

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics



Bachelor Thesis

Economic Analysis of Apple Inc. Stock

Author: Kseniia Poliakova

Supervisor: Petr Procházka, MSc, Ph. D.

© 2016 CULS Prague

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

Kseniia Poliakova

Business Administration

Thesis title

Economic analysis of Apple Inc. stock

Objectives of thesis

Evaluating the efficiency market position of the company and industry factors that affect the position as well as the short and long run economy as the basically factors determining competitiveness of the apple production in an absolute way.

Evaluating the market position of the company and industry. Also the factors that effect these positions will be analyzed. This analysis will be shown over a period of time, such as the beginning of the company to its present day, and to its predicted future.

Evaluating the efficiency and economy of the apple production in a relative way by complex comparative economic analysis of apple production of good standard, determining our advantages and disadvantages with respect to these factors.

Methodology

These objectives will be solved by a range of methods. For example, a financial analysis method, and fundamental and technical analysis methods. For example, Apple's market share can be compared to Samsung's market share. For a physical representation such as a graph, Apples stock could be compared to Googles stock, showing different market caps, volumes, share volumes, P/E ratio's, and the opening prices.

Most of the resouces that will be used will be internet based sites with up to date information.

The proposed extent of the thesis

40 pages

Keywords

Apple, industry, technology, innovation, market, competition

Recommended information sources

Davis, Rod. What You Need to Know before You Invest: An Introduction to the Stock Market and Other Investments. Hauppauge, NY: Barron's, 2003. Print.

Jorgenson, Dale W. Investment. Cambridge, MA: MIT, 1996. Print.

LASHINSKY, A. *Do nitra společnosti Apple : jak skutečně funguje nejobdivovanější firma světa = Inside Apple : how America's most admired-and secretive-company really works*. Brno: Computer Press, 2013. ISBN 978-80-251-3778-9.

Linzmayer, Owen W., and Owen W. Linzmayer. *Apple Confidential 2.0: The Definitive History of the World's Most Colorful Company*. San Francisco, CA: No Starch, 2004. Print.

Little, Jeffrey B., and Lucien Rhodes. *Understanding Wall Street*. New York: McGraw-Hill, 2004. Print.

Expected date of thesis defence

2015/16 SS – FEM

The Bachelor Thesis Supervisor

Ing. Petr Procházka, Ph.D., MSc

Supervising department

Department of Economics

Electronic approval: 3. 3. 2016

prof. Ing. Miroslav Svatoš, CSc.

Head of department

Electronic approval: 3. 3. 2016

Ing. Martin Pelikán, Ph.D.

Dean

Prague on 04. 03. 2016

Declaration

I declare that I have worked on my bachelor thesis titled "Economic Analysis of Apple Inc. Stock" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on March 9th 2016

Kseniia Poliakova

Acknowledgement

I would like to thank my supervisor Ing. Petr Procházka, MSc, Ph. D. for his guidance throughout the thesis process. I would also like to thank Mom, Elena, for her invaluable support during my studies here in Prague.

Ekonomická Analýza Společnosti Apple Inc. a její Podílu

Summary:

This bachelor thesis was written to discuss and analyze the large and powerful tech corporation known as Apple, and to obtain appropriate and useful knowledge of its stock.

The bachelor thesis is divided into two main parts; the theoretical section and the practical section. The theoretical section informs and defines general information related to the topic, for example, basic terms about the stocks, what are stocks and how do they work, a brief history about the company, and other general information to induct main definitions of the concepts, which will be analyzed later in the analytical section. Then the second part is the practical section which gives an analytical approach to the topic by analyzing and concluding whether Apple was and it is a good choice as an investment. The information that was found is concluded to help convince the reader whether or not they should invest into Apple.

Keywords:

Apple, corporation, technology, analysis, innovation, market, competition, stock, investment, revenues

Souhrn:

Tato bakalářská práce byla napsána za účelem diskuse a analýzy velké a mocné tech společnosti Apple, a za získáním vhodných a užitečných znalostí o její podílu.

Bakalářská práce je rozdělena na dvě hlavní části; teoretickou a praktickou. Teoretická část informuje a definuje obecné informace vztahující se k tématu, například, vysvětluje základní pojmy o podílu, co jsou podíly a jak fungují, stručnou historii o společnosti a další obecné informace za účelem základní definice pojmů, které budou analyzovány později v analytické části. Pak druhá část je praktická část, která práce analyzuje a zjišťuje, zda Apple byl a je dobrá volba jako investice.

Informace, které byly v práci zjištěny, pomáhají přesvědčit čtenáře, zda investovat do společnosti Apple či nikoliv.

Klíčová slova:

Apple, společnost, technologie, analýza, inovace, trh, konkurence, zásoby, investice, výnosy

Table of Contents

List of Tables	8
List of Figures	8
List of Abbreviations.....	9
1. Introduction.....	10
2. Thesis Objectives and Methodology	10
2.1. Objectives.....	10
2.2. Methodology	11
3. Theoretical Section.....	12
3.1. Stock.....	12
3.1.1. Definition of Stock	12
3.1.2. Types of Stocks	12
3.1.3. Types of Markets Where Stocks Are Exchanged	14
3.1.4. Markets Where Stocks Are Exchanged	15
3.1.5. Factors That Influence the Price of the Stocks	20
3.1.6. Factors That Influence the Profitability of the Stocks	21
3.1.7. Stock Indexes	24
3.2. Apple Inc.	28
3.2.1. History of Company	28
3.2.2. What Makes Apple Inc. Valuable.....	31
3.3. Fundamental Analysis	34
3.3.1. Fundamental Factors That Influence the Stock Price	34
3.4. Technical Analysis	37
3.4.1. Methods of Technical Analysis	37
4. Analytical Section	39
4.1. Analysis of whether or not Apple Inc. was a Good Investment in the Past.....	39
4.2. Analysis of whether or not Apple Inc. is Currently a Good Investment.....	41
4.3. Final Results from Analysis	56
5. Main Findings	58
6. Conclusion	58
7. References	59

List of Tables

List of Figures

Figure 1: Revenue and Net Profit of Apple Inc.: year 2011-2015.....	51
Figure 2: Stock Prices of Apple Inc.: year 2011- 2016	52
Figure 3: Profit Margin of Apple Inc.: year 2003-2015	53
Figure 4: Debt to Equity Ratio of Apple Inc.: year 2003-2015	54
Figure 5: Price to Earnings Ratio of Apple Inc.: year 2015-2016	55

List of Abbreviations

AAPL	Apple Inc. (Index)
AMEX	American Stock Exchange
<i>cap</i>	Capitalization
CEO	Chief Executive Officer
CFO	Chief Financial Officer
COO	Chief Operating Officer
DJIA	Dow Jones Industrial Average (Index)
<i>e.g.</i>	<i>exempli gratia</i> , for example
EPS	Earnings Per Share
<i>etc.</i>	<i>et cetera</i> , and so on
GUI	Graphical User Interface
IBM	International Business Machines
IDC	International Data Corporation
<i>Inc.</i>	Incorporation
IPO	Initial Public Offering
IT	Information Technology
NASD	National Association of Securities Dealers
NASDAQ	National Association of Securities Dealers Automated Quotations
NYS&EB	New York Stock and Exchange Board
NYSE	New York Exchange Stock
NYU	New York University
OMX	Scandinavian exchange company that merged with NASDAQ
OTC	Over-The-Counter
PC	Personal Computer
S&P	Standard & Poors (Index)
SOES	Small Order Execution System
<i>tech</i>	Technological
TV	Television
US	United States
USA	United States of America

1. Introduction

Apple is one of the largest names in tech nowadays, and it is almost impossible to not see a person who does not have an Apple product. From people in the metro with an iPhone in their hand, to a café where people are reading the news from an iPad, to students working on homework assignments on a MacBook at a university library. People are obsessed with Apple devices. Apple has taken the world by storm and more and more consumers are making Apple products. their go-to devices. Why is this and what are the economical aspects of this major corporation?

This bachelor thesis is going to help the reader become more informed about the company's economic side, specifically about its stock as well as learn some important information about the economics around stock. Also, the reader is going to be given information in the analytical section and hopefully become convinced on whether or not to invest in Apple. Ideally, these conclusions by the reader will be consistent with the author's conclusions.

2. Thesis Objectives and Methodology

2.1. Objectives

The theoretical part of this thesis introduces the concept of Apple's company. Also it introduces general concepts of stocks and factors of its profitability and price by evaluating the efficiency market position of the company and industry factors that affect the position as well as the short and long run economic factors determining competitiveness Apple's production. The objective of analytical part is to analyze if Apple was a good investment in past and if Apple currently is a good investment.

2.2. Methodology

Initially, in the theoretical part definitions and concepts were explained to give the reader a better understanding of the company as well as the economics behind it and its stock.

Accordingly, principles of stock and influencing factors on the stock price and profitability of stock, with examples of stock markets given, as well as basic concepts and general historical information of Apple Inc. and influencing factors that make Apple valuable.

In the analytical part, methodology consists the objective being evaluated by fundamental and technical analysis methods. This part of the analysis will be show data over a period of time, for visualization of the results.

3. Theoretical Section

3.1. Stock

3.1.1. Definition of Stock

Stock is a share of a company, which is owned by a person known as a shareholder.

Because this shareholder technically owns a part of the company in which they invested in, they are entitled to a saying in the company's leadership. This comes in the form of voting rights. (Investopedia.com, 2003)

Stock is important because it creates the market in which people invest in and helps lead a modern day economy with various choices of stocks to choose from. Its so important that the market value of a company is largely determined by the price of the stock. (Investopedia.com, 2003)

Depending on the nature of the dividends and participation in the management of the company, the stocks are divided into two main categories: common stock and preferred stock. (Investopedia.com, 2003)

3.1.2. Types of Stocks

There are two types of stocks:

- The Common Stock
- The Preferred Stock

Common Stock

Common stock is an equity in corporation and is the most commonly type of stock on a stock market. It is called common stock because as its name explains it is the most "common" or typical form of stock. (Investopedia.com, 2003)

Common stock is essentially purchasing equity in a company by a buyer (known as a shareholder). Along with this purchase comes the right to receive dividends – in other

words, the shareholder receives a portion of the profits of the company and he receives the right to participate in the management of the company. (Investopedia.com, 2003)

As stated earlier, common stock comes with rights that come along with owning stock. Each share that a shareholder holds is equal to one vote in the say of the company's activities. With that being said though, it is not likely Apple is going to listen to every single shareholder's thoughts. Generally, a group or individual that owns more than 50% of the company's shares acquires the right of sharing his opinion of the activities of the company. So it is not a secret that the real power in decision making is not in the hands of individual small shareholders, but in those, who own a controlling stake of a company. (Investopedia.com, 2003)

Common stocks are widely spread among the population of developed countries, for example, in Japan one out of every seven people own common stock, in the US one out of every five people own common stock and in Sweden one out of every two people own common stock. (Investopedia.com, 2003)

Preferred Stock

Preferred stock is the type of stock that has much different characteristics on its earnings and assets than common stock. (Investopedia.com, 2003)

The dividends on preferred stocks are fixed and the payouts are mandatory. The owners of these shares receive income from these stocks even in the case that the company decides not to pay dividends to the common shareholders, therefore preferred stocks give their holders more confidence that they will receive income. Also, in the case of liquidation of the stock of the company, the preferred stock shareholders receive assets before the common stock shareholders do. (Investopedia.com, 2003)

Although there are many advantages of owning preferred stock, there are also many disadvantages. When the company is doing well preferred stock shareholders do not receive increased dividends, because the value of the dividends fixed unlike the common stock holders. Another disadvantage of preferred stock over common stock is that

generally this type of stock does not give voting rights to shareholders. (Investopedia.com, 2003)

3.1.3. Types of Markets Where Stocks Are Exchanged

In stocks there are two types of markets:

- The Primary Market
- The Secondary Market

Primary Market

The Primary market is the market that involves the issue of new securities by the borrower in return for cash from investors. In other words, the primary market is the market where stocks are released to the public for the first time. Any stock that is the first stock to be sold to the public is considered to primary market transaction, where it will be sold to a holder, and the holder will dispose of it at own discretion: to leave it (for example, to obtain the dividends) or to sell it on the secondary market. It means that the subsequent circulation of the stocks occurs on the secondary market. (Petr Procházka., 2016)

Secondary Market

The secondary market is the market that involves buyers and sellers of existing securities. Funds flow from buyer to seller where the seller becomes the new owner of the security. The secondary markets include exchanges or auction markets and dealer or over-the-counter markets. Exchanges or auction markets are types of secondary market that involve a bidding process that are located in a specific place, for example the NYSE. Dealer or Over-the-counter (OTC) markets are types of secondary market that do not have a physical location and consist of a network of dealers, for example the bond market. (Petr Procházka, 2016)

The whole process of a stock exchange's turnover is very dependent on the secondary market. Without the secondary market investors would not be able to engage in the reselling of stocks which leads to potential profits, or obtaining short-term revenues. If the

secondary market is undeveloped, then the whole process of further circulation of stocks get difficult, and sometimes stops completely. That discourages investors, and everyone loses due to the fact that all undertakings do not receive financial support. Without the economy receiving financial support it will begin to regress, and stagnation sets in. (Investopedia.com, 2003)

Examples of secondary markets: New York Exchange Stock (NYSE), National Association of Securities Dealers Automated Quotations (NASDAQ), American Stock Exchange (AMEX). (Petr Procházka, 2016)

3.1.4. Markets Where Stocks Are Exchanged

NYSE

Today the world's main trading platform is the New York Stock Exchange (NYSE). Not only for the United States, but also for the whole world of finance, it is by far the grandest and largest stock exchange by market capitalization. It is located on Wall Street in Manhattan, New York, USA. Currently the securities of more than 3,500 companies are traded on the NYSE. Total capitalization of the companies, which are trading on the exchange stock, amounted to more than 16 trillion dollars. Trading volume reaches around 3 billion dollars of shares per day. (Newworldencyclopedia.org, 2015)

In the history of its creation, an important date is May 17th 1792, when 24 brokers from New York signed an agreement establishing a new stock exchange. That was done in order to limit their commission payments. The first name of the stock exchange was the New York Stock and Exchange Board (NYS&EB). The NYSE got its new name in 1863 – the New York Stock Exchange. Today the American stock exchange is developing in the direction to absorb as many other marketplaces as it could. The merger of the NYSE was an important factor in the groups history. (Newworldencyclopedia.org, 2015)

In March 2006, after the merger with electronic stock market Archipelago, the new company was called the NYSE Group Inc. A year later, in 2007, the marketplace got a new name NYSE Euronext after a deal with a European stock market Euronext. The new

structure took over the management the exchange stocks of many cities in the world like Lisbon, Brussels, Amsterdam, Paris and, of course, New York. The NYSE Euronext became the first transatlantic stock exchange in the world. (Newworldencyclopedia.org, 2015)

The NYSE exchange was founded over 200 years ago. During that time, the trading procedure and mechanisms of processing of customer's orders have had many changes, from trading via telegraph to the hybrid market. Over hundreds of years, traders gathered around the appropriate post where specialist brokers assisted with an open auction where he brought buyers and sellers together and managed the actual auction. The auction process moved towards to automation by the use of wireless hand computers. The system enabled traders to receive and execute the orders electronically. Since January 2007, all NYSE stocks trade via its electronic hybrid market (except of the small group of very high-priced stocks). Currently the majority of customer's orders processes by this system. (Newworldencyclopedia.org, 2015)

The status of a member of the exchange platform was a valuable property right. Until April 2006, when the company became public commercial organization and started electronic trading, to participate in the trading it was possible only if a person had a "seat" on the exchange stock market, the number of which was limited, only 1366 seats. The membership could be sold, the price of one "seat" reached 3 million dollars. After the creation of the electronic hybrid market "seat" owners received \$500,000 in cash per seat and 77,000 shares of the newly formed corporation. The NYSE now sells one-year licenses to trade directly on the exchange. (Newworldencyclopedia.org, 2015)

Currently the main trading participants on the marketplace are specialists and brokers. As a rule, NYSE brokers are employees of investment companies; they trade either on behalf of customers of their company or directly on behalf of the company, where they work. (Newworldencyclopedia.org, 2015)

The companies that are registered on the New York Stock Exchange are leaders in the global market. They are the most reputable and most large firms not only in America, but also around the world. Currently, more than 3,500 companies trade their stocks on the New York market platform. To be able to trade on the NYSE all companies have to satisfy the

requirements of listing. For example, the issuer company should have 2,7 million dollars of profit for a year before paying taxes and at least 1,1 million shares.

(Newworldencyclopedia.org, 2015)

The requirements of listing are strict because the New York market platform wants to preserve their reputation, that is why the stock exchange exceptionally offers strong and reliable shares. (Newworldencyclopedia.org, 2015)

Main criteria of listing:

- The interest to securities from the own government (where the issuer works)
- The position of issuer in the industry (its popularity)
- The stability of the company and its prospects in the future

(Newworldencyclopedia.org, 2015)

Trading on the NYSE: The pros and cons

The advantages of the New York stock exchange:

1. The New York stock exchange is the largest by market capitalization, the amount of the stock is more than 60 %, what makes the marketplace resistant to different fluctuations in the market.
2. Liquidity – selling, buying or decreasing – any order is made in less than a second.
3. Reliability – the stock exchange has been working for over 200 years and has been considered as the oldest exchange market in the U.S., what gives the marketplace an excellent reputation.
4. Work efficiency – all transactions on the stock exchange are made within seconds due to perfect organization.
5. A large number of tools during the trading.
6. Permanent control. The NYSE regulatory system is considered one of the most effective. Only approved stocks are in the listing, and all participants are under the control of the commission of securities and stock exchanges.

(Newworldencyclopedia.org, 2015)

The disadvantages of the New York stock exchange:

1. Considerable commission that makes it difficult to obtain the profit.
2. Difficulties with transferring money and opening own accounts.
3. Large gaps due to the complexity of trade and the transfer of the positions through the night.
4. Instant explosive uncontrolled movements, NYSE forecasts are changing every second. (Newworldencyclopedia.org, 2015)

NASDAQ

The National Association of Securities Dealers Automated Quotations (NASDAQ) is an American stock exchange, that is a serious competitor to the largest stock market in the world, the NYSE Euronext. NASDAQ specializes mostly in stocks of high technology companies like Microsoft, Apple Inc., Google Inc., Yahoo, Intel, Oracle, Dell and many others. By number of companies and volume of stocks traded per day, NASDAQ is the second largest stock exchange in the world after NYSE, but it is the first electronic stock exchange in the world. Currently the stocks of more than 3,500 companies are traded on the stock market. (Business.nasdaq.com, 2016)

NASDAQ was established on February 8th 1971 by the National Association of Securities Dealers (NASD). In the early stages one of the largest stock market in the world was just a system for providing quotes, which did not associate with a buyer and seller. At the time it appeared that the first ideas of how to computerize the market were almost a century reduced to a “personal” sale of stock and securities. (Stock-market.laws.com, 2015)

Until 1987, NASDAQ was referred to the over-the-counter (OTC) market, most trading occurred via the telephone. But as a result of a market crash in October 1987, when most of the market makers did not answer the customer’s calls, there was decided to establish a small order execution system (SOES), which allowed dealers to place the orders electronically. (Stock-market.laws.com, 2015)

In 1992, NASDAQ had the first intercontinental linkage of securities markets by joining the London Stock Exchange. Later, in 1998, the exchange market joined with one more big

market platform - American Stock Exchange (AMEX). However, from 2008, AMEX has owned by NYSE. (Stock-market.laws.com, 2015)

By the beginning of the 21st century, NASDAQ became one of the largest electronic stock exchange in the United States by the dollar turnover and share turnover. In 2006, NASDAQ completely separated from the NASD and began to work as a licensed national securities exchange; in 2007, the largest electronic stock exchange bought the Philadelphia Stock Exchange, the oldest stock security in the USA, for 652 million dollars. At the moment, by joining with the powerful Scandinavian exchange group OMX, the NASDAQ got the official name NASDAQ OMX Group. (Stock-market.laws.com, 2015)

Started as a system for providing quotes, and now one of the largest stock platforms with 45 years of history, NASDAQ now joins American, Asian and European stock markets all over the world. (Stock-market.laws.com, 2015)

NASDAQ has never had trading halls, which are always filled with brokers. Market operations are conducted only through computer networks. There are a huge number of terminals, to participate in trading on the NASDAQ. It is possible from anywhere on the planet. On the NASDAQ, the information is available online, after deciding it is enough to press only one button. NASDAQ is the first stock market in the United States that started trading online. (Stock-market.laws.com, 2015)

NASDAQ operates between two markets: NASDAQ National Market and The NASDAQ Small Cap Market.

The first market is intended for securities of the largest issuers. To obtain a listing on the NASDAQ National Market is quite difficult because criteria of corporate governance, capitalization and financial position are unusually strict. About 3000 of stocks of the large corporations are on NASDAQ national market. (Stock-market.laws.com, 2015)

The second market focuses on the stock of the companies with a small capitalization. Today there more than 1000 of securities included in the listing. (Stock-market.laws.com, 2015)

The advantage of the National Association of Securities Dealers Automated Quotations is the American stock exchange NASDAQ attracts not only traders, but also investors that want to take the opportunity to obtain a highly volatile resource, which is a major advantage for the stock exchange.

Like any market, the stock market consists of demand, as well as the supply and equilibrium price. Demand is created by companies and the government, because they do not have enough of their own income for financial investments. Businesses and government are the borrowers on the stock market, and the lender is the general population. The objective of the stock market is to provide a more complete and rapid transfer of savings into investments for the price that is satisfied for both sides.

The stocks in its constant circulation on the stock market go through the primary and through secondary markets.

3.1.5. Factors That Influence the Price of the Stocks

Evaluation of stock is quite difficult because of instability in an economic environment such as the stock market but evaluation of stock is a very important first step in increasing the chances of choosing a wise investment. When the investor invests his money in the stock of some company, he is contributing to the development of the company essentially becoming a co-owner, so it is important that the investor knows what is influencing the price of the stock he is investing in. (Berdnikova T., 2003)

Before the stock of a company can be analyzed to determine what influences the price to increase or decrease, the company itself needs to be evaluated. This is done by evaluating the companies past financial reports. This fundamental analysis is also done with the market itself avoid mistakes in terms of variability of prices of securities. (Berdnikova T., 2003)

A significant factor that influences the price of stock is things such as the company's competition (other stock choices) because they can be used to determine the competing stocks value as well as potential for growth. This competition can be good or bad

depending on how well the company is doing versus its competitor. If the company is doing better than its competitor its likely the investor will choose it over the competitor but if the competitor is doing better this causes the company to lose a potential investor.

Another price influencer is the profit of the issuing company. The factors that influence the stability of the profits of the company, include: the qualifications and competence of the leaders, competitiveness, using of new technologies that give advantages in comparison with similar companies, strong market positions, and an extensive customer base.

(Berdnikova T., 2003)

The important moment when someone is deciding to purchase the stock of an issuing company, is a balanced analysis of the company. If the profit exceeded the expectations of the traders, investors and analysts, then the market participants respond positively. Such information about the company raises the interest and price and therefore market participants are buying it in order to sell it for a profit. This leads to the price of the stock increasing even more. On the other hand, if in the report of the company the earnings are below expectations of analysts and traders, then it is the opposite: the interest of the stock decreases, which leads to a decrease in the price. Consequently, market participations begin to sell the stock for the current price so later they can purchase it for the lower price.

(Berdnikova T., 2003)

Another important factor that influences the price of a stock is the minimum return that investors are looking to get. i.e. the discount rate.

3.1.6. Factors That Influence the Profitability of the Stocks

The following are the factors that influence the profitability of stocks:

- Interest Rate Level
- Changes in the Economy of the Country
- Changes in the Stock Market
- Financial Condition of the Issuing Company
- Sectorial Indicators

The Interest Rate Level

The interest rate level greatly affects the yield for investors which is why its a very important factor in determining the profitability of stocks. The interest rate level is determined by the level of deposit rates, lending rates and inflation. This indicator is common for the whole economy. The increase of the general level of interest rates may adversely affect the dynamics of the stock market for two main reasons. (Berdnikova T., 2003)

First, the possibility of further growth and increase profits for the corporate sector is limited by the appreciation of credit resources. (Berdnikova T., 2003)

Second, due to the increasing of interest rates, investments in other ways of investing money get more profitable, for example bonds, that will determine the movement of investment resources from the stock market. (Berdnikova T., 2003)

Changes in the Economy of the Country

The next factor that influences the profitability of stocks are changes in the economy of the country. The decline of financial results of the operation of the issuing company is associated with reduction of the value of investments in the stock as a result of the slowdown in economic growth. (Berdnikova T., 2003)

Changes in the Stock Market

Changes in the stock market also have an impact on the profitability of shares. The stock market operates according to the laws of cyclical development – a growth phase replaced by a phase of decline, which is replaced again by economic revitalization and growth. Appropriately, you need to be prepared for quite significant fluctuations of stock. (Berdnikova T., 2003)

The Financial Condition of the Issuing Company

The price of the stocks is also associated with the financial condition of the issuing company. An assessment of the level of the company based on the analysis of financial statements and condition of existing debt: how the amount of debt the company has changed for the past year, what are the sources of borrowed resources and how a company is going to reimburse them. (Berdnikova T., 2003)

Certainly, many things depend on the individual characteristics of the company – its credit quality (the willingness of banks to lend money to the company), the level of liquidity of the stock (if stocks are actively traded on the stock exchange it is easy to buy and sell them). Respectively, the correct behavior of the company to the minority shareholders also affects the decrease of the discount rate and possible increase of the stock exchange price. (Berdnikova T., 2003)

Sectorial Indicators

Lastly, there are sectorial indicators that affect the price of the stock, required from investments in the stock of the companies. For example, oil prices tend to fluctuate more. Making investments in oil stocks, investors are inclined to higher yields, than companies, that engage in extraction of precious metal that tend to fluctuate quite less. (Berdnikova T., 2003)

The introduction of the new product on the market considers as an amplifier of revenues of the company. This also applies to existing products, which are distributing to the new markets. Sometimes only a presence of the perspective of introducing a new product is needed to improve the indicators of the stock price of the company. (Berdnikova T., 2003)

The importance of the information associated with the disclosure of unbiased information about a company is that it may cause a rapid drop in the price of the stock. Maintaining the investor's trust is the primary goal of the state of the regulation in this field. (Berdnikova T., 2003)

Summing up, the factors that influence stock to increase and decrease include:

1. Competition, that has essential value in the process of pricing in the stock market
2. The inclusion of the various companies in the stock index, contributing to the growth of consumer interest about the stock of such companies
3. Profit of the issuing company
4. Balanced analysis of the issuing company
5. The minimum yield that investors want to get, investing money in the stock, other words “the discount rate”
6. Sectorial indicators that affect the price of the stock, required from investments in the stock of the companies

3.1.7. Stock Indexes

Definition of a Stock Index

An index in finance is a number that helps to represent a current value of a group of stocks. Because stock prices are constantly changing, this means that an index must also show changes in the values of stock. For example, if an index increases by 5%, that means that the total amount of the value of the securities listed on the index have increased by a total of 5%. (Abcsinvesting.net, 2008)

An example is if index “ABCDEF” has 10 companies listed and is listed at 1000 points, and the change of the prices of the stocks listed are equal to a total of an increase of 6% then that means the index is now up 6%, so the current value is $1000 \cdot 0.06 = 60$, + the current value (1000) so index equals to 1060. (Abcsinvesting.net, 2008)

Indexes are very important in finance because they provide something to compare investments with. For example, if you have some stocks and they are always seeming to disappoint compared to the index being used to compare them with then it is probably time to change investment strategies. (Abcsinvesting.net, 2008)

Types of Stock Indexes

There are many stock indexes but listed below are a few of the most known ones:

- The Dow Jones Industrial Average (DJIA or Dow Jones)
- The S&P 500
- The Wilshire 5000
- The Nasdaq Composite Index
- The Russell 2000

Dow Jones

The Dow Jones Industrial Average is one of the most widely used indexes currently in the world. This is because it is quite old so it has a good reputation therefore, it is very well known so many people use it, and also because many of the largest companies (in The United States) are on this index. It is a compact index which includes only 30 stocks of the largest and most influential companies, so it is a good reference for how the market is doing. The Dow Jones originally was calculated by adding up the total amount of share prices (per share) of all each company in the index, and then getting the average from the index by dividing the amount of companies. (Schick K., 2003)

The Dow Jones is so large it represents almost a quarter of the value of the entire U.S. stock market! A change in the Dow Jones shows investor's expectations in the companies changing which leads generally to direct representations of how the entire market is doing. This is one of the main reasons why its so widely used. (Money.cnn.com, 2016)

The S&P 500

The Standard & Poors 500 (S&P 500) is an index that is made up of the 500 most widely traded stocks in the U.S. which makes it much larger and more various than other indexes such as the DJIA. As a total value in the U.S. stock market, it represents 70%! The S&P 500 is a good index to use because it is large and gives a good representation of how the U.S. market is doing. Every stock listed in the S&P 500 index is represented by its portion in the total market capitalization. This is known as market weighted or capitalization

weighted. Many investors and market analysts believe this method of creating an index makes the S&P 500 a better measure of the market because stocks can be compared in percentages instead of in dollar figures. (Money.cnn.com, 2016)

The Wilshire 5000

The Wilshire 5000 is an extremely varied index with almost all publicly traded companies listed in this index. Stocks in this index are from every industry. Sometimes the Wilshire 5000 is called the total market index, or the total stock market index. (Money.cnn.com, 2016)

The Nasdaq Composite Index

The Nasdaq Composite Index is a market capitalization weighted index based around technology on the Nasdaq Stock Exchange. Unlike some of the other indexes, the Nasdaq Composite Index has some companies that are not based in the United States. Even though it is generally technology based stocks, it also has some in industries such as transportation, insurance, industry and finance. Unlike other indexes such as the S&P 500 and the Dow Jones, which are generally a select number of large companies, the Nasdaq Composite Index lists large and small companies in its index. Even some small prospective companies with very small capitalizations can be listed on it. The final thought of the Nasdaq Composite Index is that since a lot of its stocks are technology based, it generally doesn't reflect the market as a whole but rather the technological sector. (Money.cnn.com, 2016)

The Russell 2000

The Russell 2000 is an index based on 2000 of the smallest stocks listed in the Russell 3000 (a much larger sister index which is 3000 of the largest publicly traded companies). These stocks are generally based on market capitalization similar to other indexes. Although other indexes such as the Dow Jones and the S&P 500 are much more popular, the Russell 2000 had its prime time during the 1990s when a lot of investors were successful with small market capitalization stocks. Unlike other indexes which have a specified list of

listed stocks (such as 30 large companies, or only technological based companies) the Russell 2000 has quite a variety of stocks listed. (Money.cnn.com, 2016)

How Indexes Are Calculated and How Do They Measure the Stock Market

Indexes are measured in several different ways, and each method has its pros and cons. Listed below are the major types of indexes:

Price Weighted Index: This type of index follows the pattern of how the change in individual stocks prices change in prices per share. (Dummies.com, 2016)

Market Value Weighted Index: This type of index follows the pattern based on a market capitalizations proportion. For example: If a company has a market capitalization of 500 Million and another company has a market capitalization of 3 Million, then the first company represents much more of the index strictly because of its market capitalization. (Dummies.com, 2016)

Broad Based Index: This type of index is used as a sort of comparison or benchmark. It is considered something like a snapshot of the current market. (Dummies.com, 2016)

Composite Index: This type of index is combined from many indexes or averages into one simplified index. (Dummies.com, 2016)

3.2. Apple Inc.

3.2.1. History of Company

Officially "Apple Computers" was founded on April 1st, 1976. There were three people who created the company: Steve Jobs, Stephen Wozniak and Ronald Wayne. Ronald Wayne and Steve Jobs worked together before at Atari. After a brief collaboration, Wayne left the company and sold off his 10 % share of stock that he owned, which after ten years was worth hundreds of millions of dollars. During his departure from the company, Wayne explained that it was too risky and he did not want to lose his initial capital. (Rawlinson N., 2016)

January 9th 2007 the corporation changes its name from "Apple Computer Inc." to "Apple Inc.". It shows that Apple has the main focus not only on the traditional PC market, but on the electronics market. The company logo is an Apple. One of the stories behind the name is that at the time of naming their company, their main competitor was Atari, and the word "Apple" was alphabetically first in front of competitor's name in different directories and reference books. Sober pragmatism is always present in the company. (Rawlinson N., 2016)

Creating a computer which later was named "Apple 1" Wozniak did not even think about any commerce or money, he just wanted to create a perfect computer. It was the first computer that had a monitor and keyboard, but not a bunch of lights and switches, as it was in the case with Altair 8080. The selling price of Apple 1 was 666 dollars 66 cents. (Rawlinson N., 2016)

After the release of "Apple 1" in an amount of 200 units, which gave a pretty good start to the company, in 1977, Mike Markkula invested 92 thousand dollars in Apple Corporation. Due to Markkula's help, the creation of "Apple 2" was started. (Rawlinson N., 2016)

In 1977 Apple released the "Apple 2", which brought the company big success. In the beginning of the 1980's "Apple 2" was the most popular personal computer on the market. Worldwide this model sold about 5 million units. Apple quickly established itself as one of

the fastest growing companies in the United States with its products being carried by over 100 distributors by the end of 1978. (Rawlinson N., 2016)

While Apple 2 was a success, Jobs and other creators were engaged in new projects – "Lisa" and "Macintosh".

In 1980 the company had its first failed project, the "Apple 3". However, also in the same year Apple Inc. conducted the largest IPO in history with around 4.6 million shares of stock sold out in under a minute. Thus, the company had a record in initial capitalization, which amounted to 1,778 billion dollars. In 1980 Apple Inc. went public. (Rawlinson N., 2016)

Low sales of "Apple 3" were the reason that Jobs was forced to fire many employees. The press started to talk about the imminent end of Apple. In early 1983, Steve Jobs invited John Sculley for the post of president of the company, at that moment Sculley had a similar position in "PepsiCo". Jobs was very upset about the failures of his company, and soon he started to have the disagreements with the new head of "Apple Inc.". (Rawlinson N., 2016)

In 1984, the company presented the computer Macintosh. The project was successful and subsequently, the production of these type of computers was the main activity of the corporation. But before this success, the project "Lisa" ended as a failure. (Rawlinson N., 2016)

However in 1985, because of serious disagreements with the new CEO and the drop of sales of the Macintosh, Steve Jobs was forced to leave the managerial positions in the company, and then to leave Apple and start a computer company NeXT and design studio Pixar. (Rawlinson N., 2016)

Wozniak stopped working at Apple even earlier, in 1981, after his plane crash. Eventually he left the company in 1987, but kept 4% of the company's stock. (Rawlinson N., 2016)

Over the years that have passed without Steve Jobs, the heads of the company have been many different people. The "Apple Computers Inc." has experienced a dizzying rise and rapid fall. For example, in the middle of 90's in the catalog of Apple products it was

possible to count tens of Macintosh desktop models, servers, printers, handheld computer-assistant Newton etc. (Rawlinson N., 2016)

By the end of the 90's, activity of Apple has significantly deteriorated. In 1996, the losses of 2 years amounted to about 2 billion dollars, real volumes of sales and the stock price of Apple was falling lower and lower every day. (Rawlinson N., 2016)

Finally, the investors realized that to get Apple out of trouble and give a hope for its continued independent existence can only one person, the founder of the company. Therefore, in 1997 was a "revolution": Jobs agreed to work in Apple, the head of the company at that moment Gil Amelio and all top managers were fired. Then "Apple" bought Steve Job's company NeXT for 400 million dollars. But the most important thing was: August 15th 1998 was released the inheritor of Macintosh – iMac, which had very different design compare to others PC. Apple increased its sales to 3.8 million units. After iMac realization, a lot of new products flooded Apple's market. (Rawlinson N., 2016)

Currently among the main lines of products manufactured by the company Apple include, the iPhone mobile phones, the personal tablets iPads, the portable media players iPods, MacBook personal computers, and the Apple TV. In addition, the company produces accessories to the products and software. (Rawlinson N., 2016)

Today Apple is one of the world leaders in the IT industry, which created the first personal computers, the first multi-color displays on the PC, the first operating system with a GUI, the first computer with a mouse, the first personal audio player, the first online music store; the list of innovations of Apple is very long. (Rawlinson N., 2016)

Today, Apple Inc. has completed 5440 patents, 4480 different inventions and 914 design projects. The turn over of Apple in 2014 year was more than 180 billion dollars and more than 80 thousand employees the company had in 2013 (Rawlinson N., 2016). The production of the company has the highest demand all over the world. Therefore, it is fair to say that today Apple is one of the most valuable brands in history.

3.2.2. What Makes Apple Inc. Valuable

Apple Inc. has been one of the greatest late 20th and early 21st century electronic companies in the entire world. With a presence in almost every country, its a company that has a lot of power. Rising from the rubble of a disintegrating company in 1997, Apple has reached the pinnacle of success in 15 short years. With a market capitalization of over \$500 billion, Apple is amongst the most valuable and highly profitable companies in the world. Its very likely that someone everyone knows has or has had an apple product. How does a company with so much power and so much value come to be?

Today Apple Inc. has the title of the most profitable technology company in the world. The statement of financial activities of this company in the second quarter of 2015 is the proof of it: 61,1 million iPhones sold, which is more than last year (Apple.com, 2016). The figures are impressive, and in similar context you wonder, how a company like Apple started in a garage, achieves such heights.

“Apple revolutionized personal technology with the introduction of the Macintosh in 1984. Today, Apple leads the world in innovation with iPhone, iPad, the Mac and Apple Watch. Apple’s three software platforms — iOS, OS X and watch OS — provide seamless experiences across all Apple devices and empower people with breakthrough services including the App Store, Apple Music, Apple Pay and iCloud. Apple’s 100,000 employees are dedicated to making the best products on earth, and to leaving the world better than we found it.” - Joan Hoover (Apple.com, 2016)

Apple has a special secret recipe that makes the company valuable.

Many well-known global brands, which are now worth billions of dollars began their journey in an ordinary garage. Many beginners who are looking forward to opening their own business think, that they need a large amount of money, that they need to rent or buy some space to make a business, purchase goods or equipment, and hire a bunch of work staff. This leads to many start up companies accumulating a large amount of debt which most beginning companies obviously does not have. And this huge sum of money on the start of many businesses usually deters people to start their own business. Certainly, there are types of businesses that do not require large amounts of capital to start. This is evident

with Apple, because Steve Jobs proved to the world that its possible to start your own company that influences the entire technological world, in a garage with just 2500 dollars.

Sometimes people think that if you want to achieve exemplary results in the technology business, you have to think of some kind of know-how and create it so you can be the first in the industry. However, Apple company as an example again proves that this is not necessary. With any of its products, the company from Cupertino was not the first on the world market (Microsoft was). The company was second, and exactly here lies the secret of Apple's success.

In the framework of the podcast “Masters of Business”, dedicated to the business experts, the Professor of Digital Brand and Marketing at NYU Stern, Scott Galloway explained the essence of the concept of “innovation followers”:

“If we talk about the benefits for investors, we need to invest not in the development which are the pioneers, but in their followers. A real innovator who enters the market with a completely new product, he usually does not reach significant heights and does not bring big profits to his investors. Those, who come second achieve success. Apple company was the second almost everywhere. This company is not a pioneer in the truest sense of the word. The Apple engineers did not invent the computer mouse, did not develop the first MP3 player, they were not the first at the smart phone market. They just were looking at the certain products, improved them and gave their new products, which were easier to understand and use”.

Here is an example – the history of Apple and BlackBerry. The creator of the first Blackberry smart phones “Research in Motion” in the middle of 2000-s was the first on the market of mobile devices. But when the first iPhone was released, company Apple has become dominant in this sphere. Needless to say that Blackberry has lost its leading position, and other competitors like Samsung are not such successful in attempts to circumvent Apple. (Segall, K., 2013)

There is a direct evidence - Apple stock price movement and Blackberry stock price movement. In period from 2004 till 2014 Apple securities rose in price by 4400% while Research in Motion shares fell in value by 85%. (Segall, K.,2013)

There is the ideology of producer iPhone. It is not necessary to invent a bicycle. The main thing is to see disadvantages in a particular product which is already exist. Significantly improving what is already invented before, Apple typically gives to consumers the right product, almost perfect due to combination of brand new design, hardware and software. And competitors remain to try to repeat its success, what they obviously do by copying the ideas of engineers and developers from Cupertino, and they do it not always efficiently and successfully. (Bajarin, T., 2012)

In May 2011, according to the rating research agency “Millward Brown” Apple was named the most expensive brand in the world. According to “Forbes” in October 2012, the Apple brand has become one of the leaders in the ranking of the “most influential”, ahead the brands such as Coca-Cola, Microsoft and IBM. (Segall, K.,2013)

In November 2013 the company's market value was about 472 billion dollars. But the maximum capitalization of the Apple Inc. reached in September 2012, when its market value was estimated more than 700 billion dollars, what made Apple the most valuable company in the world. (Segall, K.,2013)

It is probably strange to hear in the context of the story about the most successful and expensive company, but in the case of Apple Steve Jobs and his followers never raised the question of profit to the fore. One of the main sources of motivation for the founder of the company were the future and creating revolutionary products. (Bajarin, T., 2012)

The Chief designer of Apple Inc. Jonathan Ive was committed to the same approach. In one interview Ive said:

“We are very pleased with our revenues. But our aim is not to earn money. It might sound slightly flippant, but it is true. The only goal that is really exciting for us is the invention of the perfect product. If we will find understanding among people, if they will appreciate our product, then we will earn money on it”. (Apple.com, 2016)

There are many tricky moments, which the creators of Apple think of to make their product more popular among customers. Here is one of them. We often hear the statements: “Apple vs. PC”, “Apple vs. Microsoft” and “Apple against all”. It would seem

that confrontation like that are creating by unscrupulous competitors, but actually the authors of these statements are the top managers of Apple. The strategy of opposition against all others was adopted initially by Steve Jobs because of his challenging character and his own opposition to the world. (Bajarin, T., 2012)

Everyone heard at least one time in his life the sayings: “Think differently”, “Mac vs PC” or “Apple vs Samsung”. A simple demonstration of products with logo-Apple in advertising – the veiled statement “we have advertising completely different”. Everything is different. We are not some usual company, but we have something special what differs us from the other companies. (Segall, K.,2013)

3.3. Fundamental Analysis

Fundamental analysis of stock is an important instrument, which helps to investors to evaluate the value of the stock and make the decision if they will buy it or sell it.

Fundamental analysis of stock is based on the study of fundamental variables that are determining the profitability of the company. They are include internal characteristics of the company and external characteristics, primarily economic characteristics. (Kolmykova, L., 2006)

The overall level of the stock market is a function of supply and demand, which is based on the investor’s expectations about future profitability of the corporations. Thus, we should note that the price of each share defines not only the demand of the stock, but the aggregate demand from all investors, which is based on the results of the fundamental analysis. (Kolmykova, L., 2006)

3.3.1. Fundamental Factors That Influence the Stock Price

On the price of the stock of a particular company affects the level of supply and demand of this stock. The key factor that affects the relative demand for specific stocks is the assumptions of investors with regard to:

- Future Capital Growth and Dividends
- Risk

The factors, which determine the assumptions about capital growth and dividends, are profit evaluation, evaluation of free cash flow and the evaluation of the total cost of the company. The dividend discount model is widely used to evaluate individual shares. The model evaluates stocks as the discounted present value of the future flow of dividends that they will supposedly earn. The predicted structure of future dividends is usually estimated on the basis of a detailed analysis of the fundamental characteristics (turnover, cash flow, profitability, etc.) of the considered company. (Kolmykova, L., 2006)

Thus, the expected growth of dividends is very important for the evaluation of the stock; our evaluation of the dividend's growth are associated with the expected growth of stock value.

The economic factors always change and affect different companies in different ways, thereby changing the relative prices of stock. For example, the company that sells luxury goods (e.g. expensive cars), can be more sensitive to the state of the economy than the company, which sells the items necessities (e.g. retail food).

Risk usually means statistical instability of securities return. In financial economic theory, it is called as a dispersion or the standard deviation of the investment return. From this point of view, cyclical companies such as car manufacturers are probably more risky than protective companies, such as retail sellers of food. (Kolmykova, L., 2006)

There is also an actuarial risk, which defines that investor is not able to perform his obligations when payment time comes. (Kolmykova, L., 2006)

Fundamental analysis is based on the belief that each share (and market overall) have internal, fundamental or true value, which can be evaluated by the investor. That value depends on the fundamental characteristics of the company (turnover, cash flow, etc.). The analysis of these characteristics allows to the investor to receive the evaluation of profitability, which he expects to obtain through the purchase of the stock of the company; and current risk in the terms of volatility of return. The investor can to combine the risk

and profitability profiles, which he will get as a result, and can determine the fundamental value of the target shares. (Kolmykova, L., 2006)

Fundamental analysis can be applied on the industry, economy or individual company. Before assessing the prospects of individual company, it is necessary to conduct the fundamental analysis of the whole economy of the country or some specific industry.

Fundamental analysis uses many methods to determine whether the stock is overvalued or undervalued by the market. Most of the methods associated with the obtainment the best estimates of future income or dividends. (Kolmykova, L., 2006)

The process of fundamental analysis has two stages. At the first stage there is creating the model of a company, which allows to evaluate future cash flows and revenues. The second stage is related to the using the results of the first stage to determine whether the stock is overvalued or undervalued by the market. On the practice there are a lot of methods for counting the analysis. (Kolmykova, L., 2006)

1. The creation of a suitable financial model for a company and using it to predict future cash flow. Depending on methodology, these predictions can be used to predict future flow of dividends, which is expected to receive if you own the stock of the company.

(Kolmykova, L., 2006)

2. Using the previous forecasts to evaluate the relative cheapness or expensiveness of the stock. It can be related with:

- estimation of the “true” value of stock and its comparing with the actual market price (e.g. using the dividend discount model)
- calculating the appropriate ratio, which amount can be compared with values of its ratio for similar stocks or with “normal” value (e.g. the ratio of prices to income).

(Kolmykova, L., 2006)

3.4. Technical Analysis

Technical analysis is based on the study of markets, which helps allow investors to try to predict future prices. This is the difference between technical analysis and fundamental analysis, which is associated with the measures of value. Investors that use technical analysis try to predict future price changes by analyzing the history of the actual prices and the trading volume. They are not interested in such fundamental issues as income and dividends. (Murphy, J. and Murphy, J., 1999)

Technical analysis often applies to: individual stocks and bonds, the level of the market, currency values and mineral resources, such as gold. (Murphy, J. and Murphy, J., 1999)

Future price changes is a function of the past prices, and probably the trading volume. The structure and trends of past prices and volumes may be used to predict, for example:

1. The interval within which the prices will be staying during predictable future
2. The signals to sell, i.e. information which means that prices will fall sharply soon
3. The signals to buy, i.e. information which means that prices will rise sharply soon

(Murphy, J. and Murphy, J., 1999)

3.4.1. Methods of Technical Analysis

There are three basic forms of technical analysis:

- Graphics
- Mechanical Trading Rules
- Analysis of Relative Strength

Graphics

The most widely used method is the study of graphs. Graphists try to identify the structure or trend behavior of the graph of the stock or market index. This type of investor believes that trends of the past will repeat in the future. Thus, if the stock price exceeds the value of the trend, it would be reasonable to sell the stock because of the expectation that its price returns to the value of trend. (Murphy, J. and Murphy, J., 1999)

Mechanical Trading Rules

In this method, the signal to a trade transaction is determined by changes of price. For example, the stock can be bought if its price increased by x% compare to the previous low price. The stock also can be sold if its price decreased by y% compare to the previous high price. If the x% and y% are too low, the profit will be lost; if the x% and y% are too high, there is a need to significantly change the prices before the trade transaction is concluded. (Murphy, J. and Murphy, J., 1999)

In practice, the mechanical trading rules apply by using the computer bidding system.

Analysis of the Relative Strength

The relative strength analysis compares the results of the stock with the results of the market or only stock's sector. Analysis can be used in two ways. The first way is to identify the changes of relative strength in early stages. For example, during the past month the stock of the company had results that were surpassing the market by 10%. It may be assumed that this situation unlikely will happen again in the near future. (Murphy, J. and Murphy, J., 1999)

The second way of analysis is to purchase (or to sale) the companies, which had stocks that worked better (or worse) within the previous six months. The idea is, if the stocks worked good (or bad) during the first six months, they will continue working good (or bad) the next six months, because other investors can see that the stock works good (or bad) and they want (or do not want) to participate in the results, which are above-average (or below average). (Murphy, J. and Murphy, J., 1999)

A lot of large investment companies have a technical analysis department, which opinions influence decision making. Technical analysis is associated almost always with short-term price changes, that is why many organizations use technical analysis during the decision making relatively short-term deals. Fundamental analysis is used mostly for long-term and strategic decisions. (Investopedia, 2006)

4. Analytical Section

4.1. Analysis of whether or not Apple Inc. was a Good Investment in the Past

To be able to determine whether or not Apple was a good investment in the past, first the history and the beginning of the company must be analyzed.

In the middle 1970s Steven Wozniak and Steven Jobs were friends in school that had an interest in electronics. They both dropped out of school and got jobs working for the very large technology based company Atari. While Wozniak began trying to design a computer known as the Apple 1. Friend, Steve Jobs helped to convince Wozniak to try to sell the computer, but they were not taken very serious. They really wanted and needed to be taken serious and needed to raise capital. During the late 1970s Apple started to sell more and more computers and tried to begin expanding their business. (Sanford G., 2015)

By the 1980s Apple had introduced multiple computers and had several thousand employees. During this period a small investment such as 1000 dollars could be worth hundreds of millions of dollars today. (Sanford G., 2015)

In the 1980s sales began to increase and the company began to look for a CEO that could head them in the right direction. John Sculley was a CEO of Pepsi-Cola that was hired as the new CEO of Apple which slowly lead to the firing of Steve Jobs due to disagreements. Sales in the 1980s were so large that Apple was able to afford an advertising place in the popular sport event in America "SuperBowl". However, even though Apple started in the 1980s doing well they had a lot of ups and downs until the 1990s, when they began selling the popular PowerBooks which lead to the present day Macbooks and Macbooks Pro. (Sanford G., 2015)

Then in the 1990s, sales were unstable because Apple was forced to change many CEOs. The company lost 740 Million Dollars for the first quarter of 1996. Then in late 1996 Apple made a purchase of NeXT and decided that Steve Jobs would be returning to the

company. Also during this period Apple began selling the PowerMac G3 and the Powerbook G3. These products helped lead to the creation and development of the “Apple Store”, which quickly started to become popular. Jobs during this time had led the company to a quite profitable return from previous years with a profit of 44 million dollars in the first quarter. (Sanford G., 2015)

From then on Apple began releasing newer products which helped increase sales and the popularity of the company such as the PowerMac G4 and other software related products such as iBook. (Sanford G., 2015)

From this brief history of the earlier beginnings of Apple (from the middle 1970s to 2000) it is considered that during this period the company went through many large periods of success and failure. With large losses but also large gains, and with the coming back of one of the founders Steve Jobs, the company was definitely back on the right way. However, if an investor would invest in the company during early years such as the 1970s, when the company only started its development, and if an investor would sell it during one of the crises where the company almost went bankrupt such as in the 1990s, then this investor would lose a lot of money. Thus, if the investor had kept the stock during the crisis of the company and if he was a sort of venture capitalist and held the stock until the 2000s, during which Apple had a large growth of stock, then the investor would make a large profit on his investment. (Sanford G., 2015)

To answer the question if Apple was a good investment in the past it depends only on when the stock was purchased and when it was sold. If the investor invested in the early stages of the company and held the stock for a long time (for example until the early 2000s), then the investor would make a huge profit, which means it was a good investment. However, if the investor was a short-term investor and sold stock within a few years, it can be concluded he did not make money because of the extremely large fluctuations between.

4.2. Analysis of whether or not Apple Inc. is Currently a Good Investment

Criteria that will be analyzed to help determine the conclusion

To determine whether Apple is currently a good investment their needs to be some criteria that helps to prove whether or not a company in general is a good choice as an investment. According to the Nasdaq's official site there are seven important things to look for in a company when looking to invest.

These seven important things are:

- Chief Executive Officer (CEO)
- Business Model
- Revenue
- Net Income
- Profit Margin
- Debt to Equity Ratio
- Price to Earnings Ratio

Chief Executive Officer

The CEO of a company is arguably the most important part of a company's structure because the CEO has a lot of influence to move the company in the right or wrong direction. The CEO is like the captain of a ship, it helps to control and lead the company in times of success and times of distress. The important thing to look for are if the CEO has the right experience to lead the company. (Hudspeth, C., 2012)

Business Model

The business model of a company is similar to a map in the way that it helps give direction and strategy to the company. In some companies the model is to sell to a large audience for a competitive price, for other companies their models may be to sell to only a select few.

Other companies have anything in between and even more as their business models. This affects the company greatly because if the business model leads to success and the company starts to change the business model it could possibly be a time to either sell or buy in the company. (Hudspeth, C., 2012)

Revenue

The revenue of a company is simply the amount of money the company makes from its products or services. It's quite important because if a company shows long periods of large revenue or even better increasing revenue for long periods of time, this data can be analyzed to determine if it is likely it will continue on that path. (Hudspeth, C., 2012)

Net Income

The net income of a company is basically the amount of profit the company makes after it pays its expenses and taxes. This is basically showing if the company is able to turn a profit while still paying its liabilities. It's important to look for growth in a potential investment company. (Hudspeth, C., 2012)

Profit Margin

The profit margin is basically the percentage of what the company earns from its sales and services after its expenses are paid. It's important to look for companies that have good profit margins even in times of recession because this helps determine whether the products or services it sells are elastic or inelastic. (Hudspeth, C., 2012)

An example of profit margin is if Store ABC sells shirts for 10 dollars each, but the total cost of the shirt is 3 dollars including all the expenses, taxes etc. then the profit margin is 7 dollars.

Debt to Equity Ratio

The debt to equity ratio is used to find out how much debt the company has compared to how much equity its shareholders own. This is important because a successful company

will have low amounts of debt compared to equity. A company with less debt is also considered to be less risky. (Hudspeth, C., 2012)

Price to Earnings Ratio

The price to earnings ratio is essentially an indicator to whether the company is overpriced or not. Its useful in helping to prevent investing in a company that is overpriced and therefore not a good investment. This is calculated by comparing the stock price, to the stocks total amount of profit earned per share. A measurement that is used to compare whether a stock is over priced is the historical price to earnings ratios of 14-17. If the price to earnings ratio is between those numbers or lower its generally considered to be at a fair price. (Hudspeth, C., 2012)

Determination of whether Apple Inc. Fits these Criteria

1. Chief Executive Officer

Currently the CEO of Apple is Tim Cook. Tim has had a lot of experience in high ranking positions in companies such as starting out after finishing school with a job at IBM which he climbed the ranks to become the corporations North American fulfillment director where he managed manufacturing and distribution functions for IBMs personal computer company in North America as well as Latin America. After the high ranking 12 year career at IBM, Tim became a Chief Operation Officer (COO) at Intelligent Electronics. Shortly after a carrier there and short period of time at Compaq, Tim came to Apple to become its Chief Operational Officer which meant he was managing all the sales and operations worldwide. During the time Tim came to Apple they were having a very difficult time with large declining profits. After just one year of Tim becoming part of the company, the company began reporting profits after a horrible previous year of a net loss of 1 Billion dollars. (Hudspeth, C., 2012)

In August of 2011 Tim Cook was appointed as the CEO because of Steve Jobs' absence due to having complications with cancer. As well as being the CEO he is also on the board of directors for the company. (Hudspeth, C., 2012)

All of this can help bring a conclusion that the current CEO of Apple is a good leader. He is leading the company in the right direction and has been in times of near destruction. He is level headed and has helped Apple continue to grow. He also has lots of experience in high ranking positions in corporations so he knows how to handle an extremely large influential business such as Apple.

2. Business Model of Apple Inc.

When the founders of Apple Steve Jobs, Steve Wozniak and Ronald Wayne decided to create the technology company, their goal was to create a perfect mix of simplicity with productivity. This for them meant a complete hardware and software integration, convenience of use, and pleasant design of a device. This idea was incorporated into the companies many innovations such as the Apple 1, Apple 2, Apple 3, Macintosh, PowerBook where these simple but effective business concepts were a major success.

Apples original business model continues to a success in its many new varieties of products it offers today. Some of these products include the personal tablet also known as iPad, a portable media player known as iPod, personal phone iPhone and Apple TV. (Noren E., 2013)

Apple has tended to follow a relatively simple but very effective business strategy/model. This model consists of a few main points:

- Sales Strategies
- Simplification of Device Categories
- Integration of Hardware and Software
- Mobile Device Innovations
- iTunes

Sales Strategies

Apple has many different strategies when it comes to how it sells its products. Firstly, Apple supplies resellers with products which in turn creates profit for the company with less physical store space. Secondly, Apple company uses the manufacturer direct model that means it sells Macs to consumers through its website. Thirdly, Apple sells Macs like a traditional retailer itself through its own retail stores which amounts around 400 retail stores all around the world. This helps give a wide variety of ways to generate sales, each with their own benefits. (Noren E., 2013)

Simplification of Device Categories

Apple has known that nobody likes to have a million different difficult and confusing names when it comes to products. Having a phone called the “t301”, then next year the “o509” is much more difficult to understand to consumers rather than simple names such as the iPhone, iPad, iMac. Apple has stuck to this belief in almost all of its endeavors such as the iPhone, iPad, Mac, iPod, iTunes, as well as within its Software, services and accessories. (Noren E., 2013)

Integration of Hardware & Software

Apple's initially the most oriented and the most developed line of business are its computer hardware and software. From the first days of the company creation, the founders believed that hardware is not useful at all without its software. So when the company finished the development of own software, the company started to focus on the hardware that would have good design, high quality and usability, which represents the line of full complex technology model Mac. (Noren E., 2013)

Mobile Devices

In 1996, Apple company started to develop innovative mobile devices and tablet devices that revolutionized the market and increased the financial position of Apple. It led to record profits for the company, which in the future led to Apple being named the most expensive company in the world by market capitalization. The first product that changed

its mobile sphere was iPod music player. All music players, which were developed till 2001 by different companies, had a huge size, huge weight and competitors of Apple did not care about the design of their devices. The Apple created the iPod as an attractive and unusual, but easy to control device. The creation of iPod led to creation of iPhone product line. (Noren E., 2013)

The approach of the company to sell mobile and music devices is very similar to how company was doing it earlier by selling computers. Selling iPhones and iPods through the traditional retail channel, through own retail and web channels. Apple uses freemium business model by offering phones for free or discount in return for long-term contracts through there partners. (Noren E., 2013)

iTunes Store

The success of iTunes Store as a web mechanism for media consumption that was influenced by the linking iPods to the proprietary iTunes application. Everyone wanted the iPods, the iPods owners were using iTunes that created the most favorable conditions for the circulation in the iTunes Store. iTunes was opened as online music store with only music albums and singles, but eventually the assortment of the online music store was expanded to video, movies, television and books. (Noren E., 2013)

The iTunes store represents several innovative digital business models for Apple. All products that are sold through the store have a price markup of 30%. One of the components of this business model is that it brings regular revenue to the company through a part of the iTunes store known as the App Store. App creators have motivation to make free applications which get a lot of users and then are able to profit off of in app purchases. (Noren E., 2013)

All of these very successful business models have proven to be effective by the company and can conclude that Apple has a successful business model and is a good choice as an investment because of this.

3. Revenue and Net Profit of Apple Inc.

To evaluate the raising and decreasing of Apple's revenue and net profit, Apple Inc.'s revenue and net profit growth dynamics since the beginning of 2011 until 2015 will be analyzed.

2011

The company announced financial results for 2011 first quarter, which contains the record revenue of **26.74 billion dollars** and net profit of **6 billion dollars**, or 6.43 dollars per share. (Apple.com, 2011) To compare the revenue in same quarter in 2010 that amounts 15.68 billion dollars we can see that the revenue increased by 70%! The production of what products helped to increase the revenue of the company by a record 11 billion dollars!

The main product Apple is proud of is the iPhone. The number of this gadget amounted to 16.24 million in the quarter, which represents 86%-unit growth compared to the first quarter of 2010 year. The results of sale are pretty stable despite the expectation of the announcement of the new generation of the iPhone smartphone by potential buyers. (Apple.com, 2011)

The number of Macs sold increased compared with the first quarter of last year by 23% and amounted to 4.13 million computers which greatly contrasts with the sales of the traditional PC. Although major analyst's companies such as IDC reported a definite decrease of the interest by users to personal computers that cannot be said about Mac, because its customer numbers are increasing. The rate of growth of Apple computers exceeds the growth rate of a traditional PC in 5 times. (Apple.com, 2011)

iPad is one of the devices that drives the highest revenue of the company. The demand for the iPad is growing steadily. Compared to fourth quarter of 2010, which represented 4.19 million iPads sold, the first quarter of 2011 shows rapid increase: 7.33 million of iPads sold. (Apple.com, 2011)

During the first quarter of 2011 Apple sold 19.45 million iPods, representing a 4% growth compare to last year, which also helped to increase the revenue of the company.

(Apple.com, 2011)

“We had a phenomenal holiday quarter with record Mac, iPhone and iPad sales. We are firing on all cylinders and we’ve got some exciting things in the pipeline for this year including iPhone 4 on Verizon which customers can’t wait to get their hands on.” - Steve Jobs, Apple’s CEO (Apple.com, 2011)

2012

Festive and traditionally the most successful financial first quarter of 2012 was again a record for Apple. The company from Cupertino made an incredible income of **46.33 billion dollars** and a net quarterly profit of **13.06 billion dollars**, or 13.87 dollars per share. Interestingly, international sales accounted for 58% of the quarter’s revenue.

(Apple.com, 2012)

“We are very happy to have generated over \$17.5 billion in cash flow from operations during the December quarter. Looking ahead to the second fiscal quarter of 2012, which will span 13 weeks, we expect revenue of about \$32.5 billion and we expect diluted earnings per share of about \$8.50.” - Peter Oppenheimer, Apple’s CFO (Apple.com, 2012)

iPhone becomes the main source of income for Apple: during the holidays 37.04 million smartphones were sold, which showed a 128% increase compared to first quarter 2010 and almost 2 times exceeded the result of the most successful third quarter of 2011. In monetary terms, these staggering indicators correspond 24.4 billion dollars – that is nearly 53% of total revenue of the company! (Apple.com, 2012)

iPad is the second source of revenue for Apple that brings to the company 9.15 billion dollars during this quarter helping to make Apples record revenues. The Cupertino company reported the sale of 15.43 million tablets, which is 39% more compared to the last reporting period and 111% higher than the first quarter of 2011. (Apple.com, 2012)

For the first fiscal quarter of 2012 Apple sold 5.2 million of Macs, it is 26% more than it was last year, and 15.4 million of iPods, which is a 21%-unit decline compared to the last year. (Apple.com, 2012)

2013

Another report of Apple about the results of the company in the first financial quarter of 2013 did not bring any surprises, because the company traditionally informs about its records almost every quarter in the last few years. The company had record revenues of **54.5 billion dollars** and net profit of **13.1 billion dollars**, or 13.81 dollars per share. The major markets for the company became USA and Europe that increased the revenue by 20.3 billion and 12.5 billion, but more than 60% of revenue was provided by international sales. (Apple.com, 2013)

The company sold a record 47.8 million iPhones in the first quarter, compared to 37 million smartphones sold in the same quarter last year that means the increase of sale by 29%. In monetary terms, these staggering indicators correspond 30.7 billion dollars – that is nearly 56% of total revenue of the company! (Apple.com, 2013)

Apple also sold a record 22.9 million iPads during the quarter, compared to 15.4 million in the first quarter 2012, which shows the increase of sale by 48%. The iPad has increased the company's revenue by 10.7 billion dollars. (Apple.com, 2013)

The Company sold only 4.1 million Macs, compared to 5.2 million in first quarter of 2012. The iPods sale is not impressive too: only 12.7 million iPods, compared to 15.4 million in the last year quarter. (Apple.com, 2013)

2014

The first quarter of 2014 is the most successful for Apple compared to recent years. The company announced a record revenue of **57.6 billion dollars** and net profit of **13.1 billion dollars**, or 14.50 dollars per share. (Apple.com, 2014) Compared to the same quarter last year revenue grew by 6%! Net profit did not change, the price per share increased by 2% from the last year. The major markets for the company continue to be USA and Europe

that increased the revenue of the company by 20 billion and 13.1 billion, and the revenue provided by international sale increased by 3% from last year (63%). (Apple.com, 2014)

iPhone and iPad sales drove record revenues in 2014. The Company sold a record 51 million iPhones, compared to 47.8 million in the same quarter in the previous year which shows the growth of sale by 7%. iPhone brings 32.5 billion dollars to Apple, it is more than 56% of total revenue of the company! Apple also sold a record 26 million iPads during the quarter, compared to 22.9 million in the year-ago quarter, which shows the growth of sale by 14%. iPad increases the revenue of Apple by 11.5 billion dollars. (Apple.com, 2014)

The sale of Macs increased in this quarter, the company sold 4.8 million models, compared to 4.1 million last year quarter, which raised the revenue by 19%. (Apple.com, 2014)

“We are really happy with our record iPhone and iPad sales, the strong performance of our Mac products and the continued growth of iTunes, Software and Services. We love having the most satisfied, loyal and engaged customers, and are continuing to invest heavily in our future to make their experiences with our products and services even better.” - Tim Cook, Apple’s CEO (Apple.com, 2014)

2015

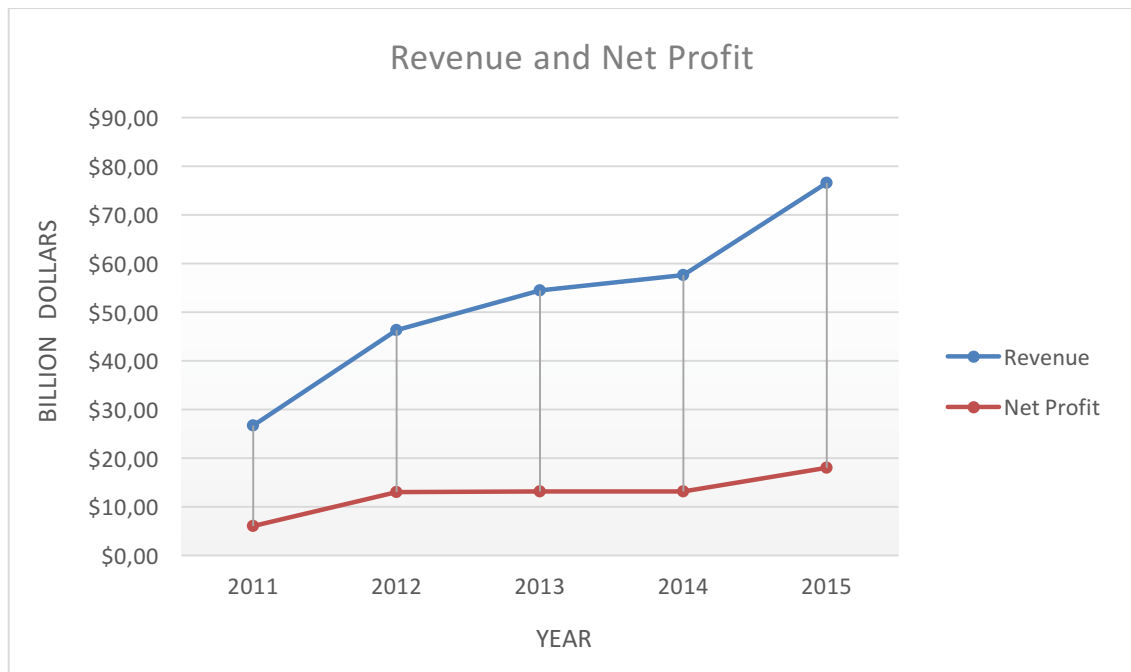
The company from Cupertino has reported an absolute record for all history of its existence: its quarterly revenues reached an incredible **74.6 billion dollars** and net profit is **18 billion dollars**, or 3.06 dollars per share. The highest-ever revenue and earnings drive a 48% increase in EPS. The results were fueled by an all-time record revenue from iPhone and Mac sales as well as record performance of the App Store. iPhone unit sales of 74.5 million also set a new record, which increased by 90% compared to year-ago quarter, and bring to the company’s revenue 51.18 billion dollars. (Apple.com, 2015)

From 2015 Apple does not reports the results about iPod and added to the report two new categories: services (iTunes Store, App Store, etc.) and other products, which included the income from the sales of Apple TV, Beats Electronics products, etc. The “Services” have

brought the company 4.8 billion dollars and the “Other products” – 2.7 billion dollars. (Apple.com, 2015)

The major markets for the company continue to be the USA and Europe. These markets have increased the revenue of the company by 30.6 billion and 17.2 billion, and international sale increased by 2% from last year (65%). But the most impressive results showed mainland China - the region increased the Apple’s revenue by 16.1 billion dollars. (Apple.com, 2015)

Figure 1: Revenue and Net Profit of Apple Inc.: year 2011-2015



Source: Own figure based on data from Apple.com (2011-2015)

An interesting fact: Apple set an all-time quarterly high maximum among all ever existed commercial companies, outperforming even major oil and gas giants. (Apple.com, 2015)

As the data has shown, Apple has been increasing its revenue and net profit for the past few years, therefore we can conclude from this point of view it is a good choice as an investment currently.

4. Profit Margin

Apple is notorious for many things but one of its greatest is its profit margin. It almost always manages to keep an impressive profit margin and wow investors. However, it is not always like this as is in the case with the peak in 2012 with a profit margin of a whopping 47% after which the company introduced the iPad mini and the redesigned iPhone 5 put a lot of pressure on this high standard of profit margin. These releases along with increased production costs sent the profit margin down to 38%. While this was obviously not good at the time, even at that low point of 38% that is still a very significant profit margin and is quite respectable. (Sparks D., 2016)

Along with the decrease in profit margin came Apples stock price as well as seen below:

Figure 2: Stock Prices of Apple Inc.: year 2011- 2016



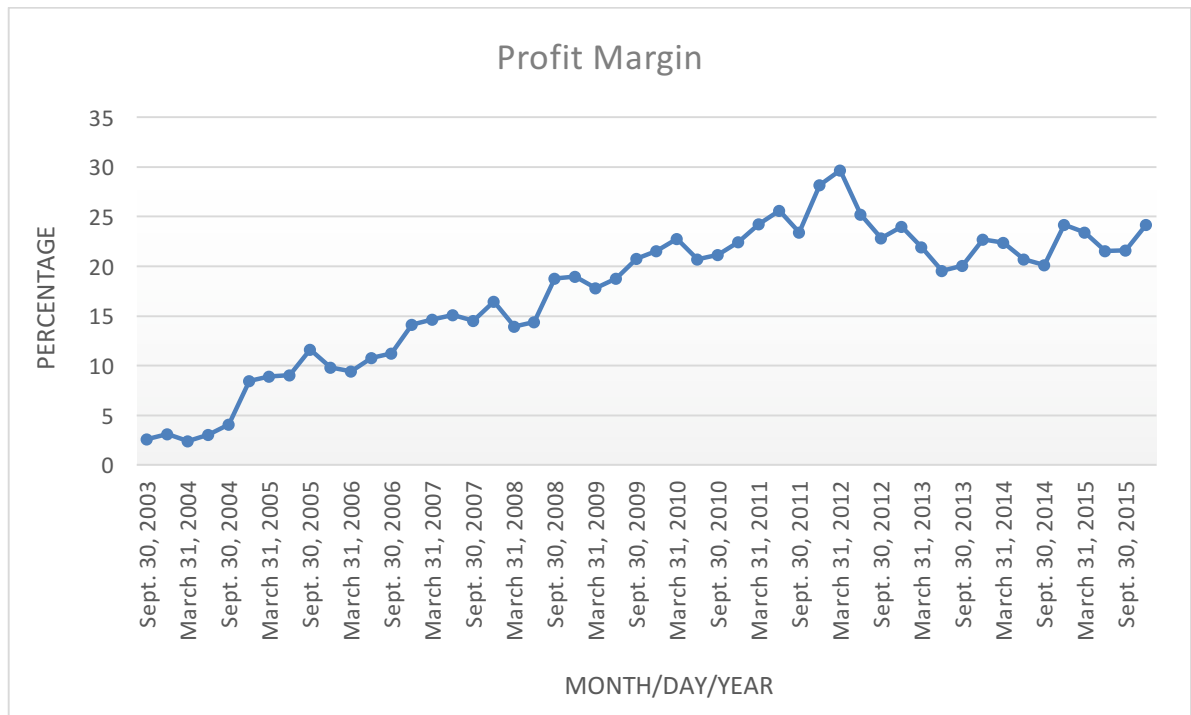
Source: Sparks D. (2016)

However even with a drop like this which is quite unusual for Apple it still maintains to make a strong comeback with everything such as profit margin.

In 2014 when Apple introduced its new phone the iPhone 6 and iPhone 6+ they increased their starting price as well as increasing storage capacity for even higher purchase prices and customers still were willing to pay the higher prices. This strong loyalty has helped Apple maintain large profits for a large majority of existence. In 2015 with the iPhone 6 and 6+ still being for sale, iPhone sales increased 46% and iPhone revenues increased 57%. (Sparks D., 2016)

In the figure below, some previous year's profit margins proving that although sometimes the profit margins dip slightly they still have maintained an upward trend.

Figure 3: Profit Margin of Apple Inc.: year 2003-2015

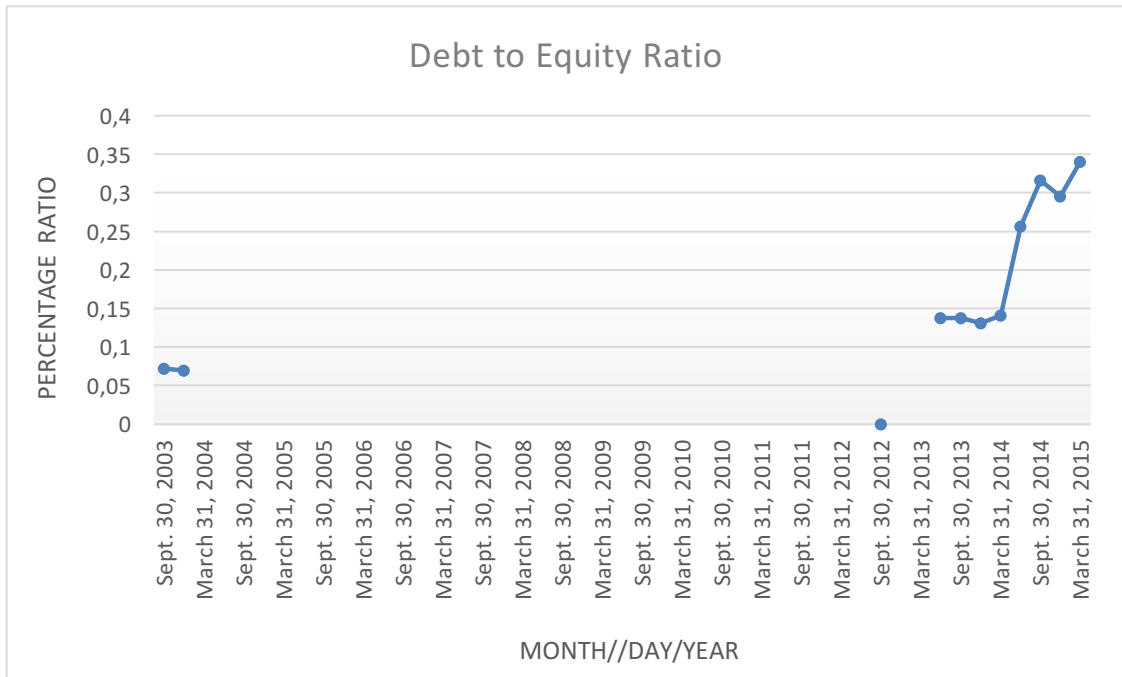


Source: Own figure based on data from Ycharts.com (2015)

Although Apple has maintained a respectable profit margin, for the years 2003 until about 2012, from 2013 to the present day it has increased and decreased but in the span on the past few years it has not had consistent growth. According to the criteria set earlier, this would lead to the conclusion that Apple is not a good investment based on this.

5. Debt to Equity Ratio

Figure 4: Debt to Equity Ratio of Apple Inc.: year 2003-2015



Source: Own figure based on data from Ycharts.com (2015)

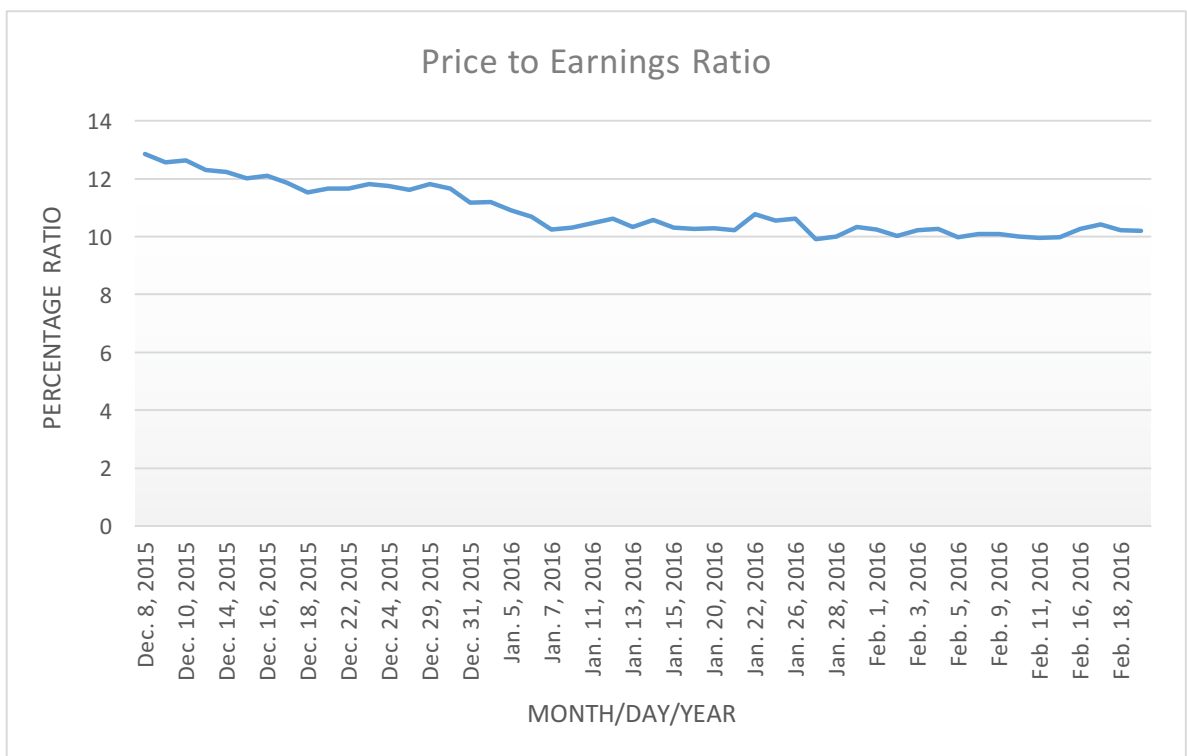
*Please note that the reason for the large gap between data is simply because during this period no data was provided.

As shown above it appears that the debt to equity ratio is quite high and has been that way for the past few years. This can lead to the conclusion that according to the debt to equity ratio of Apple, its not a good investment.

6. Price to Earnings Ratio

According to the earlier analysis of what is considered a good Price to earnings ratio, of between 14 and 17, the ratios for the past few months can be considered fair (because they are below that range). Therefore, it can be concluded that according to the price to earnings ratio Apple is a good investment currently.

Figure 5: Price to Earnings Ratio of Apple Inc.: year 2015-2016



Source: Own figure based on data from Ycharts.com (2016)

4.3. Final Results from Analysis

Results from Past Analysis

To answer the question if Apple was a good investment in the past it depends only on when the stock was purchased and when it was sold. If the investor invested in the early stages of the company and held the stock for a long time (for example until the early 2000s), then the investor would make a huge profit, which means it was a good investment. However, if the investor was a short-term investor and sold stock within a few years, it can be concluded he did not make money because of the extremely large fluctuations between.

Results from Present Analysis

These seven important things that were analyzed were:

- Chief Executive Officer (CEO)
- Business Model
- Revenue
- Net Income
- Profit Margin
- Debt to Equity Ratio
- Price to Earnings Ratio

CEO

All of this can help bring a conclusion that the current CEO of Apple is a good leader. He is leading the company in the right direction and has been in times of near destruction. He is level headed and has helped Apple continue to grow. He also has lots of experience in high ranking positions in corporations so he knows how to handle an extremely large influential business such as Apple.

Business Model

All of these very successful business models have proven to be effective by the company and can conclude that Apple has a successful business model and is a good choice as an investment because of this.

Revenue/Net Income

As the data was analyzed it was concluded that Apple has been increasing its revenue and net profit for the past few years, therefore we can conclude from this point of view it is a good choice as an investment currently.

Profit Margin

Although Apple has maintained a respectable profit margin, it has not maintained growth. This leads to the conclusion that according to profit margins, Apple is not a good company to invest in.

Debt to Equity Ratio

As the data was analyzed, the debt to equity ratio is quite high and has been that way for the past few years. This can lead to the conclusion that according to the debt to equity ratio of Apple, its not a good investment.

Price to Earnings Ratio

According to the analysis of what is considered a good Price to earnings ratio, of between 14 and 17, the ratios for the past few months can be considered fair (because they are below that range). Therefore, it can be concluded that according to the price to earnings ratio Apple is a good investment currently.

Final Result

Out of 7, 5 analysis concluded in Apple being a good choice as an investment currently and 2 said not. Therefore, we can conclude that because more said it was a good investment, it is a good investment currently.

5. Main Findings

Apple Inc. attracts both customers and investors. This was proven when the corporation's market capitalization was analyzed, because it was found that in the beginning of 2015, when Apple stock increased to 122 dollars per share and Apple's market capitalization level reached 710 billion dollars – it was the largest closing value ever among corporations.

Results of the conducted analysis whether or not Apple Inc. a good investment in past suggested that it depends almost solely on when the stock was purchased and when it was sold. If the investor invested in the early stages of the company and held the stock for a long time (for example until the early 2000s), then the investor would make a huge profit, which means it was a good investment. However, if the investor was a short-term investor and sold stock within a few years, it can be concluded he did not make money because of the extremely large fluctuations between.

The results of the analysis of whether or not Apple Inc. is a good investment currently, it was necessary to analyze 7 important things of the company: the Chief Executive Officer (CEO), the business model, revenue, net income, profit margin, the debt to equity ratio, and price to earnings ratio. After these criteria were analyzed, it was found that out of 7 criteria, 5 were concluded in Apple being a good choice as an investment currently and only 2 were concluded not. Therefore, we can conclude that because more said it was a good investment, it is currently a good investment.

6. Conclusion

This bachelor thesis should have assisted the reader in becoming more informed about the topical issue of Apple Stock, specifically about its stock as well as learn important information about the economics and concepts that are connected with stock. Also, the reader was given information in the analytical section and hopefully became convinced on whether or not to invest in Apple. Ideally, these conclusions by the reader were be consistent with the author's conclusions.

7. References

LITERATURE

Berdnikova, T. (2003). *The Valuation of Securities*.

Kolmykova, L. (2006). *Fundamental Analysis of Financial Markets*.

Murphy, J. and Murphy, J. (1999). *Technical analysis of the financial markets*. New York: New York Institute of Finance.

Segall, K. (2013). *Insanely Simple: The Obsession That Drives Apple's Success Paperback*.

ONLINE SOURCES

ABCs of Investing, (2008). *Stock Market Index*. [online] Available at:

<http://www.abcsinvesting.net/stock-market-index-dow-jones/> [Accessed 2 Mar. 2016].

Apple.com, (2016). *Apple - Press Info - Apple Reports First Quarter Results*. [online]

Available at: <https://www.apple.com/pr/library/2011/01/18Apple-Reports-First-Quarter-Results.html> [Accessed 29 Feb. 2016].

Apple.com, (2016). *Apple - Press Info - Apple Reports Record Fourth Quarter Results*.

[online] Available at: <http://www.apple.com/pr/library/2015/10/27Apple-Reports-Record-Fourth-Quarter-Results.html> [Accessed 29 Feb. 2016].

Bajarin, T. (2012). *6 Reasons Why Apple Is Successful*. [online] TIME.com. Available at:

<http://techland.time.com/2012/05/07/six-reasons-why-apple-is-successful/> [Accessed 29 Feb. 2016].

Business.nasdaq.com, (2016). *The Nasdaq Story: History, Business, Awards*. [online]

Available at: <http://business.nasdaq.com/discover/nasdaq-story> [Accessed 29 Feb. 2016].

Dummies.com, (2016). *How Do Indexes Measure the Stock Market? - For Dummies*.

[online] Available at: <http://www.dummies.com/how-to/content/how-do-indexes->

measure-the-stock-market.html [Accessed 2 Mar. 2016].

Hudspeth, C. (2012). *The 8 Most Important Facts To Know About A Company Before You Invest*. [online] NASDAQ.com. Available at: <http://www.nasdaq.com/article/the-8-most-important-facts-to-know-about-a-company-before-you-invest-cm201502> [Accessed 1 Mar. 2016].

Investopedia, (2003). *Stocks Basics: What Are Stocks?* | *Investopedia*. [online] Available at: <http://www.investopedia.com/university/stocks/stocks1.asp> [Accessed 29 Feb. 2016].

Investopedia, (2006). *Technical Analysis: Fundamental Vs. Technical Analysis* | *Investopedia*. [online] Available at: <http://www.investopedia.com/university/technical/techanalysis2.asp> [Accessed 29 Feb. 2016].

Money.cnn.com, (2016). *DJIA - Dow Jones Industrial Average - CNNMoney*. [online] Available at: <http://money.cnn.com/data/markets/dow/> [Accessed 2 Mar. 2016].

Newworldencyclopedia.org, (2015). *New York Stock Exchange - New World Encyclopedia*. [online] Available at: http://www.newworldencyclopedia.org/entry/New_York_Stock_Exchange [Accessed 29 Feb. 2016].

Noren, E. (2013). *Digital Business Models*. [online] Digitalbusinessmodelguru.com. Available at: <http://www.digitalbusinessmodelguru.com/> [Accessed 29 Feb. 2016].

Prochazka, P. (2016). *Moodle 2.5 - (CULS)*. [online] Moodle.czu.cz. Available at: <http://moodle.czu.cz/> [Accessed 29 Feb. 2016].

Rawlinson, N. (2016). *The story of Apple, 1976-2016: It's time to brush up on your history*. [online] Macworld UK. Available at: <http://www.macworld.co.uk/feature/apple/history-of-apple-steve-jobs-what-happened-mac-computer-3606104/> [Accessed 29 Feb. 2016].

Sanford, G. (2015). *apple-history.com / company history: 1976-1981*. [online] Apple-history.com. Available at: <http://apple-history.com/h1> [Accessed 3 Mar. 2016].

- Schick, K. (2003). *An Introduction To Stock Market Indexes* | *Investopedia*. [online] Investopedia. Available at: <http://www.investopedia.com/articles/analyst/102501.asp> [Accessed 2 Mar. 2016].
- Sparks, D. (2016). *Will Apple, Inc.'s Gross Profit Margin Continue Upward in 2016? -- The Motley Fool*. [online] The Motley Fool. Available at: <http://www.fool.com/investing/general/2016/01/23/will-apple-incs-gross-profit-margin-continue-upwar.aspx> [Accessed 29 Feb. 2016].
- Stock-market.laws.com, (2015). *Nasdaq Stock Market - Stock Market* | *Laws.com*. [online] Available at: <http://stock-market.laws.com/nasdaq-stock-market> [Accessed 29 Feb. 2016].
- World Finance, (2016). *Primary vs. Secondary Market*. [online] Available at: <http://finance.mapsofworld.com/capital-market/primary-vs-secondary.html> [Accessed 29 Feb. 2016].
- Ycharts.com, (2015). *Apple Debt to Equity Ratio (Quarterly) (AAPL)*. [online] Available at: https://ycharts.com/companies/AAPL/debt_equity_ratio [Accessed 29 Feb. 2016].
- Ycharts.com, (2015). *Apple Profit Margin (Quarterly) (AAPL)*. [online] Available at: https://ycharts.com/companies/AAPL/profit_margin [Accessed 29 Feb. 2016].
- Ycharts.com, (2016). *Apple PE Ratio (TTM) (AAPL)*. [online] Available at: https://ycharts.com/companies/AAPL/pe_ratio [Accessed 1 Mar. 2016].