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Investment & Security Trading

Brian James Uszakiewicz
Worcester Polytechnic Institute

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Worcester Polytechnic Institute

Investment & Security Trading

Interactive Qualifying Project submitted to the faculty of Worcester Polytechnic Institute by

Brian Uszakiewicz __________________________

Chan Young Choi __________________________

Submitted on 03, May 2011

Approved by Professor Hossein Hakim, Project Advisor
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Chapter I

1.1 Introduction

Human civilization has unquestionably advanced at breakneck speed in our relatively short time on planet Earth. Perhaps one of the biggest factors contributing to this incredible rise has been the facilitation of trade between individuals, tribes, and nations. Even in its earliest forms, trading and barter has been the driving force behind much of the development of human society. The expansion of Europe around the globe was driven primarily by the quest for natural resources and the riches and prosperity they bring when introduced to the marketplace. In fact, Christopher Columbus was actually seeking a new way to China with the intention of bringing goods such as silk and spices back to Europe when he stumbled upon the new world. A few centuries later, American colonists were able to overpower the natives of this land with their more advanced weaponry made possible through extensive European trade networks. America was able to quickly rise to global prominence partly because of its fertile land which enabled its farmers to sell cotton, wheat, corn, tobacco and other valuable products on the free market, transforming this rugged land into one of freedom and prosperity for its people. These days, the world is more connected than ever before, enabling people thousands of miles away from each other to communicate and transfer goods for the benefit of all. Factories are now more productive than ever thanks to computer-automated assembly and production, and the transportation of goods is faster and more efficient than ever. These improvements have effectively increased the quality of goods available for consumption and reduced prices for the consumer, further increasing the standard of living for all.

The modern age has also brought about a new way of structuring the equity, debt, and personal liability involved in running a business through an entity known as a corporation. A corporation is an independent legal entity, created by law in a state and has most of the same legal rights a regular person would have. It can buy and sell property, borrow money, and enter into legally binding contracts. It can also sue and be sued, and it pays taxes as a separate entity. Corporations issue stocks, or shares in the company, which are transferrable units that can be bought or sold freely by the general public, thus transferring ownership in the company. It is important to note that transfer of ownership rights among stockholders normally has no effect on the operating activities of the corporation, nor does it affect the corporation’s assets, liabilities, and total stockholder’s equity.

A corporation has a number of advantages over more traditional business forms. For one, it is relatively easy for a corporation to acquire capital through the issuance of stock, as long as the stock is bought. Buying stock in a corporation is often attractive to an investor because a stockholder has limited
liability and shares of stock are readily transferable, and numerous individuals can become stockholders by investing small amounts of money. Another advantage is that a corporation can have a continuous and perpetual life as its existence does not depend on the life of any stockholder, employee, or officer. The life of a corporation can sometimes be limited to a specific number of years as outlined in the company’s charter. However, the charter can also be renewed, thus allowing a corporation to live as long as it has people willing to own shares in it. The company charter describes the name and purpose of the corporation, as well as the types and number of shares of stock that are authorized to be issued. It contains the names of the individuals that formed the company, and the number of shares that these individuals agreed to purchase. It also contains bylaws which establish internal rules and procedures for conducting the affairs of the corporation. Corporations are free to engage in interstate commerce, but they must first obtain a license from each state in which they plan to do business. Regardless of the number of states in which a corporation does business, it can only be incorporated in one state. Because of this, it is important to choose to become incorporated in a state with laws and tax codes favorable to corporations.

The way a corporation is managed is also unique among the various business forms. In a corporation, the stockholders manage the company indirectly through a board of directors they elect. The board then formulates the operating policies and selects officers to perform essential management functions. The chief executive officer (CEO) has overall responsibility for managing the business. Also, the chief financial officer (CFO) is the controller, meaning he is responsible for maintaining accurate accounting records, maintaining an adequate system of internal control of funds, and for preparing financial statements, tax returns, and internal reports. The chief operating officer (COO) is in control of day-to-day operations. The treasurer has custody of the corporation’s funds and is responsible for maintaining the company’s cash position.

Because of a corporation’s unique status as an independent entity, it is subject to additional government regulations. At the federal level, there are federal securities laws which govern the sale of capital stock to the general public for publicly traded companies. There are also state laws that prescribe the requirements for issuing stock, the distributions of earnings permitted to stockholders, and acceptable methods for retiring stock. In addition, publicly held corporations are required to disclose their records of financial activities to the Securities and Exchange Commission (SEC). Also, when a corporation is listed and traded on an organized securities exchange, it must comply with the reporting requirements of these exchanges. Corporations are also required to pay taxes as a separate legal entity in a high tax bracket, sometimes as high as 40% of taxable income. In addition, individual stockholders are taxed on dividends they receive from the corporation, creating a situation known as double taxation. This means that the
income received by the corporation is taxed twice—once at the corporate level and again at the individual level.

Holding stock in a corporation has many advantages. For one, owners of common stock are able to vote in elections naming the board of directors, and are also allowed to vote on actions that require stockholder approval. Stockholders are entitled to a share of the corporate earnings through receipt of dividends. They are also usually granted the option of buying more stock when new shares of stock are issued in order to maintain their same percentage ownership. This is called preemptive right. Finally, stockholders are entitled to their share of assets upon liquidation in proportion to their holdings. This is called residual claim because owners are paid with assets that remain after all other claims have been paid.

1.2 Project Description

For our project, our goal was to learn as much as we could about stock market trading, with an emphasis on fundamental and technical analysis both through reading online materials and engaging in our own trading simulation using the TradeStation platform. In order to identify emerging trends that we could trade on, we planned to engage in market watching by watching CNBC daily and reading relevant online articles. Since no real money was at stake, our strategy was to use a trial-and-error approach to find out what works and what doesn’t when attempting to trade in the stock market. This would allow us to identify the most useful technical indicators, and teach us the kinds of changes in a company’s fundamentals that would most likely result in profitable trades. Ultimately, we hoped to design a concrete trading strategy that could be written in Easy Language and back-tested using the TradeStation platform in order to automate our trades. This report will examine our findings and results and provide a strategy that we can use to write this code moving forward.
Chapter II

2.1 Stock Market Basics

It is important to have a basic understanding of the stock market before trying to grasp some of the more complicated concepts that are associated with investing in the stock market. To begin, stocks are traded on stock exchanges; these are places where buyers and sellers come together and make trades. The two major stock exchanges in the US are the New York Stock Exchange (NYSE) and the National Association of Securities Dealers Automated Quotations (NASDAQ) stock exchange. A stock exchange can have a physical location or be electronic. For example, the New York stock exchange is located on Wall Street in New York City, and the NASDAQ stock exchange is an electronic exchange where trades are completed over the computer.

In the past a person buying stock would do so through a broker. A broker is a person that buys and sells stocks on behalf of his client, an investor who pays a commission in return for the broker’s investment help. A broker can advise his client on what trades to make or not make, but the final decision is ultimately left to the investor. However, with the increase in technology over the past decade a broker is no longer necessary for an individual who wants to invest in the stock market. There are many online trading platforms available like E*trade, Ameritrade, or Tradestation. These platforms are usually cheaper than paying a broker commission and usually offer many customizable tools that allow an investor to do their own unique research.

When an investor buys stock in a company they are essentially taking ownership of a small very portion of the company. As a shareholder, you technically own a very small piece of everything that the company owns. However, just because you are a shareholder doesn’t mean that you have a say in how the company is managed. Technically, a shareholder can vote to have the management of a company removed, but an individual shareholder must have a large amount of stock in the company before they have any influence on the management of the company.

For the most part, shareholders are more interested in other benefits that investing in stock offers, because they won’t be buying enough stock to have a real impact on the management of a company. Actually, most shareholders are not at all interested in managing the company that they invest in; they are more interested in capitalizing on the long-term growth potential of the company, or else they buy and sell shares in pursuit of profit that comes from day-to-day fluctuation of the stock’s price. A stock’s price is based on the simple principle of supply and demand. If more people want to buy a stock (demand) than sell it (supply), the price moves up. Conversely, if more people wanted to sell a stock than buy it, there would be greater supply than demand, and the price would fall. In that sense, a stock’s price is in a
constant tug-of-war between buyers and sellers, and a savvy trader must keep this in mind when deciding to buy or sell shares. Aside from the standard buying and selling of stocks, we also have the ability to sell a stock short. This is done when an investor sells shares that were borrowed from a broker, with the expectation that the share can be bought (or “covered”) for less at a later time. This adds a wrinkle to the tug-of-war going on between buyers and sellers, as people can short sell a stock they do not own but expect to fall in price, changing the dynamics of the relationship between buyers and sellers. By reading chart patterns and analyzing indicators like moving averages and buy and sell volume, traders can get a sense of what kind of action is causing a stock price to fluctuate the way it is, and can use that information to make informed decisions regarding the direction they think the price is going to go. This is called technical analysis, and will be discussed in much greater detail later.

While technical analysis of charts and indicators is certainly an important aspect of trading, it is only half of the equation that traders use to make informed investment decisions. The other half comes from fundamental analysis—that is, the information that companies provide to the general public regarding their financial health. A company’s balance sheet, income statement, and statement of cash flows tell investors basic information regarding the company’s financial standing. Costs, revenue streams, profit margins, the amount of debt taken on, and the amount of spare capital available to a company are all very important to investors who want to know that their money is safe while it is invested in a company. Companies with high debt-to-equity ratios pose a risk of defaulting on loans and going bankrupt, while companies with shrinking margins represent less attractive investments and are likely to see their share price decrease. Both of these are risks the investor takes on by investing money in a corporation, but by doing his homework and researching the fundamentals of a company, an investor can minimize his risk and reap the benefits of investing in a strong company with consistent growth.

To be fair, there is a third, and arguably equally important aspect involved in making informed investment decisions—analysis of the macroeconomic climate at large as well as the growth within a particular industry at a given point in time. Corporations are not isolated entities—they function within industries and are but a single link in complex supply chains. These industries and supply chains come together to make up the domestic economy, which is a dynamic entity. Each part comes together like gears in a clock, and changes in one gear can end up affecting the entire mechanism. For example, a weaker dollar has historically corresponded to a stronger stock market, though this relationship has weakened lately as the Euro loses value relative to the US dollar. This makes sense, because if a dollar is more valuable than the nominal value of stocks goes down. The current loose monetary policy brought into effect by the Federal Reserve also has a positive impact on stocks. In general, increased bond yields tend to predicate a rise in stock prices within the natural boom and bust of the business cycle, though
yields are affected by the rate of inflation. Geo-political issues such as wars or trade embargoes obviously can affect a relevant company’s share price, and natural disasters such as a flood in Australia can affect a company like McDonald’s because the associated rising food prices put pressure on the company’s operating margin. These complex relationships are nearly infinite in number, but paying attention to current events and having a solid understanding of the dynamics that exist between these economic gears is an indispensable advantage to any investor.

One option that can and should be considered by investors looking to diversify their portfolio or gain exposure to economic activity beyond traditional corporate equity shares is an ETF, or exchange traded fund. ETFs are funds that are openly traded on an exchange, and can be made up of almost any type of asset or combination of assets. They can consist of different stocks within the same industry as a way of minimizing risk while gaining exposure to a particular sector. They can also be backed by a commodity, such as the GLD ETF which tracks the price of gold. There are ETFs for virtually any commodity one could possibly want to trade, from cotton to oil to aluminum. They can also be put together to gain exposure to emerging markets, such as an ETF made up of a collection of Chinese companies, for example. As CNBC’s Jim Cramer likes to say, “There’s always a bull market somewhere.” Skilled investors are able to see trends within specific industries or the global economy as a whole and use that knowledge to find companies or exchange traded funds that could potentially profit from the given circumstances.

2.2 Fundamental Analysis

Fundamental analysis is the method of evaluating a company’s current financial health as well as its long-term growth potential. Investors use fundamental analysis especially when they are employing a buy-and-hold strategy, disregarding the daily fluctuations with the expectation that the companies with the strongest fundamentals in a given industry will outperform their competitors and therefore attract more investors. Since the majority of investors and money management groups tend to buy and hold for relatively long periods of time, it is important to understand the key ratios on which they base their decisions and identify the most attractive companies within different sectors in order to create a diverse portfolio. We will discuss this later, as well as the concept of hedging in order to minimize risk within a portfolio. For now, we will focus our discussion on the basic tools and principles of fundamental analysis.

Before getting to the different ratios that investors use to evaluate companies and their relative fiscal strength, investors need to know how to read and understand a company’s financial reports. There are three major types of financial statements that companies use to report earnings and their current financial status. These consist of a balance sheet, income statement, and statement of cash flows.
A balance sheet is a financial statement from a company which summarizes the company’s assets, liabilities and shareholder’s equity at a specific point of time. Assets listed on the balance sheet are cash, inventory, and accounts receivable. Investors are often attracted to companies with high amounts of cash on their balance sheet because cash often acts as a security blanket through economic swings and gives companies more alternatives for growth. Companies with higher amounts of cash on their balance sheets are considered more “liquid”, as their funds have not been tied up in inventories or other expenses and can be easily used for anything. However, large piles of cash in reserve could also be a sign of something wrong. Investors may question why the money is not being put to use for the betterment of the company.

Inventories are products that have already been made, but not yet sold. To produce cash to pay bills and produce profit, the company must sell the products that they have produced. If inventory is growing faster than sales, this suggests a weakening company.

Receivables are uncollected bills that customers or other suppliers owe to the company. Receiving these funds late or not at all negatively affects a company, as timely reception of due funds is necessary to pay salaries, purchase goods and equipment, and pay back loans. The faster a company is able to collect the money that it is owed, the more opportunities the company will have for the growth. These three parts of the balance sheet tell the investor what the company owns, how much is owed to the company, and how much the company is invested. It is useful for evaluating the company’s financial status at a given snapshot in time, but it must be evaluated in conjunction with the other financial reports in order to give the investor a complete picture of the company’s financial standing.
An income statement is a financial document containing revenue, earnings, and earnings per share over a given time period—usually on a yearly or quarterly basis. The income statement shows how much money the company made, how much they spent, and the profit they made over a certain period of time. Investors can tell whether the company is making money or not through the income statement. This is a critical component of a company’s financial report—it tells the investor how much the company has grown lately, and it is a very useful tool for basing investment decisions, especially when compared with the income statements of competing firms. Companies that are growing at a faster rate than competing firms become more attractive for investors as they present an opportunity for greater upside in the share price and thus become more valuable, commanding a higher price. It is not uncommon to see a stock price react with a large move after an earnings report is released, especially if it either beats or misses analyst’s estimates by a notable margin.
Table 2.2 Income statement of a company example

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$’000</td>
<td>$’000</td>
<td>$’000</td>
<td>$’000</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>32,653</td>
<td>32,613</td>
<td>25,895</td>
<td>26,474</td>
</tr>
<tr>
<td>Other income</td>
<td>1,001</td>
<td>781</td>
<td>887</td>
<td>677</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td>33,654</td>
<td>33,394</td>
<td>26,782</td>
<td>27,151</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee &amp; Consultant Expenses</td>
<td>15,264</td>
<td>13,979</td>
<td>13,370</td>
<td>12,289</td>
</tr>
<tr>
<td>Administration, Travel Publication and IT</td>
<td>8,508</td>
<td>8,083</td>
<td>7,066</td>
<td>6,676</td>
</tr>
<tr>
<td>Occupancy Expenses</td>
<td>1,791</td>
<td>1,417</td>
<td>1,588</td>
<td>1,221</td>
</tr>
<tr>
<td>Borrowing Expenses</td>
<td>6</td>
<td>4</td>
<td>115</td>
<td>90</td>
</tr>
<tr>
<td>Depreciation &amp; Amortisation</td>
<td>1,277</td>
<td>1,237</td>
<td>1,196</td>
<td>1,165</td>
</tr>
<tr>
<td>Conference / Meeting Expenses</td>
<td>4,664</td>
<td>4,388</td>
<td>2,527</td>
<td>2,519</td>
</tr>
<tr>
<td>Other Expenses</td>
<td>2,007</td>
<td>2,018</td>
<td>1,361</td>
<td>1,482</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>33,517</td>
<td>31,126</td>
<td>27,223</td>
<td>25,442</td>
</tr>
<tr>
<td><strong>Net surplus (deficit) from operations</strong></td>
<td>137</td>
<td>2,268</td>
<td>(441)</td>
<td>1,709</td>
</tr>
</tbody>
</table>

A cash flow statement is a financial statement containing information about how much cash comes in and out of the company, and where the cash flow is coming from. The three divisions within the cash flow summary are: cash flow from operations, cash flow from investment, and cash flow from financing. Cash flow from operations represents the amount of money being brought in through the buying and selling of inventory. The cash flow from investment represents the amount of money being invested in assets. The cash flow from financing represents the amount of money being brought in or spent through the various financing measures the company may be taking, such as the buying and selling of stocks, bonds, and the payment of dividends to its stockholders.
It is useful to compare different figures found in a company’s financial reports in the form of ratios, which can then be compared to the same ratios of different companies to determine the relative strength of the investment. Price-earnings ratio is the most familiar method of valuation that investors encounter. It is the ratio of a company’s current share price compared to its earnings per share. Price-earnings ratio tells us how much the investors are willing to pay per dollar of earnings. In general, a high price-earnings ratio suggests that investors are expecting higher earnings growth in the future. If the company does not meet investor expectations by reporting lower earnings per share, the share price will likely fall to reflect the loss of earnings potential, bringing the price-earnings ratio to a more reasonable level.

Price to cash flow ratio is a measure of the market’s expectation of the company’s future financial health. In general, the lower a company’s price to cash flow ratio, the bigger its discount from the industry average multiple, which means it is most likely undervalued. This does not necessarily make the stock an automatic “buy”, but this should be considered along with other valuation methods.

The price to sale ratio is the value of a stock compared to its own past performance. It is calculated as the latest closing price of the stock divided by the latest 12 months’ sales per share. A low price to sale ratio can suggest a company with turnaround potential as its share price is relatively low compared to the firm’s revenue, though it is important to remember that the typical range for this ratio (like all valuation ratios) varies by sector or industry. Different types of companies carry different types
of capital structure, so a good price-sale ratio for a company in one industry may not be so good for another company in a different industry.

The price to book ratio is the ratio comparing a stock’s book value to the market value. If the price to book ratio value is low, it could mean the stock is undervalued, but it could also mean the company’s fundamentals have problems too. Again, each valuation ratio gives a small picture of a given company’s potential for long-term growth, so investors must evaluate all of these ratios and compare them to other companies within the same sector or industry to find value and potential upside in the share price.

A firm’s debt-equity ratio is an important figure in that it tells the investor about the company’s debt obligations compared to its equity. In general, it is better for a company to have a lower percentage of debt compared to equity, as firms with high debt but use a larger proportion of their earnings to pay back their liabilities, which hinders growth. Also, if a firm gets too deep into debt it risks defaulting on its obligations and having to file for bankruptcy. This represents a substantial loss to investors, so companies with a lot of debt on their books should be avoided as possible investments.

Another important consideration to make when deciding to invest in a company or not is whether the firm offers a dividend for its shareholders. Dividends are small payments that companies make to their investors for each share they hold, and are generally paid quarterly. Dividends are incredibly attractive to investors for the obvious reason that they generate income for the holder of the stock in addition to the value that is gained between the buying and selling of the stock. For that reason, it is important to know whether a company pays a dividend, and if it does, how much it is and how much it has increased or decreased recently, as well as any plans by the company to raise or lower its dividend in the future. This can affect the share price as a change in the dividend can affect the perceived value of the stock and either attract more buyers or cause more shareholders to sell, which raises or lowers the price, respectively.

Fundamental analysis is a critical method of evaluating a company’s potential for profit-making and successful investment, as it helps give investors a thorough understanding of the business that they may want to invest in. When an investor researches and analyzes a company he may want to invest in, he becomes familiar with the key revenue and profit drivers behind the company. Through careful fundamental analysis, investors can identify which companies are worth their money and will likely return a profit. This is why fundamental analysis is mainly used in longer-term, buy-and-hold investment decisions. Careful fundamental analysis gives an investor an understanding of the company’s long-term growth potential and allows him to ignore the day-to-day price fluctuations that are bound to occur. This is different from the strategy employed by flash traders, swing traders, and day traders, who place greater
emphasis on technical analysis to identify companies with which to invest, though fundamental analysis is an undoubtedly useful tool for anybody that is considering investing their money in a publically traded company.

Even with great insight, fundamental analysis does have its weaknesses. Fundamental analysis is time-consuming, and can sometimes produce stock values that differ from the market price. Also, different companies from different industries require different techniques, but this is also time-consuming and can limit the amount of research that can be done. Also, because most of the information about the company comes directly from the company itself, investors must be wary of manipulation of financial statements intended to cover up losses or exaggerate gains. This type of manipulation is highly illegal and is monitored by the SEC, but companies can sometimes find loopholes in accounting methods that can end up altering their assets and liabilities in order to paint a rosier picture of the company’s performance. Despite the risks of basing investment decisions solely off of financial statements that are sometimes inaccurate, it is generally a good idea to learn as much as possible about a company before deciding to invest in it, especially when investing for the long-term.

2.3 Technical Analysis

2.3.1 Basic Charting Methods

Chart Stock Closing Price is a method of graphing stock prices where only the closing prices are plotted. Some more sophisticated examples of Closing price are the Open High Close Low Chart or OHCL, and the Japanese Candlesticks. An OHCL chart is a method of graphing stock prices that shows the high, low, and closing prices for a stock over a given period of time. A vertical line represents the high and low and horizontal tick marks represent the opening and closing price. The opening price is located on the left side of the vertical bar and the closing price is located on the right side. Typically, a pattern of higher highs and higher lows tends to show a stock that is trending higher, while a stock showing lower highs and lower lows tends to represent a deteriorating stock. Below is an example of an OHCL bar:

![Figure 2.1 OHCL bar](image_url)
Another method of visualizing the high and low price of a stock for a period of time is called Japanese Candlesticks. One benefit of the Japanese Candlestick chart is they show the difference between the current and previous bar’s closing prices. The wicks or shadows on either end of the candle represent the high and low for the day. The body of the candle represents the opening (or the previous day’s close) and the closing price. An up bar is represented by a hollow or white candle, while a down bar is represented by a solid or black candle.

![Japanese Candlestick Chart](image)

**Figure 2.2 Japanese Candlestick**

### 2.3.2 Indicators

Indicators provide a means of organizing and presenting important data to give clarity to an otherwise chaotic market. An indicator takes raw data as the basic input and manipulates it in some way to create a display that gives the trader a better picture of the forces determining the price action. These indicators include a wide variety of categories, such as oscillators, Larry Williams indicators, moving averages, momentum indicators, and many others. Because indicators are based on previous data, they are not necessarily predicting tools, though they can be incredibly useful in helping the trader identify strategic points of entry or exit. Indicators are never right or wrong—they are simply tools that traders interpret and use to decide the correct course of action, much like a sailor uses a compass to help determine the direction he should be traveling. It is up to the trader to correctly interpret the indicators being used, which is not always easy as each indicator presents only a narrow view of the nearly endless factors that can affect a stock price. This is why it is always better to use several indicators in order to get a more complete picture of the ongoing price action.
2.3.3 Oscillating indicators

Oscillating indicators present high and low barriers on an infinite number of prices that a stock could reach. This gives the investor a smaller range of possible changes in price by identifying high and low turning points over a certain period of time. However, a previous high or low can easily be superseded at any given moment, since the indicator is only based on past data and the market is always changing. From the wide variety of oscillating indicators, some are used differently than others and some tend to be easier to understand graphically. For example, a Williams oscillator will reflect every change in current market prices, while an RSI has an easier user interface and can give simple graphical output. Below is an example of an oscillator; it shows which percentage of the range when one should buy or sell: if it goes above 90% (downwards), one would buy.

![Oscillating Indicators](image)

Figure 2.3 Oscillating Indicators

Oscillators can be used to describe trends in markets over a certain period of time, which can be broken down and made into smaller trends. Oscillators can also be combined to form better tools for trading according to the investor.

2.3.4 Moving averages

Moving averages are indicators that measure the momentum and direction of a trend. The idea behind moving averages is that the price of a currency pair or stock will fluctuate above and below the average over a period of time. Momentum is calculated by determining if the current prices are above or below the market's average value. There are many types of moving averages; they include simple moving averages, exponential moving averages, smoothed moving averages, and linear regressed moving averages. A
simple moving average is the easiest to understand, as all the data is collected by averaging the closing prices over a certain amount of time and no weighting is used.

Example of a simple moving average indicator:

![Moving Average Indicator](image)

**2.3.5 Exponential Moving Average**

An exponential moving average highlights the numbers from other moving averages to give a better understanding to most recent prices. An exponential moving average is found by exponentially decreasing the movement towards past values on the left of the graph; giving greater value to most recent prices and allowing a more up-to-date moving average with recent prices.

**2.3.6 Smoothed Moving Average**

A smoothed moving average is very similar to an exponential moving average. The only difference is that all the prices over the history of the market are taken into account. The exponential characteristic still applies, but it goes further back into history, not just over a set period of time. This indicator is also used more commonly for, as described by the name, smoothing price fluctuation by removing short-term volatility. It is useful to show clearly the long term momentum of the market.

**2.3.7 Linear Regressed Moving Averages**

Linear regressed moving averages are similar to both simple moving averages and exponential moving averages. However, instead of weighting past data that is exponentially less, it does so linearly. It starts with an initial given period of time (n) that is multiplied by 1. A more recent consecutive period of time is chosen and (n-1) and is multiplied by a factor of 2, and so on until present time is reached.
2.3.8 Momentum indicators

Momentum Indicators are used to measure the momentum of the market by considering the amount of buying and selling over a period of time and the direction of the market. Every market has a high and a low over a period of time, and this indicator displays the volume of buyers and sellers to make it easy to see when the market has hit a peak and is likely to turn back. These peaks are achieved when the amount of people buying (or selling in the case of a low) slows down and the rate of change for the price slows down as well. As with other indicators, it does not predict the direction of the market. It shows the likelihood of the market changing, but large events can offset this indicator. An example of momentum indicator and when to buy or sell is shown below:

![Momentum indicators](image)

Figure 2.5 Momentum indicators

![Momentum signal indicators](image)

Figure 2.6 Momentum signal indicators

2.3.9 Trading Bands

Trading Bands show the point of minimum and maximum divergence from the moving average trend line. By coming up with a window or envelope that will contain the price movement of the equity being traded an investor can decided when to go short or go long. If the price reaches the top of the envelope this is an indication to sell or to go short. If the price reaches the bottom of the envelope it is an indication to buy or
go long. Usually 10% of the moving average is the default divergence for the bands. Trading bands with a well centered moving average are desirable because that is when they are the most accurate. This is because the envelope will be able to encompass a wider range of price fluctuations. A well-constructed trading band can be a useful tool for an investor, enabling him to judge when a stock is approaching the minimum or maximum of a stock’s moving average. Below is an example of a type of band known as a Bollinger band. In a Bollinger band indicator, the band limits are set as a constant K times an N-period standard deviation. It gives the trader an idea of the strength of price fluctuations relative to previous price changes.

2.3.10 Moving Average Convergence Divergence (MACD)

Moving Average Convergence Divergence (MACD) is used to identify changes in the strength, direction, momentum and duration of a trend. The MACD shows the relationship between two moving averages of prices. The MACD is calculated by subtracting the 26-day exponential moving average from the 12-day exponential moving average. A nine-day exponential moving average of the MACD, which called the "signal line", is then plotted on top of the MACD. This line is used as an indicator for buy and sell signals. Investors look for crossovers, divergences and dramatic rises in the MACD. By using these three methods to interpret the MACD an investor can be influenced to make a move by either buying or selling. For example a crossover can indicate that it is time to sell the stock.
2.3.11 Volume

Number of shares traded over a given period of time. Shows trends regarding interest in the stock; an increase in volume along with an increase in stock price generally indicates a stock that is trending upward.

2.3.12 On Balance Volume

On Balance Volume is calculated by adding the volume when the price has gone up from the day before and subtracting the volume when the price is down from the previous day. It was developed by Joe Granville. This detects momentum and is in principle, the calculation of which relates volume to price change. It provides the accumulating total of volume and shows whether this volume is flowing in or out of a given range of values. OBV indicates large numbers of buyers, or a large amount of sellers.

Figure 2.9 On Balance Volume
2.3.13 Stochastic

Stochastic measures the relationship between a stock’s closing price and its price range over a period of time. Stochastic makes the assumption that a stock's closing price tends to trade at the “high end” of the day's “price action”. Price action stands for the prices at which a stock was traded throughout the day. Stochastic is measured with the %K line and the %D line, and it is the %D line that we follow closely, for it will indicate any major signals in the chart. Mathematically, the %K line looks like this:

\[
\%
K = 100\left(\frac{C - L_{5\text{close}}}{H_{5} - L_{5}}\right)
\]

\(C\) = the most recent closing price  
\(L_{5}\) = the low of the five previous trading sessions  
\(H_{5}\) = the highest price traded during the same 5 day period.

The formula for the more important %D line looks like this: \(\%
D = 100X \left(\frac{H_{3}}{L_{3}}\right)\).

2.3.13 Wilders Relative Strength

Wilders Relative Strength is classified as a momentum oscillator, it measures the velocity and magnitude of the direction of the price movements. Momentum is the rate of which the price either moves up or down. This indicator is used mostly every 14 day timeframe, and is measured on a scale from 0 to 100 with a high of 70 and a low of 30.

2.3.14 Wilders DMI

Wilders DMI is also known as directional movement index, it is an indicator that measures the strength of a trend as well as prices reversals. This indicator is plotted as three separate lines on a scale from 0 to 100. Two of these lines show the amount of movement that is either positive or negative; the positive line is called D+ and the negative D-. The direction of the lines and the use of crossovers can show the changes in the market at the moment. The third line is called the ADX or average of the difference of the first two lines. This line is used when the fluctuations of the other two lines are very large; this line makes up for that rapid movement.

2.3.15 Relative Strength Indicator (RSI)

Relative Strength Indicator (RSI) is an indicator that tracks price momentum. It is based on a observation that a stock which is rising will tend to close nearer to the high of the day than the low and vice versa for
the declining stock. This indicator gives comparison in price of the particular stock relative to the price trend of the stock market of the day. If the stock is getting stronger relative to the market, the line will rise on the chart, but if the stock is getting weaker, the line will decline.

### 2.3.16 Stop Loss Limit

A Stop Loss Limit limits the gain and losses of one’s holdings. Stop Loss limit is a stop-loss order in which the stop-loss price is set at some fixed percentage below the market price. If the market price rises, the stop-loss price rises proportionately, but if the stock price falls, the stop-loss price doesn't change. When the stock falls and hits the limit, the stop-loss order becomes a market order. A market order instructs your broker to sell immediately at the best possible price.
Chapter III

3.1 Identifying Chart Patterns

3.1.1 Support & Resistance Levels

Technical analysis relies heavily on determining levels of support and resistance. A support level is a price level where the stock price finds support and is not likely to fall below, while a resistance level is a price level where the stock finds resistance to continue higher. As mentioned earlier, price action is determined by the number of buyers compared to the number of sellers at a given time, so support and resistance are levels where the balance of power between buyers and sellers shifts. They can occur along any time period, and can be broken at any time by a change in the relative number of buyers to sellers. When a previous support or resistance level is clearly penetrated, it is likely to continue in the same direction until finding another level of support or resistance. A breakdown in a support or resistance level can occur either because of a change in the underlying fundamentals, or it can occur for purely technical reasons. Regardless, it is important for a technical analyst to determine levels at which he thinks a stock price may encounter support or resistance so that he can react accordingly should the stock hit a key level and show indications of the prior trend reversing. This is done by carefully analyzing a stock chart and looking for price extremes and points which mark strong reversals. Previous highs or lows generally act as levels of at least temporary support or resistance, with the highest highs and lowest lows in a given length of time providing the strongest levels of support or resistance. In general, the more times a stock price “tests” (touches and bounces off) a certain level, the more significant the level of support or resistance. Also, when price penetrates beyond a prior level of support or resistance, it often returns and tests that same level as either a new support level if an uptrend has broken through a prior resistance level, or as a new resistance level if a prior downtrend has broken through a previous level of support. An example of this type of role reversal in key levels is illustrated below:
After gaining a full grasp on the concept of support and resistance levels, we can begin to apply them to our trading strategy. Because we know that prices are likely to either continue or reverse around these levels, we can use our indicators to determine if the current trend is weakening or not, and then trade on our analysis. If properly executed, this can be a very profitable method. In addition, several common chart patterns have been identified over the years that can occur over any time period, and can be traded on with a good level of certainty, assuming the underlying fundamentals remain the same. By recognizing these common chart patterns, we can be well-equipped to make a profitable trade on a developing pattern with a fair amount of accuracy.

3.1.2 Ascending Triangles

A common chart pattern that can be incredibly profitable if properly identified is an ascending triangle pattern, pictured below. In an ascending triangle, we find a level of resistance that is touched several times, indicating strong resistance as there are a lot of people willing to sell the share that that price. However, with each test and reversal, the subsequent lows get higher and higher. If one draws a trend line along these lows, an ascending triangle is formed. This is because the buyers are buying at higher and higher levels, indicating that there is rising demand for the stock compared to the supply of those willing to sell it. As the lows of each cycle approach the resistance level, indicating more and more buyers and less and less sellers, the price effectively has nowhere to go but up. The result is an explosive move upwards, though the price sometimes returns briefly and tests the former resistance level, which has
become a new level of support. When encountering an ascending triangle, and any triangle pattern in general, it is important to check the volume levels while the pattern is forming and when it breaks out. In general, an ascending triangle pattern should be accompanied by a drop-off in volume while the triangle is forming as traders become uncertain where the price is going. When the price breaks out, it should be accompanied by higher volume as the pattern has been realized and there is much increased buying. The following chart shows a trade Brian made after identifying an ascending triangle pattern. After buying 100 shares and selling after the price broke away from the prior resistance level, another ascending triangle began developing. He bought 200 shares, and was able to accurately identify the point at which the stock was likely to reverse (and the point at which he would sell his shares) by using a Fibonacci extension plot. Fibonacci ratios will be examined in greater detail later, but by measuring the length of a previous trend (up in this case), and comparing it to the length that the price retraced, we can identify the levels at which we might expect the price to reverse, based on the assumption that stock prices tend to reverse at certain proportions relative to the prior trend. As we can see, this assumption held true in this case, as the stock indeed turned lower after reaching the 100% level based on the previous move upwards and subsequent retracement.

![Figure 3.2 Ascending Triangles](image)

**Figure 3.2 Ascending Triangles**

The opposite of an ascending triangle pattern is a descending pattern. As would be expected, this pattern appears when there is a level of tested support, but each high comes at a level lower than the previous high, indicating that the price is likely to fall through the support if the highs continue to approach the support level. As in the case of an ascending triangle, a descending triangle is generally accompanied by a drop in volume while the pattern is developing, followed by an increase in volume as the price breaks away from the prior support.
3.1.3 Symmetrical Triangle

Another triangle pattern that is common to find in technical analysis is the symmetrical triangle. This is generally a continuation pattern—that is, a symmetrical triangle pattern represents a period of consolidation following a trend, and when it is completed the stock often continues in the same direction as the previous trend. This is not always the case, however, so it is important to wait until the pattern develops fully before making a trade. In any case, a symmetrical triangle contains at least four identifiable points as you should be able to draw trend lines connecting the lower highs and higher lows that develop with each oscillation. As with an ascending or descending triangle, it is important to recognize the trading volume as a symmetrical triangle should bring lower volume while the pattern is developing signaling trader’s uncertainty, while the breakout should be accompanied by an increase in volume.

![Symmetrical Triangle](image_url)

**Figure 3.3 Symmetrical Triangle**

3.1.4 Head and Shoulders

A head and shoulders pattern is a common chart pattern representing a likely reversal if properly identified. In the case of a proper head and shoulders pattern, it appears as a peak, followed by a subsequent low and then a high which is higher than the previous high. It then declines again, and the next high is lower than the previous (second) high. This is a very reliable pattern signaling a reversal of the prior trend, and it can also be applied to a downtrend in the form of an inverse head and shoulders pattern. This is basically a mirror image of a proper head and shoulders, with the peaks being replaced by troughs.
3.1.5 Double Tops & Double Bottoms

Another pair of common chart patterns is the double top or double bottom pattern. As the name implies, double tops come when a trend hits a peak, retraces to a level of support, then rises again to approximately the level of the previous high, but is unable to break that resistance level. This is because the sellers overtake the buyers at that level, and the price declines as a result. The pattern is completed when the price falls through the support level, signaling a new downtrend. As with all common chart patterns, it is important to wait until the pattern has fully developed and the price has broken through the support. Failing to wait for this could have disastrous consequences as the support could hold, causing the price to remain bounded within this range. As with other patterns, a break away from a support or resistance level should be accompanied by an increase in volume, and one should not be surprised to see a breakout come back to test the new support or resistance (in this case resistance) level that has been established in the pattern.
3.1.6 Cup and Handle

A cup and handle is a chart pattern that can be recognized as containing a U-shaped cup, followed by a small handle that forms as traders who bought around the previous high sell their shares upon the price returning, but as soon as those sellers dry up the price breaks out. In general, these handles should have lower volume, and should not fall below the half-way point of the cup pattern.

Figure 3.5 Double Top

Figure 3.6 Cup and Handle
3.1.7 Wedge

A wedge generally signals a reversal of the trend contained in the pattern—that is, a falling wedge is usually a bullish pattern, while a rising wedge is usually a bearish signal. Wedges are similar to triangle patterns in that the price extremes bounce back and forth between two trend lines, with the difference being that the converging trend lines have either an upward or downward slope. Also, in the case of a falling wedge, the lower trend line should have a flatter slope than the upper one, indicating that the sellers are having a harder time pushing the price lower when it gets to the bottom of the cycle. The opposite is true for a rising wedge.

3.1.8 Fibonacci Retracement & Price Extension

The Fibonacci sequence of numbers is quite simple, yet has profound significance in nature. This set of numbers is found by adding the previous two numbers to get the next one.

To illustrate:

0 + 1 = 1
1 + 1 = 2
2 + 1 = 3
3 + 2 = 5
5 + 3 = 8
8 + 5 = 13
13 + 8 = 21

Figure 3.7 Wedge
...and so on. This sequence is important because it is found many places in nature. It is the “golden ratio”, and can be found in things like the branches on a tree, the florets in a sunflower, the arrangement of a pinecone, the spiral on a snail shell, and many more.

As it turns out, these ratios have huge implications when applied to price movements in financial markets, and are very popular among day traders and swing traders. The principle is called Fibonacci regression, and it holds that when the price in trending a certain way, it will tend to reverse its direction at certain percentages relative to the previous run.

The most common ratios for a stock to retrace a previous trend are 38.2%, 50%, and 61.8%, and as you can see in the chart above, the stock rallies and then retraces about 38%. By understanding that stocks tend to reverse direction at certain levels of support and resistance relative to recent activity, I should be able to better predict how far stocks will drop before rising again, and how high they may rise before falling again.

Unfortunately, placing Fibonacci lines on a chart is not very useful in predicting future support and resistance levels. To do that, you have to use what is called Fibonacci Price Extension. By placing points at a previous high, low, and subsequent retracement, we can see the levels at which we might expect the price to reverse.
The chart above perfectly illustrates how Fibonacci ratios can be applied to trading. By analyzing the degree of the price drop compared to the degree with which it retraced, we can find a fairly accurate bottom for the share price in the short term, and should see the 100% support level as a buy signal. The same goes for a rallying stock.

**Figure 3.9 Fibonacci Retracement example 2**

In this case, you can see the 100% level is basically the peak, so if you had bought at the low you would have wanted to sell as it got close to this level.

**Figure 3.10 Fibonacci Retracement example 3**
Chapter IV

4.1 Weekly Reports

4.1.1 Weekly Report #1

4.1.1.1 Week 1 – Chan Young Choi

The most important aspect of investment is to select what to invest on. When an investor decides to invest on something out of random, we call it gambling not investing. In stock market, selection of stock could either bring a fortune or in most cases a death slip. There are several aspects that the stock investor should look thoroughly into about stocks.

Price earnings ratio (P/E) is a valuation ratio of a company’s current share price compared to its per share earnings. Price earnings ratio tells us how much investors are willing to pay per dollar of earnings. In general high price earnings ratio suggests the investors are expecting higher earnings growth in the future. Therefore if the company does not meet the investor’s expectations, the P/E ratio will drop which means the stock price will drop as well.

Price to cash flow ratio is a measure of the market’s expectation of the company’s future financial health. In general, lower a company’s price to cash flow ratio, the bigger its discount from the industry average multiple, which means it is most likely undervalued. This does not mean the stock is undervalued so people must buy the stock, but this should be taken into account with the other factors.

The price to sale ratio (PSR) is a valuing a stock relative to its own past performance. It is calculated as the latest closing price of the stock divided by the latest 12 months’ sales per share. Value of PSR can suggest a company with turnaround potential. If a company has low PSR, it suggests the company has a potential for turnaround to make more profit. But high PSR suggests about the turnaround, if there was one, it has already passed.

The price to book ratio (P/B) is a ratio used to compare a stock’s book value to the market value. If the P/B value is low, it could mean the stock is undervalued, but it could also mean the company’s fundamentals have problems also.

**Selected stock with brief information**

When I (Chan) was selecting my stocks I looked at the factors above and I also looked at the operation margin of the stock. In Appendix has the fundamental analysis of the stocks that I have chosen. I chose Del Monte Food Co. (DLM) Boeing Co. (BA) and Zion Bancorp (ZION). Since we will be doing short-term trading, I decided to look at P/E, Price to cash flow ratio, PSR, P/B, and operating margin for fundamentals and look at technical analysis to discover the potential of the company.
Del Monte Foods Co. is a producer and marketer of branded pet products and food for the United States retail market. Just by looking at the graph of their performance, the company had some ups and downs, but steady throughout the year. Boeing Co. is an airplane manufacturing company and recently, they came up with new Boeing 787 which is a big influence to airline industry. Zion Bancorp. Is a solid bank in Utah and their stock price has been going up steadily.

All the stocks mentioned above have P/E ratio is lower than the industry average and the sector average (See Appendix). Also their price to cash flow ratio is lower, P/B ratio is also lower than both industry and sector average. Their PSR is higher than the industry average or sector average, but it is well below 1.5 so I came to a conclusion these stocks are undervalued. Also their operation and profit margin is in positive percentile except the Zion Bancorp. so I viewed this company to have potential to make profit as well.

**Strategy used for Trading**

**Gap Trading**

Strategy that I used and will be using for stock trading is Gap trading with my personal adjustments. Gap trading is a simple way of shorting and buying stocks. Today’s open stock price is used for comparing with the yesterday’s high or low or close price to determine the range of price to sell or to buy during the day. There are four types of gaps: full gap up, full gap down, partial gap up, partial gap down.

Full gap up takes place when today’s opening price is higher than the yesterday’s high. As you can see in the figure 1 below, on the 4th of November, the opening price is higher than the previous day’s high. When the full gap takes place, place a long stop two ticks above the highest price achieved within the first hour of trading. Or set a short stop two ticks below the lowest price achieved within the first hour of trading. Two tick can be varied depending on the stock, however on this term’s simulation, “tick = 1%”.

![Figure 4.1 Full Gap Up](image-url)
Stock prices can drop uncharacteristically due to bad news, poor earnings and other market influences. A full gap down occurs when today’s open price is not only lower than yesterday’s close, but also lower than yesterday’s low. A full gap down can be seen on the figure 2 below and red arrow shows the full gap down. If a full gap down takes place, set a long stop equal to two ticks above the previous day’s low or set a short stop equal to two ticks below the low achieved in the first hour of trading.

Partial gap in compare to the full gap is more risky and less potential gain. Market’s opening price higher than the previous day’s high signifies the change in the market’s desire to own or sell. Demand in the market is large enough to force the floor specialist to make a major price change in the market. But partial gap signifies smaller demands so it requires greater attention for drop. Partial gap takes place when today’s opening price is higher or lower than the previous day’s close, but not higher than the high or lower than the previous day’s low.

Partial gap up takes place when today’s opening price is higher than the previous day’s close but not higher than the previous day’s high. The strategy is same as full gap up. Partial gap down takes place when today’s opening price is less than the previous day’s close but not lower than the previous day’s low. The strategy for partial gap down is also same as the full gap up.
Stock progress report of the week 1

I started out by limiting myself from not using more than $20,000. For this week’s simulation, I decided not to buy more than what I originally bought to see how the stock market works and get used to the simulation and my strategy. On the second day, with the data that I have collected, I determined which category of gap the each stock fall into and came up with the range of price to sell during the day. However, the price reached neither the limit nor the stop so I ended up selling half of the quantities at the end of the day. I accidentally bought 250 shares of DLM instead of selling them which is listed as red on the data table. I was supposed to change the buying tab to selling tab, but I forgot to do that and placed an order at the last minute of the market. After the first trade I have decided that if the price does not reach either upper or lower limit of the price during the weekday, I will hold on to the stock. However, on Friday, I will sell everything at the end of the day if the price does not reach the upper or lower limit of the price. Also I changed my tick value to be 1% per tick. After 3 days of observation and trading, I made $793.00 of pure profit. Currently my portfolio value is $100,752.15 due to commission fees and the performance is shown as a graphical representation on Figure 5.
Figure 4.5 Performance of the week
### Table 4.1 Weekly Performance – Chan Young Choi

<table>
<thead>
<tr>
<th>Week 1</th>
<th>DLM</th>
<th>BA</th>
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<tbody>
<tr>
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<td>Green = sold</td>
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<td>Pure Profit</td>
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<td>Trade</td>
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<td>50(71.46)</td>
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<tr>
<td>Gap type</td>
<td>Partial Gap Up</td>
<td>Partial Gap Up</td>
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</tbody>
</table>
4.1.1.2 Week 1 Report - Brian

It is safe to say I learned a whole lot more about what not to do when investing than I had anticipated during my first week of simulated trading. My early trades were frantic and undisciplined, and my results for the week reflect that with a loss in portfolio value of more than $3,000. Current portfolio value is $96,728, down from my starting value of $100,000. However, this may not be all bad. I was so excited to be trading that I made far too many of them, many at the wrong time, and almost all for way too many shares than I should be picking up at one time. In the end, these things boil down to a lack of patience, and experiencing an entire week (and a down one at that) in the stock market has given me perspective on the extraordinary amount of patience and discipline required to be successful trading and investing in stocks. By being more patient while watching a stock’s movements, I should be able to better maximize profits by buying at the most opportune moment. Also, I will try to minimize my trades in the future in order to save money on trade commissions.

That being said, I don’t think I will remain in the red for long as I have huge holdings in gold stocks (GLD, GDXJ), and anticipate a rebound after the recent (painful) pullback in both stocks. After the initial rebound I will sell a lot of these shares to free up some capital, as well as to make my portfolio more balanced (about 50% of my portfolio is invested in these two gold stocks at the moment. I will probably settle between 10-20% as the simulation continues). With the recent statements at the G20 summit about possibly reinstating gold as the world currency backing amid fears of governments, including the United States, defaulting on debts, I don’t think there are many safer investments in the world than gold and other precious metals. Many other investors feel the same way, including CNBC’s Jim Cramer. That being said, this week’s pullback proved that even gold is susceptible to market volatility, and steps should be taken to make sure your portfolio is sufficiently diversified and balanced in order to smooth out the bumps inherent in a market like this.

![Gold Chart Analyses](image-url)

Figure 4.6 Gold Chart Analyses

I bought GLD at the exact wrong time, picking up 100 shares at $138.55. I then bought 80 more shares at $136.94 in order to bring the average price per share down, but after two days of gains it then lost another $4 on Friday, closing at about $133.65. I expect this to go back up next week as the price of an ounce of gold continues to rise. That being said, I will likely sell some shares after realizing a profit in order to free up capital and achieve a better balance in my portfolio.
I also bought GDXJ, a small mining ETF that had been quite successful up until the point I decided to buy. After an initial drop on Tuesday I decided to buy 400 shares at $42.12, then another 100 at $41.07, then another 90 at $39.25, bringing the average price per share down to about $41.50. This stock is tricky as it is an ETF, but I will find out how to apply valuation methods and figure out the target price for this stock. For the short term I will hold the stock until I have made a profit, and then I will sell until I have about 10-20% of my holdings between GLD and GDXJ.

Figure 4.7 Mining ETF

I bought 400 shares of Microsoft almost immediately on Monday at $26.67, and saw positive gains for the first three days. Thursday and Friday, however, saw significant drop-offs, though I suspect it is only because the market as a whole was down those days. I do feel that I have too many shares and will likely try to sell some once the market picks back up in the interest of freeing up capital and balancing my portfolio.

Figure 4.8 Microsoft

I also bought Wal-Mart first thing on Monday, though this stock did not perform as well as I had hoped and I sold it at a minimal loss after two days. It was a good thing I did too, because the next three days saw the stock settling lower and lower. I still feel as though there will be winners in the retail space
this holiday season and will continue to observe market trends, but I may begin to focus on the higher-end retailers like Macy’s and Gap in order to take advantage of middle and upper class holiday spending.

Budweiser may have been a poor choice for a stock investment. The opening prices have had almost no relationship to closing price, making the stock extremely volatile and not a great play in a market like this. Diageo (DEO) may be a better play, but I will continue to observe and see what trends appear. Both companies seem like their potential for growth in the short term is fairly minimal, so maybe I should just steer clear of them altogether. For now, I will hold onto my shares in Budweiser, though I will probably sell them as soon as the market corrects itself.

Another play I made this week was on Activision/Blizzard, the video game company responsible for the Call of Duty franchise. They released a new game this week which I hoped would raise the stock price, but instead it fell slightly from where I bought it, hovered around the same level, and I sold it for no gain a day later after closer examination of the company revealed that the stock was operating near its price ceiling and was unlikely to rise much, if at all in the near future.
An interesting play I made this week was on BP. The stock plummeted after the big oil spill this summer, but now that they have the well fully capped the stock has been rebounding nicely. The company plans to begin paying dividends again starting next year, which means the stock could grow more than most in the coming months. It stayed at around the same level through the down week, so I look to see it grow when the market recovers.

Figure 4.12 BP
Another company that saw a huge drop in share price that has since recovered rather nicely is Ford. Ford is the one American car company that did not take government bailout money; they are in the best shape financially and are therefore the best play of the American auto brands. The company has undergone a resurgence after its restructuring and hiring of a new CEO, and I expect the stock price to rise in the coming months. I made a nice profit this week from the stock, but then bought more shares at virtually the same price which was a mistake seeing as if I had been able to wait until the next day, I could have bought the stock for about $0.40 less.

The last stock I bought this week was an ETF made up of about 150 profitable companies operating in India, one of the fastest growing markets in the world. The stock saw a considerable drop in price as soon as I bought it, though the upside of investing in India is still there and I look for the stock to rebound in the coming weeks.
4.1.2 Weekly Report #2

4.1.2.1 Week 2 Report – Chan Young Choi

The stock market was in their worst week in 3 months. The stock prices have fallen severely but things are expected to get better as the holiday approaches. As thanksgiving holiday is coming, our group decided to invest on the major retailers in the coming weeks for the stock price is expected to rise when the holiday comes. The retailers that we looked at are Wal-Mart, Macy’s, and Target. Wal-Mart has the P/E value of 13.92 while industry average is 15.87 and the sector average is 21.78. Wal-Mart is in the positive percentile of operating margins and they are not very different from the industry or the sector in respect to the operating margin and the profit margin. Target is in a similar situation as the Wal-Mart. Their P/E is lower compared to the industry and sector level and their gross profit margin is higher. So far we are looking forward to invest in the retailer for the coming week and hoping to make some profit from stock trading in the coming week.

Progress report – for Chan’s stocks

This week I learned about when to sell the stock. When I was trading stocks and seeing the price drop. I ran into psychological problem just like other new investors. I was keep asking myself the same question. “Will it drop more? Or will it rise? Maybe I should wait.” I had so many temptations to buy and sell the stocks as they move down or up a little. These questions and temptations are roaming through my head. What I decided to do was to make a short stop at 2% below the price that I paid for. It was good that I set the shorting point at that time because the prices of the stock dropped significantly. In the beginning of the week I observed the graphic trends of my stocks. As I was watching the prices, I saw the graph some resistance and thought it would go up after the first hour of trading to stabilize the prices. I purchased my stock and watched the prices going up and down but it was constantly declining, so I set up the short stop point to sell my stocks 2% below the price that I have bought. As I watched the prices from day to day looking at other stocks and the stocks that I have sold, only conclusion that I can come up with is that I made the bad choice buying them in the beginning of the week but I made right choice selling them early. This week I did not make much of a trade, but it was a time for me to look for an opportunity in the market. I have looked at the different stocks and their performances and looked for the right stock to buy. I also bought Oracle CO. (ORCL). I looked at Oracle and they have been doing pretty well over the years but it began to sink during the week. Oracle does have pretty decent fundamentals with large profit margins.

Del Monte Foods Co. their stock price was going up rapidly when I first traded them two weeks ago. For this week’s trading I bought their stock for $15.23. Since it did not drop much on the first day of trading I held on to it. But the stock price began to fall dramatically from then on. I set the short stop point 2% below the price that I have purchased my stock for and it was sold for $14.88. The red mark on the graph is where I sold my stock.
Shares of Boeing weakened after reports in the Aviation Week asserted the firm had alerted several early Dreamliner customers of delays of up to ten months. However, the firm received orders for 20 aircrafts from Saudi Arabia Airline. I purchased the stock at the very wrong time but I also set short stop for this stock as well which minimized my loss.

Boeing Company went down bit by bit. I sold this stock at the red arrow. It was not at 2% but it was constantly going down. It was a good choice to sell because the price went down even further than 2%. But I still believe Boeing Company price would go up because their new airplane is the large sales in the airline market. I bought the stock at $70.12 but I sold it for $69.38.
Zions Bancorp went up and down frequently. The mistake that I made this week on this stock shares is that because other stocks are declining, I thought this specific stock will drop along with the others. Because I thought that this stock will decline along with the market, it made me sell the stock for $21.57 per share and lost bit of money since I bought it at $22.20. It seems that this week the price resistance was at around $22.00 we can see the three peaks and whenever the price reaches $22.00 it declined again.

Figure 4.17 Zions Bancorp.

Overall this week I lost money but I sold it quick enough so that I still have profit from the previous week. My portfolio value is valued at $100,375.43. This week was not a good trading week at all, but I have learned a lot concerning selling and seeing the trend. I am hoping that I could put this learning into practice soon.

4.1.2.2 Week 2 Report - Brian

I would consider the week ending November 19, 2010 a success regarding my trade activities. This was the first week TradeStation was available with live data, so I basically abandoned my original portfolios on Wall Street Survivor, took what I had learned and focused on making trades on TradeStation. The platform makes trading much easier and more efficient, and real time data makes it possible to study graphs and place orders instantaneously. This allows me to play trends in stock prices as they happen, and while I made a lot of mistakes, I grew more disciplined as time went on and was able to just about break even on Friday. I focused my trading almost entirely on the volatile gold index, GLD, though I’ve added other metals indexes and stocks in order to diversify my portfolio and reap additional long-term gains. With the news that the Federal Reserve wants to pump about $600 billion into the economy, weakening the dollar, I’m confident that the price of gold will go up in the medium and long term. However, this week was very up and down as the price experienced a pullback, though it seems to be on the rise again. This made for a rough start to the week, but once I learned how to short sell effectively and better limit losses I started seeing better results.
This week I focused mainly on the GLD index in an attempt to profit from the volatile price movements, compared to the relatively slow moving stocks. I got off to a rough start, but over time I was able to learn how to better read the charts and close the gap between profits and losses. I found that closely examining the differences in the oscillation peaks and troughs can tell you a great deal about the overall trend in the price movement. That is, if the stock is reaching higher highs and higher lows with each oscillation, the stock has upward momentum and should be bought at the low points in the cycle. If the stock seems to be trending downwards, with lower highs and lower lows, a buy is risky even at the low end of a cycle because downward pressure on the price could rear its ugly head at any moment, causing you to sell at a loss. The stock should be shorted upon reaching a peak, then bought to cover when it falls back down. In the following chart, you can see me buy at about 12:55, then sell at the peak. After a small drop, I bought more, but this was a mistake as the stock kept falling so I sold before I could get really hurt. I really need to try to minimize these types of trades by waiting until the stock clearly demonstrates an uptick, instead of trying to anticipate and guess what I think the price is going to do next. Had I done this better, I could have profited more from the run between 13:25 and 13:35 by buying after the price hit its bottom instead of hoping it would rise after I bought it. After I sold at the peak at about 13:35, I immediately sold short and profited again, then bought again and sold for a profit at about 14:10.
Now, in retrospect, I probably should have stayed out instead of buying again anticipating a further rise in price. The stock was hovering at about its maximum price for the day, and after a slight bump up I should have sold it for a small profit. Unfortunately I got greedy hoping the price would rise higher, and instead it fell and I had to sell to avoid a bigger loss. This was an important lesson that I will apply in the future; if a stock is maintaining a fairly constant level with little movement either way, it is best to stay out for the time being and wait to see what the stock does. It is likely the price will drop before it rises again, especially if the price is on the high end of its daily range following a run up. However, it could pop up too, so even a short sell is a risky move here. Better to wait and react to what happens—in this case the drop off led to a perfect time to buy, and the stock rallied in the closing minutes of the session.

After taking a pretty substantial loss on Tuesday, I had to learn how to better limit my losses. I have found that if a trade quickly turns for the worse, it is better to sell it at a small loss than stick with it and hope it will come back. More than likely, the price will fall to a certain level and stabilize, where you can buy it and profit from the rebound. If you stay with the trade, the stock can fall to a level that is out of reach of the price you bought it, meaning you will have to wait a lot longer for the price to recover. And from there, you risk the price falling even more, and it becomes a rather sticky situation. Mistakes in trading happen all the time, but by limiting the amount of bad trades you make through patience and careful analysis of indicators, as well as limiting losses by quickly recognizing and getting out of bad trades, you put yourself in a far better position for success.
While I have still yet to turn a net profit for a day, I feel I have greatly improved in my ability to limit losses, while staying fairly constant in my winning trades. If I can further increase the frequency and degree of my winning trades while still trimming my losses, I should be able to earn a decent profit over the coming weeks. One thing that stands out after examining the above graphs is the huge loss I took short selling on Wednesday. This is because the market took a bullish turn across the board and made it hard to bet against any stock. Being better able to adjust between buying/ selling and shorting/ buying to cover should be a valuable skill enabling me to profit no matter what the market conditions.
Tuesday, November 16

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Wednesday, November 17

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**Thursday, November 18**

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Current Open Positions

<table>
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<tr>
<th></th>
<th>Price Paid/ Share</th>
<th>Current Price/ Share</th>
<th>Shares Held</th>
<th>Profit/ Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target (TGT)</td>
<td>$ 55.31</td>
<td>$ 56.32</td>
<td>100</td>
<td>$ 101.00</td>
</tr>
<tr>
<td>Silver (SLV)</td>
<td>$ 26.60</td>
<td>$ 26.75</td>
<td>100</td>
<td>$ 15.00</td>
</tr>
<tr>
<td>NovaGold (NG)</td>
<td>$ 14.60</td>
<td>$ 14.68</td>
<td>200</td>
<td>$ 16.00</td>
</tr>
<tr>
<td>Lithium (LIT)</td>
<td>$ 20.33</td>
<td>$ 20.34</td>
<td>100</td>
<td>$ 1.00</td>
</tr>
<tr>
<td>Gold (GLD)</td>
<td>$ 132.04</td>
<td>$ 132.29</td>
<td>500</td>
<td>$ 127.00</td>
</tr>
<tr>
<td>Ford (F)</td>
<td>$ 16.25</td>
<td>$ 16.26</td>
<td>200</td>
<td>$ 2.00</td>
</tr>
<tr>
<td>India Fund (EPI)</td>
<td>$ 26.09</td>
<td>$ 25.75</td>
<td>200</td>
<td>$ (67.00)</td>
</tr>
<tr>
<td>Copper (COPX)</td>
<td>$ 17.58</td>
<td>$ 17.58</td>
<td>100</td>
<td>$ -</td>
</tr>
<tr>
<td>BP (BP)</td>
<td>$ 42.08</td>
<td>$ 42.01</td>
<td>100</td>
<td>$ (7.00)</td>
</tr>
<tr>
<td>Best Buy (BBY)</td>
<td>$ 43.37</td>
<td>$ 43.54</td>
<td>300</td>
<td>$ 50.00</td>
</tr>
</tbody>
</table>

With the recent rise in commodity prices across the board and especially when taken in conjunction with the threat of increased inflation, I feel that metals indexes and mining companies are a very safe bet and should all bring long-term gains for my portfolio. Lithium also stands to gain in the coming weeks as the Nissan Leaf and Chevy Volt bring higher demand for lithium-ion batteries, the most efficient energy-storing method available. NovaGold has seen its share price double in the past year and should continue the upward trend as the price of gold continues to climb. Target and Best Buy are both great retail picks that should stand to see their share prices increase during the holiday season. I have Ford which has shown itself to be a strong company following the recent economic downturn, and their share price continues to gain ground even with GM’s IPO this week. I also have some stock in BP, which was trading at about $60 a share before the oil spill this year, but remains a very profitable company and has announced that it will begin paying dividends again soon, which should serve to increase the share price. Finally, I have some shares in an Indian market ETF, a fund with over 150 profitable companies operating in the rapidly-growing economic climate of India.
4.1.3 Weekly Report#3

4.1.3.1 Week 3 Report – Chan Young Choi

This week I kept my stocks from the previous week, which is Macy’s, Wal-mart, Target, and Best Buy. This week I have been watching the stocks frequently and read news articles concerning the stock market. On the CNN stock news, I read an article that the consumers are starting to be less concerned about price and more concerned about finding the right item. Apparently, there were more people shopping this year than last year. This week, I kept on losing my chance to buy or sell but my stocks made some profit due to my health condition. This week, I learned from experience, the importance of the timing in stock market. I could lose money, or gain money depending on the time I purchase or sell. However, after seeing rise and falls of my stock values, I learned to watch more closely on the stocks and their chart behaviors. As Christmas approaches, I am hoping to see some rise in my stock’s prices. My plan for the next couple weeks is to hold on to my current stocks and purchase other tech companies.

Target was the big hit for this year’s Black Friday. This whole month, the price was in upward slope. I tried to buy more shares of stock, but I was afraid that the stock is at its highest price, which made me hesitate to buy more stocks. I knew that people who are new to stock market buy high and sell low, while people are supposed to buy low and sell high. I did not want to follow the failure footsteps of “buy high and sell low”. Every time I look at the chart, I was keep telling myself I need to buy more, but I also kept on doubting that the price might drop. I ended up not buying more stock, but I made the profit of $127.50 this week just on Target. I sold it at the end of the Friday, but I will be purchasing more on Monday depending on the technical behavior. The red arrow indicates the time when I sold the stock and blue arrow indicates my purchase time.

![Target Stock Chart](quotemedia.com)

Figure 4.24 Target (TGT)
I did not pay attention to Best Buy until the day of Black Friday. I should have bought it earlier, but I personally did not think that the Best Buy was a huge retailer for Black Friday due to their high pricing on products. I personally spent more time watching Wal-mart than Best Buy, but later I figured that not many people go to Wal-mart during Black Friday, but people go to Best Buy for the huge sale on electronics. I originally thought, since Wal-mart is cheap compared to other retail stores, people would buy more from Wal-mart. But I was proven wrong in the news article about how people pay less attention to the price but pay more attention on the right item. Despite the fact that the economy is bad, I was actually surprised by how people would buy more of their “wants” regardless of the price. But I ended up losing some money on Best Buy, but I have a strong belief that the stock price will incline since Cyber Monday is still up ahead. The online spending has increased every year ever since 2006 and this year’s Black Friday was one of the biggest one in the history of U.S. I believe Cyber Monday should also be a big hit as well. Blue arrow is the point of my purchase.

![Chart of Best Buy (BBY)](image)

**Figure 4.25 Best Buy (BBY)**

Macy’s did not have a huge incline or decline, but inclined bit by bit throughout the week. By looking at the chart, we can see that the price is going in upward trend as holiday approaches. I am predicting the price will continuously increase until the end of Christmas. I will be holding on to the stock until Monday to purchase more shares or to sell the shares I already own depending on the stock news and the trend of the chart. I am looking for a big increase in the price to sell it, and I might be or probably wrong in doing this because just like what Prof. Hakim said on the previous meetings, it is not a bad idea to keep some profit in your pocket. I should have sold portion of my shares for little bit of profit. But I wanted to learn through experience that I could lose money or gain money through holding the stock. It is probably because of the Del Monte Food Co. (DLM) which I have already sold weeks ago have increased by 4 dollars. It got me thinking maybe I am selling my stocks too easy out of fear of losing money. I believe that losing money or gaining money by holding the stocks will be a good educational value for me for my future trading. Blue arrow indicates my purchase.
Wal-mart mostly went down this week. I originally thought the price on every item plays huge role when people buy gifts. However, this year’s Black Friday, people purchased more of what they wanted regardless of price. Every time I looked at the price, it was going down or going up, but not enough to make a profit. The price went above what I originally purchased but I thought the price will go higher as Black Friday approaches so I did not set the sell point to sell the stocks if the price goes above what I bought it for. I set up the sell stop at 2 % below the original price but it did not reach that point. I am hoping to see some increment in price on Monday which I will take that chance to sell the stock. Blue arrow indicates my purchase and grey arrow indicates my sell stop placement at $53.50.

Figure 4.26 Macy’s (M)

Figure 4.27 Wal-Mart (WMT)
I did not do much trading this week, but looking forward to do a lot more trades on the following week before every big sales end. In total I made $170.00 this week and it is majorly from Target. I wanted to hold my stocks bit longer this until the day of Black Friday and I ended up selling the shares of Target at the end of Friday. I am hoping to diverse my portfolio for next following weeks so learn stock price trends in other areas other than retailers. I will be looking at more technological companies such as Intel, Apple, Microsoft and IBM.

<table>
<thead>
<tr>
<th></th>
<th>Price paid</th>
<th>Last Price</th>
<th>Price sold</th>
<th>profit</th>
<th>Number of shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMT</td>
<td>$54.20</td>
<td>$53.74</td>
<td>NA</td>
<td>NA</td>
<td>$50.00</td>
</tr>
<tr>
<td>TGT</td>
<td>$54.30</td>
<td>$56.85</td>
<td>$56.85</td>
<td>$127.50</td>
<td>$50.00</td>
</tr>
<tr>
<td>M</td>
<td>$25.15</td>
<td>$26.00</td>
<td>NA</td>
<td>NA</td>
<td>$50.00</td>
</tr>
<tr>
<td>BBY</td>
<td>$44.92</td>
<td>$44.75</td>
<td>NA</td>
<td>NA</td>
<td>$200.00</td>
</tr>
</tbody>
</table>

4.1.3.2 Week 3 Report—Brian

Market Overview:

This Thanksgiving may have marked a symbolic turning point in the recent recession, and is at the very least likely to spark a bull run in the stock market for the near future. Americans appear to have found more to be thankful for than recent years, and they celebrated by flocking into department stores around the country in huge numbers. This was anticipated by the market, which brought a big day Wednesday after a down Tuesday on news of an Irish bank bailout and shots being fired in Korea.

My Performance:

![Figure 4.28 Equity Curve Line](image)
Monday was a good day for the market, and I was able to close positions for a net profit of about $675. Honestly, I could have done much better, but I went on the side of caution a few times and sold earlier than I should have. A good example of this happened with the GLD gold index:

![Figure 4.29 Gold Index](image)

As you can see on 11/22, I sold at about noon after a dip and a late morning rally for a nice profit, but in retrospect I should have held onto it as the price kept going up all day. The next day I made some money playing the volatility, but after it leveled off and started to decline in favor of improving stocks, I decided not to play it anymore.

![Figure 4.30 Target (TGT)](image)

A similar situation occurred with Target, as I bought it last Friday at the perfect time before a run, but didn’t sell it in time and ended up buying more in anticipation of another peak. That happened Wednesday, but I again sold it too early and ended up chasing a huge day. The stock crept up slowly all day, and I was extremely hesitant to get too far in for too long, as it looked like it could take a downturn at any moment, but never did. In the future, this can probably be avoided by waiting for an actual downturn, rather than sell at the first slight waver in upward momentum.
Table 4.4 Performance on Monday Week 3

<table>
<thead>
<tr>
<th></th>
<th>All Trades</th>
<th>Long Trades</th>
<th>Short Trades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Net Profit</td>
<td>$219.00</td>
<td>$194.00</td>
<td>$25.00</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>$226.00</td>
<td>$199.00</td>
<td>$27.00</td>
</tr>
<tr>
<td>Gross Loss</td>
<td>$(7.00)</td>
<td>$(5.00)</td>
<td>$(2.00)</td>
</tr>
<tr>
<td>Total # of Trades</td>
<td>10</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Percent Profitable</td>
<td>80.00%</td>
<td>85.71%</td>
<td>66.67%</td>
</tr>
<tr>
<td>Winning Trades</td>
<td>8</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Losing Trades</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Even Trades</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Avg. Trade Net Profit</td>
<td>$21.90</td>
<td>$27.71</td>
<td>$8.33</td>
</tr>
<tr>
<td>Avg. Winning Trade</td>
<td>$28.25</td>
<td>$33.17</td>
<td>$13.50</td>
</tr>
<tr>
<td>Avg. Losing Trade</td>
<td>$(3.50)</td>
<td>$(5.00)</td>
<td>$(2.00)</td>
</tr>
<tr>
<td>Largest Winning Trade</td>
<td>$58.00</td>
<td>$58.00</td>
<td>$15.00</td>
</tr>
<tr>
<td>Largest Losing Trade</td>
<td>$(5.00)</td>
<td>$(5.00)</td>
<td>$(2.00)</td>
</tr>
</tbody>
</table>

Figure 4.31 Best Buy (BBY)

I also made some money with Best Buy, selling for a huge profit after a nice run-up Monday morning. After leveling off Tuesday, I bought some more shares and sold for more profit on Wednesday, keeping 500 into the Thanksgiving holiday, where I hope to be able to sell for profit early next week.

Table 4.5 Performance on Tuesday Week 3

<table>
<thead>
<tr>
<th></th>
<th>All Trades</th>
<th>Long Trades</th>
<th>Short Trades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Net Profit</td>
<td>$(6.02)</td>
<td>$44.98</td>
<td>$(51.00)</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>$535.00</td>
<td>$507.00</td>
<td>$28.00</td>
</tr>
<tr>
<td>Gross Loss</td>
<td>$541.02</td>
<td>$(462.02)</td>
<td>$(79.00)</td>
</tr>
<tr>
<td>Total # of Trades</td>
<td>27</td>
<td>21</td>
<td>6</td>
</tr>
</tbody>
</table>
While Tuesday was a down day for the market as a whole, I was still able to make some money, mostly off of trades on the GLD index, as well HP, which had a good day and was actually the only stock on the Dow to improve its share value. I actually closed positions for a gross gain of about $112 on the day, despite such widespread losses throughout the entire market.

![Figure 4.32 HPQ](chart.png)

**Table 4.6 Performance on Wednesday Week 3**

<table>
<thead>
<tr>
<th></th>
<th>All Trades</th>
<th>Long Trades</th>
<th>Short Trades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Net Profit</td>
<td>$ (45.50)</td>
<td>$ 14.50</td>
<td>$ (60.00)</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>$ 43.00</td>
<td>$ 34.00</td>
<td>$ 9.00</td>
</tr>
<tr>
<td>Gross Loss</td>
<td>$ 88.50</td>
<td>$ (19.50)</td>
<td>$ (69.00)</td>
</tr>
<tr>
<td>Total # of Trades</td>
<td>13</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Percent Profitable</td>
<td>46.15%</td>
<td>62.50%</td>
<td>20.00%</td>
</tr>
<tr>
<td>Winning Trades</td>
<td>6</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Losing Trades</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Even Trades</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Avg. Trade Net Profit</td>
<td>$ (3.50)</td>
<td>$ 1.81</td>
<td>$ (12.00)</td>
</tr>
<tr>
<td>Avg. Winning Trade</td>
<td>$ 7.17</td>
<td>$ 6.80</td>
<td>$ 9.00</td>
</tr>
<tr>
<td>Avg. Losing Trade</td>
<td>$ (14.75)</td>
<td>$ (9.75)</td>
<td>$ (17.25)</td>
</tr>
<tr>
<td>Largest Winning Trade</td>
<td>$ 12.00</td>
<td>$ 12.00</td>
<td>$ 9.00</td>
</tr>
<tr>
<td>Largest Losing Trade</td>
<td>$ (26.00)</td>
<td>$ (10.00)</td>
<td>$ (26.00)</td>
</tr>
</tbody>
</table>
While I ended up losing about $100 on Wednesday, I attribute this mostly to the fact that I had to sell some positions at a loss in order to load up on retailers going into Thanksgiving and Black Friday. I did this in the hopes of getting some big returns, though the results were somewhat disappointing as they almost all sit lower after a weak Friday. Going into the holiday, I bought large positions in Target, Wal-Mart, TJ-Max, Best Buy, Macy’s, Nike, American Eagle, Abercrombie & Fitch, and Aeropostale.

Friday: No Trades Made

I did not trade on Friday as I expected the market to go up on the first Monday after Thanksgiving, especially considering the fact that sales were up from previous years. However, upon market opening on Monday, most stocks were trending downwards. This is likely a result of international worries regarding European nations with debt problems, namely Ireland, Portugal, and possibly Spain, as well as additional strain in Korea. I will maintain my positions and sell them when the market rebounds from the slow start on Monday.

Mistakes:

One big mistake I seemed to have made was the timing of my purchase of Nike shares. While watching CNBC, one analyst commented that he really liked Nike and could see it getting up to $100 per share as early as next year. I immediately bought, hoping to catch a bump up over the holiday weekend. This was not the case however, as the stock has been trending downward since I bought it. However, it remains a strong stock and is one of the most recognizable brands in the world, so I will be patient with it and hope for a rebound, rather than cut my losses at this point.

Another mistake I’ve realized is with EPI, the ETF focused on the booming Indian market. The stock has done nothing but fall since I’ve bought it, with huge changes day-to-day but very little movement during trading hours. This tells me that the stock is not very much in demand, especially with a now rising dollar. However, this is likely fairly temporary, and the Indian market will not be slowing any time soon. However, the stock remains a relatively poor play, and I will look to sell it as soon as possible, though I will at least seek to minimize my loss.

![Figure 4.33 Nike (NKE)](image-url)
This week, I read articles about Microsoft (MSFT), Target (TGT), and Nike (NKE). Thankfully DJX and S&P 500 were in a very good shape this week, so I was able to make some money. Earlier this week, I read an article about Microsoft. The title was, “Is Microsoft readying for a surprise comeback?” and it surely caught my attention. The article talked about the newly launched Windows Phone 7. Windows Phone 7 is a mobile operating system which offers new Metro user interface and other functionalities such as motion sensor. On the article, it said it is rumored to be sold out whether the rumor is true is another matter. For a long time, Microsoft needed a way out to compete with Apple’s iOS, and Google’s Android. Windows Phone 7 despite the fact that it came into the market late, it received high and strong reviews from the customers. It also has tighter integration with the Microsoft Office and with Xbox LIVE, which will attract Xbox users. Samsung is said to build phones using Windows Phone 7 operating systems in near future. Microsoft has good strategies ready to compete with Apple, and Google so I thought Microsoft’s stock price will rise.

In respect to the retail stores, I read various articles about the Cyber Monday. It was expected that the retail store sales pass over $900 million this year just on Cyber Monday and it
could reach $1 billion. Target had higher customer traffic than the last year with consumer electronics among its most popular products. Cyber Monday sale in Target was highly related to Microsoft, because the Kinect motion-sensing game system was one of the popular products. Cyber Monday follows a Black Friday shopping weekend that saw higher spending by consumers from a year ago, according to the National Retail Federation. The trade group said the average shopper spent $365.34, a 6.4% rise from last year. Retail consulting firm ShopperTrak said sales rose only slightly on Black Friday itself but did set a record. Target has been strong in terms of stock price since the week of Thanksgiving, and I believe Target will increase in stock price as more holiday sales are yet to come.

Nike released Environmental apparel design tool to industry at the end of November. By releasing the tool, it allows other companies in the same industry to improve on the products and it will inspire further collaboration to create global industry standards for a level playing field, encourage widespread industry adoption of sustainable design practices and have more sustainable products available for the consumer. Last year alone, Nike doubled its use of recycled polyester, saving 82 million plastic bottles from the landfill. Release of this tool to the industry really caught the attention of the investors regarding the ability of Nike to make reliable products that the consumers are seeking for and therefore the company will make profit. The stock price of the Nike has been inclining throughout the whole year and I believe they have what it takes to incline even further up the chart.

Trading Plan

My trading plan was to use up to $30,000 for investment I set the sell stop at 2% below my purchase price only when I was not present in front of a computer. This week I sold stocks even if it did not reach 2% below because I wanted to sell to minimize the loss and look for another opportunity to get in. It turned out most of my sell point should have been a time for hold, but I learned my lessons. I purchased my stock normally at 10:30am to 11:00am but occasionally at 9:30am as well depending on the trend of the market. I watched the prices in between classes during the day, and I bought stock when the chart showed some resistance to move back up and sold the stock when I saw some resistance to move back down. I also sold most of my stock at the end of the day because there is no guarantee that the stock price will start at the price that it closed on the previous day as well as S&P 500 and DJX could be in a downward slope the next day.

Target was in a very good shape throughout the whole week. I bought the stock on Monday and the price was inclining day by day. I purchased and sold more stocks but Target made me good profit this week. The blue arrow indicates purchase and the red arrow indicates my sale. I made a simple mistake on Thursday; I bought 150 shares instead of selling them at the end of the day. My trade data for this week can be found on the Appendix I.
S&P 500 was inclining throughout the week and Target’s stock price moved very similar to the movement of the SPY.

Microsoft unlike TGT moved little by little consistently throughout the week. My plan for MSFT was to hold the stock for more than a week because I believed that the price will incline. But because I saw the price is moving up very slowly and little, I sold half of the shares on the first day of trading at the end of the day out of fear. Blue arrow indicates the purchase, and the red indicates the sale. I still hold 50 shares of MSFT and looking to trade more actively on the following week.
MSFT followed SPY very closely in pattern, but the price boosted up when the market entered into December. Hope that the SPY in better shape next week for more active trading on MSFT.

I started to watch Nike in the middle of the week after I read an article about environmental apparel tool release news. I looked at the chart and their price has been increasing but had some fluctuation recently. So I decided I need to watch more carefully. I bought the stock on the 1st of December and it seemed that it was going up but it soon began to decline, so I sold the shares but I read alert news about NKE’s price will most likely turn at $87.93, so I bought more shares and waited until the price reached $87.93, but due to my classes I lost my chance to sell it at $87.93 and ended up selling at $87.81.

Nike in comparison with the S&P 500 index, all I could say was, “weird”. The stock price went up when S&P 500 index was steady, and the price went down when S&P 500 index when up as you can see in the chart below.
Overall, I made profit of $421.38 this week and hoping to find new prospective stock for short term to trade more actively. I did watch IBM, and INTC this week, but I was consistently losing my chance to buy the stock so I ended up just watching the stock. But hopefully next week I find a good spot to make more profit. My next week plan is to look at restaurants as well as general food companies. It seems that food industry is in a very good shape in terms of stock prices.

Research & Data

Fibonacci retracement is a tool for technical analysis for finding the critical point for turning of the price. It is found by taking the major peak and trough of the chart and dividing the vertical distance by the key Fibonacci ratios of 23.6%, 38.2%, 50%, 61.8%, and 100%. Once these levels are found, a horizontal line is drawn to identify the possible support and resistance levels. Fibonacci retracement is based on the prior move. Once a pullback starts, we can determine the specific retracement for monitoring. Once the price bounces, we need to watch more careful for potential bullish movement and if the pullback starts, we need to watch more careful for potential bearish movement. Below is an example of the Fibonacci retracement of Pfizer Inc. The price almost bounce back at 50% but failure take place at about 23.6% but full bounce take place on the 61.8%.

Figure 4.42 Fibonacci Retracement
Table 4.7 Week 4 Trades – Chan Young Choi

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Action</th>
<th>Shares</th>
<th>Price</th>
<th>Total earned/spend:</th>
</tr>
</thead>
<tbody>
<tr>
<td>29/11/2010</td>
<td>TGT</td>
<td>purchase</td>
<td>200</td>
<td>$56.03</td>
<td>$11,216.00</td>
</tr>
<tr>
<td>29/11/2010</td>
<td>MSFT</td>
<td>purchase</td>
<td>100</td>
<td>$25.05</td>
<td>$2,515.00</td>
</tr>
<tr>
<td>29/11/2010</td>
<td>M</td>
<td>sold</td>
<td>50</td>
<td>$25.23</td>
<td>$1,251.50</td>
</tr>
<tr>
<td>29/11/2010</td>
<td>TGT</td>
<td>sold</td>
<td>200</td>
<td>$56.37</td>
<td>$11,264.00</td>
</tr>
<tr>
<td>29/11/2010</td>
<td>MSFT</td>
<td>sold</td>
<td>50</td>
<td>$25.34</td>
<td>$1,257.00</td>
</tr>
<tr>
<td>1/12/2010</td>
<td>NKE</td>
<td>purchase</td>
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</tr>
<tr>
<td>2/12/2010</td>
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<td>$57.78</td>
<td>$11,566.00</td>
</tr>
<tr>
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<td>sold</td>
<td>100</td>
<td>$58.52</td>
<td>$5,842.00</td>
</tr>
</tbody>
</table>

balance on Nov 30th:
$100,186.03

Current balance:
$100,607.41

Profit made this week:
$421.38

Graphical representation of portfolio performance

Figure 4.43 Portfolio Performance
4.1.4.2 Week 4 Report – Brian

Market Overview
The economic picture grew brighter this week as the market posted week-long gains across the board. This is likely due to strong retail numbers following the Thanksgiving holiday and the unofficial start to the holiday shopping season. This shows that the economy is on the rebound and makes it a good time to invest. Also, with the economic woes coming out of Europe, investors may see the American stock market as a relative safe haven for the time being. In addition, Goldman Sachs came out with its predictions for key economic stats for 2011 this week, and they were very bullish. Their target for the S&P by the end of 2011 is 1,450—a 22% increase on the current level of about 1,188, and GDP growth is expected to be at 2.7%. I expect the recent positive trend to continue into the coming week, and will look to capitalize on it by going long on select large cap stocks and the GLD index, as the spot price of gold also continues to climb.

![Figure 4.44 S&P 500 index Week 4](image)

**Figure 4.44 S&P 500 index Week 4**

Performance

![Figure 4.45 Equity Curve Line 11/29 – 12/3](image)

**Figure 4.45 Equity Curve Line 11/29 – 12/3**

![Figure 4.46 Equity Curve Line 11/22-12/3](image)

**Figure 4.46 Equity Curve Line 11/22-12/3**
This week started off great for me as my total portfolio equity finally made it into positive territory. However, Thursday and Friday brought some big losses because of some frantic, undisciplined trades, and I now find myself right where I started after my first week of trading. The need for a comprehensive trading strategy is clear—a plan that I can execute without becoming emotional and making poor decisions. In poker, you say that a player is “on tilt” if he suffers a tough loss and starts to think he has to make up for it, and this is exactly what happened to me. This is when trading turns into gambling, and large sums of money can be lost this way. Wishing and hoping for a late rally without a rational basis when everyone is selling off their stocks and getting ready to go home for the weekend is a recipe for disaster and needs to be avoided in the future. Fortunately, I have found a tool that should prove to be incredibly useful for me in the future—the golden ratios discovered by Fibonacci.

[See Fibonacci Retrace & Price Extension, Chapter III]

Trading Strategy

Recognizing the need for a concrete trading strategy and some basic rules to play by, I have come up with a fairly basic system that should enable me to make more profitable trades and limit my losing trades. For one, I’ve found that holding positions overnight can bring huge rewards, but I’ve also been burned by stocks that fell a considerable amount from the previous day’s close. I’ve realized that these things can be affected by almost anything and are impossible to predict, and as such I will try to shy away from holding overnight positions.

Another area I need to improve in is buying fewer shares at a time. In the past, I usually bought at least 100 at a time, and I think I need to limit myself to buying 50 at a time. There have been times when I bought 100, 200, or 300 shares only to have the price drop almost immediately and I had to buy another few hundred shares to cancel out the loss. Fortunately, my new Fibonacci tools may help me determine future prices more effectively to avoid this, but I’m still reeling from this week’s losses and don’t want to risk too much money too soon.

The opening bell is a mad rush for investors—you frequently see the most movement of the entire day happen in the first half hour or so. Just as you can get burned holding an overnight position that falls in the intraday period, so can you buy during a false run in the morning only to miss the sell point and watch the stock fall hard—fast. Buying in the morning is fast and furious, and for myself as a young, inexperienced investor is akin to swimming with sharks. So, I have decided that I will wait until after this initial spike in activity and use the information contained in the charts to tell me where the price should close.
By measuring a stock’s initial change in price and the subsequent retracement, you can determine the range that the stock is likely to end up at the end of the day, all things staying the same. I believe the market is perfect, and as such perfectly represents the infinite factors going into every single investment decision. By focusing on popular large cap stocks with good fundamentals and target prices above current prices, I believe I can reap the benefits of a large volume of perfectly rational investors, especially with the current bull market. Using these simple calculations will greatly help me as I will be able to see the levels at which a price reversal is likely, and I can better determine the lows where I should buy and the highs where I should sell. I can even set limits for the price I want to sell it, just below a level I think the stock is likely to reach. This involves good judgment and being well-informed on the current state of the market (I generally have CNBC on during the trading day which helps me keep a pulse on the market, and lets me know about any relevant announcements and figures). I could also insert stop-losses below certain levels, but I don’t want to right away for fear that this might cause me to take losses where I could have just waited and possibly sold for a profit later.

To sum it up:

- Every morning, identify stocks with a significant run in the early minutes of the session followed by a modest retracement. This is a sign of strength. Continue to watch the stock until it reaches a significant low point using Fibonacci analysis. Buy at this point, and continue to monitor the stock, paying careful attention to important price levels that are likely to initiate a reversal.
- Also identify and analyze stocks that have fallen in the beginning of the day, but show strong retracement and are likely to rally based on Fibonacci support and resistance levels.
- Identify industries showing particularly strong growth and focus on the strongest companies in these industries.
- Build positions slowly—no more than 50 shares at a time but focus on buying at low points near potential reversal levels.
- Use a 5 minute chart to base decisions during the day, but mix it up to get a better picture of overall price action.
- Try to find 4 or 5 quality stocks for a given day, but avoid trying to handle more than this at a time.
- Don’t get greedy—sell when a stock reaches a 100% level with a Fibonacci price extension if not sold at a lower limit, unless the stock is blowing past that and looks to reach 138%. Look to sell at
138%, unless it’s still hot and likely to reach 162%. Use moving averages and MACD to help determine this.

- Try to sell all positions by the end of the day, but don’t sell if a stock is still rallying
- Buy GLD when stocks are down
- Never buy at the end of the day

Figure 4.49 Trading Method Fibonacci Retracement

Another example:

Figure 4.50 Trading Method Fibonacci Retracement

Nike (NKE) looks ready to rally for the next few days after hitting a support level, assuming the market stays strong:
Stocks I Played Last Week

GLD (Gold), AAPL (Apple), TGT (Target), UPS, HPQ (HP), F (Ford), BBY (Best Buy), M (Macy’s), ANF (Abercrombie & Fitch), JCP (JCPenny), WMT (Wal-Mart), NKE (Nike), GM, AEO (American Eagle Outfitters), TJX (TJ Max), SLV (Silver), and ARO (Aeropostale).

Current Account Net Worth

$98,270

4.1.5 Weekly Report#5

4.1.5.1 Week 5 Report – Chan Young Choi

This week, I read various news articles concerning the stock market. I searched for stocks for restaurant and other food companies, but none of their charts got my interest so I decided to drop it and look for other stocks. The news article that I came across was the tax cut for the people who make less than $250,000 a year. This news article is good news for the stock traders because it means that the economy will get better. Another article that I came across concerning the same matter said:

“The biggest event for markets are Congressional votes on a tax package compromise that would extend Bush-era tax cuts for two years and provide a one-year break on Social Security taxes for individual tax payers. Wall Street has already embraced the plan and has factored in more robust economic growth for 2011, and higher stock prices, because of it.”

It also said that the S&P 500 is expected to grow up to 1450 by end of 2011.

While I was looking at different stocks, I found a company called Lincoln Financial group. Their stock got my attention because they made a huge full gap up on the 8th Dec. I began searching for the reason why and found out that the president and chief executive officer will be
attending in the Goldman Sachs U.S. Financial Services Conference on the same day to discuss on the company’s performance and the result. I was not able to find the purpose of the conference, but it seems that the conference was made to discuss each financial company’s performances as well as to discuss the tax cut effect on the economy.

I traded Nike and Microsoft due to their recent activities such as Nike’s environmental apparel design tool and Microsoft’s Windows Phone 7. I believed that the effect of their new product and activities can bring their price up more than a week so I decided to keep trading their stocks but majorly depending on their chart behavior. Target was not in a superb condition this week. They did not have any extraordinary news, but I traded Target and Abercrombie for Christmas effect. I do not think the tax cut news will have high effect on the Christmas sale because economy is still not very good, but I am sure it will influence holiday sales in the future.

Trading Plan:

This week was the last trading week for this term. Previous weeks, I never spent more than $30,000, but this week, I decided to be little more aggressive and set the limit of my spending up to $50,000. I set the daily loss limit to be $200, in total not more than $1,000 in a week. Despite the fact that it is the week before the finals week, I decided to spend as much time as possible monitoring the charts. When I was not able to access the computer for chart monitoring such as class period or at any other mandatory events, I set the sell stop 2% below the price of purchase before I leave the computer. Another rule that I set myself to follow was to sell everything that made profit on that specific day, and keep the stocks that lost money but that have not reached 2% below the purchase price. The reason is that the market price can fluctuate depending on how S&P 500 behaves. My reasoning was to keep the profit that was made during the day and start fresh the next day. I kept my portfolio with 4 different stocks to keep myself more focused. This week I traded total of 5 different stocks, but I never kept more than 4 different stocks in my portfolio. I sold one stock completely and purchased a new stock.

Week’s Progress

**RED ARROW = SELL, BLUE ARROW = BUY**

Charts are very clear and self explanatory and the data for this week can be found under Table 4.8: Week 5 Data. The biggest mistake I made this week was on Abercrombie (ANF). I kept the stock overnight because I lost some money but it did not reach 2% below the purchase price. But the next day, because I saw the price dropping at 9:50am I sold my shares. I knew that the prices in general drop between 9:30am to 10:30am but because of fear, I sold my shares. Also if you compare my charts with my data, one thing you will notice is that the profit I made was not much despite the fact that I sold most of my stocks for more than what I paid for. The reason behind it is that the platform that I use (wallstreetsurvivor) takes $10 commission fee per every trade. I made total of 23 trades this week, therefore $230 was taken from my profit. Technically I made $371.33, but due to commission fees, this week’s intake was $141.33.
Figure 4.52 Target Co. (TGT) Week 5

Figure 4.53 TGT Vs. S&P 500 index Week 5

Figure 4.54 Lincoln Financial group (LNC) Week 5
Figure 4.55 LNC Vs. S&P 500 index Week 5

Figure 4.56 Abercrombie & Fitch (ANF) Week 5

Figure 4.57 Nike (NKE) Week 5

Figure 4.58 ANF Vs. S&P 500 index Week 5
Figure 4.59 NKE Vs. S&P 500 index Week 5

Figure 4.60 Microsoft (MSFT) Week 5

Figure 4.61 MSFT Vs. S&P 500 index Week 5
**Conclusion:**

I started to trade this term with no plan, and no rules. I made money and lost money, but now I look back and see myself lucky that I made money in some areas and understandable for losing money in other areas. As this term passed by, I became more systematic, and more organized in trading. I know that I still have a long way to go and so much to learn. But looking back to the beginning of the term, I can say that I have learned a lot. I became more firm on following my rules, began to read more news on stocks, looking at other stocks that are not on my portfolio for future prospect. Overall, this term was very beneficial for me in terms of knowledge and experience and I hope to learn more throughout the project.

**Table 4.8 Week 5 Trade Data**

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<th>Name</th>
<th>Action</th>
<th>Shares</th>
<th>Price</th>
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<td>LNC</td>
<td>SELL</td>
<td>100</td>
<td>28.12</td>
<td>$2,802.00</td>
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**Balance on Week 4:**
$100,607.41

**Current balance:**
$100,748.74

**Profit made:**
$141.33
Market Analysis
The S&P 500 index appears to have broken a key resistance level and should continue to gain through the end of the year. Fueled by strong consumer spending for the holiday shopping season, the Fed’s quantitative easing program, favorable tax rates being extended for at least the next two years, and ongoing financial distress in the Euro zone, the US stock market appears to be a sort of “safe haven” for investors, and the market is experiencing a nice Santa Claus rally. This is a favorable market for investors, though not as strong as it could be as many investors are selling off stocks for tax reasons as the year ends. Overall however, the economy is showing strong signs of improvement despite a still lagging employment rate.

Figure 4.62 Portfolio Performance

Figure 4.63 S&P 500 Index
Performance

The end of week 5 brought another week of net loss, bringing my total portfolio equity to $97,151.29. I believe this happened for two reasons. The first is that it was my first week working with Fibonacci ratios, and while they absolutely do work as far as predicting levels at which prices will reverse, this is not a trading system in itself and requires the trader to combine this tool with other indicators. For example, it is unwise to try to use Fibonacci levels to determine a possible price reversal in an upward trend when the trend is actually downward. This is where the moving average indicators must be used, and trades should only be made when the long moving average supports the price movement.

The other reason for the net loss this week is that my trading time was limited due to a heavy workload in my other classes from final projects and exams—I missed a lot of opportunities and was forced to sell a lot of securities at a loss because I simply couldn’t sit and watch the chart any longer. This can be avoided by inserting stop loss and gain levels, and I will look to do better at this in the future. Considering the overall bull market we find ourselves in, it is a safe bet to say that a strong stock like Apple (AAPL) will rebound from a down day or two, and to sell the stock because it reached a critical loss level is basically throwing money away. This happened to me this week, and was the biggest cause for the week’s loss. By buying at inappropriate times and holding stocks past the small initial uptick I did see, I was forced to continue to hold them as they went negative, taking up capital and limiting additional trades. I must improve my ability to buy at weakness and sell at strength, rather than the other way around.

A good example of a great idea poorly executed but already corrected can be found in a trade I made on Peabody Energy (BTU). Peabody is a strong natural gas company that has been recommended by CNBC stock expert Jim Cramer a couple times now. It has solid fundamentals with very strong profit margins every quarter this year, with the highest levels coming in the 3rd quarter. After a sizeable run up in the last two weeks, the stock experienced a pullback that reached the 38% level at the close of Wednesday’s session. Wednesday also showed a big gain in the natural gas commodity market, so the increased commodity price combined with the stock reaching a critical Fib level gave me a very clear buy signal.
Sure enough, the stock gapped up the next day, and I bought it at the open anticipating a big run-up. I had classes that morning, so if I failed to buy before 10:00 I would have to wait until about noon to place an order. I am not confident or experienced enough to be able to pinpoint a particular buy point with a limit order, especially after such a strong gap up, so I felt it was the safer play to just buy at the open and see what happened.

As it turned out, it would have been much better to have waited until noon, and even better to have waited until about 10:00 am the next day, but this was impossible to know at the time. Either way, the stock appears ready to make a large move as it has gone up since Friday’s close, and the trade is now positive for me. I have 800 shares in BTU and will look to sell 600 of them at the next Fib level, then buy another 300 more once the stock fully retraces again.

Interestingly, the large spike in buy volume coming just before 3:00 on Friday happened when Jim Cramer appeared on CNBC for his “Stop Trading” segment. Cramer recommended Peabody Energy in this segment, and as soon as he started talking about it the stock made a huge run. In hindsight, I could have taken profits here and bought again when it came back down, but again I had no way of knowing the stock would fall so quickly back to almost exactly where it was. Either way, the stock is primed to take off, and I have a large position that should enable me to make back much of last week’s losses, if not more.

The other stock I currently hold open position in is Apple (AAPL). As you can see on Monday, I used Fibonacci extension to play the stock almost perfectly for a nice $190 profit.
I made two critical mistakes with this stock on Tuesday, both of which broke rules I had set for myself, so that cannot happen again. The first came by trading first thing in the morning and having to sell at a loss. Luckily I got it off quickly, otherwise I could have lost much more. I made a successful trade in the middle of the day, but then bought after a big sell off at the end of the day only to see it slip even further and I force me to hold it overnight. This can be avoided in the future by waiting for the moving average to pick up before initiating a buy after a big selloff. For this case, I was and am still confident that the stock will rebound, given the current bull market and the fact that Apple has been one of the better performers of any stock over the last few years, and still has a price target of $365, about $45 above the current asking price. As of right now, I am 66 cents short of the price I paid and about $265 down total.

Figure 4.67 AAPL

I made basically the same mistake with Target, and it can really be attributed to buying at the wrong time, hoping for a trend to change rather than patiently watching and waiting for it to develop, then once the trend is positive again, wait for points of weakness to buy. I could have made a lot of money here if I had waited for the price to bottom out, and I can’t let this happen again.

Figure 4.68 AAPL
It is interesting to note how both Apple and Target had this selloff late Tuesday, and how that coincided with a drop in the S&P at the same time, meaning the selloff was widespread and these two stocks are strongly correlated with that index. It just so happens that President Obama was making a speech when this initial spike occurred and the quick run up must have triggered a massive selloff. I thought I could buck the trend and catch the stock when it slowed down, but this was incredibly stupid, and resulted in me having to hold the stock for another 2 days before selling at an acceptable loss of $108.

Looking Forward – Trading Rules
I made many mistakes this week because I broke the rules I set for myself. However, by doing this and seeing that almost every time I was hurt I had broken the rules, it solidified the trading system in my mind and I can better adhere to it in the future. That being said, I am down almost $3,000, and it is time to set some hard and fast rules about acceptable loss. From this point forward, every time I make a trade, I will set a price stop at a level that will only allow a $200 loss per trade. If I am not confident enough that it won’t reach this level before it gets to a point where I am ready to sell, I won’t buy (or short) the stock. This means I will have to risk fewer shares at a time then I have been, but if I can start getting consistent results I can start putting more money at risk. Also, if I ever lose $500 in a day I will stop trading and wait until the next day. Regarding the number of positions to hold at a given time, my rule is to hold no more than 4 short term positions at a time. I will also allow myself to hold an additional 2 positions overnight for the time being. These are stocks in which I see day-to-day growth potential, so I am not so concerned with the daily fluctuations as long as the medium-term trend continues. This gives me a grand total of 6 stocks I can play at a time, though I will try to keep this to 3 or 4 if possible. My goal is to make $1,000 a week, and if I can do that for 2 weeks, I will raise my stakes and allow myself a higher stop loss.
Trading Over Winter Break & Through C Term

Looking back on this IQP, I would consider my time doing research and trading very well spent, as I am now extremely confident in my ability to trade profitably, even in different market conditions. While my account did have a negative balance for the majority of the duration of the project, I do not consider this a bad thing. Being down motivated me to make better, smarter trades and get back to even. In the three and a half months I spent trading, I made about $29,000 profit. I also lost about $32,000, but I am confident that if I were given a fresh start right now, my losses would be drastically cut as I am now a much more savvy trader that I was when I first started this project. In addition, a huge majority of my losses came as a result of being too aggressive on only a handful of occasions, but because I did not use stop loss limits like I should have, these few mistakes ended up costing me big-time. The first big mistake I made came in mid-December, when I bought 300 shares of Best Buy before the closing bell, a few hours before they released their previous quarter earnings statement. Since the retail space in general had been enjoying a nice rally due to high consumer discretionary spending for the holidays, I expected a decent report and possibly a nice bump in stock price. I was wrong—Best Buy missed their expectations badly and the stock dropped from about $42 down to $35 overnight, bringing me a loss of about $2,000. While this was certainly a painful loss, it taught me a lesson about buying stocks before earnings reports come out—you never know whether the actual report is going to beat or miss expectations, so attempting to speculate is a bad idea that can bring big losses.

![Figure 4.71 Portfolio Equity Curve Line](image)

I got more conservative after that loss, and as you can see my portfolio value remained fairly flat from that point until the end of the year, where I closed out 2010 by selling all my holdings at that point, including a natural gas company, BTU, that brought me about $1,500 profit. When trading resumed after the New Year, the market took off on high buying and I was able to put together an impressive streak of winning trades. By that point I had become fairly proficient at using Fibonacci levels to determine where a stock was likely to reverse, and by
waiting until the trend had actually reversed and a new uptrend had started, I was able to bring my portfolio value up into positive territory, up about $2,000. It was here that I made another big mistake. This was even more frustrating than the Best Buy trade, because I basically made the same mistake again, though for different reasons. This time, I sold Netflix short just before their earnings report was due to come out. My reasoning was that the stock was trading at an absurd P/E multiple, somewhere around 80 I believe, and I figured if they missed estimates by even a little bit, the stock would likely get hammered.

As it turned out, they did way better than expectations (I still contend that this is because of shady accounting; i.e. counting free trials as future revenue and therefore making it look like they are growing faster than they are), but I suppose this is the risk you take in such an aggressive trade. This time I only shorted 100 shares, but the stock went up $40 from the point where I made the trade to when I finally had enough and had to bite the bullet because the price was obviously not going to come back down for the foreseeable future, so I took a $4,000 loss on that trade. After that however, I continued my winning streak, almost getting back to where I was before the Netflix trade, but then I started to get sloppy. I was sure I was right about Netflix being absurdly overvalued, so I shorted it again at a point that looked ripe for a reversal, only to see it bump up even higher after all the shorts gave up and covered their losses, leaving nothing but buyers (shorting Netflix was a popular trade at this time; several CNBC analysts were burned the same way I was, and the floating short ratio was pretty high).

This was followed quickly by a series of commodity trades gone wrong—buying high when the charts all appeared to be showing ascending triangles in the prices of grains (JYG), softs, (JJS), and sugar (SGG). These had been profitable trades up to that point, but I was especially burned by holding the sugar ETF for too long and being forced to let it go in the midst
of a rough sell-off. Again, this sort of thing can be fixed by using stop-losses when trading, and I was foolish for not doing so.

Another contribution to the steep drop-off in my portfolio value came from the oil ETF, USO and what I concluded to be the results of a phenomenon known as contango.

![Figure 4.73 USO](image)

After some profitable trades during the Egyptian revolution and subsequent spike in oil prices, I stayed in USO and even bought more on the next dip. This was a mistake, however, as oil prices stabilized, but I was surprised at how far the ETF dropped when the actual price of oil was not falling like that. The reason for this, I discovered, is because of the nature of ETFs such as USO and the fact that they do not physically store the commodities that they represent. Rather, they hold futures contracts for various times in the future, generally the next few months. What happens is that when the futures curve is sloping upwards (meaning the price goes up as you go further out into the future), the ETF is constantly rolling into more expensive contracts, thus nullifying a large portion of the profits they would have made if they were actually holding oil that is being traded at the current spot price. This is why oil ETFs generally perform much worse than the physical commodity they attempt to track, as opposed to the GLD index, which does in fact track the price of gold accurately because it is backed by a physical supply of the yellow metal. It is important to research the holdings of any ETF or mutual fund before buying them, as things like this can happen when the investor thinks he is buying something, but he is actually getting something else.

While these mistakes ended up costing me a lot of money, I made far more profitable trades than losing ones. The following are some examples of great trades I made during this project:
Caterpillar—waited until the down trend reversed, then bought at a low and held it until a high at a critical Fibonacci level the next day.

GM—bought at a low after evidence the down trend had reversed, held it until a peak the next day.
Hess Oil—bought an ascending triangle pattern and sold it when it crossed the trend line and the trend started to weaken.

McDonalds—bought on a dip during a steady up trend and sold on the last peak before a drop-off.
Schlumberger Oil—sold just before a drop off upon reaching a critical Fibonacci level.

In this example, I successfully sold Apple short for a sizeable profit, then bought it and sold it twice while it ran back up.
Chapter V

5.1 Conclusion

This project was successful in that it taught us what works and what doesn’t work while trading, and what types of criteria we should look for in attempting to identify a) what companies to invest in, b) when to buy (or short) stocks, and c) when to sell (or cover). We spent a lot of time simply watching charts develop in real time over the length of this project, using our judgment and intuition as well as knowledge of fundamental and technical analysis in order to make these decisions. Through trial and error, we learned a lot about what works and what doesn’t when trading and investing in the stock market, and we learned how to control our emotions to avoid buying or selling at the wrong times. Through implementation of things like Fibonacci ratios and Elliot Wave principle, and technical indicators like the Relative Strength Index, Stochastics, and Moving Average Convergence Divergence (MACD), as well as being able to read chart patterns to identify trends, we became very capable of identifying the points at which prices tend to reverse, which minimized our risk while maximizing our gains. We learned what times during the day are best to trade in order to take advantage of large price moves, and learned what times are especially risky to trade, such as just before a company reports its earnings for the previous quarter. We learned how much of an effect news can have on a company’s stock price, and how to compare companies within the same sector based on their key fundamental ratios. We also learned that there are times a trader should not trade, either because he is sick, stressed, or just took a big loss, and these were all things that we learned through experience and by trading every day. Even though our approaches varied, (Brian being very aggressive in his trades while Chan was more conservative) we both considered ourselves successful in our trading experience, and it was definitely helpful for both of us to get the other partner’s perspective.

As far as automating our trading strategies, we both came up with different techniques. Chan used the RSI technique offered by the Tradestation website, which he found to be very effective. Basically, the strategy bought when the Relative Strength Index fell below a certain point and sold when it got above a certain point. Meanwhile, Brian experimented with trying to write his own strategy in Easy Language using a combination of moving average indicators, stochastics, and MACD to trigger a buy or sell signal. He was unsuccessful in being able to get the program to recognize Fibonacci levels to identify selling points, and the program was overall not very effective. However, he was later able to find a better way to automate a trading strategy after reading a book entitled “The Profit Magic of Stock Transaction Timing”, which was written by a rocket scientist named J.M. Hurst in the 1970’s. Hurst was able to show through mathematical analysis that stock prices tend to fluctuate in very predictable cycles. By drawing a moving average line of, say, the last 10 bars, and then displacing that line back one-half the distance of the moving average (5 bars in this case), we are left with a line that falls very close to the center of all the price movements. By then drawing an upper and lower limit envelope that contains all price action, we can now visually observe the fact that the stock price tends to fluctuate between these two points. We can then see where the stock is within the cycle, and this gives us a clue as to whether we should buy the stock, or wait for it to come down more. The Easy Language for this indicator is not quite finished as of the submission of this report, but Brian plans on perfecting the indicator and then combining it with Stochastic and MACD indicators in order to form a buy/short trigger. He then plans on employing a trailing stop method of exit that will lock in profits and limit losses, and create a working trading strategy that should bring consistent and large profits.
Figure 4.80 Hurst Cycle Indicators—written in Easy Language
Appendix: The Fundamental and Technical data

THE BOEING COMPANY  BA : NYSE
Industry: Aerospace

COMPANY PERFORMANCE

Growth Rates

Key Measures

<table>
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<tr>
<th>VALUATION</th>
<th>BA</th>
<th>Industry Average</th>
<th>Sector Average</th>
<th>S&amp;P 500</th>
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<td>Price/Cash Flow</td>
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</tr>
<tr>
<td>Price/Book</td>
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<td>6.19</td>
<td>3.52</td>
<td>3.64</td>
</tr>
</tbody>
</table>

FINANCIAL STRENGTH

| Quick Ratio (MRQ) | 0.52 | -- | -- | -- |
| Current Ratio (MRQ) | 1.87 | 1.63 | 1.75 | 1.91 |
| LT Debt to Equity (MRQ) | 574.11 | 236.89 | 42.97 | 75.74 |
| Total Debt to Capital (MRQ) | 607.33 | 227.48 | 72.23 | 101.62 |
| Return On Equity | 327.63 | 1.00 | 1.00 | 1.00 |
| Return On Assets | 3.89 | 7.72 | 4.26 | 7.64 |
| Return On Invested Capital | 15.41 | 19.93 | 8.04 | 13.00 |

ASSETS

| Asset Turnover | 1.16 | 1.04 | 0.91 | 0.79 |
| Assets per Employee | $375.5K | $643.3K | $645.0K | $2.4M |
| Inventory Turnover | 3.96 | 5.41 | 14.78 | 12.10 |

PROFITABILITY

| RETTA | $2.88 | $1.48 | $1.58 | $3.28 |
| Operating Margin | 3.0% | 10.7% | 10.4% | 17.3% |
| Profit Margin | 1.6% | 2.2% | 3.4% | 11.2% |
| Gross Profit Margin | 17.5% | 22.6% | 33.3% | 43.6% |
References