Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics

Diploma Thesis

Financial analysis of Apple Inc.

Alina Vishnevskaya

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

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DIPLOMA THESIS ASSIGNMENT

Bc. Alina Vishnevskaya

Business Administration

Thesis title

Financial Analysis of Apple Inc.

Objectives of thesis

The main theme of this diploma thesis is a Financial Analysis of Apple Inc, which is one of the famous American multinational companies in technology industry and ranked first by market capitalization in the world. The work will focus on the effectiveness of the financial and economic activity of the company in the current market.

Methodology

The diploma thesis divided into theoretical and practical parts. The first part defines fundamental terms, theory and methods of financial analysis, which information is needed to prepare suitable analysis. The second part describes company profile, industry analysis and particularly focuses on implementation of financial analysis of Apple Inc.

The proposed extent of the thesis

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Keywords

Apple Inc., Financial analysis, balance sheet, income statement, liquidity, profitability, ROA, ROE, SWOT analysis, financial indicators, vertical analysis, horizontal analysis

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The Diploma Thesis Supervisor

Ing. Karel Malec, Ph.D.

Supervising department

Department of Economics

Electronic approval: 8. 3. 2017

prof. Ing. Miroslav Svatoš, CSc.

Head of department

Electronic approval: 9. 3. 2017

Ing. Martin Pelikán, Ph.D.

Dean

Prague on 11. 03. 2017

Declaration

I declare that I have worked on my diploma thesis on topic "Financial analysis of Apple Inc." by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any third person.

In Prague_____ _____

Signature

Acknowledgment

I would like to thank my supervisor Ing.Karel Malec, Ph.D. for his expert suggestions, recommendations, assistance and comments, which contributed to improve my diploma thesis.

Further acknowledgement belongs to my mother for supporting me throughout my education.

Vishnevskaya Alina

Financial analysis of Apple Inc.

Finanční analýza Apple Inc.

Souhrn

Tématem diplomové práce je finanční analýza společnosti Apple Inc., která je jednou z vedoucích nadnárodních společností v technologickém průmyslu a podle velikosti tržní kapitalizace se umístila na prvním místě. Práce je zaměřena na vyhodnocení finanční a hospodářské efektivnosti firmy na současném trhu. Práce je logicky rozdělená na dvě části: teoretickou a praktickou. Teoretická část je věnována definicím základních pojmů, teoriím a metodám finanční analýzy. V praktické části je popsán profil společnosti, významná část je věnována detailní finanční analýze Apple Inc. Pro analýzu je použito několik základních metod, které se používají pro výpočet finančních ukazatelů. Jedná se o horizontální a vertikální analýzu účetních výkazů společně s výpočty poměrových ukazatelů jako například ukazatele rentability, likvidity, aktivity, zadluženosti atd. Pro výpočty jsou použity základní účetní výkazy: rozvaha a výkaz zisku a ztráty. Práce se také zabývá interpretací spočítaných ukazatelů a silnými a slabými stránkami analyzované společnosti.

Klíčová slova: Finanční analyzá, ROA, ROE, rozvaha, likvidita, rentabilita, výkaz zisků a ztráty, finanční ukazatele, horizontální a vertikální analýza. Apple Inc.

Summary

The theme of this diploma thesis is Financial Analysis of Apple Inc., which is one of the leading multinational corporations in technology industry and ranked first by market capitalization in the world. The work is focused on the evaluation of the financial and economic efficiency of the company on the market today. Work is logically divided into two sections: theoretical and practical. The theoretical part is devoted to definitions of basic concepts, theories and methods of financial analysis. The practical part describes the profile of the company, where significant part is devoted to a detailed financial analysis of Apple Inc. For analysis, several basic methods are used to calculate key financial ratios. Horizontal and vertical analysis of financial statements, together with the calculation of ratios as indicators of profitability, liquidity, activity, debt etc. are used for the complex analysis of basic financial statements: the balance sheet and the profit and loss statement. The work also deals with the interpretation of calculated indicators and the strengths and weaknesses of the analyzed company.

Keywords: Financial analysis, ROA, ROE, balance sheet, liquidity, profitability, income statement, financial indicators, vertical and horizontal analysis, Apple Inc.

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Introduction

Each entity in a market economy is forced to create a competitive environment in its position. To create competitive advantage, it is necessary to analyze the company from many perspectives. Financial analysis is one of the fundamental aspects for the assessment of the financial health of the business. Regular creation of financial analysis is essential especially for the owners, the management, but also for external entities. In literature a concept of financial analysis is explained as follows:

"*The process of evaluating financial and other information for decision-making"*[1]

The main source of information for financial analysis are the financial statements of companies, as like as income statement, cash flow and balance sheet, of which it is necessary to recognize main indicators of the financial situation of the company, and establish appropriate criteria for evaluation. The time series of such information should be at least three years, but informative enough to be considered a five-year period. On the basis of various indicators can assess in which areas the company is prospering, and where it reaches weaker results.

This thesis is focused on evaluating the financial situation of selected company "Apple Inc.", in the period 2014-2016. The analyzed company operates in the sector of technology.

[1] THE UNIVERSITY OF TEXAS AT DALLAS. *What is Financial Analysis* [online] [cit. 2014-07-10]. Available from: http://www.utdallas.edu/~andersmc/6344/Chapter%201.pdf.

Objectives and Methodology

Objectives

The main theme of this diploma thesis is evaluate financial situation of Apple Inc., in years 2013-2016. Apple Inc. is one of the famous American multinational companies in technology industry and ranked first by market capitalization in the world. The work will focus on the effectiveness of the financial and economic activity of the company in the current market.

Methodology

The diploma thesis divided into theoretical and practical parts. The first part defines fundamental terms, theory and methods of financial analysis, which information is needed to prepare suitable analysis. The second part describes company profile, industry analysis and particularly focuses on implementation of financial analysis of Apple Inc.

In this diploma thesis I used following formulas for analyze Apple Inc.:

- $Assets = Liabilities$ + Equity (1)
- $AbsoluteChange = X(n) - X(n-1)$ (2)
- $PercentageChangeX = \frac{AbsoluteChangeX}{X(n-1)} * 100$ (3)
- $The\ share\ of\ individual\ items(\%) = \frac{balance\ sheet\ items(income\ statment\ items)}{total\ assests\ or\ liabilities\ equity(revenue)} \times 100$ (4)
- $Currentratio = \frac{Current\ Assets}{Current\ Liabilities}$ (5)
- $Currentratio = \frac{Cash+Accounts\ receivables+Short-terminvestment}{Current\ Liabilities}$ (6)
- $QuickRatio = \frac{CurrentAssets-Inventories}{Current\ Liabilities}$ (7)
- $CashRatio = \frac{Cash+Shortterm\ Investment}{Current\ Liabilities}$ (8)
- $ROA = \frac{EBIT}{Total\ Assets}$ (9)
- $ROE = \frac{Net\ Income}{Stockholders\ Equity}$ (10)
- $ROS = \frac{Net\ Income}{Net\ Sales}$ (11)

- $Gross\ Profit\ Margin = \frac{Profit\ before\ tax}{Sales}$ (12)
- $Net\ Profit\ Margin = \frac{Profit\ after\ tax}{Sales}$ (13)
- $Assets\ Turnover\ Ratio = \frac{Sales}{Total\ Assets}$ (14)
- $Inventory\ Turnover\ Ratio = \frac{Cost\ of\ Good\ Solf}{Average\ Inventories}$ (15)
- $Receivables\ Turnover\ Ratio = \frac{Revenues}{Account\ receivables}$ (16)
- $Accounts\ payable\ turnover = \frac{Purchases}{Accounts\ payable}$ (17)
- $Payable\ Turnover\ Period = \frac{Accounts\ Payable\ Turnover}{Revenues/365days}$ (18)
- $Debt\ Ratio = \frac{Total\ Liabilities}{Total\ Assets}$ (19)
- $Equity\ Ratio = \frac{Equity}{Total\ Assets}$ (20)
- $Interest\ coverage = \frac{EBIT(\text{earnings before interest and taxes})}{Interest\ expense}$ (21)
- $P/E = \frac{Market\ Price\ of\ Stock}{Earnings\ per\ Share}$ (22)
- $Earning\ per\ Share = \frac{Net\ Income\ to\ Common\ Stockholders}{Weighted\ Avareges\ Shares\ Outstanding}$ (23)
- $Dividend\ yield = \frac{Dividend\ per\ share}{Stock\ Price} * 100$ (24)
- $Book\ value = \frac{Equity}{number\ of\ ordinary\ shares}$ (25)
- $1{,}2\ A + 1{,}4\ B + 3{,}3\ C + 0{,}6\ D + 1{,}0\ E$ (26)

Theoretical part

The first part of this master thesis will be devoted to the theoretical part. I will first focus on the definition of the financial analysis, its goals, users and data. Afterwards, I will represent different kinds of financial analysis based on data taken for comparison (vertical and horizontal). Besides, I will mention financial ratios and indicators, its structure and aim, as these are crucial for the financial analysis.

1. Principle of Financial analysis

Financial analysis is one of the most important activities in business management and is used for comprehensive assessment of the financial situation of the company. Financial analysis can evaluate past, present, and also, based on the results obtained, it is possible to predict future developments in the financial conditions of the company. The essence of the analysis of data obtained from the financial statements, serves for future financial decisions on company management. The main objective of financial analysis is the evaluation of the strengths and weaknesses of the company, which should in future pay more attention and possibly try to eliminate weaknesses. Management should have a greater emphasis on a strong site, which can later be used by the company for the future development.

Since it is the financial analysis that is a necessary part of financial management, it should be carried out continuously and regularly. Enterprise will become more flexible and able to react faster to changes in its environment.

It is also necessary to point out that the financial analysis does not fall solely and only to financial management, but it also has an impact on the company as a whole. For example, it is part of the marketing SWOT analysis, and has a significant effect on many other decision-making processes that take place in the company.[2]

[2]RŮČKOVÁ, Petra. *Finanční analýza: metody, ukazatele, využití v praxi*, s. 11

The goals of financial analysis are:

- assess the impact of internal and external environment;
- analyze the current development of the company;
- provide users of financial analysis information for decision making in the future;
- compare the results of the analysis in space.

2. Information sources of financial analysis

The potential and the success of financial analysis depends on the quality of information resources. Valuable managerial and economic decisions should be based on the knowledge that can be gained from the data analysis. These data provide the basis for execution of sequential steps of financial analysis. These steps include rank analysis methods, analysis, interpretation of results, mergers and formulation of results and conclusions.[3]

The basic source of information for financial analysis of the company's financial statements are income statement, balance sheet, statement of cash flow and statement of changes in equity. Annual reports, senior management, auditors' reports and commentaries trade press can be used as additional sources of valuable information that can be applied in the processing of financial analysis[4].

Balance sheet

The balance sheet is among the basic financial statements. Captures all property owned by the company (Assets), everything that company owes to others (Liabilities) and Stockholders' equity (Equity or Net worth). The structure of assets is also known as ownership structure of the company. Balance sheet is a view of a firm´s position at a specific point of time, usually end of quarter or fiscal year. Liabilities of the company consist of the company's capital structure, which is funded by assets, also called financial structure.

The basic relationship between them the balance sheet is the principle of equality, which can be expressed as:

[3] PEŠKOVÁ, R., JINDŘICHOVSKÁ, I. *Finanční analýza*. Praha: Vysoká škola ekonomie a management, 2012. ISBN 978-80-86730-89-9

[4] GRÜNWALD, R., HOLEČKOVÁ,J. *Finanční analýza a plánování podniku*. Praha: Ekopress, s. r. o., 2007, 318 s. ISBN 978-80-86929-26-2

$$Assets = Liabilities + Equity \quad (1)$$

The Structure of a Balance Sheet:

Total Assets

- Fixed assets
  - ❖ Long-term intangible assets (research and development, valuable rights, software, goodwill)
  - ❖ Long-term tangible assets (land, buildings, machinery and equipment)
  - ❖ Long-term financial assets (investments, securities)
- Current assets
  - ❖ Inventories (material, unfinished production, products, animals, goods)
  - ❖ Long/short-term receivables (customers, VAT, tax receivables, receivables to employees)
  - ❖ Financial assets (cash, bank accounts)
- Accruals (deferred expense, accrued revenues)

Liabilities and Equity

- Equity
  - ❖ Registered capital
  - ❖ Capital and Reserve funds
  - ❖ Profit/loss from previous year
  - ❖ Profit/loss from the current year
- External resources
  - ❖ Reserves
  - ❖ Long/short-term payables
  - ❖ Bank loans
- Accruals (accrued expenses, deferred income)

Income statement

The second financial statement is the Profit and Loss statement or Income statement. Income statement is presented according to the Accounting Act. Unlike the sheet, it is a statement that refers to a specific time interval. Profit and loss report includes revenues and expenses as well as informs about the economic outcome for the reporting and the previous period. An entity may choose between the two forms horizontal and vertical. In horizontal form revenues and expenses are placed separately, while in vertical form revenues and expenses are allocated to each other by area of activity. We can subdivide revenues and expenses into three subgroups. These are revenues and expenses from:

- Operating activity
- Financial activity
- Extraordinary activity

Cash Flow

The third statement is a statement of the cash flow, which contains the information about the income and expenditure for the financial year i.e. how the company spent and how it gained its revenue. Similarly to the income statement a statement of the cash flow is also a variable that enables better analysis of the enterprise. Due to this statement we get information about, for example, why the company does not pay the bills, although it is profitable, or why the company showed a loss, although it has enough money etc. Cash flow is composed of three parts - revenue and expenses from operating activities, investing activities and financial activities.

1. Cash flow from operating activities

Cash flow from operating activities is connected to the primary business activity of corporation. It includes the production, sales and delivery of a product/service and receiving payments from the customers. For example, such cash movements as purchasing raw materials, advertising a product/service, shipping or receiving payment from a customer would be stated as operating cash flow.

2. Cash flow from investing activities

"Investing activities are the acquisition and disposal of long-term assets and other investments not included in cash equivalents".[5] In other words, purchase or sale of an asset (lands, buildings, equipment, marketable securities and so on), as well as loans received and offered are considered to be an investing activity and are stated in a cash flow statement under this headline.

3. Cash flow from financial activities

"Financing activities are activities that result in changes in the size and composition of the contributed equity and borrowings of the equity".[6] It can include cash inflow from shareholders and investors in the first place, also cash outflow in a form of dividends, when a company makes a profit. Some other activities as long-term borrowings, repurchasing of a company's stock etc. are also listed in the financing activities section if the cash flow statement.

The cash flow can be created according to two methods – the direct and the indirect method. The direct method compares the incomes and the expenses for the given time period. The basis for the indirect method is the profit of the period that is modified by the difference of the incomes and revenues and the expenses and costs. The indirect method is nowadays used more often than the direct method.[7]

3. Users of Financial analysis

Information about the financial health of the company used not only by executives and senior management. Users can be divided into:

- **External users** - is based on publicly available financial and accounting information. The result of external analysis of the information about the prospects enterprise and its possible development in the future.

- **Internal users** - analysis of company management. Internal analyst has all information available to financial, managerial or internal accounting.

[5] IAS 7, Statement of Cash Flows, http://www.ifrs.org/documents/ias7.pdf
[6] IAS 7, Statement of Cash Flows, http://www.ifrs.org/documents/ias7.pdf
[7] RŮČKOVÁ, P. *Finanční analýza: metody, ukazatele, využití v praxi*. Praha: Grada, 2010. ISBN 978-80-247-3308-1

Government and institution

The government mostly focused on checking the reported tax and also uses information on business for various statistical surveys, the distribution of grants and subsidies, control of the company with state participation and monitoring the financial health of companies, which were within tender entrusted to government contracts.

Investors

Investors or capital providers use reports on financial performance undertaking primarily to get sufficient information for deciding on the possible investments. Monitor levels of risk and returns associated with their embedded capital. Further obtain information about how the company manages funds that had inserted.[8]

Banks and other creditors

Creditors need to have as much information about the financial status of the future as potential debtor to be able to properly decide whether to grant a loan, how much and under what conditions. Before granting a loan the bank assesses the creditworthiness of the borrower. Credit rating of the company is carried out on the basis of analysis of its financial indicators and decisions are made by taking into account different factors. In the medium and long term loans, the investment project for which the loan is required to be evaluated independently. For short-term loan the emphasis is on the analysis of liquidity, i.e. comparing current assets and current liabilities.[9]

Business partners

They focus mainly on whether the enterprise is able to settle its obligations. They are interested mainly in short-term prosperity, solvency and liquidity. For long-term suppliers plays an important role and corporate stability. From the perspective of consumers, it is important to monitor the status of the partner firm to bankruptcy when the supplier had no problem securing themselves with their own production.

[8] VOCHOZKA, M. *Metody komplexního hodnocení podniku*. Praha: Grada, 2011. ISBN 978-80-247-3647-1.
[9] GRÜNWALD, R. HOLEČKOVÁ, J. *Finanční analýza a plánování podniku*. Praha: Ekopress, 2007. ISBN 978-80-86929-26-2

Managers

Managers make decisions apart from publicly available documents use and internal documents. Information from them then used the long-term and operational management. This information allows the creation of feedback between management decisions and its practical consequences. Perfect knowledge of the financial situation of the company plays an irreplaceable role in the decisions of managers about how to obtain financial resources in the best possible way. It is also important in maintaining optimal ownership structure, including selection of appropriate method of financing, the distribution of disposable income, or in the allocation of available funds.

Strengths and weaknesses of the financial management can be revealed from evaluation of the financial analysis. Business managers can adopt the most appropriate conclusion for the following business period, which is further elaborated in the financial plan. Managers also use the information obtained from financial analysis for the exploration of competitors or business partners, regardless of whether it is a supplier or customer.[10]

Competitors

Another user of financial analysis is the competing companies that compare their own results with the results of companies in the common market. The aim is to keep ahead of the competition or, on the contrary it tries to catch up. The main subject of their interest then they are about liquidity, profitability, sales, inventory etc. competitors.[11]

Employees

Employees should be interested in long-term success and financial stability of the company in which they are working in. Their main interest is security of work and possibilities in wage and social benefits.

[10]RŮČKOVÁ, P. a ROUBÍČKOVÁ, M. *Finanční management. 1. vyd.* Praha: Grada, *2012, 290 s. ISBN 978-80-247-4047-8*

[11] MULAČOVÁ, V. a MULAČ, P. *Obchodní podnikání ve 21. století*. 1. vyd. Praha: Grada, 2013, 520 s. Finanční řízení. ISBN 978-80-247-4780-4

4. Approaches to financial analysis

There are two different approaches for evaluation of economic processes through financial analysis in economics[12]. These are:

- Fundamental (qualitative) analysis
- Technical (quantitative) analysis

4.1 Fundamental (qualitative) analysis

Fundamental analysis is based on knowledge of the interrelationship between economic and non-economic phenomena, which is the basis for the technical analysis. The basis for the fundamental analysis is to identify the environment in which the company operates. Among the factors that affect the fundamental analysis, we include macroeconomic factors (fiscal and monetary policy of the state), microeconomic factors (position in the market sector in which the company operates), stage of company life and the so on. Usually algorithmic techniques are not applied for drawing conclusions due to the large amounts of data that has to be processed[13].

4.2 Technical (quantitative) analysis

Technical analysis uses mathematical, statistical methods for quantitative business data processing with subsequent assessment of results. According to Sedláček (2011) analysis process includes the following phases: characterization and resource data selection methods and basic data processing, advanced data processing and suggestions for achieving that goal.

Financial analysis uses two groups of methods: basic arithmetic operations (elementary methods) and advanced methods. The basic arithmetic operations rank analysis of absolute indicators, differential indicators analysis and analysis of financial ratios. Methods of higher rank include statistical methods (point estimate) and non-statistical methods (expert system).[14]

[12] RŮČKOVÁ. *Finanční analýza* Praha: Grada, 2011. ISBN 978-80-247-391-68
[13] SEDLÁČEK. *Finanční analýza podniku* Brno: Computer Press, 2011. ISBN 978-80-251-338-6
[14] SEDLÁČEK. *Finanční analýza podniku* Brno: Computer Press, 2011. ISBN 978-80-251-338-6

5. Methods and indicators of financial analysis

5.1 Absolute Indicators

The basic methods of financial analysis include analysis of absolute indicators, which is based on the information referred to in the financial statements. It is divided into vertical and horizontal analysis.

Horizontal analysis

This analysis looks at developments in the financial statements items at a time, strength development, stability and development in terms of adequacy in all entries. Trend analysis seeks to answer the question of how to change a specific item at a time. Horizontal analysis is compiled annually or over several years. If it is compiled annually, then it follows two consecutive terms.

It can be performing in two basic ways, such as:

Absolute change - relative growth in value balance sheet or income statement, i.e. compares the value in the period (n) with the period of the previous (n-1);

$$AbsoluteChange = X(n) - X(n-1) \quad (2)$$

Percentage change revaluates the percentage change of the value of the given item in two time periods, time (n) and time (n-1). After multiplying the result by 100 we receive a percentage change;

$$PercentageChangeX = \frac{AbsoluteChangeX}{X(n-1)} * 100 \quad (3)$$

Vertical analysis

According to Sedláček (2011), analysis is based on comparing the percentages statement items for the chosen base. For example, in the profit and loss account as a basis considered the size of the total revenues or expenses in the balance sheet, the basis for choosing the total amount of assets (liabilities). This requires that the analysis is carried out with the financial statements in each year from top to bottom (in columns), hence the name vertical analysis.

$$The\ share\ of\ individual\ items(\%) = \frac{balance\ sheet\ items(income\ statment\ items)}{total\ assests\ or\ liabilities\ equity(revenue)} \times 100 \quad (4)$$

5.2. RATIO Indicators

The basic and most used tools of financial analysis include Ratio indicators. It provides a quick view of the financial situation of the company and that is why Ratio indicators are so frequently used. The basic principle analysis, financial ratios is in the fact that it gives a ratio of different items of financial statements. These data are in the form of either time series (profit and loss) or are related to a certain point (balance sheet, cash flow).[15]

In practice, the most commonly used 5 groups of ratios:

- Liquidity ratios
- Profitability ratios
- Activity ratios
- Debt ratios
- Market value ratios

5.2.1 Liquidity ratios

Liquidity ratios are calculated from the balance sheet and reflect the relative strength of the company from a financial perspective.[16] Liquidity is the ability of the company to repay their obligations. Liquidity indicators give a ratio of short-term assets and short-term payables. In business, it is desirable to have a financial equilibrium, where the company is able to meet its obligations while achieving value for money. The high level of liquidity means lower profitability because the company attaches funds in assets that are not effectively utilized.[17]

Liquidity Indicators contain three basic types of ratios – Current Ration, Quick Ration and Cash Ratio.

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[15] KNÁPKOVÁ, PAVELKOVÁ. *Finanční analýza - Komplexní průvodce s příklady* Praha: Grada, 2010, ISBN 978-80-247-3349-4.

[16] LEE, A. *Financial Analysis, Planning And Forecasting: Theory and Application* Publisher: World Scientific Publishing Company, 2009 ISBN 978-98-127-060-89

[17] RŮČKOVÁ, *Finanční analýza* Praha: Grada, 2011. ISBN 978-80-247-391-68

Current Ratio

Current ratio represents the ratio of current assets and current liabilities. This indicator shows how the company was able to meet their obligations if it turned all the current assets into cash.[18] Current ratio should be in the range of 1.5 to 2.5, and should never fall below 1.[19] Very low values of liquidity can mean problems with solvency and high value may lead to lower revenues and higher costs. Banks can request a certain levels of this indicator before they can provide a loan, and as a consequence of this, it is possible to distinguish three basic strategies to manage the current ratio.

Table 1: *Strategies for Current Ratio*

Strategies	**The value of the Current ratio**
conservative	over 2.5
average	between 1.5 and 2.5
aggressive	under 1.5

Source: Marek (2006, s. 274)

Current ratio is calculated by the following formula:

$$Currentratio = \frac{Current\ Assets}{Current\ Liabilities} \quad (5)$$

Or another formula for computation:

$$Currentratio = \frac{Cash+Accounts\ receivables+Short-terminvestment}{Current\ Liabilities} \quad (6)$$

[18] RŮČKOVÁ, *Finanční analýza* Praha: Grada, 2011**.** ISBN 978-80-247-391-68

[19] VOCHOZKA, Marek. *Metody komplexního hodnocení podniku*. 1. vyd. Praha: Grada,2011, 246 s. Finanční řízení. ISBN 978-80-247-3647-1.

Quick Ratio

Ratio reflects the organization's ability to pay its current obligations in the event of difficulties with the implementation of the product. The recommended value is in the range of 0.7 - 1. If the value of the quick ratio is higher than 1, the firm would be able to settle its current liabilities without selling inventory.[20] Quick ratio is calculated by the following formula:

$$QuickRatio = \frac{CurrentAssets - Inventories}{Current\ Liabilities} \qquad (7)$$

Cash Ratio

This is the most accurate indicator of liquidity indicators. It shows the ability to pay liabilities at the moment. The recommended value should be around 0.2.

Cash ratio is calculated by the following formula:

$$CashRatio = \frac{Cash + Shortterm\ Investment}{Current\ Liabilities} \qquad (8)$$

5.2.2 Profitability Ratios

Profitability ratios analysis is the most important indicators of the financial analysis. The main aim of Profitability Indicators is to analyze the ability of the company to create new resources and achieve profit from the resources that were already invested into the company. This is the reason why so much attention is paid to Profitability ratios. The Profitability Indicators during a period of time should show a positive shift, which reflects the effective functioning of management and also growing profit. The results of these indicators are expressed in percentage.[21]

The main indicator of company´s performance is a profit. When the investors want to know information about company´s profitability they use different type of profitability ratios. The ratios are focused on measuring of profit to other important item from financial statements. For instance: equity, assets, sales etc. Only the most useful ratios will be mentioned and described in this thesis.

[20] VOCHOZKA, M. *Metody komplexního hodnocení podniku.* 1. vyd. Praha: Grada,2011, 246 s. Finanční řízení. ISBN 978-80-247-3647-1.

[21] VALACH, J. Finanční řízení podniku. Praha: Ekopress, 1999. ISBN 80-86119-21-1

However, there are a lot of other profitability ratios as well as modifications of these indicators, which can differ according to countries.

We distinguish these ratios:

- Return on Assets
- Return on Equity
- Return on Sales

Return on Assets

This is a key indicator of profitability area. The return on assets (ROA) is described as earnings of total production power of company´s total assets.[22] There are several different ways of expressing the ROA equation, but the one that is most frequently used is EBIT (Earnings before interest and tax). The higher the ROA number, the better, because the company is earning more money on less investment.

$$ROA = \frac{EBIT}{Total\ Assets} \qquad (9)$$

Return on Equity

Return on Equity (ROE) measures how much the shareholders earn from their investment in the company. Therefore, higher ROE means higher return to investors. Being an important yardstick of a company's financial performance, this ratio is extensively used by investors. The ROE serves as an indicator for shareholders on how effectively their money is being employed.[23] It observes how much of net profit belongs to 1 US dollar of invested by the owners of the enterprise.

$$ROE = \frac{Net\ Income}{Stockholders\ Equity} \qquad (10)$$

[22]GRÜNWALD, R. a HOLEČKOVÁ, J. Finanční analýza a plánování podniku. Praha: Ekopress, 2007. ISBN 978-80-86929-26-2

[23] Profitability Indicator Ratios, 2015

Return on Sales

Return on Sales (ROS), also known as Net Profit margin demonstrates the share of net profit in the amount of sales of the company, how much the company can earn profit to 1 US dollar of sales. It is calculated by following formula:

$$ROS = \frac{Net\ Income}{Net\ Sales} \quad (11)$$

Gross profit margin and net profit margin are the following two margin profitability ratios that are worth mentioning. The difference between these two ratios is tax: gross profit margin uses profit before tax, while net profit margin – net profit (profit after tax). They show on the most fundamental level how much a company earns after paying crucial costs and expenses (costs of goods sold). The higher a margin, the more a company retains on each unit of sales to cover overhead costs, service costs and other additional costs. The formulas are expressed as following:

$$Gross\ Profit\ Margin = \frac{Profit\ before\ tax}{Sales} \quad (12)$$

$$Net\ Profit\ Margin = \frac{Profit\ after\ tax}{Sales} \quad (13)$$

5.2.3 Activity Ratios

Activity ratios describe the relationship between the firm´s level of operations (usually defined as sales) and assets needed to sustain operating activities. The higher the ratio, the more efficient the firm´s operations, as relatively fewer assets are required to maintain a give level of operations (sales).[24] In terms of activity ratios we will describe the following ratios: asset turnover ratio, inventory turnover, receivable turnover ratio, turnover of accounts payable.

[24] GERALD I. White, *The Analysis and Use of Financial Statements. ISBN* 978-0-471-37594-4

Asset Turnover Ratio

Activity ratios evaluate dependence of invested capital in each individual form of assets or measure the ability to utilize the assets of the enterprise.[25] These indicators of activity are usually represented by rate of turnover and time of turnover (i.e. days sales).[26]

Asset turnover is calculated by following formula:

$$Assets\ Turnover\ Ratio = \frac{Sales}{Total\ Assets} \qquad (14)$$

Inventory Turnover Ratio

Inventory turnover measures how many times a company sells and replaces its inventory in a period (quarter or year), that is, how efficiently a company utilizes its inventory.[27]

$$Inventory\ Turnover\ Ratio = \frac{Cost\ of\ Good\ Solf}{Average\ Inventories} \qquad (15)$$

Receivables Turnover Ratio

$$Receivables\ Turnover\ Ratio = \frac{Revenues}{Account\ receivables} \qquad (16)$$

The receivables turnover ratio measures a company's efficiency to manage and to collect its accounts receivable and shows how quickly the receivables are transformed into financial resources.[28]

Turnover of Accounts payable

This ratio shows how the company is able to repays its accounts payable to its creditors. It shows how many times during the one accounting year is the enterprise possible to turn over the accounts payable.

[25] GRÜNWALD, R. – HOLEČKOVÁ, J. *Finanční analýza a plánování podniku*. Praha: Ekopress, 2007. ISBN 978-80-86929-26-2
[26] VALACH, J. *Finanční řízení podniku*. Praha: Ekopress, 1999. ISBN 80-86119-21-1.
[27] FELDMAN, M., 2007
[28] VALACH, J. Finanční řízení podniku. Praha: Ekopress, 1999. ISBN 80-86119-21-1.

$$Accounts\ payable\ turnover = \frac{Purchases}{Accounts\ payable} \quad (17)$$

Payable Turnover Period

It shows number of days, during which the enterprise is from its suppliers is using the free business credit. This ratio shows how many days it takes to pay accounts payable. This ratio is similar to accounts payable turnover (above.) The business may be losing valuable creditor discounts by not paying promptly.[29]

$$Payable\ Turnover\ Period = \frac{Accounts\ Payable\ Turnover}{Revenues/365days} \quad (18)$$

5.2.4 Debt Ratio

Debt ratios express the relationship between own and foreign financing sources. It informs creditors and shareholders about the origin of the resources used to finance the activities of the company, etc. what share consists of debt on its total assets.[30]

$$Debt\ Ratio = \frac{Total\ Liabilities}{Total\ Assets} \quad (19)$$

Equity Ratio

It characterizes the company's dependence on foreign borrowing. The lower the ratio, the more loans from the company, the higher the risk of insolvency.

$$Equity\ Ratio = \frac{Equity}{Total\ Assets} \quad (20)$$

Interest coverage

Interest coverage shows how much is the profit the company is higher than the interest rate. It is a very important indicator for creditors and the value should not be less than 3. This number

[29] MOFFETT, M. H.; Fundamentals of multinational finance; Boston, 2006
[30] REJNUŠ O., *Finanční trhy*. Praha: Grada, 2014. ISBN 978-80-247-3671-6

indicates to us that the profits of an enterprise should be at least three times higher than Interest enterprise.

$$Interest\ coverage = \frac{EBIT(\text{earnings before interest and taxes})}{Interest\ expense} \qquad (21)$$

5.2.5 Market value ratios

The last group of measures is related to the market value of the company and consequently is based on information that is not necessarily published in financial statement. It informs about the past of the enterprise, but these indicators are describing the characters, which are related with the future of the enterprise seen by the investors. There are a few main indicators:

- Price-Earnings Ratio
- Earnings per Share
- Dividend Yield
- Book value

Price-Earnings Ratio

The relationship of the market price of a share of stock to the most recent earnings per share over 12 months; is used as a rough indicator of what investors are willing to pay for one crown of a company's earnings.[31] As P/E is lower in the time in comparison with other shares, it is probable, that the share is currently underestimated and for the investor it means "cheap" and therefore it is an good opportunity for the investment.[32]

$$P/E = \frac{Market\ Price\ of\ Stock}{Earnings\ per\ Share} \qquad (22)$$

[31] HELFERT, E. A., *Financial Analysis Tools and Techniques: A Guide for Managers*. Publisher: McGraw-Hill Education, 2001 ISBN 978-0071378345

[32] VALACH, J. Finanční řízení podniku. Praha: Ekopress, 1999. ISBN 80-86119-21-1

Earnings per Share

EPS is one of the most important factors affecting the market value of the company. It shows the s share of net profit (monetary unit) per one ordinary share.

$$Earning\ per\ Share = \frac{Net\ Income\ to\ Common\ Stockholders}{Weighted\ Avareges\ Shares\ Outstanding} \qquad (23)$$

Dividend Yield indicates the expected dividend as a percentage of the stock price. Dividend yield is one of the main forms how investors are rewarded from their investments, therefore it represents the motivation of investors to buy, maintaining or to sell the stock.

$$Dividend\ yield = \frac{Dividend\ per\ share}{Stock\ Price} * 100 \qquad (24)$$

If the stock price rises (dividend are reinvested back to business and this increases the book value of the stock) but the dividend per share still remains the same, the stock become less attractive for investors because the dividend yield will be lower. But dividends are not the only form how investors are rewarded. Capital gain, which can result from an increase of the shares' price in the market, is one of the main reasons why investors buy share in the market.[33]

Book value

Book value is the value of assets attributable to one share of common stock in accordance with the financial reporting data.

$$Book\ value = \frac{Equity}{number\ of\ ordinary\ shares} \qquad (25)$$

This ratio must be greater than 1 in order for the company to be successful and the higher the value of the ratio the more shareholder has in total assets of company.

[33] BREALEY, R. A.; MYERS, S. C. *Principles of Corporate Finance*. 6th Edition. United States of America: The McGraw-Hill Companies, Inc, 2000. Financial Analysis and Planning, pg. 827

6. Altman Z-score

Z-score is generated from analysis of several indicators of the company. As a result of the above equation into which appoints the enterprise value of the indicators from which one can predict whether the company will in the future be competitive (prospering), or whether it is waiting for bankruptcy.[34]

Altman defines two equations for calculating, both for companies with publicly traded shares, and other businesses.[35]

Z-scores for companies with publicly traded shares is calculated as the sum of:

$$1{,}2\,A + 1{,}4\,B + 3{,}3\,C + 0{,}6\,D + 1{,}0\,E \qquad (26)$$

- A – proportion of net operating capital and total assets;
- B – proportion of retained earnings and total assets;
- C – proportion of EBIT and total assets;
- D – proportion of equity and liabilities;
- E – proportion of total revenue and total assets.

A score above 2.99 tells that a company has a very good financial situation, while values varying between 1.81 and 2.99 indicate undefined financial situation of the company. Here one can define exact conclusions (also called a gray zone). Large financial problems are for values less than 1.81, and here the company must reflect on the restructuring process or the inevitable bankruptcy.[36]

The advantage of this model is its simplicity and the elimination of subjectivity in the choice of indicators. Its great advantage is also determining the financial health of the company to creditors or potential customers. The main disadvantage is that they get only one specific number that does not give information about the origin of business problems, and therefore it is not possible to remove.[37]

[34] SCHOLLEOVÁ, H., *Ekonomické a finanční řízení pro neekonomy*. Praha: Grada, 2008 ISBN 978-80-247-2424-9

[35] KISLINGEROVÁ, Hnilica, *Finanční analýza*. Praha: C.H. Beck, 2008. ISBN: 9788071797135

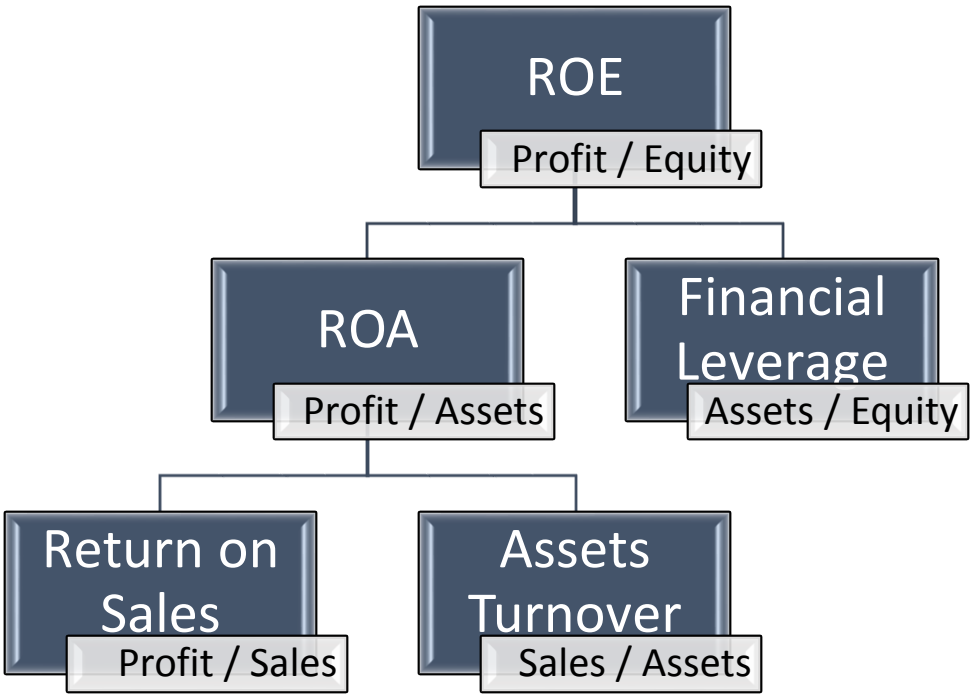
[36] SEDLÁČEK, *Finanční analýza podniku.* Brno: Computer Press, 2007 ISBN 978-80-251-1830-6

[37] SCHOLLEOVÁ, H., *Ekonomické a finanční řízení pro neekonomy*. Praha: Grada, 2008 ISBN 978-80-247-2424-9

7. DuPont Analysis

Given that each of the ratios assesses the state of the enterprise or its development only as a single number, for better view of the company was fired, these indicators do degrade partial indicators examine the influence of individual component values on the whole. The best-known decomposition that is used is the DuPont decomposition profitability indicators - indicators ROA and ROE and ROS.

Figure 1: *Pyramidal Decomposition - DuPont System*



Source: *own creation*

Practical part

8. Description of Apple Inc.

Apple Inc. is an American multinational technology corporation that designs, manufactures, develops, and sells consumer electronics, computer software, and online services. The company was founded in 1976 by Steve Jobs, Steve Wozniak, and incorporated the company on January 3, 1977,[38] in Cupertino, California. The Company's segments include the Americas, Europe, Greater China, Japan and Rest of Asia Pacific. Apple has many Apple stores, which offers not only its products, but also products from competitors that are fully compatible with Apple products, and are also certified by Apple itself. Nowadays, more than 500 Apple stores can be found around the world and there are more than 500.[39]

Picture 1: *Logo of Apple Inc.*

Source: *https://www.apple.com/*

[38] http://investor.apple.com/faq.cfm?FaqSet
[39] http://www.statistica.com

9. Product portfolio

Current portfolio of Apple Inc. can be divided into the following groups:[40]

- Mobile prone - iPhone;
- Tablet computers - iPad;
- Apple Watch;
- Players-iPod shuffle, iPod nano and iPod touch;
- MacBook Pro, MacBook Air, Mac Pro;
- Mac mini - system blocks of personal computers;
- Mac Pro and mini Servers;
- Apple TV media players, Magic Trackpad, etc.;
- Thunderbolt Display;
- Mac App Store, iCloud, iTunes Store and iOS App Store.

10. The Overview of Major Visions of Apple

The mission of Apple is quality of the products that they produce for their consumers. The main principles of Apple Inc. are customs and standards that the company implements to ensure that the company succeeds. ou will find this information described below:

Apple goes out of its way to ensure that their customer have the best product compared to their competition. The company is known to produce reliable, long last products that satisfy both their customer wants and needs. Apple stands by principle, they do not comprise their ethics and values for the money. The company sets such goals that some other companies find them as unreachable. However, Apple still reaches and conquerors those goals due to their values for high quality and standards. The company constantly works on improvement of itself and also on the level of workers by attracting new talents and intellectual resources. Apple puts large recourses on their Research and Development, the outcome of which can be seen in their new products such as the Apple watches, release of new mobile and computer devices. They value their employees, which makes them to feel important and motivates them to make Apple the best technology company in

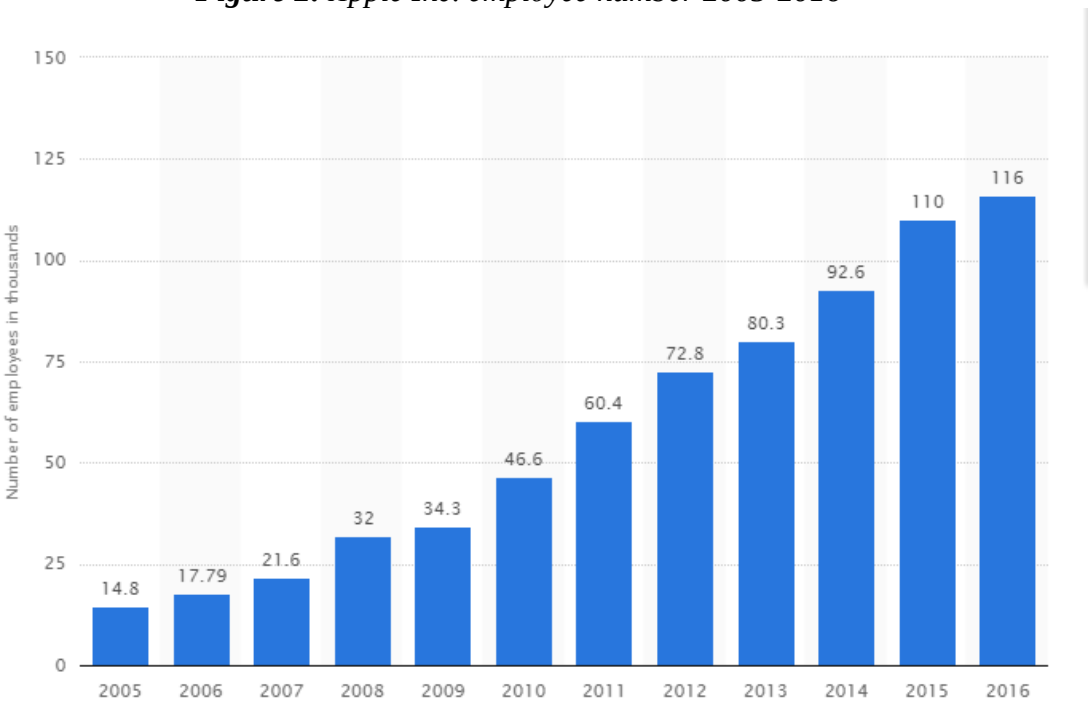
[40] http://www.apple.com/pr/products/ios/ios.html

the world. Steve Jobs, the Founder and pioneer of the company, for more than thirty-five years devoted his entire life to this corporation. His vision was to keep everything simple.

11. Employees

The number of Apple Inc. employees is increasing every year. Figure 2 shows number from 2005 to 2016.

Figure 2: *Apple Inc. employee number 2005-2016*



Source: *https://www.statista.com/statistics/273439/number-of-employees-of-apple-since-2005/*

12. Horizontal and vertical analysis

The first item on the application of horizontal and vertical analysis, which is based on the data from the balance sheet and income statement, creates tables and resulting values descriptions.

For clarity adding tables, where we can monitor the level of assets, liabilities and equity in the years 2013 - 2016.

12.1 Horizontal analysis of Assets

Table 2: *Horizontal analysis of Assets of Apple Inc., 2013 - 2016*

Period compared	***2014/2013 in mil. $***	***2014/2013 in %***	***2015/2014 in mil.$***	***2015/2014 in %***	***2016/2015 in mil.$***	***2016/2015 in %***
ASSETS:						
Current assets:						
Cash and cash equivalents	(415)	(3)	7 276	52	(636)	(3)
Short-term marketable securities	(15 054)	(57)	9 248	82	26 190	128
Net Receivables	7 443	31	4 352	13.8	(7 846)	(6)
Inventories	347	19	238	11	(217)	(9)
Other current assets	2 924	42	(267)	(2.7)	17 491	20
Total current assets	(4 755)	(6)	20 847	30	6 365	4
Long-term marketable securities	23 947	22	33 903	26	4 539	20
Property, plant and equipment	4 027	24	1 847	9	298	6
Goodwill	3 039	192	500	11	(687)	(18)
Acquired intangible assets	(37)	(1)	(249)	(6)	3 335	62
Other assets	(1 382)	(26)	1 792	48	0	0
Total assets	24 839	11	58 640	25	31 341	11

Source: *Own calculations, data from annual reports 2014-2016*

Table 2 shows horizontal analysis, with the absolute (in dollars) and relative (in percent) changes. The data is compared between the first part of balance sheet for the four years – 2013 year with 2014 year, 2014 year with 2015 and 2015 year with 2016.

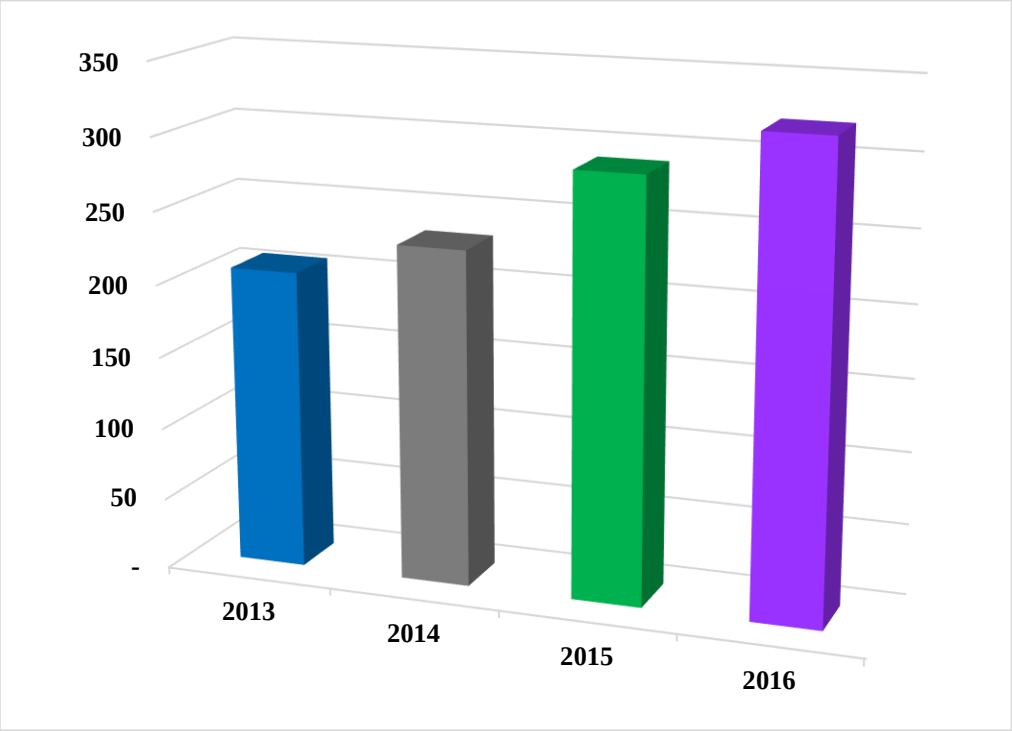
The most substantial changes were in short-term marketable securities and in goodwill. In comparison with 2014 when it was decrease of short-term investments by 57%, in 2015 the situation has changed for the better because of increasing by 82%, in 2016 situation has become much better of increasing by 128%. In 2014 goodwill greatly grew by 192%, while in 2015 its growth was just

11%, but in 2016 the situation has changed for the worse, the cause of which was a decrease by 18%.

From the table 2 we can see changes in a good way of increasing by 52% in period 2014-2015 were in cash and cash equivalents.

The total amount of assets was increasing during period 2013-2015, but in 2016 years the indicators fell.

Figure 3: *The total Assets in the years 2013-2016 (in mil.$)*



Source: *Own calculations, data from annual reports 2014-2016*

12.2 Horizontal analysis of Liabilities and Equity

Table 3: *Horizontal analysis of Liabilities and Equity of Apple Inc., 2013 – 2016*

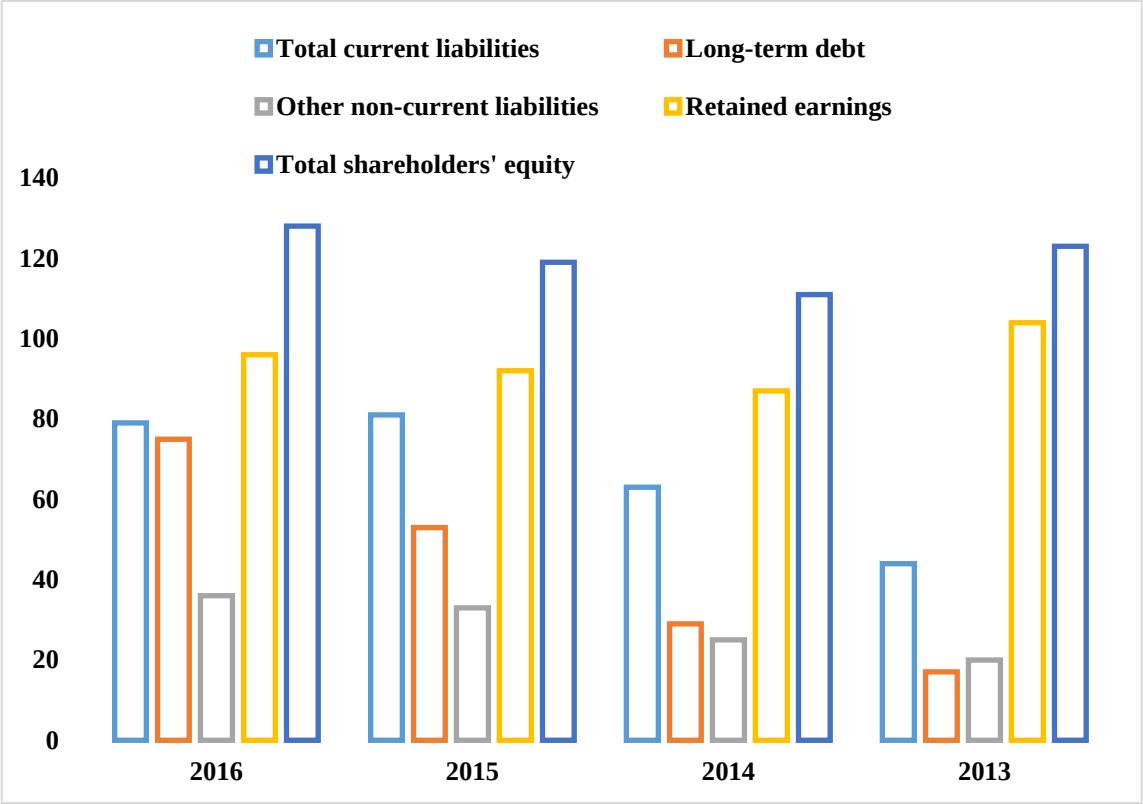
Period compared	***2014/2013***	***2014/2013***	***2015/2014***	***2015/2014***	***2016/2015***	***2016/2015***
	in mil.$	***in %***	***in mil.$***	***in %***	***in mil.$***	***in %***
Current liabilities:						
Accounts payable	7 829	35	5 294	18	1 804	5
Accrued expenses	4 597	33	6 728	36	(3 154)	(13)
Deferred revenue	1 056	14	449	5	(860)	(10)
Commercial paper	6 308	100	2 191	35	(394)	(5)
Current portion of long-term debt	-	0	2 500	100	1 000	40
Total current liabilities	19 790	45	17 162	27	(1 604)	(2)
Deferred revenue-non-current	406	15	593	20	(694)	(19)
Long-term debt	12 027	70	24 342	84	22 098	41
Other non-current liabilities	4 618	24	8 601	35	2 647	8
Total liabilities	36 841	44	50 698	42	22 447	13
Common stock	3 549	17	4 103	18	3 835	14
Retained earnings	(17 140)	(16)	5 132	6	4 080	4
Other Equity	1 553	(330)	(1 427)	(132)	979	(284)
Total shareholders' equity	(12 002)	(10)	7 808	7	8 894	7
Total liabilities and equity	24 839	12	58 640	25	31 341	11

Source: *Own calculations, data from annual reports 2014-2016*

The table 3 shows us horizontal analysis of Liabilities and Equity. The growth of total assets of current period is also accompanied by the same growth of stockholder's equity and liabilities – 25% or 58 640 mil. $ in 2014 and 11% in 2016. Between 2014 and 2015 the highest increase was the growth of long-term debt by 100 %.

By the end of fiscal 2016 year every item of current liability was increased by 27% comparing to 2015 year. The total shareholders` equity grew by 7 % in 2016, while it was its fall by 10 % in 2014 comparing to 2013. In spite the amount of other equity increased by 330 % in 2014.

Figure 4: *Stucture of total Liabilities and Equity in the years 2013-2016 (in mil.$)*



Source: *Own calculations, data from annual reports 2014-2016*

12.3 Horizontal analysis of Income Statement

Table 4 shown below characterizes horizontal income statement analysis. It can be seen that the income of Apple Inc. is getting more incremental, except last year 2016. All items of income statement have progressive tendency during chosen period 2013-2015. In 2014 total revenue increased by 7 % and in 2015 it showed even higher growth – by 28 %, but in 2016 decreased by 8 %. It was also followed by rising cost of sales by 5 % in 2014 and by 25 % in 2015, which is quite logical and recession cost of sales by 6 % in 2016. Comparing year 2015 with year 2014 it can be noticed that every indicator of income statement showed much better result than in 2014 regard to 2013 excluding research and development which growth was 33 % in 2015, while in 2014 it was 35 %. Decreasing of the R&D means that company spent less money on its development than in previous year 2014, this can have a negative influenced on the success of Apple Inc.

The most increased indicator is earnings per share. Basic and diluted earnings per share have almost equal changes, therefore in 2015 basic earnings per share grew by 43 %, but in 2014 its

raise was just 13 % and diluted earnings per share increased by 43% in 2015, but in 2014 its growth was just 14 %. Amount of income tax increased greatly by 37 % in 2015, it was followed by raise of operating income, but in 2016 situation was worsened by 18%.

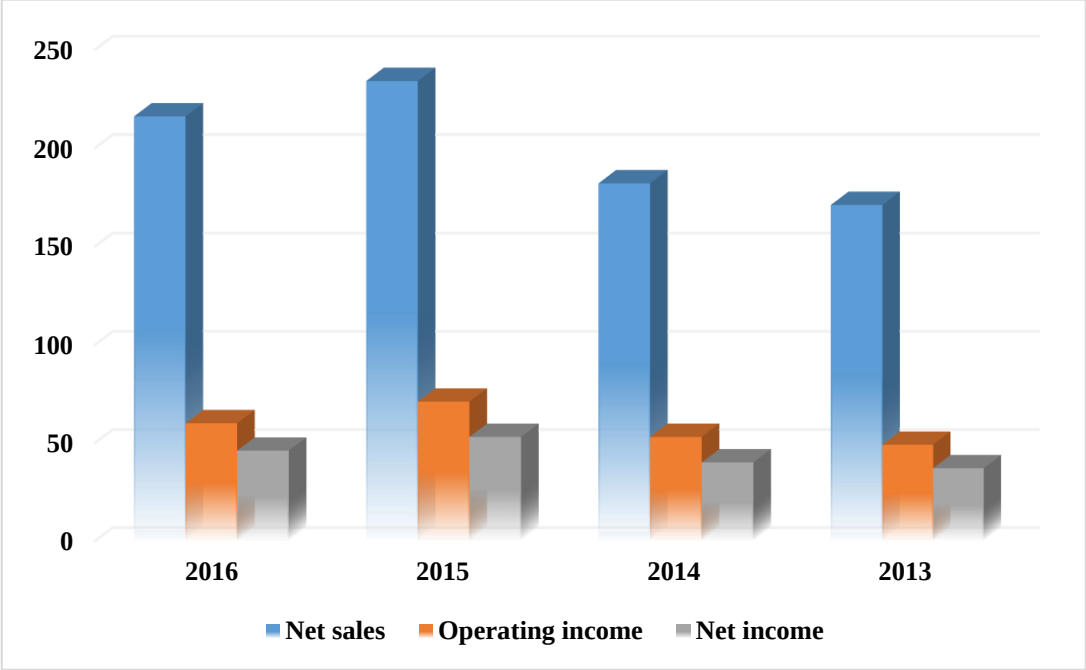
These progressive results were achieved thanks to a record in the history of the company's revenue from sales of iPhone and Mac and record figures of App Store. Another new record - 74.5 million pieces of sold iPhones.

Table 4: *Horizontal analysis of Income Statement of Apple Inc., 2013 – 2016*

Period compared	***2014/2013***	***2014/2013***	***2015/2014***	***2015/2014***	***2016/2015***	***2016/2015***
	in mil.$	***in %***	***in mil.$***	***in %***	***in mil.$***	***in %***
Net sales	11 885	7	50 920	28	(18 076)	(8)
Cost of sales	5 652	5	27 831	25	(8 713)	(6)
Gross margin	6 233	10	23 089	33	(9 363)	(10)
Operating expenses:						
Research and development	1 566	35	2 026	33	1 978	24
Selling, general and administrative	1 163	11	2 336	19	(135)	(1)
Operating income	3 504	7	18 727	36	1 843	8
Other income/(expense)	72	6	654	48	(11 206)	(16)
Earnings before taxes	3 328	7	19 032	35	63	5
Income taxes	855	6	5 148	37	(3 436)	(18)
Net income	2 473	7	13 884	35	(7 707)	(14)
Earnings per share:						
Basic	0.77	13	3	43	(0.93)	(10)
Diluted	0.77	14	3	43	(0.91)	(10)
Cash dividends declared per share	0.18	11	0	9	0.20	10

Source: *Own calculations, data from annual reports 2014-2016*

Figure 5: *Overview of the development of important items in the Income statement in years 2013-2016 (in mil.$)*



Source: *Own calculations, data from annual reports 2014-2016*

12.4 Vertical analysis of Assets

The table 5 shows share of each item in total assets of corporation. During whole period 2013-2016 the largest share was long-term assets, but by the year 2014 its share increased to 56 % comparing to 51 % in 2013 and decreased by 53 % in 2016. In 2016 total current assets had 33 %, which in 2013 was 35.4 % this change is caused by the decreasing of short-term investments, it reduced to 7 % in 2015 while in 2013 it was 13% of total assets.

In 2015 lowest contribution to total assets of the corporation had inventory – 1 % and acquired intangible assets – 1 %. One of the largest shares had total current assets, which mostly influenced by net receivables – 11 %.

Table 5: *Vertical analysis of Assets of Apple Inc., 2013 – 2016*

Period compared	**2013 in %**	**2014 in %**	**2015 in %**	**2016 in %**
Cash and cash equivalents	7	6	7	6
Short-term marketable securities	13	5	7	15
Accounts receivable	6	8	6	5
Inventories	1	1	1	1
Deferred tax assets	2	2	2	-
Vendor non-trade receivables	4	4	5	4
Other current assets	3	4	3	3
Total current assets	35	30	31	33
Long-term marketable securities	51	56	56	53
Property, plant and equipment	8	9	8	8
Goodwill	1	2	2	2
Acquired intangible assets	2	2	1	1
Other assets	2	2	2	3
Total assets	100	100	100	100

Source: *Own calculations, data from annual reports 2014-2016*

The table 5 shows share of each item in total assets of corporation. During whole period 2013-2016 the largest share was long-term assets, but by the year 2014 its share increased to 56 % comparing to 51 % in 2013 and decreased by 53 % in 2016. In 2016 total current assets had 33 %, which in 2013 was 35.4 % this change is caused by the decreasing of short-term investments, it reduced to 7 % in 2015 while in 2013 it was 13% of total assets.

In 2015 lowest contribution to total assets of the corporation had inventory – 1 % and acquired intangible assets – 1 %. One of the largest shares had total current assets, which mostly influenced by net receivables – 11 %.

12.5 Vertical analysis of Liabilities and Equity

Table 6: *Vertical analysis of Liabilities and Equity of Apple Inc., 2013 – 2016*

Period compared	**2013 in %**	**2014 in %**	**2015 in %**	**2016 in %**
Current liabilities:				
Accounts payable	11	13	12	12
Accrued expenses	7	8	9	7
Deferred revenue	4	4	3	3
Commercial paper	0	3	3	3
Total current liabilities	21	27	28	25
Deferred revenue - non-current	1	1	1	1
Long-term debt	8	13	18	23
Other non-current liabilities	10	11	12	11
Total liabilities	40	52	59	60
Common stock	10	10	9	10
Retained earnings	50	38	32	30
Total shareholders' equity	60	48	41	40
Total liabilities and equity	100	100	100	100

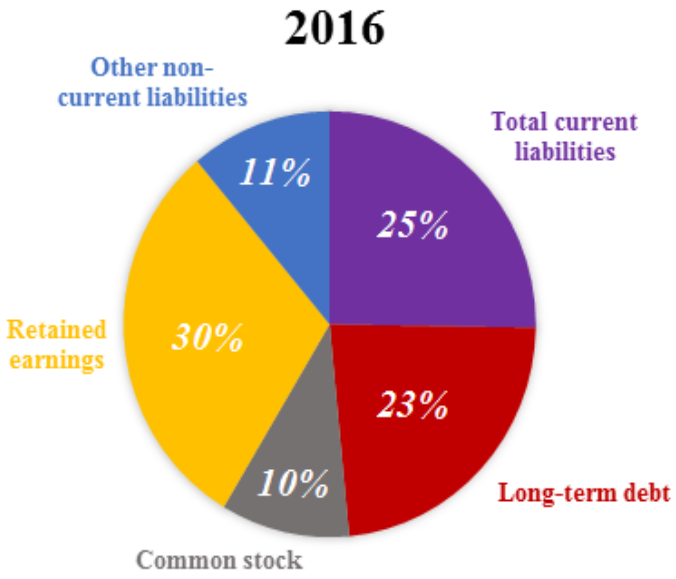
Source: *Own calculations, data from annual reports 2014-2016*

The table 6 presents vertical analysis of liabilities and stockholders' equity of Apple Inc. during period 2013-2016. In 2015 and 2016 the highest effect on it had total liabilities in the share of 59 % and 60 % respectively but in 2013 the biggest part of liabilities and shareholders' equity was formed by total equity – 60 % that was better for the corporation. It was followed by decreasing to retained earnings, which in 2013 was equal to 50 %, while in 2016 was just 30 %.

We can see that in 2014 there was increased item of commercial paper from 0% to 3 % and during three years remained stable. The largest of share of liabilities and stockholders' equity had accounts payable – 13 %, long term-debt – 13 % and obviously retained earnings – 38%.

During selected period the share of total current liabilities increased from 21% in 2013 to 28 % in 2015, but in 2016 decreased by 3 %. In 2015 the share of common stock vice versa decreased to 9 % while in 2016 it was 10 %.

Figure 6: *Overview of the development of important items in the Liabilities and Equity of Apple Inc., in 2016 (%)*



Source: *Own calculations, data from annual reports 2016*

12.6 Vertical analysis of Income statement

Table 7: *Vertical analysis of Income statement of Apple Inc., 2013 – 2016*

Period compared	2013	2014	2015	2016
	in %	in %	in %	in %
Cost of sales	62	61	60	61
Research and development	3	3	3	5
Selling, general and administrative expenses	6	7	6	7
Operating income	29	29	30	28
Other income/(expense)	1	1	1	1
Income before provision for income taxes	29	29	31	28
Income taxes	8	8	8	7
Net income	22	22	23	21
Net sales	100	100	100	100

Source: *Own calculations, data from annual reports 2014-2016*

The vertical analysis of income statement of Apple Inc. shown in table 7 it was defined that during observed period largest share of company revenue had cost of sales. In 2014 the share of cost of sales was the highest - 62 % while in 2015 it was 60 %, but in 2016 was positive dynamic, the share of cost of sales increased by 61%. Regarding selling, general and administrative expenses situation is opposite, its share was falling in 2013 and 2015 by 6%, therefore it can be said that company began to put less recourses on the customer service, which could negatively affect the revenue of Apple Inc.

During the period from 2013 to 2015 there was a stable increase of share of research and development expenses to 3 %, but in 2016 was progressive growth by 5 %. Corporation was investing more money in development of technology and as a result of this one can expect an increase of business revenue in future. Instantaneously net income as well as income tax had unstable shares, which in 2013 was more than in 2014 but less than in 2015. In 2014 income tax was 8 % of total revenue which is almost four times smaller than gross profit margin and net income was 22 % which quite good. As a key result of analysis it can be noticed that share of net income was continuing to rise while the share of costs of sales is descending, it indicates that company has quite suitable business strategy.

13. RATIO Indicators

In this part of the diploma thesis I will focus on the analysis of indicators of liquidity, profitability, activity, debt and market value.

13.1 Liquidity ratios

The following table 8 and graph 5 are calculated the value of the basic types of liquidity (current ratio, quick ratio and cash ratio) of the company Apple Inc. in the year 2013-2016. We have previously mentioned the difference between these three ratios: assets. Current ratio includes all current assets, quick ratio – all but inventory and cash ratio – just cash and cash equivalents, the most liquid one.

Table 8: *Liquidity ratios of Apple Inc., 2013 – 2016*

Period compared	2013	2014	2015	2016
Current ratio	1.68	1.08	1.11	1.35
Quick ratio	1.40	0.82	0.89	1.22
Cash ratio	0.93	0.40	0.52	0.85

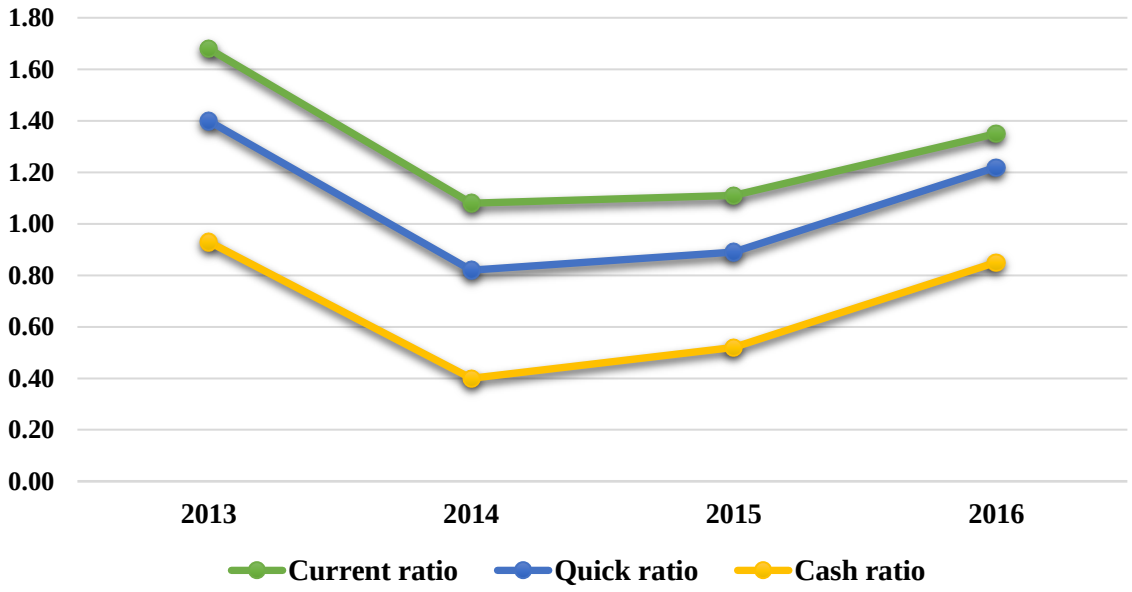
Source: *Own calculations, data from annual reports 2014-2016*

Current ratio, according to the literature should be in the range of 1.5 to 2.5, and as it can be seen from table 8, only in year 2013 current ratio was in the right range (1.68). Current ratio has a tendency to decrease from 1.68 in 2013 to 1.08 in 2014 and then it after slightly increased the level of 1.11 in 2014, 1.35 in 2016. Indicator of current liquidity for the years 2014 - 2016 was fluctuating, though the figures are more or less permanent values around 1.5. In the methodological part I presented some possible strategies to manage the current liquidity.[41] This comparison management resorted in 2014, 2015 and 2016 to an aggressive strategy, but in 2013 the company used average strategy.

Quick and cash ratios, however, do not follow this tendency: after the decrease in 2014 the company, obviously, changes the structure of the current assets in order Apple Inc. has enough liquid current assets to repay its short-term obligations. In years 2013 and 2016 we can observe a steady growth of quick and cash ratios, but in 2014 it decreases at the level of 0.82 – quick ratio and 0.40 – cash ratio. Quick ratio of the corporation roughly fluctuates around 1, which is also a good point. The lowest it reached was 0.82 in 2014, but it recovered quite fast.

[41] See Table 1

Figure 7: *The Development of Liquidity ratios of Apple Inc., 2013 – 2016*



Source: *Own calculations, data from annual reports 2014-2016*

13.2 Profitability ratios

The ability of businesses to achieve profitability for the use of capital invested and thus the ability to create new resources, measured by indicators of profitability. The analysis of period 2013-2016 is presented in table 9.

Table 9: *Profitability ratios of Apple Inc., 2013 – 2016 (in %)*

Period compared	2013	2014	2015	2016
Gross profit margin	38	39	40	39
Net profit margin	22	22	23	21
Return on equity (ROE)	30	35	45	36
Return on assets (ROA)	18	17	18	14

Source: *Own calculations, data from annual reports 2014-2016*

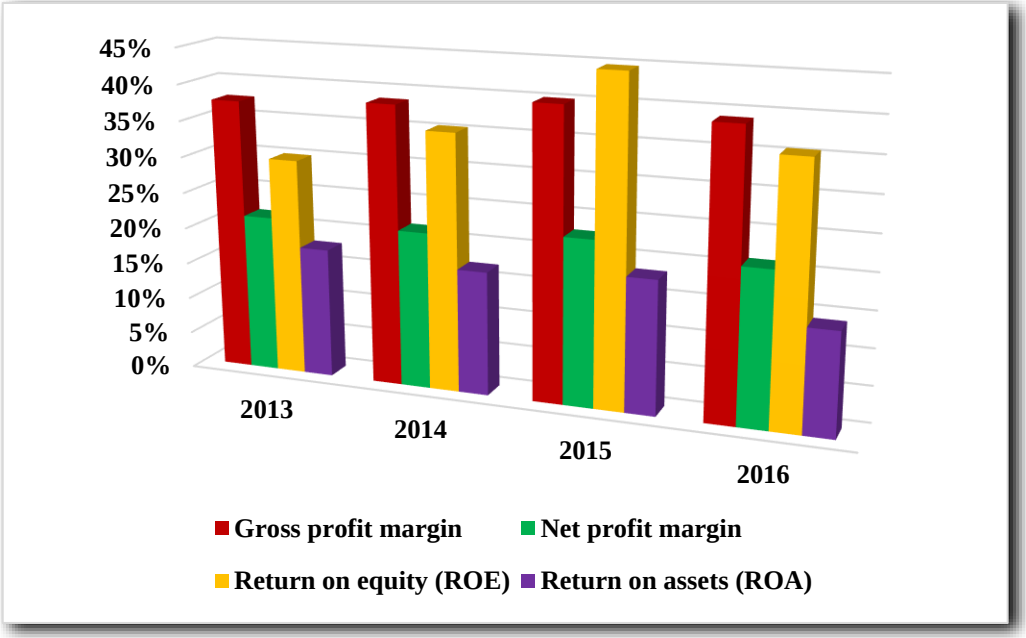
Analysis of Apple Inc. profitability was done over analyzing of ROA, ROE, Gross Profit Margin, Net Profit Margin.

The company belongs to industry of Technology and the results are compared with this industry. The Apple Inc. showed very positive values and we can mark them up as above average. Comparing all ratios by periods it can be noticed that in 2015 every ratios is higher than in 2013. Gross Profit Margin of company in 2015 is 40%, in 2016 and 2014 the indicators were the same 39%. Net profit margin was just 21 % in 2016.

Return on equity shows what part of profit is fall to 1 USD of capital invested by shareholder. This ratio is increasing for the 2014 and 2015 years. In 2015 ROE was 45 % whereas the average of industry is just 14 %, which once more indicates a great position of Apple Inc. In the following year 2016 return on equity was positive again, although they were slightly declining trend

Value that the company achieved in return on assets, are as positive as in the case of ROE. Return on assets shows how company generates its profit from assets. The return on assets defines the production power of Apple Inc. We can therefore conclude that the profitability was highest in 2013 - 18 % and it is much higher than industry average 7%. Revenue in 2016 to $ 100 invested capital was $ 14. In the reporting period (2013 - 2016), the company is clearly profitable, while there is a downward trend.

Figure 8: *The Development of Profitability ratios of Apple Inc., 2013 – 2016*



Source: *Own calculations, data from annual reports 2014-2016*

13.3Activity ratios

Activity indicators determine whether the current activity is optimal in comparison to future assets. It is about the ability of the company optimally utilizing its assets at its disposal.

Table 10: *Activity ratios of Apple Inc., 2013 – 2016*

Period compared	2013	2014	2015	2016
Total asset turnover	0,83	0,79	0,80	0,67
Inventory turnover	60,43	53,18	59,64	61,62
Receivables turnover	13,04	10,47	13,87	13,69
Payables turnover	4,77	3,72	3,95	3,52
Payables payment period	77	98	92	104

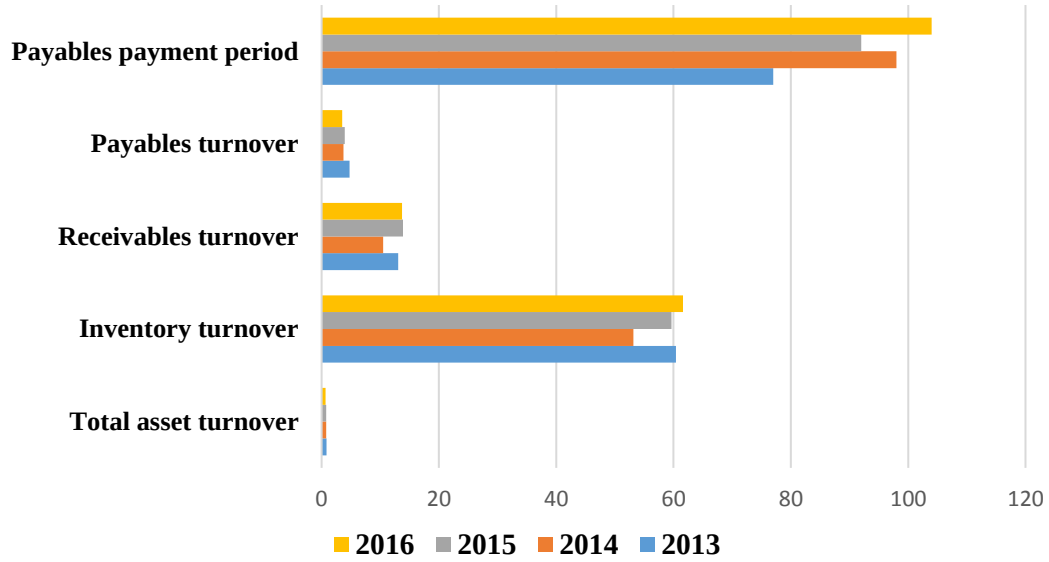
Source: *Own calculations, data from annual reports 2014-2016*

In the reporting period since 2013 till 2016, Apple Inc. did not show any optimal allocation of capital resources and its utilization. For optimum is considered to be the year that takes the value of about 1. In the reporting period the company is very approaching optimum point in year 2013 and also in 2015. In the last reporting year 2016 was the lowest value in three years.

Inventory turnover. According to the table 9 after increasing slightly in year 2016 – 61.62 from 59.64 in 2015 it was decreased in 2014 – 58.12. Inventory turnover show us how many times per year the company's inventory will be turned over.

In the figure 9 below you can see how the activity rations developed in the period from 2013 till 2016 years.

Figure 9: *The Development of Activity ratios of Apple Inc., 2013 – 2016*



Source: *Own calculations, data from annual reports 2014-2016*

13.4Debt ratios

For Apple Inc. it is a very important measure of indebtedness of the company. On the given fact mainly watching new investors or existing shareholders. At high debt must be mainly explain why the company has leveraged whether invests a lot of money in technology or marketing, or whether they expect the new product to which the company needs enough money.

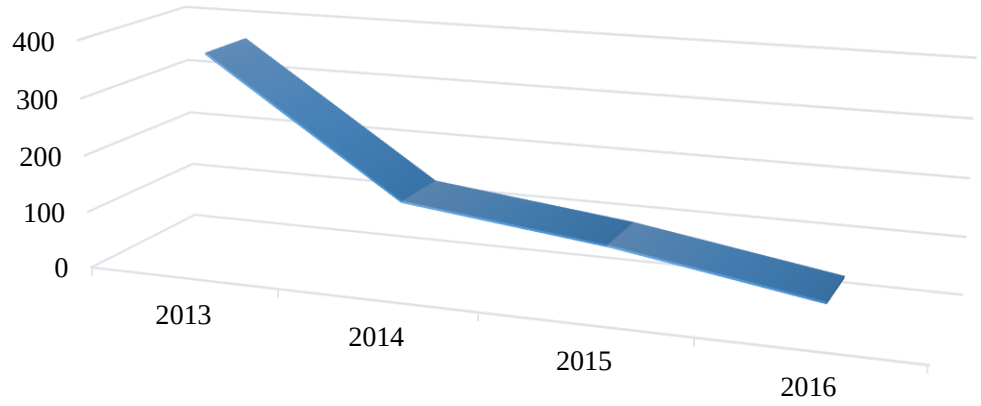
Table 11: *Debt ratios of Apple Inc., 2013 - 2016*

Period compared	2013	2014	2015	2016
Debt to Equity	0.14	0.32	0.54	0.68
Debt to Capital	0.12	0.24	0.35	0.4
Interest coverage	369.79	140.28	99.93	43.15

Source: *Own calculations, data from annual reports 2014-2016*

Interest coverage should achieve numbers higher than 3. As it can be seen from the reporting period and from 2013 this value exceeds many times. The best value was measured in 2013, when profit exceeded interest almost 370 times and this is the value on which competing firms can only dream of. But unfortunately, we note that every year this value is reduced. It is still higher than the 3, but if the values go at the same pace, so does the level 3 values may get in the coming years.

Figure 10: *The Development of Interest coverage of Apple Inc., 2013 – 2016*



Source: *Own calculations, data from annual reports 2014-2016*

13.5 Market value ratios

Market value analysis is help to characterize the value and profitability of the organization. These ratios present which dividend investor gets and what amount of accumulated funds investors earn due to changes of share price on the s

Table 12: *Market value ratios of Apple Inc., 2013 - 2016*

Period compared	2013	2014	2015	2016
P/E	12.2	15.81	12.6	16.81
EPS	5.68	6.45	9.22	8.33
Dividend yield	2.37	1.85	1.81	2.28
Book value	19.63	19.02	21.39	25.18

Source: *Own calculations, data from annual reports 2014-2016*

Market value ratios are obtainabled in the table 11. From this table it is possible to realize that in 2013 book value of Apple Inc. increased to 25.18 comparing to 21.39 in 2015, so value of assets attributable to one share of common stock grew and this is very good for shareholders. Earnings per share were increasing during whole period and in 2015 were amounted 9.22. Price earnings ratio in 2015 increased to 9.22 while it was 6.45 in 2014. The industry average of P/E ratio is 16.81, so investor of Apple Inc. is ready to pay for earning 1 USD less than investors of most other companies in industry. Dividend yield had the best value in 2013 – 2.37, it means that there was reduction of the return of invested capital during 2013-2016, which is not good for shareholders.

14. Altman Z-score

Altman index shows whether the company will go bankrupt in the next few years, or approaching a situation where will have to declare bankruptcy.

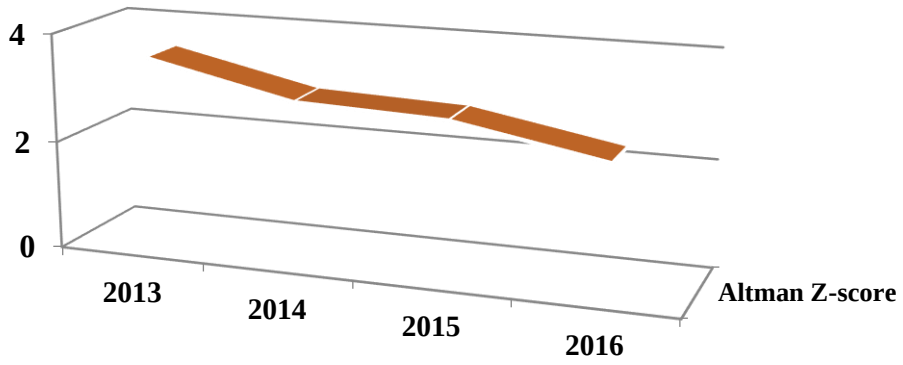
Table 13: *Altman index of Apple Inc., 2013 – 2016*

Period compared	2013	2014	2015	2016
Altman Z-score	3.5	2.9	2.8	2.3

Source: *Own calculations, data from annual reports 2014-2016*

Company Apple Inc. had the highest and best value in 2012, when he was greater than 4.3 points. For optimal determines the number 2.99, there is thus seen that the firm was in the period on top. In the following years, the enterprise value decreased up to 2.356, which were reached in 2016. In this year company has undefined financial position and business should work on its stabilization. Worst values come into range below 1.81 where there are neither selected the company as one period. With such low values the company would have to deal with restructure or wind up in bankruptcy.

Figure 11: *The Development of Altman Z- score of Apple Inc., 2013 – 2016*



Source: *Own calculations, data from annual reports 2014-2016*

15. DuPont Analysis

In the table 11 below we can see Du Pont analysis, which show us how the Apple Inc. developed during four years. Any changes in the input leads to a change in the value of ROE. ROE is variable since 2014 till 2016 years and very dependent on financial leverage. In 2016 the financial leverage strongly affected ROA, it was decreased from 18.38% (2015) to 14.20%.

Figure 12: *DuPont System of Apple Inc. 2013-2016*

ROE	
2016	35.62%
2015	44.74%
2014	35.42%
2013	29.98%

ROA	
2016	14.20%
2015	18.38%
2014	17.04%
2013	17.89%

Financial Leverage	
2016	2.51
2015	2.43
2014	2.08
2013	1.68

ROS	
2016	21.19%
2015	22.85%
2014	21.61%
2013	21.67%

Assests Turnover	
2016	0.67
2015	0.80
2014	0.79
2013	0.83

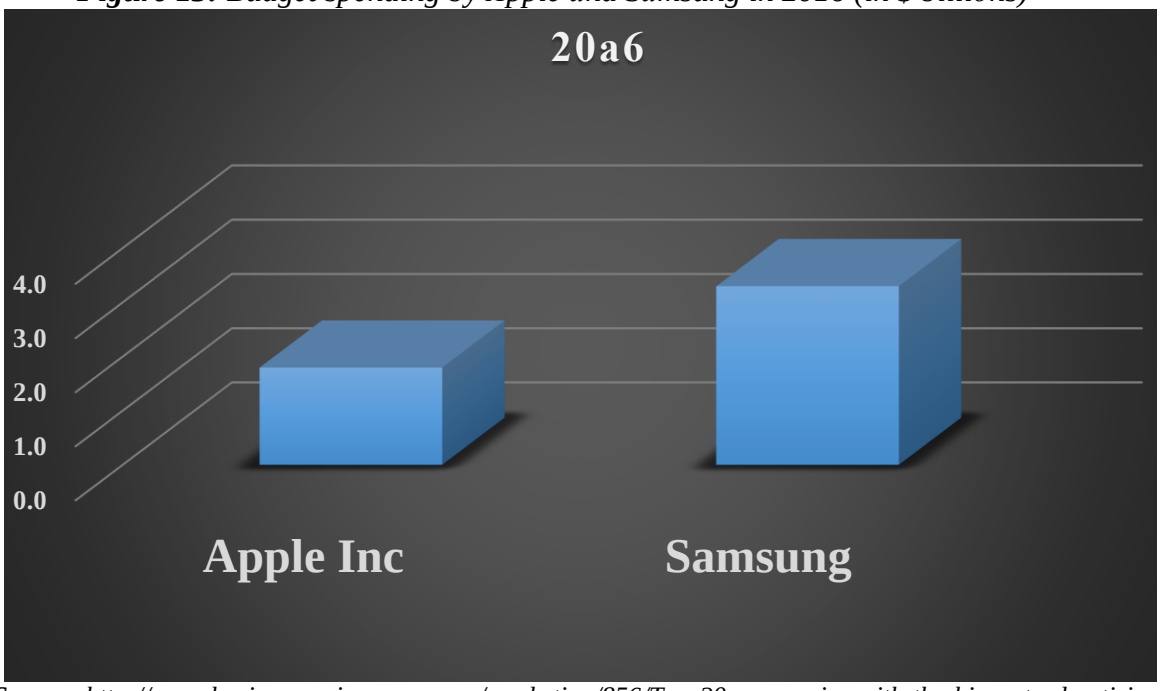
Source: *Own calculations, data from annual reports 2014-2016*

16. Strengths of Apple Inc.

As one of the greatest strengths of Apple Inc. is the quality of manufactured products. The customer notices it immediately, at first sight, with mobile phones iPhone the company uses aluminum as the phone body, toughened glass, fingerprint reader, which is covered with sapphire glass that is also used for camera lenses.

As the main strength of the company would like to mention advertising products compared to competitors. The company is investing a minimum financial resources and competitive corporation Samsung invests huge sums in marketing. Even if Apple spends less on advertising, it still achieves greater brand recognition and more revenue for the money spent than Samsung. Figure 11 shows how much money did Apple Inc. and Samsung spend in 2016 year.

Figure 13: *Budget spending by Apple and Samsung in 2016 (in $ billions)*



Source: *http://www.businessrevieweurope.eu/marketing/856/Top-20-companies-with-the-biggest-advertising-budget*

The organizational structure of Apple Inc. is mainly a traditional hierarchy with four separate key divisions united in one company.

These four divisions are:

• Hardware design and strict quality and manufacturing control;

• Software design and programing;

• Providing of service;

• Retailing and distribution.

Apple Inc. organizational and managing structure executes full and strong control over the divisions. The company is also precisely focused on entire supply chain control. In contrast to competitors Apple singly manages the supply chain of all four areas. Next important straights are the low level of debt makes the company more maneuravle and iTunes Music Store is the great source for income.

17. Weaknesses of Apple Inc.

The weaknesses of the company are the life cycle of the products lasts very little, most of the revenue depends on new products. The company's market share is far behind from the main competitors. Apple's technique cost more than competitors products.

The company operates only in the markets in which it believes it is financially worthwhile. Do not enter the unexplored markets that could threaten the low marketability reputation of the company. In many European countries, including the Czech Republic, so we can not find the official store or service. The products can be purchased from the website or from authorized Apple stores. News here sold a few weeks to a month delay from the introduction to the American market. This gives the possibility of competing companies, in the meantime, these markets are dominated.

Table 14: *The number of stores in selected countries*

USA	**269**
United Kingdom	**39**
France	**21**
Italy	**16**
Germany	**14**
Austria	**0**
Czech Republic	**0**

Source*: own creation, http://www.apple.com*

Conclusion

The main aim of this diploma thesis was to evaluate a financial situation of Apple Inc., in years 2013-2016. Apple Inc. is one of the famous American multinational companies in technology industry and ranked first by market capitalization in the world. The work focused on the effectiveness of the financial and economic activity of the company in the current market.

Since 2007 Apple company known as the support of innovation in modern technology. Before 2007, most of the big corporations didn't seem to take Apple Company seriously in the business. However, today the company makes their name worldwide and also known as the most profitable and influential in its sector. Apple Company has its own unique idea for their customers that become real trends, which are adopted by other manufactures such as Samsung etc. Not only this, Apple is trying to develop existing technologies to create their own products with their use. Technology industry is very competitive, however Apple follow the strategy that lead the company to be successful and gained the lion's share of the profits on local and global markets. This is the reason why it was very interesting to analyze Apple Inc., with more in deep detail according to the terms of economic position.

In the first part of the thesis summaries the basic concepts necessary for the correct understanding of the issue. Subsequently explained the basic theory of working with these concepts and serve as a basis for practical application of principals and users of the financial analysis, technical analysis and other essential fundamentals underlying the valuation of the company.

The practical part was performed by: vertical analysis of balance sheet, horizontal analysis of balance sheet, horizontal analysis and vertical analysis of income statement. The reason was to evaluate the performance of companies based on financial data. In the next section, an analysis of the most important ratio indicators - liquidity, profitability, activity, debt and calculation of market value indicators of the company for the proper valuation. All analyzes were subsequently described in detail and supported many tables and charts.

According to results of financial analysis, it concluded that Apple Inc., has a very sufficient position in technology industry. This was due to the amount of the largest market capitalization on exchange market among other industries. Not only this that cause the result to be sufficient, but its net profit margin also shows much higher than average of industry while its assets are still secured mostly by liabilities. Overall, the company is still depended on its creditors. Another analysis was through the technical, and it was to investigate the price development of Apple Company stock and evaluated its position on exchange market. The result shows that, the shareholder should consider selling their stocks, however shareholders should also look at the ROC since there is a small chance that the stock price might growth.

The last chapter was devoted to calculating Altman Z-score index and performed DuPont analysis.

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