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SELECTING AN INVESTMENT TARGET FOR SHORT-TERM TRADING

Bachelor's Thesis

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I declare I have written the bachelor's thesis independently.

All works and major viewpoints of the other authors, data from other sources of literature and elsewhere used for writing this paper have been referenced.

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ABSTRACT

The purpose of this thesis is to examine different shares and to use the properties of technical analysis in order to find a suitable share for an investor. There are for and against speakers on the topic of technical analysis, many believe it to be ineffective.

In the theoretical part, the history and performance of the equity market was introduced. A theory of market efficiency was presented, which claims that the share prices are already at a correct value and that a share cannot be undervalued or overvalued. The different aspects, like risk, risk tolerance and asset diversification were also outlined. From there, two analysis methods were presented; fundamental analysis, which concentrates on the tangible and intangible factors of a security, and technical analysis that has the same belief of market efficiency as the Effective Market Hypothesis. The thesis concentrated more on technical analysis as it was explored more widely. Finally, a group of different investment strategies were displayed briefly.

The functional part of the thesis, a method of qualitative review was applied by selecting a number of shares and filtering out the unwanted shares. Thereafter, three shares were chosen for closer research. The charts of these shares were used as data to find if there are patterns in the price development of the shares. Finally, the author chose a specific share that was found to be attractive.

Conclusions were made, that the research was concise; therefore a wider research should be made in order to generate an easy method for stock selection if such a method is possible, considering the fact that preferences vary with every individual. Additionally, it was concluded that share prices are highly unpredictable during short-term investing.

INTRODUCTION

Due to structural changes in our society, the focus on capital accumulation today is in private households. The financial assets of households have more than doubled over the past 20 years. Although household wealth has increased considerably, the majority of wealth still stands at low interest rate utilization or at savings accounts consumed by inflation. However, households are steadily increasing their savings in investments. (Saario,1999, 15-16)

One of today's most popular investment forms is direct equity investment. The popularity of this form of investment is currently as popular as fund investment. With increasing national knowledge and the ease of acquiring knowledge through the Internet, households have begun to practice the skill of investing independently instead of simply relying on the help of professionals. Investing in equity requires active interest in the securities market, persistence, determination to win, in monitoring the financial news and react to changes, and interest in trading continuously. These factors are highly dependent on the strategies an investor needs to use and on the motivation for achievement.

The purpose of this paper is to introduce the reader with the different qualities of investing, more specifically the analysis part of investing. These factors are needed in order to understand the securities, like shares better. The thesis will examine questions like what how do the stock prices behave and what are the properties that are associated with them. The theoretical part will enumerate the nature of the shares and how the charts of shares appear. The literature used for the thesis will mostly be of Finnish production and popular financial websites will also be used.

The functional part of the thesis will concentrate on a group of shares, which will be selected depending on attractiveness. Qualitative research methods will be used. The theory is that Technical Analysis can be used in following a share and that based on the chart patterns, one can find a suitable investment target.

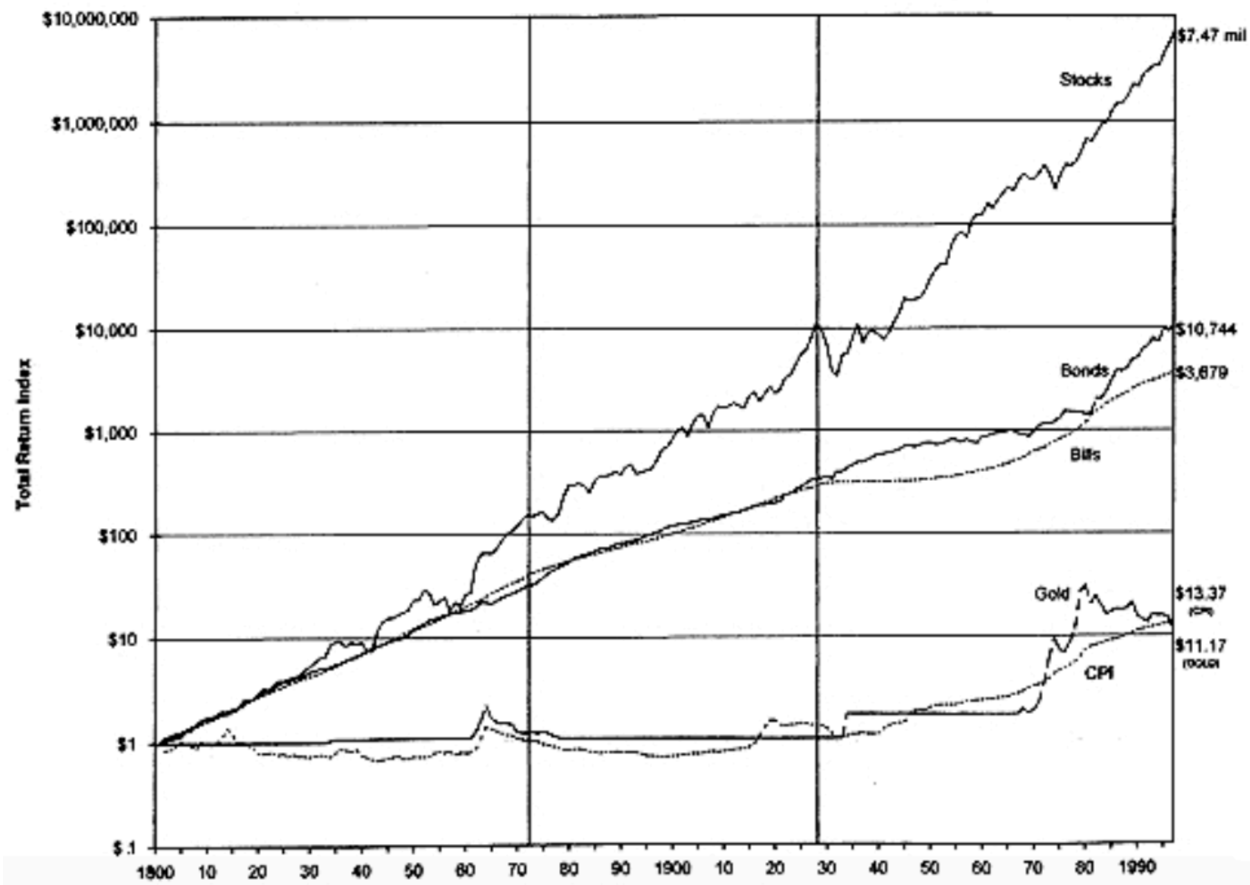
1. EQUITY INVESTMENT IS PROFITABLE

This chapter will introduce the efficiency of the equity market. It will present an overview of the historical performance of different securities and the present situation of household investment. In the long run, the shares have yielded the best value compared to other investment categories. Our society is based on a market economy and entrepreneurship, which is created by the will to trade and the know-how resulting in economic growth. The basis for growth is the opportunity for entrepreneurship. Every entrepreneur aims to become successful, which leads to the opportunity to create economic prosperity. The entrepreneurs are willing to take risks in order to create goods and services. As a result of market economy, the wealth of the investors tends to be directed towards the most lucrative and growing companies as well as industries. The easier it is to target wealth into profitable companies, the faster the development of society becomes. (Kallunki et al., 2011, 26; Saario, 1999, 26-28)

1.1 Historical Long-Term Financial Market Returns

Historical data has been analyzed by many and every one of the researchers have come to a conclusion that stocks have performed extraordinarily well in comparison to other methods of investment in the long run. Figure 1 describes the price trend for stocks, long- and short-term bonds, gold and commodities during a time period from 1802 to 1997. The data used for the curves has been gathered from the total returns of previously mentioned investment assets. Total returns means that all returns, such as interest and dividends and capital gains, are automatically reinvested in the asset and allowed to accumulate over time. (Siegel, 1998, 4)

Figure 1. Total Return Of One Dollar Invested During 1802-1997 (Siegel, 1998, 5)



It is easily visible that the total return on equities dominates all other assets. Even the stock crashes that occurred during the period of past 200 years appear as a mere pothole in the stock return index. These indexes are based on one dollar invested and reinvested since 1802. Based on the results, one dollar invested in stocks would accumulate $7,500,000 by the end of 1997. The difference is huge in comparison to the second most popular investment asset, bonds. Bonds accumulated only $10,744 and gold a mere $13,37. Total wealth in the stock market does not accumulate as fast as the total return index, because investors consume most of their dividends and capital gains. It is rare for anyone to grow wealth for long periods without using part of the returns. The longest period an investor does not use the returns is usually when the investor plans for retirement or for leaving wealth for the offspring. (Siegel, 1998, 5-6)

1.2 Short-Term Equity Investment Returns

The superiority of shares has maintained to this day. However, the figures do differ if a shorter time period is researched. Table 1 presents the ability of high return from shares during short-term periods compared to less risky alternatives.

Table 1. Average Annual Return Rates From 1979 To 1998 (Saario, 1999, 26.)

Shares of large American companies	17,7%
Shares of small American companies	16,0%
International shares	13,8%
U.S. government bonds	11,1%
Commercial real-estate	8,4%
Short-term treasury bills	7,2%
Raw materials	6,9%
Gold	1,2%
Inflation	*4,5%*

The table represents a research done by an American research institution Ibbotson Associates on a time scale of 20 years. Based on the figures, the capital on shares has doubled itself in four to five years, capital on bonds has doubled in seven years, real-estate in nine, and short-term treasury bills in every ten years. At the beginning of the research period, the oil crisis had paced the inflation to higher than average, which meant a decline in the rates, except for the government bonds. During that time, new bonds were issued at a higher interest rate, which was extremely profitable for the investors. (Saario, 1999, 25-26.)

1.3 Efficient Market Hypothesis - EMH

The EMH is a market theory that was introduced in the 1960's by Eugene Fama. The hypothesis states that at any given time security prices reflect entirely all relevant information, which means that the market cannot be beaten. According to EMH, stocks always trade at their fair value, making it impossible for investors to either purchase undervalued stock or sell stocks for overpriced value. Therefore, it should be impossible to outperform the market through different investment strategies, and the only way an investor can possibly obtain higher returns is by purchasing riskier investments. (Investopedia, 2017a.)

There are three different degrees of market efficiency:

- Weak efficient market
- Semi-strong efficient market
- Strong efficient market

The weak form of EMH assumes that current market prices reflect completely currently available security market information. It claims that past prices and volume data have no relationship with the future performance of stock prices, thus claiming that using technical analysis cannot make additional profits. The semi-strong form of EMH assumes that current market prices adapt rapidly to the release of new public information, therefore public data being factored in the stock price. Thus meaning that, fundamental analysis does not aid in achieving additional profits. The strong form of EMH assumes that current market prices fully reflect all public and private information. It claims that all market, non-market and inside information are factored in the stock price, thus assuming a perfect market and the impossibility of excess returns. (Morningstar, 2017.) In conclusion, the theory signals that deviations in the market price and the actual price are random. A deviation in the price means that the stock is overvalued or undervalued. The aforementioned topics of technical analysis, fundamental analysis and overvalued or undervalued prices will be viewed in following chapters.

2. RISK OF INVESTMENT AND RISK TOLERANCE

This chapter will introduce the concepts of risk, risk tolerance and the allocation of assets. These factors are extremely important for an investor to take into account, since making decisions without the knowledge of aforementioned topics can ruin the whole investment operation.

2.1 Risk

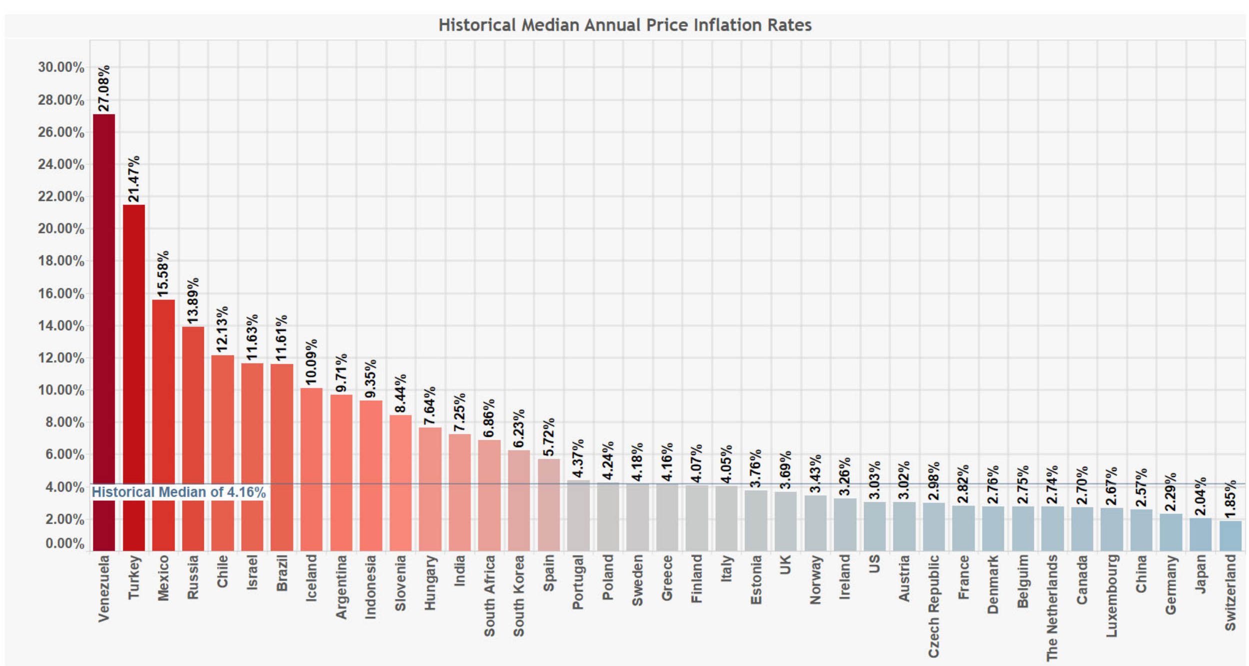
All investments involve risk. In finance, risk refers to the degree of uncertainty and potential financial loss, if the investment behaves in an opposite way rather than what was assumed. In general, investors anticipate a higher return for an investment to compensate for riskier securities. Every saving and investment product has different levels of risk and varying returns. There are different factors that affect the risk; the liquidity of the investment product, how productive it is, and how safe is the investment. In this section, we are going to introduce a number of risks investors come across with when investing in stocks. (Investor.gov, 2017)

When purchasing stocks, the investor is buying a portion of the company that has issued the stocks. When purchasing bonds, the investor lends money to a company with a promise of receiving the money invested back with a given interest. Returns from both of these investments require that the company, which has issued these securities, will stay in business. If the company goes bankrupt, the assets will be liquidated and the money will be returned to the creditors in a given order. Ergo, bondholders will be paid first, then holders of preferred stock and finally common stockholders. Often, common stockholders do not receive any money back or only an insignificant amount of money is paid. This is known as Business Risk. (Investor.gov, 2017)

Even if a company is not in danger of going out of business, its stocks can be highly unstable. The stock price may fluctuate up or down, which is known as volatility risk. Volatility Risk is defined by breadth and trading range of a stock. In a low priced stock of 10€, a breadth of two points is considerable; in a higher priced stock of 100€, it is less volatile simply because of the higher price. In the functional part of the thesis we will be focusing on volatility more, since higher volatility means greater profit potential in a short period of time. However, high volatility equals higher volatility risk. (Thomsett, 2017.)

In addition to previously mentioned risks, Inflation Risk is a risk that is hard to avoid. It is the risk any investor takes on when holding cash or investing in an asset which is not linked to inflation. Inflation Risk is also known as Purchasing Power Risk, for it is measured in terms of purchasing power. The risk is that inflation reduces the cash value of an investment. For example, an investor holds 40% of a 1,000,000€ portfolio in cash and inflation is 5%, the cash value of the portfolio will lose 20,000€ per year due to inflation. In order to separate inflation from the return rate, real return is calculated. If an investor has government bonds that pay 2% each year but inflation is 5%, the real return rate will be -3% per year. (Wallstreetoasis, 2017.) Inflation is not uncommon, for it is in experienced in every household in the form of rising prices and therefore the loss of purchasing power for food, consumables and services. Simply, with 100€ today you can purchase more than you can purchase next year.

Figure 2. Historical Median Annual Price Inflation Rates (National Inflation Association, 2014.)



Inflation is different in every country as it can be seen in Figure 2. Normally, countries with high inflation rates have financial difficulties and action is taken to prevent the situation. One of the methods to control inflation is change in monetary policy. The central bank can increase interest rates, which make borrowing more expensive; therefore guiding people to save money. The higher interest rates in turn lead to higher exchange rate, which helps to reduce inflationary pressure. Another method to control inflation is through a fiscal policy. The government can increase taxes and cut spending, which improves the budget situation. Both policies reduce inflation by influencing the demand in the economy. (Economicshelp, 2010.)

2.2 Risk Tolerance

Direct investment in the stock market has already been classified as a high-risk investment, if compared to a low-risk government bonds market or long-term funds market. Therefore, the investor should have a fairly high-risk tolerance when investing in the stock market. Basically, the most important factor affecting investment decisions is to determine the investor's risk tolerance. As mentioned in the previous section risk refers to the possibility of profit or loss in investing, even if the risk is often perceived as a mere loss, it is also a factor in changing returns and benefits. The investor should not only aim to maximize profit or minimize the loss, but should have the best potential for each individual risk tolerance. The benefit is the greatest possible pleasure for the investor to obtain. Risk tolerance refers to how large a loss investor can withstand without losing his nerves or night's sleep, and to maintain the financial condition required for everyday consumption. Profit and risk tend to go hand in hand, so a profit-oriented investor will obviously have to face a greater risk. Investors seeking for more moderate returns have naturally lower risk. In finance theory, two groups of investors are often referred to: risk averse and risk lover. The former describes an investor that will choose an investment of lower risk at all times or an investment with higher risk only if they are warranted by the potential for higher returns. The latter is an investor that is willing to take on additional risk even if the investment has a relatively low expected return. (Kallunki et al. 2011, 32-37; Puttonen 2009, 53-54; Investopedia 2017b.)

One of the greatest factors affecting risk tolerance is undeniably one's age. Extensive research has shown that the more people age, the more safety-conscious the person becomes. This can be understood as younger people wanting to take higher risks than older people. One of the well-illustrated rules of thumb states that: "invest the percentage of wealth in stock market shares that equals 100 minus your age". This refers to the need of comfort and safety, which comes with age. For example, a 20-year-old could invest 80% of his assets on listed shares, whereas a 50-year-old is only willing to take an investment risk of 50% of his assets when risk tolerance is considered solely on the investor's age. This is believed to be the general rule of risk tolerance, but as people are different and some people are ready to place their assets on a riskier position, it cannot be generalized too much. Each and everyone should assess their tolerance individually. There are rarely investment opportunities with huge profits and low risk and when there are such opportunities, often they are a scam. (Lindström 2011, 51-52; Saario 1999, 60.)

2.3 Asset Diversification

After the definition of one's own risk level, the spread of the equity portfolio is one of the most important investment decisions. Asset diversification can be accomplished by different methods or by combining them. For example: by time-periods, by industry, by asset class or on the basis of market sensitivity of the company. By diversifying investments in different shares, the aim is to reduce the so-called unsystematic risk. Unsystematic risk is a company-specific risk that arises from the uncertainty of the success of an individual company. Systematic risk refers to the seasonal fluctuation of the stock market as a whole. The systematic risk has an effect on the price volatility of the entire equity market. Thus, by dividing the portfolio into several different groups of shares, there is a reduction in the unsystematic risk. The unsystematic risk is completely absent when the portfolio has shares of 60 different companies. Diversification of shares reduces the risk, but at the same time the potential good earnings of one company will have less impact on the overall performance of the portfolio. By reducing the unsystematic risk to a non-existent level, the portfolio shifts to simulate the general market development. The shares chosen into a portfolio have great effect on the benefits of the diversification. The portfolio should consist of shares from different industries, in order to have a stable portfolio that does not react to market fluctuations based on one industry. (Kallunki et al., 68-70.)

In order to minimize risk in a portfolio, the shares should have negative correlation. Correlation is, in financial terms, a statistic that measures the degree to which two securities move in relation to each other. Correlation is computed into a correlation coefficient, which has a value that must fall between -1 and 1. The coefficient is widely used in advanced portfolio management. A perfect positive correlation means that the correlation coefficient is exactly 1. This implies that if price of on share moves up, the other share moves exactly in the same direction. Consequently, a perfect negative correlation means that the share moves in the opposite direction in comparison to the other share. By having negative correlation in the portfolio, investor is able to avoid that the share price movements are mirror images of each other. If the shares react identically, no diversification will provide additional security at all. The market timing is also of great importance as a diversification method. By purchasing shares over time, for example, in a month's cycles, it is possible to avoid the occurrence of a bad timing error. (Investopedia, 2017c; Puttonen, 2009, 53-54.)

3. ANALYSIS METHODS

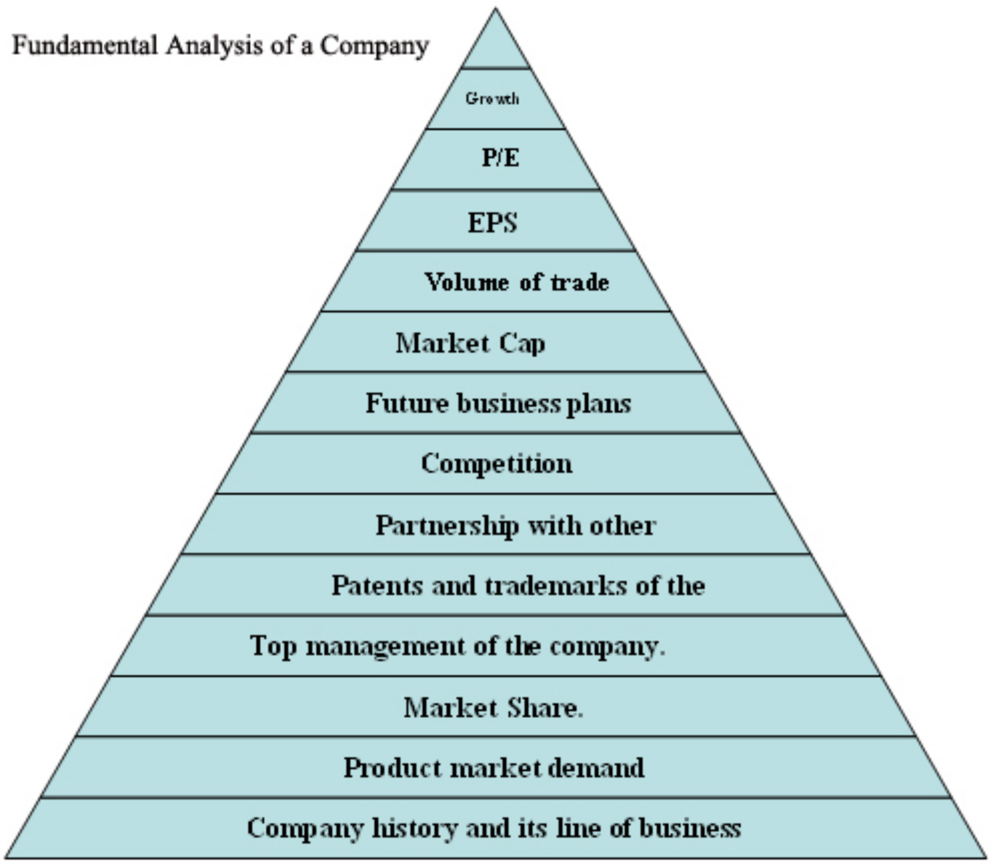
This chapter will introduce the many aspects of technical analysis and since there are two methodologies investors use, some basic information on fundamental analysis will also be introduced. Technical analysis will be the main tool used in the functional part of the thesis for selecting an investment target, because the objective is to find targets for short-term investing.

3.1 Fundamental Analysis

Fundamental analysis is the classical approach of analyzing qualitative and quantitative aspects of a business; the financial statements and annual reports of companies, as well as their competitors and the market in order to receive a better outlook on the shares that the investor is interested in. The investor attempts to measure the share's intrinsic value where all aspects of the business are reviewed in terms of tangible and intangible factors, not the market price. Fundamental analysts study anything that can affect the value of a share. These study subjects are overall economy and industry conditions, financial conditions and company management. The purpose is to produce a quantitative value that can be compared with a share's current price. By producing the data and finding the value, the investor can determine if the share is overvalued or undervalued. (Investopedia, 2017d.)

Fundamental analysis is considered to be the opposite of technical analysis. Using fundamental analysis method, the investors can identify strong companies and as a result choose a long position on the shares and vice versa, identify weak companies and choose a short position. Taking a long position means that the investor purchases an option contract, which entitles the investor to a right to buy (or sell) a specific asset at a specified price, and owns it with the expectation that the price is going to rise. Taking a short position is the opposite of longing, as the investor buys a contract with the expectation that the share price will decrease in the near future. The profits are generated through a method of lending the shares from the owner and buying them at a lower price as the prices decrease and returning them to the owner. The difference in the old price and new price will be the amount that the investor yields. (Investopedia, 2017d.) Below is Figure 3, which gives an example of the different factors that are used in fundamental analysis and the hierarchy of the factors.

Figure 3. Factors Used For Fundamental Analysis (Kredent Academy, 2016.)



3.2 Technical Analysis

Technical analysis is the second method that can be used to choose an investment target. It assumes that the share's price already reflects all information available for the public and instead focuses on the statistical analysis of price movements. The method analyzes the supply and demand in the market to determine which trend (direction) the price is taking. Technical analysis is a popular method for short-term investment. This statistical analysis of market activity involves such factors as historical price and volume. It does not try to measure the share's intrinsic value, but rather, uses charts and other tools to identify common patterns that can be used to advantage. Instead of relying on stock valuation, the method uses past trading data to forecast future price movements. (Investopedia, 2017e.)

Technical analysis is based on three assumptions:

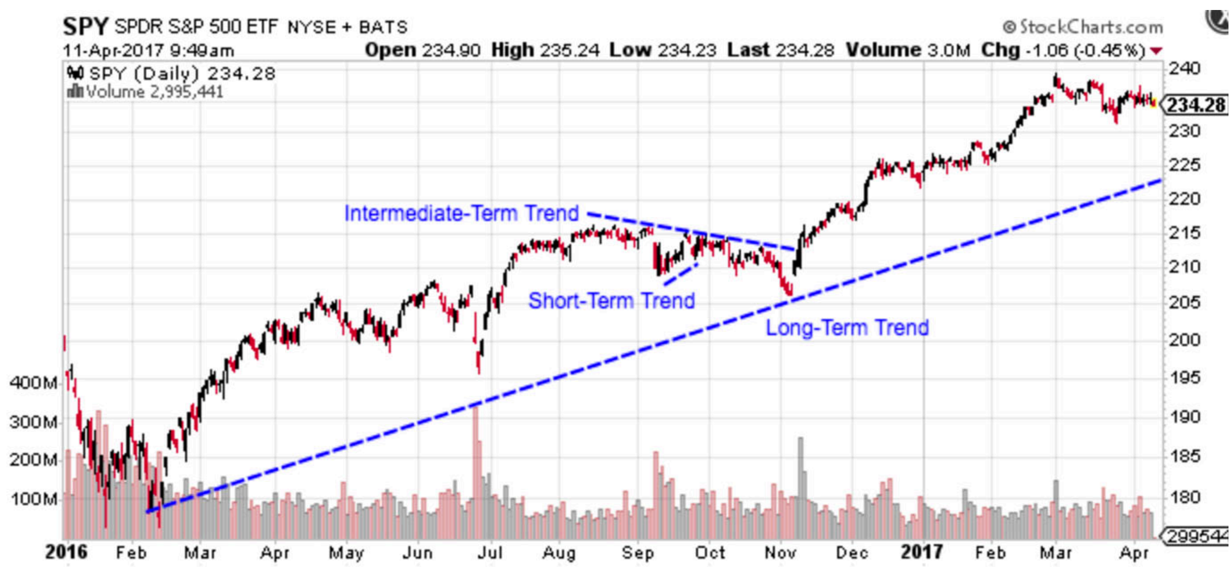
- The market discounts everything
- Price moves in trends
- History tends to repeat itself

Many financial experts criticize technical analysis for it concentrates on price movements and ignores the teachings of fundamental analysis. The counterargument for the critics is based on the Efficient Market Hypothesis introduced in the first chapter, which states that a share's price already takes into account everything that has affected or will affect a company, including the fundamental factors. This makes the fundamental information unnecessary for an investor when making an investment decision. Technical analysts believe that prices move in short-, medium-, and long-term trends. Since the market prices are based on the decisions made by investors, who are humans and in such way ordinary, the market moves based on the demand and supply. This fact, gives space for psychological reactions. Market psychology, develops a repetitive nature of price movements, which tends to be very predictable as it is based on emotions like fear or excitement. Technical analysis uses chart patterns to analyze these emotions and the resulting price movements to understand trends. (Investopedia, 2017e.)

3.2.1 Trends

The most important concept of technical analysis is the idea of a trend. A trend is the general direction in which the price of a share is headed. Trends are hard to compile, because the share price almost never moves in straight lines. Share prices move in a series of highs and lows, in other words they fluctuate. In technical analysis, an uptrend is classified as a series of higher highs and higher lows, while downtrend is classified as a series of lower lows and lower highs. Also, when there is little action in the market of a given share, the trend moves sideways or is horizontal. Trends also have different lengths. These lengths are: short-term, intermediate-term and long-term. Figure 4 below portrays the different trend lengths. (Investopedia, 2017e.)

Figure 4. The Three Trend Lengths Of S&P500 Index (Investopedia, 2017e.)



Long-term trends occur in a timeframe of longer than one year, intermediate-term trends occur over one to three months and short-term trends occur in less than a month’s time. It is visible in Figure 4 that, if an investor had invested in the index of S&P500 during the short-term trend depicted by a trend line he would have made profit. However, investing during the intermediate-term trend, the investor would have made a loss. A long-term trend of a bit over a year would have made the investor a fair return. The trend lines in Figure 4 are a simple charting technique to represent a trend in the stock market. The method is to simply connect the higher highs or lower lows with a straight line. The drawn line will identify the direction of the trend and areas of support and resistance. Support and resistance are key junctures where the forces of supply and demand meet. These features behave in the general ways of any market. As demand increases, prices advance and as supply increases, prices decline. Additionally, when supply and demand are equal, prices move horizontally. Support is the price level where demand is strong enough to prevent the price for declining further and resistance is contradictory to this. Figure 5 portrays support with a horizontal green line and resistance with a horizontal redline, additionally it takes the role of a support line till the month of October. (Investopedia, 2017e; Stockcharts, 2017.)

Figure 5. Support And Resistance Lines On Halliburton Share (Stockcharts, 2017.)

3.2.2 Volume

The previously discussed metrics have only been concerning the price, but there are other equally important factors such as volume. Volume is the number of shares or contracts traded in the market at a given time period. Each time shares are traded, it affects the volume. Volume is basic information reported by every major financial website. For example, when different traders trade stock by the amounts of 1000, 2000, 3000 and 5000 each, the volume accumulates to those amounts combined, which in this example will be 11,000 shares. Volume increases regardless of a buy or sell order. By understanding volume, knowledge is attained for making better trading decisions. Usually, volume is expressed as a bar chart directly below the price chart with the bars height illustrating the amount of shares traded per period. Figure 6 below illustrates the bar charts with the price chart. There are two key benefits of understanding volume; first one is support and resistance, which were introduced in the previous chapter. By tracking volume, the investor can predict if a support or resistance line will be broken. If a small number of investors want to buy specific shares, the resistance line will not break, but if a large amount of investors decide to place an order, it will most definitely exceed the previously registered high. This is due to the demand rising higher than the supply. The second key benefit is average daily volume. By knowing the total volume on a day, the investor can understand the power of influence on a given stock. The greater the volume, the greater the possibility of the price to change. If the price changes but the volume is low, there might not be an increase in demand but just an overpriced sell. Technical analysts watch volume closely to see if reversals of a trend are about to occur, which means that volume can be precursors to price changes. If volume is increasing in a downtrend, it could signal that the downtrend is coming to an end and there might be a reversal to an uptrend. (Stocktrader, 2011; Investopedia, 2017e.)

Figure 6. A Depiction Of Volume Bars In A Stock Chart (Investopedia, 2017e.)

3.2.3 Price Patterns

There are different price patterns that chartists use to forecast the direction the price is going to take. The first patterns that will be introduced are continuation patterns. When continuation patterns occur, they indicate that a price trend is likely to occur. Continuation patterns occur mid-trend and are a pause in the price action of varying durations and when the patterns occur, they indicate that a trend is likely to resume after the pattern is completed. A pattern is considered complete when the pattern can be drawn and then it should break out of the drawn pattern and continue in its trend or change its course. Common continuation patterns include triangles, flags, pennants and rectangles. Triangles are popular patterns used in technical analysis, since they occur more frequently than other patterns. The three most common triangles are: ascending, descending and symmetrical. These charts can last anywhere from a couple weeks to several months. (Investopedia, 2017e.)

Figure 7. The Three Common Triangle Patterns (Investopedia, 2017f.)

Figure 7 portrays the three different triangle patterns. The first pattern from the left is an ascending pattern that represents a rising price movement. In an ascending triangle, one trend line is drawn horizontally just like a resistance line, while the other line is connects a series of higher lows. Traders tend to take a long position when the price breaks above the resistance line, because the pattern is associated with an uptrend. The middle pattern in Figure 7 is the counter part of an ascending triangle, known as the descending triangle. Traders take same action but opposite when the supporting line breaks, which is taking a short position. The last pattern on the right is known as the symmetrical triangle. If this pattern occurs, the price can move either up or down. When either the support or resistance breaks, the trader will take action depending on that situation. He will either take a long position or a short position. (Investopedia, 2017f.)

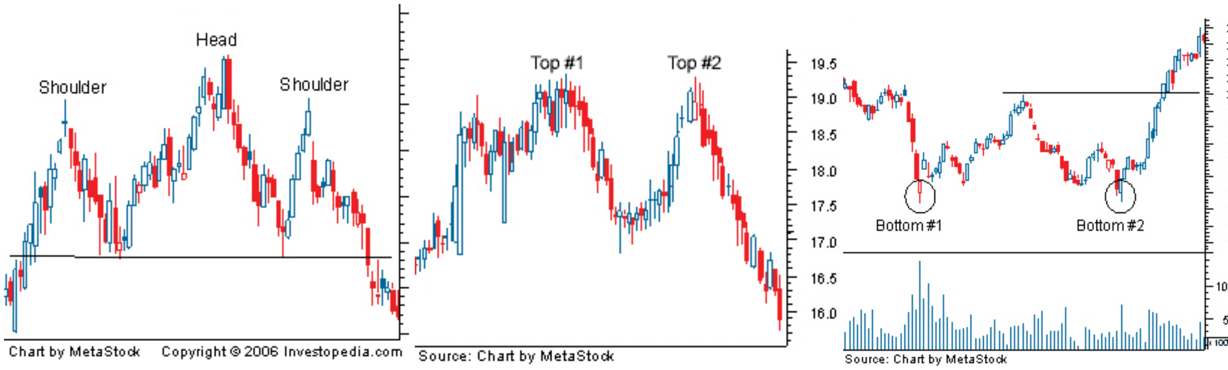
Other patterns are presented on the next page in Figure 8. First one on the left is called a flag pattern. It is also a pause in the trend, where the price becomes confined in a small price range between parallel lines. These patterns are generally short in duration. Flags can be parallel, upward or downward. The middle pattern is called a pennant and it is similar to a triangle pattern, but the difference is that it also lasts for short-term periods. The last pattern to the right is a rectangle pattern. It displays a pause in the price movement when the price moves sideways. This pattern can last for a short period of time or even for many years. (Investopedia, 2017g.)

Figure 8. Flag Pattern, Pennant Pattern & Rectangle Pattern (Investopedia, 2017g.)

The second group of patterns is reversal patterns. It is a price pattern that signals a change in the prevailing trend. These patterns signify periods where an uptrend or a downtrend is coming to an end and is going to change direction. The pattern will pause for a moment, meaning it will hover horizontally before it gets new momentum. Common reversal patterns are: Head and Shoulders, Double Tops and Double Bottoms. (Investopedia, 2017h.)

Head and Shoulders pattern presented in Figure 9 predicts an uptrend or a downtrend reversal. It is believed to be one of the most reliable trend reversal patterns. The pattern is comprised of three stages; the price rises to a peak and subsequently declines, after which it rises again but to an even higher peak, then it declines to a previous low and rises again to a same level as at the first time before declining once more. The first and third peaks form the shoulders and the second peak forms a head. The supporting line drawn horizontally forms a so-called neckline. This kind of a pattern predicts an upcoming downtrend, where as a reversed pattern will predict an uptrend. Double Tops and Double Bottoms are of similar nature, but these patterns have only two peaks or two lows. The former predicts a downtrend and the latter predicts an uptrend. (Investopedia, 2017h.)

Figure 9. Head And Shoulders, Double Tops & Double Bottoms pattern (Investopedia, 2017h)



All of the above mentioned patterns are a valuable part of technical analysis. These patterns are used by many traders to form an investment decision. Surely, it can be hard to apply the patterns to an investment target but combined with other methods, these methods are of good use. One important feature of technical analysis, moving averages, was not introduced since the thesis is concise and moving averages will not be used as a tool for analyzing the investment targets. The following chapter will introduce different strategies for choosing an investment target.

4. SHORT-TERM INVESTMENT STRATEGIES

This chapter will introduce the different strategies that can be used for short term investing. Additionally, commonly used information on a widely know popular market cycle used by investors for choosing an investment period during the year will be introduced. These strategies, along with the previously presented methods will be used in the functional part to analyze the investment targets.

4.1 Swing Trading

Swing trading uses the previously mentioned tools of technical analysis to find stock with short-term price momentum. In swing trading the objective is to capture gains in a stock within a one-day period or even a period of several weeks. Swing trading is ideal for small investors, since the decisions need to be made in a short time frame. Faster reaction, gives the trader ability to compete with bigger institutions. The main function of swing trading is to hold a position either long or short for a limited time period. The goal is to capture a larger price move that is possible within a day's period. Swing trading relies on charts consisting of time frames of 15-minute to weekly charts. (Investopedia, 2017i.)

4.2 Day Trading

Day trading is similar to swing trading except it only lasts for a single day. Both trading methods use high amounts of leverage and short-term trading strategies to earn positive returns. The difference is that day traders capitalize on small price movements many times during the day. Day traders boost the market by making the markets run efficiently and by providing liquidity. Day trading involves significant risk and it has been argued that the reward is not big enough for such a risk. Also, day traders accumulate large expenses for making countless transactions during the day. The instruments that are used for day trading are trading desk for instantaneous order executions, multiple news sources, and analytical software with algorithms and pattern recognition. (Investopedia, 2017i.)

4.3 Market Timing

Market timing is the act of entering and exiting a position using predictive methods, such as technical indicators or economic data. A research was done on daily trends of Standard & Poor's index during the years of 1952 to 1997 and it revealed that the probability of rates going up on Monday is only 47%. In other words, the probability of the rates going down is 53%. Every other weekday the probability is more than 50%. The chance of an increase based on historical data is during the end of the week, for Friday is the best day with a chance of 57%. During the high growth between 1990 and 1997 there has been a surprising twist. Monday has become the best day with a 59% probability of upturn. Thursday has come to be the weakest day and Friday the second best day after Monday. It was also revealed that Monday is a great day during an upswing period and a poor day during a downswing or at a time when the market is stagnating. An investor should already sell on a Friday, with a better possibility of receiving a higher price. It has been solved that if prices fall on a Friday, there is a chance that prices will continue to fall on the next Monday. Therefore, the best time to buy would be on Monday when everyone is selling. A shorter time period of one trading day was also researched. As the market opens, the selling pressures are usually high. The weekend is a suitable time for investors to think about their selling decisions. The opening begins with the sellers making their move, while buyers contemplate the commissions. Opening quotations have been higher on Mondays only with 44% probability compared to Friday's closing rates. For the most part, the sellers are active immediately after the opening. The following wave of active sellers is after the lunch break, especially on the Fridays when the week is coming to an end. Usually, the most active times are during mornings, excluding Monday, and the last hours of the day before the market closes. The strongest trade times of the week are the late hours of Mondays and Fridays. In fact, the greatest probability of rates surging is during the last half an hour period on Monday with a 58% chance. (Saario, 1999, 206-207.)

4.4 Stop-Loss Order

A stop-loss is an order placed by the trader to buy or sell once the stock reaches a certain price. It is designed to limit an investor's loss on a stock position. Setting the stop-loss order for 5% below the price at which a stock was bought will limit the loss by the same percentage. For example, if a share is bought at 10€ per share and a stop-loss order is placed at 5%, the shares bought will be sold automatically if the price falls below 9,5€. The positives of a stop-loss are that the investor does not have to monitor the prices constantly and if the prices fall immediate action is taken through automation. The negatives are that the stop-loss can be activated by a short-term fluctuation in the price after which the price increases considerably and the investor loses the possible profits. (Investopedia, 2017j.)

4.5 Stock Picking

Stock picking is a guideline introduced by Braden Glett in his book called Five Minute Investing in 1995. Glett gives numerous of suggestions for finding a good company, planning to invest for a longer time period. While this thesis is about short-term investing, some of the guidelines can be used. The first guideline is to look for positive price momentum. Glett suggests using the new 52-week high list, which is provided by the large financial websites. The list is great for finding great companies, for the companies do not end into the list randomly or through goodwill, rather by performing well and being in demand. Since the book was published in 1995, Glett does not mention the benefits of choosing a company, which has performed extraordinarily, as good possibility for shorting (taking a short position) may appear. Lack of mention of shorting is due to the technology not being as advanced as it is today, thus not having the right tools to short. Since it is easy to make profits whether the price is rising or falling, this list is great for an investment strategy. The second guideline, which can be used, is to beware of stodgy stocks. This means that, when selecting stocks, shares that move very little should not be chosen since they are generally referred as defensive stocks because they are held by those wanting to defend themselves against the possibility of a declining market. These stocks tend to underperform the market. The third guideline is to look over recent news concerning a company before making a final decision to buy. The reason is that some of the stocks in the new-highs list are stocks of companies that might by in a takeover situation. If the company is taken over, the investor will have to settle for the price that is in the buyout offer. The fourth advice is to view the company's price chart for the past year or two since this gives an overall picture of the personality of the stock. For our research purposes, a stock that has wild price movements is ideal. (Investopedia, 2017k.)

5. SELECTING AN INVESTMENT TARGET

The functional part or the empirical part of the thesis will examine the selection of investment targets through different criteria. Ideal shares from the market will be chosen and suitability will be measured.

5.1 Finding The Shares

For this part the five highest shares of the new 52-week high list were chosen, as well as five shares from the most active shares list based on volatility and five shares based on most active by dollar volume were chosen. All of the chosen companies are listed in the Nasdaq stock market.

Table 2. The New 52-week High List (Nasdaq,2017a.)

Company	Stock price	52-week range	Avg. Volume
Atlas Financial Holdings Inc.	14.50	12.15-18.40	77,306
Autodesk Inc.	95.83	49.82-112.18	2,204,942
Bob Evans Farms Inc.	70.42	35.63-72.28	275,090
Cognizant Tech.	65.02	45.44-65.52	4,198,134
Echelon Corp.	6.64	4.17-6.82	18,085

From each of the groups in Table 2 to Table 4, one stock will be chosen for a short-term investment portfolio. Most of the stocks in Table 2 differ from the other groups, for they are cheaper in price and have a smaller average volume. Out of the five in the first groups of stock, Cognizant Technology Solutions Corporation has the biggest average volume, thus having a much more active price for short-term investing. Autodesk Inc. is also a good contender, but the volume is just too small to make be chosen as an investment target.

Table 3. Most Active Companies By Share Volume (Nasdaq,2017b.)

Company	Stock price	52-week range	Avg. Volume
Cisco Systems Inc.	31.38	27.13-34.60	19,547,714
Glyco Mimetics Inc.	31.38	3.82 – 14.64	1,230,428
Apple, Inc.	152.54	91.50 – 156.65	24,962,320
Microsoft Corp.	67.71	48.04 – 69.71	22,620,093
Nvidia Corp.	133.07	44.13 – 138.22	16,831,098

The stocks in table 3 have all a high average volume, except for Glyco Mimetics Inc. After viewing the chart of Glyco Mimetic Inc. it was obvious that its stock is not active enough for short-term trading. The huge climb if its stock has occurred only recently, because of a new leukemia drug development process, but otherwise it has been floating in a calm horizontal direction. Such a company is not good for short-time investment, because it is possible that the current price will be the new level of horizontal floating. The most interesting company of this group is Nvidia Corporation, because it has had a huge price range for the past year, it's average volume is still quite high, but it does have a high price. However, after a review of its price chart it has proven to have common price patterns.

Table 4. Most Active Companies By Dollar Volume (Nasdaq,2017b.)

Company	Stock price	52-week range	Avg. Volume
Amazon.com Inc.	958.49	682.12 - 970.06	3,273,212
Facebook, Inc.	147.66	108.23 - 153.60	16,117,577
Tesla, Inc.	313.06	178.19 - 327.66	6,076,252
Applied Mat. Inc.	43.91	22.17 - 45.74	8,942,393
Micron Tech. Inc.	27.48	10.82 - 29.87	26,253,300

The group of Table 4 has some interesting huge companies. The first in the list is Amazon.com Inc. It is a strange stock, because the price is extraordinarily high and the volume is the lowest of the group. Facebook has had a recent price growth, but it is too controversial to be a reliable short-term investment target. Tesla Inc. is a great stock for short-term trading, because its price range varies a lot. Also, It has experienced high growth due to its investment in research and development. It is also the forerunner of new renewable energy and has had a remarkable growth in its industry. Out of all the other stocks in the group, tesla has had the biggest fluctuations, so it will be chosen for short time investing.

5.2 Review Of The Charts

In this chapter we will review the charts of the three stocks chosen and find the correct actions to take based on the position the price is in. Also, we will preview the patterns that have occurred and select one favorite stock out of the three.

Figure 10. Cognizant Technology Solutions Corp. Chart For The Past Year (Yahoo Finance, 2017.)

As seen in Figure 10, the price chart of Cognizant Technology Solutions Corporation portrays an overall horizontal movement in the price range during the past year, meaning that the resistance line has maintained at approximately $60. The support line has also been above $50, except at one moment between August and November it broke through. It is visible that at that moment there was a spike in the volume bar, which refers to a selling spree by a small number of traders, possibly even one, because right after that the stock returned to its previous support line level. Only recently, has the stock broken through the resistance line and begun to take momentum. Presently the price level has shown some settlement, therefore the a short position should be taken as soon as the price starts taking a dipping position.

Figure 11. Nvidia Corporation Chart For The Past Year (Yahoo Finance, 2017.)

Figure 11 portrays the price chart of Nvidia Corporation's stock. The chart narrates an incredible growth for the past year. The price increased steadily till the end of last year, after which rapid growth took place. This can be common during the Holiday Season, but in Nvidia's case it had introduced new products, which in turn sky rocketed the stock price. The large volume has contributed in price swings, which are beneficial for short-term investment. Recently, the stock price has grown extremely well yet again, but at the moment it is hard to forecast the price development. It is evident that the price took two Double Tops that lead to decrease in stock price, however it was a followed by Double Bottoms, which reversed the price back up. The resistance and support levels were at $120 and $95 at the moment, therefore it is safe to say that if the stock price falls, it will stop at $95.

Figure 12. Tesla Inc. Chart For The Past Year (Yahoo Finance, 2017.)

Figure 12 portrays the stock Telsa Inc. The stock price had been drifting for a long time between $180 and $230, until it experienced Double Bottoms pattern combined with the Holiday Season and broke through the resistance line. The price went up after which a visible Head and Shoulders pattern was generated and it continued to climb higher. At the moment, two Double Tops are visible, which might imply that the stock price will experience a decrease. The decrease should stop at the $250 mark, which is the new support level. The stock should be put on a short position for accumulating returns.

Figure 13. Cognizant Technology Solutions Corp. Chart For Five Days (Yahoo Finance, 2017.)

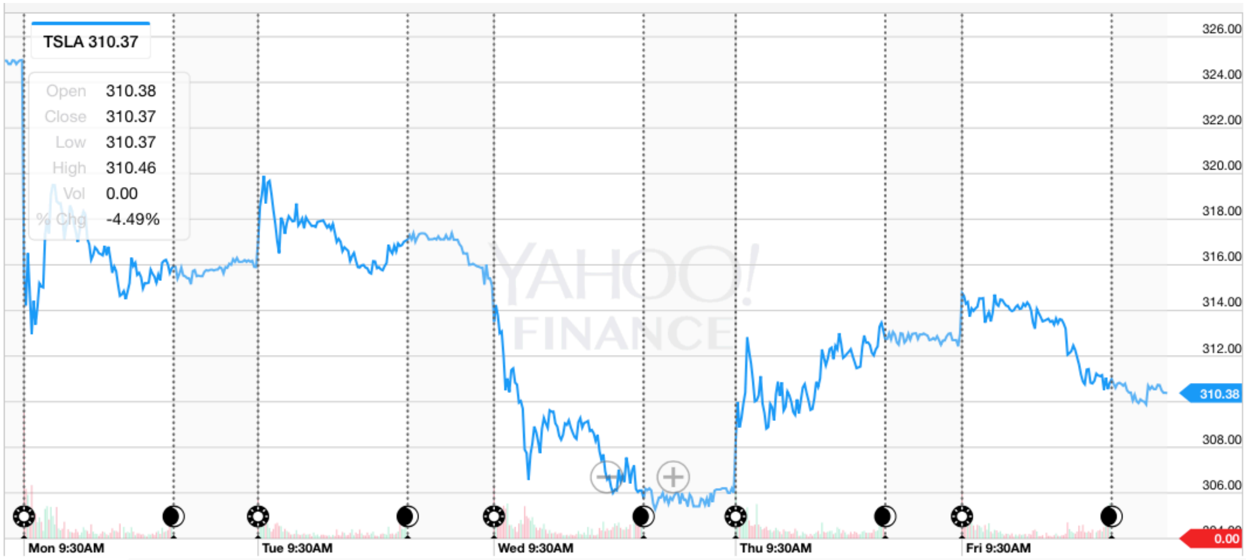
Figure 13 portrays the stock price of Cognizant Technology Solutions Corporation for a five-day period. Even in such a short period there is a pattern of Head and Shoulders, which should make the direction of the stock to reverse into a decreasing direction. It is evident in the end of the chart, that the price has started falling. Since the support level is at $64,40, the price should fall and stop at that level. After some fluctuation it will be visible it the price will go up, down or stay at between the support and resistance lines.

Figure 14. Nvidia Corporation Chart For Five Days (Yahoo Finance, 2017.)

Figure 14 portrays Nvidia Corporation stock for a period of five days. There is a more visible Head and Shoulders pattern, however in this case it is a reversed pattern, which means that the stock will rise as it has risen already a little. At the moment the stock has stopped at the resistance line, but according to technical analysis it should break through it. Compared to the chart of Cognizant stock, the Nvidia stock has a wider spread in the price and in the chart.

The five-day pattern of the Tesla stock chart does not portray any visible patterns and the price has moved more calmly. The stock price seems to move slowly in a decreasing manner.

Figure 15. Tesla Inc. Chart For Five Days (Yahoo Finance, 2017.)



Tesla stock has always moved aggressively up and down. Therefore it is an ideal stock for short-term investment. It has also been highly popular in the securities market, since there are many different option contracts promising high leverage on both shot and long positions. Out of the three chosen for more detailed research, Tesla stock seems to be the most interesting one and a favorite. The reasons for it are that it has a new product that uses renewable energy. The government mostly supports renewable energy, so the company can function even if it makes loss, which of course is not an ideal market situation. However, as it was mentioned in previous chapters, an investor should differentiate, therefore there will be no selection of only one stock, rather all three are perfectly fine to add into the portfolio. As long as there are people willing to trade the stock, which is revealed by looking at the volume figures, there should be no problems with owning these stocks.

6. CONCLUSION

The purpose of this thesis was to introduce its reader to different properties of short-time investments, as well as find a method for selecting an investment target for short-term trading. Equity investment was introduced in the form of historical performance accompanied with return rates of different securities. Additionally, the Efficient Market Hypothesis was familiarized. The risk was examined with risk tolerance and methods of asset diversification were discussed. Further on, Fundamental Analysis was briefly looked over and in fact, a small form of the method was used when selecting an investment target, since the numerical data was analyzed. Technical Analysis was widely reviewed by introducing different trends, patterns and the conception of volume. Thereafter, a variety of strategies and guidelines were recited. Most of the topics were used in selecting an investment target. A qualitative research method was applied. Unfortunately, stock selection is a wide process, therefore only a limited amount of criteria could be used. . The charts of each stock were reviewed outside this study, for it would have been impossible to add all of the chart data to the thesis.

Eventually three stocks were chosen from a volume of fifteen. The charts of each stock were reviewed in more detail and different patterns recognized. Out of the three stocks, one favorite was chosen based on its features. The stock that was chosen was of the company called Tesla Inc. Even though the stock is expensive and the average volume is not the highest of the alternatives, the price range that occurs during the fluctuations is tempting. It gives a possibility to choose different positions on the stock during a given time period. The research was concise; therefore a wider research should be made in order to generate an easy method for stock selection if such a method is possible considering the fact that preferences vary with every individual. It can be also stated, that picking a perfect share can be extremely difficult for a short-time investing, because the stock prices can be unpredictable.

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