADE.

Chapter 4 – Portfolio Simulation Analysis

4.1 barnesandnoble.com (NasdaqNM:BNBN)

4.1.1 Company Overview

barnesandnoble.com is the web-based extension of the book store Barnes and Noble. The web site was launched in 1997 and soon become one of the most popular sites on the Internet. The main service offered is the ability to purchase millions upon millions of books over the Internet. The site also offers a search engine that scans a database full of out-of-print, used, and rare books which would nearly impossible to locate in physical stores. As of January 1999 1,300,000 customers in 177 countries have purchased books from the web site. Part of the reason why barnesandnoble.com has seen remarkable sales is due to the fact that their traditional book store is very popular. Creating an online market makes it even more convenient for shoppers to access this resource, thus barnesandnoble.com seems to be a promising venture.

4.1.2 Reasons for Purchase

barnesandnoble.com went public in May of 1999 on the NASDAQ market. Like many Internet stocks, it had a positive beginning. Then, however, prices dropped sharply as it suffered losses due to increasing expenses. Nevertheless, we chose barnesandnoble.com for our portfolio because we believe it will be able to turn things around and become a highly profitable stock. Currently, profits are increasing due to an expanding customer base. Also, at roughly $19 per share, it provided us with a relatively cheap stock that has a lot of promise. Therefore, we purchased 660 shares of stock at 18 15/16 each at the beginning of our simulation.

4.1.3 Stock Performance

While barnesandnoble.com may be promising in the long term, it proved to be somewhat frustrating during the period of our simulation. Once we had purchased the stock, it promptly dropped in value by about 11%. Things began looking better, however, as the market underwent a wave of growth. Stocks were booming all across the board for about a week. Like most booms in the market, there is almost always some correction to follow. After the week of growth, most stocks went through a week of decline. For some reason, much to our delight, barnesandnoble.com remained strong throughout this period. It went through a series of ups and downs, but generally rose nicely. The stock was now up almost 5%, which is not bad considering we were down 11% the just two weeks earlier. At this point in time we thought we had a real winner in a market that was currently disappointing. This stroke of good fortune did not last long, however, and we soon found ourselves suffering about a 17% loss. Luckily, the stock made a short run towards the end of our simulation so our net result was only slightly below our original buy price. Nevertheless, it was a loss.

4.1.4 Lessons Learned

There is much to be learned from our adventurous stake in barnesandnoble.com. First, we should have known better than to put our faith into a company simply because they have a big name. Popularity does not necessarily equal success. Second, we were a little over optimistic when considering barnesandnoble.com's recent sales figures. While their customer base may have been expanding, there was obviously some internal problems that kept it from being profitable. We still believe that it will be a good stock in the future. Our third lesson, however, is that anyone who is highly interested in investing in barnesandnoble.com should wait for it to turn things around before investing. If we were to invest again, we would probably give barnesandnoble.com some time to better understand how business is done on the Internet and how to deal with the volatile climate of Internet stocks. In the meantime, its performance will be highly unpredictable.

4.1.5 Tables and Figures

Table 4.1 – BNBN Values by Trade Day

Stock:	BNBN		**Buy Price:**	18 15/16	
Shares:	660		**Sell Price:**	18 13/16	
Date	**Price**	**Value**	**Date**	**Price**	**Value**
06/25/99	18 15/16	12,498.75	07/26/99	19 1/16	12,581.25
06/28/99	18 3/8	12,127.50	07/27/99	19 3/4	13,035.00
06/29/99	17 13/16	11,756.25	07/28/99	19 7/16	12,828.75
06/30/99	18	11,880.00	07/29/99	18 7/16	12,168.75
07/01/99	17 3/8	11,467.50	07/30/99	18 1/16	11,921.25
07/02/99	16 7/8	11,137.50	08/02/99	17 1/2	11,550.00
07/06/99	17 1/4	11,385.00	08/03/99	16 1/4	10,725.00
07/07/99	17 11/16	11,673.75	08/04/99	15 3/4	10,395.00
07/08/99	18 1/8	11,962.50	08/05/99	16 1/2	10,890.00
07/09/99	19 1/4	12,705.00	08/06/99	17 3/8	11,467.50
07/12/99	18 1/4	12,045.00	08/09/99	17 3/16	11,343.75
07/13/99	18 1/16	11,921.25	08/10/99	17	11,220.00
07/14/99	18 13/16	12,416.25	08/11/99	17 1/8	11,302.50
07/15/99	18 1/2	12,210.00	08/12/99	16 11/16	11,013.75
07/16/99	19 3/16	12,663.75	08/13/99	16 7/8	11,137.50
07/19/99	19 3/8	12,787.50	08/16/99	16 11/16	11,013.75
07/20/99	18 5/8	12,292.50	08/17/99	16 3/4	11,055.00
07/21/99	19	12,540.00	08/18/99	19 1/4	12,705.00
07/22/99	18 11/16	12,333.75	08/19/99	18 1/2	12,210.00
07/23/99	19 13/16	13,076.25	08/20/99	18 13/16	12,416.25

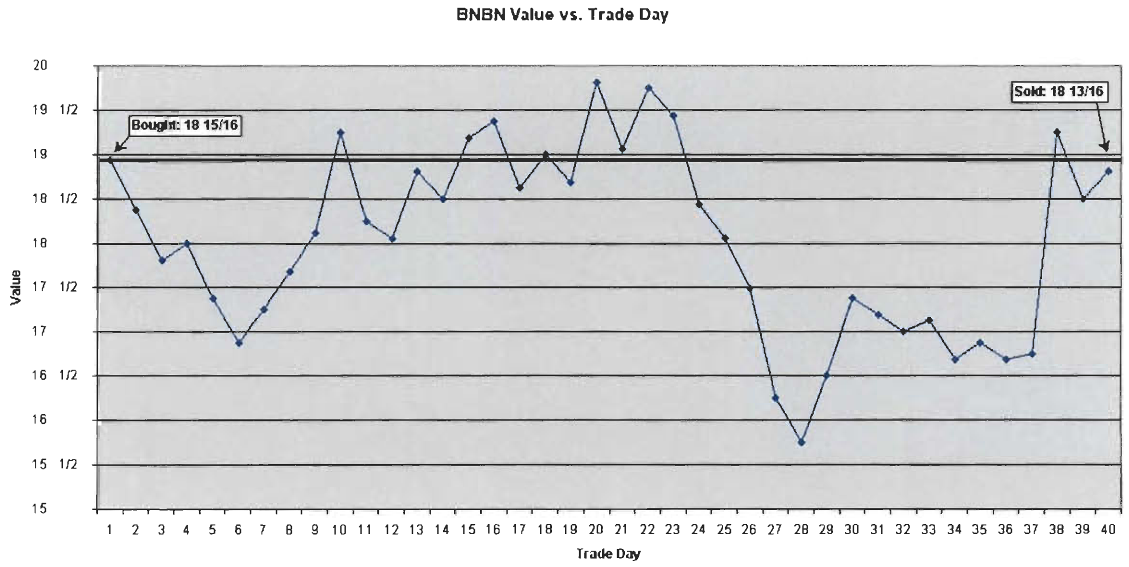

Figure 4.1 – BNBN Value vs. Trade Day

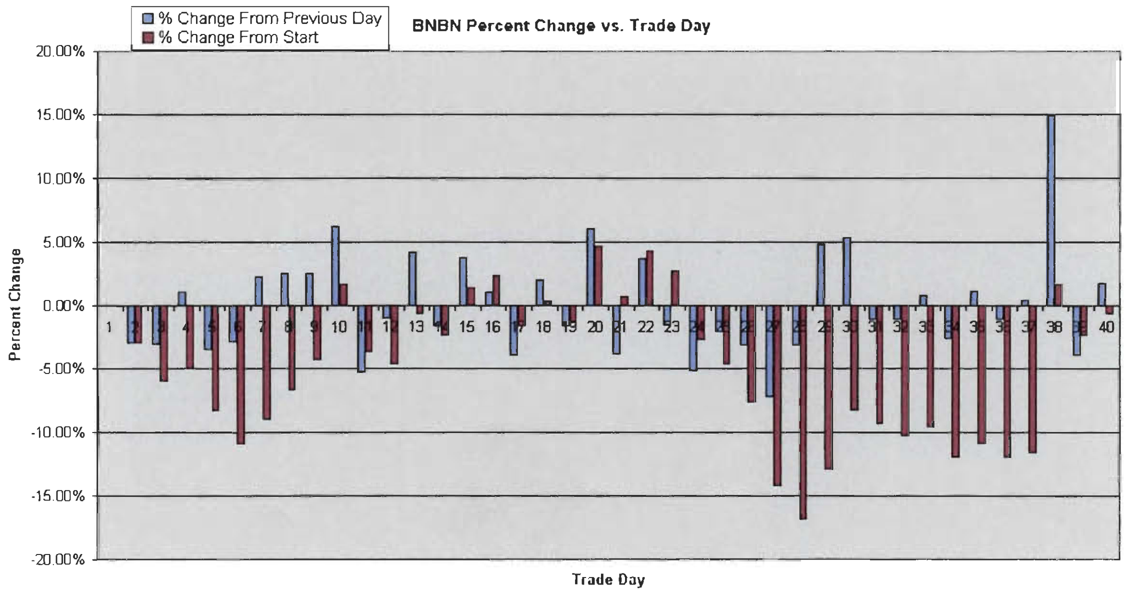

Figure 4.2 – BNBN Percent Change vs. Trade Day

4.2 CBS Corporation (NYSE:CBS)

4.2.1 Company Overview

The CBS Corporation is a media based company specializing in television and radio broadcasting. The service for which CBS is best known is its role as one of the major nationally syndicated networks in the United States. Popular shows such as *48 Hours*, *60 Minutes*, and *The Late Show with David Letterman* are all part of the CBS television network.

4.2.2 Reasons for Purchase

CBS stock has proven itself to be relatively stable. With the exception of a downward trend from 1973-1975 and a temporary slump in the early 1990s, the stock grew steadily. Unlike many stocks, it does not seem to go through a series of major ups and downs from one day to the next. While it may not be the day-trader's solution to becoming rich quick, It is perfect for long-term investments. Over the last year, the stock has risen with only minor fluctuations. The current value is nearly 65% higher than its value only ten months ago. We chose this stock partly due to the fact that we learned a hard lesson after investing in two IPOs (See sections 4.7 and 4.8). After losing a significant amount of money in those endeavors, we decided that we needed to be a little more conservative and choose a stock that shows steady growth. Therefore, we purchased 296 shares at 44 7/8 on August 2nd.

4.2.3 Stock Performance

We held stock in CBS for approximately three weeks. During this time, its behavior was rather different than what we first expected. Rather, the price was rather unstable during this time. Within a matter of days the stock rose almost 5%. Within the next two weeks it plunged to a 1% loss and rose again to about a 4% gain. This behavior was totally unexpected. By the end of our simulation the price rose a little over a point, which is nothing spectacular, but it is positive growth nonetheless. Given the erratic nature of those three weeks we were pretty happy.

4.2.4 Lessons Learned

Even though we ended up making money through CBS stock, there are still some lessons that can be taken from this experience. Most important, even though a stock appears to be stable it may undergo erratic changes from time to time. You have to be prepared to ignore such fluctuations and keep your mind set on long-term gains.

4.2.5 Tables and Figures

Table 4.2 – CBS Value by Trade Day

Stock:	CBS	**Buy Price:**	44 15/16
Shares:	296	**Sell Price:**	46 1/16

Date	Price	Value	Date	Price	Value
06/25/99			07/26/99		
06/28/99			07/27/99		
06/29/99			07/28/99		
06/30/99			07/29/99		
07/01/99			07/30/99		
07/02/99			08/02/99	44 7/8	13,283.00
07/06/99			08/03/99	45 3/16	13,375.50
07/07/99			08/04/99	44 11/16	13,227.50
07/08/99			08/05/99	45 5/16	13,412.50
07/09/99			08/06/99	47 1/16	13,930.50
07/12/99			08/09/99	46 1/2	13,764.00
07/13/99			08/10/99	45 1/16	13,338.50
07/14/99			08/11/99	44 11/16	13,227.50
07/15/99			08/12/99	44 1/2	13,172.00
07/16/99			08/13/99	45	13,320.00
07/19/99			08/16/99	44 15/16	13,301.50
07/20/99			08/17/99	46 1/2	13,764.00
07/21/99			08/18/99	46 9/16	13,782.50
07/22/99			08/19/99	46 1/4	13,690.00
07/23/99			08/20/99	46 1/16	13,634.50

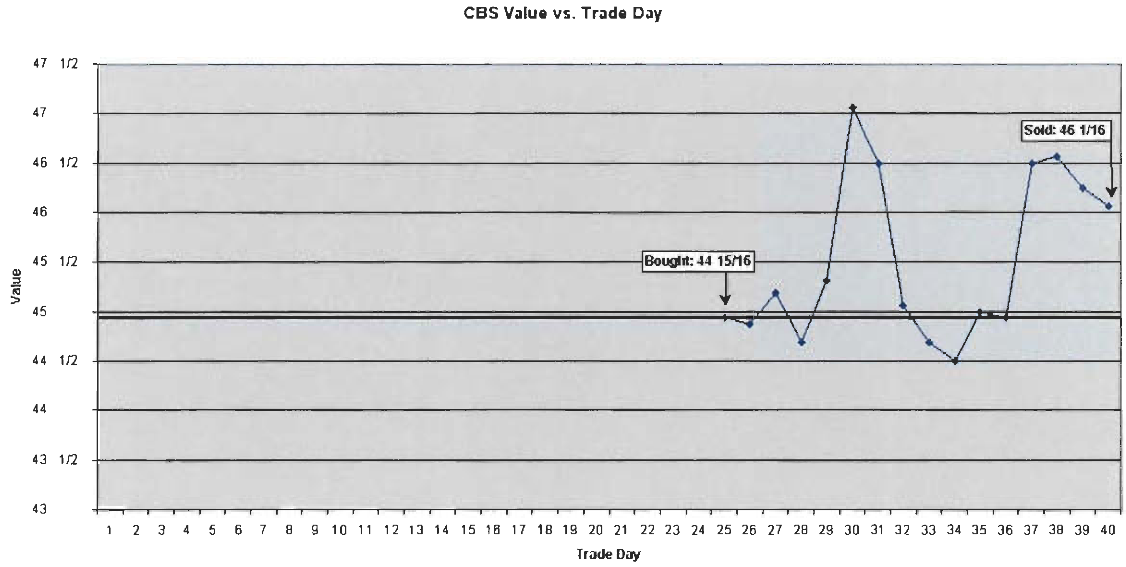

Figure 4.4 – CBS Value vs. Trade Day

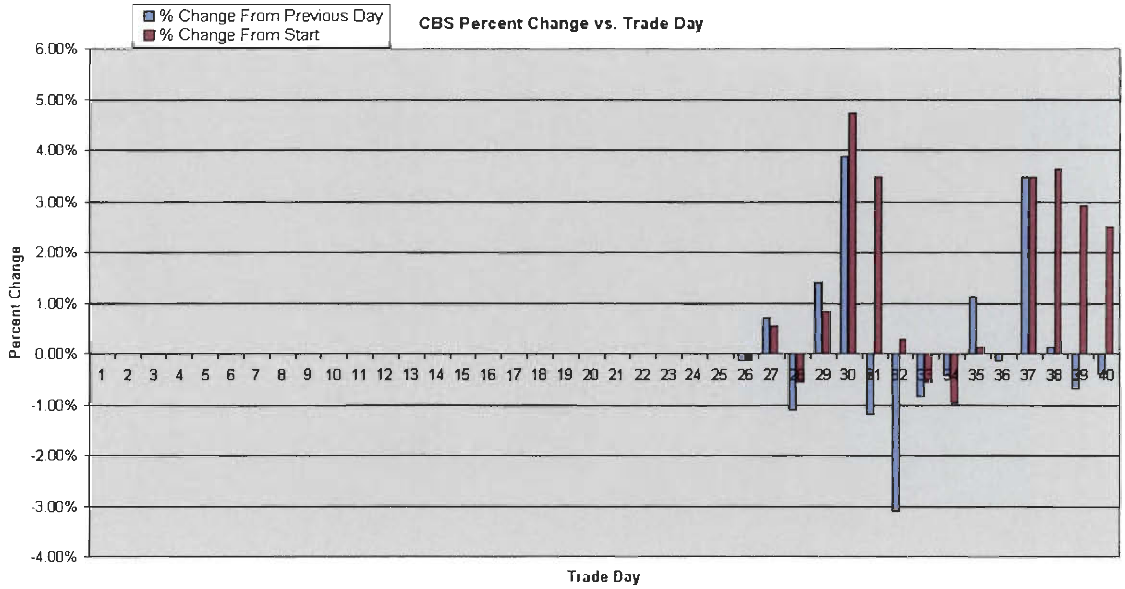

Figure 4.5 – CBS Percent Change vs. Trade Day

4.3 Dell Computer (NasdaqNM:DELL)

4.3.1 Company Overview

Virtually every sector of the computer industry is addressed by the activities of Dell Computer. In addition to designing, developing, and manufacturing its systems, Dell also markets them and provides service and support when needed. Dell's systems include the full range of desktops, notebooks, workstations, and servers. It also markets software, peripherals, and service and support systems. Needless to say, Dell is one of the major forces in the computer industry.

4.3.2 Reasons for Purchase

Dell was one of our top choices for investment for several reasons. First, it has been an extremely strong stock in that its value has risen rather steadily since it first appeared in 1989. Second, the stock has split five times in the last two years. If it continues in this manner there is a good chance it will split again, possibly offering greater returns in the future. Also, when considering our portfolio as a whole, we decided that Dell's price of about $37 was reasonable and would help in balancing our portfolio. Therefore, we purchased 338 shares Dell stock at the beginning of our simulation for 36 15/16 per share.

4.3.3 Stock Performance

All in all, we were quite pleased with our investment in Dell. The first week of trading was somewhat uneventful. The price wavered slightly above and below our original buy price. Soon, however, the stock soared along with most of our other stocks as the market witnessed a tremendous boom going into the second week. From this point forward the price always remained profitable, but the story does not end there. The price began slipping over the next month as the market declined. Towards the end of our simulation, the stock had made another run to finish with a net profit of about 17%—pretty good for only a two-month investment.

4.3.4 Lessons Learned

While our experience with Dell was quite good, there are some points that should be noted. First, Dell has proven itself to be a good long-term stock and the 17% profit that we witnessed is probably not typical. We simply seemed to have timed the market perfectly without really trying. Another thought to keep in mind is that Dell is not unsusceptible to market trends. The gradual decline in price throughout the middle of our simulation is evidence that it too felt the effect of a declining market—it just happened that our original buy price was even lower.

4.3.5 Tables and Figures

Table 4.3 – DELL Value by Trade Day

Stock:	DELL		**Buy Price:**	36 15/16	
Shares:	338		**Sell Price:**	43 1/4	
Date	**Price**	**Value**	**Date**	**Price**	**Value**
06/25/99	36 15/16	12,484.88	07/26/99	40	13,520.00
06/28/99	37 1/16	12,527.13	07/27/99	42 1/8	14,238.25
06/29/99	36 11/16	12,400.38	07/28/99	42 3/4	14,449.50
06/30/99	37	12,506.00	07/29/99	41 1/4	13,942.50
07/01/99	36 5/8	12,379.25	07/30/99	40 7/8	13,815.75
07/02/99	37 1/8	12,548.25	08/02/99	39 15/16	13,498.88
07/06/99	37	12,506.00	08/03/99	39 7/16	13,329.88
07/07/99	38 5/16	12,949.63	08/04/99	39 1/8	13,224.25
07/08/99	39 15/16	13,498.88	08/05/99	38 3/4	13,097.50
07/09/99	42 13/16	14,470.63	08/06/99	39 13/16	13,456.63
07/12/99	43 5/8	14,745.25	08/09/99	41	13,858.00
07/13/99	42 1/4	14,280.50	08/10/99	40 7/16	13,667.88
07/14/99	43 1/2	14,703.00	08/11/99	42 1/4	14,280.50
07/15/99	43 15/16	14,850.88	08/12/99	40 1/4	13,604.50
07/16/99	43 1/4	14,618.50	08/13/99	41 7/16	14,005.88
07/19/99	42 7/16	14,343.88	08/16/99	41 7/16	14,005.88
07/20/99	41 1/8	13,900.25	08/17/99	41 1/8	13,900.25
07/21/99	41 1/4	13,942.50	08/18/99	44 9/16	15,062.13
07/22/99	39 5/8	13,393.25	08/19/99	43 7/8	14,829.75
07/23/99	41	13,858.00	08/20/99	43 1/4	14,618.50

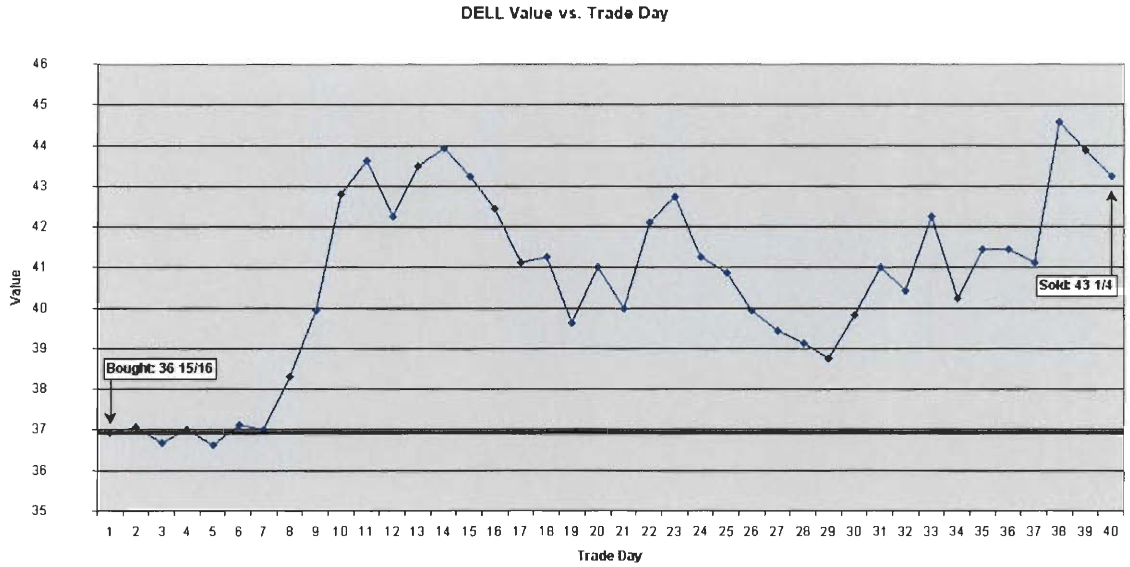

Figure 4.6 – DELL Value vs. Trade Day

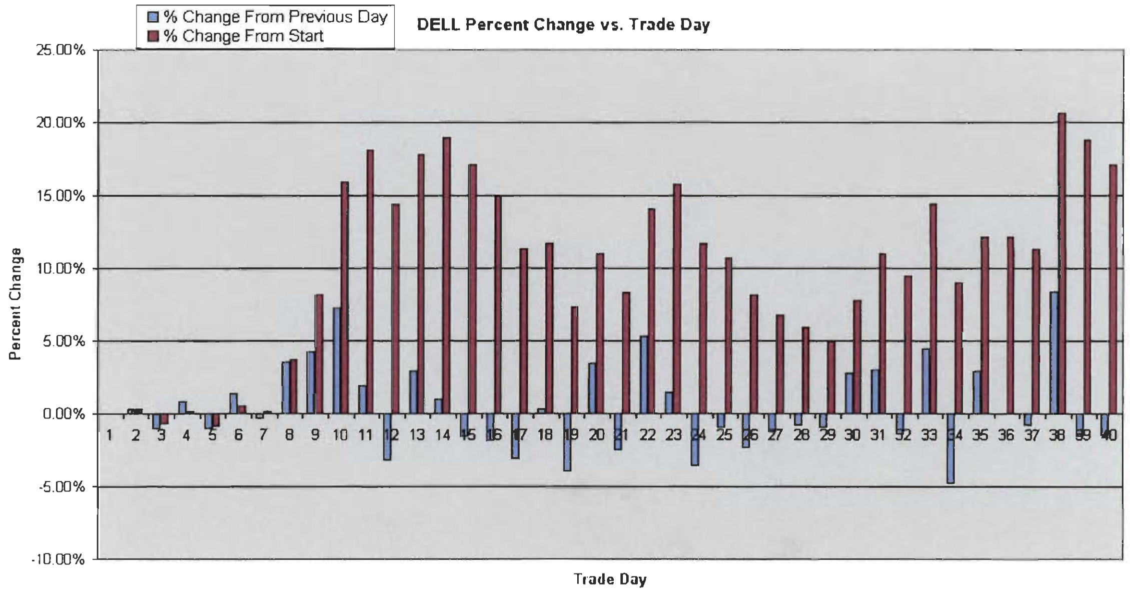

Figure 4.7 – DELL Percent Change vs. Trade Day

4.4 Hansen Natural Corp. (NasdaqSC:HANS)

4.4.1 Company Overview

Hansen Natural, based out of Corona, CA, is in the business of marketing, selling, and distributing non-alcoholic beverages. Their product line includes various sodas, fruit juices, iced-tea, lemonade, etc. Family-owned and operated, Hansen Natural has a history dating back to 1930 when "Hubert Hansen and his three sons began selling fresh, non-pasteurized juices to film studios and the Southern California marketplace, providing consumers all natural, high quality 100% juices." Today the company is still rather small with only 63 employees, but its presence is felt in its particular niche of the industry, as we shall see.

4.4.2 Reasons for Purchase

We purchased Hansen Natural stock partially as an opportunity to diversify our portfolio. Thus far, our entire portfolio has consisted of technology companies. We hoped that investing in Hansen would give us some insight into how other parts of the market operate and would make us some money in the meantime. We did not arrive at our decision without researching first, however. Upon analyzing Hansen Natural's earnings we found that "for the six months ended 6/30/99, net sales rose 36% to $34.4 million [and] net income rose 36% to $2.3 million." These numbers are astounding for a small company in a non-tech sector of the market. We decided that Hansen Natural seems like a good gamble, so we bought 2,511 shares at 5 3/16 on August 2nd.

4.4.3 Stock Performance

At first sight, Hansen Natural seemed like a strong buy. The results of the following weeks, however, indicated the opposite. Soon after our purchase the price dropped about 9.5% as the market as a whole declined. Like some of our other stocks, Hansen Natural made an effort to bounce back in the last two weeks of our simulation, but to no avail. By the end of our simulation we had acquired a loss of about $150, roughly 4%.

4.4.4 Lessons Learned

A few lessons may be learned from our brief exposure with Hansen Natural Corp. One such lesson may be that we probably should not have gotten involved with a sector of the market that we are unfamiliar with (i.e. non-tech stocks). We simply did not do enough research before deciding to purchase this stock. Granted, we had earnings estimates and a chart of its previous history, but we failed to notice that the moment we chose to buy was a relative high point for the stock. Therefore, the stock was almost certainly bound to drop in price. Basically, our mistake with purchasing Hansen Natural was that we rushed into the situation.

4.4.5 Tables and Figures

Table 4.4 – HANS Value by Trade Day

Stock:	HANS		**Buy Price:**	5 5/16	
Shares:	2511		**Sell Price:**	5 1/8	
Date	**Price**	**Value**	**Date**	**Price**	**Value**
06/25/99			07/26/99		
06/28/99			07/27/99		
06/29/99			07/28/99		
06/30/99			07/29/99		
07/01/99			07/30/99		
07/02/99			08/02/99	5 3/16	13,025.81
07/06/99			08/03/99	5	12,555.00
07/07/99			08/04/99	4 7/8	12,241.13
07/08/99			08/05/99	4 13/16	12,084.19
07/09/99			08/06/99	4 13/16	12,084.19
07/12/99			08/09/99	5	12,555.00
07/13/99			08/10/99	5	12,555.00
07/14/99			08/11/99	5 1/16	12,711.94
07/15/99			08/12/99	4 7/8	12,241.13
07/16/99			08/13/99	5 1/16	12,711.94
07/19/99			08/16/99	5 1/16	12,711.94
07/20/99			08/17/99	5 1/4	13,182.75
07/21/99			08/18/99	5 1/16	12,711.94
07/22/99			08/19/99	5 3/16	13,025.81
07/23/99			08/20/99	5 1/8	12,868.88

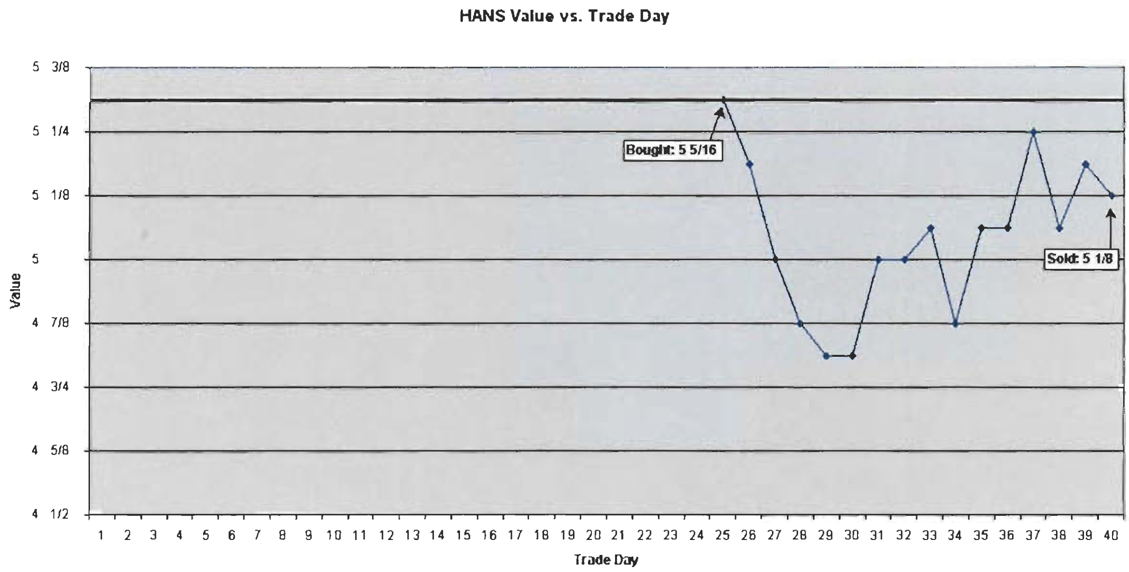

Figure 4.7 – HANS Value vs. Trade Day

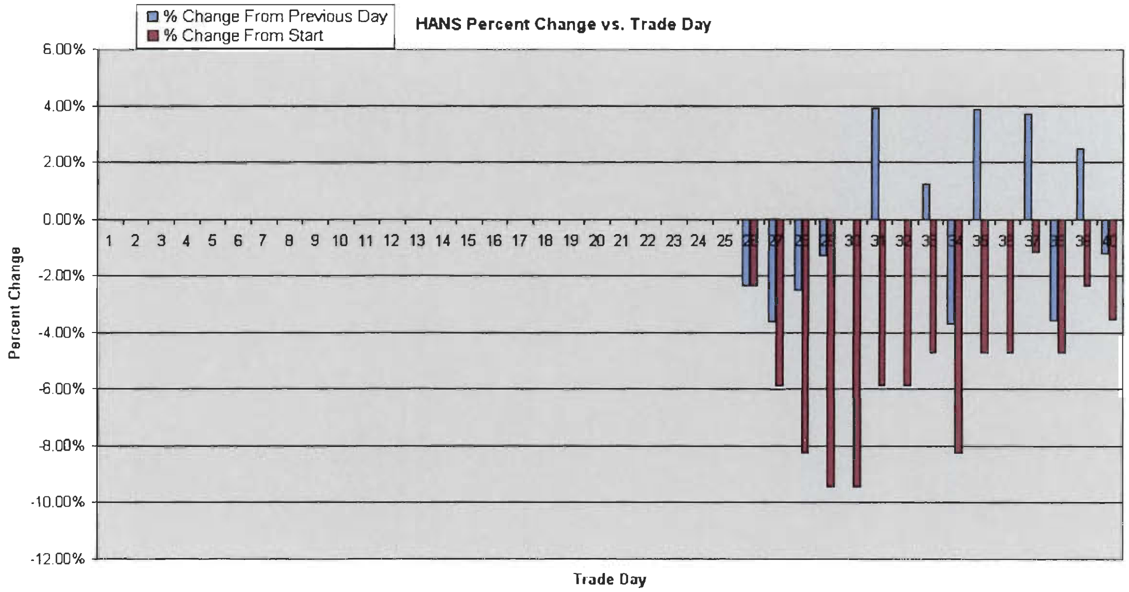

Figure 4.8 – HANS Percent Change vs. Trade Day

4.5 HEALTHSOUTH Corporation (NYSE:HRC)

4.5.1 Company Overview

Based out of Birmingham, AL, HEATHSOUTH provides comprehensive rehabilitative, clinical, diagnostic and surgical healthcare services on an inpatient and outpatient basis. By deciding to not split its inpatient and outpatient services, HEALTHSOUTH's presence in the industry is larger and more diverse that some of its contenders.

4.5.2 Reasons for Purchase

We chose to purchase HEALTHSOUTH stock for several reasons. First, several online resources descried rising earnings estimates. Also, many of the "analyst" sections of these resources recommended it as a strong buy. While healthcare facilities are very different from the various technology based companies we chose, we believed that a stock from a different industry could provide some diversification to our portfolio. Lastly, at roughly $14 per share it would help balance against some of our more expensive choices. Therefore, we purchased 880 shares at 14 ¼ each on June 25th.

4.5.3 Stock Performance

In the end, our decision to buy HEALTHSOUTH stock was perhaps the worst choice we made throughout our simulation. The first week seemed to be somewhat interesting as the price rose slightly, but thereafter it performed absolutely horribly. Throughout the remainder of a simulation the price dropped in a seemingly unstoppable trend. By the end we were faced with a gruesome loss of over 30%. Needless to say, we weren't too happy with this.

4.5.4 Lessons Learned

Like many other failures, there is much to be gained from this experience. One major mistake that we made is that we bought this stock before we had completely researched it. Had we paid closer attention, we would have noticed that net income had been falling despite projected increases. We had placed too much faith in the recommendations offered in online resources. These recommendations are often helpful, but not always correct in the short-term. Like our investment in Hansen Natural Corp, our decision to purchase HEALTHSOUTH was somewhat rushed and we are unfamiliar with the industry.

4.5.5 Tables and Figures

Table 4.5 – HRC Value by Trade Day

Stock:	HRC		**Buy Price:**	14 1/4	
Shares:	880		**Sell Price:**	9 5/8	
Date	**Price**	**Value**	**Date**	**Price**	**Value**
06/25/99	14 1/4	12,540.00	07/26/99	13 7/16	11,825.00
06/28/99	14 5/8	12,870.00	07/27/99	13 1/8	11,550.00
06/29/99	14 13/16	13,035.00	07/28/99	13 1/16	11,495.00
06/30/99	14 7/8	13,090.00	07/29/99	12 7/8	11,330.00
07/01/99	14 3/4	12,980.00	07/30/99	12 1/4	10,780.00
07/02/99	14 3/4	12,980.00	08/02/99	12 1/4	10,780.00
07/06/99	15 1/8	13,310.00	08/03/99	12 5/8	11,110.00
07/07/99	15 5/16	13,475.00	08/04/99	11 3/4	10,340.00
07/08/99	15 1/8	13,310.00	08/05/99	11 1/2	10,120.00
07/09/99	14 13/16	13,035.00	08/06/99	11 5/16	9,955.00
07/12/99	15 1/16	13,255.00	08/09/99	11 3/16	9,845.00
07/13/99	14 1/4	12,540.00	08/10/99	11 3/16	9,845.00
07/14/99	13 11/16	12,045.00	08/11/99	11 3/16	9,845.00
07/15/99	14 1/2	12,760.00	08/12/99	10 3/4	9,460.00
07/16/99	14 9/16	12,815.00	08/13/99	9 3/4	8,580.00
07/19/99	14 3/16	12,485.00	08/16/99	10 1/16	8,855.00
07/20/99	14 3/8	12,650.00	08/17/99	9 13/16	8,635.00
07/21/99	13 11/16	12,045.00	08/18/99	9 11/16	8,525.00
07/22/99	13 1/4	11,660.00	08/19/99	9 5/8	8,470.00
07/23/99	13 11/16	12,045.00	08/20/99	9 5/8	8,470.00

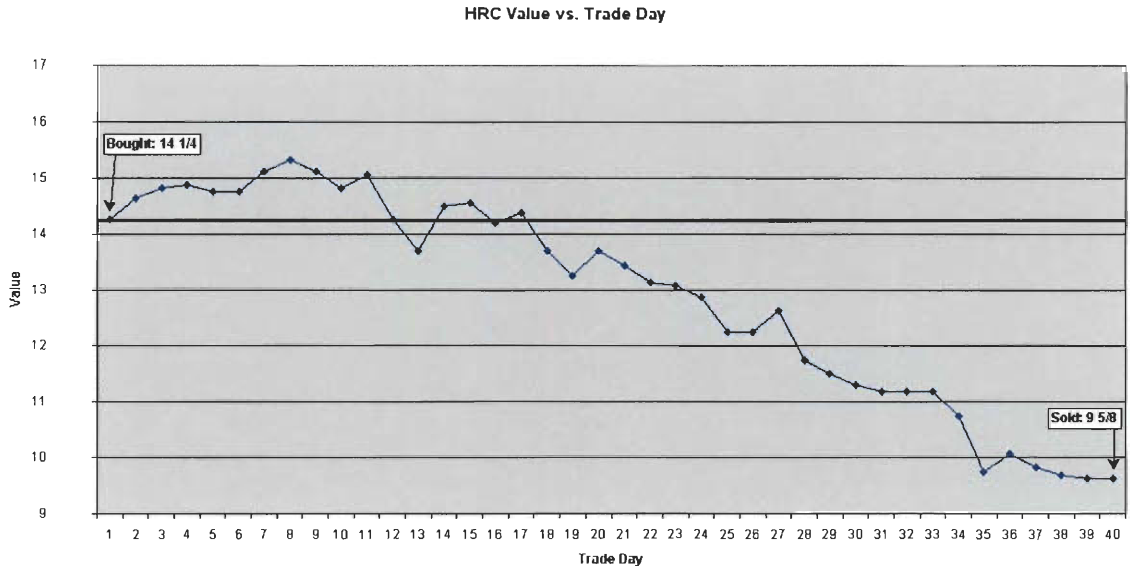

Figure 4.9 – HRC Value vs. Trade Day

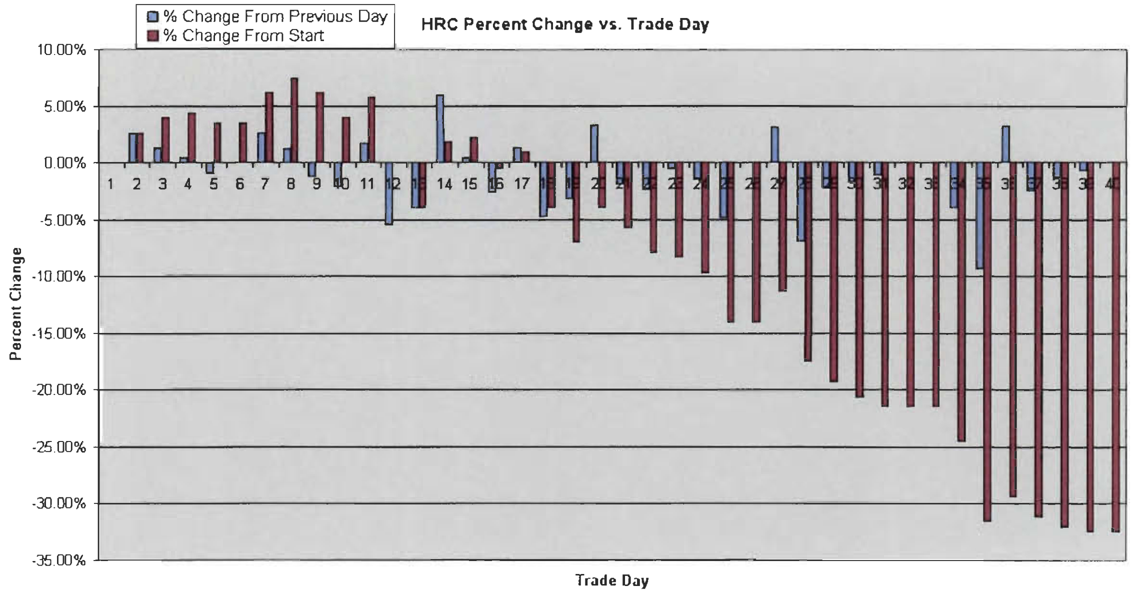

Figure 4.10 – HRC Percent Change vs. Trade Day

4.6 High Speed Access Corporation (NasdaqNM:HSAC)

4.6.1 Company Overview

High Speed Access Corp. is a leading provider of high-speed Internet access via cable modem. High Speed's customer base consists of residential and commercial end users. High Speed Access uses the cable system of existing cable companies as it's medium for delivering fast Internet access to the end users. High Speed Access then gives the cable companies a portion of the fees it receives in return for being allowed to use the cable network. In this way, the cable companies are able to share in the profits of the emerging cable-modem market without having to worry about administering the Internet access services themselves. Among other services, High Speed Access is also involved in the development of new technologies such as IP telephony, video conferencing, high-quality audio, and e-commerce applications.

4.6.2 Reasons for Purchase

While searching for stocks to purchase, High Speed Access Corp. caught our attention immediately. This was partially due to the fact that it was a new IPO that seemed to be doing quite well. One of the factors that led to our purchase was that there was a fair amount of information available about the company. While the quantity of information does not suggest that it will be a profitable stock, it does offer some sort of psychological peace of mind. This is especially true because much of the information we found was very positive. For example, we discovered that the majority owner of High Speed Access is none other than

Microsoft co-founder Paul Allen. This fact alone indicates that the company has a strong backing and therefore a potentially strong future. Also, the way High Speed Access carries out it business—by using other cable companies—is a very interesting idea that we believe has promise. Finally, we decided to purchase High Speed Access as wild card. Since this was a new stock and was fairly cheap at about $20 per share, this would be a risky venture but a potentially profitable one as well. We purchased 584 shares at 21 3/8 on June 25th.

4.6.3 Stock Performance

While our decision to purchase HEALTHSOUTH was utterly disastrous, our experience with High Speed Access was decidedly the opposite. The price of the stock kept rising at incredible rates for the first ten days. At that point the value of our stock had risen 120% since we had purchased it. The price then went through a correction and dropped 20% in one day. We weren't too distressed, however, because the price was still significantly higher than when we had purchased it. We knew that there was a good chance that the price would go through a series of corrections and decided that when the price began dropping again we would sell. In the following week the price first rose nicely but then began declining once again. On July 21st we decided to sell our entire holding in High Speed Access a settle for a nice profit of about 80%.

4.6.4 Lessons Learned

High Speed Access was a great experience for us, in that it showed us that we made some good decisions, and therefore affirmed some of our ideas about what we should be doing in order to be profitable. We did learn, however, that we should have sold when we were up 120%. Most people would have gotten out at that point, and that is why the price dropped 20% the next day. In the end, we also knew that much of our success with High Speed Access was luck. We happened to pick an IPO that was strong in the first few weeks of trading and we bought it at just the right time.

4.6.5 Tables and Figures

Table 4.6 – HSAC Value by Trade Day

Stock:	HSAC	**Buy Price:**	21 3/8
Shares:	584	**Sell Price:**	38 5/16

Date	Price	Value	Date	Price	Value
06/25/99	21 3/8	12,483.00	07/26/99		
06/28/99	22 7/16	13,103.50	07/27/99		
06/29/99	25 7/16	14,855.50	07/28/99		
06/30/99	25 5/8	14,965.00	07/29/99		
07/01/99	26 13/16	15,658.50	07/30/99		
07/02/99	30 5/8	17,885.00	08/02/99		
07/06/99	34 3/16	19,965.50	08/03/99		
07/07/99	34 7/8	20,367.00	08/04/99		
07/08/99	39 1/8	22,849.00	08/05/99		
07/09/99	47 11/16	27,849.50	08/06/99		
07/12/99	37 1/8	21,681.00	08/09/99		
07/13/99	40 23/32	23,779.75	08/10/99		
07/14/99	40 1/16	23,396.50	08/11/99		
07/15/99	41 3/16	24,053.50	08/12/99		
07/16/99	42 1/4	24,674.00	08/13/99		
07/19/99	40 1/2	23,652.00	08/16/99		
07/20/99	38 5/8	22,557.00	08/17/99		
07/21/99	38 5/16	22,374.50	08/18/99		
07/22/99			08/19/99		
07/23/99			08/20/99		

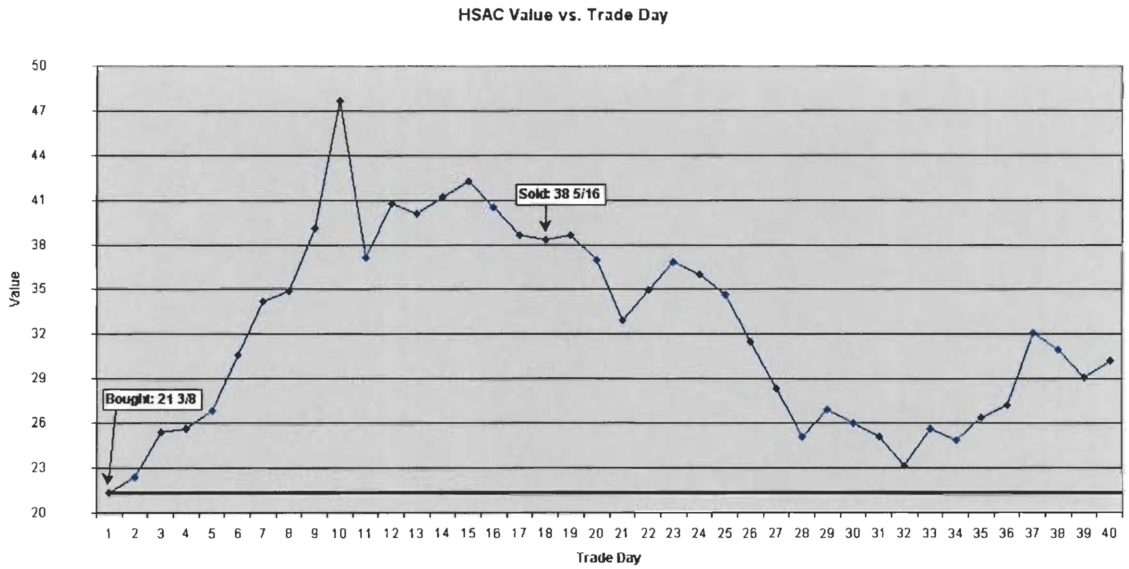

Figure 4.11 – HSAC Value vs. Trade Day

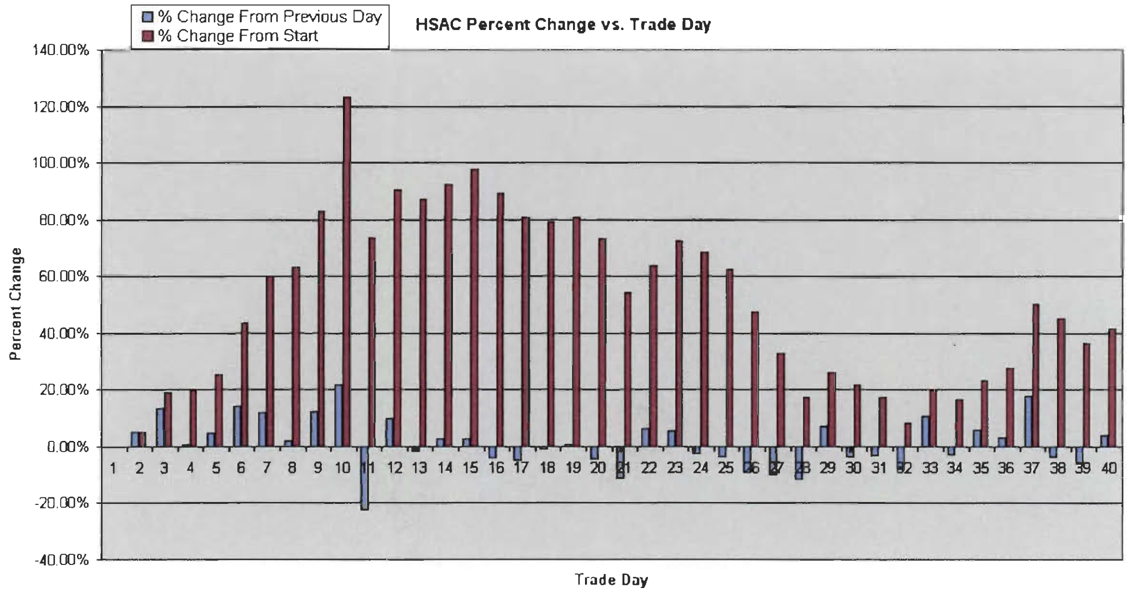

Figure 4.12 – HSAC Percent Change vs. Trade Day

4.7 InsWeb Corporation (NasdaqNM:INSW)

4.7.1 Company Overview

InsWeb Corporation operates a web site that allows consumers to shop for automobile, term life, homeowners, renters and individual health insurance online by giving them company's quotes for actual coverage. Like Jfax, InsWeb is in the business of simplification. They took a process that already existed, shopping for insurance, then made the process as simple as possible, and put it online. InsWeb, like all Internet companies is still very young. Seeing as how it is primarily an Internet company, it is traded on the NASDAQ market.

4.7.2 Reasons for Purchase

We purchased InsWeb at the same time we purchased Jfax, and for the same reason. It seemed like they offered a service that consumers would be interested in. If someone had the choice between spending an afternoon searching for an insurance, or sitting down at their computer for 30 minutes and gathering the same amount of information, it would only seem natural that the person would choose to sit down at the computer. This is the logic that many web based companies are taking. Why leave your house, and spend a lot of time doing something, when you can stay at home and do the same thing in a fraction of the time.

This paradigm has worked for many online companies, such as Amazon or Ebay. So, again, we saw no reason why this idea wouldn't work for InsWeb. Though it's target customers are more specialized that other web sites, we didn't think this would effect investor interest in them.

Another reason we bought InsWeb was because like Jfax, they were an IPO. Again, we saw many Internet IPOs skyrocketing on their opening day, and we hoped that InsWeb would do the same.

4.7.3 Stock Performance

We bought 465 shares of InsWeb Corp. on July 23rd for $31 9/16 a share. By July 26th its value had sunk to $26 5/8 a share. We immediately realized that once again, we had gambled and lost. We sold off all of our shares on July 30th for $30 3/8 a share. Not a terribly huge loss, but a loss nonetheless.

There were a number of reasons for InsWeb's poor performance. First, we learned after the fact that many investors though that their IPO price was far more than what the company was worth. Therefore in the first two days of trading they didn't achieve the volume they desired, and their value sank. Another reason that InsWeb did so poorly was their basic financial statistics. For the six months ending 6/99 their revenues went from $1 million to $8.4 million. This is great, except that their net loss rose 90% to $15 million. They were grossing more money, but netting an even greater loss. A certain amount of this is normal in a company's inception, but number like the ones InsWeb reported are far too extreme for investors to jump on.

4.7.4 Lessons Learned

We essentially made the same mistake twice in our portfolio. InsWeb and Jfax were both big risk IPOs. We became way to confident in their potential success after watching stocks like Redhat. In addition to losing a gamble, we failed to do enough research into the company's financial situation. Had we noticed that they had be reporting such astounding losses we probably would not have invested in them.

4.7.5 Tables and Figures

Table 4.7 – INSW Value by Trade Day

Stock:	INSW		**Buy Price:**	38	
Shares:	465		**Sell Price:**	30 3/8	

Date	Price	Value	Date	Price	Value
06/25/99			07/26/99	30 1/4	14,066.25
06/28/99			07/27/99	31 1/8	14,473.13
06/29/99			07/28/99	27 7/8	12,961.88
06/30/99			07/29/99	26 5/8	12,380.63
07/01/99			07/30/99	30 3/8	14,124.38
07/02/99			08/02/99		
07/06/99			08/03/99		
07/07/99			08/04/99		
07/08/99			08/05/99		
07/09/99			08/06/99		
07/12/99			08/09/99		
07/13/99			08/10/99		
07/14/99			08/11/99		
07/15/99			08/12/99		
07/16/99			08/13/99		
07/19/99			08/16/99		
07/20/99			08/17/99		
07/21/99			08/18/99		
07/22/99			08/19/99		
07/23/99	31 9/16	14,676.56	08/20/99		

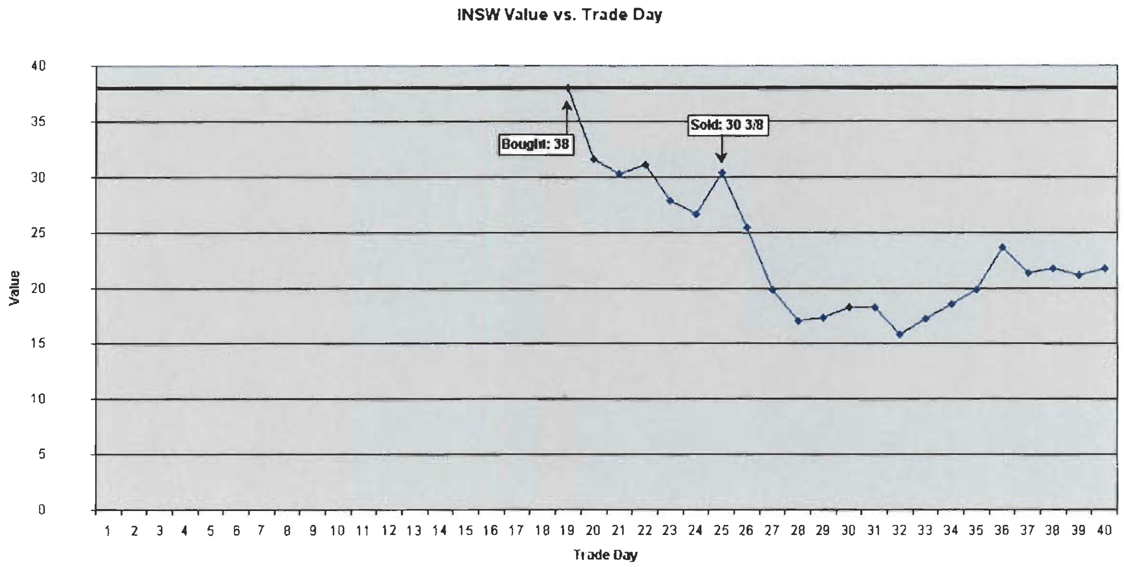

Figure 4.13 – INSW Value vs. Trade Day

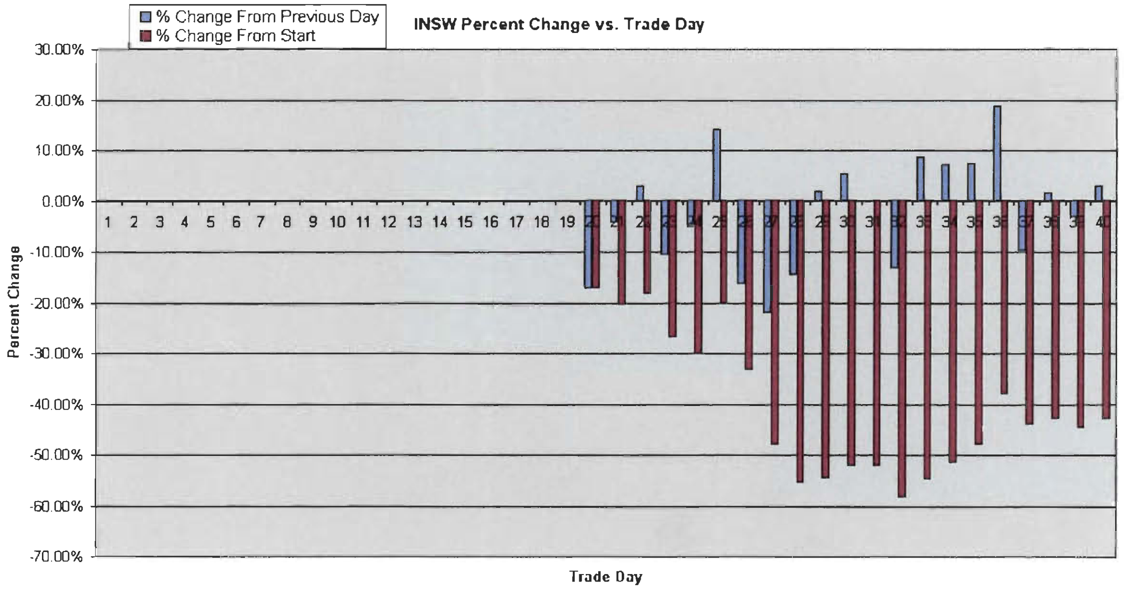

Figure 4.14 – INSW Percent Change vs. Trade Day

4.8 JFAX.COM, Inc. (NasdaqNM:JFAX)

4.8.1 Company Overview

JFAX.COM is one of hundreds of Internet companies that rushed onto the market in 1999 with hopes of instant capital. The main idea of JFAX is to give customers a single email box that will function as a repository for all email, fax, and voice mail. All of these technologies already exist, but JFAX thrives on the idea that they're selling simplification. It, like other Internet companies, is relatively young, and has not turned a profit yet. Because it is an Internet based business it is only appropriate that they are traded on the NASDAQ market.

4.8.2 Reasons for Purchase

In the first and second quarters of 1999 Internet stocks were absolutely on fire. From their stock values one would think that everyone in the world was using Netscape Navigator on AOL to purchase books and compact discs on Amazon.com. None of these three companies could possibly fail during this time period. Amazon kept reporting loses, and yet, it's stock kept going up. Why? Because investors saw promise in what Internet companies had to offer. They didn't care that they weren't profiting, it's almost unheard of for a company to profit when it's in its infancy. And so the investors jumped on the bandwagon.

Entrepreneurs and existing Internet companies jumped on the bandwagon as well. They all got onto NASDAQ as soon as possible in order to start raising capital. Perhaps two of the most shocking examples of this were Redhat, the maker of a commercial version of the very popular Linux operating system, and MP3.COM, a web site that allows artists to distribute their music over in the

Internet in MP3 format for no charge. On the day of their IPO both companies saw almost 100% increases in value. Naturally the value dropped down to a more realistic price after a few days or weeks, but by that time many investors and made out with quite a bit of money.

This is essentially what we hoped to do with JFAX. We learned about its IPO about a week before it went on the market. We realized that Internet stocks were on fire, and that this company offered a very unique and useful service to customers. We thought it would be a great gamble.

4.8.3 Stock Performance

On July 23'rd we bought 1720 shares of JFAX for 9 ½ a share. By July 25'Th we realized that we had gambled with a very risky type of stock, IPO's, in a very risk sector, the Internet, and had lost. For the first three days after we bought it, it's close value was lower than the previous day's. With some fluctuations the stock hit a low on August 9'Th of 5 13/16. Over the next few days its value fluctuated a little bit, until the final day of the simulation when it closed at 6 21/32. We sold it for a loss of 30%.

Quite simply, we took a gamble, and lost. We had become so exciting about the concept of doubling our money in one day, like the investors who bought Redhat or MP3.COM, that we had failed to realize that JFAX had been doing exceptionally poorly as a company, and was supposed to be mediocre at best over the long term. Despite some positive revenue reports JFAX is still trading very low compared to what we bought it at.

4.8.4 Lessons Learned

What we learned from JFAX is the importance of keeping rational when you feel like you are invincible because of how the market is doing. JFAX had the potential for making us lots of money but it was a very risky bet. We are not exactly sure what we would do if we had an opportunity to buy a company like this again. On the one hand, there are many investors that make their bread and butter off of IPO's, on the other hand the risk factor is so high one has to wonder if it truly is worth it.

4.8.5 Tables and Figures

Table 4.8 – JFAX Value by Trade Day

Stock:	JFAX		**Buy Price:**	10 5/16	
Shares:	1720		**Sell Price:**	8 5/8	
Date	**Price**	**Value**	**Date**	**Price**	**Value**
06/25/99			07/26/99	8 1/4	14,190.00
06/28/99			07/27/99	8 1/32	13,813.66
06/29/99			07/28/99	7 5/32	12,308.66
06/30/99			07/29/99	7 13/16	13,437.50
07/01/99			07/30/99	8 5/8	14,835.00
07/02/99			08/02/99		
07/06/99			08/03/99		
07/07/99			08/04/99		
07/08/99			08/05/99		
07/09/99			08/06/99		
07/12/99			08/09/99		
07/13/99			08/10/99		
07/14/99			08/11/99		
07/15/99			08/12/99		
07/16/99			08/13/99		
07/19/99			08/16/99		
07/20/99			08/17/99		
07/21/99			08/18/99		
07/22/99			08/19/99		
07/23/99	9 1/2	16,340.00	08/20/99		

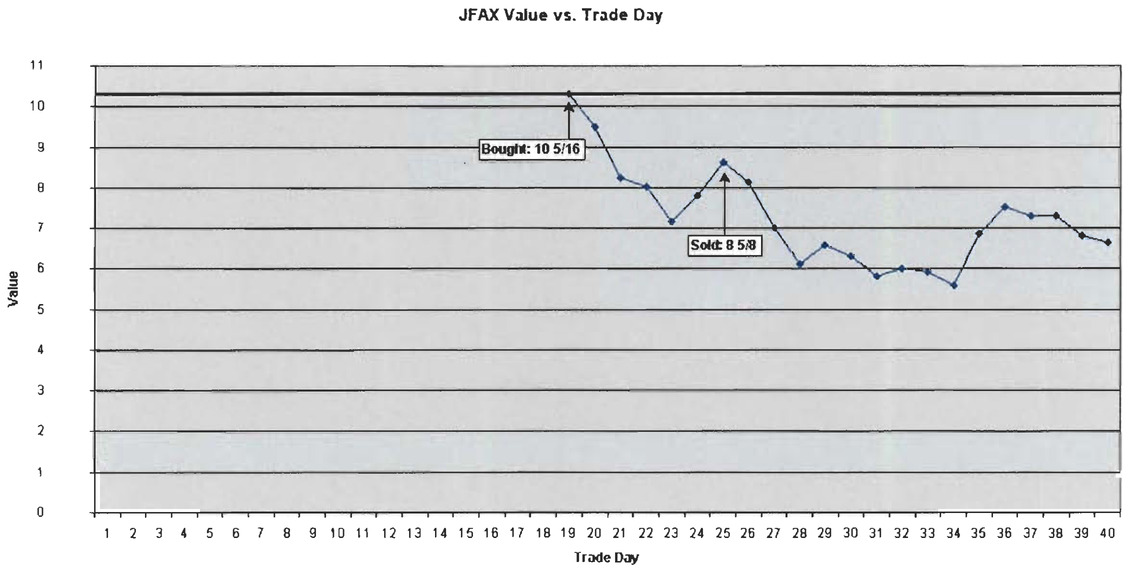

Figure 4.15 – JFAX Value vs. Trade Day

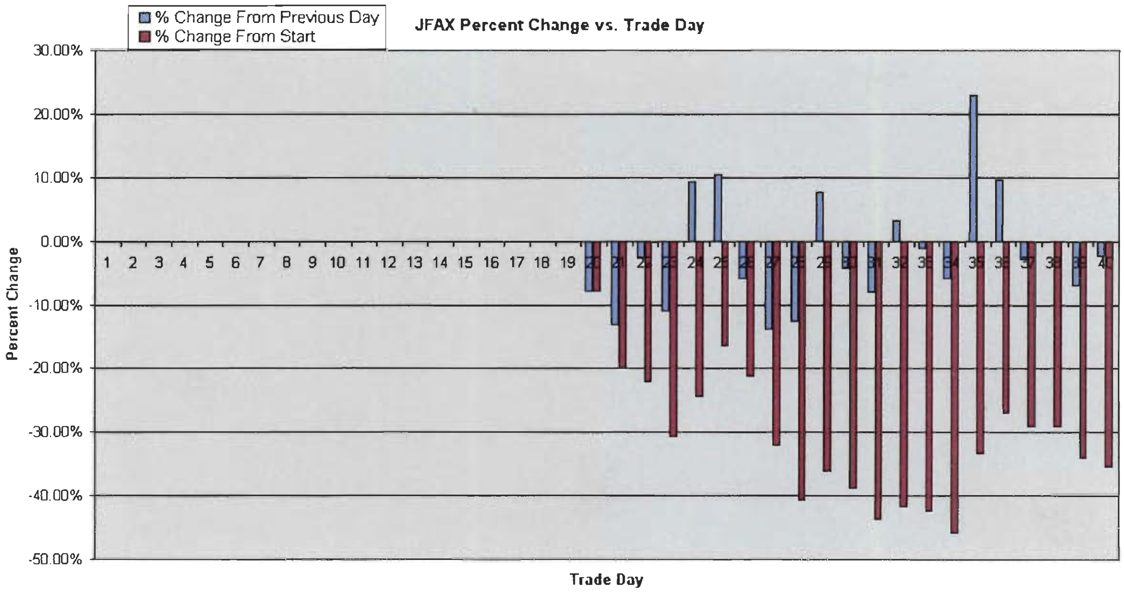

Figure 4.16 – JFAX Percent Change vs. Trade Day

4.9 Lucent Technologies (NYSE:LU)

4.9.1 Company Overview

Lucent can generally be classified as a communications company. They design, develop, and manufacture software and hardware systems that enable their customers to provide wireline and wireless access. This access comes in the form of local or long distance voice, data, video, and cable communications. Because of this highly technical description it is only appropriate that Lucent trades on the NASDAQ market.

4.9.2 Reasons for Purchase

We purchased 196 shares of Lucent at 63 11/16 on the 25'Th of June 1999. There are a number of reasons we decided to purchase this stock. First, its chart shows a stock that has risen steadily in value since it's IPO in January of 1996. The fact made us feel comfortable that if we didn't make a lot of money in the eight weeks we held the stock, at least we wouldn't lose a lot of money. So we were confident in Lucent being a safe buy. Another reason we decided to invest in this company was the available research about it online. At the time we bought it the research on Yahoo! showed that 13 brokers recommended it as a strong buy, 13 recommended it as a moderate buy, and 9 said it was a good hold. These numbers point strongly to the fact that Lucent would make a very good long-term stock.

4.9.3 Stock Performance

Unfortunately the goal of the simulation part of this project was not to invest in good long-term stocks, but to invest in stocks that will make as much money as possible in eight weeks. Lucent was not kind to us in this aspect. Yes, Lucent is a fantastic long-term stock, but during the eight weeks we held Lucent it took us on a roller coaster ride of ups and downs. By our fifteenth day of trading it had shot up from our original buying price of 63 11/16 to 78 7/16. A 23% gain in value is not bad at all.

But then came the fall. By the 28'Th day of trading Lucent had fallen to 62 15/16 a share, a small loss, but a loss nonetheless. On the last day of trading its value was 63 5/8, only very slightly less that what we initially bought the stock at.

Lucent's fall coincided with general poor market performance towards mid-July, and unpredictable small fluctuations. One of the primary mistakes we made when we decided to buy this stock was failing to look at its current value versus its history. We knew the Lucent was a steady gainer, but we didn't notice the fact that it was currently at a high point, which, we know now, is not always a safe place to purchase a stock. The stock did reach another high during the duration that we held it, 78 7/16 on July 16, but soon after it started correcting itself and moving back down to our original purchase price.

4.9.4 Lessons Learned

Our Lucent experience provides an excellent example of how passive stock trading is beneficial. If we still held our original stock in Lucent, as of today we would have lost money, but that is taking into consideration that only five months have passed by. On the other hand if we had purchased Lucent stock at any point before January of 1999, we would have gained money today, and this is only with the passage of 11 months. In addition to that, the stock split in the first quarter of this past year, so all of our original shares would be worth even more.

Lucent continues to be a highly recommended company today, despite the fact the market has very recently taken some strange turns, and that investors are nervous about Y2K. If we had to do it over again we probably wouldn't buy Lucent again because of its recent fluctuations. On the other hand Lucent would be a fantastic long-term safety stock, though we probably wouldn't become incredibly rich because of it.

4.9.5 Tables and Figures

Table 4.9 – LU Value by Trade Day

Stock:	LU	**Buy Price:**	63 11/16
Shares:	196	**Sell Price:**	63 5/8

Date	Price	Value	Date	Price	Value
06/25/99	63 11/16	12,482.75	07/26/99	64 5/8	12,666.50
06/28/99	65 11/16	12,874.75	07/27/99	67 1/8	13,156.50
06/29/99	66 11/16	13,070.75	07/28/99	66 7/8	13,107.50
06/30/99	67 7/16	13,217.75	07/29/99	65 7/16	12,825.75
07/01/99	68 1/16	13,340.25	07/30/99	65 11/16	12,874.75
07/02/99	70 11/16	13,854.75	08/02/99	66 3/4	13,083.00
07/06/99	70 1/16	13,732.25	08/03/99	65 3/16	12,776.75
07/07/99	71 13/16	14,075.25	08/04/99	62 15/16	12,335.75
07/08/99	71 9/16	14,026.25	08/05/99	64 1/4	12,593.00
07/09/99	71 15/16	14,099.75	08/06/99	63 5/16	12,409.25
07/12/99	73 9/16	14,418.25	08/09/99	63 5/8	12,470.50
07/13/99	72 11/16	14,246.75	08/10/99	61 5/8	12,078.50
07/14/99	75	14,700.00	08/11/99	63 11/16	12,482.75
07/15/99	77 5/8	15,214.50	08/12/99	63 3/4	12,495.00
07/16/99	78 7/16	15,373.75	08/13/99	65 7/8	12,911.50
07/19/99	76 53/64	15,058.31	08/16/99	66 9/16	13,046.25
07/20/99	69 15/16	13,707.75	08/17/99	66 1/2	13,034.00
07/21/99	70 1/8	13,744.50	08/18/99	64 3/16	12,580.75
07/22/99	68 1/4	13,377.00	08/19/99	63 13/16	12,507.25
07/23/99	67 1/8	13,156.50	08/20/99	63 5/8	12,470.50

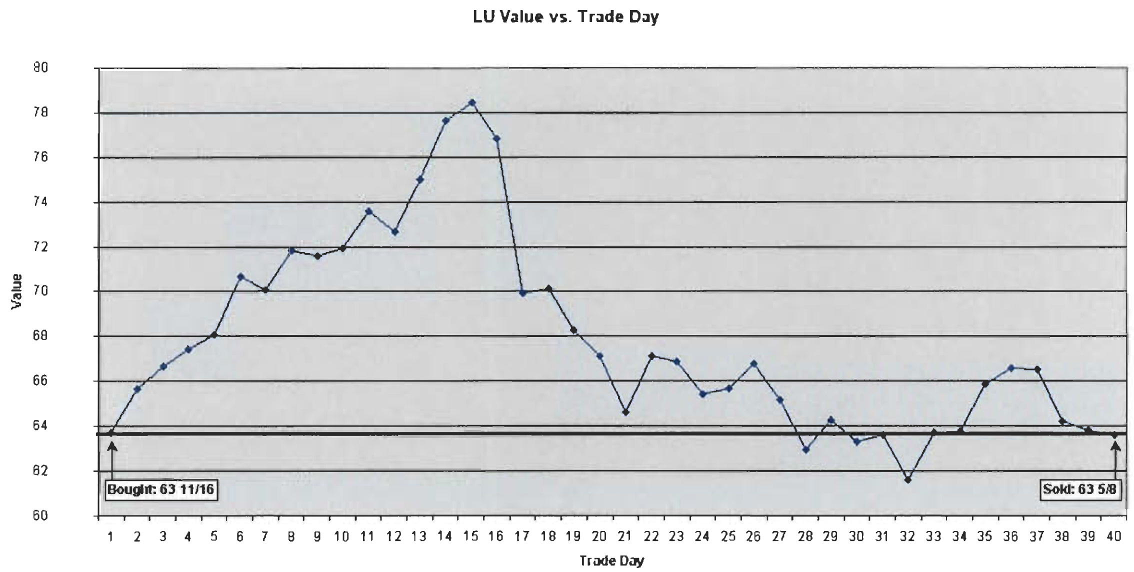

Figure 4.17 – LU Value vs. Trade Day

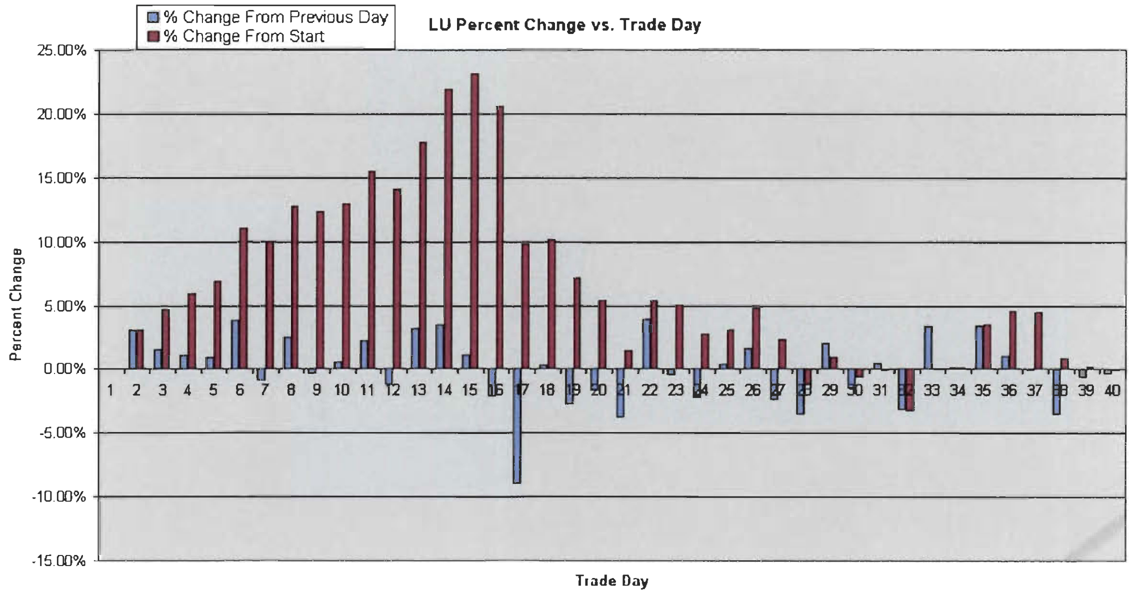

Figure 4.18 – LU Percent Change vs. Trade Day

4.10 Oracle Corporation (NasdaqNM:ORCL)

4.10.1 Company Overview

Oracle creates database software that aids their customers' growth and management. This software includes system software and specific business applications. Oracle is a very wealthy, and very established software company. It is a strong competitor with software giant Microsoft. During the third and fourth quarters of this year it's stock saw phenomenal growth, despite a second quarter plummet. Oracle is traded on the tech oriented NASDAQ market.

4.10.2 Reasons for Purchase

At one point in its history Oracle was being traded for fifty cents a share. Today it trades for around sixty dollars a share. Don't you wish you had bought a few hundred shares of it when it was trading for pennies, and enjoyed a very healthy profit today? This is essentially the primary reason we bought Oracle. In the age when computers were not as hot as much a part of our society as they are now companies like General Electric, Ford, and AT&T were the blue chip stocks. They were said to be healthy, strong, safe stocks. Many people bought them and simply held them until retirement, and then cashed in on them. With the exception of a few small disturbances in the eighties most people succeeded at this strategy. This is because they invested in blue chips, stocks of large, national companies with a solid record of stable earnings and a reputation for high quality.

With the computer age upon us there are new breed of tech blue chips. Computer companies that have established themselves extremely well, and therefore don't show any sign of extreme failure anywhere in their future. Oracle is one of these. Oracle's database management system products are regarded throughout the software community as the best database software money can buy. Companies that create database driven applications must create software that is compatible with Oracle databases in order to stay competitive in the field. In addition to that Oracle is venturing into many high risk bleeding edge technology fields that quite possibly be the future of computing, as we know it, such as the NC. The NC, short for Network Computer, is essentially a bare dumb terminal, with no significant processor or hard drive. All of the applications the user wishes to use are run off of a network. Oracle believes that this type of computer might be the wave of the future due to the very low cost and ease of maintenance to the customer.

Most investors also agree that Oracle is a very good buy. 29 out of the 36 investors that rated it on Yahoo.com rated it as either strong buy or moderate buy. Thus reinforcing the idea that Oracle isn't going out of business anytime soon.

4.10.3 Stock Performance

We purchased 350 shares of Oracle on June 28'Th for 36 11/16 per share. Shortly after purchasing it, its value jumped to 39 ¾ a share. We were not entirely surprised about this because of Oracle's current excellent standing. Unfortunately it's value then dipped down to 35 a share. On our final day our trading it closed at 37 a share. We profited slightly, which was fine with us because we bought Oracle in order to provide us with some profit, not to make us extremely wealthy.

Oracle's performance in the time we held it, and since our simulation ended has been very dramatic, yet very going. It is currently trading at almost double what we bought it. Despite current oscillations in stock price Oracle remains an excellent company to invest in.

4.10.4 Lessons Learned

Oracle was a very interesting stock to hold because of the incredible potential it had, and still has. If some of their technologies, such as the NC, take off Oracle could be a very, very wealthy corporation in the future. Even if they fail, chances are Oracle will still remain a strong company due to the fact that they've carved such a niche for themselves in the database market. Oracle would be an excellent company to hold for the long term, but in order to profit off of it in the short term would require a lot of time and research.

4.10.5 Tables and Figures

Table 4.10 – ORCL Value by Trade Day

Stock:	ORCL		**Buy Price:**	35 3/4	
Shares:	350		**Sell Price:**	37	
Date	**Price**	**Value**	**Date**	**Price**	**Value**
06/25/99	35 3/4	12,512.50	07/26/99	35	12,250.00
06/28/99	36 11/16	12,840.63	07/27/99	37 1/16	12,971.88
06/29/99	37 1/8	12,993.75	07/28/99	37 11/16	13,190.63
06/30/99	37 1/8	12,993.75	07/29/99	38 1/16	13,321.88
07/01/99	37 3/4	13,212.50	07/30/99	38 1/16	13,321.88
07/02/99	38 7/16	13,453.13	08/02/99	38 1/8	13,343.75
07/06/99	38 11/16	13,540.63	08/03/99	37 1/8	12,993.75
07/07/99	38 11/16	13,540.63	08/04/99	36 3/4	12,862.50
07/08/99	38 15/16	13,628.13	08/05/99	37 1/8	12,993.75
07/09/99	39 5/16	13,759.38	08/06/99	36 1/2	12,775.00
07/12/99	38 7/8	13,606.25	08/09/99	36 3/8	12,731.25
07/13/99	38 11/16	13,540.63	08/10/99	36	12,600.00
07/14/99	38 1/16	13,321.88	08/11/99	36 3/4	12,862.50
07/15/99	39	13,650.00	08/12/99	35 1/2	12,425.00
07/16/99	39 3/4	13,912.50	08/13/99	38 5/8	13,518.75
07/19/99	39 1/2	13,825.00	08/16/99	39 5/16	13,759.38
07/20/99	37 1/2	13,125.00	08/17/99	37 5/16	13,059.38
07/21/99	38 1/8	13,343.75	08/18/99	35 7/16	12,403.13
07/22/99	36 1/4	12,687.50	08/19/99	36	12,600.00
07/23/99	36 3/16	12,665.63	08/20/99	37	12,950.00

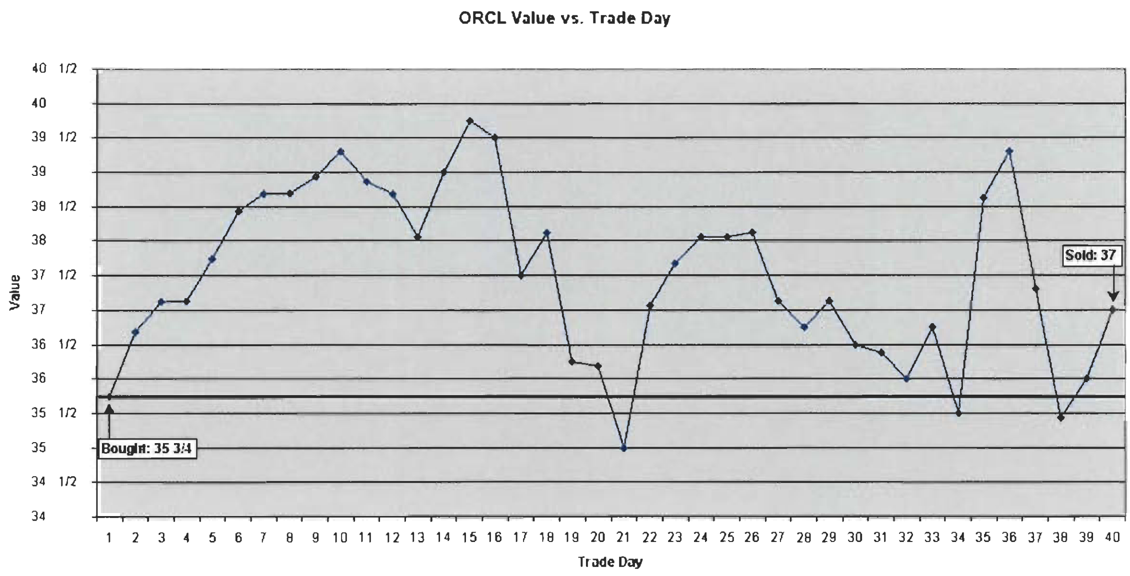

Figure 4.19 – ORCL Value vs. Trade Day

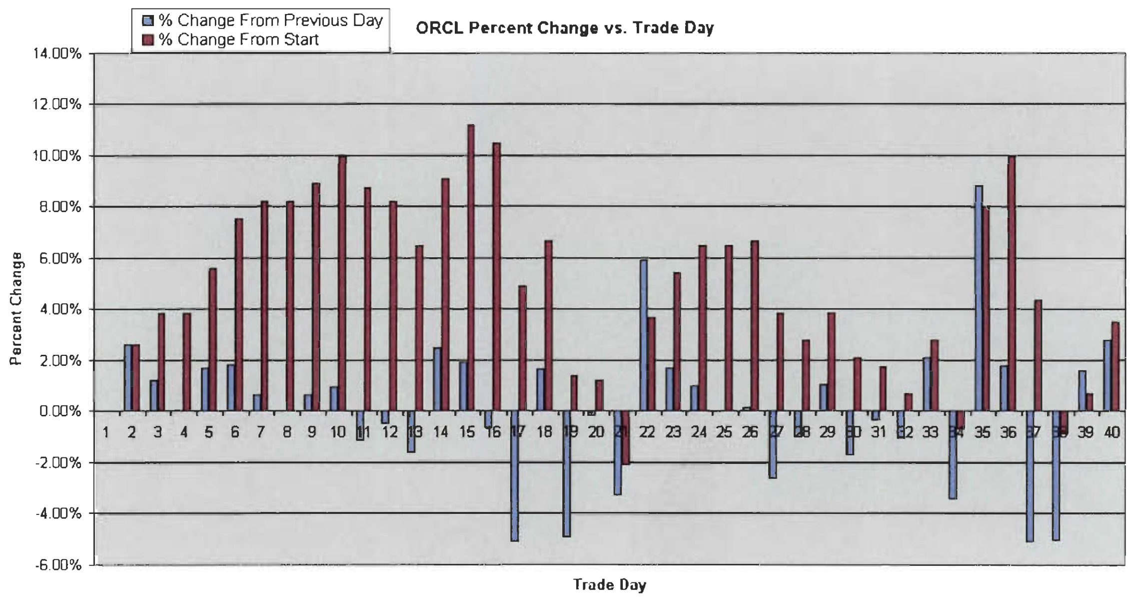

Figure 4.20 – ORCL Percent Change vs. Trade Day

4.11 Texas BioTechnology Corp. (AMEX:TXB)

4.11.1 Company Overview

Texas BioTechnology Corp. is a pharmaceutical company that specializes in development of pharmaceutical compound used to treat vascular diseases. They are a relatively established pharmaceutical company, considering some of the new comers in that sector. For the six months ended 6/30/99 their total revenues were only $1 million, a very modest amount, which is reflected in the value of their stock. Texas BioTech is traded on the American Stock Exchange.

4.11.2 Reasons for Purchase

One of the most important rules of investing is keeping a diverse portfolio. This way if one sector sees a fall your entire portfolio won't plummet in value. The primary reason we purchased Texas BioTechnology Corp. was diversification. This stock held many attributes that our other stocks didn't have.

First, it is a pharmaceutical company. 1998 and 1999 saw some very interesting results for pharmaceutical companies, and for healthcare in general. Companies like Pfizer and American Home Products saw an increase in stock value almost unheard of for drug companies due to their release of "wonder drugs" such as Viagra and Fen-Phen.

Next, Texas BioTech is traded on the American Stock Exchange. Most of our other stocks were tech stocks, and therefore were traded on NASDAQ. The fact that it is traded on AMEX introduces a level of diversification in that if the NASDAQ takes a hit one day, TXB will not feel it as badly as our tech stocks.

Another reason we decided to invest in the healthcare industry was the increasing popularity and controversy over HMO's, healthcare management organizations. They are very profitable, and effect how healthcare organizations and insurance companies operate very strongly, but are very controversial in that they introduce the idea of curing-for-profit only. HMOs effect pharmaceutical companies because HMOs effect insurance companies, and insurance companies decide which drugs it will pay for. When we purchased Texas BioTechnology Corp. we weren't sure what effect any of this would have on it's value, but decided to take a gamble.

The final reason we purchased Texas BioTechnology Corp. was its price. Our purchase price was 4 7/16, the most inexpensive stock in our portfolio. This provided for another level of diversification. Inexpensive stocks are also more risky because they allow the investor to buy more shares of them, and small changes in value tend to be a high percentage of the overall stock's value.

4.11.3 Stock Performance

We purchased 2826 shares of Texas BioTech on June 25'Th for $4 7/16 a share. As expected total value of our stock changed from day to day due to relative small changes in the value of TXB. The small changes translated into high percentage changes in stock value though. By July 12'th Texas BioTech did reach as high as $5 a share, but then dropped down to 4 ½ on July 20'th. In a different move we decided to sell TXB before our simulation was over. We sold it for 4 5/8 on July 21'st, so we did end up profiting off of it. The reason we sold it is that we were tired of managing such a dynamic stock, that didn't have any sort of direction. Its value would fluctuate wildly from day to day regardless of any company news.

4.11.4 Lessons Learned

We learned one very important lesson from this stock: inexpensive, small, risky, companies are very hard to manage in a portfolio. I'm quite positive I would never invest in a company like TXB again, it simply required too much time, and its fluctuations had no logic behind them.

4.11.5 Tables and Figures

Table 4.11 – TXB Value by Trade Day

Stock:	TXB		**Buy Price:**	4 7/16	
Shares:	2826		**Sell Price:**	4 5/8	
Date	**Price**	**Value**	**Date**	**Price**	**Value**
06/25/99	4 7/16	12,540.38	07/26/99		
06/28/99	4 3/8	12,363.75	07/27/99		
06/29/99	4 11/16	13,246.88	07/28/99		
06/30/99	4 3/4	13,423.50	07/29/99		
07/01/99	4 11/16	13,246.88	07/30/99		
07/02/99	4 1/2	12,717.00	08/02/99		
07/06/99	4 1/4	12,010.50	08/03/99		
07/07/99	4 7/16	12,540.38	08/04/99		
07/08/99	4 3/8	12,363.75	08/05/99		
07/09/99	4 1/2	12,717.00	08/06/99		
07/12/99	4 15/16	13,953.38	08/09/99		
07/13/99	5	14,130.00	08/10/99		
07/14/99	5	14,130.00	08/11/99		
07/15/99	4 15/16	13,953.38	08/12/99		
07/16/99	4 13/16	13,600.13	08/13/99		
07/19/99	4 5/8	13,070.25	08/16/99		
07/20/99	4 1/2	12,717.00	08/17/99		
07/21/99	4 5/8	13,070.25	08/18/99		
07/22/99			08/19/99		
07/23/99			08/20/99		

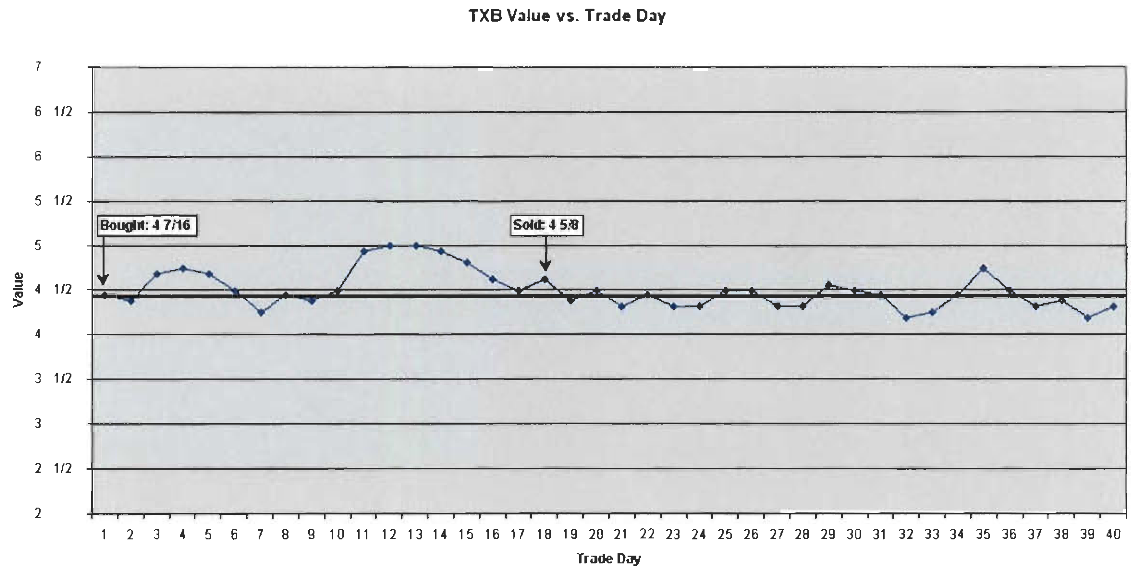

Figure 4.21 – TXB Value vs. Trade Day

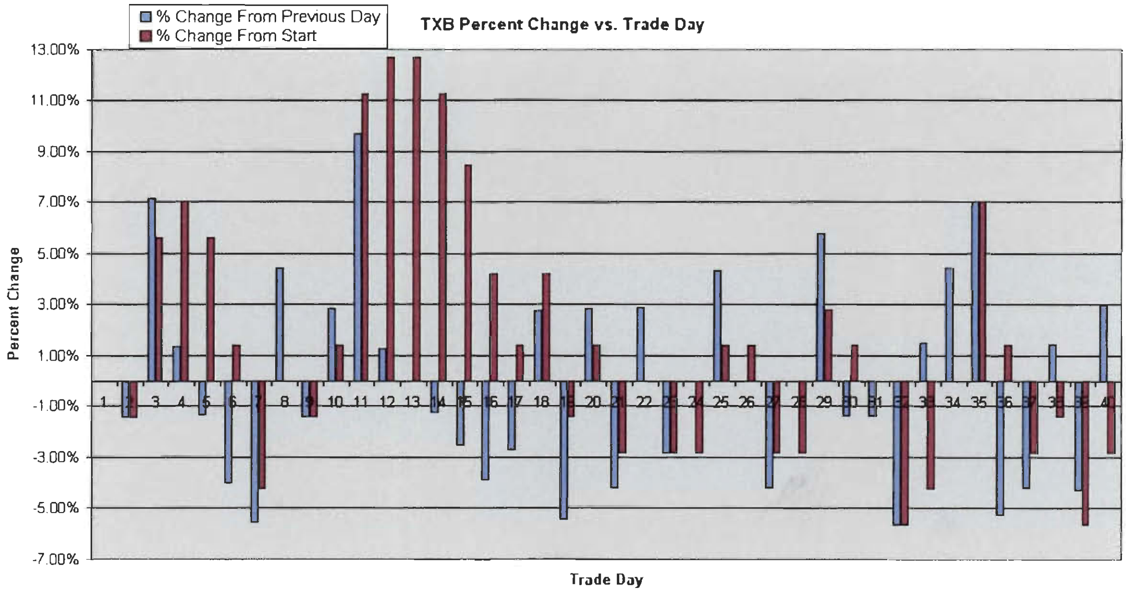

Figure 4.22 – TXB Percent Change vs. Trade Day

4.12 Xerox Corporation (NYSE:XRX)

4.12.1 Company Profile

Xerox Corp. manufacturers and implements business documents solutions that are meant to enhance productivity. Included in these solutions are printing and copying equipment, for which Xerox is famous, and the new breed of digital publishing equipment. Xerox has been around for quite some time and is synonymous with document duplication. In the last few years they have journeyed into the realm of digital document processing, and are doing quite well because of it.

4.12.2 Reasons for Purchase

Xerox is an established company. They have been making copiers and printers for decades now. It is for this reason that they are almost considered a blue chip stock, and why they are rated fairly well by investors on Yahoo.com's research site.

We decided to buy Xerox for two reasons. First, the fact that they are such a stable company makes their stock a safe bet. We realized that it would not make us rich, but at the same time we would not take a great loss if their stock value went down. For this reason Xerox is a great long-term stock.

The second reason we decided to buy Xerox was the work they are doing in digital document processing. Xerox has been involved in computer research since the inception of the personal computer. In fact, Xerox was the first company to come up with the idea of a graphical user interface. Xerox's digital document processing paradigm is there attempt at bringing standard copiers and printers into the computer age by making them "smarter." This includes the creation of networkable copier/printer/fax document stations. Currently Xerox doing very well selling their digital document solutions.

4.12.3 Stock Performance

Unfortunately during the time we owned Xerox it took some turns for the worse. We purchased 220 shares of it on June 25th for $56 5/8 a share. For the first few days after the purchase its value increased, as much as $59 ¾ a share on July 1st. On July 16th it was at $59 1/6, but then it dropped from there. On August 12th it reached a value $44 ½. On the last day of our simulation it was at 49 15/16. As expected we didn't lose a lot of money off of it, but we took a loss none-the-less. It's performance during the time we held it could be attributed to normal market and stock fluctuations.

In an interesting note Xerox is now trading around $25 a share. Why such a dramatic drop in what should be a stable company? On November 2nd a Xerox employee walked into a parts warehouse in Hawaii and killed seven co-workers. Investors didn't like this, and therefore there was a sell-off as soon as the news spread.

4.12.4 Lessons Learned

The best lesson learned from Xerox during our simulation period is that there is no safe bet in the stock market. We didn't expect to take a loss from Xerox, considering how well they're currently doing, but we took one nonetheless. Another lesson learned is that even non-financial related news can effect a company's stock, such as the Hawaii shooting.

4.12.5 Tables and Figures

Figure 4.12 – XRX Value by Trade Day

Stock:	XRX		**Buy Price:**	56 5/8	
Shares:	220		**Sell Price:**	49 15/16	
Date	**Price**	**Value**	**Date**	**Price**	**Value**
06/25/99	56 5/8	12,457.50	07/26/99	49 13/16	10,958.75
06/28/99	56 13/16	12,498.75	07/27/99	48 7/16	10,656.25
06/29/99	56 7/16	12,416.25	07/28/99	49 1/8	10,807.50
06/30/99	59 1/16	12,993.75	07/29/99	49 9/16	10,903.75
07/01/99	59 3/4	13,145.00	07/30/99	48 7/8	10,752.50
07/02/99	59 5/16	13,048.75	08/02/99	49 1/8	10,807.50
07/06/99	58 7/8	12,952.50	08/03/99	48 1/2	10,670.00
07/07/99	57 9/16	12,663.75	08/04/99	48	10,560.00
07/08/99	57 1/8	12,567.50	08/05/99	47 9/16	10,463.75
07/09/99	58 9/16	12,883.75	08/06/99	47 1/2	10,450.00
07/12/99	57 5/8	12,677.50	08/09/99	47 5/8	10,477.50
07/13/99	57 3/4	12,705.00	08/10/99	46 15/16	10,326.25
07/14/99	59	12,980.00	08/11/99	46 5/8	10,257.50
07/15/99	59 5/8	13,117.50	08/12/99	44 1/2	9,790.00
07/16/99	59 1/16	12,993.75	08/13/99	44 7/8	9,872.50
07/19/99	57 1/2	12,650.00	08/16/99	47 1/4	10,395.00
07/20/99	56 7/8	12,512.50	08/17/99	48 15/16	10,766.25
07/21/99	55 3/8	12,182.50	08/18/99	49 7/16	10,876.25
07/22/99	50 13/16	11,178.75	08/19/99	49 5/8	10,917.50
07/23/99	49 1/4	10,835.00	08/20/99	49 15/16	10,986.25

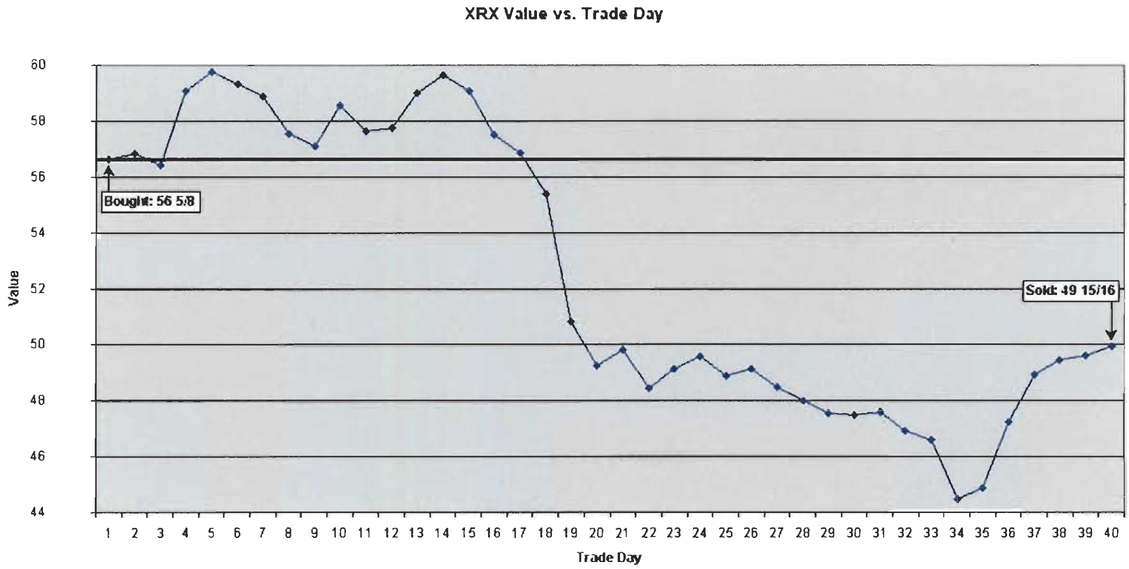

Figure 4.23 – XRX Value vs. Trade Day

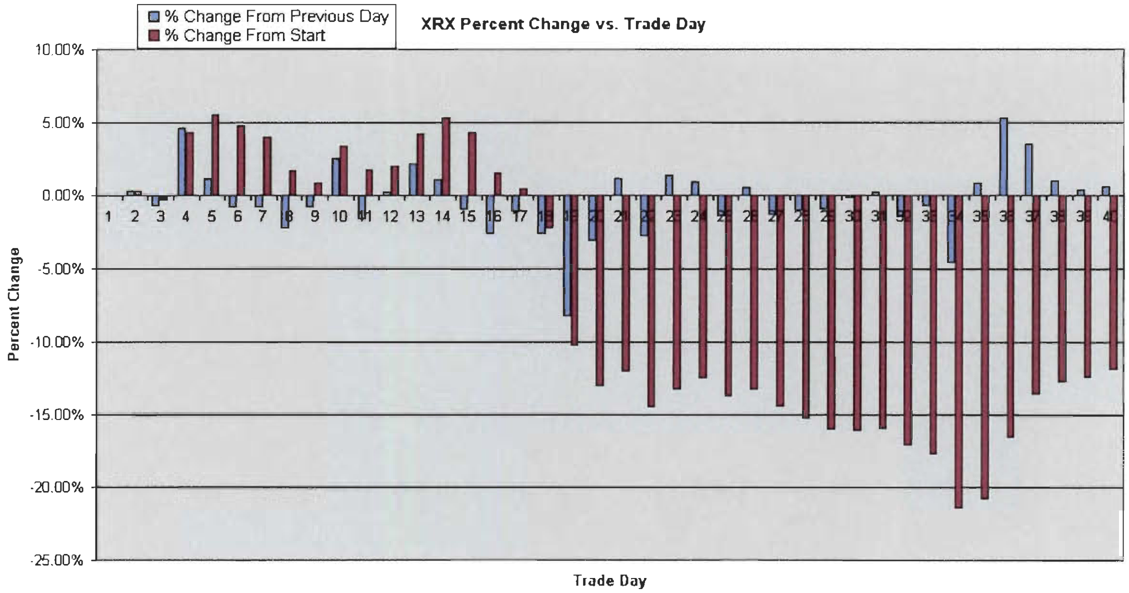

Figure 4.24 – XRX Percent Change vs. Trade Day

Chapter 5 – Conclusion

When looking back on our simulation, we find that our portfolio was, if nothing else, certainly interesting to monitor. During the first half of our simulation we had fairly high hopes for making a profit from our original $100,000 investment. As shown in Figures 5.1 and 5.2, we were making a fairly substantial profit of 21.52% on day ten. The market soon began to slip, however, taking our portfolio with it. We hoped that our value would stay on the positive side, but the temporary decline in the market and some poor choices on our part caused our overall value to fall below the original investment. In the end, we finished our eight-week simulation with a net loss of $1,501.94, or roughly 1.5%.

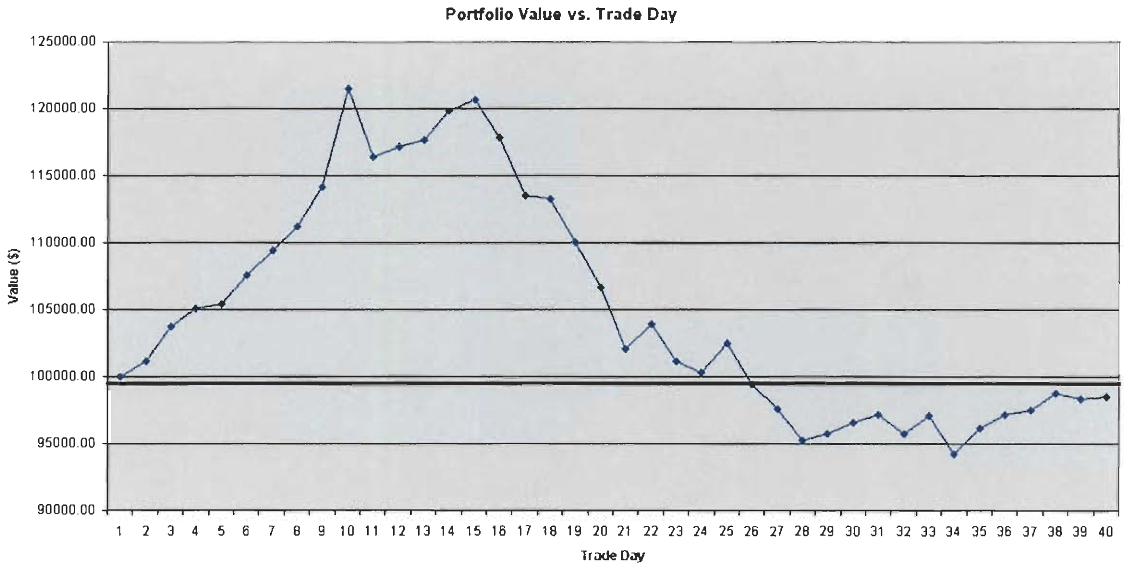

Figure 5.1 – Portfolio Value vs. Trade Day

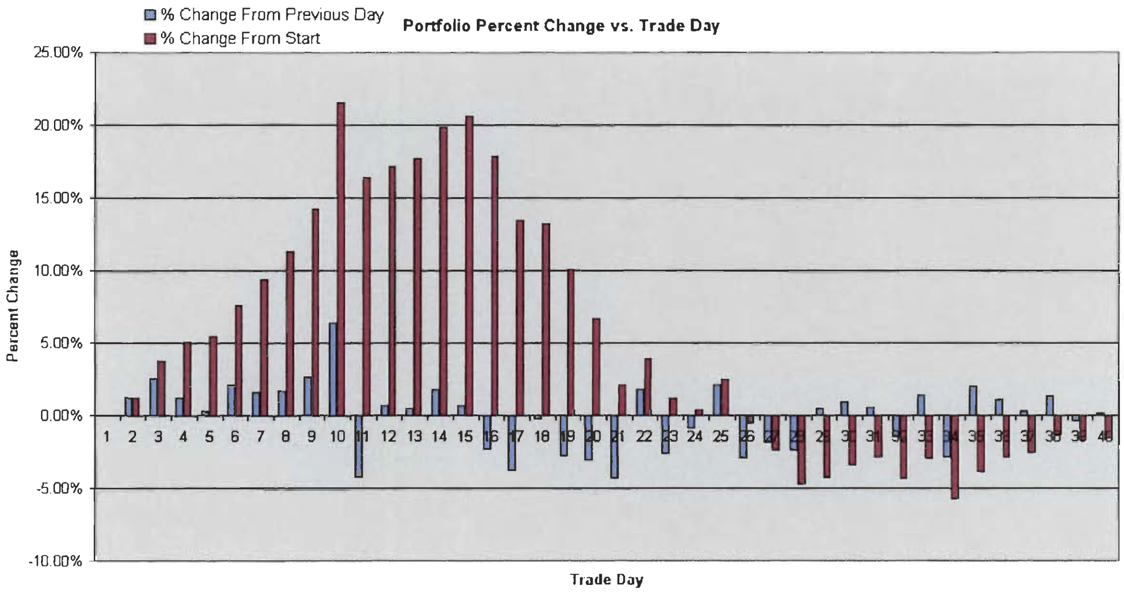

Figure 5.2 – Portfolio Percent Change vs. Trade Day

The question is whether or not this net loss is an indication of failure on our part. The goal of this Interactive Qualifying Project is to study and critique stock market strategies and Internet-based market tools through research and an eight-week portfolio simulation. In other words, this project is an opportunity for us to learn about investing in the stock market, and the various tools that are available, so that we are able to make more informed decisions in the future.

Let us examine some of the experience we have gained. First and foremost, we have learned many of the basics of investing such as factors that affect the stock market, common strategies used for investing, and how to maintain a portfolio. Further more, we have learned about the vast opportunities emerging on the Internet. Surely these resources will be the future of investing, whether they offer only news and data or whether they provide services for trading online. The simulation itself was a key aspect as JFAX.com, we felt the loss. When we made a good choice and the price soared, such as our venture with High Speed Access Corp., we had a sense of accomplishment.

One of the lessons we learned from our interaction with individual stocks is that we need to pay closer attention to some of the potential risks involved. By this, I am referring to our adventures with IPOs. We were lucky with High Speed Access, which seems to be a pretty solid company, but we were not so lucky with JFAX and InsWeb. We also have learned that bigger companies do not necessarily lead to bigger profits. Just because a company has a big name does not mean that it is stable. There may internal problems that can seriously affect their stock performance. Another lesson learned is that we simply can not rush into buying a stock, especially when that company is in an unfamiliar industry. Also, we have to avoid getting too greedy. If a stock makes a significant profit in a short amount of time, we shouldn't be afraid to sell and claim a profit. Sure, the price might go higher, but chances are there will be some correction. Another important point is that no stock is invincible to market fluctuations. A stock may temporarily out-run a slump in the market, but most stocks follow the general performance of the market as a whole. Finally, all stocks go through some fluctuations. Even fairly stable stocks go through minor ups and downs. If someone is not willing or able to spend a lot of time and energy day trading, then they need to invest for the long term. Most individuals will succeed with a fairly passive stock strategy.

These are just a few of the many lessons we have learned while completing this project. We may have lost money, but the knowledge and experience we have gained, such as an understanding of the primary principles of investing and how the stock market works, will be to our benefit when we eventually decide to invest real money. Therefore, it can be determined that this project has been a success.

Bibliography

Case, Samuel. *The First Book of Investing*. Rocklin, CA: Prima, 1997.

Tyson, Eric. *Investing for Dummies.* Foster City, CA: IDG, 1997.

Tobias, Andrew. *The Only Investment Guide You'll Ever Need.* San Diego, CA: Harcourt Brace & Co, 1998

Ameritrade. 1 December 1999. <http://www.ameritrade.comtt>

ESchwab. 1 December 1999. <http://www.eschwab.com>

E*TRADE. 1 December 1999. <http://www.etrade.com>

Yahoo!. 1 December 1999. <http://www.yahoo.com>