Stock Market Simulation

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Abstract

Using the tools and resources available from the internet, books and magazines, a seven week stock market simulation was made to investigate the effects of different trading strategies on investments. The knowledge gained throughout this project will be helpful for potential investors to become more skillful in their investments.

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Chapter 1 Introduction

Many of us young adults have no knowledge of the stock market and how it actually works. We might hear about it, watch movies about it, and be exposed to it but never fully understand the stock market. We have many reasons for why we want to learn about the stock market and get involved, mostly to make money. The goal of our simulations is to garner increased margins to the index. If we can properly do this in a simulation, we can successfully bring these strategies into the real life stock market. It is better for our team to learn trading strategies earlier rather than later in life when we draw on our income from our job during retirement, we have some assets in the market and will not need to rely on social security. If we can learn about how the stock market works and functions, it would benefit our understanding of the economy and how it affects everything in our lives.

We will be dividing into four respective portfolios, each portfolio having a separate investing strategy. We will invest and conduct research into the market and use our strategies chosen to create profit with our investment. At the end of a seven week simulation period we will analyze each portfolio to see which strategy was more efficient.

1.1 Brief History

Trade has always existed in society whether it be from early Neanderthal forms of bartering to simple trade of services for goods predating written history itself. However, trade of government securities first began in the 13th century. Italian banking families traded the securities of the independent city states throughout the nation and up until the formation of the country officially.

However, true capital stock and investing in corporations/companies rose in tandem with the pre-colonial and Imperial Era of world exploration. The first stock market emerged in Belgium to deal in business, government and individual debt issues. Yet, in this format there were no shares of companies traded. In the 1600s, the age of Imperialism was in full swing and countries such as Britain, France, Spain, and the Netherlands were sailing to the New World and the East Indies in search of spices and other rare treasures. These massive excursions required large amounts of capital. Explorers created companies in which other could invest for a share at the final profit of the voyage. These voyages came with high amounts of risk and it was likely that the exploration party would not return. London merchants formed the first joint-stock company known as the "East India Company". According to the company regulation, a shareholder would only be able to lose the amount of capital that he/she had invested. Additionally, the shareholders would receive dividends from the company for investing in these excursions. Economic turmoil known as the "South Sea Bubble Burst" caused reactionary legislation to be passed which outlawed stock for over one hundred years.

On May 17th, 1792, the Buttonwood Agreement was signed into effect, and thus, the New York Stock & Exchange Board was created. Twenty-four stock brokers from New York City met at 68 Wall Street to sign the agreement. At first, five securities were traded, the first of which being the Bank of New York. In 1817, the first constitution was drafted, and in 1863, the name was changed to its current form, the New York Stock Exchange, or NYSE. At the turn of the 20th century, stock trading rose rapidly, and in turn, a new building was needed to hold the large trade volume and growing interest of companies trading. With their new large, appealing building, located on 18 Broad Street, NYC, the NYSE began to really take off. In addition, technological advances only helped the growth of the stock trading history. The telegraph and the phone made trading over longer distances very feasible and accessible. In turn, stock exchanges all across the country and around the world began to take off as well. With all of the garnered interest in stocks,

many companies opened up and became publicly traded. The stock market became a very lucrative market, holding a lot of weight in the United States' economy, as well as the world's economy.

Chapter 2 Research

In this chapter we will discuss our trading strategies for this simulation. After research and discovery of different techniques, we each reviewed and selected our own trading techniques. Each technique will be explained and we will what we expect to do with that technique.

2.1. Pivot Points

One of the most common methods for trading is pivot points. Pivot points were and still currently are the most decorated and useful trading techniques on Wall Street. They have been used since the origination of the New York Stock Exchange and initially used by traders working directly on the floors of Wall Street. By using the past data in the market, pivot points have become one of the simplest techniques in the market. They do not require much knowledge of market techniques and are quite simple to use for floor traders as well as the common people at home.

There are three simple and most practically used pivot point techniques. The three ones commonly used are: The Standard Type, Fibonacci, and DeMark pivot points. They all are relatively introductory techniques and each help show when a stock looks strong, looks weak or appears idle.

With the Standard type pivot point strategy, there are three lines that have to be computed in order to properly begin. The first step is to create the pivot point, or P (see Fig. 2.1). This is the threshold that is formed using previous data from the timeframe chosen by the user [8].



Figure 2.1: Standard Pivot Point Chart (Source StockCharts)

This strategy could be used yearly, monthly, weekly, or daily. The pivot point is the average of the highest point, the lowest point and the closeout number. The pivot point tells us to buy when the stock price is above the pivot line and sell when it is below it. There are two other key components of the standard pivot point graph: the resistance lines and the support lines. The resistance and support lines help us determine if a stock should be sold or bought. In standard pivot point tables the resistance is found above the pivot point line formed and helps us tell if the stock is increasing and when it is the opportune time to sell for a profit. In the standard method there are normally two resistance levels formed. Whether or not the stock is still going up is determined by looking at how repetitively the stock is fluctuating on the resistance line. For example, if a stock is staying around the resistance line, not largely increasing in value, then it is the most opportune time to sell it. On the other hand, if the stock price exceeds the first level then we repeat the process on the next resistance line. Support lines are similar to resistance lines only they help us choose

when to buy stock rather than sell it. If a stock is staying around the support line then it could be time to consider buying the stock in hope that the price will rise [8]. Even given all this information we cannot accurately tell whether the stock might keep increasing or decreasing because our strategy is formed from past data analysis. Our strategy can only predict what the best decisions are, given the uncertainty.

The Fibonacci strategy is very similar to the standard strategy with a pivot point, resistance and support lines. The only clear difference is that there are three support lines and three resistance lines. Resistance lines are found by subtracting the high and low stock prices, multiplying them by Fibonacci's golden number (i.e. .382, .618, 1 respectively), and adding the pivot line to that sum. These form three resistance lines for the graph. Finding support lines have a similar process, but instead of adding the pivot point, it is subtracted [8].

Tom DeMark, a very successful analysist, created the DeMark strategy which again uses the previous day's data in order to predict the next day's data. There are three different situations for his strategy to determine the next day's price. The three situations are whether or not the open price was higher than the closing price, whether the closing price was higher than the open price, or if the open price and closing price were equal. Each of these situations uses a different equation to create the resistance line and support line [8]. Another different from the standard and Fibonacci strategy is that the DeMark only uses one resistance and one support line.

We will be using the standard strategy going forward for our simulations. We have chosen this way because it is the simplest and most well-known way to do trading in the stock market. It does not require large equations or computer systems to do. We also feel that this is one of the safer ways to trade because it can be used periodically throughout the week. Therefore we will be able to make three to four trades a week successfully without exceeding our time constraints. Standard pivot points are the simplest method of the three. We have no previous experience of trading on the forex so we believe the easiest way to begin is to use a simple day trading strategy. This will help us understand stock market trading and prepare us to use more complex strategies.

2.2 Swing Trading

Swing Trading is a form of Trend Trading that requires the user to hold a stock for a medium period of time (three to four days) and trade the stocks on their weekly or monthly oscillations. The trader uses short term stock price momentum in the market to garner high returns. Swing Trading is more frequently used by personal and at home investors because larger investment firms with high volumes of held stocks are hard pressed to sell their shares quickly. Large Cap stocks are preferable when using Swing trading because they are traded frequently and are subject to market speculation [11]. These are also optimal for use due to the large range of daily highs and lows which provides for larger returns.

Stocks are selected on a criterion basis through short term analysis and technical models. Say for instance our criteria is a three moving average of an upward movement. A stock, once it has a three day moving average that represents a positive trend, would be an optimal company to trade with potential for more growth. Likewise with this strategy the inverse of this true as well. Once a stock has three days negative moving average, a swing trader would try to liquidate his/her position in the company. In order for a swing trader to make a profit, the trader has to sell at the local maximum for the stock without being overly precise in their calculation of the maximum. If a trader attempts to be too precise with that calculation, they could miss the potential profit or the window for selling entirely; the same is true for a local minimum buy point. Buy and Hold limits are set through analysis of the stock's past history and predicted earnings. Once a stock hits a certain share price at the bottom of a trough, the stocks are bought according to the model. When it hits the upper sell limit, stocks are again sold at the peak share price. The simple example below (Fig. 2.2) shows the Moving Averages used to determine the Buy Point and also the Sell Point.



Figure 2.2 Swing Trading Chart Example (Source eSignal)

Market Potential also plays a significant role in determining which stocks and what criterion for purchase we use. According to Jason Van Bergen of Investopedia, "It should be noted that in either of the two market extremes, the bear-market environment or raging bull market, swing trading proves to be a rather different challenge than in a market that is between these two extremes" [15]. When markets are stable, they display the oscillations necessary for swing trading to take place. If the market is not stable, then large consistent growth or decline makes it more profitable for position trading to be used as a strategy. Of course in the stable market environment, there are daily and weekly upswings and down trends that make swing trading profitable. There is a challenge, however, with identifying what type of market is occurring because it is heavily susceptible to skepticism and speculation.

2.3 Trend Trading

Trend Trading involves looking at trends of a particular stock for a chosen time frame: hourly, daily, weekly, monthly, or even yearly. Trend Trading requires that you trust the numbers and that the overall trend will continue despite corrections or oscillation. Essentially trend trading comes down to waiting for the market to establish a strong direction before committing to a position [13]. It uses indicators to determine the momentum behind a trend which gives an indication of how long the trend will continue and therefore determine whether to enter into the trend or when to exit. We also plan to use a cycle indicator and wave count to aid entering the trend so as not to enter too early or too late. There are many useful indicators but moving averages are widely used and trusted. A moving average is simply "the average of statistical data (as in a time series) computed over a progressively shifting interval" (Merriam-Webster). The double moving average of 50 day and 200 days has been proven successful. This indicator involves crossovers of the two moving average values. Simply, when the 50 day average passes above the 200 day average, it is a sign to enter the market. However, when the shorter average passes below the longer average that is an indicator to exit.

For example, Figure 2.3 is the 50 and 200 day moving averages of the euro/yen cross (Investopedia). While the moving average indicator has done the job of predicting the overall trend of the market fairly well, there will always be a chance of whipsaw. Whipsaw is a sharp rise/fall of a securities price and then the abrupt correction of that rise/fall to its original position. In order to recognize and counteract whipsawing patterns, many use trend confirmation indicators. A popular trend confirmation tool is the MACD. The MACD is "calculated by subtracting the 26-day exponential moving average (EMA) from the 12-day EMA" [13]. This value is plotted over another EMA known as the "signal line" which will then work very similarly to the moving average crossover. Unsurprisingly, trend trading relies on being able to determine what the trend has been, what the trend is right now, and what the trend will be in the future.



Figure 2.3 Trend Trading Chart Example

2.4 Position Trading

Position trading in the stock market is a trading strategy that involves taking a short-term or long-term position on a stock. Most of the time, position trades are made weeks or months after the stock is bought. Since position traders are looking for long-term trends, any fluctuations that happen daily are not taken into consideration because whatever happens on a day to day basis will not affect a long-term trend. The goal of long-term trading is to see if the mean value of an interval of time (in our case it is one week) increases as time increases. For example, a stock could increase significantly for one day and then three days later it could decrease back to where it was originally. Since the mean value of the week is the same before it increased as it was after it decreased, the daily increments do not matter. Although, a term could only last a week or two, since the goal of a position trader is to hold a position until the risk reward ratio is near its limit, a position trader will usually hold onto a stock much longer. Since most individuals just getting into the stock market do not have much experience or even time, position trading is a highly recommended strategy. "Position trading strategies are more suitable for individual investors that want to try making money trading stocks, but cannot commit the time or resources to day trading or high frequency trading strategies" [2].

As any other trading strategy, the objective of position trading is to make a profit. But, the profit defined for day traders is not the same as what is defined for position traders. For a position trader, profits continue to run until the risk reward ratio is at least 3-to-1. This means position traders overlook "1-to-1 (double the reward) and 2-1 (200% return on risk)" (Gann Global). Those are the risks that most day traders would usually take. Since position traders seek much higher risks, Gann Global stated the following about the risk reward ratio for position traders:

"What we really look for are 3-to-1 risk/reward (300% return on risk) or higher. When we have a situation where our forecast is strong, and the timing of our entry is ideal, we can achieve 6-to-1 return on risk or more. Sometimes we hit a grand slam as high as a 20-to-1 risk reward."

The high risk-reward ratio means that a position traders could lose on a majority of trades, but since the risk reward ratio can get as high as 20-to-1, one win could possibly cover all the losses from previous trades. For example, Gann Global ran an experiment with position trading from July 2008 to August 2009. They made 26 trade recommendations with a monthly average of 1.5 trades. Of those 26 trades, only 40% were winners. Since the traders followed the trading rules and had a strict trading criteria, they received a profit by 17.5% when only risking 1.5% on any one trade.

For this IQP, we have chosen position trading as one of our four techniques to use for the next seven weeks because position trading is a highly used technique. Compared to swing trading, daily pivot trading, and trend trading, position trading varies because of its long-term trading, which makes it desirable for us to use position trading in our simulation. Since we are new to the stock market, we decided that position trading would be a useful strategy. Our plan will be based off Coviello's plan from his article:

- Identify position trading opportunities
- Buy or sell short (short if you are anticipating a price drop)
- Set a stop loss
- Set a realistic sell or buy

To follow this plan, we will identify trading opportunities by keeping a watchful eye on our chosen companies. Since we are looking for long-term trends, we will analyze what stocks have risen and fallen at the beginning and end of every week. If the stock increases, then we will keep it; otherwise sell if it drops too significantly. This leads into buying or selling short. If a stock falls by the end of the week then we make a decision on to tell it or not. If the stock only decreased by a small amount, then we will keep the stock. After we sell a stock, we will also keep a watch on it and see if that stocks goes back down for another opportunity to buy. If it decreases enough, then we make a decision to buy it. But, we also need to a set a stop loss, which is a limit to when you have to sell a stock. For this technique, our stop loss will be at 5%, so if any stock drops below 5% of buying price, then we will sell the stock. This follows the same for a realistic sell or buy. If a stock is too expensive to buy, then it is not worth investing our money for only a small amount of shares in a stock. This accounts for selling too. These steps should allow us to keep track of what we are doing when it comes to position trading and to be successful for our first stock market simulation.

Chapter 3 Company Selections

In this chapter we will discuss the stocks we decided invest in and why we chose to invest in them. We each elected between five to ten companies to invest in, all ranging from merchandise, technology and finance.

3.1 Daily Pivot Points

-Frontier Communications (FTR)

Frontier Communications is a very small company trying to make a name for themselves in a large telecommunications world. Located in only Connecticut, they bought out the Connecticut AT&T offices in all of the state to move from their original area in Massachusetts. They have been in Connecticut for only a year this October and have performed well. At a closing of \$4.99 as of September 18th, purchasing a large sum of stock will allow us to still have money left over to spend on different stock. Figure 3.1 shows the stock price from August 3rd to September 16th.



Figure 3.1 One Month Frontier Stock Chart (Source Yahoo Finance)

-Nike (NKE)

Nike does well relative to other clothing companies by standing out. With iconic designs, shirts, sayings, and shoe designs, Nike always has something unique to show to the people. They do a fantastic job of showing their merchandise off by sponsoring sports athletes and professionals. With a 52 week average of \$83.85 - \$125.95 in a 52 week period and closing Friday, September

18th, at \$125.00 from Yahoo Finance, Nike appears to be growing and is expected to continue doing so. Figure 3.2 shows the stock prices for Nike between August 3rd to September 1st.



Figure 3.2 One Month Nike Stock Chart (Source Google Finance)

-Dick's Sporting Goods

Dick's Sporting Goods is a major sports retailer in the U.S. as well as the rest of the world. They are a big time marketer to young athletes and have a large supply in sports goods. As a Fortune 500 company Dick's has constantly performed well in the market since 1948. According to Yahoo Finance, Dick's Sporting Goods posted a rate of \$41.56 - \$60.33 for a 52 week trend and closed on Friday, September 18th, at \$49.20. Figure 3.3 shows the stock price of Dick's from August 3rd to September 1st.



Figure 3.3 One Month Dicks's Stock Chart (Source Google Finance)

-Twenty-First Century Fox Inc. (FOXA)

Twenty-First Century Fox is one of the largest media outlets in the world. Primarily known for their news channels, Twenty-Fist Century is involved in areas of pay-per-views, TV shows, and movies. They own 20th Century Fox, STAR TV, the European media company Sky, and other news channels around the world. We expect Twenty-First to perform well in the market for a couple of reasons: they have major control in media which many people view and their control over producing movies. Figure 3.4 shows the stock price of Twenty-First Century Fox from August 3rd to September 1st.



Figure 3.4 One Month Twenty-First Stock Chart (Source Google Finance)

-Electronic Arts (EA)

Electronic Arts is one of the largest producers and distributors in the video game market, a market that is always changing and growing. They are currently in production in multiple different video games and have many set to release these next few weeks that are very popular to the people. They are the leaders in sports video games and action packed shooters. With many subsidiaries like DICE, Bio Ware and Pop Cap, EA is a very popular company for gamers old and young with different varieties of games. We chose this because we as a group enjoy the occasional recreational



gameplay of online EA games. Figure 3.5 shows the stock price of Electronic Arts from August 3rd to September 1st.

Figure 3.5 One Month EA Stock Chart (Source Yahoo Finance)

-Sony (SNE)

As both a movie producer, electronic distributor and technology researching company we figured that Sony would be a great choice to invest. They are one of the leaders in technology products, such as TVs and headphones, movies and other products, so they are very promising. Sony has given out quality products for such a long time and have proven to be a top video game producer with their own systems like the PlayStation series and portable series, as well as all the things that go with the system itself. Figure 3.6 shows the Sony stock price from August 3rd to September 1st.

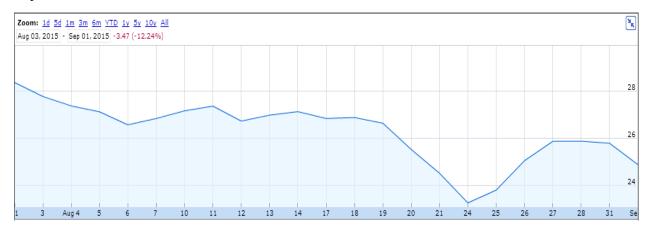


Figure 3.6 One Month Sony Stock Chart (Source Google Finance)

-Target (TGT)

Being the second largest discount retailer in America, Target has been a constant competitor in retail and distribution to people. Much like Wal-Mart, Target is a popular place to buy discounted items and good quality store brands. Target has always had a good reputation with customer service and quality of product so we chose to use Target as another retailer company to put stock in. Below is a stock price chart for Target from August 3rd to September 1st (See Fig.



Figure 3.7 One Month Target Stock Chart (Source Google Finance)

-Bank of America (BAC)

As being the largest bank in America, Bank of America was a clear choice for being a great bank to invest in. With very little problems totally in the company and being as large as it is, we thought it would be a great choice of company to invest in. From Yahoo Finance, Bank of America shows a 52 week trend of \$14.60 - \$18.48, closed on Friday, September 18th, at \$15.89 and is seen to be very consistent. Figure 3.8 is a stock price chart from August 3rd to September 1st.

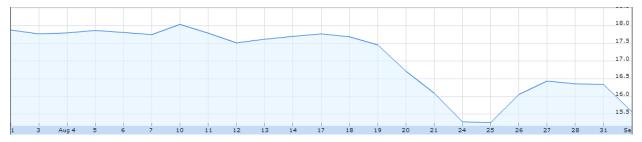


Figure 3.8 One Month Bank of America Stock Chart (Source Google Finance)

3.2 Swing Trading

-Cisco (CSCO)

Cisco while being a large cap stock has had outstanding earning through August of this year. Many Wall Street analysts including Merrill Lynch attribute this to Cisco's Meraki Cloud Service, which is posting a 50% to 70% Annual Growth Rate. Merrill Lynch has its price target at \$32, a share. It closed at \$25.54 on Friday, September 18th, but is expected to continue with large gains throughout the second Quarter. Cisco is the top Mega-Cap stock, which will provide ample opportunity for swing trading to take place throughout the following weeks to come. Below is a stock price chart for Cisco from August 1st to September 1st (See Fig. 3.9).



Figure 3.9 One Month Cisco Stock Chart (Source Google Finance)

-Oracle (ORCL)

Oracle currently trades at 14.6 times what Wall Street estimated its 2016 earnings would be. The company is currently expanding its cloud based available programs from 65% to 95% by the time Oracle Open World conference in October. Therefore, its stock is positioned to grow rapidly through the beginning of Quarter three. Merrill Lynch has its price target at \$48, but its stock closed on Friday, September 18th, at \$36.55 a share. Below is a stock chart for Oracle from August 1st to September 1st (See Fig. 3.10).



Figure 3.10 One Month Oracle Stock Chart (Source Google Finance)

-MGM Resorts International (MGM)

MGM is another stock positioned for an increase in Quarter three. According to Wall Street, their earnings are estimated to be 0.11 per share on \$2.38 Billion shares. This is another classic Large Cap Stock, with 11.8 Billion Market Capitalization, which was recommended by Investopedia as a Buy. Many other analysts have rated this stock as a definite buy during this season. Recent exposure in Macau have caught other companies in gaming with high exposure to a struggling destination for new resort openings. MGM has managed this risk well and could see potential benefits from bullish investors. Below is a stock chart of MGM from the beginning of August to the beginning of September (See Figure 3.11).



Figure 3.11 One Month MGM Stock Chart (Source Google Finance)

- E*TRADE Financial Corp (ETFC)

E*TRADE is a financial services company that has shown signs of repeated price swings over the past year, making it a prime target for swing trading. With a market cap of \$7.832 Billion, it has the daily trading volume necessary to take advantage of price swings. The Federal Reserve announced that it would not be raising Interest Rates again, which caused the stock to drop 2.3%. This has drawn many other swing traders toward the company in order to gain profits from coming growth. Below is a graph of stock prices for E*TRADE from August 1st to September 1st (See Fig.





Figure 3.12 One Month E*TRADE Stock Chart (Source Google Finance)

-Hartford Financial Services (HIG)

Hartford is a Fortune 500 Insurance and Investment group operating in the United States. Hartford Financial Services is another Large Cap stock with a lot of day to day trading potential. Wall Street estimates a daily trading volume at 425 Million shares a day. The company currently has a Market Cap of 19 Billion. This is another company hit by the Federal Reserve decision, but

is ripe for a comeback once speculation dies down and it becomes a bullish stock again. Below is a stock price chart from August 1st to September 1st (See Fig. 3.13).



Figure 3.13 One Month HIG Stock Chart (Source Google Finance)

-Joy Global (JOY)

Joy Global is a large scale manufacturer of services related to mining and coal and mineral extraction. The reason we chose this stock is to take advantage of the large daily swings that this stock encounters. The stock's 52 week range is \$17.16-\$58.09 a share according to Yahoo Finance. The company's stock swings are mostly cyclical, making it easy to identify the patterns necessary to execute this strategy. It currently has a daily trade volume of around 100 million shares with a market cap of \$1.69 Billion. Below is a graph of stock prices for Joy Global from August 1st to September 1st (See Fig. 3.14).



Figure 3.14 One Month Joy Stock Chart (Source Google Finance)

-Walmart (WMT)

Finally, we chose Walmart as a candidate for swing trading because of its historic growth patterns ranging from \$61.50-\$90.97 a share over a 52 week period. The company has posted significant growth year to year. It also has high volumes of trading daily, roughly 13 million shares, allowing for effective swing trading. Analysts have mixed opinions on the stock, but we believe that it is a solid candidate for growth and profit. The company currently has a market cap of \$203.06 Billion. It closed on Friday, September 18th, at \$63.34 a share. Forbes has cited it as a smart buy while the stock is experiencing a local low for share price, but it is expected to have rebounded growth. Below is a graph of stock prices for Walmart from August 1st to September 1st (See Fig. 3.15).



Figure 3.15 One Month Walmart Stock Chart (Source Google Finance)

-QUALCOMM Inc. (QCOM)

QUALCOMM is an American based semiconductor design company that specializes in telecommunications. Their chips are found in mobile cellphone production companies such as HTC, Motorola, LG, and Samsung. The company falls into the Technology Sector though. QUALCOMM is another mega cap stock with a market capitalization of 71.34 billion. The average trading volume of trading is 16.85 million shares per day. On Thursday, September 24th, the share price closed at \$53.56. This stock is another company with potential for swing trading profits. Personally, I feel that this company is in a prim position for maximum profits and a rebound from declining share price. According to the graph shown below, QUALCOMM appears to be reaching a local minimum (See Fig. 3.16).



Figure 3.16 One Month QUALCOMM Stock Chart (Source Google Finance)

3.3 Trend Trading

-Apple Inc. (AAPL)

Apple is consistently one of the most traded stocks on the market. Apple Inc. has made many world changing innovations in technology and with Apples recent release of the newest version of the iPhone, stock prices should experience a small bump in the short term. Apple Inc. isn't going anywhere anytime soon and investing in a company that will produce continuously cannot be a bad investment. Below is the stock price of Apple from August 3rd to September 28th (See Fig. 3.17)



Figure 3.17 One Month Apple Stock Chart (Source Investopedia)

-Masimo Corp. (MASI)

Masimo Corp. is a healthcare equipment provider. Masimo Corp. had a 50/100 MA crossover during the first week of our trading simulation. This would indicate upward momentum for the medium time period which should last the entire seven weeks of the trading period. As you can see in the chart below, there was an established bullish trend for nearly three weeks before we began our trading. Below is a stock chart of prices for Masimo from August 30th to September 25th (See Fig. 3.18).



Figure 3.18 One Month Masimo Stock Chart (Source Investopedia)

-Tesla Motors (TSLA)

Tesla Motors is a high end electric car company that produces luxury vehicles that are run entirely on electric motors. Tesla has recently become a very popular brand with Elon Musk at the forefront of the company and its future looks brighter by the day. Tesla's stock has performed will recently and should continue to make gains however small. Below is a chart of stock prices for Tesla Motors from August 30th to September 25th (See Fig. 3.19).



Figure 3.19 One Month Tesla Stock Chart (Source Investopedia)

-Verizon Communication Inc. (VZ)

Verizon Communications Inc. is a telecommunications company who has one of the largest base of subscribers in the United States. Verizon has performed well recently and there are indicators of bullish momentum for the long term. Verizon should perform well and be profitable for the seven week period coming up. As seen in the figure below, VZ started an upward trend two weeks before I bought any options (See Fig. 3.20).

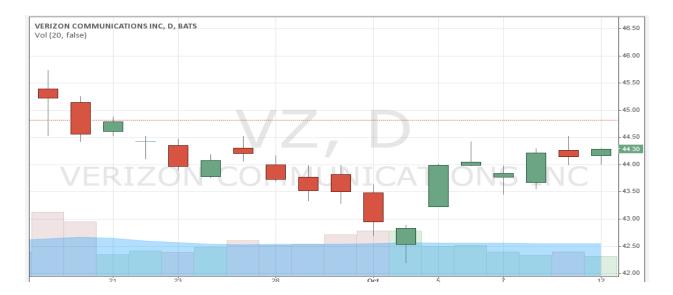


Figure 3.20 One Month Verizon Stock Chart (Source Investopedia)

-Amtech Systems Inc. (ASYS)

Amtech Systems Inc. is a younger company who manufactures solar cells, semiconductors, and silicon wafers on a global scale. With a growing need for alternative energy that does not seem to be slowing or have a solution, energy companies are a good investing opportunity. Amtech Systems Inc. also has a lot of momentum in the market right now that doesn't seem to be slowing down. Below is a stock price chart of Amtech from August 30th to September 28th (See Fig. 3.21).

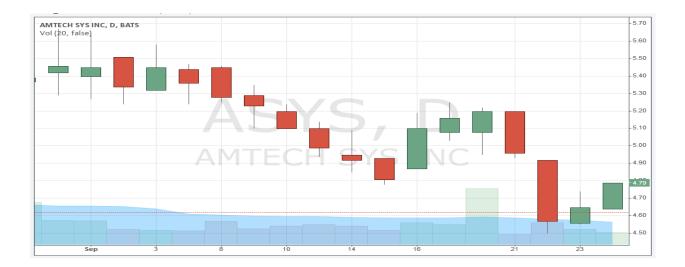


Figure 3.21 One Month Amtech Stock Chart (Source Investopedia)

-Riverview Bancorp Inc. (RVSB)

Riverview Bancorp Inc. is a savings and loans holdings company. We have chosen this smaller company knowing that it has some strong momentum for the trend and still has a lot of potential for growth. ASYS is a northwestern regional company that has a strong presence in Oregon and has strong numbers with its MA (moving average) crossovers. Below is a stock price graph of Riverview from August 30th to September 25th (See Fig. 3.22).



Figure 3.22 One Month Riverview Stock Chart (Source Investopedia)

-MFA Financial Inc. (MFA)

MFA Financial Inc. is an investment trust that independently manages a real estate portfolio comprised mainly of residential single family homes. As a trend trader, the MA crossover numbers look strong for a bullish push and some upward momentum that could be very profitable. Below is a stock price chart for MFA from August 30th to September 25th (See Fig. 3.23).

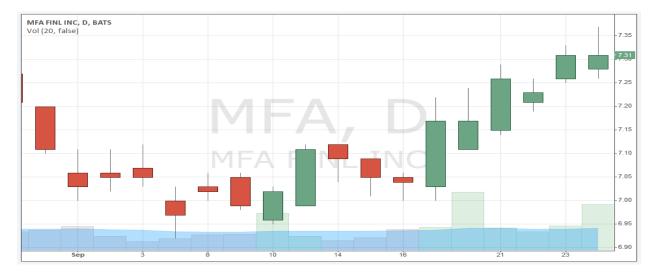


Figure 3.23 One Month MFA Stock Chart (Source Investopedia)

-IHS Inc. (IHS)

IHS Inc. is an information and current events provider. Everything from technology to defense to energy. IHS provides strategies and projections on almost any industry or any product. IHS is not only a strong investment based on the numbers, but a fantastic tool if anyone wants to become more informed on the going on in the world and how they will affect you, your investments, and your future. Below is a stock price chart for IHS from August 30th to September 25th (See Fig. 3.24).



Figure 3.24 One Month IHS Stock Chart (Source Investopedia)

3.4 Position Trading

-Apple (AAPL)

We have chosen to use Apple because it is a profitable company. Apple has a good reputation among its consumers and always puts out great products in the technology industry that help the company have a better sustainability. Since this is our first time trading in the stock market, choosing Apple for position trading will help us with learning more about the start market because it is an easy company to follow. Apple is always in the news so it is difficult to not hear what Apple is doing. With the results we get from Apple, it will allow us to make smarter decisions when we trade smaller companies. This is how Apple has done the month previous to our simulation, during August 3rd to September 1st (See Fig. 3.25).

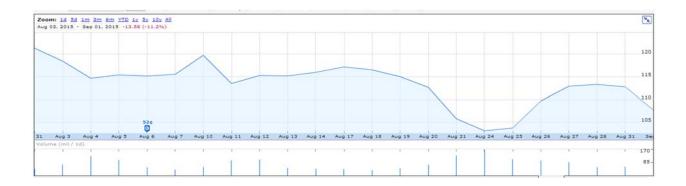


Figure 3.25 One Month Apple Stock Chart (Source Google Finance)

-Netflix (NFLX)

We have chosen Netflix because our team really enjoys using it and we know that it has a bright future. Netflix became a hit in 2007 when they introduced streaming, which allowed members to watch television shows and movies from their computers, iPads, or phones. Because of this, Netflix has been a company that has a very high reputation in cinema and finds its way in homes all over the world, thus making it a high demand among consumers. Netflix has just recently started producing its own series of shows and we know that because of this the company will continue to grow and prosper. This is the graph of Netflix's stock during the month of August (See Fig. 3.26).

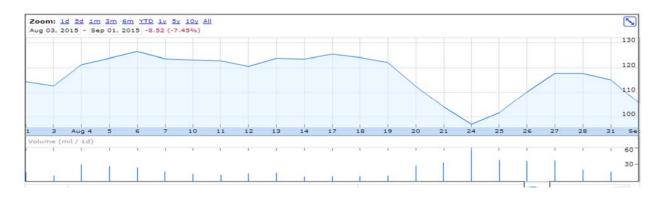


Figure 3.26 One Month Netflix Stock Chart (Source Google Finance)

-Amazon.com (AMZN)

Amazon.com is considered one of the largest online stores, if not *the* largest online store. In their logo, it has an arrow pointing from A to Z, representing that they sell all products from A to Z. This logo was a main reason why we chose to have Amazon.com in our simulation. They aim to sell all products and continue to make their company rise above the rest, like EBay. Because they have almost monopolized that market, Amazon.com will do well for the next few years. Even recently, Amazon has released Amazon Prime, which is a membership consumers may pay for so that they can get faster shipping, more cloud storage, and even free music and videos. Amazon should continue to do well, so that is why we decided to use them in our simulator. Below is the graph of Amazon.com's previous month in the stock market (See Fig. 3.27).



Figure 3.27 One Month Amazon Stock Chart (Source Google Finance)

-Microsoft (MSFT)

Microsoft, along with Apple and IBM, is another Fortune 500 company that specializes in technology. Since Microsoft and Apple are always competing against each other in the market, both companies push each other to create more advanced products through competition. We have

selected Microsoft because not only are they one of the leaders in Operating Systems, but because they also have an industry in entertainment as well. Microsoft also manages the Xbox. Due to the new Xbox One being released a few years ago, Microsoft should continue to grow as a company, which is why we selected Microsoft for our simulation. Below is the graph of Microsoft's stock progress from August 3rd to September 1st (See Fig. 3.28)



Figure 3.28 One Month Microsoft Stock Chart (Source Google Finance)

-Ford (F)

Ford was the company that introduced the assembly line, which made it much quicker for factors to create machines, in this case cars, by assembling each portion in sections and then adding them all together at the end. Because of this, Ford became a top automotive company from the beginning and even today it continues to do well. Ford was also one of few large auto company to avoid bankruptcy back in 2008, which resulted from a substantial increase in prices of automotive fuels. Ford is also the company behind other big brands such as Lincoln and Mercury. We wanted to invest in an auto company for our simulation so since Ford has done well compared to both others in the past, we hope that it will do well again in the upcoming future. Below is the graph of Ford's stock progress from August 3rd to September 1st (See Fig. 3.29).



Figure 3.29 One Month Ford Stock Chart (Source Google Finance)

-IBM (IBM)

IBM is another Fortune 500 company that's a very creative with their products and specializes in information technology, including software, computer systems, and storage systems. We chose IBM because along with Microsoft and Apple, they compete with each other to make better products and increasing their net worth from that. By choosing Apple and Microsoft, we had to choose IBM so that all three companies can compete and push each other. We believe that IBM is on the verge of being more creative and original by creating more informational technology to help businesses and consumers alike. Because if this, IBM should be a great candidate to invest in for position trading. Below is the graph of IBM's stock progress from August 3rd to September 1st

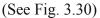




Figure 3.30 One Month IBM Stock Chart (Source Google Finance)

-Tesla Motors Inc. (TSLA)

Tesla is a more recent car industry that is known for developing electric-powered cars. Vehicles that are being operated without gasoline are starting to make its way into the market and we believe that Tesla will soon start to show itself more and more on the streets due to this. Since gasoline was the main reason why a significant amount of auto companies announced bankruptcy in 2008, electric-powered vehicles are most likely to rise in production and sells, which is what Tesla is doing. Since Tesla vehicles are environmentally healthy, we know that it will improve in the stock market. Below is the graph of Tesla's stock progress from August 3rd to September 1st (See Fig. 3.31).



Figure 3.31 One Month Tesla Stock Chart (Source Google Finance)

Chapter 4 Daily Pivot Point Simulation

In this chapter I will be using Daily Pivot Points as a stock market strategy. The companies I selected to use are Frontier Communication, Nike, Twenty-First Century Fox, Electronic Arts, Dicks Sporting Goods, Target, Sony, and Bank of America. Each week I will give a summary of all the companies I bought and or sold. I will start with \$250,000 with free commission trading for a total of seven weeks.

4.1 Progression of Trading

4.1.1 Week One

This first week consisted of only buying stock and no selling of stock. Nike had a large bounce in the market, going from about \$114.82 on Thursday and jumped up to a closing of \$125.00 on Friday. While Nike was the only one we observed moving up 8.89% over one day, the other stock prices stayed mostly in their daily trend rate moving between 4% and -1% over several days. I expect that the financial sector will stay similar, maybe moving a few points up and down, but staying mostly in the same range. I have left \$50,000 leftover for backup in case of misspending or misfortune. Table 4.1 provides the initial investment of the selected stocks for the week beginning on the 28th of September.

Date	Buy/Sell	Symbol	Shares	Price	Net Cost/ Proceeds	Profit/Loss	Total Cash	Total Profit
							\$250,000.00	\$0.00
9/25/15	BUY	FTR	1000	\$4.85	\$4,850.00		\$245,150.00	
9/25/15	BUY	DKS	305	\$49.00	\$14,945.00		\$230,205.00	
9/25/15	BUY	FOXA	972	\$25.70	\$24,980.40		\$205,224.60	
9/25/15	BUY	EA	720	\$68.95	\$49,644.00		\$155,580.60	
9/25/15	BUY	SNE	592	\$24.81	\$14,687.52		\$140,893.08	
9/25/15	BUY	BAC	944	\$15.79	\$14,905.76		\$125,987.32	
9/25/15	BUY	NKE	400	\$124.50	\$49,800.00		\$76,187.32	
9/25/15	BUY	TGT	316	\$78.99	\$24,960.84		\$51,226.48	

Table 4.1 Week One Transactions

4.1.2 Week Two

This week my portfolio stayed roughly above the S&P 500. Overall I have declined from below zero percent to slightly more than a negative two percent. Late in the week I began to take advantage of rising prices (See Fig. 4.1). This was the first week I took on active trading, trading multiple times a day, and it proved to me that in the course of a few hours one could lose a lot of money on risky investments.

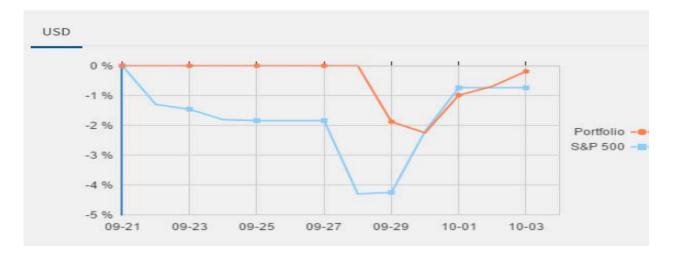


Figure 4.1 Investopedia Portfolio Example Week One (Source Investopedia)

Frontier Communications (FTR)

This week's values have varied from day to day. Reaching a high of 4.93 but dropping to a 4.72 this week, it was difficult to use the pivot points because of rapid declines and upward movements that lasted more than a day. At the beginning of the week I made more first trade in the market simulation by selling Frontier for a loss of \$70.Right after that sale the stock value reached the second support line and I purchased it, yet the value declined even more and it became a missed opportunity to purchase at an absolute low value.. At the end of the week the value rose and kept rising for a very nice profit. I plan on purchasing the stock later next week.

<u>Nike (NKE)</u>

Monday showed a large drop in the values from the previous week. Nike reached over its previous weeks high this past Friday. I did not see any situation to purchase Nike for a profit because the prices continued to drop below my original purchase price from the week before. Nike has not released any new clothing or shoe designs yet, but since it is the middle of the NFL season, there is still a larger incentive for fans to purchase more Nike material. I expect the value to decrease next week and then move upward again following the trend it has taken for the past few weeks.

Dick's Sporting Goods (DKS)

Dick's Sporting Goods showed a very large upward trend from the beginning of the week all the way through Friday, rising above the price I purchased them last week. With that being said, Dick's has provided me with my largest profits so far during the simulation. I have made almost \$800 from this past week, which really helped my confidence in the market after a few poor decisions I made. My confidence in Dick's will hopefully prove fruitful in the next coming weeks of simulation that I will make more of a profit off them. I still need to purchase the shares back but I need to wait until I am comfortable to purchase it a low price and the large increase in price is not very good if I plan to purchase them.

Twenty-First Century Fox (FOXA)

Twenty-First had a large upward spike of 3% this week and showed to be a good buy for me. This first sell of Twenty-First Century stock brought my second largest profit through the simulation. I am certain other sales will be as profitable as this one was. I was able to sell for a good profit and I plan on buying the stock later this next coming week once it reaches a respectable low value price.

Electronic Arts (EA)

EA dropped 1% since last week. I made the mistake to sell all the shares because of the large drop in prices. Because of my lack of knowledge of prices I lost over \$1,000 from selling 500 of my 720 shares. I thought it would be better to accept a majority of my losses now early in the simulation than to fight my way through a large hole that I was in but have confidence in the market. I then purchased the 500 shares I sold back in the middle of the week, then sold the same amount of it again for another loss at the end of the week. My current track with EA has been very shaky and unreliable. My goal is to learn from these mistakes so it will not happen again in the future.

Sony (SNE)

I haven't spent much time trading Sony stock like I have with most of my other stocks. Because of the 4.2% increase this week I was able to hold on to the stock longer because it never reached my resistant points. I sold a few shares of Sony in the middle of the week and took a small loss of less than \$10. I plan on keeping a closer eye on Sony next week and hold onto the shares to make a large profit.

Target (TGT)

Target has been very sporadic this week jumping everywhere in the market. Only increasing .03% total this week, I made two trades with Target shares, one for a small loss and the other for a larger profit. It was a very risky trading but I was able to regain traction with the large profit I made off them at the end of the week.

Bank of America (BAC)

I did not perform any trading this week with Bank of America because of its poor performance in the market. I am losing money through them and they have currently dropped 1.09% this week but I believe that next week will prove to be very different and have the values rise. I did sell a large portion of my original purchased shares from last week in order to cut my losses. My current list of transactions are shown by Table 4.2.

Date	Buy/Sell	Symbol	Shares	Price	Net Cost/ Proceeds	Profit/Loss	Total Cash	Total Profit
9/29/15	SELL	FTR	1000	\$4.78	\$4,780.00	(\$70.00)	\$56,006.48	(\$70.00)
9/29/15	BUY	FTR	1000	\$4.71	\$4,710.00		\$51,296.48	
9/29/15	SELL	DKS	100	\$48.93	\$4,893.00	(\$7.00)	\$56,189.48	(\$77.00)
9/29/15	SELL	FOXA	486	\$25.70	\$12,490.20	\$0.00	\$68,679.68	(\$77.00)
9/29/15	SELL	FOXA	486	\$25.67	\$12,475.62	(\$14.58)	\$81,155.30	(\$91.58)
9/30/15	SELL	FTR	1000	\$4.77	\$4,770.00	\$60.00	\$85,925.30	(\$31.58)
9/30/15	SELL	DKS	205	\$49.22	\$10,090.10	\$45.10	\$96,015.40	\$13.52
9/30/15	SELL	EA	500	\$66.72	\$33,360.00	(\$1,115.00)	\$129,375.40	(\$1,101.48)
10/1/15	BUY	FTR	1000	\$4.72	\$4,720.00		\$124,655.40	
10/1/15	BUY	EA	500	\$66.58	\$33,290.00		\$91,365.40	
10/1/15	SELL	SNE	500	\$24.67	\$12,335.00	(\$70.00)	\$103,700.40	(\$1,171.48)
10/1/15	SELL	TGT	316	\$79.06	\$24,982.96	\$22.12	\$128,683.36	(\$1,149.36)
10/1/15	SELL	SNE	92	\$24.73	\$2,275.16	(\$7.36)	\$130,958.52	(\$1,156.72)
10/2/15	BUY	FOXA	1000	\$26.89	\$26,890.00		\$104,068.52	
10/2/15	BUY	DKS	1000	\$49.38	\$49,380.00		\$54,688.52	
10/2/15	BUY	TGT	500	\$77.97	\$38,985.00		\$15,703.52	
10/2/15	SELL	FOXA	1000	\$27.37	\$27,370.00	\$480.00	\$43,073.52	(\$676.72)
10/2/15	SELL	NKE	400	\$124.34	\$49,736.00	(\$64.00)	\$92,809.52	(\$740.72)
10/2/15	SELL	FTR	1000	\$4.82	\$4,820.00	\$100.00	\$97,629.52	(\$640.72)
10/2/15	SELL	EA	400	\$65.93	\$26,372.00	(\$260.00)	\$124,001.52	(\$900.72)
10/2/15	SELL	BAC	800	\$15.14	\$12,112.00	(\$520.00)	\$136,113.52	(\$1,420.72)
10/2/15	SELL	DKS	1000	\$50.14	\$50,140.00	\$760.00	\$186,253.52	(\$660.72)

Table 4.2 Week Two Transactions

4.1.3 Week Three

This week I made fewer trades in the market and focused more on smarter and better trading. I had to make up for losing more than \$1,000 in the first week of trading. My portfolio

currently lies below the S&P 500 and has a negative percentage (See Fig. 4.2). It does not compare to what I had last week but I believe it will get better throughout the next few weeks.

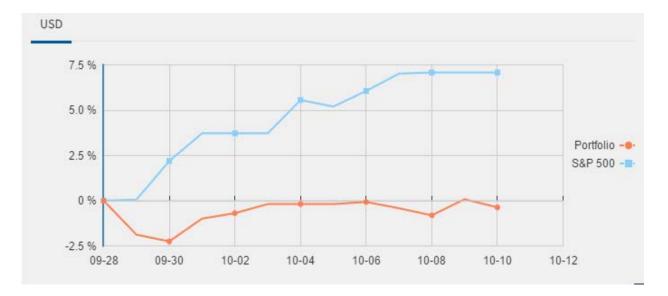


Figure 4.2 Investopedia Portfolio Example Week Three (Source Investopedia)

Frontier Communications (FTR)

This week Frontier had its largest increase since the beginning of the month, of 8.11% from last week. With my strategy I was never comfortable during the week to make a purchase for the fear of it dropping at any time. However, near the end of the week there was a change of prices where Frontier hit my first support line and I figured it was a good time to purchase the shares. Hopefully this trend continues next week so I could capitalized with this large upward trend in value.

<u>Nike (NKE)</u>

Nike did not experience any large influxes like last week and stayed flat most of the week. There was a small drop in price in the middle of the week that I was able to purchase 1,000 shares of stock. I sold half of my shares in the middle of the week and again at the end of the week for a profit of \$220. Growing overall at 0.90% this week I plan to look to see if it drops back down so I can purchase it again. I am still confident in Nike because of their large stock value.

Dick's Sporting Goods (DKS)

Dick's Sporting Goods fell hard during the week and I was able to capitalize on its decrease at the end of the week by purchasing 500 shares of it. The beginning of September showed a similar trend to what happened this so far in October so I expect their price to go up next week just as it did last month.

Twenty-First Century Fox (FOXA)

Twenty-First was very volatile during the week and I was not able to purchase any stock. I was not comfortable buying because it never showed a negative trend during the week and never truly met my goals that I set. I hope it will change next week so I can make a comfortable and smart purchase.

Electronic Arts (EA)

EA had a very eventful week this week. At the beginning of the week I sold my remaining shares of EA in order to have the least amount of losses and practically start over. Because of my quick sell first thing Monday, October 5th, I made about \$240 and no longer had EA stock. Later that week I made three purchase of shares, two of 250 shares and another of 1,000, at the closest lowest prices of their respected days. My logic is that the stock values will increase during next week and I can start making a profit off EA. From the beginning of the week to the end, EA dropped by about 2.99%.

Sony (SNE)

The previous two weeks I sold the rest of my Sony stock so I decided to purchase it again at its low point on Tuesday, October 6th. I was able to sell Sony during the middle of the week for a good profit of \$155. Sony took a sharp drop the day after I sold them, but did not have a chance to purchase any stock when it took that large drop. That being said I was able to make a good purchase late in the week which I am looking forward to sell later next week. The stock values appear to be increasing into next week but it is due for another drop.

Target (TGT)

From the previous week I sold the rest of Target stock for a profit of \$55. After that trade I bought and sold Target, on the same day, to make a nice profit of \$50. I chose not to buy any shares for the rest of the week because the prices never reached the target price derived by my strategy to buy. It showed a steady trend at the end of the week and might keep increasing in price starting next week.

Bank of America (BAC)

Like last week I spent little time trading with Bank of America. It constantly shows a downward trend so I am not confident enough to sell the rest of the shares I have left from the first week of simulation. My original purchase is still too high a value to sell at this point by my goal is that it will increase in value later this next week.

Table 4.3 shows my transactions throughout the third week.

Date	Buy/Sell	Symbol	Shares	Price	Net Cost/ Proceeds	Profit/Loss	Total Cash	Total Profit
10/5/15	SELL	EA	320	\$67.36	\$21,555.20	\$249.60	\$207,808.72	(\$411.12)
10/6/15	SELL	TGT	500	\$78.08	\$39,040.00	\$55.00	\$246,848.72	(\$356.12)
10/6/15	BUY	NKE	1000	\$123.47	\$123,470.00		\$123,378.72	
10/6/15	BUY	TGT	1000	\$78.02	\$78,020.00		\$45,358.72	
10/6/15	BUY	SNE	500	\$26.21	\$13,105.00		\$32,253.72	
10/6/15	SELL	TGT	1000	\$78.07	\$78,070.00	\$50.00	\$110,323.72	(\$306.12)
10/7/15	BUY	EA	250	\$66.29	\$16,572.50		\$93,751.22	
10/7/15	SELL	SNE	500	\$26.52	\$13,260.00	\$155.00	\$107,011.22	(\$151.12)
10/7/15	BUY	EA	250	\$65.85	\$16,462.50		\$90,548.72	
10/8/15	BUY	EA	1000	\$65.26	\$65,260.00		\$25,288.72	
10/8/15	SELL	NKE	500	\$123.71	\$61,855.00	\$120.00	\$87,143.72	(\$31.12)
10/8/15	BUY	SNE	500	\$26.11	\$13,055.00		\$74,088.72	
10/8/15	BUY	DKS	500	\$50.58	\$25,290.00		\$48,798.72	
10/8/15	SELL	NKE	500	\$123.68	\$61,840.00	\$105.00	\$110,638.72	\$73.88
10/9/15	BUY	FTR	1000	\$5.27	\$5,270.00		\$105,368.72	

Table 4.3 Week Three Transactions

4.1.4 Week Four

Week Four is the halfway mark for our simulations and this week featured less trading than past weeks. Thursday, October 15th and Friday the 16th did not show enough change for me to make any trades so this week was not a good week for me. It appears to me I have become more passive with my trades unlike most of the past weeks in the simulations where I have shown to be more aggressive and risky. I have now made \$3,285.32 from my starting amount and now have a return rate of 3.35%. Currently my portfolio is positive but under the S&P 500 mark (See Fig. 4.3).

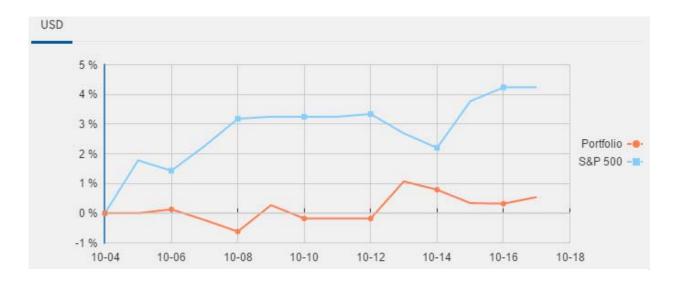


Figure 4.3 Investopedia Portfolio Example Week Four (Source Investopedia)

Electronic Arts (EA)

Electronic Arts had a large impact on my total profit from the previous three weeks, usually in a negative fashion. I lost about \$1,500 through poor trading in those first three weeks of trading. My purchase of 1,500 shares last week finally showed some promise as EA grew by 10.4% through this week of simulation (See Fig. 4.4). I was able to sell it for a profit of \$2,700, which is now the largest profit I have had through three weeks.

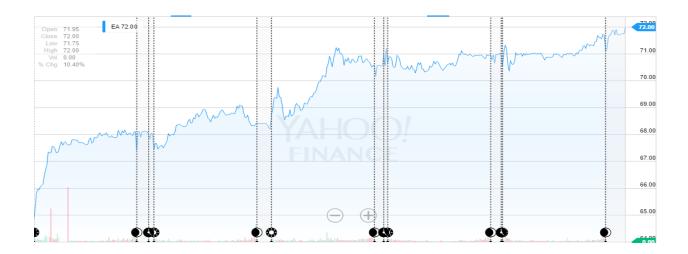


Figure 4.4 EA 5-Day Stock Chart (Source Yahoo Finance)

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Bank of America (BAC)

I have been holding onto 144 shares of Bank of America since the first week of the simulation. From that initial week I have been unable to sell it for a profit up until this week. I was able to sell it for a very small and minimal profit but I was able to get rid of it regardless of the price. This gives me more moves to make regarding the trading of Bank of America stock since I will no longer be losing money with them. I am happy to be able to start over and use my strategy more efficiently and make good money.

Target (TGT)

I purchased Target right after it dropped 5% Wednesday, October 14th in the hopes that the prices will rebound and rise for a good profit. I was not able to sell it this week but I look forward to next week of simulation and I believe that Target's stock value should go up.

TG Therapeutics, Inc. (TGTX)

TG Therapeutics was an accidental purchase I made on Thursday, October 15th. I was hoping to trade with Target but I accidentally inputted an "X" into the software for trading, which in turn made the trade with another company. To my surprise I made a quick \$510 after having it for a short time this week after realizing the mistake.

Date	Buy/Sell	Symbol	Shares	Price	Net Cost/ Proceeds	Profit/Loss	Total Cash	Total Profit
10/12/15	SELL	EA	1500	\$67.33	\$100,995.00	\$2,700.00	\$206,363.72	\$2,773.88
10/12/15	SELL	SNE	500	\$26.74	\$13,370.00	\$315.00	\$219,733.72	\$3,088.88
10/13/15	BUY	SNE	1000	\$26.68	\$26,680.00		\$193,053.72	
10/14/15	SELL	BAC	144	\$15.80	\$2,275.20	\$1.44	\$195,328.92	\$3,090.32
10/14/15	BUY	TGTX	1500	\$12.34	\$18,510.00		\$176,818.92	
10/14/15	SELL	TGTX	1500	\$12.68	\$19,020.00	\$510.00	\$195,838.92	\$3,600.32
10/14/15	BUY	TGT	1000	\$76.33	\$76,330.00		\$119,508.92	

Table 4.4 shows my transactions throughout Week Four.

Table 4.4 Week Four Transactions

4.1.5 Week Five

This week had my largest profit so far through five weeks of simulation. I did lose more than half of my profit on Friday, October 23rd from a large drop in stock value.

Frontier Communications (FTR)

I was able to sell Frontier this week for a profit of \$100 after holding onto it. This was the first transaction I made with Frontier in two weeks. They have been showing a large increase in value over the past week and I was unable to capitalize on the increase using my strategy. It has been a slow rising trend and it would not have been efficient for me to purchase the stock if it never followed up with my strategy. I expect prices to fall so I can purchase more Frontier stock and make more money off them. I have not seen this happen yet at the end of the week on Friday the 23rd.

Nike (NKE)

This week I bought Nike at \$132.04 in the middle of the week while the price was low (See Fig. 4.5). Unfortunately, as seen from Figure 4.5, prices had a large drop at the end of the week. I am losing money from my original purchase. I think that Nike will rebound and go above \$132.04 by the end of either next week or the week after, before the end of simulations.



Figure 4.5 Nike Two Week Stock Chart (Source Yahoo Finance)

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Dick's Sporting Goods (DKS)

This week I had the worst performance from Dick's in all of the weeks of simulation. After announcing the opening of three new super-shops, stock prices plummeted from \$47 to \$42 for the majority of the week (See Fig. 4.6). I purchased Dick's at \$50 two weeks ago so I ended up cutting my losses and sold almost all my shares with Dick's after the stock prices dropped. This loss accumulated to \$3,200 which is the worst loss I have gotten so far through six weeks in simulation. I have not had a loss this poorly since Week Two when I sold Electronic Arts for a loss of about \$1,000.



Figure 4.6 Dick's Sporting Goods Two Week Stock Chart (Source Yahoo Finance)

Twenty-First Century Fox (FOXA)

I bought and sold Twenty-First this week for a nice profit of \$230 during the week. I did not see another opportunity after Tuesday, October 21st, to comfortably purchase shares again using my strategy. From what I see right now, Twenty-First has stayed stable throughout the week just as it did last week. I only guess is that prices will drop again to purchase it and make more money from them.

Sony (SNE)

Sony was my most active stock during the week with four transactions. I was able to make profit of this week for a sum of \$1,610 after selling it in the beginning and middle of the week. I was able to purchase it again at the end of the week in hopes that the value will increase next week. Coming near the end of the simulations, Sony has proven to be the most fruitful all through the campaign.

Bank of America (BAC)

I purchased and sold Bank of America this week and made \$130 from the transaction. I did not make another purchase of this stock during the week but I my belief is that prices will fall back down again so I will be able to purchase it and make a profit before the simulation ends.

Date	Buy/Sell	Symbol	Shares	Price	Net Cost/ Proceeds	Profit/Loss	Total Cash	Total Profit
10/19/15	SELL	SNE	1000	\$27.29	\$27,290.00	\$610.00	\$146,798.92	\$4,210.32
10/19/15	BUY	FOXA	500	\$29.29	(\$14,645.00)		\$132,153.92	
10/19/15	BUY	BAC	500	\$16.15	(\$8,075.00)		\$124,078.92	
10/20/15	SELL	FTR	1000	\$5.37	\$5,370.00	\$100.00	\$129,448.92	\$4,310.32
10/20/15	BUY	SNE	1000	\$27.15	(\$27,150.00)		\$102,298.92	
10/21/15	SELL	FOXA	500	\$29.75	\$14,875.00	\$230.00	\$117,173.92	\$4,540.32
10/21/15	BUY	NKE	500	\$132.04	(\$66,020.00)		\$51,153.92	
10/21/15	SELL	SNE	1000	\$28.15	\$28,150.00	\$1,000.00	\$79,303.92	\$5,540.32
10/23/15	SELL	BAC	500	\$16.41	\$8,205.00	\$130.00	\$87,508.92	\$5,670.32
10/23/15	SELL	DKS	400	\$42.56	\$17,024.00	(\$3,208.00)	\$104,532.92	\$2,462.32
10/23/15	BUY	SNE	500	\$28.44	(\$14,220.00)		\$90,312.92	

As of right now I still have about \$2,500 in profit from the simulation (See Table 4.5).

Table 4.5 Week Five Transactions

4.1.6 Week Six

This week I made the fewest amount of transactions through all six weeks of simulation. According to Investopedia, my portfolio stayed at 0% while the S&P 500 Index ended up dropping to -100% (See Fig. 4.7).

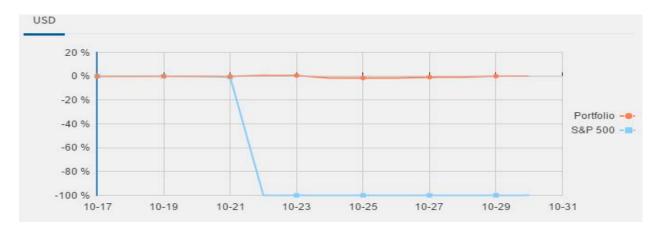


Figure 4.7 Investopedia Portfolio Example Week Six (Source Investopedia)

Frontier Communications (FTR)

I bought Frontier shares on Tuesday, October 27th after it reached my second and last support line. I purchased it early at the beginning of the week in expectation that prices will rise and I will be able to sell it for a profit My prediction did not come true when Frontier turned into a negative trend from Starting Monday the 26th, the day before I bought it, all the way to Friday the 30th. The past few weeks have not shown a long lasting negative trend in stock value so I believe that these prices will not continue being as low as they are right now. I just need to find the perfect time to either buy more shares or if the price goes up, sell it at an appropriate time.

Sony (SNE)

Much like I did last week, I was able to capitalize on Sony's rise in stock price. I was able to make a profit of about \$220 and ended up purchasing it again that same day. My goal is to see Sony's price increase this coming week so I can continue making a large profit on them like I have for these past weeks.

Electronic Arts (EA)

With my large success with EA the past three weeks I took another gamble at the end of this week. EA has been having a large success rate with their new sports games and their subsidiaries doing very well I decided it would be a good time to purchase their stock at the end of the week. I think that their increase in popularity will increase stock value and I will be able to make a large profit off them like I did two weeks ago.

Target (TGT)

I have been holding onto Target for a few weeks now in expectation that it will increase. I was able to sell it for a profit of \$1,240 after a huge increase in value on Friday, October 30th (See Fig. 4.8). I plan on purchasing it next week and aspire to create another large profit like I did this week.

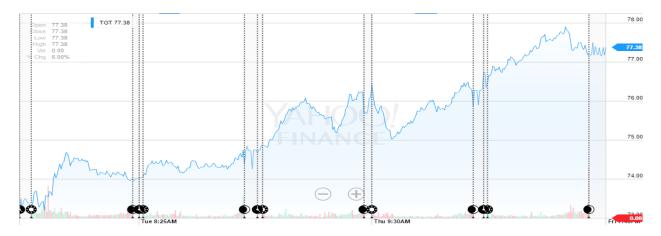


Figure 4.8 Target One Week Stock Chart (Source Yahoo Finance)

This is the second to last week of our simulations and as Table 4.6 shows, I have made almost \$4,000 through six weeks.

Date	Buy/Sell	Symbol	Shares	Price	Net Cost/ Proceeds	Profit/Loss	Total Cash	Total Profit
10/27/15	BUY	FTR	1000	\$5.23	(\$5,230.00)		\$85,082.92	
10/28/15	SELL	SNE	500	\$28.88	\$14,440.00	\$220.00	\$99,522.92	\$2,682.32
10/29/15	BUY	SNE	1000	\$28.00	(\$28,000.00)		\$71,522.92	
10/30/15	BUY	EA	500	\$72.79	(\$36,395.00)		\$35,127.92	
10/30/15	SELL	TGT	1000	\$77.57	\$77,570.00	\$1,240.00	\$112,697.92	\$3,922.32

Table 4.6 Week Six Transactions

4.1.7 Week Seven

This week was the last week of my simulation. I made most of my trades later in the week after prices rebounded on Wednesday, November 4th. There were a few opportunities I missed during the week where I could have made a lot more but I still ended the week making a profit. I did stay above the S&P 500 index all through the week as seen in Figure 4.9. On Friday the 6th I sold all my stock left to get a total profit of \$3,451.32 over the seven week simulation.



Figure 4.9 Investopedia Portfolio Example Week Seven

Twenty-First Century Fox (FOXA)

This week I bought Twenty-First while it was going down on Wednesday the 4th. I thought I purchased it at its lowest point but the value continued to drop as the day went on. The

value went back up by only a few cents over what I originally bought it for over the following two days (See Fig. 4.10). I sold it on Friday for a profit of \$765.



Figure 4 10 Twenty-First Century One Week Stock Chart (Source Yahoo Finance)

Dick's Sporting Goods (DKS)

As I said in my Week Five report, I made a big mistake in letting go of Dick's' shares which ended up costing me almost half of my profit through the five weeks of simulation. I did end up holding onto a few shares in the event that the prices would rise above the value I purchased them at. They never met my previous buy price and I ended up selling the rest of the held stock and lost \$600 for a total loss of \$3,808 in the past three weeks. (See Fig. 4.11).

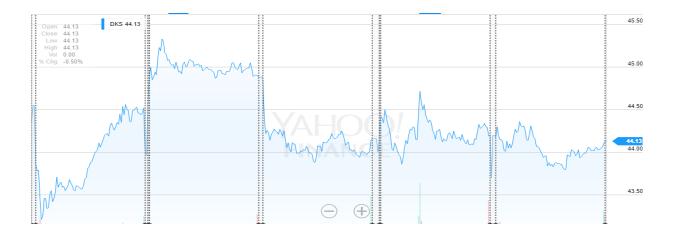


Figure 4.11 Dick's Sporting Goods One Week Stock Chart (Source Yahoo Finance)

Nike (NKE)

I have been holding onto Nike for about a week in hope for its value to increase. The price did jump up on Thursday, November 5th but I did not sell it because it did not reach my sell target generated by my strategy. With that being said I did sell it on that Friday to make a profit of \$20 (See Fig. 4.12). I was slightly disappointed Nike did not perform as well as I thought it would have since it is one of the largest sports clothing and foot-ware retailers not only in the country but also in the world. I did want to make a larger profit off them but I never made more than a few hundred dollars.

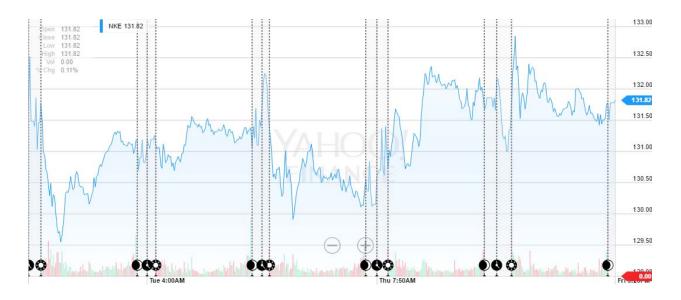


Figure 4.12 Nike One Week Stock Chart (Source Yahoo Finance)

Frontier Communications (FTR)

Last week I purchased 1,000 shares of Frontier thinking that this week prices would shoot up high enough to make a profit for the final week. In reality Frontier ended up making me lose money at the end of the week. Frontier has stayed very continuous through seven weeks of simulation. It was not until the last few weeks of simulation that the value of stock reached over \$5.00 for the first time in a half a year. I lost a total of \$570 from them after I sold them on Friday, November 6th.

Sony (SNE)

Last week I was very profitable with Sony stock so I purchased it in hopes that I would continue my luck with the stock prices. I sold that Sony stock and I was able to make a small profit of \$20. I was very excited that Sony did well for me during these last few weeks of simulation. I did not see another chance in the beginning of the week to purchase more of their stock but I am still very happy on the profit I have been able to make through Sony.

Electronic Arts (EA)

I was holding onto Electronic Arts for a week in hopes that it will go up in value. During the week it actually decreased and I lost \$90. I was disappointed about EA not doing better after some releases of new games and videos. I was hoping it would go up by the end of the week but it did not. EA brought me my largest profit through the seven weeks of simulation in Week Four.

Table 4.7 shows my	v transactions for the final	al week of simulations	s including my total profit.
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Date	Buy/Sell	Symbol	Price	Shares	Net Cost/ Proceeds	Profit/Loss	Total Cash	Total Profit
11/4/15	BUY	FOXA	\$1,500.00	\$29.22	\$43,830.00		\$68,867.92	
11/5/15	SELL	DKS	\$100.00	\$44.42	\$4,442.00	(\$616.00)	\$73,309.92	\$3,306.32
11/5/15	SELL	NKE	\$500.00	\$132.08	\$66,040.00	\$20.00	\$139,349.92	\$3,326.32
11/6/15	SELL	FOXA	\$1,500.00	\$29.73	\$44,595.00	\$765.00	\$183,944.92	\$4,091.32
11/6/15	SELL	FTR	\$1,000.00	\$4.66	\$4,660.00	(\$570.00)	\$188,604.92	\$3,521.32
11/6/15	SELL	SNE	\$1,000.00	\$28.02	\$28,020.00	\$20.00	\$216,624.92	\$3,541.32
11/6/15	SELL	EA	\$500.00	\$72.61	\$36,305.00	(\$90.00)	\$252,929.92	\$3,451.32

Table 4.7 Week Seven Transactions

4.2 Results

I learned a lot from the seven week simulation in the stock market for short term gains but since we only did it for seven weeks it was not a good example of real life situations. With no commission for trading and multiple trades a day it did not represent a real life like stock market situation. We had to make sure that all requirements were met while following our respected trading techniques. Mine was very good for this short term schedule but was very risky and dangerous if done in real life.

Figure 4.13 shows the distribution of profit for all nine companies through the seven weeks of simulation. The first three weeks of simulation I was constantly losing money through my initial investment made on the first week. At the end of that third week I finally started to make money after losing a total of \$1,420.72. I was able to rebound and begin making profit by the fourth week and never went under again through the seven weeks of simulation, reaching a maximum profit of \$5,670.32 by week six, and making a final profit of \$3,451.32 by the end of week seven.

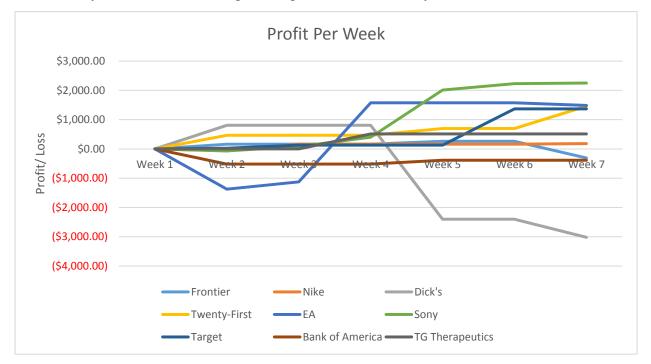


Figure 4.13 Profits by Company

There were a few situations I should have done better starting with the first week. I purchased my first stocks on the Friday of the first week which I learned was a bad idea. From my experience now I do not think purchasing stock at the end of the week is a great idea. My stocks repetitively showed the trend of increasing throughout the week in value but then falling the week after. On occasion I was lucky with holding my stock for the following week and making large profit off it.

Pivot Point trading has shown me how risky investments can be. With daily trading, I am susceptible to losing lots of money between two and four days. It felt like throughout the weeks that pivot points are not very useful for trading every day, rather it would be more efficient to do it every three or four days. It would then be safer to look at prices over a few days than base trades off a few minutes or hours. It appears to me that each day can hold something differently. In one situation I can purchase shares that will be valuable only for that one day. The prices could go up a few cents or down a few cents and depending on how many shares purchased, it could mean only a few dollars to maybe a more significant amount. The next day though the prices can change and my shares can either be very profitable or I can go bankrupt. I think that depending on situational uses of pivot point trading can they be efficient enough to make large amounts of profit or fully tank and go under. For me, it was usually in small amounts per day I actually ended up losing money but days that I held into shares, I either made a few hundred to a thousand dollars or lost an equal amount.

Daily trading is good and useful if one has money and needs short term gains and is not looking for large long term gains. As a result, daily trading was very beneficial for this short term seven week simulation in the stock market. But for real world situations, daily trading is not very useful because of the short term gains and no long term contingency plan.

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Chapter 5 Swing Simulation

Over the course of this seven week simulation, I will be monitoring and trading eight companies that I have selected based on Market Capitalization size, daily trading volume, and overall cost. These eight companies are Oracle Corp, Cisco System Inc., Hartford Financial Services Group Inc., E*TRADE Financial Corp, Joy Global Inc., MGM Resorts International, Qualcomm Inc., and Wal-Mart Stores Inc. The simulation on Investopedia allows us initial cash of \$250,000 and no commissions for our trades. We also have chosen to use a stocks only method in the United States.

5.1 Progression of Trading

5.1.1 Week One

This week we observed minimal changes in the share prices of the above companies. While the delay of the Federal Reserve rates increase hurt the financial sector's share prices, they bounced back quickly and returned to a growing trend. Second quarter economic growth increased at a faster rate than expected, lending the Fed to show more favorability to a rates up towards the end of the year. Financial Sector stock will begin to build a rates increase into their share prices, but short term volatility will likely remain constant. Walmart, a traditionally steady growing stock, dipped towards the end of the week due to market speculation. We expect that Cisco and Oracle will remain constant earners and provide ample opportunity for growth in the owned percentage of the company. We reserved \$50,000 to increase positions in companies that display promising growth and opportunity for swing trading (See Table 5.1).

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
9/24/15							\$250,000.00	
9/25/15	ORCL	BUY	\$35.72	600	(\$21,432.00)		\$228,568.00	
9/25/15	WMT	BUY	\$63.60	600	(\$38,160.00)		\$190,408.00	
9/25/15	CSCO	BUY	\$25.83	2000	(\$51,660.00)		\$138,748.00	
9/25/15	ETFC	BUY	\$26.24	1200	(\$31,488.00)		\$107,260.00	
9/25/15	HIG	BUY	\$45.12	800	(\$36,096.00)		\$71,164.00	
9/25/15	MGM	BUY	\$19.56	600	(\$11,736.00)		\$59,428.00	
9/25/15	JOY	BUY	\$15.03	400	(\$6,012.00)		\$53,416.00	

Table 5.1 Week One Transactions

5.1.2 Week Two

Early in the week my portfolio tumbled from earning barely over the S&P 500 Index, shown beneath, to 1 percent less than the index. However, late in the week my portfolio jumped up again above the S&P 500 (See Fig. 5.1). I took advantage of the jump to buy a few stock low and will sell them at the beginning of the week next week.



Figure 5.1 Investopedia Portfolio Example Week Two (Source Investopedia)

<u>E*TRADE Financial Corp (ETFC)</u>

This stock has been extremely volatile over the past week and it has been hard to get a good line on the direction of the share price. This week I short sold the stock, because it had a negative moving average during the two days I was monitoring it and appeared not to be slowing down. Next week I will consider buying in order to cover.

Cisco Systems Inc. (CSCO)

As of the past week this stock has been steadily growing at 3% of what I had initially bought it for. However, it took a dip at the end of the week, but I still believe it has room to grow before it takes a larger drop in share price. I bought a few more shares of the company in anticipation of growth over the next weeks. I will reconsider my position next week based on the growth patterns.

Walmart (WMT)

Walmart recovered after a few weeks of slow growth. Historically, Walmart is a consistent large cap growth stock with lots of revenue to be made. I will consider selling this stock next week after the 3% growth that is currently occurring plateaus.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
9/29/15	MGM	SELL	\$17.81	600	\$10,686.00	(\$1,050.00)	\$64,102.00	(\$1,050.00)
9/29/15	ORCL	BUY	\$35.54	600	(\$21,321.00)		\$42,781.00	
9/30/15	JOY	SELL	\$14.77	400	\$5,906.00	(\$106.00)	\$48,687.00	(\$1,156.00)
9/30/15	CSCO	BUY	\$26.21	400	(\$10,484.00)		\$38,203.00	
10/2/15	ETFC	SELL	\$25.36	200	\$5,072.00	(\$176.00)	\$43,275.00	(\$1,332.00)
10/2/15	ORCL	BUY	\$36.55	200	(\$7,310.02)		\$35,964.98	
10/2/15	ETFC	SHORT SELL	\$25.45	1000	\$25,445.00	(\$971.00)	\$61,409.98	(\$2,303.00)

Table 5.2 shows my current transactions through the second week.

Table 5.2 Week Two Transactions

5.1.3 Week Three

Oracle Corp (ORCL)

Oracle was one of my long term hold companies, that I was assured would constantly make money over the long term. This week I finally decided to sell my position on Oracle in order to gain a large profit. I felt that this was a prime week to sell after the market has been consistently finishing with positive gains. The S & P 500 has been up nearly 4% over the past two weeks and my portfolio has positive correlation to that increase. I managed to make roughly a 10,000 dollar profit from selling my shares to dig myself out of the early hole that I found myself in at the beginning of week one.

Joy Global (JOY)

This past week saw Joy Global reach the bottom of a sharp decline in their stocks since August. Currently their share price is around eighteen dollars, but in August it was seen around thirty two dollars. Even though this week ended negative the overall trend appears positive (See Fig. 5.2). There was a positive three day moving average that I saw in the past week and I wanted to capitalize on further gains, because it looks like the company is due for a sharp increase in share price over the next month.



Figure 5.2 Joy Global 3-Month Stock Chart (Source Investopedia)

Qualcomm Inc. (QCOM)

Early last week I observed Qualcomm Inc., a semiconductor and telecommunications making at the least 9% a day in profits, so I was drawn to the stock and purchased 400 shares of this company. The Market Capitalization of Qualcomm is 90.78 Billion, again making it a prime target for Swing Trading. In week two they had a market correction in their stock and initially the stock dipped, but it has made it back into the black with about a three and a half percent gain over the past week. These gains can be attributed to Qualcomm's claim that their new data center chips will be competitive in performance and price with Intel's chips. This new found competition is driving up their share price, and I plan to take advantage of that in the coming weeks.

Currently I have been very even with the S&P 500 Index as shown in Figure 5.3 and my current list of transactions are shown in Table 5.3.



Figure 5.3 Investopedia Portfolio Example Week Three (Source Investopedia)

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
10/5/15	ORCL	SELL	\$37.26	1400	\$52,164.00	\$9,411.00	\$113,573.98	\$7,108.00
10/6/15	QCOM	BUY	\$56.00	400	(\$22,400.00)		\$91,173.98	
10/6/15	HIG	SELL	\$46.62	800	\$37,296.00	\$1,200.00	\$128,469.98	\$8,308.00
10/6/15	JOY	BUY	\$16.37	600	(\$9,822.00)		\$118,647.98	
10/6/15	ETFC	SELL	\$26.38	1000	\$26,380.00	\$935.00	\$145,027.98	\$9,243.00
10/6/15	JOY	SELL	\$16.18	600	\$9,708.00	(\$114.00)	\$154,735.98	\$9,129.00
10/6/15	CSCO	BUY	\$27.33	100	(\$27,330.00)		\$127,405.98	
10/6/15	ETFC	BUY TO COVER	\$25.81	1000	(\$25,805.00)		\$101,600.98	
10/8/15	JOY	BUY	\$18.25	1600	(\$29,200.00)		\$72,400.98	
10/8/15	MGM	BUY	\$20.94	400	(\$8,377.28)		\$64,023.70	
10/9/15	MGM	SELL	\$21.12	400	\$8,446.00	\$68.72	\$72,469.70	\$9,197.72

Table 5.3 Week Three Transactions

5.1.4 Week Four

Walmart (WMT)

This week Walmart cut deeply into the gains I have made in previous weeks of trading. This share price drop came on the heels of Walmart announcing that it would raise the wage of employees, which would cut into the profitability of the company (See Fig. 5.4). According to CNBC, "Walmart CEO Doug McMillon told CNBC that investors overreacted because 'People have known that \$10 was coming for a while. This news today was just we quantified it for everybody.' McMillon tried to sell the \$10 as a "wage investment" but investors apparently disagreed. McMillion also tried to stop the stock drop by announcing a \$20 billion stock buyback, to no avail" [11]. However, I was not alone in taking the portfolio hit as many other investors and firms experienced equivalent outcomes. Warren Buffett's investment vehicle, Berkshire Hathaway, also took a large hit as Walmart was a concentrated position, 60.39 million shares, in the company's falling stock.



Figure 5.4 Walmart Monthly Stock Chart (Source Investopedia)

Joy Global (JOY)

This week Joy Global has adopted a negative trend (See Fig. 5.5). The stock on a whole is down roughly 11%. Currently, the share price is at \$16.28 and I purchased it at \$18.25 in week two. I am still predicting that the stock will resurge and gain back the losses it sustained in the past week. I will reconsider my position next week into either a sell technique or a short sell to estimate if future gains are on the way. This stock is particularly hard to keep a thumb on because it has



Figure 5.5 Joy Global Monthly Stock Chart (Source Investopedia)

such a low share price, but a rather high market cap. On Friday of week three it dropped 5% in one day.

My current list of transactions at the end of this week are shown in Table 5.4.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
		SHORT						
10/14/15	WMT	SELL	\$61.13	600	\$36,675.36	(\$1,484.64)	\$109,145.06	\$7,713.08
		BUY						
		ТО						
10/16/15	WMT	COVER	\$59.22	600	(\$35,532.00)		\$73,613.06	

Table 5.4 Week Four Transactions

5.1.5 Week Five

Joy Global (JOY)

Joy Global continues to be a problem for my portfolio. This stock has high variation from day to day and is nearly impossible to nail down a consistent trend over the past few weeks. At this point in our trading simulation, I am trying to find a sell point at which I could reduce the nearly two thousand dollar deficit sustained in previous weeks of trading. In hindsight, Joy Global would have been a better target for day trading to take advantage of the large daily swings. In my estimation from the graph below, the stock is still primed for a major rebound, but it won't be before the end of the simulation. On Friday, October 23rd, the stock closed at \$17.54. This was an

overall positive week for the struggling stock, but not enough to make a large dent in the previous week's losses (See Fig. 5.6).

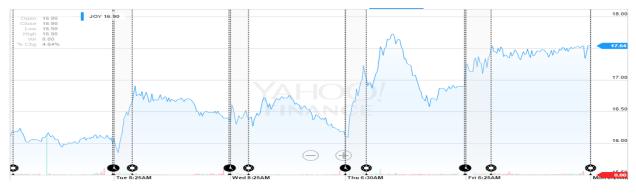


Figure 5.6 Joy Global One Week Stock Chart (Source Yahoo Finance)

E*TRADE Financial Corp (ETFC)

This week E*TRADE made substantial gains early in the week, and sustained them late into this week by gaining a full dollar on their share price on Friday the 23rd. I purchased the stock late on Friday hoping to take advantage of the gains that were being made, but it only gained a small amount after I bought it. E*TRADE looks like it is also primed to make some strong returns throughout our last week of trading. I will reevaluate my position in this company next week after more solidified trends are presented. The stock closed at just above \$28 on Friday, October 23rd, with most of the profit being made on Friday. E*TRADE will be able to garner some higher profits for the foreseeable future, barring some unforeseen cause, until the Federal Reserve decides that the U.S. and the World can handle an increase in interest rates. However, according to Binyamin Appelbaum of the New York Times, "Daniel K. Tarullo, a member of the Federal Reserve's Board of Governors, said on Tuesday he did not 'expect that it would be appropriate' for the Fed to start raising its benchmark rate this year" [15]. This means that the sentiment towards raising interest rates will likely not gain any support after the December 12th news conference held by Fed chairwoman, Janet Yellen (See Fig. 5.7).



Figure 5.7 E Trade One Month Stock Chart (Source Investopedia)

Table 5.5 shows my list of transactions for this week.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
10/23/15	ETFC	BUY	\$28.22	400	(\$11,286.00)		\$62,327.06	

Table 5.5 Week Five Transactions

5.1.6 Week Six

Walmart (WMT)

In week 6 of our trading simulation, Walmart continued the veritable free fall represented in the graph below, Figure 5.8. Again this was in reaction to a public statement made by Walmart that the wages increase would cut into the Earnings per Share for the company. Personally, I hoped that the stock would rebound quickly, because the company has proved to be a resilient competitor in the stock market. My inkling proved to be incorrect, so I was forced to sell my position in the company on Friday, October 30th. This stock alone caused me to lose roughly \$3,000 of the overall profit that I earned in weeks previous. The stock on a whole has dropped 10 dollars since this announcement in the middle of this month. I am confident that the stock will rebound in the following quarter, but not soon enough for me continue to own stock in this company for the final week of trading.



Figure 5.8 Walmart One Month Stock Chart (Source Investopedia)

Oracle Corp (ORCL)

Although I did not hold a position in Oracle this week, I noticed their stock beginning to make an upward trend in the latter half of the week. I will obtain a position in the company at the beginning of the week with the hope that I can sell this same position at the end of the week for a small profit. Oracle would be purchase to try to regain some of the profits lost by Walmart in this coming week. On Friday, October 30th, Oracle stock's closed at \$38.84 (See Fig. 5.9). Since last week is the last week I will also be strengthening my positions in my highest earning stocks to solidify a larger gain for my portfolio on the whole.



Figure 5.9 Oracle One Year Stock Chart (Source Investopedia)

Table 5.6 shows my list of transactions for this week.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
10/29/15	WMT	SELL	\$57.66	600	\$34,596.60	(\$935.40)	\$96,923.66	\$6,777.68

Table 5.6 Week Six Transactions

5.1.7 Week Seven

Cisco Systems Inc. (CSCO)

This was the final week of the seven week simulation so I decided to increase my position in Cisco. Cisco has consistently been my top earning company throughout the duration of the simulation. Overall Cisco earned me close to \$8,500 in the short seven week simulation we had. I sold my position in the company on Wednesday, November 8th. Cisco reached a local maximum for the trading and rather than incur extraneous risk by waiting to see if it would continue with an upward, I cashed in on the gains I made. In retrospect, Cisco is a secure stock with little to no downward trends in its stock (See Fig. 5.10). Cisco may have been a better target for position trader to use over the duration of this simulation.



Figure 5.10 Cisco One Year Stock Chart (Source Investopedia)

Qualcomm Inc. (QCOM)

Qualcomm Inc. ended Week 6 with a strong positive trend and begun this week with the continuation of this same trend. I believed that the company was moving towards a strong trend for the duration of the week and I could capitalize on a strong finish. However, the stock took an unexpected dip in price which caused it lose the gains it had made the previous week and also drop close to 11% since the time that I purchased it early in Week Seven. No news articles surfaced about this drop in share price, which leads me to believe that this was simply a correction in the stock caused by investor sentiment and speculation. The afterhours trading allowed it to gain nearly

half of the lost percentage on Friday. According to Investopedia, the stock lost almost seven dollars on Thursday, November 5th alone (See Fig. 5.11).



Figure 5.11 Qualcomm One Year Stock Chart (Source Investopedia)

Table 5.7 shows my final list of transactions at the end of simulation including my total

profit.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
11/4/15	ORCL	BUY	\$28.68	1000	(\$32,344.00)		\$64,579.66	
11/4/15	CSCO	BUY	\$28.68	1000	(\$28,675.00)		\$35,904.66	
11/4/15	QCOM	BUY	\$60.83	1000	(\$60,830.00)		(\$24,925.34)	
11/4/15	JOY	SELL	\$17.19	1600	\$27,504.00	(\$1,696.00)	\$2,578.66	\$5,081.68
11/4/15	CSCO	SELL	\$28.75	4400	\$126,500.00	\$8,351.00	\$129,078.66	\$13,432.68
11/5/15	ETFC	SELL	\$28.96	400	\$11,584.00	\$298.00	\$140,662.66	\$13,730.68
11/6/15	ORCL	SELL	\$40.62	800	\$32,496.00	\$152.00	\$173,158.66	\$13,882.68

Table 5.7 Week Seven Transactions

5.2 Results

According to the table in the above Chapters, I managed to turn a nearly \$15,000 profit over the past seven weeks of trading. However, we did operate in a system where trades did not cost any money and there were no commissions deducted to profit a trading company had this been a live simulation. Overall, the simulation proved invaluable for a "real time" trading situation. My knowledge of the stock market system and use of various trading strategies increased throughout the duration of the seven weeks. However, due to the short length of the project my group was not able to fully utilize our respective strategies.

In this time horizon, we were actually investing based on short-term volatility rather than the actual required observation times for the strategies. The group had to scale down their length of time between investments to fit the project parameters. In this time that we did have, I personally learned to mistrust stocks and their growth. I was not able to wait for a stock to rebound and gain ground that was previously lost. I needed to make quick decisions based on one or two days of data to protect my \$250,000 initial investment. Initially I was holding on to stock for too long, hoping that they would bounce back, but had to abandon them as they quickly cut into the dollar worth of my portfolio. I also learned that there are numerous factors that affect the share price of a certain company. For example, the Federal Government's decision to either raise or not change the Interest Rate weighed heavily on my stocks during the first two weeks of trading. I held positions in a few financial/insurance sector stocks such as E*TRADE and HIG that lost me thousands of dollars in late September. Investors hedged themselves against the prospect of a rates increase during this time and I was caught in the middle of a substantial sell off. This sell off is represented by the below figure, Figure 5.12, which is a graph of the S&P 500 Index over the duration of our simulation.



Figure 5.12 S& P 500 Graph from Yahoo Finance

Another large factor that affected my stocks was the quarter end earnings reports that a few of the large cap stocks I owned released. In particular, Walmart was affected the most in a negative way. I lost over \$2,000 in this company alone because of a negative earnings report that scared investor's enough to cause a nearly \$10 drop in share price.

Chapter 6 Trend Trading

Over the course of this seven week simulation, I will be monitoring and trading five companies that I have selected. These five companies are IHS Inc. (IHS), MFA Financial Inc. (MFA), Amtech Systems Inc. (ASYS), Riverview Bancorp Inc. (RVSB), and Apple Inc. (AAPL). The simulation on Investopedia allows us initial cash of \$250,000 and no commissions for our trades. We also have chosen to use a stocks only method in the United States.

6.1 Progression of Trading

6.1.1 Week One

We decided that it would be more beneficial to purchase more shares of a cheaper stock and a smaller amount for a more expensive amount. From our decision we left a lot of money left on the table for more investment later in the future of our simulation (See Table 6.1). No major changes occurred in the past week of stocks and have been rather stagnant so far. We hope to see changes later in the future for our simulation.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost / Proceeds	Profit/ Loss	Total Cash	Total Profit
9/25/15	HIS	BUY	\$111.73	100	\$11,173.00		\$238,827.00	
9/25/15	MFA	BUY	\$7.03	1000	\$7,030.00		\$231,797.00	
9/25/15	RVSB	BUY	\$4.37	5000	\$21,850.00		\$209,947.00	
9/25/15	ASYS	BUY	\$4.69	5000	\$23,450.00		\$186,497.00	
9/25/15	AAPL	BUY	\$114.71	200	\$22,942.00		\$147,785.00	

Table 6.1 Week One Transactions

6.1.2 Week Two

Last week at market open on the twenty-fifth I purchased just under \$100,000 of holdings in IHS Inc. (IHS), MFA Financial Inc. (MFA), Amtech Systems Inc. (ASYS), Riverview Bancorp Inc. (RVSB), and Apple Inc. (AAPL). Every purchase that was made was supported by either a short-term and long-term bullish indicators with moving-average crossover and MACD confirmations. On the First of October, I made an initial investment in Tesla Motors (TSLA). Tesla had a strong MACD indicator and was experiencing a small downward correction where I bought at the bottom, trusting in the upward trend. Moving into the future, I think that Tesla Motors is a good investment and I would like to buy more in Tesla if I get the chance. Moving-average crossovers are one of the most trusted ways of identifying bullish/bearish trends. Keeping an eye on these charts will be one of my number one buy/sell indicators moving into the future.

Table 6.2 shows my transactions in Week Two.

Date	Symbol	Buy/Sell	Price	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
10/1/2015	TSLA	Buy	\$241.17	\$48,233.20		\$115,830.00	

Table 6.2 Week Two Transactions

6.1.3 Week Three

At the beginning of this week, I decided to sell my holdings in RVSB and AAPL for a profit of 9 percent and a loss of less than 1 percent. I then proceeded to buy more holdings in TSLA which is at a local maximum on the charts. A soon as I bought at what is now a peak for TSLA, the stock has fallen. I am still hopeful that TSLA will recover in the next week. I have invested a large amount of cash and every movement is consequently a large gain or loss.

IHS Inc. particularly is performing well right now with a 4 percent increase in the first three weeks (See Fig. 6.1). IHS Inc. has a bullish 50/100 MA Crossover which should indicate

some momentum upward for the entirety of my seven week trading period. The rest of my portfolio is performing as expected with only one company in the negative right now.



Figure 6.1 One Month Stock Chart (Source TradingView.com)

Table 6.3 shows my transactions in Week Three.

Date	Symbol	Buy/Sell	Price	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
10/5/2015	RVSB	Sell	\$4.87	\$24,350.00	\$2,800.00	\$118,630.00	\$2,800.00
10/5/2015	AAPL	Sell	\$110.69	\$22,138.00	(\$632.00)	\$117,998.00	\$2,168.00
10/5/2015	TSLA	Buy	\$248.11	\$49,622.00		\$68,376.00	

Table 6.3 Week Three Transaction

6.1.4 Week Four

This week I decided that I needed to sell all of my holdings in TSLA. After TSLA performed well for a week I had purchased more stock in the car company expecting the upward

trend to continue. Unfortunately that was not the case and I lost nearly 9 percent on my initial investment which has eliminated all of the profit that I have accrued so far.

In retrospect, I should have sold my TSLA much earlier than I did. I was hesitant to shortsell immediately after I had bought more stock in the company. I believed that I could wait out what I thought was a small correction but it seems that I was wrong (See Fig. 6.2). Other than TSLA, my holdings are performing well and with purchases of VZ (Verizon) and MASI (Massimo) I have every confidence that the company's I have invested in can overcome this loss.



Figure 6.2 One Month Stock Chart (Source TradingView.com)

Table 6.4 shows my current transaction for Week Four

Date	Symbol	Buy/Sell	Price	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
10/12/2015	TSLA	Sell	\$222.29	\$89,196.00	(\$8,659.00)	\$157,572.00	(\$6,491.00)
10/12/2015	MASI	Buy	\$39.64	\$19,820.00		\$137,752.00	
10/12/2015	VZ	Buy	\$44.10	\$44,114.99		\$93,637.01	

Table 6.4 Week Four Transactions

6.1.5 Week Five

This week I decided not to trade any of my holdings. All of my stock holdings performed well this week with the exception of Masimo Corporation (See Fig. 6.3). The beginning of the week was proving to be very profitable but at the end of the week the values made some large leaps downward putting the current value below my purchase value. But I have confidence in the momentum indicators and trust that this purchase will be profitable in the future.



Figure 6.3 One Month Stock Chart (Source TradingView.com)

The rest of my holdings are continuing their overall bullish trends with minor corrections. I continue to trust the indicators that I have studied and, omitting TSLA, it has proven to be successful so far. In particular, Amtech Systems Inc. has performed very well through the first 5 weeks (See Fig. 6.4). Right now, the market price is nearly 20 percent above my purchase price.



Figure 6.4 One Month Stock Chart (Source TradingView.com)

6.1.6 Week Six

Once again, this week I decided to keep my portfolio unchanged. At the close of the market this week, every single holding that I have is profitable. With many of my holdings such as Verizon, Amtech, and MFA taking some loses at the end of the week I believe that I am in a good place moving into the final week of trading and that these three stocks will have very bullish weeks ending strong and being extremely profitable.

Masimo Corporation with an increase of 8 percent had one of the strongest weeks in my portfolio (See Fig. 6.5). With strong long-term and mid-range bullish momentum, I am hopeful that MASI will another strong week next week to end the trading simulation.



Figure 6.5 One Month Stock Chart (Source TradingView.com)

6.1.7 Week Seven

As our final week ended, my holdings have grown and continued their bullish momentum. I chose not to buy or sell my holdings this week as they have continued to grow. My current holdings have slowly earned back the money that was lost on Tesla Inc. IHS Inc. has earned 7.4%, MFA Financial Inc. has lost 2.7%, Amtech Systems Inc. has earned 15.38%, Masimo Corp has earned 8.78%, Verizon Communications Inc. has earned 3.82%. Overall, my current holdings are 7.27% above buying price.

Tesla Inc. had put my portfolio in negative by nearly \$6,000 (See Table 6.5). By trusting the indicators and sticking with the holdings that had strong upward momentum, I made that money back in a relatively short time period and have an overall profitable simulation.

Date	Symbol	Buy/Sell	Price	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
11/7/2015	IHS	Sell	\$120.56	\$12,056.00	\$839.00	\$105,693.00	(\$5,652.00)
11/7/2015	MFA	Sell	\$6.81	\$6,810.00	-\$190.00	\$112,503.00	(\$5,842.00)
11/7/2015	ASYS	Sell	\$5.54	\$27,500.00	\$4,100.00	\$140,003.00	(\$1,742.00)
11/7/2015	MASI	Sell	\$43.12	\$23,560.00	\$320.00	\$163,563.00	(\$1,422.00)
11/7/2015	VZ	Sell	\$45.78	\$45,780.00	\$1,666.00	\$209,343.00	\$244.00

Table 6.5 Week Seven Transactions

6.2 Results

Trend Trading has been a very educationally rewarding trading strategy as a beginner. At the start of this simulation, I had very little knowledge of the inner-workings of the stock market. Outside of the basics I had little to no understanding of how to successfully trade for profit. But at the conclusion of the simulation what I have learned through these weeks has proven to be successful and profitable. By no means was my trading experience perfect or as successful as it could have been. But I am personally proud of the performance of my portfolio knowing where I started and how much learning was necessary for my portfolio to be profitable.

In retrospect, there were many things that I could have and should have done in order to make my trading more profitable. Most obviously, short selling my Tesla Inc. holdings much earlier than I did would have saved me my singularly largest loss. Also, rebuying Tesla stock once it had reached its local minimum and making money back would have been very successful with Tesla now knowing that it only grew for the last couple of weeks of the simulation. I also know now that I should have invested a larger percentage of my cash in the companies that were performing well.

Some flaws that I can see is that trend trading at its core is not suited very well for a timeline that is as short as our simulation. A large part of trend trading is analyzing momentum in the long

term with MA crossovers. Many of the indicators used are less accurate on shorter time periods and therefore difficult to have this technique be as profitable as possible. I identified companies worth investing in with bullish MA crossovers and held on to the stocks until another crossover occurred. Staying true to the charts and trusting the momentum indicators is something that I did well for much of my portfolio, but trusting the long term momentum with more of my cash would have been extremely beneficial in accruing more profit over the seven week trading simulation. I think that on a longer time period, trend trading could have had the opportunity to be more successful and been more profitable. Ultimately, the simulation was a success because I did make money. Although my profits were not what I originally hoped for, my goals were met and I learned so much about the field.

Chapter 7 Position Simulation

In this chapter, I will be simulating the stock market using position trading, which is trading by following trends over a long period of time. The companies that I am using are Apple, Netflix, Amazon.com, Microsoft, Ford, IBM, and Tesla. I am starting off with \$250,000.00 and am trading for seven weeks. My goal in this chapter is to give a brief explanation of what happened to my stocks in the stock market that respective week and give a detailed reasoning what my plans are going onward after that week. All trades are commission free.

7.1 Progression of Trading

7.1.1 Week One

From research on the stock market we decided it would be more beneficial for us to buy cheaper stocks in favor of more expensive stocks. As a security measure, we have over \$150,000 left over in cap room so if there are any major changes in the stock market we can either fall back on it or use it to our advantage. All in all there were no major changes in prices and they stayed within the daily trends according to Yahoo Finance [14]. We hope that it won't stay in the daily trend for long and will increase for profit reasons (See Table 7.1).

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
9/25/15	AAPL	BUY	\$114.00	100	\$11,400.00		\$238,600.00	
9/25/15	NFLX	BUY	\$102.24	100	\$10,224.00		\$228,376.00	
9/25/15	AMZN	BUY	\$524.37	25	\$13,109.25		\$215,266.75	
9/25/15	MSFT	BUY	\$43.94	200	\$8,788.00		\$206,478.75	
9/25/15	F	BUY	\$13.53	1000	\$13,530.00		\$192,948.75	
9/25/15	IBM	BUY	\$145.42	100	\$14,542.00		\$178,406.75	
9/25/15	TSLA	BUY	\$256.91	100	\$25,691.00		\$152,715.75	

Table 7.1 Week One Transactions

7.1.2 Week Two

This week most of my stocks have went up by a decent amount. I haven't sold any of my shares yet, but I did buy more of Tesla since it dropped in price by a decent amount. Since I'm using position trading, I'm only interested in the price of shares on a weekly basis. This way I can either follow the trend of the stock or sell immediately if the price has dropped significantly.

Out of the seven companies I elected, five of them have increased over the past week, which was Netflix, Amazon.com, IBM, Ford, and Microsoft. Although the other two, Apple and Tesla, have both decreased, it was only by a few dollars.

Overall, if I were to sell all of my shares today I would have a total profit of \$1,053.00. I've decided to watch the market for another few days to see if these changes continue to trend. This way, if Apple and Tesla keep decreasing, I'll sell them as soon as possible since I own 200 shares of Apple and Tesla. I'm hoping that Amazon.com keeps rises because it is worth the most out of all the shares I own.

Table 7.2 shows my Week Two transactions.

Date	Symbol	Buy/Sell	Price	Shares	Net Costs/ Proceeds	Profit/Loss	Total Cash	Total Profit
10/1/2015	TSLA	Buy	\$240.40	100	\$24,040.00		\$129,014.50	

Table 7.2 Week Two Transactions

7.1.3 Week Three

This week, the majority of my stocks have continued to rise. Since I have bought my shares, Netflix has gone up 11.58%, Amazon.com 3.80%, Microsoft 7.48%, Ford 11.22%, and IBM 5.52%, while Apple went down to 1.52% and so did Tesla to 11.32%. This is not what I expected from either Apple or Tesla. I was really hoping Apple would go through a correction and start a positive trend. For Tesla, I planned on it starting to go up much more. Since I bought Tesla, it has

lost me roughly \$6,000.00 in the past three weeks. On the other hand, Ford and Netflix have done very well. I never expected Netflix to go up 11.22% and Ford to go up 11.32%. Since they are doing so well, I plan to invest much more into Ford since each share is only worth \$14.97 as of October 11th, 2015. Whenever the market opens, I plan to buy a couple thousand more so that if Ford continues to rise, I can make at least five times as much money than before. For Netflix, I'm considering buying 100 more shares since after the last three weeks I would have made roughly \$,1000.00. Thus, I would split even but have more shares than before.

For the rest of my seven companies, I plan to watch them much more closely. This last week, I was not careful watching Tesla closely, so in return I lost about \$6,000.00 for not doing so. Whenever the market opens, I plan to sell all of my shares for Tesla immediately and to keep an eye on Apple to make sure it doesn't drop too much.

As for the others, I still want to hold on to them. Microsoft, Netflix, IBM, and Amazon.com have continued to have a positive trend and have shown no trends in the negative direction, in the perspective of a position trader. Since those shares have been positive for the past three weeks, I predict that they will continue to rise and I will act accordingly if they start to flatten out or drop significantly.

7.1.4 Week Four

As the fourth week ended of our stock market simulation, my stocks have started to oscillate. I decided to sell all of my shares for Tesla on Monday since it dropped significantly over the last few weeks. Because of that, I am in a loss for \$5,177.00. However, the companies that I am still investing are still doing very well. My leading company is Ford, which has increased from buying price by 13.52%, which is 2.2% higher than last week. Amazon.com now is at 9.76%, which is an increase of 5.96%; Microsoft is at 0.40%, which grew by 0.92%; IBM is at 4.13%,

which decreased by 1.39%; Apple is at 2.47%, which is a decrease by 0.95%. Surprisingly, Netflix dramatically fell down to 2.54%, which dropped 14.12%.

Thus far, Ford has been the only company to have a constantly increasing trend. Netflix started to do very well until it dropped 14.42%. Everything else seems to bounce from positive to negative at buying price. My goal next week is see if Apple and Netflix go down once the market open on October 19th. If so, I'm going to sell both Apple and Netflix and use that money to invest in Ford so I can make up for lost money. As for Amazon.com, Microsoft, and IBM, I want to hold on to them for another week. Amazon.com is my most valuable stock and if it continues to grow then it will have the highest return out of all of other companies. As of Tesla, although I don't own any more shares of it, I am still watching it to see if it will start to have a positive trend again. If so, I will invest in it for the remainder of our simulator.

Table 7.3 shows my current transactions through four weeks.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/ Proceeds	Profit/ Loss	Total Cash	Total Profit
10/12/15	TSLA	SELL	\$222.99	200	\$44,598.00	(\$5,177.00)	\$173,612.50	(\$5,177.00)

Table 7.3 Week Four Transactions

7.1.5 Week Five

As week five ended, my shares continued to grow. I chose not to sell or buy this week because all of my stocks have continued to rise. Of my shares, Amazon.com, Microsoft, and Ford have increased from buying price by 15.05%, 20.51%, and 16.34% respectively. Apple and IBM are both positive with increase of 4.58% and 0.21%. My only negative was Netflix and it was only by 1.60%, which I'm not worried about.

So far my stocks are doing fairly well. From last week, all of the companies that were increasing have continued to do so. Apple and Netflix are both increasing from hitting a low in the simulation. Last week Netflix was at -2.54% and went up 0.96% while Apple was at -2.47% and went up a total of 6.11%. If my stocks continue to grow at this rate, I should be getting out of the deficit caused by Tesla last week.

Next week if these trends continue I might not sell or buy again for another week. Amazon.com, Microsoft, and Ford are really coming through by being at least 15% higher than buying price. I'm hoping they continue to rise so that for the final week I can be sure to sell them while they are at their highest prices. As far as IBM and Netflix go, I'm going to watch them for another week to see if they start to become positive again. That way I can sell them and get some sort of profit. My goal next week will be to follow the top three companies right now and make sure they keep trending. This way I can be safe with those and only worry about the companies that have been oscillating.

7.1.6 Week Six

Week six by far has been the best week for me during our seven weeks of simulating. Due to Tesla plummeting in price a few weeks ago I have been in a deficit, but this week if I were to sell all of my shares I would profit again. I still chose not to sell or buy this week because I have three companies that are on a very good trend. From buying point from the first week, Amazon.com, Microsoft, and Ford have increased 20.36%, 20.10%, and 10.03% respectively while Netflix and Apple have increased by 6.70% and 4.96%. On the other hand, my only company to be in a deficit is IBM, which has decreased by 3.01%.

I am not worried with any of these companies. These was the results I needed while being so close to the end of the simulation. My plan for the final week is to sell all the companies that have been having mood swings, such as Apple, IBM, and Microsoft. That way, if they were to lower in price any time before the end of week seven, I'll profit from them. If not, it's a risk I want to take. I'm hoping Ford and Amazon.com keep on trending up so that I can sell them at the end of the next week as well. I have still been keeping an eye on Tesla as well and have decided not to invest in their stocks for the rest of the simulation.

Looking back from last week's numbers, I should have sold IBM and Ford. Ford was at its highest of 16.34% and dropped 6.31%, which was a bad decision this week. IBM also continued to decrease even further into negativity so I know next week to sell IBM as soon as I see where the market goes on Monday. If I were to sell all my stocks today, I would have \$251,394.00 in total. Over six weeks that would be a \$1,394.00 profit (See Table 7.6). If we compared that to week three that would only be a \$341.00 profit, but that's including the \$5,177.00 loss from Tesla. My goal for the following week is to increase that profit by at least \$1,500.00. I know that if I keep a very close watch on the market at all times this week then it will happen.

7.1.7 Week Seven

Week Seven was the last week of our stock market simulation. Since this was the last week, I chose to sell all of the shares of the companies that have been oscillating since the start of the simulation, which was IBM and Ford. I chose to keep Apple, Netflix, Amazon.com, and Microsoft because for the past two weeks they have been on an upward trend.

At the beginning of the week, I wanted to make sure for the final week of simulating that the only companies I was going to invest in are companies following a positive trend. So on Tuesday, I sold 1000 shares of Ford for \$14,705.00 and 100 shares of IBM for \$14,184.00. I also used that money from selling those two companies to invest in more shares for the other four companies. With that, I bought 500 shares of Netflix at \$112.88 for \$56,440.00, 500 shares of Microsoft at \$54.15 for \$27,073.65, and 175 shares of Amazon.com at \$644.06 for \$112,750.50. At the end of the week all Apple, Netflix, Amazon.com, and Microsoft have increased from buying price at the beginning of the week by 6.33%, 2.76%, 4.90%, and 7.27% respectively. In the end, I cashed in 700 shares of Microsoft for \$37,701.93, 200 shares of Amazon.com for \$129,745.00, 600 shares of Netflix for \$65,550.00, and 100 shares of Apple for \$12,067.90. This left me with a total of \$251,342.18.

Table 7.5 is the table of all the trades made in the stock market simulator and the total profit at the end.

Date	Symbol	Buy/Sell	Price	Shares	Net Costs/ Proceeds	Profit/ Loss	Total Cash	Total Profit
11/4/2015	F	Sell	\$14.71	1000	\$14,705.00	\$1,245.00	\$188,317.50	\$3,932.00
11/4/2015	IBM	Sell	\$141.84	100	\$14,184.00	\$258.00	\$202,501.50	\$4,190.00
11/4/2015	AMZN	Buy	\$644.06	175	\$112,710.50		\$89,791.00	
11/4/2015	MSFT	Buy	\$54.14	500	\$27,073.65		\$62,717.35	
11/4/2015	NFLX	Buy	\$112.88	500	\$56,440.00		\$6,277.35	
11/8/2015	AAPL	Sell	\$120.68	100	\$12,067.90	\$682.90	\$18,345.25	\$3,507.10
11/8/2015	NFLX	Sell	\$109.25	600	\$65,550.00	\$1,047.00	\$83,895.25	\$4,554.10
11/8/2015	AMZN	Sell	\$648.73	200	\$129,745.00	\$4,034.00	\$213,640.25	\$520.10
11/8/2015	MSFT	Sell	\$53.86	700	\$37,701.93	\$1,862.28	\$251,342.18	\$1,342.18

Table 7.4 Week Seven Transactions

According to this table, I profited from Ford, Apple, Amazon.com, and Microsoft, while losing money from IBM, Netflix, and Tesla, thus leaving me with a profit of \$1,342.18.

7.2 Results

Using this stock market simulation has been an educating and rewarding experience. Position trading was a great strategy to use as a newcomer in the stock market. By patiently watching the stock market and making educated decisions based off previous prices and releases in the future, I was able to reach my goals in the simulation. Based on the previous graph, my total profit from the simulation has been negative until Microsoft was the sold the day before we ended the simulation. This conclusions makes it seem that there was poor decision making on when to sell shares. However, based on the summaries of each week, this shows otherwise. For example, Apple never lowered in price since week three. At the end of week three, Apple was below buying price by -1.52%, but since then went up to be sold at 6.33% more than its buying price. The same could be said for Amazon.com and Microsoft. The only difference is that these two stocks both lowered during the final week.

To make this simulation better, I should have followed the stock market more often than I did. If so, then I could have avoided losing \$5,777.00 from Tesla and would have sold more during week six when my stocks were at a maximum. By following the market more, even as a position trader, it could have helped me create a better strategy so that I knew exactly when to buy and/or sell shares.

Overall, I did reach my goals for the simulation and did follow the plan from Coviello. I identified trading opportunities by observing each trend and making a decision on whether if that trend was going to continue on or drop off. I also made sure that I set a stop loss at 5%, meaning that if any stock dropped at least 5% from any week prior, it was going to be sold. This as the case for Ford and IBM, which decreased by 6.31% and 3.22% respectively. Because I followed Coviello's plan precisely, I was able to succeed and make a profit from this simulation. It may not have been what was expected, but it is still a profit.

Chapter 8 Comparison & Analysis

In this chapter we will discuss what sectors preformed the best with making money from our own trading strategies and what we learned about active versus passive trading strategies. In sector profit analysis we will compare the different sectors we invested in and how they effected our final profits. We will talk about the different influences in world that may have affected the stock market. Finally we can analyze the differences between active and passive trading strategies and how they can be utilized for future investing.

8.1 Sector Profit Analysis

There are many sectors that are in the world today. Some of the sectors, for example, include Healthcare, technology, consumer goods, industry, energy and many other different areas. We all chose different sectors to invest in and we will discuss how they all effected our final profit.

8.1.1 Daily Pivot Point Trading Results

Over the course of seven weeks we used new stock market strategies to invest in the market. One of the most risky and not as reliable way of trading would have to be daily pivot point trading. We used this strategy for nine different companies in five different sectors of the market. From Figure 8.1, you could see the distribution of profits that each sector produced for the first simulation which is pivot point trading.

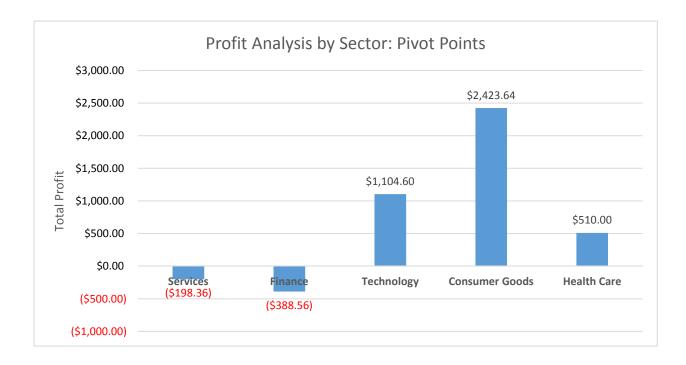


Figure 8.1 Sector Profits Graph

The Pivot Point simulation proved to be very diverse in selection of sectors to invest in. With five different sectors that were invested in, only three were actually successful in making a profit. Consumer goods took up more than 50% of the total profit which includes two companies: Nike and Sony. Sony made up 90% of the total profit with \$2,242.64 in profit. Technology and health care combined made up the rest of the profit at 35%. The finance and services sectors were the only two that lost money through the seven weeks.

Consumer goods is a very dangerous sector to invest in because stock prices depend the popularity of the product. Much like it sounds, a consumer good is a product that is made to be consumed and not to help create another product. Nike is strictly an apparel store that gives us clothes, shoes, socks, sports equipment and many other products that we buy online or in stores. It is obvious that investing in Nike is risky depending on season and how well the company produces its products. We were lucky enough to begin investing in Nike during the fall/ winter season because of their ability to specialize in winter clothes and items. With Nike increase of 2.91 Billion

dollar sales over the past year, it seemed like it was bound to be a solid purchase. Sony has also shown a large increase of their sales with their new PlayStation 4, movies, and electronic devices. These two companies put a large risk on making or losing money because of the lack of knowledge on how the public will purchase the company's products. Health Care has always had a large cap size and has shown to make profits. Even though we only held onto the Health Care sector once during simulation, it still made a lot of money for pivot point trading.

What was really surprising is the lack of profit there was from the financial and service sector. Usually these markets do well for traders in the market and post very large sums of money, especially the financial sector. From Brad Sorensen of Charles Schwab, Figure 8.2 shows the top rated sectors to invest [10]:

Sector	Schwab Sector View	Date of last change to Schwab Sector View	Share of the S&P 500 Index	Year-to-date return as of 12/08/2015
Consumer discretionary	Marketperform	07/17/2014	13%	13.05%
Consumer staples	Marketperform	05/07/2015	10%	5.72%
Energy	Marketperform	11/20/2014	7%	-20.93%
Financials	Outperform	05/07/2015	17%	-0.52%
Health care	Marketperform	12/13/2012	15%	5.66%
Industrials	Marketperform	01/29/2015	10%	-2.59%
Information technology	Outperform	04/29/2010	20%	9.25%
Materials	Marketperform	01/31/2013	3%	-7.62%
Telecom	Underperform	09/12/2013	2%	2.20%
Utilities	Underperform	05/23/2013	3%	-7.39%
S&P 500® Index (Large Cap)				2.23%

Figure 8.2 Schwab Sector Views For 2016

As seen from the figure above, many investors are looking for the finance sector to make lots of money, but more surprisingly is the lack of services being up in that list. Because of our lack of knowledge in the stock market, services might have been a poor decision to invest in given the fact that experts say it is not a good sector to invest in. All we invested in was large market retailers with large cap rooms and companies that have been around for more than 30 years.

We did end up making a good portion of money throughout the seven weeks of daily trading. There were upsets on the way but we still learned a lot from the simulation and will be bringing what we learned here to the real world.

8.1.2 Swing Trading Results

This simulation derived its profits from Technology and the Financial Services sectors. The monetary value of the technology sector was just over \$16,000. The Financial Services sector had the next most amount of profit at a monetary value of \$3,000. Based on this comparison, it would seem that Swing trading also allocated the most amounts of funds toward the Technology sector. Service lost the most amount of money with nearly \$3,500 in the red. Finally Industrial Goods lost the second most amount with almost \$2,000. The figure below represents the portfolio breakdown of the Swing Trading simulation (See Fig. 8.3).

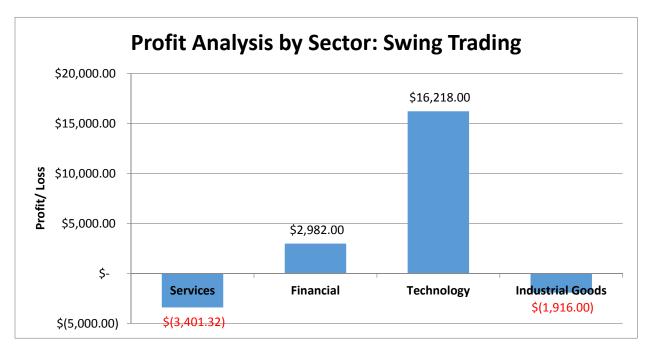


Figure 8.3 Sector Profit Graph

The Technology sector is a category of stocks relating to the research, development and/or distribution of technologically based goods and services. This sector contains businesses revolving around the manufacturing of electronics, creation of software, computers or products and services relating to information technology. History has shown that the technology sector is very responsive to the market. The Sector has seen many high ups and downs, most notable the dot-com bubble.

The Technology Sector of this portfolio included companies such as Cisco Systems and Oracle Corporations. These two companies earned the highest amount of revenue over the seven week simulation. Both of these companies are known as Mega Cap stocks, which allow it to have massive amounts of trades occurring daily. Also these two stocks consistently grow a steady rate over year. From these graphs we can draw out the conclusion that these companies can be considered a safe buy because they consistently earn money over long periods of time with little to no risk incurred by the investor. The two graphs shown below are long term graph of both Cisco and Oracle, respectively.



Figure 8.4 Cisco 2 Year Share Price Graph (Source Yahoo Finance)



Figure 8.5 Oracle 5 Year Share Price Graph (Source Yahoo Finance)

According to Investopedia, the Industrial Goods Sector is described as, "A category of stocks that relate to producing goods used in construction and manufacturing. This sector includes companies involved with aerospace and defense, industrial machinery, tools, lumber production, construction, cement and metal fabrication" [4].

The Industrial Goods sector of this portfolio consisted of one company, Joy Global. Throughout the duration of this simulation the stock was quite inconsistent with its day to day share prices. This companies' share price was tied heavily to the oil industries' success or diminishing share price. However, the overall trend of this company has been uniquely poor. The price of the stock has dropped over \$40 in this past two years. We can observe a largely negative trend from this stock and does not look promising to recover at any point in the near future. Below is a graph from Yahoo Finance that demonstrates the point above.



Figure 8.6 Joy Global 2 Year Share Price Graph (Source Yahoo Finance)

8.1.3 Trend Trading Results

Trend Trading does not have a policy on which sector should be or needs to be invested in. I invested in the 32% in Technology, 48% in Consumer Goods, 12% in Financial, and 8% in Healthcare.

The technology sector is a category that relates to the development and distribution of goods of a technological nature. The Technology sector was my most profitable with nearly 9% profit on investment. The technology sector has proven to be very responsive to the market with many peaks and many valleys.

The Consumer Goods Sector consists of goods sold to the general public. Consumer markets are very susceptible to overall market trends with hard times making things worse and good times making things better. My consumer sector investments did not do well at all and was the only sector that I lost money in. The Financial Sector is primarily made up of banking institutions. The financial sector performed as well as could be expected in the times. The sector proved to be profitable but barely so.

The Healthcare sector is a category of stocks that relates to the healthcare goods and services. The sector includes biotechnology, hospital management firms, and a variety of medical services and products. The healthcare sector is a steady sector to invest with a demand for healthcare whether the there is a recession or not. The healthcare sector can also be a very profitable and lucrative business.

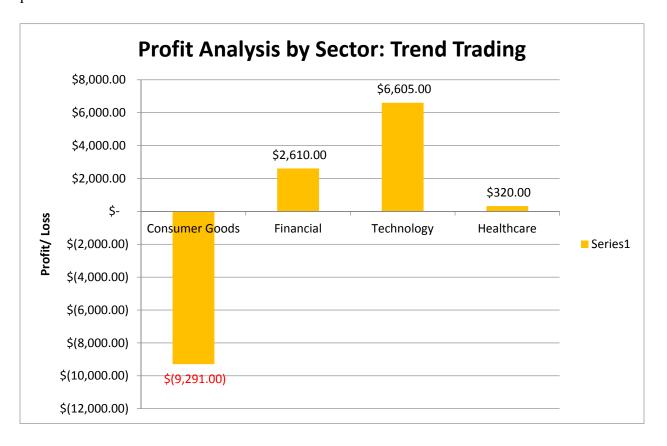
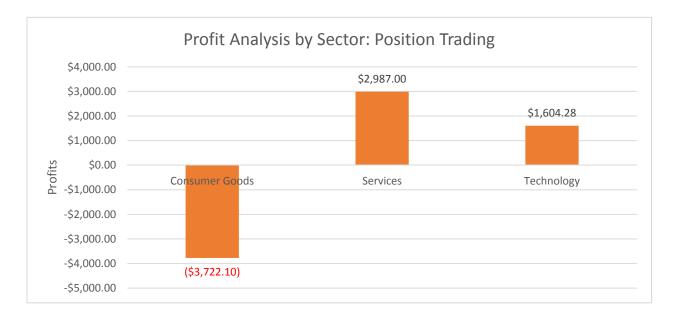


Figure 8.7 Sector Profit Graph

8.1.4 Position Trading Results

For position trading, there were only three sectors that were represented for the simulation: Consumer Goods, Services, and Technology. It was best to choose companies so that each sector was balanced evenly. For this simulation, Tesla, Ford, and Apple represented the Consumer Goods sector, Netflix and Amazon.com represented the Services sector, and Microsoft and IBM represented the Technology sector. Below (See Fig. 8.3) is the graph of the sectors and the total average of profit or loss for that sector.





According to the graph, Consumer Goods covered 45% of the total profit/loss. However, it was also the only sector to lose money instead of profiting. This is due to Tesla resulting in a loss of \$5700.00 in Week 3 of the simulation. Although Apple and Ford both profited, it wasn't high enough to overcome the loss of Tesla, which is why the Consumer Goods sector was in a loss by \$3772.10.

The Services sector was the second most represented sector, by covering 35.7% of the total profit/loss. Unlike Consumer Goods, it remained positive, so it was the highest profiting sector of the three. In this sector, Amazon.com was the company that profited while Netflix was the one who lost money. However, since Amazon.com was the company to have the highest profit, by \$4034.00, the result came out positive. Netflix did have a loss of \$1047.00 but that was only because the market went down at the last second. The Services sector would have done better if Netflix was sold before the last week of simulating.

The last sector is Technology, and it covered 19.3% of the total profit/loss. Technology, like the other two sectors, did have one company lose money and another profit. In this sector, IBM was in a loss of \$258.00 and Microsoft profited by \$1862.28. The Technology sector performed similarly to the Services sector by having IBM lose money during the last few weeks as well. If sold earlier, this sector would have profited by both companies, and could be a sector to invest in in the future.

Of the three sectors, the best performing sector was Services. Along with Technology, the Services sector had one profiting company and one losing company but came out with a higher profit. However, the Consumer Goods did have the highest profit of all the companies that did make money, which was Ford, Apple, Amazon.com, and Microsoft. In the future, it would be best to choose companies in the Consumer Goods sector but to avoid some automobile companies, in this case Tesla.

Active vs. Passive Trading Strategies

In this subchapter we will talk about the difference in active trading and passive trading and what we learned from the experience of using these different strategies.

The use of an active trader is pretty simple: trading securities in a short amount of time, usually holding onto them for a day or two [1]. With the new technology and easy access to information via the internet, active trading has become more of a norm. The internet has given traders the ability to look at stock prices and make decisive decisions based on daily trends. Because of this active trading has grown to be more popular for traders [1]. Computers can now be easily programmed to make trades throughout the day when data comes by so quickly. However, since the market is moving so fast and that data is being pushed at investors throughout the day, in-depth analysis on companies and shares are ignored because there is not enough time to do research. All they do is look at patterns and other trends to make the appropriate decisions. Since the nature of a fast pace trading environment, new investors are likely to get lost and confused if they are not aware of the financial market. These investors can lose money in a short amount of time because of the large risk of active trading. Active traders are shown to have a high risk, low reward system. Yet it is still quite simple to make a small profit over a few hours or so. From the experience of our simulation, we have seen that stocks can increase and decrease at a moment's notice. We have seen a lot of money gained and lost within a day or two which is the large risk of being a day trader.

For obvious reasons, active trading was a huge success due to a seven week period of simulation. Short amount of time is an active trader's friend because we look at easy trends and see patterns over previous weeks and possibly months. Passive traders did not show a large gain in profits but we did learn much from the experience.

The main idea of passive trading is exactly what it says: being passive when an opportunity comes up to trade a worthy investment. In the stock market, this mainly refers to a risk. As investors, there are two types of trading: passive and active. Passive trading is when we almost

don't take the risk and be passive with the trade, in other words, offering no risk. Active traders are the opposite. They take whatever risks can be made in order to make as much reward as possible.

For this stock market simulation, we were given seven weeks to buy and sell stocks in order to reach our main goal: make a profit. As a passive trader, this may seem like a simple task, but when we go back to the definition of long term trading, this becomes a little harder. In the actual stock market, long term traders will buy a stock that what looks like follows a trend and they will keep that company until that trend ends. In most cases, that is roughly two or six months and sometimes even longer. For a passive trader, this is the most useful tactic. But when given only seven weeks to trade, passive trading isn't always what is going to give the trader the best reward. Passive traders do their best to just keep an eye on the stock market. Since they are using long term trading techniques, there isn't much work to be done. However, this doesn't mean there are no risks being made. As a long term trader, a risk is made just by jumping on a trend for a few months with a possibility that there will be a reward as high as the risk of losing that amount of time of being on that trend. Because the risk is so high, that is how most long term traders make the most reward out of all strategies. But, for seven weeks, we showed that long term trading, which will be passive trading, was much harder to get a higher profit. Passive trading for this simulation was just watching that market by a week to week basis. There were high risks being made when trading stocks, compared to active trading, but since the interval we were given was so small, it was much harder for stocks on trends to go up. Active traders in our simulation risked less by looking at the market every day to get as much out of the time given for the simulation. By watching the market each day, it wasn't as risky to lose a few dollars compared to the day before. Passive traders in our

simulation risked more by pouring money into a stock with the probability that it will continue to go up.

At the end of the simulation, it was easy to tell what trading strategy was most beneficial for the time given. For passive traders, a small interval of time almost contradicted the reason behind long term trading. Passive traders need more time for their techniques to work. That was shown in this simulation. The length of the interval of time is a major factor as to if passive or active trading strategies will work. In our project, it was clear that active trading was a better choice.

Chapter 9 Conclusion & References

We based our IQP around a seven-week stock market simulation that went for two terms. The simulations were based on four different types of trading strategies: daily pivot point trading, daily swing trading, trend trading, and position trading. After the seven weeks of simulation we accumulated the data we recovered throughout the weeks and analyzed each different strategy to see which one performed better. In this paper we talked about the history of the U.S. stock market, including different investment strategies and outside influences on the market. Because of the short length of the simulation, some portfolios performed extremely poorly. However, if this simulation lasted longer than two terms the portfolios that performed poorly could have done very well in the long run.

During the first week of trading, it was not clear who had an advantage and would end up winning the competition and perform best. The majority of us in the group did not have personal experience dealing with the stock market therefore it led to errors in our trades. We did not know what to expect from the sheer size of the market and how we can successfully make trades with our current work schedule. Again with no prior experience with the market and how outside economic decisions affect the market, we did not have the experience to know how the change of interest rates from the Fed could influence market prices. With the big scandal with Volkswagen hurting car company stock price, new leadership changes in fast food companies, and increase of military spending, we really did not know what to actually prepare for. But as soon as we overcame these market changes and became used to the market, we began so see which simulations would be better for short term gains and better for the long term. As a result from the simulation we were able to see that swing trading, simulation two, performed the best.

Over the course of the simulation, we have determined that both the Trend Trading and Position Trading were an ill fit for the time horizon that we had for our project. Both of the aforementioned trading techniques traded weekly or longer than that, so each week minimal trades would occur. These two techniques need to make trades off of long term gains and longer trends to be profitable. The short nature of this simulation only lets us be able to trade based on short term volatility of some companies. Effectively one or two weeks with significant losses would be incredibly difficult to dig yourself out of. However, both Daily Pivots and Swing trading managed to profit a fair amount in the time allotted. These two simulation traded far more than the other two simulations and were able to capitalize on the economic cycles that affected the indexes. Overall, the economic cycles did not have great influence over the amount of profit that each individual simulation had. As you can see below (see Figure 9.1), the S&P 500 was steadily growing throughout the majority of the duration of the simulation. Though there was a period of a couple weeks in early September that the economic cycle briefly dipped, but it did not have an overall impact on the profitability of the simulation on a whole.



Figure 9.1 S&P 500 Length of Simulation (Source Yahoo Finance)

At the end of the simulations, we feel like we have gained new experience and more knowledge that will be very beneficial for us in the near future. Each member in the group spent their time analyzing and researching stocks in their portfolio and we enjoyed seeing our strategy and research make us money. We have gotten a head start in becoming intelligent investors with actual money. We hope that whoever reads this report will also gain the knowledge of investing like us and be inspired to create their own portfolios.

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