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Stock Market Simulation

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Stock Market Simulation

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Abstract

A fourteen-week stock market simulation was performed to learn the knowledge that is required in order to invest in the stock market. Each member of the team used a different strategy so that the results could be compared to see which method was the most successful one. The goal of this project is to determine which betting strategies are feasible as well as to gain a solid understanding of how the stock market functions.

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Table of Contents

1. Introduction 8

    1.1 Stock Owning Basics 9

    1.2 Stock Choosing Basics 10

    1.3 Terminologies and Definitions 13

2. Investment Strategies 16

    2.1 Fundamental Analysis 16

    2.2 Stock-Picking Strategies 20

3. Company Information 35

    3.1 Apple Inc. 36

    3.2 Google Inc. 37

    3.3 Netflix Inc. 38

    3.4 Exxon Mobile Corporation 39

    3.5 General Electric Corporation 40

    3.6 Dell Incorporated 41

    3.7 Microsoft Corporation 42

    3.8 Tesla Motors 43

    3.9 Best Buy Corporation Incorporated 47

    3.10 Target Corporation 49

    3.11 Ford Motor Corporation 51

    3.12 Sony Corporation 52

    3.13 Toyota Motor 53

    3.14 Yahoo 54

3.15 Sandisk 55

3.16 Solar City 57

3.17 SunPower 58

3.18 Goldman's Sachs Group, Inc. 59

3.19 Verizon Communications, Inc. 61

3.20 Coca-Cola Co. 62

3.21 Hewlett-Packard Co. 64

3.22 Penn National Gaming, Inc. 66

4. Simulation 1: Daniel (Buy and Hold) 68

a) Week One (10/28- 11/1) 69

b) Week Two (11/1 – 11/8) 70

c) Week Three (11/8 – 11/15) 73

d) Week Four (11/15 – 11/22) 74

e) Week Five (11/22 – 11/29) 76

f) Week Six (11/29 – 12/6) 78

g) Week Seven (12/6 – 12/13) 80

h) Week Eight (12/13 -12/20) 82

i) Week Nine (12/20 – 12/27) 84

j) Week Ten (12/27 – 1/3) 86

k) Week Eleven (1/3 – 1/10) 88

l) Week Twelve (1/10 – 1/17) 90

m) Week Thirteen (1/17 – 1/24) 92

n) Week Fourteen (1/24 – 1/31) 94

o) Conclusion 98

5. Simulation 2: Kevin (Bulk buying) 100

a) Week One (10/28- 11/1) 100

b) Week Two (11/1 – 11/8) 101

c) Week Three (11/8 – 11/15) 103

d) Week Four (11/15 – 11/22) 104

e) Week Five (11/22 – 11/29) 105

f) Week Six (11/29 – 12/6) 106

g) Week Seven (12/6 – 12/13) 107

h) Week Eight (12/13 -12/20) 107

i) Week Nine (12/20 – 12/27) 108

j) Week Ten (12/27 – 1/3) 109

k) Week Eleven (1/3 – 1/10) 110

l) Week Twelve (1/10 – 1/17) 110

m) Week Thirteen (1/17 – 1/24) 112

n) Week Fourteen (1/24 – 1/31) 113

o) Conclusion 115

6. Simulation 3: Patrick (Buy and Hold) 117

a) Week One (10/28- 11/1) 117

b) Week Two (11/1 – 11/8) 118

c) Week Three (11/8 – 11/15) 119

d) Week Four (11/15 – 11/22) 121

e) Week Five (11/22 – 11/29) 123

f) Week Six (11/29 – 12/6) 124

g) Week Seven (12/6 – 12/13) 125

h) Week Eight (12/13 -12/20) 126

i) Week Nine (12/20 – 12/27) 127

j) Week Ten (12/27 – 1/3) 128

k) Week Eleven (1/3 – 1/10) 128

l) Week Twelve (1/10 – 1/17) 129

m) Week Thirteen (1/17 – 1/24) 130

n) Week Fourteen (1/24 – 1/31) 130

o) Conclusion 131

7. Comparisons and Analysis: 134

8. Conclusion 136

References 139

1. Introduction

Our goals for the Interactive Qualifying Project (IQP) in stock market simulation are to gain a better understanding of how the stock market works, learn different investment strategies and, of course, to make money. Understanding the stock market will help tremendously in our futures and provide a solid background if we wish to invest within the market in the future.

The objective of this project is to learn the fundamentals of the stock market and implement this knowledge in virtual investing, replicating actual investing without the risk. Learning the market from the bottom up, research will be absolutely vital in first acquiring a basic understanding of what the market is composed of in full. We will need to hone in on key information, strategies, and ideas in order to effectively establish the background required in order to jump into the living market. Through selected strategies and efficient research, our main goal is to learn the ups and downs of the stock market the absolute best we can as to make educated and knowledgeable investments. This will, in turn, hopefully lead us to the end of making a profit within the given time period. Considered a short-term investing period, we will need to be careful about which stocks we choose: short-term investing can be profitable, inert, and volatile. Although research itself is a great basis for decision-making, there will always be some amount of luck involved, no matter how drastic or apparent it may be. With all of this said, it is clear to us that there will be a lot of work involved in becoming good investors. Through a virtual stock market simulator, we plan on fully applying what we take out of this all in order to visibly encounter our goals through replicated, but accurate, investing.

Although not every goal may be necessarily met in the end, the means of getting there as well as the information picked up along the way would in itself greatly benefit how much we get out of this project as a whole.

We spent three weeks researching a number of different companies that we might potentially invest in. We will use the knowledge gained from the products, services and descriptions from each of the researched companies to make educated transactions. All three of us will be running our own stock market simulation. From our simulations, we will be able to compare and contrast each of our stock-picking strategies. We will all start with an individual, chosen amount of money to invest however we choose. Each week in our report, we will include the amount of shares we moved and from which company as well as the total net change from our initial investments. Having this data every week we will be able to see what strategies seem to be more successful, as well as see who has currently made the most money.

1.1 Stock Owning Basics

As a shareholder, all of your stocks are backed up by a stock certificate. Essentially, these serve as a proof of ownership. These are stored electronically by your brokerage (used to be done with actual paper copies, but electronically proved more efficient). Shareholders also receive one vote per share owned. Although typically not too influential, these votes give shareholders the ability to vote on the election of management of the company, more specifically the board of directors. In theory, this gives shareholders some power over how the company is being run as well as how their shares are being affected. In reality, however, large institutional investors and billionaire entrepreneurs are the ones who own enough shares and possess enough votes to actually dictate such. [1]

Financing through debt and financing through equity are two important ideas for a shareholder, each wielding their own benefits and shortcomings. Buying a debt investment such as a bond guarantees you your money returned, plus interest. This is a very safe route, although it doesn't yield results as quickly or as fruitfully as some might prefer. That is where becoming an owner of an equity investment is beneficial. Although these contain a much higher risk, they also purport much higher reward. If the company takes a turn for the worst and ends up going bankrupt and liquidating, shareholders don't receive any money until the banks and bondholders have been paid out.

"The most common method to buy stocks is to use a brokerage. Brokerages come in two different flavors. Full-service brokerages offer you (supposedly) expert advice and can manage your account; they also charge a lot. Discount brokerages offer little in the way of personal attention but are much cheaper." [2]

Alternatively, DRIPs (Dividend Reinvestment Plans) and DIPs (Dividend Investment Plans) are plans in which allow for shareholders to purchase stock directly from the company. These typically require a minimal upfront cost, but are noted as great for investing small amounts of money in regular intervals. [1] [3]

1.2 Stock Choosing Basics

When selecting stocks, it is always good to have a very basic understanding along with a general guideline to follow. Doing so allows for the basic essentials of smart buying to remain intact while still leaving room for more developed and in-depth research. Such evaluation should not be used to ultimately pick stocks, however, as it can result in insufficient research and ultimately a risky, potentially poor choice. These basics should rather be used to guide one into developing a strong portfolio when done correctly. Just as every house needs a solid foundation, portfolios need to be developed on a good base which allows for flexibility.

Buy what you know: As simple as it sounds, it's pretty important that you invest in a company in which you're familiar enough with to feel comfortable in investing into. Whether as a consumer you buy their products and grasp what they sell or even you know of their board of directors and general profit-making plan, the more you know the better. Fundamental analysis may pave the way for filling in some of the holes and gaps of such understanding, but having a feel for the company and what they do is vitally important. From this information as a consumer, you can even sometimes get a sense of the company's strategy to make money and work from there. [10]

Consider Price and Valuation: One interesting concept is looking into how "expensive" a stock is. By using something called a price-to-earnings ratio, or P/E, one can determine if a stock may be considered cheap, neutral, or expensive. Basically, all you need to do is divide the company's share price by its net income. An alternate way to do it is to divide the net income minus the dividends by the average shares:

$$\text{P/E Ratio} = \frac{\text{Net Income - Dividends on Preferred Stock}}{\text{Average Outstanding Shares}} \qquad (1)$$

Roughly speaking, a P/E that is below 15 is considered to be cheap while alternatively a P/E above 20 is considered to be expensive, anything in between obviously being considered neutral. Here, I say roughly speaking because there are other factors that go into this that affect the relative expensiveness of a share. For instance, companies expected to grow rapidly tend to have more expensive shares than, say, an established company that grows more slowly. Comparing P/E within an industry can help you determine the cheaper shares of that particular industry.
That isn't to say that cheap means a good buy and expensive constitutes a bad buy. To give an example, if a company is growing less or even slowing down in growth, then that can make their shares cheap. In many cases, this isn't a company that you want to put your money towards. On the other side, a company can have expensive stock because of the fact that it is widely expected to grow rapidly in the upcoming years. One good example might be Tesla motors, whose shares grew around 300% within the past year. Their shares would be considered expensive, but with such astonishing growth this may be attributed to the expectation of their continued future growth. [13]

Evaluate Financial Health – One last preliminary dig you can perform on a company before going into deeper analysis would be to look through their financial reports. It's also important to look through past reports as well in order to check for consistency in profitability and overall financial health. Some important things to look for and check into include the company's revenue growth, the difference between their revenue and expenses (profit margin), the amount of debt they possess (more debt equals more volatile stocks), and dividends (companies that pay dividends tend to be in good financial health). All of these are important and should be taken into consideration when determining a good stock pick.

Using these three basic concepts of what to look for when buying stock is a good start and initial evaluation. If all of these fields seem to be stable and match up to what looks like a potentially profitable, safe pick, then carry on to administering fundamental analysis or some alternative in-depth process for evaluating a stock selection's potential.

What to Avoid Doing – Never buy a stock based on its price alone. If a stock dips by 10%-20%, found out why. It's good to see it as a potential investment opportunity, but buying it blindly can lead either way. Do a bit of research first and figure out what the reasoning is behind the drop in price per share, that way you can make a more educated decision.

Don't always base picks off of analyst's reviews of a stock. They supposedly tend to be bias towards buy ratings, so sell ratings from them may be red flags.

Don't forget to sell shares. It's equally as important to sell at a certain time as it is to buy. Important things to look for would include if a company cuts its dividends, if the price rises or falls to a certain point, if analyst start to give the stock more negative ratings and "downgrade" the stock, etc. Basically, having a plan of when to sell means that you're less likely to panic-sell, which can be the bane of the stock market for many. [4] [10]

1.3 Definitions

- **Bid price** - The highest price buyers are willing to pay for a stock at a given time.

- **Ask price** - The lowest price sellers are offering to sell at.
- **Dividend –** Payment of a portion of a company's profits to its shareholders.
- **Market order –** If placed, your order will be filled immediately at the current market price.
- **Limit order –** If placed, your order will only be filled at the price you specify.
- **Index** - A group of stocks chosen to represent different market sectors.
- **Common Stock** - A security that represents ownership in a corporation. Holders of common stock exercise control by electing a board of directors and voting on corporate policy. Common stockholders are on the bottom of the priority ladder for ownership structure. In the event of liquidation, common shareholders have rights to a company's assets only after bondholders, preferred shareholders and other debtholders have been paid in full.
- **Preferred Stock** - A class of ownership in a corporation that has a higher claim on the assets and earnings than common stock. Preferred stock generally has a dividend that must be paid out before dividends to common stockholders and the shares usually do not have voting rights.
- **Commission** - A fee paid to your broker for facilitating a purchase or sale of stock.
- **Bid –** The price at which a broker will buy shares
- **Ask –** The price at which a broker will sell shares
- **Price-Earnings Ratio** - A valuation ratio of a company's current share price compared to its per-share earnings.

- **Earnings Per Share** - The portion of a company's profit allocated to each outstanding share of common stock. Earnings per share serves as an indicator of a company's profitability.

With an established understanding of the fundamental basics of the stock market in place, it is important to incorporate this information into furthering our understanding of its more meaningful inner workings. From here, we will continue on to take a closer, more explicit look into particular investing strategies that can be found useful for our simulation.

2. Investment Strategies

As a starting block for learning about investing strategies, we have chosen to first focus on fundamental analysis. Considering that it is very broad and as roots in many other investing strategies as well, we felt that it was a smart choice.

2.1 Fundamental Analysis

Basically, fundamental analysis is, at its simplest, the attempt to focus on the underlying factors in which affect the company's "actual business and future prospects". Alternatively, this may be applied to the industries and the economy as a whole as well. Some of the factors that we should consider when looking for such would include a company's profit, the rate in which their revenue is growing, if the company is strong enough to maintain a position or fight for a higher position by beating out competitors, and if they are ultimately able to repay their debts. Such factors can be grouped within one of two categories: quantitative and qualitative. Although quantitative values are more concrete and technical, qualitative factors are equally as important. Qualitative factors may not be obvious at first, but they certainly can make or break a certain share. [5]

One important topic that is encompassed within fundamental analysis is intrinsic value. Intrinsic value can be described as the prospected value of a certain share, as opposed to the *actual* value of the share. Therefore, there is a "real" value of a stock alongside an "actual" value of a stock. The trick behind it all is typically through well-done, thorough, extensive research. Something to be noted is that, despite investors' best efforts to peg this value, the time in which it takes for the stock to reach the predicted intrinsic value is almost always a large uncertainty.

Given this premise as well as the notion that one's predicted value may not be correct, using such a method can be seemingly difficult or unfruitful at times in which such methods don't meet certain set expectations. To us, intrinsic value gives off the impression that it is meant more of a supporting reason to invest in a stock but not necessarily an end-all motive entirely on its lonesome.

There are two large criticisms that act against and around fundamental analysis. One of these is its main alternative strategy: technical analysis. Technical analysis argues that, instead of looking at the fundamentals of a company, one can look over such information and focus their attention onto other factors (mainly quantitative), such as price and volume movement. A main precept of technical analysis is that the "market discounts everything". This offers a heavy opposition to fundamental analysis, although it is said that both may be used in conjunction with one another if desired. The second of the two criticisms is the efficient market analysis. In fact, this idea actually states that both fundamental analysis and technical analysis may be thrown out of the picture entirely:

> "The efficient market hypothesis contends that it is essentially impossible to produce market-beating returns in the long run, through either fundamental or technical analysis. The rationale for this argument is that, since the market efficiently prices all stocks on an ongoing basis, any opportunities for excess returns derived from fundamental (or technical) analysis would be almost immediately whittled away by the market's many participants, making it impossible for anyone to meaningfully outperform the market over the long term." [6]

Sticking to the topic, we will return to the qualitative vs. quantitative analysis, more specifically qualitative. One of the overwhelmingly important constructs that supports qualitative analysis is a company's **business model**. Simply put, a company puts out a business model in order to implement in which defines their plan to generate revenue and make a profit. It is said that at the very least, the business model should be reviewed and understood of any company that one is considering investing in. Another prominent example of qualitative analysis is **competitive advantage**, which is essentially how deeply rooted a company's advantage is when compared to competitors. For example, Coca-Cola has developed a huge name for itself, so much so that it is easily dominant in the soft-drink industry. Alongside owning many other brand-name sodas other than their own Coca-Cola line and being successful overall, they have enormous brand equity for their own. Coca-Cola has a resounding name. Although there may very well be "better" knock-off Coke-tasting beverages, Coca-Cola is known globally and, therefore, maintains a prevailing competitive advantage. **Management** of a company serves as another feature of qualitative analysis. Who else has main jurisdiction over a company's success (or rather, failure) other than those who manage it themselves? Getting to know how management is running operations can be very important. The top ways to understand how they are monitoring these operations and trying to turn in profit can be seen through things such as quarterly conference calls, management discussion and analysis, ownership and insider sales, and past performance. These are all great ways to develop a basic (or even thorough) understanding of the management in which you are about to invest in and are most certainly categorized as qualitative. One last important part of qualitative analysis is **corporate governance**. This “describes the policies in place within an organization denoting the relationships and responsibilities between management, directors and stakeholders”. When responsible, companies will sustain good corporate governance and comply to all policies and regulations put into place by the government in order to look out for the interest of their investors and other stakeholders. Although not necessarily always easily accessible, there are ways to get around this roadblock, such as looking at the timeliness of the release of financial statements, proxy statements with information of the board of directors, etc. [7]

One topic that we’d like to touch upon is the major statements that companies release. These include the balance sheet, the income statement, and statement of cash flows. Each of these may provide one with a good understanding of how much money the company has (assets, cash, etc.), how much income is being generated, where the money they are spending is going, etc. Being publicly available information, these numbers can go a long way. They have potential to give a lot of insight on a company and shed some light on their inner monetary workings as a whole. Companies with poor income, low assets, and poorly conducted cash flow will send up immediate red flags for select investors who may exercise this resource. Alternatively, a company can be targeted as a sound, smart buy if these statements are accurate and show smart, progressive thinking, investing, and decision-making. [8]

2.2 Stock-Picking Strategies

- Value Investing
- Growth Investing
- GARP Investing
- Income Investing
- CAN SLIM
- Dogs of the Dow
- Technical Analysis

Before getting into stock-picking strategies, one must know what a stock represents. 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. Stocks can also be referred to as shares or equity. A shareholder, or a holder of a stock, actually owns a part of a company, and depending on how many stocks the shareholder holds determines how much of the company's assets the shareholder is entitled to. For example, if a person owns 10 shares of a company's 100 shares of stock, that person would have a claim of 10% of that company's assets. There are two types of stocks: common stock and preferred stock. [9]

A common stockholder must attend and vote at shareholders' meetings and are obliged to elect a board of directors and vote on the corporate policy. They would receive dividends decided by the board of directors and are, for the most part, "… on the bottom of the priority ladder for ownership structure." Unfortunately, for the common stockholder, if the company were to go bankrupt (which is also known as liquidation), they would receive a portion of the leftover assets after the creditors and preferred shareholders are paid. On the contrary, common shares tend to outperform bonds and preferred shares in the long run, which means the stock is expected to do better, though only slightly, than the market return. As previously mentioned, a preferred stock or share has a higher claim to the assets and earnings than that of a common stock. Characteristics of a preferred stock include the fixed dividends and the equity (potential appreciation). Although preferred stockholders have "priority over common stockholders on earnings and assets in the event of liquidation," they do not have voting rights and they have less potential for appreciation. Preferred shares offer greater income security but does not offer any control on the company's management. [9]

Getting back into stock-picking strategies, it is important to note that there is no one way to pick stocks. There is so much that affects a company's health, that even if one has a lot of data of said company, it's hard to determine which information is relevant. Even though there are qualitative factors, such as profits, that can help determine which company one may want to follow, there are far more qualitative factors to consider, such as the company's staff, reputation, competitive advantages and so on. Stock-picking is a subjective process and lots of time human emotion can deter one from choosing to follow a reasonable company. Stock-picking is all about determining the worth of a company, and a crucial aspect to consider when first choosing a stock is a fundamental analysis.

A fundamental analysis is a method of evaluating a security in attempt to measure its intrinsic value (actual value of a company based on its true value) by examining quantitative and qualitative factors. The value produced by the fundamental analysis should help determine if one should invest in a stock, or sell it. The worth of a company can also be viewed as the sum of its discounted cash flow, which is a method used to determine how attractive an investment opportunity looks. So the worth of a company is the summation of all of its future profits; however, it can be challenging to determine how far into the future one should forecast the cash flow. [4]

Qualitative factors uses subjective judgment based on "non-quantifiable" information. It is very important for investors to research the management to assess its strength. The investor would want to research who the CEO, CFO, COO, and CIO of the company are, as these are the figures that practically run the company. It's also essential to know these figures past educational and employment backgrounds; investors would want to know if these people have experience in the field to determine if they can bring success to the company. They would research the style of management currently being implemented and assess whether they agree with the company's philosophy. It's also useful to know how long the current management team has been running the company. If a company has had the same CEO for years, that might be a good indication that he has been a successful and profitable manager. Knowing why the current managers have been hired is important. One would want the company's manager to be hired due to credibility and past experiences and not by questionable means such as self-appointment. One should also be familiar with the company's business model, which is the business' plan on how they plan to make revenue and profit; "knowing the how a company's activities will be profitable is fundamental to determining the worth of an investment." Taking a look at the industry and the company's competitors is also crucial in determining whether or not the company has potential for growth. For example, it may be wise to invest in a small company that seems promising and has few competitors compared to a small company (and even a large company) that's in an industry with many competitors. [4]

One of the simplest and best known stock-picking method is value investing. The strategy used in value investing is to find a company that is trading below their "inherent worth." A value investor looks for a stock with strong "fundamentals", which includes earnings, dividends, book value (which is the net asset value of the company), and cash flow, that is currently selling at a "bargain price". Buying an undervalued stock has potential to increase in share price when the market "corrects its error in valuation." Also, just because a company's stock price suddenly doesn't mean one should immediately invest. The investor should do research to determine whether the stock is actually undervalued. Most investors who use the value investing strategy are usually hope to own the company and won't actually trade these stocks. Value investing is unique in that it doesn't believe that a stock price is always showing the intrinsic worth of companies, and also disagrees in avoiding stocks that have "high volatility" since it would be considered to be a risky investment. Compared to value investing, growth investing can be said to be the opposite investment strategy. [4]

Growth investing is a stock-picking strategy focused on buying companies that are trading at higher than their current intrinsic worth. Before buying, the investor believes that the intrinsic worth will grow over time. The company would grow fairly quickly, so growth investors are mainly concerned with younger companies. It is believed that with the growth of revenues there will also be a growth in stock prices. The growth investor would focus on industries that are quickly expanding and especially to those relating to new technology. Growth investors are concerned with a company's future growth potential, and since there is no sure way in evaluating a company's potential, an investor would have to make their own interpretations and judgments. The investor would have to consider the company's past performances and the industry's performance. Generally, growth companies are companies that reinvest into themselves to produce new products and technology. The National Association of Investors Corporation is one of the best know organizations using and teaching the growth investing strategy and it offers basic guidelines for finding possible growth companies. [4]

Another stock-picking strategy is known as the GARP (growth at a reasonable price) strategy. This is a hybrid stock-picking strategy that is a combination of both value and growth investing. The strategy is to look for a company that is slightly undervalued and has an assured growth potential. The criteria that a "GARPer" would look for in a company lie between that of value investing and growth investing. [4]

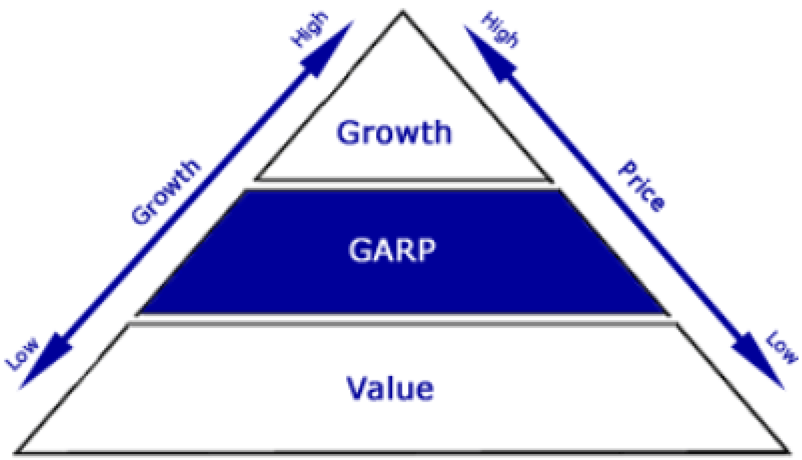

Figure 2.1 The GARP-preferred levels of price and growth compare to the levels sought by value and growth investors.

GARPers look for very specific characteristics in companies; even though an investor would want a company to show potential growth, they would shy away from a company that has extremely high growth estimations since they carry too much risk and can be unpredictable. Also, both GARPers and growth investor would be interested in a company with a high and increasing return on equity (ROE), which measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. Similarly to growth investments, there is no way in estimating a company's growth, so the investor has to rely on their own interpretations of company performance and operating conditions. GARP investing can be a difficult strategy to implement if an investor hasn't mastered value or growth investing. [4]

One of the most straight-forward stock-picking strategies is an income investment. Income investing involves investing in a company that provides a steady stream, and in return, the stocks would return a steady stream of income by "paying a solid dividend." An income investor would usually focus on an older, more mature company, that has already reached a certain size and are no longer able to sustain drastic growth. With that, instead of reinvesting retained earnings (which is the percentage of the net earnings not paid out as dividends, but retained by the company) into themselves, which is what growth companies do, the companies would pay out the retained earnings as dividends as a way to provide a return to their shareholders. With that, only certain industries, such as utility companies, would provide solid dividends. An investor wouldn't just invest in a company with the largest dividends, but would be interested in a company with a high dividend yield, which can be found by dividing the annual dividend per share by share price, and this would provide the actual return that a dividend would give the owner of the stock. An investor would look for a dividend yield of at least 5-6% yield. The main idea behind this strategy is to find good companies with "sustainable high dividend yields to receive a steady and predictable stream of money over the long term." It is also important to consider the company's past dividends. A drastic increase in the company's dividend over a short period of time may not be a wise decision for the company and can be unsustainable in the future. Companies that have steady dividends over years are likely to continue with the trend. An investor can never be certain whether it would be wise to invest in a company just because it has high dividends; higher dividends result in lower retained earnings. The company may be better off reinvesting income instead of putting it to higher dividends. There is always a risk when one invests in a company. Lastly, it is also important to note that in most states, dividend payments are taxed at the same rate as wages. [4]

Another stock-picking strategy is CAN SLIM: it's a philosophy of screening, purchasing, and selling common stock that was developed by William O'Neil and described in his book "How to Make Money in Stocks". CAN SLIM is actually an acronym that stands for current earnings, annual earnings, new, supply and demand, leader or laggard, institutional sponsorship, and market direction. O'Neil suggests that it's important to "consider stocks whose earnings per share in the most recent quarter have grown on a yearly basis." The strategy suggests that the EPS (earnings per share) should be no less than 18-20%. It is important for an investor to be able to distinguish if a company's earnings are an accurate representation of its performance. It's possible for a company to attempt to manipulate there figures and a good investor would be able to recognize this. If a company seems to be of good quality, it'll be wise to check others of the same industry to see if their earnings growth is thriving as well, as this would be a good indication that the industry as a whole is thriving. As for annual earnings, it is important that an investor chooses a company that has had an annual growth earning within 25-50 % in each of the last five years. For the last criterion of CAN, "new", O'Neil's research has shown that most successful companies have undergone some kind of recent change such as "a new management team, a new product, a new market, or a new high in stock price," that contributes to their success. Many investors may shy away from companies with stocks at a new high believing that it'll soon tank, but history has shown that these stocks often tend to "continue on an upward trend to even higher levels." The law of supply and demand is a theory that "defines the effect that the availability of a particular product and the desire (or demand) for that product has on price." The basic idea for this criterion is that it is generally easier for a smaller company to generate "outstanding gains" since they would have a lower amount of outstanding shares. A larger company would require more demand than a smaller company to generate the same amount of gain. Getting into the "leader or laggard" criterion of the CAN SLIM strategy, an investor would have to distinguish who the market leaders and laggards are in an industry; the leaders would provide substantial gains to shareholders and those who "lag behind" would not provide sought after gains. It is important to consider the relative price strength, which "calculates which investments are the strongest performers, compared to the overall market," when choosing to invest in a company. It would be a number between 1 and 99 and the method would suggest investing in a stock with a relative price strength of at least 70. This means that the company has outperformed 70% of the stocks in its market group during a given time period. The institutional sponsorship criterion is "based on the idea that if a company has no institutional sponsorship, all of the thousands of institutional money managers have passed over the company." The method suggests that the stock should have, at the very least, three institutional owners. An investor should take note that if a company has too many institutional sponsorships, it is too late to invest. The investor would want the sponsors to have "better-than-average recent performance." The last criterion of the CAN SLIM stock-picking strategy is "market direction." An investor should be able to distinguish whether a market is a "bear or a bull." A bear market is believed to be headed downward, while a bull market would rise. One of the best ways to analyze market conditions is to watch daily volumes and movements of the markets. The acronym only touches upon O'Neil's strategy, and his book goes much further in his stock-picking strategy; however, this is a basic guideline to his strategy and it emphasizes to shy away from emotions and subjectivity. The method can be viewed as a combination of value, growth, fundamental, and technical analysis. [4]

There is an investing strategy that focuses on the "Dogs of the Dow," which are 10 of the 30 companies in the "Dow Jones Industrial Average" with the highest dividend yield. An investor would basically make sure that their portfolio include these top ten companies and would usually adjust the portfolio accordingly at the end of the calendar year. The portfolio would be created so that it equally allocates each of these 10 stocks. This strategy is a long-term investment, and although it would not make sense to use in our stock-market simulation, it can still be useful to understand how the simple strategy works. You may end up investing in one of the laggards of the Dow, but since they are still considered one of the "DJIA," they are still considered to be a good company. These companies always tend to be pretty stable and can stand any market decline because of their "strong fundamentals and solid balance sheets." The attractions to this strategy include its simplicity, and more importantly, the numbers. "From 1957 to 2003, the Dogs outperformed the Dow by about 3%, averaging a return rate of 14.3% annually whereas the Dows averaged 11%. The performance between 1973 and 1996 was even more impressive, as the Dogs returned 20.3% annually, whereas the Dows averaged

15.8%." This strategy was made popular by Michael Higgins in his book, "Beating the Dow," and other variations of the strategy emerged soon after. One of the variations is the "Dow 5," which would include the top 5 of the Dogs of the Dow with the lowest per share price in the investor's portfolio. The "Dow 4" would include the 4 highest priced stocks of the Dow 5. The "Foolish 4," chooses the same stocks as the Dow 4, but allocates 40% of the portfolio to the lowest priced of these four stocks and 20% to the rest. [4]

Includes:	Strategy	Average Return
All stocks in the DJIA	DJIA Index	15.80%
Ten highest dividend yielding stocks of DJIA	Dogs	20.31%
Five lowest per-share price of the Dogs	Dow 5	23.40%
Four highest priced stocks of the Dow 5	Dow 4	26.41%
Dow 4 stocks: 40% in lowest priced stock, 20% in remaining three	Foolish 4	28.03%

Figure 2.2 Average return percent of each variation of the strategy from 1973 to 1996 [2].

It's important to take note that "a company could split its shares but still be worth the same, simply having twice as many shares with half the share price." The strategy relies on history repeating itself, and if it does, you can expect about a 3% greater return than the Dow. [4]

Technical analysis is the complete opposite of fundamental analysis; it selects stocks by "analyzing statistics generated by past market activity, prices and volumes. The analysis would consider past charts of prices and indicators (which are statistics used to measure current conditions of financial and economic trends) to make inferences about the future movements of the stock's price. Technical analysis techniques are based on important assumptions that include: prices already reflect relevant information, so the market is efficient, prices move in trends, and history repeats itself. The intrinsic value of a company and any other factors that "preoccupy" fundamental analysis is irrelevant to technical analysis. Investors that only look past numbers can actually make a lot of money with practically knowing nothing about the company. Technical analysis is a short term strategy, with investors constantly trading to capitalize on the fluctuating prices in the market. The technician can still go short or long on the stock, depending on the direction the data suggests the price will move. Also, the technician should be able to quickly buy and sell stocks accordingly, using stop-loss orders to mitigate losses. One of the most important concepts in technical analysis is support and resistance, which are "the levels at which technicians expect a stock to start increasing after a decline (support), or to begin decreasing after an increase (resistance)." The levels indicate the direction the stock will move. [4]

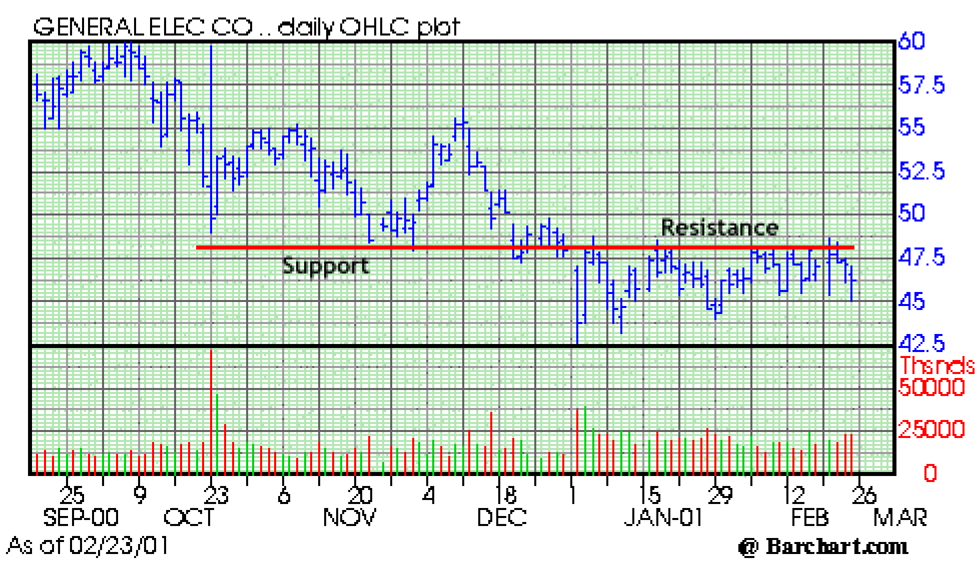

Figure 2.3 Example of where a technician might set support and resistance levels.

Technical analysis is very different than the other stock-picking strategies mentioned beforehand, and requires knowing how react to certain market situations.

Although the principle of buying low and selling high may at first seem like the only plausible way to earn money through the stock market, there is another, lesser-known, albeit still important and prevalent, trading method that allows for this ideology to be flipped. Known as short selling, the fundamental idea behind this is burrowing stocks and expecting them to decrease in value in order to make a profit. But how does this work?

The concept behind short selling is not as confusing as it may seem. In order to short a stock, your broker must lend it to someone. This stock comes from the brokerage's inventory, one of the firm's customers, or from another brokerage firm. The shares are then sold, with the proceeds being placed into that person's account. Because of this, they will need to replace or "cover" the burrowed shares and return them to the broker. This covers the entire cycle of the process of short selling and the movement of the shares. [19]

In order to profit from this procedure, the original price of the burrowed shares must be lower than the bought back shares. Imagine burrowing something from a friend and buying it back for cheaper than originally priced. This way, you get the difference and the person who you burrowed from gets back what they lent out.

With this said, it is apparent that in order to make any profit one must anticipate a company's shares to decrease in value. Fundamentals, patterns, and luck can all contribute to this. The more the company's shares drop in the period of shorting, the more money a person will make. However, since the person shorting technically does not own the stock, any and all dividends and rights declared during the course of the loan belong to the stock lender. There are a few more important catches as well. Most of the time, one is allowed to hold a short for as long as they want. However, interest is charged on margin accounts. This means that the longer a short is held for, the more it will cost which, in turn, can interfere or mitigate profits. Another important thing to note is that the overall percent gain that can be accomplished from shorting is limited to 100%. Alternatively, the percent loss is technically "infinite", as the company's shares can constantly increase and do not have a roof. Therefore, the potential amount of money that can be lost is infinitely higher than the limited margin of the 100% one can make. Typically, most people who lose money from shorting return the burrowed stock well before it evolves into a huge loss. This is not to say that it is a safe investing method, just to make the point that the "infinite loss" aspect is not entirely realistic.

Overall, short selling is a gamble. Historically speaking, stocks tend to drift upwards. Overtime, there is less of a chance for one to make money when taking into account the interest. It also involves margin trading. When shorting, one opens a margin account. This allows a person to borrow money from the brokerage firm using the investment as collateral. There is a minimum maintenance requirement of 25%. If the account slips below this at any point, it becomes subject to a margin call, meaning that more money must be put in or the investor will otherwise liquidate their position. Additional to the previously mentioned risks, there is also something known as a short squeeze. What this means is that a heavily shorted stock or commodity moves sharply higher, which ultimately forces shorters to close out their short positions. This, in turn, adds to the upward pressure on the stock and results in many shorters cutting their transactions earlier than desired and generally taking a loss. So overall, it can be seen that there resides a fair amount of risk within shorting stocks. It's not necessarily something that is easily pulled off with success.

There also lies debate is the ethics of short selling. Some describe it as "betting against the home team", considering how those who short are making their money off of a company's losses. Some believe that overtime, shorting is bad for the economy as a whole and tends to weaken it rather than build it. Shorters are not extremely popular on Wall Street for such reasons. Despite such, short selling does play an important role and makes some interesting contributions to the market. Adding liquidity to share transactions, driving down overpriced securities, increased market efficiency through quickened price adjustments, and even serving as the first line of defense against financial fraud are some prominent examples of its positive contribution. There will almost always be debate on the subject, but when it comes down to it, short selling is a prevailing and now integrated investing strategy.

To wrap up this chapter, we have provided many alternative strategies for investing, depending on which strategy best suits a person's ability or needs. All of them display viable, time-tested methods to make profits if conducted properly. From here, we will move on to learn about specific companies that interest us.

3. Company Information

Doing research on a number of companies is the best way to get a feel for how they will fare before actually investing any money in the stock market. By looking at the company of interest you can examine the growth of the company over a few months or even a few years. With this information you are able to see if the company is a stable investment. Continuing the research on the company, you can find out what products are being produced as well as any that will be released in the future.

3.1 Apple Inc.

Apple, Inc. designs, manufactures and markets personal computers and related personal computing, and mobile communication devices. It is engaged in designing of Mac laptops, along with OS X, iLife, iWork and professional software.

Figure 3.1 – Apple one-year chart 2013

3.2 Google Inc.

Google, Inc. focuses on improving the ways people connect with information. It provides variety of services and tools for advertisers of all sizes, from simple text ads to display and mobile advertising and to publishers, whether small or large. The company primarily focuses on the areas which include search, advertising, operating systems, platforms, enterprise and hardware products.

Figure 3.2 – Google one-year chart 2013

3.3 Netflix Inc.

Netflix, Inc. operates as an Internet subscription service company, which provides subscription service streaming movies and TV episodes over the Internet and sending DVDs by mail. The company operates its business through three operating segments: Domestic streaming, International streaming and Domestic DVD.

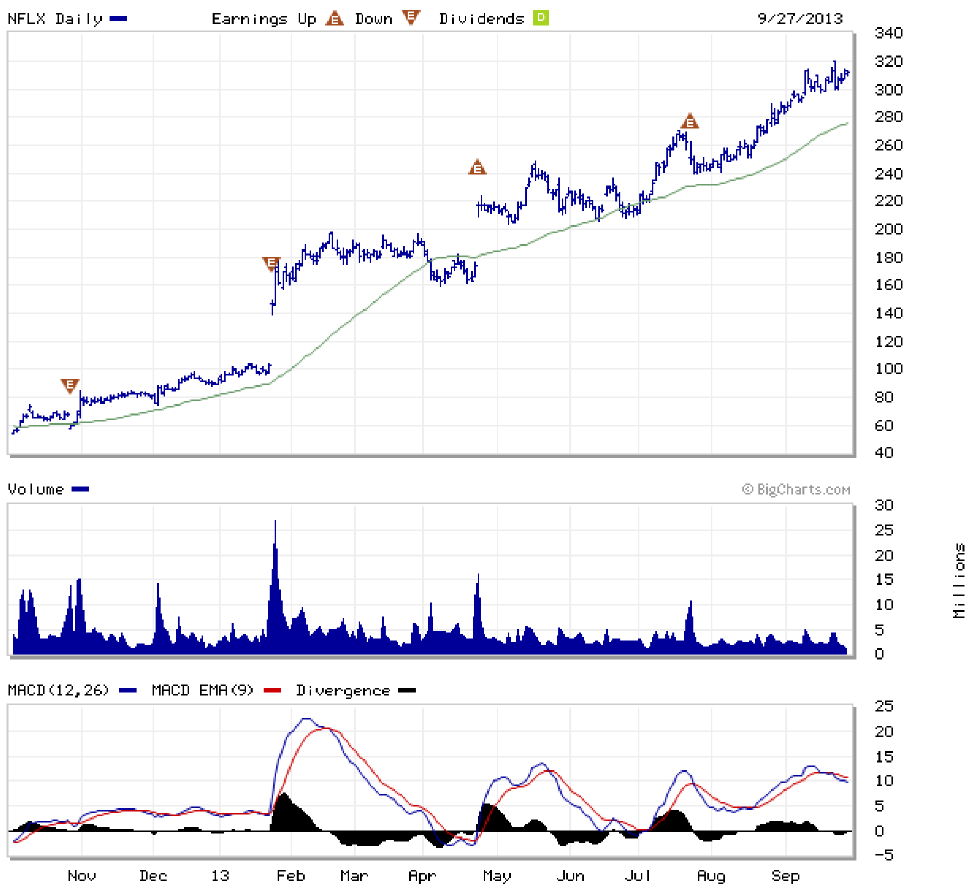

Figure 3.3 – Netflix one-year chart 2013

3.4 Exxon Mobil Corporation

Exxon Mobil Corp. explores, develops and distributes crude oil and natural gas. The company through its divisions and affiliated companies, engages in its principal business, is energy, involving exploration for, and production of, crude oil and natural gas, manufacture of petroleum products and transportation and sale of crude oil, natural gas and petroleum products. It manufactures and markets commodity petrochemicals, including olefins, aromatics, polyethylene and polypropylene plastics and a variety of specialty products.

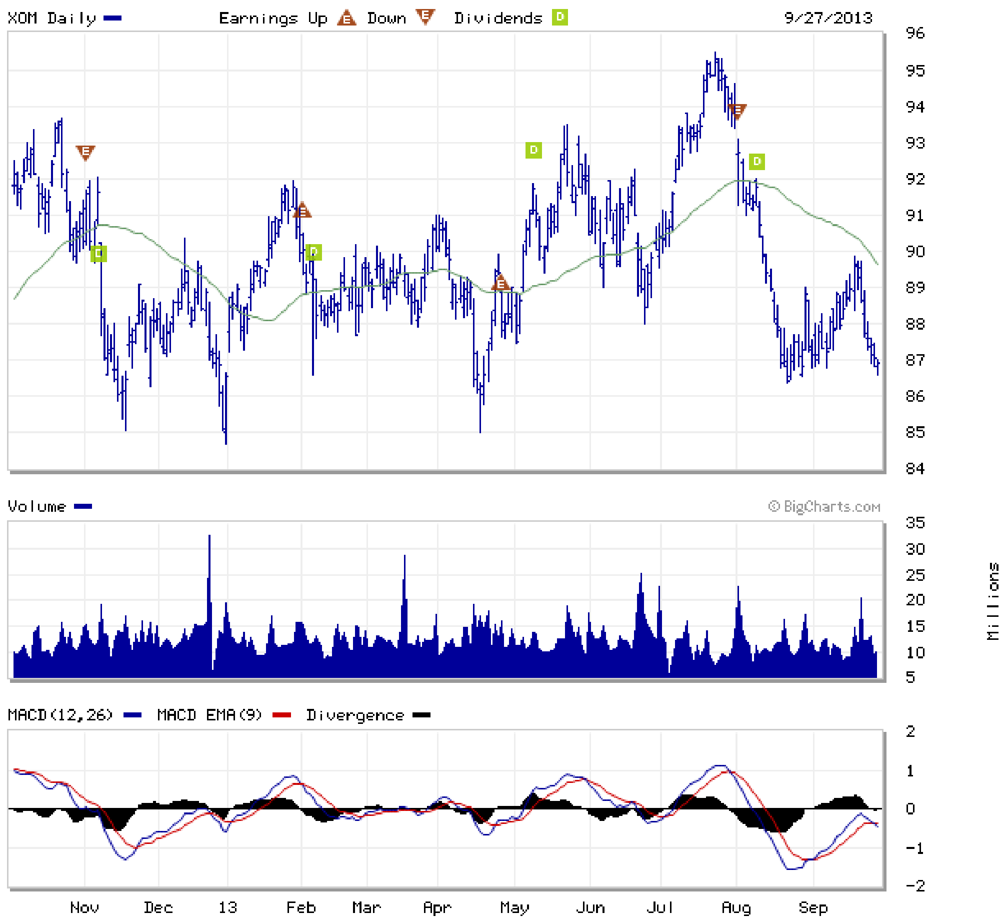

Figure 3.4– Exxon one-year chart 2013

3.5 General Electric Corporation

General Electric Co. is a technology and financial services company that develops and manufactures products for the generation, transmission, distribution, control and utilization of electricity. Its products and services include aircraft engines, power generation, water processing, security technology, medical imaging, business and consumer financing, media content and industrial products.

Figure 3.5 – GE one-year chart 2013

3.6 Dell Incorporated

Dell, Inc. is a global information technology company, which designs, develops, manufactures and distributes computer systems. The company through its subsidiaries offers its customers a broad range of solutions and services delivered directly and through other distribution channels.

Figure 3.6 – Dell one-year chart 2013

3.7 Microsoft Corporation

Microsoft Corp. develops and markets software, services and hardware that deliver new opportunities, greater convenience and enhanced value to people's lives. The company's products include operating systems for personal computers, servers, phones and other intelligent devices; server applications for distributed computing environments; productivity applications; business solution applications; desktop and server management tools; software development tools; video games and online advertising.

Figure 3.7 – Microsoft one-year chart 2013

3.8 Tesla Motors

Getting into some brief research on companies that are future investment prospects, briefly looking through the news and some choice stocks that I have been following seemed to be an appropriate place to start.

Tesla Motors (TSLA), an independent EV Company, was formed a decade ago in 2003 and, since then, has recently started showing some incredible progress. Boosting their stocks up over 600% in the last year, Tesla has caught the eyes of many investors. Reaching an all-time high of around $193 per share after the surge, it seemed that their progress was fast as well as steady.

Just recently, the stock began to sink as of October 3. Why? There was a video posted of a Tesla Model S car on fire, raising concerns about lithium-ion batteries further. The car supposedly crashed into a metal object which pierced the battery, resulting in a fire. Alongside Chevy's Volt and the Boeing's 787 plane, these lithium-ion incidents are becoming somewhat apparent and publicized. Since this incident involving Tesla, their stock tanked 6.24% just that day. People appear to be growing skeptical of these batteries, viewing them as potentially dangerous. [8] [9]

Tesla, however, has stated that the fire started in the battery but was purely a result of the collision itself:

"This was not a spontaneous event," Jarvis-Shean said. "Every indication we have at this point is that the fire was a result of the collision and the damage sustained through that." [8]

Alongside this, there was another contribution towards the sudden drop. Baird analyst Ben Kallo downgraded Tesla stock to neutral, stating that although he is still bullish for Tesla in the long-term, he believes that several of their milestones contain execution risk.

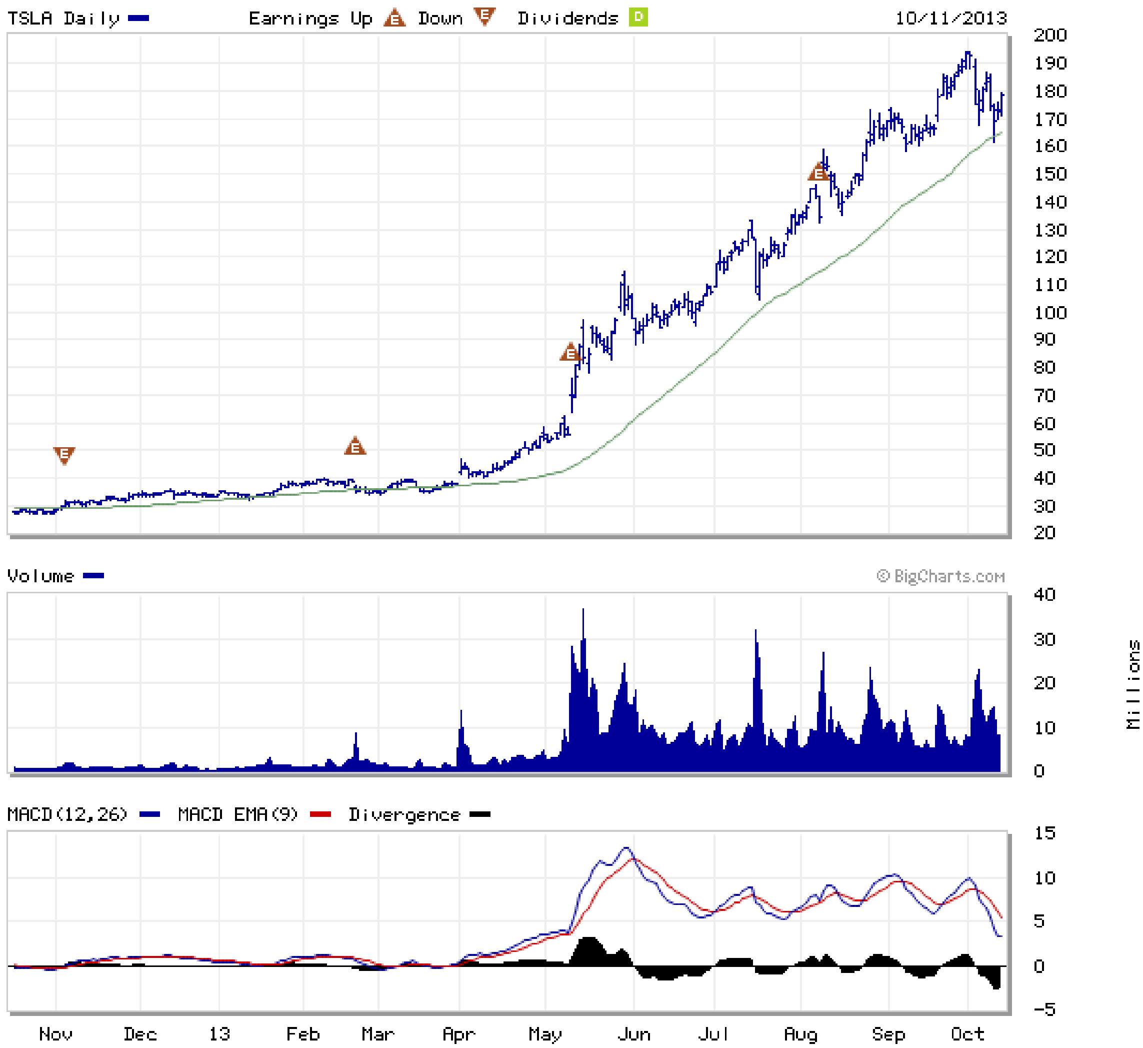

Figure 3.8 – Tesla one-year chart 2013

Since this drop, Tesla does not seem to be a good buy currently as is. We will remain watching this stock, however, as it may very well become a buying opportunity when the price levels out again and the hype behind this event rolls over.

Now October 3rd, TSLA stocks dropped another 4.5% or so, the video still putting a lot of pressure on their company. As of this point, it appears that people are still reacting negatively to the recent incident and panicking with their shares, albeit expected. On October 4th, however, the stocks took a somewhat unexpected turn. They jumped up roughly 4.5% in spite of the recent downward trending and showed a small recovery. This may represent Tesla putting a band aid over the wound, so-to-speak, of the lithium-ion battery incident. After browsing around, a few reports showed to be in Tesla's favor. Some were saying how, for the total amount of miles driven by Tesla cars since they've been out relative to the total number of accidents involving their batteries (only this once), the cars are very safe. Others said that it was not the batteries fault at all, rather the metal shrapnel entirely that had pierced it. Tesla themselves have said that their batteries are much safer than filling your car with flammable material such as gasoline. Regardless as to what the claim may have been, the media was on their side on Friday. This is all a great example of how strongly influenced the stock market is by media as well as professional opinion. Anything could happen throughout the next week, but slower growth would be likely expected. Tesla has been said to be somewhat volatile over the past year or so, but with their 600% growth numbers behind them, they're certainly headed in the right direction.

Taking another look at Tesla Motors using the CAN-SLIM method, a further in-depth analysis may be done accordingly. This will allow for a deeper understanding of what is actually going on with Tesla's growth. One factor that is taken into account with this method is the earnings-per-share. Suggested to be no less than 18-20%, Tesla's unfortunately struggles to be very slightly negative. This could be a huge deciding factor in buying this stock as a negative EPS is never a positive number. Their future EPS is forecasted to be positive, though. The next thing we need to look at would be the annual growth within the last year. CAN-SLIM outlines it to be at least around 25-50% in the last five years. Tesla's was under this for a few of the five years, but recently the roughly 500-600% increase as of last year is a dominant and noteworthy factor. The "new" of the method is part of why Tesla has grown so much. They have an evolving team, new, exciting products under development, an increasing market size and demand, and a new high in their stock price. The high stock price being a resounding polarity, this portion of CAN-SLIM is powerfully supported. Continuing on, the next criteria suggests that the company outperform at least 70% of the stocks in their market group during a given time period. For the past year, as stated before, Tesla Motors has easily swept away the competition regarding outperforming them in stocks. With over 50% of its ownership being in the hands of institutional owners, it may be leaning towards the "too late" side for this field, as the method states that if too many institutional owners invest then you may have missed your chance. Lastly, there is market direction. Tesla was somewhat volatile for a while but it still led a powerful upward trend through its market being rather bullish. It seems that it may be less bullish than before, as its growth has slowed to some extent.

Overall, it would appear that Tesla would be a moderate stock pick. Despite being very strong in some of the criteria fields and exemplifying a strong pick, it alternatively wields a few weaker aspects to it that do not strongly follow CAN-

SLIM's guideline. This is not to say that it is not subject to sustained growth, however. Rather, it doesn't get the immediate green light to buy. Because of this, it would seem more research is necessary.

3.9 Best Buy Corporation Incorporated

Best Buy Co., Inc. is a multinational retailer, which provides consumer electronics, home office products, entertainment products, appliances and related services. The company operates through two business segments: Domestic and International. The Domestic segment is comprised of the operations in all states, districts and territories of the U.S., operating under various brand names, including but not limited to, Best Buy, Best Buy Mobile, Geek Squad, Magnolia Audio Video, Napster and Pacific Sales. The International segment is comprised of all operations outside the U.S. and its territories, which includes Canada, Europe, China, Mexico and Turkey.

Figure 3.9 – Best Buy October 2010 – October 2013

Starting around the beginning of 2011 leading up into the start of 2013, Best Buy (BBY) was hit hard and approached near-bankruptcy. The company's shares dwindled down to a mere $11 from their previous $45. Many analysts prospected, and rightfully so, that it would crash and burn. Surprisingly, Best Buy has made a very powerful comeback this year, returning its share price to the former $40. Through price cuts, buy-back programs, more selling of big-ticket purchases, and overall sale increases, Best Buy has shown significant growth - around 300% - in spite of the previous reports. One of the main reasons why it fell so hard and quickly was due to the growing prominence of Amazon and equivalent online retail websites. [12]

Although some analysts aren't huge on Best Buy's overall future growth, there is strong sentiment surrounding the fourth quarter this year. Also, with the upcoming holiday season approaching, tech stocks tend to do pretty well as consumers splurge on more pricey items. Although Best Buy may not be a great hold, it may certainly be a very good short-term buy for the fourth quarter. With the above evidencing that it is likely to continue its growth this quarter, Best Buy is on my watch list for a short-term buy and sell for the fourth quarter. Its future afterwards is slightly hazy, but the immediate prospects look rather promising.

Following up on the previous research for Best Buy, I found a strong reason why Best Buy has made a valiant recovery from pushing back at Amazon and holding its ground as an in-store electronic retailer: two companies that back it. Microsoft and Samsung stepped into play for something of a symbiotic relationship. With Samsung Experience Stores and Microsoft Stores now being present in hundreds of Best Buy store locations, both Samsung and Windows grant their products prime exposure while providing Best Buy expert staff as well as increased products. They also came in good time due to Best Buy having ample extra space in their stores, these two companies conveniently and efficiently filling that gap. It is also thought that Google might also use Best Buy as a product outlet. Although not confirmed, it would make a lot of sense for both of these companies to agree on something. Google would strongly need a way to sell their upcoming product Google Glass. [13]

Other forces behind Best Buy's recent success can be attributed to their growth in online sales and price competitiveness. Their online sales have grown at least 10% while their same-store sales have been consistently improving as well. Alongside this, they've lowered prices overall as well as for specific, big-name new products. For example, Best Buy offered to sell the iPhone 5C for $100 with a contract. Wal-Mart, in order to compete, started their pricing off at around $70. Best Buy swung back and offered it for around $50 with a $50 gift card thrown in and, once again, Wal-Mart lowered their price again. In order to outdo them, Best Buy finally said that if you turn in an old smartphone, you get a $100 gift card (making the 5C "free" with a contract). Examples such as this show Best Buy's new competitive nature that has seemingly given them an edge over competitors. [14] [15]

3.10 Target Corporation

Target Corp. owns and operates general merchandise stores. It also operates SuperTarget stores with a line of food and general merchandise items and offers an assortment of general merchandise, including many items found in the company's stores and a complementary assortment, such as extended sizes and colors, sold only online. The company operates its business through three segments: U.S. Retail, U.S. Credit Card and Canadian. The U.S. Retail segment includes all of its U.S. merchandising operations. It offer both everyday essentials and fashionable, differentiated merchandise at discounted prices. The U.S. Credit Card segment offers credit to qualified guests through its branded proprietary credit cards: the Target Credit Card and the Target Visa. Additionally, this segment offers a branded proprietary Target Debit Card. The Canadian Segment includes costs incurred in the U.S. and Canada.

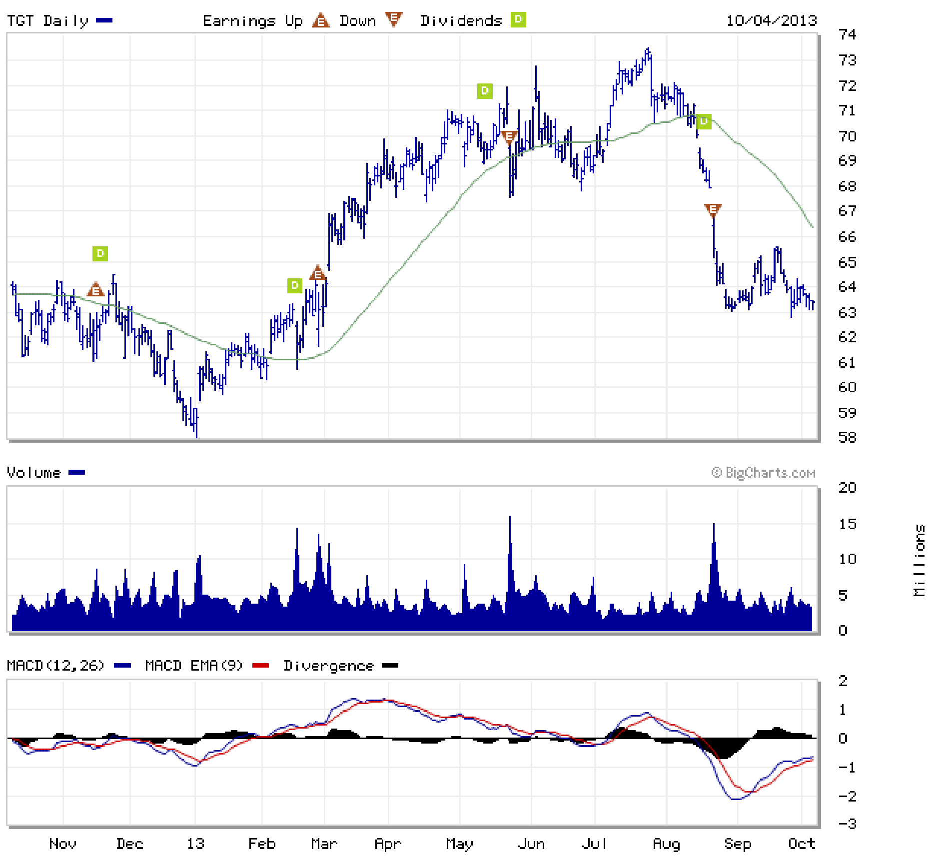

Figure 3.10 – Target one-year chart 2013

3.11 Ford Motor Corporation

Ford Motor Co. is engaged in the manufacturing and distribution of automobiles across six continents. The company through its subsidiaries also engages in other businesses, including financing vehicles. The company operates through two business sectors: Automotive and Financial Services. The Automotive sector operates through four business segments: Ford North America, Ford South America, Ford Europe and Ford Asia Pacific Africa. The Ford North America segment is engaged in the sale of Ford and Lincoln brand vehicles, service parts and accessories in North America. The Ford South America segment is engaged in the sale of Ford brand vehicles and related service parts and accessories in South America. The Ford Europe segment is engaged in the sale of Ford brand vehicles and related service parts and accessories in Europe, Turkey and Russia.

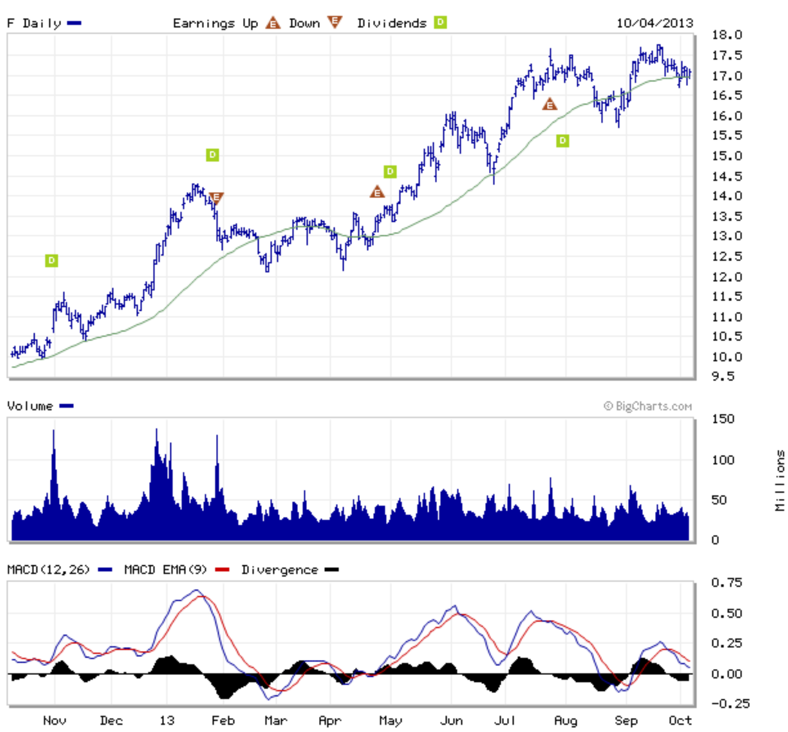

Figure 3.11 – Ford one-year chart 2013

3.12 Sony Corporation

Sony Corp. is engaged in the development, design, manufacture, and sale of electronic equipment, instruments, devices, game consoles, and software for consumers, professionals, and industrial markets. Its operations are carried out through the following segments: Consumer Products and Service; Professional, Device and Solutions; Pictures; Music; Financial Services; and Other.

Yet another tech stock, Sony (SNE) is also potentially a good buy for the fourth quarter. Along with other sales that typically increase during this quarter, Sony is releasing their next generation console, the PlayStation 4, shortly before Christmas. Competing against the Xbox One and potentially the Steam Box, it is anyone's guess as to who will come out on top as they have really evened the playing field. Again, Sony could be a fourth quarter buy, possibly more so than Microsoft and their Xbox One, because of their new system along with the simple fact that consumer technology sells this time of year.

Figure 3.12– Sony one-year chart 2013

3.13 Toyota Motor

Toyota Motor (TM) has bolstered share price increase over the past year. They showed over a 50% increase so far and analysts are still on their side. With new technology under heavy development such as assisted driving, a self-driving system, fuel cells, and anti-collision sensors, they're taking the necessary steps to continue innovating towards the future. They also take the cake when it comes down to eco-friendly cars, being the main supplier of hybrid models. It was announced that their plug-in model will drop around $2000 in price, becoming more affordable. Overall, it appears to be a reliable company with the right mindset and poses itself as a potential positive possibility for a portfolio.

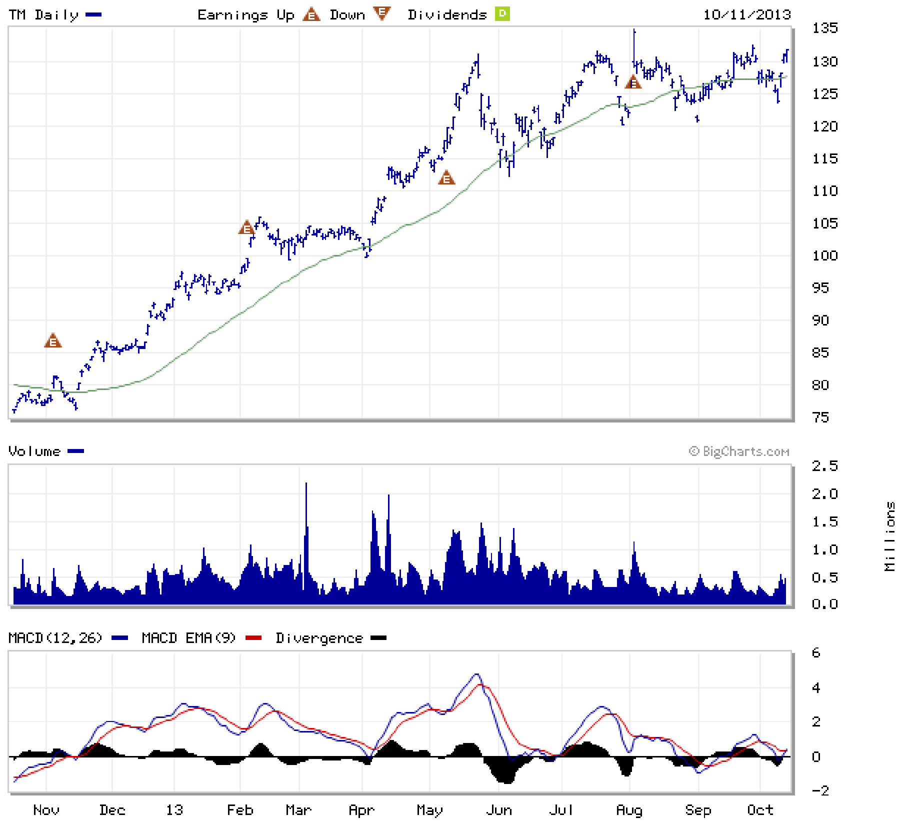

Figure 3.13 – Toyota one-year chart 2013

3.14 Yahoo

One company that has done pretty well recently is Yahoo (YHOO). Under new management, they somewhat recently replaced their CEO with Marissa Mayer on July 16, 2012. Marissa was previously a long-time executive and key spokesperson for Google. Ranked 14th on the list of America's most powerful businesswomen of 2012 by Forbes, she certainly possesses plenty of know-how as to how to conduct a business. Refocusing Yahoo's strategy and focusing more on the mobile front, products, employee shifting, and the people as opposed to mainly revenue, Marissa has seemed to have begun a strong start to turning Yahoo around and towards the right path. Even the small things such as redesigning their logo and email show marked changes in company jurisdiction and decision-making. Here is a chart showing the growth since she started:

Figure 3.14 – Yahoo three-year chart 2010- 2013

3.15 Sandisk

SanDisk Corp. designs, develops and manufactures data storage solutions in a variety of form factors using flash memory, proprietary controller and firmware technologies. Flash storage technology allows digital information to be stored in a durable, compact format that retains the data even after the power has been switched off. Its flash memory storage products are used in a variety of large markets and it distributes its products globally through retail and original equipment manufacturer channels.

Sandisk (SNDK) is another company to watch. Beating out analysts' expectations of its third quarter earnings report, it jumped around 8% on Thursday, October 17th. The company had greater operating earnings than previously before on top of this. Not only did it exceed these predictions, but it also is said to have more going for it as well. Some analysts are upgrading their rating on it. Why? Not only did they hit a 52-week high, but their products are heading where the market is. They've been doing better than their competitor Micron for the time being, although Micron did recently acquire Elpida Memory which could pose an interesting outcome.

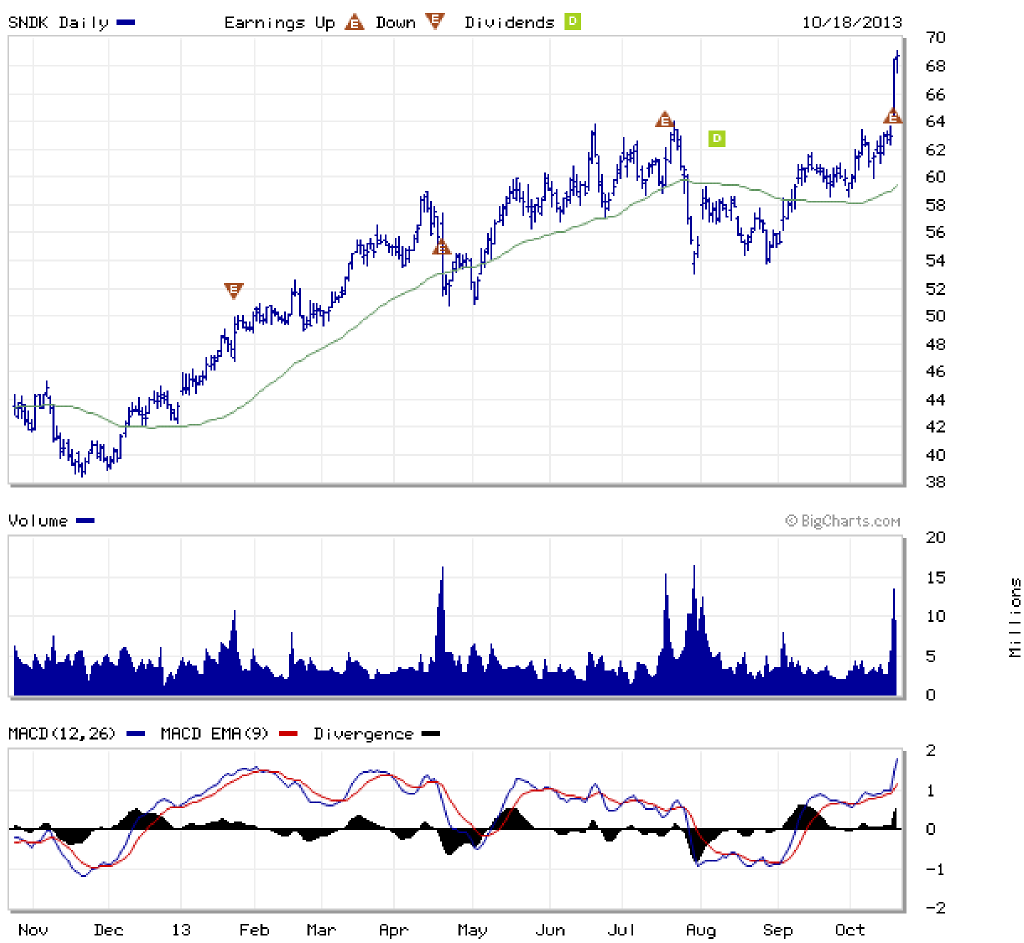

Figure 3.15 – Sandisk one-year chart 2013

3.16 Solar City

SolarCity Corp. is engaged in the business of renewable energy services. The company offers installation, ongoing monitoring and repair services of solar energy systems in the U.S. It provides services to homeowners, businesses, schools, non-profits and government organizations.

Solar City (SCTY) jumped 23% in one day and is soon coming up to its one year anniversary of its IPO in December. Since then, their stocks have risen an incredible 466%. Typically, solar energy stocks tend to do poorly but Solar City has beat out the trend and its volume has steadily increased. Pumping out 78 megawatts of photovoltaics in the third quarter, it is a greater number than what had been installed in 2011 entirely. The number of customers has doubled since 2012 and they plan on releasing their third quarter revenues on November 6th. Solar City had a few beneficial acquisitions as well. Acquiring Zep Solar and Paramount Solar (in October and September respectfully), they are getting larger. Analysts remain critical and skeptical, however, as Solar City has not turned a profit yet. In order to better dissect this, more research is required.

Figure 3.16 – SolarCity one-year chart 2013

3.17 SunPower

SunPower Corp. is a vertically integrated solar products and services company. The company designs, manufactures, and delivers solar electric systems to residential, commercial and utility-scale power plant users. Claiming to be the most popular solar energy choice for homeowners and businesses around the world, they possess more than 200 total patents in solar panel technology. Started in the 1970's, SunPower has grown to be a formidable leader in providing solar energy to the entire globe.

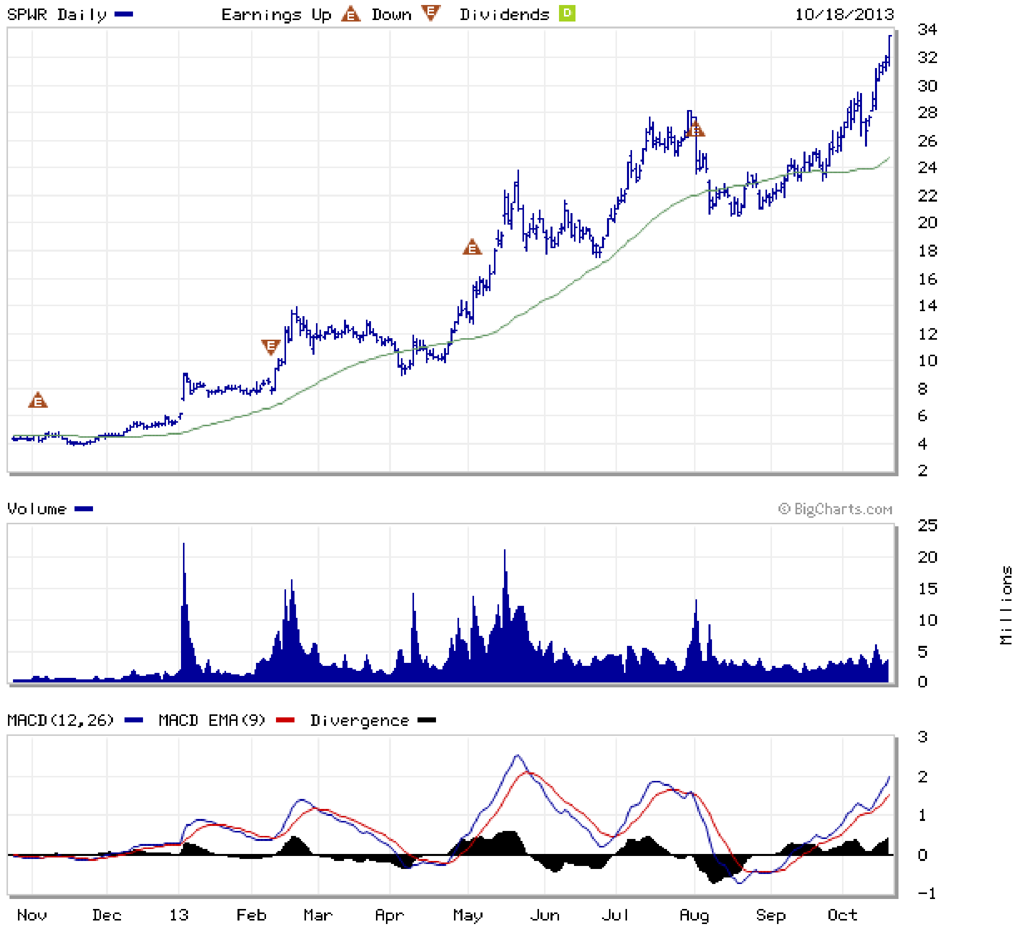

Figure 3.17 – SunPower one-year chart 2013

3.18 Goldman Sachs Group, Inc.

The Goldman Sachs Group, Inc. is a global investment banking, securities, and investment management firm that provides financial services to clients that include corporations, financial institutions, governments and high-net-worth individuals. The firm was founded in 1869 and is headquartered in New York. The firm reports their activities in the following four business segments: investment banking, institutional client services, investing and lending, and investment management. Lloyd C. Blankfein has been the Chairman and Chief Executive Officer since June

2006 and a director since April 2003. Previously, he was the President and Chief Operating Officer since January 2004 and prior to that, in April 2002, he was a Vice Chairman of the firm, where he managed the Goldman Sachs' Fixed Income, Currency and commodities Division (FICC) and Equities Division. Prior to becoming Vice President, he was co-headd of FICC since 1997. Gary D. Cohn has been the firm's President and Chief Operating Officer and a director since June 2006. He was the co-head of the global Securities business from December 2003 to June 2006, having been the co-head of FICC since September 2002. Prior to that, he was a co-chief operating officer of FICC. Harvey M. Schwartz has been the Executive Vice President and Chief Financial Officer since January 2013. He was global co-head of the Securities Division from February 2008 to January 2013. From November 2005 to 2007, he was head of North America Sales and from June 2004 to November 2004 he was co-head of the Americas Financing Group within Investment Banking. [18]

Figure 3.18 – Goldman Sachs – One-year chart

3.19 Verizon Communications, Inc.

Verizon Communications Inc. is a holding company (a company that owns other companies' stock) that provides broadband and other wireless and wireline communications services to consumer, business, and government and wholesale customers and provides converged communications, information and entertainment services over America's most advanced fiber-optic network, and delivers integrated business solutions to customers. The company operates its business through two segments: Verizon Wireless and Wireline. The company was founded in 1983 and is headquartered in New York. Lowell C. McAdam has been the Chairman since January 2012 and Chief Executive Officer since August 2011. Prior to this, he was the Chief Operations Officer and President since October 2010 and was responsible for the operations of the company's network-based businesses and for the technology management and Chief Information Officer functions. Before that, he held key executive positions since 2000 and built the company into the industry's leading wireless provider. Before becoming president and CEO, he served as the company's executive vice president and chief operating officer. McAdam was also the president and CEO of PrimeCO Personal Communications, a joint venture owned by Bell Atlantic and Vodafone AirTouch; he also served as the COO, being responsible for overseeing the deployment of the new company's customer service operations and all-digital network. From 1983 to 1993, he held various executive positions with Pacific Bell, including area vice president of Bay Area marketing and general manager of South Bay customer services. He earned a bachelor's degree in engineering from Cornell University and a master's degree in business administration from the University of San Diego. Francis J. Shammo has been the Executive Vice President and Chief Financial Officer for Verizon Communications since November 2010 and is responsible for the company's finance and strategic planning operations, and financial transaction services. Prior to this, he was president and CEO of Verizon Telecom and Business, being responsible for sales, marketing and customer service excellence for the company's consumer, small-business, enterprise and wholesale customers worldwide. He obtained his bachelor's degree in accounting from Philadelphia University, a master's degree in business administration from La Salle University, and is a CPA. [18]

Figure 3.19 – Verizon – One-year chart

3.20 The Coca-Cola Co.

The Coca-Cola Co. is a beverage company, which provides diet and regular sparkling beverages and still beverages. The company has brands that include: Diet

Coke, Fanta, Sprite, Coca-Cola Zero, Vitaminwater, Powerade, Minute Maid, Simply and Georgia. The company operates through seven segments: Eurasia & Africa, Europe, Latin America, North America, Pacific, Bottling Investments and Corporate. The company was founded in 1892 and is headquartered in Atlanta, GA. Muhtar Kent has been the Chairman of the Board and Chief Executive Officer since April 2009. He was previously President and CEO, and before that, President and COO. He joined the company in 1978 and became General Manager of Coca-Cola Turkey and Central Asia in 1985. In 1989, he served as President of the Company's East Central Europe Division and Senior Vice President of Coca-Cola International, with responsibility for 23 countries. In 1995 he was name Managing Director of Coca-Cola Amatil-Europe and in 1999 he became President and CEO of the Efes Beverage Group, a diversified beverage company with Coca-Cola and beer operations across Southeast Europe, Turkey and Central Asia. Gary P. Fayard has been the Executive Vice President and Chief Financial Officer since 2003. He joined the company in 1994 as Vice President and Controller. He was promoted to the role of Senior Vice President and Chief Financial Officer in 1999. He currently serves on the board of directors of Coca-Cola FEMSA. Prior to joining the company, Fayard served 19 years with Ernst & Young, where he was a partner, area director of audit services, and area director of manufacturing services. He received his bachelor's degree from the University of Alabama College of Commerce and Business Administration. [18]

Figure 3.20 –Coca-Cola – One-year chart

3.21 Hewlett-Packard Co.

Hewlett-Packard Co. provides products, technologies, software, solutions and services to individual consumers, small- and medium-sized businesses and large enterprises, including customers in the government, health and education sectors. It operates through seven business segments: Personal Systems, Printing, Services, Enterprise Servers, Storage and Networking, Software, HP Financial Services and Corporate Investments. The company was founded in 1939 and is headquartered in Palo Atlo, CA. Meg Whitman has been the company's President and Chief Executive Officer since September 2011 and has served as a member of the Board of Directors of HP since January 2011. From March 2011 to September 2011, she served as a part-time strategic advisor to Kleiner, Perkins, Caulfield & Byers, a private equity firm. She previously served as President and CEO of eBay Inc., from 1998 to March

2008. Prior to joing eBay, she held executive-level positions at Hasbro Inc., FTD, Inc., The Stride Rite Corporation, The Walt Disney Company, and Bain & Company. Catherine A. Lesjak has been the Executive Vice President and Chief Financial Officer since January 1, 2007. From August 2010 through October 2010, she served as interim CEO. She was previously senior vice president and treasurer and was responsible for managing the company's worldwide cash, debt, foreign exchange, capital structure, risk management and benefits plan administration. She obtained a bachelor's degree in biology from Stanford University and a master of business degree in finance from the University of California, Berkeley. Bill Veghte is the Chief Operating Officer and a member of the Executive Council. He previously served as the chief strategy officer and executive vice president of HP Software. He joined the company in 2010 and in the most recent fiscal year, he grew HP's software business 18 percent. Prior to HP, he spent two decades at Microsoft in a variety of senior leadership positions from engineering to sales. He obtained a Bachelor of Arts in East Asian studies from Harvard University. [18]

Figure 3.21 –Hewlett-Packard – One-year chart

3.22 Penn National Gaming Inc.

Penn National Gaming, Inc. owns and operates casino and racing facilities with a focus on slot machine entertainment. It operates through three business segments: Midwest, East/West and Southern plains. The Midwest reportable segment consists of the following properties: Hollywood Casino Lawrenceburg, Hollywood Casino Aurora, Hollywood Casino Joliet, Argosy Casino Alton, and Hollywood Casino Toledo. The East/West segment consists Hollywood Casino at Charles Town Races, Hollywood Casino Perryville, Hollywood Casino Bangor, Hollywood Casino at Penn National Race Course, Zia Park Casino, and M Resort.

Figure 3.22 – Penn National Gaming – One-year chart

4. Simulation 1: Daniel (Buy and Hold)

This simulation will implement a buy-and-hold strategy. This is an extremely passive investment strategy where the investor actively chooses stocks to buy, but then holds onto them without trading for a very long time; in this case, the purchased stocks will not be sold at all during the simulation. The only exception behind selling a stock would be that the company is drastically plummeting because of a specific reason in the market. Different components from stock-picking strategies were used to choose the companies to invest in such as dividend yields, earnings per share, and discounted cash flow. This simulation follows Goldman Sachs Group, Verizon Communications, Coca-Cola Company, and Hewlett-Packard. The simulation began on October 28, starting off with $250,000 and investing 25% of the total cash into the four different companies by purchasing 385 shares from Goldman Sachs Group at a price of $162.00 per share, 1232 shares from Verizon Communications at a price of $50.69 per share, 1601 shares from Coca-Cola at a price of $39.02 per share and 2604 shares from Hewlett-Packard at a price of $23.99 per share. Commission is being taken into account and is $19.00 per buy. The following table lays out the initial transaction.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
10/28/13							250,000.00	
10/28/13	GS	buy	$162.00	385	$62,389.99		187,610.01	
10/28/13	VZ	buy	$50.69	1232	$62,470.07		125,139.94	
10/28/13	KO	buy	$39.02	1601	$62,491.01		62,648.93	
10/28/13	HPQ	buy	$23.99	2604	$62,489.95		158.98	

Table 4.1 – Week one transactions

Week One (10/28 – 11/1):

This week, HP has shown the greatest increase stock price, yielding an 8.5% gain. Verizon Communications and Goldman Sachs Group's stock price have not changed drastically this week, and Coca-Cola's performance was decent. It's interesting to watch the prices fluctuate throughout the week but difficult to avoid the temptation to sell any of the shares, especially HP. The overall total gain percent for this week is 2.3%. In order to understand how this portfolio relates to the market, we will compare it to the S&P 500 index, which is "a market-capitalization-weighted index developed by Standard and Poor's consisting of stocks that exhibit strong value characteristics." The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included. [20]

Stock Symbol	Market Value	S&P 500 Index
Starting Value	$250,000.00	$1,762.11
GS	$62,389.25	
VZ	$62,203.68	
KO	$63,415.61	
HPQ	$67,495.68	
Cash	$158.98	**End Value**
Total	$255,663.20	$1,761.64
Gain/Loss	2.27%	-0.03%

Table 4.2-Week one market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
10/28/2013	162	162.19	160.25	161.45
10/29/2013	162.07	163.11	161.01	162.11
10/30/2013	162.56	162.97	161.15	162.05
10/31/2013	162.09	163.35	160.86	160.86
11/1/2013	161.03	162.6	160.72	162.05

Table 4.3 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
10/28/2013	50.69	50.72	50.28	50.57
10/29/2013	50.62	51.49	50.58	51.09
10/31/2013	50.49	50.91	50.05	50.51
11/1/2013	50.79	51.46	50.34	50.49

Table 4.4 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
10/28/2013	39.02	39.74	38.99	39.61
10/29/2013	39.57	39.96	39.35	39.8
10/30/2013	39.88	39.89	39.51	39.62
10/31/2013	39.51	39.86	39.51	39.57
11/1/2013	39.57	39.72	39.33	39.61

Table 4.5 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
10/28/2013	10.77	10.88	10.77	10.8
10/29/2013	23.96	24.1	23.64	23.84
10/30/2013	23.86	24.3	23.86	24.2
10/31/2013	24.13	24.57	24.09	24.37
11/1/2013	24.5	26.15	24.5	25.92

Table 4.6 – Hewlett-Packard Co. Daily Prices

Week Two (11/1 – 11/8):

Since this simulation is not very active, we thought it'd be a good idea to try to predict share prices that these stocks may not exceed this year by reviewing and analyzing how these stocks behaved in the past; the prices are as followed: GS share price of $170.50, VZ share price of $51.50, KO share of $41.50, and HPQ share of $27.50.

As for their standings, all of the share prices have been increasing, with the exception of Verizon's share price, which has dropped even further this week, yielding almost a 1% total loss. The price did rise and fall a bit this week and has us concerned whether it will actually raise above the purchased price at all in this simulation. Fortunately, the reason behind purchasing shares with VZ was because of the company's high dividend yield. Overall, if we decided to sell all of our shares today, it would leave us at a 2.6% gain. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	**Market Value**	**S&P 500 Index**
Starting Value	$250,000.00	$1,762.11
GS	$62,820.45	
VZ	$61,846.40	
KO	$64,120.05	
HPQ	$67,547.76	
Cash	$158.98	**End Value**
Total	$256,493.64	$1,770.61
Gain/Loss	2.60%	0.48%

Table 4.7- Week two market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
11/4/2013	162.42	163.24	161.59	163.16
11/5/2013	161.67	162.63	160.78	161.95
11/6/2013	162.53	164.3	162.33	163.52
11/7/2013	164.04	164.21	159.61	159.64
11/8/2013	160.39	163.69	159.88	163.17

Table 4.8 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
11/4/2013	50.92	51.09	50.53	51.08
11/5/2013	50.81	50.87	50.08	50.1
11/6/2013	50.38	50.86	50.35	50.61
11/7/2013	50.55	51	50.05	50.17
11/8/2013	50.06	50.24	49.52	50.2

Table 4.9 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
11/4/2013	39.71	39.81	39.3	39.51
11/5/2013	39.36	39.64	39.22	39.5
11/6/2013	39.62	40.22	39.42	40.05
11/7/2013	40.08	40.25	39.76	39.83
11/8/2013	39.74	40.05	39.49	40.05

Table 4.10 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
11/4/2013	25.94	25.94	25.49	25.77
11/5/2013	25.71	25.71	25.15	25.47
11/6/2013	25.57	25.74	25.43	25.61
11/7/2013	25.66	26.28	25.63	25.69
11/8/2013	25.58	25.95	25.5	25.94

Table 4.11 – Hewlett-Packard Co. Daily Prices

Week Three (11/8 – 11/15):

Most of the shares have still been increasing in price this week, with the exception of Verizon Wireless once again, which is currently leaving us at a 0.75% decrease in total loss, which is not that much better than last week's 0.97% decrease. With not much happening with Verizon, it may be safe to say that we do not expect to make a profit through its share price. The overall total gain so far is 2.2% this week. This investment strategy can be slow, but we hope to see some improvement in the following weeks. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	**Market Value**	**S&P 500 Index**
Starting Value	$250,000.00	$1,762.11
GS	$63,294.00	
VZ	$61,981.92	
KO	$64,392.22	
HPQ	$65,646.84	
Cash	$158.98	**End Value**
Total	$255,473.96	$1,798.18
Gain/Loss	2.20%	2.05%

Table 4.12-Week three market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
11/11/2013	162.5	164.75	162.16	163.84
11/12/2013	163.1	164.38	162.13	162.89
11/13/2013	161.78	163.71	161.2	162.94
11/14/2013	163.55	163.95	162.41	163.2
11/15/2013	163.18	165.42	163.18	164.4

Table 4.13 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
11/11/2013	50.12	50.25	49.77	49.96
11/12/2013	50.01	50.47	49.78	50.16
11/13/2013	49.88	50	49.36	49.99
11/14/2013	50.09	50.43	50.09	50.27
11/15/2013	50.16	50.42	49.87	50.31

Table 4.14 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
11/11/2013	40.01	40.05	39.77	39.87
11/12/2013	39.91	39.99	39.62	39.88
11/13/2013	39.82	40.12	39.65	40.12
11/14/2013	40.09	40.44	40.03	40.21
11/15/2013	40.16	40.32	39.96	40.22

Table 4.15 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
11/11/2013	25.9	26.59	25.76	26.35
11/12/2013	26.19	26.59	26.16	26.22
11/13/2013	26.14	26.51	26.05	26.49
11/14/2013	25.75	25.94	24.84	25.07
11/15/2013	25.15	25.31	24.88	25.21

Table 4.16 – Hewlett-Packard Co. Daily Prices

Week Four (11/15 – 11/22):

Most of the stocks are doing pretty well, with the exception of Verizon dragging us down. We decided to watch the Verizon's share price closely this week, and at one point it reached $50.68, which is $0.01 lower than the purchase price. There was hope that maybe the price would actually exceed the purchase price; unfortunately, it tanked shortly, leaving the price at $50.22 at the end of the week.

As for the other stocks, they are all performing to an acceptable level. The stock price for Goldman Sachs is currently $168.10, leaving us at a 3.77% gain if we were to sell it now; the price per share for Coca-Cola Co. is currently $40.43, which leads to 3.61% gain if we were to sell it now; and the share price for HP is currently $25.26, which would give us a 5.29% gain if we were to sell it now. The overall gain for this week was 2.9%. All three of these stocks are coming close to the price that we predict will be the point where the prices may start to lower. It'll be interesting to see how everything plays out in the following weeks to come. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	**Market Value**	**S&P 500 Index**
Starting Value	$250,000.00	$1,762.11
GS	$64,718.50	
VZ	$61,871.04	
KO	$64,728.43	
HPQ	$65,777.04	
Cash	$158.98	**End Value**
Total	$257,253.99	$1,804.76
Gain/Loss	2.90%	2.42%

Table 4.17-Week four market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
11/18/2013	164.74	167.65	164.2	165.68
11/19/2013	165.87	168	165.63	166.6
11/20/2013	166.76	167.25	164.86	165
11/21/2013	165.25	167.32	165.01	167.07
11/22/2013	166.77	168.24	165.53	168.1

Table 4.18 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
11/18/2013	50.35	50.81	50.34	50.76
11/19/2013	50.83	51.05	50.5	50.78
11/20/2013	50.79	51.25	50.31	50.4
11/21/2013	50.6	50.8	50.35	50.38
11/22/2013	50.3	50.4	50.01	50.22

Table 4.19 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
11/18/2013	40.24	40.24	40	40.17
11/19/2013	40.14	40.23	39.92	40.14
11/20/2013	40.05	40.45	39.94	40.06
11/21/2013	40.2	40.5	40.1	40.43
11/22/2013	40.34	40.46	40.09	40.43

Table 4.20 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
11/18/2013	25.32	25.38	24.96	25
11/19/2013	25.23	25.38	24.89	24.99
11/20/2013	24.97	25.26	24.77	24.94
11/21/2013	25.2	25.24	24.97	25.03
11/22/2013	25	25.34	24.86	25.26

Table 4.21 – Hewlett-Packard Co. Daily Prices

Week Five (11/22 – 11/29):

This week was great in terms of stock prices for Hewlett-Packard and Goldman Sachs Group. During the week, both companies at its high exceeded the price we predicted that share price would not exceed this year. The high price for HPQ was $27.68 and the high price for GS was $170.69. We're not sure if it was just a coincidence that the prices for these two companies raised right before the Thanksgiving holiday. Even the stock price for KO was higher than the usual, but VZ showed no unusual behavior. It will be easier to tell if the price increased due to the holiday after seeing next week's prices. If we were to sell all of the shares at the end of this week, we would've seen a total gain of 4.8%, which is nearly double what our gain has been for the last month. We are eager to see how the prices will adjust next week. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	**Market Value**	**S&P 500 Index**
Starting Value	$250,000.00	$1,762.11
GS	$65,041.90	
VZ	$61,131.84	
KO	$64,344.19	
HPQ	$71,219.40	
Cash	$158.98	**End Value**
Total	$261,896.31	$1,805.81
Gain/Loss	4.76%	2.48%

Table 4.22-Week five market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
11/25/2013	168.5	170.5	168.5	169.48
11/26/2013	169.36	170.69	168	168.04
11/27/2013	168.05	168.81	166.87	168.22
11/29/2013	167.89	170.38	167.69	168.94

Table 4.23 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
11/25/2013	50.29	50.34	49.92	50.01
11/26/2013	50.08	50.36	49.91	50.05
11/27/2013	50.14	50.2	49.64	49.93
11/29/2013	50.04	50.05	49.54	49.62

Table 4.24 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
11/25/2013	40.48	40.88	40.33	40.37
11/26/2013	40.49	40.6	40.24	40.25
11/27/2013	40.09	40.38	39.69	40.19
11/29/2013	40.27	40.48	40.11	40.19

Table 4.25 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
11/25/2013	25.33	25.49	25.16	25.32
11/26/2013	25.21	25.45	25.09	25.09
11/27/2013	26.82	27.68	25.09	27.36
11/29/2013	27.04	27.54	27.01	27.35

Table 4.26 – Hewlett-Packard Co. Daily Prices

Week Six (11/29 – 12/6):

To our surprise, Hewlett-Packard's share price continued to rise this, and only dropping slightly at the end of the week, ending at a share price of $27.61, but having a high during the middle of the week of $28.70. As for Goldman Sachs, we initially thought it would behave the same day, and it did during the beginning of the week; however, it did eventually start to drop and reached a price $167.58 by the end of the week which has been pretty common, but having a high during the beginning of the week of $171.58, which is the highest we've seen this share price reach. Coca-Cola's share price has also settled down to a usual price of $40.05 by the end of the week.

Unfortunately, Verizon's price began to plummet once again during the beginning of the week, reaching an all-time low for this simulation at a share price of $48.43, eventually settling at $49.25 by the end of the week. Verizon's share price leaves us at a 2.39% loss; fortunately, HPQ performance leaves us at an overall 5.0% gain, which is even higher than last week's gain. Hopefully, we can continue to see this gain as the winter holiday's such as Christmas approaches. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	**Market Value**	**S&P 500 Index**
Starting Value	$64,375.85	$1,762.11
GS	$64,375.85	
VZ	$60,959.36	
KO	$64,776.46	
HPQ	$72,130.80	
Cash	$158.98	**End Value**
Total	$262,401.45	$1,805.09
Gain/Loss	4.96%	2.44%

Table 4.27-Week six market values of theselected portfolio and S&P 500 index

Date	Open	High	Low	Close
12/2/2013	169.88	171.58	168.68	169.72
12/3/2013	169.09	170.76	167.91	168.05
12/4/2013	167.31	169.93	167.31	168.7
12/5/2013	167.41	167.96	165.35	165.56
12/6/2013	167.58	167.96	164.77	167.21

Table 4.28 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
12/2/2013	49.66	49.7	49.14	49.26
12/3/2013	49.27	49.6	49.13	49.6
12/4/2013	49.32	49.79	49.1	49.37
12/5/2013	49.18	49.18	48.43	48.91
12/6/2013	49.25	49.6	48.95	49.48

Table 4.29 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
12/2/2013	40.1	40.2	39.75	40.08
12/3/2013	40.05	40.39	40.01	40.35
12/4/2013	40.2	40.47	39.94	40.37
12/5/2013	40.28	40.4	39.8	39.83
12/6/2013	40.05	40.5	40.05	40.46

Table 4.30 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
12/2/2013	27.24	27.5	27.15	27.32
12/3/2013	27.23	27.77	27.18	27.5
12/4/2013	28.05	28.7	27.99	28.13
12/5/2013	28.15	28.18	27.03	27.25
12/6/2013	27.61	28.11	27.59	27.7

Table 4.31 – Hewlett-Packard Co. Daily Prices

Week Seven (12/6 – 12/13):

The outstanding performances came to an end this week and all of the stocks that we've invested in prices have dropped, with some decreasing more than others. Verizon's share price is at an even lower price $47.84 per share, dropping $0.59 from last week, resulting in a 5.62% profit loss from this company. As for the other companies, Goldman Sachs current share price is $168.39 per share, which is lower than last week's price, but still an acceptable price leaving us with 3.94% gain.

Coca-Cola's and HP's share price are $39.23 and $26.77, respectively. The portfolio has settled down to a 2.6% total gain, nearly half of the last two weeks performances

With this change of prices, we can conclude that the Thanksgiving holiday has played a significant role in share price. Christmas is less than two weeks and we're very curious to see how the stocks behave and if they will react similarly to how they've reacted 3 weeks ago. We are predicting another drastic rise in share price during the week of Christmas, and maybe settling down sometime after New Year's. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	**Market Value**	**S&P 500 Index**
Starting Value	$250,000.00	$1,762.11
GS	$64,830.15	
VZ	$58,938.88	
KO	$62,807.23	
HPQ	$69,709.08	
Cash	$158.98	**End Value**
Total	$256,444.32	$1,775.32
Gain/Loss	2.58%	0.75%

Table 4.32-Week seven market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
12/9/2013	167.78	169.13	166.84	167.67
12/10/2013	167.52	172.2	167.52	169.73
12/11/2013	169.56	169.83	167.13	167.6
12/12/2013	166.52	168.96	166.52	168.33
12/13/2013	168.59	169.29	167.6	168.39

Table 4.33 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
12/9/2013	49.07	49.63	48.79	49.57
12/10/2013	49.49	49.5	48.85	49.05
12/11/2013	49	49	48.04	48.49
12/12/2013	48.49	48.53	47.87	48.13
12/13/2013	48.11	48.17	47.52	47.84

Table 4.34 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
12/9/2013	40.39	40.5	40.2	40.4
12/10/2013	40.26	40.29	39.75	39.85
12/11/2013	39.95	40.34	39.89	40.13
12/12/2013	39.97	40.21	39.18	39.21
12/13/2013	39.42	39.64	39.21	39.23

Table 4.35 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
12/9/2013	27.61	27.68	27.2	27.25
12/10/2013	27	27.27	26.8	27.04
12/11/2013	26.85	27.18	26.85	26.99
12/12/2013	27.05	27.11	26.42	26.6
12/13/2013	26.67	26.88	26.29	26.77

Table 4.36 – Hewlett-Packard Co. Daily Prices

Week Eight (12/13 -12/20):

As expected, all but Verizon's stock price increased this week, with HP's price ending at $27.79 a share this week, Coco-Cola ending at $40.04, Verizon ending at $48.08 and Goldman Sachs ending at an all-time high for this simulation at $175.16. Goldman Sachs' performance was quite shocking; the price jumped by almost two dollars in the beginning of the week and then by another four dollars in the middle of the week. Verizon's and Coca-Cola's performance were sluggish and HP's performance was also great but not as outstanding as Goldman Sachs'. If we were to sell the stocks today, we would make about a 5.3% profit.

We would like to believe that the increase in prices correlate with the holiday season, as Christmas is only one week away. As previously mentioned we believe these prices will continue to rise next week and possibly settle after New Year's. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	**Market Value**	**S&P 500 Index**
Starting Value	$250,000.00	$1,762.11
GS	$67,436.60	
VZ	$59,234.56	
KO	$64,104.04	
HPQ	$72,365.16	
Cash	$158.98	**End Value**
Total	$263,299.34	$1,818.32
Gain/Loss	5.32%	3.19%

Table 4.37-Week eight market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
12/16/2013	169.31	171.49	169.09	170.95
12/17/2013	170.9	171.27	169.71	170.49
12/18/2013	170.92	174.92	169.99	174.84
12/19/2013	174.75	175.8	174	174.77
12/20/2013	174.66	175.79	173.75	175.16

Table 4.38 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
12/16/2013	48.49	49.41	48.2	48.26
12/17/2013	48.06	48.07	47.45	47.56
12/18/2013	47.83	48.53	47.47	48.47
12/19/2013	48.16	48.65	48.02	48.43
12/20/2013	48.51	48.75	48.08	48.08

Table 4.39 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
12/16/2013	39.44	39.57	39.2	39.27
12/17/2013	39.11	39.25	38.87	39.1
12/18/2013	39.25	40.08	39	40.02
12/19/2013	39.99	40.1	39.56	39.86
12/20/2013	39.92	40.19	39.85	40.04

Table 4.40 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
12/16/2013	26.75	27.04	26.68	26.9
12/17/2013	27.52	27.86	27.33	27.45
12/18/2013	27.37	27.52	26.65	27.51
12/19/2013	27.55	28.23	27.51	28.04
12/20/2013	28.01	28.19	27.79	27.79

Table 4.41 – Hewlett-Packard Co. Daily Prices

Week Nine (12/20 -12/27):

This week's performance was not as drastic as we thought it would be. All of our company's stock prices increased this week; however, not as dramatically as we would have liked. HP's share price was $28.19 by the end of the week, Coca-Cola's share price was $40.66, Verizon's share price was $49.17 and Goldman Sachs' share price was $176.35. Verizon surprisingly outperformed Coca-Cola and HP this week, whereas Goldman Sachs' performance lacked compared to the previous week, yet the company is still performing extremely well. This week's total gain was about 6.9% if we were to sell all of the shares today.

Christmas did not affect stock market behavior as much as we thought it would. We are now questioning whether or not if the Thanksgiving holiday was the reason for the sudden increase in stock prices or if it was coincidence. New Year's is approaching and we are unsure of what to expect. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	**Market Value**	**S&P 500 Index**
Starting Value	$250,000.00	$1,762.11
GS	$67,894.75	
VZ	$60,577.44	
KO	$65,096.66	
HPQ	$73,406.76	
Cash	$158.98	**End Value**
Total	$267,134.59	$1,841.40
Gain/Loss	6.85%	4.50%

Table 4.42-Week nine market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
12/23/2013	175.88	176.69	175.5	176.47
12/24/2013	176.67	176.68	175.44	176.16
12/26/2013	176.6	176.76	175.18	176.45
12/27/2013	176.39	176.45	175.57	176.35

Table 4.43 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
12/23/2013	48.38	48.74	48.37	48.58
12/24/2013	48.61	49.08	48.61	48.98
12/26/2013	49.02	49.34	48.93	49.18
12/27/2013	49.29	49.35	48.99	49.17

Table 4.44 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
12/23/2013	40.1	40.25	39.87	40.16
12/24/2013	40.17	40.31	40.1	40.19
12/26/2013	40.22	40.54	40.14	40.49
12/27/2013	40.69	40.79	40.53	40.66

Table 4.45 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
12/23/2013	27.99	28.1	27.75	28.05
12/24/2013	28	28.2	27.87	28.16
12/26/2013	28.2	28.7	28.19	28.31
12/27/2013	28.43	28.44	28.16	28.19

Table 4.46 – Hewlett-Packard Co. Daily Prices

Week Ten (12/27 – 1/3):

All besides Goldman Sachs' performances were mediocre this week and barely changed. By the end of the week, HP's share price was $28.35, Coca-Cola's share price was $40.46, Verizon's was $48.42, and Goldman Sachs' share price was $178.15. Goldman Sachs' performance has surprised us once again; their share price was pretty steady throughout the week and upon arrival of the weekend, the price jumped up by a near two dollars. If we were to sell all of our shares today, we would see an approximate 6.8% total gain in profit.

With Christmas and New Year's pass, we would like to believe that holidays do not influence the stock market as much as we previously thought, and that the increase in prices during Thanksgiving was either a coincidence or a holiday specific influence. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	**Market Value**	**S&P 500 Index**
Starting Value	$250,000.00	$1,762.11
GS	$68,587.75	
VZ	$59,653.44	
KO	$64,776.46	
HPQ	$73,797.36	
Cash	$158.98	**End Value**
Total	$266,973.99	$1,831.37
Gain/Loss	6.79%	3.93%

Table 4.47-Week ten market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
12/30/2013	176.5	177.12	175.26	175.73
12/31/2013	176.22	177.44	176.22	177.26
1/2/2014	176.95	178.38	176.36	176.89
1/3/2014	176.35	178.85	176.22	178.15

Table 4.48 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
12/30/2013	49.05	49.28	48.99	49.15
12/31/2013	49	49.22	48.78	49.14
1/2/2014	49.08	49.23	48.95	49
1/3/2014	49.33	49.33	48.22	48.42

Table 4.49 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
12/30/2013	40.77	41.14	40.76	41.09
12/31/2013	41.13	41.39	40.98	41.31
1/2/2014	41.12	41.23	40.51	40.66
1/3/2014	40.68	40.73	40.35	40.46

Table 4.50 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
12/30/2013	28.24	28.26	27.95	28.07
12/31/2013	27.92	28.3	27.83	27.98
1/2/2014	27.88	28.22	27.45	27.66
1/3/2014	27.71	28.5	27.7	28.34

Table 4.51 – Hewlett-Packard Co. Daily Prices

Week Eleven (1/3 – 1/10):

By the end of this week, all of the company's that we've invested share price has decreased. HP's share price is $27.70, Coca-Cola's share price is $40.13, Verizon's share price is $47.75, and Goldman Sachs' share price is $178.39. Although Goldman Sachs' share price did drop by the end of the week, during the beginning of the week, the share price reached yet another new high of $181.13. With that, it makes sense the price dropped towards the end of the week and we predict a consistent decrease in all prices. If we were to sell all the shares at this point, we would see a 5.6% total profit gain, which is lower than the last three weeks profit gain percent. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	Market Value	S&P 500 Index
Starting Value	$250,000.00	$1,762.11
GS	$68,680.15	
VZ	$58,828.00	
KO	$64,248.13	
HPQ	$72,130.80	
Cash	$158.98	**End Value**
Total	$264,046.06	$1,842.37
Gain/Loss	5.62%	4.55%

Table 4.52-Week eleven market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
1/6/2014	179.15	181.13	178.88	179.37
1/7/2014	180.73	180.98	177.52	178.29
1/8/2014	178.5	178.9	177.26	178.44
1/9/2014	179.08	179.08	176.61	177.4
1/10/2014	177.4	178.71	177	178.39

Table 4.53 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
1/6/2014	48.77	49.07	48.2	48.69
1/7/2014	49.12	49.4	48.58	49.3
1/8/2014	48.69	49.07	48.36	48.5
1/9/2014	48.43	48.51	47.49	47.5
1/10/2014	47.84	48.09	47.43	47.75

Table 4.54 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
1/6/2014	40.48	40.59	40.16	40.27
1/7/2014	40.48	40.72	40.29	40.39
1/8/2014	40.44	40.44	39.83	39.94
1/9/2014	39.95	40	39.52	39.73
1/10/2014	39.96	40.29	39.9	40.13

Table 4.55 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
1/6/2014	28.3	28.5	27.9	28.29
1/7/2014	28.43	28.55	27.87	28.18
1/8/2014	28.18	28.2	27.36	27.45
1/9/2014	27.57	27.88	27.35	27.61
1/10/2014	27.73	27.77	27.27	27.7

Table 4.56 – Hewlett-Packard Co. Daily Prices

Week Twelve (1/10 – 1/17):

Hewlett-Packard and Verizon stock prices did pretty well this week. Verizon's share price increased to $48.35 and HP's share price was $29.80 by the end of the week, which is about a two dollar increase from last week. Other than that, Coca-Cola saw a decrease in their share price at $39.28 and Goldman Sachs' share price continues to drop, reaching $176.28 by the end of the week. This brings us a 7.2% total profit gain if we were to sell all shares today. After reaching such a high share price and dropping to its current price, we think Goldman Sachs' share price should stay close to $176 for the remaining weeks. Verizon's price increase was surprising and we would like to see this kind of performance for the remaining weeks available in the simulation. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	Market Value	S&P 500 Index
Starting Value	$250,000.00	$1,762.11
GS	$67,867.80	
VZ	$59,567.20	
KO	$62,887.28	
HPQ	$77,599.20	
Cash	$158.98	End Value
Total	$268,080.46	$1,838.70
Gain/Loss	7.23%	4.35%

Table 4.57-Week twelve market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
1/13/2014	178.3	178.3	175.69	175.88
1/14/2014	176.26	177.5	175.71	176.6
1/15/2014	177	179.74	177	178.75
1/16/2014	178.75	178.79	174.5	175.17
1/17/2014	175.01	177.28	174.5	176.28

Table 4.58 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
1/13/2014	47.65	47.75	46.95	47.03
1/14/2014	47.04	47.23	46.58	47.08
1/15/2014	47.35	48.38	47.28	48.27
1/16/2014	48.26	48.66	47.95	48.53
1/17/2014	48.66	48.69	48	48.35

Table 4.59 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
1/13/2014	40	40.13	39.5	39.53
1/14/2014	39.64	39.92	39.58	39.69
1/15/2014	39.83	39.94	39.58	39.76
1/16/2014	39.78	39.82	39.58	39.71
1/17/2014	39.72	39.75	39.28	39.28

Table 4.60 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
1/13/2014	27.71	28.79	27.7	28.12
1/14/2014	28.12	28.85	28.09	28.85
1/15/2014	28.9	29.07	28.54	28.84
1/16/2014	29.5	29.82	29.12	29.56
1/17/2014	29.75	30.05	29.67	29.8

Table 4.61 – Hewlett-Packard Co. Daily Prices

Week Thirteen (1/17 – 1/24):

Unfortunately, all of our share prices have decreased a significant amount from last week. Verizon's share price is now down to $47.64 and HP's share price dropped to $28.49. Coca-Cola's share price dropped to $38.84 and Goldman Sachs' share price dropped to an astonishing $167.64, almost a $10 dollar decrease from the end of last week. Watching the share price decrease by almost two dollars every day was excruciating, especially since we expected it to stay close to $176, as mentioned in last week's report. Once again, if we were to sell all of our shares today, we'd only see a 3.9% total profit gain

With only a couple weeks left in our simulation, it was pretty disappointing to see Goldman Sachs' share price drop so much. We'd really like to see an improvement in the behavior of all of our stocks. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	Market Value	S&P 500 Index
Starting Value	$250,000.00	$1,762.11
GS	$64,541.40	
VZ	$58,680.16	
KO	$62,182.84	
HPQ	$74,187.96	
Cash	$158.98	End Value
Total	$259,751.34	$1,790.29
Gain/Loss	3.90%	1.60%

Table 4.62-Week thirteen market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
1/21/2014	175.1	175.59	171.34	173.2
1/22/2014	173.45	174.64	172.78	173.68
1/23/2014	172.42	172.42	169.02	170.75
1/24/2014	168.53	169.96	167.22	167.64

Table 4.63 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
1/21/2014	48.84	48.9	46.76	47.7
1/22/2014	47.44	47.52	47.09	47.33
1/23/2014	47.06	47.86	46.94	47.86
1/24/2014	47.61	48.51	47.51	47.63

Table 4.64 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
1/21/2014	39.64	39.92	39.53	39.92
1/22/2014	39.99	40.09	39.75	39.9
1/23/2014	39.61	39.64	39.12	39.24
1/24/2014	39.08	39.25	38.82	38.84

Table 4.65 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
1/21/2014	29.8	29.96	29.45	29.9
1/22/2014	29.63	30.13	29.46	29.84
1/23/2014	29.42	29.73	29.06	29.37
1/24/2014	29.04	29.2	28.39	28.49

Table 4.66 – Hewlett-Packard Co. Daily Prices

Week Fourteen (1/24 – 1/31):

With this week being the last of the simulation, it was unsettling to see Goldman Sachs' share price decrease such a large amount again to $164.12. Coca-Cola's share price also decreased this week to $37.82. As for Verizon and HP, their share prices increased to $48.02 and $29.00, respectively. If we were to sell all of these shares at this point, we'd see a 3.4% total profit gain. The following table shows this week's market values for each company of the portfolio and its total asset value compared to the S&P 500 index values. Tables for the price change for each company for this week are also included.

Stock Symbol	**Market Value**	**S&P 500 Index**
Starting Value	$250,000.00	$1,762.11
GS	$63,186.20	
VZ	$59,160.64	
KO	$60,549.82	
HPQ	$75,516.00	
Cash	$158.98	**End Value**
Total	$258,571.64	$1,782.59
Gain/Loss	3.43%	1.16%

Table 4.67-Week fourteen market values of the selected portfolio and S&P 500 index

Date	Open	High	Low	Close
1/27/2014	167.08	167.6	163.43	164.69
1/28/2014	165.03	166.55	164.59	166.25
1/29/2014	163.97	166.1	163.62	163.9
1/30/2014	165.33	166.17	164.57	165.84
1/31/2014	163.8	165.98	163.3	164.12

Table 4.68 – Goldman Sachs Group Inc. Daily Prices

Date	Open	High	Low	Close
1/27/2014	47.71	48.36	47.41	47.69
1/28/2014	47.67	47.87	47.33	47.36
1/29/2014	47	47.98	46.69	47.69
1/30/2014	47.77	48.09	47.55	47.63
1/31/2014	47.1	48.5	47.02	48.02

Table 4.69 – Verizon Communications Inc. Daily Prices

Date	Open	High	Low	Close
1/27/2014	38.82	38.98	38.71	38.73
1/28/2014	38.77	39.08	38.62	38.87
1/29/2014	38.57	38.57	37.82	37.9
1/30/2014	38	38.41	38	38.17
1/31/2014	37.95	38.16	37.72	37.82

Table 4.70 – Coca-Cola Co. Daily Prices

Date	Open	High	Low	Close
1/27/2014	28.53	29.09	28.38	28.6
1/28/2014	28.57	29.08	28.49	29
1/29/2014	28.92	29.15	28.75	29.02
1/30/2014	29.15	29.42	29.08	29.25
1/31/2014	28.94	29.19	28.74	29

Table 4.71 – Hewlett-Packard Co. Daily Prices

The following charts display the price trend throughout the span of the simulation for each company.

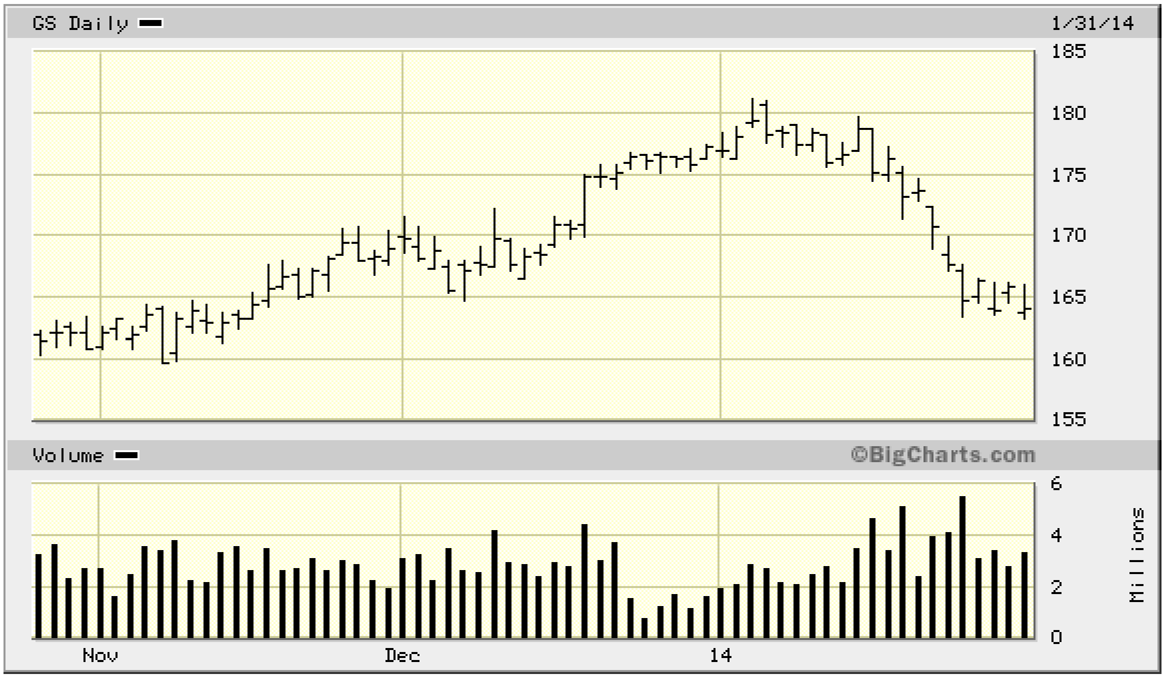

Figure 4.1 – Goldman Sachs Group Inc. Daily Price Trend Chart

Figure 4.2 – Verizon Communications Inc. Daily Price Trend Chart

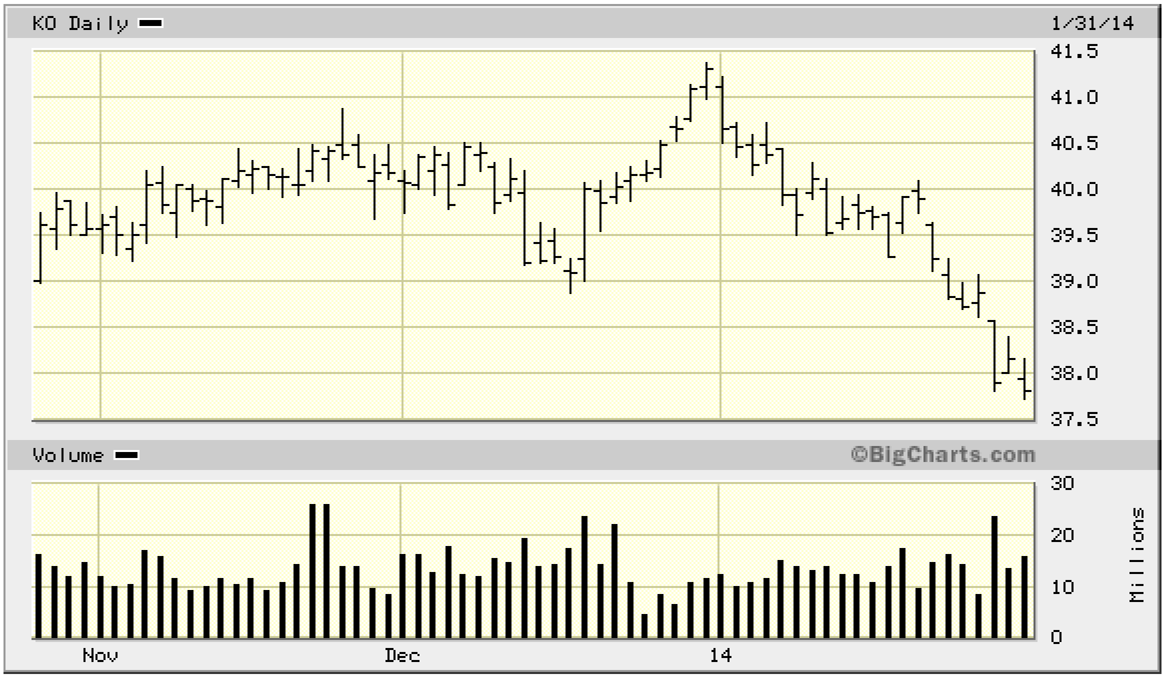

Figure 4.3 – Coca-Cola Co. Daily Price Trend Chart

Figure 4.4 – Hewlett-Packard Co. Daily Price Trend Chart

The buy-and-hold strategy would normally hang on to its chosen stocks for much longer than the duration of our simulation. The following table displays the results of this simulation if we were to actually sell all of the shares at the end.

Date	Symbol	Buy Price	End Price	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
1/31/14						158.98	
1/31/14	GS	$162.00	$164.12	$63,186.20	(796.21)	63,345.18	796.21
1/31/14	VZ	$50.69	$48.02	$59,160.64	(-3,309.43)	122,505.82	-2,513.22
1/31/14	KO	$39.02	$37.82	$60,549.82	(-1,941.19)	183,055.64	-4,454.41
1/31/14	HPQ	$23.99	$29.00	$75,516.00	(13,026.05)	258,571.64	8,571.64

Table 4.72 – Simulation Results

Conclusion:

Although this method is not as active as other buying strategies, it is interesting to watch these four specific companies grow over time. One of the most challenging things investors have with this strategy is avoiding the urge to sell any of the stocks. Ideally, you would hold these stocks for years, only selling shares if you absolutely need the money, and avoiding all technical indicators and short-term price movements. For example, Verizon's share price practically decreased throughout the duration of the entire simulation and it was difficult to not give up on the company. One has to remember that the shares are meant to be held onto for a long period of time and after a few years Verizon's share price could increase immensely. Another example would be Goldman Sachs' share price. Throughout the simulation, the stock price grew steadily over time; however, during the last two weeks of the simulation the price suddenly dropped and once again we had to overcome the urge of selling the shares.

Other than that, this method does prove to be a promising investment strategy. A large net profit was not accrued during the simulation, which is acceptable since the strategy did not have the proper time to fully evolve. After a few years of growth, it is safe to say that a decent profit can be gained using this strategy.

5. Simulation 2: Kevin (Bulk Buying)

This simulation started with an initial bankroll of $250,000. The plan is to use this money to invest heavily into a few companies and sell them as soon as a profit is made. Using this strategy will allow a profit from just a small change in the net worth of the company. Another strategy that is going to be practiced is using only big companies, such as Apple, Microsoft as well as other technology companies.

Week One (10/28 – 11/1):

For the first week it was decided to invest heavily in two companies. The two companies were Apple and Google. The reason for choosing Apple was due to the availability of the new iPad, which was set to come out on November 1st. The goal is to sell off the shares in each of the companies once they turn a profit. Both of the companies tend to raise and dip fairly often, so there is some confidence based on previous history that they should raise again.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
10/29/13							250,000	
11/01/13	AAPL	Buy	$520.40	100	$52,040.01		197,959.99	
11/01/13	GOOG	Buy	$1029.23	100	$102,923.00		95,036.99	

Table 5.1 – Week one transactions

Once selling these stocks, the intention is to invest heavily into a few different companies. Looking into the company information Netflix seems to be a good next target because the history of the stock shares seems to be relatively stable. Exploring other technology companies, such as Microsoft and Sony, might be a good investment because both will be releasing a new video game console later this month. One other type of company for consideration is alternative energy companies. Although this may not be the best option because it could be a few years until it yields anything, it is worth investigating.

So far has been fairly stressful. Of course netting a profit is a great thing, but ending this week in the negative will not cause any set backs, because based on the history of both Apple and Google they will bounce back to yield at least my initial investment. Using the strategy of bulk buying has not given a concrete idea of its success.

Week Two (11/1 – 11/8):

This week consisted of watching the two stocks as well as acquiring Penn National Gaming Inc. Seeing that Pen Nation Gaming Inc. was one of the biggest losers over the past week, looking over the company history and noticing that it had dipped incredibly low. After a day of having PENN, the stock price raised and netted over two thousand dollars, but thinking it would increase further the stock was held onto. As fate would have it, the stock fell. By watching very closely to the stock as soon as it netted a gain, all shares were sold.

The experience gained through Penn National Gaming has shown not to get too greedy with stock transactions. Although it is upsetting having missed out on a big increase to the total capital, this knowledge will come to great use in the future.

Date	Symbol	buy/ Sell	Price	Share	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
11/04/13							95,036.99	
11/04/13	AAPL	Sell	$523.41	100	$52,341.00	300.99	242,414.98	300.99
11/04/13	PENN	Buy	$13.55	5000	$67,750		174,664.98	
11/08/13	PENN	Sell	$13.57	5000	$67,825	75	242,489.98	375.99
11/08/13	SNE	Buy	$16.76	7000	$117,320		125,169.98	

Table 5.2 – Trade History – Week two

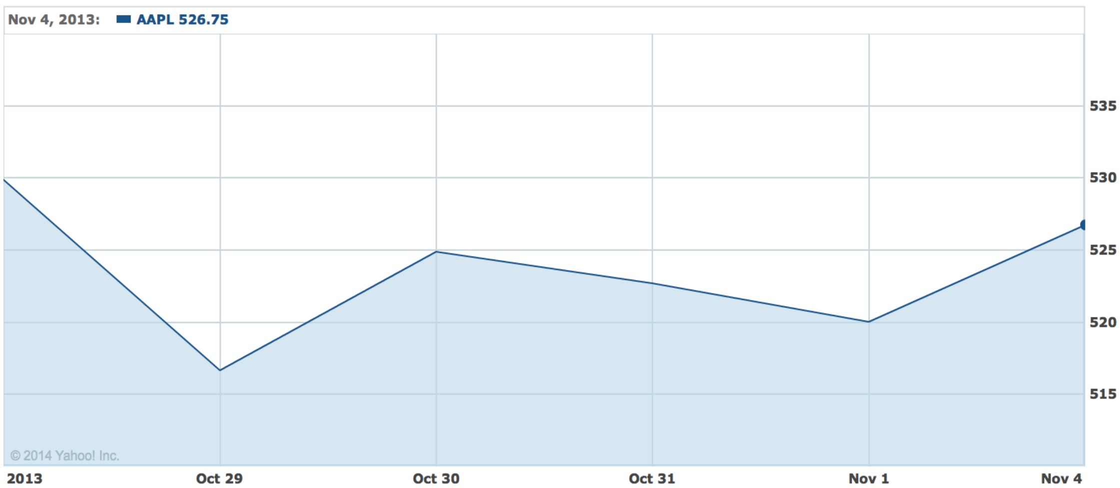

Figure 5.1 – Apple chart from 11/01/13 – 11/04/13

Figure 5.2 – Penn National Gaming Inc. chart from 11/4/13 – 11/8/13

Over the week, all of the shares of Apple were sold; PENN was purchased and sold as well as purchasing shares in Sony. Expecting Sony's price to jump a bit when they release their new video game console, at which point the will be sold.

Week Three (11/8 – 11/15):

For the third week in our simulation consisted having watched the status of the current stocks as well as made two moves. Looking for Sony's price to increase due to the Playstation 4 getting released as well as Google to net a profit. Using the same rational as Sony, Microsoft was acquired.

Date	Symbol	buy/ Sell	Price	Share	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
11/12/13							125,169.98	
11/12/13	MSFT	Buy	$37.41	3000	$112,230		12,939.98	
11/15/13	SNE	Sell	$18.61	7000	$130,242.00	12,922	143,181.98	13,297.99

Table 5.3 – Trade History – Week three

Figure 5.3 – Sony chart from 11/8/13 – 11/15/13

Sony netted the biggest gain of the simulation so far, increasing by nearly two dollars per share. Continuing to hold onto Google until it goes above the buy price.

Not thinking that this is a risky move because Google is a solid company and looking over its price history makes it seem that it will increase again. Microsoft's Xbox One is being released this week at which point the plan is to sell the shares in the company.

Week Four (11/15 – 11/22):

During this week the shares in Google could be sold for a profit. Even after having bought the shares when they were slightly higher than average, but in the end it was able to net a small sum. This week also comprised of picking up Netflix, which had been being watched for a while. Netflix has already netted a profit, but wanting to see where it goes at the start of next week and deciding if it should be sold or not.

Date	Symbol	buy/ Sell	Price	Share	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
11/18/13							142,181.98	
11/18/13	GOOG	Sell	$1,046.28	100	$104,628	1,705	246,809.98	15,002.99
11/19/13	NFLX	Buy	$344.31	300	$103,293.00		143,516.98	

Table 5.4 – Trade History – Week four

Figure 5.4 – Google chart from 11/01/13 – 11/18/13

Microsoft's new xbox has been released; looking to sell the shares in the early portion of next week. This week also contained investigating other technology companies who can be bought later on in this simulation.

Right now the account is up about sixteen thousand from where it started. Hoping that continuing with the bulk buying will keep bringing a profit to the account.

Week Five (11/22 – 11/29):

During this week Netflix and Microsoft were able to be sold for a gain of just over four thousand dollars, as well as purchasing 2000 shares in Target. Deciding to invest heavily into Target with the thought that the price would increase due to the holiday season.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
11/20/13							143,516.98	
11/26/13	NFLX	Sell	$351.57	300	$105,471	2,178	248,987.98	17,180.99
11/26/13	TGT	Buy	$64.15	2000	$128,300		120,687.98	
11/29/13	MSFT	Sell	$38.13	3000	$114,390	2,160	235,077.98	19,340.99

Table 5.5 - Trade History – Week five

Figure 5.5 – Microsoft chart from 11/12/13 – 11/29/13

Figure 5.6 – Netflix chart from 11/19/13 – 11/26/13

Week Six (11/29 – 12/6):

For week six, there was only one transaction. Shares in Amazon were picked up in preparation of the holiday season. Amazon is one of the biggest holiday shopping option taken by many people, so there should be a spike in the price per share.

The past two weeks have been very difficult in terms of losing money. This is the first time where a roadblock has been hit. Still believing that both Target and Amazon will increase in price, as it gets closer to the holidays. The plan is to wait until the end of next week to see if there is any change in either of these. If required, the shares will be sold for a loss.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
12/01/13							235,077.98	
12/03/13	AMZN	Buy	$390.11	300	$117,033		118,044.98	

Table 5.6 – Trade History – Week six

So far the investments in Target and Amazon have netted an overall loss, but they thinking they will switch around within the next week or so. Once they net a profit they will be sold to allow investments. Since picking up these two, they have decreased in value; however, over the last week they finally started to rise in price.

Next on the list for future investments are Facebook, Dell and Exxon. However, keeping in mind the companies, which have already been invested in in the past to potentially use them again for even more profit, such as Sony.

Week Seven (12/6 – 12/13):

Week seven was pretty boring in terms of buying and selling stocks. Most of my money was tied up so no new purchases could be made. The stocks in the account did not net enough money to justify selling them off.

Over the next week the plan is to unload the current shares for a profit as well as pick up some new shares. The companies being looked into are Google and Exxon.

Week Eight (12/13 -12/20):

After holding shares in Target and Amazon for a couple weeks, Amazon finally turned around and netted a profit.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
12/19/13							118,044.98	
12/19/13	AMZN	Sell	$394.36	300	$118,308	1,275	267,895.98	20,615.99
12/20/13	SNE	Buy	$17.53	7000	$122,710		145,185.98	

Table 5.7 – Trade History – Week eight

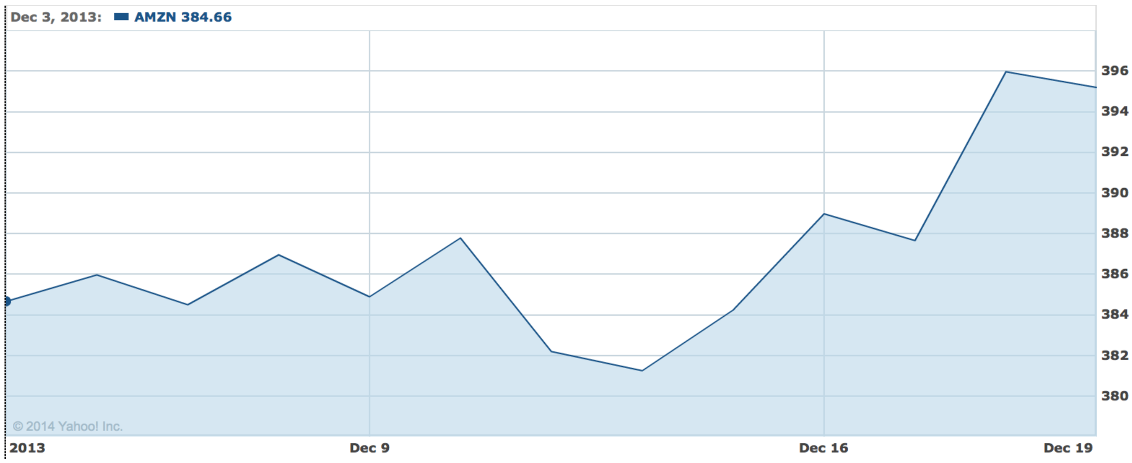

Figure 5.7 – Amazon chart from 12/3/13 – 12/19/13

Being able to unload some of the shares allowed continued research into other companies that would be good investments. By starting to look at Sony again to see if it could be used to double dip and have a similar action happen like last time.

Week Nine (12/20 -12/27):

Almost immediately after purchasing shares in Sony, they gained enough that warranted them to be sold. Even though the total dollars gained from each transaction might be small, but if this trend continues through the simulation, all the small additions will add up nicely in my account.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
12/23/13							145,185.98	
12/23/13	SNE	Sell	$17.79	7000	$124,530	1,820	269,715.98	22,435.99

Table 5.8 – Trade History – Week nine

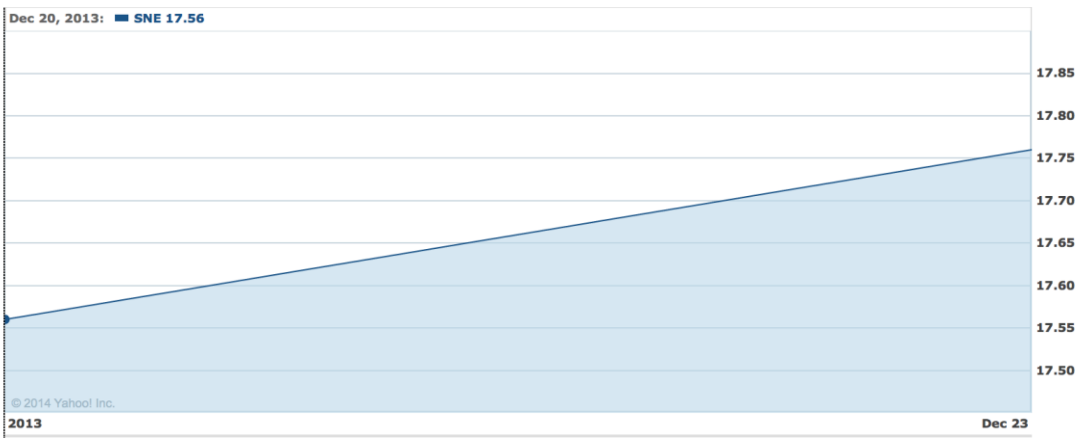

Figure 5.8 – Sony chart from 12/20/13 – 12/23/13

Week Ten (12/27 – 1/3):

During the tenth week there was only one transaction. By investing in Sony again allowed the possibility to try and double dip on a company that has gain a large profit. Keeping an eye out for companies like this allows for the maximum profit.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
12/27/13							145,185.98	
12/30/13	SNE	Buy	$17.41	7000	$121,870		147,845.98	

Table 5.9 – Trade History – Week ten

Week Eleven (1/3 – 1/10):

Week eleven wasn't a busy week in terms of trading only being able to unload the shares in Sony. Keeping up with the bulk buying strategy of selling after netting a gain is working pretty well and the hopes of it continuing through the last few weeks of the simulation.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
1/8/14							147,845.98	
1/8/14	SNE	Sell	$17.66	7000	$123,585	1,715	271,430.98	24,150.99

Table 5.10 – Trade History – Week eleven

Figure 5.9 – Sony chart from 12/30/13 – 1/8/14

Hoping that the shares in Target rise up in price so they can be sold. However, the conclusion may be that they need to sold for a loss. By continuing to monitor Target will allow the appropriate action to be made when the time comes.

Week Twelve (1/10 – 1/17):

The past week has been extremely busy by selling Microsoft, Netflix and Exxon all for a profit. Target has been losing lots of money and will likely have to be sold for a loss next week. Other than that, the focus has been on finding new companies that could help gain money. This week Exxon was able to be bought and sold for a gain.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
1/13/14							274,239.98	
1/13/14	MSFT	Buy	$35.67	1500	$53,505		217,925.98	
1/15/14	MSFT	Sell	$36.60	1500	$54,892	1,387	272,817.98	25,537.99
1/15/14	NFLX	Buy	$326.91	300	$98,073		174,744.98	
1/15/14	NFLX	Sell	$331.65	300	$99,495	1,422	274,239.98	26,959.99
1/16/14	XOM	Buy	$98.59	1000	$98,590		175,649.98	
1/17/14	XOM	Sell	$99.65	1000	$99,650	1,060	275,299.98	28,019.99

Table 5.11 – Trade History – Week eleven

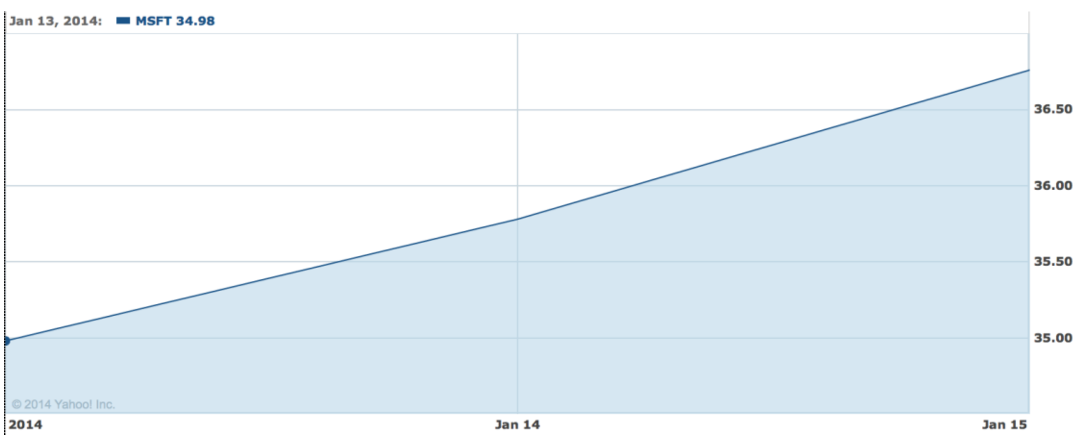

Figure 5.10 – Microsoft chart from 1/13/14 – 1/15/13

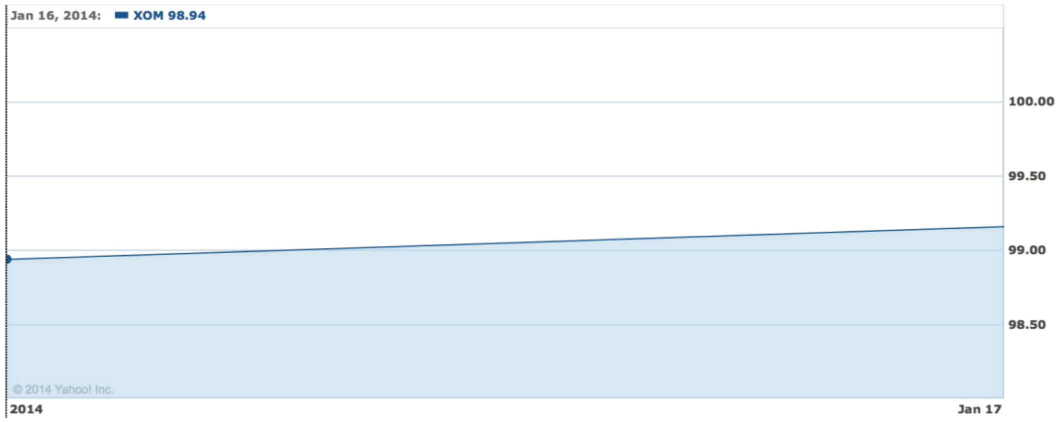

Figure 5.11 – Exxon chart from 1/16/14 – 1/17/14

The total account has been slowly increasing over the last few weeks and the expectation is to keep this streak going. Even though Target will be sold for a loss, it will free up a lot of money that can be used to invest in other companies which will hopefully make back what was lost from Target.

Week Thirteen (1/17 – 1/24):

Over this past week Target was finally able to be sold. Losing over $11,000 from Target, which could be from the enormous credit card scandal that Target faced in the previous weeks. Even though Target was a huge loss to the account, keeping a level head and maintaining focus to make smart moves over the last week could potentially negate the damage.

The goal is to make a number of trades over the week and sell them as soon as they net a profit. Monitoring all of the potential stock choices very frequently over the next week will allow for informed decisions.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
1/23/14							158,269.98	
1/23/14	TGT	Sell	$58.52	2000	$117,040	11,270	275,309.98	16,749.99
1/23/14	GOOG	Buy	$1,160.59	100	$116,059		159,250.98	

Table 5.12 – Trade History – Week twelve

Figure 5.12 – Target chart from 11/26/13 – 1/23/14

Since the simulation is nearing its end, it would be nice to keep a close eye on the stock market in order to make quick moves to maximize the profit over the simulation. So far the account has earned a few thousand over the initial investment. The stocks that are going to be watched the most intensely are Netflix, Microsoft, Sony and Facebook. Other companies that will catch attention will be what analysts think will net a good return.

Week Fourteen (1/24 – 1/31):

Over week fourteen the goal was to make as many quick trades as possible in order to gain the most profit. Sony and Exxon were able to be purchased. At the end of the week, it is imperative that all of the shares were sold, even if it was at a loss like the case of Sony on the 31st.

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
1/27/14							159,250.98	
1/27/14	SNE	Buy	$16.26	7000	$113,820		45,430.98	
1/28/14	SNE	Sell	$16.46	7000	$115,220	1,400	160,650.98	18,149.99
1/28/14	XOM	Buy	$95.34	1000	$95,339.90		65,310.01	
1/29/14	XOM	Sell	$95.53	1000	$95,530	190.10	160,849.01	18,340.09
1/29/14	SNE	Buy	$16.09	8000	$128,720		32,129.01	
1/31/14	GOOG	Sell	$1,177.47	100	$117,747	1,688	149,876.01	20,028.09
1/31/14	SNE	Sell	$15.75	8000	$126,000	2,720	275,876.01	17,308.09

Table 5.13 – Trade History – Week thirteen

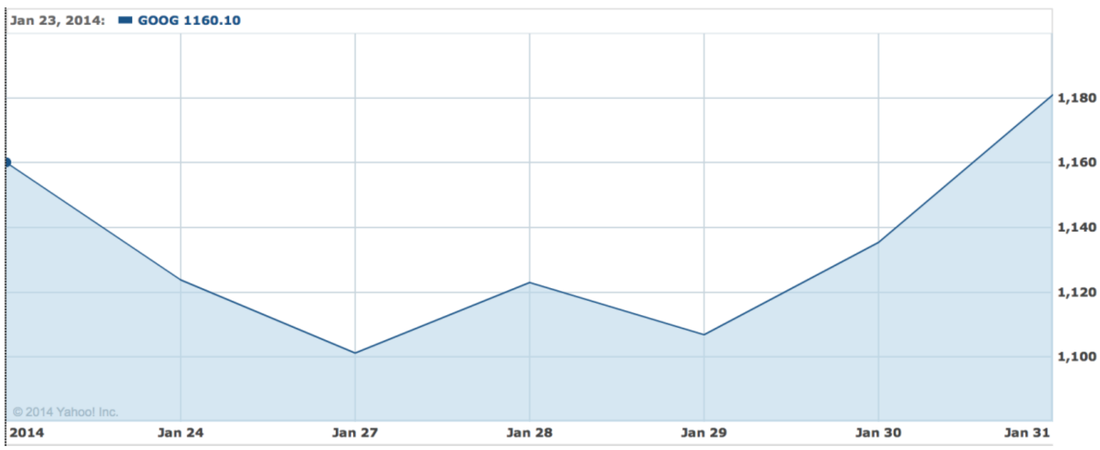

Figure 5.13 – Google chart from 1/23/14 – 1/31/14

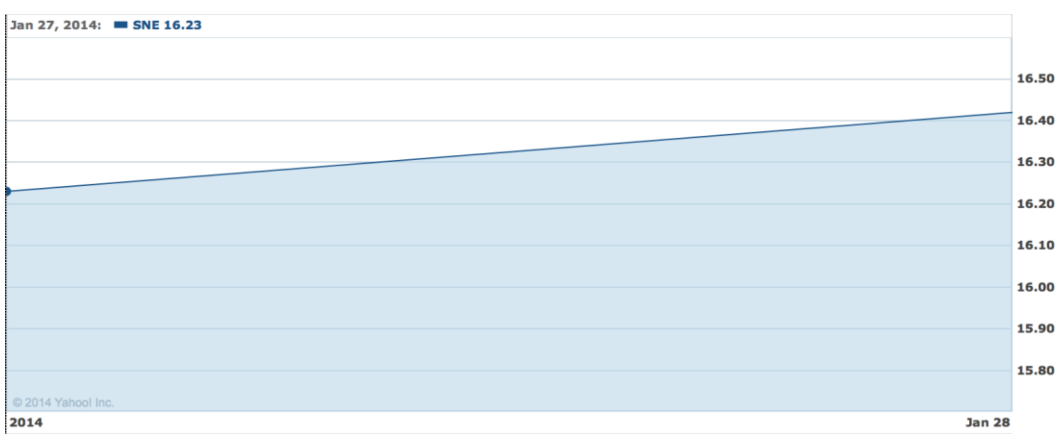

Figure 5.14 – Sony chart from 1/27/14 – 1/28/14

This week was fairly good in terms of gaining an overall profit. Since the simulation is now complete, this data will be used in order to compare with the different betting strategies used by my team partners.

Conclusion:

The simulation was an extremely fun time. Although it was fake money, trying to act as though it was real money made it so there was effort and logic behind each move. When Target was being held onto for a long time, it was hard to sell it for such a large loss. It almost felt as though doing that sell for a loss had physically lost ten thousand dollars.

Overall, a lot was learned from the simulation. The strategy seemed to be a good pick, although in order to use this in a real world environment, you need to have the money. Being able to invest heavily into companies allows for a quick profit. Even if the price of the shares only rise a couple dollars, if you have thousands of shares in that company then you just made thousands of dollars. The fact that there was more money in the account than when started makes it feel like a successful simulation.

The largest increase for me came from Sony. By investing multiple times in them and each time they were able to increase in price enough to gain money. On the flip side of that was Target, who lost the most money in the whole simulation.

A huge amount of knowledge was gained from the simulation that wouldn't have been learned by just following prices of stocks as a hobby. In order to fully understand how the stock market works, you must fully immerse yourself in it. Having to constantly check the status of stocks as well as the prices of future potential company investments gave a huge insight as to how to approach the stock market. If you do have the money to invest in the market, you need to also make sure that you have the time necessary in order to fully benefit from your investments.

6. Simulation 3: Patrick (Buy and Hold with Trading)

We began this simulation on October 29th, starting off with $100,000 and initially distributing the money within 5 different companies. Our strategy is called buying and holding with trading, as we feel it is an important strategy to grasp when investing. This varies from the buy and hold method simply through one tangent: it involves some amount of trading along the way as opposed to not selling at all. This can result in a very different investment strategy, as picking shares to hold for, let's say, a year often differ in growth from stocks chosen to be held for a month. Fundamental analysis is still very prominent within this investment strategy, as it paves the path for secure, regular growth.

Week One (10/28 – 11/1):

The stock portfolio after the first week appears as follows:

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
10/29/13							$100,000	
10/29/13	CCE	buy	$42.35	590	$25,006.49		$74,993.51	
10/29/13	MU	buy	$17.42	1434	$25,000.27		$49,993.24	
10/29/13	BBY	buy	$42.58	469	$19,990.01		$30,003.23	
10/29/13	KOG	buy	$13.27	1506	$20,004.61		$9,998.62	
10/29/13	SNDK	buy	$70.78	140	$9,929.19		$69.43	

Table 6.1 – Week one transactions

Although we did lose money this week, much of it was because of the investment in Kodiak Oil. The company is overall doing well and has future plans for vamped up production, however the decrease in their shares was due to their Q3 report. Although their overall revenue was up, they did not meet their expected EPS value. This took a hard toll on their share prices on November 1st, resulting in people selling off shares for lower prices.

Coca-Cola Enterprises also went down this week. Coca-Cola typically fluctuates slightly throughout the years and is more of a “safety” stock, meaning that they more or less gradually increase overtime while paying out dividend yields as their main incentive to invest in them. The fact that they dropped 1.37% does not necessarily surprise us.

There were minor gains and losses within the remaining three companies that we chose to invest in. Sandisk went down 2.56%, although this is not terrible impactful considering the fact that the least amount of invested money resides within it. Both Best Buy and Micron went up a little over 0.8% each. Since much of the money was placed within these two, they at least kept the losses for this week down to -1.55% in spite of the major loss from Kodiak Oil.

We will likely keep these companies for the following week and further observe their progress. If any of them start to change, show that it is a weak link, or something goes sour within the company, they are most certainly subject to being sold.

Week Two (11/1 – 11/8):

For the second week of the stock’s flow, the overall collective value of them slightly decreased from last week. We decided to keep all of the same picks as last week, as we still want to give them a chance to develop further.

Kodiak Oil took a huge hit after its quarterly statement for the third quarter was released. Despite boasting large amounts of production, their revenue wasn’t quite as expected. It recovered slightly on Friday, as did all of the picks, but did not overcome the large drop it had experienced.

Best Buy has been fluctuating back and forth overall and has not been nearly as strong as we had expected it may be. We're expecting it to be more profitable once the holiday season comes closer as sales will prospectively rise. SanDisk has not delivered positive results thus far as we thought it would, especially after some recent positive acquisitions.

Depending on how these stocks perform next week, we might sell the weak links if they continue to show low or negative performance. Three of them yield slight dividends, which will be important in our profits later on.

Week Three (11/8 – 11/15):

For the third week, we kept the existing stocks once again. Here is a rundown of what has resulted from this week's changes:

SanDisk: This company has made a slight recovery from the past few weeks. Although it is still overall down around 1%, we're unsure of whether or not we'd like to keep it this upcoming week. It hasn't been performing as we had hoped, but it's hard to tell whether or not it will continue to keep on the slight upward trend that it had experienced this week. We may hold onto it for half of the week and sell midway through if it takes a turn and goes back to decreasing share prices.

Kodiak Oil: Down overall 8.52%, their Q3 report has kept this stock down dramatically for me. Although only 1/5 of the overall portfolio resides within their shares, it has severely dragged down the overall progress of it. In this upcoming week, we're going to sell them off at some point and look into investing in a much smarter, more reliable stock that will hopefully make up for such losses and turn our portfolio further in the right direction.

Best Buy: Up around 3% this week, Best Buy has shown slow, but steady, increase in share price. With the holiday season approaching and the demand for electronics accompanying it, we're determined that this company will continue to do well. Therefore, we will hold onto these shares and continue to expect positive numbers.

Micron: Jumping 7.5% this week, Micron proves to be the strongest stock pick. It is the reason behind why we are currently making money from our investments in this portfolio, as it represents ¼ of the entire portfolio and has been responsible for an overall 12% gain since it was originally purchased. Again, we am determined that they will continue to show profits and we see no reason to sell this stock, as it has been performing up to, if not better, than our expectations.

Coca-Cola: Up just short of 2% this week and overall down 0.68% since purchased, this stock has been very stagnant. It shows marginal changes from week to week, but the reason we are holding onto it is mainly due to the fact that we wanted to play around with a "safety stock". They have a dividend payout at the end of the quarter and, based on their history, show rather slow but steady growth. If we ever do choose to sell it, the reason would be behind its sluggish progression. We would substitute it for either another safety stock in which outputs a reasonable dividend or scrap the idea of a safety stock entirely and move onto finding something that will grow more rapidly. This will mostly depend on how the overall portfolio performs.

Week Four (11/15 – 11/22):

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
11/18/13							$69.43	
11/18/13	KOG	sell	$11.79	1506	$17,755.74	-2,494.02	$17,825.17	-2,494.02
11/18/13	VJET	buy	$64.78	270	$17,490.60		$334.57	
11/20/13	SNDK	sell	$66.65	140	$9,331.00	-578.20	$9,665.57	-3,072.22
11/20/13	HD	buy	$80.10	120	$9612.00		$53.57	

Table 6.2 – Week four transactions

Although this week was a very rough week for the portfolio overall, we feel that we learned a few very important lessons from what had perspired. Both good and bad, a handful of things had happened.

First getting into the negatives of the portfolio, here's what happened: the stocks were held on for too long. The first example is Kodiak Oil (KOG). Despite an overall good looking earnings report and financials, they were lacking the expected revenue. Now, one very important thing to know is that, despite strong financials or overall general good corporate guidance, if a company does not meet or exceed every expectation put out there for them by analysts (some fields more important than others, obviously), then the likelihood of their quarterly report dropping their stock price is rather high and fairly common. Kodiak suffered this fate (as did Best Buy, although we've decided to hold them despite it). They underwent a brutal week of hits to their share price, 5-10% each day, while making marginal recovery that just wasn't enough. Because of their lacking performance and the blow the report had taken, we decided that it was better to sell them earlier than risk building more losses. The lesson we had learned from these two companies was that you should always, always know when the quarterly reports are being released and, when they are, be prepared. If, after doing research, one doesn't think that they have met expectations or even you think that they are currently overvalued, one should probably sell them to be safe. Not doing so cost us significant money.

Voxeljet (VJET) was another case of me not selling early enough and waiting too long. Although the simulation does have limitations with selling instantly (due to the 15-minute delay), we could have tried selling Voxeljet before they plummeted. They were an impulse buy, as we had bought them on a ride up of 15% in one day. We had only jumped in when they were up around 9-10%, so for the day we still acquired a very quick 5-6% gain. But, there's where we should have sold them; they were an extremely overvalued company and the reason for their increase was nothing more than hype about 3D printing. Lesson learned, we might try to implement this strategy to make quick gains and sell rather than hold so that we can make fast profits and boost our performance. We would just need to be careful and aware of our decisions.

Getting to the good news, Micron Technology (MU) is up a total of about 16% since originally purchased. This investment was one of fundamentals, as we had used the fundamental analysis strategy for choosing them. They have shown very consistent growth, including a 6% gain one day of this week, and we fully expect them to continue doing well. This is a good example of solid fundamental analysis and how, although more of a long-term purchase, one can still make significant gains within fair time spans. Since Micron has been doing quite well, we're considering pouring more of our money into their shares, as they show strong growth and we feel it'd be smart to put more money in them as an anchor for our profits.

This week, as seen in Figure 6.2, we had sold Kodiak Oil (KOG) and SanDisk (SNDK) and purchased Voxeljet (VJET) as well as Home Depot (HD). We are planning on selling Voxeljet very soon, as it is just too volatile at the moment. We are planning on seeing how Home Depot does, as we did research and have observed that they seem to be doing quite well for several fundamental reasons (increased real estate activity/demand for goods, interest rates, etc.). The portfolio is much more fluid now since we have gotten into the habit of buying and selling, but this could be, along with Micron, a stock that we plan on holding on to.

Week Five (11/22 – 11/29):

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
12/2/13							$53.57	
12/2/13	VJET	sell	$41.90	270	$11,313.00	-6,177.60	$11,366.57	-9,249.82
12/2/13	MU	buy	$21.48	510	$10,954.80		$411.77	

Table 6.3 – Week five transactions

This week, we decided to let Voxeljet (VJET) sit for a few more days after a large loss. Fortunately for us, this was a smart idea, as the shares had recovered somewhat in the days following the plummet. Although not a largely significant amount of the portfolio was invested in them, it was still a large enough amount to influence the portfolio negatively. Despite selling them back at a more reasonable price than what it had reached, the shares of Voxeljet dropping still took a chip of roughly five to six thousand dollars. We've learned that in order to trade risky stocks, one typically can't hold on to them for very long. Although we made a quick and easy 5% after the first day of buying the shares, not having sold them the day after was a crucial mistake. Not having watched it closer was what led us to lose so much money off of it. Lesson learned though, as we do not intend to buy then hold riskier stocks for long in the future: it can be detrimental to one's portfolio and hard-earned money invested into it.

We also made another decision shortly after selling Voxeljet: we bought more shares of Micron (MU). We felt that this was a smart decision of mine, as Micron has been performing outstandingly well so far. With the money put back into what we'll call our "anchor stock" for this portfolio, we can hope to see bigger returns from Micron as well as a steady recovery for our portfolio.

Week Six (11/29 – 12/6):

This week has mainly been a week of leveling out our stocks and returning to a state of equilibrium, more or less. After having such strongly negative results from a few buys, we're now more focused on maintaining safer, potentially more fruitful stocks. We spent this week carefully watching what had happened day to day within each company. Being a week of holding, they each did relatively well.

Best Buy (BBY) and Coca-Cola (CCE) both went up slightly over 1% this week. Although this is nowhere near a large gain, it still shows steady (although slow) forward progress. Both companies also pay dividends as well, so on top of their movement forward they will also pay out a decent portion come the fourth quarter's end.

Home Depot (HD) went down about 1% this week. This isn't detrimental and quite honestly, we feel that it's not a significant enough loss to toil over by any means. We'll continue to hold onto it and hopefully start to see some gains in the near future. The shares also come with a dividend as well, so the value of it also comes out at the end of the quarter, more or less mixing the strategy with a bit of growth investing.

Micron Technology (MU) had another great week again. Up over 5%, the shares have raised a total of just over 20% since initially purchased. With our decision to invest more heavily in Micron being carried out, the gains from the company are now even more influential to our portfolio.

Week Seven (12/6 – 12/13):

This week has consisted of holding the stocks once again. With the fourth quarter's end slowly approaching and the dividend yields to be paid out, three of the chosen companies are being held onto largely because of this reason.

Best Buy (BBY), Coca-Cola (CCE), and Home Depot (HD) all went down this week unfortunately. Home Depot and Best Buy took minor losses of roughly 1% each while Coca-Cola Enterprises took a more heavy loss of around 4%. As mentioned before, these companies have value to be had within their dividend payouts. Although they have not been performing all too well, there lies a split decision of whether or not it is smarter to sell them soon or hold onto them. Holding onto them could lead to three outcomes: they sustain losses so that their dividends do not make up for their decline, they break even with their losses and dividends resulting in no gain, or they start to grow enough so that their dividends result in a profit. Depending on how they do within the upcoming week, we will continue to copiously watch them in order to make a decision on this. Each stock has different potential and resulting outcomes, so they will each need to be monitored individually.

Micron Technology (MU), per usual, showed significant gains this week. Up around another 3.5%, their consistency and profitability continues to please. Not much has to be said overall about this gain, as it would be redundant to repeat what has already been said. We still plan on keeping this stock.

Since there is potential for change in the portfolio as mentioned above, Twitter (TWTR) has been on our radar since its IPO. Similarly to Facebook, Twitter's public release of shares started off shaky, although not quite as poorly as Facebook had. Since then, Twitter has shown a recovery. In fact, this past week alone it showed a gain of over 30%. This is incredible, although this is not to say that it will occur again next week. The stock is likely still volatile since it is in its beginning stages more or less. With this said, we feel it is important to continue to wait on it. Some analysts predict, due to patterns, that it will fall once more and, afterwards, sustain more consistent gains and express less volatility than it currently does. This was seen with both Facebook as well as LinkedIn, similarly social media companies. Patterns are very important in the stock market, although not always the answer. Anything could happen really, so we feel it is most important that we wait out this week and continue to watch Twitter's progression. Further research will be done as well, as it could lead to an important and fruitful buying opportunity.

Week Eight (12/13 -12/20):

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
12/18/13							$411.77	
12/18/13	MU	sell	$21.15	1944	$41,095.61	5,150.53	$41,507.38	-4,094.29

Table 6.4 – Week eight transactions

For most of our stock picks, there wasn't a whole lot of movement. CCE, BBY, and HD all remained fairly constant and did not show any significant gains or losses. Because of this, they are being held onto in hopes of future growth. Home Depot seems reasonably safe along with Coca-Cola Enterprises, as they both undergo similar, minor changes in growth from week to week. Best Buy still remains somewhat of a risk.

MU was sold after it had dropped significantly due to a prospective competitor in Japan. Although it had dropped, there was still plenty of profit that had been made off of Micron. Although it may go up again in the future, we have decided not to reinvest at the time being considering that it remains slightly vulnerable in its current state.

Week Nine (12/20 -12/27):

With Micron sold, we are currently doing research for a solid investing opportunity to replace it. This week did not provide any fundamentally secure picks from what we had researched, so we will continue to search until the opportunity permits.

HD and CCE showed decent gains this week, at least relative to their recent trend. As seen in the recent weekly reports, they tend to grow rather slowly. They showed stronger growth this week, however, which is certainly a nice switch from their usual behavior. CCE shows better growth than HD as a whole, but anything can happen within the next few months. These two will continue being held onto to see how they pan out.

BBY is still in question for us. The fact that it had not performed as expected during the holiday season might be testament to its fundamentals. Despite having a great year in 2013, it showed slowed movement towards the end of the year. Although disappointing, we have decided to hold onto this stock for a bit longer in order to observe how it continues to perform.

Week Ten (12/27 – 1/3):

Both HD and CCE started the week off by increased share prices, showing a slow climb upwards. Later on in the week, however, they dipped slightly and, as a result of this, more or less ended up back in their original positions for the week. Since they grow slowly regardless, stunted growth is not always a shock. Oftentimes, they're performance can be dependent on the market as a whole. Countless times during this simulation we've seen the market perform poorly across the board. Certain days show many people backing out of the market or selling lower and, as a result, much of the market is "red" for the day.

BBY lost a slight amount of worth this week. This isn't overly concerning, although we are considering selling Best Buy fairly soon however. It just hasn't performed as we had hoped and the money currently invested in this company could be doing more justice for us elsewhere.

Week Eleven (1/3 – 1/10):

This week showed slight gains within both CCE and HD. Although only a factor of 2% or so, it is still encouraging to see them increase. Slow stocks can be frustrating to work with, but we think that it would be good for our learning and understanding to invest in them and continue figuring them out. They aren't like

Micron was during its peak by any means, but we still find them to be valuable additions to our portfolio.

BBY went down this week, and enough so that we will sell it as soon as we find another replacement for it. It is no longer considered a valuable stock in our portfolio and we think that it would be more beneficial more us to sell it off and move on. We found out that you can't always hold onto a stock just because of your own hopes in it, since that does not always translate well to the market itself.

Week Twelve (1/10 – 1/17):

CCE had another week in which its share prices remained about the same at the end of the week as they had in the beginning. Again, it will continue being held. HD lost a bit of their share price this week, but not much. We still think that it should remain in our portfolio, as it is slightly more risky than CCE but still considered a safety stock at this time. Its performance has a lot to do with the real estate market, considering that they are one of the largest homeowner suppliers alongside Lowe's. Unfortunately, we made a very large mistake in not selling Best Buy when we had the chance and considered doing so. On the 15th, Best Buy got downgraded as a stock and their share price fell drastically: over 25% in one day. This was crippling to our investment in them, considering that they had not met previous expectations of performance. We finally decided that it is time to sell off Best Buy and take the loss on it. Waiting was a poor choice and we find that there is an extremely valuable lesson to be learned from this experience: don't wait to sell if you're not fully enthused about a certain stock's near and/or overall future. We are going to hold it slightly longer in hopes that it recovers slightly after its large loss.

Week Thirteen (1/17 – 1/24):

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
1/21/14							$41,507.38	
1/21/14	BBY	sell	$24.96	469	$11,686.30	-8,303.71	$53,193.68	-12,398.00
1/21/14	AA	buy	$12.07	3000	$36,226.99		$16,966.69	

Table 6.5 – Week Thirteen transactions

This week was a bit of a disappointment between CCE and HD. They dropped around 2-3% each. It seems like the stock market as a whole had a rather rough time getting off of its feet a few of the days. CCE is holding in at an overall gain of 3% since first bought while HD got reduced to an overall to-date loss of around 1%. Fortunately though, we have found an alternative to Best Buy and Micron: Alcoa Incorporated. With J.P. Morgan upgrading aluminum stocks, Alcoa (AA) is expected to perform well. With the future presenting that the worldwide surplus of aluminum will shrink, prices of aluminum-based shares are expected to be on the rise and of more value. We are excited to see how this stock performs in future weeks.

Week Fourteen (1/24 – 1/31):

Date	Symbol	buy/ Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
1/31/14							$16,966.69	
1/31/14	HD	sell	$76.20	120	$9,144.00	-468.00	$26,110.69	-12,866.00
1/31/14	CCE	sell	$43.29	590	$25,541.10	554.60	$51,651.79	-12,311.40
1/31/14	AA	sell	$11.51	3000	$34,530.00	-1,680.00	$86,181.79	-13,991.40

Table 6.6 – Week fourteen transactions

AA (Alcoa Inc.) started off the week with a gain but then fluctuated a bit with a general positive trend until it dropped at the end of the week, bringing it to a gain of less than 1%. Although this is the last week of our investing simulation and Alcoa turned out to be a loss for me overall, I do believe that it was an educated stock pick due to the fundamentals that I had found. I'm going to continue monitoring it after the simulation to see how it continues to perform.

CCE dropped around 1% this week, so there is not much to talk about with this share. It tends to undergo similar trends from week to week because of its place in the stock market, so this is expected behavior of it.

HD dropped around 3% this week, which was a moderate loss for it. Home Depot had not performed as expected so it is likely dependent on how real estate is performing as of late. The two have a very direct correlation with each other.

Conclusion:

At a glance, this portfolio had lost money over the course of allotted time in which the investments were made and the shares were held. Some shares displayed strong, consistent, and rather quick earnings. Some shares showed slow increases or decreases. Some shares suddenly turned downwards and threw out profit. Overall, it is safe to say that much had happened with this portfolio.

To begin, the losses dragged down the value more than they should have. While some of the losing investments were fundamentally based, they did not all perform as well as expected. Unfortunately, that is how the market tends to work. A share can have some amount of fundamentals backing up its price but also have a depreciating price despite this. Although it is hard to say where this portfolio falls under specifically, it is safe to say that some of the fundamentals that were initially used to invest within a certain share were not enough to hold up the price, let alone earn the portfolio profit. In other cases, shares were held on for too long. What should have been done in order to control losses was to set a breakout point. The way this would help would be if a stock is found to be decreasing and reaches this set breakout point, it would be sold. Basically, the idea is to cut the losses and move on rather than waiting on the stock to recover or, even worse, to continue to depreciate. Also, one important execution that should have been done would be to sell certain shares earlier. This idea would have prevented a lot of loss within investments. Some shares waivered in place and, at certain points after not performing well, suddenly dropped (sometimes steeply). There is much to learn from the losses experienced from this portfolio. As stated above, vital lessons have been learned in order to minimalize loss and sustain a healthier and less volatile portfolio.

As for the gains within the portfolio, the fundamentals behind the shares proved to be profitable. Whether the gains were strong from week to week or subtle and slow, the performance for said companies was overall very pleasing. Micron was the clear frontrunner of this particular simulation, boasting significant gains from week to week until the eventual selling of its shares.

Overall, I can say that much was learned throughout this simulation, most particularly from what went wrong and not in favor of the simulation. I feel I learned a great amount from my mistakes and will certainly take this knowledge with me in the future if I choose to invest. The simulation provided a great crash course for learning about the stock market and, by doing so, a fast way to learn first-hand. Although money was lost from this portfolio, I believe that it provided a surefire way to learn from mistakes quickly. This is, in my opinion, equally important as the possibility of making money on the simulation: one learns a tremendous deal from both.

7. Comparisons and Analysis

Now that the simulation has come to a close we are able to compare and analyze our different betting strategies. We utilized two different buy and hold methods as well as a bulk buying method. The first thing we will look at is how much of a gain each of the strategies brought.

The bulk buying method seemed to work fairly well. By investing heavily into companies, we could focus on one or two companies watching their progress easier than if we had tens of companies with smaller amounts invested. Using this method allowed for quick gains to the overall balance, because the price of stocks increasing just a few cents adds up if you have thousands of shares. However, bulk buying requires a high bank account in order to fund. Gaining over seventeen thousand dollars in this simulation showed me that this could be a valid approach to investing.

The buy and hold strategy was a passive strategy that has the potential to be extremely successful. This strategy needs years to develop in order to make a large sum of profit, as the simulation shows. The simulation acquired about eight thousand dollars in profit, which is decent for a strategy that does not involve trading in any aspect. If an investor chooses "good" value stocks, they should not have a problem making a profit in the long run. The simulation also does not show that this method has tax benefits, since long-term investments tend to be taxed at a lower rate than short-term investments.

Buy and hold with trading was not as successful as it potentially could have been. Investing in fairly riskier and/or less-established companies proved to be difficult. While some provided consistent and fruitful gains, others contrarily belted out significant losses. Had some of the shares been sold quicker or had breakout lines been set to marginalize losses, the strategy could have performed much stronger. Although the numbers show that the strategy did not perform particularly well, the above revisions to the strategy's execution could have mended such. The strategy is a viable invested strategy, although it is somewhat difficult to keep up with current investments alongside seeking new investments for when it is time to sell existing shares that have leveled out or underperformed.

Comparing the three different stock market strategies gives different perspectives on trading stocks. Each of the strategies that we used in our simulation are approaches that are used in the real stock exchange. Going off of total dollars gained then it would look like Bulk Buying worked the best. However, this requires a huge bank account to be able to achieve good results. The Buy and Hold with Trading method netted a loss overall, but again, this does not necessarily mean that this method is not good. This method requires a deep understanding of the stock market and the companies that are invested in. Of the three strategies, this method seems to be the most "dangerous" because it requires purchasing shares in companies that are not as stable as others. Yet, that same factor could make someone incredibly rich if they found the right company.

8. Conclusions

Now that the report is coming to a close, we can look at all of the information that we have learned throughout the project. The data presented in each of the simulations is not the only information that was gained from this project by any means; we were able to gain first-hand knowledge as to how the stock market works as well as how to properly research companies for investments.

Although the simulation itself was not that long and the portfolio's investments are considered short-term, having to learn from and adapt to the market on a daily basis made the process all the longer. With so much information taken in, much of it documented, it can be observed that there resides a massive amount of data and observation to be taken. Researching companies is the biggest factor in gaining money in the stock market. Without a solid understanding of a company, it is mostly left up to luck for one to succeed. However, companies can have their share value drop at the drop of a hat, making it still extremely difficult to gain a profit even when doing a full investigation of a company.

With so many ranging factors that affect a share price, the stock market is always going to be highly unpredictable. Investors can only do so much with their efforts and understandings of a company in order to best make a favorable prediction favoring their choice of investment. Even then, with information that cannot be immediately disclosed to the public, there always resides some amount of uncertainty.

Despite this, there are still millions of investors out there who survive and thrive within the erratic markets. Alternatively, there are those who do not fare so well. Through our personal investments and portfolios, we experienced both the good and the ugly of the stock market. At times, favorable winds guided certain shares to rise in value. Other times, the unexpected happened and our shares received a crushing blow. Although things did not always happen to work in our favor, it was necessary for us to trudge on and attempt to play the market. Since there was no actual currency to be lost, it was of our best interest to continue to invest and learn as much about the dynamics of the market and our investment choices as possible. Regardless of the outcome, all of those who invest still remain crucial to the market.

For every dollar lost, there tends to be more than one dollar gained within the stock market. Shares have statistically shown to possess upward trends overtime, generally speaking of course. Monthly and yearly observations of many shares show this exact point. Although our investments were short-term, this inclination is still apparent in certain chosen shares. This is not to say that investing is as simple as throwing a dart at a board and choosing accordingly by any means.

Much research was conducted previous to selecting each investment. Again, despite our best efforts to manage all of our shares, the market took unexpected turns for the worst in spite of certain fundamentals. Aside from this factor, much of the examination of information leading up to choosing companies to invest in led to positive results.

From the good to bad, it can be seen as a productive result that we experienced both sides of the stock market success spectrum. Oftentimes, learning from our own mistakes is the greatest way to learn. Coupled with this, learning by doing helped spur the learning process further and faster. Overall, it is safe to say that much was taken from everything put into this project's entirety. The information acquired is not just moving numbers, price jumps, and buy/sell. It is analysis, educated predictions, intuitiveness, and fundamental structure to a living, breathing market. Most importantly, it is information that can be applied. From the practical side of things, this is invaluable knowledge to be taken with us for a lifetime in pursuit of a fruitful, promising future of investments.

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