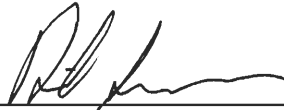*04C008I*

Project Number: DZT0301-49

<u>Stock Market Simulation</u>
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
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Abstract

Using tools and information available on the internet, we conducted a 10 week simulation to investigate the effects of trading strategy on investments and profits. The experience from this project will help us become better investors in the future.

Chapter 1: Introduction

1.1 Goals of the Project

The objective of this project is to learn first-hand knowledge about the stock market and practice some basic investment strategies through a short-term stock market simulation. We will start trading from 10 stocks selected by the group as a whole. We will then individually, using our own selected method or techniques, play our selected stocks. This simulation will allow us to analyze the methods each member used and make conclusion based on their individual performance. Each group member will start with $100,000, then at the end of the 10-week simulation we will compare and contrast to profits, and losses to determine which methods and corresponding team members have been most successful in this 10-week simulation and which look to continually perform best beyond a 10-week period. In Chapter 1 we will discuss the history of the stock market and who trades in it. In the following chapters we will discuss different trading methods and our results of our simulation. In chapter 7 we will conclude our project. We will discuss our results as a whole group and also what we learned over our project period.

1.2 History of the Stock Market

The stock market or stock exchange is a place where stocks and bonds can be traded. This leads to a big question, what exactly is a stock? A stock also

called a share is actually a piece of a company. The company is divided up into equal parts and offered for sale on the stock exchange. However, normally one entity will keep at least 51% of the shares, this is called the principal shareholder. The remaining shares are continually traded on the stock market. The second question that arises is what exactly is a bond? A bond is a debt certificate issued by the government that they agree to pay back by a certain date.

Originally the market was open to everyone, but now it is open only to members of the owning association. Members of this owners association are called stockbrokers, and they are the only ones allowed to trade directly. The general public has to buy and sell through the use of a stockbroker. The brokers charge a commission and make the trade for an individual. The main market in the United States is the New York Stock Exchange (NYSE). The NYSE has been open for business since 1792. In addition to the NYSE the NASDAQ market has immerged and is heavily populated by technology related stocks. The third market frequently watched in the United States is the S&P.

In 1792 there was a considerable debt due to the Revolutionary War. Alexander Hamilton proposed selling the $80 million in debt in bonds to the citizens of the country. After some bargaining it was agreed upon that not only would bonds be sold but also the citizens could buy parts of businesses that had future potential. The bonds can be easily compared with a loan that citizens grant to the country to be returned later with interest.

1.3 NYSE vs. NASDAQ

The NASDAQ market is a very unique thing. The method of buying stocks in the NYSE is done on a floor by people. In the NASDAQ it is done over a telecommunications network. To actually make up the market there are people called market makers. These people are the core distributors of securities on the NASDAQ market. They buy stocks with their own money and take compensation from individuals. Basically, these core distributors set the prices of the stocks on the market. In contrast the stock prices in the NYSE are set by the supply and demand of each particular stock.

1.4 How to Invest

Any person can invest in any of these markets, there is however multiple ways to invest in these markets. With the invention of the Internet, stocks can be purchased through many stock brokerage firms that have set up websites. Fairly low fees are charged for these transactions. A person only needs to go to one of these sites and pick the amount of money they wish to spend, and the stock in which they would like to invest. This method, however quick, has drawbacks. These websites allow individuals to seemingly trade on their own, despite the actuality that a brokerage is purchasing and selling the stocks for them. The down side to this method is that there is no communication with a stockbroker, experienced and knowledgeable. All decisions are made and based solely on the

individual's research, without the guidance or opinion of a professional. Researching on your own is not only risky but time consuming.

People with too little time or experience may want to invest through a broker. Brokers will go as far to evaluate your investment goals and your economic status or assets and determine the best investment actions. Stockbrokers can work with their clients on different levels, sometimes simply buying and selling as the client wishes, having little input. There is a drawback to this method as well. Just like in Internet trading the broker makes a commission on each transaction. However in the case of the broker it is a percentage and not a flat rate. This means that the more money you invest and trade with the more money you have to pay the broker. It's just up to the investor which method to choose. There are advantages and disadvantages to each method. It's really just a personal choice.

1.5 Risks and Payoffs of Investing

There are multiple dangers in investing and seemingly less payoffs. Investing in the market is like gambling. There is a greater chance of the house to win than the gambler. However if the gambler should happen to beat the house the percent gains can be immense. If you get in and out at the right times there is a chance of making a great deal of money.

Having an advantage over the stock market can happen in some cases. With a bit of research you can find a trend in the market and invest accordingly. There is still luck involved because nobody can tell when the stocks will turn up

or down, it can only be speculated by these trends. There are many people who make a living off of speculation derived from charts and trends. They may be able to help you identify trends in the market. They will definitely be able to let you know if the market is going down, Bear Market, or up, Bull Market. Knowing which kind of market can decrease risk immensely. If you buy during a bear market you have a chance of buying at the lower values of a stock. Selling in a bull market will be opportune for selling at a higher value. This seems simple but is far from it, as there are still lots of change and unpredictability in both phases of the market.

A common way to decrease risk and increase your chances at gain is through diversification. Diversification takes advantage of a simple principle. This principle is that while one stock may drop, many others may rise at the same time. If all the funds are in one stock you stand to lose a great deal of money without any balancing gain in another investment. When the funds are diversified many investments can go down while the gains in others nullify the losses, or possibly still create gains. With this common practice chances of a drastic gain are less, however the risk of loss is reduced.

Chapter 2: Penny Stock Trading

2.1 Chapter Overview

The stock market is extremely vast and often times quite complicated. It provides tremendous opportunities to make money; however, there are just as many chances of losing money as well. Anyone can sign up and trade stocks online nowadays. Although there are no set "rules" or "required methods" for trading in the stock market, there are several strategies that one can employ in hopes of maximizing his/her trading. The first strategy for stock market trading we are going to discuss is Penny Stock Trading.

2.2 Trading with Penny Stocks

When trying to find the definition of a "penny stock," one will soon realize that there is no universal description as to the precise criteria that a penny stock will follow. In general, a penny stock is a stock with shares that are under $5.00. However, many people consider a penny stock to have a price under $1.00. For our purposes, we chose to make our description for penny stocks as any stock under $2.00, which is a more than acceptable classification in the trading business. Penny Stocks can often be found on certain markets as well. These include the OTC-BB, the OTC, the 'Pink Sheets,' or the CDNX.

Penny stocks are high risk, high reward investments. There are many reasons that the price of stock can be under $2.00. One explanation is that the

company is a relatively new company on the public market. Another is that the company has fallen across hard times financially in the market. Whatever the reason, any penny stock is highly volatile.

There are benefits to penny stock trading. With the price being so low, it makes the decision to invest in a company a little bit easier because the share is so cheap. Also, penny stocks have potential to rise quickly and in large amounts. If one were to pay under $2.00 for company shares, the investor could make a large payoff if the company sees merely a $2.00 increase in the shares. Some investors feel that since the price is so low, the only place for the stock to go is up. Unfortunately, this is not always the case.

For all the benefits of penny stock trading, there are easily the same number of disadvantages due to the unstable nature of penny stocks. As easy as it is to make money in penny stocks, it is even easier to lose money. Because the price is so low, investors must buy large amounts of shares to have gains be worthwhile. This makes an investor commit a lot of money on a very risky stock. The stock can rise very briefly and then fall very quick, so it is important to monitor the stock very often. If one does not keep track closely, a major loss can occur. When dealing with penny stocks, it is advisable to not hold onto a stock for more than 3 weeks or so because it is easy to invest in a dead end stock. Because trading occurs fairly regularly, commission rates can be quite high. Many of the gains on penny stocks will be minimal, so the gains might not even be worth the commission in some cases.

As with most types of trading, penny stocks can be quite lucrative for a well educated and informed investor. By keeping up with hot markets and companies, one can get a jump on cheap stock with a lot of potential. It is important to know about the company you are investing in as well. Many penny stocks are companies that are on their way out of business or don't have a bright future at all. Knowledge of the company and the market will help an investor make better informed decisions when choosing stocks to buy and sell. The potential to make money in penny stocks is certainly high, which attracts aggressive investors. However, there is equally great opportunity to lose money as well.

2.3 Strategies and Goals

Coming into the project, there was limited knowledge among the group members regarding the stock market. After much research, some industries seemed to be more penny stock-friendly, for various reasons. One industry that had potential was the Biotechnology and Drugs industry. Scientists and fund-raisers are always trying to learn more about the human body and how it functions to prevent diseases and make the quality of life better for the population. Proteomics, the study of proteins, is a major topic of research in the Biotechnology and Drugs industry. Many companies are working on mapping the human proteins. With this exciting and ever-changing industry, the opportunity for a company to make a big advancement translates well for the stock market. Quick gains and such make penny stock trading worthwhile. Another industry

was the Software and Programming industry. This industry is huge. There are many companies, there is good funding, and there is good competition in the market. The industry is always evolving and technology is constantly changing. This gives the market potential for cheap shares to increase rapidly, which makes it ideal for penny stock trading. The last market was the Chemical Manufacturing industry. Many industries rely on the chemical manufacturing industry to help run their business and such. There are many new demands that arise as well that keep the market very competitive. The potential for growth exists in this industry.

Searching for penny stocks is a very broad operation. Therefore, by focusing in on the aforementioned industries, we can gain knowledge of the industry and the companies in it to make educated choices on the penny stocks we choose. It is important to research the company before purchasing their stock. Some of the aspects we looked at when examining a company were as follows: the market sector, size of the company, historical prices, recent prices, profit margin, and analyst opinions. With penny stocks, it is important to know the company you are investing in because many companies could be on there way out of the market, thus they are a dead end stock. The potential for growth is the major factor that influenced our decision to purchase a stock. Through research, we hoped to make more knowledgeable and well-informed decisions in the stock market.

Once a company has been purchased, there are many decisions to be made in the upcoming weeks. With penny stocks, small gains/losses can add up

very quickly because of the large amount of money we were investing in each stock. Some stocks saw rises and falls that fluctuated at an incredible pace while other stocks remained pretty steady the entire time we owned them. Going into the trading, we decided that we would not keep any stock for more than 2-3 weeks. The companies we were investing in were considered "risky" because of the price, therefore we did not want to sit and wait on a company for too long. Whether the stock was rising, falling, or steady, the erratic behavior of penny stocks made us uneasy holding on for a stock too long. Another reason was the fact that our trading period was merely 7 weeks. The decision to keep or sell the stock was very concrete because of "gut feelings" or previous behavior of the stock. In general, if the stock fell $0.15 below the price it was purchased at, we would sell the stock and buy a new one. For increases in price though, it was not as cut and dry. Based on past behavior, we would set price goals for certain stock. (this will be talked about in detail later) For the most part, if the stock saw small gains, we would sell to just try and make a little bit of money. This reasoning behind this is that penny stocks can drop in price very quickly due to their volatile nature. These were the strategies we used throughout or simulation for the penny stocks.

Going in the simulation, we did not know what to expect for our penny stocks since they can be so unpredictable. A goal we set was that we just wanted to come out even in terms of money gained and lost. This would prove to be easier said than done while choosing penny stocks. Another goal was that we wanted to make at least 3 trades throughout the simulation. We wanted to be

fairly aggressive in hopes of making some serious gains. We did not want to merely sit on stocks and hope for the best. Finally, and most importantly, our goal was to gain knowledge of the stock market and the trading world. By researching sectors and companies, we learned a lot. The stock market provides an opportunity to build your finances, but the chance to lose it all is also present. When done with the simulation, we hoped to be better investors so when the money is real and the trading isn't simulated, we can come out on top in the stock market.

2.4 Stocks Chosen

Argonaut Technologies Inc. (AGNT)

ARGONAUT TECHNOLOGIES INC
as of 23-Jan-2004

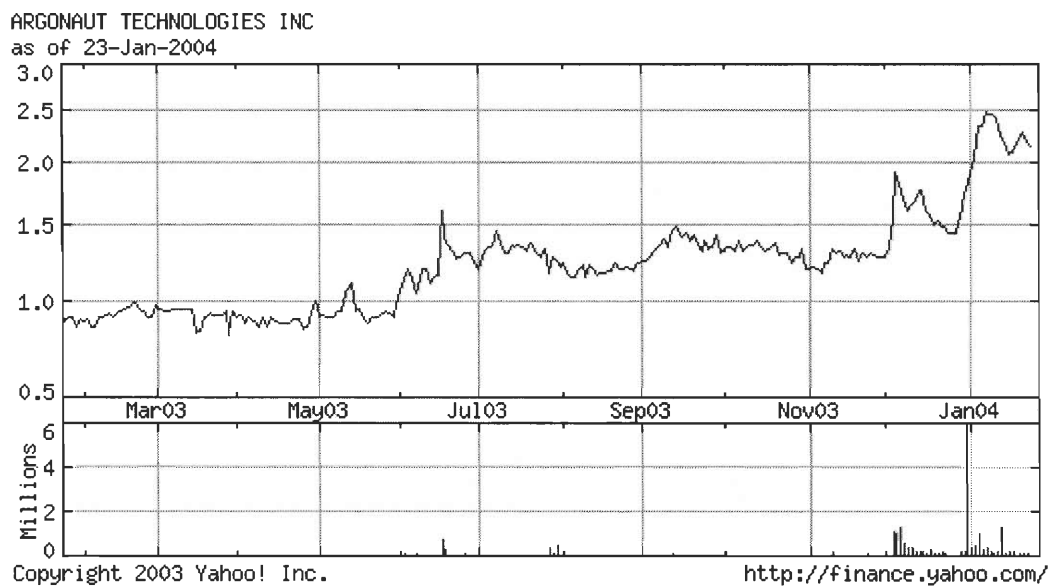Copyright 2003 Yahoo! Inc.   http://finance.yahoo.com/

Figure 2.1 Argonaut Inc

Part of the Healthcare sector in the Biotechnology and Drugs Industry, Argonaut Technologies Inc. is involved in the development of products designed

to facilitate pharmaceutical chemists engaged in the discovery and development of new chemical products that increase productivity and reduce their operating costs. Argonaut chemistry consumables products let scientists optimize their experiments, purify their materials, and produce better compounds than the currently available consumable products used for chemical synthesis. The instruments that Argonaut produces allow chemist to perform multiple experiments under a variety of conditions in less time than other traditional chemistry development methods would take.

We chose this stock because we liked the market it was in, and the stock had shown an overall upward trend in the recent past. We felt this stock had potential to rise in the upcoming weeks.

International Microcomputer Software Inc. (IMSI.OB)

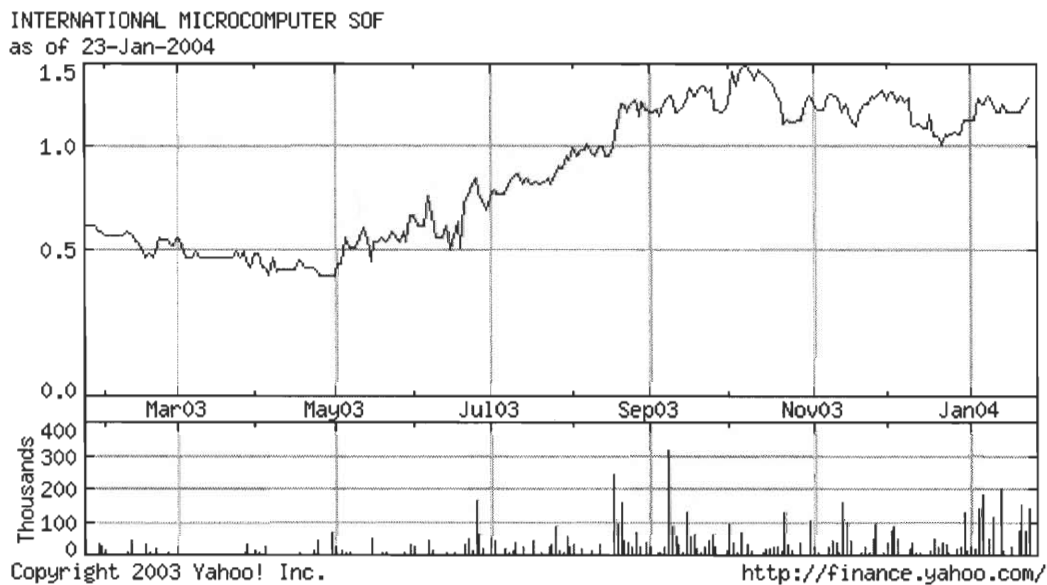INTERNATIONAL MICROCOMPUTER SOF
as of 23-Jan-2004

Figure 2.2 International Microcomputer Software Inc

International Microcomputer Software Inc. (IMSI) is in the Technology sector of the Software and Programming industry. IMSI develops and publishes software in the precision design (computer-assisted drawing) and business applications categories. The company is targeted to small to medium-sized businesses, professionals, and consumers. The primary precision design products of IMSI are TurboCAD, FloorPlan 3D, and TurboCADCAM, which combined to account for 42% of net revenues in fiscal year that ended June, 30, 2003. Other products and applications include art images, photographs, animations, video clips, and electronically stored fonts that enhance communication by making output more visually appealing. They also work with other business graphics and general office products.

We particularly liked the company size because it seemed like a business that could be on the rise. Also the recent history gave us reason to believe gains could be made by investing in this stock.

Isonics Corp. (ISON)

ISONICS CP
as of 27-Jan-2004
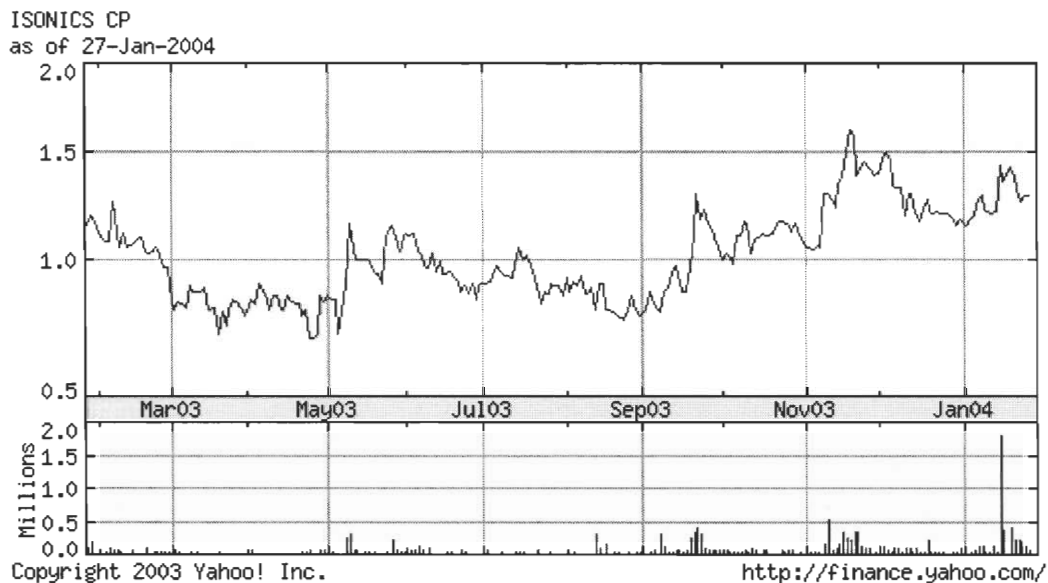
Figure 2.3 Isonics Corp

Isonics Corp. is a Chemical Manufacturing company that mainly works in advanced materials and technology. Isonics develops and markets products worldwide based on isotopes for applications in the energy, diagnostic, medical research, pharmaceutical, and semiconductor industries. Its two business segments are: 1.) life sciences, which sells stable and radioisotopes in elemental and simple compound forms for use in life sciences applications, and 2.) semiconductor materials, which sells silicon-on-insulator (SOI) wafers and is involved in several research and development projects, including silicon-28. In Dec. 2002, Isonics acquired certain isotope-based trace detection technology that can be used to detect explosives and chemical and biological weapons.

The main reason we took a chance by choosing ISON was the fact that they used weapon detection technology. In these times of terrorists and the war

in Iraq, a company like this could do quite well for themselves. Also, past records have shown many peaks that we can hopefully cash in on. Unfortunately, there are also many valleys that make this stock quite unpredictable.

NetGuru Inc. (NGRU)
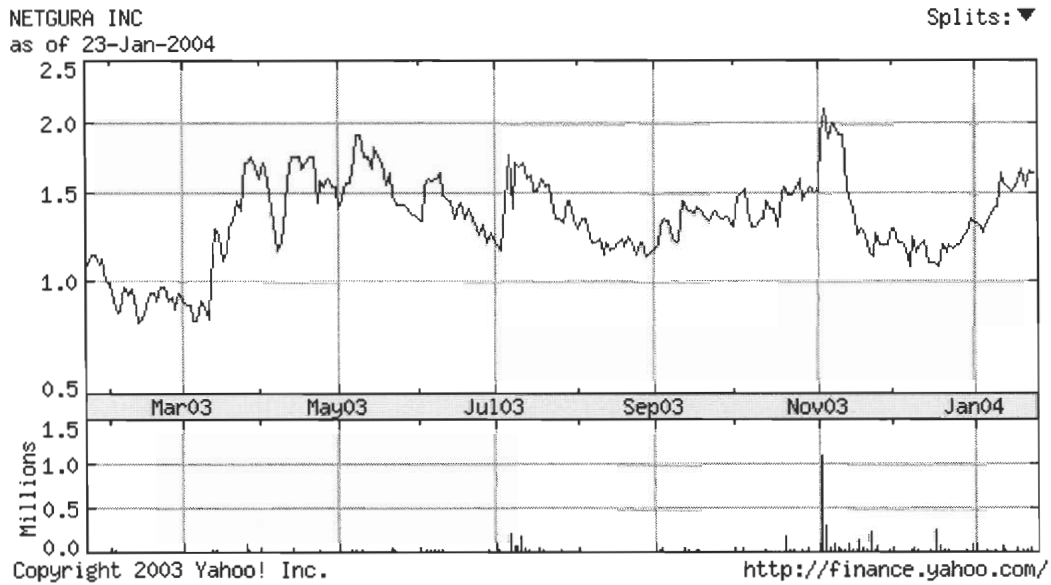
Figure 2.4 NetGuru Inc

NetGuru Inc., a member of the Software and Programming industry, works in the development of engineering and collaborative software products and services for businesses worldwide. NetGuru also offers information technology (IT) services and Web-based telecommunications and travel services, which include long-distance communication services that include call termination services and prepaid phone cards as well as travel services targeted toward certain niche markets. The company's engineering software products, which are standalone and network-based, offer design automation and analysis solutions for use by professionals worldwide. Through its IT services division, NetGuru

provides contracted IT services and software solutions to a variety of vertical industry markets.

The company was on an upward swing when we purchased its stock. We felt the company had fallen on some hard times with the state of the economy, and they were rebounding from it nicely. We felt the rise would continue, and we would take a chance with NetGuru.

Optio Software Inc. (OPTO.OB)

OPTIO SOFTWARE INC
as of 27-Jan-2004

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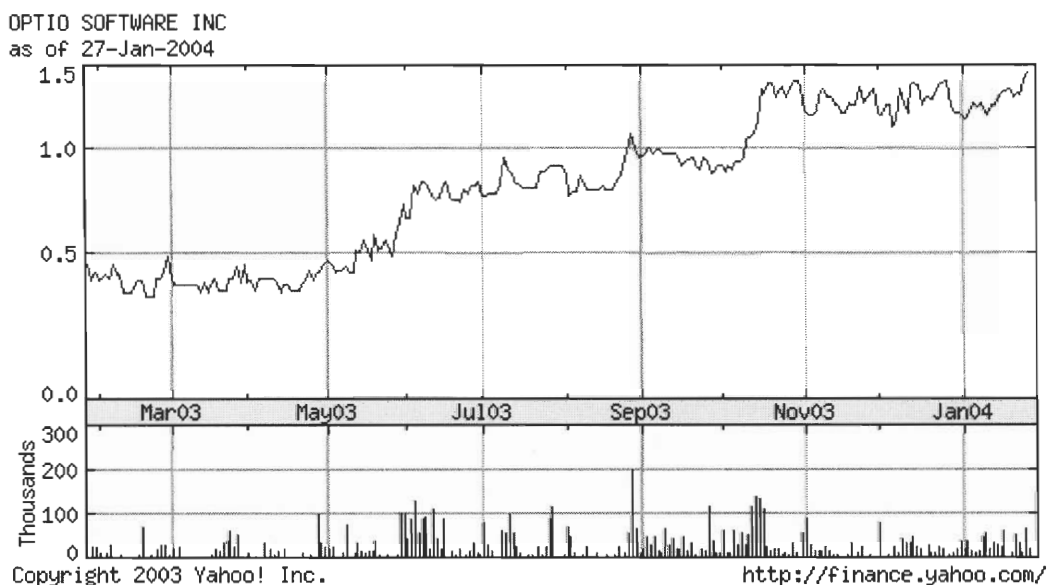
Figure 2.5 Optio Software Inc

Another company in the Software and Programming industry, Optio Software Inc. provides infrastructure software and services that improve the form, content, availability, and distribution of information that is critical to business. The company's software is divided into two suites: 1.) the Optio Enterprise Suite, which is primarily designed to meet the needs of the general business marketplace, and 2.) the Optio Healthcare Suite, which is adapted to the special

needs of the healthcare marketplace. Optio's products allow business' systems and applications to have the ability to share information, transfer documents, and conduct business transactions with customers, suppliers, and employees in the proper format and with the appropriate content, in addition to the time and location required. Optio markets their products primarily to companies located in the United States and Europe.

We chose this stock near the end of the simulation period, so we would not be holding on to this stock for too long. Therefore, we wanted to choose a relatively safe stock that we felt would bring us a small gain. Due to the recent track record of the company, we felt we were buying when the company was progressively growing. We felt this company could give us a little boost to our earnings at the end of the trading period.
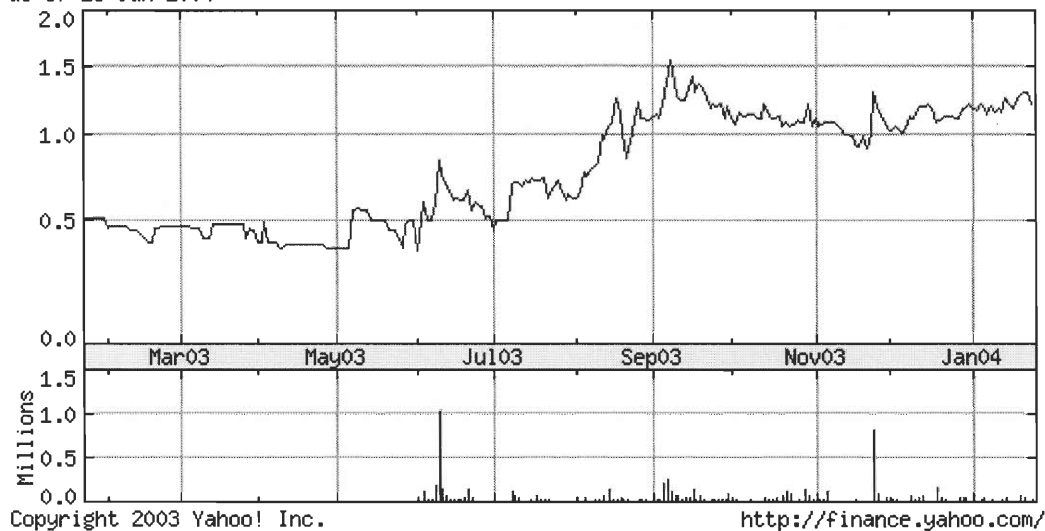
Progen Industries Ltd. (PGLAF)

Figure 2.6 Progen Industries Ltd

Like the aforementioned Argonaut Technologies Inc, Progen Industries Ltd. is in the healthcare sector of the Biotechnology and Drugs Industry. Based in Australia, Progen Industries Ltd. is a globally focused biopharmaceutical company. It is dedicated to the discovery, development, and commercialization of small-molecule therapeutics for the treatment of cancer and other serious diseases. Progen's lead product candidate, PI-88, is a revolutionary member of a new class of multi-functional, multi-targeted cancer therapeutics that inhibit both angiogenesis or tumor promoting factors such as Vascular Endothelial Growth Factor, Fibroblast Growth Factor 1, and basic Fibroblast Growth Factor, as well as heparanase, which is an enzyme implicated in metastasis (tumor spread). PI-88 is being studied in two clinical trials in the U.S. under an active investigational new drug application with the FDA.

Along with the Optio Software stock, Progen Industries Ltd. was the last stock we chose. After researching the company and looking at past performances, we felt that this penny stock would be worth a chance because it had shown some small peaks and valleys of late. With any luck, we could hold onto this stock for a short period of time and hopefully catch in on one of its upswings to make a little bit of money at the end of our trading period.

Questcor Pharmaceutical Inc. (QSC)
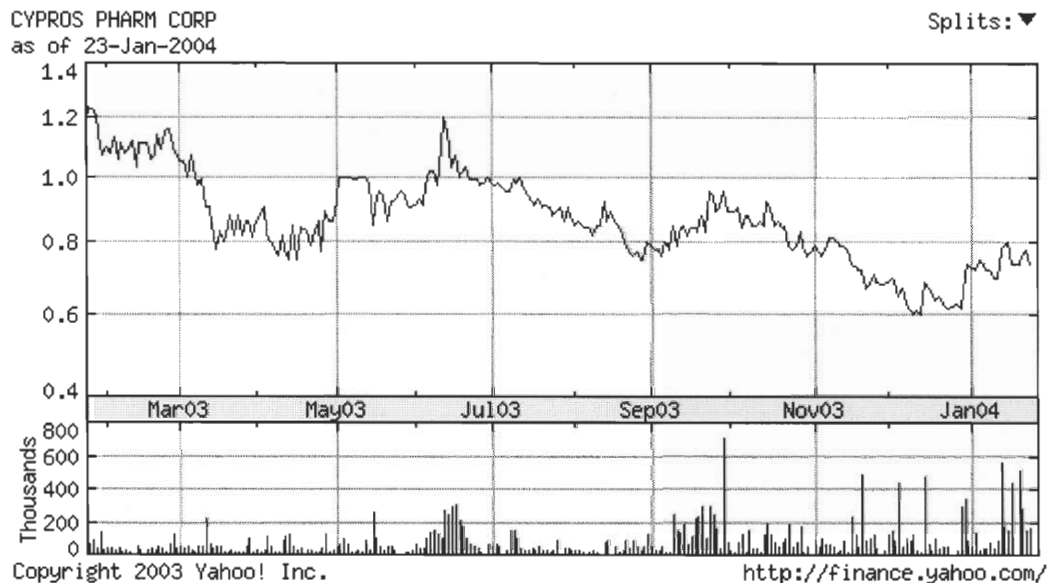
Figure 2.8 Questor Pharmaceutical Inc

*please note that "Cypros Pharm Corp." is written above the graph, but this is indeed the graph for QSC.

Once again, Questcor Pharmaceuticals Inc is in the healthcare sector of the Biotechnology and Drugs Industry. This company is a specialty pharmaceutical company that markets and sells brand name prescription drugs and ethically promoted healthcare products. The products that Questcor focuses on are for the treatment of acute and critical care conditions, including central nervous system diseases and gastroenterological disorders. Of the company's products, there are 4 key products: 1.) HP Acthar Gel, which is an injectable drug that helps patients with infantile spasm (West Syndrome) and the periodic flares which plague those patients with multiple sclerosis. 2.) Ethamolin, which is an injectable drug used to treat esophageal varices that have recently bled. 3.)

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Glofil-125 and 4.) Inulin in Sodium Chloride both are injectable agents that assess kidney function by measuring glomerular filtration rate.

Questcor Pharmaceuticals Inc. is a fairly established company which had fallen on hard times in the market. Due to recent movement and the market, we felt QSC was down, but not out. We felt we could buy low with this company and profit from it as it rose in the market somewhat. As with any penny stock, it was a big chance, but we were willing to take it.

SSP Solutions Inc. (SSPX)

LITRONIC INC
as of 26-Jan-2004

Figure 2.9 SSP Solutions Inc

*please note that "Litronic Inc." is written above the graph, but this is indeed the graph for SSPX.

SSP Solutions Inc., which is in the Software and Programming Industry, is involved in the information security and network solutions segment. SSp Solutions provides data security solutions for network communication systems as

well as government communications systems. The company provides software, a secure operating system, and hardware products for the authorization, authentication, and administration of an orgainzation's security protocols. Also, tokens and card reader products can be used by an organization and its members to protect digital data, thus securing the transmission of that digital data via encryption or decryption of that data on a real-time basis. SSP also provides maintenance and support services for specific government communications programs. The products SSP generates are designed and developed in the U.S.

When researching the company, we felt it was in a very good market by today's standards. The stock had shown an overall upward trend, so we felt that this was a worthy company to invest in.

2.5 Results of Trading

It is important to understand the methods we decided to use in our penny stock trading. We started out by choosing two penny stocks to start with on the first day of simulated trading. These first two penny stocks were AGNT and IMSI.OB. We invested $100,000 in each of these two initial stocks. The trading will be presented in two separate chronological trading progressions; the trades that began with AGNT and the trades that began with IMSI.OB. The dates are days in which we purchased a new penny stock.

AGNT and Subsequent Trades

October 17, 2003: We invested $100,000 in AGNT for a price of $1.33 a share, which bought us 75188 shares.

PRICES

Date	Open	High	Low	Close	Volume	Adj Close*
6-Nov-03	1.18	1.20	1.13	1.17	12,900	1.17
5-Nov-03	1.22	1.22	1.15	1.20	5,800	1.20
4-Nov-03	1.18	1.25	1.15	1.21	33,900	1.21
3-Nov-03	1.17	1.20	1.06	1.20	47,100	1.20
31-Oct-03	1.25	1.25	1.14	1.20	63,100	1.20
30-Oct-03	1.30	1.33	1.25	1.33	21,400	1.33
29-Oct-03	1.30	1.36	1.27	1.27	57,300	1.27
28-Oct-03	1.27	1.28	1.24	1.28	22,700	1.28
27-Oct-03	1.30	1.32	1.23	1.24	35,700	1.24
24-Oct-03	1.28	1.30	1.23	1.30	15,900	1.30
23-Oct-03	1.29	1.30	1.24	1.30	18,200	1.30
22-Oct-03	1.26	1.31	1.24	1.29	68,500	1.29
21-Oct-03	1.32	1.37	1.19	1.37	61,200	1.37
20-Oct-03	1.37	1.38	1.30	1.36	23,800	1.36
17-Oct-03	1.34	1.48	1.32	1.33	28,900	1.33
* Close price adjusted for dividends and splits.						

Chart 2.1: Daily Prices for AGNT

We sold AGNT for a price of $1.17 a share on Nov. 6, which left us with at total of $87,970.96. This was a loss of $12,030.04.

November 6, 2003: We invested $87970.96 in QSC for a price of $0.78 a share, which bought us 112782 shares.

PRICES

Date	Open	High	Low	Close	Volume	Adj Close*
20-Nov-03	0.71	0.72	0.65	0.72	492,900	0.72
19-Nov-03	0.73	0.73	0.71	0.72	56,000	0.72
18-Nov-03	0.74	0.74	0.72	0.73	130,200	0.73
17-Nov-03	0.76	0.77	0.72	0.74	232,300	0.74
14-Nov-03	0.78	0.80	0.78	0.78	23,400	0.78
13-Nov-03	0.78	0.79	0.77	0.79	96,100	0.79
12-Nov-03	0.80	0.80	0.78	0.79	29,000	0.79
11-Nov-03	0.81	0.81	0.79	0.80	17,600	0.80
10-Nov-03	0.82	0.82	0.79	0.81	58,500	0.81
7-Nov-03	0.80	0.81	0.78	0.81	67,700	0.81
6-Nov-03	0.75	0.80	0.75	0.78	61,300	0.78

* Close price adjusted for dividends and splits.

Chart 2.2: Daily Prices for QSC

We sold QSC for a price of $0.72 a share on Nov. 20, which left us with at total of $81,203.04. This was a loss of $6,767.92.

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November 21, 2003: We invested $81,203.04 in ISON for a price of $1.38 a share, which bought us 58842 shares.

PRICES

Date	Open	High	Low	Close	Volume	Adj Close*
5-Dec-03	1.29	1.46	1.29	1.33	109,800	1.33
4-Dec-03	1.55	1.55	1.38	1.45	52,100	1.45
3-Dec-03	1.51	1.51	1.46	1.50	63,000	1.50
2-Dec-03	1.49	1.58	1.43	1.46	149,000	1.46
1-Dec-03	1.44	1.44	1.35	1.39	128,400	1.39
28-Nov-03	1.47	1.50	1.37	1.38	47,200	1.38
26-Nov-03	1.37	1.54	1.37	1.42	102,800	1.42
25-Nov-03	1.47	1.50	1.37	1.45	100,900	1.45
24-Nov-03	1.37	1.41	1.27	1.41	139,500	1.41
21-Nov-03	1.56	1.56	1.30	1.38	362,400	1.38

* Close price adjusted for dividends and splits.

Chart 2.3: Daily Prices for ISON

We sold ISON for a price of $1.33 a share on Dec. 5, which left us with at total of $78,259.90. This was a loss of $2,943.18.

December 5, 2003: We invested $78,259.90 in PGLAF for a price of $1.01 a share, which bought us 77485 shares.

PRICES

Date	Open	High	Low	Close	Volume	Adj Close*
15-Dec-03	1.22	1.24	1.19	1.19	17,700	1.19
12-Dec-03	1.25	1.27	1.10	1.19	78,800	1.19
11-Dec-03	1.10	1.19	1.10	1.17	53,700	1.17
10-Dec-03	1.14	1.20	1.10	1.10	36,400	1.10
9-Dec-03	1.14	1.15	1.11	1.12	76,200	1.12
8-Dec-03	1.05	1.10	1.05	1.06	12,700	1.06
5-Dec-03	1.08	1.08	1.00	1.01	13,300	1.01

* Close price adjusted for dividends and splits.

Chart 2.4: Daily Prices for PGLAF

We sold PGLAF for a price of $1.19 a share on Dec. 15, which left us with at total of $92,207.15. This was a gain of $13,947.3. With this final trade, the simulation ended. After all trading was done, we lost $7,792.85 of the original $100,000 we started with. We did not meet our goal of breaking even.

IMSI.OB and Subsequent Trades

October 17, 2003: We invested $100,000 in IMSI.OB for a price of $1.37 a share, which bought us 72992 shares.

PRICES

Date	Open	High	Low	Close	Volume	Adj Close*
5-Nov-03	1.21	1.21	1.21	1.21	500	1.21
4-Nov-03	1.23	1.23	1.21	1.21	9,400	1.21
3-Nov-03	1.21	1.25	1.21	1.25	6,500	1.25
31-Oct-03	1.25	1.33	1.20	1.29	105,000	1.29
30-Oct-03	1.25	1.25	1.25	1.25	1,300	1.25
29-Oct-03	1.15	1.15	1.15	1.15	0	1.15
28-Oct-03	1.14	1.20	1.14	1.15	42,200	1.15
27-Oct-03	1.14	1.14	1.14	1.14	1,800	1.14
24-Oct-03	1.20	1.31	1.14	1.14	14,600	1.14
23-Oct-03	1.13	1.15	1.12	1.15	31,900	1.15
22-Oct-03	1.24	1.24	1.07	1.13	130,900	1.13
21-Oct-03	1.29	1.29	1.24	1.25	16,800	1.25
20-Oct-03	1.35	1.35	1.24	1.30	26,600	1.30
17-Oct-03	1.42	1.42	1.37	1.37	30,100	1.37

* Close price adjusted for dividends and splits.

Chart 2.5: Daily Prices for IMSI.OB

We sold IMSI.OB for a price of $1.21 a share on Nov. 5, which left us with at total of $88,320.32. This was a loss of $11,679.68.

November 6, 2003: We invested $88,320.32 in NGRU for a price of $1.87 a share, which bought us 47230 shares.

PRICES

Date	Open	High	Low	Close	Volume	Adj Close*
18-Nov-03	1.31	1.35	1.21	1.25	138,900	1.25
17-Nov-03	1.37	1.42	1.31	1.35	33,600	1.35
14-Nov-03	1.51	1.60	1.40	1.44	41,900	1.44
13-Nov-03	1.78	1.80	1.46	1.53	93,000	1.53
12-Nov-03	1.93	1.97	1.79	1.90	29,300	1.90
11-Nov-03	1.85	2.04	1.80	1.90	34,000	1.90
10-Nov-03	1.95	2.00	1.80	1.93	47,600	1.93
7-Nov-03	1.90	2.07	1.81	2.00	99,000	2.00
6-Nov-03	2.02	2.20	1.87	1.87	61,500	1.87

* Close price adjusted for dividends and splits.

Chart 2.6: Daily Prices for NGRU

We sold NGRU for a price of $1.25 a share on Nov. 18, which left us with at total of $59,037.50. This was a loss of $29,282.82.

November 19, 2003: We invested $59,037.50 in SSPX for a price of $1.19 a share, which bought us 49611 shares.

PRICES

Date	Open	High	Low	Close	Volume	Adj Close*
8-Dec-03	1.46	1.47	1.39	1.47	298,500	1.47
5-Dec-03	1.30	1.50	1.30	1.47	105,300	1.47
4-Dec-03	1.28	1.36	1.28	1.35	126,700	1.35
3-Dec-03	1.40	1.40	1.30	1.30	178,300	1.30
2-Dec-03	1.29	1.39	1.26	1.38	93,600	1.38
1-Dec-03	1.40	1.46	1.30	1.32	216,100	1.32
28-Nov-03	1.39	1.44	1.32	1.38	158,500	1.38
26-Nov-03	1.29	1.35	1.25	1.32	226,000	1.32
25-Nov-03	1.20	1.39	1.19	1.30	310,600	1.30
24-Nov-03	1.28	1.28	1.17	1.20	235,000	1.20
21-Nov-03	1.20	1.25	1.15	1.25	245,800	1.25
20-Nov-03	1.13	1.30	1.13	1.25	261,900	1.25
19-Nov-03	1.40	1.40	1.12	1.19	1,056,100	1.19

* Close price adjusted for dividends and splits.

Chart 2.7: Daily Prices for SSPX

We sold SSPX for a price of $1.47 a share on Dec. 8, which left us with at total of $72,928.17. This was a gain of $13,890.67.

December 8, 2003: We invested $72,928.17 in OPTO.OB for a price of $1.15 a share, which bought us 63415 shares.

PRICES

Date	Open	High	Low	Close	Volume	Adj Close*
15-Dec-03	1.25	1.40	1.25	1.38	27,145	1.38
12-Dec-03	1.25	1.40	1.25	1.37	49,835	1.37
11-Dec-03	1.20	1.30	1.20	1.20	32,690	1.20
10-Dec-03	1.28	1.33	1.15	1.25	35,000	1.25
9-Dec-03	1.20	1.35	1.20	1.35	45,182	1.35
8-Dec-03	1.11	1.25	1.11	1.15	13,200	1.15

* Close price adjusted for dividends and

Chart 2.8: Daily Prices for OPTO.OB

We sold OPTO.OB for a price of $1.38 a share on Dec. 15, which left us with at total of $87,512.70. This was a gain of $14,584.53. With this final trade, the simulation ended. After all trading was done, we lost $12,487.30 of the original $100,000 we started with. We did not meet our goal of breaking even.

Below is a chart summarizing the gains and losses made during our trading simulation.

	AGNT Series		IMSI.OB Series	
Date of Trade	Gain	Loss	Gain	Loss
11/5/2003	*no trade made*		0	$11,679.68
11/6/2003	0	$12,030.04	*no trade made*	
11/18/2003	*no trade made*		0	$29,282.82
11/20/2003	0	$6,767.92	*no trade made*	
12/5/2003	0	$2,943.18	*no trade made*	
12/8/2003	*no trade made*		$13,890.67	0
12/15/2003	$13,947.30	0	$14,584.53	0

Chart 2.9: Net Gains and Losses

2.6 Conclusion of Penny Stock Trading

The data does not lie. Our results after our 7 week trading simulation of penny stocks were not what would be considered "satisfactory." When investing in the stock market, the goal of any investor is to add to the money that he/she already has, or at least break even. Our goal was to break even, and we failed to achieve this. Another one of our goals was to make at least 3 trades. We did manage to achieve this goal by making 4 trades in each of the two trading series. Our final goal was to gain a better understanding of the stock market and penny stock trading. This goal was certainly achieved. By doing this simulation, we increased our previous knowledge of penny stock trading. We were mainly first time traders, so this was no doubt a learning process, as the data clearly shows.

When reflecting on our trading simulation, we couldn't help but ask ourselves what we could have done better in order to achieve the monetary results we had hoped for. We feel that we definitely chose good penny stocks. We researched the companies and made well informed decisions on which ones to by for the most part. However, the actually trading process could have been done much better. We feel that we were not aggressive enough when deciding when to sell. With each stock, there were times where we could have sold our shares and ended up coming out with at least a little bit of profit. However, in some cases, we held on to a stock too long and missed our opportunity to cash out on top. We could have done a better job monitoring the stock as well. There were some days where we neglected to check the price of our stock. This was a major mistake that caused us to miss some big jumps in the stock prices that we

could have benefited from financially. We feel that if we were more aggressive in terms of the selling the stock when the price was up, we could have made more money. Because of the volatile nature of penny stocks, the window of opportunity for profit is very slim. And in many cases, we missed that coveted window.

When all is said and done, we lost money by trading penny stocks. However, we feel that the opportunity to make money is certainly available. We will take some very valuable knowledge from our penny stock trading. Luckily for us this was only a simulation. When we trade with our own money in the future, we will be more ready for what the stock market is all about. Our new goal is to apply our knowledge to turn those losses into big gains in future penny stock trading.

Chapter 3: Short Term Stock Market Trading Method

3.1 Goals for the Simulation

Our goals for the simulation are very straight forward. Most importantly we would like to make a profit with the trading of our stocks. In order for the simulation to be a success we would like to make a ten percent profit. We should hope to at least break even if worse comes to worse. This simulation will also help us to learn how to research stocks and use the stock market, which could be a very important tool later in life.

In this chapter we will discuss the short term trading method and how it is used. We will then give an overview of a few of the stocks that were chosen. Next our trades in the market will be document along with our profits and losses and why we made the trades we did. The simulation for the short term trading method will then be summarized.

3.2 Short Term Trading Background

Short term stock market trading is a very interesting way to invest ones money into the market. With this type of trading, one could buy any number of stocks, however in most cases only a few at a time, and keep them for no longer than a few days. Whether or not the market is doing particularly well, one will not lose a great deal of money for any one trade. In recent years, there has never been a time when short term trading has brought in a negative overall result.

The possibility of making a great deal of money with this method is prevalent. The basics are needed to be the littlest successful with any method of trading; however with short term trading there is not too much more that one needs to know. One does not need to know a great deal about the market or the trading method to be somewhat successful. It is quite simple to make these kinds of transactions. We believe we will be very successful with this method of trading during our simulation.

3.3 Stocks Chosen

We chose the Fox Entertainment Group Inc. as one of our stocks to trade. We chose this stock because the movie and entertainment business is based around money and I wanted to see how a stock like that would react in the stock market. Fox Entertainment Group Inc. is one of the largest entertainment conglomerates in the world. The company produces, develops and distributes movies and television shows through its own Fox Broadcasting Company. The Fox Broadcasting Company operates 35 television stations across the US along with Fox Cable Network. The Fox Entertainment Group also owns the professional baseball team the Los Angeles Dodgers.

FOX ENTERTAINMENT GROUP
as of 9-Oct-2003

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Figure 3.1: Overview of Fox Entertainment Group stock over past year

We chose The Goodyear Tire and Rubber Co. as one of our stocks to trade. We chose this company because we wanted to pick something that you do not normally think of as a money making product and see how it actually does produce in the market. The Goodyear Tire and Rubber Co. is the number 3 tire maker in the world behind Michelin and Bridgestone. The companies' main products are tires, automotive hoses and belts and industrial chemicals. There are about 85 plants worldwide along control of rubber plantations in Indonesia. There are also roughly 1000 retail stores across the United States.

Figure 3.2: Overview of Goodyear Tire and Rubber stock over past year

3.4 Trades

We started our trading process on October 2, 2003. We bought 1340 shares of the SEPR stock and 850 shares of the SLAB stock. We put roughly 40,000 dollars into each stock, before taking out the ten-dollar commission fee. We chose to simulate a short term trading method; therefore after a few days of my stock on the market and seeing a profit, we decided to take that profit and sell our stocks. We sold our 1340 shares of the SEPR stock and made a profit of 2,465 dollars. We sold our 850 shares of the SLAB stock and made a profit of 2,796 dollars.

In our second week of trading we bought 1550 shares of the FOSL stock and 2740 shares of the FLEX stock. Once again we put roughly 40,000 dollars into each stock. Seeing fairly large profits after a few days on the market we sold my stocks. We didn't want to take the chance of losing any of the profits we had

made. We sold our 2740 shares of the FLEX stock and made 2,192 dollars. We sold our 1550 shares of the FOSL stock and made 1,705 dollars.

On October 12, 2003 we bought 1475 shares of the MNST stock and 2790 shares of the NKTR stock. 40,000 dollars were invested into each of these stocks. After a few days we were losing money with my MNST stock so we sold it. Our 1475 shares of MNST caused us to lose 1,327 dollars. At first we let it sit in the market for a little while longer to see if it would change and start getting me some money but it didn't so we sold our shares. Our shares of NKTR on the other hand, proved to be a good decision for it increased over a few days and we took my profit and ran. We made 2,232 dollars from our shares of NKTR.

In the next week of trading we bought 5710 shares of the GT stock and 1330 shares of the FOX stock. After we bought these stocks were bought the market went into a little slump. Everything went down a little bit. We let it ride for a day or two, but once we realized the market was not getting better immediately we sold our shares to salvage whatever we could. In the end we lost 1,142 dollars from the GT stock and 2,128 dollars from the FOX stock. These were just not good times to be trading in the market.

We didn't mind that little slump after we made our next trades. We went back to the SEPR stock, buying 1459 shares, and the SLAB stock, buying 781 shares and they proved to be profitable. After only a few days these two stocks had cut our loses from the week before and gave us some more profit. When we sold our shares we had made 1,167 dollars from the SEPR stock and 3,202 dollars from the SLAB stock. It was a great boost for us.

On the first of November we decided to buy some stocks. We bought 1486 shares of the FOSL stock and 2796 shares of the FLEX stock. These stocks got us some profit before so we figured we give them another shot. However it was just a poor few days on the market. It was necessarily a bad few days on the market for we didn't lose anything, however we barely made anything at all. After a few days we traded these stocks because nothing was happening with them. We sold our 1486 shares of the FOSL stock and made 446 dollars. We sold our 2796 shares of our FLEX stock and broke even.

Of the next two trades we made, one proved to be a smart one and one a not so smart one. We bought 1526 shares of the MNST stock and 2940 shares of the NKTR stock. The NKTR shares were doing well and we let it ride a few more days to see where it would go. The MNST shares, however, weren't really doing much of anything. It was pretty much stationary until the day we ended up trading them where we lost a little money. We ended up losing 610 dollars from our MNST shares. However, we made 2,058 dollars from our NKTR shares so we're not complaining.

The week of November 13th proved to be another one of those weeks where the market was in a slump. We bought 5880 shares of the GT stock and 1393 shares of the FOX stock. The GT stock took a major hit after only a day or two. We let it go for a few more days but nothing was changing so we sold immediately but not before losing 2,940 dollars. The FOX stock did not do too much better in losing 279 dollars for us.

However the week of November 19th proved to cancel out the previous trades completely. We bought 1754 shares of the SEPR stock and 876 shares of the SLAB stock. These trades were the best moves we made. There was an immediate increase in out profits. From the 1754 shares of the SEPR stock we made 3,157 dollars. Our 876 shares of the SLAB stock provided 2,667 dollars profit. This was a great increase in our overall profit.

We decided to try the FOSL and FLEX stocks again and see if we could get anything from them. Since they didn't really provide us with much last time we figured they were due to give us something. Well we were wrong once again. We bought 1383 shares of the FOSL stock and 2547 shares of the FLEX stock. We let them stay in the market for a couple days to see if maybe they would get us something but nothing came out so we sold them. We lost 830 dollars with our 1383 shares of the FOSL stock. We took a little bit bigger hit with a loss of 1,783 dollars from our 2547 shares of the FLEX stock.

Our greatest profit from one stock came when we bought shares from the MNST stock. We bought 2104 shares of the MNST and 3006 shares of the NKTR stock. Immediately MNST went soaring up and gave us great profit. NKTR stock stayed absolutely stationary and was just a waste of time. The 3006 shares of NKTR ended up breaking even and not giving us any profit. The 2104 shares of the MNST stock gave us a profit of 7, 574 dollars, which was a great way to close trading.

3.5 Conclusion and Results

The majority of our trades have gone very well. By watching the market daily we have been able to buy in generally low trends or at constant up trends depending on the stock. The few we have lost money in have not been great loses for we have sold them before too much damage has been done. We plan on continuing with this strategy as it is doing very well for us.

We have learned a lot through our simulation using a short term trading method. It was very interesting to see what different stocks would do on the market at different times. With some stocks, no matter what time you put money into them in the market they would produce a profit, such as SEPR and SLAB. On the other hand there were some stocks that seemed like no matter when you put money into them they would give back nothing in profit, like FOSL, FLEX, GT and FOX. Then there were a few that if you felt like taking a chance, they would sometime prove to be a very good investment but sometimes a bad investment, MNST or NKTR. In the end we made 20,622 dollars from our simulation, roughly a twenty percent increase. That is not too bad considering most of us have never traded or anything of the sort before.

It is very interesting to think what would have happened with our simulated stock trading had we done it at a different time of year. Would the profits or loses had been that much different if our simulation had been a couple months later or before. Well looking now at the stocks we used and how they have reacted in the market is very interesting. Take a look at these charts, for example, and see how our simulation would have been quite different.

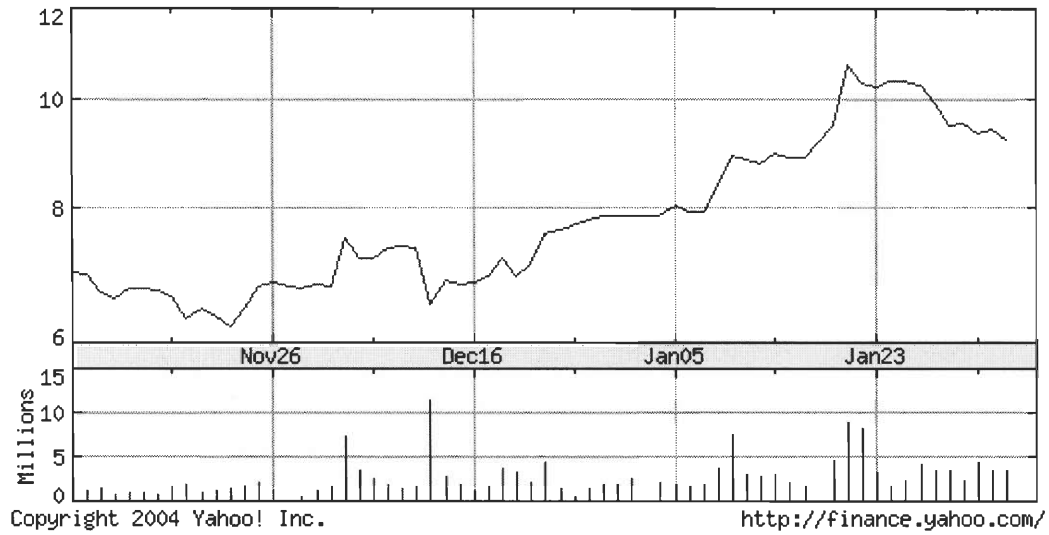GOODYEAR TIRE AND RUBBER
as of 5-Feb-2004

Splits: ▼

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Figure 3.3: Overview of Goodyear Tire and Rubber over last 3 months

FLEXTRONICS INTL INC
as of 5-Feb-2004

Splits: ▼

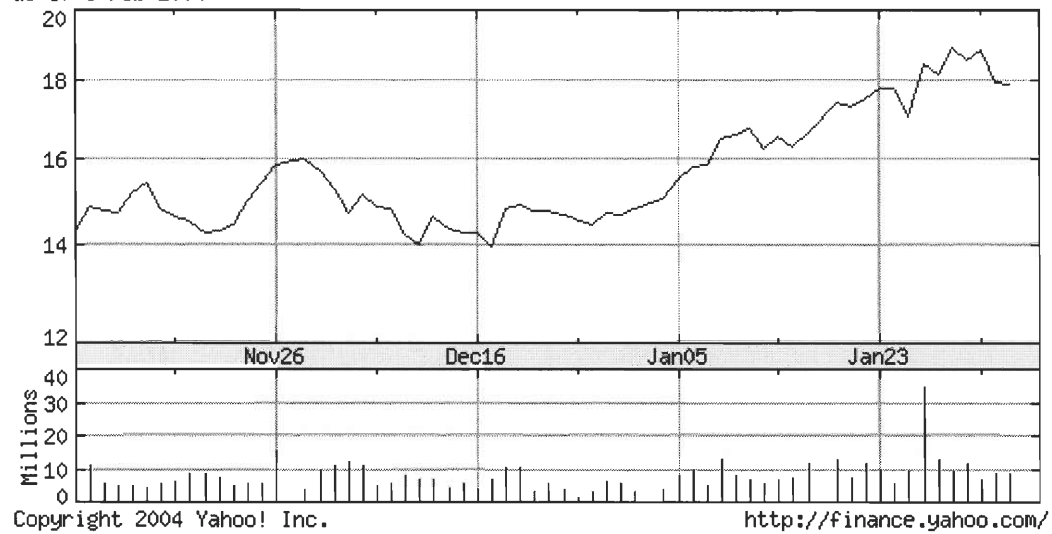Copyright 2004 Yahoo! Inc.   http://finance.yahoo.com/

Figure 3.4: Overview of Flextronics INTL INC over past 3 months
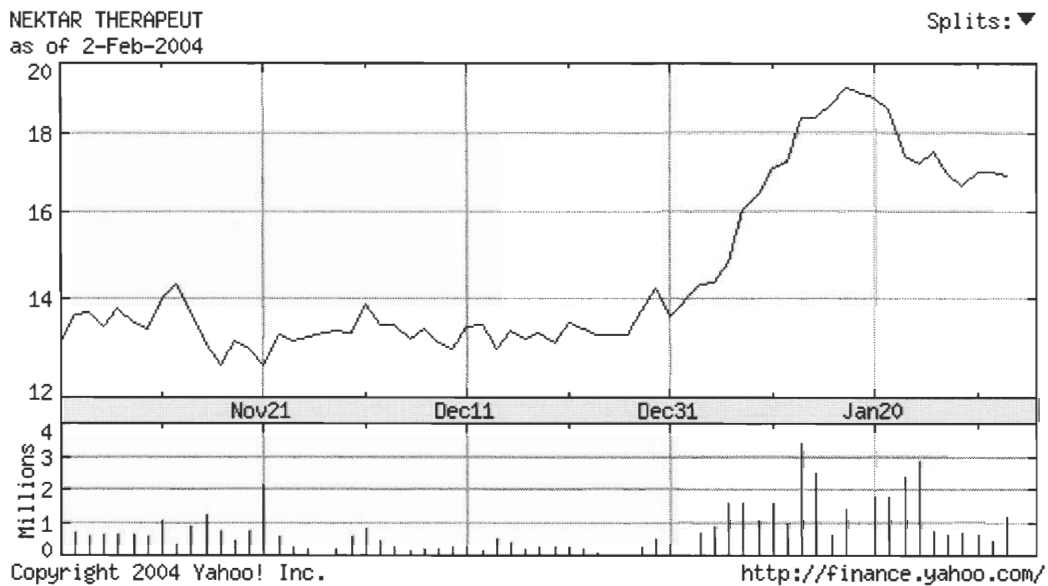
Figure 3.5: Overview of Nektar Therapeut over past 3 months

Just these three stocks alone made huge jumps just after the New Year and these increases in price would have created enormous profits for us in our simulation. When trading with the stock market it does take some skill and strategy but it also takes a little planning on when to invest your money into the stocks, however it is also a lot of luck on how much you make in profit or lose.

For people who have the time to check the stock market regularly and have some knowledge in trading, this method would prove to be profitable. This method takes a lot of time, consideration and patience. In conclusion, we learned a great deal using this method and are glad we got a chance to use it and understand how it works. It is a viable method that we recommend to use in trading stocks in the market. It proved to be profitable for us and it could for anyone else too.

Chapter 4: Swing Trading

4.1 Introduction

This chapter will explain the investment method of swing trading. The methods and techniques used to utilize this to maximum investments made relying on swing trading. Appropriate goals are set for the duration of the simulation pertaining to the swing trading method and the current stock market. The simulation is described starting with the research into a few choice companies of those selected to be invested in. Lastly the events of the simulation are summarized and then conclusions are drawn for each individual investment made.

4.2 Swing Trading

This method is a realistic choice for the time period of our simulations, providing allot of action with what will hopefully be days and at the most a few weeks of hold time. Swing trading doesn't involve the constant frenzy of day trading and is optimal for showing large earnings for a period of time similar to our simulation. This method will also involve much more analysis of stock trends and patterns providing maximum exposure to stock market analysis ideal for learning.

By watching intra-day stock charts, trends can be seen amongst the ups and downs of the inconsistent stock market. Viewing charts plotted daily for any

given stock you can create a channel composed of approximate maximums and minimums of value. It is the techniques to watch stock values fluctuate within this channel, waiting to see some unusually large drops or peaks. If a stock is generally rising in value and it drops below or around the channel you can buy assuming it will rise back into the channel. Seeing a stock you currently own a large margin can be gained if you sell when it reaches or exceeds the upper boundary of the channel. Playing attention these swings in value large gains can be possible in fairly short periods of time if you buy on a down swing and sell on an upswing. It can, however, be safer to wait until just after a down swing to buy into any stocks, just so you can be reassured that it is going to again rise and that it wasn't the start of a longer term decrease in value. So in essence if you play it safe you are ideally looking for an upswing in stocks that mimics those of the recent past inside this visual channel. When you believe you see an upswing you buy in early and sell when it reaches what looks to be its peak according to the channel's upper boundary.

The following chart is what swing trader's need to use as their tool when it comes to trading. Swing Trader's need to know when to start looking into a stock as prospective buy. There are two flag's that a swing trader can watch for. The first flag is unusually high volume, this is shown on the bottom of figure 1. The second flag is a rally gap such as that depicted by a black box in figure 1. Rally gaps and high volume both are signs of possible upswings. Using this technique you can start creating your channel and analyzing the prospective swing trade once you see these flags. After a purchase is made, ideally at any of the blue

circles on Figure 1, utilizing your channel boundaries if you sell in any of the black circles you can make significant margins.
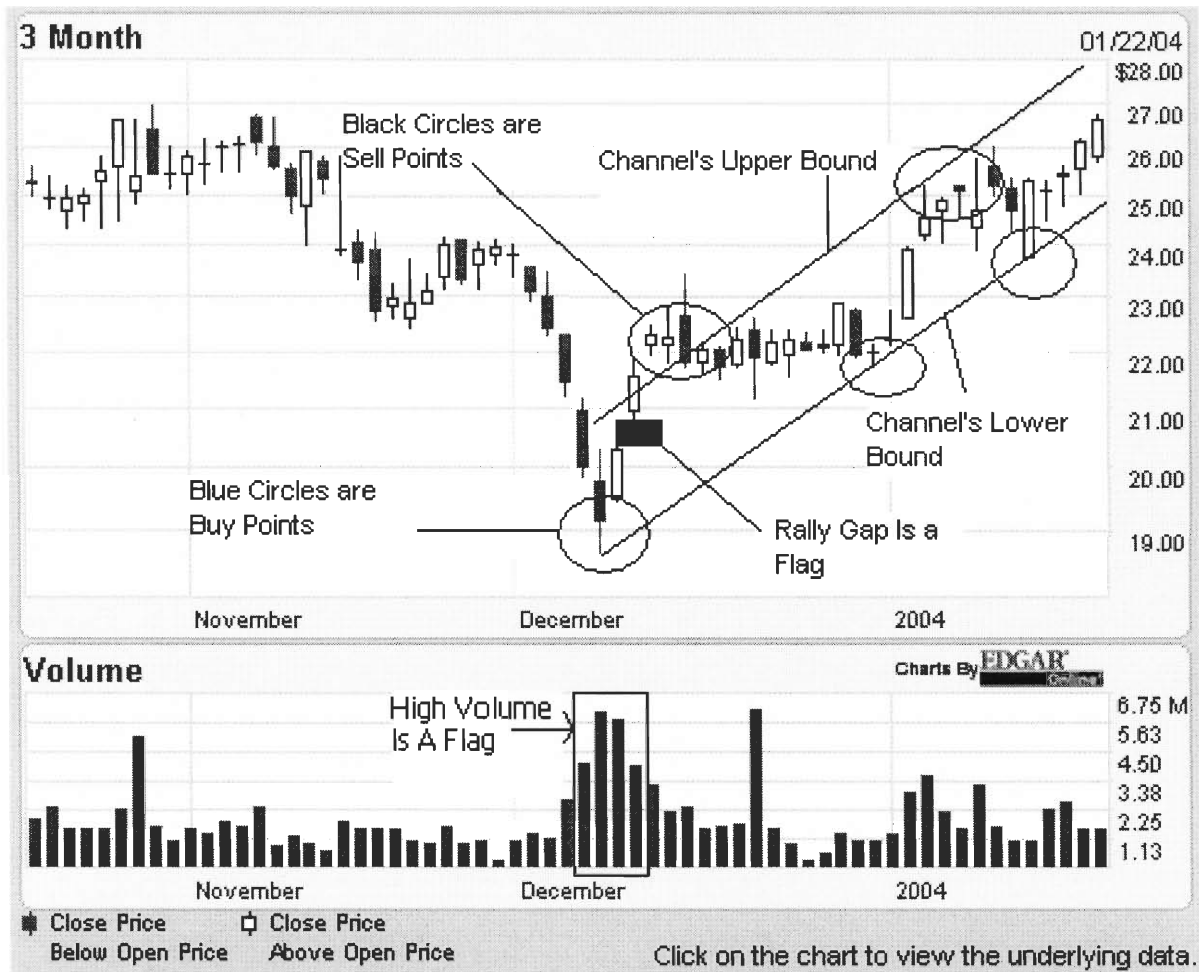

Figure 4.1: Swing Trading

4.3 Simulation Goals

Going into any sequence of events involving investments you need to set goals for your investment. It's easy to get involved with monetary values however the most meaningful way to look at gains and losses is through percentages. If you're investing with one $100,000 (as we were in this simulation) its easy to make $5,000, however investing with only $10,000 dollars it is very difficult to

make the same $5,000 dollars. This more clear when looked at through percentages. If an investor invests $100,000 making back $5,000 is only a 5% gain on the other hand investing with only $10,000 would yield a 50% gain if you made $5,000. Analyzing using percentages makes things much more equal and easier to understand.

Knowing that investments should be evaluated by percent gains this simulation has two goals. One goal is to evaluate five different traders all starting with the same amount of money, each trader using different methods. This makes on of the individual goals to prove that swing trading is the most effective method to trade on the stock market for the period of our simulation and for the $100,000 investment we initially made. No conclusions can be drawn afterwards about a general "best" trading method only of the best method in our particular simulation, period of time, and investment value. SO one goal will be to better the percent gain of the other four individuals trading in the simulation.

The second individual goal of the simulation is to achieve a certain gain from my investment. Looking at the current stock market, and other investment options such as different bank accounts, bonds, etc a reasonable goal for any investment would be a 10% gain. However the swing trading method and constant monitoring a higher goal should be established. Given the method and the belief that it is ideal for this simulation period and investment a goal of 20% seems reasonable, yet motivating. This goal would be a significantly higher gain than the market would collectively make in its recent history so it would be a very formidable accomplishment.

As mentioned earlier it is expected to make this goal based solely on swing trading techniques and varied stock values. So a third goal is to stick to the plan and not stagger at all. Many investors are less successful because the repeatedly buy and sell based on emotion and not method. If a stock looks to be plummeting an emotional trader could quickly sell the stock fearing a significant loss. The more trained and experienced trader will stick with the investment and would have had an initial buy and sell point that he or she established. Selling or Purchasing should be done only at the values initially decided upon, not based on emotion, and this proves to be the downfall of many amateur investors.

4.4 Initial Stocks Chosen

MONSTER WORLDWIDE (FORMERLY TMP WORLDWIDE)

Founded in 1967, Monster Worldwide, Inc. (formerly TMP Worldwide Inc.) is the online recruitment leader and the parent company of Monster, the leading global careers website. Monster Worldwide is also the parent company of TMP Worldwide Advertising & Communications, one of the world's largest Recruitment Advertising agency networks, and TMP Worldwide Directional Marketing, the world's largest Yellow Pages advertising agency and a provider of direct marketing services. Headquartered in New York with approximately 4,500 employees in 19 countries, the Company's clients include more than 90 of the Fortune 100 and more than 490 of the Fortune 500 companies. Monster Worldwide (NASDAQ: MNST) is a member of the S&P 500 Index.

Monster Worldwide is driven by their flagship consumer brand Monster.com that has revolutionized the job search and recruitment process. Monster is recognized globally and has approximately an eighty percent market share that has almost been swept up from under the big newspaper companies. Only lately have they tried to recover launching carearbuilder.com that has yet to legitimately challenge Monster.com's dominance.

Monster Worldwide has become the largest advertising and recruitment agency worldwide, and is the largest yellow pages advertising agency. Monster worldwide has continued to diversify and branch off where it only seems natural. Monster Worldwide Advertising and Communications is an example of the leadership and steps towards the future. Through the on and offline communication services offered monster found the most efficient way to connect the job seekers of the 1993 recession and employers. One of the latest moves by monster is the launch of Monstermoving.com. This is the largest online relocation service and resource site offered and still growing. Monster moving will soon become yet another profitable business for monster worldwide as they help all the jobseekers relocate to their new jobs found on monster.com. The latest launch by monster is "skilled and hourly" branch of advertising and communications. Skilled and Hourly provides yellow page clientele a new avenue to recruit "blue collar" work. This is an extensive online job resource for a previously under represented segment online. These continued changes and improvements monster worldwide makes this stock a choice a good choice.

I chose monster for multiple reasons. This company's success comes on the success of the some of the biggest and most successful companies in the world. Monster will strive in the coming months, as the market seems to be going into an upswing from the recession it was in. As the market and economy are recovering larges business will be looking towards monster to help bring them back to their previous positions before the recession. Providing the previously mentioned advertising, communication, and recruitment resources to businesses that are going to be looking to re-establish themselves will prove very profitable and desired at this time. The high level of unemployment at this time of possible economic turn around will just mean there is a huge pool of jobseekers. Monster.com is and will continue to prove to be the first option in recruitment and job searching for this time. Monster Worldwide has proven to be a very profitable investment in the past, and with the current upswing in the economy it will re-establish this position.

NEKTAR THEREUPUETICS

Nektar Therapeutics (formerly Inhale Therapeutic Systems, Shearwater, and Bradford Particle Design) is a pioneer and leader in advanced drug delivery technologies that enable highly differentiated products. Their goal is to help pharmaceutical and biotechnology partners realize the full potential of their molecules by solving complex development challenges to create breakthrough therapeutics, extend product franchises, and fuel product pipelines.

Through Their broad scientific and development expertise and suite of proprietary technologies, Nektar has helped companies such as Pfizer, Roche,

Chiron, and Amgen improve drug performance and optimize the delivery of their products either by creating new products or extending product lifecycles. By providing the technologies and expertise to potentially make drugs safer, more effective, and easier to administer, their advanced drug delivery solutions can help their partners create better therapies for patients and achieve greater commercial success.

Nektar was recently formed by the combination of the three companies Inhale, Shearwater, and Bradford Particle Design. This is a cutting edge company that services a rapidly paced market. Pharmaceuticals are making giants advantages constantly and companies such as Pfizer will need to continue to turn to Nektar for further research in drug delivery. Nektar can improve design, extend life, or revolution a drug delivery method or design. With the constant advances in pharmaceuticals the reliance on a company such as Nektar will only grow.

Silicon Labs and Fossil were also chosen based on another group member's research. Future investments will be researched and evaluated similarly however only described briefly in the events section for the sake of repetitiveness. The reason and events leading to any purchases and sales will be summarized in this section.

4.5 Simulation Events

NKTR

Based on research and information provided in section 4.3 Nektar Pharmaceuticals was watched, and purchased on October $2^{nd.}$ At the end of the month of September Nektar took a quick drop form its consistently rising price. Following this quick few day drop was a volume spike indicating a turn around from this drop. After seeing a few days rise after this volume spike it looked to be the start of a trend, and approximately $25,000 was invested in Nektar Pharmaceuticals.

After the initial rise in Nektar the value stayed steady and even started taking some drops into December. The charts were now being watched so that we could sell out without a loss. On December 12th the value went above the purchase price and we sold out for only .44% gain.

FOSL

Fossil Inc was purchased after seeing research and chart analysis. Steady increases of previous months had been erased by a recent drop in value. A large volume jump in the beginning of October indicated a change of momentum. FOSL was purchased after seeing a few days of rising value. On October 2nd approximately $25,000 was invested.

Fossil Inc. steadily rose in the projected channel. Anticipating a drop after noticing a large volume change on October 11th the Fossil Investment was sold

for $26.70 per share. This was only a 9% gain, however the technique to swing trading showed sign to sell, rather than hold out longer.

GSK

GlaxoSmithKline was purchased on Friday afternoon on October 31. Glaxo, Smith, and Kline took a relative large drop and late in the day showed high volume. When the charts showed this turn around from the low we purchased approximately $25,000 worth of stock at $42.73. This money was available from the previous sale of Fossil that we had yet to re-invest.

Purchased on October 28 there has been some waiting for Glaxo, Smith and Kline to peak, and it took an unexpectedly large jump (almost 5 dollar, approximately 10% jump) in the middle of November. This jump should have spawned a sale, however we held onto the stock hoping for more increase. However it quickly dropped a few dollars, so it was decided to wait and see if it would swing back to the previous high. Utilizing the swing method I set a sell price of $47 and watched to see if the drop was just another dip in the steady rise. Fortunately this stock did rise again and when it hit $47.40 on November 24th I sold. This swing method proved itself again and yielded just under an 11% gain in just less than 1 month. However this stock was held onto longer than it should have been, a more disciplined swing trader could have sold for a similar profit earlier and re-invested the money already.

SLAB

Silicon Labs had been steadily rising in the months prior to the start of this simulation. A recent drop spawned the interest in a swing trade. Seeing the flag of high volume and a few days of rising prices buying this stock seemed to be a good idea. Approximately $25,000 was invested.

Late on November 7th we sold slab, silicon laboratories for $53.27. This sale did not yield the percent gain, as it should have with the swing trading method for. Earlier in the simulation there were many chances to sell at a higher price, much higher than the purchase price and higher than this sell price. However looking at the charts beyond short term swings, silicon labs were consistently raising, so we held on to this stock which turned out far too long for my chosen method. At this sell date of November 7th the price was higher than the buy price but had not been recently showing as much gain as before so I chose to sell and reinvest this freed up money into another company and hope for a higher percent gain on another swing trade. This sell date was chosen because in the recent history of this stock there were a few valleys in its charts, however this price had dropped below the previous lows. This made me think that this drop may fall below the previous norms and perhaps lower than the purchase price, so it should be sold out.

MNST

On October 3rd approximately $25,000 was invested in Monster Worldwide. The research for this particular investment is in section 4.3. This

purchase was made because of the steadily rising value. However their was a quick drop in value but then what looked to be a turn around and utilizing the swing trading technique we purchased at that point.

On the same day as the SLAB sale, it was decided to sell Monster. This purchase was made early in the simulation and viewed as slightly long terms buy. The swing trading technique was going to be ignored hoping to capitalize on a personal hunch. With the economy turning around, the use of a job search website was expected to increase along with the value of the company. With this simulation being fairly short, the price was not consistently rising fast enough so the decision was made to sell and free up the money for other ventures. The price was at a slight peak compared to previous closes on November 7th. This provoked the sale of monster for $26.11 a share.

QLGC

With the money available from the Silicon Labs sale on Friday November 7th $25,000 worth of Qlogic corporation was purchased on November 10th (448 shares at $55.73). Qlogic has been steadily rising back towards its pre-recession values since February of this year. In 2001 values were well over $100 a share and the cutting edge computer networking technology they were developing was setting the bar in the industry. Qlogic has stayed cutting edge, however the recession had dropped their stock value drastically. Their value has steadily been rising; however this purchase is too late to capitalize real big on their complete turn around. Utilizing swing trading the purchase was made while the price had a

slight drop and can be turned around and sold later as the should continue to rise based on the charts.

Purchased on November 10th QLogic immediately jumped a few dollars per share. With nearly $25,000 invested in this company I decided I could go for the quick sale once I noticed QLogic value dropping again. However I waited too long hoping for another upward swing that peaks towards the $59 value of a few days before my purchase. However this purchase has not gained value as anticipated by the swing method I was trading with. Realizing I may continue to loose more money and can reinvest with the money I still have tied up in this stock I sold all shares on December 3rd for a 2.6% loss from my $24,977 invested. The goal was now to make this margin back by investing the assets into another stock. This was a trade unfortunately made a day too late; I had neglected to look on December 2nd when it hit my purchase price. This is the price I had planned to sell at when I realized my initially goal was not looking promising, however waiting cost me the 2.6% loss.

OO

The money available from the monster sale was re-invested on Monday November 10th as well. 2288 shares of Oakley Inc were purchased at $10.92 each. Oakley was another purchase on a personal hunch, following what was done with monster worldwide. Oakley Inc has always been fairly consistent and low in price. However they continue to provide new and revolutionary products. They have recently expanded their products lines and can be assumed to be on

the verge of large growth. Revenue hitting an all time high of 500 million, reported on October 22, foreshadows this growth. The low price and high quantity of shares lends this purchase to a quick sale based on any up swing in price.

Oakley spiked at around 13 dollars and started dropping back down; this was over 20% gain from my purchase price. Seeing a 20% gain I automatically decided to sell my shares in Oakley on December 3rd. The sale was for $13.19, I had previously purchased for $10.92. This is another example of selling after seeing a short term upward swing in the value.

GM

After selling GLAXOSMITHKLINE on November 24th I was looking for a stock to reinvest the assets in. I decided to look into automobile manufacturers. With the new model year coming I thought people's interest in automotive companies might be sparked temporary and values may increase. Looking into general motors it seemed to be a fairly safe common stock to invest in for the last few weeks of this simulation. So on November 24th I purchased 589 shares of GM at 24.39.

At the end of this simulation I sold all remaining stock on December 12th to analyze investments.

F

On December 3rd after selling QLogic for a loss I decided to reinvest in Ford motor company. After previously investing in General Motors and seeing a consistent increase in price I thought it may be wise to invest in another automobile manufacturer. So this is why I invested in Ford Motor Company. Also looking at the charts there was very consistent swings in this stock, so I thought I could play those swings and make a decent percent gain with the quantity of $25000 invested a 13 dollar valued stock.

At the end of this simulation I sold all remaining stock on December 12th to analyze investments.

EDEL

Another sale on December 3rd was Oakley, this sale freed up another sum of $25000 to reinvest. I chose to stay with the automotive industry despite the theory of diversification. With winter coming many people spend this time upgrading and purchasing aftermarket automotive accessories for their vehicles. The aftermarket industry has continually grown over the years, and this winter looks to be another when people spend money customizing their "summer vehicles". I am going on my own hunch here again, but Edelbrock is possibly the biggest name in performance aftermarket parts, so I feel it will be a safe investment to end this simulation without any losses. So purchasing 2054 shares at $12.10 has been my most recent transaction.

At the end of this simulation I sold all remaining stock on December 12th to analyze investments.

4.6 Individual Conclusions

The conclusions drawn on any stock market simulation can be based mainly on the numbers. The percent gains on individual investments as well as the percent gain on all the investments totaled can give us the results of the simulation. These numbers should be compared to the goals set prior to investment to conclude the success or failure of the simulation. Also utilizing these numbers and the charts that were relied on so heavily in the swing trading method conclusions can be reached on the reason for failure and successes.

Stock Symbol	Total Value Invested	Purchase Value	Sale Value	Net Value of Sale	Net Percent Gain
FOSL	24987.52	24.56	26.70	27143.90	8.63
NKTR	24998.53	13.37	13.44	25109.36	0.44
SLAB	24984.40	48.40	53.27	27477.32	9.98
MNST	24982.12	25.56	26.11	25499.47	2.07
GSK	25018.75	42.75	47.40	27719.00	10.79
QLGC	24977.04	55.73	55.73	24957.04	-0.08
OO	24994.96	10.92	13.19	31168.72	24.70
GM	24967.71	47.40	49.79	29316.31	17.42
F	24989.28	13.18	13.72	26003.12	4.06
EDEL	24974.40	12.10	12.30	25375.14	1.60
Cumulative	249874.71			269769.38	7.96

Table 4.1: Swing Trading

Utilizing Table 1 above individual investments as well as the cumulative invest over the course of the simulation can be broken down and analyzed. As a whole the aggressive goal of 20% was not reached. The total net percent gain was only 8%. This can be considered an adequate investment for our period of time however did not accomplish our goal. This overall gain of 8% can be compared to the gains of the markets as a whole for another measure of success. If the markets as a whole lost 12%, and we gained 8% it can be argued that we made a 20% gain in some respects.

Looking into the Overall Performance of the three major markets over the course of this simulation reveals a lot of information. Figure 2 below shows the percent gains of the Dow Jones, S&P, and NASDAQ markets. This shows gains between 5.28% and 6.14%. Taking this into consideration the swing trading method yielded a gain of 7.96%, this is approximately 2% higher than the markets, and despite high expectations it can be considered a success in that regard, especially taking into consideration the short period of time this simulation spanned.
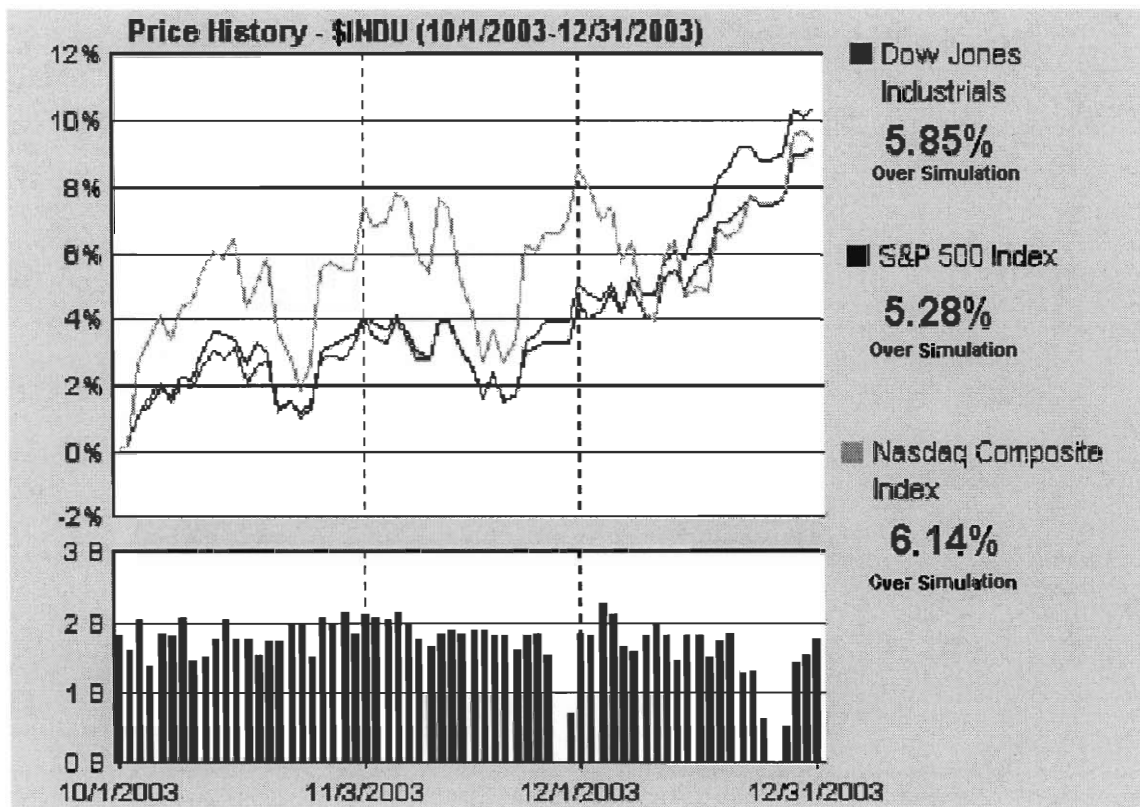
Figure 4.2: Market Percent Gains Over Simulation Period.
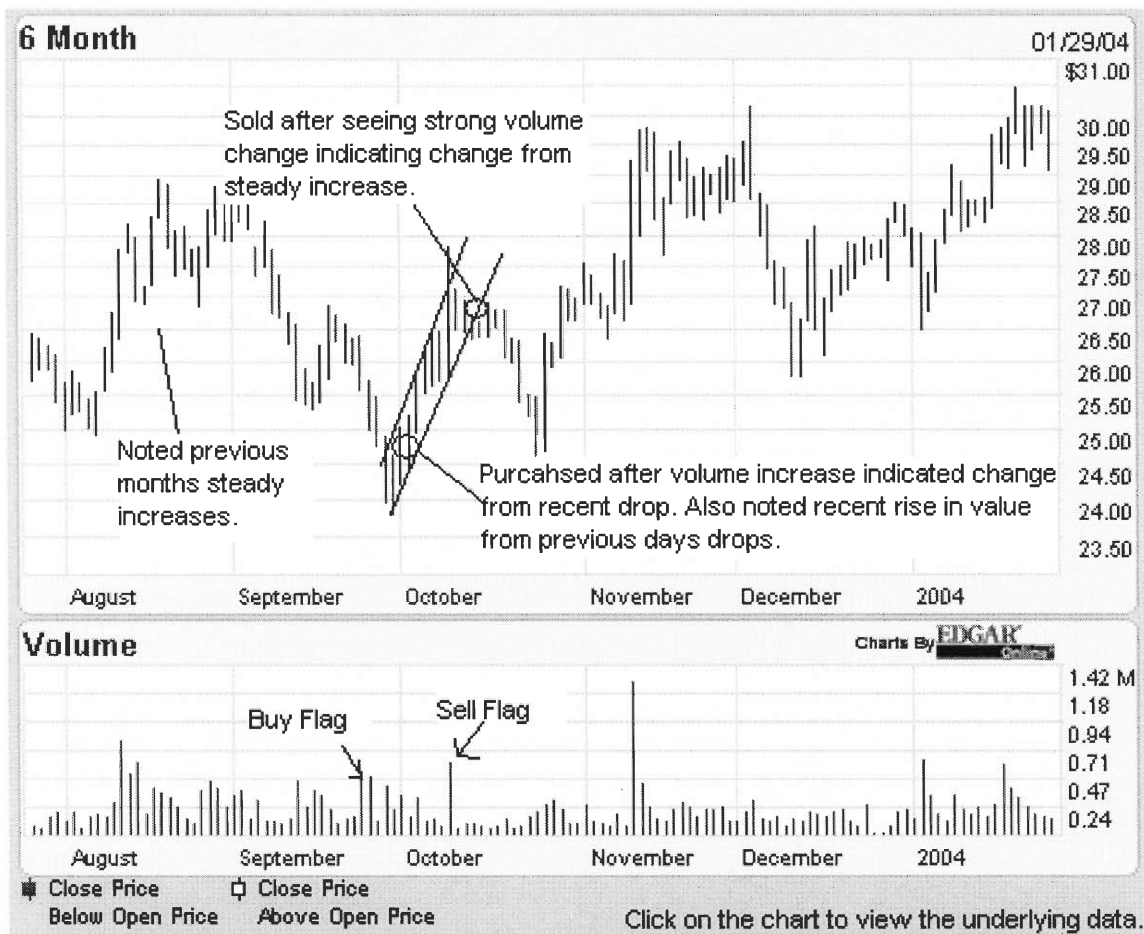
Figure 4.3: Fossil Inc.

Fossil Inc. was purchased on October 3rd. This investment made a profit of just over 8%. The swing trading technique worked well. As can be seen in the cart it was initially purchased after a slight spike in volume and a few days rise from a previous down swing. However the stocks were sold as they should have been when the value dropped out of the swing channel. Looking back on the investment if it was held onto for longer, and through a few more swing cycles the investment could have been far more profitable. However these short term investments is how to capitalize on swing trading over longer term investment.
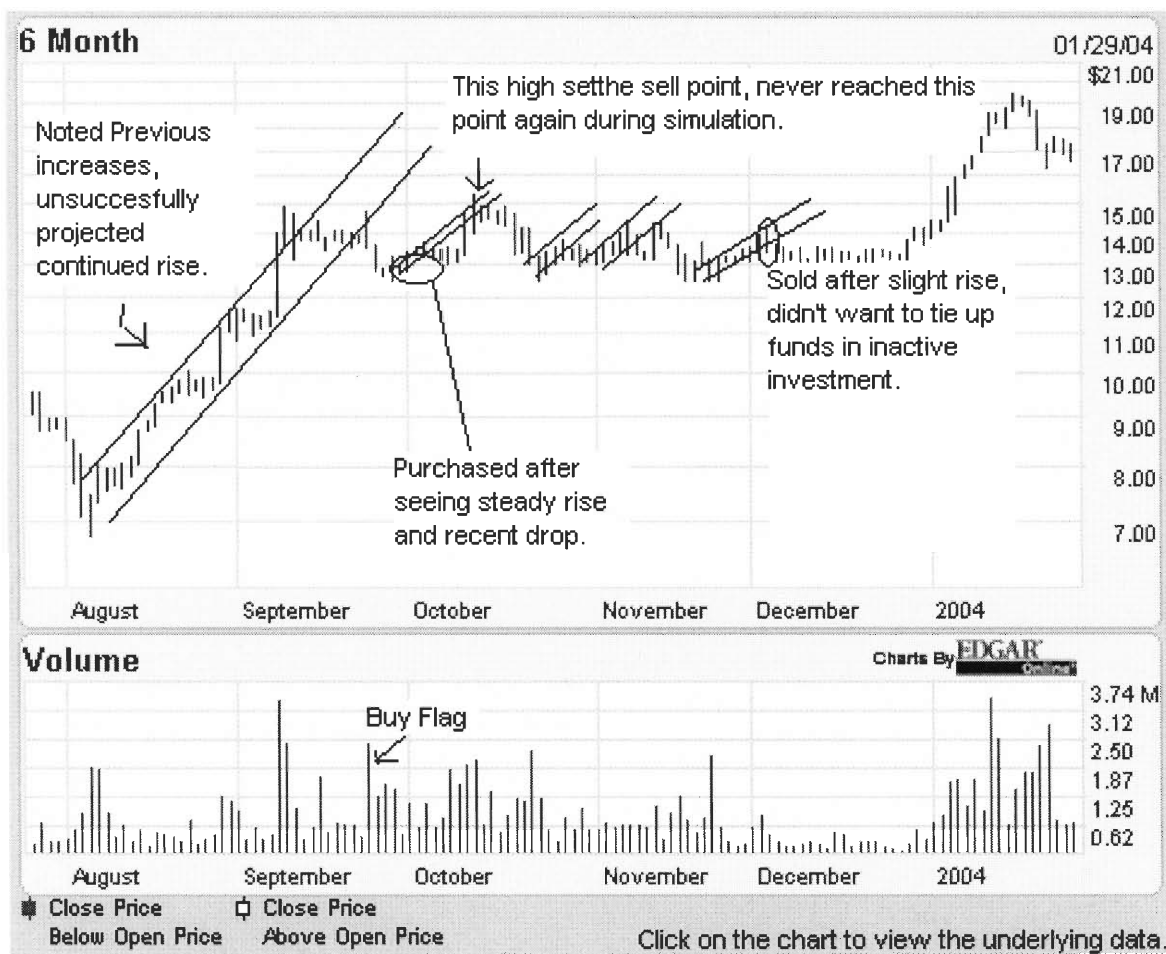
Figure 4.4: Nektar Pharmaceuticals

Nektar Pharmaceuticals was noticed initially because of the steadily increasing value of previous months. When the company took a drop at the end of September it looked to be a time to capitalize and buy in at a low value. After seeing a spike in volume indicating a change of momentum in this stocks path, followed by a few days increase the investment was made. After the initial investment the value increased and then dropped after just surpassing its previous high, this trend continued never increasing any drastic amount. This

investment proved to be holding back further investments and eventually it seemed unsuccessful. At the first chance in early December it was sold at just above buying price for a .44% percent gain.
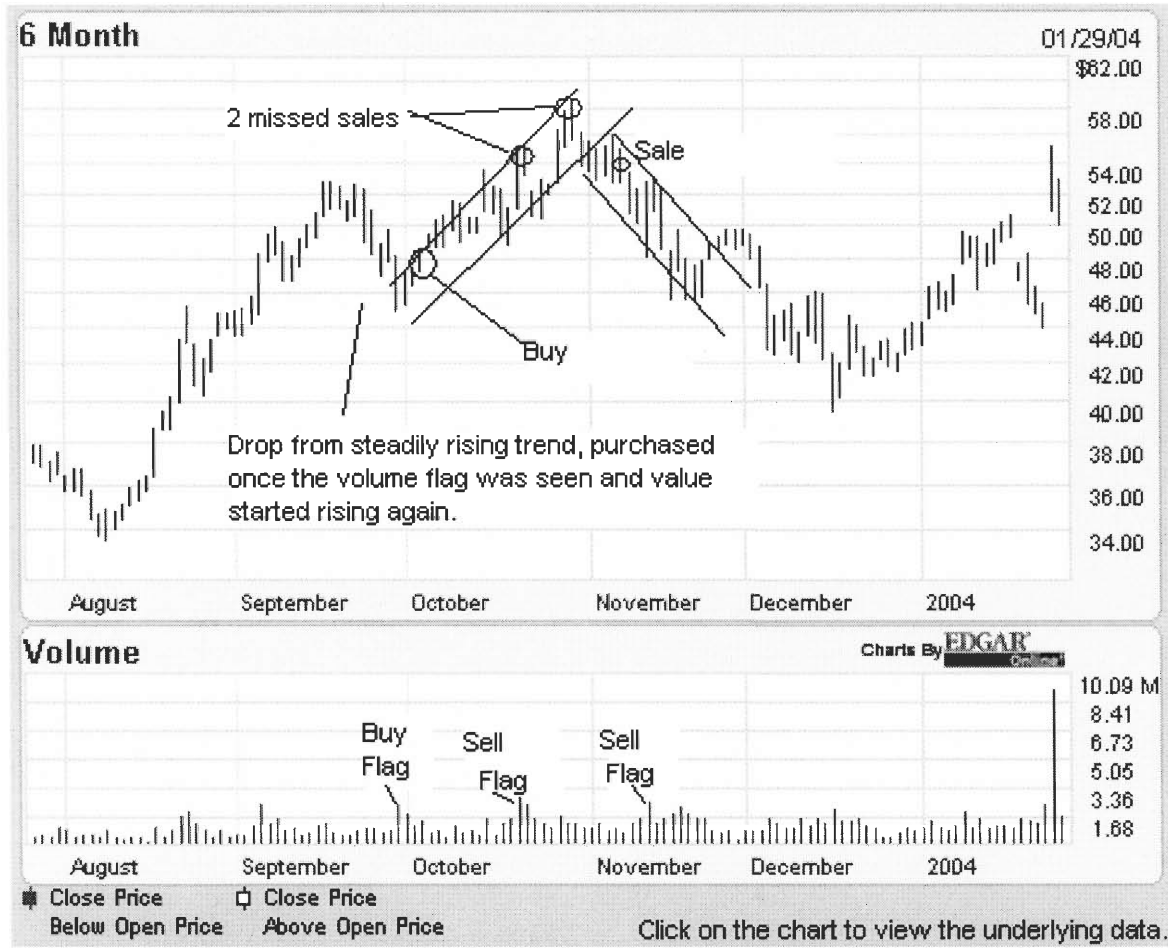
Figure 4. 5: Silicon Labs

Silicon labs had been steadily growing and increasing in value in the two months leading up to our simulation. Similar to Nektar it took a drop in late September and early October volume spikes indicated it was turning around. At this time we invested in said company. The value steadily increased and on

multiple occasions peaked out beyond our channels shown in Figure 5. This proved to be missed ideal times for a sale. In early November Silicon Labs began to drop again and we sold out in fear of a continued drop. Despite being slightly late according to the swing method Silicon Labs yielded a 10% gain and was a fairly successful short term swing trade.
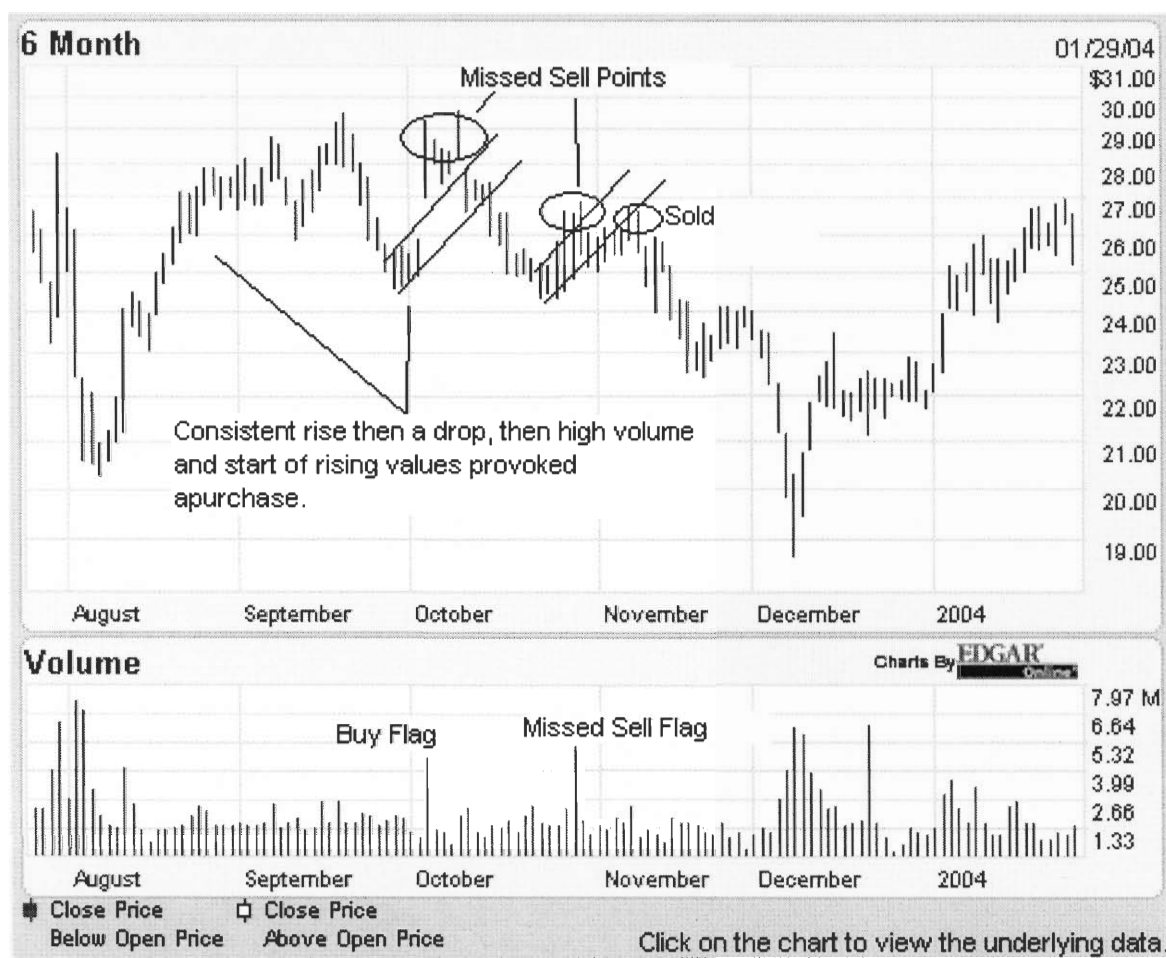
Figure 4.6: Monster Worldwide

Monster Worldwide was deemed to be a good investment based on research shown in section 4.3. Early in our simulation we invested in Monster at

a volume spike and what looked to be a low point in its recent activity. Monster soon peeked high above our projected channel. However greed and lack of discipline held back the appropriate sale. Monster soon dropped below even our own initial buying point. Monster then went back into another upswing and as soon as it seemed to losing upward momentum we sold out at only a 2% gain. This was a very unsuccessful trade because if we had held firm to the swing trading methods we could have had a much higher percent gain on this particular investment.
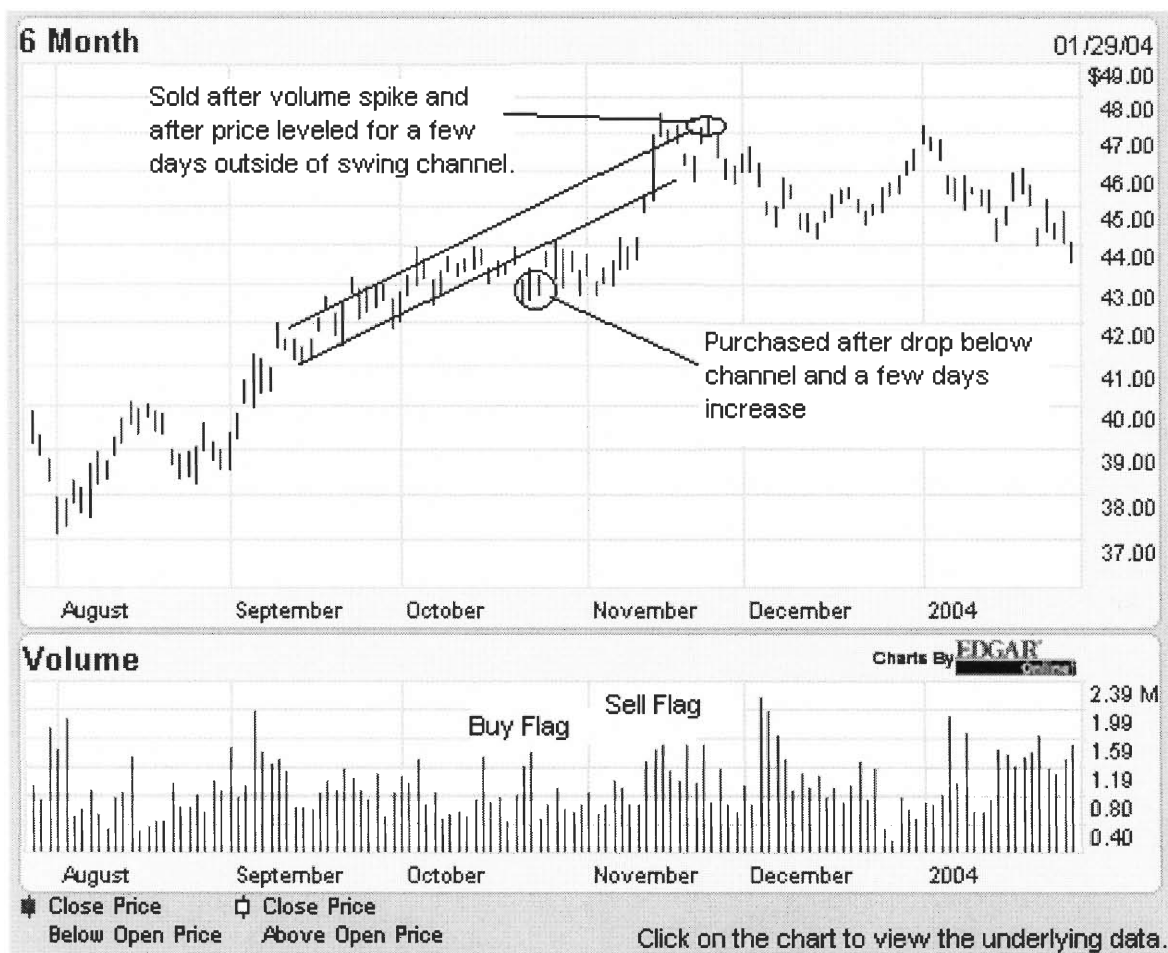
Figure 4.7: GlaxoSmithKline

GlaxoSmithKline had been steadily rising in value before and into our simulation. After it seemingly briefly dropped below our swing channel we bought in and expected this investment to return to the swing channel and yield some significant gains as it had been doing. Weeks after the purchase it again resumed the upward swing in our projected channel and once it spiked outside of this channel and we saw some significant volume on the charts we sold. The sale was successful and gained 10% on our initial investment. The swing method, over a longer than average period yielded us our highest gain yet and looking back on this investment we sold out at about the bet possible time getting approximately the maximum gain possible gain during our simulation.

Figure 4.8: Qlogic

Qlogic Corporation was one of our least successful attempts at swing trading throughout this simulation. After missing one volume spike that would have proved to indicate a better buying point we purchased prematurely when it dropped out of the projected channel. As seen in figure 8 above Qlogic never recovered any significant gain after this drop that we had invested during. Not

wanting to tie up these funds any longer Qlogic investment was sold out at a loss of just less than 1%. This was the least successful trade however it speaks on behalf of the swing trading method. This investment was one based most loosely on the methods of swing trading. The point at which we invested was not clearly defined as an ideal time by the method and Qlogic never increased much beyond this point during the simulation.
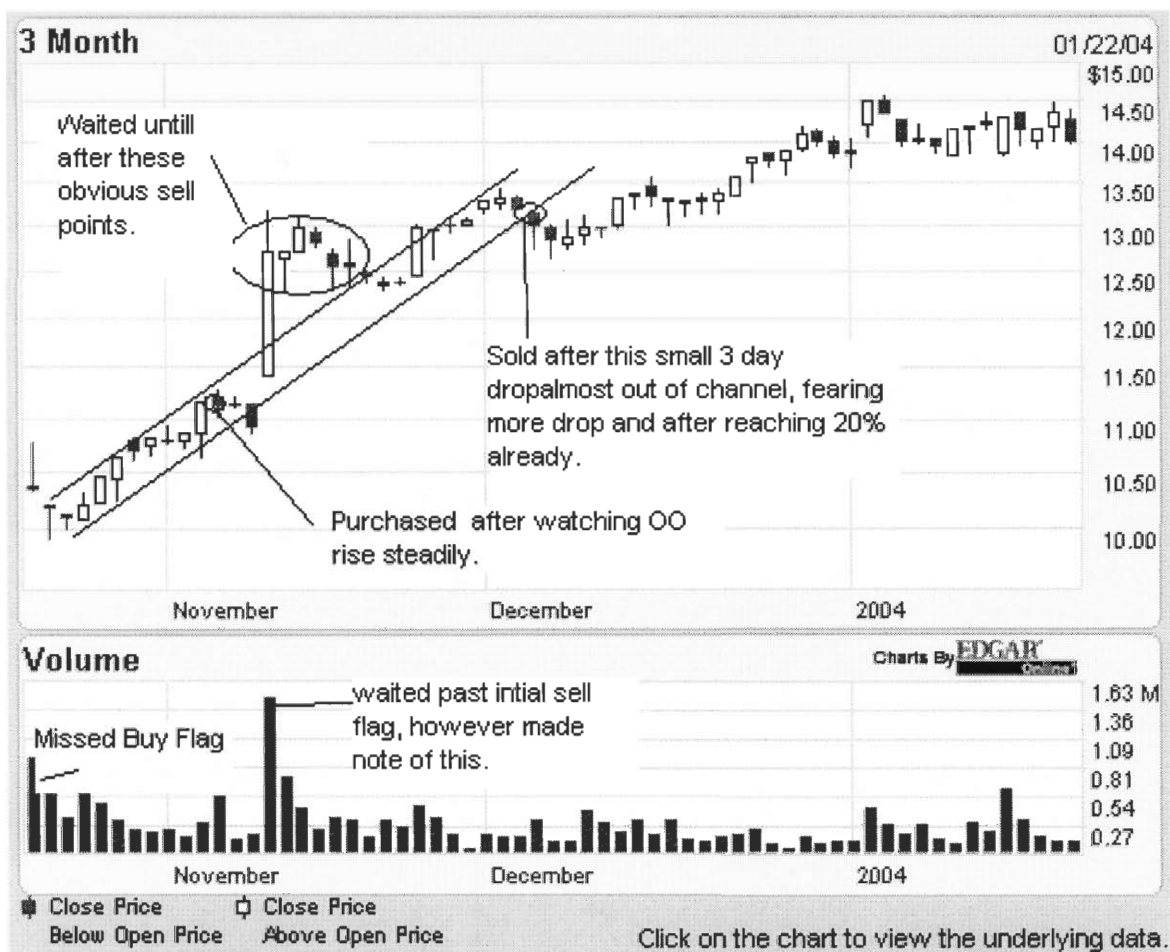
Figure 4.9: Oakley

Oakley Inc. was one of our lower value investments. We invested as much into Oakley as we had all of our investments however the stock value was fairly lower than the rest. Oakley in the past had been a company that's shares had changed 20-30% over short periods of time and based on recent press release of higher than ever estimated earning we thought Oakley could yield some profits with the swing trading technique. Despite missing the press release by a week or so, press release seen in first volume spike of Figure 9, we invested in early November. We also waited past the next volume spike which could have been an ideal selling point however once Oakley reached the lower portion of our projected channel for the first time we sold. This sale was based more on the upward momentum slowing than the swing trading technique; however we did pay attention to our projected channel and were careful not to let it drop below. This proved to be our most profitable investment. Oakley yielded just under 25% in less than 1 month. This can be accounted to our reliance on market news and press releases rather than the strict use of chart analysis as was the case in most of our prior investments. This was going to change some of the methods in the future to try and reach our high goals.
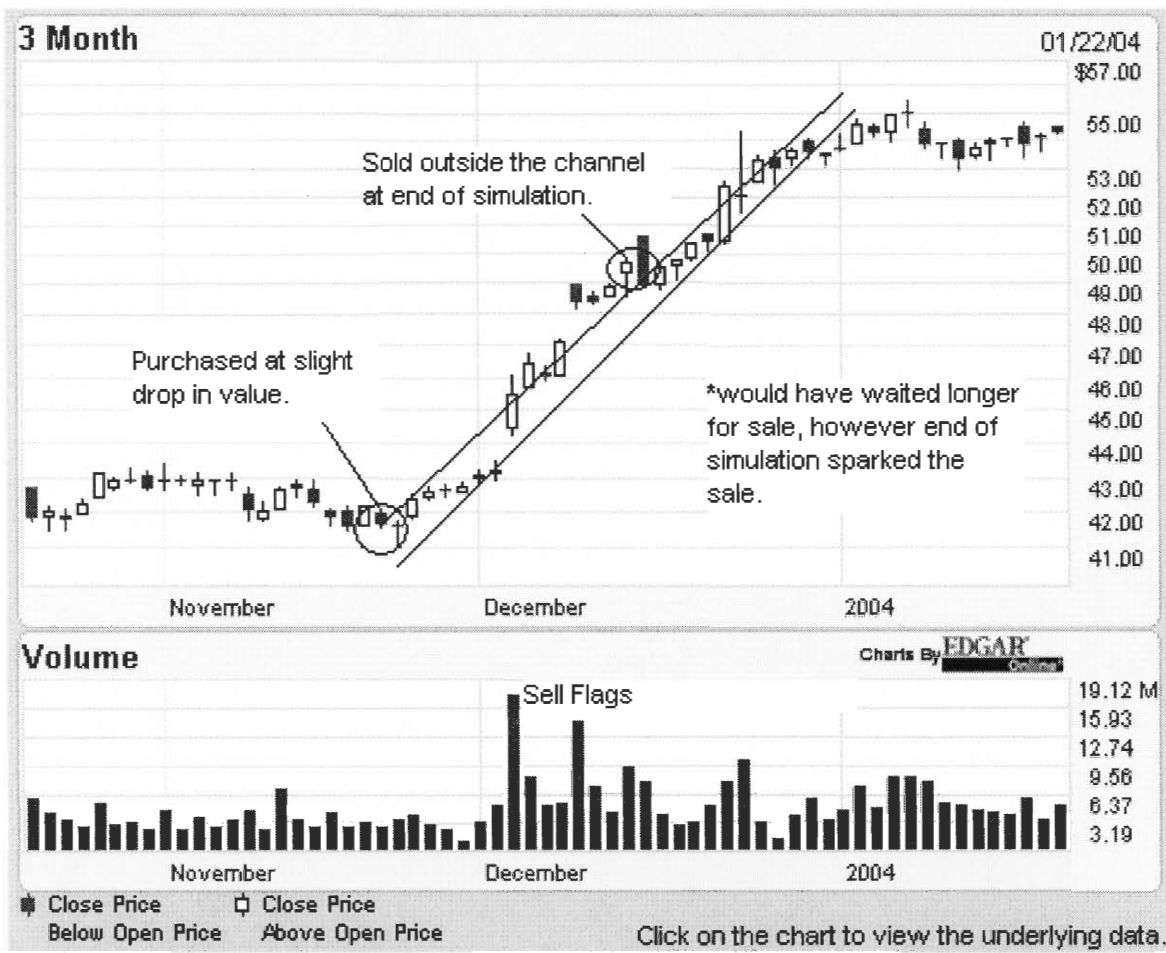
Figure 4.10: General Motors

General Motors was purchased after our Oakley investment success and the reliance of some more company research rather than strict chart analysis. With the release of this years new model years automobiles we expected a slight surge in automotive sales and interest, especially considering the recent slight turnaround in the economy. We purchased General Motors at the first drop in price, not however relying on volume spikes. General Motors prices rose sharply and this is shown in Figure 10 above. General Motors yielded a 17.5% gain. If the simulation had not ended this gain would have only gone up. This was

considered a very successful investment again based on news and events rather than simple chart analysis.

3 Month 01/22/04

Notice Trend in upward swings. The Channels continue to change.

Sold at end of simulation, while still in projected channel.

Purchased thinking price dropped low in the preceading channel, slight drop then created another upswing channel as it had in previous months.

November   December   2004

Volume   Charts By EDGAR

Buy Flags   Sell Flags

November   December   2004

Close Price   Close Price
Below Open Price   Above Open Price   Click on the chart to view the underlying data.

Figure 4.11: Ford Motor Company

Ford Motors Company was purchased again after our Oakley investment success. The same rational as was used in purchasing GM was used in purchasing ford. This investment was slightly less successful. Ford's chart showed several up and down swings in previous weeks. We watched and waited for a drop from an upswing and bought in after a slight drop from an upswing in

the beginning of December. Ford then steadily rose until the end of our simulation, not nearly as drastically as General Motors though. This may be partly because of the significantly lesser value. Ford only yielded a gain of 4%, however did continue to rise after the end of our simulation.
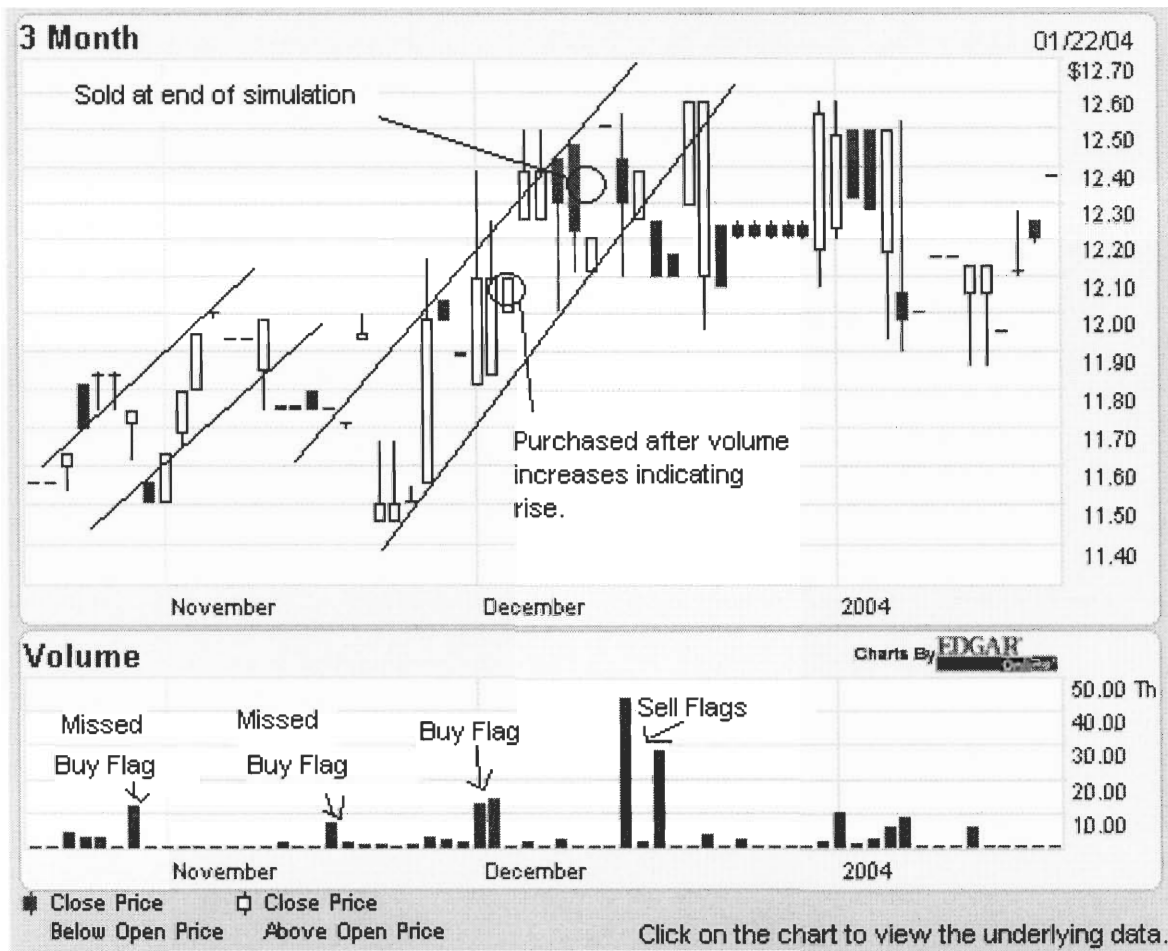
Figure 4.12: Edelbrock Corporation

The last investment made in this simulation was the purchase of Edelbrock Corporation based on personal theories about their particular products

and the recent decision to buy into the automotive industry. Edelbrock makes aftermarket performance products for automobiles. With the winter coming on strong this is the time when automotive enthusiasts work on their vehicles. Also with the recent acquiring of two other competitors by a larger corporation and press releases stating changes in production that could be viewed as decreases in quality, Edelbrock may look to gain a larger market share. For these reasons Edelbrock was purchased at the beginning of what looked to be an upswing as seen in Figure 12. Edelbrock made no significant gains in the remaining weeks of the simulation and ended at a gain of only 1.6%. This investment was made based somewhat on personal hunches and lesser than most on the swing trading method. This investment wasn't very successful perhaps because of the lack of reliance on the swing trading method and more reliance on hunches or guesses.

Chapter 5: **Trading with Zack's Numbers**

5.1 Goals of the Simulation

For the simulation we have fairly simple goals. The first goal is to learn from the simulation how to really research for and invest in the stock market. Secondly we would like to find resources to find resources that aid in investing and provide resources to investors. Finally we would like to make money from the market during the simulation using our trading strategy. Preferably we would like to make a 10% profit on our trade, about $10,000. At the worst we would like to break even. This chapter is about trading with Zack's numbers. This chapter will explain what a Zack's number is and how to use it to trade. Also this chapter will detail our trades with Zack's numbers and get a final number on the profit or loss on the simulation. Finally this chapter will either recommend or advise against this style of trading based on the results of our simulation.

5.2 Trading with Zack's Numbers

Trading with Zack's Numbers is fairly simple. Every day the stocks are rated 1 through 5. A rating of one means strong buy, a five means the stock is a strong sell, and 3 means the stock should be held. What I plan to do is to do what the numbers say to do. When the Zack's number says to buy we will buy and when it says to sell we will sell. By following the numbers we figure that we will be following the trend of what everyone else will likely do. Hopefully many

people will buy when we buy and send the stock price up and allow us to sell at a much higher price than we bought for.

What exactly is a Zack's Number. There are a group of advisors called Zack's advisors. These people are stock market analysts employed by www.zacks.com. They analyze the stocks and speculate on what will happen in the 90 day future of the stocks. If the stock is predicted to outperform the market it will be given a buy rating. If it is expected to perform less than the market it will be given a sell rating. Should the analysts fell it will perform the same as the market it will be give a hold rating.

5.3 Stocks Chosen

Sepracor Inc.

Sepracor is a company that specializes in the treatment of human diseases based in Massachusetts. They wish to research and create drugs that are as of now undeveloped. They have manufactured many drugs in the fields of respiratory, urology, and central nervous diseases. In addition to researching new drugs Sepracor Inc. also tries to improve upon existing treatments for disorders. They try to provide purer drugs in a more cost effective manor. Some of the drugs that Sepracor Inc has patented include ALLEGRA®, CLARINEX®, and XOPENEX®.

We decided to pick this stock because Sepracor is one of the leading developers of drugs in the country. In their field, medical products, they are ranked in the top 50 out of the approximately 150 companies on the market.

They are getting into genome base medicines and we feel that this is where the future will take us and getting in now would be an advantage. We think that Sepracor's quality products and groundbreaking research will send it in an upward direction in the near future. In addition to the quality products Sepracor makes they find the most cost effective method of production for the chemicals. This means fewer expenses which could lead to larger profits from income due to drug sales.
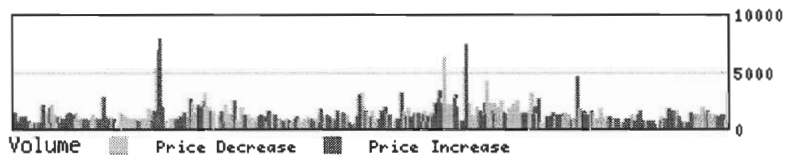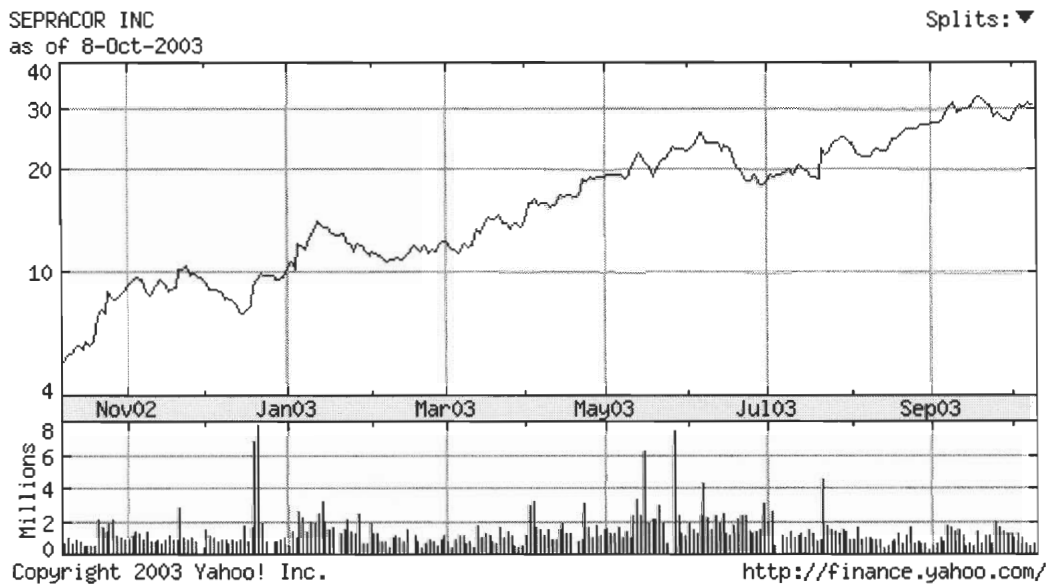

Figure 5.1 Sepracor Inc

SILICON LABORATORIES INC

Silicon Laboratories Inc is a communications company based in Texas that was founded in 1996. They specialize in mixed signal circuits useful in a vast amount of practices. These circuits take everyday noise and convert it to a digital format that is able to be used by computers. The circuits are essential parts of cellular phones, modems, and cable hook-ups. These items are very important to everyday life and should make the fairly new company so pretty well in the market. Also Silicon Labs tries to cut production times and keep their speed to market times good. To do they simplify the architecture, they make the item smaller and have less components.

We chose this stock because we felt that investing in a company that produces something that everyone needs would be a good idea. They have their hand in the majority of the communications markets with their products. This makes them a very profitable company because so many different groups of people rely on their product. Also Silicon Labs is a leading producer of the circuits and this means that their profits could be high. If their profits are high more people would be likely to invest and thus make us more money.

SILICON LABS   9-Oct 11:13am

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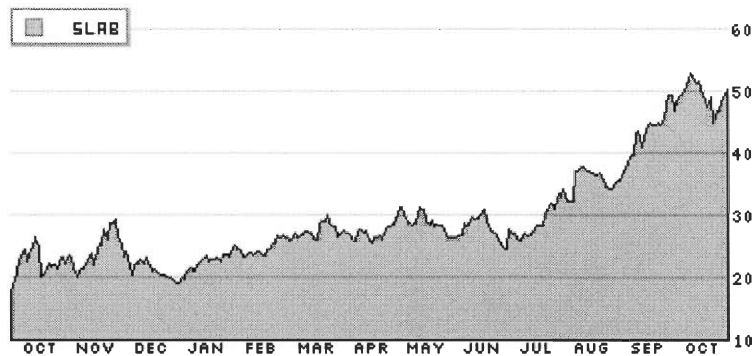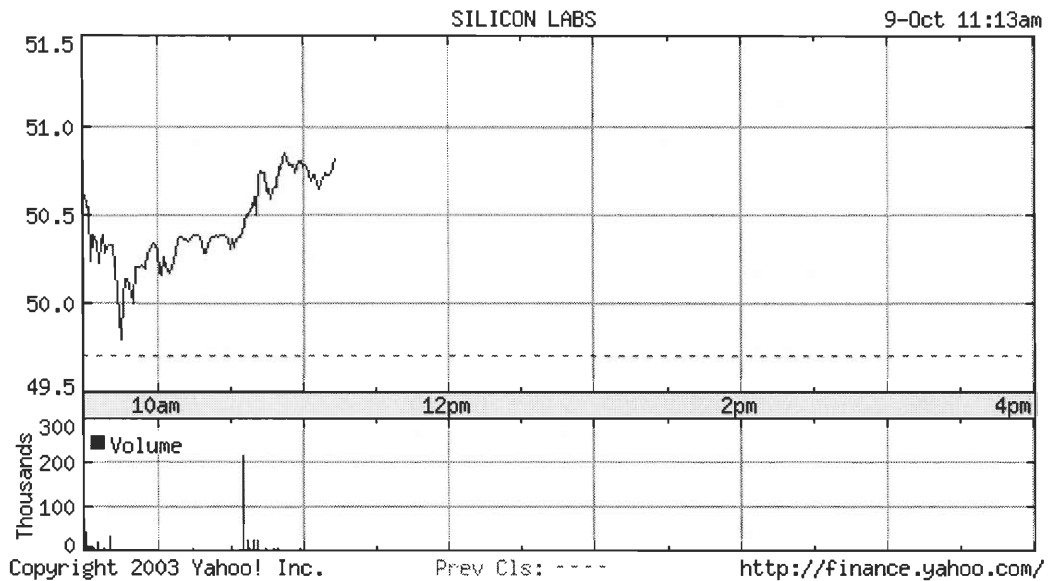
Figure 5.2 Silicon Laboratories

AVAYA INC

AVAYA INC. is a provider of communications systems and software for enterprises, including businesses, government agencies and other organizations. They offer communications systems, software and services that enable enterprises to communicate with their customers, suppliers, partners and employees through voice, Web, electronic mail, facsimile, Web chat sessions

and other forms of communication, across an array of devices. These devices include telephones, computers, mobile phones and personal digital assistants.

The reason I chose this stock was because the Zack's number was a rating of a strong buy. The researchers feel that it will out perform the market in the coming weeks. If it does out perform the market it would be a very profitable purchase and I stand to make quite a bit of money.
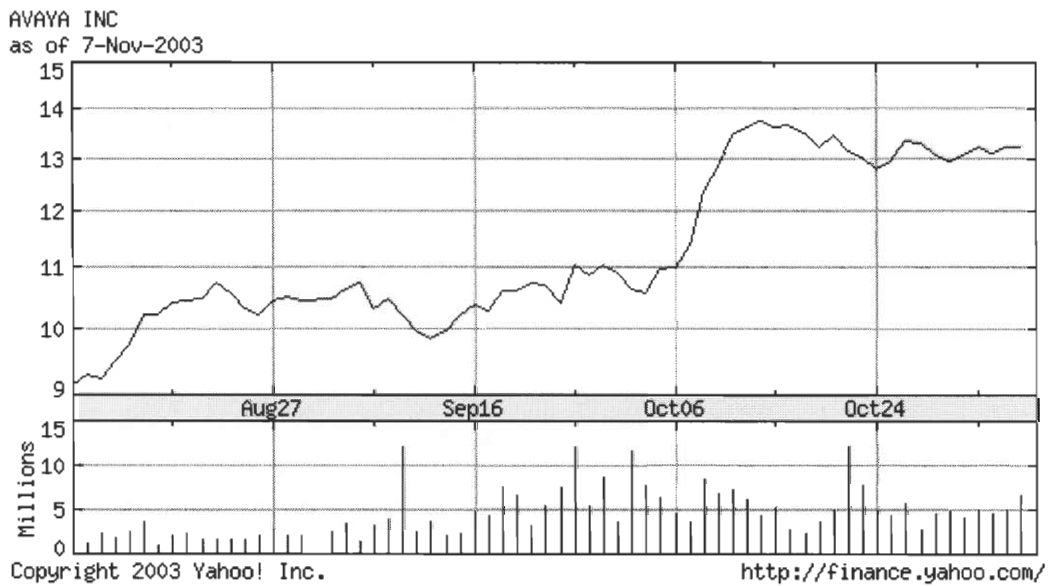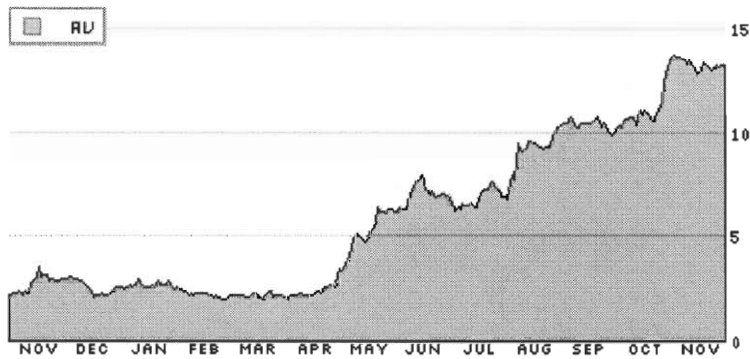
Figure 5.3 Avaya Inc

5.4 Trades

Date	transaction	stock	price	Total
2-Oct	buy	SEPR	29.76	19949.2
2-Oct	buy	SLAB	46.91	19946.75
2-Oct	buy	FOSL	24.97	20110.85
2-Oct	buy	FLEX	14.04	19946.8
2-Oct	buy	MNST	25.89	19945.3
15-Oct	sell	SEPR	27.8	18616
15-Oct	buy	ACAM	57.3	18632.5
28-Oct	sell	MNST	26.66	20518.2
28-Oct	buy	AV	13.3	19960
6-Nov	sell	ACAM	60	19490
13-Nov	buy	PDCO	69.7	19874.5
13-Nov	sell	SLAB	51.8	22005
24-Nov	buy	WFC	56.7	19855
28-Nov	sell	FLEX	16.02	22738.4
2-Dec	sell	FOSL	29.56	21080
2-Dec	sell	AV	14.06	23785.8
10-Dec	sell	PDCO	68.3	19455.5
12-Dec	sell	WFC	57.25	20027.5

Chart 5.1: Transactions

Comments on Transactions

On October second we made my first trades of the simulation. We purchased five stocks SEPR, SLAB, FOSL, FLEX, and MNST. For each of these stocks we put about $20,000 in each. On October 15 we noticed that SEPR was falling too fast and too much. As a result of this we decided to sell it and try to cut the loses caused by it. That same day we decided to search the Zack's numbers for a strong buy. What we found was ACAM. We bought this stock with the remaining money from the SEPR trade. On October 28 MNST was downgraded to a sell rating. Due to this we decided to sell all the shares of this stock before it went down. On that same day we found an other stock with a strong buy rating. This stock was AV. We bought as much of this stock as we could with our remaining money.

On November sixth we sold ACAM because the broker rating of this stock was downgraded to a sell rating. We sold before the Zack's number was downgraded to try and avoid a plummet of stock price do to the sell rating. On November 13 we bought PDCP. This was rated a strong buy by the Zack's number system. Also on the 13th we sold SLAB. It was falling regularly and we felt that by selling it now we could keep the profit and avoid any loses. On the 24th we bought WFC. This stock had a rating of strong buy according to the Zack's numbers. On the 28th we sold FLEX because its Zack's rating fell to a 4.

On December 2nd we decided to sell Fosl. The Zack's rating went to a 4 or a sell rating. Also on the 2nd AV was downgraded. So we decided to sell this

stock. As we are nearing the end of trading we decided not to buy any more stocks because we don't feel that we could have adequate time to turn a profit. On the last week of trading we waited to see when the stocks rose. When they rose we sold the remaining stocks and tried to make as much money as possible and when necessary have as little a loss as possible. We sold the remaining stocks PDCO and WFC. On the 10th we sold PDCO and on the 12th we sold WFC.

5.5 Conclusions and Results

The first stock we bought was Sepracor. This stock was supposed to about the same as the market over the time of the simulation according to the Zack's numbers. During the research period of this project this stock was steadily increasing in price. Once the simulation actually started in the first week of October the stock started to take a down turn and continually went down. Towards the beginning of the third week of October the Zack's number was downgraded to a 4 meaning it is a good idea to sell this stock. Due to the unforeseen downward path this stock took we ended up loosing $1,333.20. This is a chart of how SEPR did over out trading period. The first purchase date is October 2nd and our last trading day was December 12th.
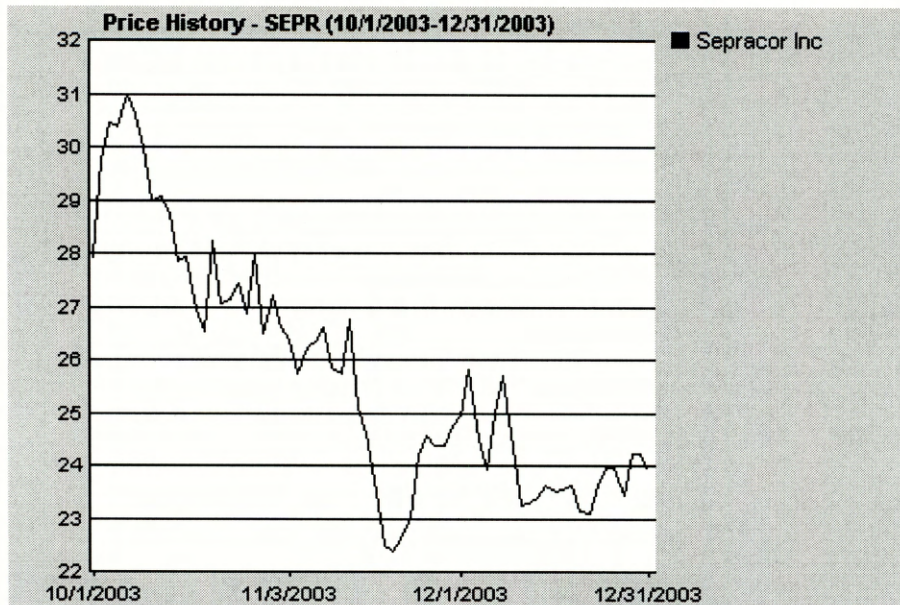
Figure 5.4 SEPR History

The second stock we traded was silicon Laboratories. This stock was supposed to do slightly better than the market was supposed to do. This means that if we bought the stock we should make money when we finally sold it. As predicted the price of SLAB went up slightly faster than the market did over this period until the first week of November. At this point the stock started to fluctuate and eventually started to slip in price. This was the point at which we eventually sold the stock due to its falling price. When we sold this stock we ended up making $2,058.25. Had we sold earlier we stood to make a bit more money but we wanted to wait and see if the stock would rebound and rise up again. This is a chart of how SLAB did over our trading period with October 2nd being the first day of trading and December 12th being the last.

Figure 5.5 SLAB History

The third stock we traded was Fossil Inc.. This company was supposed to do about the same as the market was going to do for the future. In actuality this stock did much better than anyone could have expected. It outperformed the market for quite some time. It was increasing steadily until the 2nd week of November, at this point the price began to slip. From that time until the beginning of December the price of this stock fluctuated. On December 2nd this stock's Zack's number was downgraded to a 4 and prompted us to sell it. On these transactions with FOSL we made $969.15. This chart illustrates the stocks price over our trading period.
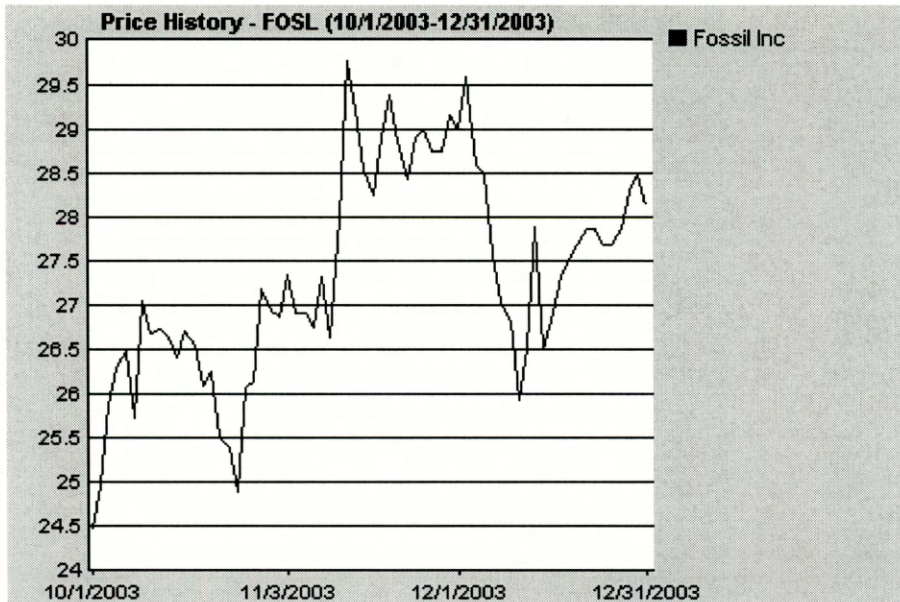
Figure 5.6 FOSL History

The fourth stock we traded was Flextronics International LTD. This stock was also supposed to do the same as the market was going to do over the following few months. This stock was much more erratic than any other stock we had been trading with before. We figured we would hold onto this stock until there was a change in the Zack's number and hope that we caught an upswing in FLEX's jumpy behavior. This is precisely what happened when the stock was downgraded to a 4 the price of FLEX was actually rising quite a bit and we lucked out and sold near its peak. This led us to make $2,792.02 on this stock. This is a chart of the prices of this stock over our trading period.
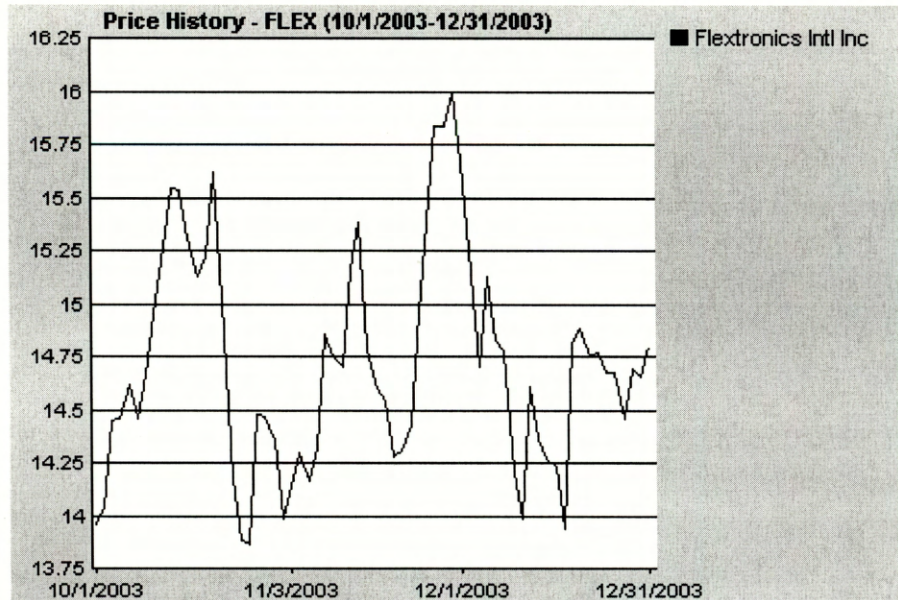
Figure 5.7 FLEX History

The fifth stock we traded with was Monster.com. This stock like most of the others was predicted to do about the same as the market would do in the coming months. This stock started off very well and increased rapidly over the first two weeks of trading. In the next few weeks it fell with a few increases here or there. At the end of October, October 28th, MNST was downgraded to a 4 and upon noticing this we decided it would be best to sell at this point. We sold hoping to break even with this stock because of it long decent in price. Much to our surprise we actually made money on these transactions $572.90 to be exact. This chart illustrates the stocks price over our trading period.
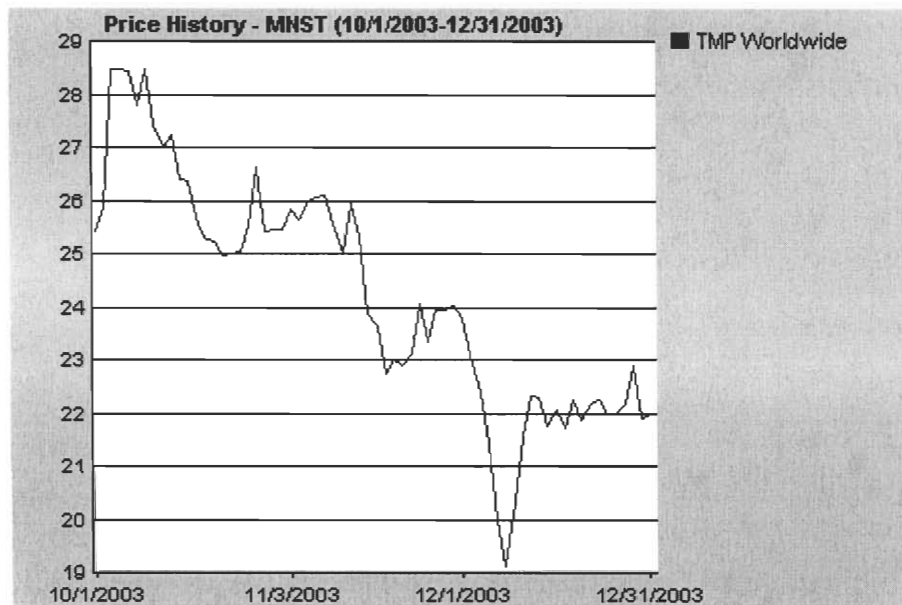
Figure 5.8 MNST History

The next stock we traded was Acambis PLC. This stock unlike many of the previous stocks was predicted to do much better than the market would do in the coming weeks. In actuality this stock had one real strong surge around the time of purchase and it dropped steadily throughout the month of November. Finally it started to rebound in December. We sold this stock in the midst of its decent but luckily it was downgraded to a rating of sell at a price above what we purchased it for. We made $857.50 on this stock. This is the chart illustrating this stocks progress over our trading period.
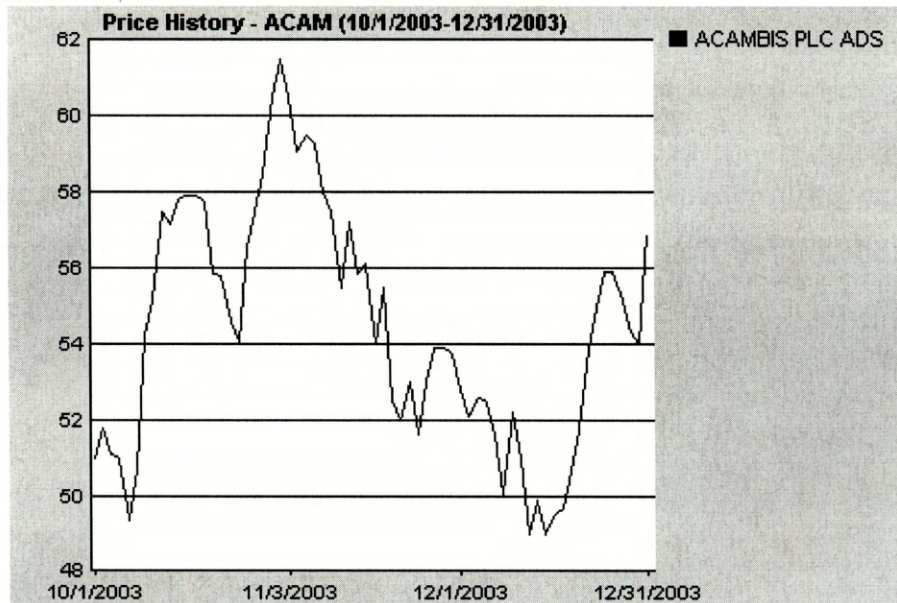
Figure 5.9 ACAM History

The next stock we traded was Avaya Inc. This stock was also one of the few that were supposed to do well in the coming weeks. When we bought this stock it was on an upswing. For the first week we had this stock it did very well. However in the following weeks it fluctuated a great deal like Flextronics did. We used the same strategy on this stock as we did on FLEX. We held onto it until it was downgraded to sell and hope for the best with the price. Again we lucked out and caught an upswing on the day that we made $3,825.80. This is the chart of the progress of this stock over our trading period.
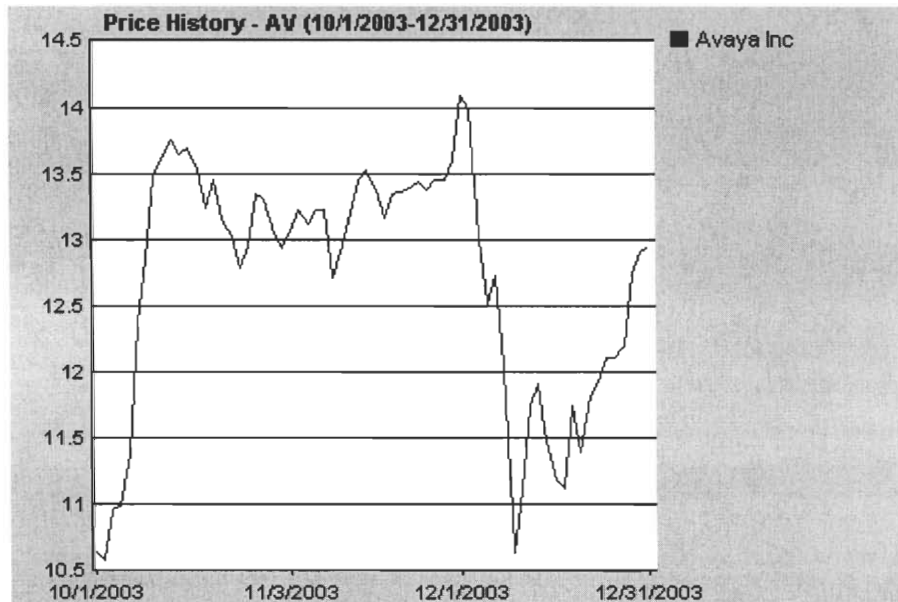
Figure 5.10 AV History

Patterson Dental Company was the next stock we traded with. This stock was supposed to do better than the market was supposed to do as well. This stock didn't do what was predicted though. We bought it on the end of a downswing and just before the beginning of an upswing, but soon after purchase PDCO peaked and dropped a substantial amount. After This drop it never fully recovered. It did jump back up for a bit every few days or so but PDCO just kept on falling in price. When we sold it at the end of the simulation we lost $419.00. The prices of PDCO are displayed of this chart of our trading period.

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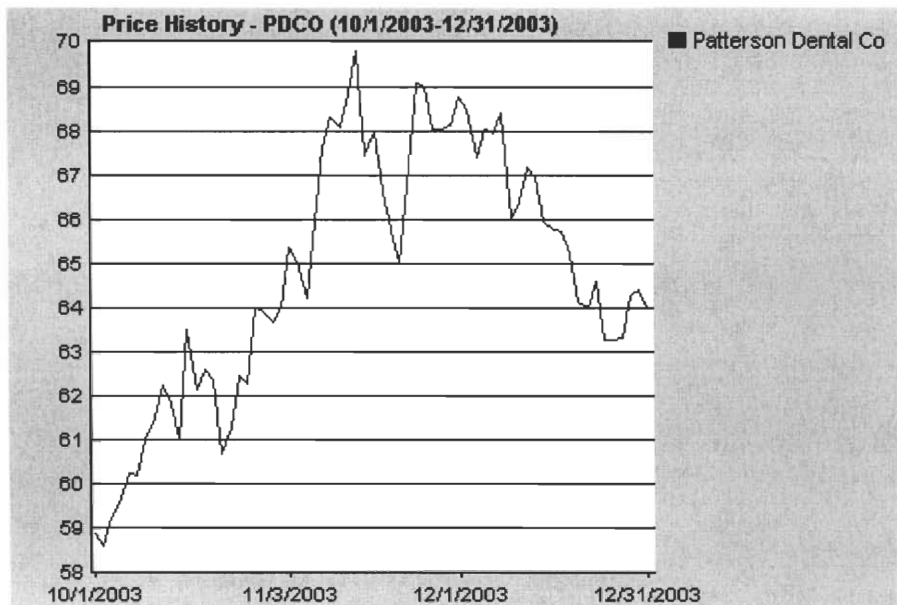**Price History - PDCO (10/1/2003-12/31/2003)** ■ Patterson Dental Co

Figure 5.11 PDCO History

The final stock we traded with was Wells Fargo & Co. This stock was predicted to do better than the market. During our simulation period it was on a constant upswing. WFC only had slight day to day drops but overall it was on the rise. When we bought in it was rated a 1 or strong buy. It continued to hold this rating for the remainder of our trading period. When we sold it on the final day of trading we ended up with $172.5 in profit. This chart shows the prices of WFC over our trading period.
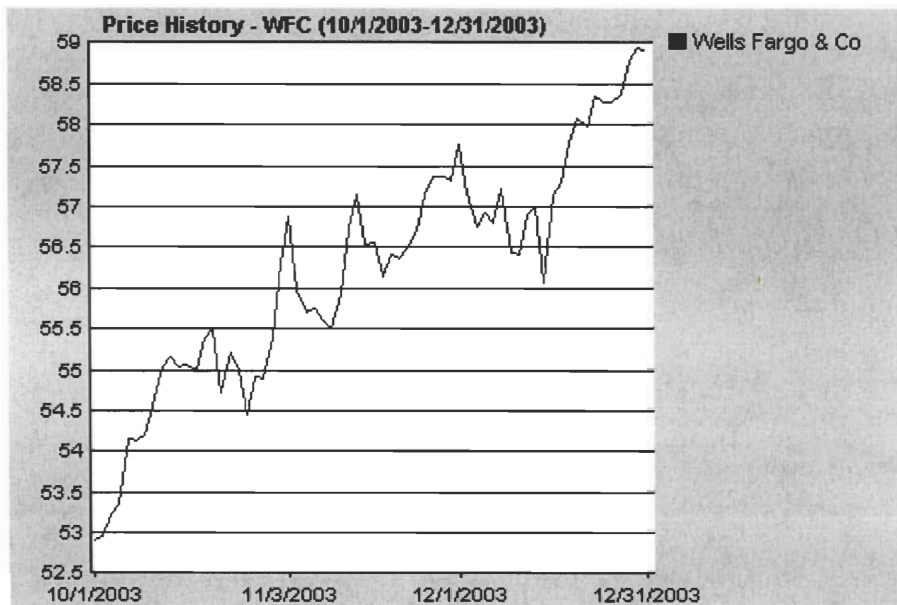
Figure 5.12 WFC History

Overall our transactions went very well. We made money on the majority of the transactions, only losing money in two cases. This chart illustrates the transactions and profit from each.

Chart 5.2 Final Transaction History

Date	Type	stock	shares	amount($)	profit ($)
10/2/2003	buy	SEPR	670	19949.2	
10/15/2003	sell	SEPR	670	18616	-1333.2
10/2/2003	buy	SLAB	425	19946.75	
11/13/2003	sell	SLAB	425	22005	2058.25
10/2/2003	buy	FOSL	805	20110.85	
12/2/2003	sell	FOSL	805	23785.8	3674.95
10/2/2003	buy	FLEX	1420	19946.8	
11/28/2003	sell	FLEX	1420	22738.4	2791.6
10/2/2003	buy	MNST	770	19945.3	
10/28/2003	sell	MNST	770	20518.2	572.9
10/15/2003	buy	ACAM	325	18632.5	
11/6/2003	sell	ACAM	325	19490	857.5
10/28/2003	buy	AV	1500	19960	
12/2/2003	sell	AV	1500	21080	1120
11/13/2003	buy	PDCO	285	19874.5	
12/12/2003	sell	PDCO	285	19455.5	-419
11/24/2003	buy	WFC	350	19855	
12/12/2003	sell	WFC	350	20027.5	172.5
				Net Profit($)	9495.5

Chart 5.2 Final Transaction History

We would not think that if we did this simulation again that we would actually make as much money. This is due to the fact that in two cases we got extremely lucky. On these two cases FLEX and AV we made a substantial sum of money $2,792.02 and $3,825.80 respectively. This method minus those two stocks still comes out with a net profit. If a person is looking for a method for trading we would say that trading with Zack's numbers is a fairly sound method and if a person wants to make money trading with Zack's numbers is reasonably safe. They should be warned that no trading in the market is safe and that in order to make money they must be willing to lose some money.

The money that we made in profit, $9495.5 is actually a little bit less than what we made in total. This is true because on every transaction made we added in the commission fee of $10.00 per transaction. When we do about 20 transactions $10.00 per transaction adds up. We feel that making almost 10% is a great accomplishment since the market has only gone up about 8%. We beat the market by nearly 2% and this is what every person who invests wishes to do. We feel that by beating the market this project is a success. We have demonstrated that we learned how to research stocks and invest smartly. These skills are what the whole project was about learning about the market and be able to successfully invest in the future with confidence should we wish to do so.

Throughout this project we researched and traded stocks with fake money in order to try and learn something about the stock market. We were trying to meet our goals that we set for ourselves at the beginning of the project simulation. Firstly we wanted to learn about the stock market and how it works as

well as who invests and how. We feel that we met this goal in doing the research to write the paper. We found out where to invest several different methods of investing and how to actually invest. In addition we found about what it takes to actually make a trade in the market. The second goal we tried to meet was to find sources for research about investing and particular stocks. We found these sources while researching the stock market. Theses resources came from the internet and were fairly easy to understand. They gave a short summary of what the stock does. In some cases they even gave what they think the stock would do compared the market as a whole. For the final goal we wanted to make money. This wasn't as easy a goal as we originally anticipated the market fluctuates so much that keeping a profit is very hard. In the end though we did make a profit, we actually made $9495.5 which is just shy of the goal we set of 10% or $10,000.

Chapter 6: Long Term Trading

The following chapter is about the Long-Term trading policy of the stock market. In the following a description of long-term trading will be discussed. There is a simulation the occurred over a couple of months. This will contain the companies used, descriptions, any trades made, and graphs and tables of the companies. There is also a section which tells of the goals of the long-term part of this project.

6.1 Goals

My goals for this project are broken into two things, one subject is learning about the stock market, how it works, use of websites that help you to use the stock market, and possibly us what has been learned as a result of this project in my future life. The second subject is more competitive, wanting to earn the most money throughout the simulation.

Learning how the stock market works. This means that I want to be educated about the market what are the in's and out's. There are multiple types of trading which a person can choose to use which of these methods are the best. What method is for someone who looks at there stocks all the time and what type is for the person who only wants to look at them about once a week and not worry about it.

Use of websites in helping to keep a portfolio. There are many websites on the World Wide Web that someone can use to help them to keep track of there stocks. Which one of these is worth using, is it user friendly or just for a stock broker. Also working with these sites could help in the future if you do participate in the stock market. Which pulls into another goal this project is great if you want to learn about stocks when you have a job and a little extra money to put into something.

Lastly the stock market is competitive and one would want to make the most money, not lose what they have invested fake or not. You want to earn more than the other people in the group.

In the following chapter we will be writing about Long-term trading. We will be writing about what Long-term trading is and who would use it. Also we will be recapping what happened in our simulation and the goals of our simulation. This chapter will also contain several graphs and a table.

6.2 Long Term Trading

Trading with the Long term method is also fairly simple. When you trade with long-term stocks you simplify what you are dealing with. Basically you look for a stock that you want to invest your money into for a long time. A stock that you feel no matter the up and downs at the end you make more money than you put into the stock. When you trade for the long term you want to really look at what you are going to invest your money into. You do not want to just dump all you money into something that you are going to lose money with, you need to

investigate into the company see what you are dealing with. Also you want to think about what is going on in the year. For example you may not want to invest in oranges if it is winter or a later summer is predicted to occur. If it may be the holiday time of the year you may want to invest into a new toy. Another advantage to long term trading is that you will make fewer mistakes. You are not always going around trading stocks therefore you will not make any mistakes buying a wrong stock a stock that you may have not put in a lot of effort looking into. With long term trading you also do not have to as much of a commission as someone who is trading for the short term. Long term trading is the type of trading that someone would use if they are not really interested in looking at their stocks every single day or maybe not even every single week. This is a type of trading that is for a person who may not be very concerned with losing some money because they believe that in the long run the market will turn around and they will gain more that they put in. Long term trading is all about looking up good stocks and then taking the easy way out by sitting back and letting the market do what is does.

6.3 Stocks Chosen

The first stock that we chose was Fossil Inc. Fossil is a company that competes in the design of watches, sunglasses, shirts, leather accessories, and belts. They are located in Texas and are in the NASDAQ exchange market. Currently have a market cap of about a billion dollars. We decided to choose fossil for a couple of reasons. First we thought that because it was getting

toward the holiday season people would be out buying stuff a lot more than usual. Another reason for investing into this stock was that they just signed an agreement with Callaway golf to make a Callaway timepiece. Callaway golf is a major golf company that makes clubs, golfing accessories, and sponsors famous golfers. I thought that these two reasons develop an upswing in the market for a company that I already felt was doing well. The following is a one year graph of Fossil's stock price.
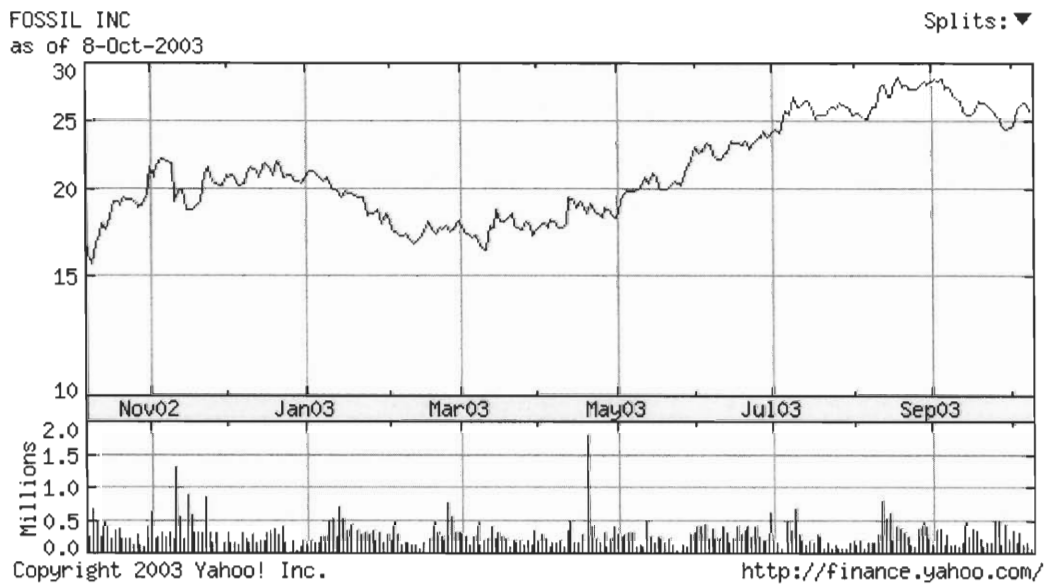
.

Figure 6.1 history of Fossil Inc

The second stock that we chose is Flextronics International Limited. This company is located in Singapore and is also in the NASDAQ exchange. They are in the printed circuit board industry and gives electronic manufacturing services to handheld electronic devices. They are also involved in computer and office automation, communications infrastructure and other information

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technologies. The reason that I chose this stock is because we are in the information and technology era, where technology is growing everyday. Especially handheld devices like palm pilots were it seems like almost everybody has one. Also you almost never see any type of business that does not have at least one computer and all of the big business seem to rely on them. The following is a one year graph of Flextronics stock price.
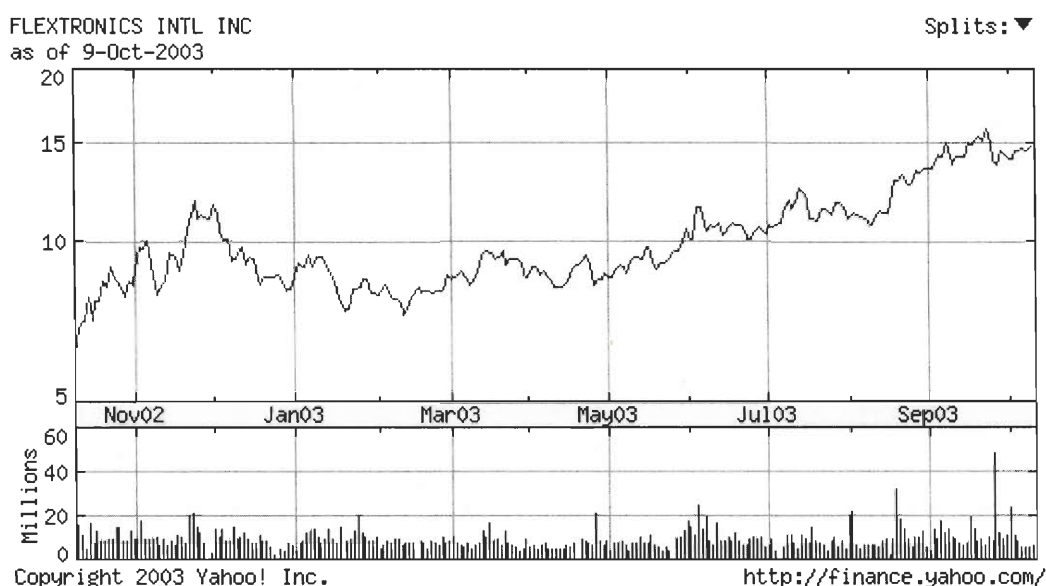

Figure 6.2 history of Flextronics Intl Inc

6.4 Trades

The stocks that we chose to invest in are sepracor, silicon laboratories inc., fossil, flextronics, monster worldwide inc., nectar therapeutics, good year tires, and fox. We invested 12,500 into each stock. We currently losing money with the long term strategy, and are in the process of revaluating the stocks that we have chosen and searching for new alternatives.

Previously we were losing a lot of money with the long term strategy. We dumped one of our stocks (SEPR) which was losing us a lot of money and picked up stock in Playboy. We decided to choose this stock because of its current upswing in the market. As of right now we are around one thousand dollars above our starting point. Now all of our stocks have gone up except for (SLAB). We are confident with the stocks that we have right now because all of them have gone up and the only one that went down only lost us one hundred and sixty five dollars which is not the big of a deal in the scheme of things.

We are currently down about one thousand dollars with the long term trading strategy. Out of the eight stocks for long term only two went up this week the other six went down. FLEX, MNST, NKTR, all lost about four hundred dollars this week and SLAB lost around two hundred. This with the other stocks this totaled to a loss of $1,680.30 for the week ending, and we are currently under our beginning investment of one hundred thousand dollars. Seeing how we are using the long term strategy we will not be trading any of the stocks this week. Hopefully we will earn some money next week rather than losing. Depending on how much we gain or lose there will have to be an evaluation of the worth of the stocks that we are currently dealing with.

Lately all of our long term stocks have lost us money we previously had dumped monster because they have been in a large downswing and causing us to lose tons of money. Other stocks like Flextronics and Fossil have lost us almost five hundred dollars each. The other stocks also lost us money none of them have gone up and we are extremely disappointed currently losing almost a

total of three thousand five hundred dollars with this simulation. We are also dumping fox because they have gone down 7 % since we have picked them up and they have lost us a total of around nine hundred dollars. For the most part the other stocks have gained us money throughout the simulation so we are going to keep going with them and we will have to see how it turns out

In the conclusion of the lab we did not do very well with the long term trading technique. We came out with a net loss of $3675.85. This was not very pleasing seeing how we lost money and did not meet one of our goals, which was to earn the most money throughout the simulation. In conclusion Long term trading is not a technique that should be used for a three month simulation. It would be more useful for someone that has unlimited amount of time in the market. You need to use something that keeps you buying and selling more often, such as penny stocks or trading with Zack's numbers.

6.5 Background on stocks

Sepracor is a pharmaceutical company that bases itself with the research of drugs that are developed to stop and treat human diseases. They mostly deal with three areas of research, respiratory, urology, and the central nervous system. As of now they have drugs that deal with helping people who have asthma, male sexual problems, and others. A drug that they are currently working on is called Xopenex which is supposed to help people who have bronchspasm. With this drug they will be competing with other companies such as Clarinex.

Silicon Laboratories Inc. is a company that deals with the development of integrated circuits for the communication industry. They deal with three main areas optical networking products, wire line products, and wireless products. They have a product that deals with the isolation of a wireline device and the telephone line to protect the wire line from power surges which may occur.

Monster Worldwide, Inc. which may be more known as monster.com is a company that deals with global providing of jobs and career solutions. Monster has a large data base with which they match up qualified people with companies that would need their help.

Goodyear tires are a company that manufactures not only tires but also other rubber products. The sell tires for machines ranging from regular cars to the airplanes that fly in the skies. Goodyear is a large corporation that has companies in North America, Europe, Asia, and in many other continents all over the world.

Fox is a large incorporation that mainly deals with television, they also produce movies. Fox has thirty-five full power stations and 196 affiliated stations. They televise sport programs such as the national football league and NASCAR.

Playboy is an entertainment group that publishes one of the most popular man's magazines. They have many television networks. Also they have expanded into nineteen different countries.

Nektar Therapeutics is a company that deals with the process of improving the performance of designing new drugs. They also try to develop

better ways to give therapy to patients. Nektar has an anti cancer drug and a drug that treats hepatitis C.

6.6 Charts and graphs

The following is a spread sheet of the activities that took place during the long term trading simulation. On the spread sheet it has the company, price, amount of money, shares, and whether or not we bought or got rid of the shares we had in the company.

Action	Symbol	Shares	Price	Amount
Shares out	SLAB	230	44.31	10181.3
Shares out	PLA	610	16.45	10024.5
Shares out	NKTR	930	13.44	12489.2
Shares out	GT	1820	6.87	12493.4
Shares out	FOSL	500	27.89	13935
Shares out	FLEX	865	14.37	12420.05
Shares out	FOX	425	28.7	12187.5
Shares out	MNST	480	23.8	11414
Shares in	PLA	610	16.28	9940.8
Shares out	SEPR	420	26.5	11120
Shares in	FOX	425	29.34	12479.5
Shares in	GT	1820	6.86	12495.2
Shares in	NKTR	930	13.37	12444.1
Shares in	MNST	480	25.89	12437.2
Shares in	FLEX	865	14.04	12154.6
Shares in	FOSL	500	24.97	12495
Shares in	SLAB	230	46.91	10799.3
Shares in	SEPR	420	29.76	12509.2

Chart 6.1 Table of Transactions

The following are graphs that represent each different company that we use for the long term trading strategy. Each graph ranges from the start of October to the end of December. Within these months lies our simulation period which spans from October 2nd to December 12th when we dumped all of our stocks. These are line graphs which show the price of the stock versus the time of the year.
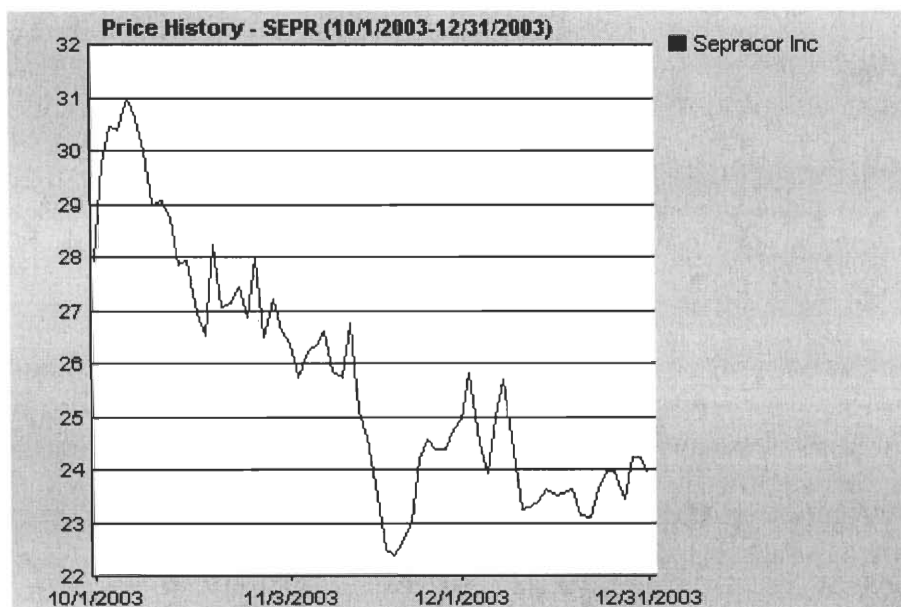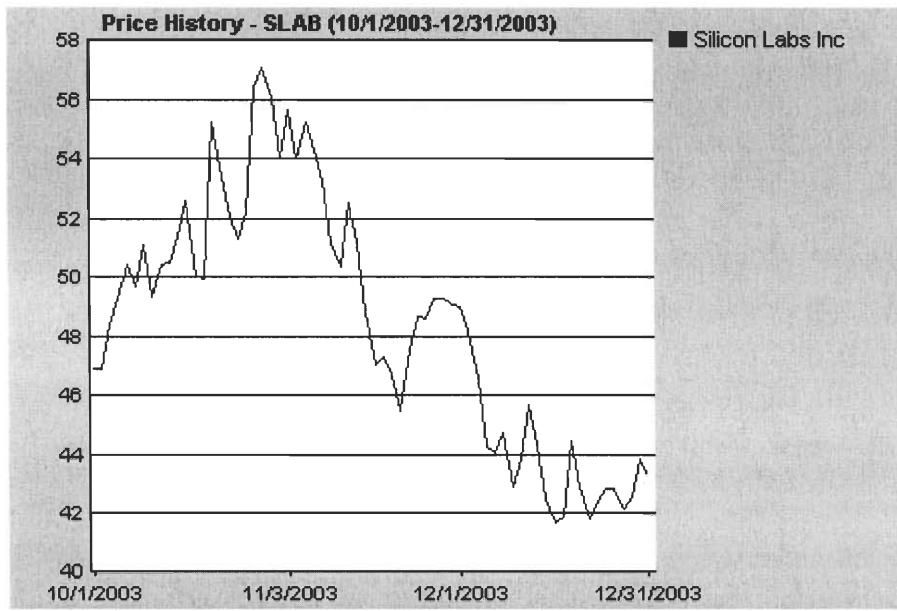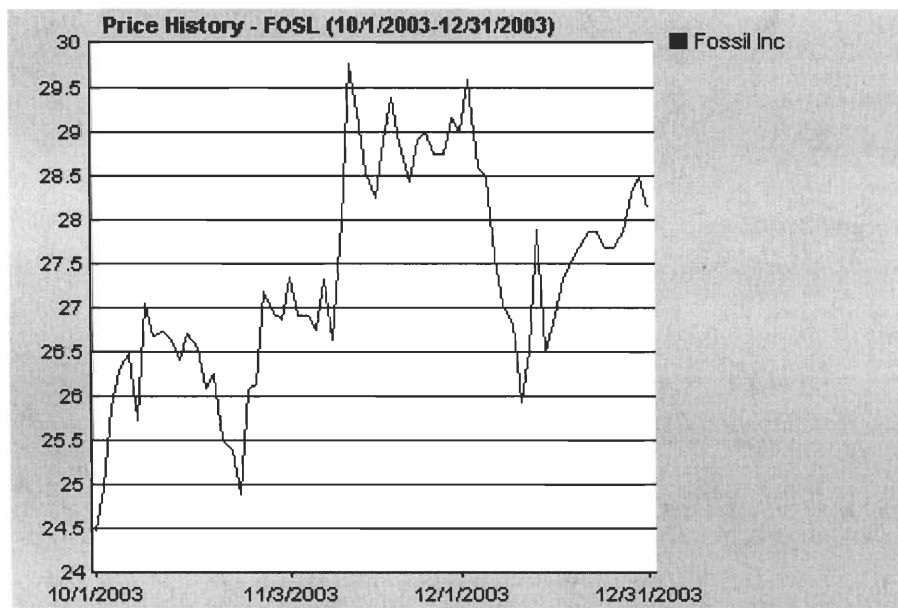

Figure 6.3 history of SEPR:

Price History - SLAB (10/1/2003-12/31/2003) ■ Silicon Labs Inc

Figure 6.4 history of SLAB:

Price History - FOSL (10/1/2003-12/31/2003) ■ Fossil Inc

Figure 6.5 history of FOSL
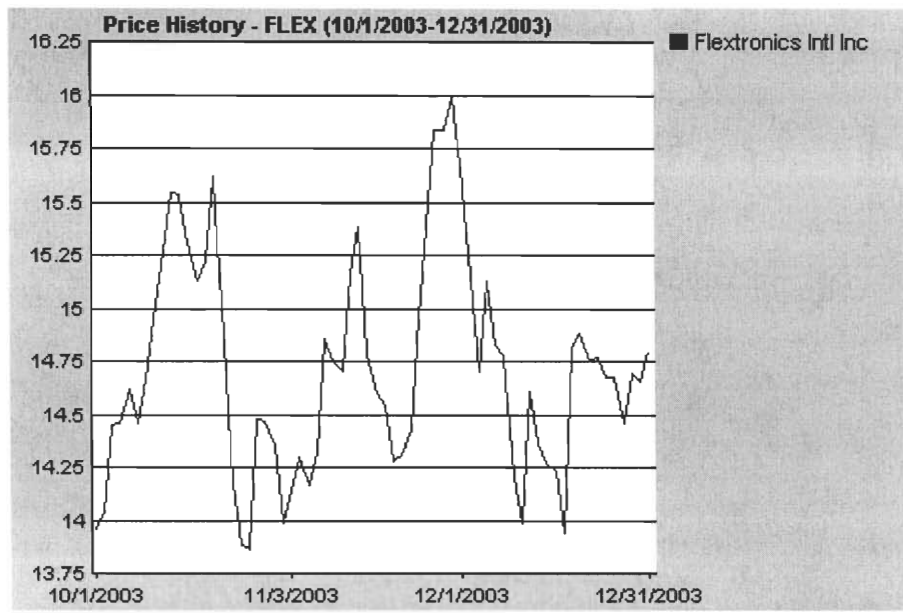
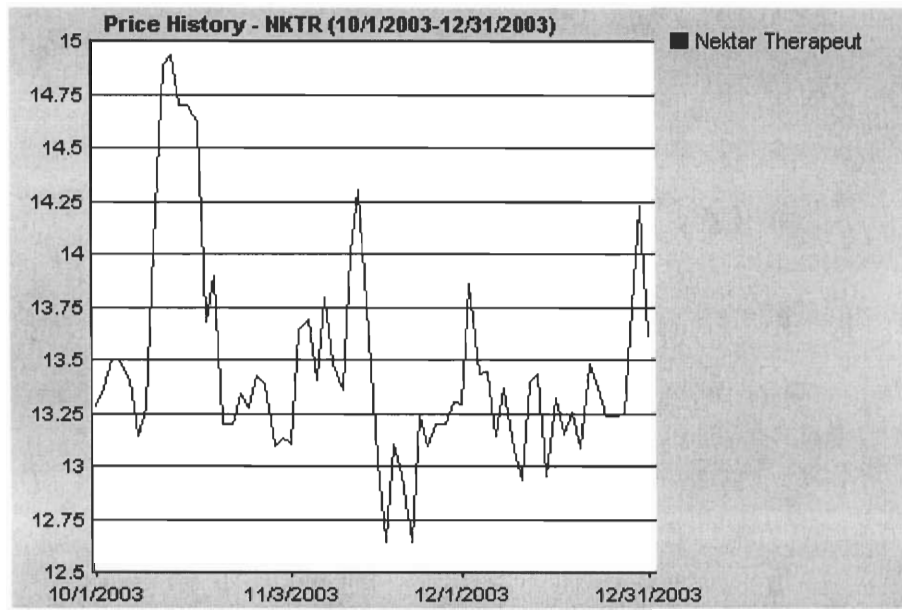Figure 6.6 history of Flex
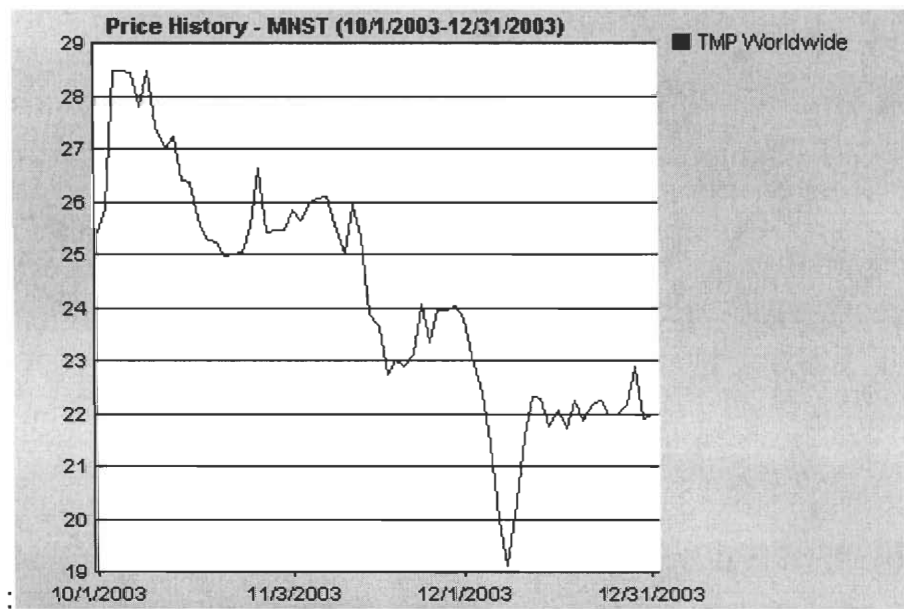
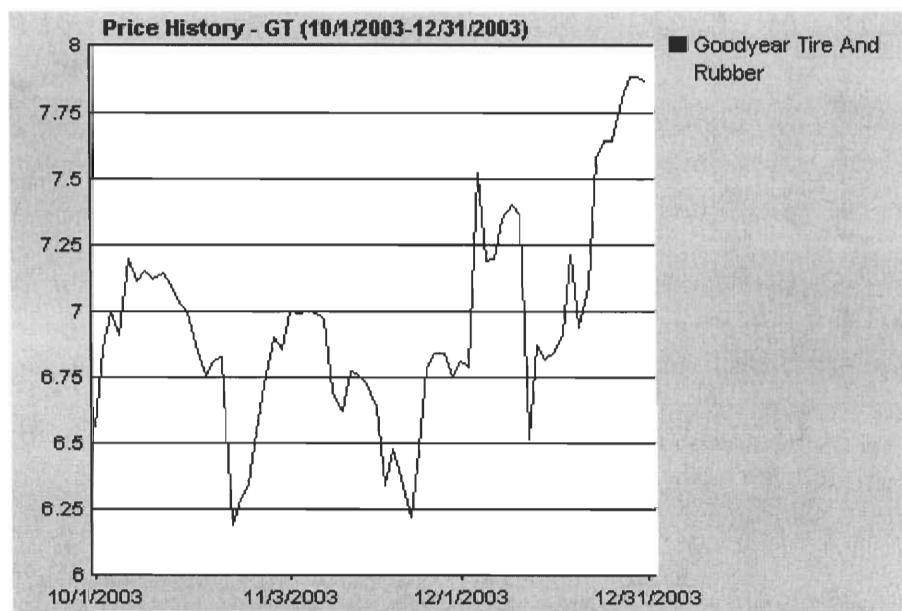Figure 6.7 history of MNST

Figure 6.8 history of NKTR:
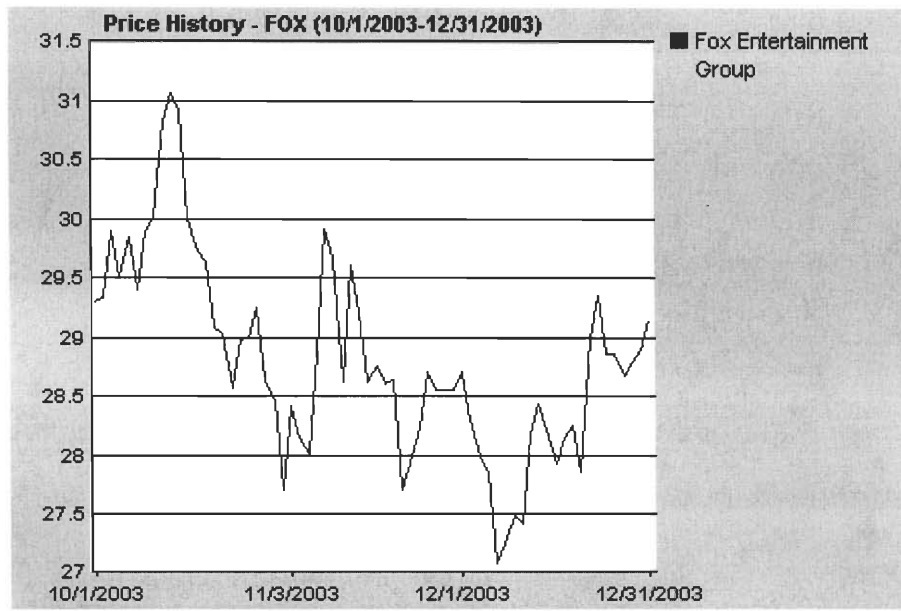

Figure 6.9 history of GT:
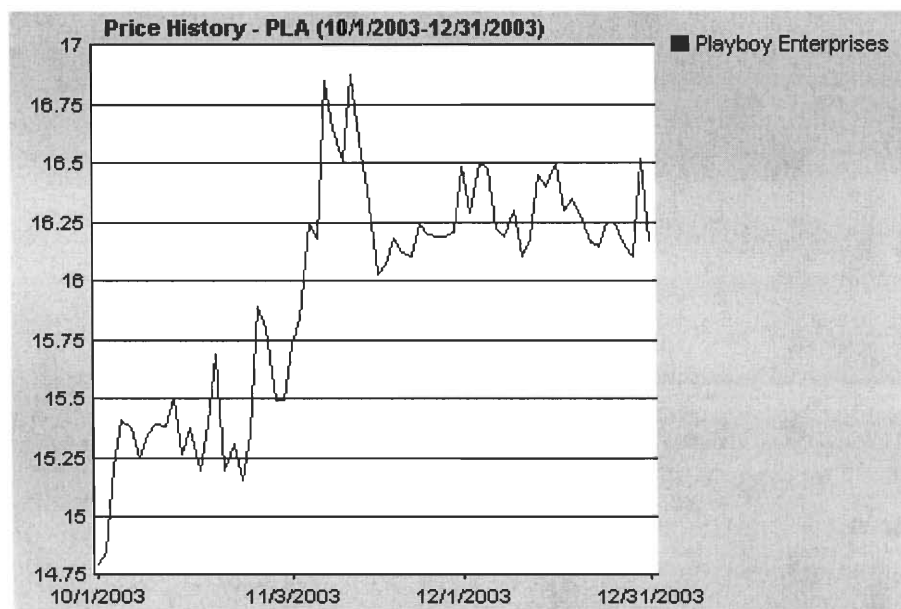
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Figure 6.10 history of FOX:

Figure 6.11 history of PLA:

Chapter 7. Conclusion

The preceding project was a three term project which culminated into an IQP report. This project is supposed to teach students about the stock market. During our three terms doing this project we researched the market find out how it works. Then we will each chose a different type of trading policy. After choosing our policy we started a simulation that lasted about three months. When the simulation was done we compared and contrasted what method has done the best, and which method earned the most money.

We set up group goals and personal goals that we thought were reasonable to achieve in the three term project. Group goals would be to do a successful simulation, hopefully with a profit, and to compare and contrast which trading method is the best. Which trading method earned us the most money. What trading method lost us the most money. An example of personal goals is the fact that each person what to come out on top and earn the most money with their stocks. In order to prove that in fact their type of trading policy was and is the best.

We feel that our goals as a group were met. We all learned about trading in the stock market. We learned how to research stocks and how to trade them.

Method	Net Result
Penny Stock Trading	- $6,767.92
Short Term Trading	$20,622.00
Swing Trading	$19,894.67
Trading with Zack's Numbers	$9495.5
Long Term Trading	-$3675.85

Table 7.1: Comparison of Gains and Losses

Comparatively short term trading did the best over our simulation period. This method made a little over 20% profit throughout the trading. This may be due to the fact that since the simulation was short other methods didn't have time to reach their full potential. Swing trading was very close to short term trading because of the similarities in the holding time of the stocks. Trading with Zack's numbers comes in third with a profit of almost 10%. Fourth is Long term trading. This method didn't do well because in order to make money with this method the stocks need to be held onto longer than 10 weeks and that is all the time we had for our simulation. The worst over this simulation was penny stock trading. This method didn't do well because it is very hard to do. The stocks picked were good stocks however they were not good penny stock stocks.

Overall this project was a great learning experience. We all learned about the market and how it works. We all actually plan to invest in the future using the knowledge that was gained from this project. We feel that if we do invest in stocks we will be able to make some money based on what we did in this project.

Knowledge of the market is something that aids any investor from an expert to the person sitting at home trading on their computer.

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2. The Stock Market Course, Fontanills, George, Wiley, New York © 2001

3. http://www.moneycentral.msn.com/

4. http://finance.yahoo.com/

5. http://www.quicken.com/

6. http://www.Zacks.com

7. http://www.nasdaq.com