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August 2009

# Analysis of Stock Market Investment Strategies

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*Worcester Polytechnic Institute*

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Project Number: 0903

## **Analysis of Stock Market Investment Strategies**

An Interactive Qualifying Project Report Submitted to the

Faculty of

WORCESTER POLYTECHNIC INSTITUTE

in partial fulfillment of the requirements for the

Degree of Bachelor of Science

by

Graham Pentheny

*Computer Science*

*Interactive Media and Game Development*

August 2009

Approved by Professor Dalin Tang, Project Advisor

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## **I. Acknowledgements**

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## **II. Abstract**

This investigation focused on what makes an investor profitable in the stock market. A 3-week investment simulation was conducted, utilizing day trading and swing trading strategies. The factors that attributed to the success of the simulation were analyzed, and used to increase investing power and ability. The knowledge gained through this experiment will be used to make intelligent and informed investment decisions in the future.

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# **1. Introduction**

## **1.1 Goals**

The main goals of this project were to investigate possible investment opportunities, logically weigh their respective risks and benefits, and make educated investment decisions. A detailed understanding of the risks and opportunities for high return presented in each investment opportunity were obtained through extensive research and analysis. This knowledge will aid in the future selection and execution of intelligent investments.

A 3-week, \$100,000 simulated stock market investment was made. This simulated investment tested the strategies researched, and helped in the understanding of the stock market in general. This experience facilitated the identification and anticipation of market trends, and thusly influenced future investment decisions.

## **1.2 History of the Stock Market**

A stock market is “a place where stocks, bonds, or other securities are bought and sold [1].” A share of stock, informally referred to as “stock,” is a share in the ownership of a corporation. Stocks entitle the owner to voting rights in major company decisions. Stocks can be bought and sold at a price determined by the financial success of the corporation and the overall demand for the corporation’s stock. A bond is essentially a loan from the investor to an individual or organization, often the government, which promises to repay the debt with interest at a later date.

The New York Stock Exchange (NYSE) was the first stock market to be established in the United States, tracing its roots back to 1792. The NYSE is also the largest stock exchange in the world in terms of capital invested. The combined capitalization of all companies listed in the NYSE as of May 2009 is \$10.4 trillion [2]. Over 419 billion stocks are traded each year, at an average price of \$24.87 per share [2]. The financial well being of the United States is often judged by the performance of stocks in the New York Stock Exchange.

A stock market crash is a sudden decline in the average price of stock. Panicked investors withdrawing their money, as well as underlying economic instability drive stock market crashes. The great 1929 crash of the NYSE was a primary cause of the Great Depression, the worst economic crisis the United States has ever seen. More recently, the NYSE crash of 2008 was caused primarily by securities on defaulted loans given to under-qualified individuals. Many large banks and loan-issuing organizations collapsed because of these defaulted, “sub-prime” loans. The crash of the NYSE affected the economies of many other countries as well, leading to the world financial crisis of 2008.

### **1.3 Pros and Cons of Financial Investment**

Investing money into unpredictable, unstable, and uncontrollable facets can be extremely risky. Like the lottery, the success of stock market trading is partly attributed to luck. Many people have lost vast amounts of money through poor investment decisions that they’ve made. Recently, investors with shares in loan-giving companies and American car manufacturers, which were previously a fairly stable investment, have

suffered severe losses due to the economic crisis. Investors must understand and accept this risk as an intrinsic part of investing.

There are, however, attractive benefits to successful financial investments. With intelligent decisions, investing can yield significant capital gains, stability, and security. By analyzing the trends of the stock market, the companies one is invested in, and by following an investment strategy, one can be successful in the stock market. There has been much research into various ways of analyzing the stock market as a means of facilitating intelligent investment decisions. These “intelligent decisions” are paramount to the success of an investment, and will be examined in this experiment.

## **2. Financial Investment Opportunities**

### **2.1 Shares of Stock**

The most well-known investment opportunity is shares of stock in a company. The general public is not allowed to trade stock in the New York Stock Exchange; instead the public trades through stockbrokers. Stockbrokers will buy or sell stock on behalf of an individual for a commission, and often distinguish themselves by the investment advice they give their customers. The popularity of the Internet has facilitated websites offering a means for customers to trade stock for a minimal fee (usually around \$10 per trade). The Internet has also broadened the trading power of the stock exchange, allowing for millions of shares to be bought and sold each day.

Investment in stocks can be risky. The return on investment (ROI) of stock can be hard to predict, as the price of stock is determined by the financial success of the company, the demand for that company's stock by investors, and the overall confidence investors have in the market at a given moment. Investment in the stock market depends as much upon factual, logical decisions as well as "gut-feeling" emotional ones. For this reason, there are many stock market investment strategies that help investors make tough decisions. Investors may choose to have their stock "portfolio" (the investor's collection of stocks) managed by their stockbroker, thereby removing the burden and responsibility from the investor. Many stockbrokers advertise a guaranteed yearly return percentage as an incentive to invest money with them. The investor trusts their stockbroker to make successful investment decisions on their behalf, forfeiting a portion of the return as commission.

Because of its relative unpredictability and therefore inherent possibility for huge returns, the stock market is one of the most popular investment decisions among private investors. The stock market's constant fluctuation empowers investors with a multitude of opportunities for substantial profits. This possibility of high returns and the unpredictability of the market are enticing to excitable investors, however with wise decision-making, the stock market can be a stable, long-term investment opportunity as well.

## **2.2 Bonds**

Bonds are a loan, granted by the investor ("the holder"), to a corporation or individual ("the issuer", usually the government). The loan agreement includes a specified amount of time, after which the bond is said to "mature." A specified amount of interest is aggregated semi-annually during the time before the bond matures, after which no further interest is accrued. Once the bond has matured, the holder can cash the bond and regain the principle plus accrued interest. The holder usually cannot "cash" the bond before the time it matures without facing a penalty, often resulting in an overall loss for the investor.

Due to their guaranteed ROI, bonds are stable assets in an investor's portfolio. Investors may also choose to invest in "bond funds," where a third party broker invests in the bonds of many companies. The private investor takes a stake in the principle investments made by the broker, and receives a portion of the earnings along with their principle. Bond funds can be a more profitable choice for private investors because a

brokerage can often negotiate the interest of a bond to a higher rate than would be available for a private investor. Because of bonds' stability, guaranteed ROI, and because they are unaffected by the stock market, bonds are popular as long-term investments, and during uncertain financial times.

### **2.3 Certificates of Deposit**

Certificates of deposit (informally referred to as "CDs" or "CODs") are investments made in banks or credit unions in the form of a long-term savings account. A COD works very much in the same way a bond does. The investor loans a bank a principle amount, on which the bank pays interest. Like a bond, the investor collects the principle and interest when the COD matures.

Certificates of deposit have traditionally been a virtually risk-free, guaranteed (they are insured by the FDIC), long-term investment opportunity. CODs are, however, susceptible to interest-rate fluctuations (in variable-interest rate CODs), and inflation. Because many CODs are investments made over many years, the intrinsic value of the principle plus interest may not exceed the value of the principal upon maturation due to inflation and poor interest rates. Despite this, most certificates of deposit are a secure, stable, long-term investment opportunity.



## **2.4 Mutual Funds**

Mutual Funds are an investment in a fund, managed by a fund manager, which is invested in many different small investments. The fund manager trades these small investments regularly, generating a return for the fund principle. The investors are paid a portion of this return. The value of a mutual fund is determined by its net asset value (NAV), or the combined worth of the fund's holdings (the fund's investment portfolio).

Mutual Funds are usually a medium-risk, medium-return investment. Due to their professional management, mutual funds are an easy opportunity for inexperienced investors. The most common type of mutual fund is an "equity fund" which is comprised entirely of stock investments. Because of their dependence on the stock market, mutual funds are riskier than CODs, however they often lead to greater yield.

### **3. Stock Market Trading Strategies**

#### **3.1 Day Trading**

Day trading is the strategy of buying and trading a stock within the same day. Day trading is a very fast-paced investment strategy, relying on quick, often emotional, decisions from the investor. Day trading relies on the daily fluctuation of stock values. Investors hope to ideally buy stock at its lowest value that day, sell it later that day at its peak value, and earn the difference. Day traders do not care as much about what company they are buying stock in, only on that stock's potential for growth that day. There are many subtle strategies to day trading, along with a keen sense for stocks that are about to gain value, that make an investor successful.

Because of the rapid pace of day trading, it has a notorious reputation for huge returns, as well as huge losses. Many single investors make millions of dollars per year solely with a day trading strategy, though this kind of return requires an experienced investor willing to take significant risks. Day trading can be so risky that, with a series of poor decisions, an investor can lose their entire working capital in one day.

With the popularity of the Internet, many investors can make day trading transactions from their homes. These investors use websites that offer trading services for a small fee. This has led to a rise in personal investors employing a day trading strategy. Day trading was further investigated in the investment simulation.

## 3.2 Swing Trading

Swing Trading is the strategy of trading at the peaks of price oscillation over a period of a few days or weeks. This strategy is more involved than Day Trading, requiring an investor with a watchful eye and a thorough understanding of the company they are investing in. The investor must determine when the best time to sell and buy a stock is, based on recent fluctuation activity, news, and the investor's intuition. Swing trading involves research into different markets, and into what makes investors excited about a company. In the case of Apple, investors are excited by new product releases and tech-related conferences that showcase new Apple technologies. Usually these events will have a direct impact on the price of Apple stock. An investor can utilize the events' impacts to make a profit. A swing trader must be able to anticipate the changes of upcoming and current events to the price of a stock, and employ that information to make educated purchasing decisions.

Due to the amount of research involved, swing trading is usually a less risky strategy than day trading. Day trading focuses on current growth and fluctuation, whereas swing trading profits off underlying trends in a stock's price. Swing trading can involve investments lasting a few days, weeks or even months. The flexibility presented with a swing trading simulation made it ideal for this short investment simulation.

## **4. Simulated Investments and Their Results**

### **4.1 Goals and Strategies**

The primary goal of this simulation was to gain a better understanding of personal investment opportunities. The financial goal set for this simulated \$100,000 investment was a return of at least \$4,000 over the span of 3 weeks. This required an average total gain of at least \$200 per day.

For this investment simulation a swing-trading scheme was chosen because of its potential for gain within a short time period. A Day Trading scheme was also employed in order to better understand the subtleties that make it profitable. Other trading strategies were out of the financial scope and timeframe of this simulation.

Seven companies were chosen for the swing trading simulation. They were chosen based on a deep understanding of the goods and services they offer, as well as their reputation in their respective domains. Specific companies were not chosen for the day trading simulation. Instead the focus was only on the short-term growth of the stock's value.

### **4.2 Company Profiles**

#### *4.2.1 Apple Inc. (NASDAQ:AAPL)*

Apple Inc. designs, manufactures, and markets personal computers, portable music players, and cell phones [3]. They also sell a variety of software, computer accessories, and computer training services. Since its inception in 1977, Apple has

been a leading maker of consumer electronics and personal computers. The company struggled in the late 1990's with diminished sales, though with the introduction of the iPod brand mp3 player in 2001, it was re-established as a leader in the consumer electronics market. Since its introduction, there have been over 151,000,000 [4] iPods sold worldwide, dominating the mp3 player market. Apple computers' market share continues to climb, and record sales are consistently recorded every quarter. Apple is notorious for having very avid fans of their products. Fans will often line up outside an Apple store hours, or even days, before it opens to be the first to purchase the latest Apple gear.



Figure 1: Apple Inc. (NASDAQ:AAPL) Year-To-Date Price Chart

#### 4.2.2 Microsoft Corp. (NASDAQ:MSFT)

Microsoft Corp. designs, produces, and markets the Windows operating system, a library of consumer software titles, video-game consoles, consumer electronics, and a modest computer peripheral selection. Bill Gates, among others, founded

Microsoft in 1975 with the intent of creating a consumer-oriented computer operating system. Microsoft Windows is currently used by over 85% of personal computers worldwide, [6] however the rise in popularity of Apple computers is causing a steady decline in Windows market share. Microsoft looks to their new Windows 7 operating system to entice consumers to switch back to Windows. Microsoft has also run a specifically anti-Apple ad campaign, looking to expose some of the benefits of using Windows over Apple's Macintosh computers.



Figure 19: Microsoft Corp. (NASDAQ:MSFT) Year-To-Date Price Chart

Microsoft's Xbox 360 continues to be a strong competitor in the video-game console market. The Xbox 360 holds a steady second place in overall sales in the US (behind Nintendo's Wii console) [5], and a strong reputation as a significant gaming platform. Microsoft Office, a suite of business software, has been extremely profitable, contributing to the company's consistent growth.

### 4.2.3 Raytheon Company (NYSE:RTN)

Raytheon is a major American military contractor that manufactures defense systems and defense electronics. Raytheon was established in Cambridge, Massachusetts in 1922 and is currently headquartered in Waltham, Massachusetts. It is currently the world's largest producer of guided missiles, [7] including the MIM-104 Patriot cruise missile, which played a significant role in the Persian Gulf War. Raytheon also manufactures air traffic control systems, radar systems, satellite and communications systems, radioactive materials detection systems, semiconductors, missile defense systems, and hi-tech training simulators. Raytheon's broad scope of products and their wide use throughout the military generate billions of dollars in revenue for this defense giant.



Figure 3: Raytheon Company (NYSE:RTN) Year-To-Date Price Chart

#### *4.2.4 Google Inc. (NASDAQ:GOOG)*

Google Inc. is the provider of the leading Internet search service of the same name. It also provides email, mapping, office productivity, and video sharing services. Google Inc. was founded by two students at Stanford University in 1998, with the goal “to organize the world’s information and make it universally accessible and useful. [9]” It has been listed as the #1 place to work by Fortune Magazine [8] and is notorious for pursuing unique approaches to productivity and workplace atmosphere. Google continues to be a leader in web-application research and web search research. Google has consistently grown and expanded to become one of the country’s largest and most profitable businesses.





Figure 4: Google Inc. (NASDAQ:GOOG) Year-To-Date Price Chart

#### 4.2.5 Electronic Arts Inc. (NASDAQ: ERTS)

Electronic Arts is a leading producer, designer, and distributor of video games. Electronic Arts (informally “EA”) was started in 1982 and was a pioneer in the consumer computer game market. EA has created some of the most well-known and longest-running game franchises, such as *Need for Speed*, *Medal of Honor*, *The Sims*, and *Battlefield*. The *Madden NFL* football game series has consistently been the best-selling videogame of the past few years, and retains an exclusive license for all NFL team names, logos, and players. Despite their fairly dismal sales last year, EA is

bouncing back with more blockbuster titles, such as *Rock Band*, further contributing to EA's multi-billion dollar yearly revenue.



Figure 5: Electronic Arts Inc (NASDAQ:ERTS) Year-To-Date Price Chart

#### 4.2.6 NVIDIA Corp. (NASDAQ:NVDA)

NVIDIA Corp. designs graphics processing units for personal computers, workstations, and video-game consoles. NVIDIA was founded in 1993 as a competitor to the popular 3dfx brand graphics cards that dominated the computer graphics market of the mid-to-late 1990's. In 2000, NVIDIA acquired 3dfx and became one of the top graphics card manufacturers along with rival ATI. NVIDIA's *GeForce* chipset line has been very successful in the consumer graphics card market, outselling competitive ATI models. NVIDIA's *Quadro* series is popular with computer aided design (CAD) workstations and professional graphics applications. NVIDIA continues to push the boundaries of computer graphics, creating some of the most advanced graphics processors in the world. Their bleeding-edge consumer

products have driven NVIDIA's success, generating consistently escalating multi-billion dollar annual revenue.



Figure 6: NVIDIA Corp. (NASDAQ:NVDA) Year-To-Date Price Chart

#### 4.2.7 Intel Corp. (NASDAQ:INTC)

Intel is the world's most profitable computer processor manufacturer. Intel was founded in 1968, and has been a leading pioneer in computer hardware development. Their "Intel Inside" marketing campaign in the 1990's has made them a household name. Intel's *Pentium* brand processors continue to be some of the most powerful consumer processors available. Apple computers transitioned from the in-house developed "PowerPC" processor to Intel's "Core 2 Duo" line of processors in 2005, adding to Intel's already strong laptop processor market share. Intel also manufactures flash memory used in USB thumb drives and computer solid-state disk drives. Despite declined sales due to the recent economic crisis,

Intel continues to outsell rival AMD and support their reputation as a significant computer hardware manufacturer.



Figure 7: Intel Corp. (NASDAQ:INTC) Year-To-Date Price Chart

#### 4.2.8 Advanced Micro Devices, Inc. (NYSE:AMD)

Advanced Micro Devices (AMD) is a manufacturer of computer processors. AMD is the second-largest global supplier of consumer computer processors, after Intel. AMD was founded in 1969 with a reverse-engineered clone of the popular Intel 8080 microprocessor. Since then, AMD's processors have grown in popularity. AMD's recent developments have mainly been oriented towards the mobile-computing market. AMD's *Turion* processors have been especially popular in the mobile-computing market. In 2006, AMD acquired ATI, the second largest graphics processor company in the hopes of uniting the GPU and CPU into one chip. AMD is a significant competitor in the mobile-processing market, and continues to grow.



Figure 8: Advanced Micro Devices, Inc. (NYSE:AMD) Year-To-Date Price Chart

#### 4.2.9 Yahoo! Inc. (NASDAQ:YHOO)

Yahoo! Inc. is a web-based company known for its search engine, email, news, web-portal, and other services. Yahoo! Inc. was incorporated in 1995 and quickly became a household internet brand name. Yahoo! provides many consumer services including email, IM and SMS messaging. Yahoo! is also a major aggregator of news and finance information, and a pioneer in web-application research. Yahoo!'s search feature was recently bought out by Microsoft, and is said to be replaced with Microsoft's new *Bing* search service in the near future. Yahoo!'s website receives over 1.575 billion visitors annually, with 3.4 billion page views per day, making it the second most visited website in the world[10].



Figure 9: Yahoo! Inc. (NASDAQ:YHOO) Year-To-Date Price Chart

### 4.3 Simulation 1: Swing Trading

#### 4.3.1 Week 1: June 17 – June 26, 2009

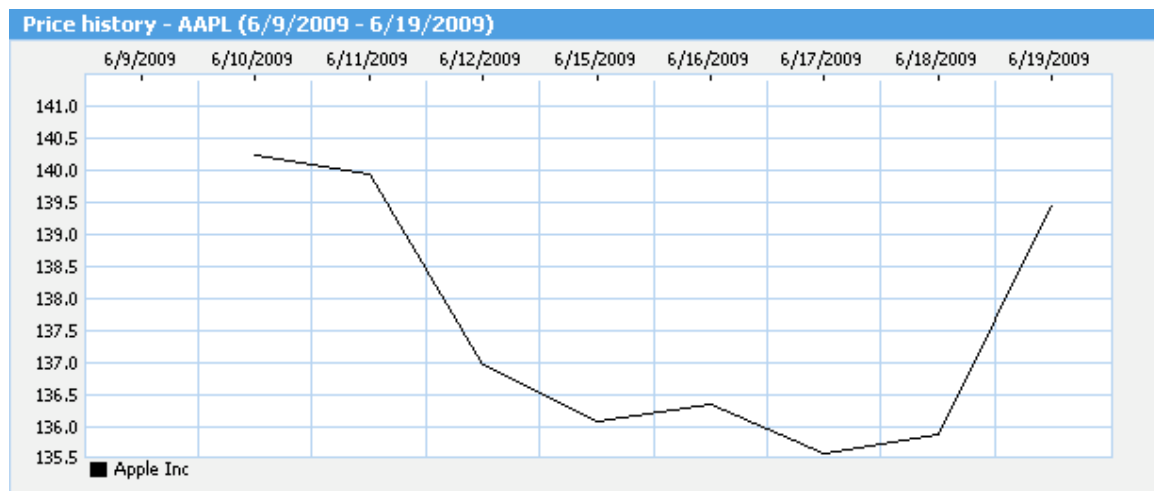
This first week begins on Wednesday, June 17<sup>th</sup> and ends on Friday, June 26<sup>th</sup>. I combined the first half a week with the first full week, because I did not have sufficient data to comment on for the first half week.

My initial investment consisted of stock in nine companies. I purchased Apple stock in anticipation of the company's new iPhone 3G-S launch, at \$135.58 per share. Apple stock has always been considered a good investment because of its moderate fluctuation and general growth trend. Despite these benefits, it is very expensive stock and therefore quite inaccessible without a significant investment. I

sold my 100 shares of Apple stock late Friday, June 19<sup>th</sup>, after the launch of the new iPhone caused a spike in the stock price, for yield of \$288.

**Table 1: AAPL Transactions (June 17 – June 26, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/17/09	AAPL	buy	\$135.58	100	\$13,568.00		86,432.00	
06/19/09	AAPL	sell	\$138.66	100	\$13,856.00	288.00	25,278.50	288.00



**Figure 20: Apple Inc. (NASDAQ:AAPL) Price Chart (June 9 - June 19, 2009)**

I purchased Microsoft stock on Wednesday, June 17<sup>th</sup> because of the launch of Microsoft's new *Bing* search service. News of this new launch has instilled confidence in investors and therefore caused a jump in the stock value. Microsoft stock has shown somewhat stagnant growth, possibly due to the lack of consumer interest in their new Vista operating system. Despite this, Microsoft stock price oscillates quite a bit, presenting the possibility of steady profit. I bought 200 shares

of Microsoft stock at \$23.68. Despite the launch of their new search service, the value of Microsoft stock declined. I waited for a relative spike in price and sold half of my Microsoft stock on Tuesday the 24<sup>th</sup> for a loss of \$20.00.

**Table 2: MSFT Transactions (June 17 - June 26, 2009)**

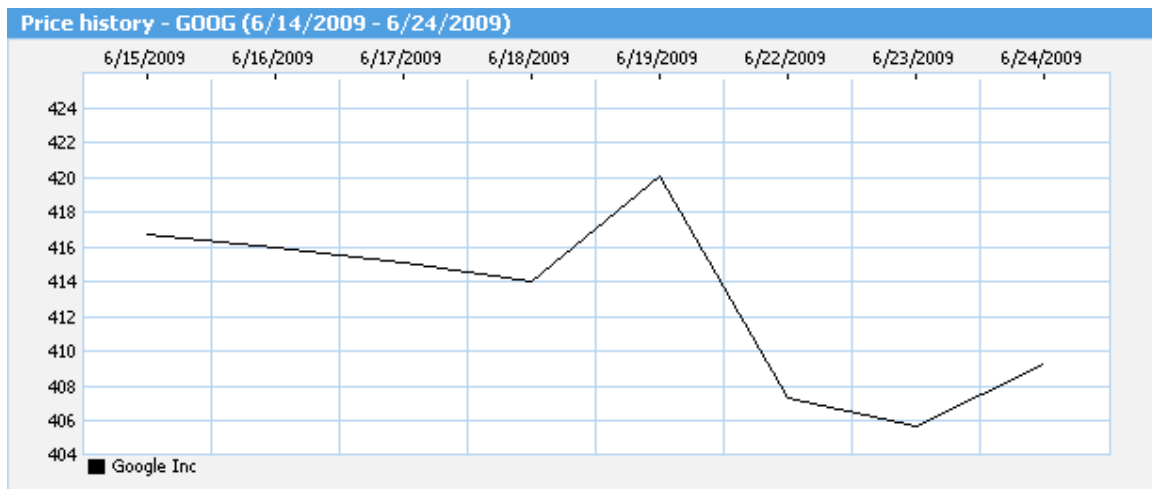
Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/17/09	MSFT	buy	\$23.68	200	\$4,746.00		81,686.00	
06/23/09	MSFT	sell	\$23.63	100	\$2,353.00	(20.00)	48,258.50	160.00
06/25/09	MSFT	sell	\$23.67	100	\$2,357.00	(16.00)	101,779.20	1,742.20

I bought Google stock because of my confidence in the Google brand and the stock's recent fluctuation. Google stock is extremely expensive, and like Apple, quite inaccessible to personal investors. I bought 75 shares on Wednesday the 17<sup>th</sup> for \$415.16 per share, and sold it early Friday the 19<sup>th</sup> for \$418.28 per share, for a gain of \$214.00. I bought 75 more shares Monday, June 22<sup>nd</sup> because of my success with Google stock, and its momentary dip in price that day. I sold all 75 shares on Wednesday the 24<sup>th</sup>



**Table 3: GOOG Transactions (June 17 - June 24, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/17/09	GOOG	buy	\$415.16	75	\$31,147.00		21,726.50	
06/19/09	GOOG	sell	\$418.28	75	\$31,361.00	214.00	56,639.50	502.00
06/22/09	GOOG	buy	\$405.30	75	\$30,407.50		42,353.50	
06/24/09	GOOG	sell	\$410.30	75	\$30,762.50	355.00	83,809.00	1,127.00



**Figure 21: Google Inc. (NASDAQ:GOOG) Price Chart (June 14 - June 24, 2009)**

I bought Raytheon stock Wednesday the 17<sup>th</sup> due to the fact that the United States is entangled in two wars overseas. Raytheon has always been a strong company, and I believed that because of the conflicts in the Middle East and elsewhere, Raytheon would receive increased business. I bought 350 shares at \$45.31 per share on Wednesday, and sold it two days later at \$46.09 for a net profit of \$253.00.

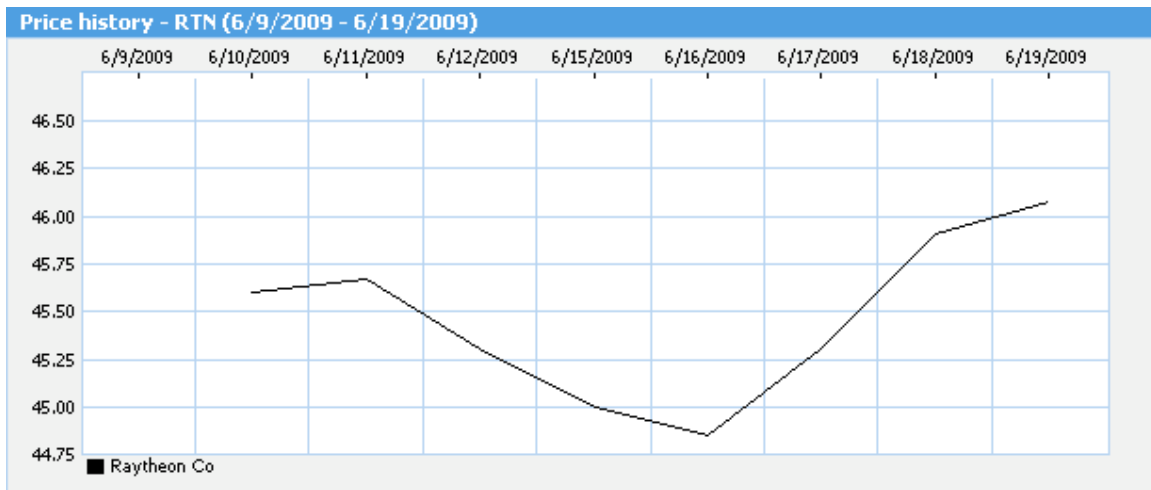


Figure 22: Raytheon Corp. (NYSE:RTN) Price Chart (June 9 - June 19, 2009)

I also purchased Yahoo!(NASDAQ:YHOO), Intel(NASDAQ:INTC), NVIDIA(NASDAQ:NVDA), Electronic Arts(NASDAQ:ERTS), and AMD(NYSE:AMD) stock on Wednesday the 17<sup>th</sup> because of my confidence in these companies, however these stocks did relatively poorly this week. I deemed these bad investments, and after the price spiked somewhat on Wednesday the 24<sup>th</sup>, I cut my losses and sold all my stocks for these companies, taking a total net loss of \$916.

**Table 4: INTC, NVDA, ERTS, YHOO, AMD Transactions (June 17 – June 26, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/17/09	INTC	buy	\$16.14	400	\$6,466.00		75,220.00	
06/17/09	NVDA	buy	\$11.28	200	\$2,266.00		72,954.00	
06/17/09	ERTS	buy	\$20.83	200	\$4,176.00		68,778.00	
06/17/09	YHOO	buy	\$15.60	400	\$6,250.00		15,512.50	
06/17/09	AMD	buy	\$4.08	1,000	\$4,090.00		11,422.50	
06/23/09	AMD	sell	\$3.52	1000	\$3,510.00	(580.00)	45,863.50	175.00
06/23/09	ERTS	sell	\$20.44	200	\$4,078.00	(98.00)	53,046.50	772.00
06/24/09	INTC	sell	\$16.19	400	\$6,466.00	0.00	90,275.00	1,127.00
06/24/09	YHOO	sell	\$15.28	400	\$6,102.00	(148.00)	96,517.00	1,119.00
06/24/09	NVDA	sell	\$10.93	200	\$2,176.00	(90.00)	98,693.00	1,029.00

I bought 200 shares of Google stock on Wednesday, June 24<sup>th</sup> at \$409.00 and 40 more after the price declined to \$407.67. I purchased more Google stock because the stock price had been trending upwards since I sold my initial Google investment on the 19th. After I purchased my Google stock, the price continued to decline and I decided to sell it all before I lost more money. A few hours after I bought them, I sold the latter 40 shares for \$408.05 and the other 200 for \$408.57 for a combined net loss of \$110.80.

**Table 5: GOOG Transactions (June 24 - June 26,2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/24/09	GOOG	buy	\$409.00	200	\$81,810.00		16,963.00	
06/24/09	GOOG	buy	\$407.67	40	\$16,316.80		646.20	
06/24/09	GOOG	sell	\$408.05	40	\$16,312.00	(4.80)	16,958.20	1,104.20
06/24/09	GOOG	sell	\$408.57	200	\$81,704.00	(106.00)	98,662.20	998.20

Towards the end of the day Friday the 26<sup>th</sup>, I bought 1000 shares of Raytheon stock, on news of a new multi-billion dollar contract from the US military.

#### *4.3.2 Week 2: June 29 – July 3, 2009*

The second week of the simulation, I was not nearly as aggressive, as the market took a steady, continued decline. I sold my Raytheon stock Monday the 29<sup>th</sup> when the price began to fall dramatically, suffering a \$70.00 loss. Thursday, July 2<sup>nd</sup> I became slightly optimistic of a late-week rally so I purchased fifty shares of Google stock at \$409.66, as well as 300 shares of Apple at \$140.35, and 500 shares of Raytheon at \$43.28. I chose these stocks because I was confident that they would do well. The market continued to fall, albeit less dramatically, forcing me to sell these stocks before they turned into significant losses. I managed to sell all my stocks for

a net loss of \$325.50 before watching their prices drop significantly towards the end of the day Friday.

**Table 6: RTN, GOOG, AAPL Transactions (June 29 - July 3, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/29/09	RTN	sell	\$44.56	1000	\$44,550.00	(70.00)	46,704.20	2,177.20
07/02/09	GOOG	buy	\$409.66	50	\$20,493.00		82,183.20	
07/02/09	AAPL	buy	\$140.35	300	\$42,115.00		40,068.20	
07/02/09	RTN	buy	\$43.28	500	\$21,650.00		18,418.20	
07/03/09	GOOG	sell	\$408.49	50	\$20,414.50	(78.50)	38,832.70	2,560.70
07/03/09	RTN	sell	\$43.01	500	\$21,495.00	(155.00)	60,327.70	2,405.70
07/03/09	AAPL	sell	\$140.02	300	\$41,996.00	(119.00)	102,323.70	2,286.70

This week has taught me that despite what I may think, there will always be weeks where it is very hard to make a profit. It has also shown me that sometimes the best thing to do is realize that you've made a poor investment and cut your losses.

### 4.3.3 Week 3: July 6 – July 10, 2009

The market rose early in the week, and declined towards the end of the week, however Google stock continued to rise consistently throughout the week. I bought 100 shares of it the morning of Tuesday, July 7th for \$40,175.00 at \$401.65 per share. I also bought 300 shares of Apple stock at \$136.99 per share, totaling \$41,107, and 950 shares of Microsoft stock at \$22.54, totaling \$21,689.00.

**Table 7: AAPL, GOOG, MSFT Transactions (July 7, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/07/09	AAPL	buy	\$136.99	300	\$41,107.00		62,419.70	
07/07/09	GOOG	buy	\$401.65	100	\$40,175.00		22,244.70	
07/07/09	MSFT	buy	\$22.82	950	\$21,689.00		555.70	

Thursday I decided to sell all my stock as the market wasn't showing signs of recovery. I lost \$286.00 in my Microsoft investment, selling all 950 shares at \$22.54. I sold my Apple stock for a meager \$25 profit at \$137.14 per share. My Google investment, however, was significantly better. I sold all 100 shares Thursday for \$413.92 per share, for a net profit of \$1,207.00, the second most substantial single-investment gain I had during this simulation.

Table 8: AAPL, GOOG, MSFT Transactions (July 9, 2009)

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/09/09	MSFT	sell	\$22.54	950	\$21,403.00	(286.00)	21,958.70	3,203.70
07/09/09	AAPL	sell	\$137.14	300	\$41,132.00	25.00	63,090.70	3,228.70
07/09/09	GOOG	sell	\$413.92	100	\$41,382.00	1,207.00	104,472.70	4,435.70

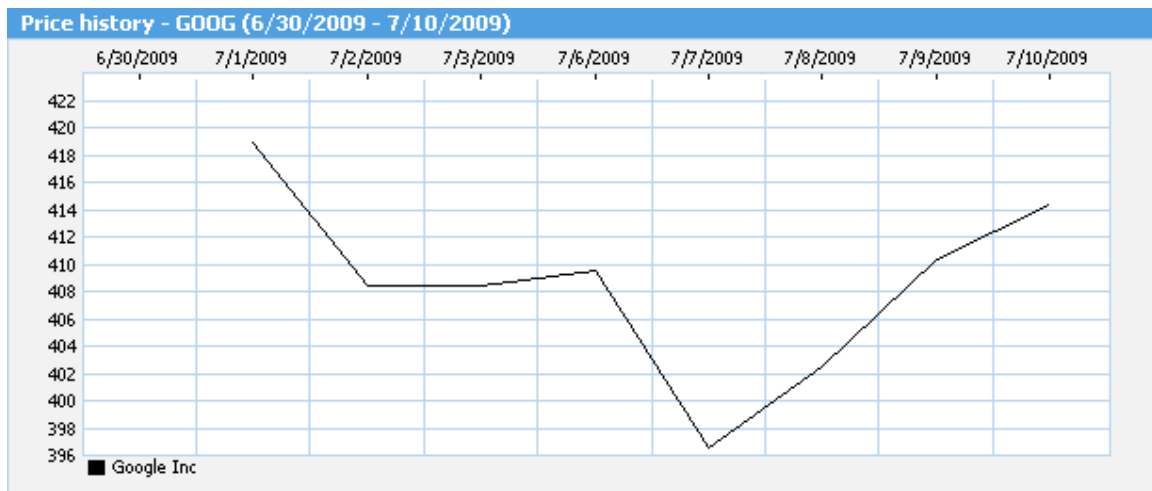


Figure 23: Google Inc. (NASDAQ:GOOG) Price Chart (June 30- July 10, 2009)

Overall this week was profitable due to my ability to anticipate the market's rise. Google stock continued to be a good investment for me, though Apple was significantly less predictable than normal. This week has shown me that having a portfolio of a many companies yields the best chances of significant profit.

#### 4.3.4 Week 4: July 13 – July 20, 2009

Overall this week provided a consistent climbing market, which was very profitable for me. I invested in Apple early Wednesday, July 15<sup>th</sup> as I've had generally good luck with Apple stock and in anticipation of a rising market following last week's fairly dull market. I bought 300 shares of Apple stock at \$145.13 per share, totaling \$43,549.00. I also bought Novell (NASDAQ:NOVL) stock Wednesday because their price had dipped unusually low due to allegations of security vulnerabilities in their SUSE operating system. I capitalized on this situation and bought 13000 shares at \$4.37 per share, totaling a \$56,820.00 investment.

**Table 9: AAPL, NOVL Transactions (July 15, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/15/09	AAPL	buy	\$145.13	300	\$43,549.00		62,250.70	
07/15/09	NOVL	buy	\$4.37	13000	\$56,820.00		5,430.70	

Thursday the 16<sup>th</sup> I sold both my Novell stock and my Apple stock. I sold all 300 shares of Apple stock for \$146.54 per share for a gain of \$403.00. My Novell investment, however, was vastly more profitable. I sold all 13000 shares of Novell stock at \$4.55 per share, yielding a profit of \$2,320.00. My Novell trade was the highest single-trade profit I made in this simulation.



**Table 10: NOVL, AAPL Transactions (July 16, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/16/09	NOVL	sell	\$4.55	13000	\$59,140.00	2,320.00	64,570.70	8,082.70
07/16/09	AAPL	sell	\$146.54	300	\$43,952.00	403.00	72,232.70	8,485.70

I bought 100 shares of Google stock on Friday the 17<sup>th</sup> at \$429.61 for a total investment of \$42,971.00. I decided to purchase Google stock because of my profitable past investments in it and because it had temporarily fallen in price. I sold it the morning of Monday July 20<sup>th</sup> at \$431.96 for a net profit of \$215.00.

**Table 11: GOOG Transactions (July 17, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/17/09	GOOG	buy	\$429.61	100	\$42,971.00		65,135.70	
07/20/09	GOOG	sell	\$431.96	100	\$43,186.00	215.00	109,001.70	8,964.70

This has been the most profitable week yet, due largely to the profit attained through the Novell stock I purchased. I have learned to take advantage of momentary dips in stock prices, as they are easy to profit on.

#### *4.3.5 Summary*

Swing trading was difficult, though it required less constant attention to the market's movement than other strategies, such as day trading. My most profitable swing trading investments involved research into current events and announcements regarding companies I was investing in. Knowing generally how investors would react to different events helped me anticipate movement in the market.

One of my more successful investments was with Google. I had a fairly good history investing in Google, and I was confident that the announcement of their proposed operating system would instill confidence in investors. I purchased approximately \$40,000 of Google stocks on July 7<sup>th</sup> as the announcement surfaced, and watched the price jump up \$4. I sold the stock at the height of the hype for Google's new operating system, and made over \$1000.

I found that the key to success in swing trading is to research the companies you're going to be investing in. Having a base of knowledge about the company, along with a reliable source of news regarding that company is extremely important when monitoring swing-trading investments. Swing trading is slightly more challenging, and more involved than day trading, though it can be less risky. Swing trading is a good strategy for personal investors who don't want to have to constantly monitor small changes in the market, nor take large financial risks in huge investments.

## 4.4 Simulation 2: Day Trading

### 4.4.1 Week 1: June 17 – June 26, 2009

For the day trading aspect of my simulation, I relied on *Google Finance* to track changes in the stock market and show stocks that have changed significantly during that day. The site features a list of stocks ordered by the highest percentage fluctuation. I used this to find stocks whose values were accelerating rapidly that day. I paid little attention to the companies I was investing in, focusing on nothing other than the stock value's movement. My strategy was strictly focused on numbers.

The first investment I made was in CommScope Inc (NYSE:CTV) on Tuesday, June 23<sup>rd</sup>. I bought 300 shares at \$23.81 because of CTV's rapid price acceleration. I sold the 300 shares approximately 1 hour later when I saw the price start to level off for \$24.00 a share, making a net profit of \$212.00. The second investment I made was in CSX Corporation (NYSE:CSX), also on Tuesday. I bought 100 shares at \$32.00 and sold them about an hour later because I saw CSX's acceleration. I sold all 100 shares at \$32.25 for a net profit of \$5.00.

**Table 12: CTV, CSX Transactions (June 23, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/23/09	CTV	buy	\$23.81	300	\$7,153.00		38,710.50	
06/23/09	CSX	buy	\$32.00	100	\$3,210.00		35,500.50	
06/23/09	CTV	sell	\$24.00	300	\$7,190.00	37.00	42,690.50	212.00
06/23/09	CSX	sell	\$32.25	100	\$3,215.00	5.00	45,905.50	180.00

That same day, June 23<sup>rd</sup>, I bought and sold Ford Motor Company (NYSE:F) stock very aggressively. I chose to invest in Ford because of its low cost, and somewhat regular price fluctuation. My first investment was a purchase of 1000 shares at \$5.49. I quickly realized that this would not yield a sizeable return, so I bought 4000 more shares at the same price, bringing my investment to 5000 shares totaling \$27,470 (including trading fees). I closely monitored the stock price and sold my 5000 shares a few minutes later when the price rose to \$5.53. This transaction yielded a net profit of \$170. A few minutes later, when the price took a small dip, I bought 8000 more shares at \$5.52 per share. I sold them minutes later at \$5.59, yielding a net profit of \$540.00. These investments showed me the value of somewhat regular price fluctuation in profitable day trading. These two investments also showed me that the dollar amount fluctuation wasn't nearly as important as the percent fluctuation in determining a stock's profitability.

**Table 13: F Transactions (June 23, 2009)**

<b>Date</b>	<b>Symbol</b>	<b>buy/sell</b>	<b>Price</b>	<b>Shares</b>	<b>Net Cost/Proceeds</b>	<b>Profit/Loss</b>	<b>Total Cash</b>	<b>Total Profit</b>
06/23/09	F	buy	\$5.49	1000	\$5,500.00		42,758.50	
06/23/09	F	buy	\$5.49	4000	\$21,970.00		20,788.50	
06/23/09	F	sell	\$5.53	5000	\$27,640.00	170.00	48,428.50	330.00
06/23/09	F	buy	\$5.52	8000	\$44,170.00		4,258.50	
06/23/09	F	sell	\$5.59	8000	\$44,710.00	540.00	48,968.50	870.00

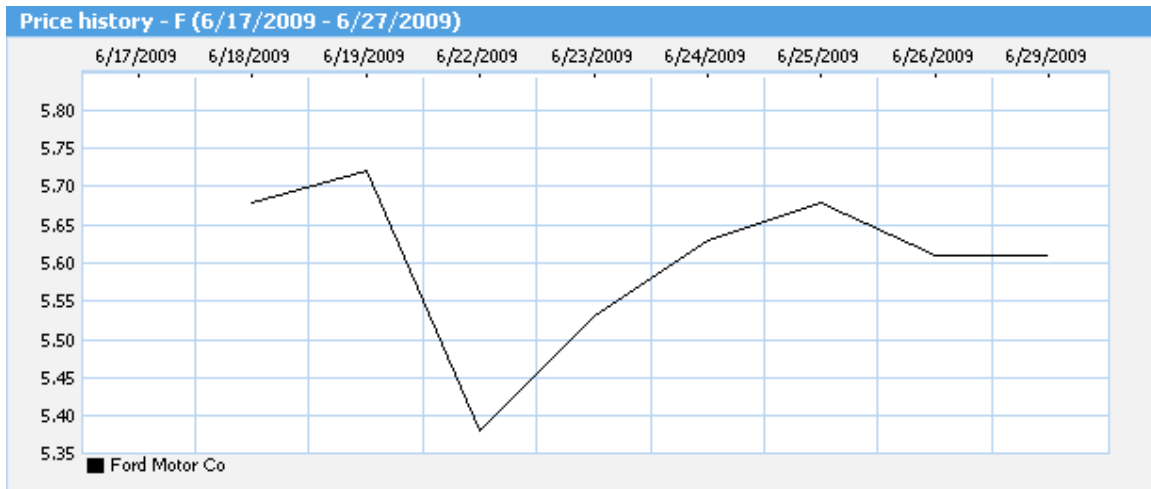


Figure 24: Ford Motor Co. (NYSE:F) Price Chart (June 17 - June 27, 2009)

On Thursday the 25<sup>th</sup> I bought Red Hat Inc. (NYSE:RHT) stock and Teck Resources Limited (NYSE: TCK) stock because of their movement that day. I bought 2000 shares of Red Hat and 1000 shares of TCK totaling nearly \$37,000.00 and a little over \$15,000.00 respectively. I sold these stocks a few hours later as their prices peaked for a total profit of \$760.

Table 14: RHT, TCK Transactions (June 25, 2009)

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/25/09	RHT	buy	\$18.47	2000	\$36,950.00		61,712.20	
06/25/09	TCK	buy	\$15.46	1000	\$15,470.00		46,242.20	
06/25/09	RHT	sell	\$18.81	2000	\$37,610.00	660.00	83,852.20	1,658.20
06/25/09	TCK	sell	\$15.58	1000	\$15,570.00	100.00	99,422.20	1,758.20

On Friday the 26<sup>th</sup>, I watched the price of Google stock rise dramatically. I bought 100 shares at \$415.67 and sold it several hours later for \$422.02 for a gain of \$615.00. I also bought Yahoo stock hoping that the price would continue to rise. The price of Yahoo stock leveled out after I bought it, however I managed to make a meager profit of \$40.00. I also bought 1000 shares of Microsoft stock. Despite my expectations that it would rise, the price of Microsoft stock hovered around the same price, with a slight downward trend. I cut my losses at \$150.00, selling all 1000 shares.

**Table 15: GOOG, YHOO, MSFT Transactions (June 26, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/26/09	GOOG	buy	\$415.67	100	\$41,577.00		60,202.20	
06/26/09	YHOO	buy	\$15.62	1000	\$15,630.00		44,572.20	
06/26/09	MSFT	buy	\$23.55	1000	\$23,560.00		21,012.20	
06/26/09	MSFT	sell	\$23.42	1000	\$23,410.00	(150.00)	44,422.20	1,592.20
06/26/09	GOOG	sell	\$422.02	100	\$42,192.00	615.00	86,614.20	2,207.20
06/26/09	YHOO	sell	\$15.68	1000	\$15,670.00	40.00	102,284.20	2,247.20

#### 4.4.2 Week 2: June 29 – July 3 2009

The overall trend of the market this week was down, so it was more important that I made good day trading decisions. The meager prospects for swing trading this week forced me to find the few stocks doing relatively well, and utilize their gains to make a profit.

I bought 7500 shares of Rockwell Medical Technologies Inc. (NASDAQ:RMTI) stock Monday, June 29<sup>th</sup> for \$7.40, after its price fell dramatically in overnight trading. I saw the price trend rebounding, and I thought I'd take my chances. I sold it later in the day, after realizing that the rebound wasn't as dramatic as I anticipated. I sold the stock for \$7.42 per share, making a net profit of \$130.00.

**Table 16: RMTI Transactions (June 29, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/29/09	RMTI	buy	\$7.40	7500	\$55,510.00		2,154.20	
06/29/09	RMTI	sell	\$7.42	7500	\$55,640.00	130.00	102,344.20	2,307.20

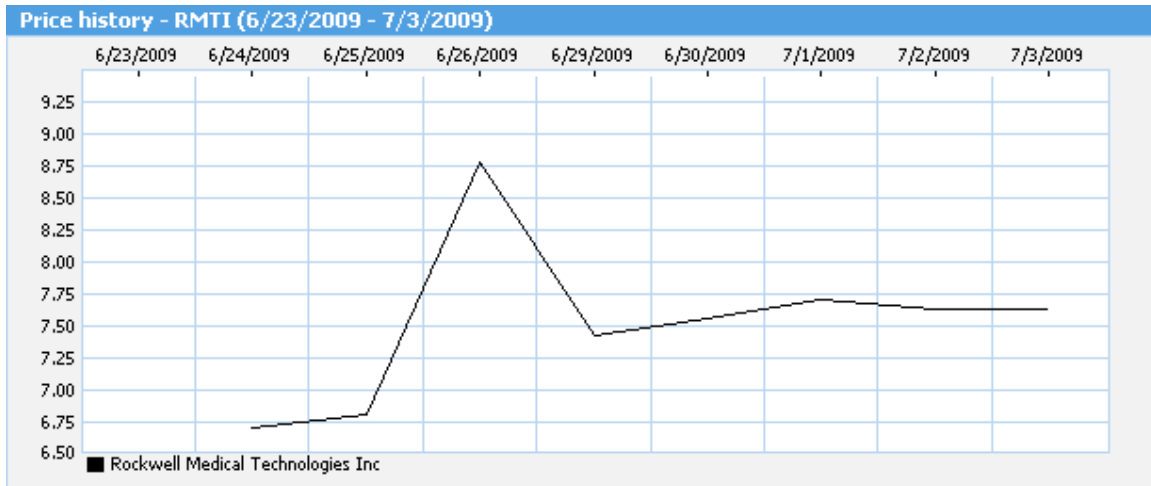


Figure 25: Rockwell Medical Technologies (NASDAQ:RMTI) Price Chart (June 23 - July 3, 2009)

There weren't many good options for day trading this week. Only a few sparse stocks were profitable, and finding them was difficult. I bought 100 shares of Google stock Thursday, July 1<sup>st</sup> for \$421.50, hoping to profit off the normal oscillation of its price. I sold about 25 minutes later at \$425.02, as my confidence in it going much higher was very slim. My conservative decisions paid off, making me a net profit of \$332.00 as the price of Google tumbled.

Table 17: GOOG Transactions (July 1, 2009)

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/01/09	GOOG	buy	\$421.50	100	\$42,160.00		60,184.20	
07/01/09	GOOG	sell	\$425.02	100	\$42,492.00	332.00	102,676.20	2,639.20

This week has shown me that day trading is one of the only options in a downward-trending market, and that finding a profitable stock is difficult. I forced



myself to back out of any investment that lost me more than \$100 or gained me more than \$200, as I had little room for experimentation. I found stocks that were significantly lower than usual, and anticipated their rebounds. I was forced to play it smart, and not get too greedy.

#### *4.4.3 Week 3: July 6 – July 10, 2009*

I bought 100 shares of Google and 300 shares of Apple stock the morning of Monday, July 6<sup>th</sup>, after prices took a momentary dip. My investment in Google totaled \$40,391.00 at \$403.81 per share, while my Apple investment totaled \$40,930.00 at \$136.40 per share. I watched the price of both stocks consistently rise all day. I noted a slight plateau tendency in the early afternoon and sold all of my shares in both companies. I sold my Apple stock for \$138.61 per share, for a yield of \$643.00. I sold my Google stock for \$409.61 per share, for a yield of \$560.00. In total I made \$1,203.00 Tuesday.

Table 18: GOOG, AAPL Transactions (July 6, 2009)

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/06/09	GOOG	buy	\$403.81	100	\$40,391.00		61,932.70	
07/06/09	AAPL	buy	\$136.40	300	\$40,930.00		21,002.70	
07/06/09	AAPL	sell	\$138.61	300	\$41,573.00	643.00	62,575.70	2,929.70
07/06/09	GOOG	sell	\$409.61	100	\$40,951.00	560.00	103,526.70	3,489.70

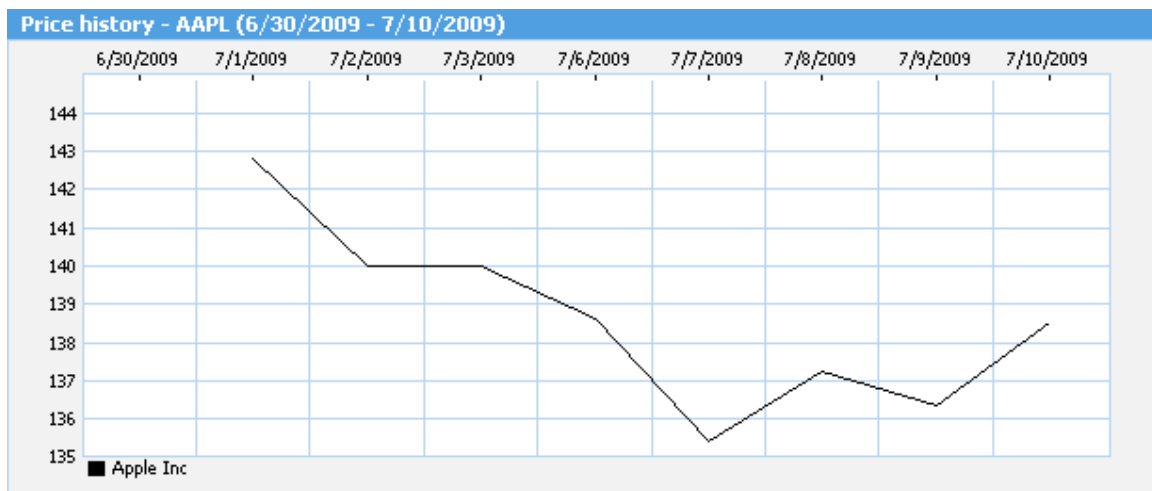


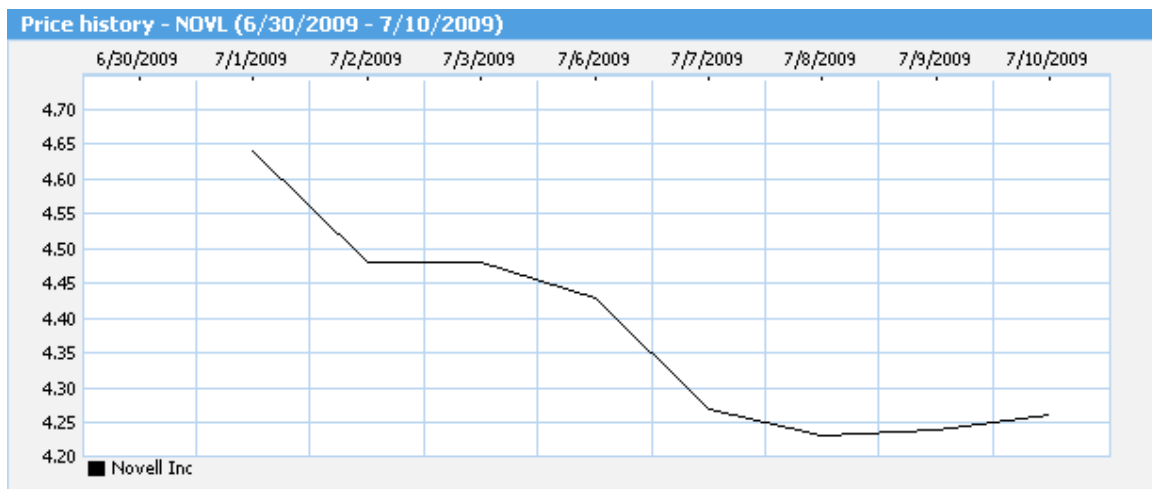
Figure 26: Apple Inc. (NASDAQ:AAPL) Price Chart (June 30 - July 10, 2009)

After Tuesday's jump, the market fell fairly consistently until about noon Thursday, July 9th. I bought 20,000 shares of Novell stock early afternoon on Friday. I had noticed that towards the end of the day on Fridays, the market tends to take a little skip upwards as many investors do not like to keep stocks over a weekend. Anticipating the usual late-Friday rally, I invested \$84,210.00 at \$4.21 per

share. My prediction of a late-Friday rally was correct, and I sold my Novell stock right before closing Friday for \$4.26 per share, earning me a profit of \$980.00.

**Table 19: NOVL Transactions (July 10, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/10/09	NOVL	buy	\$4.21	20000	\$84,210.00		20,262.70	
07/10/09	NOVL	sell	\$4.26	20000	\$85,190.00	980.00	105,452.70	5,415.70



**Figure 27: Novell Inc. (NASDAQ:NOVL) Price Chart (June 30 - July 10, 2009)**

#### 4.4.4 Week 4: July 13 – July 20, 2009

I began buying this week on Tuesday, July 14<sup>th</sup> with 300 shares of Apple and 3000 shares of Oracle (NASDAQ:ORCL). I invested the \$42,490.00 in Apple at \$141.60 per share, while my Oracle investment totaled \$61,540 at \$20.51 per share.

I watched the market rise Tuesday, and noticed a slight peaking tendency in the prices of both Apple and Oracle toward the end of the day. I was unsure as to how consistent the market's rise would be so I decided to sell both my Apple and Oracle stocks.

**Table 20: ORCL, AAPL Transactions (July 14, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/14/09	ORCL	buy	\$20.51	3000	\$61,540.00		43,912.70	
07/14/09	AAPL	buy	\$141.60	300	\$42,490.00		1,422.70	
07/14/09	ORCL	sell	\$20.58	3000	\$61,730.00	190.00	63,152.70	5,605.70
07/14/09	AAPL	sell	\$142.19	300	\$42,647.00	157.00	105,799.70	5,762.70

On Thursday, July 16<sup>th</sup> I bought Intel and Google stock in hopes that the upward market trend would continue. Unfortunately, the value of Intel and Google stocks declined and I was forced to settle with a combined loss of \$416.00. Buying at a poor time caused my loss. I bought both stocks while their price was at a plateau, a strategy that has seldom worked for me in the past. I should have waited until their values declined steadily and were beginning to rise.

Table 21: INTC, GOOG Transactions (July 16, 2009)

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/16/09	INTC	buy	\$18.14	2000	\$36,290.00		28,280.70	
07/16/09	GOOG	buy	\$438.63	100	\$43,873.00		28,359.70	
07/16/09	INTC	sell	\$18.03	2000	\$36,050.00	(240.00)	64,409.70	8,245.70
07/16/09	GOOG	sell	\$437.07	100	\$43,697.00	(176.00)	108,106.70	8,069.70

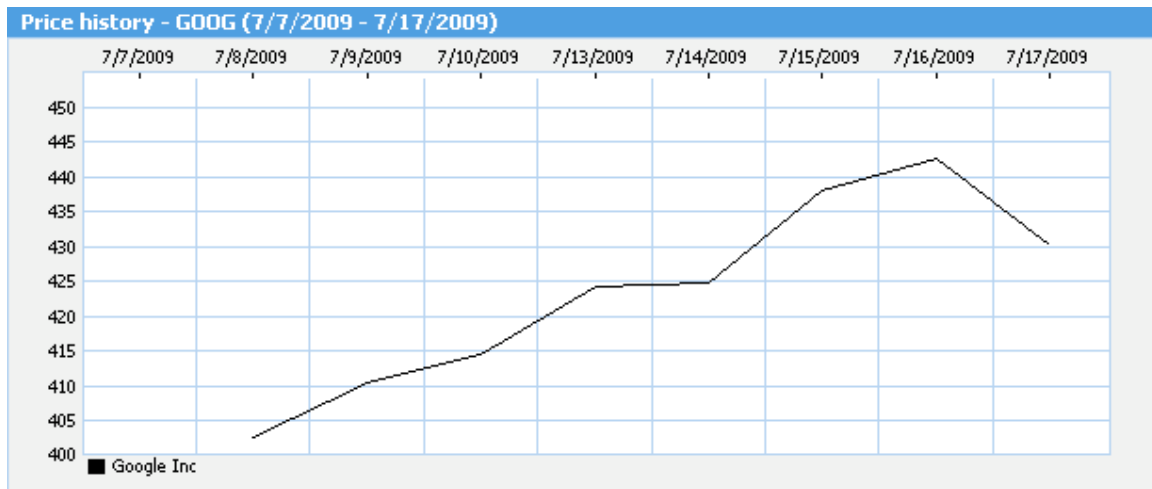


Figure 28: Google Inc. (NASDAQ:GOOG) Price Chart (July 7 - July 17, 2009)

Finally, I bought 10000 shares of Ford stock at \$6.06 per share on Friday, the 17<sup>th</sup>. This investment totaled \$60,610.00. I chose to make this investment in Ford because the price fluctuates frequently, and it seemed to be on an upward trend. I sold the stock later that day for \$6.13 per share, bringing me a net profit of \$680.00.

With a careful, patient eye on the price, I noticed an upward trend, and was able to correctly anticipate a price jump for Ford stock and profit from it.

**Table 22: F Transactions (July 17, 2009)**

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
07/17/09	F	buy	\$6.06	10000	\$60,610.00		4,525.70	
07/17/09	F	sell	\$6.13	10000	\$61,290.00	680.00	65,815.70	8,749.70

#### 4.4.5 Summary

Overall, my day trading experience was especially profitable. High-risk, high-cost investments were the most profitable. I used a numbers-only approach to day trading. I focused only on significant fluctuations in price, and anticipated future changes by observing the overall trend of the stock that day in the context of the stock's recent history.

My most successful day trading investments were towards the afternoon, involving significant investments that relied on small fluctuations in price (sometimes only a few cents in change). I began the experiment with a tendency to hold on to stocks as their price went up, hoping for a huge profit. This did not work as well as I anticipated, as many stocks would rise briefly, and then fall lower than the price I paid for them, resulting in a loss. I abandoned this idea and began selling stocks as soon as I could make a sizeable profit, usually anything over \$200, or when the price began to show the smallest hint of falling again. If the stock I was investing

in fell to the point where I would loose more than \$100, I sold it with the intention of minimizing potential losses. This more conservative method was much more reliable and sustainable, though I did not make the maximum possible profit from my investments. I find that this strategy is most applicable to personal investments, and causes minimal stress on the investor.

Having a clear set of rules and goals about what and how to invest was the key to my success in day trading. Day trading involves many quick, often emotional decisions. Having a clear set of investing rules unburdens the investor of this emotional attachment to trading and helps maintain consistent profitability. Despite its volatility, day trading can be a very exciting and rewarding investment opportunity.

## 5. Conclusion

My investment simulation was successful both financially and in exposing the most important aspects of both swing trading and day trading. I began this experiment with little knowledge of how to successfully invest in the stock market, nor what factors influence the market's constant change. I exceeded my financial goal of \$4,000, making \$9,001.70 in net profit. Through a few mistakes and some experimentation, I was able to define the fundamentals of successful investing.

I found that day trading was the easiest strategy for someone new to trading stocks. My day trading rules were simple, yet following them yielded a consistent profit. I discovered that successful day trading involves making relatively conservative decisions, and not being overly greedy. My worst investments in day trading were the result of my attempts at selling for a maximum profit. I set a few rules to help me decide when to buy and sell stocks, and not following them led me to avoidable losses. I sold stocks that either made me more than \$200 or lost me more than \$100, and looked only at the price change, and the potential for growth that day. When I followed these simple rules, I was consistently profitable.

Swing trading was less profitable during my 4-week simulation, however it is a viable opportunity for personal investors. Researching the companies I was investing in helped tremendously in anticipating the future value of stocks. Knowing what causes other investors to buy or sell a stock, and anticipating their actions is also pivotal to success in swing trading. When I was able to anticipate



events that caused the value of the stock to fluctuate significantly, I was able to make a profitable investment.

I have found that the stock market can be very lucrative. By following a clear set of rules, an investor can produce a consistent gain through day trading. A basic understanding of the psyche of investors, along with diligent research can make swing trading an effective investing strategy. Through my research and experimentation, I have gained a more profound understanding of the stock market, investor psyche, and the foundation of the US financial system. I hope to employ what I've learned through this simulation in my own stock investments in the future.

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## Appendix: Complete Transaction Record

(Day trading transactions are highlighted in yellow)

Date	Symbol	buy/sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
06/17/09	AAPL	buy	\$135.58	100	\$13,568.00		86,432.00	
06/17/09	MSFT	buy	\$23.68	200	\$4,746.00		81,686.00	
06/17/09	INTC	buy	\$16.14	400	\$6,466.00		75,220.00	
06/17/09	NVDA	buy	\$11.28	200	\$2,266.00		72,954.00	
06/17/09	ERTS	buy	\$20.83	200	\$4,176.00		68,778.00	
06/17/09	RTN	buy	\$45.31	350	\$15,868.50		52,909.50	
06/17/09	GOOG	buy	\$415.16	75	\$31,147.00		21,726.50	
06/17/09	YHOO	buy	\$15.60	400	\$6,250.00		15,512.50	
06/17/09	AMD	buy	\$4.08	1,000	\$4,090.00		11,422.50	
06/19/09	AAPL	sell	\$138.66	100	\$13,856.00	288.00	25,278.50	288.00
06/19/09	GOOG	sell	\$418.28	75	\$31,361.00	214.00	56,639.50	502.00
06/19/09	RTN	sell	\$46.09	350	\$16,121.50	253.00	72,761.00	755.00
06/22/09	GOOG	buy	\$405.30	75	\$30,407.50		42,353.50	
06/23/09	AMD	sell	\$3.52	1000	\$3,510.00	(580.00)	45,863.50	175.00
06/23/09	CTV	buy	\$23.81	300	\$7,153.00		38,710.50	
06/23/09	CSX	buy	\$32.00	100	\$3,210.00		35,500.50	
06/23/09	CTV	sell	\$24.00	300	\$7,190.00	37.00	42,690.50	212.00
06/23/09	CSX	sell	\$32.25	100	\$3,215.00	5.00	45,905.50	180.00
06/23/09	MSFT	sell	\$23.63	100	\$2,353.00	(20.00)	48,258.50	160.00
06/23/09	F	buy	\$5.49	1000	\$5,500.00		42,758.50	
06/23/09	F	buy	\$5.49	4000	\$21,970.00		20,788.50	
06/23/09	F	sell	\$5.53	5000	\$27,640.00	170.00	48,428.50	330.00
06/23/09	F	buy	\$5.52	8000	\$44,170.00		4,258.50	

06/23/09	F	sell	\$5.59	8000	\$44,710.00	540.00	48,968.50	870.00
06/23/09	ERTS	sell	\$20.44	200	\$4,078.00	(98.00)	53,046.50	772.00
06/24/09	GOOG	sell	\$410.30	75	\$30,762.50	355.00	83,809.00	1,127.00
06/24/09	INTC	sell	\$16.19	400	\$6,466.00	0.00	90,275.00	1,127.00
06/24/09	AM	buy	\$8.94	1000	\$8,950.00		81,325.00	
06/24/09	MGM	buy	\$6.71	1000	\$6,720.00		74,605.00	
06/24/09	MGM	sell	\$6.69	1000	\$6,680.00	(40.00)	81,285.00	1,087.00
06/24/09	AM	sell	\$9.14	1000	\$9,130.00	180.00	90,415.00	1,267.00
06/24/09	YHOO	sell	\$15.28	400	\$6,102.00	(148.00)	96,517.00	1,119.00
06/24/09	NVDA	sell	\$10.93	200	\$2,176.00	(90.00)	98,693.00	1,029.00
06/24/09	HLIT	buy	\$5.59	10000	\$55,910.00		42,783.00	
06/24/09	HLIT	sell	\$5.60	10000	\$55,990.00	80.00	98,773.00	1,109.00
06/24/09	GOOG	buy	\$409.00	200	\$81,810.00		16,963.00	
06/24/09	GOOG	buy	\$407.67	40	\$16,316.80		646.20	
06/24/09	GOOG	sell	\$408.05	40	\$16,312.00	(4.80)	16,958.20	1,104.20
06/24/09	GOOG	sell	\$408.57	200	\$81,704.00	(106.00)	98,662.20	998.20
06/25/09	RHT	buy	\$18.47	2000	\$36,950.00		61,712.20	
06/25/09	TCK	buy	\$15.46	1000	\$15,470.00		46,242.20	
06/25/09	RHT	sell	\$18.81	2000	\$37,610.00	660.00	83,852.20	1,658.20
06/25/09	TCK	sell	\$15.58	1000	\$15,570.00	100.00	99,422.20	1,758.20
06/25/09	MSFT	sell	\$23.67	100	\$2,357.00	(16.00)	101,779.20	1,742.20
06/26/09	GOOG	buy	\$415.67	100	\$41,577.00		60,202.20	
06/26/09	YHOO	buy	\$15.62	1000	\$15,630.00		44,572.20	
06/26/09	MSFT	buy	\$23.55	1000	\$23,560.00		21,012.20	
06/26/09	MSFT	sell	\$23.42	1000	\$23,410.00	(150.00)	44,422.20	1,592.20
06/26/09	GOOG	sell	\$422.02	100	\$42,192.00	615.00	86,614.20	2,207.20

06/26/09	YHOO	sell	\$15.68	1000	\$15,670.00	40.00	102,284.20	2,247.20
06/26/09	RTN	buy	\$44.61	1000	\$44,620.00		57,664.20	
06/29/09	RMTI	buy	\$7.40	7500	\$55,510.00		2,154.20	
06/29/09	RTN	sell	\$44.56	1000	\$44,550.00	(70.00)	46,704.20	2,177.20
06/29/09	RMTI	sell	\$7.42	7500	\$55,640.00	130.00	102,344.20	2,307.20
07/01/09	GOOG	buy	\$421.50	100	\$42,160.00		60,184.20	
07/01/09	GOOG	sell	\$425.02	100	\$42,492.00	332.00	102,676.20	2,639.20
07/02/09	GOOG	buy	\$409.66	50	\$20,493.00		82,183.20	
07/02/09	AAPL	buy	\$140.35	300	\$42,115.00		40,068.20	
07/02/09	RTN	buy	\$43.28	500	\$21,650.00		18,418.20	
07/03/09	GOOG	sell	\$408.49	50	\$20,414.50	(78.50)	38,832.70	2,560.70
07/03/09	RTN	sell	\$43.01	500	\$21,495.00	(155.00)	60,327.70	2,405.70
07/03/09	AAPL	sell	\$140.02	300	\$41,996.00	(119.00)	102,323.70	2,286.70
07/06/09	GOOG	buy	\$403.81	100	\$40,391.00		61,932.70	
07/06/09	AAPL	buy	\$136.40	300	\$40,930.00		21,002.70	
07/06/09	AAPL	sell	\$138.61	300	\$41,573.00	643.00	62,575.70	2,929.70
07/06/09	GOOG	sell	\$409.61	100	\$40,951.00	560.00	103,526.70	3,489.70
07/07/09	AAPL	buy	\$136.99	300	\$41,107.00		62,419.70	
07/07/09	GOOG	buy	\$401.65	100	\$40,175.00		22,244.70	
07/07/09	MSFT	buy	\$22.82	950	\$21,689.00		555.70	

07/09/09	MSFT	sell	\$22.54	950	\$21,403.00	(286.00)	21,958.70	3,203.70
07/09/09	AAPL	sell	\$137.14	300	\$41,132.00	25.00	63,090.70	3,228.70
07/09/09	GOOG	sell	\$413.92	100	\$41,382.00	1,207.00	104,472.70	4,435.70
07/10/09	NOVL	buy	\$4.21	20000	\$84,210.00		20,262.70	
07/10/09	NOVL	sell	\$4.26	20000	\$85,190.00	980.00	105,452.70	5,415.70
07/14/09	ORCL	buy	\$20.51	3000	\$61,540.00		43,912.70	
07/14/09	AAPL	buy	\$141.60	300	\$42,490.00		1,422.70	
07/14/09	ORCL	sell	\$20.58	3000	\$61,730.00	190.00	63,152.70	5,605.70
07/14/09	AAPL	sell	\$142.19	300	\$42,647.00	157.00	105,799.70	5,762.70
07/15/09	AAPL	buy	\$145.13	300	\$43,549.00		62,250.70	
07/15/09	NOVL	buy	\$4.37	13000	\$56,820.00		5,430.70	
07/16/09	NOVL	sell	\$4.55	13000	\$59,140.00	2,320.00	64,570.70	8,082.70
07/16/09	INTC	buy	\$18.14	2000	\$36,290.00		28,280.70	
07/16/09	AAPL	sell	\$146.54	300	\$43,952.00	403.00	72,232.70	8,485.70
07/16/09	GOOG	buy	\$438.63	100	\$43,873.00		28,359.70	
07/16/09	INTC	sell	\$18.03	2000	\$36,050.00	(240.00)	64,409.70	8,245.70
07/16/09	GOOG	sell	\$437.07	100	\$43,697.00	(176.00)	108,106.70	8,069.70
07/17/09	GOOG	buy	\$429.61	100	\$42,971.00		65,135.70	
07/17/09	F	buy	\$6.06	10000	\$60,610.00		4,525.70	
07/17/09	F	sell	\$6.13	10000	\$61,290.00	680.00	65,815.70	8,749.70
07/20/09	GOOG	sell	\$431.96	100	\$43,186.00	215.00	109,001.70	8,964.70