

August 2014

# Analysis and Comparison of Long and Short Term Stock Trading Strategies

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Project Number: DTZ 1405

An Interactive Qualifying Project Report: submitted to the Faculty of

WORCESTER POLYTECHNIC INSTITUTE

in partial fulfillment of the requirements for the

Degree of Bachelor of Science

By

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Submitted:  
August 5, 2014

Approved by Professor Dalin Tang, Project Advisor

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## Abstract

Over the course of four weeks, a stock market simulation was conducted using various techniques and patterns to determine which methods were most effective while investing in stocks. Information was taken from books as well as the internet for research, and all technical data was taken from the internet. This project examines manners of trading, both short term and long term, and juxtaposing each of their strengths and weaknesses. The ability to read technical data as well as formulate and organize data was learned. These tools, along with many of the others learned in this project, can be applied to investing in stocks on the real market as well.

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## **Chapter 1: Introduction**

### ***1.1 Goals and Methods***

The primary objective of this project and simulation is to both identify and define what makes a certain stock either a short-term investment, or a day trading stock, or a long-term investment.

The first goal of defining a stock better suited for day trading will be done by creating an ever-changing pool of stocks which will be bought or sold each day. This means that the stock's changes in that particular day will be all that is taken into account as fair as gains and losses. Over the course of the simulation, the cumulative gains/losses along with the price of each trade will be an indication of whether the chosen stocks were truly valuable day trading stocks on that particular day.

The second goal will be to determine and find the quality of long-term stocks. The investor, throughout the entirety of the simulation, will hold these stocks, and their general trend over the course of the simulation will be more of an indication of their validity rather than their rises or drops on a given day.

Method's to be used in this project will involve the definition and identification of a stock, and the qualities of that stock which will define it as a long-term stock or a day trading stock. An assortment of traits, held by one type of stock and not the other, will then be determined. Stocks will then be matched to each type based on its traits, organizing the stocks into two groups. The stocks determined to have the strongest of these traits will be the ones chosen.

At the beginning of the simulation, the investor will choose ten stocks to start. Six of these will remain in the investor's portfolio until end of the simulation, and will be the investor's

long-term stocks. The remaining four will be chosen at the beginning of each day, and sold at the end. Each day, the purchases and sells being made will be noted, as well as the profit or loss induced. By the end of the simulation, the general quality of the stocks chosen in their chosen role will be determined based off the investor's profits or losses.

Because the simulation is only four weeks long, it will be difficult to fully identify the validity of the long-term stocks. However, the predictions established and the stocks actually performance juxtaposed against those predictions will give the investor a good idea of what the value of the stock will look like months down the road, seeing as the two align. The stocks being day traded are impervious to the short length of the simulation, as their performance will be measured each day.

## ***1.2 Stock Market Background***

The idea of an individual personally providing money towards a company or a project, and then receiving an increased amount of money in return has been around for thousands of years.

As far back as 16<sup>th</sup> century Belgium, the country's wealthiest citizens would meet to discuss the finances of their respective businesses, as well as make transactions in the form of promissory notes and bonds, usually for professional matters but at times for personal ones, such as outstanding debts, as well [1].

Moving into the 17<sup>th</sup> century, the dawn of imperialism and augmentation interoceanic trade, those looking to start trade companies needed a vast amount of capital. In 1602, the Verenigde Oost-Indische Compagnie, or VOC, was founded [8]. In that same year, the States General of the Dutch Republic granted the VOC a charter for the length of 21 years [8]. Over a thousand investors flocked to the company, at the promise that upon the end of the ships'

voyages, their capital would remain in the company for further voyages, rather than be immediately liquidated. It was this “liquidation” which separated the VOC from previous investment establishments in Europe prior, such as London and Venice, who dealt solely with equity [8]. It is also a form of this system of investing that the United States, as well as many others, has based their current system.

The United States’ conception was built around the belief that a man’s own sweat and blood should determine his wealth and standing in society, as opposed to the sweat and blood of his forefathers. After the Revolutionary War, the United States had a plethora of outstanding debts. Alexander Hamilton, Secretary of the Treasury at the time, urged President Washington, as well as Congress, to allow for the purchase of bonds by American citizens, the country’s first Treasurer Bonds [7]. The proposal was narrowly accepted. However, after a failed attempt by a wealthy New Yorker, by the name of William Duer, to corner the market, it crashed in 1792. Hamilton then implored other prominent businessmen in New York, the nations then capital and yet still financial hub, to create a central place for their stocks and investments. Twenty-four answered the call, and on May 17<sup>th</sup>, 1792, on Wall Street under the shadow of the Buttonwood Tree, the New York Stock Exchange was born [7].

Since its insemination, the NYSE has grown to be the world’s largest of its kind, and has served as nothing short of a catalyst for the unmatched growth and prosperity of the United States’ economy over the last quarter millennium.

### ***1.3 The Differences Between Gambling and Trading***

Investopedia defines a stock as “a type of security that signifies ownership in a corporation and represents a claim on part of the corporation's assets and earnings.” The manner



in which stocks are traded have changed drastically multiple times since the beginning of stock exchanges. In the beginning, the only way to buy or trade stocks was to be on the floor of one of the large exchanges, or hire somebody to be present their for you. Then, with the invention of the telephone, the making of trades became easier and more accessible to a wider range of people. Now, with the Internet rendering stock trading a possibility for nearly everyone, it is important for an investor to know the difference between gambling and trading.

Gambling is to buy an asset, in this case a stock, with no guarantee or likelihood of a return on that investment. This can be in the form of placing money on a number in Roulette, betting on a horse, or whimsically buying a stock without an understanding of the current value of that stock, as well as the potential value of that stock in the future. The buyer bears no mind to the state of the market as a whole, the subset of the market for which the company whose stock they bought is a part of, or the actually quality of the company itself.

One who buys and sells stocks as investments takes all of these things, as well as many others, into consideration. They are aware of the company's earnings for that quarter, the quality of their newest product, which just hit the market, as well as the public's need, and potential desire to purchase, such a product. The individual, buying stocks as investments, will also bear in mind other investors' perception of the company, and more specifically the company's stock. Often times, this is what is actually driving the price of the stock. A recent study found that a stock's value could be affected by nearly 50% due to their perceived risk by investors [1].

Therefore, it is critical that the investor stay informed and aware of these changes before, during, and after the purchase of a stock. This knowledge, coupled with the lightning fast ability to trade granted by the Internet, will be the two driving forces for the day-trading scheme.

#### ***1.4 Value of a Stock***

Stock in a company is bought in the form of shares. A publicly traded company has a set volume of shares available for purchase. It is the price of those shares, or rather the future value of those shares, which stockbrokers and common investors try to anticipate as well as exploit. The most recent price a single share was bought or sold for, known as the market price, is at the whims of that stock's supply or demand, just like any other product bought or sold on the free market. In the United States, shares of stock are sold publicly on the New York Stock Exchange, as well as digitally on the National Association of Securities Dealers Automated Quotations (NASDAQ).

## **Chapter 2: Types of Investments**

### **2.1 Introduction**

In a 2011 letter to his Berkshire Hathaway investors, Warren Buffett defined investing as “the transfer to others of purchasing power now with the reasoned expectation of receiving more purchasing power” [3]. Investments are made, not for immediate exchange for money, such as a job, but rather for the prospect of further, possibly more lucrative, investments.

### **2.2 Stocks**

Stocks, as was already defined, is that which an individual buys to give them part ownership of a company. There are two basic types of stock: common stock and preferred stock. To own common stock, or shares, in a company is to hold partial ownership as well as voting rights within said company. Preferred stock differs from common stock in that its holders do not hold the right to vote on company matters. However, holders of a preferred stock are also entitled to a dividend payment from the company if that company has the finances to pay those dividends [9].

### **2.3 Bonds**

A bond is a type of loan borrowed by a government, municipality, or company from investors. Bonds can take many shapes, often as war bonds or treasury bonds for governments. They serve as a way from governments, or other issuers, to amass capital very quickly. Often accompanied with a contract, bonds often have fixed terms, and are also unsecured, which means there is no guarantee of payment if the issuer is unable to pay.

### **2.4 Hedge Funds**

The Securities and Exchanges Commission, the agency in the United States which enforces laws concerning securities and stocks, defines hedge funds on their website when it says

“hedge funds pool investors’ money and invest the money in an effort to make a positive return” [10]. Similar to an individual buying a stock, where a hedge fund differs is in that, although the capital comes from the individual, the actual transactions are chosen and executed by a limited liability company and deals usually in liquid assets.

## **2.5 *Why Stocks for this Simulation?***

Considering the amount of time allotted for the simulation, stocks are the most logical choice. Whereas mutual funds and bonds have a low annual dividend and are held for many, many years, often the span of the investor’s lifetime, shares of stock can be held for mere days and produce profits of 20%. It is this volatility, and stocks’ high-risk, high reward nature that many investors find to be so enticing.

However, volatility can also spell trouble for the investor, producing losses equal if not greater than the gains. Therefore it is import for the investor looking to enter into the stock market to be well versed in its movements, as well as the means with which seasoned investor track and predict future movements. The simulation creates a useful platform on which the investor can study and practice trades within the market, see real time progress or regress, experience the perils and triumphs of investing, and all without using real money.

## **Chapter 3: Strategies for Stock Trading**

### ***3.1 Tools for Predicting the Value of a Stock***

After decades and decades of research by some of the greatest minds in economics, a foolproof way of predicting an assets future value has yet to be developed, most likely indicating there isn't one. There are, however, innumerable ways stock traders try to predict the future share price of a stock. These range from numerical formulas and algorithms, which track the market's movement, to the company having a likeable or famous CEO.

Although the algorithms, graphs, and formulas paint an enticing portrait, it is always important to bear in mind a company's health, such as quarterly earnings and public perception. These are what truly drive a stock's value, as a stock's value is merely a reflection of the company's value. If a company is losing vast amounts of money, and their leadership is notorious for spending wildly, there is little to no chance investors will put their money behind their company, thus driving the price of their stock down.

The health of the economy is also a factor that controls the value of many if not all stocks. If the United States is in the middle of a recession, people, particularly investors, tend to hold their capital very close to their chests and steer clear of the oft-sporadic stock market. With few people participating in trading, the stock market will plummet. This was demonstrated in the crash that set off the Recession in 2008.

Market value is also self-fulfilling. If the Wall Street Journal were to run a story on their front page entitled "Apple Stock Set to Crash," people would scramble to call their stockbrokers or log onto Etrade and sell their Apple stock. Whether or not Apple's stock really was going to crash, this mad dash by everybody to sell their shares before their value depreciates actually

depreciates the value. Other investors see the stocks value plummeting and they too sell. The demand for the stock becomes next to zero, while the supply skyrockets, driving down its value.

Therefore, it is very important to remain up to date on a company's news and performance, as these often are far more telling than a graph or formula.

### **3.2 *Diversification of Stocks***

An important thing to keep in mind while investing in the stock market is known as “diversifying your portfolio.” This means holding many types of stocks, large and small companies of many different industries. Diversifying allows the investor to safeguard against unexpected and crippling changes to a company or industry. To carry on with the example used before, if an investor has all of their money invested in Apple, and the WSJ runs that article and Apple's market value is cut in half, that investor loses half of their money. However, if that investor had diversified, and invested in many other stocks, with Apple shares only making up 30% of their total investments, their net loss would have been 15% as opposed to 50%.

Diversification also applies to the industry in which you invest. Although buying stocks from many different companies protects you from a drastic depreciation in the shares of one of those companies, purchasing stocks of companies inhabiting the same industry can be a similar mistake. For example, an investor purchases stock in twelve different companies, all of them considered “Aerospace & Defense” companies. Drastic cuts in the budgets of both space exploration and defense could cause massive depreciation in each of those stocks, as they all are at the whims of the government's budget. But, if the investor had diversified their portfolio, having A&D companies inhabiting one third of his investments, high tech companies another third, and telecom the remaining, their loss would have been much less.

### ***3.3 Analyzing the Performance of a Stock***

The performance of a stock is measured by how well the stock's market value compares to others in their industry, as well as the Stock Market as a whole. If a stock's market value is depreciating, but at a much slower rate than others in its industry, the stock is still considered to be performing well. There are numerous indicators, developed from a variety of formulas and algorithms, which track this trend and show the stock's indistinct value, which may become value when that company's industry recovers.

The opposite is true as well. If a stock's market value is increasing, but at a much slower rate than the rest of the market, particularly stock's in its industry, when the investing environment turns sour, that stock could depreciate at a crippling and possibly irreparable rate.

### ***3.4 Trading Strategies to Be Used in This Simulation***

As has been demonstrated, the process of valuing and predicting the value of a stock is an arduous process, which can be done an infinite amount of different ways. In this simulation, three techniques for buying and selling shares will be chosen for each of the strategies implemented, day trading and long term holding.

#### ***3.4.1 Strategies for Day Trading***

**MACD Indicator Crossover**—One of the most commonly uses indicators in stock trading, the MACD (or Moving Average Convergence Divergence) is an indicator, which utilizes a stock's EMA (or Exponential Moving Average) and juxtaposes it against the signal line, which is generated from a complex formula and demonstrates the general trend of the market. The MACD displays many patterns, one, in particular, will be used during this simulation. It is known as the MACD Crossover. It occurs when the MACD line intersects the signal line. When the MACD crosses on an upward trend, it indicates a stock one should buy, when it crosses on a downward

trend, it indicates a sell. An example of the validity and strength of MACD crossovers is shown on the next page in Figure 3.1.



*Figure 3.1 An example of MACD Crossovers predicting future value of Netflix Stock between January and June of 2014.*

**Candlestick Patterns**—The second day trading technique to be used in this simulation is the utilization of Candlestick Graphs, and the recognition of their patterns. A candlestick graph is a graph that demonstrates a stock’s opening and closing price, as well as the highest and lowest it was sold at on that day. The pattern to be utilized in this simulation is known as the engulfing pattern. It occurs when a large, black candlestick follows a small and white one. This indicates a bearish (or buying) environment for that stock. On the flip side, a small black candlestick preceded by a small white one indicated a bearish (selling) environment. An example of the validity of this technique is shown in Figure 3.2.





Figure 3.2 Apple stock in April of 2014 increasing in value immediately after a bearish engulfing pattern.

**Momentum**—This strategy will be the simplest of the three. Momentum will be determined by news releases for a company, as well as moves carrying a high amount of volume. Each morning, major financial publications will be checked for any positive news on a company or its stock. Shares will be bought and held until the stock begins to show a series of candles, or losses.

### 3.4.2 Strategies for Long Term Holding

**Growth Stock**—This strategy will implement the purchase of stocks that identify as “Growth stocks.” These stocks belong to companies with great sales and profits, as well as being the preminent company in their field. For years, these stocks have shown bearish trends in the long term, as well as paying a great dividend to their shareholders. This simulation will attempt to identify Growth stocks as ones who will have a bearish trend for the entirety of the simulation.

Google is known as one of the preeminent growth stocks on the market today. Figure 3.3 demonstrates this.



Figure 3.3 A graph demonstrating Google's growth over the past two years

**Value Stock**—A value stock is a stock currently considered to be priced much less than its actual value. More often than not, these occur at the end of a downward trend, or a “valley.” The metric used to determine this is known as the stock's 52 week low. If a stock is selling at its 52 week low, that means it is being trading at its lowest price in that past year. A company that has stayed away from negative publicity and consistently shows good earnings but is at its 52 week low would be considered a stock of great value, and one poised to grow in time. Figure 3.4 demonstrates this theory.



Figure 3.4 This graph shows Raytheon's growth after hitting a 52 Week Low.

**MACD Indicator**—Just as before, the MACD will be used to find a stock to hold in the long term, as its MACD indicator will have crossed the signal line. However, another indicator within the MACD that further strengthens its predictions is when the MACD line crosses the signal line then crosses the zero line as well. An example of the strength of this prediction is shown in Figure 3.5.



Figure 3.5 A graph demonstrating the effectiveness of a MACD Crossover predicting market value growth.

## Chapter 4: Simulation 1: Long Term Holdings

### 4.1 Stock Research Process

Companies an investor plans to invest for the long term in, have many factors that must be taken into consideration. Predominantly the company's so called "financial health" as well as its "social health." A company's financial health refers to its quarterly earning, growth rate, and the dividend they pay to their investors. On the other hand, their social health as a company is dependent upon their public perception, the image of their brand, and the integrity of the company's leadership. A terrific resource which houses all of such information, and the one used in this simulation, was MarketWatch.com.

MarketWatch, owned by the Wall Street Journal, is a gigantic database of financial data, and company information for investors. Everything published about a company in a major publication gets filed into that company's MarketWatch page, alongside the company's current market value as well as various statistics such as 52-Week Low and Highs, quarterly earnings reports, and Hulbert Interactive Sentiments. Hulbert, for twenty years, has been the industry standard for stock valuation, plotting a point on a 1D graph whether a stock is bullish or bearish. An example of a Hulbert Interactive Sentiment is shown below in Figure 4.1.

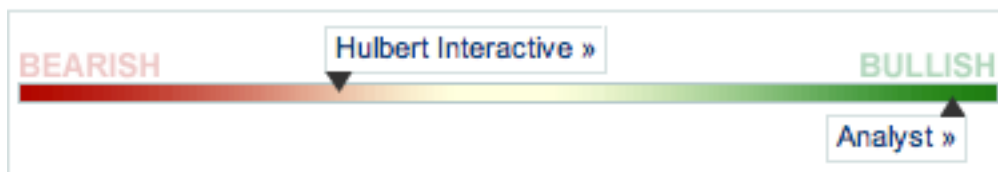


Figure 4.1 A graph showing Hulbert Interactive's sentiment on a stock as well as a MarketWatch analyst's.

All of these publications, data, and ratings mean nothing, however, if you do not already have a stock in mind to research. The process of choosing stocks began with an evaluation of each of the major markets and how they were fairing at the moment, and the decision was made to select stocks from each of the major markets fairing the best. After much deliberation it was decided telecommunication, technology, consumer goods, and entertainment were the markets fairing the best at the moment, and the long-term stocks would be selected from those. The next step was to discern the companies poised for growth within those markets.

#### **4.2 *Company Profiles***

The long-term stocks to be held belong to well established, and successful businesses and corporations. Their initial purchase was predicated on the company's impressive history as well as their continued success and growth of their shares. Where as the stocks being day traded are chosen almost exclusively on patterns and numbers, the companies' shares that are going to be held long-term will have their earnings, leadership, and business practices taken into account.

#### **Boston Beer Company (SAM)**

The landscape of the beer market in 1984 was vastly different than that of today. Where as now microbreweries and craft beers are abundant, as well as widely distributed, the consumer had little to no options back then. This is where Jim Koch, a management consultant, decided to enter the market, and introduce his product, "Samuel Adams: Boston Lager." Coming from six generations of brewing in St. Louis, Jim Koch and his great tasting lager took the market by storm, and quickly established itself as the drink of choice for many Bostonians, and soon, many Americans.

Now, the company has hundreds of different styles and varieties of brews, many they developed in house, but the majority of which were received through the acquisition of numerous microbreweries. Their previous upheaval of the status quo, bringing craft brews affordably into the homes and hands of consumers, blended beautifully with their then seizure of many of the market's best tasting brews.

Shares in Koch's company have been publicly traded since 1996, their share price steadily hovering in the low teens. However, in the 2000's, they began implementing their strategy of buying up domestic microbrews. They saw their share price skyrocket in the coming years, seeing phenomenally steady growth. Their stock in recent years has stayed above the \$200 mark, presenting itself to be too pricy for some investors.



Figure 4.1 Share price of Boston Brewing Co. along with a MACD Indicator.

Boston Beer Co. released their first quarter earnings in May, demonstrating a 32% net revenue increase. Also, their share price is the lowest it has been since February. A MACD crossover was also observed, indicating a stock set to grow greatly in the coming weeks, as well as purchasing it for a good value. The good momentum as long as the company’s longstanding commitment to its own excellence, its expansion in to the foreign market, and Jim Koch’s phenomenal leadership make Boston Brewing Company a company investors flock to throw their money at, often receiving a hefty reward.

### ServiceNow Incorporated (NOW)

ServiceNow provides IT service management to its customers’ server platforms. Their services are usually called upon by Tech Titans such as BMC, IBM, and Hewlett Packard. Their company has had immense success and has twice been named Wall Street Journal’s “Next Best Thing.” In the previous fiscal quarter, their earnings trumped estimates yet again, despite tech companies struggling to perform in recent years.



Figure 4.2 Share price of ServiceNow Incorporated along with a MACD Indicator.



To go along with the company’s impressive earnings and accolades, their stock also indicated a MACD crossover recently. Although nowhere near their 52 week low, the company’s success along with the indication of positive momentum are plenty to force a buy and hold for the long-term.

## Splunk (SPLK)

Splunk is an international corporation headquartered in San Fransisco which, like ServiceNow, provided IT solutions to its customers. According to its website, “...Splunk turns machine data into valuable insights no matter what business you're in. It's what we call Operational Intelligence...” The company has seen steady growth and success after its founding in 2003. They turned profitable in 2009, and went public in 2012. Recently, however, Splunk has struggled a bit. They recorded a \$50 Million loss (\$0.52 per share) on their latest quarterly report, which immediately caused their stock to plummet in mere days. Splunk now sits close to its 52 Week low.



Figure 4.3 Share price of Splunk along with a MACD Indicator.

Despite their fall, Splunk has landed over 120 new contracts in recent months, demonstrating a great opportunity for growth, with a buy at a very valuable price. The MACD indicator also hints at a crossover in the near future.

### NetScout Systems (NTCT)

NetScout Systems was founded in 1984 in Westford, Massachusetts. After many years of numerous mergers and acquisitions, NetScout has emerged as one of the industry’s leaders in computer network performance management. The company’s share price has steadily been increasing since it went public in mid-2011. A recent article published by Zacks.com identified NetScout as one of the emerging growth stocks being traded on the market today.



Figure 4.4 Share price of NetScout Systems along with a MACD Indicator.

As is evident by the MACD indicator, the stock recently underwent an upward cross of the signal line, predicting growth in the near future. Experts predict the growth earnings per share of the stock to hit 17.5% this fiscal year.

### Cinemark Holdings (CNK)

Cinemark is a chain of movie theatres operating all over the globe. Started in 1984, it is currently the second largest theatre chain in the world behind AMC Cinemas. They began to be publicly trade in 2011, and have had steady growth on par with the recent growth in the market.



Figure 4.5 Share price of Cinemark Holdings along with a MACD Indicator.

Although nowhere near their 52 week low, Cinemark has shown steady and consistent growth since going public, and pays a generous dividend of 3.2%. An upward cross of the zero line bolsters their recent MACD Upward Crossover as well, demonstrating great momentum as

well as a high ceiling for growth. They have hit their mark on all of their recent earnings reports, and a terrific line up of summer movies bodes well for their business.

### Schlumberger Limited (SLB)

Schlumberger is the world’s largest oilfield services company. The company was founded in 1926 by two Frenchmen, and now provides the oil industry with tools and services for drilling, refining, testing, and well cementing. A 6% increase in first quarter revenue demonstrates that Schlumberger is fairer far better than many of its cohorts in the Oil industry at the moment.



Figure 4.5 Share price of Schlumberger Limited along with a MACD Indicator.

Schlumberger was recently picked as one of MarketWatch’s 7 Most Valuable Stocks as picked by the readers. However, only 30% of their business resides in the United States and

Canada. The majority of it lies in the Middle East, and with the current turmoil in Iraq, some investors may shy away from Schlumberger, but with a market cap of \$142 Billion, they can afford a few hits.

### 4.3 Trades

As stated in Chapter 1, \$100,00 was at the disposal of the investor at the beginning of the simulation. It was then decided that 60% of that total should be devoted to the long-term holdings, totaling approximating \$10,000 for each holding. Seeing as the share price for each is different, total shares in each stock are varied, but the overall valuation of trades was about the same. The trades for the long term holds are shown below in Table 4.1.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost	Total Cash
6/9/14	SAM	Buy	\$214.66	50	(\$10,733.00)	\$89,267.00
6/9/14	NOW	Buy	\$56.93	200	(\$11,386.00)	\$77,881.00
6/9/14	SPLK	Buy	\$43.39	200	(\$8,678.00)	\$69,203.00
6/9/14	NTCT	Buy	\$39.91	250	(\$9,977.50)	\$59,225.50
6/9/14	CNK	Buy	\$31.79	300	(\$9,537.00)	\$49,688.50
6/9/14	SLB	Buy	\$106.03	100	(\$10,603.00)	\$39,085.50

*Table 4.1 A table showing the trades made for the stocks to be held long term.*

### 4.4 Analysis of Long Term Trading Performance

The data and performance of the six stocks chosen will be analyzed in two different manners. The first will juxtapose the total growth/decay of the portfolio over the simulation's duration, and the growth/decay of the market during that same interval as displayed by the S&P 500 as well as the DOW Jones Industrial Average. The percent change in each will be compared,

as the latter two are the industry standard for evaluating the current state of the market, or its movements.

#### 4.4.1 Performance against the Market

The simulation took place from June 9<sup>th</sup> 2014, through July 3<sup>rd</sup> 2014. The purchase of the stocks were already shown, the following table shows the price at which the shares were sold, as well as the total profit/loss of the trade. The sum of the profits for each trade was then found, and converted to a percentage of \$100,000.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost	Total Cash	Profit
7/3/2014	SAM	Sell	\$233.85	50	\$11,692.50	\$57,080.25	\$959.50
7/3/2014	NOW	Sell	\$61.67	200	\$12,334.00	\$69,414.25	\$948.00
7/3/2014	SPLK	Sell	\$53.96	200	\$10,792.00	\$80,206.25	\$2,114.00
7/3/2014	NTCT	Sell	\$45.13	250	\$11,282.50	\$91,488.75	\$1,305.00
7/3/2014	CNK	Sell	\$35.70	300	\$10,710.00	\$102,198.75	\$1,173.00
7/3/2014	SLB	Sell	\$117.40	100	\$11,740.00	\$113,938.75	\$1,137.00

Long Term Profit = \$7,636.50  
 Long Term Percent Profit = 7.64%

*Table 4.2 A table showing the profits made off each long term stock.*

This percent was then compared with that of the Dow Jones Industrial Average. Figure 4.6 below shows the movement of the share price of \$INDU over the period spanning from June 9<sup>th</sup> to July 3<sup>rd</sup>.

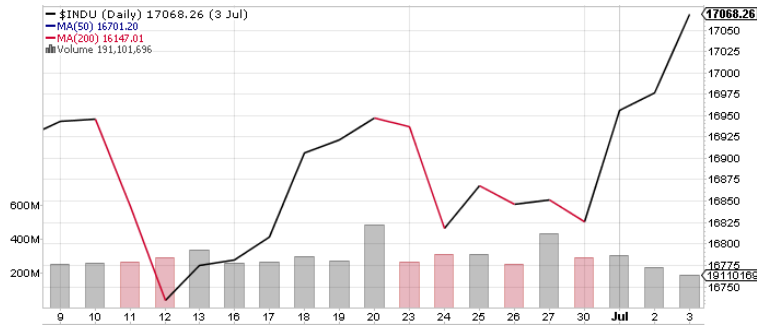


Figure 4.6 Market value of the Dow Jones Industrial Average between June 9<sup>th</sup> and July 3<sup>rd</sup>.

During this period, the market value of the Dow Jones Industrial Average grew from \$16,935.01 to \$17068.26, which is a growth of just 0.79%. Comparing this percent growth with that of the holdings in the simulation, the trades made using the techniques and strategies put forth in this simulation fared almost ten times better than the average stock during this period.

#### 4.4.2 Performance against the Industry

The second comparison to be made which will quantify the success of the long term trades, and therefore the validity of the simulation is comparing the stocks against each of their respective industries. As previously stated, a stock which performs better than its industry is just as valuable as one which outperforms the market. The corresponding markets for each of the stocks are shown below.

<u>Consumer Goods</u>	<u>Consumer Services</u>	<u>Tech</u>	<u>Oil &amp; Gas</u>
SAM	CNK	NOW	SLB
		NTCT	
		SPLK	

Table 4.3 A table categorizing each stock into an industry.

Boston Beer Company was the only stock held underneath the Consumer Goods category. 50 shares were bought at an initial market value of \$214.66, and sold for a price of \$233.85; a profit of \$959.50 or 8.9%. During the duration of the simulation, the consumer goods

market in the United States grew 1.12%, as the graph for the Dow Jones US Consumer Goods Index shows below in Figure 4.7.

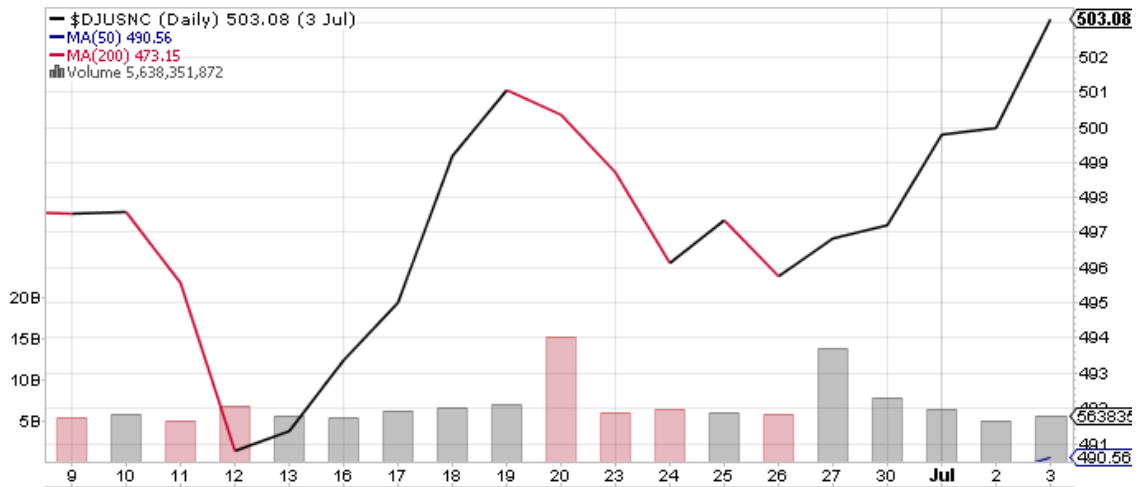


Figure 4.7 Market value of the Dow Jones US Consumer Goods Index between June 9<sup>th</sup> and July 3<sup>rd</sup>.

This demonstrates that Boston Brewing Company’s market value grew over 7% faster than its other competitors within the consumer goods market.

Cinemark Holdings was the only trade made within the consumer services business area. 300 shares were purchased at a price of \$31.79 and sold at the end of the simulation for \$35.70. This returned a profit of \$1,173.00 or 12.3%. This can then be compared to the 1.53% growth the consumer services market experienced according the Dow Jones US Consumer Services Index, demonstrating Cinemark did over 10% better in the span of the simulation.

The technology sector encompassed half of the stocks selected for the simulation. Their total value at the beginning of the simulation summed to \$30,041.50 and garnered a final profit of \$4,367.00, or 14.5%. This was then compared to the 3% growth the technology market



experienced, demonstrating a performance four times greater than that of their other technology counterparts within their field.

The final industry represented in the stocks selected for the simulation was the Oil & Gas industry, which Schlumberger falls under. Schlumberger stock experienced 10.7% growth which is more than three times as much as the 3.2% growth the Oil & Gas market saw in the same span of time.

## Chapter 5: Simulation 2: Day Trading

### 5.1 *Stock Research Process*

Considered by many to be the most high-risk, high-reward form of investing, day trading can be a way to earn money fast, but also a means of huge losses in the same amount of time. Therefore, it is important to stray away from the adverse effects emotions can have on day trading. Technical indicators and patterns are a day traders' best friend, therefore these were all which were taken into account, rather than the company's history or quarterly earnings reports.

Although important for long-term investing, so-called "entry" points are even more critical to success in day-trading. Depending on what point an individual "enters" trading in a stock on a given day will drive their success with that stock. The market is volatile, and the shorter the timespan being observed, the more volatile it becomes. Therefore it is imperative the investor has tools to judge entry points, and utilize them. In this simulation, potential stocks to be day-traded were identified on barchart.com, under their "Volume Leaders" section.

This list shows the 200 stocks with the most number of shares currently being traded on the market. From there, any share prices under \$5 were filtered out, as those are considered penny-stocks and are far too volatile, even in terms of day-trading's standards. Next, the list was organized by performance. This was done by selecting the performance button and then selecting the "Today's Opinion" column. These two buttons are demonstrated in Figure 5.1.

Filter: US Exchanges ▼				Main View	Technical	Performance	Custom View		
Sym	Name	Last	Today's Opinion ▼	20-Day Rel Str	20-Day His Vol	20-Day Avg Vol	52-Wk Low	52-Wk High	Links
WY	Weyerhaeuser Company	32.58	100% Buy	71.48%	13.26%	9,874,740	26.64	32.87	TT
TWO	Two Harbors Investments Corp	10.77	100% Buy	61.73%	12.28%	3,261,720	8.94	10.79	TT
SYMC	Symantec Corp	22.77	100% Buy	67.15%	11.31%	6,775,760	17.95	27.10	TT
SLB	Schlumberger N.V.	117.80	100% Buy	78.71%	25.47%	6,248,805	71.60	117.80	TT
PPC	Pilgrim's Pride Corp	26.83	100% Buy	62.35%	42.34%	1,782,010	13.22	27.14	TT
NRF	Northstar Realty Finance	17.64	100% Buy	65.44%	23.49%	7,651,980	8.49	17.93	TT
F	Ford Motor Company	17.28	100% Buy	65.59%	15.32%	26,731,686	14.40	18.02	TT
CMCSA	Comcast Corp	54.13	100% Buy	66.08%	8.33%	10,518,420	40.10	55.28	TT
ABBV	Abbvie Inc. Common Stock	56.79	100% Buy	65.20%	18.71%	5,820,700	41.07	56.90	TT
WFC	Wells Fargo & Company	52.90	96% Buy	63.32%	12.82%	13,925,955	40.07	53.05	TT
SUNE	Sun Edison Inc	22.87	96% Buy	63.51%	50.11%	14,363,635	6.24	23.13	TT
SPWR	Sunpower Corp	41.06	96% Buy	69.30%	42.41%	4,062,680	20.02	42.07	TT
MSFT	Microsoft Corp	42.25	96% Buy	61.75%	13.52%	26,250,211	30.84	42.29	TT
KO	Coca-Cola Company	42.19	96% Buy	67.19%	8.19%	13,395,560	36.83	42.29	TT
KMI	Kinder Morgan	36.04	96% Buy	69.14%	11.02%	5,658,720	30.81	40.45	TT
JBLU	Jetblue Airways Corp	10.88	96% Buy	67.52%	29.76%	9,576,080	6.04	10.88	TT
INTC	Intel Corp	30.93	96% Buy	79.63%	24.48%	36,990,590	21.89	31.00	TT
GSAT	Globalstar	4.20	96% Buy	69.66%	33.89%	8,009,880	0.54	4.42	TT

Figure 5.1 List produced on barchart.com demonstrating stocks with good opinions.

The ten stocks at the top of the Today's Opinion column were then the ones first investigated. This was all done immediately after the opening of the market. The individual stock's graphs and data were then analyzed, and if they demonstrated desirable metrics, the stock was put on the potential buy list. After a list of 20 or so stocks was generated, the best 6 six were chosen and bought.

## 5.2 Trades

Although the opinion is valuable, it does not immediately indicate a buy. Much more deliberation was put into the stocks after their being taken from the list above. First, their MACD Indicator was examined, along with their candlestick graph, looking for any indicators or patterns. The best stocks were those carrying these indicators as well as favorable patterns.

### 5.2.1 Week 1

The following trades were made on the first day:

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceed	Total Cash
6/9/14	BKS	Buy	\$19.83	100	(\$1,983.00)	\$37,102.50
6/9/14	FB	Buy	\$62.05	50	(\$3,102.50)	\$34,000.00
6/9/14	AAPL	Buy	\$92.22	50	(\$4,611.00)	\$29,389.00
6/9/14	GOOG	Buy	\$557.50	10	(\$5,575.00)	\$23,814.00

Table 5.1.1 First day buys.

Coming into the Monday of the 9<sup>th</sup>, many articles had been written over the weekend about how tech stocks were set to boom in the coming week. Therefore, it came as no surprise when companies like Google and Apple sat at the top of Barcharts' list. However, Apple and Google both showed potential for growth on that day. Figure 5.2 shows a doji after a period of loss, and also an upward MACD crossover, both indicators of a bullish trend for Apple stock on June 9<sup>th</sup>. A second MACD crossover (not shown), alongside a bearish engulfing pattern demonstrated the exit point for trading.

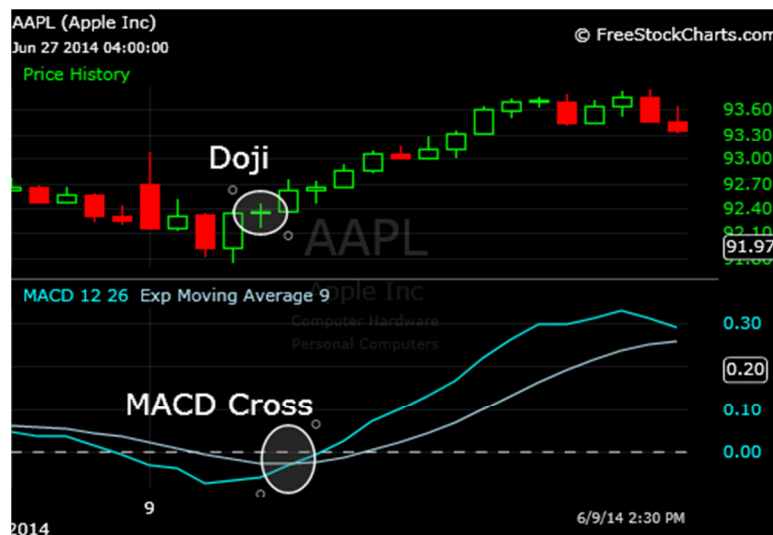


Figure 5.2 Apple stock on June 9<sup>th</sup> showing a period of growth after a doji and a MACD Cross.

Google too demonstrated favorable trends on the day. Following a bullish as well as a MACD upward crossover, Google stock experiences an increase in market value. The second MACD crossover then demonstrates an exit point for trading, as the stock experiences a period of depreciation afterwards.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/9/2014	BKS	Sell	\$20.08	100	\$2,008.00	\$25,822.00	\$5.00	\$5.00
6/9/2014	FB	Sell	\$62.94	50	\$3,147.00	\$28,969.00	\$24.50	\$29.50
6/9/2014	AAPL	Sell	\$93.68	50	\$4,684.00	\$33,653.00	\$53.00	\$82.50
6/9/2014	GOOG	Sell	\$562.10	10	\$5,621.00	\$39,274.00	\$26.00	\$108.50

*Table 5.1.2 First day sells.*

On the second day, the stocks purchased were far more varied the previous. Very few stock were indicated to be positive, therefore more discretion had to be used in the purchase of the stocks. The stocks with high confidence, which made of three fourths, were bought at the usual price of around four to five thousand dollars. The fourth stock, however, did not have strong indicators and therefore only \$2,000 was spent on it. The stock purchased and their prices are as follows:

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
6/10/2014	SWKS	Buy	\$46.88	100	\$4,688.00	\$29,410.60
6/10/2014	WYNN	Buy	\$197.90	20	\$3,958.00	\$33,368.60
6/10/2014	WFM	Buy	\$41.86	50	\$2,093.00	\$35,461.60
6/10/2014	WDAY	Buy	\$79.87	50	\$3,993.50	\$39,455.10

*Table 5.2.1 Second day buys.*

Skywork Solutions (SWKS) was presently close to its 52-week low, which most likely contributed to its positive opinion ratings. However strong indications also contributed to its purchase.

The next stock purchased on the day was Workday, Inc. (WDAY). The stock started the day with little momentum, and even less positive indicators. Therefore, the trade was held off until later in the day after a bullish engulf followed by a MACD crossover. The stock was then held until the closing bell and sold. Figure 5.3 shows the indicators and movement of Workday's stock.

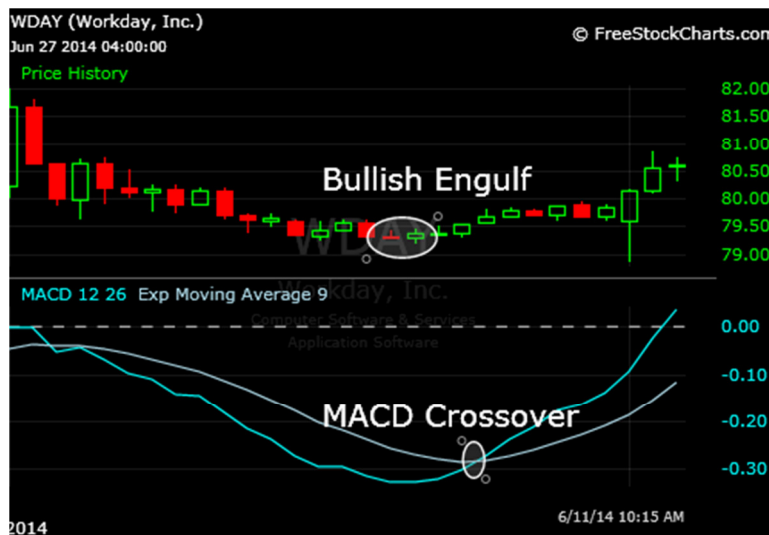


Figure 5.3 Workday Inc. stock on June 10<sup>th</sup> showing a period of growth after a Bullish engulf and a MACD Cross.

It's unfortunate the outline of the simulation stipulates that a day-traded stock can only be held for one calendar day, because the MACD zero line crossover which occurred at the closing bell indicated growth in the coming days, and Workday's stock did just that.

The third stock purchased was Wynn Resorts (WYNN), which did not demonstrate an engulfing pattern anywhere over the course of the day, but did demonstrate a MACD indicator

cross, followed by a zero line cross. The first cross served as the entry point, and the second refortified the trade. The trade was exited once a bearish engulf was observed at the end of the day. Figure 5.4 demonstrates these.

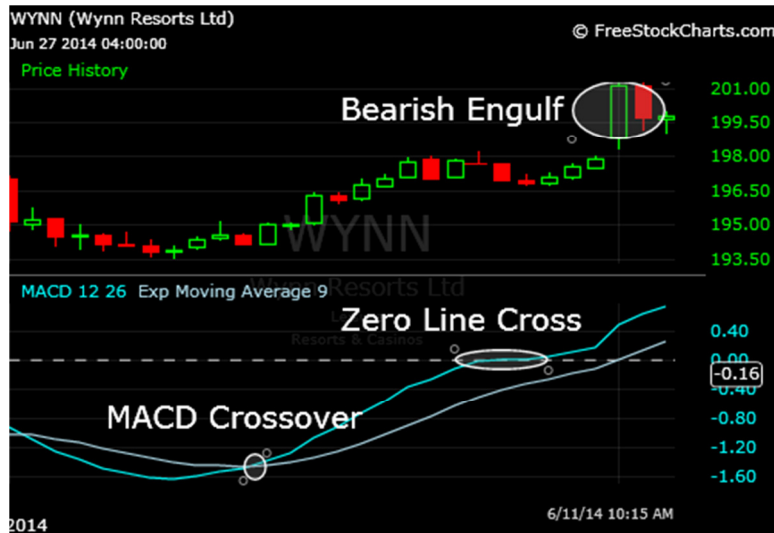


Figure 5.4 Wynn Resorts stock on June 10<sup>th</sup> showing a period of growth after a MACD Cross and a zero line cross.

The fourth stock of the day was that which evoked little confidence in its potential growth, therefore warranting less capital being invested in it. This stock belonged to Whole Foods Markets. The stock only experienced one positive indicator on the day, which was a bullish engulfing pattern early after the opening bell. Around midday, the stock experienced two bearish engulfing pattern immediately following one another. A downward MACD crossover then followed these. The indicators signaled an immediate exit was needed from the trade.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/10/2014	SWKS	Sell	\$46.88	100	\$4,688.00	\$29,410.60	\$72.00	\$180.50
6/10/2014	WYNN	Sell	\$197.90	20	\$3,958.00	\$33,368.60	\$48.60	\$229.10
6/10/2014	WFM	Sell	\$41.86	50	\$2,093.00	\$35,461.60	(\$9.50)	\$219.60
6/10/2014	WDAY	Sell	\$79.87	50	\$3,993.50	\$39,455.10	(\$10.00)	\$209.60

*Table 5.2.2 Second day sells.*

On Wednesday, for stocks were purchased, two of which with much more confidence than the others. These two were Chipotle Mexican Grille and Ebay. Each showed indicators much stronger than the other two, which were Facebook and Boston Scientific. The purchases for the day are demonstrated in the table below.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
6/11/2014	CMG	Buy	\$570.64	10	\$5,706.40	\$28,942.60
6/11/2014	FB	Buy	\$65.78	50	\$3,289.00	\$32,231.60
6/11/2014	EBAY	Buy	\$48.82	100	\$4,882.00	\$37,113.60
6/11/2014	BSX	Buy	\$12.86	200	\$2,572.00	\$39,685.60

*Table 5.3.1 Third day buys.*

Chipotle's market value started the day off in a lull, but a bullish engulf served as the entry point for the trade. The proceeding MACD crossover and zero line crossover acted as reinforcement, and the holdings ended up being held until the closing bell, where they most likely would have been held longer had it not been for the rules of the simulation. The patterns are shown in Figure 5.5.



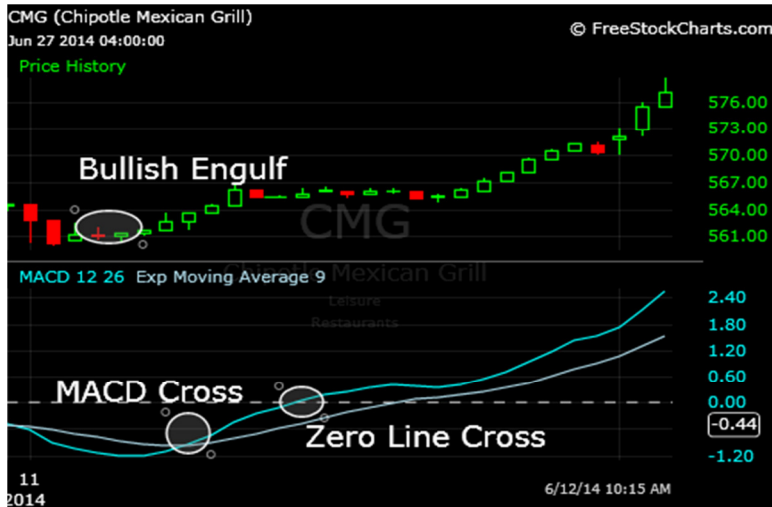


Figure 5.5 Chipotle Mexican Grille stock on June 11<sup>th</sup> showing a period of growth after a Bullish engulf, MACD Cross, and Zero Line Cross.

The second stock purchased, and another that evoked great confidence in its potential growth, was that of Ebay. The graph of stock prices demonstrated a bullish engulf early on in the day. Around midday, the MACD crossed the zero line, fortifying the prediction of growth for the stock. The trade was not finished until the closing bell, as Ebay was another stock, which would have been held had it not been for the ground rules of the simulation.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/11/2014	CMG	Sell	\$570.64	10	\$5,706.40	\$28,942.60	\$85.00	\$294.60
6/11/2014	FB	Sell	\$65.78	50	\$3,289.00	\$32,231.60	\$5.50	\$300.10
6/11/2014	EBAY	Sell	\$48.82	100	\$4,882.00	\$37,113.60	\$36.00	\$336.10
6/11/2014	BSX	Sell	\$12.86	200	\$2,572.00	\$39,685.60	\$24.00	\$360.10

Table 5.3.1 Third day sells.

The MACD line stayed above the moving average for the entirety of the day, accompanying the growth the share price experienced. The candlestick graph and MACD indicator are shown in Figure 5.6.

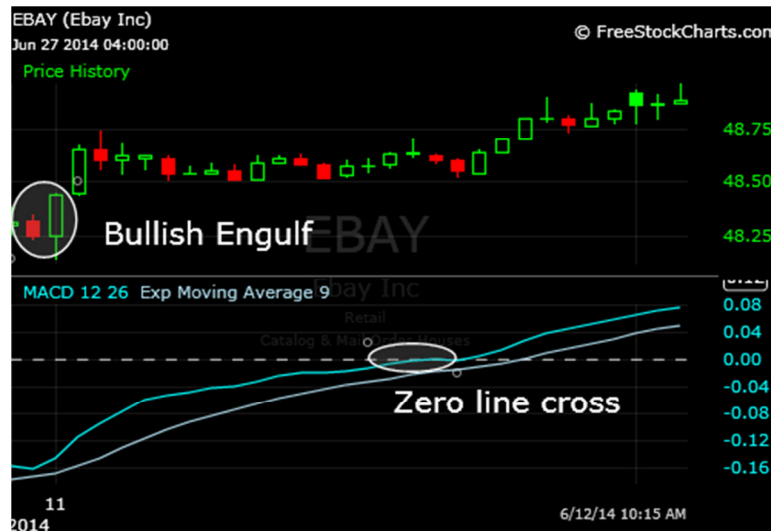


Figure 5.6 Ebay stock on June 11<sup>th</sup> showing a bullish engulf followed by a zero line cross.

The third stock purchased and one that carried less confidence in its purchase than Ebay and Chipotle was Facebook, the first recurrence of a trade previously made prior. No indicators were present for the majority of the day, but bargraphs.com listed them under the positive opinion list, therefore patience was demonstrated. Sure enough, towards the end of the day at 3pm, a MACD crossover was demonstrated and indicated an entry point. The stock was then held for the remainder of the day, as no undesirable indicators occurred.

The final stock purchased on the day belonged to Boston Scientific, and was the stock were held the least confidence on the day, therefore resulting in only \$2,500 of capital being invested in it. The market value and MACD are presented in Figure 5.7.

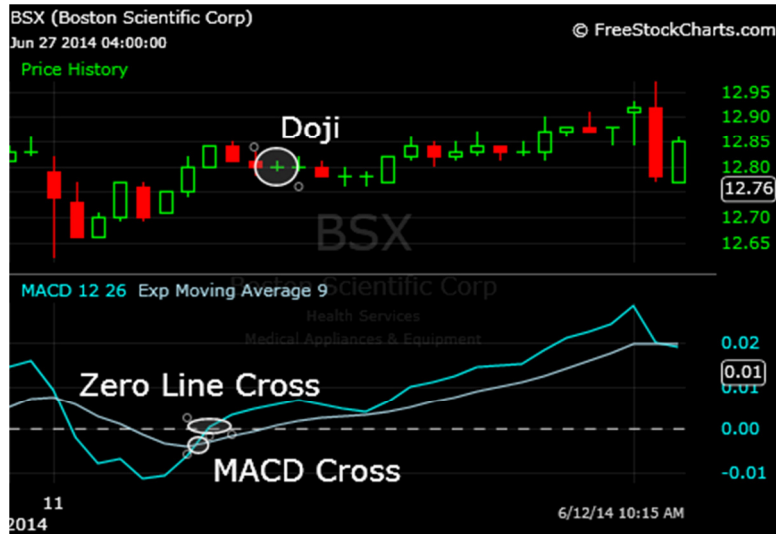


Figure 5.7 Boston Scientific stock on June 11<sup>th</sup> showing a MACD Crossover and Zero line Crossover followed by a Doji.

Despite high confidence from bargraphs.com, a MACD Crossover, and a zero line crossover, a doji occurring in the market price graph indicated a flip from the upward trend presented before. The prediction was then made that the upward trend would become downward and the crossovers would be negated and losses were to be expected in the market value. The trade was then exited at the occurrence of the doji.

This is the first instance in the simulation where the prediction turned out to be wrong, and the doji proved not to be detrimental to the market value of the Boston Scientific stock.

The Thursday of the first week saw four stocks that were equally confided in, and therefore each were allotted approximately \$4,000 in capital for investment for the day. The purchases for the day are as follows:

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceed	Total Cash
6/12/2014	TWTR	Buy	\$35.72	100	(\$3,572.00)	\$36,113.60
6/12/2014	PFE	Buy	\$29.50	100	(\$2,950.00)	\$33,163.60
6/12/2014	TSLA	Buy	\$206.50	20	(\$4,130.00)	\$29,033.60
6/12/2014	EXR	Buy	\$52.48	75	(\$3,936.00)	\$25,097.60

Table 5.4.1 Fourth day buys.

The first stock purchased on the day was Twitter which a monstrous and bullish engulf to begin the day. The trade was immediately entered and immediately fortified with a MACD crossover. Twitter was also listed as the very top opinioned stock for that day. Quickly as the day progressed however, the MACD's momentum began to fade and ended up crossing the indicator just before noon. This was then utilized as an exit point, as nearly 3% was made on the trade already. The market value graph and MACD indicator graph for the day are shown in Figure 5.8.

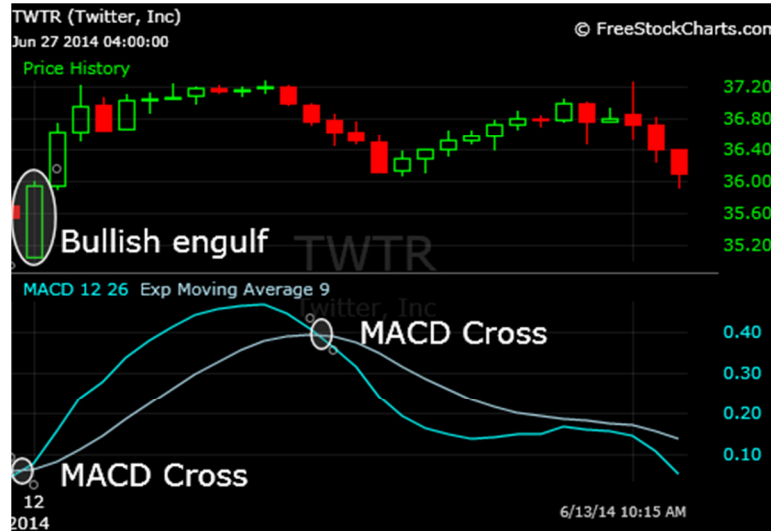


Figure 5.8 Twitter stock on June 12<sup>th</sup> showing a Bullish engulf and two MACD crossovers.

The second stock purchased on the day was Pfizer (PFE). The day began for the stock with a bullish engulfing pattern coinciding with a MACD crossover, which happened to include

a Zero line crossover. Although not listed highly on bargraphs.com's list, the two positive indicators to start the day were enough for the trade to be entered and executed. At midday two negative indicators resulted in the trade having to be exited. These two indicators were a doji coinciding with downward MACD cross.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/12/2014	TWTR	Sell	\$36.84	100	\$3,684.00	\$28,781.60	\$92.00	\$452.10
6/12/2014	PFE	Sell	\$29.50	100	\$2,950.00	\$31,731.60	(\$20.00)	\$432.10
6/12/2014	TSLA	Sell	\$208.83	20	\$4,176.60	\$35,908.20	\$26.60	\$458.70
6/12/2014	EXR	Sell	\$52.83	75	\$3,962.25	\$39,870.45	\$6.25	\$464.95

*Table 5.4.2 Fourth day buys.*

The third trade made on the day was the purchase of Tesla (TSLA). A MACD crossover before the closing bell of the previous day along with a top spot on bargraph.com's confidence listed was enough to enter a trade for Tesla at the opening bell. The MACD Cross was the only positive indicator, however, and the occurrence of a doji followed by a downward MACD Cross presented the exit point for the trade, which had already yielded almost a 10% profit. Figure 5.9 shows the graph for Tesla on the day.

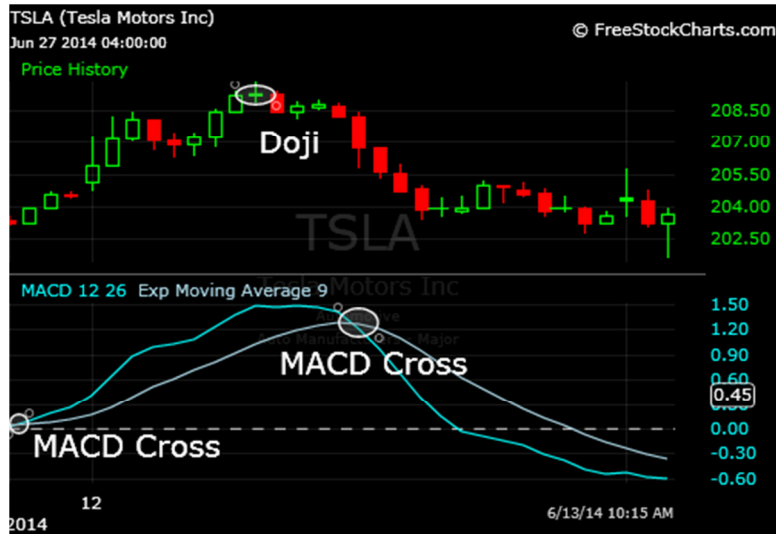


Figure 5.9 Graph of Tesla stock on June 12<sup>th</sup> showing a MACD cross followed by a Doji and another MACD Cross.

The final stock for the day, Extra Space Storage (EXR), had an uneventful day in regards to both indicators and volatility. Despite being listed in bargraphs.com’s list towards the very top, demonstrating their immense confidence in the stock, it failed to present any positive indicators aside from a MACD cross.

The MACD line fall to gain much elevation over the course of the day, hovering very close to the signal line. Towards the end of the day, a few hours before the closing bell, a bearish engulf was demonstrated in the candlestick graph and acted as the exit point from the trade. This trade serves as a great example why one group or individual’s opinion of a stock can not be the only thing being taken into consideration whilst day-trading.

The final day of the week ended up being a very profitable one, as the majority of the market experience considerable growth so did the portfolio being used in the simulation. The trades for the day are listed below:

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceed	Total Cash
6/13/2014	RTN	Buy	\$95.64	50	(\$4,782.00)	\$35,088.45
6/13/2014	GMCR	Buy	\$117.77	50	(\$5,888.50)	\$29,199.95
6/13/2014	NKE	Buy	\$73.91	75	(\$5,543.25)	\$23,656.70
6/13/2014	DIS	Buy	\$82.04	75	(\$6,153.00)	\$17,503.70

Table 5.5.1 Fifth day buys.

As previously stated, the market as a whole gave all of the indications of a huge day on the docket. This resulted in bargraphs.com having confidence in an immense amount of stocks. An investor had their pick of the litter, and merely had to pick the stock with more indications of growth even faster than the market as a whole. The first stock chosen was that of Raytheon (RTN).

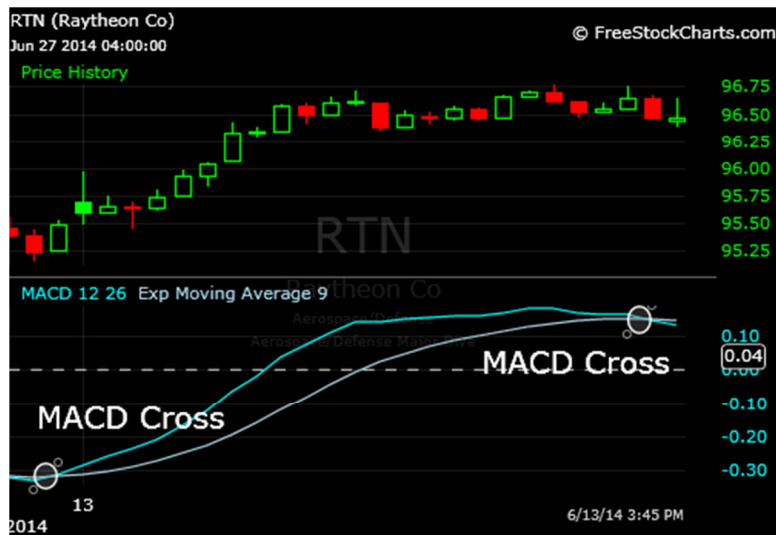


Figure 5.10 Graph of Raytheon stock on June 13<sup>th</sup> showing a MACD cross followed by another MACD Cross.

Despite it being Friday the 13<sup>th</sup>, the market saw a huge upward trend, and many stocks followed suit. The Raytheon stock experienced an early MACD crossover, which was enough to warrant an entrance into the trade. The stock's upward trend continued all day without a negative indicator until a few hours before the bell, where a downward MACD cross was witnessed. The trade was exited right before the closing bell for a good overall profit for the day.

The next stock purchased was that of Keurig Green Mountain Incorporated. A high confidence in the stock was demonstrated by bargraphs.com as it was ranked in the top 5 for their confidence. However, the stock began the day with a MACD downward crossover, which delayed the entry point for the trade until midday, where a bullish engulfing pattern was witnessed.

There were no further indicators, positive or negative, aside from a MACD upward crossover at the very end of the day, which hardly pertains to this simulation because of its stipulations. Therefore, the stock was held until the closing bell.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/13/2014	RTN	Sell	\$96.58	50	\$4,829.00	\$22,332.70	\$27.00	\$491.95
6/13/2014	GMCR	Sell	\$119.74	50	\$5,987.00	\$28,319.70	\$78.50	\$570.45
6/13/2014	NKE	Sell	\$74.92	75	\$5,619.00	\$33,938.70	\$55.75	\$626.20
6/13/2014	DIS	Sell	\$82.60	75	\$6,195.00	\$40,133.70	\$22.00	\$648.20

*Table 5.5.2 Fifth day sells.*

The last stock purchased on the day was that of the Disney Corporation. Bargraphs.com had Disney ranked at the top of their list for confidence on the day, and a doji after a downward within a few hours of the opening bell indicated growth so that was decided as the entry point. A



MACD upward crossover occurred soon thereafter and there were no negative indicators until the very end of the day when a bearish engulfing pattern was observed and used as the exit point.

The market value graph and MACD Indicator are both shown in Figure 5.11 below.

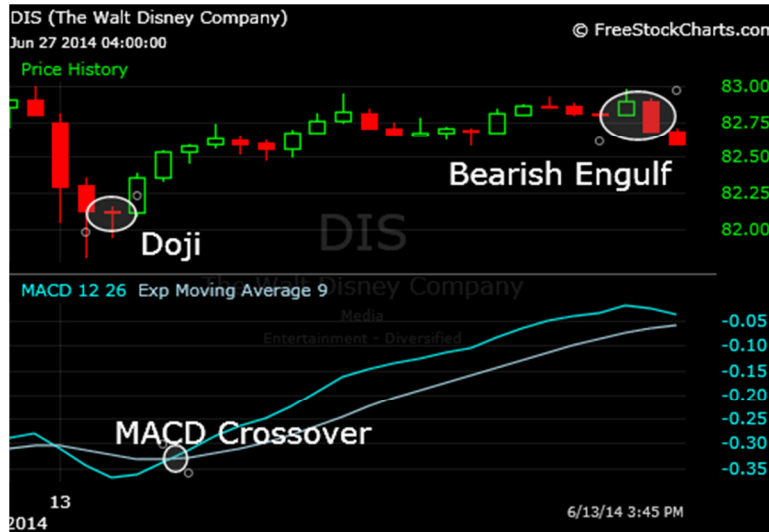


Figure 5.11 Disney stock on June 13<sup>th</sup> showing a Doji followed by a MACD Crossover then a Bearish Engulf.

### 5.2.2 Week 2

The trades made on the Monday of Week 2 are as follows:

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceed	Total Cash
6/16/2014	LEN	Buy	\$40.11	150	(\$6,016.50)	\$34,117.20
6/16/2014	WAG	Buy	\$73.11	75	(\$5,483.25)	\$28,633.95
6/16/2014	AAPL	Buy	\$91.69	75	(\$6,876.75)	\$21,757.20
6/16/2014	GRPN	Buy	\$6.20	700	(\$4,340.00)	\$17,417.20

Table 5.6.1 First day buys.

In contrast to Week 1, there were no articles written, forecasting the coming week and giving investors hints on which stock would far well, and so on. Therefore, the techniques and patterns utilized in the previous week had to be utilized even more effectively, as well as a more active pursuit of well-opinioned stocks. Research on sites such as barchart.com and Marketwatch.com was critical.

The first trade made was the purchase of stock in Lennar Corporation (LEN). They were a stock listed at the very top of barchart.com's listed of best-opinionated stocks for the week, as well as being endowed with numerous positive indicators. Just before noon, the candlestick graphed experience an engulfing pattern, soon followed by a MACD Crossover which coincided with a Zero Line Crossover. The stock was held until the very end of the day and then sold. The closing bell was used as the exit point for the trade.

The second trade made on the day was the purchase of stock in Walgreen Company. Despite being low on barchart.com's scale, and starting the day with a negative MACD crossover, the trade was made after three straight dojis were spotted after a few hours of decline, and were used as the trade's entry point. A positive MACD Crossover soon followed and was used as recertification of the holding. Because of no negative indicators occurring, the trade was held until the closing bell. Figure 5.20 shows the stock's growth over the course of the day as well as the positive indicators used for the trade.

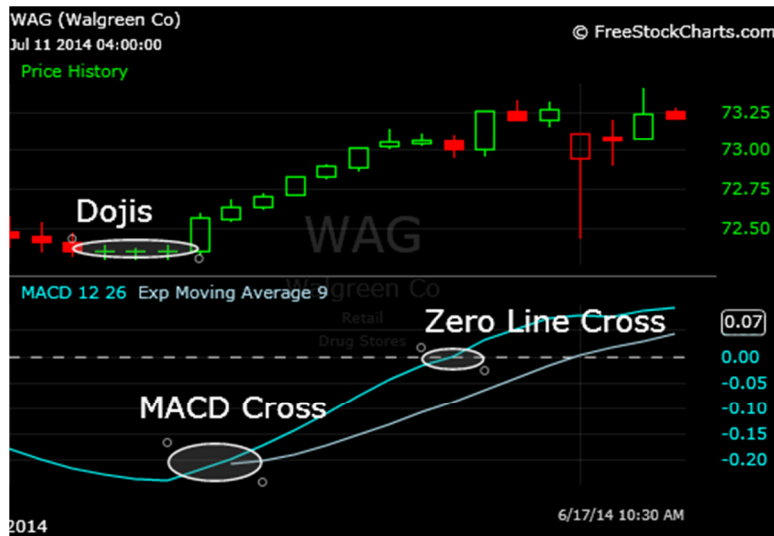


Figure 5.20 Walgreens stock on June 16<sup>th</sup>, with the candlestick graph demonstrating three straight dojis and MACD Crossovers.

The third trade of the day was made on the world renowned Apple stock. As it usually is, the stock was listed at the very top of barchart.com’s list, and presented numerous indicators over the course of the day which made day-trading of the stock a very lucrative endeavor. The stock was only held for a very brief period of time. The day before, the MACD crossed over the signal line, therefore the stock was bought at the opening bell and then held until a doji occurred after a period of growth, acting as the exit point.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/16/2014	LEN	Sell	\$40.78	150	\$6,117.00	\$23,534.20	\$80.50	\$80.50
6/16/2014	WAG	Sell	\$73.29	75	\$5,496.75	\$29,030.95	(\$6.50)	\$74.00
6/16/2014	AAPL	Sell	\$92.66	75	\$6,949.50	\$35,980.45	\$52.75	\$126.75
6/16/2014	GRPN	Sell	\$6.33	700	\$4,431.00	\$40,411.45	\$71.00	\$197.75

Table 5.6.1 First day sells.

The final stock purchased on the day was Groupon's. The trade's entrance and exit were both predicated on engulfing patterns, one bullish the other bearish, and both occurring within a few hours of one another. At around 11:30am the candlestick graph experienced a bullish engulfing pattern, which resulted in the market value experience a period of sporadic growth. Just after 1:30pm, the Candlesticks graph demonstrated a bearish engulfing pattern which was used as the trade's exit point.

The trades for the second day of Week 2, which turned out to be the most profitable to date, are shown in the table below:

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
6/17/2014	LEN	Buy	\$40.13	150	(\$6,019.50)	\$34,391.95
6/17/2014	BKS	Buy	\$20.87	300	(\$6,261.00)	\$28,130.95
6/17/2014	GE	Buy	\$26.71	200	(\$5,342.00)	\$22,788.95
6/17/2014	GOOG	Buy	\$544.80	10	(\$5,448.00)	\$17,340.95

*Table 5.7.1 Second day buys.*

Because Lennar Corp ended the previous day on such an enticing note, the decision was made to trade for their stock once again. This is the first occurrence in the simulation of a stock being day-traded for two days consecutively. The stock was not purchased at the opening bell, however. It was not until 11:30 am that the entrance point, coming in the form of a MACD crossover, was observed. The stock was then held until right before the closing bell, when both a bearish engulfing pattern and a downward MACD crossover were observed and used as exit points. The graph of these indicators are shown and annotated in Figure 5.23.

The second stock purchased, on the second week's second day was being purchased for the second time and was that of Barnes and Noble. At the open of the market, the MACD

indicator demonstrated a crossover the signal line, and was used as an entry point as barchart.com listen BKS very highly on their confidence list for that day. The stock was then held until the close of the market for lack of a negative indicator. The candlestick graph along with the coinciding MACD Indicator are shown for June 17<sup>th</sup> below in Figure 5.24.

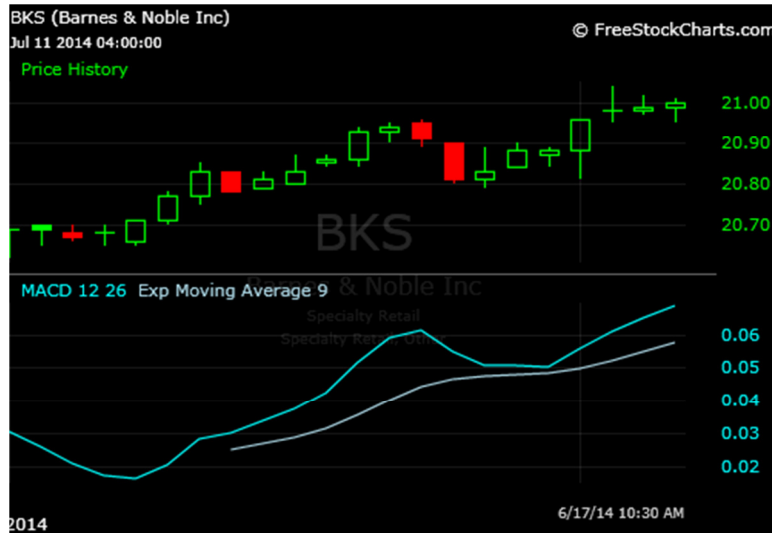


Figure 5.24 Barnes & Nobles' market value as a candlestick graph for June 17<sup>th</sup> demonstrating MACD Crossovers.

The third stock purchased on June 17<sup>th</sup> was that of General Electric (GE). The entry point was found to be a MACD crossover occurring at around 10am. This crossover and occurring trade were reinforced by another crossover, this one over the zero line, which resulted in a high level of growth for the market value until a doji was demonstrated by the candlestick graph at around 1pm.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/17/2014	LEN	Buy	\$41.30	150	\$6,195.00	\$23,535.95	\$155.50	\$353.25
6/17/2014	BKS	Buy	\$21.10	300	\$6,330.00	\$29,865.95	\$49.00	\$402.25
6/17/2014	GE	Buy	\$26.88	200	\$5,376.00	\$35,241.95	\$14.00	\$416.25
6/17/2014	GOOG	Buy	\$553.40	10	\$5,534.00	\$40,775.95	\$66.00	\$482.25

*Table 5.7.2 Second day sells.*

The final stock purchased on the day was the titanic Google's. The stock began the day in a slump, with a long period of depreciation well into the halfway point of the day. This was until a doji after the long period of decay, therefore it was used as a positive indicator and the stock was traded for. The hold was maintained until a towards the end of the day when a MACD downward crossover was examined and used as the exit point, particularly because more than 6% had already been made off of the stock.

GE becomes the second stock held for two days in a row as it was the first purchase of the third day for Week 2. All of the day's trades are listed below:

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
6/18/2014	GE	Buy	\$26.70	250	(\$6,675.00)	\$34,100.95
6/18/2014	NKE	Buy	\$74.86	100	(\$7,486.00)	\$26,614.95
6/18/2014	MON	Buy	\$120.00	50	(\$6,000.00)	\$20,614.95
6/18/2014	GIS	Buy	\$54.10	125	(\$6,762.50)	\$13,852.45

*Table 5.8.1 Third day buys.*

GE stock, after feeling the effects of the downward MACD crossover which acted as the exit point for the trade made the previous day, resulted in the market value plummet and

consistently depreciating until the candlestick graph experienced a doji. This was used as the entry point for the next trade. Soon after the doji, the MACD upwardly crossed its signal line, thus reassuring the trade. GE was also listed very highly on bargraph.com's list for the second day in a row with a confidence rating of 100%. Figure 5.27 shows the growth, decay, and indicators.

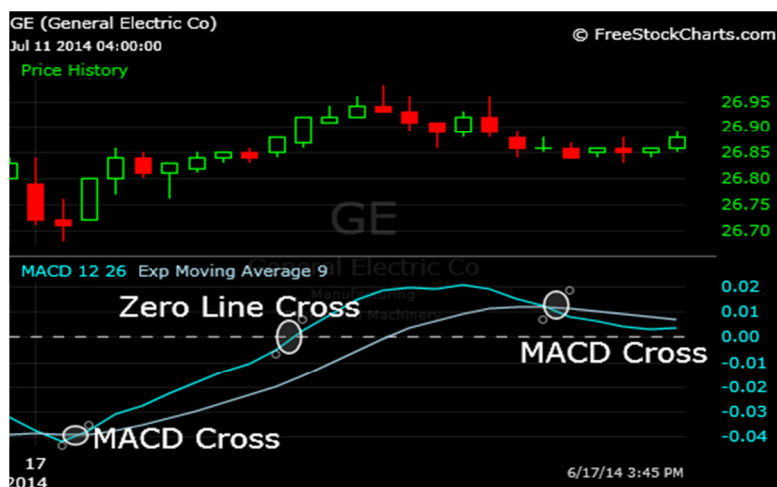


Figure 5.27 GE's market value as a candlestick graph which shows decay then growth after a doji and MACD crosses.

The trade maintained and held until close, as it experienced ridiculous exponential until the closing bell, and came nowhere near to demonstrating anything resembling a negative indicator.

The second trade made on the day was the purchase of Nike stock. The entry point was identified early in the day when the MACD indicator crossed over the signal line at almost the exact same time as the candlestick graph demonstrating a bullish engulfing pattern. These two indicators proved to be very strong as the market value of Nike's stock experience significant

growth for the entirety of the day and was not sold until the closing bell due to a lack of negative indicators. Barchart.com listing them with 96% confidence proved to be very fruitful.

The third stock purchased on the third day was that of Monster Beverage Company. Their market value exhibited much of the sporadic behavior their product has been known to evoke in its consumers. Yet, barchart.com listed them at the very top in the website's confidence list. Therefore, confidence was vested in them as the trade was initiated at the very opening of the market before any positive indicators were presented. The stock was then held in spite of multiple negative indicators such as MACD crosses and bearish engulfing patterns. The trust vested in Monster's shares proved to be fruitful as it experienced a period of growth towards the end of the day after an upward MACD cross occurred.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/18/2014	GE	Sell	\$26.90	250	\$6,725.00	\$20,577.45	\$30.00	\$512.25
6/18/2014	NKE	Sell	\$76.24	100	\$7,624.00	\$28,201.45	\$118.00	\$630.25
6/18/2014	MON	Sell	\$121.40	50	\$6,070.00	\$34,271.45	\$50.00	\$680.25
6/18/2014	GIS	Sell	\$54.70	125	\$6,837.50	\$41,108.95	\$55.00	\$735.25

*Table 5.8.1 Third day sells.*

General Mills was the last stock purchased on the day, and was not done so until after 2pm. It was at 2pm when they experienced a MACD crossover going upward which was soon followed by a zero crossover, and acted as the entry point for the trade. The shares were then held until the end of the day as no signs of negative indicators occurred in either the Candlestick graph or the MACD indicator.



The Thursday of the Second proved to be the most difficult of the simulation thus far, as it was the first time the day came close to yielding losses. The trades for the day are listed below:

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
6/19/2014	GE	Buy	\$26.69	250	(\$6,672.50)	\$34,436.45
6/19/2014	CAG	Buy	\$30.07	200	(\$6,014.00)	\$28,422.45
6/19/2014	P	Buy	\$27.81	200	(\$5,562.00)	\$22,860.45
6/19/2014	CYNI	Buy	\$3.90	1500	(\$5,850.00)	\$17,010.45

*Table 5.9.1 Fourth day buys.*

GE becomes the first stock to be day-traded three days in a row, as it was the first stock purchased on the day. The trade was entered just before noon when the MACD crossed its signal line, and soon after crossed the zero line. The trade was then maintained, and the stock held until the end of the day, as there were no negative indicators in either graph and the stock experience phenomenal growth in the second half of the day, and was once again very high in confidence from bargraph.com.

The second trade made on the day was the purchase of Conagra Foods (CAG). This trade proved to be a disaster as the candlestick graph for the wrong day was examined and brewed a perfect storm as the current day's graphs were filled with indicators of decay for the market value, and decay is exactly what happened. In any case, this trade serves to demonstrate the power of these indicators in predicting both growth as well as decay. The day began with a downward MACD crossover, as well as a bearish engulfing pattern.

The third trade of the day also shows the strength of the indicators, and their possibly detrimental effect to a portfolio if they are not respected and heeded when observed. MACD crosses as well as a doji after a period of growth, both indicators of imminent decay, but both of which were ignored due to a high confidence in Pandora's stock for that day from barchart.com. Luckily the stock was able to recover and recoup some of its losses, as an upward MACD cross towards the end of the day served to right the ship, but the damage had already been done.

Date	Symbo l	Buy / Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/19/2014	GE	Sell	\$26.97	250	\$6,742.50	\$23,752.95	\$50.00	\$785.25
6/19/2014	CAG	Sell	\$29.38	200	\$5,876.00	\$29,628.95	(\$158.00)	\$627.25
6/19/2014	P	Sell	\$27.80	200	\$5,560.00	\$35,188.95	(\$22.00)	\$605.25
6/19/2014	CYNI	Sell	\$4.08	1500	\$6,120.00	\$41,308.95	\$250.00	\$855.25

*Table 5.9.2 Fourth day sells.*

The final stock purchased and traded for the day was that of Cyan Inc. (CYNI). This stock was considered a penny stock as it fell underneath \$5 but was traded anyway because of the high bode of confidence presented by barchart.com. After a MACD cross around 1pm, the trade was entered, and was not exited until the end of the day.

The first trade made on the last day of trading for the week was the purchase of stock in Oracle. That transaction, along with all of the others that were made on the day are shown in the table below:

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
6/20/2014	ORCL	Buy	\$39.96	150	(\$5,994.00)	\$35,314.95
6/20/2014	SWHC	Buy	\$15.06	400	(\$6,024.00)	\$29,290.95
6/20/2014	ABAX	Buy	\$43.34	150	(\$6,501.00)	\$22,789.95
6/20/2014	LNKD	Buy	\$166.54	40	(\$6,661.60)	\$16,128.35

*Table 5.10.1 Fifth day buys.*

The trade was entered after a MACD crossover was observed soon after the opening bell, and barchart.com listed the stock with very high confidence. A bullish engulfing pattern was then observed, along with a zero line crossover which both reaffirmed the trade, which was held and maintained until a downward MACD crossover was observed close to midday.

The second trade initiated on the day was the purchase of Smith & Wesson stock. This trade was entered when a MACD crossover was indicated positively in the early part of the day, and then reinforced with bullish engulfing pattern that followed soon after. The trade was until a downward MACD crossover was witnessed towards the end of the day. This served as the trade's exit point.

The second to last trade made on the day was for shares in Abaxis Incorporated. The stock was rated very highly by barchart.com on the day and experienced an upward MACD crossover early on. The trade was maintained without any engulfing patterns and then exited once a downward MACD crossover was observed. Both of these crossovers are shown in Figure 5.36.



Figure 5.36 Abaxis Incorporated's market value as a candlestick graph with two crosses of the MACD line over the signal line.

The final trade of the week was the purchase of LinkedIn stock. A MACD crossover early on in the day was used as the designated entry point. The ensuing growth of the stock, coupled with a zero line crossover indicated a strong bullish pattern for the day, and one that would continue into the following week, therefore the stock was held until the very end of the day and the trade was only exited at the closing bell.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceed	Total Cash	Profit/Loss	Total Profit/Loss
6/20/2014	ORCL	Sell	\$40.88	150	\$6,132.00	\$22,260.35	\$118.00	\$973.25
6/20/2014	SWHC	Sell	\$15.52	400	\$6,208.00	\$28,468.35	\$164.00	\$1,137.25
6/20/2014	ABAX	Sell	\$44.27	150	\$6,640.50	\$35,108.85	\$119.50	\$1,256.75
6/20/2014	LNKD	Sell	\$165.70	40	\$6,628.00	\$41,736.85	(\$53.60)	\$1,203.15

Table 5.10.2 Fifth day buys.

### 5.2.3 Week 3

Over the course of the simulation, the amount of buying power readily available increased with each week. Therefore, by the third week, the amount of capital placed into the day trades being made increased by over \$1,000 dollars and sometimes even more. The table below shows this increase with the first day of trades.

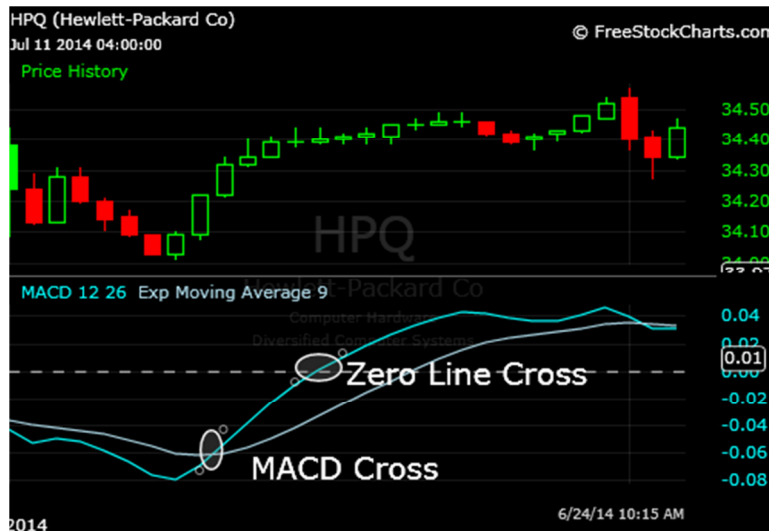
Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
6/23/2014	NKE	Buy	\$74.45	75	(\$5,583.75)	\$36,153.10
6/23/2014	HPQ	Buy	\$34.00	150	(\$5,100.00)	\$31,053.10
6/23/2014	ZU	Buy	\$36.81	150	(\$5,521.50)	\$25,531.60
6/23/2014	AAL	Buy	\$43.90	125	(\$5,487.50)	\$20,044.10

*Table 5.11.1 First day buys.*

The week began with the purchase of Nike stock once again. The stock was rated highest in confidence by barchart.com for the day, and immediately experienced a MACD crossover after the opening bell. The trade was immediately entered. No engulfing patterns were witnessed, nor any other indicators until a zero line crossover which indicated a continued bullish trend from the stock. A downward MACD crossover was witnessed at the end of the day and served as the trade's exit point.

The second trade made on the day was the purchase of stock in Hewlett Packard. The stock was listed very highly by barchart.com and experienced an upward MACD crossover at midday, which coincided with a bullish engulfing pattern as well. This point was used as an entrance. The MACD then crossed the zero line. These three positive indicators were enough to forgo a possible exit from the trade when the MACD experience a downward cross later on in

the day. Sure enough, the MACD crossed back over the signal line and another bullish engulfing pattern was witnessed, and the stock was held until the closing bell. These indicators are all shown in Figure 5.39.



*Figure 5.38 Hewlett Packard's market value as a candlestick graph with three MACD crosses, a zero line cross, and two engulfing patterns.*

The third trade made on the day was the purchase of Zulily Incorporated stock. The trade was entered after an upward MACD cross, and exited after a period of sporadic and unpredictable behavior in the market value as well as another MACD cross, this one going in the downward direction. Figure 5.40 shows this sporadic behavior as well as the indicators.

The final trade of the day was the purchase of stock in American Airlines group. The trade was entered after the stock was listed near the top of barchart.com's list for confidence and an upward MACD crossover being witnessed around midday. The trade was then exited after a downward MACD crossover was witnessed soon thereafter. These MACD crosses are each shown in Figure 5.41.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/23/2014	NKE	Buy	\$75.44	75	\$5,658.00	\$25,702.10	\$54.25	\$54.25
6/23/2014	HPQ	Buy	\$34.50	150	\$5,175.00	\$30,877.10	\$55.00	\$109.25
6/23/2014	ZU	Buy	\$36.95	150	\$5,542.50	\$36,419.60	\$1.00	\$110.25
6/23/2014	AAL	Buy	\$44.87	125	\$5,608.75	\$42,028.35	\$101.25	\$211.50

Table 5.11.2 First day sells.



Figure 5.41 American Airlines's market value as a candlestick graph with two MACD crossovers.

The second day of trading began with the purchase of stock in Target Corp. This trade as well of the rest made on the day are documented in the table below:

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
6/24/2014	TGT	Buy	\$58.05	100	(\$5,805.00)	\$36,223.35
6/24/2014	RNA	Buy	\$11.86	500	(\$5,930.00)	\$30,293.35
6/24/2014	WY	Buy	\$31.20	200	(\$6,240.00)	\$24,053.35
6/24/2014	TYC	Buy	\$45.93	125	(\$5,741.25)	\$18,312.10

Table 5.12.1 Second day buys.

The trade for Target was made after high confidence was demonstrated by barchart.com for the day, as well as a MACD crossover moving upwards early on in the day. The trade was maintained and held, without any other indicators, until a downward crossover of the signal line by the MACD was witnessed and therefore acted as the exit point of the trade.

The second trade of the day was another simple one. Prosensa Holding began the day very high on barchart.com's list of highest confidence, and experienced an early MACD crossover heading upwards over the signal line. The trade was maintained, and the shares held, until another MACD crossover, which headed in the opposite direction, was witnessed and the trade was exited.

The third stock purchased on the second day was that of the Weyerhaeuser Company. Per usual, the stock was listed very highly on barchart.com's list and experienced an upward MACD crossover early on in the day as well as a zero line crossover. The stock was then held until a downward MACD crossover was witnessed towards the end of the day.

The last stock purchased and traded on the day was Tyco International. The trade was entered when the candlestick graph experienced a bullish engulfing pattern. A few hours later, the MACD line crossover over the signal line on an upward trajectory and refortified the hold. The trade was then exited and the shares sold when the MACD line crossed back over and gave a negative indicator.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/24/2014	TGT	Sell	\$58.70	100	\$5,870.00	\$24,182.10	\$45.00	\$256.50
6/24/2014	RNA	Sell	\$13.29	500	\$6,645.00	\$30,827.10	\$695.00	\$951.50
6/24/2014	WY	Sell	\$32.23	200	\$6,446.00	\$37,273.10	\$186.00	\$1,137.50
6/24/2014	TYC	Sell	\$45.56	125	\$5,695.00	\$42,968.10	(\$66.25)	\$1,071.25

*Table 5.12. Second day sells.*



The first purchase made on the next day was a trade for Best Buy stock. The stock was listed highly on barchart.com's list, and also experienced two positive indicators within the first few hours of the market's opening. First came a MACD crossover, and then a bullish engulfing pattern. Even after a negative MACD crossover, the stock was held until another upward MACD crossover occurred. As it turns out, there was more growth and the stock was exited after the second downward MACD crossover.

The second stock purchased on the day is a recurrence of a trade made early in the week, with American Airlines Group. The stock was once again listed very highly on barchart.com's list and also quickly had a MACD crossover, which acted as the entrance point of the trade. The shares were held until after a zero line crossover, and sold, thus exiting the trade, when the MACD crossed back over the signal line on a downward trajectory.

The third trade made on the day was the purchase of stock in Bank of America Corporation. Although the stock was not highly rated by barchart.com, an early MACD crossover followed by a zero line crossover acted as an enticing entrance point and the trade was initiated. Once the MACD crossed back over the signal line, the trade was terminated and the remaining shares being held were sold. The crossovers are shown in Figure 5.47 below.

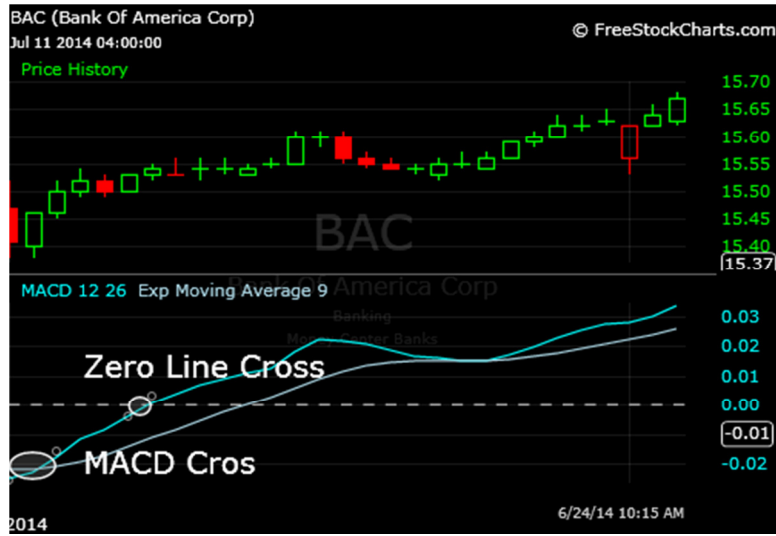


Figure 5.47 Bank of America’s market value as a candlestick graph with the two MACD crossovers.

The last stock purchased on the day belonged to Investors Bancorp. The entrance point was determined to be a MACD crossover followed by a bullish engulfing pattern. A zero line crossovers which occurred later on served to fortify the trade, which was only ended after a downward MACD crossover which occurred close to the closing bell.

The Thursday of the third week began with the purchase of General Motors’ stock. The trades are shown below:

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceed	Total Cash
6/25/2014	BBY	Buy	\$28.83	200	(\$5,766.00)	\$37,202.10
6/25/2014	AAL	Buy	\$42.64	125	(\$5,330.00)	\$31,872.10
6/25/2014	BAC	Buy	\$15.33	300	(\$4,599.00)	\$27,273.10
6/25/2014	ISBC	Buy	\$10.91	500	(\$5,455.00)	\$21,818.10

Table 5.13.1 Third day buys.

GM's stock was ranked the highest of any in confidence by barchart.com and an early MACD crossover acted as the entry point for the trade. A sub sequential crossover of the zero line then refortified the trade which was exited after the MACD crossed back over the signal line negatively.

The second stock purchased on the day was that of Zynga Incorporated. The stock wasn't ranked high on barchart.com's list but in any case the MACD crossover witnessed early after the opening bell acted as the entry point for a trade that was not terminated or exited until the MACD crossed back underneath the signal line. The journey of the MACD line for Zynga on this day is demonstrated with the stock's market value below in Figure 5.50.



*Figure 5.50 Zynga's market value as a candlestick graph with the two MACD crossovers, and a zero line crossover.*

American Capital was the next stock selected. The trade was entered after a MACD crossover, but sporadic behavior shown in the candlestick graph coupled with a lack of

confidence demonstrated by barchart.com resulted in the trade being exited without a negative indicator being presented.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/25/2014	BBY	Sell	\$30.55	200	\$6,110.00	\$27,928.10	\$324.00	\$1,395.25
6/25/2014	AAL	Sell	\$44.00	125	\$5,500.00	\$33,428.10	\$150.00	\$1,545.25
6/25/2014	BAC	Sell	\$15.47	300	\$4,641.00	\$38,069.10	\$22.00	\$1,567.25
6/25/2014	ISBC	Sell	\$11.10	500	\$5,550.00	\$43,619.10	\$75.00	\$1,642.25

*Table 5.13.2 Third day buys.*

The next trade made was for stock in AT&T Incorporated. The entrance point was found to be a bullish engulfing pattern which was soon after fortified by a MACD crossover and further fortified by a zero line crossover. The MACD's reversal back underneath the signal line served as the exit point and is demonstrated in Figure 5.52.

The Friday of the third week carried the following trades in the morning:

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
6/26/2014	GM	Buy	\$36.44	150	(\$5,466.00)	\$38,153.10
6/26/2014	ZNGA	Buy	\$3.08	1500	(\$4,620.00)	\$33,533.10
6/26/2014	ACAS	Buy	\$14.90	400	(\$5,960.00)	\$27,573.10
6/26/2014	T	Buy	\$35.11	175	(\$6,144.25)	\$21,428.85

*Table 5.14. Fourth day buys.*

The first stock purchased belonged to Fifth Street Finance Corporation. The entrance point was chosen as a doji which occurred after a long period of decay, as well as a MACD

crossover. The stock was then held until it turn a sudden and unexpected profit, then the trade was exited. Although this is considered scalping and is outlined to be avoided in the simulation, the increase was very drastic and was followed by steady decay, therefore making the exit from the trade necessary.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/26/2014	GM	Sell	\$36.95	150	\$5,542.50	\$26,971.35	\$56.50	\$1,698.75
6/26/2014	ZNGA	Sell	\$3.20	1500	\$4,800.00	\$31,771.35	\$160.00	\$1,858.75
6/26/2014	ACAS	Sell	\$15.01	400	\$6,004.00	\$37,775.35	\$24.00	\$1,882.75
6/26/2014	T	Sell	\$35.28	175	\$6,174.00	\$43,949.35	\$9.75	\$1,892.50

*Table 5.14. Fourth day buys.*

#### 5.2.4 Week 4

The final week was abridged due to the Fourth of July falling on that Friday, therefore only four days of trading was done. However, the week proved to be just as prosperous as any other, and the following trades were made on the first day:

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
6/30/2014	F	Buy	\$17.30	250	(\$4,325.00)	\$39,896.10
6/30/2014	WY	Buy	\$32.72	175	(\$5,726.00)	\$34,170.10
6/30/2014	WEC	Buy	\$46.35	125	(\$5,793.75)	\$28,376.35
6/30/2014	NRF	Buy	\$17.08	125	(\$2,135.00)	\$26,241.35

*Table 5.16.1 First day buys.*

The first trade initiated was the purchase of stock in Ford. The stock was not highly rated to begin the day by barchart.com therefore it was given a very short lease after a positive MACD crossover was observed, and the trade was entered. Soon thereafter, the MACD line crossed back over the signal line and the trade was exited, because of the low confidence the first negative indicator observed would serve as the exit point no matter what.

The second trade made on the day was the purchase, and recurrence, of stock in Weyerhaeuser Company, after the MACD line demonstrated an early signal line cross as well as a zero line cross. The trade was entered immediately after the opening bell. This stock was also rated fairly low on barchart.com's board and therefore was given a short leash as well. After a period of growth for the majority of the day, the MACD crossed back over its signal, giving a negative indicator and also serving as the exit point for the trade. These MACD crosses are shown in Figure 5.45.

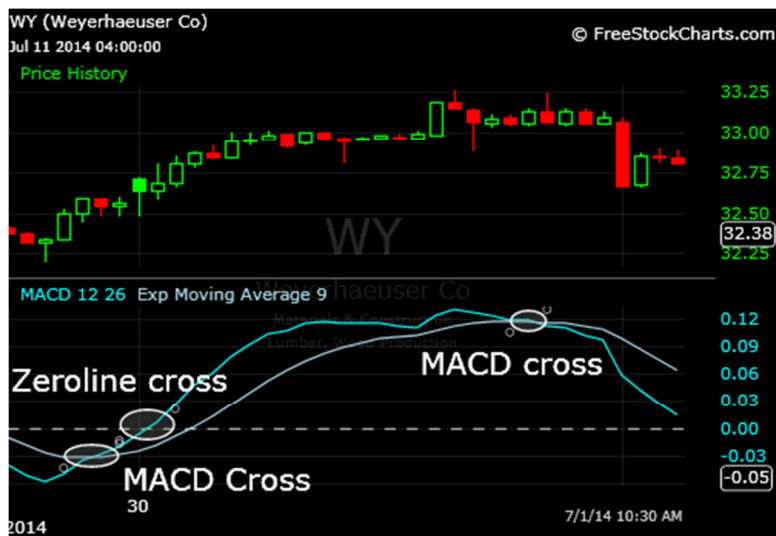


Figure 5.52 Weyerhaeuser's market value on June 30<sup>th</sup> as a candlestick graph with the two MACD crossovers, and a zero line crossover.

The third trade made on the day was made for Wisconsin energy corp. This is yet another stock, which was not given much confidence by barchart.com, but gave very many positive indicators over the course of the day. The trade was entered after a doji was witnessed after a period of decay, indicating a change in direction of the movement of the share price. This doji was then followed by an upward zero line crossover, which reinforced the entry and maintained the trade until a downward MACD cross was witnessed towards the end of the day, and the trade was exited.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
6/30/2014	F	Sell	\$17.33	250	\$4,332.50	\$30,573.85	(\$12.50)	(\$12.50)
6/30/2014	WY	Sell	\$33.08	175	\$5,789.00	\$36,362.85	\$43.00	\$30.50
6/30/2014	WEC	Sell	\$46.93	125	\$5,866.25	\$42,229.10	\$52.50	\$83.00
6/30/2014	NRF	Sell	\$17.06	125	\$2,132.50	\$44,361.60	(\$22.50)	\$60.50

*Table 5.16.2 First day sells.*

The final stock purchased on Monday of the fourth week was in Northstar Realty Financial Corp. The shares were purchased, and the trade entered after an upward MACD crossover was witnessed. The stock was then held, rather scornfully, throughout the day where it experienced serious decay, and was not sold until the closing bell, by which time it had decayed and produced losses of almost two percent. This trade served as an example of listening to negative indicators and not hoping the stock will turn around, when indicators demonstrate it won't.

The second day saw these stocks purchased and traded:

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceed	Total Cash
7/1/2014	ABBV	Buy	\$56.02	100	(\$5,602.00)	\$38,759.60
7/1/2014	WFC	Buy	\$52.74	100	(\$5,274.00)	\$33,485.60
7/1/2014	JNJ	Buy	\$105.82	50	(\$5,291.00)	\$28,194.60
7/1/2014	GM	Buy	\$36.64	150	(\$5,496.00)	\$22,698.60

Table 5.17.1 Second day buys.

The first stock which was purchased belonged to AbbVie company. The stock was rated very highly by barchart.com and also experienced a MACD cross going upwards very early on in the day, therefore the trade was entered immediately. A zero line cross soon followed and resulted in the market value experience growth for the better part of the day. The trade was exited when the MACD indicator line crossed back over the signal line heading downwards. The movement of the MACD line as well as the resulting growth in share price is shown in Figure 5.40 below.

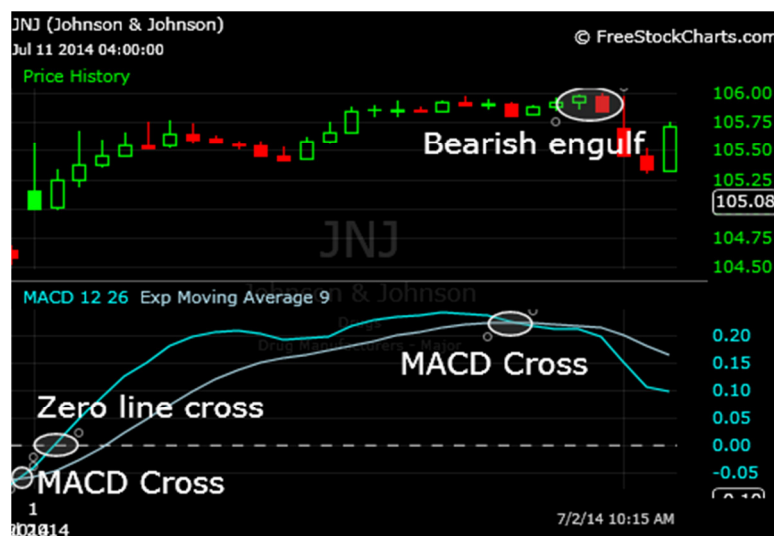


Figure 5.52 Weyerhaeuser's market value on June 30<sup>th</sup> as a candlestick graph with the two MACD crossovers, and a zero line crossover.



The second trade made on the day was the purchase of stock in Wells Fargo. The stock was rated very highly by barchart.com and experienced a positive MACD crossover right at the opening bell; therefore the stock was purchased immediately. Due to a lack of positive indicators aside from the positive MACD crossover, the first negative indicator had to act as the exit point. Therefore, when a negative MACD crossover was witnessed towards the end of the day, the remaining shares were immediately sold and the trade was exited.

The penultimate trade of the day was the purchase of Johnson and Johnson. This stock also experienced an immediate MACD crossover at the beginning of the day, and was rated highly by barchart.com. A cross of the zero line then followed the MACD Crossover. These two positive indicators coupled with the high confidence vested in the stock, meant that two negative indicators would be needed for the trade to be exited, these came in the form of a negative MACD crossover followed by a bearish engulfing pattern. These indicators are all shown in Figure 5.40.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
7/1/2014	ABBV	Sell	\$58.70	100	\$5,870.00	\$28,568.60	\$248.00	\$308.50
7/1/2014	WFC	Sell	\$52.89	100	\$5,289.00	\$33,857.60	(\$5.00)	\$303.50
7/1/2014	JNJ	Sell	\$105.97	50	\$5,298.50	\$39,156.10	(\$12.50)	\$291.00
7/1/2014	GM	Sell	\$37.61	150	\$5,641.50	\$44,797.60	\$125.50	\$416.50

*Table 5.17.1 Second day sells.*

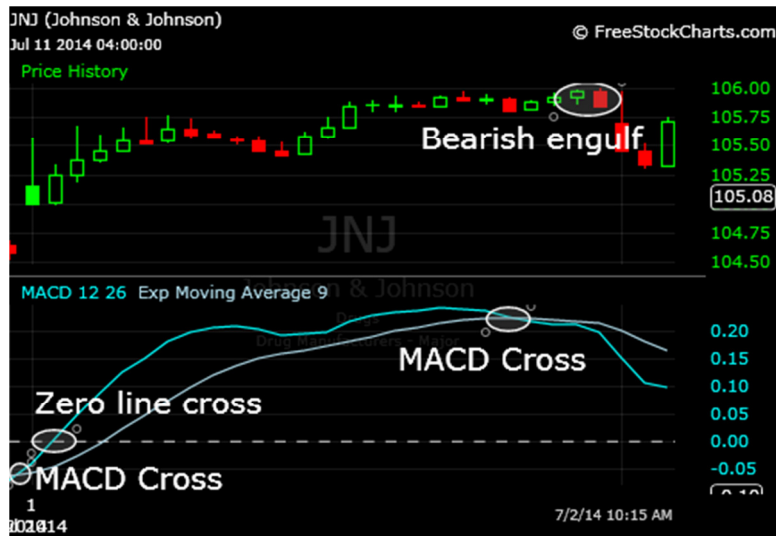


Figure 5.52 Johnson and Johnson's market value on June 30<sup>th</sup> as a candlestick graph with the two MACD crossovers, and a zero line crossover.

The final trade of July 1<sup>st</sup> was the purchase of stock in General Motors Company. The trade was executed after a MACD crossover was witnessed a few hours after the opening bell. The high confidence vested in the stock by barchart.com coupled with a second cross, this of the zero line, created a trade that would only be exited with two negative indicators. The first was a downward MACD crossover. However, it was ignored seeing as it was solo. No other negative indicators were witnessed during the course of the rest of the day, therefore the stock was held until the closing bell.

The Wednesday of the fourth week saw the stocks in the table below purchased and traded:

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
7/2/2014	STX	Buy	\$59.03	100	(\$5,903.00)	\$38,894.60
7/2/2014	YPF	Buy	\$33.55	150	(\$5,032.50)	\$33,862.10
7/2/2014	CSCO	Buy	\$24.89	225	(\$5,600.25)	\$28,261.85
7/2/2014	MDLZ	Buy	\$37.60	150	(\$5,640.00)	\$22,621.85

*Table 5.18.1 Third day buys.*

The first was that of Seagate Tech Holdings. The trade was executed after an upward MACD cross-occurred almost simultaneously with a zero line cross. However, because little confidence was demonstrated toward the stock by barchart.com, only one negative indicator would be needed for the trade to be exited. This negative indicator turned out to be a negative MACD cross and occurred around the midday point, and served as the exit point.

YPF Sociedad Anonima was the second stock purchased and traded on the day. The trade was entered when the MACD crosses the signal line moving upwards. However, because the stock was not rated highly by barchart.com and only one positive indicated was shown, the first negative indicator was to serve as the exit point of the trade. This exit point came when the MACD crossed back over the signal line, this time moving downwards.

The third stock chosen on the day belonged to Cisco Systems. The stock was not rated highly on the barchart.com list, and also experienced one positive indicator over the course of the day. This indicator was a positive MACD crossover, which occurred just before noon, and after a zero line crossover, which negated the positivity of the zero line indicators. The first negative indicator was to serve as the exit point and was a negative MACD crossover and occurred a few hours before the closing bell.

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash	Profit/ Loss	Total Profit/ Loss
7/2/2014	STX	Sell	\$59.23	100	\$5,923.00	\$28,544.85	\$0.00	\$416.50
7/2/2014	YPF	Sell	\$34.18	150	\$5,127.00	\$33,671.85	\$74.50	\$491.00
7/2/2014	CSCO	Sell	\$25.10	225	\$5,647.50	\$39,319.35	\$27.25	\$518.25
7/2/2014	MDLZ	Sell	\$37.91	150	\$5,686.50	\$45,005.85	\$26.50	\$544.75

*Table 5.18.2 Third day sells.*

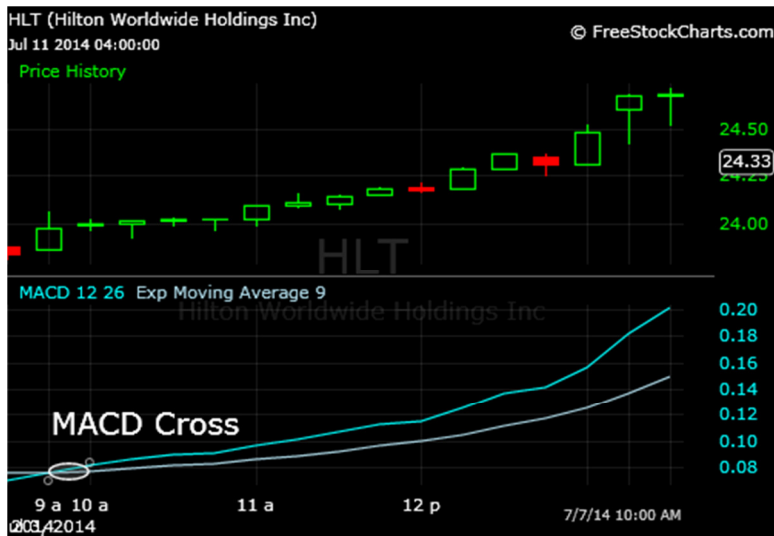
The final stock chosen on the day was that of Mondelez International. The combination of its low rating on barchart.com coupled with a lack of positive indicators meant that the first negative indicator displayed after entrance into the trade would be the exit point of said trade. The exit point, as it turns out, occurred towards the closing bell, when the MACD indicator crossed back over its signal line and indicated a negative trend.

The final day of the final week of trading saw the following trades:

Date	Symbol	Buy/ Sell	Price	Shares	Net Cost/ Proceed	Total Cash
7/3/2014	HLT	Buy	\$23.99	225	(\$5,397.75)	\$39,608.10
7/3/2014	KOG	Buy	\$14.09	350	(\$4,931.50)	\$34,676.60
7/3/2014	RAI	Buy	\$60.36	90	(\$5,432.40)	\$29,244.20
7/3/2014	GILD	Buy	\$87.11	60	(\$5,226.60)	\$24,017.60

*Table 5.19. Fourth day buys.*

The first purchase was of stock in Hilton Hotels. The stock's MACD indicator showed a cross very early on in the day, and acted as the entry point for the trade, as it coincided with a high rating from barchart.com. Due to a lack of negative indicators, the stock was then held for the remainder of the day. The crossover and resulting growth are shown in Figure 5.51 below.



*Figure 5.51 Hilton Hotels' market value on July 3<sup>rd</sup> as a candlestick graph with a MACD indicator showing a cross of the signal line.*

The second stock purchased on the day was Kodiak Oil & Gas Company. After undergoing an upward MACD cross before the closing bell on the previous day, and carrying a high rating from barchart.com, the stock was purchased and the trade entered at the opening bell. A zero line cross then occurred which reinforced the holding of the trade until a bearish engulfing pattern was witnessed, and the trade had to be exit. The patterns are shown below in Figure 5.34.

The third trade made on the day was the purchase of stock in Reynolds America. A MACD cross and zero line cross towards the end of the previous day, coupled with high confidence demonstrated by barchart.com provided an entry point at the opening bell on July 3<sup>rd</sup>. The stock was then held for a large portion of the day until a downward MACD cross was witnessed and the trade was exited. Despite two positive indicators, the trade was exited because they both occurred on the previous day.

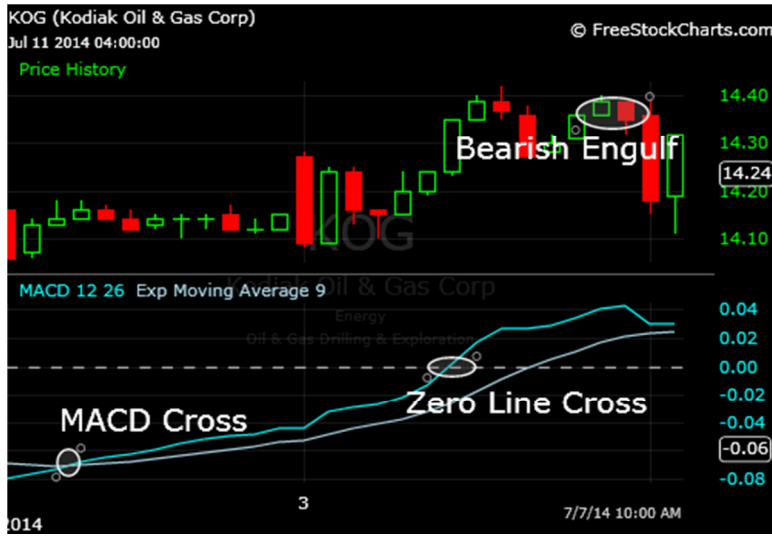


Figure 5.51 Kodiak Oil & Gas Company's market value on July 3<sup>rd</sup> as a candlestick graph with a MACD indicator showing a cross of the signal line and the zero line.

The final stock purchased in the entire simulation belonged to Gilead Sciences. The stock began the day very high on barchart.com's list. That, coupled with an observation of a bullish engulfing pattern at the end of the previous day provided an entry point for the trade at the opening bell. The MACD then crossed above the signal line, but crossed back under a few hours later. This served as the exit point because the only other positive indicator demonstrated in the day was the upward MACD crossover, this was negated.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceed	Total Cash	Profit/Loss	Total Profit/Loss
7/3/2014	HLT	Sell	\$24.47	225	\$5,505.75	\$29,523.35	\$88.00	\$632.75
7/3/2014	KOG	Sell	\$14.42	350	\$5,047.00	\$34,570.35	\$95.50	\$728.25
7/3/2014	RAI	Sell	\$61.78	90	\$5,560.20	\$40,130.55	\$107.80	\$836.05
7/3/2014	GILD	Sell	\$87.62	60	\$5,257.20	\$45,387.75	\$10.60	\$846.65

Table 5.19.2 Fourth day sells.

### ***5.3 Analysis of Day Trading Performance***

Like with the review of the long term holds, the percent gained during the simulation will be compared in two manners. Although the first method align with that of the long term holds, with a comparison against the market as a whole, comparing the performance of every single stock day traded during the simulation would be too time consuming. Therefore, the combined performance of the day traded stocks will be compared to the stocks held for the long term.

#### ***5.3.1 Performance against the Market***

Over the course of the simulation, the stocks being traded daily returned a total profit of \$5,741.75, or 5.74%. As iterated previously in Chapter 4, the market as a whole saw growth of just 0.79%. Therefore, the trades made daily turned out to be profitable, and performed far better than the market as a whole during the specified period of time.

#### ***5.3.2 Performance against Long Term Holds***

Although day trading yielded a profit of 5.74%, this still was far less than the 7.64% growth experienced by the long term stocks.

## **Chapter 6: Conclusion**

In conclusion, the strategies put forth and implemented in this report and its appended simulation are accurate and reliable ways to predict the movement of the stock market as well as individual stocks. By implementing these strategies, an investor can adeptly navigate the market, leading to growth in their portfolio. As proven in Chapters 4 and 5, trading stocks using these strategies lead to higher yields than just “riding the market,” or purchasing random stocks.

Secondly, as shown by the simulation, it is more lucrative to trade and hold stocks over a longer period of time. Although there were particular days where day trading yielded extremely high returns, they were evened out over the course of the simulation by less profitable days. Long term trading while utilizing the strategies put forth in this project have proven to be the most lucrative and effective way to trade and navigate within the stock market.



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