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Abstract

With the use of resources that are available from the Internet, television as well as text references, an eight-week stock-market simulation was conducted using different trading strategies to investigate the different effects. The knowledge gained throughout this simulation project will allow the investigator to become a more adept investor in the future.

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1 Introduction

1.1 Goals for Simulation

The overall goal for the stock market simulation is to establish a firm understanding in general concepts related to the stock market and investing. I researched several different types of investment strategies and will run simulations to test the observations. I will then explain in depth everything that leads to my results.

First, as one of my goals I will need to familiarize myself with the general operations of the market and develop a working knowledge that will possibly help me in future real life investments. Most of the general operations of the market include major reasons for market fluctuations. I will talk about topics such as oil prices, interest rates, etc in detail. I must examine the market for a few weeks before I make my initial investments.

Second goal, I will determine all trends that I come across that will motivate me to invest in the venture. I will use technical as well as fundamental analysis in order to make intelligent investment decisions. I will also look at quarterly earnings and statements that would justify further investigation into a company. Research will filter out poor performing sectors of the market and helps me concentrate on the strong ones. Once I have chosen a sector of the economy that historically has a strong performance, I will examine the stocks placed within that sector. Then I will further filter the chosen sector using specific criteria to determine the stronger stocks. Finally I will analyze the company's financial report and detailed background information in order to make an educated decision on whether to buy or pass on the stock. All of this will help me avoid naïve investment errors.

I will start with 6 stocks selected by using the above process. Then each pair of stocks, the total being 3 pairs, will be treated individually using my selected methods as well as techniques. This simulation will allow me to analyze the individual methods used and make conclusion based on their individual performance. For this simulation I will start with \$35,000, then at the end of the six-week simulation I will compare and contrast the profits, and losses from each method and thus determine which performed best and would continue to perform better after the allotted period. The history of the stock market and who trades in it will be discussed in the first chapter. After that the following chapters, will discuss my different trading methods and their results. The final chapter will be dedicated to what I have learned, conclude and my explanations for my conclusion.

1.2 History of the Stock Market

Stock markets was not originally the super-sophisticated, simultaneous, worldwide trading exchanges of today. Not until 1531 was it that the first institution in Antwerp, Belgium roughly approximating a stock market emerged [1]. However, as *Investopedia* says, this was, "...the first stock market, *sans* stock." Rather than buying and selling shares the brokers and lenders would meet to "deal in business, government and even individual debt issues [6]."

Later in the 1600's this changed when Britain, France, and the Netherlands all began sending voyages to the East Indies. Since few explorers could gather the means for conducting an overseas trade voyage, companies were formed to raise money from investors, who received a share of profits based on their initial investment.

This business organization developed a form of risk management. Because as India's Imperial Gazette has reported, the earliest British voyages to the Indies were not

successful and resulted ships being lost and the personal fortunes of financier's being seized by creditors [7]. This led to London merchants forming a corporation in September 1599, which would limit each member's liability to the amount they each invested, so that if the voyage failed, nothing else than this amount could be seized. The Queen at the time gave the merchants a fifteen year charter in 1600, naming the corporation the "Governor and Company of Merchants of London trading with the East Indies [5]", more commonly known as "The East India Company." The formula proved successful, getting King James I to grant charters to more companies by 1609 and creating business growth in other port European countries. Yet it was the Dutch East India company that actually first allowed outside investors to purchase shares entitling them to a fixed percentage of the company's profits, the first company to issue stocks and bonds to the general public, thru the Amsterdam Stock Exchange in 1602 according to *Britannica*[7].

As for Stock market trading in the United States it goes as far back as over 200 years in the form of colonial government bonds that were sold for the purpose of financing the American Revolution and were to be paid at a profit to the buyer. During the same time private banks were raising money by selling stocks in their company to raise money for themselves. This was a new form of investing at the time and was a good way to get richer for the wealthy. Later in 1792, a meeting between twenty-four wealthy merchants resulted in the creation of the New York Stock Exchange (NYSE). This was brought upon by the merchants agreeing to meet daily on Wall Street to daily trade stocks and bonds.

Further on in the mid-1800s, United States was experiencing a rapid economic growth. As these companies needed funds expand and meet the new demands on the public they realized that investors would be interested in buying stock, as partial ownership in the company. This as history has shown facilitated the expansion of

companies and the proved the great potential of the recently founded stock market to both the investors and the companies.

By 1900, millions of dollars worth of stocks were traded on the street market. In 1921, after twenty years of street trading, the stock market moved indoors [5]. Then came along the Industrial Revolution, which played a pivotal role in changing the face of the stock market. From the development industrial revolution a new form of investing began to emerge when initial investors started to realize that by re-selling the stock to others who saw value in a company a profit could be made. This was the beginning of the secondary market, which became known also as the speculators market. This part of the market was more volatile than before, because it was now fueled by speculation about the company's future.

The NYSE acted as a more stable investment alternative, for people interested in throwing their capital into the stock market arena. As for the smaller companies that make up the stock market they formed into what would become the American Stock Exchange (AMEX). Growth in the number of market participants led the government deciding that more regulation of the stock market was needed to protect those investing. Following the Great Crash in 1934 history was made when Congress passed the Securities and Exchange Act [7]. The act formed the Securities and Exchange Commission (SEC), which through the act and succeeding amendments regulates American stock market trading with the help of the exchanges. It also includes overseeing the requirements for a company to issue stock shares to the public and ensures that the company offers relevant information to potential investors. The SEC also oversees the daily actions of market exchanges and how they trade the securities offered. Although historically, investing in stocks was a "hobby" for the rich, an average person can know too realize the value of the investing in stocks vs. traditional assets like land or a house.

1.3 How to Invest

Researching is not only the first thing to do but also the most important. When researching an investment there are five documents you want to get your hands on to research the potential of a stock:

The 10k– this is the annual filing with the Securities and Exchange Commission (SEC) and is probably the single most important research document available to investors about a company.

The most recent 10Q- a smaller version of the 10K that is filed at the end of each quarter instead of each year.

Proxy statement– includes information on the Board of Directors as well as management pay and shareholder proposals

The most recent annual report– read the report from the Chairman, CEO, and sometimes CFO or other high-ranking officers to see how they view the business. Not all annual reports are created equally.

A statistical showing going back five or ten years.

There are five types of assets an investor is likely to own:

Common stock- a form of corporate equity ownership, called "common" to distinguish it from preferred stock. In the event of bankruptcy, common stock investors receive their funds after preferred stock holders, bondholders, creditors, etc. On the other hand, common shares on average perform better than preferred shares or bonds over time.

Preferred stocks- a hybrid between common stocks and a bond. Each share of preferred stock is paid a dividend, which receives first priority and has dibs over the common stockholders at the company's assets in the event of bankruptcy.

Bonds- consist of corporate bonds, municipal bonds, savings bonds, US government treasuries and etc.

Money markets- highly liquid funds that are designed to protect your purchasing power and is considered to be a cash equivalent.

Real estate investment trust or REITs- a special type of company designation that allows no taxation at the company level provided more than 90% of earnings are paid out to the shareholders. The assets are often invested in a variety of real estate projects and properties.

Mutual funds- including exchange-traded funds, index funds and actively managed funds.

The typical four major ways to invest in the market are through a 401k, an IRA, brokerage account, or a dividend reinvestment plan (DRIP). For this purpose I am only going to cover brokerage account plans.

Brokerage accounts allow you to purchase stocks bonds, mutual funds, and other investments by paying professionals to buy or sell the items you tell them to. The fee you pay them is called a "commission", and can range from as low as \$5 to \$10 dollars, to upwards of several hundred dollars. The difference in price arises when you choose between either a discount or traditional broker. Traditional brokerages give a wider range of services, and a price tag to match. They are along the lines of professional money managers and can offer advice as to what investments could be right for you. Discount brokers tailor to the more self-sufficient investor and thus don't offer advice as to what to put your money into, leaving you to make your own financial decisions and charging you much less than their traditional counterparts.

In opening a new account, the minimum investment can vary, usually ranging from \$500-\$1,000. Most require commissions of \$8-\$30 and have easy-to-navigate web sites. Almost all allow you to invest in mutual funds just as easily as in common stocks, which is a big plus for those who are just getting involved in managing their own finances. Once you have opened an account, you have the ability to invest your money.

1.4 Risks and Payoffs of Investing

1.4.1 The Payoffs

If you plan to invest in the share market, you will be relying predominantly on the business activities of major public companies listed on the stock exchange for income and capital growth. As these companies are in business to maximize profits; the more profitable they become the greater the chance shareholders will come out in front.

Public companies listed on the stock exchange normally pay their shareholders two dividends each year, an interim dividend and final dividend. This is great news if you are seeking a regular income flow. As for stocks that have the capacity to increase in value; it is possible for you to make a profit on the sale. You will mainly find capital growth is dependent on a company's capacity to continually grow its business. The more profit it makes the greater the chance your annual dividend payments will increase. The high liquidity of stocks since they can be sold within a matter of minutes of contacting a stockbroker or instantly if you do the transaction on-line and you will ordinarily get your money back within a few days of selling them. As share prices are published daily, you can make a quick profit if your shares increase in value same as if they decrease to minimize your losses. The brokerage fees stockbrokers charge in respect to buying and selling shares is minimal. On-line brokers normally charge around 0.4 percent of the purchase and sale price. There are no ongoing costs associated with owning shares unlike in the case of any real estate you may own. Great news if you own a substantial share portfolio. Also significant taxation benefits associated with investing in the share market that may appeal to you.

1.4.2 The Risks

Share prices fluctuate daily in line with the prevailing market, which may not appeal to you if your shares fall from the initial value purchased for. There are three major risks associated with investing in the share market that you will need to be aware of.

Decrease in value-You can lose a substantial sum if your share portfolio were to fall in value. And there is no guarantee they will recover or that you will get back your initial outlay. This means you will need to constantly monitor your share portfolio, and weed out companies that are not performing to your satisfaction.

No Dividend Payments- The payment of a dividend is at the discretion of the company directors. There is a risk if a company's business activities were to decline that dividend payments could fall or cease.

Liquidation- There is a risk a company could become insolvent and cease trading. If this happens shareholders will rank last in terms of getting back their initial investment. And there is no guarantee you will receive a payment.

To limit my exposure to potential poor performance it pays to invest in quality blue chip companies that are trading profitably over a long period of time.

2 Penny Stock Trading

A penny stock refers to a share in a company that can trade for less than \$5.00. [5] This is the official definition, and is used by the Securities and Exchange Commission, but for the most part the criteria applied by the general public and most retail investors are share price being less than \$1, and can even be a fraction of one cent, a market cap of less than \$50 million or less than \$25 million, and trading on more little known markets.

2.1 Penny Stock Trading Method

Going in the simulation, I did not know what to expect from my penny stocks since they can be so volatile. A goal I have set is that I just want to come out even in terms of money gained and lost. Another goal is that I wanted to make at least 4 trades throughout this entire simulation. I also am making it a goal that I want to be fairly aggressive so I can make some serious gains, since I did not want to sit on stocks and hope for the best. Also a goal for my penny stocks was to set a price goal for certain my stocks. Most importantly, my goal was to gain knowledge of the stock market and the trading world. By doing research in the different sectors and companies, I learned a lot. The stock market provides an opportunity to build your finances, but the chance to lose it all is also present.

Quick gains and such make penny stock trading worthwhile. After researching, some industries seemed to be more penny stock-friendly. A good industry with potential was the Biotechnology and Drugs industry. Another industry was the Software and Programming industry. This industry is huge. There are many companies, the funding is very good, and there is plenty competition in the market allowing for new companies to

emerge and succeed. Put in the fact that industry is always evolving and technology is constantly changing and getting better. This thus gives the market great potential for cheap shares to that can 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. New demands constantly arise as well keeping the market very competitive. Creating potential for growth exists in this industry. From my research I noticed that searching for penny stocks is a very broad operation. Once I purchased a company, many decisions concerning the company 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 I was investing in each stock. Going into the trading, I decided that I would not keep any stock for more than 2-3 weeks. The companies I was investing in were considered “risky” because of the price, therefore I did not want to sit and wait on a company for too long. Another reason was the fact that our trading period was merely 7 weeks. In general, if the stock fell \$0.15 below the price it was purchased at, I would sell the stock and buy a new one. Still for when a stock increases in price it is not as cut and dry, since I want to get as much out of my stocks as I can.

2.2 Stocks Chosen

Idera Pharmaceuticals Inc. (IDRA)

Idera Pharmaceuticals, Inc., a biotechnology company, discovers and develops DNA- and RNA-based drug candidates for the treatment of infectious diseases, autoimmune and inflammatory diseases, cancer, and asthma and allergies, and for use as vaccine adjuvants. The company designs and creates proprietary Toll-Like Receptors (TLR) to modulate immune responses, including TLR agonist, a compound that

stimulates an immune response through the targeted TLR; and TLR antagonist, a compound that blocks activation of an immune response through the targeted TLR. [3] Its drug candidates include IMO-2125, a TLR9 agonist, which is in Phase 1 clinical trial for hepatitis C virus infection; and TLR7, 8, and 9 agonists that are in research stage for viral diseases. The company also develops IMO-3100, a dual TLR7/TLR9 antagonist, which is in preclinical development stage for autoimmune and inflammatory diseases, such as lupus, rheumatoid arthritis, multiple sclerosis, psoriasis, and colitis. In addition, its drug candidates also comprise TLR7 and TLR8 agonists that are in research stage for solid tumor cancers. The company has a licensing and collaboration agreement with Merck KGaA to research, develop, and commercialize TLR9 agonists for the treatment of cancer, excluding cancer vaccines; a license and research collaboration agreement with Merck & Co., Inc. to research, develop, and commercialize therapeutic and prophylactic vaccine products containing its TLR7, 8, and 9 agonists in the fields of cancer, infectious diseases, and Alzheimer's disease; and a research collaboration and option agreement, and a license, development, and commercialization agreement with Novartis International Pharmaceutical, Ltd. to discover, develop, and commercialize TLR9 agonists for the treatment of asthma and allergies. [3] The company was founded in 1989 and is based in Cambridge, Massachusetts.



Fig. 2.1 One year price chart for Idera Pharmaceuticals, Inc.

Options Media Group(OPMG.OB)

Options Media Group Holdings, Inc. operates as an email service provider (ESP) in the United States. It designs custom e-mail delivery solutions for companies that own or license large customer lists and optimize their system to maximize inbox deliverability. The company also provides an ASP solution that offers access to software, hardware, bandwidth, and domains and IP addresses, as well as the ability to upload and manage subscribers, review and upload campaigns, and track results; and consultation services for clients who require access to experts in marketing insight, strategy guidance, best practices, content writing, and creative design areas. [3] In addition, it offers in-house solutions, including installation, set up, maintenance of software platform, and platform management for clients with own technical infrastructure. Further, the company's services include account, data management, deliverability, database, SMS mobile marketing, opt-in email marketing, appending, lead generation, and video search engine optimization services. It serves 100 e-mail marketing firms, corporate brand advertisers,

and agencies. Options Media Group Holdings, Inc. was founded in 2000 and is headquartered in Boca Raton, Florida.



Fig. 2.2 One year price chart for Options Media Group

Intellicheck Mobilisa Inc (IDN)

Intellicheck Mobilisa, Inc. develops and markets wireless technology and identity systems to mobile and handheld wireless devices for the government, military, and commercial markets. The company's commercial identification products include IDvCheck, a document verification software for reading and verifying, in one swipe or scan, the encoded format contained on the U.S. and Canadian driver licenses, state issued non-driver identification cards, and military IDs. [3] Its defense security products comprise Defense ID System that reads barcodes, magnetic stripes, and RFID and OCR codes printed on identification cards to offer law enforcement personnel and military security officers additional information for protecting their facilities. The company sells its products directly, as well as through resellers and license agreements. Intellicheck

Mobilisa, Inc. was founded in 1994 and its headquarters is in Port Townsend, Washington.



Fig. 2.3 One year price chart for IntellicheckMobilisa, Inc.

Wolfe Creek Mining, Inc.,

Wolfe Creek Mining, Inc. a development stage company, engages in the recovery, separation, cleaning, and recycling of plastics. It intends to produce and supply recycled commercial plastics to automotive and consumer product industries; and construct plastics recycling facilities near automotive shredder locations. The company, through its strategic partners, would also convert waste and scrap plastic into energy products, such as synthetic oil. Wolfe Creek Mining, Inc. is based in Spokane, Washington.



Fig. 2.1 One year price chart for Wolfe Creek Mining

Adventrx Pharmaceuticals, Inc. (ANX)

A specialty pharmaceutical company, focusing on in-licensing, developing, and commercializing proprietary product candidates for the treatment of cancer. Its lead product candidates include ANX-530, an emulsion formulation of chemotherapy drug vinorelbine to treat advanced non-small cell lung cancer as a single agent or in combination with cisplatin, as well as to treat advanced or metastatic breast cancer; and ANX-514, an emulsion formulation of the chemotherapy drug docetaxel for the treatment of breast, non-small cell lung, prostate, gastric, and head and neck cancers. The company was founded in 1995 is headquartered in San Diego, California.

2.3 Trades Simulation

2.3.1 Week 1

For the first week I choose two penny stocks that I believe to be very profitable because of they're past results. I started with a total of 5,000 dollars. For simplicity, I am setting the brokerage fee to be zero.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Gain/Loss
6/7	IDRA	Buy	3.67	500	1835		3145	
6/7	OPMG.OB	Buy	0.04	500	20		3125	

Table 2.1 Week 1 Penny Stock Trading

2.3.2 Week 2

At the beginning of this week I choose to keep IDRA to sell my 500 OPMG.OB shares at 0.03 since the price was stagnant at 0.03 for most of the previous week and had a loss of 5. I then invested in 500 IDN shares at 1.43 costing 715 and then sold them at 1.40 losing 15. So I decided to stay with only my 500 shares of IDRA, since the company was still doing well for me.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/14	IDRA		4.06	500				195
6/14	OPMG.OB	Sell	0.03	500	15	-5	3140	
6/14	IDN	Buy	1.43	500	715		2425	
6/16	IDN	Sell	1.41	500	700	-15	3125	

Table 2.2 Week 2 Penny Stock Trading

2.3.3 Week 3

To start the week I choose to invest in a very new company that just went public on 4/05/2010 Wolf Creek Mining. I weighed the risks and decided that investing in a new

company like this one could truly reap the benefits of investing in a start up company. I bought stocks in WCRM.OB at 1.00 each and plan on keeping it throughout the rest of the week. When the week closed on 6/25 WCRM closed at 1.25 a stock giving me a week's gain of 500. And I sold my 500 shares of IDRA at 3.87 a total of 1935 a gain of 100

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/21	IDRA	Sell	3.87	500	1935	100	5060	80
6/21	WCRM.OB	Buy	1.00	2000	2000		3040	
6/25	WCRM.OB		1.25	2000			3040	500

Table 2.3 Week 3 Penny Stock Trading

2.3.4 Week 4

Since I saw such a large spike in my WCRM.OB stock I choose to sell and not take a chance with the volatility of this type of stock and sold all 2000 stocks at 1.50 for a total of 3000 a gain of 1000 dollars. On that same day I went back to one of my old stock picks IDN, which I bought at 2000 shares at 1.55 and sold the stock on 6/30 for 1.59 a share giving a gain of 80 dollars

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/29	WCRM.OB	Sell	1.50	2000	3000	1000	6040	
6/29	IDN	Buy	1.55	2000	3100		2920	
6/30	IDN	Sell	1.59	2000	3180	80	6100	1100

Table 2.4 Week 4 Penny Stock Trading

2.3.5 Week 5

After the large profit I made with WCRM.OB I choose to invest in a biotech company ANX because I would not take much damage from any company I invested in since I am already up over 1000 dollars on my original total cash I began with. This

investment proved to be profitable and sold on 7/9 for 1.64 a share a profit of 260 dollars.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/6	ANX	Buy	1.51	2000	3020		3100	
7/9	ANX	Sell	1.64	2000	3280	260	6400	1400

Table 2.5 Week 5 Penny Stock Trading

2.3.6 Week 6

Beginning this week I looked at the ANX stock that I had just sold at the close of the previous week and saw that stock was on the up swing and thus I bought 2000 shares at 1.70 on 7/12 and then sold my shares for 1.91 on 7/14, unfortunately missing the opportunity to sell the stock at a high price of 2.04 on 7/13. Despite missing out on this I still managed to make a profit of 420 dollars.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/12	ANX	Buy	1.70	2000	3400		2980	
7/14	ANX	Sell	1.91	2000	3820	420	6800	1800

Table 2.6 Week 6 Penny Stock Trading

2.4 Conclusions and Results

My results after the 6 week trading simulation of my penny stocks was anything but what I expected because despite it being very volatile I was still able to make a good amount of profit. 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. My main concern was to break even and yet I surpassed this. I was able to do this by staying on top of things constantly keeping track of everything and making as many trades as I saw fit so that I

would not lose money. Ultimately my main goal was to gain a better understanding of the stock market and penny stock trading, which was certainly achieved. I was a first time trader, making this a learning process from beginning to end.

Starting the simulation I was very happy with the initial stocks that I chose since I felt I made sufficient research on each company. But what I truly believe helped me was that I took a very aggressive approach when I came to selling when my stock holdings were not doing so well. I just did not want to hold on to a stock for too long and then find that I was losing my money rather than making money. However, in some cases, I didn't hold on to a stock long enough and missed an opportunity to produce more income. What truly helped this was that I made it my job to constantly check on my shares, yet there were some days where I neglected to check the price of my stock. My main reasoning being the volatile nature of penny stocks, creates a small window of opportunity for profit and thanks to my surveillance of my stocks I was able to make profit.

All in all my experience with penny stock trading was a very good one. And now my new goal for future trading is to apply the knowledge to turn my gains into even bigger gains.

3 Short Term Stock Trading

Short-term trading can be very lucrative, but also risky. It can last for as little as a few days to as long as several days or weeks. To succeed at this strategy, traders must understand the risks and the rewards of each trade. They must not only know how to spot good short-term opportunities, but also must be able to protect themselves from unforeseen events. In this section, I will examine the basics of spotting good short-term trades and show how to profit from them.

3.1 Short Term Stock Trading Method

Short Term Stock Trading is considered to be the safest form of stock trading. As in daytime trading the stock is held for a short time but what differs with short term trading is that the stock is usually held for at least a few days and not just for a few hours. This is termed short position, which is longer than one day and usually holding position is about two days but from time to time it can last even for weeks and months. When one says short position means selling a stock in expectation of the moment when the price of the sold stock will fall and the trader will buy this stock once again but at a lower price than he sold it. A common strategy within short-term trading, which is called stock pick is when a trader analyses a certain stock which can be profitable for future gain. [1] The stock can be held for both long and short time periods depending on the trader's analysis of the stock invested on. Stock picking can be complicated since there is no way in which a trader can determine a stock's future price. And that's why careful analysis and monitoring is your only guarantee of success in stock trading.

3.2 Stocks Chosen

Electronic Arts Inc.(ERTS)

Electronic Arts Inc. develops, markets, publishes, and distributes video game software and content. The type of games this company develops includes action-adventure, sports, family, fantasy, racing, music, multiplayer online role-playing, simulation, and strategy games. Some of their heavy hitters include brands, such as Need for Speed, The Sims, Madden NFL Football, Dead Space, Mass Effect, Battlefield, Dragon Age, Origins, and Dante's Inferno. It also co-develops, co-publishes, and/or distributes video games that are developed and published by other companies, including the Harmonix series Rock Band and the Crytek series Crysis. Something that attracted me to this company was that the company's games are played on various platforms, including video game consoles, personal computers, handheld game players, and mobile devices providing for a good amount of profit coming in from different sources. For the most part the company provides its products through large market retailers, electronics stores, gaming stores, and online stores. The company has operations in North America, Europe, Australia, Asia, and Latin America. Electronic Arts Inc. [3] was founded in 1982 and has headquarters in Redwood City, California.



Fig. 3.1 One year price chart for Electronic Arts, Inc.

Blackboard Inc.(BBBB)

Blackboard Inc. founded in 1997 and its home offices in Washington, the District of Columbia, provides enterprise software applications and related services to the education industry in the United States. It offers Blackboard Learn, a Web-based teaching and learning platform, which comprises Course Delivery Module that allows educational institutions to support an online teaching and learning environment and other software directed to the use of this Product. Further, the company provides professional services comprising training, implementation, installation, maintenance, and other consulting services. It serves colleges, universities, schools and other education providers, textbook publishers, student-focused merchants, and corporate and government clients.



Fig. 3.2 One year price chart for Blackboard, Inc.

Digital Globe Inc.(DGI)

Digital Globe, Inc. provides commercial earth imagery products and solutions. The company collects its imagery products and services via its three high-resolution imagery satellites. It provides a range of on- and off-line distribution options, which enable customers to access and integrate the company's imagery into their business operations and applications, including desktop software applications; Web services that provide direct on-line access to its content archive; file transfer protocol; and physical media, such as CD, DVD, and hard drive. The company also offers its imagery through direct access program that allows certain customers, approved by the U.S. government, to task and downlink data directly from its satellites. Digital Globe's principal customers include the U.S. and foreign defense and intelligence agencies, and various commercial customers, such as Internet portals, companies in the energy and telecommunications sector, utility and agricultural industries, and the U.S. and foreign civil government agencies. The company was formerly known as Earth Watch, Incorporated and changed

its name to Digital Globe, Inc. in August 2002. Digital Globe was incorporated in 1994 and its headquarters in Longmont, Colorado.

DigitalGlobe, Inc Common Stock



Fig. 3.3 One year price chart for DigitalGlobe, Inc.

Clean Diesel Technologies Inc. (CDTI)

Clean Diesel Technologies, Inc. founded in 1994 and its central offices in Bridgeport, Connecticut, designs, develops, markets, and licenses technologies and solutions for the emission reduction market. The company's technologies and solutions reduce harmful emissions from internal combustion engines while improving fuel economy and engine power. Its products and solutions include the Platinum Plus fuel-borne catalyst, a diesel fuel soluble additive that reduces particulates, unburned hydrocarbons, and carbon monoxide emissions. [3] The company sells its products to distributors and resellers, as well as to various transportation segments, including on-road, off-road, rail and marine, and other end users. Clean Diesel Technologies offers its products through its distribution network, direct sales, sales consultants, and agents primarily in the United States, Europe, and Asia.



Fig. 3.4 One year price chart for Clean Diesel Technologies, Inc.

Asure Software (ASUR)

Forgent Networks, Inc. which does business as Asure Software, operates as the provider of Web-based workforce management solutions that enable organizations to manage office environment, as well as their human resource and payroll processes worldwide. The company under the trade name iEmployee, offers Web-based solutions, which include time and attendance, timesheets, human resource benefits, expenses, and others. Its Net Simplicity product line provides solutions to common office administration problems. [3] This product line's principal product, Meeting Room Manager, automates the entire facility scheduling processes, such as reserving rooms, requesting equipment, ordering food, sending invitations, and reporting on the meeting environment. Forgent sells its software products and services through direct Web and telesales model. The company was founded in 1985 and has its home offices in Austin, Texas



Fig. 3.5 One year price chart for Asure Software, Inc.

Simulations Plus, Inc. (SLP)



Fig. 3.6 One year price chart for Simulations Plus, Inc.

Ubisoft Entertain. (UEN.F)

A French computer and video game publisher and developer, partially owned by Electronic Arts (20%) but still independent, with headquarters in Montreuil-sous-Bois, France. The company has a worldwide presence with studios in 17 countries and subsidiaries in 28 countries. As of 2008, it was the third-largest independent video game publisher in Europe, and the fourth largest in the United States. Ubisoft's revenue for 2002-2003 was 453 million euro; for fiscal year 2003-2004, this grew to €508 million. [3] As of 2009, Ubisoft employed more than 5,750 people, of which over 4,800 are classed as working in production. The company's largest development studio is Ubisoft Montreal, which in 2004 employed approximately 1,600 people. [3] Yves Guillemot, a founding brother, was the chairman and CEO. As for 2008–2009, Ubisoft's revenue was €1,058 million, reaching the 1 billion euro milestone for the first time in its history.



Fig. 3.7 One year price chart for Ubisoft Entertain.

3.3 Trades Simulation

3.3.1 Week 1

For this week I decided to just see how much profit these two companies could make for me. I started with 15,000 dollars. For simplicity the brokerage fee is being set to zero.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/7	ERTS	Buy	15.81	500	7905		7075	
6/7	BBBB	Buy	38.92	100	3892		3163	

Table 3.1 Week 1 Short Term Trading

3.3.2 Week 2

After the first week of having both my ERTS and BBBB stocks I sold my stocks in the two respective companies at 16.29 for ERTS shares and at 38.69 for BBBB shares this came to a combined total of 12,014 giving me a profit of 217. I then invested into Digital Globe Inc. 500 shares at 25.96 on the same day 6/14 and then sold the stocks for 26.12 on 6/16 for a total of 13060 making a profit of 80. I then invested in Clean Diesel Technologies Inc. for 10000 shares at 1.20 and sold at 1.11 a total of 11100 and lost 900 it the next day because of the money I lost investing on 6/17. I ended the week by buying 4700 shares in Asure Software Inc. at 2.36.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/14	ERTS	Sell	16.29	500	8145	+240	11308	240
6/14	BBBB	Sell	38.69	100	3869	-23	15177	217
6/14	DGI	Buy	25.96	500	12980		2217	
6/16	DGI	Sell	26.12	500	13060	+80	15277	297
6/16	CDTI	Buy	1.20	10000	12000		3277	
6/18	CDTI	Sell	1.11	10000	11100	-900	14377	-603
6/18	ASUR	Buy	2.36	4700	11092		3285	

Table 3.2 Week 2 Short Term Trading

3.3.3 Week 3

This week I choose to take a risk and ride this stock out through the first half of the week and then sold my holding of 4700 stocks in ASUR at 2.25 each for a loss of 517 on 6/23. On that same day I bought holdings in SLP, which was doing well for the past couple of weeks. I bought a total of 4800 stocks at 2.20 for a total of 10560.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/23	ASUR	Sell	2.25	4700	10575	-517	13860	-1120
6/23	SLP	Buy	2.20	4800	10560		3300	

Table 3.3 Week 3 Short Term Trading

3.3.4 Week 4

To begin this week I choose to Sell SLP and buy stock in CDTI at 1.00 a company I had previously invested in.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/28	SLP	Sell	2.45	4800	11760	1200	15060	80
6/29	CDTI	Buy	1.00	10000	10000		5060	

Table 3.4 Week 4 Short Term Trading

3.3.5 Week 5

This week on 7/6 I choose to sell my stake in CDTI at 1.10 and made a 1000 dollar. The next day I invested in UEN.F at 6.41 a video game company I believe will be profitable.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/6	CDTI	Sell	1.10	10000	11000	1000	16060	1080
7/7	UEN.F	Buy	6.41	2000	12820		3240	

Table 3.5 Week 5 Short Term Trading

3.3.6 Week 6

Seeing potential in my UEN.F stock I kept my shares in the company, I also chose to stay with the company because I didn't want to take chances with a new company. I sold my shares on 7/16 at 6.85 for a profit of 880 dollars.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/16	UEN.F	Sell	6.85	2000	13700	880	16940	1940

Table 3.6 Week 6 Short Term Trading

3.4 Conclusions and Results

For the most part the simulation went pretty well yet at times I had to part with stocks that were losing money. By watching the market daily I was able to buy in generally low trends or at constant up trends depending on the stock. The few I lost money I sold them before too much damage has been done. I have learned a lot through our simulation and it was very interesting to see how different stocks would do in the market. I found that 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. In the end I only made dollars from the simulation. Not a considerable amount but not too bad for some one who has never traded before.

This simulation by far proved to be the most challenging for me because at times I had to comeback from a very large deficit of over 1,000 dollars, which if I was dealing with real money would both hurt my pockets and psyche. Over all a good experience as to what to and not to do for future trading in devours.

4 Long Term Trading

Long term trading has several significant advantages, including the effects of compounding, the opportunity to earn from dividends, reduction of the impact of price fluctuations, the ability to make corrections in a more timely manner, less time spent monitoring stocks.

4.1 Long Term Trading Method

When it comes to this type of trading time can be an investor's best friend because it gives compounding time to work its magic. Holding a stock to take advantage of payouts from dividends is another way to increase the value of ones investment. Companies can offer the ability to reinvest dividends with additional share purchases increasing the overall value of your investment. [1] In the long term investment you are less affected by short term volatility. The market tends to address all factors that keep changing in the short term. So a person involved in long term investment or trading will not be affected as much by short term instability due to factors such as liquidity. In the long term, good stocks, which may have been affected due to some other factors, will give better than average returns. Long-term investors, especially those who invest in a diversified portfolio, can ride out down markets without dramatically affecting their ability to reach their goals.

Simply investors that begin early and stay in the market have a better chance of riding out the bad times and capitalizing on the periods when the market is rising.

4.2 Stocks Chosen

Nike, Inc. Common Stock (NKE)

Nike, Inc. designs, develops, and markets footwear, apparel, equipment, and accessory products worldwide. The company provides shoes for running, training, basketball, soccer, aquatic activities, baseball, football, cheerleading, golf, lacrosse, outdoor activities, skateboarding, tennis, volleyball, walking, wrestling, and other athletic and recreational uses. The company also offers sports-inspired apparel, athletic bags, accessory items and a line of performance equipment, including bags, socks, sport balls, eyewear, timepieces, electronic devices, bats, gloves, protective equipment, golf clubs, and various more for sports activities. The company also markets its products under the brand names of Converse, Chuck Taylor, All Star, One Star, Umbro, Jack Purcell, Cole Haan, Bragano, and Hurley. It sells its products to retail accounts through stores, independent distributors, and licensees, as well as through its Website, nikestore.com. As of May 31, 2009, Nike, Inc. operated 338 retail stores in the United States and 336 retail stores internationally. [3] The company was founded in 1964 and has its headquarters in Beaverton, Oregon. en la bodega as usual, and every1 doing good



Fig. 4.1 One year price chart for Nike, Inc.

Boston Beer Company, Inc. (SAM)

The Boston Beer Company, Inc. makes low alcohol beverages primarily in the United States, Canada, Europe, Israel, the Caribbean, the Pacific Rim, and Mexico. The company markets approximately 20 beers under the 'Samuel Adams' or the 'Sam Adams' brand names; 8 flavored malt beverage products under the 'Twisted Tea' brand name; and 1 hard cider product under the 'HardCore Cider' brand name. It also produces malt beverages and hard cider products under contract for third parties. The company sells its products to a network of wholesale distributors, who then sell to retailers, such as pubs, restaurants, grocery chains, package stores, stadiums, and other retail outlets. The Boston Beer Company, Inc. was founded in 1984 and is based in Boston, Massachusetts.



Fig. 2.1 One year price chart for Boston Beer Company, Inc.

4.3 Trades Simulation

4.3.1 Week 1

Since this is a long term approach I choose companies that considered to be reliable and safe, but most of all that are sure to growth my wealth over a long period of time. I started with 15,000 dollars. Note that due to the nature of long term trading I will be keeping these stocks through the course of the simulation. To simplify I have set the brokerage rate to zero.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Gain/Loss
6/7	NKE	Buy	70.54	100	7054		7926	
6/7	SAM	Buy	67	100	6700		1206	

Table 4.1 Week 1 Long Term Trading

4.3.2 Week 2

Since last week NKE has gone from 70.54 to 72.49 gaining a 195 for my 100 shares. As for SAM it also went up from 67 to 70.49 a gain of 349 on my 100 shares.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Gain/Loss
6/14	NKE		72.49	100	7249		1206	195
6/14	SAM		70.49	100	7049		1206	349

Table 4.2 Week 2 Long Term Trading

4.3.3 Week 3

So far my stocks have risen in price since last week NKE went up to 74.35 per share and SAM has gone up to 72.79 a share.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Gain/Loss
6/21	NKE		74.35	100	7435		1206	381
6/21	SAM		72.79	100	7279		1206	579

Table 4.3 Week 3 Long Term Trading

4.3.4 Week 4

This week both my stock in each company have dropped since last week NKE by 4.72, dropping 0.91 from the price I originally bought my shares at. As for SAM the price per share also dropped from 72.79 to 70.24 a difference of

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Gain/Loss
6/28	NKE		69.63	100	6963		1206	-91
6/28	SAM		70.24	100	7024		1206	324

Table 4.4 Week 4 Long Term Trading

4.3.5 Week 5

For the second week in a row my shares in NKE and SAM have dropped giving me total loss of 512 from the original amount I bought the shares for.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Gain/Loss
7/6	NKE		66.34	100	6634		1206	-420
7/6	SAM		66.08	100	6608		1206	-92

Table 4.5 Week 5 Long Term Trading

4.3.6 Week 6

Though both NKE and SAM proved to be profitable although the amount of profit over the six week span was very minimal.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/16	NKE	Sell	70.35	100	7035		8261	
7/16	SAM	Sell	68.49	100	6849		15110	110

Table 4.6 Week 6 Long Term Trading

4.4 Conclusions and Results

In order to keep true to the nature of long term trading I decided to maintain the stocks that I originally bought throughout the 6 week simulation span because I believe the companies I had chosen to be very good reputable companies whose products speak for themselves. This proved to be a very nail biting experience especially when I was seeing my money slowly dwindle away at times hoping that the next day the stock will go up. Overall the amount of profit was very little but at least I didn't lose any money.

5 Conclusions

5.1 Did I Meet My Goals

I set up project goals and personal goals that I believed were reasonable to achieve in the term long project. Project goals were to complete a successful simulation, hopefully at least break even, have a better grasp of stock trading. A personal goal was the fact that I wanted to come out on top and earn the most money that I possibly could. In order to prove that in fact their type of trading policy was and is the best.

I feel that my goals for the project were met. I learned about trading in the stock market. I learned how to research stocks and how to trade them.

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.

5.2 Comparison of Trading Methods

Comparatively short term trading did the best over our simulation period. This may be due to the fact that since the simulation was short other methods didn't have time to reach their full potential. Penny stock trading was very close to short term trading because of the similarities in the holding time of the stocks. Long term trading comes in

third with a profit gain of just a little over 100 dollars. 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, which is much longer than time span I had for my simulation.

Method	Gains	Losses	Net Result	% Increase on initial investment
Penny Stock Trading	1800	0	1800	36%
Short Term Trading	1940	0	1940	12.93%
Long Term Trading	110	0	110	0.73%
Totals	3850	0	3850	11%

Table 5.1: Comparison of Gains and Losses

5.3 Summary of Project Experience

From beginning to end this project was a great learning experience. I learned about the market and how it works. And now when I actually plan to invest in the future I can use the knowledge that was gained from this project. Now I feel that if I do invest in stocks we will be able to make some money based on what I did in this project. A familiarity 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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