

**Czech University of Life Sciences Prague**

**Faculty of Economics and Management**

**Department of Economic Theories**



**Master's Thesis**

**Financial Analysis of Microsoft Corporation**

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# CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

## DIPLOMA THESIS ASSIGNMENT

Madina Baizholova

Economics and Management  
Economics and Management

Thesis title

**Financial Analysis of Microsoft**

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Objectives of thesis

This thesis is focused on the discussion of the main objectives of Microsoft Company (2007-2014) and its goal is to show that the aim of financial statement analysis is to utilize information about the past performance of the company in order to predict how it will perform in the future. Secondary objective is to find out how the company has overcome the financial crisis of 2009 and analyze „good and bad times “of the company. Finally, identify potential problematic areas.

Methodology

The methodology that I will use is based on reviewing literature to identify the main objectives of the company. Also, we will analyze financial statements (using Ratio analysis) to get insight into the company's liquidity, operational efficiency and profitability.

**The proposed extent of  
the thesis**

60-80

**Keywords**

Financial statement, assets, indicators, liquidity, income, resource, financial stability, efficiency.

**Recommended information sources**

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### **Declaration**

I declare that I have worked on my master's thesis titled "Financial Analysis of Microsoft Corporation" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights

In Prague on 31.03.2022

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# Financial analysis of Microsoft Corporation

## Abstract

This diploma thesis focused on financial analysis of Microsoft Corporation from the period from 2007-2020. Microsoft Corporation is one of the world's largest technological corporations, located in Redmond, Washington, United States with more than 100 offices around the world. The corporation is involved in a wide range of technologies, but its major focus is software, particularly Microsoft Windows, its operating system. This work is divided in two part theoretical and practical.

The theoretical chapter is focus on examines the essence and meaning of financial analysis, basic concepts, definition of comparative bases and diverse methods of financial analysis. The literature review based on the consideration of existing opinions and concepts from different authors. The literature review concerns financial analysis method, including horizontal and vertical analysis as well as ratio indicators which including liquidity, profitability, activity, leverage, capitalization ratios.

The second practical part of the thesis will be explained important historical data of the corporation and attention is paid to Microsoft in comparison with the main competitors, the calculations and analysis of financial indicators and ratios of which are applied to the theoretically described methods. Based on calculated results of the financial position several recommendations are illustrated at the end.

**Keywords:** Microsoft Corporation, financial analysis, profitability, liquidity, assets, indicators, horizontal analysis, vertical analysis, balance sheet, income statement.

# Finanční analýza společnosti Microsoft Corporation

## Abstrakt

Tato diplomová práce je zaměřena na finanční analýzu společnosti Microsoft Corporation v období 2007-2020. Microsoft Corporation je jednou z největších světových technologických korporací se sídlem v Redmondu ve státě Washington ve Spojených státech amerických, s více než 100 pobočkami po celém světě. Společnost se zabývá širokou škálou technologií, ale jejím hlavním zaměřením je software, zejména operační systém Microsoft Windows. Tato práce je rozdělena na dvě části, teoretickou a praktickou.

Teoretická část je zaměřena na zkoumání podstaty a smyslu finanční analýzy, základních pojmů, vymezení srovnávacích základů a různých metodách finanční analýzy. Přehled literatury je založen na zvážení existujících názorů a konceptů od různých autorů. Týká se metody finanční analýzy, včetně horizontální a vertikální analýzy, jakož i poměrových ukazatelů, které zahrnují likviditu, ziskovost, aktivitu, páku a kapitalizační poměry.

Ve druhé praktické části práce budou vysvětlena důležitá historická data společnosti a pozornost je věnována Microsoftu ve srovnání s hlavními konkurenty, jejichž výpočty a analýza finančních ukazatelů a poměrových ukazatelů jsou aplikovány na teoreticky popsané metody. Na základě vypočtených výsledků finanční pozice je v závěru uvedeno několik doporučení.

**Klíčová slova:** Microsoft Corporation, finanční analýza, ziskovost, likvidita, aktiva, ukazatele, horizontální analýza, vertikální analýza, rozvaha, výkaz zisku a ztráty.



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## List of Abbreviations

|      |                       |
|------|-----------------------|
| MSFT | Microsoft Corporation |
| AAPL | Apple                 |
| ROA  | Return on Assets      |
| ROE  | Return on Equity      |
| ROCE | Return on Capital     |
| ROS  | Return on Sales       |

# 1 Introduction

Telecommunication technology is the industry in the economy that is in the stage of intensive growth and has become an integral part of the modern world in recent decades. This area is undoubtedly growing rapidly and directly influencing the modern world economy. In just a couple of decades, such American IT giants as Microsoft, Google, Apple have radically changed the usual life for many.

These changes have affected not only the daily leisure of a person, but also global, economic and political processes. Therefore, in this highly competitive telecommunications environment, companies need to clearly set goals, balance different aspects of the company's activities, directing the results towards increasing profits and eliminating errors in order to boost the business development.

As everyone knows, any business is focused on making a profit and satisfying the public interest, therefore, this is the main reason and assumption for the right use of financial analysis.

In place to be competitive in the area of interest, companies should use properly the financial analysis. It is the process of examining and analyzing a company's financial statements. In other words, is a complex concept which enable to see the past activities of the business also play an effective and active role in taking decisions for the future. Thought financial analysis owners of the enterprise can plan, control, continue to develop and improve directions of their activities.

The main purpose of financial analysis is to obtain a clear and objective information about the financial condition of the enterprise to and make thorough decisions about business.

The financial condition of the company is measured by different indicators like all areas of operations, the achievement of production goals, decrease in production costs, increase in revenues, and increase in production efficiency. Therefore, we can conclude that the successful management of the organization is linked with:

- business survival in a competitive environment,
- leadership against competitors,
- profit maximization,
- right functioning of the enterprise

-economic growth

For the purpose of financial analysis Microsoft Corporation has been chosen.

This work is divided in two part theoretical and practical.

The theoretical chapter is focus on examines the essence and meaning of financial analysis, basic concepts, definition of comparative bases and several methods of financial analysis.

The second practical part of the thesis I will explain the important historical data of the corporation and attention is paid to Microsoft in comparison with the main competitors, the calculations and analysis of financial indicators and ratios of which are applied to the theoretically described methods.

After that I will list recommendation for improvement for the future performance according to what analyzed in the previous chapter.

## **2 Objectives and Methodology**

In this chapter are presented the objectives and methodology will be used to determinate financial position of the organization.

### **2.1 Objectives**

This thesis focus is on the topic of “Financial analysis of Microsoft Corporation”. The research was carried out on the basis of the existence of Microsoft, which specializes in the production of software for various kinds of computing equipment and mobile phones. The main tool for assessing the financial condition of a corporation is financial analysis, which characterizes the results of the financial and economic activities.

The aim of this work is to evaluate financial health within period from 2007-2020 based on the annual financial report.

Research questions of this work are:

- To give a theoretical overview of financial analysis in general,
- To study the procedure, methods and information base for analyzing the financial condition,
- To determine weaknesses of a financial analysis,
- To explain financial performance of the corporation in long time frame,
- To compare financial performance with main competitors in the market.
- To apply Horizontal, Vertical and Comparative Analysis,
- To illustrate importance of market ratios
- To determine how the company overcame the financial crisis (2009).

At the end based on the findings obtained propose several recommendations for financial management of the company.

### **2.2 Methodology**

This work is divided in two parts theoretical and practical. The theoretical chapter is focus on examines the essence and meaning of financial analysis, basic concepts, definition of comparative bases and various methods of financial analysis. A major part of literature review paid attention on determining financial methods which are horizontal, vertical, ratio and market indicators.

The second practical part of the thesis described the important historical data of the corporation and attention is paid to Microsoft in comparison with the main competitors, the

calculations and analysis of financial indicators and ratios of which are applied to the theoretically described methods. Based on obtained results, recommendation will be introduced at the end of the thesis.

### **3.Literature Review**

This chapter is a resource that presents the basic theoretical facts needed for a dissertation. In other words, a literature review helps to provide theoretical basis for research, gives a complete picture of the progress in this field. The major objective is to bring together all the required data in order to provide a solid foundation for financial analysis and assessment. The theoretical section contains a collection of financial analysis methodologies and indicators. The qualitative analysis given in the practical chapter is based on a carefully selected and detailed literature review.

#### **3.1 Definition of Financial Statement Analysis**

In the modern world of market economy, financial statement analysis is one of the most essential elements of economic analysis and financial management.

For a complete understanding of what this means, definition of the concept has been presented by various authors. Some has tried to describe it as precisely and specific while others look at it from a more general point of view.

According to Alamry (2020) financial statement analysis can be defined as a process of examining and evaluating a company's accounting reports in order to determine its past, current, and forecasting the future performance.

This method of investigation into financial accounts enables a complex economic decision-making process. Indeed the author suggest that financial statement analysis should be used as a first step in understanding a company's financial position completely, and then develop successful corporate business policies in many areas.

A similar definition is given by Khutson (1993). According to him financial statement analysis gives meaning to collection and presentation of current and historical financial data. Its main purpose is to determine the state of the financial health of the firm, to identify weaknesses, potential sources of problems and in its further to discover the strengths on which the company can stake. Is pointed out by the author that financial statement analysis can be performed by management of the enterprise or by any external analyst, since it is mainly based on publicly available information.



In a similar way Robinson, et al. (2008) defines financial statement analysis as the most thorough, objective, and accurate information foundation for forming a judgment about a company's property and financial situation in today's world. Financial statement analysis should be developed on the basis of a thorough examination of the fundamentals of accounting and financial data, such as capital, assets, liabilities, income, costs, financial outcomes, and cash flows. The relevance of this technique resides in the fact that the content inherent in the investigated ideas determines their qualitative interpretation and quantitative evaluation, and therefore the analysis' findings.

Last but not least White, et al.(2003) thinks that financial statement analysis is a method or process that use particular methodologies to assess an organization's risks, performance, financial health, and future prospects. Financial statements enable businesses to establish an objective assessment of their financial stability, timely detection and removal of potential insolvency and effectiveness of their financial resource usage.

After analyzing the interpretation of the essence of the financial statements of organization, it can be concluded that despite the difference in definitions among scientists, there are some common points which can help to define the subject.

### **3.2 Purpose of Accounting in Financial Analysis**

Financial statements are an essential component of accounting in today's world. Both of these fields are closely related with each other.

According to Evanson (1966) accounting is the art of recording, generalizing, measuring, identifying financial data. This allows users to obtain quantitative information about the financial activities of an economic entity.

Should be noted that demands of users to whom financial accounting information is directed are so different that the same information will not be applicable to all of them. Therefore, there is an important distinction between management and financial accounting Nobes(2001).

According to Alexander, Nobes (2004) financial statements are the end result of accounting. Financial reporting becomes the primary source of information for making educated

management decisions in a market economy. The existence of data about the organization's financial condition and the outcomes of its operations is a crucial need for making a managerial choice. These facts are provided as accounting data, which is gathered, collected, summarized, and represented in reporting. The basis of financial statement is the calculation of special indicators often in the form of coefficients that characterize one or another aspect of the financial and economic activities of the organization. Therefore, an objective assessment of the financial condition of a corporation is impossible without accounting reports.

And again, the author assume accounting system includes two subsystems which has connection between each other:

**-Management accounting** is an orderly system for identifying, measuring, collecting, registering, interpreting, summarizing associated with the provision of information that should be useful to management within the business.

**-Financial accounting** is the accounting of the movement of financial resources of enterprises on the basis of the accounting report is intended for users who are not part of the business.

Therefore, for both is requested correct financial information in order to create solid financial report

### **3.3 Importance of Financial data**

According to Alexander, Nobes (2004) Financial analysis is the process of examining an organization's financial position and key financial outcomes in order to find reserves for improving its market value and guaranteeing successful development. A variety of unique systems and techniques of analysis are employed to handle specific financial management issues, allowing for a quantitative assessment of financial activity outcomes in the context of their distinct features, both in statics and dynamics.

Bocharov (2009) suggest that financial analysis is based on the system of financial information, which is the basis of management decisions. However, the most important are

the financial data provided by the accounting system of the organization. Provided for external use, mainly in the form of formal financial statements, this data constitutes the most important element in the set of assumptions used by the decision maker. Since financial accounting data is the result of a number of conventions, measurements and decision-making. Accurate and objective reflection of business processes is the most important requirement for information obtained from financial statements. The objective and correct reports allow users of financial information to compare indicators and identify the strengths and weaknesses of the organization. Accordingly, international standards are established, which creates the opportunity to conduct the most accurate and correct financial analysis. Also, very important point in the connection between financial analysis and its data is the process of financial reviewing, where control over the information is carried out, which serves as the basis for conducting financial analysis. It also applies and is displayed in accounting, which allows identifying trends and dynamics of the use of financial resources and taking the necessary measures to improve it. (Asllanaj, 2008)

According to Hales (2005) in the financial review process: preliminary data is picked and aggregated at the same time relationships between variables and causation are established and the development of the factors is recognized.

The informative value of financial data is improved after using the specified approach. Based on the results of financial analysis, it is possible to develop alternative options for management decisions and assess their impact on the object of analysis. The target of financial analysis are economic actors, enterprises, as well as external users of information. Furthermore, the findings of a financial analysis based on financial accounting data serve as a critical foundation for decision-making. Unlike financial accounting, financial analysis is not governed by any laws or widely accepted standards, and it is mostly driven by customer demand. (Lewis, & Pendrill, 2004).

### **3.4 Users of Financial Statement Analysis**

There are different ways of categorizing users. For Sirbulescu (2003) users are grouped as:

- business management,
- social partners (unions, employees),
- financial partners (present or future investors, banks),

- commercial partners (suppliers and consumers),
- other partners (central government)

Instead, according to Alamry (2020) financial statement analysis has a variety of users. He divides them in two categories: **external and internal**.

According to the author internal users are members of the company's management who examines financial accounts in order to make decisions about the company's operations.

Instead, external users aren't necessary employees of the organization, but they do have a financial interest.

Some of the users that are part of the above categories are:

- Management,
- Owners,
- Investors,
- Creditors and Suppliers,
- Government, Employees,
- Customers,
- General Public,
- Taxation Authorities.

### **3.4.1 External direct or indirect financial interest.**

We can divide the external user in two categories:

**1.**Users with a **direct financial interest** is owners of the organization, current and potential investors, and shareholders, which because of accounting information, consider the profitability and terms of loans, determine the likelihood and timing of their repayment. Direct interest is manifested in the user's interest in the results of the organization's activities. The financial situation of the company, the results of its work, and the balance sheet's liquidity are the subjects of this subgroup's analysis.

-Investors who have purchased shares in the company interested in assessing profitability and risk in order to make a profit in the future. The ability of an enterprise to develop, generate profits and pay dividends Alamry (2020).

-Creditors and suppliers are interested in information allowing to determine whether the company can reasonably repay loans and pay interest on time. Important factors that interest of the creditors is not only liquidity in the short term also solvency in the future.

-Shareholders are interested in information about the achieved investment results, future profitability, earnings per share as well as their liquidity and solvency.

2. Users with **indirect financial interest** are characterized by governmental and other regulation financial authorities. This subgroup also includes customers who are interested in financial information about future for the effectiveness of the enterprise. Indirect interest is concerned with the organization's durability and prospects.

-Government and other regulation are interested in the information to determine how economy is developing in general so that they can plan financial strategies and control payment of tax in order to finance government spending.

-General Public anyone who interested to conduct a firm's impact on the environment, evaluate performance of the company or make analysis of the economy.

-Customers are interested in information confirming the company's ability to continue serving them in the future. If the customer relies entirely on the firm for supply, the requirement to know more about the company's operational stability is even greater.

Moreover, some authors determine users without financial interest. They are statistical authorities, arbitration, audit firms, stock exchanges. This subgroup's users are interested in reporting data in order to: verifying the legality of transactions and acquiring statistical data to enhance macro-level statistics by grouping organization reporting indicators.

### **3.4.2 Internal Users**

We can highlight specific type of internal users as follow:

-Owners of an enterprise need financial information about their activities to determine how profitable and stable company as well as understanding what strategic decisions and business plans will improve the business. (Alamry ,2020).

-Management of the company, based on accounting, use the assessment of the state of the analysis of financial statements, set development trends in order to make reasonable

decisions about their activities in the future. Accounting information will constrict the initial basis for making decisions on the current, investment and financial activities of the enterprise.

-Employees want to know if their jobs are safe and if they can advance in their careers. Employees want to know about the profitability and stability of the organization. Employees may also be interested in learning about the company's financial situation to determine if there are any plans for expansion and, as a result career opportunities.

### **3.4.3 Limitation of the financial analysis**

To preserve the efficacy of financial markets, the current financial system must be trustworthy and fair. (Stiglitz, 2008)

According to author financial reporting should access to reliable, verifiable, and unbiased corporate data. As a result, it's unsurprising that the increased demand for financial statement quality among all users is a significant element.

Ari M (2007) defines that value of financial reporting is determined by its quality. Therefore, the poor quality of the obtained financial data can be considered as a weakness of financial analysis, as it prevents an accurate assessment of the financial stability of the enterprise. The quality of financial information and reporting is influenced by the evaluation criteria employed in reporting. Because non-truthful standards degrade the quality of financial data. As a result, the valuation method adopted has a significant impact on both reporting and capital and income measurement. Valuation is now used for more than just expressing the true value of assets and liabilities in financial statements or accurately calculating profit over time

Brigham and Houston (2004) recommend several points that an analyst should consider when reading a financial analysis.

- Correctness of financial indicators.

Provision of correct financial data used as input must be as accurate and clear as possible

-To construct financial statement, historical costs are used.

Transactions are first recorded at their full cost. This is a problem when assessing the balance sheet because asset and liability values might change over time.

Therefore, financial statements cover only a specific period of time

-Difficulties in compatibility of financial statements.

It is important to understand the size of the outsourced business in order to correct valuation of the organization

### **3.5 Types of Financial Statement**

According to Sovaniski et al (2021) General principles of Financial Statements presented in three basic reports are balance sheet, income statement, and statement of cash flows. In the current chapter, we will consider these concepts in more detail.

#### **3.5.1 Balance sheet**

A balance sheet represents an accounting entity's financial position of a specific period of time. The balance sheet is composed of assets which are the company's resources; liabilities which are the company's obligations; and shareholders' equity which is the company's ownership stake. The assets come from two different sources: creditors and owners. At any one time, the assets must match the creditors' and owners' contributions. Author assumes that format of a balance sheet varies from country to country. (Bocharov,2009)

This diploma thesis work based on an American company that why is influenced by the US report a balance sheet that emphasizes liquidity. (Sovaniski et al, 2021)

This relationship is expressed by the accounting equation:

#### **Formula 1.**

$$\text{Assets}=\text{Liabilities}+\text{Stockholders' Equity}$$

According to different authors, fixed assets include a set of tangible assets used to manage an organization during the period of one operational period or a period exceeding 12 months.

#### **1. Assets**

For example, Gibson (2009) thinks that assets are what company owns such as land, buildings, machinery, equipment, inventories of suppliers, raw material and cash it is a fixed asset exceeding the period of 12 months. It is important to note that fixed assets include also intangible capital such as licenses, patents, trademarks. As subgroup assets are divided into two categories **current assets and non-current assets**

Robinson, et al. (2008) assume that non-current assets take time longer than one year after balance sheet date or operating cycle it means that assets not turned into cash easily. In another words company liabilities and all debt obligation expect to pay more than one year or more than one operating cycle.

## **2. Subcategories in Current Assets**

Based on Gibson (2009) current assets is resources in the form of cash that typically will be realized in cash or items that become cash during operating cycle or consume within one year after the date of balance sheet. In other words, in the current assets company comprise all bill and debts have to pay within one year.

**Inventories** are goods that are stored and will later be used in the production of goods for sale. It is important for the company to keep a balance between tie up of capital and the ability to supply while the inventory includes all expenditures that were associated with the cost. Inventories cab divided by classes such as raw materials and supplies, finished goods, work in progress, unbilled costs, merchandise. (Taraskina, Bank, V and Bank, S., 2006)

**Account Receivables** in accordance with USGAAP it is amount that must be received from individuals and legal entities, and it arises if the service or product was sold, and payment were not received. (Alamry,2020)

**Cash** is the most liquid asset that can be put into circulation represents an account of funds in domestic and foreign currencies.

**Market Securities** have a short-term investment and quick liquidity at a market price. Fair value is the carrying basis for debt and equity marketable securities.

**Prepaid** is a partial or full payment which paid or received in advance for services and goods. The company providing services using prepayment to minimizes possible risk loses.

## **3. Subcategories in Noncurrent Assets**

**Intangible assets** are assets are identifiable, non-monetary that have no physical existence. Intangible assets, like other assets, are anticipated to provide economic returns in the future. This expectation is for longer than a year or one operational cycle as a long-term noncurrent asset. According to the author noncurrent assets can be classified in **intangible and tangible assets**. (Robinson, et al,2008)

**Tangible assets** are one that has a monetary worth and is generally in the form of a physical object. Although the liquidity of different markets varies, tangible assets may almost always



be traded for some monetary worth. Intangible assets have a theoretical worth rather than a transactional exchange value. Tangible assets are the opposite of intangible assets. This expectation is for longer than a year or one operational cycle as a long-term asset (Gibson ,2009)

**Land** fixed assets of the enterprise are accepted for accounting at their initial cost, that is, at the amount of actual acquisition costs. The value of fixed assets of an enterprise is repaid through depreciation. In this case, they try to measure the value of land as the depletion of natural resources but resources whose consumer properties do not change over time are not subject to depreciation.

**Building** is presented at the cost of construction plus the cost of long-term upgrades. Over the course of their projected useful life, buildings are depreciated

Equipment is indicated at its initial cost, but due to the wear and tear of the equipment and the amount of products produced with its help, the equipment is depreciated during the estimated period as this increases the quality of service.

### **Equipment**

Should be noted some industries such as banking, insurance and real estate do not divide assets into short-term and long-term. The reason is that when a company is consolidated out of the industry these concepts do not use short-term and long-term assets, but rather often provide additional financial statements.

## **4.Subcategories of liabilities**

Gibson (2009) claims that liability is the polar opposite of assets on the right side of the table. Liabilities are the debts owed by one entity to another business as a result of previous events, the payment of which would result in an outflow of funds from the business. It's also worth noting that liabilities can be both long- and short-term. Liabilities are also classified according to their intended use:

- **Provision and accruals in** the financial analysis essence of the provision is increasing production efficiency through full and rational use of production potential in order to obtain the maximum amount of high-quality products at the lowest expenses at labor per unit of output. Provision and accruals are considered re as well as uncertain liabilities such as pensions and unfertilized taxes. (Allen,2006)

- **Liabilities debt** obligations owed to suppliers, tax liabilities owed to the government, workers, bank loans and other tax. In another words is undertake an obligation to provide a

loan to a bank by another credit organization under a loan agreement to the borrower on terms of repayment and, the payment is thus provided necessary working capital and resources for investment, but for the company this is an obligation that must be paid depending on the agreed period of time.

## **5. Subcategories of Equity**

**Stockholders'** equity is leftover ownership interest is an entity's asset that remains after deduction its liabilities. The equity can be divided in two categories paid in capital existing in the form of capital goods and retained earnings existing in the form of money and used to acquire means of production (Gibson,2009)

**Paid in capital** is amount of capital "paid in" by investors during the issuing of common or preferred stock, comprising the par value of the shares plus sums in excess of par value. Represents amount of money raised by a company by selling its stock rather than by managing the firm. (Allen,2006)

**Retained earnings** is sum of income that aren't dispensed as dividends to shareholders however rather are reserved for reinvestment again into the business. About huge part of financial element will be described in more detail below.

### **3.5.2 Income statement**

The income statement, often known as the profit and loss statement (P&L), is a financial statement that shows a company's sales, costs, and net income over time.

According to Hales (2005) income statement it is one of the main financial operational report of the organization which measures a company's sales and costs over a certain period of time. The income statement is a financial statement used to identify a company's past financial performance, forecast future performance, and evaluate its capacity to generate future cash flows.

Income Statements refer as:

- The profit and loss statement (P&L),
- Statement of operations,
- Statement of earnings

Income statements include two components of sales and expenses. These components contain of net sales, gross margin, cost of goods sold, selling and administrative expenses, net profit.

The author defines several key characteristics of income statement:

- To report financial results of income and expenses in a particular period of time,
  - To capture information about each period and record current month as well as the whole year,
- To view and compare results with other indicators such as budget for the past period,

Sovanski (20) assume that revenue and cost of sales involves such elements as:

- Research and development expenses
- Selling and administrative expenses
- Sales and marketing expenses
- Purchases of resale or manufacturing products

**Other operating expenses involves:**

- Income and loss from investment
- Depreciation of assets
- Interest Income

**Interest expenses involves:**

- Income and loss before tax
- Other net financial income and expenses

Income tax expenses involves:

- Net of income taxes

Data of income statement show in the cumulative total from the beginning of the year to the reporting date. The basis of the report includes data of the following types of profits:

- gross profit,
- profit or loss of sales,

**Table 1. Revenue and cost**

| Revenue and cost of sales                      | Operating expenses               | Interest expenses                        | Income tax expenses  |
|--|----------------------------------|--|----------------------|
| -Research and development expenses             | -Income and loss from investment | -Income and loss before tax              | -Net of income taxes |
| -Selling and administrative expenses           | - Depreciation of assets         | -Other net financial income and expenses |                      |
| -Purchases of resale or manufacturing products | -Interest Income                 |  |                      |

**Source:**AAFA(American Accosiation of Finance and Accounting)

### **3.5.3 Cash Flow Statement**

Hales (2005) explains that cash flow statement provides fundamental information about the impact of investment and financial transactions, it is an integral and important part of financial analysis. Is a report measures liquidity and movement of cash flows and the aim is providing to users with accurate financial reporting information about the sources of cash inflows and the directions of their spending. The report includes data on two periods for the reporting year and the same period of the previous year which creates an effective comparative analysis.

The writer defines several key characteristics of income statement:

-To show how and where money was used in daily operations,

- To plan future obligations,
- To transform balance sheet when a cash account increase or decrease,
- To measures liquidity of an organization and its ability to repay short-term liabilities.

A similar definition gives Sovaniski (2021) according to him in financial accounting of cash flow demonstrates how changes in balance sheet accounts and income influence cash and cash equivalents, dividing financial analysis into operating, investing, and financing operations.

**Operating activities** include cash flow of the production, industrial, sales and service activities. This report provides important information on how an organization can negate cash flows, liquidity, and profit. It is important to add that all operations that are not categorized as investment and financial activities can be considered as operating.

**Investing activities** are activities comprise all cash flows in connection with acquisition of long-term assets such as production, land plots, buildings, real estate, equipment, intangible assets, scientific research, stock, contributions to the authorized capital. These reports present important information which expenditures have been made for resources and financial investment to generate future income and cash flows.

**Financing activities defines** all cash flow related with shareholders and lenders. They give information to providers of capital about changes in the value and composition of equity capital, proceeds from the issue of shares, bonds, the provision of loans, repayment of borrowed funds and other borrowed funds related with external financing of the economic activities of the organization.

Gibson (2005) explain for preparation of operating activities required to use **direct and indirect method** of financial evaluation.

**Indirect method** calculates cash flow from operational operations by subtracting net income from a company's income statement first. Revenue is only recorded when it is earned, not when it is received, because a company's income statement is constructed on an accrual basis.

**Direct method** calculates of totals all cash payments and revenues, including cash paid to suppliers, cash received from consumers, and cash given out in salary. These numbers are derived by comparing the beginning and ending balances of several different company accounts and calculating the net reduction or growth in the accounts.

The cash flows from operational operations are the fundamental distinction between the direct and indirect methods of reporting the statement of cash flows.

### **3.6 Financial Statement**

According to Bocharov (2005) analysis is a fundamental financial approach for a more in-depth examination of a company's financial performance. Because of their ease of execution and interpretation, horizontal and vertical analysis are frequently utilized methodologies for financial evaluation. Both approaches are based on actual data from the financial statements, which represent the company's financial condition.

The main purpose of this analysis is comparison of current results with the estimated period, which will help to trace the dynamics of certain financial indicators, as well as to make a forecast for the previous period.

#### **3.6.1 Horizontal analysis**

Helfert (2010) explain that conducted of comparing financial ratios, benchmarks, or items in financial statements for different accounting periods. Based on data collected over several years rather than a single date or period. The major goal is to find out if the numbers are high or low in contrast to previous records that any potential problems may be investigated. Author mentioned that changes in one indicator by economic nature do not correspond to changes in another indicator.

George (2003) Depending on the objective, the number of examined periods may vary; generally, when the analyzed series has more than three periods, a qualitative analysis is usually achievable. Thus, it is possible to indicate a formula based on absolute differences

**Formula 2.**

$$\text{Horizontal analysis (\%)} = \frac{\text{Amount in comparison year} - \text{Amount in base year}}{\text{Amount in base year}} * 100$$

### **3.6.2 Vertical analysis**

Halfert (2009) explain that is a technique for financial statements conducted on financial accounts for a one time period. Analyze allow to consider the ratio between current and non-current assets, equity and borrowed capital for a year, each item in the statement is provided as a basis figure for another item in the statement.

Vertical analysis is aimed to identify structure of income, expenses, liabilities and to determine the share or net profit of expenses in proceeds from sales. As a result, a formula based on absolute differences can be indicated. (Alamry,2020)

**Formula 3.**

$$\text{Vertical Analysis (Income Statement)} = \frac{\text{Absolute Indicator Item}}{\text{Sum of Total item}} * 100$$

### **3.7 Market Ratio**

The information society is a new stage of social development following the industrial society. If until recently the US economy was driven forward by the automobile industry and housing construction, now information technology and information business, which provide about a third of all economic growth, are the engine of development. (Quiry,2009)

Today's trends in the development of the information business are such that it consistently outperforms traditional industries in terms of growth, employment, and other economic indicators. The core of the information technology industry, like any other industry, is made up of large corporations, and they are not only large corporations play an important role in the global economy. It is large firms in all industries that create a significant part of the

country's GDP, produce the bulk of goods and services. Their potential is the driving force in the implementation of scientific and technological progress. (Schmalensee,2009)

In this regard, the relevance of the chosen topic lies in the fact that determining the current state of the global information technology market, Microsoft Corporation is one of the main generators of its growth. Thus, attracting investors to buy shares on the common stock Brealey (2000) assumes that stock market is a market for securities: stocks, bonds, investment shares. Market related ratios evaluate various balance sheet, income statement, and cash flow components to the current stock price of the company that is quoted on the stock exchange. The current stock price is a component of all market-related ratios. Market value ratios are one of the most widely used financial measures, as they evaluate and analyze stock prices and compare them to those in similar industries as well as other facts and numbers. Basically, the market ratio is used by investors as it helps to make the right investment decisions.

### **3.7.1 Price to Earnings**

Is the most common used market value. It is calculated by comparing the current share price to the earnings per share reported by the company for the previous financial period. (Aharbaneil,1997)

**Formula 4.**

$$\mathbf{P/E\ ratio} = \frac{\mathbf{Stock\ Price}}{\mathbf{Earnings\ per\ Share}}$$

### **3.7.2 Earnings per share**

This ratio depicts the company's earnings during the analysis period in relation to the number of outstanding shares at that time. This ratio is used to determine whether investing in it is a good investment.

**Formula 5.**

$$\mathbf{EPS} = \frac{\mathbf{Net\ Income}}{\mathbf{Numbers\ of\ Shares\ Outstanding}}$$



### 3.7.3 Book Value per share

This ratio depicts the relationship between the company's book value and the market's outstanding shares. In terms of basic analysis, book value is the intrinsic value. And it's the sum of the supplied value plus the company's operating gains or losses over time.

**Formula 6.**

$$\text{BVPS} = \frac{\text{Shareholders Equity} - \text{Preference Stock}}{\text{Numbers of Shares Outstanding in Market}}$$

### 3.7.4 Market Value per Share

This is the ratio determined by dividing the entire market value of the company's shares by the number of outstanding shares. This is the market's per-share pricing.

**Formula 7.**

$$\text{MVPS} = \frac{\text{Current Market Price per Share}}{\text{Numbers of Shares Outstanding}}$$

### 3.7.5 Dividend Yield

Investors look at a stock's price as well as its dividend profits, this ratio can be used to compare the total of dividends paid in a year to the number of shares outstanding.

**Formula 8.**

$$\text{DY} = \frac{\text{Total Devident in one year}}{\text{Numbers of Shares Outstanding}}$$

## 3.8 Ratio Indicators

Ratio analysis is a mathematical way of determining a company's liquidity, operational efficiency, and profitability by investigating financial statements of the organization including the balance sheet, income statement and cash flow statement. Fundamental equity analysis relies on ratio analysis. The effectiveness of this analysis resides in the ability to

identify how effectively a firm operates over time while also comparing financial performance in a certain industry. (Salvi,2009)

### 3.8.1 Liquidity ratio

Quiry, (2009) suggest that liquidity is a sum potential liquid resources allocated in the company order to meet its payment obligations. In other words, is the assets which has ability to quickly and at minimal cost are converted into cash.

Must be noted that solvency liquidity indicators are highly related with each other. Because solvency indicates whether a company can pay its obligations on time. Liquidity measures how quickly a company can sell its assets to pay its liabilities. Both definitions is one of the key features of a sustainable financial development of the company.

The same opinion applied by Baran and Pastyr (2014) they can conclude that liquidity indicators and solvency are strongly linked. The goal of achieving solvency is to have a portion of its assets bonded to available assets that may be used to meet commitments for reimbursement in the form of short-term financial assets, such as bank accounts.

We can conclude that an organization's solvency is defined by its ability to pay off debt on reimbursement commitments in short-term financial assets and liquidity sufficient cash to pay for debts at that moment. Therefore, the concepts of liquidity and solvency usually act as synonyms.

Liquidity is implied as the level of coverage a company's liabilities with its assets time of transformation into cash coincides with the maturity of the liabilities.

According to Valach (1999) 3 levels of liquidity is existing.

First level of shows the current position of the company. How well a company can pay off its assets and cover short-term liabilities. The first-level liquidity indicator is especially important for lenders of a company subject's short-term debts, as it indicates the extent to which the short-term debts of equity cover the assets.

Another economic professional giving other name for liquidity for example Robinson (2020) defines them as **current liquidity**. To calculate current liquidity necessary, calculate whether the company will be able to cover short-term liabilities using cash at the expense of

liquid working capital and other free assets. For understanding current liquidity, the greater the value indicator, the more likely the business subject's solvency is guaranteed.

It should also be noted that this characteristic is approximate, since, depending on the structure of the enterprise and the type of industry may change.

If the value of the coefficient is below 1, then this indicates the lack of financial stability of the enterprise. This means that the company is unable to pay its obligations if they were due at that moment.

**Formula 9.**

$$\text{Current liquidity} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

**Quick liquidity** or another name is acid-test ratio measures capacity of an organization to pay short-term obligations with its most liquid assets is measured.

Quick Ratio is similar in its semantic purpose to the current liquidity, but quick liquidity of all liquidity indicators represents a more accurate picture of the company's health.

Quick assets consist of: cash; receivables of balance accounts; short-term investments or marketable securities; cash equivalents. Just like in current liquidity, if the coefficients are below 1, this means that the company does not have enough financial stability (Alexander,2004)

**Formula 10.**

$$\text{Quick liquidity} = \frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}}$$

The ability of the corporation to repay short-term borrowed capital obligations through current assets is determined by **cash ratio**. This indicates that the company has sufficient short-term capacity to conduct its routine operations.

**Formula 11.**

$$\text{Cash Ratio} = \frac{\text{Cash equivalents}}{\text{Current Liabilities}}$$

## **Working Capital**

**NWC** is amount of current assets financed with long-term capital. This capital is created thought of use different current assets and current liabilities<sup>1</sup>. A positive net working capital indicates an inefficient use of resource. In opposite way a deficit of networking indicates the inability of the company to pay off its short-term obligations on which may lead to its bankruptcy. The negative net working capital called *uncovered debt*. (Robinson,2020)

### **Formula 12.**

$$\text{Net working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

## **3.8.2 Profitability Ratio**

According to Fridlob (2013) profitability is a company's total value, as well as the value of the securities it issues, is largely determined by capacity to make profit on invested capital. Profitability measures level of efficiency in the use of material, labour, money, and other resources. Should be noted that ratio of net profit to cash sales for a certain time period is used to determine profitability.

### **Return –on –sales (ROS)**

Measures how much profit a business makes after paying for variable expenses of production like salaries, raw materials. The return on sales is generally explained in a percentage of total sales. Can be used to compare performance of similar firms better in the same sector versus its historical performance.

### **Formula 13.**

$$\text{Return on sales} = \frac{\text{EBIT}}{\text{Total revenue cash}} * 100$$

### **Return on equity (ROE)**

Is indicator of net profit in relation to the organization's equity capital. For every investor or business owner, this is the most significant financial measure of return, since it shows how

successfully the cash invested in the firm was used. Unlike the comparable indicator "return on assets," this indicator measures the efficiency of employing just that portion of the organization's capital (or assets) that belongs to the company's owners.

**Formula 14.**

$$\text{Return on equity} = \frac{\text{Net profit}}{\text{Equity}} * 100$$

**Return on assets (ROA)**

The return on all of the organization's assets is represented by a financial ratio. The coefficient depicts an organization's capacity to create profit without taking into consideration its capital structure or asset management quality. To comparison with "return on equity," this statistic considers all the organization's assets, not simply its own money. As a result, it is less appealing to investors.

**Formula 15.**

$$\text{Return on assets} = \frac{\text{Net profit}}{\text{Total Assets}} * 100$$

**Return on capital employed (ROCE)**

Measures rate of return on the organization's own capital and long-term borrowed cash in commercial operations. Used to assess a company's investment appeal and compare profitability among competitors This measurement is also useful for determining the interest rate on loans that the firm can afford.

**Formula 16.**

$$\text{Return on capital employed} = \frac{\text{EBIT}}{\text{Capital employed}} * 100$$

### 3.8.3 Activity Ratio

Activity ratios is a type of financial indicator measure how efficiently a company uses assets on its balance sheet to generate income and cash. Usually, activity ratios help analysts assess how a company is managing inventory, which is key to its operational agility and overall financial health. (Barnes,1990)

The analyst should note that Activity Ratios are most useful when used to compare two and more competing businesses in the same industry to determine how a particular company stands out from its peers. But activity ratios can also be used to track a company's financial progress over multiple enrolment periods to detect changes over time. These figures can be mapped to provide a perspective picture of the company's forward-looking performance. The following turnover indicators are the most common in financial analysis (Nugraha,2020)

#### **Total Assets Turnover**

Measures of how well a company uses all its assets in a year. This indicator is used in conjunction with other turnover indicators, such as accounts receivable turnover, accounts payable turnover, inventory turnover, to assess property management performance and business obligations. If the value is less than one, the company's management should either lower the quantity of assets or boost sales. The higher the asset turnover ratio is above one, the more efficiently assets are utilised.

#### **Formula 17.**

$$\text{Total assets turnover} = \frac{\text{Net Sales}}{\text{Total Assets turnover}}$$

#### **Inventory turnover**

Measures how many times the organization utilised the average available inventory balance during the period under consideration. This indicator describes the quality of stocks and the efficiency with which they are managed, allowing you to spot underutilized, outdated, or inferior goods. The indicator's significance stems from the fact that profit is generated with each "turnover" of stocks Should be noted that stocks refer to both commodity stock sand production stocks. Inventory turnover can be calculated in two ways. (Hales,2021)

**Formula 18.**

$$\text{Inventory turnover ratio} = \frac{\text{Sales}}{\text{Inventory}}$$

**Payables turnover ratio**

Measures how quickly a company pays its suppliers and creditors back for 1 year. This ratio indicates how often the company has repaid the average amount of its accounts payable. In other words, is a measurement of a company's ability to manage its payables efficiently. Accounts payable turnover is highly dependent on the industry and the size of the company's operations. A higher turnover ratio is preferable to creditors, while a low ratio is more profitable for the organization, allowing it to use the balance of unpaid accounts payable as a free source of financing for current operations.

Payables should be calculated as (Friedlob,2003)

**Formula 19.**

$$\text{Payable turnover ratio} = \frac{\text{Net credit purchases}}{\text{Payables}}$$

**Receivable turnover**

Measures how well and fast a firm manages and collects its accounts receivable from clients. It shows how rapidly accounts receivables are converted into cash.

The greater the percentage, the sooner the purchasers repay their loan, and the better for the company. At the same time, high turnover does not always imply successful activity.

**Formula 20.**

$$\text{Receivables turnover ratio} = \frac{\text{Sales}}{\text{Receivables}}$$

**3.8.4 Leverage Ratio**

Measures the percentage of a bank's liabilities to its equity. The percentage that has the ability to impact the organization's profit level by adjusting the ratio of own and borrowed money. It is employed in the process of assessing a subject of economic interactions to establish its long-term financial stability. The values of the leverage ratio help company analysts to identify additional potential for profitability growth, assess the degree of possible

risks and determine dependence of the profit level on external and internal factors. Two popular leverage ratios are shown below: debt/equity and debt/capital. (Gibson,2013)

Debt to equity ratio that shows what percentage of an entity's equity and debt is utilized to fund its assets. It's also estimate of a company's capacity to pay back its debts. The debt/equity ratio is an important factor to consider when assessing a company's health. The ideal debt-to-equity ratio should be around 1. Significantly high considered for most businesses is 1.5-2 but for biggest businesses can be more than 2 but it is not acceptable for most small and medium businesses. In industrialized economies most typical ratio is 1.5 is 60 percent borrowed capital and 40% equity. (Breadley,2020)

**Formula 21.**

$$\text{Debt to equity ratio} = \frac{\text{Total liabilities}}{\text{Total equity}}$$

**Debt ratio**

Measures ratio of the organization's borrowed capital to the total assets. It demonstrates how much the firm depends on debt to fund assets. The greater the ratio the bigger the risk of the company's operations. A low debt ratio suggests prudent financing with the possibility of future borrowing without considerable risk. If the ratio is greater than 0.5, debt is used to fund the majority of the company's assets. If the ratio is low than 0.5, equity funds the majority of the company's assets.

**Formula 22.**

$$\text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$$

**Shareholder's ratio or equity ratio** is a complement to the total debt ratio measuring the proportion of capital utilized that is solely financed by shareholders' equity. The total of the equity and debt ratios equals 1. A low shareholder ratio indicates that a firm is heavily dependent on equity, a high ratio indicates that the company is heavily based on debt.

Formula Shareholders ratio= Funds/ capital employed.

**Formula 23.**

$$\text{Equity ratio} = \frac{\text{Shareholders equity}}{\text{Total assets}}$$

### **3.9 Capitalization Ratio**

Referred as financial leverage is a financial ratio measures how much a firm relies on its own funds to operate. It informs investors about how much of the company's stock is being



used to fund operations and growth. Organization with a high capitalization ratio may have trouble obtaining further financing in the future. A high capitalization ratio isn't always a bad thing more financial leverage may boost a shareholder's return on investment because borrowings generally come with tax benefits.

**Formula 24.**

$$\text{Capitalization Ratio} = \frac{\text{Long term debt}}{\text{Long term debt} + \text{Shareholders equity}}$$

## **4 Practical Part**

In the practical part will be analysed financial performance over years 2007-2020 of Microsoft Corporation. After reviewing these indicators, I will compare with the main competitors in the market.

### **4.1 Introduction and history of Microsoft Corporation**

According to Roy (2001) Microsoft is a global leader in software, IT services and solutions. This is one of the largest global corporations, with offices in more than 100 countries and thousands of employees. But in the beginning the corporation started, in 1975, with two childhood friends from Seattle, Bill Gates and Paul G. Allen. They adapted “Basic”, a popular mainframe computer programming language, for use on the Altair, an early personal computer. Gates and Allen launched Microsoft not long after, naming it after the phrase’s microcomputer and software. A year later, in 1976, Microsoft's revenues exceeded \$16,000. After that the corporation started to make business agreement with worldwide companies such as IBM and many others which helped to become one of the leaders of the market.

**Registered office:** Redmond, Washington, US

**CEO:**

In our day Satya Narayana Nadella is the Chief Executive Officer and Chairman of the Board of Directors of Microsoft (Microsoft official site)

**Operating area:**

The most important area of Microsoft's activities is research and development which is still in the early stages of funding.

**Employees of Microsoft around the world:**

Total number of employees in 2020 was 163,000 in more than 100 countries.

**Mission and purpose:**

Mission is to allow people and businesses all over the world to fulfil their full potential by providing them with problem-solving software. Together with the mission and purpose, it is important to identify the main objectives which are profits, market share dominance, increased productivity, boosting the organization's capacity, technology advancement, product development, product manufacture and collaboration with potential clients.

(Gates,2017)

**Organizational structure:**

Microsoft's organizational structure is based on product divisions, with each division focusing on a specific line of goods and services. Each division has its own research and development department, as well as dedicated sales and customer service personnel. (Nadella,2007)

Also, should be noted that there are seven further functional divisions each of them reports directly to Satya Nadella.:

-Business development, Finance, Human Resources, Legal and Corporate Affairs, Engineering, Research and advanced strategy, Dynamics.

**Ownership:****Table 1. 1 Members of the board**

| Name               | Title                              | Since |
|--------------------|------------------------------------|-------|
| Satya Nadella      | Chairman & Chief Executive Officer | 2021  |
| John Thompson      | Lead Independent Director          | 2021  |
| John W. Stanton    | Independent Director               | 2014  |
| Teri L. List-Stoll | Independent Director               | 2014  |
| Charles Scharf     | Independent Director               | 2014  |
| Sandra E. Peterson | Independent Director               | 2015  |
| Padmasree Warrior  | Independent Director               | 2015  |
| Reid Hoffman       | Independent Director               | 2017  |
| Hugh Johnston      | Independent Director               | 2017  |
| Penny Sue Pritzker | Independent Director               | 2017  |

**Source:** Data from Microsoft annual report 2021

**Table 2. 1 Shareholders**

| Shareholders   | Percentage |
|--|------------|
| The Vanguard Group, Inc.                               | 7.80%      |
| Capital Research & Management Co.                      | 7.42%      |
| SSgA Funds Management, Inc.                            | 4.04%      |
| T. Rowe Price Associates, Inc. (Investment Management) | 2.72%      |
| Fidelity Management & Research Co. LLC                 | 2.31%      |
| BlackRock Fund Advisors                                | 2.15%      |
| Geode Capital Management LLC                           | 1.72%      |
| Capital Research & Management Co. (World Investors)    | 1.44%      |
| <u>Bill Gates</u>                                      | 1.37%      |
| Capital Research & Management Co. (Global Investors)   | 1.24%      |

**Source:** Data from Microsoft annual report 2021

**The main products of sales:**

The productivity and business processes division of Microsoft's business covers a range of products aimed at improving corporate productivity, communication, and information services.

- Productivity and business processes: Microsoft Office (Word, PowerPoint, Excel, Outlook)

- Intelligent cloud: Azure, SQL Server, Windows Server, Microsoft Consulting Services

-Personal computing: Windows, Surface tablets, Xbox video, Bing search engine,

As mentioned above, that the main objectives of the Microsoft Corporation are to dominate the market among the main competitors, it is important to study the market.

**The main products of competitors in a market:**

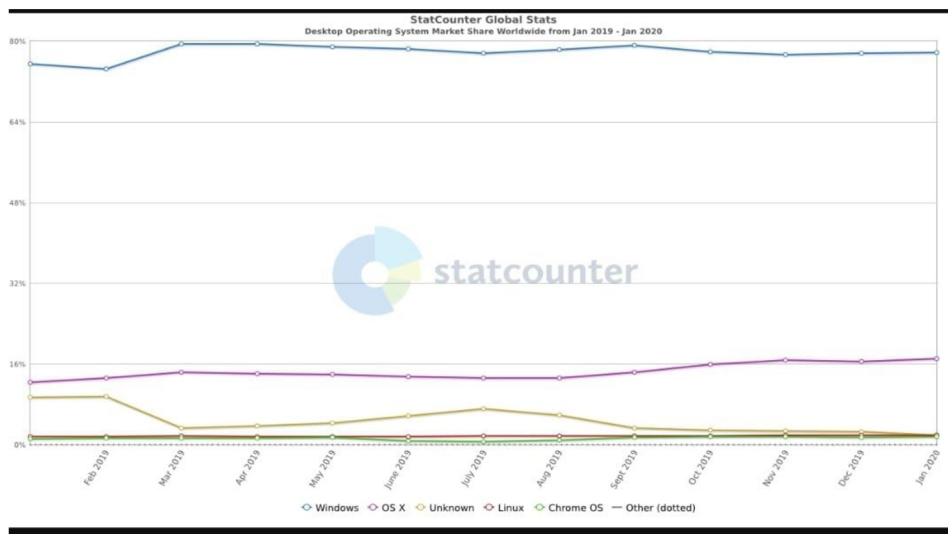
In case of Apple the most known high selling products are:

-Productivity and business processes: iPhone, Mac, iPad, Air Pods, Apple Watch, Apple TV, Home Pod and so on.

- Intelligent Cloud: Cloud Services, Digital Content, Apple Care, Apple Advertising, Payment Services.

**Sales in a market share:** Between January 2019 and January 2020 the world OS market had a unique direction, with the Windows giant from Microsoft that stands out above all its competitors reaching 77.7% (January 2020 figure) and distancing itself from OS Mac X by as many as sixty percentage points (17.04%). The other OSes considered in the ranking are Linux and Chrome OS, but the trend of those who use an OS that cannot be cataloged by simply naming it Unknown is also shown. The latter variant is practically on a par with Linux (both about 1.9%), while Chrome OS is the last on the list with 1.52% of installations

**Graph 1.: Shares of Market**



**Source:** Statcounter 2019-2020

## 4.2 Financial Analysis of the Microsoft

In this section I will analyze horizontal and vertical analysis of balance sheet and income statement in the period from 2007-2020 years. It necessary because with the help of both horizontal and vertical analysis we can identify financial position of the company and find out changes in assets, liabilities, and shareholder's equities for chosen accounting periods. For calculating above mention analysis balance sheet and income statement are used. After that based on the detailed analyzing of the company's financial performance, the company's main competitors will be introduced, along with a general summary.

### 4.2.1 Horizontal analysis

**Table 3. 1 Horizontal analysis of the balance sheet-assets**

| Balance Sheet(Millions of US \$)      | 2007           | 2008          | 2009          | 2010          | 2011          | 2012          | 2013          | 2014          | 2015           | 2016          | 2017          | 2018         | 2019          | 2020         |
|---------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|--------------|---------------|--------------|
| Assets                                |                |               |               |               |               |               |               |               |                |               |               |              |               |              |
| Current assets:                       |                |               |               |               |               |               |               |               |                |               |               |              |               |              |
| Cash and equivalents                  | -8,98%         | 69,19%        | -41,23%       | -9,40%        | 74,57%        | -27,80%       | -45,17%       | 127,89%       | -35,46%        | 16,35%        | 17,71%        | 55,89%       | -4,94%        | 19,55%       |
| Short-term investments                | -36,97%        | -22,99%       | 90,43%        | 23,30%        | 37,97%        | 29,98%        | 30,51%        | 5,22%         | 18,03%         | 17,37%        | 17,42%        | -2,79%       | 0,53%         | 0,40%        |
| Total cash and short-term investments | -31,47%        | 1,07%         | 32,90%        | 16,98%        | 43,45%        | 19,46%        | 22,18%        | 11,28%        | 12,62%         | 17,32%        | 17,43%        | 0,59%        | 0,04%         | 2,02%        |
| Accounts receivable                   | 21,70%         | 19,85%        | -17,64%       | 16,28%        | 15,16%        | 5,29%         | 10,81%        | 11,77%        | -8,37%         | 2,06%         | 22,73%        | 18,06%       | 11,49%        | 8,42%        |
| Inventories                           | -23,75%        | 76,13%        | -13,50%       | 1,34%         | -21,15%       | -17,13%       | 70,45%        | 37,31%        | 9,06%          | -22,43%       | -3,11%        | 22,05%       | -22,50%       | -8,14%       |
| Deferred income taxes                 | -2,11%         | 6,21%         | 9,72%         | -1,31%        | 12,96%        | -17,51%       | -19,80%       | 18,93%        |                |               |               |              |               |              |
| Other                                 | 13,14%         | 24,91%        | 24,16%        | -20,51%       | 12,54%        | -6,87%        | 9,57%         | 29,63%        | 24,34%         | 7,89%         | -13,39%       | 32,29%       | 50,29%        | 13,17%       |
| <b>Total current assets</b>           | <b>-18,04%</b> | <b>7,65%</b>  | <b>13,96%</b> | <b>12,98%</b> | <b>34,56%</b> | <b>13,57%</b> | <b>19,25%</b> | <b>12,60%</b> | <b>7,48%</b>   | <b>13,73%</b> | <b>16,49%</b> | <b>4,28%</b> | <b>68,90%</b> | <b>5,15%</b> |
| Property and equipment, net           | 42,90%         | 43,49%        | 20,71%        | 1,26%         | 6,97%         | 1,31%         | 22,16%        | 28,81%        | 13,22%         | 24,61%        | 29,30%        | 24,13%       | 23,82%        | 21,04%       |
| Equity and other investments          | 9,59%          | -34,88%       | -25,12%       | 57,19%        | 40,12%        | -10,02%       | 2,20%         | 46,10%        | -17,43%        | -13,46%       | -42,26%       | -52,48%      | -7,44%        | 11,93%       |
| Goodwill                              | 23,12%         | 154,37%       | 3,26%         | -0,87%        | 1,51%         | 6,92%         | -19,39%       | 85,60%        | -15,84%        | 5,51%         | 96,52%        | 1,60%        | 17,78%        | 3,15%        |
| Intangible assets, net                | 62,89%         | 124,72%       | -10,85%       | -34,17%       | 50,60%        | 81,77%        | 362,30%       | -52,36%       | -30,74%        | -22,79%       | 170,72%       | -20,31%      | -3,76%        | -9,19%       |
| Deferred income taxes                 | -46,80%        | -31,68%       | -70,60%       |               |               |               |               |               |                |               |               |              |               |              |
| Other long-term assets                | 16,53%         | 12,06%        | -5,44%        | -6,13%        | -4,46%        | -19,67%       | 107,64%       | 43,06%        | -8,91%         | 16,84%        | 66,83%        | 22,48%       | 97,84%        | -10,82%      |
| <b>Total non current assets</b>       | <b>11,74%</b>  | <b>28,47%</b> | <b>-3,19%</b> | <b>6,39%</b>  | <b>14,29%</b> | <b>2,97%</b>  | <b>33,96%</b> | <b>21,16%</b> | <b>-11,12%</b> | <b>4,57%</b>  | <b>50,02%</b> | <b>3,01%</b> | <b>24,10%</b> | <b>6,76%</b> |
| <b>Total assets</b>                   | <b>-9,23%</b>  | <b>15,23%</b> | <b>7,00%</b>  | <b>10,56%</b> | <b>26,23%</b> | <b>11,56%</b> | <b>17,45%</b> | <b>21,03%</b> | <b>1,21%</b>   | <b>11,02%</b> | <b>29,23%</b> | <b>3,41%</b> | <b>10,70%</b> | <b>5,15%</b> |

**Source:** Own processing data based on Annual Reports from MSFT 2007-2020

As a first step analyzing of absolute indicators, I apply horizontal analysis of the Balance Sheet. The balance sheet is a summary of information about the value of the property and obligations of the organization for a certain period presented in tabular form. Balance sheet illustrates the assets, liabilities, and equity indicator, assets of the company on the left side and liabilities shareholders equity on the right side. First, I am going to review left side of the balance sheet which are assets.

Based on annual report of MSFT 2007-2020 was calculated relative difference between compared year. Table 3 represents changes in balance sheet of selected period 2007-2020

in percentage. In order to calculate changes for 2007 I took as a base value 2006. The absolute balance sheet statement will be shown in appendix section. Looking at the dynamics of changes from year to year, we can conclude that the company mainly has positive changes. However, it's important to note that results for all time contain negative values as well. The negative decrease in total assets was calculated in 2007% (-9,23%). These negative values are explained by the fact that MSFT has less assets than liabilities. The change of total assets in the horizontal analysis increases and decreases from year to year. Non-current assets and current assets consists of total assets. The total asset reached its maximum in 2017 (29,23%). The company's long-term investments are represented by non-current assets. The highest value of non-current assets was calculated in 2017 (50,02%). Which indicates the acquisition of intangible assets, investment for long term and the entire cost of all assets paid at the beginning of the balance sheet period. Also, the source of the increase in non-current assets is the investment of fixed assets, which subsequently is an increase in financial obligations

Negative decrease in non-current assets in 2009(-3,19%),2015(-11,12%) impacted on the negative changes of investment (-25,12%), goodwill (-3,26), intangible assets (-10,85%) and mostly in differed income taxes (70,60%). However, the negative indications began at these years with the commencement of the global economic crisis, which expressed itself in most industrialized economies as a sharp decrease in key economic indicators, eventually leading to a global economic recession. The negative dynamics also was recorded in current assets in 2007(-18,04%). This significant decrease was due a drop in cash equivalents, short term investment, inventories, deferred income taxes which provoked a sharp decline in current assets. On the other hand, except 2007 the all-time line off current assets remains positive. The maximum value of current assets was recorded in 2019 (68,90%). By the way despite positive current value there was noticeable decrease in inventories (-22,50%) and cash equivalents (-4,94%). Probably this negative change is shows poor management when it comes to sales and manufacturing orders.

**Table 4. 1 Horizontal analysis of the liabilities and equity**

| Balance Sheet(Millions of US \$)                                   | 2007           | 2008          | 2009          | 2010          | 2011          | 2012          | 2013          | 2014          | 2015           | 2016           | 2017          | 2018          | 2019          | 2020          |
|--|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|
| Accounts payable   | 11,62%         | 24,24%        | -17,60%       | 21,09%        | 4,27%         | -0,52%        | 15,64%        | 53,94%        | -11,32%        | 4,66%          | 7,13%         | 16,60%        | 8,88%         | 33,55%        |
| Current portion of long-term debt                                  |                |               |               |               |               |               |               |               |                |                |               |               | 37,97%        | -32,03%       |
| Short-term debt  |                |               |               |               |               |               |               |               |                |                | -29,70%       |               |               |               |
| Accrued compensation   | 19,97%         | 26,19%        | 7,57%         | 4,02%         | 8,89%         | 8,39%         | 6,25%         | 16,52%        | 6,23%          | 3,30%          | 10,54%        | 4,88%         | 11,91%        | 15,29%        |
| Income taxes   | -32,69%        | 19,08%        | -41,91%       | 48,14%        | 47,11%        | 13,23%        | -11,01%       | 11,93%        | -9,88%         | -1,62%         | 8,73%         | 23,46%        | 67,37%        | -39,97%       |
| Short-term unearned revenue  | 17,96%         | 24,29%        | -1,10%        | 3,03%         | 15,16%        | 18,64%        | 10,65%        | 12,17%        | 0,32%          | 18,28%         | -12,58%       | 20,37%        | 13,05%        | 10,17%        |
| Securities lending payable   | -12,06%        | -4,63%        | -35,58%       | -29,81%       | 2,20%         | 50,17%        | -9,32%        | -5,29%        | 23,23%         | -32,60%        |               |               |               |               |
| Other  | -4,26%         | 1,02%         | -14,13%       | -6,72%        | 19,14%        | -9,77%        | 14,15%        | 91,99%        | -5,08%         | -9,24%         | 29,16%        | 13,79%        | 6,94%         | 7,23%         |
| <b>Total current liabilities</b>                                   | <b>5,85%</b>   | <b>25,81%</b> | <b>-9,54%</b> | <b>-3,28%</b> | <b>10,05%</b> | <b>13,60%</b> | <b>14,47%</b> | <b>21,94%</b> | <b>8,82%</b>   | <b>19,56%</b>  | <b>-6,09%</b> | <b>4,92%</b>  | <b>18,69%</b> | <b>4,16%</b>  |
| Long term debt   |                |               |               |               | 43,63%        | -10,13%       | 17,62%        | 63,84%        | 34,70%         | 46,66%         | 86,53%        | -5,04%        | -7,72%        | -10,63%       |
| Long term income taxes   |                |               |               |               |               |               |               |               |                |                |               |               |               | -0,61%        |
| Long-term unearned revenue   | 5,84%          | 1,87%         | 96,95%        | 31,85%        | -71,69%       | 0,57%         | 25,18%        | 14,09%        | 4,33%          | 81,38%         | -30,45%       | 44,34%        | 18,77%        | -29,79%       |
| Deferred Income taxes  |                |               |               |               |               | 30,01%        | -9,72%        | 59,63%        | -52,53%        | 13,98%         |               |               |               | -12,45%       |
| Operating lease liabilities  |                |               |               |               |               |               |               |               |                |                |               |               |               | 23,97%        |
| Other long-term liabilities  | 22,05%         | -26,84%       | -72,87%       | -8,04%        | 585,23%       | 1,68%         | 21,83%        | 15,94%        | 16,82%         | 0,71%          | -73,98%       | 46,83%        | 45,48%        | 40,25%        |
| <b>Total liabilities</b>   | <b>8,75%</b>   | <b>13,82%</b> | <b>4,99%</b>  | <b>4,20%</b>  | <b>29,25%</b> | <b>6,37%</b>  | <b>15,62%</b> | <b>30,11%</b> | <b>14,27%</b>  | <b>28,93%</b>  | <b>33,61%</b> | <b>8,32%</b>  | <b>4,60%</b>  | <b>-0,66%</b> |
| Commitments and contingencies                                      |                |               |               |               |               |               |               |               |                |                |               |               |               |               |
| <b>Stockholders' equity:</b>                                       |                |               |               |               |               |               |               |               |                |                |               |               |               |               |
| Common stock and paid-in capital                                   | 2,63%          | 3,78%         | -0,74%        | 0,76%         | 0,89%         | 3,76%         | 2,29%         | 1,57%         | 0,14%          | -0,42%         | 1,67%         | 2,75%         | 10,25%        | 2,59%         |
| Retained deficit, including accumulated other comprehensive income | 55,86%         | -190,17%      | -14,08%       | -26,91%       | -62,04%       |               |               |               |                |                |               |               |               |               |
| Retained earnings  |                |               |               |               |               |               |               | 78,98%        | -42,84%        | -10,15%        | 95,35%        | -23,00%       | 76,51%        | 43,13%        |
| Accumulated other comprehensive income                             |                |               |               |               |               |               |               |               |                | -39,06%        | 5,86%         | 34,42%        | -38,73%       | 137,76%       |
| <b>Total stockholders' equity</b>                                  | <b>-22,46%</b> | <b>16,69%</b> | <b>9,02%</b>  | <b>16,73%</b> | <b>23,62%</b> | <b>16,26%</b> | <b>18,96%</b> | <b>13,73%</b> | <b>-10,80%</b> | <b>-10,10%</b> | <b>21,83%</b> | <b>-5,69%</b> | <b>23,71%</b> | <b>15,61%</b> |
| <b>Total liabilities and stockholders' equity</b>                  | <b>-9,23%</b>  | <b>15,23%</b> | <b>7,00%</b>  | <b>10,56%</b> | <b>26,23%</b> | <b>11,56%</b> | <b>17,45%</b> | <b>21,03%</b> | <b>1,21%</b>   | <b>11,02%</b>  | <b>29,23%</b> | <b>3,41%</b>  | <b>10,70%</b> | <b>5,15%</b>  |

**Source:** Own processing data based on Annual Reports from MSFT 2007-2020

Speaking about total liabilities they have mostly a positive effect over time as well as shareholder's equity. The increase in liabilities and equity is reflected in the credit of passive accounts and appears in the liabilities side of the balance sheet. Throughout all analyzed time total liabilities dynamics changing up and down. Maximum change of total liabilities observed in 2017(33,61%). This positive growth of liabilities on equity it's important structure for growth and important component for an appealing choice for executives seeking finance. Microsoft sources of funding are stockholder equity and liability. Because it affects the firm's long-term health, the equity-to-liability ratio is crucial. Important to note that from 2007 till 2010 Microsoft had no long-term debt. Starting from 2011 there was appearance of long-term debt, the effect of crises that increase the assets due to the emergence of new liabilities and its dependence on borrowed funds. In 2011 there was long term debt (46,63%). In subsequent years this change decreased in negative value (-10,13%) it means that Microsoft pays out more than what a liability requires. Negative change of total liabilities was notices in 2020 (-0,66%). This decrease follows negative decline in long term debt, long term income taxes and mostly lessening of long-term unearned revenue (-29,80%) Speaking about total shareholder's equity its dynamic change during the analyzed period. In 2007 in comparison with 2006



year decrease and became negative (-22,46%) which lead to negative change in total liability and shareholders' equity (-9,23%), The maximum change was recorded in 2010(10,56%). It is worth nothing that retained earnings reached record of negative values in 2015 (-87,11%). Due to failed phone projects Kind One and Kind Two and unlike versions of the Windows 8 operating system. Microsoft had negative retained earnings because they lost more money that they earned in their entire existence of products. Retained earnings is the most encouraging evidence of a business's success, in the eyes of an investor, is what makes profit. Also, this changes in retained earnings directly connected with shareholders equity (-10,80%). Microsoft buys back shares of common and preferred stock from investors, it does so with its accrued earnings and extra capital, lowering shareholders' equity. In the comparison of total liabilities and equity total equity growing more. In general, this situation may indicate that the company's management began to attract more long-term sources of funds.

#### **Horizontal analysis of the income statement**

One of the most fundamental reports that allows to evaluate the results of a company's operating activities for certain period (2007-2020). Based on income statement horizontal analysis was calculated. In order to show the change in 2007,2006 year was taken as a base. If the balance sheet gives an idea of the presence of tangible assets owned by the enterprise, then the income statement shows the result of profit and loss. Microsoft Corporation mainly focused on development of computer software, consumer electronics and IT services. Based on that the data show that the main source of income is to be from operating system Windows, development of software and programs for working with documents of the Microsoft family. The obtained data from analysis of income statement shows positive dynamics with a small growth over time. The changes shown in percentage. The absolute income statement will be shown in appendix section.

**Table 5. 1 Horizontal analysis of the income statement**

| Profit and Loss Statement (USD)         | 2007   | 2008    | 2009    | 2010    | 2011    | 2012    | 2013    | 2014   | 2015    | 2016    | 2017    | 2018    | 2019    | 2020   |
|---|--------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|--------|
| REVENUES                                | 15,45% | 18,19%  | -3,28%  | 6,93%   | 11,94%  | 5,40%   | 5,60%   | 11,54% | 7,77%   | -8,83%  | 5,43%   | 22,69%  | 14,03%  | 13,65% |
| Cost of Goods Sold                      | 39,78% | 8,46%   | 4,80%   | 1,97%   | 25,67%  | 12,54%  | 15,51%  | 33,01% | 22,66%  | -0,78%  | 4,52%   | 11,94%  | 11,88%  | 7,38%  |
| GROSS PROFIT                            | 10,37% | 20,76%  | -5,20%  | 8,23%   | 8,54%   | 3,36%   | 2,50%   | 3,99%  | 1,07%   | -13,22% | 5,99%   | 29,30%  | 15,17%  | 16,89% |
| OPERATING EXPENSES AND INCOME           | 8,66%  | 20,20%  | -1,56%  | 0,05%   | 4,91%   | 3,79%   | 9,20%   | 3,82%  | 1,12%   | -3,47%  | 5,79%   | 11,77%  | 8,19%   | 10,02% |
| Research Development                    | 8,16%  | 14,65%  | 10,36%  | -3,29%  | 3,78%   | 8,49%   | 6,12%   | 9,32%  | 5,84%   | -0,48%  | 8,75%   | 12,96%  | 14,60%  | 14,18% |
| Selling General Administrative          | 8,97%  | -65,32% | -21,40% | -0,65%  | 5,44%   | 8,22%   | 12,69%  | -6,37% | -4,36%  | -1,04%  | -1,80%  | 6,09%   | 2,76%   | 4,63%  |
| Other Operating Income                  |        |         | -1,23%  | 2,60%   | 5,49%   | -0,60%  | 10,24%  | 3,50%  | -0,62%  | -6,47%  | 5,73%   | 12,42%  | 4,26%   | 7,60%  |
| OPERATING INCOME                        | 12,46% | 21,42%  | -9,47%  | 18,63%  | 12,44%  | 2,93%   | -4,26%  | 4,19%  | 1,03%   | -24,42% | 6,29%   | 54,90%  | 22,54%  | 23,28% |
| Income Tax Expense                      | 6,59%  | 1,61%   | -14,36% | 19,06%  | -21,30% | 7,48%   | -1,89%  | 10,73% | 9,89%   | -53,23% | -34,13% | 923,29% | -77,65% | 96,83% |
| Other Net Income From Continuing Operat | 15,53% | 135,41% | -4,79%  | -55,85% | 5,44%   | 50,01%  | -23,32% | 5,93%  | 59,84%  | -36,02% | -7,49%  | 6,86%   | 8,91%   | 11,65% |
| EARNINGS FROM CONTINUING OPERATIONS     |        |         |         |         | 23,40%  | -26,66% | 28,77%  | 0,97%  | -44,76% | 37,77%  | 26,23%  | -21,85% | 136,80% | 12,85% |
| Other Items                             |        |         |         |         |         |         |         |        |         |         |         |         |         |        |
| NET INCOME                              | 11,64% | 25,71%  | -17,60% | 28,77%  | 23,40%  | -26,66% | 28,77%  | 0,97%  | -44,76% | 37,77%  | 26,23%  | -21,85% | 136,80% | 12,85% |

**Source:** Own processing data based on Annual Reports from MSFT 2007-2020

Throughout the analyzed period show that Microsoft Corporation only in 2009 (-3,28%) and 2016 (-8,83%) suffer losses in revenue compared to previous years. This negative decrease impacted gross profit in 2009(-5,20%) and 2016 (-13,22 %) compared to previous years 2015. This significant decrease in 2009 can be explained as global financial crisis had a significant influence on the financial performance of corporations. PC sales and corporate IT investments decreased as consumers and corporations cut down on their expenditures. As a result, Microsoft's yearly revenue fell for the first time, from \$60.4 billion in fiscal 2008 to \$58.4 billion in fiscal 2009, which is making of -3,28%. Operating income fell by -9,47% which impact on net income (-17,60%). This significant decrease of revenue in 2016 can be explained by the fact that Microsoft tried to compete in the phone market as its main competitor Apple, but this was not successful, which later even led to the dismissal of employees from the telephone division. As a result, decrease in operating income -24,42%. But on the other hand, Microsoft net income stayed positive. This fact can be explained that despite failed phone products Microsoft had other successful product which saved net income. Bing's revenue has increased by 29% as a result of Windows 10 increased market share. Revenue from Office 365 increased by over 70% which reflected on net income. In 2012 net income decreased (-26,66%) compared to the previous year. Such a decrease is explained by the fact that there has been a slowdown in sales of the

traditional PC, it seems that because of this, revenues from Windows have decreased. Traditional PC shipments have been slowed by Apple's strong iPad and MacBook Air sales, and Microsoft is clearly betting on Windows 8, its latest operating system optimized for tablets, to help reverse this trend. Despite positive change of revenue in 2015, net income has negative value (-44,76%). There were declines in a variety of categories, but one of the most striking was in Surface hardware which led to decrease in net income. Decrease in 2018 of net income was attributable tax payment (923,29%) connected to Microsoft profits retained overseas, which resulted in decrease of net income (-21,85%). Already one year later Microsoft's net income significantly increases by 136.8% (\$39,240 million). This year was record breaking for Microsoft, the reason is launch of new product Microsoft Edge which brought to the company 125,843 billion \$. In 2016 Microsoft did not release major new products, but nevertheless company continued to invest in technology with the cooperation of main competitors Apple which reflected to positive increase in comparison from previous year (37,77%).

#### 4.2.2 Vertical analysis of the balance sheet

A vertical balance sheet analysis is used to highlight how each line item affects the total figures. Some components may increase their effect while others may decline.

**Table 6. 1 Vertical analysis of assets**

| Balance Sheet (USD)       | 2007    | 2008    | 2009    | 2010    | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>NON-CURRENT ASSETS</b> | 36.41%  | 40.60%  | 36.73%  | 35.35%  | 31.08%  | 29.84%  | 28.76%  | 33.73%  | 29.23%  | 27.90%  | 33.70%  | 34.45%  | 38.74%  | 39.63%  |
| Long Term Investments     | -       | -       | -       | 9.00%   | 10.00%  | 8.06%   | 7.61%   | 8.47%   | 6.84%   | 5.39%   | 2.50%   | 0.72%   | 0.92%   | 0.98%   |
| Gross PP&E                | 6.89%   | 8.58%   | 9.67%   | 8.86%   | 7.51%   | 6.82%   | 7.01%   | 7.55%   | 8.36%   | 9.48%   | 9.84%   | 13.96%  | 15.30%  | 17.56%  |
| Intangible Assets         | 1.39%   | 2.71%   | 2.26%   | 1.34%   | 0.68%   | 2.61%   | 2.16%   | 4.05%   | 2.74%   | 1.93%   | 4.19%   | 3.11%   | 2.70%   | 2.34%   |
| Goodwill                  | 7.54%   | 16.63%  | 16.05%  | 14.39%  | 11.57%  | 11.09%  | 10.29%  | 11.68%  | 9.61%   | 9.23%   | 14.57%  | 13.79%  | 14.67%  | 14.39%  |
| Other Non Current Assets  | 20.60%  | 12.68%  | 8.74%   | 1.74%   | 1.32%   | 1.25%   | 1.68%   | 1.99%   | 1.68%   | 1.88%   | 2.59%   | 2.88%   | 5.14%   | 4.36%   |
| <b>CURRENT ASSETS</b>     | 63.59%  | 59.40%  | 63.27%  | 64.65%  | 68.92%  | 70.16%  | 71.24%  | 66.27%  | 70.77%  | 72.10%  | 66.30%  | 65.55%  | 61.26%  | 60.37%  |
| Cash                      | 9.67%   | 14.20%  | 7.80%   | 6.39%   | 8.84%   | 5.72%   | 2.67%   | 5.03%   | 3.17%   | 3.36%   | 3.18%   | 4.62%   | 3.96%   | 4.51%   |
| Short Term Investments    | 27.39%  | 18.30%  | 32.57%  | 36.33%  | 39.71%  | 46.26%  | 51.41%  | 44.69%  | 51.60%  | 55.10%  | 51.98%  | 47.06%  | 42.74%  | 40.81%  |
| Net Receivables           | 17.95%  | 18.67%  | 14.37%  | 15.11%  | 13.79%  | 13.01%  | 12.28%  | 11.34%  | 10.16%  | 9.44%   | 8.21%   | 10.23%  | 10.30%  | 10.62%  |
| Inventory                 | 1.78%   | 1.35%   | 0.92%   | 0.86%   | 1.26%   | 0.94%   | 1.36%   | 1.54%   | 1.65%   | 1.16%   | 0.90%   | 1.03%   | 0.72%   | 0.63%   |
| Other Current Assets      | 6.79%   | 6.88%   | 7.61%   | 5.96%   | 5.32%   | 4.23%   | 3.52%   | 3.67%   | 4.19%   | 3.04%   | 2.03%   | 2.61%   | 3.54%   | 3.81%   |
| <b>TOTAL ASSETS</b>       | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

**Source:** Fundamental Beta 2007-2020

As indicated in the table above current assets have a greatest impact on overall assets growth over analyzing period. Changes between non-current and current assets from year to year are almost in the same level. However, noticeable change was in 2008 when non-current assets made 40,60% and current assets stay at the same level 59,40%. Since Microsoft is focused on research and development, production, licensing, service and technical support and sales it is obvious that the share of current assets is greater than non-current assets. Higher proportion of current assets allows Microsoft to attract short-term investments without compromising financial stability. The highest value in current assets was reported in 2016 and share is 72,10%. Instead, lowest value was recorded in 2008 by 59,40%. The reason for this decline is a financial crisis and falling indices on the stock exchange which had a strong impact on the volume of investments in the computer technology sector. In this case, Microsoft's short-term investors prefer investments with a higher risk such as stocks. It is worth noting that stocks of a technology company are high volatile therefore give potential for quick profits and in a contrary value immediate decline of the price. However, despite investors preferences on long-term investment has small but constant growth over years. Maximum proportion of long-term assets was recorded in 2011 by 10% although already in 2018, these indicators reached its minimum 0,72%.

**Table 7. 1 Vertical analysis of liabilities and equities**

|                                     | 2007    | 2008    | 2009    | 2010    | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>EQUITY</b>                       | 49.23%  | 49.85%  | 50.79%  | 53.62%  | 52.51%  | 54.72%  | 55.43%  | 52.08%  | 45.44%  | 37.17%  | 30.03%  | 31.96%  | 35.71%  | 39.26%  |
| Common Stock                        | 0.09%   | 0.08%   | 0.07%   | 72.99%  | 58.34%  | 54.26%  | 47.26%  | 39.66%  | 38.85%  | 35.20%  | 28.75%  | 27.52%  | 27.40%  | 26.73%  |
| Retained Earnings                   | -49.25% | -38.06% | -30.55% | -19.37% | -7.54%  | 0.47%   | 6.95%   | 10.27%  | 5.16%   | 1.18%   | 1.10%   | 5.29%   | 8.43%   | 11.47%  |
| Other Stockholder Equity            | 98.39%  | 87.83%  | 81.26%  | -       | 1.71%   | -       | 1.22%   | 2.15%   | 1.43%   | 0.79%   | 0.18%   | -0.84%  | -0.12%  | 1.06%   |
| <b>NON-CURRENT LIABILITIES</b>      | 13.17%  | 9.10%   | 14.50%  | 16.02%  | 21.02%  | 18.32%  | 18.30%  | 21.45%  | 26.26%  | 32.18%  | 43.21%  | 45.45%  | 40.06%  | 36.74%  |
| Long Term Debt Total                | -       | -       | -       | 5.74%   | 10.97%  | 8.83%   | 8.85%   | 11.98%  | 15.78%  | 21.06%  | 31.55%  | 27.91%  | 23.26%  | 19.77%  |
| Deferred Long Term Liabilities      | -       | -       | -       | 1.63%   | 2.63%   | 2.72%   | 2.44%   | 2.75%   | 2.80%   | 4.09%   | 4.52%   | 0.21%   | 0.08%   | 0.07%   |
| Other Non Current Liabilities       | 13.17%  | 9.10%   | 14.50%  | 8.65%   | 7.43%   | 6.77%   | 7.02%   | 6.73%   | 7.69%   | 7.04%   | 7.13%   | 17.33%  | 16.72%  | 16.90%  |
| <b>CURRENT LIABILITIES</b>          | 37.60%  | 41.06%  | 34.71%  | 30.36%  | 26.47%  | 26.95%  | 26.27%  | 26.47%  | 28.29%  | 30.64%  | 26.77%  | 22.60%  | 24.23%  | 24.00%  |
| Accounts Payable                    | 5.14%   | 5.54%   | 4.27%   | 9.73%   | 8.79%   | 7.96%   | 7.15%   | 7.87%   | 7.03%   | 6.73%   | 5.82%   | 3.33%   | 3.27%   | 4.16%   |
| Short Term Debt                     | -       | -       | 2.57%   | 1.16%   | -       | 1.02%   | 2.11%   | 1.16%   | 4.25%   | 6.66%   | 4.20%   | 1.54%   | 1.92%   | 1.24%   |
| Other Current Liabilities           | 32.46%  | 35.51%  | 27.87%  | 19.47%  | 17.68%  | 17.98%  | 17.02%  | 17.44%  | 17.02%  | 17.25%  | 16.75%  | 17.72%  | 19.03%  | 18.60%  |
| <b>TOTAL EQUITY AND LIABILITIES</b> | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

**Source:** Fundamental Beta 2007-2020

In this analysis total liabilities and equity will be compared. The table above shows that during 2007-2014 in the comparison to total liabilities, the equity grew more (55,43 %). The reason why equity has a positive growth that investors used money to replenish

and develop assets. In the following years from 2014 to 2020, it became evident that there was a significant decrease in equity for long term debt. The minimum value was revealed in 2017 and amounted by 31.55%, which is more than the value of equity capital (30,03%). It is worth nothing that decrease in indicator of equity is not related with the unprofitable activity of the company most probably its related with decrease funding from investors. Also, in retained earnings from 2007-2011 we can see negative trend ( -49,25%) this fact indicates that Microsoft has a debt to shareholders. In subsequent years 2012-2020 company distributes debts between owners which leads to positive growth (11,47%).

**Table 8. 1 Vertical analysis of income statement**

| Income Statement (USD)         | 2007    | 2008    | 2009    | 2010    | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    |
|--------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| REVENUES                       | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| Cost Of Revenue                | -20.92% | -19.20% | -20.80% | -19.84% | -22.27% | -23.78% | -26.01% | -31.02% | -35.30% | -38.42% | -38.09% | -34.75% | -34.10% | -32.22% |
| GROSS PROFIT                   | 79.08%  | 80.80%  | 79.20%  | 80.16%  | 77.73%  | 76.22%  | 73.99%  | 68.98%  | 64.70%  | 61.58%  | 61.91%  | 65.25%  | 65.90%  | 67.78%  |
| OPERATING EXPENSES             | -42.85% | -43.58% | -44.35% | -41.50% | -38.90% | -38.30% | -39.61% | -36.87% | -34.59% | -36.62% | -36.75% | -33.48% | -31.76% | -30.75% |
| Research Development           | -13.93% | -13.51% | -15.42% | -13.95% | -12.93% | -13.31% | -13.37% | -13.11% | -12.87% | -14.05% | -14.49% | -13.34% | -13.41% | -13.47% |
| Selling General Administrative | -28.92% | -8.49%  | -6.90%  | -6.41%  | -6.04%  | -6.20%  | -6.61%  | -5.55%  | -4.93%  | -5.35%  | -4.98%  | -4.31%  | -3.88%  | -3.57%  |
| Other Operating Income         | -       | 21.58%  | 22.04%  | 21.15%  | 19.93%  | 18.80%  | 19.62%  | 18.21%  | 16.79%  | 17.23%  | 17.28%  | 15.83%  | 14.47%  | 13.70%  |
| OPERATING INCOME               | 36.23%  | 37.23%  | 34.85%  | 38.66%  | 38.83%  | 37.92%  | 34.38%  | 32.11%  | 30.10%  | 24.96%  | 25.16%  | 31.77%  | 34.14%  | 37.03%  |
| Income Tax Expense             | -11.81% | -10.15% | -8.99%  | -10.01% | -7.04%  | -7.17%  | -6.67%  | -6.62%  | -6.75%  | -3.46%  | -2.16%  | -18.03% | -3.53%  | -6.12%  |
| Other Net Income From Continu  | -24.43% | -48.66% | -47.90% | -19.78% | -18.63% | -26.51% | -19.25% | -18.28% | -27.12% | -19.03% | -16.70% | -14.55% | -13.89% | -13.65% |
| EARNINGS                       | -       | -       | -       | 30.02%  | 33.10%  | 23.03%  | 28.08%  | 25.42%  | 13.03%  | 19.69%  | 23.57%  | 15.02%  | 31.18%  | 30.96%  |
| Other Items                    | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| NET INCOME                     | 27.51%  | 29.26%  | 24.93%  | 30.02%  | 33.10%  | 23.03%  | 28.08%  | 25.42%  | 13.03%  | 19.69%  | 23.57%  | 15.02%  | 31.18%  | 30.96%  |

**Source:** Fundamental Beta 2007-2020

Table over illustrates how several items impact on revenue. According to vertical analysis we can see that Microsoft was able to generate huge percentage in gross profit. By the way it is also evident that operating income occupies a significant place.

During these years from 2007-2020, gross profit exceeded operating expenses, which indicates the stability of the company. The maximum gross profit was reached in 2010 by 80,16% but in 2016 decreased to his minimum by 61,58%.

A positive gross profit indicates that company is able cover cost of production and pays for it operating expenses. It should be noted that the higher positive gross value leads to higher net profit of the company. The growth of gross profit is due to a decrease in the cost of revenue, the cost of production, cost of research and development and other operating

expenses. We should be aware that Microsoft is making a good balance between gross profit and operating expenses which bring significant benefits to net profit.

On the other hand, income tax expense going negative direction. In this case company carries forward its tax liability for expenses to the next period. As a result, they are negative (-2,16%). In terms of net profit in 2011 there was an increase in growth by 33,10% of total sales revenue. After that decrease by 23,03% which is 10,03% less from the previous period. Despite the global financial crisis in 2011 and 2014 this factor did not affect much on the level of net profit, which was growing constantly.

## 5. Market Ratio

**Table 9. 1 Market indicators of Microsoft**

| Year | Price to Earnings per share | Earnings per share Ratio | Price to book Ratio | Market value per share | Dividend/Yield |
|------|-----------------------------|--------------------------|---------------------|------------------------|----------------|
| 2007 | 19,24                       | 1,88                     | 9,25                | 4,76                   | 1,18%          |
| 2008 | 16,34                       | 2,06                     | 5,98                | 2,21                   | 1,44%          |
| 2009 | 17,22                       | 1,62                     | 7,51                | 3,46                   | 2,19%          |
| 2010 | 11,94                       | 2,10                     | 4,86                | 3,14                   | 1,81%          |
| 2011 | 9,43                        | 2,69                     | 3,40                | 3,03                   | 2,47%          |
| 2012 | 9,68                        | 2,00                     | 3,08                | 3,14                   | 2,63%          |
| 2013 | 13,76                       | 2,58                     | 3,64                | 4,40                   | 2,82%          |
| 2014 | 18,33                       | 2,63                     | 4,07                | 5,41                   | 2,62%          |
| 2015 | 39,96                       | 1,48                     | 5,77                | 6,78                   | 2,41%          |
| 2016 | 29,85                       | 2,10                     | 7,11                | 7,90                   | 2,47%          |
| 2017 | 58,87                       | 2,71                     | 8,45                | 10,97                  | 2,19%          |
| 2018 | 23,57                       | 2,13                     | 8,47                | 13,03                  | 1,77%          |
| 2019 | 27,45                       | 5,06                     | 10,89               | 20,33                  | 1,42%          |
| 2020 | 33,53                       | 5,76                     | 13,03               | 29,28                  | 0,99%          |

**Source:** Source: Own processing data based on Annual Reports from MSFT 2007-2020

Price to earnings is a valuation ratio that compares stock price to its earnings per share. This ratio used by investors to evaluate relative shares between competitor companies. Calculation was done based on annual report published in official site of Microsoft and Apple. The average P/E ratio in software industry is 20-25. The higher value of price to

earnings was calculated in 2017(58,87) \$1 of current earnings. This indicates that future performance will be positive, and investors will be prepared to pay more for future earnings growth. On the other hand, high P/E has two side of coins, growth stocks are more likely is a risky investment which are overvalued. A low P/E indicates that profits of the company will decline in the future. Also, it can tell about that their stock prices are undervalued in relation to their fundamentals. A low P/E ratio was indicated in 2011(9,43) \$1 of current earnings which lead to the decline also in 2012 (9,68). In comparison for all timeline from 2007-2020 with main competitors Microsoft has much lower P/E of Apple. The highest value was calculated in 2020 (35,76) \$1 of current earnings. The lowest the same as in Microsoft in 2011 (9,88).

Earnings per share ratio calculates the portion of a company's net income that is potentially available for distribution to shares outstanding. EPS measure company's capacity to generate net profits for shareholders. The average EPS ration is between 1 and 2. The higher EPS ratio was calculated in 2020 (5,76) per share which show that Microsoft can pay a significant dividend to shareholders or reinvest the money in the company for future growth. Low EPS ratio was recorded in 2009(1,88) \$ per share. In the comparison with Apple for all timeline from 2007-2020 we can see that till 2011 value was (0,99) which is under the average of the market. Both companies have a growing trend, which is very good as it plays the role of a key result of business profitability. As a result, we can conclude that Microsoft and Apple generate increasing earnings from year to year, it will expand, and shareholders will be able to profit from it.

Price to book ratio is a valuation ratio that compares stock price to its book value. The balance sheet provides the book value, which is equivalent to the company's net assets. The balance sheet provides the book value, which is equivalent to the company's net assets. This ratio expresses how much stock investors are willing to pay for each dollar of net assets. For the investors a good book value is 3, less than 3 to be considered as undervalued. For all analyzed period 2007-2020 the value is under 3 which to be considered as overvalued. The highest price to book ratio was calculated in 2020 (13,03) \$ each dollar. Speaking of Apple, the book price to value bombed in 2020 (33,46) means the company's stock is worth 30 times its book value. As a result, the stock may be overvalued in comparison to its assets. Market value per share ratio is a valuation ratio that compares stock price to its shares outstanding. In a financial market, market value is typically used to define how much an asset or firm is valuable. The difference between book value per share

with market value per share it's not connected to the assets or any other balance sheet data but affect by supply and demand. A higher market value per share was calculated in 2020 (29,28) it indicates that more people interesting in buying a stock of Microsoft. On the other hand, low value of market per share was calculated in 2008 (2,21) which reasoned as a start of financial crisis that's why investors were interested in sell a stock. As a result, Microsoft stock decrease by 2,55 points in comparison of previous year. Speaking about Apple the market price ration compares that Microsoft much lower. The highest indicator was calculated in 2020(7,71) the lowest in 2011 (0,70) this indicates that investors are selling stock more than buying. Dividend Yield is shown as a percentage and compares dividend per share by shares outstanding. In other words, it's a metric for determining how much dividends getting back. The highest dividend yield was documented in 2013 (2,86%) per share. In case of Apple this indicates are lower which means that investors getting back less dividends per share.

**Table 10. 1 Market indicators of Apple**

| Year | Price to Earnings per share | Earnings per share Ratio | Price to book Ratio | Market value per share | Dividend/Yield |
|------|-----------------------------|--------------------------|---------------------|------------------------|----------------|
| 2007 | 20.83                       | 0,14                     | 3,03                | 1,39                   | 1,02%          |
| 2008 | 15.42                       | 0,21                     | 3,15                | 1,24                   | 0,87%          |
| 2009 | 20.83                       | 0,30                     | 3,3                 | 0,84                   | 0,95%          |
| 2010 | 15.42                       | 0,54                     | 4,65                | 0,70                   | 1,34%          |
| 2011 | 9.88                        | 0,99                     | 3,59                | 0,48                   | 0,49%          |
| 2012 | 10.43                       | 1,58                     | 3,39                | 0,62                   | 0,43%          |
| 2013 | 12.32                       | 1,42                     | 3,42                | 0,68                   | 1,69%          |
| 2014 | 13.45                       | 1,61                     | 4,71                | 0,63                   | 2,1%           |
| 2015 | 10.27                       | 3,17                     | 4,18                | 1,02                   | 1,53%          |
| 2016 | 13.04                       | 2,08                     | 4,32                | 1,04                   | 1,54%          |
| 2017 | 16.61                       | 2,30                     | 5,86                | 1,24                   | 1,4%           |
| 2018 | 12.58                       | 2,98                     | 6,14                | 1,91                   | 1,6%           |
| 2019 | 22.83                       | 2,97                     | 14,15               | 3,89                   | 1,48%          |
| 2020 | 35.67                       | 3,10                     | 33,46               | 7,71                   | 0,68%          |

**Source:** Source: Own processing data based on Annual Reports from AAPL 2007-2020



## 6 Ratio indicators analysis

The goal of ratio analysis is to determine financial health of the company. The following ratio indicator are described in this chapter such as Liquidity Ratio, Profitability Ratio, Activity Ratio, Leverage Ratio, Debt Ratio. The purpose of this ratio analysis is to compare some of those indicators between each other in order to evaluate financial situation of the company.

### 6.1 Liquidity Ratio

This chapter shows how fast Microsoft is capable of paying proportion between current assets and current liabilities. For the calculation of the analysis was taken period from 2007-2020 based on Annual Report of Microsoft and Apple Corporations. Based on result illustrated in the table below we could conclude that the outcomes of each indicator of liquidity.

**Table 11. 1 Current/Quick/Cash Ratios of MSFT**

| MSFT | Current ratio | Quick Ratio | Cash Ratio |
|------|---------------|-------------|------------|
| 2007 | 2,18          | 1,64        | 1,52       |
| 2008 | 1,45          | 1,41        | 0,99       |
| 2009 | 1,82          | 1,8         | 0,76       |
| 2010 | 2,13          | 2,1         | 1,16       |
| 2011 | 2,6           | 2,56        | 1,41       |
| 2012 | 2,6           | 2,57        | 1,83       |
| 2013 | 2,71          | 2,66        | 1,93       |
| 2014 | 2,5           | 2,45        | 2,06       |
| 2015 | 2,47          | 2,41        | 1,88       |
| 2016 | 2,35          | 2,31        | 1,94       |
| 2017 | 2,92          | 2,88        | 1,91       |
| 2018 | 2,9           | 2,86        | 2,39       |
| 2019 | 4,13          | 4,1         | 2,29       |
| 2020 | 4,17          | 4,14        | 1,93       |

**Source:** Source: Own processing data based on Annual Reports from MSFT 2007-2020

**Table 12. 1 Current/Quick/Cash Ratios of Apple**

| <b>AAPL</b> | <b>Current ratio</b> | <b>Quick Ratio</b> | <b>Cash Ratio</b> |
|-------------|----------------------|--------------------|-------------------|
| 2007        | 2,45                 | 1,06               | 1,65              |
| 2008        | 2,54                 | 1,54               | 1,74              |
| 2009        | 2,76                 | 2,70               | 2,04              |
| 2010        | 2,01                 | 1,96               | 1,24              |
| 2011        | 1,61                 | 1,71               | 0,93              |
| 2012        | 1,50                 | 1,54               | 0,76              |
| 2013        | 1,68                 | 1,64               | 0,93              |
| 2014        | 1,08                 | 1,05               | 0,40              |
| 2015        | 1,11                 | 1,08               | 0,52              |
| 2016        | 1,35                 | 0,31               | 0,85              |
| 2017        | 1,28                 | 1,23               | 0,74              |
| 2018        | 1,13                 | 1,10               | 0,57              |
| 2019        | 1,54                 | 1,50               | 0,95              |
| 2020        | 1,36                 | 1,33               | 0,86              |

**Source:** Own processing data based on Annual Reports from AAPL 2007-2020

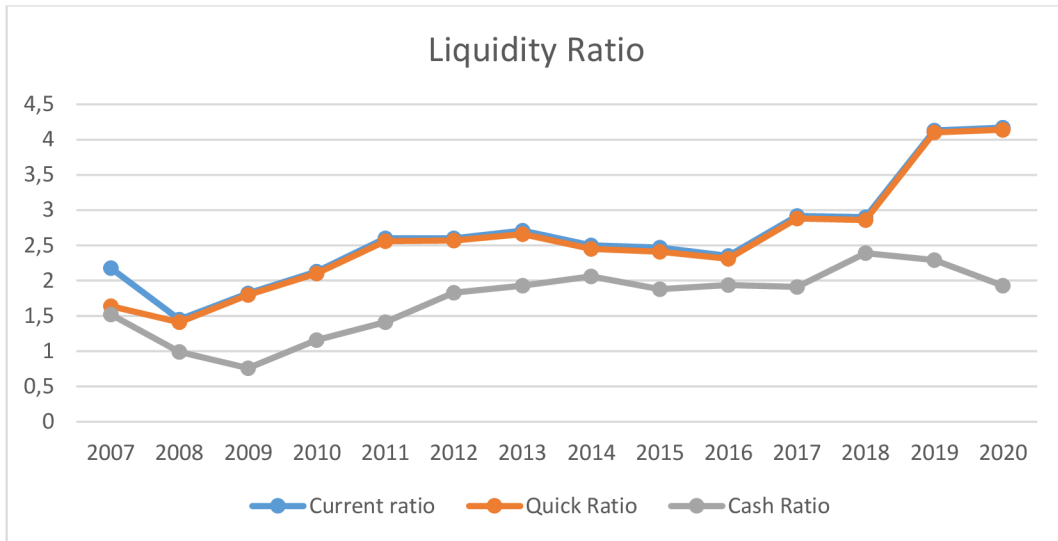
The current ratio measures a company's ability to pay short-term obligations within one year. This ratio is calculated by comparing all of company's current assets with its current liabilities. Through entire time 2007-2020, the current liquidity ratio fluctuates a lot. The lowest value was recorded in 2008 (1,45) and the highest in 2020(4,17). In both cases values considered as high compared to generally accepted standards, which specifies that company covers its liabilities because it has a larger share of the current assets compared to the value of its current liabilities. Based on the theoretical part of the thesis it is important to note that the current ratio vary from different industries, but they have common base. The value higher than 1 indicates that the company stay solvent in the short term. According to calculated data possible to conclude that Microsoft has a good financial health and may be classified as solvent. If value were lower than 1 would indicate bad liquidity situation. In case of current ratio of Apple, the higher value was recorded in 2009(2,76) a lower in 2014(1,08). Based on the summarization of the indicators it is

possible to conclude that Microsoft Corporation has higher current liquidity coefficient than the main competitors: Apple.

Another liquidity indicator is quick ratio. To calculate quick ratio, need to divide liquid assets by current liabilities. In other words, quick ratio measures how fast liquid assets can be converted into the cash to pay their obligations. Through entire time 2007-2020, quick ratio has a similar positive result is observed because calculated numbers are greater than 1. The greatest indicator of quick liquidity the same year as in current ration in 2020 (4,14) on the other hand the lowest was recorded in 2008 (1,41). The greater values indicates that Microsoft was able to cover their current assets 4 times more compared to their current liabilities. Speaking of Apple in 2016 quick value indicator was 0,31 it shows that company was not able to pay their short-term liabilities. Throughout the period 2007-2020 it is possible to conclude that Microsoft defines as fast quick liquidity level due to ability to cover current liabilities.

One more liquidity indicator is cash ratio. Cash ratio determines how much of a company's current liabilities will be covered by cash and cash equivalents by creditors, analysts, and investors. To calculate cash ratio, we need to divide cash by current liabilities. Based on calculation higher cash ratio value was recorded in 2018(2,39) which means a greater value than 1 indicates that Microsoft able to pay its present liabilities with cash and cash equivalents and still have money left over which provides the most correct view into liquidity. The lowest was in 2009(0,76) which indicates that the company had most likely bad management of their assets, holding large amounts of cash on the balance sheet. Indicators less than 1 were observed in Apple as well. The lowest cash ratio was indicated from 2011 till 2020 between 0,40-0,95 shows that company has more current liabilities than cash equivalents. It signifies there isn't enough cash on hand to pay off short-term debt. This ratio is particularly important to creditors since they want to ensure that their debts will be repaid that why they prefer indicator more than 1.

**Graph 2. Current/Quick/Cash ratio dynamics of MSFT**



**Source:** Creation of the author

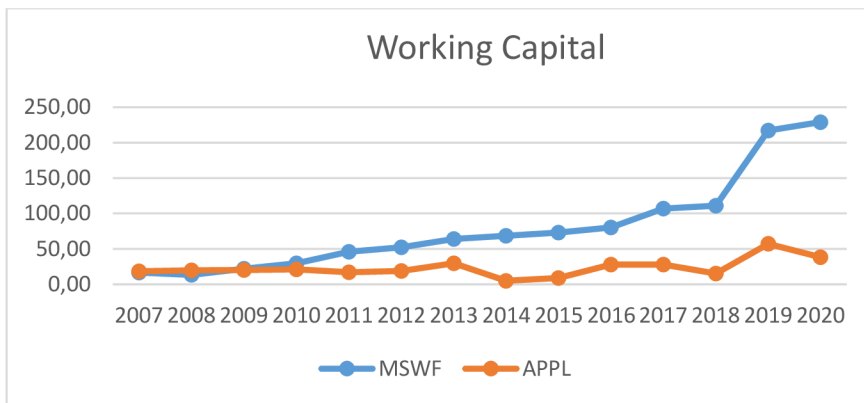
**Table13. 1 Working Capital**

| Year | MSFT    | AAPL   |
|------|---------|--------|
| 2007 | 16,414  | 18,386 |
| 2008 | 13,356  | 19,871 |
| 2009 | 22,246  | 20,049 |
| 2010 | 29,529  | 20,956 |
| 2011 | 46,144  | 17,018 |
| 2012 | 52,396  | 19,011 |
| 2013 | 64,049  | 29,628 |
| 2014 | 68,621  | 5,083  |
| 2015 | 73,15   | 8,768  |
| 2016 | 80,303  | 27,863 |
| 2017 | 106,951 | 27,831 |
| 2018 | 111,174 | 15,41  |
| 2019 | 217,136 | 57,101 |
| 2020 | 229,00  | 38,321 |

**Source:** Source: Own processing data based on Annual Reports from MSFT and AAPL 2007-2020

Last but not least indicator of liquidity is working capital. Based on balance sheet statement working capital was calculated. Working capital is difference between current assets and current liabilities. Throughout all analyzed period Microsoft shows a positive working capital on balance sheet, which means that company has more current assets than current liabilities. In another words working capital of Microsoft enough to carry out current assets fully without reliance on borrowed funds. Microsoft Corporation with comparison on competitors Apple demonstrates higher performance. In general, higher positive values indicates that a company is well-managed and has the potential for rapid expansion. If values could be negative which points to inability of paying its current assets and may lead to bankruptcy.

**Graph 3. Working Capital**



**Source:** Creation of the author

## 6.2 Profitability Ratio

This practical chapter applied to examine profitability of Microsoft Corporation 2007-2020. Profitability ratio used to measure how successfully a company's assets are used to generate profits. In the table below outcome obtained from net profit and sales shown in percentage.

**Table 14. 1 Return on Sales (ROS)**

| Year | MSFT   | AAPL    |
|------|--------|---------|
| 2007 | 36,23% | 18,37%  |
| 2008 | 37,23% | 19,32%  |
| 2009 | 34,85% | 20,96%  |
| 2010 | 38,66% | 28,19%  |
| 2011 | 38,83% | 31,22%  |
| 2012 | 37,92% | 35,30%  |
| 2013 | 34,38% | -28,67% |
| 2014 | 32,11% | 28,72%  |
| 2015 | 30,10% | 30,48%  |
| 2016 | 24,96% | 27,84%  |
| 2017 | 25,16% | 26,76%  |
| 2018 | 31,77% | 26,69%  |
| 2019 | -3,53% | 24,57%  |
| 2020 | 37,03% | 24,15%  |

**Source:** Own processing data based on Annual Reports from MSFT and AAPL 2007-2020

To calculate return on sales for 2007-2020 years we need to divide EBIT by total revenue. For the calculation of return on sales indicator data from Income Statement were used. Return on sales shows if company is making profit or losing the profit. On the table above return on sales indicator we can observe that the indicator has positive growth which indicates profitable results. However, in the period 2019 company demonstrate significant drop in return on sales (-3,53%) which lead to unprofitable activities of the company. This negative value due litigation related to the non-transparent development of most products and the renewal of the current sales agreement for the SUSE Linux operating system. The most profitable year for Microsoft was in 2011(38,83%). Revenue increased due increased sales of Xbox 360 application, Server and Solution platform and 2010 Microsoft Office system. The \$254 million deduction in financial year 2010 and later on of the deduction during fiscal year 2011 raised revenue as well. The impact of fluctuations in foreign currency exchange rates on revenue was minimal. In case of Apple the maximum value of ROS was recorded in 2012 (35,30%). On the other hand, 2013 year was difficult year of Apple. The negative dynamic was recorded in 2013

(-28,67%). As a result, Apple suffered a loss of 0,2876 USD every 1 USD net total revenue. According to calculated results development of both companies, Microsoft showed a better result performance than Apple.

**Table 15. 1 Return on capital employed (ROCE)**

| Year | MSFT   | AAPL   |
|------|--------|--------|
| 2007 | 46,99% | 27,47% |
| 2008 | 52,42% | 24,63% |
| 2009 | 40,04% | 32,62% |
| 2010 | 40,28% | 33,76% |
| 2011 | 33,98% | 38,22% |
| 2012 | 31,56% | 40,17% |
| 2013 | 25,49% | 29,98% |
| 2014 | 22,00% | 31,18% |
| 2015 | 22,57% | 33,96% |
| 2016 | 15,85% | 24,73% |
| 2017 | 11,63% | 22,35% |
| 2018 | 17,50% | 28,38% |
| 2019 | 19,78% | 27,46% |
| 2020 | 23,13% | 29,39% |

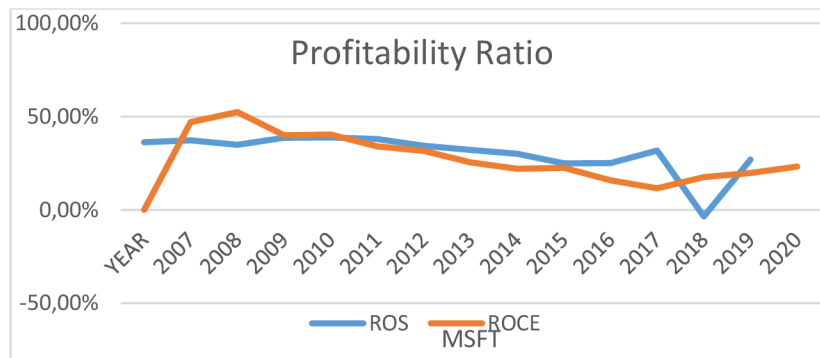
**Source:** Own processing data based on Annual Reports from MSFT and AAPL 2007-2020

The return on capital employed calculated by dividing EBIT to differentiation between total assets and current liabilities. For all analyzed years from 2007-2020 data remains in a positive trend. A higher return on capital employed was reported in 2007 (46,99%) it shows that year company has efficiency impact on capital employed.

The best indicator of ROCE has been seen in 2008 (52,42%) every 1 USD funding in equity and long-term liabilities (0,5242 USD). Even in 2008 financial crisis did not prevent to be profitable. The effect of the crisis came later on in 2009(40,04\$) which 12,38% lower than in previous year. Although in other years ROCE value were lower but remained positive which indicates of strong profitability. One of the lowest indicators was calculated 2017 (11,63%). This decrease is due to fact that company did not release new products

what impacted on profitability. Nevertheless, continued to invest in technology development. Speaking of Apple value though period from 2007-2020 staying positive. The highest value was demonstrated in 2013(40,17%), lowest in 2017(22,35%) which explain that sales are decreasing. As a conclusion on capital of employed of Microsoft has higher percent compare than his competitor in a market. 29.54%. Thus, Microsoft is more profitable in its sales.

**Graph 4. Development of ROS and ROCE of MSFT**



**Source:** Creation of the author

**Table 16. 1 Return on Equity (ROE)**

| Year | MSFT   | AAPL   |
|------|--------|--------|
| 2007 | 45,23% | 24,06% |
| 2008 | 48,73% | 22,99% |
| 2009 | 36,83% | 26,03% |
| 2010 | 40,63% | 29,32% |
| 2011 | 40,55% | 33,83% |
| 2012 | 25,58% | 35,30% |
| 2013 | 27,69% | 29,98% |
| 2014 | 24,59% | 35,42% |
| 2015 | 15,23% | 44,74% |
| 2016 | 23,33% | 35,62% |
| 2017 | 24,17% | 36,07% |
| 2018 | 20,03% | 55,56% |
| 2019 | 38,35% | 61,06% |
| 2020 | 37,43% | 87,87% |

**Source:** Own processing data based on Annual Reports from MSFT and AAPL



2007-2020

The return on equity calculated by net income in relation to the organization's total equity capital. This calculation made by using income statement of Microsoft for the period 2007-2020. The return on equity (ROE) is a measure of a company's profitability and efficiency in generating profits. Therefore, the higher indicator its better profitability of the company. These indicators are more important for investors than in companies' management in deciding whether to invest or not in the company. The highest return on equity was recorded in 2008(48,73%) it means that Microsoft used shareholder equity to generate income effectively. Despite the global financial crisis of 2007-2008, investors continued to invest in Microsoft and make a good profit. The reason for this was the belief of investors that the company has stable financially position. In following year 2009 the value of ROE almost decrease by 11,90 %. This indicates that company made a poor use of capital earned a low rate of return. Such noticeable decrease is explained by the fact that Balmer was at the head of the organization, who was "awarded" of the title of worst CEO. Based on Balmer's decision was used one operating system which led investors to be extremely dissatisfied and later influenced on ROE percentage.

Also, it is important to note that a low value was reported in 2015 (15,23%) which means that company earns proportional less in comparison to its shareholders equity. Although despite the reduced performance made a good use of shareholders equity throughout these years earned a good profit.

Speaking about Return on Equity of Apple in comparison of Microsoft shows significant dominance in the market. The highest value was recorded in 2020 (87,87%) which almost double more than in Microsoft. Therefore, it is possible to conclude that Microsoft return on equity is lower than competitors in the market.

**Table 17. 1 Return on Assets (ROA)**

| <b>Year</b> | <b>MSFT</b> | <b>AAPL</b> |
|-------------|-------------|-------------|
| 2007        | 22,26%      | 13,79%      |
| 2008        | 24,29%      | 12,22%      |
| 2009        | 18,71%      | 17,34%      |
| 2010        | 21,79%      | 18,64%      |
| 2011        | 21,30%      | 22,28%      |
| 2012        | 14,00%      | 23,70%      |
| 2013        | 15,35%      | 17,89%      |
| 2014        | 12,81%      | 17,04%      |
| 2015        | 6,99%       | 18,39%      |
| 2016        | 8,67%       | 14,20%      |
| 2017        | 8,47%       | 12,88%      |
| 2018        | 6,40%       | 16,28%      |
| 2019        | 13,69%      | 16,32%      |
| 2020        | 14,70%      | 17,73%      |

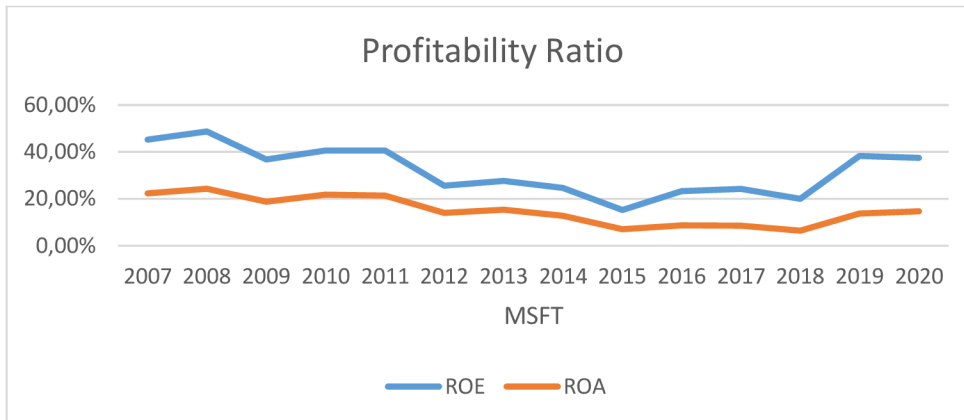
**Source:** Own processing data based on Annual Reports from MSFT and AAPL

2007-2020

Return on assets is calculated by net profit by dividing total assets. Should be noted that this coefficient considers all the organization's assets therefore less attractive to investors. The net profit from every US dollar invested in the assets for Microsoft Corporation. The return on assets decreased over analyzed period, with the most significant decline occurring between 2015-2018 (6,40%) +0,064 US for every invested dollar. This noticeable change due to total amount of assets decreased which has a direct effect to on company's net profit. It is important to note that ROA can change from industry to industry. Since this is a software manufacturer and developer, there are fewer assets on the balance sheet, therefore this percentage remains relatively low compared to ROE. The greater value was recorded in 2008 (24,29%) + 0,242 US for every 1 invested dollar. Thought all analyzed period Apple had greater coefficient ROE. The other company Apple had greater value in 2012 (23,70%) + 0,237 US for every invested dollar. The lowest value was calculated in 2008 (12,22%) + 0,122 US for every invested dollar. Moreover,

Microsoft had highest coefficient than Apple, but if we take all analyzed period from 2007-2020 in consideration Apple has slightly higher ROA result. On the graph below development of the ROE and ROA which shows different trend from where we can conclude that ROE has higher values.

**Graph 5. Development of ROA and ROE of MSFT**



**Source:** Own creation of the author

### 6.3 Leverage Ratio

All following ratios for the period 2007-2020 show how the Microsoft finances its assets and activities using own or borrowed assets. To calculate leverage ratio financial ratio income statement were used which will be shown in the appendix.

**Table 18. 1 Debt to equity ratio**

| Year | MSFT | AAPL |
|------|------|------|
| 2007 | 1,03 | 0,86 |
| 2008 | 1,01 | 0,45 |
| 2009 | 0,97 | 0,51 |
| 2010 | 0,86 | 0,59 |
| 2011 | 0,90 | 0,54 |
| 2012 | 0,83 | 0,54 |
| 2013 | 0,80 | 0,74 |
| 2014 | 0,92 | 1,12 |
| 2015 | 1,18 | 1,29 |
| 2016 | 1,85 | 1,5  |
| 2017 | 1,85 | 1,9  |
| 2018 | 2,13 | 2,17 |
| 2019 | 1,80 | 2,8  |
| 2020 | 1,55 | 4,35 |

**Source:** Own processing data based on Annual Reports from MSFT and AAPL

2007-2020

The proportion of debt and equity shown in this ratio. From the table above we can see that values have positive trend which indicates that Microsoft has more assets than liabilities. During the period from 2009-2014, a debt-to-equity ratio less than 1 signifies that Microsoft finances themselves mostly covered by own funds, almost no debt. If the debt-to-equity ratio is less than 1 company is considered to be less unsafe than debt-to-equity ratio of more than 1. From 2015-2020 is more than 1 which means that a Microsoft using debt in financing their activities than equity. A higher value was calculated in 2018 (2,13) when company actively were using borrowed funds to finance financial activities. Also, should be noted that a high indicator can represent high risk from shareholders. Important to note that in 2008 value on debt on equity is 1,01 signifies those creditors and investor both have an equal ownership in the Microsoft assets.

Talking about Apple during period from 2007-2013 less than 1. In 2009 (0,51) usually implies a more financially stable business because it represents that Apple uses equity to generate growth double than it does on debt. So, liabilities are 50% of equity. Based on

result of Apple it can be concluded last 3 years indicators are between 2-4,35% it can indicate that a company has been aggressive in using debt to fund growth, which can lead to fluctuating profitability. As a conclusion, the opposite way has Microsoft uses equity in financing more than liabilities.

**Table 19. 1 Equity Ratio**

| Year | MSFT | AAPL  |
|------|------|-------|
| 2007 | 0,49 | 0,53  |
| 2008 | 0,50 | 0,66  |
| 2009 | 0,51 | 0,67  |
| 2010 | 0,54 | 0,64  |
| 2011 | 0,53 | 0,66  |
| 2012 | 0,55 | 0,67  |
| 2013 | 0,55 | -0,60 |
| 2014 | 0,52 | 0,48  |
| 2015 | 0,46 | 0,41  |
| 2016 | 0,37 | 0,40  |
| 2017 | 0,35 | 0,36  |
| 2018 | 0,32 | -0,29 |
| 2019 | 0,36 | 0,27  |
| 2020 | 0,39 | 0,20  |

**Source:** Own processing data based on Annual Reports from MSFT and AAPL 2007-2020

To find out equity ratio we need to divide total shareholders' equity by total assets. For calculation balance sheet were used. It determines how successfully a company manager its debt and funds by analyzing at asset investments and equity. The average accepted value is 0,5 and more. The highest value calculated in 2012,2013 (0,55) was financed using 55% of equity. The minimum value in 2018 (0,36). This drop of value shows the opposite way, company using borrowed funds. Apple presented in 2013 and 2018 negative trend of equity ratio. This changes on negative side shows that company invested in slow-moving assets and equity is formed by borrowed funds. After this significant negative change all indicators of equity ratios decreased.

**Table 20. 1 Debt to Assets**

| Year | MSFT | AAPL  |
|------|------|-------|
| 2007 | 0,51 | 0,29  |
| 2008 | 0,50 | 0,3   |
| 2009 | 0,49 | 0,33  |
| 2010 | 0,46 | 0,36  |
| 2011 | 0,47 | 0,34  |
| 2012 | 0,45 | 0,33  |
| 2013 | 0,45 | 0,40  |
| 2014 | 0,48 | 0,52  |
| 2015 | 0,54 | -0,59 |
| 2016 | 0,63 | 0,60  |
| 2017 | 0,65 | -0,64 |
| 2018 | 0,68 | 0,71  |
| 2019 | 0,64 | 0,73  |
| 2020 | 0,61 | 0,80  |

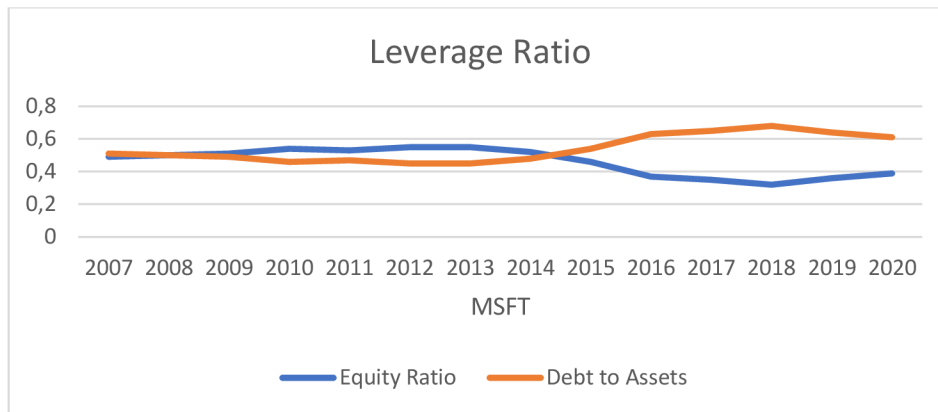
**Source:** Own processing data based on Annual Reports from MSFT and AAPL

2007-2020

Debt to assets ratio measures how much company assets held by creditors and what part belongs to shareholders. To calculate debt ratio, we need to divide total liabilities by total assets. On the table above the average value is less than 1 indicates that the Microsoft has more assets than liabilities and can pay debts by selling assets in case if its needed. The highest value was calculated in 2018 (0,68) while lowest in 2010 (0,46) are considered better from risk viewpoint. If we evaluate over all period of time the more satisfied value for debt on assets was from 2009-2014. Apple's coefficients are much higher than Microsoft's and some of them are negative. In 2015(-0,59) and 2017(-0,64) it signifies that Apple has more liabilities than assets. Mostly this is an extremely risky indicator warning that company could have a risk of bankruptcy. The period from 2007 to 2014 is considered the most efficient for the company.

On the graph illustrated dynamics Equity and Liabilities of MSFT. Fluctuation changes in liabilities can be seen in the graph for 2018.

**Graph 6. Development of Equity Ratio/Debt to Assets Ratio**



**Source:** Own creation of the author

## 6.4 Activity Ratio

The analysis of activity ratio was target of this practical chapter. Generally, activity ratios assist analysts in evaluating a company's inventory management, which is critical to its operational agility and overall financial health.

**Table 21. 1 Total Assets Turnover**

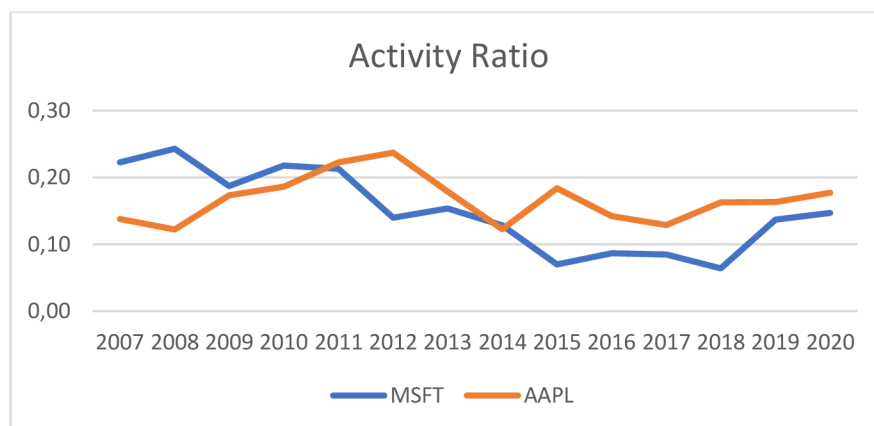
| YEAR | MSFT | AAPL |
|------|------|------|
| 2007 | 0,22 | 0,14 |
| 2008 | 0,24 | 0,12 |
| 2009 | 0,19 | 0,17 |
| 2010 | 0,22 | 0,19 |
| 2011 | 0,21 | 0,22 |
| 2012 | 0,14 | 0,24 |
| 2013 | 0,15 | 0,18 |
| 2014 | 0,13 | 0,12 |
| 2015 | 0,07 | 0,18 |
| 2016 | 0,09 | 0,14 |
| 2017 | 0,08 | 0,13 |
| 2018 | 0,06 | 0,16 |
| 2019 | 0,14 | 0,16 |
| 2020 | 0,15 | 0,18 |

**Source:** Own processing data based on Annual Reports from MSFT and AAPL

2007-2020

The total asset turnover ratio is calculated by dividing net sales by a company's total assets. A higher ratio was recorded in 2007 (0,22) which specify more efficient use of assets to produce sales. In 2018 a minimum coefficient (0,06) in a contrary indicates less efficient use of assets. This significant decrease could be explained by huge portion of asset bases, it is predictable that they would slowly turn over their assets through sales. Apple has a higher turnover of assets was calculated in 2012(0,24) compared to Microsoft. The indicators more than 1 signifies that a company's net sales match its average total assets for the year. In other words, for every dollar invested in assets, the company generates one dollar in revenue. In the comparison of both companies Microsoft show less efficient with its use of assets which is noticeable on the graph below.

### Graph 7. Inventory Turnover



Source: Own creation of the author



**Table 22. 1 Inventory Turnover**

| <b>YEAR</b> | <b>MSFT</b> | <b>AAPL</b> |
|-------------|-------------|-------------|
| 2007        | 9,49        | 0,05        |
| 2008        | 0,01        | 0,04        |
| 2009        | 0,02        | 0,06        |
| 2010        | 0,02        | 37,62       |
| 2011        | 11,35       | 0,08        |
| 2012        | 15,42       | 0,11        |
| 2013        | 10,45       | 91,59       |
| 2014        | 10,13       | 53,18       |
| 2015        | 11,38       | 59,64       |
| 2016        | 14,56       | 61,62       |
| 2017        | 15,71       | 29,05       |
| 2018        | 14,41       | 41,40       |
| 2019        | 20,80       | 39,40       |
| 2020        | 24,32       | 41,75       |

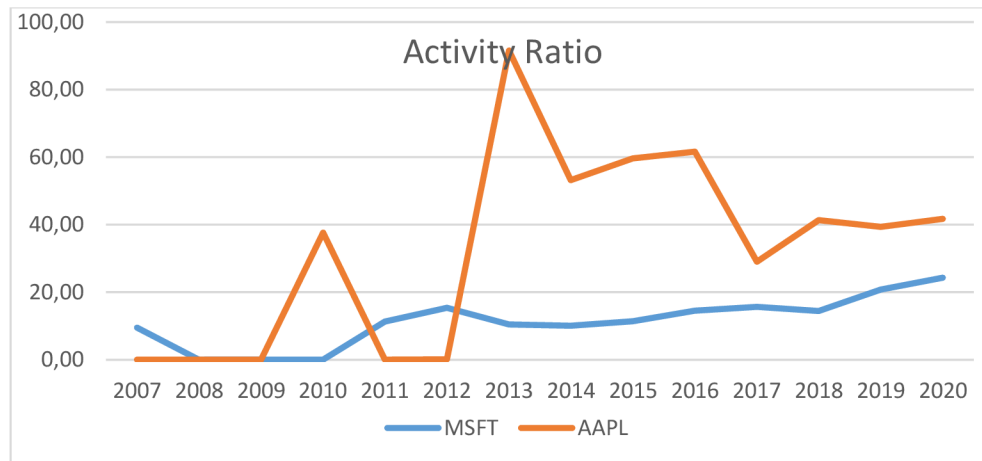
**Source:** Own processing data based on Annual Reports from MSFT and AAPL 2007-2020

The inventory turnover ratio of Microsoft measures how many times a company's inventory has been sold and restocked period from 2007-2020. To calculate inventory turnover we need to divide cost of goods by inventory. In 2008, the lowest value was calculated (0,01) This minimum value of the inventory turnover ratio indicates excess stock that is sold slowly and creates additional costs. For the business always better to have a high inventory turnover. The maximum values were in 2020 (24,32). In the contrary, a greater value means that the item sells well, but it could also signify that there aren't enough in stock.

Speaking about main competitors Apple has a higher turnover ratio. The minimum value of the inventory turnover ratio was in 2008 (0,04). The maximum value was observed in 2016 (61,62) which is 37,30 more than Microsoft.

Based on this analysis, we can conclude that Apple has achieved a higher result than its competitor. On the graph below, this increase is immediately noticeable.

**Graph 8. Inventory Turnover**



**Source:** Own creation of the author

**Table 23. 1 Payables turnover ratio**

| YEAR | MSFT  | AAPL |
|------|-------|------|
| 2007 | -3,29 | 3,2  |
| 2008 | 2,88  | 3,6  |
| 2009 | 3,66  | 4,24 |
| 2010 | 3,08  | 4,49 |
| 2011 | 3,73  | 4,53 |
| 2012 | 4,20  | 4,29 |
| 2013 | 4,19  | 3,89 |
| 2014 | 3,62  | 3,59 |
| 2015 | 5,01  | 3,95 |
| 2016 | 4,75  | 3,73 |
| 2017 | 4,64  | 2,9  |
| 2018 | 4,45  | 3,01 |
| 2019 | 4,57  | 3,73 |
| 2020 | 3,68  | 3,31 |

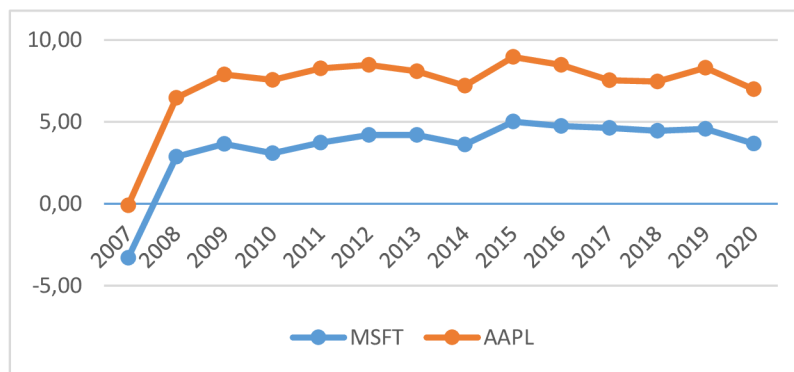
**Source:** Own processing data based on Annual Reports from MSFT and AAPL

2007-2020

The accounts payable turnover ratio tells investors how many times a company pays its bills in a given period. To calculate payables turnover, we need to divide amount of cost of goods sold by accounts payable balance. As in other ratios the higher value is preferable.

The higher accounts payable turnover was recorded in 2015(5,01). It means that Microsoft quickly repays debts to suppliers in a shorter time. On the other hand, in 2007 (-3,29) negative ratio could signal that a company struggles to pay its bills. Thought analyzed period Apple had lower account payable coefficient. The highest was calculated in 2011(4,53), lowest in 2018(3,01) Thus, we can conclude that Microsoft has high value on payables turnover than Apple which is more preferable.

**Graph 9. Payables Turnover Ratio**



**Source:** Own creation of the author

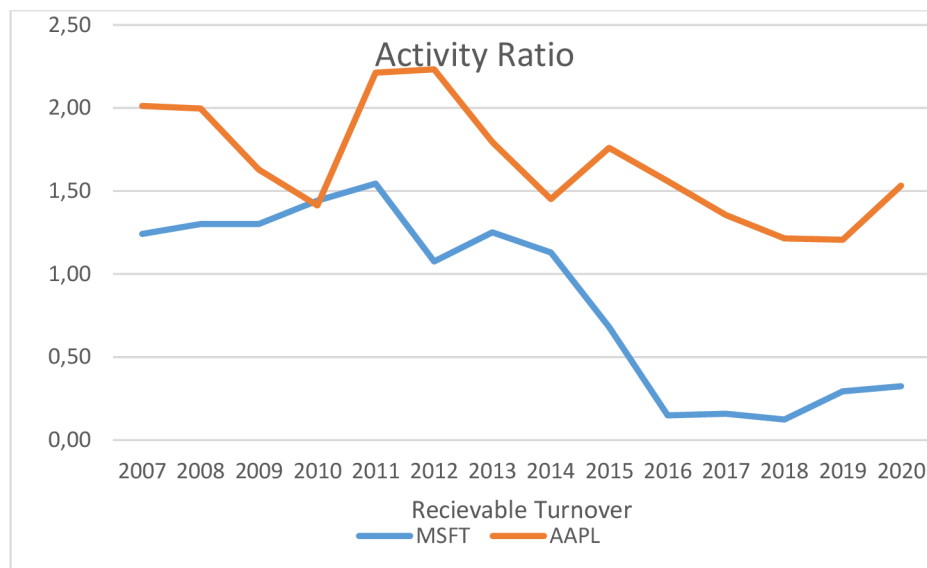
**Table 24 1 Receivable Turnover**

| YEAR | MSFT | AAPL |
|------|------|------|
| 2007 | 1,24 | 2,01 |
| 2008 | 1,30 | 2,00 |
| 2009 | 1,30 | 1,63 |
| 2010 | 1,44 | 1,41 |
| 2011 | 1,54 | 2,21 |
| 2012 | 1,08 | 2,23 |
| 2013 | 1,25 | 1,79 |
| 2014 | 1,13 | 1,45 |
| 2015 | 0,68 | 1,76 |
| 2016 | 0,15 | 1,56 |
| 2017 | 0,16 | 1,36 |
| 2018 | 0,12 | 1,22 |
| 2019 | 0,29 | 1,21 |
| 2020 | 0,32 | 1,53 |

**Source:** Own processing data based on Annual Reports from MSFT and AAPL 2007-2020

The receivable turnover is measure how quickly company manages and uses the credit it gives to consumers, as well as how fast that debt is recovered or paid. The higher ratio the faster Microsoft gets payment from debtor. To find out receivable turnover ratio I divided net income by account receivable. Values changing between 0,12-1,44 all period of time. The highest ratio was calculated in 2011(1,54) it means that during this year was largest payout from customers. On the other hand, the lowest value was in 2018 (0,12) it indicates that Microsoft had poor process of credit policies. Apple represented higher receivables turnover during analyzed period compared to Microsoft.

**Graph 10. Development of Receivables Turnover**



**Source:** Own creation of the author

## 6.5 Capitalization Ratio

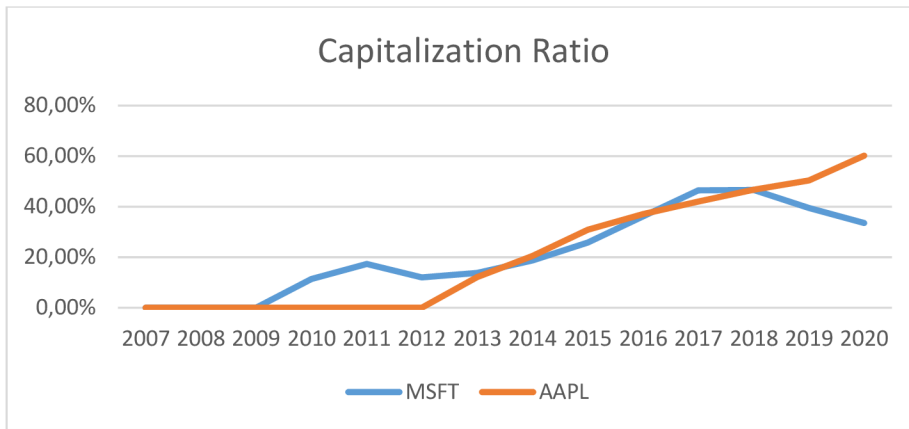
**Table 25. 1 Capitalization indicators**

| <b>Year</b> | <b>MSFT</b> | <b>AAPL</b> |
|-------------|-------------|-------------|
| 2007        | 0           | 0           |
| 2008        | 0           | 0           |
| 2009        | 0           | 0           |
| 2010        | 0,11        | 0           |
| 2011        | 0,17        | 0           |
| 2012        | 0,12        | 0           |
| 2013        | 0,14        | 0,12        |
| 2014        | 0,19        | 0,20        |
| 2015        | 0,26        | 0,31        |
| 2016        | 0,36        | 0,37        |
| 2017        | 0,46        | 0,42        |
| 2018        | 0,47        | 0,47        |
| 2019        | 0,39        | 0,50        |
| 2020        | 0,33        | 0,60        |

**Source:** Own processing data based on Annual Reports from MSFT and AAPL 2007-2020

To calculate capitalization ratio, we need to divide long term debt to total shareholders' equity. The balance sheet statement was used as a based on the calculation if this ratio. The obtained ratio demonstrates how much a company relies on its own funds to support its operations and growth. On the table above could be seen that from 2007 till 2009 Microsoft had no debts. The standard accepted value is 0,7. The highest of the ratio represents that the company finances its own activities to a greater extent of long-term liabilities. The low capitalization ratio indicates that company has a greater extent from the equity as a result more solvent financial position of the organization. Low indicator was recorded in 2010(0,17). In a contrary Apple indicator has higher dependence of long-term liabilities (0,60). The graph capitalization ratio in comparison between MSFT and AAPL where APPL has higher fluctuations.

**Graph 11. Development of Capitalization Ratio**



**Source:** Own creation of the author

## **7 Results and Discussion**

### **Horizontal Analysis of Balance Sheet.**

In the thesis work, a financial analysis of the Microsoft company was carried out, which includes a horizontal analysis of the balance sheet and income statement as well as a vertical one. Both analyses were quite useful in determining changes and general trends of Microsoft Corporation for the period 2007-2020. In the horizontal analysis of balance sheet. In the horizontal analysis total assets mainly has positive growing trend. The most stressful years for Microsoft was in 2007, 2009, 2015. Also, in 2007 total assets and total current assets had negative value (-18,04%), (-9,23%). This decreased explained that Microsoft had less assets than liabilities. Negative decrease in non-current assets in 2009 (-3,19%) impacted on the negative changes of investment (-25,12), goodwill (-3,26), intangible assets (-10,85%) and mostly in differed income taxes (70,60%). This fact of negative decrease can be explained as a commencement of the global economic crisis, which impacted key economic indicators. In the section of liabilities can be notice a positive growth which affects positively in shareholders equity. It is important to note that from 2007-2010 Microsoft had no long-term debt and only in 2011 as effect of the crisis increase (46,63%) the assets due to the emergence of new liabilities and its dependence on borrowed funds. In 2015 retained earnings reached record of negative values -87,11% due failed products which led loss of profit.

### **Horizontal analysis of the income statement**

Throughout analyzed period Microsoft suffer loses in gross profit in 2009 (-3,38%) and 2016 (-8,83%). This first reason of negative impact can be explained as global financial crisis had a significant influence on the financial performance of corporations. The second significant reason that Microsoft wanted to compete in the phone market as its main competitor Apple, but this was not successful. The third reason that traditional PC shipments substitute to new Apples iPad and MacBook sales which negatively impacted on revenue. Despite all this factors Microsoft had own strategy to keep position in the market. They were betting on the improvement of operational system and launch of new product which were bringing to the company good revenue and continuing to invest in technology with the cooperation of main competitors. In 2019 Microsoft's net income significantly increases by 136.8% (\$39,240 million).

### **Vertical analysis of the balance sheet**

In the vertical analysis of balance sheet, we can see that proportion on current assets higher than current. This fact related to factor that Microsoft focused on research and development production, service and technical support and sales which gives dominance of current assets. At the same time in 2008 the lowest current assets were reported 59,40%. The reason for this decline is a financial crisis and falling indices on the stock exchange which had a strong impact on the volume of investments in the computer technology sector. In the section of total liabilities and equity the second grew more for all analysed period which indicates that company has stable position. But from 2015-2020 grew less than in previous years. This decrease in equity is not related with the unprofitable activity of the company most probably its related with decrease funding from investors

### **Vertical analysis of income statement**

For all analyzed period gross profit exceeded operating expenses, which indicates the stability of the company. The maximum gross profit was reached in 2010 by 80,16%. Such gross profit indicates that company is able cover cost of production and pays for it operating expenses. As a result, higher gross value lead to a higher net profit of Microsoft. Even despite of financial crisis Microsoft had no impact on net profit.

### **Market Ratio**

Market value ratios are one of the most widely used financial measures, as they evaluate and analyze stock prices and compare them to those in similar industries. For the market ration analysis, I took two main competitors in a software market Microsoft and Apple. Basically, the market ratio is used by investors as it helps to make the right investment decisions. Price to earning measure stock price to its earnings. In general comparison to its competitors, Microsoft stock appears to be slightly overvalued. At the same time company had problematic periods. In 2008 there was low market per share which reasoned as a start of financial crisis that's why investors were interested in sell a stock.

### **Ratio Indicators**

#### **Liquidity**

To analyze liquidity ratio of Microsoft, current, quick and cash ratio were used. Through entire time 2007-2020, the current, quick ratio fluctuates a lot. At the same time this fluctuation most of the time is higher than 2 which indicates that a Microsoft can cover existing liabilities twice over. The lowest value of current liquidity was calculated in 2008



(1,45). This low value of Microsoft considered as a high compared to generally accepted standards. The third liquidity indicator is a cash ratio. The lowest was in 2009(0,76) which is less than 1 indicates that the company had most likely bad management of their assets, holding large amounts of cash on the balance sheet. In comparison of Apple, Microsoft indicators are much higher which indicate to quick liquidity. According to calculated data possible to conclude that Microsoft has a good financial health and may be classified as solvent.

### **Profitability**

To observe profitability ratio ROS, ROCE, ROE, ROA indicators has been analyzed. Profitability indicator has mostly positive growth which indicates profitable results of the Microsoft. Profitability of the company increasing over year because of the increasing sale. However, in the period 2019 company demonstrate significant drop in return on sales (-3,53%) which lead to unprofitable activities of the company. This negative value due litigation related to the non-transparent development of most products and the renewal of the current sales agreement for the SUSE Linux operating system. Despite crisis in 2008 profitability was stable. Only in 2009 decreased by 12,48% lower than in 2008. The net income of Microsoft decreased in 2015-2018. However, net profit overall trend shows that Microsoft net profit is progressively increasing which is a positive indicator for a company.

### **Leverage**

To observe leverage ratio debt to equity, equity ratio and debt to assets were used. Microsoft debt to equity from 2009-2014 were less than 1 it means that debt was covered by using own funds to leverage its finances. Form the period from 2015-2020 the value is more than 1 which indicates that company using debt in financing company's activity. A higher value was calculated in 2018 (2,13) when company actively were using borrowed funds to finance financial activities. Also, should be noted that a high indicator can represent high risk from shareholders. Speaking of Apple debt to equity ratio for 2013-2018 has negative it can indicate that a company has been aggressive in using debt to fund growth, which can lead to fluctuating profitability. Equity ratio indicators of Microsoft mostly above 0,50 it means that company own more funding from equity than debt. But value below 0,50 observed from 2015-2020 which shows the opposite way. In 2013,2018 Apple invested in slow-moving assets and equity is formed by borrowed funds that why equity ratio is negative. Debt to equity ratio of Microsoft show that company has more assets than liabilities. In the opposite way Apple in some year (2015,2017) has negative

debt to equity which means that company has more liabilities than assets which is not good for financial stability.

### **Activity**

To observe activity ratio total assets turnover, inventory turnover, account payable turnover and receivable turnover were used. In the comparison of both companies. The result of calculation of total assets turnover shows that Microsoft less efficient with its use of assets for sale than Apple. Especially in 2018 a minimum coefficient (0,06) in a contrary indicates less efficient use of assets. From 2011-2020 inventory turnover assets productivity of Microsoft quite strong, but important to note that from 2008-2010 there was poor management of inventory which indicates excess stock that is sold slowly and creates additional costs. Also, in inventory turnover competitors has archived more efficiency results. Receivable turnover of Microsoft showed efficient result from 2007-2014 which represent than company were getting payment from debtor fast. Nevertheless, from 2015-2020 which indicates lack of process credit policies. The same as in two previous turnover Apple showed better result. And last but not least payable turnover of Microsoft from 2008-2020 showed good results which means that company quickly repays debts to suppliers in a shorter time. On the other hand, in 2007 (-3,29) negative ratio could signal that a company struggles to pay its bills.

### **Capitalization**

Speaking of Capitalization ratio according to annual report of Microsoft from 2007-2009 company has no debt. For all period of time Microsoft has a greater extent from the equity as a result more solvent financial position. In a contrary in comparison with competitors, Apple has higher dependence of long-term liabilities (0,60)

Summing up this work, it should be noted that the crisis had an extremely negative impact on the balance sheet and profit of the enterprise. As anti-crisis measures, Microsoft must concentrate on the most critical growth prospects, both now and in the future, as well as cost-cutting and resource-management options. As well to revise contracts with system integrators, focus on own operational system, consolidate IT resources and transfer maximum work to less expensive regions, reduce costs by cutting working places in order to focus resources where they can bring the best results for the company.

Microsoft should consider a plan aimed at improving the situation and investing in products that will save the company from falling profits in the future. To avoid negative values, company need to reduce costs and maintain the existing customer base.

## **Conclusion**

The aim of this work is to evaluate financial health of Microsoft within period from 2007-2020. Based on calculated results compare with main competitors the market Apple for the same analysed period.

In 2007 were observed that Microsoft had less assets than liabilities that's why company had many negative values in horizontal of balance sheet. In the process of analyzing income and balance sheet statement it was revealed that the global financial crisis of 2008 had a negative impact to Microsoft. Especially the effects of the crisis were even more noticeable in 2009. By horizontal analysis total assets has variable dynamics. In 2009 there was negative change in non-current assets which impacted on investment, goodwill, intangible assets and income taxes negatively. The same year company suffer losses in revenue. Also, in 2016 company had the same result the reason of that failure to compete in the telephone market. Net income in 2009, 2012, 2016, 2018 were negative due many factors: crisis, slowdown in sales if traditional PC, failed Surface and phone market products. Important to note that from 2007-2010 Microsoft had no long-term debt which indicates that company able to cover debts from own funds.

By vertical analysis was discovered that company's current assets mostly greater than non-current assets. However, in 2008 was indicated lowest value in current assets. The gross profit exceeds operating income which show stability of the company. Should be noted that company good at keeping balance between gross profit and operating expenses as it should be.

According to special index S&P 500 Microsoft and Apple stocks among top 10 heaviest stock in the world. This is also proved by the calculated analysis of the market ratio that the shares of these companies are overvalued. Since the company invests a lot, particularly the last 5 year (such projects as LinkedIn, Microsoft Teams, Microsoft 365 etc.), it is justified that the company's shares are growing every year. Most of analysts believe that the relatively high share valuation fairly reflects expectations regarding the company's growth.

By liquidity analysis of Microsoft was observed that company fully can pay its short-term debt obligations.

The Microsoft profitability ratio is profitable strong enough as well as capacity to generate revenues into sales. However, in 2009 there was a drop in profit due financial crisis.

Speaking of leverage ratio mostly Microsoft used own equity to finance their activities.

And last but not least activity ratio, was found out that company from 2008-2010 poorly used inventory. Therefore, stock excess and sold slowly and created additional costs in balance sheet. For the rest of the years company had ability to create revenue and cash by leveraging the assets on its balance sheet.

By capitalization ratio was observed that Microsoft has predominance of equity which is more attractive for investors. Based on the calculated indicators, we can conclude that the company in all segments of its business showed impressive growth, which is a good indicator of future growth.

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# Appendix

## 1. Balance Sheet of Microsoft Corporation 2006-2020

| Balance Sheet (Millions of US \$)                                  | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Assets   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Current assets:  |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cash and equivalents   | 6,71   | 6,11   | 10,34  | 6,08   | 5,51   | 9,61   | 6,94   | 3,80   | 8,67   | 5,60   | 6,51   | 7,66   | 11,95  | 11,36  | 13,58  |
| Short-term investments   | 27,45  | 17,30  | 13,32  | 25,37  | 31,28  | 43,16  | 56,10  | 73,22  | 77,04  | 90,93  | 106,73 | 125,32 | 121,82 | 122,46 | 122,95 |
| Total cash and short-term investments                              | 34,16  | 23,41  | 23,66  | 31,45  | 36,79  | 52,77  | 63,04  | 77,02  | 85,71  | 96,53  | 113,24 | 132,98 | 133,77 | 133,82 | 136,53 |
| Accounts receivable  | 9,32   | 11,34  | 13,59  | 11,19  | 13,01  | 14,99  | 15,78  | 17,49  | 19,54  | 17,91  | 18,28  | 22,43  | 26,48  | 29,52  | 32,01  |
| Inventories  | 1,48   | 1,13   | 985,00 | 717,00 | 740,00 | 1,37   | 1,14   | 1,94   | 2,66   | 2,90   | 2,25   | 2,18   | 2,66   | 2,06   | 1,90   |
| Deferred income taxes  | 1,94   | 1,90   | 2,02   | 2,21   | 2,18   | 2,47   | 2,04   | 1,63   | 1,94   |        |        |        |        |        |        |
| Other  | 2,12   | 2,39   | 2,99   | 3,71   | 2,95   | 3,32   | 3,09   | 3,39   | 4,39   | 5,46   | 5,89   | 5,10   | 6,75   | 10,15  | 11,48  |
| Total current assets   | 49,01  | 40,17  | 43,24  | 49,28  | 55,68  | 74,92  | 85,08  | 101,47 | 114,25 | 122,80 | 139,66 | 162,70 | 169,66 | 286,56 | 301,31 |
| Property and equipment, net  | 3,04   | 4,35   | 6,24   | 7,54   | 7,63   | 8,16   | 8,27   | 0,10   | 13,01  | 14,73  | 18,36  | 23,73  | 29,46  | 36,48  | 44,15  |
| Equity and other investments                                       | 9,23   | 10,12  | 6,59   | 4,93   | 7,75   | 10,87  | 9,78   | 9,99   | 14,60  | 12,05  | 10,43  | 6,02   | 2,86   | 2,65   | 2,97   |
| Goodwill   | 3,87   | 4,76   | 12,11  | 12,50  | 12,39  | 12,58  | 13,45  | 10,84  | 20,13  | 16,94  | 17,87  | 35,12  | 35,68  | 42,03  | 43,35  |
| Intangible assets, net   | 0,54   | 0,88   | 1,97   | 1,76   | 1,16   | 0,74   | 3,17   | 14,66  | 6,98   | 4,84   | 3,73   | 10,11  | 8,05   | 7,75   | 7,04   |
| Deferred income taxes  | 2,61   | 1,39   | 0,95   | 0,28   |        |        |        |        |        |        |        |        |        |        |        |
| Other long-term assets   | 1,30   | 1,51   | 1,69   | 1,60   | 1,50   | 1,43   | 1,15   | 2,39   | 3,42   | 3,12   | 3,64   | 6,08   | 7,44   | 14,72  | 13,13  |
| Total non current assets   | 20,59  | 23,00  | 29,55  | 28,61  | 30,44  | 33,79  | 35,82  | 37,98  | 58,14  | 51,68  | 54,03  | 81,06  | 83,50  | 103,63 | 110,64 |
| Total assets   | 69,60  | 63,17  | 72,79  | 77,89  | 86,11  | 108,70 | 121,27 | 142,43 | 172,38 | 174,47 | 193,69 | 250,31 | 258,85 | 286,56 | 301,31 |
| Accounts payable   | 2,91   | 3,25   | 4,03   | 3,32   | 4,03   | 4,20   | 4,18   | 4,83   | 7,43   | 6,59   | 6,90   | 7,39   | 8,62   | 9,38   | 12,53  |
| Current portion of long-term debt                                  |        |        |        |        |        | 0,00   | 1,23   | 3,00   | 0,00   | 2,50   | 0,00   | 1,05   | 4,00   | 5,52   | 3,75   |
| Short-term debt  |        |        |        | 2,00   | 1,00   |        |        | 0,00   | 2,00   | 4,99   | 12,90  | 9,07   | 0,00   |        |        |
| Accrued compensation   | 1,94   | 2,33   | 2,93   | 3,16   | 3,28   | 3,58   | 3,88   | 4,12   | 4,80   | 5,10   | 5,26   | 5,82   | 6,10   | 6,83   | 7,87   |
| Income taxes   | 1,56   | 1,04   | 3,25   | 0,73   | 1,07   | 580,00 | 789,00 | 592,00 | 782,00 | 606,00 | 580,00 | 718,00 | 2,12   | 5,67   | 2,13   |
| Short-term unearned revenue  | 9,14   | 10,78  | 13,40  | 0,13   | 13,65  | 15,72  | 18,65  | 20,64  | 23,15  | 23,22  | 27,47  | 24,01  | 28,91  | 32,68  | 36,00  |
| Securities lending payable   | 3,12   | 2,74   | 2,61   | 1,68   | 182,00 | 1,21   | 814,00 | 645,00 | 558,00 | 92,00  | 294,00 |        |        |        |        |
| Other  | 3,78   | 3,62   | 3,66   | 3,14   | 2,93   | 3,49   | 3,15   | 3,60   | 6,91   | 6,56   | 5,95   | 7,68   | 8,74   | 9,35   | 10,03  |
| Total current liabilities  | 22,44  | 23,75  | 29,89  | 27,03  | 26,15  | 28,77  | 32,69  | 37,42  | 45,63  | 49,65  | 59,36  | 55,75  | 58,49  | 69,42  | 72,31  |
| Long term debt   | 0,00   | 0,00   | 0,00   | 0,00   | 5,94   | 11,92  | 10,71  | 12,60  | 20,65  | 27,81  | 40,78  | 76,07  | 72,24  | 66,66  | 59,58  |
| Long term income taxes   |        |        |        |        |        |        |        |        |        |        |        |        |        | 29,61  | 29,43  |
| Long-term unearned revenue   | 1,76   | 1,87   | 1,90   | 3,75   | 4,94   | 1,40   | 1,41   | 1,76   | 2,01   | 2,10   | 6,44   | 2,64   | 3,82   | 4,53   | 3,18   |
| Deferred Income taxes  |        |        |        |        |        | 1,46   | 1,89   | 1,71   | 2,73   | 1,30   | 1,48   |        |        | 233    | 204,00 |
| Operating lease liabilities  |        |        |        |        |        |        |        |        |        |        |        |        |        | 6,19   | 7,67   |
| Other long-term liabilities  | 5,29   | 6,45   | 4,72   | 1,28   | 1,18   | 8,07   | 8,21   | 10,00  | 11,59  | 13,54  | 13,64  | 3,55   | 5,21   | 7,58   | 10,63  |
| Total liabilities  | 29,49  | 32,07  | 36,51  | 38,33  | 39,94  | 51,62  | 54,91  | 63,49  | 82,60  | 94,39  | 121,70 | 162,60 | 176,13 | 184,23 | 183,01 |
| Commitments and contingencies                                      |        |        |        | 6,27   | 229,00 |        |        |        |        |        |        |        |        |        |        |
| <b>Stockholders' equity:</b>                                       |        |        |        |        | 7,45   |        |        |        |        |        |        |        |        |        |        |
| Common stock and paid-in capital                                   | 59,01  | 60,56  | 62,85  | 62,38  | 62,86  | 63,42  | 65,80  | 67,31  | 68,37  | 68,47  | 68,18  | 69,32  | 71,22  | 78,52  | 80,55  |
| Retained deficit, including accumulated other comprehensive income | -18,90 | -29,46 | 26,56  | 22,82  | 16,68  | 6,33   | 566,00 |        |        |        |        |        |        |        |        |
| Retained earnings  |        |        |        |        |        |        |        | 9,90   | 17,71  | 2,28   | 9,10   | 17,77  | 13,68  | 24,15  | 34,57  |
| Accumulated other comprehensive income                             |        |        |        |        |        |        |        |        |        | 2,52   | 1,54   | 627,00 | 2,19   | 340,00 | 3,19   |
| Total stockholders' equity   | 40,10  | 31,10  | 36,29  | 39,56  | 46,18  | 57,08  | 66,36  | 78,94  | 89,78  | 80,08  | 72,00  | 87,71  | 82,72  | 102,33 | 118,30 |
| Total liabilities and stockholders' equity                         | 69,60  | 63,17  | 72,79  | 77,89  | 86,11  | 108,70 | 121,27 | 142,43 | 172,38 | 174,47 | 193,69 | 250,31 | 258,85 | 286,56 | 301,31 |

## 2. Income Statement of Microsoft Corporation 2006-2020

| Profit and Loss Statement (USD)         | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019    | 2020    |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| REVENUES                                | 44,282 | 51,122 | 60,42  | 58,437 | 62,484 | 69,943 | 73,723 | 77,849 | 86,833 | 93,58  | 85,32  | 89,95  | 110,36 | 125,843 | 143,015 |
| Cost of Goods Sold                      | 7,65   | 10,693 | 11,598 | 12,155 | 12,395 | 15,577 | 17,53  | 20,249 | 26,934 | 33,038 | 32,78  | 34,261 | 38,353 | 42,91   | 46,078  |
| GROSS PROFIT                            | 36,632 | 40,429 | 48,822 | 46,282 | 50,089 | 54,366 | 56,193 | 57,6   | 59,899 | 60,542 | 52,54  | 55,689 | 72,007 | 82,933  | 96,937  |
| OPERATING EXPENSES AND INCOME           | 20,16  | 21,905 | 26,33  | 25,919 | 25,932 | 27,205 | 28,237 | 30,836 | 32,013 | 32,37  | 31,248 | 33,057 | 36,949 | 39,974  | 43,978  |
| Research Development                    | 6,584  | 7,121  | 8,164  | 9,01   | 8,714  | 9,043  | 9,811  | 10,411 | 11,381 | 12,046 | 11,988 | 13,037 | 14,726 | 16,876  | 19,269  |
| Selling General Administrative          | 13,567 | 14,784 | 5,127  | 4,03   | 4,004  | 4,222  | 4,569  | 5,149  | 4,821  | 4,611  | 4,563  | 4,481  | 4,754  | 4,885   | 5,111   |
| Other Operating Income                  | -      | -      | 13,039 | 12,879 | 13,214 | 13,94  | 13,857 | 15,276 | 15,811 | 15,713 | 14,697 | 15,539 | 17,469 | 18,213  | 19,598  |
| OPERATING INCOME                        | 16,472 | 18,524 | 22,492 | 20,363 | 24,157 | 27,161 | 27,956 | 26,764 | 27,886 | 28,172 | 21,292 | 22,632 | 35,058 | 42,959  | 52,959  |
| Income Tax Expense                      | 5,663  | 6,036  | 6,133  | 5,252  | 6,253  | 4,921  | 5,289  | 5,189  | 5,746  | 6,314  | 2,953  | 1,945  | 19,903 | 4,448   | 8,755   |
| Other Net Income From Continuing Operat | 10,809 | 12,488 | 29,398 | 27,99  | 12,358 | 13,03  | 19,546 | 14,988 | 15,877 | 25,378 | 16,238 | 15,022 | 16,053 | 17,484  | 19,521  |
| EARNINGS FROM CONTINUING OPERATIONS     | -      | -      | -      | -      | 18,76  | 23,15  | 16,978 | 21,863 | 22,074 | 12,193 | 16,798 | 21,204 | 16,571 | 39,24   | 44,281  |
| Other Items                             | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -       | -       |
| NET INCOME                              | 12,599 | 14,065 | 17,681 | 14,569 | 18,76  | 23,15  | 16,978 | 21,863 | 22,074 | 12,193 | 16,798 | 21,204 | 16,571 | 39,24   | 44,281  |