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By

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Abstract

In this project, stock market trading strategies and the history of the stock were investigated. Two trading strategies, day trading and position trading, were utilized to conduct two separate stock market simulations over a period of ten weeks. Each simulation portfolio began with an initial $100,000 to invest with the goal of garnering the most profit using each respective trading technique. Simulation results from the two strategies were analyzed and compared to determine which technique netted the most profit. Position trading method was more profitable with a 5.92% return while day trading simulation only had a 2.27% return. This project provided valuable stock trading experience that laid a solid foundation for future investments.

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1. Introduction

1.1 Goal

The predominant goal of this project is to acquire a healthy working knowledge of trading strategies and how the stock market works to construct a sound foundation from which to manage future assets. This shall be accomplished through a multi-step process. First, the history of the stock market, as well as successful trading strategies will be researched for two weeks while observing the stock market in its current state. At the conclusion of this two week observational period two particular trading strategies will be selected and put to use in a ten week stock market simulation in which the hypothetical sum of $100,000 dollars will be invested with the goal of garnering the most profit. All transactions will be recorded and stored in table format to allow for an accurate record of trades for reflection and analysis. Following the stock market simulation, analysis of the selected trading strategies as well as individual trading decisions will be performed and the entire transaction record will be examined to evaluate overall profits and the general degree of success of the techniques chosen.

1.2 History of the Stock Market

Stock markets are perhaps the most important component of the global economy today, but it wasn't always this way as stock exchanges as we presently know them are a relatively new phenomenon.

The first legitimate stock markets didn't emerge until the 16th century, however systems resembling those of present day stock exchanges date back to the 1100's. Around this time period in France there were records of "courretiers de change" that would exchange agricultural debts on behalf of banks with each other, one of the first reported instances of brokerage in human history.

Similar ventures soon sprang up in Italian cities such as Venice, Pisa and Genoa in the following century, where government securities were exchanged instead of agricultural debts [1].

Belgium is generally credited with the development of the world's first genuine stock market. The Belgian cities of Bruges, Flanders, Ghent, and Rotterdam all developed their own systems, however the commercial center of Antwerp is commonly accepted as the first of these establishments. Although the infrastructure and institutions utilized by these stock markets closely resembled those employed by modern day stock exchanges, they were missing one major piece of the puzzle; these Belgian exchanges did not trade actual stock shares, but instead dealt in the affairs of government, businesses, and personal debts [1].

The first publically traded company came in the in the first decade of the 17th century with the emergence of the "Governor and Company of Merchants of London trading with the East Indies", more widely known as the East India Company. When the East Indies were first discovered as a land of riches and lucrative trading opportunities businessmen sponsored expeditions to this distant land by the droves. However, few ships ever returned and vast fortunes were lost with each ship that did not find its way back. Due to this, a revolutionary leap in their approach to investment was made. Instead of investing all of their money in a singular voyage, investors were now able to purchase shares in multiple voyages. This was the first implementation of a limited liability formula and helped to guarantee that a profit could be garnered even if some of the expeditions were unsuccessful. Charters were soon granted to other businesses throughout Europe following the success of this system and in the following years the Dutch East India Company became the first publically traded company share when their securities were offered on

the Amsterdam Stock Exchange. These securities were presented in the form of stock and bonds and entitled investors to a fixed percentage of the Dutch East India Company's profits [1].

These efforts spawned the trading of company stocks as it is recognized today. However, before stocks were exchanged within the hectic and chaotic trading floors of Wall Street as they are today, most business was conducted between investors in crowded coffee shops. Here, business was conducted on handwritten pieces of paper with little to no regulation of oversight. This made it extremely difficult to distinguish legitimate business ventures from illegitimate ones and eventually companies ceased paying dividends to investors prompting a ban on the sale of stocks on the London Stock Exchange, the main trading entity of Europe, until 1825 [1].

This ban catalyzed the formation of the New York Stock Exchange (NYSE) in 1817. Although not the first stock exchange established in the United States, that title belongs to the Philadelphia Stock Exchange established 27 years prior, it would grow to be the most influential trading institution in both the country and the world due to its centralized location at the heart of the American economy at the time and a lack of powerful domestic competition. Following the rise of the NYSE, stock markets were continuously formed in almost all developed countries across the globe throughout the 19th and 20th centuries and continue to function today [1].

Although the NYSE eventually evolved to become the most influential financial entity in the entire world, it was not without its problems. Throughout its history the New York Stock Exchange has experienced a number of crashes, including the most notable, Black Thursday of 1929. During this crash the NYSE lost nearly 50% of its value, resulting in a nationwide recession and the loss of billions of dollars. This crash spurred the beginning of the Great Depression, a period of strife and unparalleled financial hardship for citizens across the entire country. Other,

but less devastating, crashes include the Stock Market Crash of 1973-74, Black Monday of 1987, the Dot-com Bubble of 2000, and the Stock Market Crash of 2008 [1].

1.3 Fundamental vs. Technical Analysis

There are two common methodologies used to determine which stocks to invest in, and just like any set of rivals there are advocates and adversaries for both. The major difference between these two philosophies is the data that analysts in each camp use to determine their investment strategies. Fundamental analysts tend to study bits of information ranging from the overall status of the economy and industry conditions to the financial condition and management of companies to attempt to determine the intrinsic value of a stock. Technical analysts, on the other hand, tend to study statistics generated by recent market activity such as recent prices and volume to determine trends that may be able to lend them knowledge on what a stock will do in the near future [2].

1.4 Stock Market Indices

A stock market index is a measure of the value of a specific sector of the stock market. A stock market index is computed using the current prices of selected securities within that specific sector of the market, typically as a weighted average. Stock market indices are generally used by investors and financial managers as a tool to describe that sector of the market and compare the return on specific investments.

1.4.1 Nasdaq

The Nasdaq, or Nasdaq Composite Index, is a marker-capitalization-weighted index of all of the stocks traded on the Nasdaq stock exchange, including some that are not based in the United States. The companies who trade their stocks on this exchange are generally technology companies, as most investors will tell you, however the Nasdaq also includes companies involved in financial, industrial, insurance, and transportation industries as well as others. Even though the Nasdaq includes companies from these other sectors, it is still generally used by investors as an indicator of the performance of the technology sector of the stock market alone [3].

1.4.2 Dow Jones

The Dow Jones is one of the oldest, most frequently used stock market indices in the world. Comprised of 30 of the largest, most influential companies and representing almost 25% of the entire United States stock market, the Dow Jones index portrays investors' opinions on the expected risks and earnings of large-cap companies. This index is what's known as a price-weighted index, originally computed by adding up the per-stock price for each of the companies included in the index and divided by the total number of companies. However, stock splits, spinoffs, and other events have changed how this index is calculated and those same simple steps can no longer be taken to compute the value. Due to the fact that the Dow is made up by some of the most well-known companies in the United States, its movements generally correspond to a movement of the entire stock market, although not necessarily on the same scale depending on the specific sector being analyzed [3].

1.4.3 S&P 500

The Standard and Poor's 500 Index, commonly referred to as the S&P 500, is a comprehensive market-weighted index made up of 500 of the most widely traded stocks in the United States. The 500 companies included in this index sprout from a variety of stock market sectors such as energy, industrials, information technology, healthcare, financials, and consumer staples to make up approximately 80% of the United States stock market. Due to the fact that the S&P 500 includes companies from a diverse array of industries and the use of a market-weighted computation method to derive its value, the S&P 500 is generally used to describe movements of the United States stock market as a whole [3].

2. Common Trading Strategies

2.1 Day Trading

Day trading is quite possibly the most popular form of stock market trading in existence. This method consists of buying and selling securities within the same day, where no securities are held overnight. Although this practice is typically utilized by professional traders, electronic trading and online tutorials have opened it up to the novice arena as well [4] [5].

2.2 Position Following

In contrast to day trading, position trading is seen as a type of buy-and-hold strategy and is typically not seen as an active trading strategy. Position traders utilize longer term charts to determine trends in the market by looking for successive higher highs or lower lows to determine the direction that the price of a security is going to go. Position traders look to benefit from both the up and downside of market movements with trades lasting anywhere from several days to several months depending on the strength of the trend and how long the trend is projected to last. Position traders tend to enter the market after a trend has established itself and exit when the trend breaks, making this an ineffective strategy in a highly volatile market [4].

2.3 Swing Trading

Instead of waiting for trends to establish themselves, swing traders wait for a trend to break to make their move. Swing traders intend to profit from the volatility in the price of a stock as the trend breaks. Swing traders generally create a set of trading rules for themselves and use

algorithms to determine when to buy and sell a specific stock. Swing trades are typically help for more than a day, but for a lesser duration of time than position trades [4] [5].

2.4 Scalping

Scalping is a trading strategy that exploits price gaps in various stocks to garner a profit. Scalpers look for price gaps in the bid/ask spread and will typically buy a security at the bid price and then sell at the asking price to make their profit, the difference between the two price points. Trades while using this trading method generally last only a short period of time to mitigate the risks associated with it. Additionally, and for this same reason, scalpers don't attempt to make large trades or move high volumes of stock. Instead they make frequent small trades that lessen the risk of losing money. Due to the fact that the profit from each trade is small, scalpers are generally active in more liquid markets where they can increase the frequency of their trades. They also prefer quiet markets where security prices aren't subject to large price jumps so they can potentially make the spread on the same repeatedly on the same bidding and asking prices to maximize their profits [4].

3. Day Trading Simulation

3.1 Companies Selected

The companies that have been selected for the day trading simulation portion of this project focus on the technology industry including Microsoft, Hewlett Packard, Texas Instruments, and Cisco. All companies selected for this portion of the simulation were selected due to a degree of volatility in the prices of their stocks. These companies follow a predictable trend of an increase in stock price following a decline, or vice versa.

Microsoft (MSFT)

Market Cap – 540.4B

Microsoft is a staple in the United States technology sector. Most widely known for their operating systems for computing devices, Microsoft also has a hand in marketing servers, phones, intelligent devices and video games. Although Microsoft stocks have followed a general uptrend in the previous 6 months, the price of their securities are susceptible to price volatility within a day or two but seemingly always return to the general trend of an increase in price allowing a day trader to buy on a decline in price and sell the stock as it returns to the general trend of the stock.

Hewlett Packard Enterprises (HPE)

Market Cap – 27.3B

Hewlett Packard Enterprises is a provider of technology solutions. Their products allow customers to optimize traditional information technology to build secure, cloud-enabled, and mobile-ready devices.

Texas Instruments Inc. (TXN)

Market Cap – 79.4B

Texas Instruments Inc. engages in the design and manufacture of semiconductor solutions for both analog and digital devices as well as application processing. Their products focus on changing real world signals such as sound, temperature, pressure, or images by conditioning or amplifying them to a stream of digital data that can be read by other semiconductors.

Cisco Systems Inc. (CSCO)

Market Cap – 158.2B

Cisco Systems Inc. designs and manufactures internet protocol based networking products and services. Their products enable the transport of data, voice, and video across both local-area networks and wide-area networks. This technology is implemented in a variety of environments ranging from personal home Wifi networks to larger networks such as within college campuses or even enterprise.

3.2 Week 1

The first week of the day trading stock market simulation featured two trades focusing on the technology industry. Both trades were made on Friday following a decline in security price the previous day. The price levels for both the Microsoft and Hewlett Packard stocks had been fairly constant or slightly increasing in recent weeks, so it was a safe bet that following the decline the day before the price level for each of these securities would trend back towards the steady level price. Table 3.1 outlines the two trades in which 100 shares Microsoft stock was purchased at

$70.44 at the opening of the market and sold later in the day at $71.51 and 300 shares of Hewlett Packard stock was purchased and sold in the same manner at $17.34 and $17.43 respectively. These trades resulted in a profit of $94. Figures 3.1 and 3.2 display the price levels for Microsoft and Hewlett Packard stocks on the day the trades were conducted.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/2/17	MSFT	Buy	70.44	100	7054		92946	
6/2/17	MSFT	Sell	71.51	100	7141	87	100087	87
6/2/17	HPE	Buy	17.34	300	5212		94875	
6/2/17	HPE	Sell	17.43	300	5219	7	100094	94

Table 3.1: Day Trading Transactions – Week 1

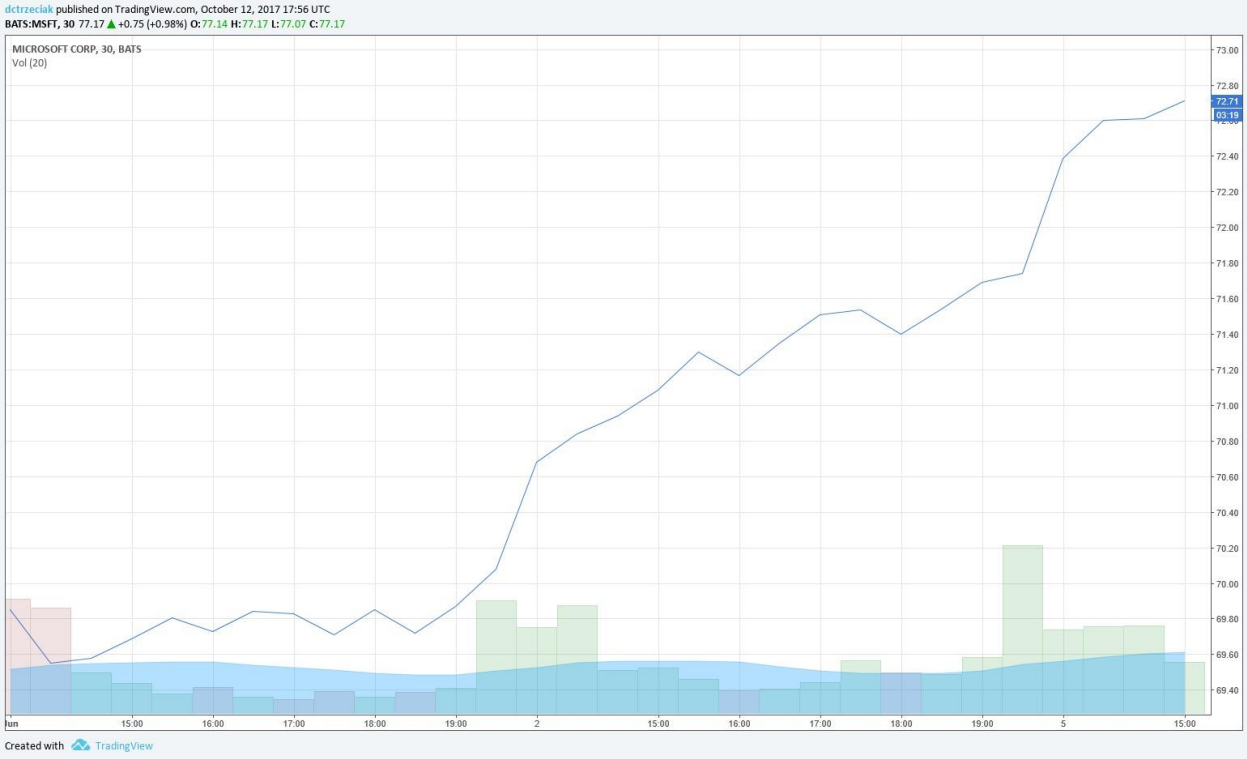

Figure 3.1: Microsoft Price Level on 6/2/17

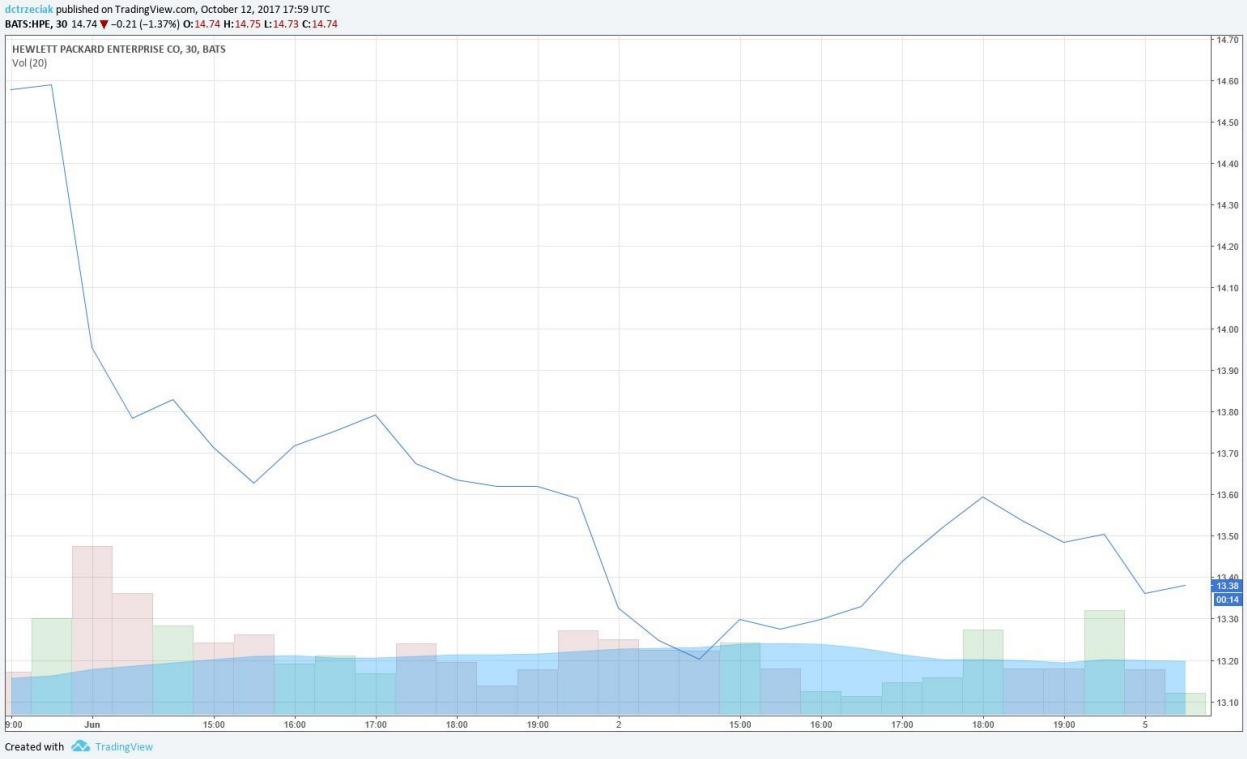

Figure 3.2: Hewlett Packard Price Level on 6/2/1

3.3 Week 2

At this point in the simulation the general strategy being employed is to attempt to purchase a stock at the bottom of a decline in price in the hopes that it will again rise within the next 24 hours, following the general uptrend of the price of stocks of the companies selected for this simulation, to be sold again for a profit. Using this strategy, both Cisco and Texas Instruments securities were purchased this week and sold again within 24 hours. While a profit of $100 was garnered from the transaction regarding Cisco stocks, the Texas Instruments stocks continued to fall in price following their purchase and were sold at $0.64 less than their purchase price incurring a loss of $202, and a net loss of $102 for the week. Table 3.2 outlines these two transactions while

Figures 3.3 and 3.4 display the price levels of each respective stock on the days these transactions were made.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/7/17	CSCO	Buy	31.48	400	12602			
6/8/17	CSCO	Sell	31.78	400	12702	100	100194	194
6/9/17	TXN	Buy	82.67	300	24811		75383	
6/9/17	TXN	Sell	82.03	300	24609	(202)	99992	(8)

Table 3.2: Day Trading Transactions – Week 2

Figure 3.3: Cisco Systems Price Level on 6/7/17 – 6/8/17

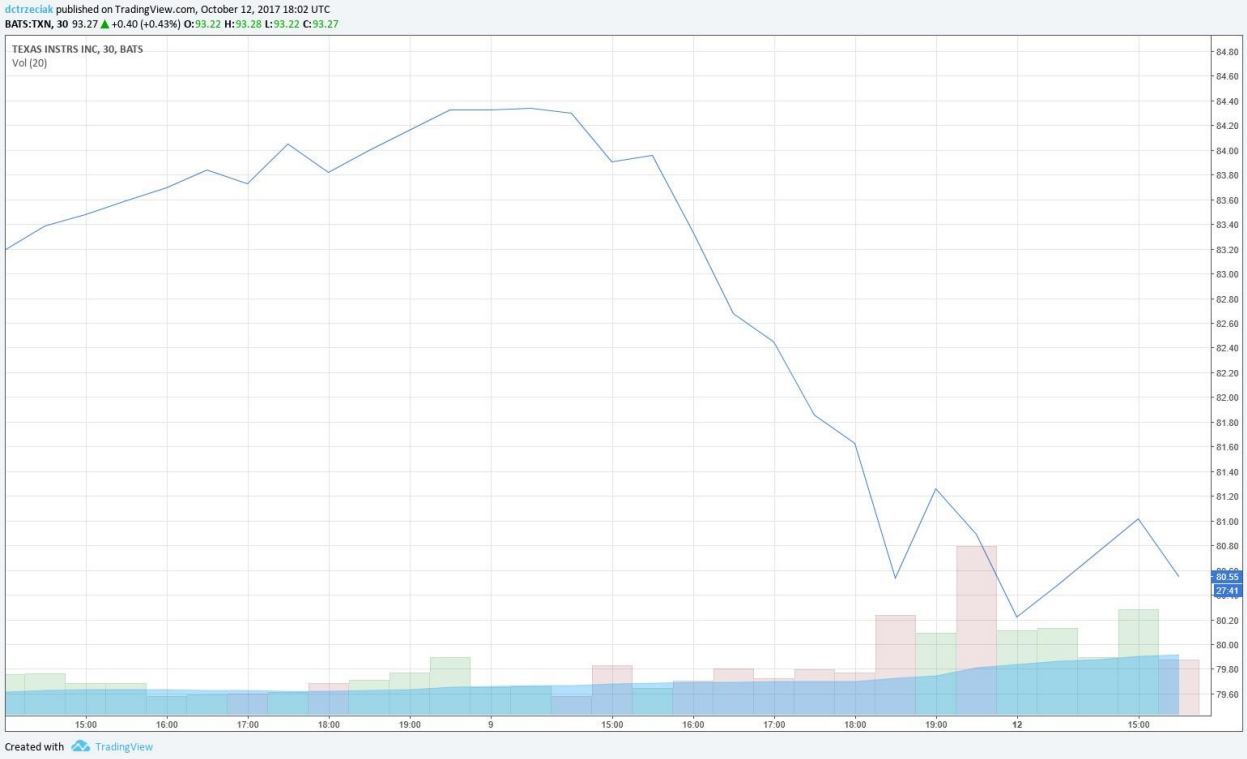

Figure 3.4: Texas Instruments Price Level on 6/9/17

3.4 Week 3

Following the same strategy that has been used thus far in the simulation, three transactions were recorded for the third week of the simulation. Microsoft stocks were purchased and sold twice throughout the week while Cisco stocks were involved in only one transaction. Although it is atypical of day traders to hold securities overnight, at the close of the market on 6/12 the price of Cisco stocks was rising steeply and it was decided that holding onto this purchase until the following morning to see if the rise in price continued was a prudent move to make. The three transactions made this week are recorded in Table 3.3 and were all successful at pulling in a profit, with a total profit of $1142.5 for the week. Figures 3.5-3.7 demonstrate the price levels of these securities at the time the transactions were conducted.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/12/17	CSCO	Buy	31.25	500	15635		84357	
6/12/17	MSFT	Buy	68.91	500	34465		49892	
6/12/17	MSFT	Sell	69.88	500	34930	465	84822	457
6/13/17	CSCO	Sell	31.645	500	15812.50	177.5	100634.5	634.5
6/15/17	MSFT	Buy	69.13	500	34575		66060.5	
6/15/17	MSFT	Sell	70.17	500	35075	500	101134.5	1134.5

Table 3.3: Day Trading Transactions – Week 3

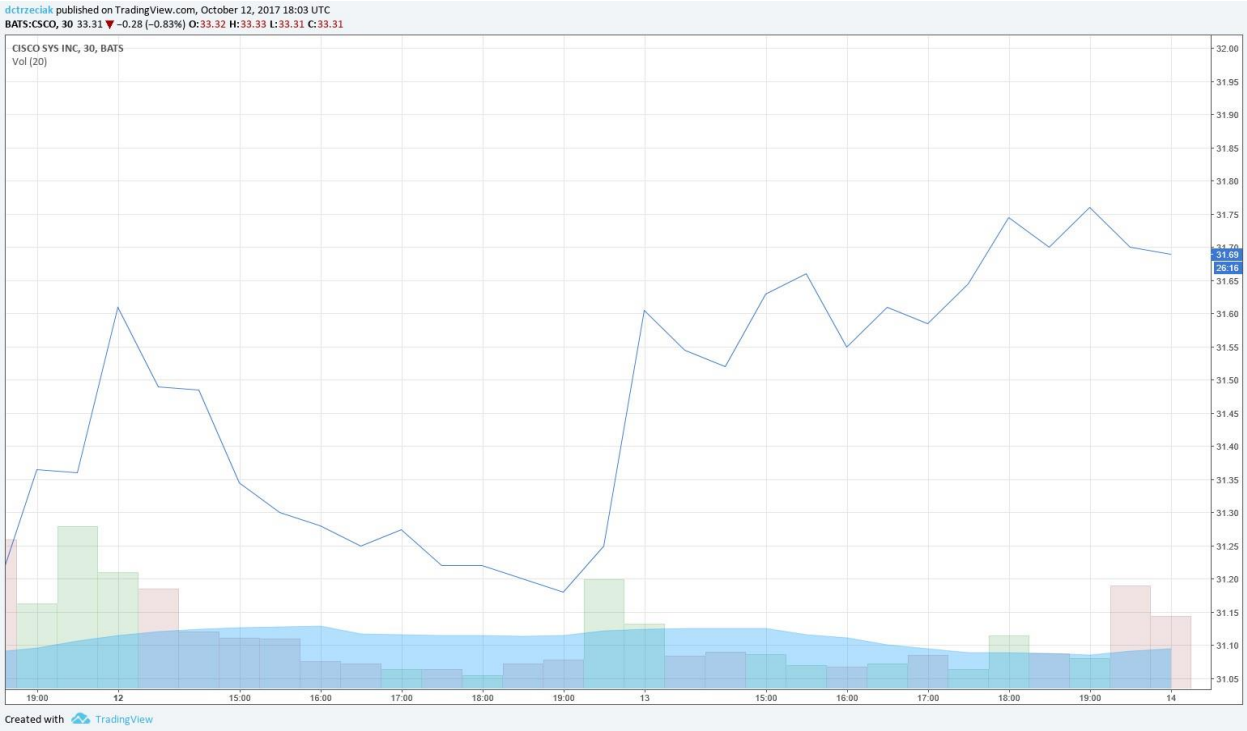

Figure 3.5: Cisco Systems Price Level on 6/12/17 – 6/13/17

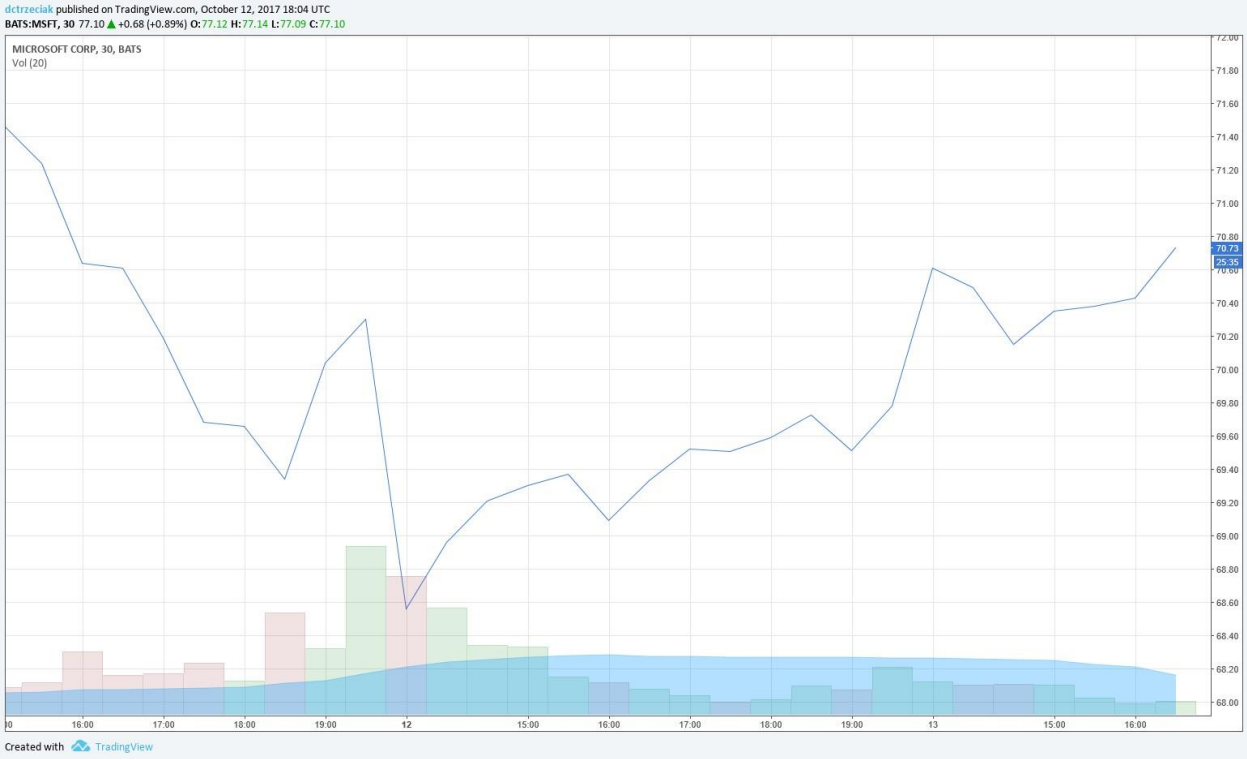

Figure 3.6: Microsoft Price Level on 6/12/17

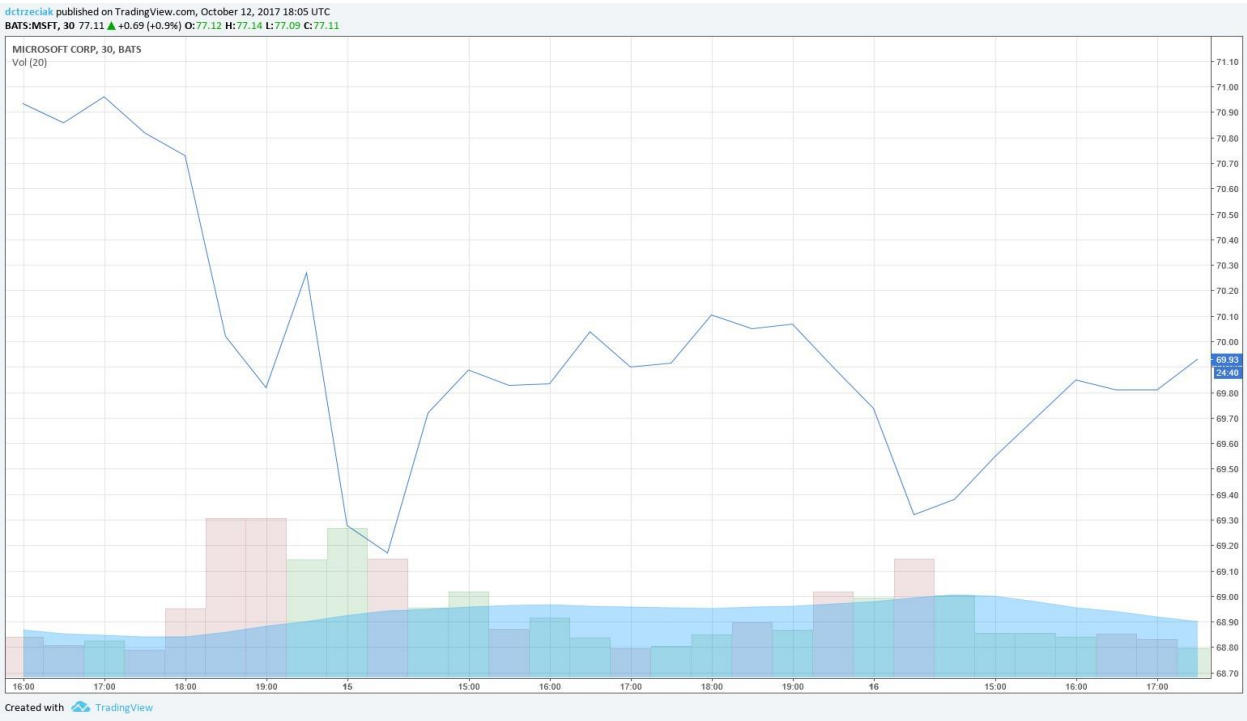

Figure 3.7: Microsoft Price Level on 6/15/17

3.5 Week 4

The fourth week of the simulation saw four trades being made; one concerning Cisco stocks, two concerning Hewlett Packard stocks, and another one concerning Microsoft stocks. These trades are outlined in Table 3.4. Following a steady price increase in Cisco stocks in the prior two days, 500 shares were purchased on Monday 6/19 for $31.77 each. The price continued to rise and the same 500 shares were sold towards the end of the trading day for 31.95, garnering a profit of $70. After a steep rise in price the day before, 500 shares of HPE securities were then purchased at the opening of the market on Tuesday 6/20. Unfortunately, instead of following the price increase of the day before the prices level of HPE stocks trended back downward as the trading day continued and those 500 shares were sold shortly before the close of the market for $16.56, incurring a loss of $85. Towards the end of the week 300 shares of MSFT stock were purchased after a relatively stagnant day under the impression that the price level would continue its upward trend from the day before. The stocks were purchased at $70.26 at the end of the trading day on Thursday 6/22 and sold again for $71.25 on Friday 6/23 for a profit of $277. Friday also saw the purchase and sale of 700 shares of HPE stock for $16.75 and $16.85 respectively, for another profit of $50. The net profit for the week totaled $312. The prices levels of each respective stock on the day of the transaction are displayed in Figures 3.8-3.11.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/19/17	CSCO	Buy	31.77	500	15895		85239.5	
6/19/17	CSCO	Sell	31.95	500	15965	70	101204.5	1204.5
6/20/17	HPE	Buy	16.69	500	8355		92849.5	
6/20/17	HPE	Sell	16.56	500	8270	(85)	101119.5	1119.5
6/22/17	MSFT	Buy	70.26	300	21088		80031.5	
6/23/17	HPE	Buy	16.75	700	11735		68296.5	
6/23/17	MSFT	Sell	71.25	300	21365	277	89661.5	1396.5
6/23/17	HPE	Sell	16.85	700	11785	50	101446.5	1446.5

Table 3.4: Day Trading Transactions – Week 4

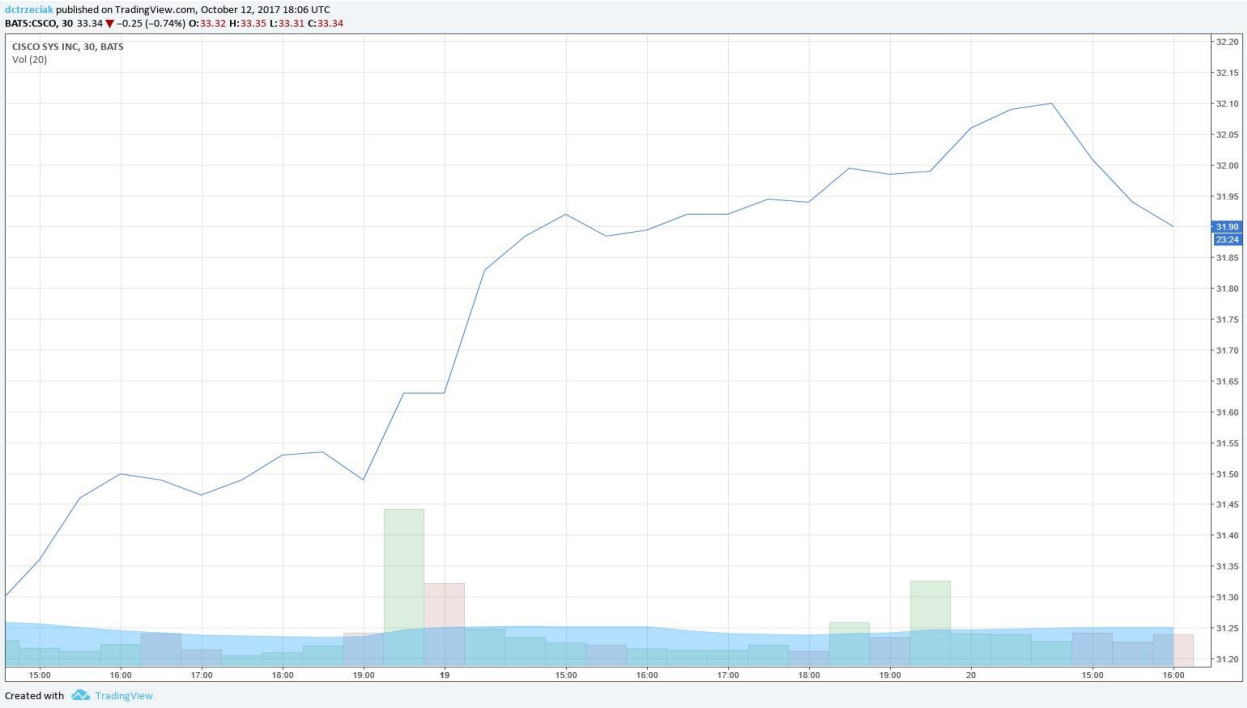

Figure 3.8: Cisco Systems Price Level on 6/19/17

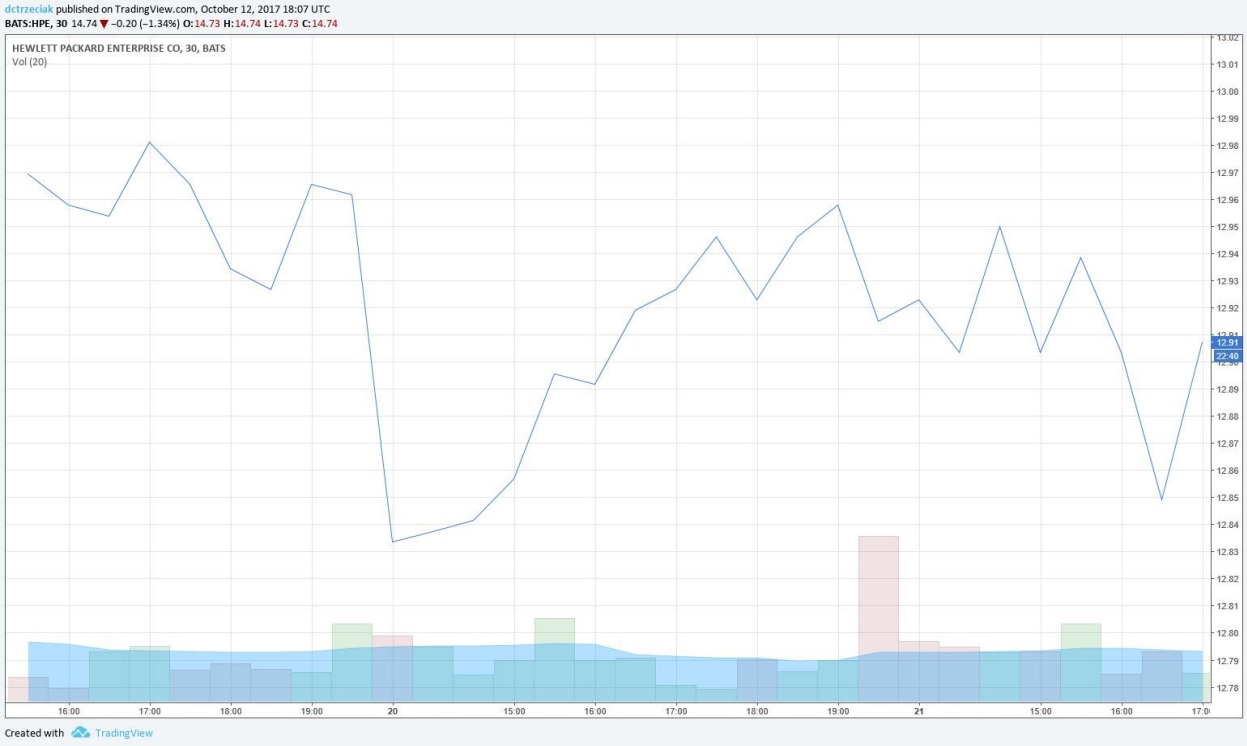

Figure 3.9: Hewlett Packard Price Level on 6/20/17

Figure 3.10: Microsoft Price Level on 6/22/17 – 6/23/17

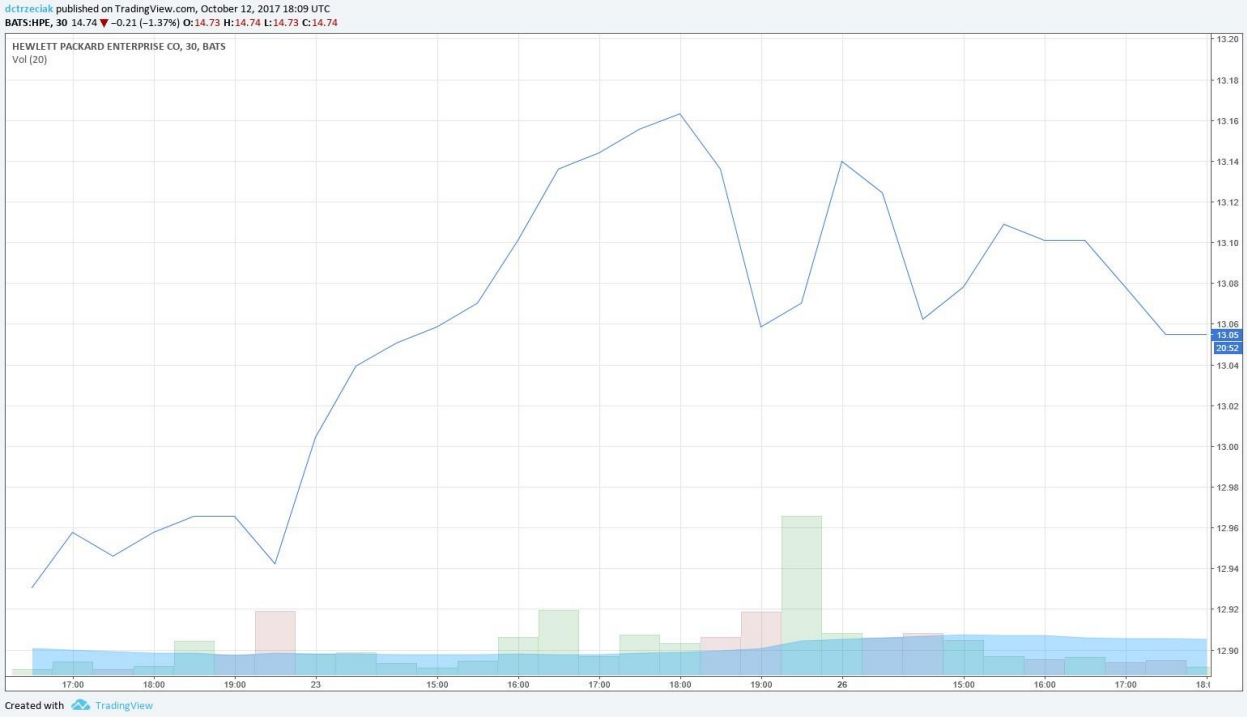

Figure 3.11: Hewlett Packard Price Level on 6/23/17

3.6 Week 5

Week 5 of the simulation was slightly less eventful then the prior week, only registering three trades. Following two days of slight prices increases, 400 shares of CSCO stocks were purchased for $32.09 each at the opening of the market on Tuesday 6/27 with the hope that the trend would continue. However, instead of continuing the trend of the preceding days the price of CSCO securities fell instead and the shares were sold at $31.76 each later that day for a loss of $152. The following day, Wednesday 6/28, saw the purchase of 500 shares of Microsoft securities at the price of $70.26 as the price level began to trend upward after two days of steep decline. These shares were sold later in the day at $71.25 for a profit of $475. Thursday 6/29 saw another loss as 300 shares of Texas Industries securities were purchased at $77.50 each and sold for $76.90 each later that day. Even after suffering two losses throughout the week a net profit of $123 was

made from these trades. Each trade made this week was recorded in Table 3.5 while price levels of each respective stock is displayed in Figures 3.12-3.14.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/27/17	CSCO	Buy	32.09	400	12846		88600.6	
6/27/17	CSCO	Sell	31.76	400	12694	(152)	101294.5	1294.5
6/28/17	MSFT	Buy	70.26	500	35140		66154.5	
6/28/17	MSFT	Sell	71.25	500	35615	475	101769.5	1769.5
6/29/17	TXN	Buy	77.50	300	23260		78509.5	
6/29/17	TXN	Sell	76.90	300	23060	(200)	101569.5	1569.5

Table 3.5: Day Trading Transactions – Week 5

Figure 3.12: Cisco Systems Price Level on 6/27/17

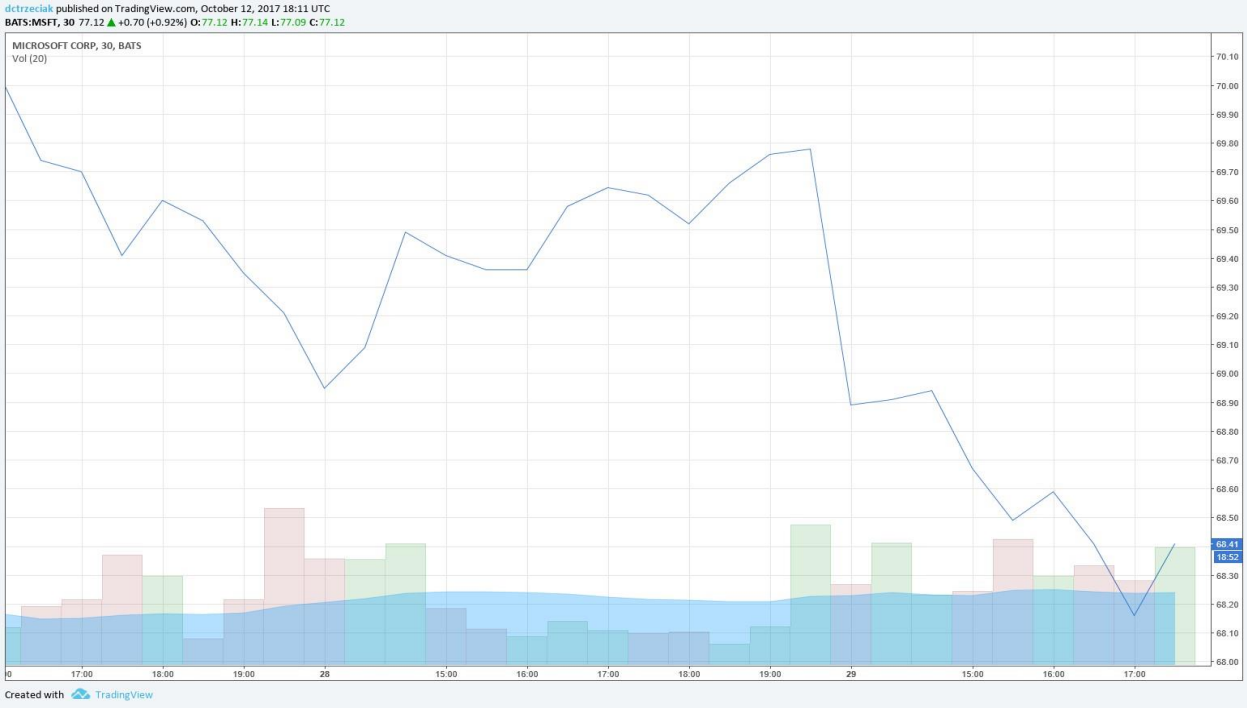

Figure 3.13: Microsoft Price Level on 6/28/17

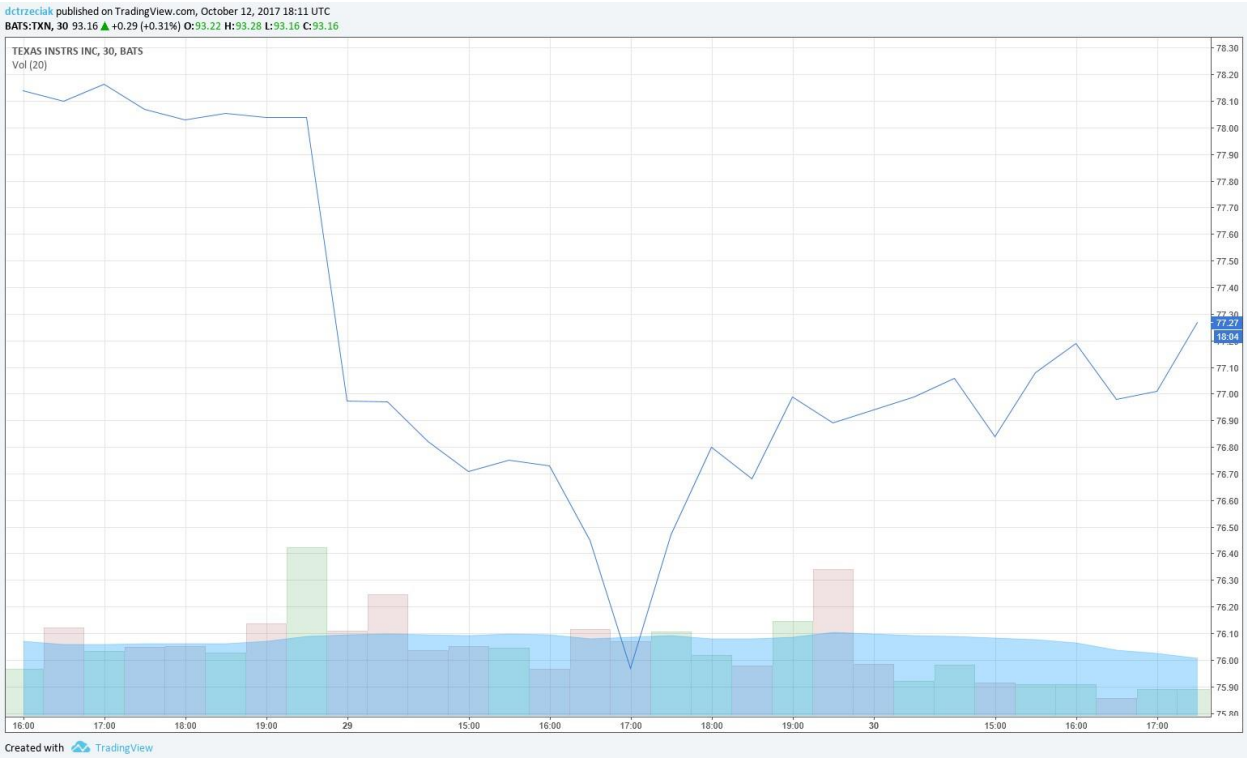

Figure 3.14: Texas Instruments Price Level on 6/29/17

3.7 Week 6

Due to the holiday on Tuesday 7/4 shortening the trading week and the steady decline or erratic spiking of the price level of stocks in the four companies being monitored the sixth week of this simulation brought very little action. Only two trades were registered throughout this week, both recorded in Table 3.6 and occurring after the holiday break. On Wednesday 7/5, 400 shares of Microsoft securities were purchased for $68.25 each and were sold shortly after at $68.22 each as the price continued to fall from the market day before for a loss of $32. The following day, Thursday 7/6, 700 shares of HPE stock were purchased at $16.85 each following a steady price increase in the two days before. Instead of continuing to trend upward however, the price of HPE securities began a sharp decline and the 700 shares were sold later that day for $16.53 each and a loss of $244. Week 6 of the day trading simulation incurred a net loss of $276. The price levels of Microsoft and Hewlett Packard stocks on the day of each transaction are outlined in Figures 3.15 and 3.16.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/5/17	MSFT	Buy	68.25	400	27310		74259.5	
7/5/17	MSFT	Sell	68.22	400	27278	(32)	101537.5	1537.5
7/6/17	HPE	Buy	16.85	700	11805		89732.5	
7/6/17	HPE	Sell	16.53	700	11561	(244)	101293.5	1293.5

Table 3.6: Day Trading Transactions – Week 6

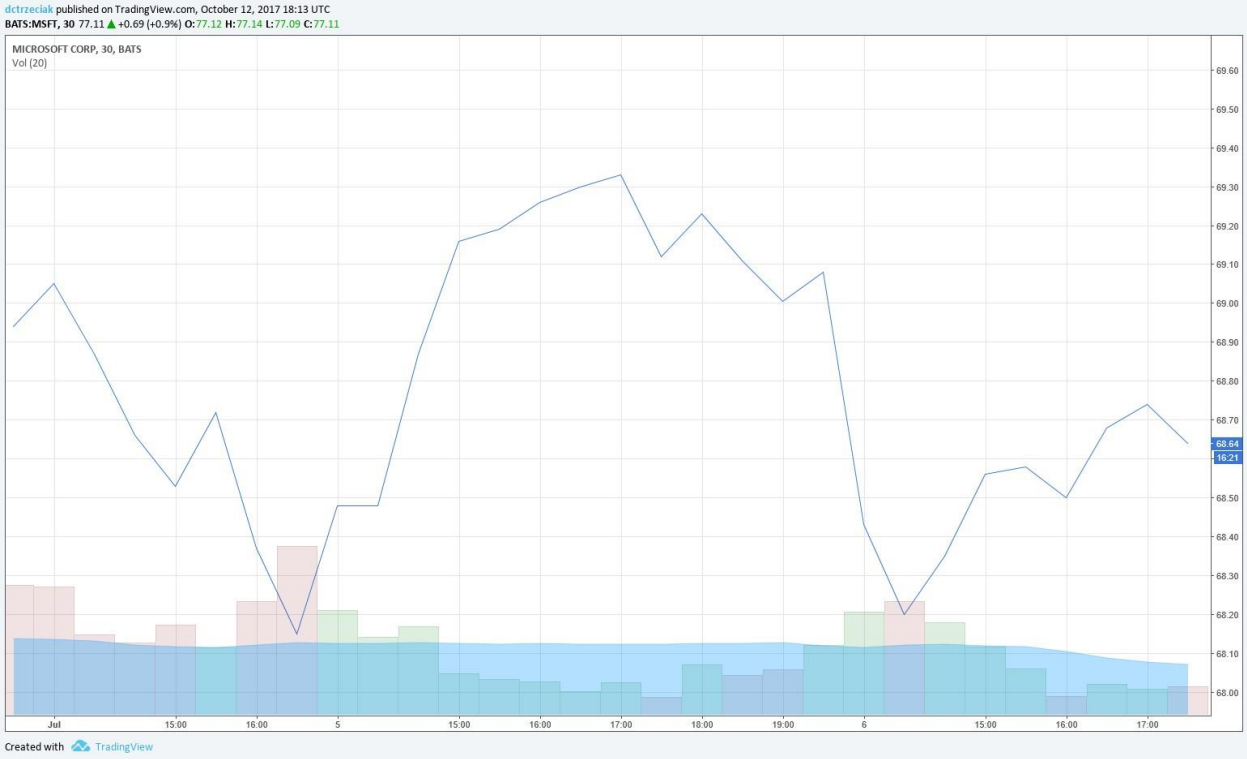

Figure 3.15: Microsoft Price Level on 7/5/17

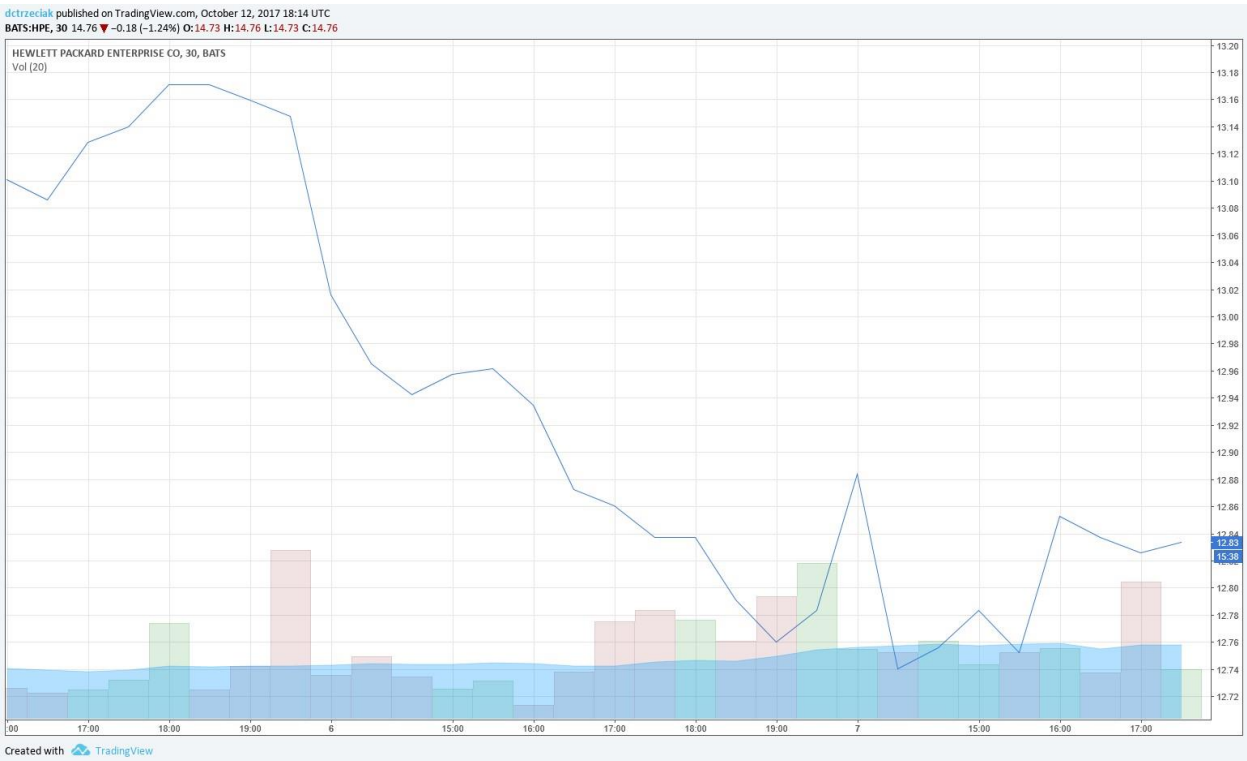

Figure 3.16: Hewlett Packard Price Level on 7/6/17

3.8 Week 7

The seventh week of this simulation has been the liveliest so far, seeing 5 separate trades each recorded in Table 3.7. After a sharp increase in price at the end of the prior week, 300 shares of Texas Industries stock were purchased at the cost of $78.43 each on Monday 7/10. As the price continued to increase throughout the day, these shares were then sold for $78.72 each and profit of $67. The following day, Tuesday 7/11, recorded two respective purchases of first MSFT securities at $70.00 each and then CSCO stocks at $31.05 each after 3 days of price increases on both fronts. The CSCO stocks were resold at the end of the trading day at the price of $31.10 each for a meager profit of $5. By the end of the day the price of the MSFT shares that had been purchased was only $0.01 off of the purchasing price so it was decided that holding onto those shares until the following day would be the best course of action instead of suffering a loss after paying commission prices. This proved to be a prudent move as the price of Microsoft securities had increased to $71.15 by the end of the following trading day when the 500 shares were sold for a profit of $555. After observing steady price increases in both HPE and TXN stocks throughout the week 1000 and 400 shares of each respective company were purchased on Thursday 7/13 at the prices of $16.79 and $80.41. The prices of both companies stock continued to rise throughout the day and were sold for $17.03 and $80.54 respectively for a conjoined profit of $252. Each of the five trades fostered throughout the week were successful at pulling in a profit and the net profit for the week totaled to $879. The price levels of each respective security are displayed in Figures 3.17-3.21 on the day the transactions were conducted.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/10/17	TXN	Buy	78.43	300	23539		77754.5	
7/10/17	TXN	Sell	78.72	300	23606	67	101360.5	1360.5
7/11/17	MSFT	Buy	70.00	500	35010		66350.5	
7/11/17	CSCO	Buy	31.05	500	15535		50815.5	
7/11/17	CSCO	Sell	31.10	500	15540	5	66355.5	1365.5
7/12/17	MSFT	Sell	71.15	500	35565	555	101920.5	1920.5
7/13/17	HPE	Buy	16.79	1000	16800		85120.5	
7/13/17	TXN	Buy	80.41	400	32174		52946.5	
7/13/17	HPE	Sell	17.03	1000	17020	220	69966.5	2140.5
7/13/17	TXN	Sell	80.54	400	32206	32	102172.5	2172.5

Table 3.7: Day Trading Transactions – Week 7

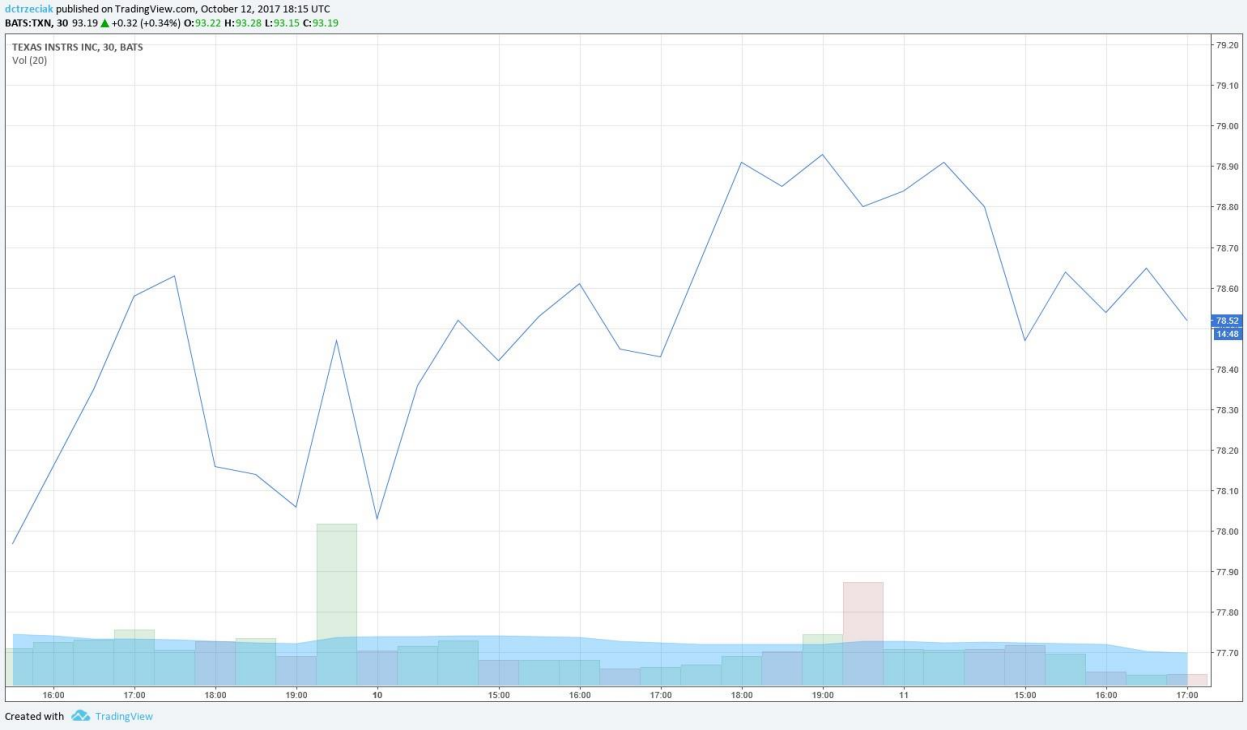

Figure 3.17: Texas Instruments Price Level on 7/10/17

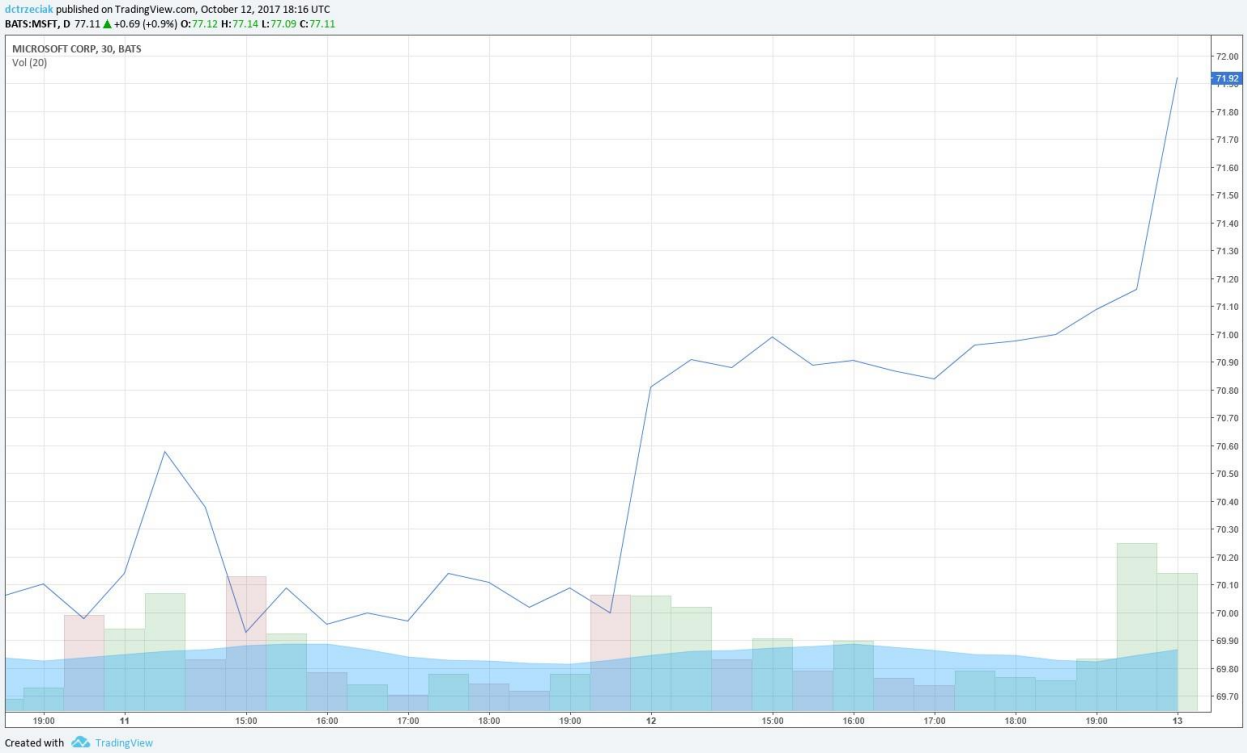

Figure 3.18: Microsoft Price Level on 7/11/17 – 7/12/17

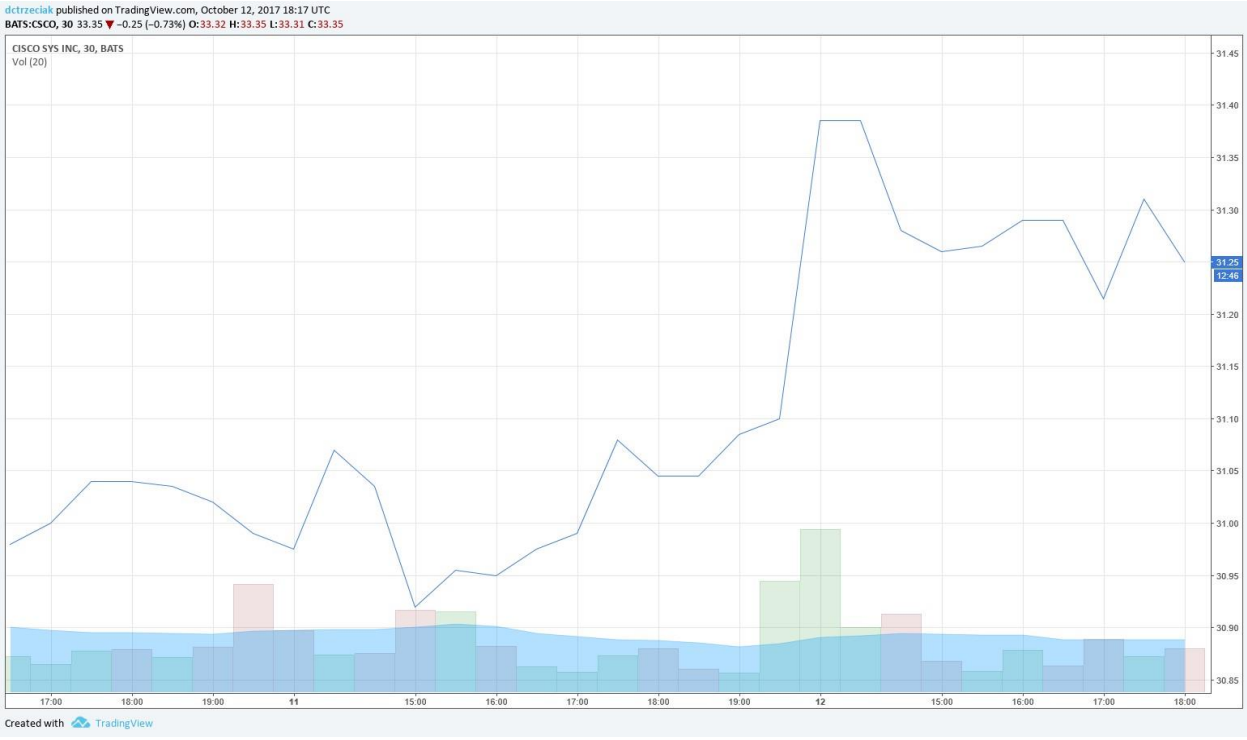

Figure 3.19: Cisco Systems Price Level on 7/11/17

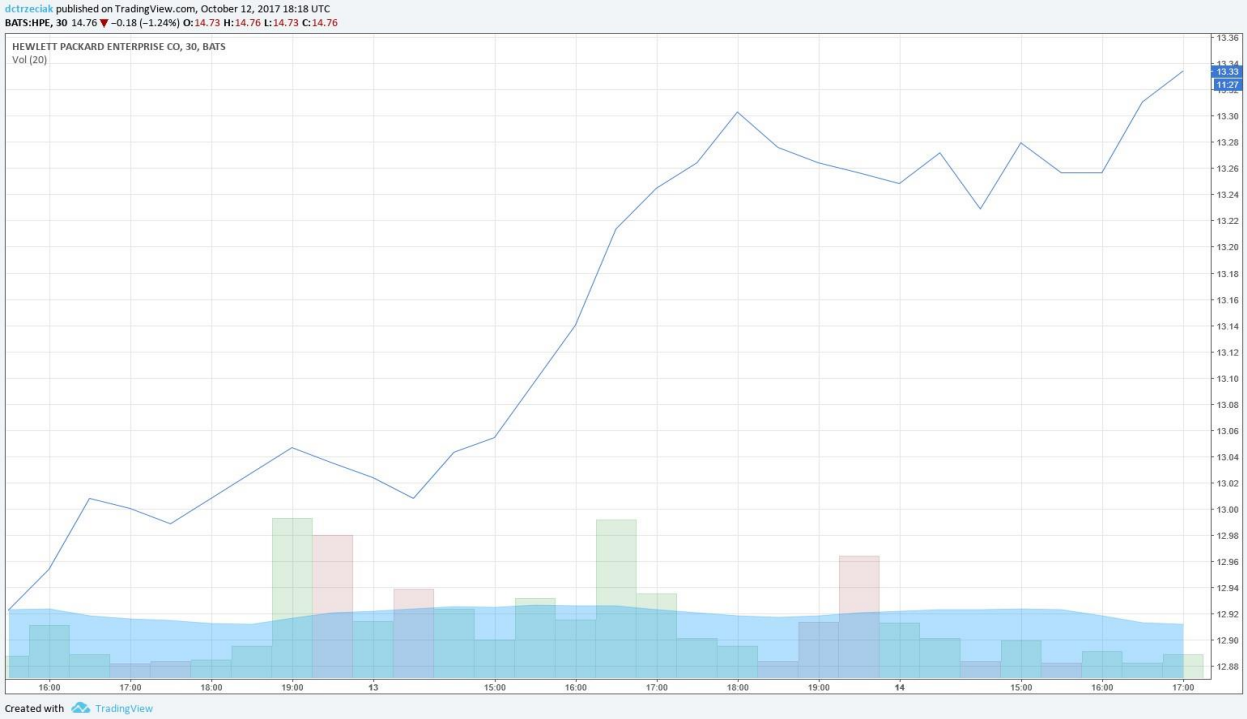

Figure 3.20: Hewlett Packard Price Level on 7/13/17

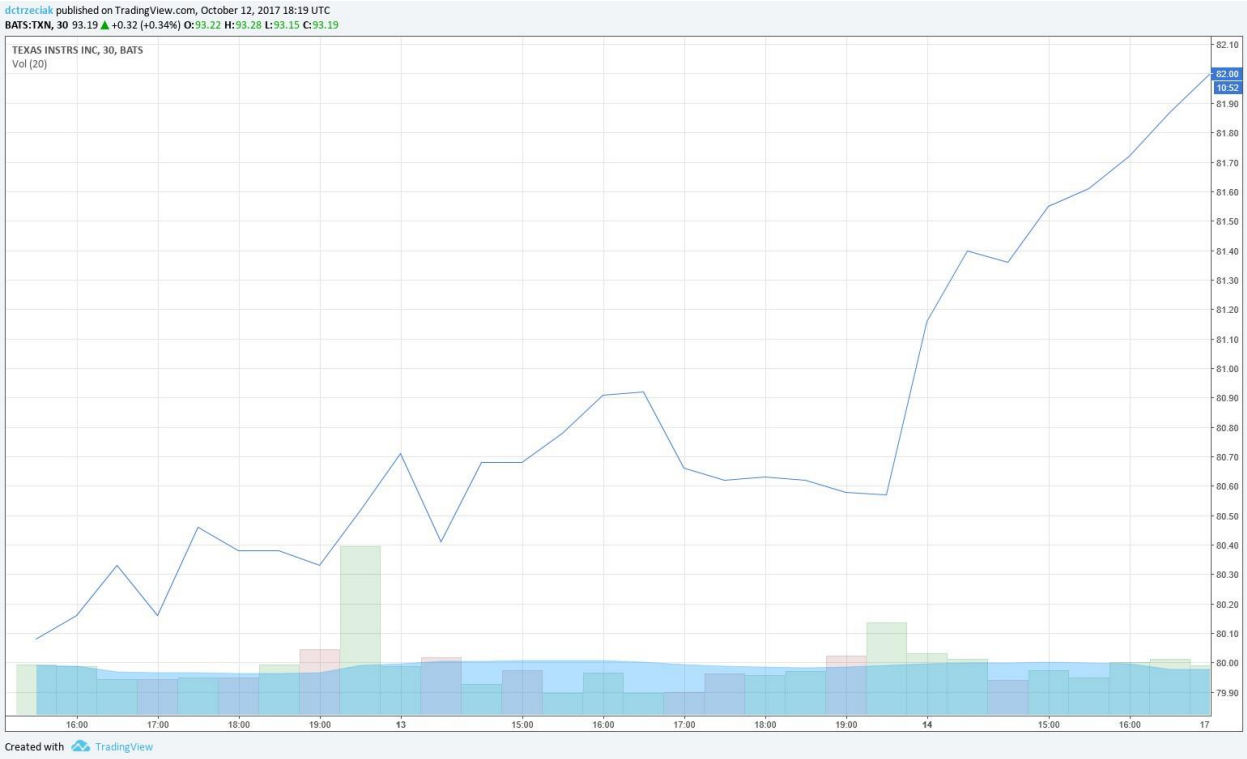

Figure 3.21: Texas Instruments Price Level on 7/13/17

3.9 Week 8

To begin Week 8 of the day trading simulation two purchases were made on Wednesday 7/19. First, 400 shares of Texas Industries stock was purchased at the price of $82.49 each. That same day 500 shares of Cisco stock was also purchased for $31.51 following three days of steady price increases. Instead of following the trend from the day before and increasing in price, the Texas Industries securities began to fall in price and were sold part way through the day at the price of $82.09 incurring a loss of $180. The price level of the Cisco stocks however began to increase sharply, much more quickly than the gradual increases observed in the three days prior, and were held until the end of the trading day where they were able to be sold for $31.90 each and a healthy profit of $175. In the hopes that the increasing trend from the previous few would continue with Cisco securities, 600 shares were purchased the following day, Thursday 7/21, at $31.91 each. After watching two days of modest price increases in Hewlett Packard stock where the price had risen $0.47, 1000 shares of HPE stock were also purchased the same morning at the price of $17.67 each. As the trend of Cisco stocks reversed itself and the price level began to fall, the 600 shares purchased earlier that day were sold midway through the day for $31.83 each and suffering a loss of $68. The HPE stocks however were held until the following morning, Friday 7/21, where they were sold at the market opening for $17.86 each netting a profit of $170. Although two separate losses were suffered this week, the four trades conducted were still able to pull in a net profit of $97. Each transaction is outlined in Table 3.8 and the price levels of each respective company on the day of the trade are displayed in Figures 3.22-3.25.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/19/17	TXN	Buy	82.49	400	33006		69166.5	
7/19/17	CSCO	Buy	31.51	500	15765		53401.5	
7/19/17	TXN	Sell	82.09	400	32826	(180)	86227.5	1992.5
7/19/17	CSCO	Sell	31.90	500	15940	175	102167.5	2167.5
7/20/17	HPE	Buy	17.67	1000	17680		84487.5	
7/20/17	CSCO	Buy	31.91	600	19156		65331.5	
7/20/17	CSCO	Sell	31.83	600	19088	(68)	84419.5	2099.5
7/21/17	HPE	Sell	17.86	1000	17850	170	102269.5	2269.5

Table 3.8: Day Trading Transactions – Week 8

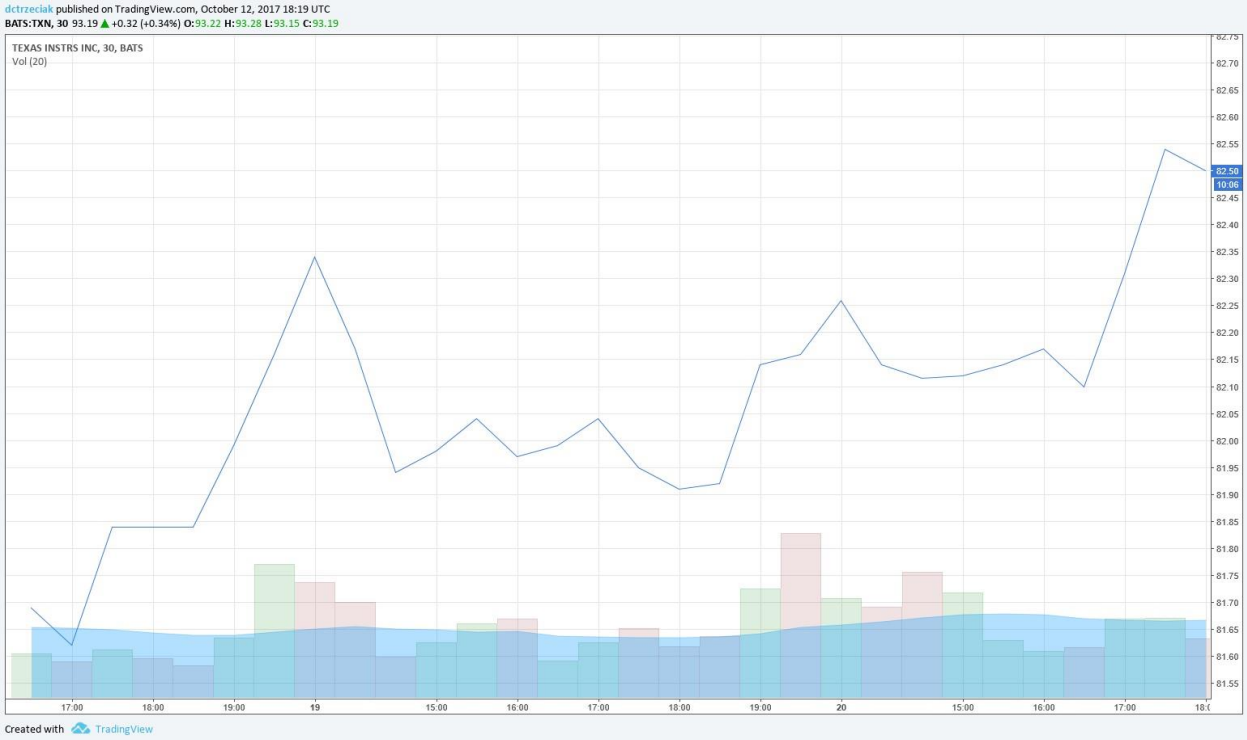

Figure 3.22: Texas Instruments Price Level on 7/19/17

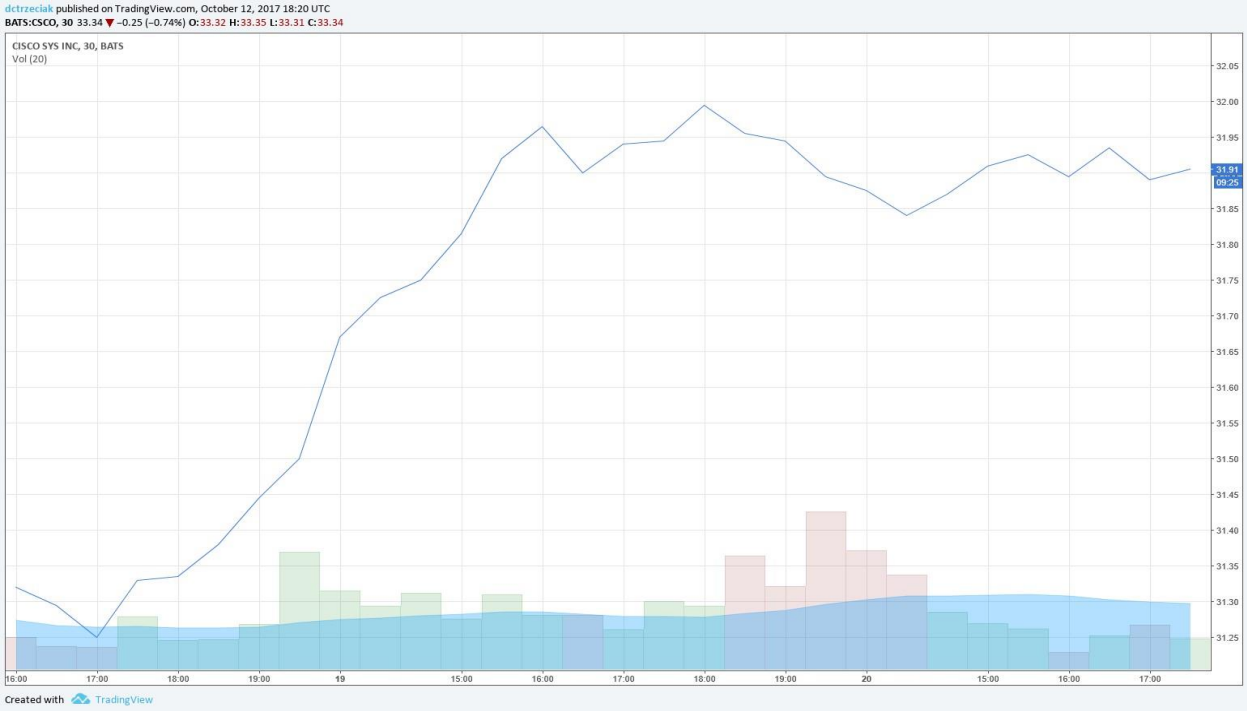

Figure 3.23: Cisco Systems Price Level on 7/19/17

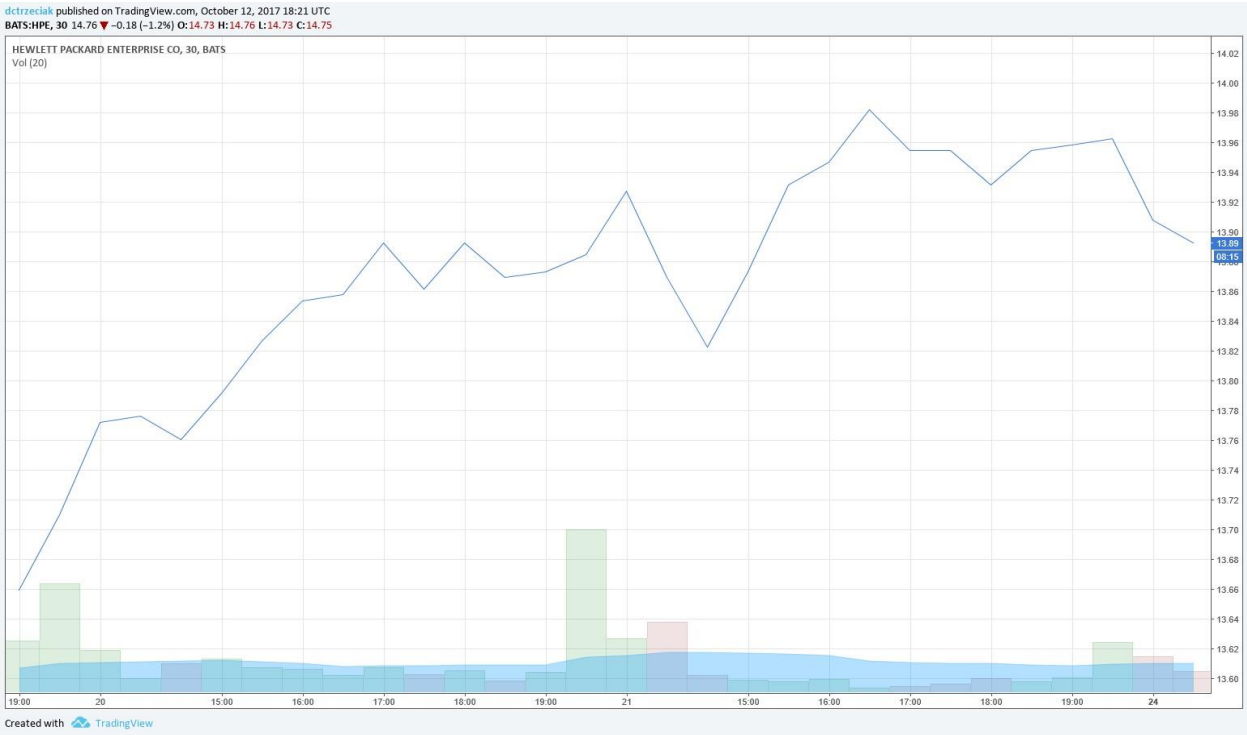

Figure 3.24: Hewlett Packard Price Level on 7/20/17 – 7/21/17

Figure 3.25: Cisco Systems Price Level on 7/20/17

3.10 Week 9

As Week 9 of the simulation began, both Cisco and Hewlett Packard stocks were trending downward in price, but both Microsoft and Texas Industries securities looked to be heading into an upswing so they were closely watched for the first few days. On Tuesday 7/25, 500 shares of MSFT were purchased at the opening of the market for $73.80 each. As the price continued to rise throughout the day these shares were sold at the end of the day for the price of $74.19 and a $175 profit. The following day, Wednesday 7/26, after observing a price increase of $0.34 in Texas Industries stock, 400 shares of TXN was purchased for $83.00 each. Unfortunately, the price began to drop and the shares were sold towards the end of the day for $82.53 each and a loss of $208. For the remainder of the week the price levels of all four companies being monitored entered a steep decline so no more trading was conducted. After suffering the loss on the trade

concerning the TXN stock, a net loss of $33 was recorded for the week. Each trade is displayed in Table 3.9 and price levels for both Microsoft and Texas Instruments stocks on the day of each respective transaction are outlined in Figure 3.26 and Figure 3.27.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/25/17	MSFT	Buy	73.80	500	36910		65359.5	
7/25/17	MSFT	Sell	74.19	500	37085	175	102444.5	2444.5
7/26/17	TXN	Buy	83.00	400	33210		69234.5	
7/26/17	TXN	Sell	82.53	400	33002	(208)	102236.5	2236.5

Table 3.9: Day Trading Transactions – Week 9

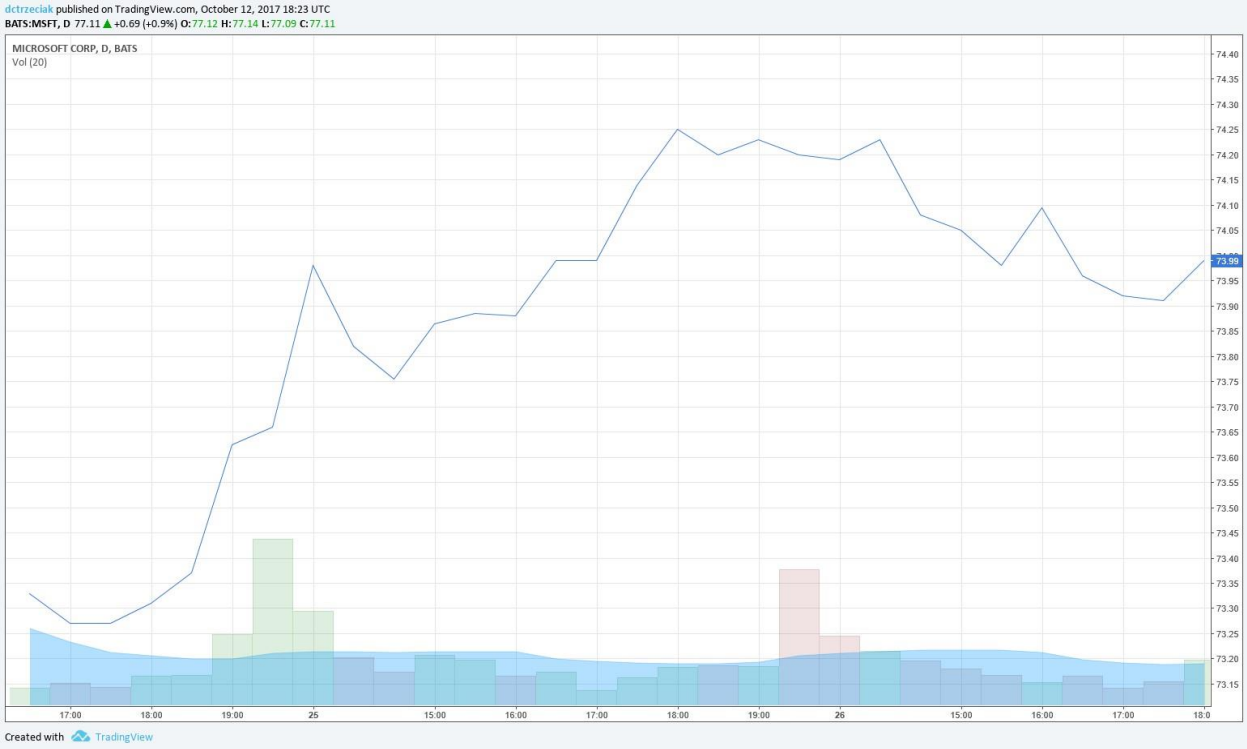

Figure 3.26: Microsoft Price Level on 7/25/17

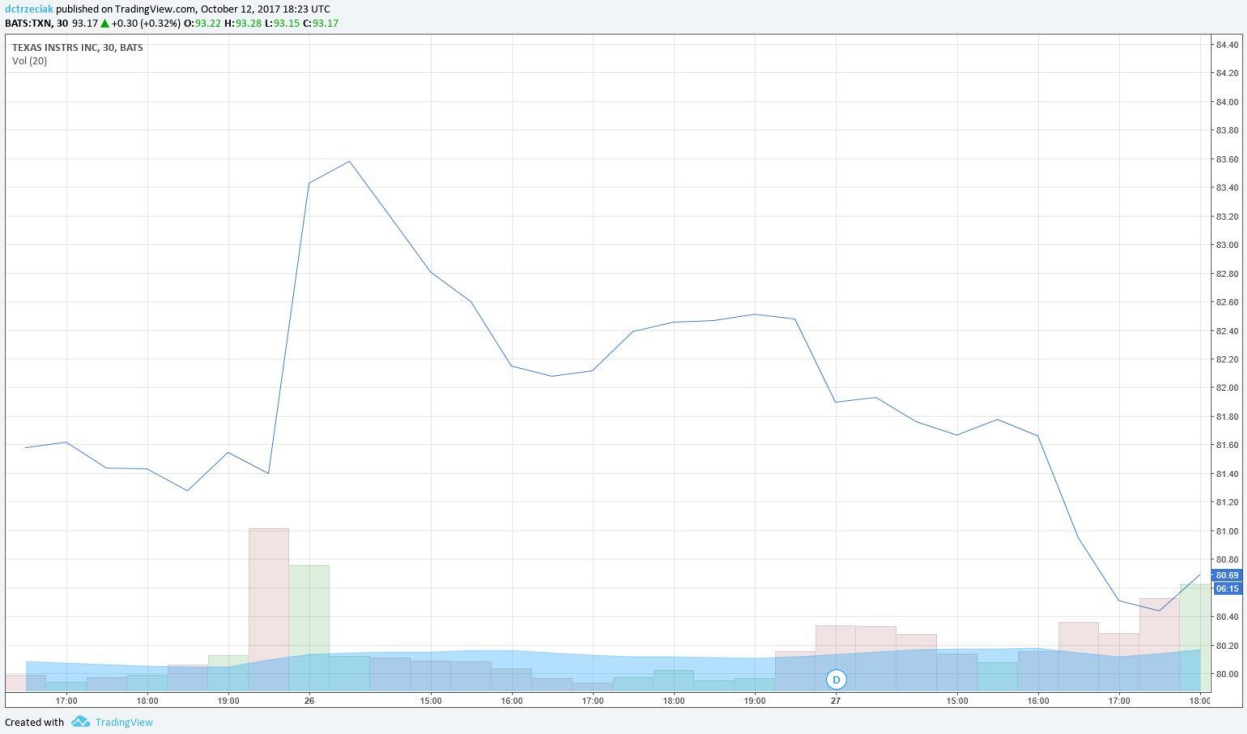

Figure 3.27: Texas Instruments Price Level on 7/26/17

3.11 Week 10

As trends from the end of the following week continued and price levels persisted in falling or behaving erratically, all four companies were watched for any sign that they might be entering an upswing. After observing a modest price increase of $0.55 in Texas Industries stock on Monday 7/31, 500 shares of TXN stock was purchased on the morning of Tuesday 8/1 for $81.60 each. The price level continued to climb slowly throughout the day and the shares were resold at the end of the day for $81.71 each pulling in a profit of $35. This trade is outlined in Table 3.10. Regrettably, the odd trends continued for the remainder of the week so no more trades were able to be conducted. The price level for Texas Instruments securities on the day of the transaction are displayed in Figure 3.28.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
8/1/17	TXN	Buy	81.60	500	40810		61426.5	
8/1/17	TXN	Sell	81.71	500	40845	35	102271.5	2271.5

Table 3.10: Day Trading Transactions – Week 10

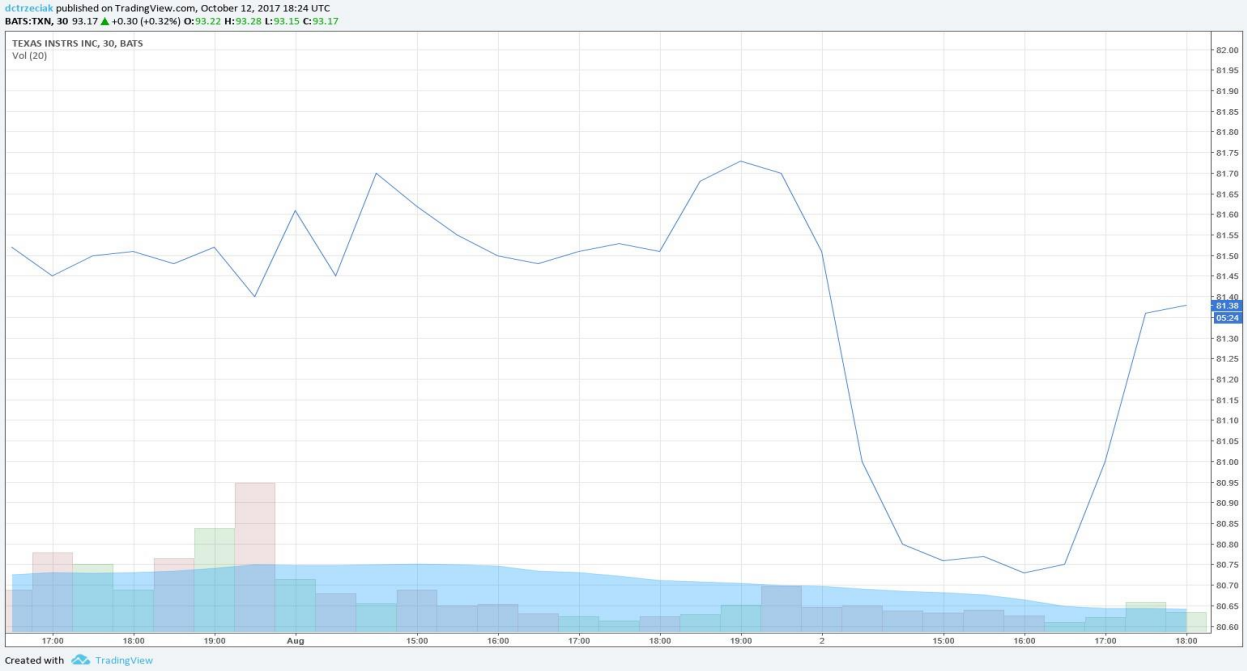

Figure 3.28: Texas Instruments Price Level on 8/1/17

4. Position Trading Simulation

4.1 Companies Selected

The companies that have been selected for the position trading simulation portion of this project focus on companies in the technology industry including Apple, Microsoft, Intel, and NVIDIA.

Apple (AAPL)

Market Cap – 741.8B

Apple is one of the most widely known technology companies in the United States. This company largely focuses on the design and manufacture of mobile telecommunications devices, media devices, personal computers, and portable digital music players. The company is not just well known in the United States and has spread its influence almost worldwide to Europe, Asia, South America, and Africa. Over the past year Apple stocks have steadily increased in price making them a wise investment for a position trader who can see the value in holding onto securities.

Microsoft (MSFT)

Market Cap – 540.4B

Microsoft is a staple in the United States technology sector. Most widely known for their operating systems for computing devices, Microsoft also has a hand in marketing servers, phones, intelligent devices and video games. Over the past 6 months the Microsoft securities have

continued to follow a general uptrend and were selected for this simulation for the same reasons as the previously mentioned company.

Intel (INTC)

Market Cap – 165.8B

Intel engages in the design and manufacture of computer products and technologies such as computer, networking, and communications platforms. The company operates through a variety of segments to deliver platforms for notebooks, desktop computers, tablets, phones, enterprise and retail purposes, and device security platforms among others. Over the past 6 months the price of Intel stocks has risen and fallen a number of times, with each peak in price taking a few weeks to a month to occur. Although the price of this security seems to constantly be on the move, with each peak the price of this stock trends back to a similar price making it a predictable investment and a sensible one for a position trader.

NVIDIA (NVDA)

Market Cap – 90.2B

NVIDIA Corp. largely focuses on the design and manufacturing of graphics processors, chipsets, and multimedia software for an array of electronic devices. The company's products support both desktop and notebook computers as well as smartphones, tablets, and gaming systems. In the past year NVIDIA stock prices have followed a considerable uptrend and appear to still be doing so.

4.2 Week 1

The first week of the position trading simulation featured two purchases of both Apple and Microsoft securities, displayed in Table 4.1. In recent months both of these companies have shown a steady increase in their stock prices, so it was deemed an appropriate time to enter the market on these specific securities; their price levels for the previous six months are outlined in Figure 4.1 and 4.2. In the hopes that this trend will continue to flow, the position will be held on these stocks for the time being.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
5/30/17	AAPL	Buy	153.85	200	30780		69220	
5/30/17	MSFT	Buy	69.79	300	20947		48273	

Table 4.11: Position Trading Transactions – Week 1

Figure 4.29: Apple Price Level for Previous 6 Months

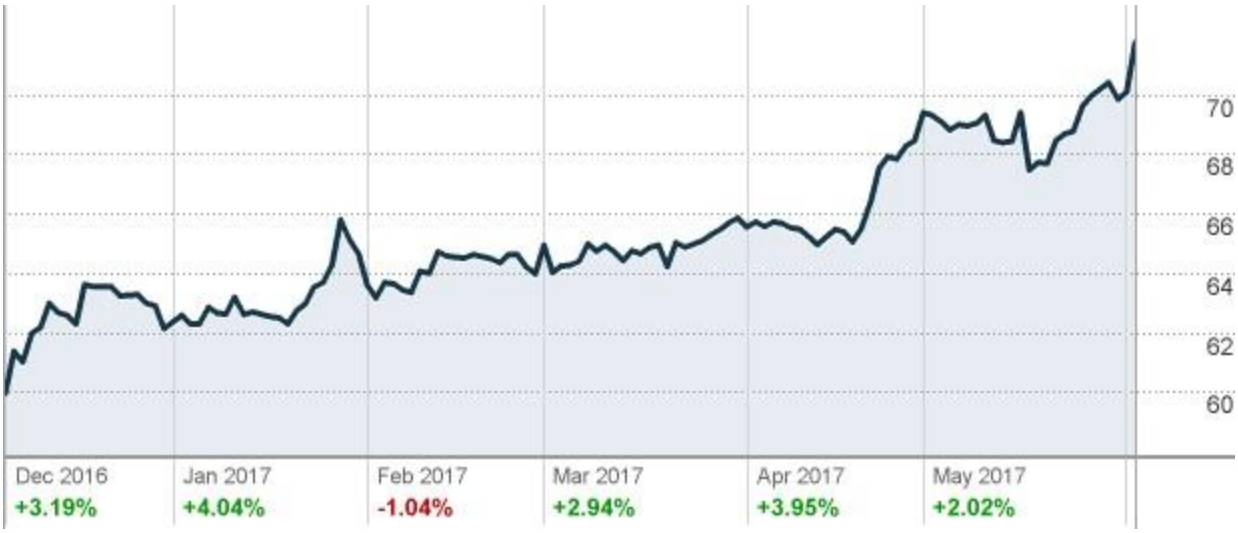

Figure 4.30: Microsoft Price Level for Previous 6 Months

4.3 Week 2

The second week of the simulation included both a purchase and a sale of stocks. NVIDIA stock were purchased due to the fact that the price of this stock has followed a general trend of increasing in price over the past few months and seemed to be continuing to do so. This purchase has the potential to be a sound investment if the prices of this security continue to follow this trend. The Apple stocks which were purchased at the beginning of the prior week however began to steeply decline in price, dropping $4.14 before it was decided that they needed to be sold, incurring an $828 loss on the transaction as a whole. Each transaction is recorded in Table 4.2 and the purchase and sale points for the Apple securities sold this week are displayed in Figure 4.3.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/7/17	NVDA	Buy	148.56	200	29722		18551	
6/9/2017	AAPL	Sell	149.71	200	29952	(828)	48503	(828)

Table 4.12: Position Trading Transactions – Week 2

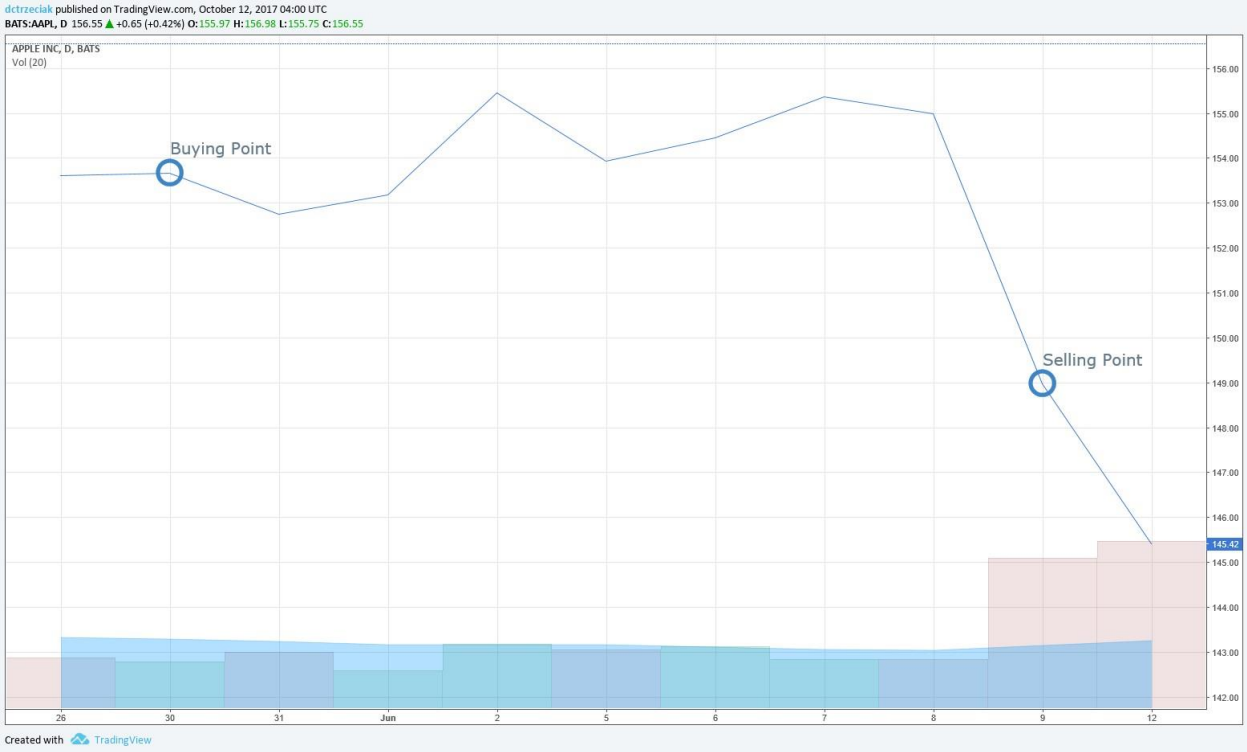

Figure 4.31: Apple Price Level for Sale During Week 2

4.4 Week 3

Week 3 of the position trading simulation saw no action as the prices of both Microsoft and NVIDIA stocks, the two stocks currently in possession, have stayed fairly constant with only small fluctuations in price occurring. The Apple stock sold in the previous week has continued to fall and will be monitored in the week to come to hopefully be caught on an uptrend where it can be purchased again.

4.5 Week 4

After observing a sharp increase in the price of Apple stock, rising $2.68 in a single day, after a steep decline over the past week, 150 shares of AAPL were purchased on Monday 6/19 at the price of $145.77 each to start the week. The Microsoft shares purchased in the first week had not moved much in price, fluctuating up and down with each passing day and not sticking to one clear trend, but were still above the purchasing price. Due to this, all 300 shares of MSFT stock were sold on Tuesday 6/20 at the price of $70.82 for a profit of $279. In the three days following the sale of the Microsoft shares, the price began to increase for three consecutive days so 200 shares were purchased at the end of the week on Friday 6/23 in the hopes that price would continue to rise. Each transaction conducted this week was recorded in Table 4.3 and the price level of Microsoft stock at the time of both purchase and sale is exhibited in Figure 4.4.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/19/17	AAPL	Buy	145.77	150	21.875.5		26627.50	
6/20/17	MSFT	Sell	70.82	300	21236	279	47863.50	(549)
6/23/17	MSFT	Buy	71.21	200	14252		33611.5	

Table 4.13: Position Trading Transactions – Week 4

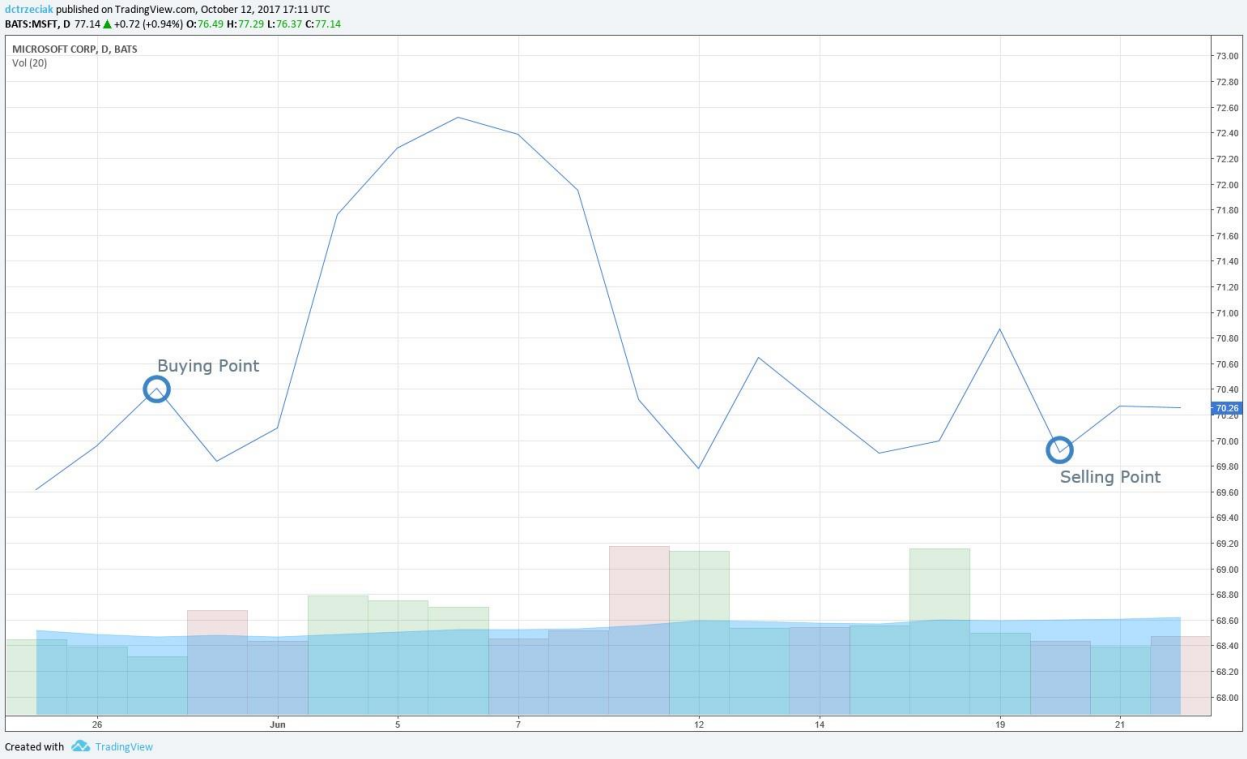

Figure 4.32: Microsoft Price Level for Sale During Week 4

4.6 Week 5

Following large declines in the price levels of the stocks that were in possession the fifth week of the position trading simulation was dominated by the sale of stocks, each sale is displayed in Table 4.4. At the start of the week, following three consecutive days of a decline in share prices, all 200 shares of NVDA stock in possession were sold at the price of $152.16 on Monday 6/26. At $3.60 above the purchasing price this transaction netted a profit of $700. Instead of following the trend of increasing price at the time of purchase, the MSFT shares purchased in the prior week also began to fall quickly in price and were unloaded on Tuesday 6/27 at the price of $69.21 for a loss of $420. In contrast, the 150 shares of Apple stock in possession had not moved drastically in price, but had decreased slightly, $1.06 from the purchasing price. Due to the direction the

market seemed to be heading in concerning other companies in the technology industry and to hopefully mitigate a larger loss, all 150 shares of Apple stock were also sold on Thursday 6/29 at the price of $144.71 incurring a loss of $179. Overall, with all three sales that occurred throughout this week considered, a net profit of $101 was still made. The price level at the point of both purchase and sale for all three securities sold this week are displayed in Figures 4.5-4.7.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/26/17	NVDA	Sell	152.16	200	30422	700	64033.5	151
6/27/17	MSFT	Sell	69.21	200	13832	(420)	77855.5	(269)
6/29/17	AAPL	Sell	144.71	150	21696.5	(179)	99552	(448)

Table 4.14: Position Trading Transactions – Week 5

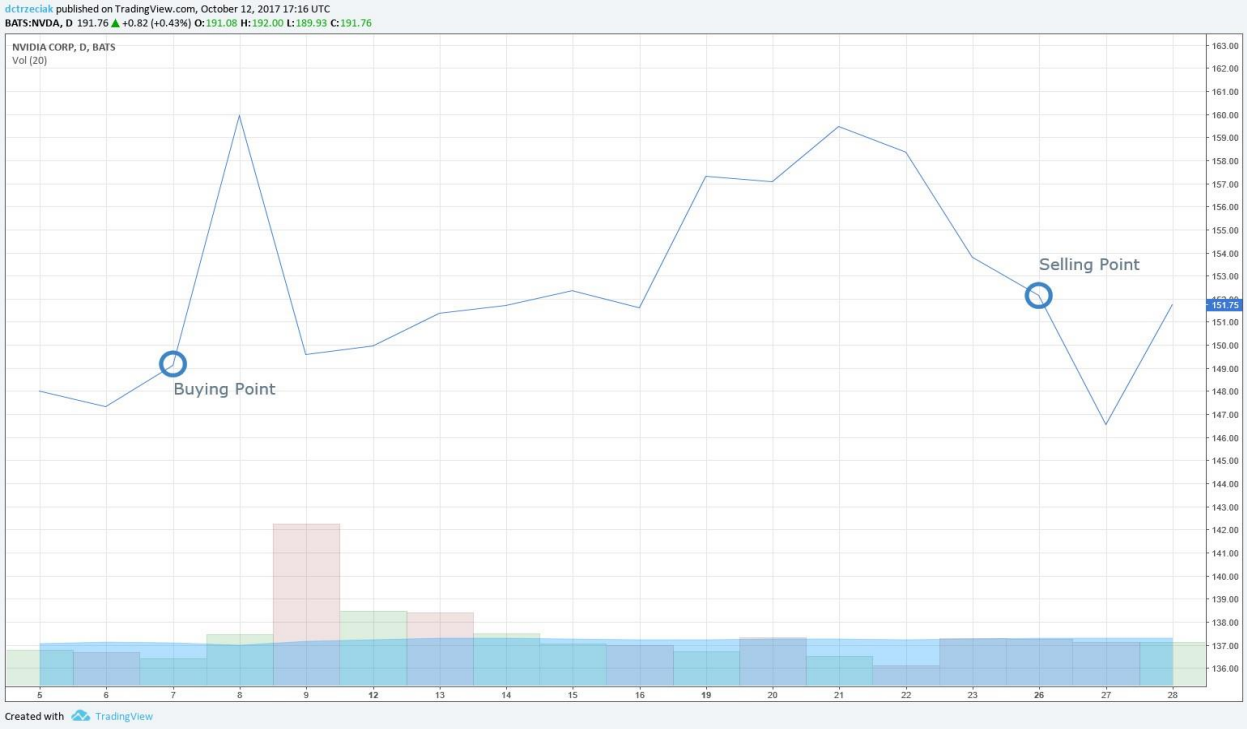

Figure 4.33: NVIDIA Price Level for Sale During Week 5

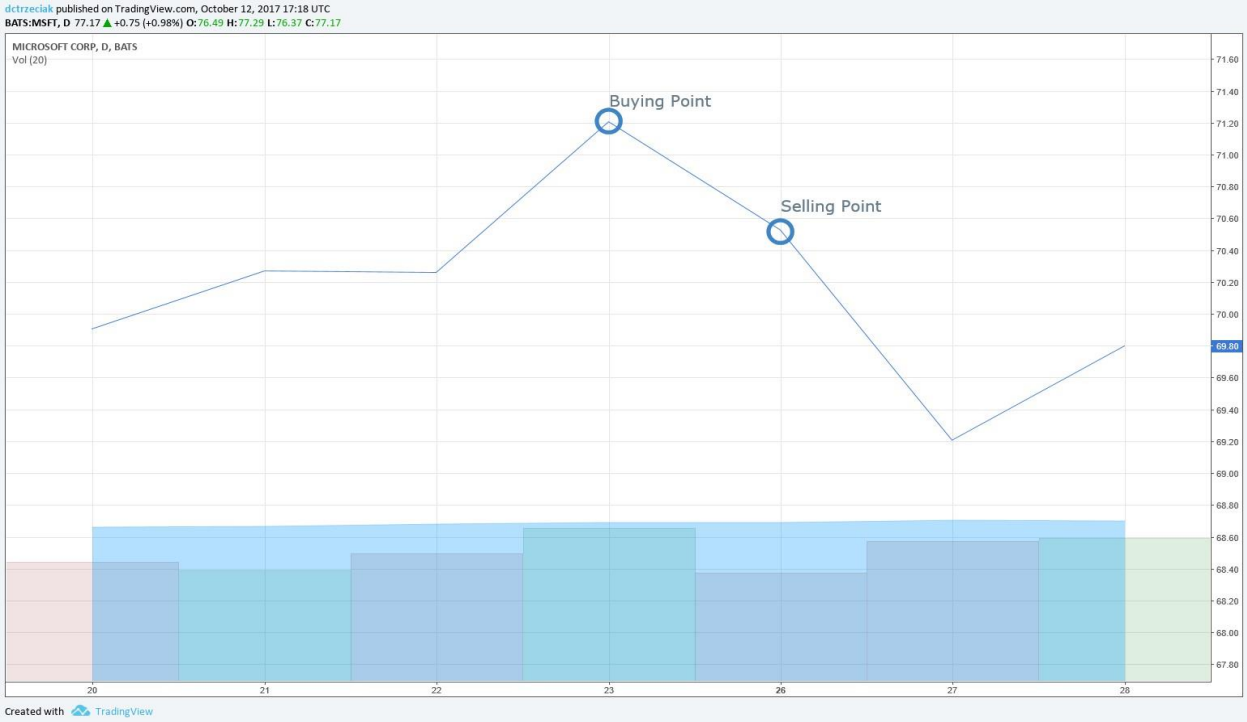

Figure 4.34: Microsoft Price Level for Sale During Week 5

Figure 4.35: Apple Price Level for Sale During Week 5

4.7 Week 6

After a drastic decline in price over the past two weeks, dropping $20.14 per share, NVDIA stocks began to increase in price again for three days in a row. Expecting this trend to continue after the exponential price fall, 200 shares of NVDA were purchased at the end of the week on Friday 7/7 at the price of $145.78, as displayed in Table 4.5. The price levels of the other three companies being monitored have continually fluctuated throughout the week but both Microsoft and Apple experienced a modest price increase towards the end of the week and will be closely watched in the days to come to hopefully catch them on an uptrend.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/7/17	NVDA	Buy	145.78	200	29166		70386	

Table 4.15: Position Trading Transactions – Week 6

4.8 Week 7

Throughout the seventh week of this simulation all four of the companies being monitored experienced strong price increases after the gradual declines and fluctuations of the past few weeks. Due to this the position on the NVIDIA stocks purchased at the end of the prior week was held, and shares in each of the three other companies being monitored were purchased, as shown in Table 4.6. On Tuesday 7/11 200 shares of Apple stock was purchased at the price of $144.73. Over the next two days 300 shares of Microsoft securities were bought at a price of $71.15 on Wednesday 7/12 and 300 shares of Intel stock were purchased for $34.68 each on Friday 7/14. Each of these four companies will be monitored closely in the coming week for price decreases that will signify the time to sell.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/11/17	AAPL	Buy	144.73	200	28956		41430	
7/12/17	MSFT	Buy	71.15	300	21355		20075	
7/14/17	INTC	Buy	34.68	300	10414		9661	

Table 4.16: Position Trading Transactions – Week 7

4.9 Week 8

Following three days of gradual price decreases or stagnation, all 300 shares of Intel stock purchased in the week before were sold for $34.56 each on Wednesday 7/19. Unfortunately, the fall in price was not detected early enough and the shares were sold at $0.12 below the purchasing price for a loss of $56, as displayed in Table 4.7. All three of the securities currently in possession have continued to follow the increasing trend and are still being observed closely for any reversal in this trend that would signify a selling point. The price level for Intel securities at the time of purchase and sale are displayed in Figure 4.8.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/19/17	INTC	Sell	34.56	300	10358	(56)	20019	(504)

Table 4.17: Position Trading Transactions – Week 8

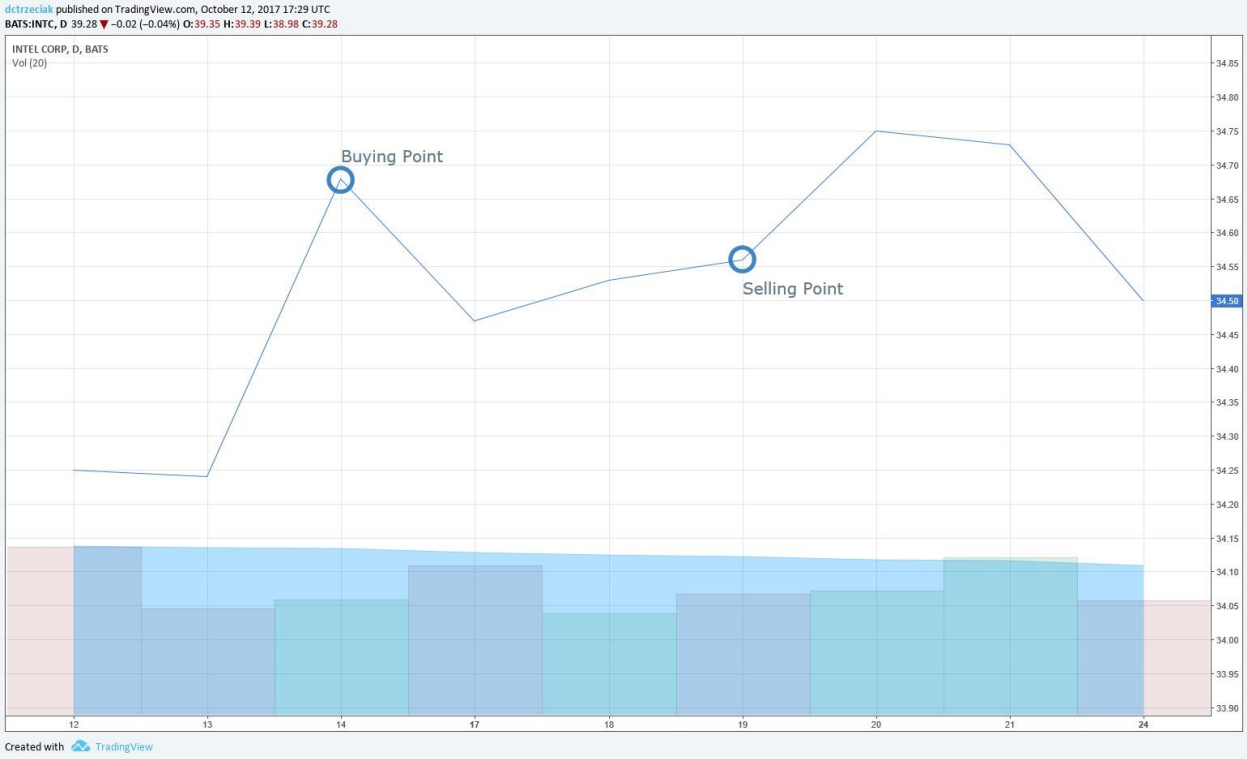

Figure 4.36: Intel Price Level for Sale During Week 8

4.10 Week 9

The ninth week of this simulation saw the gradual decline in price of the three companies whose stock was currently being held that denoted the time to sell after almost two weeks of drastic increases in prices. On Monday, 7/24 the 300 shares of MSFT stock that were in possession were sold at $73.60 per share bringing in a profit of $715. The following day all 200 shares of NVIDIA stock were sold for the price of $165.35. At $19.57 above the purchasing price this transaction netting a large profit of $3894, the most profitable transaction to have been recorded thus far in the simulation. All 200 shares of Apple stock were also unloaded on Friday 7/28 for $149.89 each pulling in another large profit of $1012. With a total net profit of $5621 this week has been the most successful by far. The sale of each respective security is shown in Table 4.8 and the price

level for each companies' stocks at the point of both purchase and sale are displayed in Figures 4.9-4.11.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/24/17	MSFT	Sell	73.60	300	22070	715	42089	211
7/25/`7	NVDA	Sell	165.35	200	33060	3894	75149	4105
7/28/17	AAPL	Sell	149.89	200	29968	1012	105117	5117

Table 4.18: Position Trading Transactions – Week 9

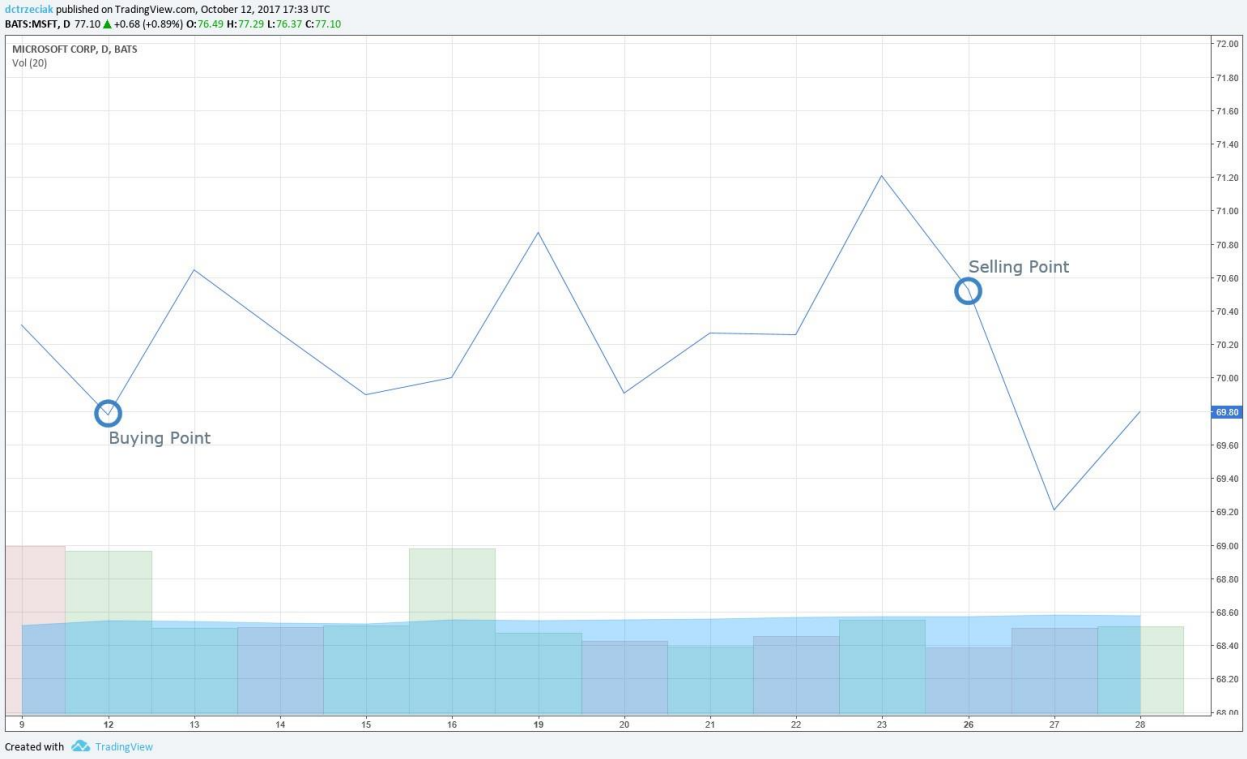

Figure 4.37: Microsoft Price Level for Sale During Week 9

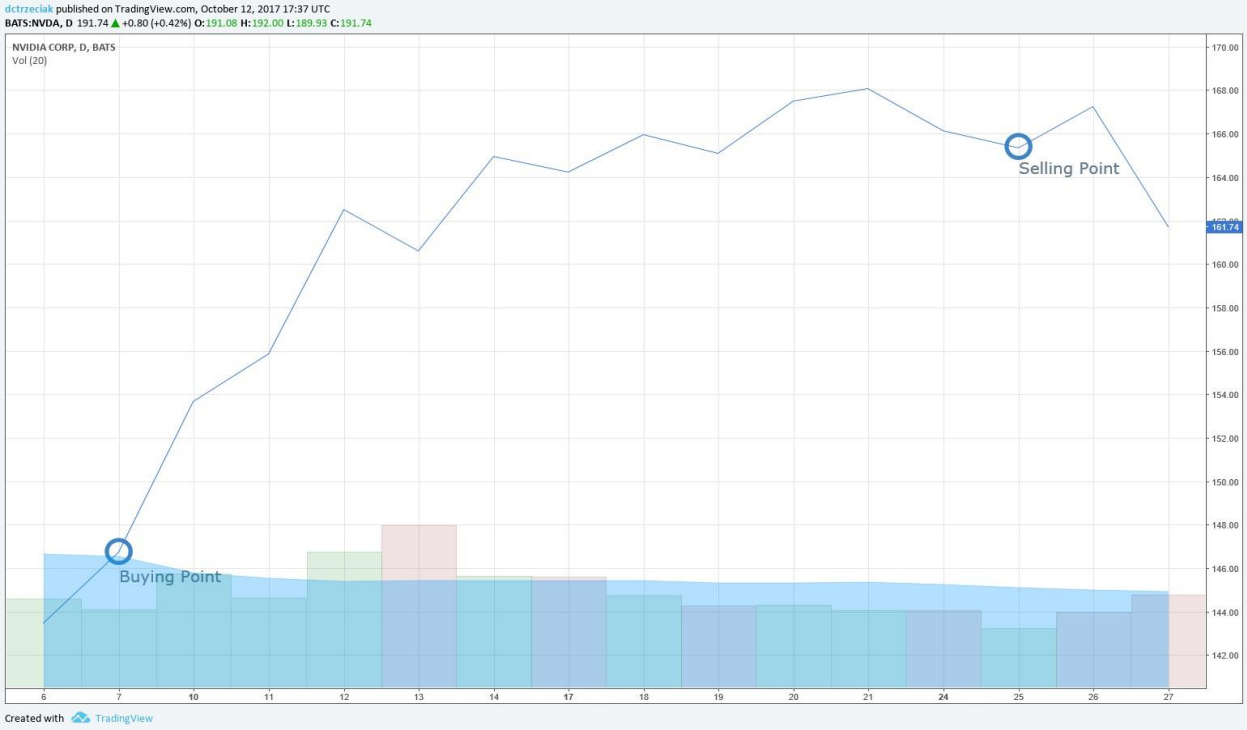

Figure 4.38: NVIDIA Price Level for Sale During Week 9

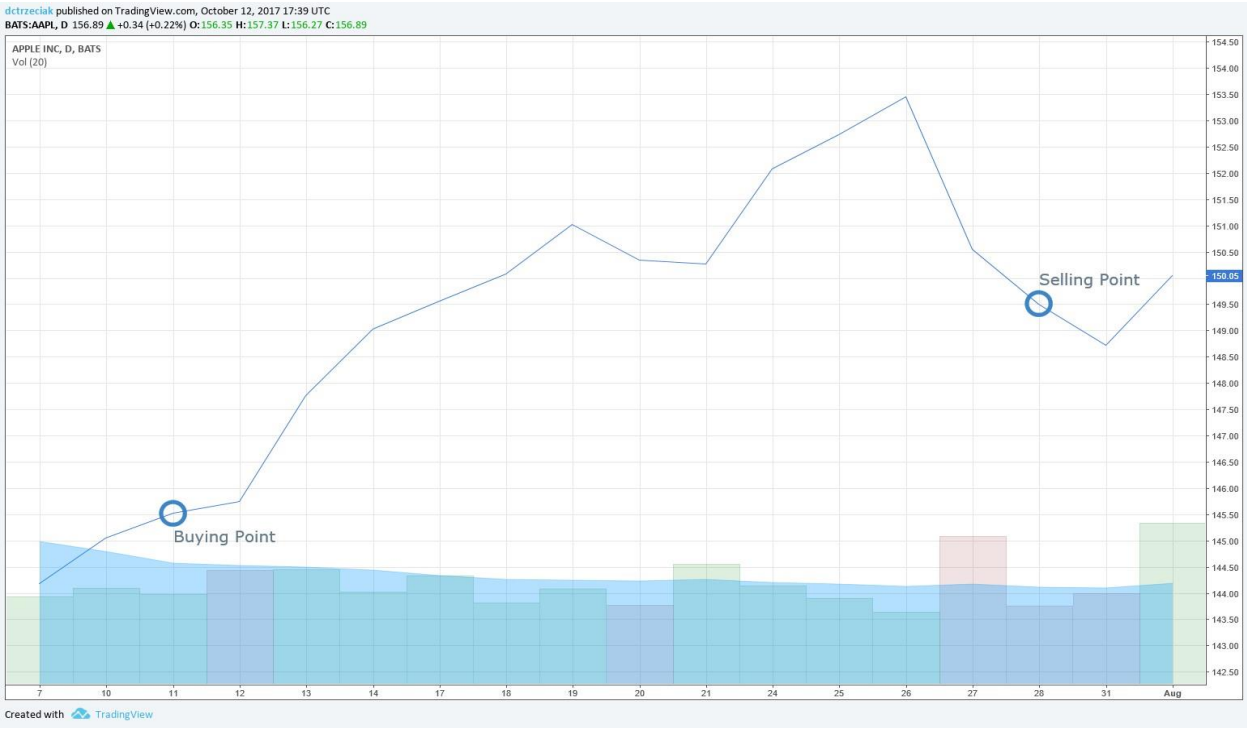

Figure 4.39: Apple Price Level for Sale During Week 9

4.11 Week 10

Following the large profits of the previous week, the price levels of Microsoft, NVIDIA, and Apple stocks were highly volatile so no trades were conducted where those companies were concerned. However, the price of Intel securities had been continuously increasing for the past week since Monday 7/24, so it was decided to purchase 1000 shares of INTC stock at $35.47 per share. After a slight decrease in price at the end of the week, all 1000 shares of INTC stock were sold at the end of the day on Friday 8/4 at the price of $36.60 each to liquefy all assets to allow for analysis as the simulation drew to a close. The final transaction for the position trading simulation is outlined in Table 4.9 and the price level for the Intel securities involved in this trade are displayed in Figure 4.12 for both the point of purchase and sale.

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/31/17	INTC	Buy	35.47	1000	35480		69637	
8/4/17	INTC	Sell	36.30	1000	36290	810	105927	5927

Table 4.19: Position Trading Transactions – Week 10

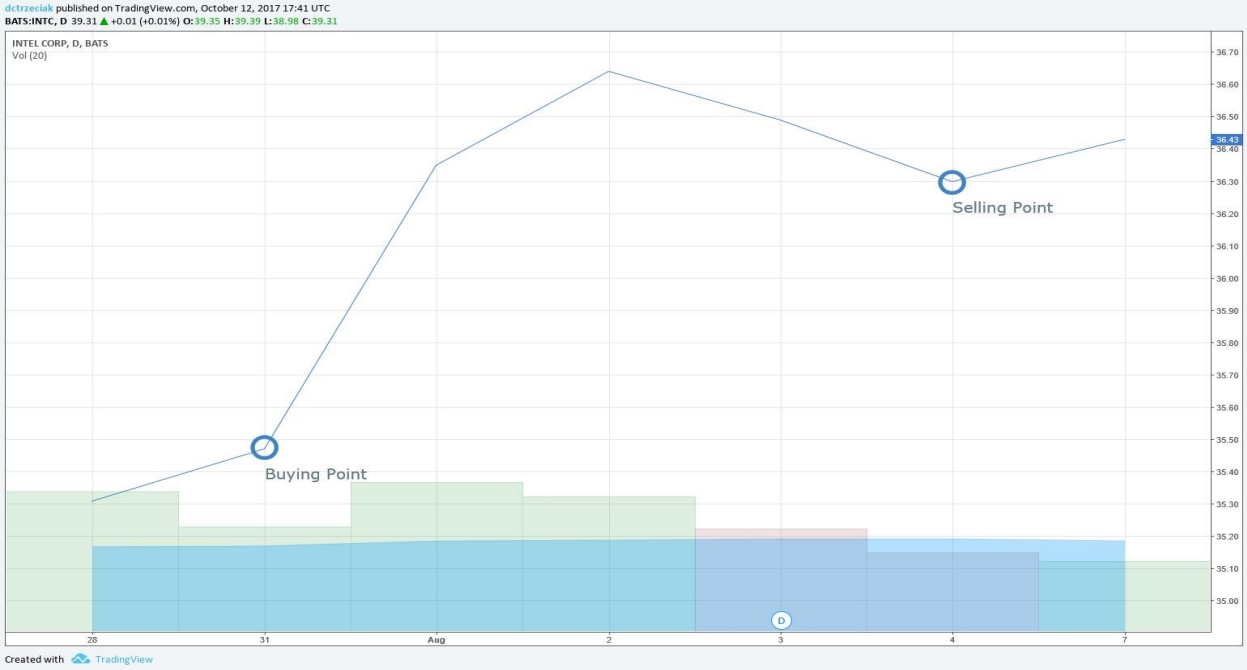

Figure 4.40: Intel Price Level for Sale During Week 10

5. Analysis

5.1 Day Trading Simulation

The method of day trading proved to a highly involved and fast-paced trading strategy that involved a great degree of risk. Split second decisions as to whether to buy or sell were required with this simulation as day traders generally buy and sell stocks within the same day, leaving very little time to analyze and watch the price level of the stock before making an ultimate decision to perform a transaction. Although this trading strategy involves a high risk factor, it is especially useful in a volatile market where price levels are never consistently trending in a singular direction. An investor is still able to make a profit as long as smart decision are made and they choose to buy and sell at the correct times.

Overall, the day trading simulation was a success garnering a total profit of 2271.5 or a 2.27% increase in overall capital. The most lucrative opportunity came in Week 3 of the simulation where a sharp rise in the price of Microsoft securities was taken advantage of for a total profit of $965. Hewlett Packard stocks were also bought and sold during this week for a profit of $177.5 for a total profit of $1142.5 for the third week. Microsoft also proved to be the most profitable company to invest in throughout this simulation due to a general uptrend in price level throughout the entire simulation. This upward trend almost guaranteed that after a decline the price level would again rise which mitigated some of the risk concerning these transactions. Transactions performed regarding Microsoft stocks drew in an overall profit of $2502, with only one transaction recorded during Week 6 netting a small loss of $32. In hindsight, the decision to invest in Texas Instruments securities was perhaps the worst decision made throughout this simulation. This company's securities performed the worst throughout this simulation summing a total loss of $656.

The price level of Texas Instruments' stocks remained fairly constant throughout these 10 weeks with small jumps in price in both directions. Perhaps the unsuccessfulness of transactions regarding this company were due to investor error as the volatility in price level should have been able to draw in a profit, but it seems that transactions were not made at the necessary times. Hewlett Packard and Cisco securities both performed moderately well, netting profit of $118 and $307.5 respectively. Total profit for each company as well as profit per week and a tracking of total profit throughout the entire simulation are outlined in Figures 5.1-5.3. A complete transaction record for the entire simulation is also included in Table 5.1.

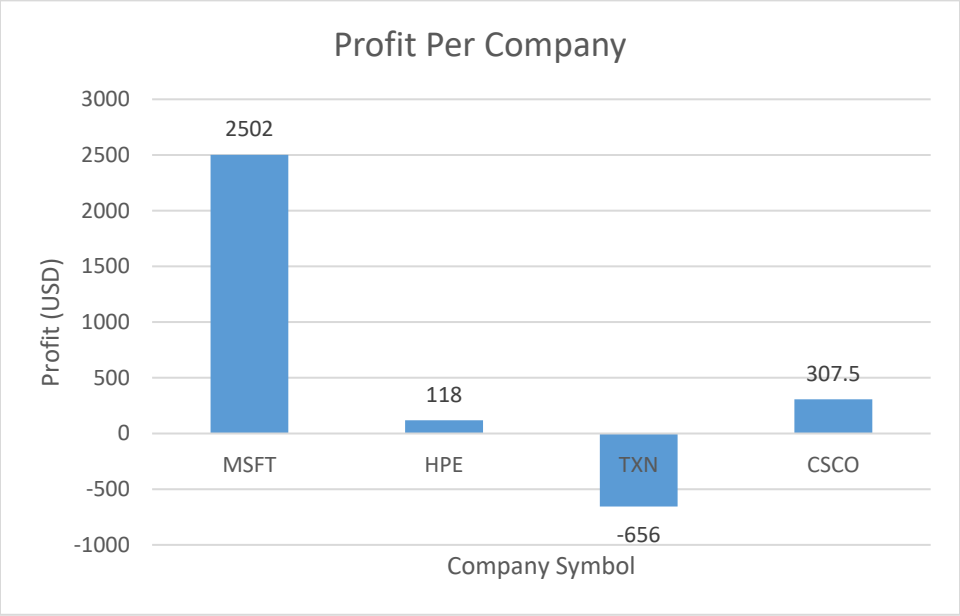

Figure 5.41: Profit Per Company – Day Trading Simulation

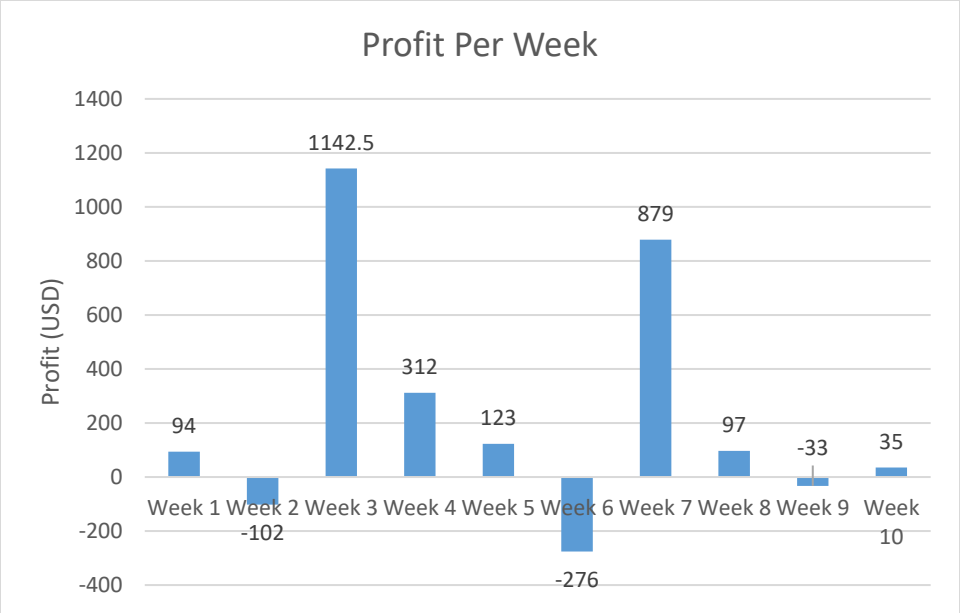

Figure 5.42: Profit Per Week – Day Trading Simulation

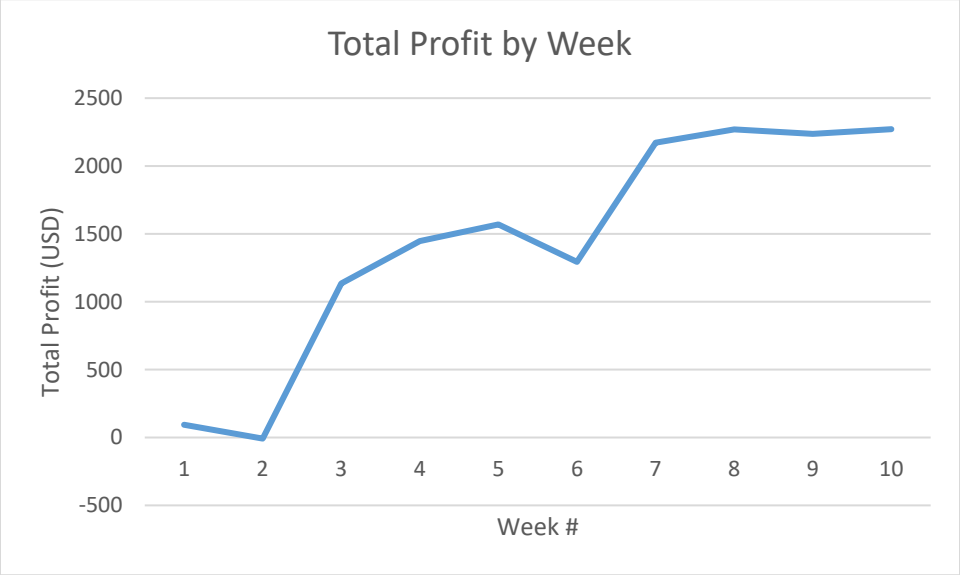

Figure 5.43: Total Profit by Week – Day Trading Simulation

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/2/17	MSFT	Buy	70.44	100	7054		92946	
6/2/17	MSFT	Sell	71.51	100	7141	87	100087	87
6/2/17	HPE	Buy	17.34	300	5212		94875	
6/2/17	HPE	Sell	17.43	300	5219	7	100094	94
6/7/17	CSCO	Buy	31.48	400	12602			
6/8/17	CSCO	Sell	31.78	400	12702	100	100194	194
6/9/17	TXN	Buy	82.67	300	24811		75383	
6/9/17	TXN	Sell	82.03	300	24609	(202)	99992	(8)
6/12/17	CSCO	Buy	31.25	500	15635		84357	
6/12/17	MSFT	Buy	68.91	500	34465		49892	
6/12/17	MSFT	Sell	69.88	500	34930	465	84822	457
6/13/17	CSCO	Sell	31.645	500	15812.50	177.5	100634.5	634.5
6/15/17	MSFT	Buy	69.13	500	34575		66060.5	
6/15/17	MSFT	Sell	70.17	500	35075	500	101134.5	1134.5
6/19/17	CSCO	Buy	31.77	500	15895		85239.5	
6/19/17	CSCO	Sell	31.95	500	15965	70	101204.5	1204.5
6/20/17	HPE	Buy	16.69	500	8355		92849.5	
6/20/17	HPE	Sell	16.56	500	8270	(85)	101119.5	1119.5
6/22/17	MSFT	Buy	70.26	300	21088		80031.5	
6/23/17	HPE	Buy	16.75	700	11735		68296.5	
6/23/17	MSFT	Sell	71.25	300	21365	277	89661.5	1396.5
6/23/17	HPE	Sell	16.85	700	11785	50	101446.5	1446.5
6/27/17	CSCO	Buy	32.09	400	12846		88600.6	
6/27/17	CSCO	Sell	31.76	400	12694	(152)	101294.5	1294.5
6/28/17	MSFT	Buy	70.26	500	35140		66154.5	
6/28/17	MSFT	Sell	71.25	500	35615	475	101769.5	1769.5
6/29/17	TXN	Buy	77.50	300	23260		78509.5	
6/29/17	TXN	Sell	76.90	300	23060	(200)	101569.5	1569.5
7/5/17	MSFT	Buy	68.25	400	27310		74259.5	
7/5/17	MSFT	Sell	68.22	400	27278	(32)	101537.5	1537.5
7/6/17	HPE	Buy	16.85	700	11805		89732.5	
7/6/17	HPE	Sell	16.53	700	11561	(244)	101293.5	1293.5
7/10/17	TXN	Buy	78.43	300	23539		77754.5	
7/10/17	TXN	Sell	78.72	300	23606	67	101360.5	1360.5
7/11/17	MSFT	Buy	70.00	500	35010		66350.5	
7/11/17	CSCO	Buy	31.05	500	15535		50815.5	
7/11/17	CSCO	Sell	31.10	500	15540	5	66355.5	1365.5
7/12/17	MSFT	Sell	71.15	500	35565	555	101920.5	1920.5
7/13/17	HPE	Buy	16.79	1000	16800		85120.5	
7/13/17	TXN	Buy	80.41	400	32174		52946.5	
7/13/17	HPE	Sell	17.03	1000	17020	220	69966.5	2140.5
7/13/17	TXN	Sell	80.54	400	32206	32	102172.5	2172.5
7/19/17	TXN	Buy	82.49	400	33006		69166.5	
7/19/17	CSCO	Buy	31.51	500	15765		53401.5	

7/19/17	TXN	Sell	82.09	400	32826	(180)	86227.5	1992.5
7/19/17	CSCO	Sell	31.90	500	15940	175	102167.5	2167.5
7/20/17	HPE	Buy	17.67	1000	17680		84487.5	
7/20/17	CSCO	Buy	31.91	600	19156		65331.5	
7/20/17	CSCO	Sell	31.83	600	19088	(68)	84419.5	2099.5
7/21/17	HPE	Sell	17.86	1000	17850	170	102269.5	2269.5
7/25/17	MSFT	Buy	73.80	500	36910		65359.5	
7/25/17	MSFT	Sell	74.19	500	37085	175	102444.5	2444.5
7/26/17	TXN	Buy	83.00	400	33210		69234.5	
7/26/17	TXN	Sell	82.53	400	33002	(208)	102236.5	2236.5
8/1/17	TXN	Buy	81.60	500	40810		61426.5	
8/1/17	TXN	Sell	81.71	500	40845	35	102271.5	2271.5

Table 5.20: Comprehensive Transaction Table – Day Trading

5.2 Position Trading Simulation

Position trading demonstrated a less transaction-intensive method to stock market trading as compared to day trading. Although the number of transactions performed for this simulation was much less, registering only 10 transactions as compared to the 28 registered throughout the day trading simulation, position trading may actually be a more involved method of investing. This is due to the fact that the investor must maintain constant monitoring of the companies that they are interested in to be able to make the appropriate decision as to when to sell or purchase securities. Is this vigilance is not maintained and one of the companies in their possession begins to fall steeply without their knowledge it could result in a catastrophic loss of capital. This method of stock trading requires a large amount of patience, but if performed correctly can be extremely profitable.

Overall, the position trading simulation was able to produce a total profit of $5927, or a 5.92% increase in capital. The most profitable transaction registered for this simulation was during

Week 9 where NVIDIA stock were sold following a strong increase in price in the prior three weeks. In this transaction 200 shares of NVIDIA's stock were sold for a profit of $3894. NVIDIA proved to be the most lucrative investing opportunity for this simulation accounting for 77.5% of the total profit garnered throughout this simulation in just two transactions. Apple stocks demonstrated the least successful investment opportunity for the position trading simulation most likely due to a large recession in price from Week 3 to Week 5. Although it was the least successful investment venture for this simulation, transactions regarding Apple stocks were still able to cover their losses and net a total profit of $5. Microsoft and Intel both reasonably well, bringing in total profits of $574 and $754 respectively. Total profit for each company as well as profit per week and a tracking of total profit throughout the entire simulation are outlined in Figures 5.4-5.6. A complete transaction record for the entire simulation is also included in Table 5.2.

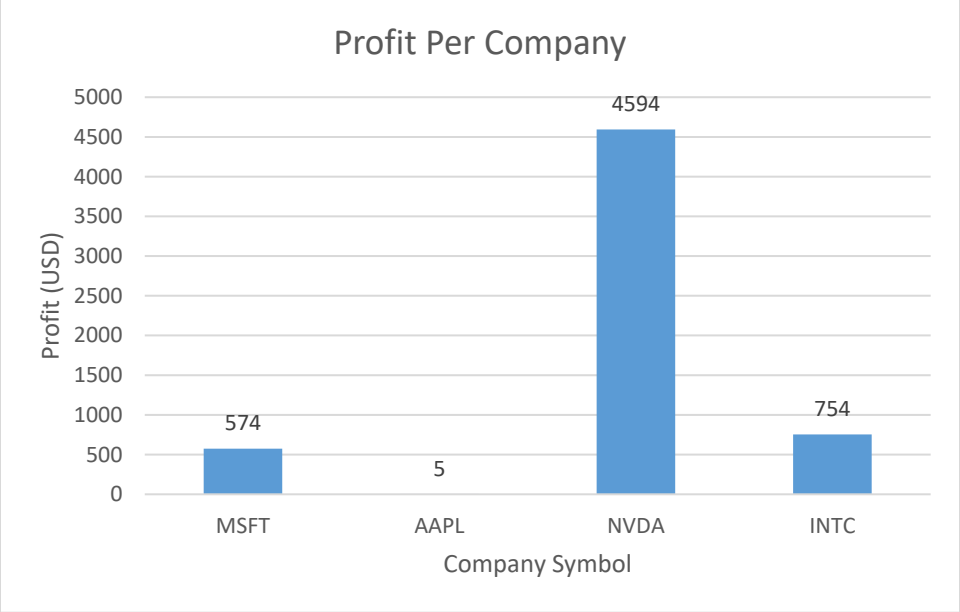

Figure 5.44: Profit Per Company – Position Trading Simulation

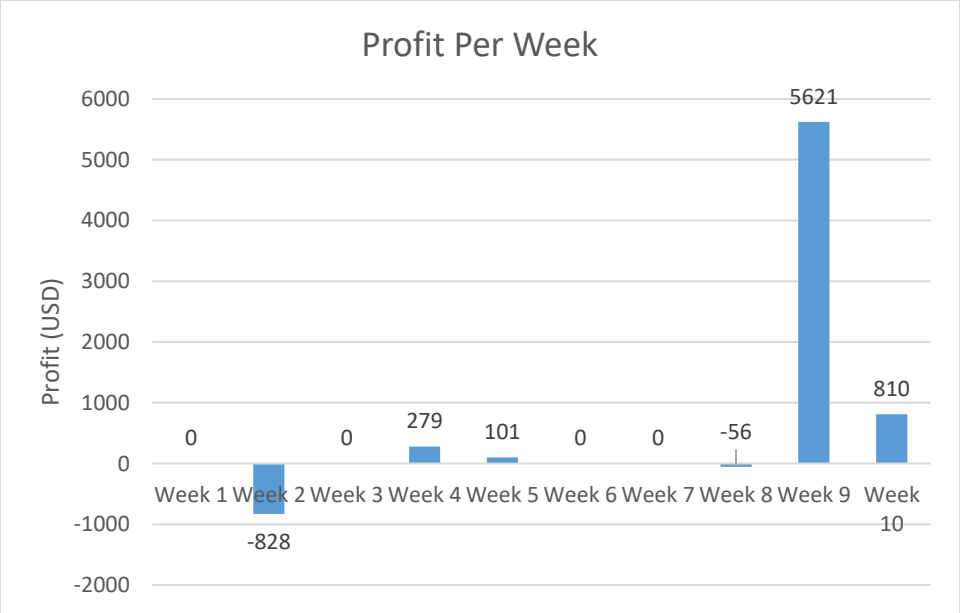

Figure 5.45: Profit Per Week – Position Trading Simulation

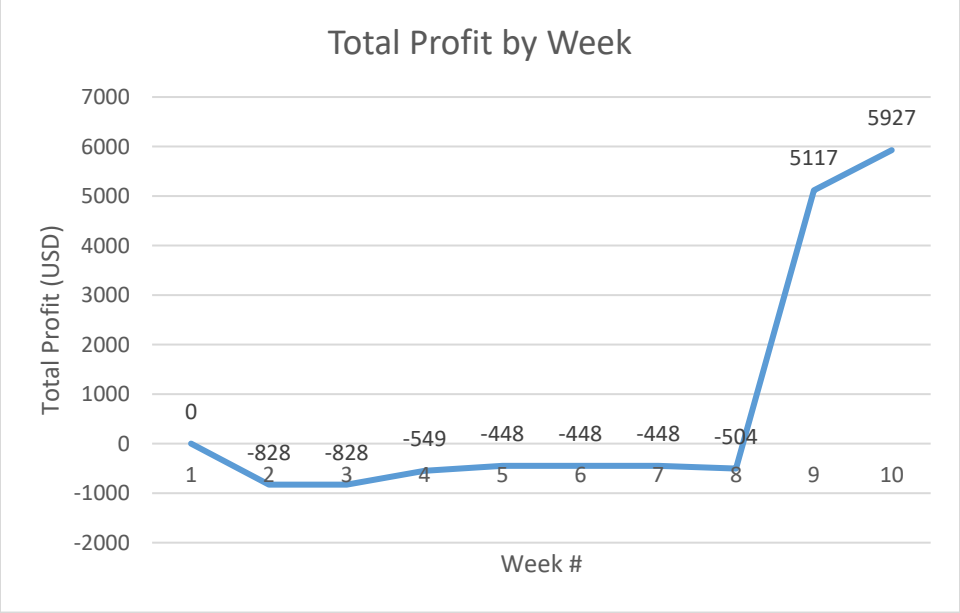

Figure 5.46: Total Profit by Week – Position Trading Simulation

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
5/30/17	AAPL	Buy	153.85	200	30780		69220	
5/30/17	MSFT	Buy	69.79	300	20947		48273	
6/7/17	NVDA	Buy	148.56	200	29722		18551	
6/9/2017	AAPL	Sell	149.71	200	29952	(828)	48503	(828)
6/19/17	AAPL	Buy	145.77	150	21.875.5		26627.50	
6/20/17	MSFT	Sell	70.82	300	21236	279	47863.50	(549)
6/23/17	MSFT	Buy	71.21	200	14252		33611.5	
6/26/17	NVDA	Sell	152.16	200	30422	700	64033.5	151
6/27/17	MSFT	Sell	69.21	200	13832	(420)	77855.5	(269)
6/29/17	AAPL	Sell	144.71	150	21696.5	(179)	99552	(448)
7/7/17	NVDA	Buy	145.78	200	29166		70386	
7/11/17	AAPL	Buy	144.73	200	28956		41430	
7/12/17	MSFT	Buy	71.15	300	21355		20075	
7/14/17	INTC	Buy	34.68	300	10414		9661	
7/19/17	INTC	Sell	34.56	300	10358	(56)	20019	(504)
7/24/17	MSFT	Sell	73.60	300	22070	715	42089	211
7/25/`7	NVDA	Sell	165.35	200	33060	3894	75149	4105
7/28/17	AAPL	Sell	149.89	200	29968	1012	105117	5117
7/31/17	INTC	Buy	35.47	1000	35480		69637	
8/4/17	INTC	Sell	36.30	1000	36290	810	105927	5927

Table 5.21: Comprehensive Transaction Table – Position Trading

5.3 Comparison Between Simulations

As the simulation period drew to a close it was clear that position trading was the most successful trading method, netting a profit of 5.92% compared to the 2.27% profit of the day trading simulation. This was owed largely to a singular transaction performed in Week 9 of the position trading simulation where NVIDIA stocks were sold for a massive profit of $3894, trumping the profits of the entire day trading simulation in one transaction. Without this transaction, day trading might very well have come out on top as the most successful trading strategy.

During the selection of companies for each of the two simulations one company, Microsoft, was purposefully selected for both simulations to allow for comparison. Microsoft securities performed much better in the day trading simulation, gathering a profit of $2502, as compared to the position trading simulation where the profit from this company's stocks measured only $574. Although the price of Microsoft stocks followed a general uptrend throughout the entire simulation period, the price level varied drastically day-by-day which made it extremely difficult to determine when the appropriate time to purchase and sell these securities was from a position trading standpoint. In contrast, this volatility in market price is exactly what day traders hope look for, lending to the success of this company in the day trading simulation.

6. Conclusion

All in all both methods of stock market investment, day trading and position trading, are both able to be successful trading strategies despite their drastic differences. Both of these methods are highly involved methods of trading, but in different respects. Day trading is a transaction-intensive method of stock market trading where securities are generally held for no more than 24 hours to help mitigate the risk of major losses. This method of trading functions best in a volatile market where prices rise and fall daily. Position trading is much less transaction-intensive, but requires constant monitoring of the price level of companies that the investor is interested to make sure that securities are purchased and sold at the appropriate times to garner the most profit. Within the scope of this project, position trading was the most successful trading method, but that could have been due to the relatively short amount of time that these simulations were allowed to run for. In the context of a longer simulation period it is possible that the small profits reaped from the higher number of low-risk day trading transactions would have been able to amount to a greater profit than those of the position trading simulation to claim the title as the most effective trading method. This project provided a great foundation of knowledge concerning the operation of the stock market as well as popular trading strategies that can hopefully be put to use in a more realistic setting in the years to come.

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