Czech University of Life Sciences Prague

Faculty of Economics and Management

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Master Thesis

Subject: Estimation of NETFLIX Stock Value

Olga Gorbunova

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

Bc. Olga Gorbunova, BBA

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Thesis title

Estimation of NETFLIX Stock Value

Objectives of thesis

The main aime of this paper is to calculate an intrinsic value of NETFLIX, Inc. in year 2020 to asses if its market capitalization is reasonable. The main objective of the work is to understand if NETFLIX stocks can be recommended to buy and what the main factors that affect the company.

Methodology

This diploma thesis divided into 2 parts: theoretical and practical. The first part defines fundamental terms, theory and history of common stock market and joint stock companies, which information is needed to prepare suitable analysis. The second part describes company profile, internal and external analysis and particularly focuses on the main factors that influence on Netflix, Inc.

As a methodology will be used: for internal environment analysis – Financial statement analysis, Analysis of resources and skills (HR), BCG matrix, DCF model for Future cash flow. Further, for External environment analysis- PEST, Porters 5 forces. It shows different aspects of the thesis such as:

-Short-term investment

-Long-term investment

- Forecast profits

- Supply and demand

- Industry strength,

- Management ability

- other intrinsic matters affecting a stock's market value and growth potential.

In addition, the review of the topic is based on a significant review of secondary data since some of the information will be collected from Netflix annual reports.

Later, in the thesis will have the SWOT analysis which use the valuation approaches and the macroeconomics. In the end, all this theoretical explanation will be put in practice with a practical explanation and calculation of this methods in the American securities.

The proposed extent of the thesis

60 – 80

Keywords

Stocks, Financial Market, Fundamental Analysis, Financial system, Macroeconomics, Intrinsic value, cash flow, Investment, American Market, American economy, Capitals markets

Recommended information sources

David F. Swensen "Unconventional Success: A Fundamental Approach to Personal Investment". New York: Free Press; Annotated Edition, 2005. ISBN 0-7432-7461-X

GRAHAM, BENJAMIN A. And DAVID, L. DODD. Security analysis: principles and technique. 6th ed. New York: McGraw-Hill, c2009. ISBN 9780071592536

Peter Lynch One Up On Wall Street: How To Use What You Already Know To Make Money In The Market". New York: Simon & Schuster Paperbacks, 2000

RANALD C. MICHIE "The Global Securities Market". Oxford New York: University Press, 2006. ISBN 0-19-928061-4

W. Buffett "Buffett: The Making of an American Capitalist". New York: Random House Trade Paperbacks; Illustrated Edition, 2008. ISBN-13 978-0812979275

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The Diploma Thesis Supervisor

Ing. Karel Malec, Ph.D.

Supervising department

Department of Economics

Electronic approval: 27. 11. 2020

prof. Ing. Miroslav Svatoš, CSc.

Head of department

Electronic approval: 29. 11. 2020

Ing. Martin Pelikán, Ph.D.

Dean

Prague on 30. 11. 2020

Declaration

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

In Prague on _____

Gorbunova Olga _____

Acknowledgement

I would like to thank Ing. Karel Malec, Ph.D, for the given lectures with a perfect explanation. Also, valuable materials that have been considered in my thesis, which helped me a lot in writing the whole project with use of all micro and macro-economic aspects.

Estimation of NETFLIX Stock Value

Abstract

The thesis is aimed at exploring the inner financial system and securities market structure and its activities and calculate the intrinsic value of chosen company. The actuality of the topic of the diploma thesis is that with the help of financial indicators and qualitative analysis of the company it will be possible to predict future dividends, thus providing valuable additional information for current and potential stockholders.

It is also necessary to follow sanitary rules and regulations, which are shown in the thesis. Chosen company for the intrinsic value calculation is NETFLIX.

In the research process, information obtained from conversations/interviews with people who directly hold different shares, bankers, brokers and other participants in the stock market was used as well as special literature.

Keywords: stock, common stock market, investments in stocks, Intrinsic value, Financial system, Capitals markets, history of stocks, Netflix.

Odhad hodnoty akcií společnosti NETFLIX.

Abstrakt

Diplomová práce je zaměřena na přezkoumání vnitřního finančního systému a struktury trhu s cennými papíry a jeho aktivit a výpočet vnitřní hodnoty vybrané společnosti.

Aktuálnost daného tématu diplomové práce spočívá ve skutečnosti, že pomocí finančních ukazatelu a kvalitativní analýzy vybrané společnosti bude možné předpovídat budoucí dividendy, což poskytne další cenné informace pro současné i potenciální akcionáře.

Je také nutné dodržovat hygienická pravidla a opatření, které jsou v této práci uvedeny.

Vybranou společností pro výpočet vnitřní hodnoty je NETFLIX.

V procesu výzkumu byly použity informace získané z rozhovoru s držiteli akcií, bankéři, makléři a s další účastníky na akciovém trhu. Rovněž byla využita i speciální literatura.

Klíčová slova: akcie, společný akciový trh, investice do akcií, vnitřní hodnota, finanční systém, kapitálové trhy, historie akcií, Netflix.

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1. Introduction:

The modern economy is not only the goods, labor or energy markets, but the financial markets as well. More than that – the overall volume of financial markets linked to the energy market is exceeding the latter more than 100 times. Financial markets not only provide the states and enterprises with the opportunity of fund raising but also facilitate legal and private entities to place their certain funds within liquid instruments besides bank deposits.

The financial market can be divided in different ways, i.e. by origin and/or kind of issuer, by indebtedness or capital nature of the security, by underlying asset for the financial derivatives etc. the significant part of the financial markets is the securities market operating with shares, bonds, bills and other term and non-term financial instruments.

The general purpose of the financial markets is the turnover and conversion of various assets into any other valuable form(s) including those issued by states and/or legal entities and/or institutions. Financial markets provide market participants with the opportunity to raise funds (both capital and debt) in specifically usable form.

Thus, the task of this thesis is to clarify the concept of stocks, classification of their varieties. Further, the second task is to overview the stock market itself, its structure, participants (acting and facilitating) and its regulation. Special attention is paid in the bellowed to the role of the banks in the stock market.

The practical part of this diploma is the evaluation of the intrinsic value of NETFLIX (NFLX) share, ts comparison with the market price and difference nature estimation.

The methodological basis of the thesis is educational literature (W. Buffett “Investment Lessons from Warren Buffett”, E. Fama “The behavior of stock market price”, some others).

2. Objectives and Methodology

2.1 Objectives of thesis

The main aim of this paper is to calculate an intrinsic value of NETFLIX, Inc. in year 2020 to asses if its market capitalization is reasonable. The main objective is based on the analysis of intrinsic value to recommend or not to recommend the Netflix stocks for potential investors. Another objective is to understand what are the main factors that affect the company.

2.2 Methodology

This diploma thesis divided into 2 parts: theoretical and practical. The first part defines fundamental terms, theory and history of common stock market and joint stock companies, description of financial and marketing analysis, which information is needed to prepare suitable analysis. The second part describes company profile, internal and external analysis and particularly focuses on the main factors that influence on Netflix, Inc.

As a methodology will be used: for internal environment analysis - Financial statement analysis, The Average Revenue Per User (ARPU) analysis, BCG matrix, DCF model for Future cash flow. Further, for External environment analysis- PEST, Porters 5 forces. It shows different aspects of the thesis such as:

-Short-term investment

-Long-term investment

- Forecast profits

- Supply and demand

- Industry strength,

- Management ability

- other intrinsic matters affecting a stock's market value and growth potential.

In addition, the review of the topic is based on a significant review of secondary data since some of the information will be collected from Netflix annual reports, publications and magazines' articles.

Later, in the thesis will have the SWOT analysis which use the valuation approaches and the macroeconomics: Strengths, Weaknesses, Opportunities and Threats of the company. In the end, all this theoretical explanation will be put in practice with a practical explanation and calculation of this methods in the American securities.

2.2.1 **Methodological Approach**

The methodology approaches that will be used for this paper research of estimating the stock values of Netflix, Inc as well as evaluating its financial position in the market are listed below:

- Intrinsic value analysis of a company stock that is calculations of internal value of stock by Discounted Cash Flow Models (DCF), which formula is:

  $$\boldsymbol{DCF} = \frac{\boldsymbol{CF_1}}{\boldsymbol{(1+r)^1}} + \frac{\boldsymbol{CF_2}}{\boldsymbol{(1+r)^2}} + \frac{\boldsymbol{CF_3}}{\boldsymbol{(1+r)^3}} + \cdots \frac{\boldsymbol{CF_n}}{\boldsymbol{(1+r)^n}} \quad (1)$$

  Where:

  CF = The cash flow for the given year.

  CF_1 is for year one, CF_2 is for year two,

  CF_n is for additional year

  r = The discount rate.

- Fundamental analysis or Financial statement analysis by analyzing historical data of Balance sheet, Income statement and cash flow statement of the company. For the reading financial statements will be used:
  - Horizontal analysis by formulas:

1. $Dollar\ change = Amount\ of\ the\ items\ in\ comparison\ year - Amount\ of\ the\ items\ in\ base\ year$ (2)
2. Percentage change $= \frac{\text{Dollar change}}{Amount\ of\ the\ iteam\ in\ base\ year} \times 100$ (3)

  - Vertical analysis (structural) by formulas:

1. Vertical Analysis Formula (Income Statement) $= \frac{Income\ Statement\ Item}{Total\ Sales} \times 100$ (4)

2. Vertical Analysis Formula (Balance Sheet) $= \frac{Balance\ Sheet\ Item}{Total\ Assets\ (Liabilities)} \times 100$ (5)

- RATIO Indicators analysis,
  - Liquidity ratios by formulas:

$$Current\ catio\ = \frac{Current\ Assets}{Current\ Liabilities} \quad (6)$$

$$Quick\ ratio\ = \frac{(Current\ Assets\ -Inventory)}{Current\ Liabilities} \quad (7)$$

$$Cash\ ratio\ = \frac{(Cash+Marketable\ Securities)}{Current\ Liabilities} \quad (8)$$

  - Profitability Ratios by formulas:

$$Gross\ profit\ margin\ = 100\ \times \frac{Profit}{Revenue} \quad (9)$$

$$Net\ profit\ margin\ = \frac{Net\ profit}{Revenue} \quad (10)$$

$$Return\ on\ Equity\ (ROE) = \frac{Net\ Profit}{Shareholers'Equity} \quad (11)$$

$$Return\ on\ assets\ (ROA) = \frac{Net\ income}{Average\ total\ assets} \quad (12)$$

  - Activity ratios (Efficiency Ratios) by formulas:

$$Total\ asset\ turnouver\ = \frac{Net\ sales}{Average\ total\ Assets} \quad (13)$$

$$Receivables\ turnover\ = \frac{Net\ credit\ sales}{Average\ accounts\ receivables} \quad (14)$$

$$Payables\ turnover\ = \frac{Net\ credit\ purchases}{Average\ accounts\ payable} \quad (15)$$

- Debt ratios (Solvency ratios) by formulas:

$$Debt\ to\ equity\ = \frac{Total\ Debt}{Shareholders' Equity} \quad (16)$$

$$Debt\ to\ capital\ = \frac{Total\ Debt}{Total\ Debt + Shareholders' Equity} \quad (17)$$

$$Interest\ coverege\ = \frac{EBIT}{Interest\ expenses} \quad (18)$$

Where,

EBIT = Earnings before interest and taxes

- STEP or PEST analysis is a marketing analysis that evaluate company by Social, Technological, Economic and Political factors.
- Porter's 5 forces industry analysis, which include:
  - the threat of substitute products or services
  - the threat of new entrants
  - the rivalry among existing competitors
  - the bargaining power of suppliers
  - the bargaining power of buyers.
- The Boston Consulting Group (BCG) matrix is analysis and planning strategy in marketing by 4 factors: **Stars** (HIGH – Market share and Market growth); **Cash Cows** (HIGH – Market Share and LOW – Market growth); **Question Marks** (LOW – Market Share and HIGH – Market growth); **Dogs (**LOW – Market share and Market growth).

The all above mentioned approaches will help to researchers in evaluating the actual stock prices of Netflix and its performance to compare with other companies in the same industry. Moreover, the collected data by developed methodological approaches will help the potential investors in decision-making.

3 Practical Part.

In the theoretical part the current state of knowledge will be describe such as history of financial markets and joint-stock companies; financial and marketing analysis which going to be used further in practical parts.

The current financial market development is not a thing that can emerge with no history - one should review the major steps of common stock market history to understand its steaming powers in the present.

3.1 History of financial markets

This part will start with history of financial markets that is the inevitable part of its current state because its origins reflect the development like the embryogenesis of a human repeat its evolution.

3.1.1 First non-cash financial instruments

This diploma is about common stock market and one should overview the history of the subject to understand the nature of it properly.

The history of human society' development is inextricably linked to the history of exchange. Even nomadic tribes that did not have statehood leave us archaeological monuments that testify to developed (at the appropriate historical level) trade - for example, finds of seashells more than 1000 km from the nearest sea-coast. With the development of society and the emergence of proto- and then the first real state formations the role of trade increased dramatically, since it was through trade (exchange) that it was possible to obtain resources geographically inaccessible. It was then that the isolation of the trader as a social role laid the foundations of the modern world order.

Later, with the development of state formations, the construction of "universal value" began to emerge - in the most societies metals became such universal value. Already in the middle of the Bronze Age metals as an equivalent were widely used as a mean of exchange. Later, the need to standardize the equivalent led to the invention (almost simultaneously in the 12th century B.C.) of the concept of the coin in various geographically distant locations.

The appearance of coins made of different metals, different weight and purity laid the foundation for one of the oldest economic mechanisms - exchange transactions, the forerunner of the modern currency market. It is necessary to emphasize that the role of the emission centre at those times was extremely not erected and collecting of the emission income (segnorage) was not so essential source of formation of economic authority as it happened later in the periods of antiquity and Middle Ages.

By the antiquity, by to some estimates[1], up to 2/3 of the territory of modern Europe and Asia and up to 1/3 of the territory of Africa have been involved in the global trade turnover already. Gradually, the development of trade turnover and the spreading involvement of the territories led to the forming of a pronounced social and economic layer - traders (merchants), who began to form savings. The thesaurus processes also took place among the ruling aristocracy, however, in this group, due to the extremely high mortality rate and volatility of military success, the formation of significant wealth was a certain difficulty. Later, together with the formation of states and corresponding pay (taxation) systems, the hoarding in ruling houses caught up with and overtaken capital of trade origin.

Already in antiquity times, persons (the formation of the concept of institutional investor belongs to a later period in history) possessing savings faced the issue of generating income on accumulated wealth. Despite the fact that the terminology used in modern times goes back to the Roman Empire (investment, inflation, percentage), the issues of preservation and wealth accumulation were of concern to even earlier rulers (investment of the Akkadian kings in the army to conquer neighboring states). The same periods include the first vague references to capital investments for the purpose of generating income (Chinese documents on share ownership [2]of gemstones mines, Sumerian bills on crop distribution, etc.).

Development of a commodity turnover in antiquity and formation of the essential riches concentrated in hands of the limited number of owners, caused a serious problem of transactional and logistical expenses of significant transactions. Rare debt and share instruments' documents testify that the capital market (as it known now) practically did not

[1] Stearns, Peter N.; William L. Langer The Encyclopedia of World History: Ancient, Medieval, and Modern, Chronologically Arranged. Houghton Mifflin Company. ISBN 978-0-395-65237-4.

[2] Joe Carlen (2013). A Brief History of Entrepreneurship: The Pioneers, Profiteers, and Racketeers Who Shaped Our World. Columbia University Press. pp. 110–113. ISBN 978-0231542814

exist at that stage of society' development. However, certain elements were already presented and operated within applicable terms.[3]

The dark ages that followed the fall of the Roman Empire left an extremely poor documentary corps, but even these modest remnants indicate that economic life and global trade, though reduced, were not completely destroyed. The usage of lapis lazuli, which deposits are localized in Asia, as a blue color in the paintings of European churches indicates (albeit indirectly) the existence of at least cross-border and at most intercontinental trade.

The same challenges – transactional and logistical expenses rise – has erected again with restoration and consolidation of state power (first of all, the great empire of Charlemagne); the improvement of an interstate trade revives the antique problems. Transportation of any significant amounts of commodity money (there were no other at that time) imposed catastrophic costs on the carrier: transport and tractive livestock itself, security, time costs, etc. Such a situation was intolerable, and the invention of non-cash turnover was a matter of time only.

"As the bonds of the Italian city states possessed a market where they could be bought and sold, and the interest payments were regularly made, they acquired some of the attributes of money itself, being both a store of value and a means of payment. Bonds provided a temporary home for money until it was absorbed by the needs of trade with the constant need to buy and sell securities in order to absorb and release money generating a steady turnover."[4]

A breakthrough invention was the Templar certificate of deposit (some researchers interpret it as a bill of exchange but making a cover before receiving the instrument indicates that it should be considered a certificate of deposit). The presence of a wide correspondent network (branches of the Order were located in Western and Southern Europe, as well as in Middle Asia) made it possible to deposit funds in one department to receive them in another, which opened a wide space for capital movement.

[3] Jeffery V. Bailey, CFA & Thomas M. Richards, CFA, 2016. "Financial Market History: Reflections on the Past for Investors Today", University of Cambridge, Judge Business School, 2016. ISBN 978-1-944960-13-1
[4] RANALD C. MICHIE, 2006. "The Global Securities Market", Oxford New York, 2006. p.21 ISBN 0-19-928061-4

Initially, such a service was only available to the nobility, but over time, class restrictions were diluted and transformed. Some researchers believe that such an instrument was borrowed by the Templars in the east, where cheque or sak instruments were distributed during the Sassanid (and later in Abbasid) periods.

The methodology of clearing (offsetting counter homogeneous obligations) applied by the Templars, which is widespread in the Muslim East, has catastrophically accelerated the transaction speed and, consequently, the trade that they have facilitated.

3.1.2 **Origin and development of the banks and financial companies**

Further on, the origin and development of banks and financial companies (like the main in medieval Italy) will be discussed.

The banking industry has a long history dating back to the Ancient world.

Obviously, this activity initially had a usury nature: those who had surplus money lent them against interest. Credit transactions were often combined with the practice of exchanging money in a variety of monetary systems not only neighboring states, but also within individual countries.

The history of banking dated to the VII century B.C. It is considered that there were moneylenders in Babylon that time already. Also, the first bank tickets were invented, substituting precious metals circulation.[5]

The naming of the bankers and/or exchangers differs in the ancient world: Trapezitai in Ancient Greece, mensairs and agentaries in Ancient Rome. Banking was inseparably tied to the trade and trade houses have appeared "world"-wide uniting trade and financial functions. The majority of medieval banking companies came from trade facilitation institutions, connected especially with maritime-trade; they were located in Italy (Italian states), France or German states (Hansa towns). Even the term "bank" ascends to the Italian "banca" (meaning bench, on which the exchanger has been sitting). Medieval bankers were involved not in the

[5] Smriti Chand, "Banking: The Evolution, Origin and Growth of Banking", 2020 (https://www.yourarticlelibrary.com/banking/banking-the-evolution-origin-and-growth-of-banking/10998)

exchange operations only but also provides their customers with depositing, lending, current account bookkeeping, safety storage, non-cash payments etc.

The most developed banking industry in the late Middle Ages was in Italy. Already in XIII-XIV centuries in this part of Europe the first manuals on banking and accounting appeared. At this time, the Florentine houses of Bardi and Peruzzi became widely known on the continent for their financial operations, opening their trading and banking offices in many Italian cities, as well as in Avignon, Lyon, Bruges, Antwerp, Paris and London. Similar institutions appeared in XIV-XVI centuries and in other leading cities of European countries. Large credit operations were carried out by Francesco Datini from Prato, Jacques Coeur from Burge, Fuggera and Welsers from Augsburg, etc. At the same time, an organized credit was also being formed in Italy.

"The limitations of the securities market in fifteenth-century Italy were compensated for by advances in other parts of Europe. By 1500 the momentum for financial innovation in Europe was already switching to the north, reflecting the growing importance of Atlantic shipping routes offering cheaper access not only to the East via the Cape of Good Hope but also to the new world of the Americas that came after the discoveries of Columbus in 1492. In the Low Countries, Bruges had emerged as the principal interface between the trade of the Mediterranean and that of the Baltic, and so it was there that the Italian merchants and bankers transposed their advances in financial technique."[6]

One of the first banks is considered to be the partnership established in the Republic of Genoa which was entrusted with the function of collecting certain taxes in order to finance the wars in Algeria and Tunisia in 1147. It existed until 1816 and, among other services, accepted deposits from individuals. The first public bank was Vapso della Piaza de Rialto, created by decision of the Senate of the Republic of Venice in 1584.

The development of banking business from the antiquity to modern times faced the certain various crises – from Holy Roman Empire collapse, through dramatical change of gold-to-silver exchange rate during the Conquista, 30-years war burring the number of German banks, the Great Crash of the 1929, modern crises – formed finally the current financial system and

[6] RANALD C. MICHIE, 2006. "The Global Securities Market", Oxford New York, 2006. p.22 ISBN 0-19-928061-4

its participants. The market movement and its drivers, including mortgage crises and dotcom collapse arise certain questions on adequacy of the banking regulation to modern financial institutions.

3.1.3 **Emergence of exchanges**

The stock exchange is an organized market for trading standard financial instruments created by professional securities market participants for mutual wholesale operations.

The first exchanges were commodity exchanges only. Their main purpose was to create the possibility of urgent purchase and sale transactions by order. It is considered that the predecessors of modern stock exchanges were so-called bill fairs of medieval Europe. Written promissory notes, according to some sources, first appeared in Italy.

The term "The Exchange" in Latin means "Leather Bag". In the XIII century in Bruges promissory note trading took place on the square where stood the house of the ancient family van der Burse, on the coat of arms which were depicted three leather bags (ter buerse). The meetings of the traders in the square were called "Borsa" (stock exchange). By the middle of the XIV century this concept was already widely used.

The world's first stock exchange was opened in 1602 in Amsterdam. This exchange was the first to hold public subscriptions of shares, along with bills of exchange and government debt obligations, the first exchange lots, exchange clearing of liabilities.

The first joint stock company was the East India Company founded in 1602, the Amsterdam stock exchange was the first marketplace to operate with the security. Soon another company was founded in Amsterdam - West India Company (1621). The shares of this company could be bought by residents of the Netherlands and also abroad. Also, an issue prospectus was made for the first time. The Amsterdam Stock Exchange was developing rapidly but could not avoid the crisis. The reason for the market collapse was ordinary tulips. When tulip bulbs began to be traded on the market, they gained incredible popularity and a very high price, respectively. In 1637 panic broke out in the market and the entire Dutch economy collapsed as a result.

In 1773 the London Stock Exchange was established, and it is still one of the largest in the world. Before that, brokers did not have "their" place for a long time - they were not allowed to the previously established Royal Exchange, so the deals were made in a coffee shop.

In terms of importance, the Amsterdam Stock Exchange had no competitors until the height of the Exchange in London in the XIX century. The exchange in the Dutch capital existed in its original form until the merger of three stock exchanges - Amsterdam, Brussels and Paris. In 2000, they merged to form Euronext. Later this exchange absorbed several more European exchanges.[7]

The emergence of stock exchanges was important. Investors - first in Amsterdam and later in other cities where stock exchanges arose - observed other transactions and were able to sell and buy securities at prices close to market. Exchanges provided liquidity and reduced transaction costs for securities transactions. All this led to increased trading volumes and financial development.

3.1.4 **First Derivatives**

Futures - a contract where the seller undertakes to deliver the underlying asset to the buyer at the agreed price and on a specified date.

The futures is a contract for an underlying asset. For example, for a share. But the properties of the underlying asset are not transferred to it. Buying a futures on shares you cannot become its owner so you will not receive dividends and will not be able to participate in meetings of shareholders. In this case, there is no reason to invest in futures for a long time.

However, futures also have one significant advantage: to buy them you need less money than to buy the underlying asset in the same amount.

What connects tulips and futures contracts? It turns out, the first futures were invented by the Dutch during the tulip boom in the 17th century. At first, the boom even brought in profit and wealth.

At the end of the 30s of the XVII century Holland and England were overcome by tulip mania - a passion for tulip bulbs.

[7] londonstockexchange.com 2020 (https://www.londonstockexchange.com/discover/lseg/our-history)

The floriculture very quickly turned into a gambling game in which everyone who had at least a small piece of land began to participate. A rare Semper Augustus ("Eternal Augustus") - white buds with veins of red color - became most popular type.

In 1623, one Semper Augustus bulb cost 1,000 florins (about 1.9 million Kc for the current money), and at the height of the fever prices for this variety jumped to 4.6 thousand florins. At that time, a pig was worth 30 florins and a cow was worth 100 florins. Working Dutchmen on average received 150 florins a year.

However, it was possible to trade flower bulbs from May to October only. In May bulbs were dug out of the ground after flowering, and in October they were planted in the ground until spring. The market was frozen for the rest of the time.

The enterprising Dutch found a way out soon. In the autumn of 1634 gardeners began selling bulbs that were still in the ground committing to hand them over to the buyer the following summer. The buyers took risks in making this deal. But the risk was compensated by the fact that the bulbs were cheaper in the dead season. In the summer they could be resold at a high profit.

Demand for tulips has reached unprecedented heights. The flower trade has moved to the Amsterdam Stock Exchange. In the provinces - Rotterdam, Haarlem, Leiden, Horn - bulbs were traded in taverns. These improvised exchanges were called "colleges".

The next step was taken in 1635 when "paper tulips" - prototypes of modern futures contracts - appeared. Speculators on stock exchanges began to contract for the sale and purchase of bulbs. The contracts of the XVII century were receipts. It could be resold to each other many times. Thus, there is began the active speculation of contracts.

In late 1636, gardeners warned the players that the number of "paper tulips" far exceeded their capabilities. Prices began to fluctuate much faster because of the sharp increase in speculators. By early 1637 madness had peaked, and tulip fever had turned into a bubble. On February 3, 1637 year the tulip market collapsed. Demand for tulips plummeted and there were almost no

buyers on the market. In a short time, the cost of tulips fell hundreds of times. Thousands of Dutchmen went bankrupt[8].

3.1.5 **Share companies from Stora to Ost-Indian Company.**

The following is a review of the history of joint stock companies and their development.

The emergence of joint-stock companies was a consequence of the need for a huge concentration of capital for, first of all, trading with remote colonies and countries. There are many various views on which entity to be treated as a first joint stock company. The most common one is that it was the Dutch Ost-Indian company established in Holland in the 16th century. But certain number of authors backed the emergence of joint stock (or share) market to the medieval Italy with participation-notes trading and pledging or to the northern Europe with some-believed first industrial corporation Stora Kopparbergs established in 1347.

During the 13th and 14th centuries the so-called communitates, societates or colonnae received a special development. They were based on the fact that some persons gave their money or goods to the captain of a ship going on board which resulted in the formation of a common fund (columna comunuis). The shares of participants were alienated and had a market price. But there was no concept of a "share" and property liability of members could exceed the amount of the deposit made.

Genoa Bank as the first joint stock company established in 1345[9] (according to other data - in 1371). The capital of the bank was divided into 20400 equal shares which were alienated; its management was elected, its bodies were - the general meeting and the board. The English Bank of Paterson was established in 1694 on the model of the Genoa Bank.

The development of the joint-stock business followed in the Netherlands. In 1595 (according to other data - in 1602) was established Dutch East India Company after which was established a number of joint stock companies among which the Dutch West India Company was particularly distinguished. Also, the Suriname, Northern and Levan Companies are the

[8] Tulipomania: The Story of the World's Most Coveted Flower & the Extraordinary Passions It Aroused. Mike Dash ISBN 978-0609807651

[9] K.T.Trofimov Banking Legislation. Tutorial, Moscow 2010 p.30

largest and oldest Dutch joint-stock companies. The Amsterdam Stock Exchange in the 17th century had the same significance as the world's largest stock exchanges today.

The Dutch East India Company, officially the United East India Company.

This company was established in 1602 by merging the existing trading companies at the request of the Dutch government. The trade associations that entered the company had different shares and representation in the governing bodies according to their trade volumes. Subsequently the shares of all shareholders were equated, and they were free to dispose of them to third parties. The shares in the company were called "stocks" and were traded on the Amsterdam Stock Exchange. The stocks were alienated by entering the company's books in the presence of the seller, the buyer and the company's director. The shares were a document confirming the right of the owner to a unit of shares in the company.

The freedom and ease of alienation generated speculation on a scale that required government intervention to neutralize the negative effects of this phenomenon. The government had to issue a number of decrees that imposed bans in order to prevent the capital' abuse.

The prices of the company's shares largely depended on how successful the next trading expedition was.[10]

A significant achievement in forming the fundamental principles of the Company's operation was the limited liability of its participants under its obligations. The company's management structure was multilevel and remotely resembles the modern joint-stock company management structure. Regular general meetings of the Company's shareholders were not held as such. It was provided that only after 10 years each participant could attend the hearing of the company's report.

Holland is followed in chronological order by England. Joint-stock companies appear there at the end of the 16th century and one of the first was the famous English East India Company (established in 1609, according to other sources - in 1613).

[10] Jeffery V. Bailey, CFA & Thomas M. Richards, CFA, 2016. "Financial Market History: Reflections on the Past for Investors Today", University of Cambridge, Judge Business School, 2016. p.208 ISBN 978-1-944960-13-1

"The English East India Company formed in 1600 had predated the Dutch VOC but its shares tended to be little traded. For most of the seventeenth century the shares of the limited number of English joint-stock companies remained closely held by small and interconnected groups of wealthy investors."[11]

The establishment of the English East India Company was preceded by the establishment of Anglo - Hamburg Trade Company which was the oldest of all English trading companies. The Anglo-Russian Trade Company was established in 1566. But they cannot be considered joint-stock companies because they had the nature of partnerships: the shareholders were elected and could be excluded by order of the general meeting. Recognition of joint-stock companies by the law followed with great delay. Joint stock companies were established each time by a special law: by royal decree, by a parliamentary act as a privilege of an enterprise which was especially patronized by the government. Joint stock companies were recognized by law for the first time in France. The Code de commerce (commercial code of 1810) is the first attempt to formulate rules concerning joint-stock companies.

The entire initial period of the stock industry's formation and development in Europe was characterized by periodic mass bankruptcies which were the result of the hype around the joint stock companies. The Dutch East - Indian and West - Indian companies went bankrupt fairly quickly, in the 30s of the 17th century in Holland was marked by numerous bankruptcies. In the 20s of the 18th century, stock speculation in England reached alarming proportions. History has preserved many examples of joint-stock companies with a variety of purposes: one joker printed in the newspapers that in a famous fictional place will be opened, the next Tuesday, a subscription to the shares of 2 million pounds sterling for the company which aims to melt sawdust and pour oil, chips and chips from them. All this bacchanalia forced the English parliament to enact the famous Bubble-Act (Soap Bubbles Act) on June 11, 1720, which prohibited the establishment of limited liability companies.

In 1734, the John Bernards Act was issued, which prohibited speculation in shares and securities. The English Parliament later adopted a number of other acts that were to bring order to the process of formation of joint-stock companies, among them the Robert Pille Act is

[11] RANALD C. MICHIE, 2006. "The Global Securities Market", Oxford New York, 2006. p.28 ISBN 0-19-928061-4

particularly notable - July 14, 1841 (the ban on the establishment of joint-stock banks, which consisted of more than 6 members, introduces a concession system, joint liability).

"From the 1780s new securities markets began to develop outside Europe. Under British influence there was some limited trading in government securities and bank shares in India. More significant were developments in the newly independent United States."[12]

Joint stock companies also existed in English colonies in North America. By 1776, in all 13 colonies there were only a few dozen corporations. Such large colonial English companies as the Virginia Company (founded in 1629) and the Hudson Company (1670) played a major role. They were companies for monopolistic colonization of lands in North America, which emerged on the basis of special privileges granted by the English king. In addition to their purely economic functions, they were endowed with great political power, making them to some extent political and commercial departments of the metropolitan area.

During the first 11 years of independence, from 1776 to 1787 only 20 new corporations were organized. By 1800 there were 335 of them.

In the first period of the U.S. existence each new business corporation could arise only by a special decision of the legislative body of the relevant state or federal bodies which was given in the form of approval of the corporation's charter. At the same time, a rather strict framework for the activities of newly emerging corporations was established with the establishment of the obligation of strict observance by the latter of the principle of special legal personality (doctrine of ultra vires). The amount of capital and the territory on which the corporation could operate were also regulated.

In 1811, the state of New York passed the first general law on business corporations in the history of the United States. It first established a clear order of formation of companies as well as a minimum number of founders. By 1837 the state of Connecticut introduced an even more liberal law on corporations for businessmen. Beginning with the Louisiana Constitution of

[12] RANALD C. MICHIE, 2006. "The Global Securities Market", Oxford New York, 2006. pp. 43: 50 ISBN 0-19-928061-4

1835, many states began to include special provisions in their constitutions that prohibited corporations in whole or in part by authorization.[13]

Concluding, the main historical prerequisites for the establishment of joint stock companies are as follows:

- development of large-scale production on the basis of scientific and technological progress, transformation of all basic human activities into a fully social process, into joint activities of many people;

- development of capitalist relations, which leads to the transformation of all goods and sums of money into forms of capital existence, or into assets, the purpose of which is the production of any form of income for their owners;

- the emergence of organizational possibilities to combine many private capitals into a single and indivisible aggregate capital;

- Emergence of the securities market in the form of the bill of exchange market and the government bond market.

The organizational and legal basis for the development of joint stock companies was the experience of conducting joint business which developed in its centuries of activity, various types of business associations that existed in many European countries.

Each of the medieval forms of businessmen' association and their capitals has put the particle of invaluable experience, finally, the modern design of joint-stock company has appeared on its basis.

[13] Mozolin V.P., "Corporations, Monopolies and Law in USA", 1966 Moscow (http://adhdportal.com/book_2277.html)

3.2 Financial analysis

Prior to the investment the person should start with financial analysis of potential market, then choose the instrument to invest in to evaluate market participant. Further on, the person can choose the company that attract him/her.

3.2.1 Financial market analysis

The financial market is the market of currency, securities and investments. One who wants, in addition to the passive (deposits, pension contributions) to receive an active income, eventually comes to the financial market, as it is the best and most interesting way to bring very good dividends.

Investors in financial markets can be divided into 2 significant parts: daily (short-term) traders and period (long-term) investors. For the terms of daily trading one should pay prior attention to market movements, daily figures, significant announcements by monetary powers and/or market makers and large corporations. Thus, the investor shall put its attention to the fundamental news like long-term price of money, taxation and its changings, significant political events and technology innovations that can reflect changes in the industries. Short-term investor is majorly interested in high volatile securities (instruments) providing the opportunity to fix intra-day games. While the portfolio investor is interested in long-term performance of his (her) purchases.

Therefore, major interest for investor is reflecting the economical activities of the companies he (she) investing: financial figures changers and trends (absolute and per share), liquidity of instruments and market volumes, profitability of the company, its dividend history, market standing of the company and its rivals, industry trends and innovations. (W. Buffett 2008)

There are 5 common steps of planning the strong portfolio[14]:

1. Current situation assessment. Important to remember that portfolio planning process is not possible to make just once- and- forever. It requires constant reviews and adjustments as one goes through the various stages of your life cycle.

[14]Investopedia.com, *The Step by Step Portfolio Planning Process,* 2019 (https://www.investopedia.com/articles/company-insights/083116/portfolio-planning-process-step-step.asp)

2. Set investment goals. It is aimed at defining the risk-return profile of an investor.
3. Define assets allocation. Using the asset allocation strategy will help to achieve optimal diversification while focusing on the expected return.

"Your risk-reward profile will change over the years, tilting further away from risk the closer you get to retirement." (Investopedia.com, 2019)

4. Choose the investment options. There are 2 possible options, which based on the preferences of investor such as passive or active management.
5. The monitoring, the estimating and the rebalancing. The process of portfolio planning never stops if it began due to lifelong goals.

3.2.2 Intrinsic value analysis

Intrinsic value is the real value of the share for the issuing company, different from its market value, calculated based on an analysis of the financial position of the company. [15]

Two main methods are usually used to estimate the value of a company by its future income: discount cash flow (DCF) and discounted dividend payments (DDM). DCF is more universal and can be used for almost any company that generates positive cash flows. But it also has its disadvantages, mainly the high complexity of model building and dependence on a number of assumptions accepted by the analyst. DDM is used if the following conditions are met:

- The company has proved to be a dividend feature. It has a stable history of dividend payments and a transparent dividend policy, which suggests the amount of future payments.
- The Company has stable operations and there are reasons to expect them to continue in the future.

The idea of the method is that for shareholders of such companies the main source of profit from stocks is dividend payments, while the market value fluctuates within a relatively narrow range.

[15] John Burr Williams, "The Theory of Investment Value", 1938. Fraser Publishing Company, 1997 ISBN: 0-87034-126-X (http://uwhiqexe.blog.free.fr/index.php?post/2017/08/29/The-Theory-of-Investment-Value-ebook-download)

3.2.3 **Financial statements analysis**

Financial statements analysis is the process by which assessing the past and current financial position and performance of the entity. The main source of information about the company's activity is its accounting (financial) statements. There are 3 major statements (Balance sheet, Income statement and Cash flow statement) are used in the analysis to produce company trends. This results in a kind of 3D analysis when the company is viewed from each side, and no operation is slipped away. (Periasamy 2010)

Analysis of financial statements is a tool for identifying problems in the management of financial and economic activity, for choosing the directions of capital investment and for forecasting certain indicators. [16]

The practice of economic analysis has developed such rules for reading financial statements as:

- Horizontal analysis is a comparison of each reporting position with the previous period in relative (%) and absolute ($) form in order to draw concise conclusions.

Usually, the analysis of financial statements starts with a horizontal analysis. Horizontal analysis of financial statements assumes that the company is operating for several periods, with this analysis focusing on trends and changes in financial statements over time. In addition to the amounts presented in the financial statements, a horizontal analysis can help the user of the financial statements to see relative changes over time and to identify positive or perhaps worrying trends. (Weygandt, Keiso and Kimmel 2001, 720)

- Vertical analysis (structural) - determining the structure of the final financial indicators, with the identification of the impact of each reporting position on the result as a whole. The technology of vertical analysis consists in the fact that the total amount of assets of the entity (when analyzing the balance sheet) and revenue (when analyzing the income statement) is taken for 100%, and each item of the financial report is presented as a percentage of the adopted base value. (Hermanson, Edwards and Salmonson 1989, 781)

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

Balance sheet

Balance sheet is the most important form of financial statements, by which one can judge

about financial condition of the company, what property it possesses and how many debts it has, in other words, it is the financial face of the company. Balance sheet consists of 3 sections of the Assets (what company owns), Liabilities (what company owns to) and Shareholders' equity (Equity or Net worth).

Balance sheet is the most informative form for analysis and evaluation of the financial condition of the entity. The Balance Sheet describes in monetary assessment the financial state of the organization as of the reporting date (as a rule, the end of year or quarter). The asset of the balance sheet is built in the order of increasing liquidity of funds, i.e. directly depending on the speed of transformation of these assets in the process of economic turnover into monetary form.

Income Statement

The Income Statement (The Profit and Loss Statement) is a presentation of the financial performance of the company for a certain period (quarter or year).

The Profit and Loss Statement discloses key financial indicators of the company's performance, such as revenue, cost of sales, selling and administrative expenses, other income and expenses, and the final financial result.

The Profit and Loss Statement is the most important source of information for the analysis of enterprise profitability, profitability of production, determination of net profit value remaining at the disposal of the company, and other indicators.

Cash Flow Statement

The Cash flow statement (CFS) is a form of financial statements containing data on cash flow by items of their entry into the organization and payment.

In global practice, there are two approaches to preparing a cash flow statement: the direct method and the indirect method. The Russian report, for example, is prepared using the direct method, which clearly indicates the items for which the cash flow was incurred. Under the

indirect method (e.g. used in EU), cash flow data is obtained not directly but by adjusting profit for changes in non-monetary items.

The CFS is a valuable source of information for analysis of actual cash flows. In contrast to "balance sheet/Income statement" indicators, type of earnings or profit, which strongly depend on bookkeeping rules, cash flow allows investors to determine more precisely what a company spends money on and what return can be expected from investing in it. This statement consists of three sections: cash flows from current operations (operations within the framework of the organization's core business); cash flows from investment operations (operations related to investments in fixed assets, intangible assets, issuance of loans, etc.); Cash flows from financial operations (fundraising operations, both borrowed funds and owners' investments).

The analysis of CFS allows to significantly deepen and adjust conclusions about the liquidity and solvency of the organization, its future financial potential, obtained in advance on the basis of static indicators in the traditional financial analysis.

The main purpose of the CFSA is to provide information about changes in cash and cash equivalents to characterize an entity's cash generating capacity.[17]

3.2.4 **RATIO Indicators analysis**

The ratio indicators analysis is one of the most common systems of financial analysis, the methods of which are the calculation of the ratio of individual financial indicators characterizing various aspects of the company's financial activity. This analysis is used to determine the liquidity, profitability and efficiency of operations of the company. This type of analysis is more useful for those who outside of the business as their major source of information about the entity is its financial statements. (Wild 2008, 549)

The following groups of analytical financial ratios are the most common in financial management:

- Liquidity ratio
- Profitability ratios

[17]Financial Statements, investopedia.com, updated Sep 2020 (https://www.investopedia.com/terms/f/financial-statements.asp#:~:text=Financial%20statements%20are%20written%20records,Balance%20sheet)

- Activity ratio
- Debt ratio

Liquidity ratio. Liquidity of the balance sheet is the amount of coverage of the company's liabilities by its assets, which reflects the rate of return of money invested in various types of property and liabilities. The liquidity ratio depends on how long this process will take. [18]

The liquidity analysis of the balance sheet is a comparison of funds on an asset, grouped by their liquidity degree and arranged in descending order of liquidity, with obligations on a liability, grouped by their maturity dates and arranged in ascending order of maturity.

The most common indicators of liquidity ratio are Current ratio, Quick ratio and Cash ratio.

The low liquidity indicators can be a sign of company's solvency problems and, oppositely, the high indicators can result in the revenue decline and higher costs.

The *Current ratio* shows the company's ability of paying its short-term financial liabilities from current assets and, in this way, shows the strength of the company's working capital position. The current ratio is calculated as dividing current assets by current liabilities. By ules this ratio should be between 1.5 and 2.5 range and shouldn't be less than 1. (Hermanson, Edwards and Salmonson 1989, 786)

$$Current\ catio\ = \frac{Current\ Assets}{Current\ Liabilities} \qquad (6)$$

The *Quick ratio* it characterizes the ability of an entity to repay its short-term liabilities through the sale of liquid assets. In this case, liquid assets include both funds in cash and short-term investments, as well as short-term accounts receivable (according to another version - all current assets, except for their least liquid part - stocks). (Edmonds et al. 2006, 538) The recommended range of this ratio is in value of 0,7-1. The Quick ratio calculating by following formula:

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

$$Quick\ ratio\ = \frac{(Current\ Assets\ -Inventory)}{Current\ Liabilities} \quad (7)$$

The Cash ratio shows the ratio of the most liquid assets of the company - cash and short-term financial investments - to short-term liabilities. The ratio reflects the residual of the most liquid assets for quick calculation under current liabilities and characterizes the "instant" solvency of the organization.[19]

This ratio is a variation of 2 other more common liquidity ratios: current liquidity ratio and quick liquidity ratio. However, only the most quickly realizable (liquid) assets are used to calculate this ratio. The Cash ratio is calculated by formula:

$$Cash\ ratio\ = \frac{(Cash+Marketable\ Securities)}{Current\ Liabilities} \quad (8)$$

Profitability ratios is relative performance indicator. Profitability of the enterprise comprehensively reflects the efficiency of the use of material, labor and monetary and other resources. The profitability ratio is calculated as the ratio of profit to assets or flows forming it. It can be expressed as a profit per unit of investments, as well as in the profit that each received monetary unit carries. (Weygandt, Keiso and Kimmel 2002, 690)

In the general idea of profitability means that the production and sale of this product brings profit to the company. Unprofitable output is production that does not bring profit. Negative profitability is unprofitable activity. The level of profitability is determined with the help of relative indicators – coefficients. Profitability indicators can be divided into two groups (two types): Gross/Net profit Margin, Return on Equity/Assets (ROE or ROA).

The *Gross profit margin* (gross margin) and *Net profit margin* (net margin) profitability ratio, which shows the share of profit in each euro earned. It is usually calculated as the ratio of net or gross profit (profit before/after tax) for a certain period to cash expressed sales for the same period. The formulas to calculate ratios as following, respectively:

[19] Cash Ratio, Investopedia.com 2020 (https://www.investopedia.com/terms/c/cash-ratio.asp#:~:text=The%20cash%20ratio%20is%20derived,a%20company's%20most%20liquid%20resources)

$$Gross\ profit\ margin\ = 100\ \times \frac{Progit}{Revenue} \quad (9)$$

$$Net\ profit\ margin\ = \frac{Net\ profit}{Revenue} \quad (10)$$

The *ROE* is the relationship between net profit (in annual terms) and average equity, which often used to estimate the profitability of shareholders' equity (investments). The higher ROE will be the higher return on investment one will get. (Edmonds et al. 2006, 544) The formula as following:

$$Return\ on\ Equity\ (ROE) = \frac{Net\ Profit}{Shareholers'Equity} \quad (11)$$

The *ROA* is considered as the ratio of profit to the average asset value of the enterprise. It relative performance indicator, privately divided by net profit for the period and total assets for the same period. It shows the ability of the company's assets to generate profit. (Edmonds et al. 2006, 544) The ratio is calculated as follows:

$$Return\ on\ assets\ (ROA) = \frac{Net\ income}{Average\ total\ assets} \quad (12)$$

Activity ratio is also known as Efficiency Ratios. It's the result of the company's work relative to the amount of advanced resources or the amount of their consumption in the production process. The activity of an organization in the financial aspect is manifested primarily in the speed of turnover of its funds. The analysis of business activity consists in studying the levels and dynamics of various financial turnover coefficients. (Edmonds et al. 2006, 540)

The main used type of activity coefficients are Total assets turnover and Receivables/Payables turnover.

The *Total asset turnover* financial indicator of the intensity of use of the entire set of available assets by the organization. This ratio is used to analyze the effectiveness of property and liability management of the firm. [20] The asset turnover ratio calculated as follow:

$$Total\ asset\ turnover\ = \frac{Net\ sales}{Average\ total\ Assets} \quad (13)$$

The *Receivables turnover* measures the rate of repayment of the organization's accounts receivable, how quickly the organization receives payment for sold goods (works, services) from its customers. It shows how many times during the period (year) the organization received payment from customers in the amount of the average balance of unpaid debt. [21]

The formula is:

$$Receivables\ turnover\ = \frac{Net\ credit\ sales}{Average\ accounts\ receivables} \quad (14)$$

The *Payables turnover* is an indicator of the speed at which an organization pays off its debt to suppliers and contractors. This ratio shows how many times (usually for a year) the firm has paid off the average amount of its accounts payable.

$$Payables\ turnover\ = \frac{Net\ credit\ purchases}{Average\ accounts\ payable} \quad (15)$$

Debt ratio (Solvency ratios) is the cost of repayment of existing loans and borrowings. It is defined as a ratio of the amount of payments on loans to the amount of income of the borrower. When processing a loan, the bank takes into account the current debt burden of the borrower and determines the conditions under which the debt can be repaid without delay and without serious damage to the budget. (Edmonds et al. 2006, 540)

[20] 5 GRÜNWALD, R. – HOLEČKOVÁ, J. Finanční analýza a plánování podniku. Praha: Ekopress, 2007. ISBN 978-80-86929-26-2

[21] MOFFETT, M. H.; Fundamentals of multinational finance; Boston, 2006

The most used types of debt ratios are Debt to Equity/Capital and Interest coverage.

The *Debt to Equity* or the *Debt to Capital* is an indicator of the debt to equity ratio or to equity together with shareholders' equity of the organization, representatively. This ratio compares creditor funds to owner funds. (Edmonds et al. 2006, 540) The formulas are:

$$Debt\ to\ equity\ = \frac{Total\ Debt}{Shareholders' Equity} \tag{16}$$

$$Debt\ to\ capital\ = \frac{Total\ Debt}{Total\ Debt + Shareholders' Equity} \tag{17}$$

The *Interest coverage* is an indicator of debt and a rate of return used to determine how easily a company can pay interest on its outstanding debt. The ratio is also called "accrued interest". Investors and creditors use it to determine the risk of a company's current debt or future loans. By the rules this ratio should be more the 1,5 value. The Interest coverage ratio is calculated by following formula:

$$Interest\ coverage\ = \frac{EBIT}{Interest\ expenses} \tag{18}$$

Where,

EBIT = Earnings before interest and taxes

3.2.5 The Average Revenue Per User (ARPU) analysis

ARPU is an average income generated from each user or client over a certain period of time (Average Revenue Per User). ARPU will show how much a company generates on average from one active user. The period takes a month, but sometimes it should be much less. ARPU includes absolutely the whole audience that interacts with the business. In other words, even those who do not make purchases.[22]

Thanks to ARPU is possible:

[22] Investopedia.com, "Average Revenue Per User (ARPU)", 2018 (https://www.investopedia.com/terms/a/average-revenue-user-arpu.asp#:~:text=Average%20revenue%20per%20user%20(ARPU)%20is%20the%20measure%20of%20revenue,at%20the%20per%2Dcustomer%20level)

- To estimate the financial health of the company. The principle is simple: the higher the ARPU, the better.

- To compare a company with its competitors and that is the key purpose.

- Find out the benefit of innovations or changes in the value of goods. Here ARPU indicator is used as a litmus test paper to assess reactions to price adjustments.

ARPU calculation is easy to do - the total income is divided by the number of users active in the selected period.

3.3 Marketing analysis

The Marketing analysis is the activity on estimation, definition, modeling and forecasting of processes and phenomena of the market, as well as activity of the enterprise itself by means of economic, statistical and other methods of research. Analysis of marketing data always depends on a number of factors. (Cannon, Perrault and Jerome 2008)

3.3.1 STEP analysis

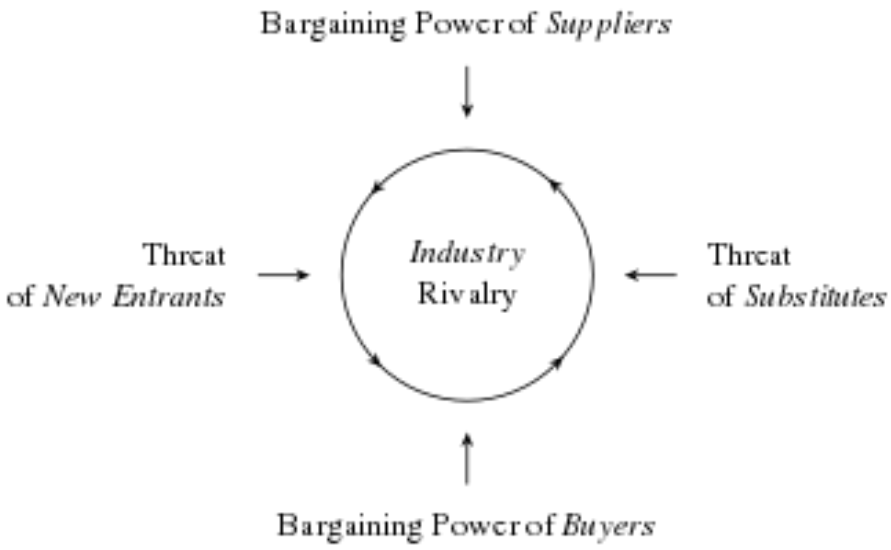
(**Source**: Google 2020)

STEP or PEST analysis is a marketing tool for determining the company's strategy in the long term. The forecast period is from 3 to 10 years. This tool identifies - Social, Technological, Economic and Political factors that directly or indirectly affect the company and its operations.[23]

[23] KOTLER, P. Marketing Management. Brno: Grada, 2001, 10th edition, 91-93 pp., ISBN 80- 247-0016-6.

The strategic analysis of each of these four components must be sufficiently systematic as they are all closely and intricately interlinked.

3.3.2 **Porters' 5 forces model**



(**Source**: Harvard Business Review, 1979)

Porter five forces analysis is a technique for analyzing industry competition and developing business strategy developed by Michael Porter at Harvard Business School in 1979. [24]

Porter's 5 forces include:

- the threat of substitute products or services

- the threat of new entrants

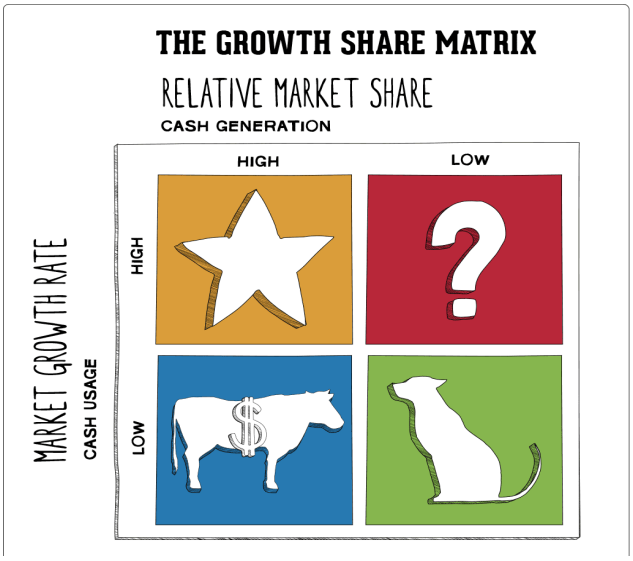
- the rivalry among existing competitors

- the bargaining power of suppliers

- the bargaining power of buyers.

[24] PORTER, M.E. Competitive strategy: techniques for analysing industries and competitors with a new introduction, New York: Free Press 2004, 10 p., ISBN 0-7432-6088-0.

3.3.3 **Production analysis-BCG matrix**



(**Source**: Google pics)

The Boston Consulting Group (BCG) matrix by Bruce Henderson (BCG, 2012) a tool for strategic analysis and planning in marketing. BCG Matrix is a kind of representation of positions of a certain type of a company in the strategic space defined by two coordinate axes, one of which is used to measure the growth rate of the market of the corresponding product, and the other - to measure the relative share of the company's products in the market of the considered product. (Philip.K, et al., 2008)

In **Stars** section are: HIGH – Market share and Market growth. Then there are checking points for such areas as Backward/forward integration, Market Penetration and Development, Product Development. In **Question Marks** section are: LOW – Market Share and HIGH – Market growth. In **Cash Cows** section are: HIGH – Market Share and LOW – Market growth. In **Dogs** section are: LOW – Market share and Market growth. There are checking points such as retrenchment, divesture, liquidation.

3.3.4 **SWOT analysis**

(Source: Google pics)

SWOT analysis is strategic planning method, which consists of identifying factors of the organization's internal and external environment and dividing them into four categories: Strengths, Weaknesses, Opportunities, Threats. (Cannon, Perrault and Jerome 2008)

Before the implementation of this method, only the strengths and weaknesses of the company were taken into account to determine the prospects for business.

The three features of the analysis can be influenced by the business. For example, to eliminate disadvantages (weaknesses) by introducing new technologies, solutions (opportunities) and to strengthen their competitive advantages (strengths). SWOT-analysis also takes into account the category of external causes - threats to growth. These are natural disasters, regional climate, currency exchange rate, adoption of new laws, political situation in the country, demography and a number of other factors.

4 Practical part

The practical part starts with internal analysis of digital company - NETFLIX.

(**Source**: Google 2020)

NETFLIX, Inc. is one of the most popular streaming video services provider and technology in the world, headquarters in Los Gatos, California. Founded in 1997 by Reed Hastings and Marc Randolph in Scotts Valley. Both founders were not new in the IT industry. Earlier Reed founded Pure Software, which was sold in 1997 for $700 million. Randolph was one of the core specialists in the company. Since 2013 Netflix has been producing its own films and series, including animated films and TV programs. In January 2019, the Netflix had 139 million subscribers worldwide, including 58.49 million in the USA. In July 2020, company became the largest entertainment/media company by market capitalization.[25]

[25] Netflix.com 2020 (https://help.netflix.com/en/node/412)

4.1 Intrinsic value

The intrinsic value is known also as fair company value and it calculated to estimate the attractiveness of Netflix, Inc by formula mentioned in (1). The formula of DCF model was chosen since the company have never paid dividends and, respectively, doesn't have dividend history.

The model is based on calculation of the future cash-flows in estimation of stable discount rate(s) and voluntary chosen company growth rate. For the below calculation following estimations have been made:

Planning horizon – 5 years

Company growth rate in planning horizon – 46% per annum (growth rate in the total for the last 5 years was 46% according to Annual Report Netflix Corp 2019)

Growth rate after planning horizon - +12% (saturated market)

Taxation of the company is the subject for certain investigation due to the serious risk of its drastical change in future (discussed further in STEP analysis)

Debt ratio of Netflix was from 81.1% (as of 2017 end) to 77.7% (2019 end) with stable decline; estimation for the planning horizon is 70%.

Cost of equity for Netflix assessed by FINBOX.COM (hyperlink) is 8.6%

Cost of debt for Netflix varied from 4.6 to 5.0% per annum with tend to decline; liquidity excess in capital market will force to decline the figure, though coronavirus-steamed economy crisis may affect in negative way. Estimation for Netflix cost of debt is stable at 4.4

Calculations was made in Excel by myself:

Some of the Input data was taken from Annual report 2020 year of Netflix, Inc., Income statement. 26

[26] Annual Report Netflix Corp 2019 (https://ir.netflix.net/financials/annual-reports-and-proxies/default.aspx)

Table 1. Inputs for calculations

Inputs	(in thou US$ except %)
Earnings before interest and taxes	2 604 254
Expected growth for next 5 years	46%
Expected growth after year 5	12%
Tax rate	7%
Debt ratio for the firm	63%
Cost of equity	8.6%
Pre-tax cost of debt	4.2%

(**Source**: own creation)

Next step is Free Cash Flow forecast for next 5 years (see Table 2):

Figure 1. FCF forecast model for next 5 years

	2019	2020	2021	2022	2023	2024
Deflator capital	1	1,0564	1,1160	1,1790	1,2455	1,3158
Deflator company growth	1,0000	1,4600	2,1316	3,1121	4,5437	6,6338
EBIT	$ 2 604 254	$ 3 802 211	$ 5 551 228	$ 8 104 793	$ 11 832 997	$ 17 276 176
PV		3 599 120,4	4 974 041,6	6 874 204,4	9 500 259,7	13 129 509,8
FCF	38 077 135,9					
Expected capital	21 084 657,1	30 783 599,4	44 944 055,2	65 618 320,5	95 802 748,0	139 872 012,1
Expected equity	6 325 397,1	9 235 079,8	13 483 216,5	19 685 496,2	28 740 824,4	41 961 603,6
Expected Debt	14 759 260	21 548 519,6	31 460 838,6	45 932 824,4	67 061 923,6	97 910 408,4
Cost of equity		-794 216,9	-1 159 556,6	-1 692 952,7	-2 471 710,9	-3 608 697,9
Cost of Debt	-11 084 409,6	-905 037,8	-1 321 355,2	-1 929 178,6	-2 816 600,8	-4 112 237,2
Intrinsic value	26 992 726,3					

(**Source**: own creation)

In a year 5th there is not expected a high growth since the market may be saturated.

Cost of Capital computed using a 70% Equity; 30% Debt ratio.

The calculated intrinsic value (IV) is 27B$ (FCF – Cost of debt; there is not less “Cost of Equity” since there was taken the Net income to calculate “FCF”).

The market capitalization is 212B$ (Finance.yahoo.com, November 2020)

The conclusion based on the calculated intrinsic value is that this company looks like a Financial Bubble since the Fair value is more than 8 times lower than Market capitalization.

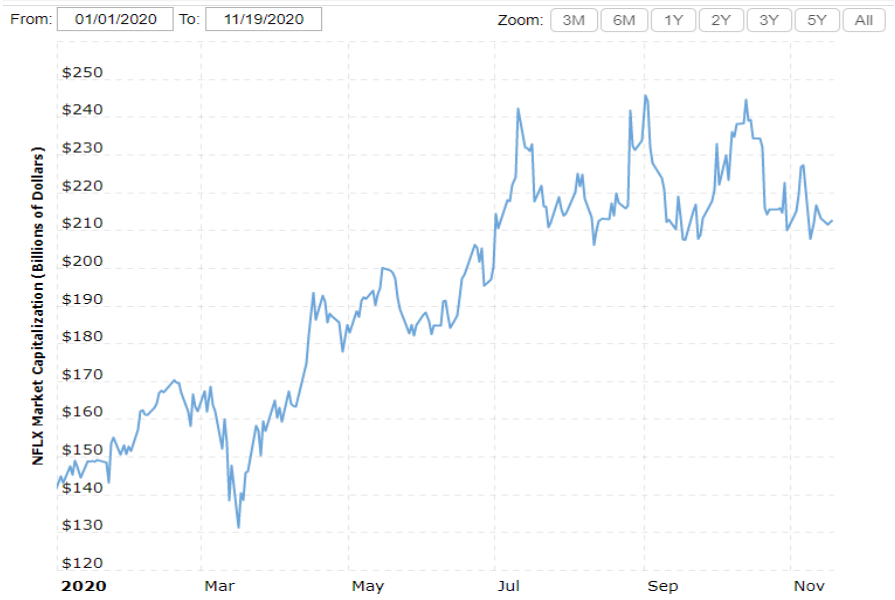
The bubble in the financial markets (including common stocks one) primarily reflects the excess of free or almost free liquidity issued by the monetary powers (Fed, ECB, BOE, BOJ, etc.) within various quantitative easing programs (mechanisms). Usually, it happened due to the fact that the costs (expenses) and work of loan portfolio more that expenses for the banks securities portfolio with the same value.

In order to be valued 8 times more to intrinsic value the company shall produce 8 times more Cash flow. In terms of Netflix Market Capitalization, its revenue shall be 8 times more (212B$ / 27B$ = 8B$). EBIT in 2020 year should be around 20.6B$ (8B$ * 2,604,254B$ = 20.6B$) and it expects to be around 3B$ only.

Also, the results of the big difference and so high market capitalization of the company could be the Pandemic situation. During the quarantine people started to adapt to online work, some even changed their jobs. Society moved focus to the digital professions. There is an increasing number of people who believes in internet and all that relating. The following statistic charts proves it. They clearly show that Netflix Market Capitalization and stock price have been growing rapidly since around March (Figure 3). This is the time of strict quarantine started in Europe because of COVID-19.

The Figure 2 shows increase in Netflix market price for period of 01.01.2020- 11.19.2020. In March it was less than $140B compared to October price, which is more than $240B.

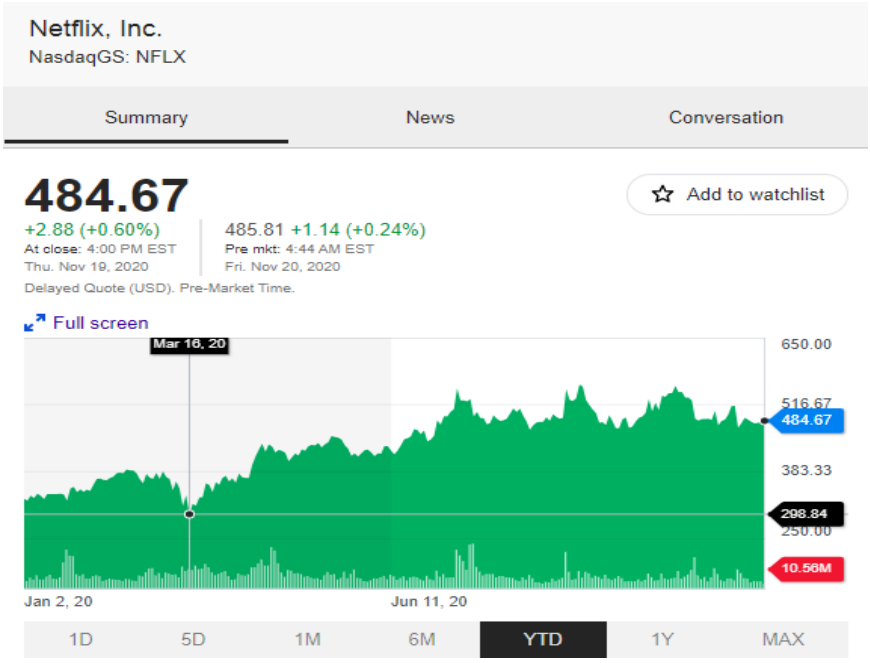
Figure 2. Netflix Market Cap 2020 | NFLX



(**Source**: www.macrotrends.net 2020)

The Figure 3 shows Netflix price per stock for 02.01.2020-11.19.2020 period. Since the January it grew in 2 times. The chart shows the lowest price on 16.03.2020 that was $298,84 and the price on 18.09.2020 was $484.67.

Figure 3. Netflix, Inc. (NFLX) stock price 2020.



(**Source**: finance.yahoo.com 2020)

4.2 Financial statements analysis

There has been considered Netflix historical annual financial reports from 2016 to 2019 to make a Horizontal and Vertical analysis.

4.2.1 Balance Sheet Analysis

The financial analysis of the balance sheet assets and liabilities structure is a part of the analysis of the company's property status. The analysis of assets and liabilities of the balance sheet allows to trace the dynamics of their state in the analyzed period.

Following table shows the Netflix historical Balance sheet: Assets statement for 2016-09.2020 period:

Figure 4. Netflix Historical Balance sheet: Assets 2016-09.2020

Netflix Inc.

Consolidated Balance Sheet: Assets

US$ in thousands

	31.09.2020	Dec 31, 2019	Dec 31, 2018	Dec 31, 2017	Dec 31, 2016
Cash and cash equivalents	5 410 000	5 018 437	3 794 483	2 822 795	1 467 576
Short-term investments	—	—	—	—	266 206
Current content assets, net	—	—	5 151 186	4 310 934	3 726 307
Trade receivables	—	454 399	362 712	—	—
Prepaid expenses	—	180 999	178 833	—	—
Other receivables	—	524 669	206 921	—	—
Other current assets (legacy)	—	—	—	536 245	260 202
Other current assets	—	**1 160 067**	**748 466**	**536 245**	**260 202**
Current assets	5 720 000	**6 178 504**	**9 694 135**	**7 669 974**	**5 720 291**
Non-current content assets, net	—	24 504 567	14 960 954	10 371 055	7 274 501
Property and equipment, net	—	565 221	418 281	319 404	250 395
Other non-current assets	—	2 727 420	901 030	652 309	341 423
Non-current assets	29 990 000	**27 797 208**	**16 280 265**	**11 342 768**	**7 866 319**
Total assets	36 660 000	**33 975 712**	**25 974 400**	**19 012 742**	**13 586 610**

Based on:10-K (filing date: 2020-09-29),10-K (filing date: 2019-01-29),10-K (filing date: 2018-01-29),10-K (filing date: 2017-01-27),10-K (filing date: 2016-01-28).

(**Source**: own creation)

Next table shows horizontal analysis of Assets, with the absolute (in $) and relative (in %) changes calculated by formulas in (2) and (3). The data is taken from historical Balance sheet, assets part and compared between 4 last years – 2016, 2017, 2018, 2019.

Table 2. The Horizontal analysis of Assets of Netflix Inc., 2016 - 2019

Period compared	2016-2017 In thou US$	2016-2017 In %	2017-2018 In thou US$	2017-2018 In %	2018-2019 In thou US$	2018-2019 In %
Cash and cash equivalents	1 355 219	92,3	971 688	34.42	1 223 954	32.26
Current content assets, net	584 627	15,7	840 252	19	—	—
Other current assets (legacy)	276 043	106,1	—	—	—	—
Other current assets	276 043	106,1	212 221	40	411 601	55,0
Current assets	**1 949 683**	**34,1**	**2 024 161**	**26**	**(3 515 631)**	**-36,3**
Non-current content assets, net	3 096 554	46,2	4 589 899	44	9 543 613	63,8
Property and equipment, net	69 009	27,6	98 877	31	146 940	35,1
Non-current assets	**3 476 449**	**44,2**	**4 937 497**	**44**	**11 516 943**	**70,7**
Total assets	**5 426 132**	**39.94**	**6 961 658**	**36.62**	**8 001 312**	**30.8**

(**Source**: Own calculations, data from annual reports 2016-2019)

The most significant changes were in Current assets by decreasing for 36,3% in 2019 year. Decreases in current assets for such a big company occur all the time. Usually, it happened because of either an increase in another asset, a decrease in a liability or equity account, or an increase in an expense. Supposedly, in this case, it happened due to inventory purchase (cash decreases when inventory increases). Further, in Income Statemen will be showing that inventory expenses actually were increased. The next significant changing was in Non-current assets. This item was constantly increasing during 2016-2019 period and in the last (2019) has changed to 70,7 % in comparison with 2018 year. The table 4, also, shows the the big jump in the cash and cash equivalent for 2016 - 2017 years. It increased by 92,3%, but next periods (2017-2018, 2018-2019) it fell for 57,88% and increased just by 34,42 % and 32,26%. By this information, it is safely to assume that the company's growth has slowed down. The total assets position behavior is stable, not big changes, just steadily increasing around 30-40% yearly during chosen period.

The table 5 shows the Vertical analysis of Assets of Netflix Inc. for 2016 – 2019 period calculated by formulas in (5):

Table 3. The Vertical analysis of Assets of Netflix Inc., 2016 - 2019

Period compared	2016 In %	2017 In %	2018 In %	2019 In %
Cash and cash equivalents	10,80	14,85	14,61	14,77
Current content assets, net	1,96	—	—	—
Other current assets (legacy)	1,92	2,82	—	—
Other current assets	1,92	2,82	2,88	3,41
Current assets	**42,10**	**40,34**	**37,32**	**18,19**
Non-current content assets, net	53,54	54,55	57,60	72,12
Property and equipment, net	1,84	1,68	1,61	1,66
Non-current assets	**57,90**	**59,66**	**62,68**	**81,81**
Total assets	**100**	**100**	**100**	**100**

(**Source**: Own calculations, data from annual reports 2016-2019)

Vertical analysis of the balance sheet shows what caused the changes in solvency in the period under analysis. Vertical analysis is a calculation of the share of the analyzed balance sheet item in the total balance sheet result. The total assets are taken for 100%.

By the Table 3, it's clearly shown that the biggest share of the total assets is non-current assets and it was constantly growing year to year during the chosen period. In the 2019 year its share increased to 81,81% compared to 57,90% in 2016 year. The biggest share of non-current asset is non-current content asset that is obviously understandable since the main company's product is content providing. In 2019 year, the current assets decrease to 18,19% in compare to 42,10% in 2016 year. The reason of such a big decline could be the increasing debt, which is shown in the Liabilities & Equity part of Balance sheet.

The smallest share of total assets of the company is Net property and equipment by 1,84 % in 2016 and even smaller in 2019 year by 1,66%. That could be explained by the fact that company is a digital company and it doesn't need to have a lot of physical objects.

The amount of total assets as well as the amount of non-current assets were increasing during period of 2015-2019 years. The amount of Current assets was fluctuating in the same period (see Figure 5).

Figure 5. Netflix Assets chart

(**Source**: www.stock-analysis-on.net 2019)

Following table shows the Netflix historical Balance sheet: Liabilities & Equity statement for 2016-09.2020 period:

Figure 6. Netflix Historical Balance sheet: Liabilities & Stockholders' Equity 2016-09.2020

Netflix Inc.

Consolidated Balance Sheet: Liabilities and Stockholders' Equity

US$ in thousands

	31.09.2020	Dec 31, 2019	Dec 31, 2018	Dec 31, 2017	Dec 31, 2016
Total content liabilities	—	7 747 884	8 440 588	7 497 520	6 515 920
Accounts payable	727 580	674 350	562 990	359 560	312 840
Accrued expenses and other liabilities	—	157 778	150 422	114 337	—
Deferred revenue	997 750	924 750	760 900	618 620	443 470
Current liabilities	**5 460 000**	**6 855 696**	**6 487 320**	**5 466 312**	**4 586 657**
Non-current content liabilities	—	3 334 323	3 759 026	3 329 796	2 894 654
Long-term debt	15 920 000	14 759 260	10 360 058	6 499 432	3 364 311
Other non-current liabilities	—	1 444 276	129 231	3 456 042	2 955 842
Non-current liabilities	**21 080 000**	**19 540 000**	**14 250 000**	**9 960 000**	**6 320 000**
Total liabilities	**28 289 000**	2 639 355	2 073 563	1 543 079	1 090 681
Preferred stock, $0.001 par value; no shares issued and outstanding	—	—	—	—	—
Common stock, $0.001 par value	—	2 793 929	2 315 988	—	—
Accumulated other comprehensive loss	—	(23 521)	(19 582)	(20 557)	(48 656)
Retained earnings	5 190 000	4 811 749	2 942 359	1 128 603	941 925
Stockholders' equity	**8 180 000**	**7 582 157**	**5 238 765**	**3 581 956**	**26 798**
Total liabilities and stockholders' equity	**36 660 000**	**33 975 712**	**25 974 400**	**1 901 274**	**1 358 661**

Based on:10-K (filing date: 2020-09-29),10-K (filing date: 2019-01-29),10-K (filing date: 2018-01-29),10-K (filing date: 2017-01-27),10-K (filing date: 2016-01-28).

(**Source**: own creation)

The table 4 shows horizontal analysis of Liabilities & Equity calculated by formulas in (2) and (3). The data is taken from historical Balance sheet, Liabilities & Equity part and compared between 4 last years – 2016, 2017, 2018, 2019.

Table 4. The Horizontal analysis of Liabilities & Equity of Netflix Inc., 2016 - 2019

Period compared	2016-2017 In thou US$	2016-2017 In %	2017-2018 In thou US$	2017-2018 In %	2018-2019 In thou US$	2018-2019 In %
Total content liabilities	981 600	15,06	943 068	12,58	(692 704)	-8,21
Accounts payable	46 720	14,93	203 430	56,58	111 360	19,78
Deferred revenue	175 150	39,50	142 280	23,00	163 850	21,53
Current liabilities	879 655	19,18	1 021 008	18,68	368 376	5,68
Non-current content liabilities	435 142	15,03	429 230	12,89	(424 703)	-11,30
Long-term debt	3 135 121	93,19	4 290 000	43,07	5 290 000	37,12
Non-current liabilities	3 640 000	57,59	4	43,07	5	37,12
Total liabilities	**452 398**	**41,48**	**530 484**	**34,38**	**565 792**	**27,29**
Common stock, $0.001 par value	—	—	—	—	477 941	20,64
Retained earnings	186 678	19,82	1 813 756	160,71	1 869 390	63,53
Stockholders' equity	**3 555 158**	**13266,50**	**1 656 809**	**46,25**	**2 343 392**	**44,73**
Total liabilities and stockholders' equity	**542 613**	**39,94**	**24 073 126**	**1266,16**	**8 001 312**	**30,80**

(**Source**: Own calculations, data from annual reports 2016-2019)

The growth of total assets of chosen period is also accompanied by the same growth of Total liabilities and stockholders' equity by 24B$ or 1266% in 2018 year and by 8B$ or 30,8% in 2019 year. The most significant changes were in Long-term debt (LTD) by increasing for 37,12% in 2019 year compare to 93,19% in 2017 year. The growth in LTD means Netflix had little debt and more cash in 2017 year. That also explains decline of Stockholders' equity from 2017 year by 13266,5% to 2019year by 44,73%, to be clear it means that liabilities exceed assets.

The interesting position is Common stock, $0.001 par value that only appears in 2018 and already increased by 20,64% in 2019 year. The meaning of that "per value" is Netflix split its stocks to shares or, better to say, issues shares of Common Stock by $0.001 value per each share. The reason of such process could be to make company's stock more available for purchase for the public or to rise company's equity and get money/investment faster.

The table 8 shows the Vertical analysis of Liabilities & Equity of Netflix Inc. for 2016 – 2019 period calculated by formula in (4). Total liabilities and stockholders' equity is taken for 100%.

Table 8. The Vertical analysis of Liabilities & Equity of Netflix Inc., 2016 - 2019

Period compared	2016 In %	2017 In %	2018 In %	2019 In %
Total content liabilities	26,74	21,95	18,04	12,99
Accounts payable	2,30	1,89	2,17	1,98
Deferred revenue	3,26	3,25	2,93	2,72
Current liabilities	**33,76**	**28,75**	**24,98**	**20,18**
Non-current content liabilities	21,31	14,51	14,47	9,81
Long-term debt	24,76	34,18	39,89	43,44
Non-current liabilities	**46,52**	**52,41**	**54,86**	**57,51**
Total liabilities	**80,28**	**81,16**	**79,83**	**77,68**
Common stock, $0.001 par value	11,77	9,84	8,92	8,22
Retained earnings	8,31	9,11	11,33	14,16
Stockholders' equity	**19,72**	**18,84**	**20,17**	**22,32**
Total liabilities and stockholders' equity	**100**	**100**	**100**	**100**

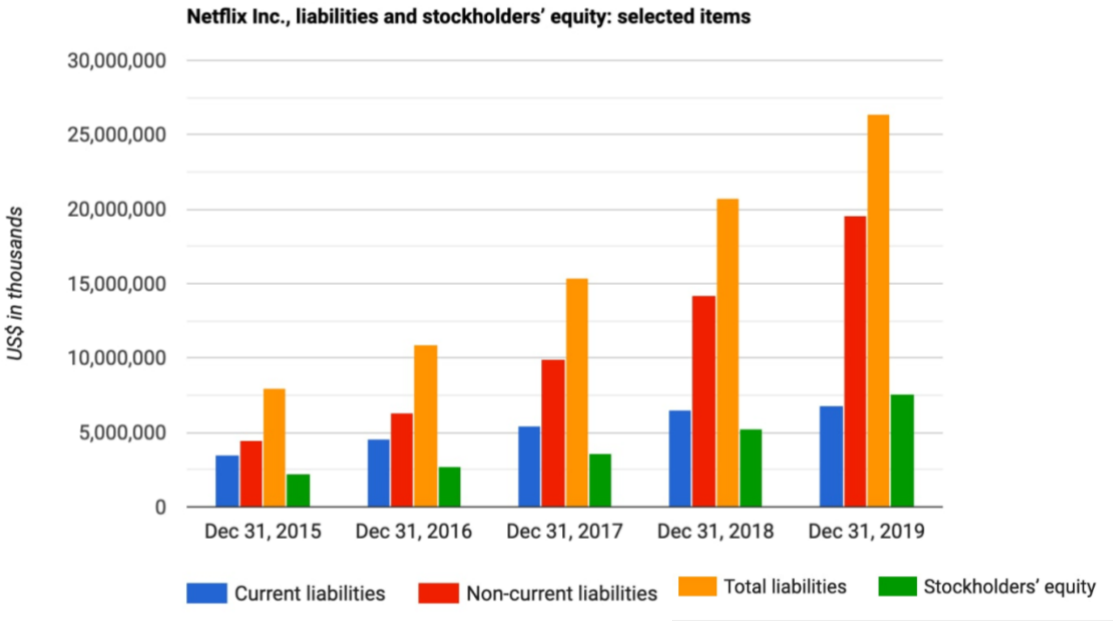
(**Source**: Own calculations, data from annual reports 2016-2019)

The biggest share of the Total liabilities and stockholders' equity is total liabilities and it was constantly decreasing during 2016-2019 years. In the 2019 year its share increased to 77,68% compared to 80,28% in 2016 year. The biggest part of total liabilities is Non-current liabilities, which is increased by 57,51% in 2019 year compared to 46,52% in 2016 year. Obviously, this growth could by explained by growth of Long-term debt, which raised by 43,44% in 2019 year compared to 24,76% in 2016 year. Also, approximately the same share of total liabilities have Total content L, Non-current content L, which decline yearly. The Stockholders' equity increased by 22,32% in 2019 year compared to 19,72% in 2016 year.

The smallest share of Total liabilities as well as of Total liabilities and stockholders' equity of the company is Accounts payable, which decreased by 1,98% in 2019 year compared to 2,3% in 2016 year. This explained by Netflix paid some part of a previously recorded vendor invoice.

The amount of total liabilities as well as the amount of stockholders' equity were increasing during period of 2015-2019 years. (see Figure 7)

Figure 7. Netflix Liabilities & Equity chart



(**Source**: www.stock-analysis-on.net 2019)

4.2.2 **Income Statement Analysis**

This analysis provides follow information:

- How effective is the business: what is the profitability of the company?
- Dynamics of development and growth of the company.
- The cost structure of the company is its weak points and competitive advantages.

Following table shows the Netflix historical Income Statement for 2016-09.2020 period:

Figure 8.Netflix Historical Income Statement 2016-09.2020

Netflix Inc.

Consolidated Income Statement

US$ in thousands

12 months ended:	31.09.2020	Dec 31, 2019	Dec 31, 2018	Dec 31, 2017	Dec 31, 2016
Revenues	21 750 000	20 156 447	15 794 341	11 692 713	8 830 669
Cost of revenues	(13 420 000)	(12 440 213)	(9 967 538)	(7 659 666)	(6 029 901)
Gross profit	**8 330 000**	**7 716 234**	**5 826 803**	**4 033 047**	**2 800 768**
Marketing	—	(2 652 462)	(2 369 469)	(1 278 022)	(991 078)
Technology and development	—	(1 545 149)	(1 221 814)	(1 052 778)	(852 098)
General and administrative	—	(914 369)	(630 294)	(863 568)	(577 799)
Operating income	**2 810 000**	**2 604 254**	**1 605 226**	**838 679**	**379 793**
Interest expense	(675 450)	(626 023)	(420 493)	(238 204)	(150 114)
Interest and other income (expense)	—	84 000	41 725	(115 154)	30 828
Other income (expense)	—	**(542 023)**	**(378 768)**	**(353 358)**	**(119 286)**
Income before income taxes	**2 220 000**	**2 062 231**	**1 226 458**	**485 321**	**260 507**
(Provision for) benefit from income taxes	—	(195 315)	(15 216)	73 608	(73 829)
Net income	**2 010 000**	**1 866 916**	**1 211 242**	**558 929**	**186 678**

Based on:10-K (filing date: 2020-09-29),10-K (filing date: 2019-01-29),10-K (filing date: 2018-01-29),10-K (filing date: 2017-01-27),10-K (filing date: 2016-01-28).

(**Source**: own creation)

The table 5 shows horizontal analysis of Income Statement, with the absolute (in $) and relative (in %) changes. The data is taken from historical Income Statement and compared between 4 last years – 2016, 2017, 2018, 2019.

Table 5. The Horizontal analysis of Income Statement of Netflix Inc., 2016 - 2019

Period compared	2016-2017 In thou US$	2016-2017 In %	2017-2018 In thou US$	2017-2018 In %	2018-2019 In thou US$	2018-2019 In %
Revenues	**2 862 044**	**32,41**	**4 101 628**	**35,08**	**4 362 106**	**27,62**
Cost of revenues	(1 629765)	27,03	(2 307872)	30,13	(2 472675)	24,81
Gross profit	1 232 279	44,00	1 793 756	44,48	1 889 431	32,43
Marketing	(286 944)	28,95	(1 091447)	85,40	(282 993)	11,94
Technology and development	(200 680)	23,55	(169 036)	16,06	(323 335)	26,46
Operating income	**458 886**	**120,83**	**766 547**	**91,40**	**999 028**	**62,24**
Interest expense	(88 090)	58,68	(182 289)	76,53	(205 530)	48,88
Income before income taxes	**224 814**	**86,30**	**741 137**	**152,71**	**835 773**	**68,15**
Net income	**372 251**	**199,41**	**652 313**	**116,71**	**655 674**	**54,13**

(**Source**: Own calculations, data from annual reports 2016-2019)

All positions of Income Statement have progressive tendency during chosen period. The most significant changes were in Revenues, which behaves as constantly growing position by 4 101 628B$ (35,08%) in 2018 year and by 4 362 106B$ (27,62%) in 2019 year. The Cost of revenues decreased by 24,81% in 2019 year compared to 27,03% in 2017 year. That can be a reason of the growth in Operational income by 999 028M$ in 2019 year compared to

458 886M$ in 2017 year and 766 547M$ in 2018 year. Probably, the company's management generates more revenues while controlling expenses, production costs and overheads. The decline in Cost of revenues also could explain the decrease in Marketing by 11,94% in 2019 year compared to 85,40% in 2018 year. Supportably, the company was investing less in marketing in 2019 year. The negative Technology and development could mean that company doing it in credit. The minus in Interest Expenses means that Netflix paid more interest on its loans than company received in interest on its investments. The most important to mention is that Interest expenses increased by 205 530M$ in 2019 year compared to 88 090M$ in 2017 year. The Net income growth rate has slowed down from 2016 to 2019, but it was still staidly increase yearly.

By the table 5, the best year for the company during the 2016-2019 period was 2019 year, where the Revenues, Operation Income and Net income were higher but Revenues cost lower than in previous years.

The main purpose of Vertical analysis of the Income Statement is to identify changes in the Company's cost structure and profitability. Such changes may be both negative and positive. Revenue is taken for 100%.

Table 6. The Vertical analysis of Income Statement of Netflix Inc., 2016 - 2019

Period compared	2016 In %	2017 In %	2018 In %	2019 In %
Revenue	**100**	**100**	**100**	**100**
Cost of revenues	-68,28	-65,51	-63,11	-61,72
Gross profit	31,72	34,49	36,89	38,28
Marketing	-11,22	-10,93	-15	-13,16
Technology and development	-9,65	-9	-7,74	-7,67
Operating income	**4,30**	**7,17**	**10,16**	**12,92**
Interest expense	-1,70	-2,04	-2,66	-3,11
Income before income taxes	**2,95**	**4,15**	**7,77**	**10,23**
Net income	**2,11**	**4,78**	**7,67**	**9,26**

(**Source**: Own calculations, data from annual reports 2016-2019)

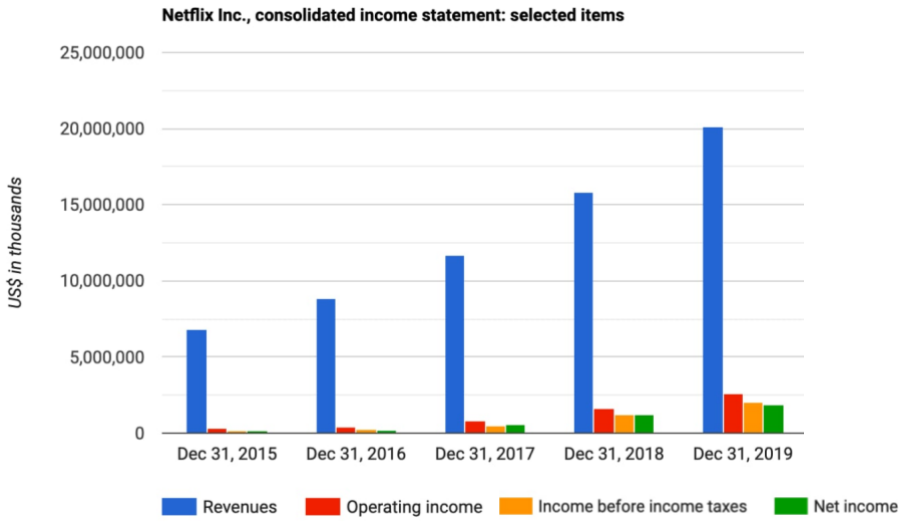
The vertical analysis (Table 6) confirms what was already observed in horizontal analysis review of the income statement, and it also reveals the missing driver in Company's net income growth: costs of revenues.

The table shows that the company's marketing expenses decreased not just in dollar terms, but also as a percentage of sales (revenue) by 13,1% in 2019 year compared to 15% in 2018 year. This implies that less money invested in marketing in driving sales growth as in prior year. Technology and development also decline as a percentage of sales.

The smallest share of revenue is Interest expense, which is increased by 3,11% in 2019 year compared to 1,7% in 2016 year. The second smallest share of sales is Net income, which also increased by 9,26% in 2019 compared to 2,11% in 2016.

The amount of total revenue was increasing during period of 2015-2019 years. (see Figure 9)

Figure 9. Netflix Income Statement chart



(**Source**: www.stock-analysis-on.net 2019)

4.2.3 **Cash Flow Statement Analysis**

The most important items of CFS to analyze are Cash from operations, Cash used in investing and cash from financing.

Following table shows the Netflix historical Cash Flow Statement for 2016-09.2020 period:

Figure 10. Netflix Historical Cash Flow Statement 2016-09.2020

Netflix Inc.

Consolidated Cash Flow Statement

US$ in thousands

12 months ended:	31.09.2020	Dec 31, 2019	Dec 31, 2018	Dec 31, 2017	Dec 31, 2016
Net income	**2 010 000**	1.866.916	1.211.242	558.929	186.678
Additions to streaming content assets	—	(13.916.683)	(13.043.437)	(9.805.763)	(8.653.286)
Change in streaming content liabilities	—	(694.011)	999.880	900.006	1.772.650
Amortization of streaming content assets	—	9.216.247	7.532.088	6.197.817	4.788.498
Depreciation and amortization of property, equipment and intangibles	—	103.579	83.157	71.911	57.528
Stock-based compensation expense	437 380	405.376	320.657	182.209	173.675
Excess tax benefits from stock-based compensation	—	—	—	—	(65.121)
Other non-cash items	—	228.230	81.640	117.864	119.861
Foreign currency remeasurement (gain) loss on long-term debt	—	(45.576)	(73.953)	140.790	—
Deferred taxes	—	(94.443)	(85.520)	(208.688)	(46.847)
Other current assets	—	(252.113)	(200.192)	(234.090)	46.970
Accounts payable	727 580	96.063	199.198	74.559	32.247
Accrued expenses and other liabilities	—	157.778	150.422	114.337	68.706
Deferred revenue	—	163.846	142.277	177.974	96.751
Other non-current assets and liabilities	—	(122.531)	2.062	(73.803)	(52.294)
Changes in operating assets and liabilities	**—**	**43.043**	**293.767**	**58.977**	**192.380**
Adjustments to reconcile net income to net cash used in operating activities	**—**	**(4.754.238)**	**(3.891.721)**	**(2.344.877)**	**(1.660.662)**
Net cash used in operating activities	**(2 960 000)**	**(2.887.322)**	**(2.680.479)**	**(1.785.948)**	**(1.473.984)**
Purchases of property and equipment	—	(253.035)	(173.946)	(173.302)	(107.653)
Change in other assets	—	(134.029)	(165.174)	(60.409)	(78.118)
Purchases of short-term investments	—	—	—	(74.819)	(187.193)
Proceeds from sale of short-term investments	—	—	—	320.154	282.484
Proceeds from maturities of short-term investments	—	—	—	22.705	140.245
Net cash (used in) provided by investing activities	**(397 250)**	**(387.064)**	**(339.120)**	**34.329**	**49.765**
Proceeds from issuance of debt	—	4.469.306	3.961.852	3.020.510	1.000.000
Debt issuance costs	—	(36.134)	(35.871)	(32.153)	(10.700)
Proceeds from issuance of common stock	—	72.490	124.502	88.378	36.979
Excess tax benefits from stock-based compensation	—	—	—	—	65.121
Other financing activities	—	—	(1.956)	255	230
Net cash provided by financing activities	**4 860 000**	**4.505.662**	**4.048.527**	**3.076.990**	**1.091.630**
Effect of exchange rate changes on cash, cash equivalents and restricted cash	506	469	(39.682)	29.848	(9.165)
Net increase (decrease) in cash, cash equivalents and restricted cash	**1 330 000**	**1.231.745**	**989.246**	**1.355.219**	**(341.754)**
Cash, cash equivalents and restricted cash, beginning of year	—	3.812.041	2.822.795	1.467.576	1.809.330
Cash, cash equivalents and restricted cash, end of year	**—**	**5.043.786**	**3.812.041**	**2.822.795**	**1.467.576**

Based on: 10-K (filing date: 2020-09-29), 10-K (filing date: 2019-01-29), 10-K (filing date: 2018-01-29), 10-K (filing date: 2017-01-27), 10-K (filing date: 2016-01-28).

(**Source**: own creation)

The table 7 shows horizontal analysis of Cash Flow Statement, which calculated by formulas in (2), (3). The data is taken from historical Cash Flow Statement and compared between 4 last years – 2016, 2017, 2018, 2019.

Table 7. The Horizontal analysis of Cash Flow Statement of Netflix Inc., 2016 - 2019

Period compared	2016-2017 In thou US$	2016-2017 In %	2017-2018 In thou US$	2017-2018 In %	2018-2019 In thou US$	2018-2019 In %
Net income	**(372 251)**	**-199,41**	**652 313**	**116,71**	**655 674**	**54,13**
Net cash used in operating activities	(311 964)	21,16	(894 531)	50,09	(206 843)	7,72
Net cash (used in) provided by investing activities	(15 436)	-31,02	(373 449)	-1087,85	(47 944)	14,14
Net cash provided by financing activities	1 985 360	181,87	971 537	31,57	457 135	11,29
Cash, cash equivalents and restricted cash, end of year	1 355 219	92,34	989 246	35,04	1 231 745	32,31

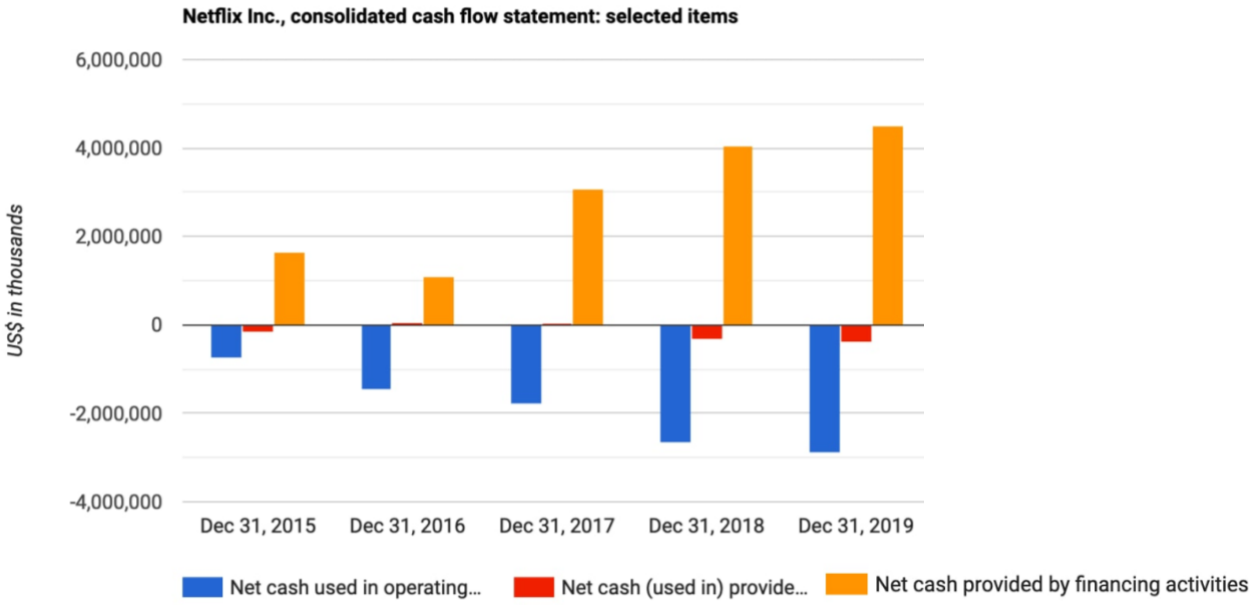
(**Source**: Own calculations, data from annual reports 2016-2019)

The table 7 proves that the company is generating positive cash flow and substitutes the external debts by own resources. For the volume cash of the company was constantly growing in the period of 2016-2019 years. Though, such rise has been majorly steamed by the external indebtedness increase. In 2017 year, the company increased its cash by more than 1,3B$ while collected almost 2B$ from financial activities. Next year 2018, it raised almost 1B$ of cash but almost all was covered by external debt, and in only 2019 year 1,2B$ cash rise was financed externally by 37%. Market standing of company is improving year to year during the chosen period. Though, it's not very fast one.

Portfolio investor seeking in opportunity to invest in Netflix on a yield base should note the decreasing of the external cash demand by the company.

The amount of net cash used in operating was decreasing during period of 2015-2019 years. Oppositely, the amount of cash from financing was increasing but just from 2017 year. In 2016 it declined compared to 2015 year. The amount of net cash used in investing (red color) was existing just in 2015, 2015 and 2019 years and it increased, respectively. (see Figure 11)

Figure 11. Netflix Cash Flow chart



(**Source**: www.stock-analysis-on.net 2019)

4.2.4 RATIO Indicators analysis

Liquidity ratios is a financial ratio equal to the ratio of highly liquid current assets to short-term liabilities. The table 8 was calculated by formulas in (6), (7) and (8):

Table 8. Liquidity ratios of Netflix Inc., 2016 – 2019 (in%)

Period compared	2016	2017	2018	2019
Current ratio	1.2472	1.4031	1.4943	0.9012
Quick ratio	0,38	0,52	0,67	0,87
Cash ratio	0,38	0,52	0,58	0,73

(**Source**: Own calculations, data from annual reports 2016-2019)

According to the rules current ratio should be in range of 1.5 to 2.5. By the Table 8, our current ratio (2019) is out of normal range and it has trend to decrease during last 4 years. It was growing and sought to be in normal range during first 3 years like a result the company as well was developing as an ordinary company, but in year 2019 earnings for total capital decreased (less assets). The reason of that behavior is that liabilities increasing and assets not. That could be explained by big dept, which raises every year.

The table 8, by Quick and Cash ratios, also explains financial abilities of Netflix to short-term liabilities from its liquid assets, which may quickly be converted to the cash. Regarding to the QR, it was constantly increasing by 0,87% in 2019 year compared to 0,37% in 2016. For Netflix it means it has capacity to pay its current liabilities without selling its inventory or getting additional financing. The growth of this ratio significate the company's liquidity growth and financial health. Cash ratio was raising as well but it still below 1 this indicates that Netflix, Inc. needs more than just its own cash reserves to pay off its current debt.

Profitability Ratios is calculated as the ratio of profit to assets, resources or flows forming it. The table 9 was calculated by formulas in (9), (10), (11) and (12):

Table 9. Profitability ratios of Netflix Inc., 2016 – 2019 (in%)

Period compared	2016	2017	2018	2019
Gross profit margin	31,72	34,49	36,89	38,28
Net profit margin	2,11	4,78	7,67	9,26
ROE	6,97	15,6	23,12	24,62
ROA	1,37	2,94	4,66	5,49

(**Source**: Own calculations, data from annual reports 2016-2019)

Netflix belongs to Broadcasting – Radio & TV industry, thus, the results were compared with this industry. All the company's profitability indicators have trend to grow and this is positive moment. The Gross profit margin (GPM) indicates, in general, once more the company's financial health, and give understanding of how much gross profit every $ of revenue a company is earning. Netflix GPM is ranked lower than 51% of the 871 Companies in its industry (Industry Median: 39.27 & NFLX: 38.28). It could mean the company is under – pricing.

The Net profit margin oppositely is ranked higher than 86% of the 922 Companies in its industry (Industry Median: -1.78 & NFLX: 9.26). It means the company is more efficient at converting revenue into actual profit.

The ROE increased by 24,62% in 2019 compared to 697% in 2016 year and, for the whole chosen period it has trend to grow yearly. It could demonstrate that the company increased its profits without requiring the equal amount of capital. It also shows how well was

distributing its shareholder capital by managers. This could also indicate that the company has taken on many debts. The ROA is similar to ROE. It shows the net profit of the company in relation to its Total Assets (not Equity). It's ranked higher than 87% of the 938 Companies in its industry. This could indicate 1 of 2 thing: 1. Company is managing its assets better to produce more income or 2. It owns a definitely smaller number of assets and either leases or borrows additional assets instead. Only own assets are recorded in ROA. Generally, this means that the lower the total value of assets, the higher the ROA. After Balance sheet analysis, supportably, it's 2 result.

Activity ratios allow to analyze how effectively the company uses its own funds. The table 10 was calculated by formulas in (13), (14) and (15):

Table 10. Activity ratios of Netflix Inc., 2016 – 2019 (in % except days)

Period compared	2016	2017	2018	2019
Total asset turnover	0,65	0,61	0,61	0,59
Receivables turnover	—	—	43,55	44,36
Payables turnover	19,27	21,3	17,7	18,45

(**Source**: Own calculations, data from annual reports 2016-2019)

The Total assets turnover decreased by 0,59% in 2019 compared to 0,65% in 2016 year. Also, by the Income statement analysis, Revenue is consistent increasing. Since this ratio evaluate the company's efficiency, it could mean that Netflix "overinvested" in assets. The Receivables turnover increased by 44,36% in 2019 compared to 43,55% in 2018. It could demonstrate that company collected its debt faster and managing its account receivables effectively. The Payables turnover is fluctuating from year to year up and down but in the last 2019 year it decreased by 18,45% compared to 19,27% in the first 2016 year of chosen period. In 2017 and 2019 years, the ratio increased to 21,3% and 18,45% - Netflix paid its bills slowly and less effectively than in previous periods. Nest year, 2018, the position decreased again, and it could mean that company paid bills faster and was able to manage its payables more effectively.

Debt ratios is also known as Solvency ratios.

The table 11 was calculated by formulas in (16), (17) and (18):

Table 11. Debt ratios of Netflix Inc., 2016 – 2019

Period compared	2016	2017	2018	2019
Debt to equity	1,26	1,81	1,98	2,16
Debt to capital	0,56	0,64	0,66	0,68
Interest coverage	2,74	3,04	3,92	4,29

(**Source**: Own calculations, data from annual reports 2016-2019)

The Debt on equity/capital ratios were constantly increasing during the 2016-2019 period. It indicates more debt in relation to equity or capital, in other words, it means Netflix gets a higher share of borrowed funds, which causes a higher risk of insolvency. The Interest coverage ratio (ICR) should be more the 1,5 by general rules. The table 11 demonstrate that it is higher than 1,5 each year during chosen period. In 2019 the ratio increased by 4,29% compared to 2,74% in 2016 year. It could mean that the Netflix probability of bankruptcy or default becomes lower. However, the low ICR suggests that the company gets less profit to pay interest on, and that the business is more vulnerable to higher interest rates.

4.2.5 ARPU Analysis

The Figure 12 shows how much money the company receives per 1 user.

Figure 12. Consolidated performance highlights of ARPU 2017-2019

	As of/ Year Ended December 31,			Change	
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
	(in thousands, except revenue per membership and percentages)				
Global Streaming Memberships:					
Paid net membership additions	27,831	28,615	21,554	(3)%	33 %
Paid memberships at end of period	167,090	139,259	110,644	20 %	26 %
Average paying memberships	152,984	124,658	99,323	23 %	26 %
Average monthly revenue per paying membership	$ 10.82	$ 10.31	$ 9.43	5%	9 %
Financial Results:					
Streaming revenues	$ 19,859,230	$ 15,428,752	$ 11,242,216	29 %	37 %
DVD revenues	297,217	365,589	450,497	(19)%	(19)%
Total revenues	**$ 20,156,447**	**$ 15,794,341**	**$ 11,692,713**	28 %	35 %
Operating income	$ 2,604,254	$ 1,605,226	$ 838,679	62 %	91 %
Operating margin	13%	10%	7%	30 %	43 %

(**Source**: Annual Report Netflix Corp 2019)

Annual Report 2019 figures show that the company is growing extensively - i.e. the growth of revenues is steamed by the number of customers only but not the enhancing of return per single customer (ARPU).

Even more the global expansion of NFLX cannot be treated as successful in terms of ARPU - revenues in Europe are lower and in Latin America are significantly lower than those in the domestic market (U.S.). (see Figure 13)

The cause of such a situation could be that internal market brings more money. Also, it could mean that the company has not developed an effective strategy for international expansion into significantly more numerous but less marginal markets. The presence among competitors of such companies as Disney and Sony Entertainment, which have experience of penetrating "cheap" markets, may in the future significantly undermine the client base.

Figure 13. Netflix ARPU by markets 2017-2019

United States and Canada (UCAN)

	As of/ Year Ended December 31,			Change			
	2019	2018	2017	2019 vs. 2018		2018 vs. 2017	
	(in thousands, except revenue per membership and percentages)						
Revenues	$ 10,051,208	$ 8,281,532	$ 6,660,859	$ 1,769,676	21 %	$ 1,620,673	24%
Paid net membership additions	2,905	6,335	5,512	(3,430)	(54)%	823	15%
Paid memberships at end of period	67,662	64,757	58,422	2,905	4 %	6,335	11%
Average paying memberships	66,615	61,845	55,660	4,770	8 %	6,185	11%
Average monthly revenue per paying membership	$ 12.57	$ 11.16	$ 9.97	$ 1.41	13 %	$ 1.19	12%
Constant currency change (1)					13 %		12%

Europe, Middle East, and Africa (EMEA)

	As of/ Year Ended December 31,			Change			
	2019	2018	2017	2019 vs. 2018		2018 vs. 2017	
	(in thousands, except revenue per membership and percentages)						
Revenues	$ 5,543,067	$ 3,963,707	$ 2,362,813	$ 1,579,360	40 %	$ 1,600,894	68%
Paid net membership additions	13,960	11,814	8,173	2,146	18 %	3,641	45%
Paid memberships at end of period	51,778	37,818	26,004	13,960	37 %	11,814	45%
Average paying memberships	44,731	31,601	21,476	13,130	42 %	10,125	47%
Average monthly revenue per paying membership	$ 10.33	$ 10.45	$ 9.17	$ (0.12)	(1)%	$ 1.28	14%
Constant currency change (1)					4 %		9%

Latin America (LATAM)

	As of/ Year Ended December 31,			Change			
	2019	2018	2017	2019 vs. 2018		2018 vs. 2017	
	(in thousands, except revenue per membership and percentages)						
Revenues	$ 2,795,434	$ 2,237,697	$ 1,642,616	$ 557,737	25 %	$ 595,081	36%
Paid net membership additions	5,340	6,360	5,509	(1,020)	(16)%	851	15%
Paid memberships at end of period	31,417	26,077	19,717	5,340	20 %	6,360	32%
Average paying memberships	28,391	22,767	16,917	5,624	25 %	5,850	35%
Average monthly revenue per paying membership	$ 8.21	$ 8.19	$ 8.09	$ 0.02	— %	$ 0.10	1%
Constant currency change (1)					13 %		13%

(**Source**: Annual Report Netflix Corp 2019)

4.3 STEP analysis

Table 12. STEP analysis of NETFLIX, Inc.

Social	*Technological*
NETFLIX is highly dependent on the attractiveness of films among customers in the target market sectors. **As the average age of potential consumers continues to grow and the cost of filming among older demographic groups is less popular, it can have a negative impact on business.** **The attractiveness of NETFLIX is also in the that people can find a nice collection of movies and shows in their native languages. During pandemic serves got more consumers so as it helped people to have a nice time at home with company or alone either.** **Moreover, that kind of services always has threat from piracy since not all the people would like to pay for subscription fees to watch some favorite movie or TV show if there is a free alternative.**	**Business is based on the Internet, and it has to fight the constantly evolving technology sector, as the industry is moving towards online spending.** **NETFLIX faces new competitors because of lower barriers to entry in terms of streaming content.** **Changes in Internet tariff technologies impose the need to constantly modernize its business model to maintain market share.** **Technology is the main source of competitive advantage for this company. It uses various algorithms and machine learning to make recommendations to individual subscribers. NETFLIX invest big amount of money yearly in research and development to have higher user engagement and grow its popularity.**
Economic	*Political*
NETFLIX's competitive advantage depends directly on the prices compared to the competitors. **NETFLIX occupies a marketplace that mostly attracts customers once and forever.** **Moreover, if growth slows down and consumer purchasing power is reduced, NETFLIX will be the first to feel it due to its huge audience.** **For the last a few years global economic performance has been rising on a regular basis and like a result people spend more for paid services like NETFLIX. Nowadays, situation changed due to Coronavirus but while the economic indicators has gone down around the world, NETFLIX has a significant rise in its memberships.**	**Netflix has to adapt its services for each region accordingly to the level of regulation in each market.** **NETFLIX may be affected by changes in copyright laws on certain types of content, such as television and film, that a company believes it can provide to its customers. Changes in copyright laws can affect NETFLIX's ability to distribute this content to clients, which can have a significant impact on business because this content is a huge part of the service sector. There is a new low around the world regard to their data collection and other practices that creates difficulties in the technology companies' work, especially in the European Union.**

(Source: own creation)

The conclusion based on the above analysis the political aspect can hit the company most severely and suddenly as changes to the copyright law can completely negate the activities of NETFLIX. Also important is the social sector because the audience of the company almost entirely consists of ordinary individual viewers, respectively, the company needs to constantly attract younger generations without losing loyalty to the old, moreover, as the company is also engaged in the production of its own television programs, it has to make them more universal to suit a wide age audience. From the economic point of view, the company has a stable leading position in its segment and receives enough funds to cover all expenses and new expensive projects. However, since the company becomes media producer its business-model has changed from just a streaming service to content production company. Therefore, the company's revenue, in some way, depends on fluctuations in people's demand. The technological aspect is the dual aspect of the organization: on the one hand, thanks to the technologies the possibility of NETFLIX existence has appeared in principle, and further development of technologies can lead to the increase of the range of services provided by the company. On the other hand, the technologies have reached such a level that the primary and most global competitive ability - the supply of streaming content - is not an expensive or exclusive technology and, accordingly, the competition in this segment is growing progressively.

4.4 Porters' 5 forces model

Porter's 5 forces analysis for Netflix, Inc.:

Power of Buyers. The power of users will grow since the number of streaming services is increasing. The industry isn't too sensitive to prices. Currently, Netflix has slightly higher prices in compare to others. For example, single subscription costs $12.99 a month while Amazon Prime - $8.99, Hulu - $5.99 and Disney+ - $6.99 but in total they are in quite similar rate. Therefore, viewers will mainly focus on the content quality.

There are no subscription contracts and many users monthly pay with the option to cancel subscriptions at any time. Thus, giving even more power to the consumer.

In this case, the power of the power of buyers should not be underestimated since the viewers now have the opportunity to watch everything they want to. If they can't find what they want on Netflix they can just look at competitor's website for it or for something else. Therefore, the buyers' power always will be high due to the fact that viewers can easily join and cancel a subscription.

Power of Supplier. Historically, cinemas want to have an exclusive window of 90 days before the film will be available online services. Netflix, meanwhile, is battling with big cinema chains and demanding a window for a maximum of 45 days. In specific, the latest project of Netflix and Martin Scorsese "The Irishman" was shown just in a few or in independent cinema chains before Netflix online cinema. Accordingly, if power of Netflix will increase than power of traditional cinemas will continue to decline. That was not the only case when Netflix did this: in 2018 they released "Roma" by Alfonso Cuaron, which was only a 21-day release in independent and small chain cinemas before it was moved to streaming survives.

Due to the fact that there is increasing a number of production companies who are launching their own VOD-services, the rights on some popular, and that's why important, content will soon expire, and content will disappear from the website (e.g. forever popular "Friends" will be removed from Netflix to HBO, in the end of 2020 year). This is unlikely to be the only major series that company will lose, thus increasing the risk of supplier's power.

In January 2017, Netflix had just 17% of original content. Further, in In October 2018, it was already 37% according to video-measurement company - 7Park Data. Thus, while the popularity of original Netflix content is certainly growing, viewers still enjoy watching their old favorite movies such as “Friends” or “The big bang theory”.

However, despite the fact that the deal with Martin Scorsese is a clear sign of the move of power from cinemas to producers, Netflix will still be afraid of the amount of lost property they are purchasing. At the same time, Netflix is now a trusted and complete content producer by itself, thus, the power of alternative suppliers can be considered a medium threat only.

Competitive Rivalry. Amazon Prime, currently, gives more, than just access to its video streaming services for their users but also a lot of other benefits (e.g. same day or 1-day delivery). All this, mostly, they do to widen their offer.

In 2018 in the UK Netflix took 8th place out of 10 most popular programs by subscription. The leader of the list was " Friends" (BBC News, 2018).

The rivalry among existing competitors is high for Netflix, Inc. Some competitors, like Amazon, may offer additional customer subscription services, while others remove the most popular video content from Netflix to show it on their own websites.

Threat of New Entrants. There is a lot of other companies such as Apple, Disney, HBO and Britbox (BBC and ITV) who are launching or have just launched their new and own streaming services.

For reputable organizations in the entertainment industry, barriers to entry are quite low so as they can instantly start the streaming service with their own content and will already be able to have fans for either organization or specific show/series. For new entrants, the situation is different and the barriers to entry are high. The beginners do not yet produce their own video content as it requires an extremely large investments needed either to produce new content or to purchase content from major players.

While an increasing number of companies launch similar streaming services with its own video-content, the threat of new entrants is a real and very serious issue for Netflix. Also, the size of these companies means that the starting costs for marketing and technology wouldn’t

be a problem. Even though many clients will have multiple subscriptions, there will undoubtedly come a time when the subscription to many services will no longer be necessary or relevant and they may decide to delete their accounts.

To sum up, it should be noted that for Netflix the threat of new subscribers is high and should be carefully monitored.

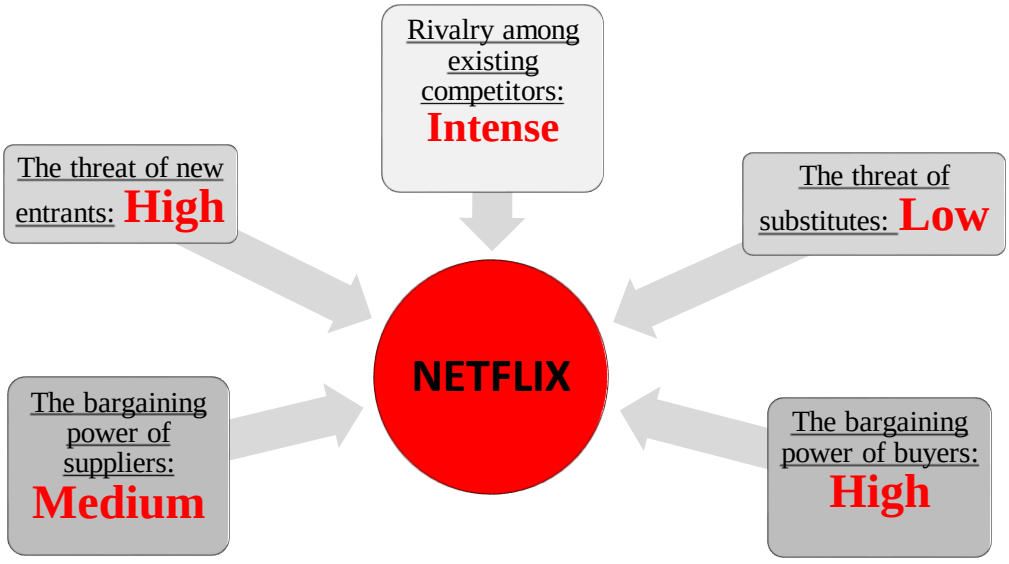
Threats of Substitute Products. The UK average daily TV- viewing time is 192 minutes in 2019 year compared to 242 minutes in 2010 year. Meanwhile, the average time people are watching subscriber video on demand (e.g. Netflix), increased by 7 minutes in 2019 year versus 2017 year. (ofcom.org.uk 2019)

YouTube offers both live streaming and recorded content that's why this platform has 12% of all video viewing time. Thus, YouTube accounts are for a big part of total number of video viewing. (YouTube statistics 2020)

The treat of substitute services is low for Netflix, Inc. This is a result of the fact that traditional broadcast television in decline, especially with young people who are shifting to video subscription services.

The Figure 14 shows the results of Porter's 5 forces analysis for Netflix, Inc.:

Figure 14. Porter's 5 forces model for Netflix, Inc.



(**Source**: own creation)

4.5 Production analysis-BCG matrix

BCG Analysis of Netflix, Inc.:

Stars. The online streaming comes under the category of "Stars" either in domestic or international segment so as these services have a very high growth rate, and Netflix has a high market share. This function is the foundation of the company and generates most of its revenue. The company market occupies one of the highest place in the market share of international streaming and as a result it's on the top of international streaming list. That happen because of the quality of streaming and contents, also thanks to content localization. Content that is, considered, to have raised the number of Netflix members: "Stranger things", "The Crown", "Friends", "Orange is the new black", "Glow", "House of cards", "Billions", "Ozark". Domestic streaming is also in this category so as in the U.S. an increasing number of people are switching from traditional cable TV to streaming Netflix. The growth of industry sales is quickly increasing, and the share of Netflix rates in the internal streaming market is about 60%. Thus, both segments of Netflix show good results in terms of market share.

The content downloading is the great feature for travel-lovers during the flight-mode or low connection period. Since there are currently significant number of the travel-bloggers the option becomes popular. The last feature in this category is Netflix's recommendation and rating systems. It analyses the people choice of movies and series or shows, and next time they use service it makes relevant suggestions of content. Since it considering that people when they are relaxing don't like to think what to choose this option becomes perfect solution and attractive point.

Cash Cows. Nowadays, people prefer online streaming services more than traditional TV and that is the reason why industry growth rate decreased after a few last years. Nevertheless, Netflix still has the highest numbers of subscription, especially, it's leading in domestic market.

Another feature of this category is that service is available on all internet-connected devices (e.g. PC, iPads, mobile devices, and TVs). It competes in a low growth industry since apps for all devises has already been created and have a high relative market share because of its mass-usage.

At the moment, Netflix can't be treated as a huge Cash Cow, but some exports believe that someday it can be come become. [27]

Question Marks. Another important Netflix option is subtitles in different languages and their streaming to TVs via an external device. This service has a very high market growth rate and a low market share. One more segment of the company that falls under this category is the production of its own video-content. This feature works in conditions of rapid development but does not occupy large shares of sales. It needs investments in order to increase profits. The goods are mainly new and are in the development phase.

Dogs. Not a single Netflix segment belongs to this category. There could be DVD and Blue Rays rentals, but the company have already liquidated this service a few years ago due to very low relative market share and growth rates. It was no longer profitable for the company.

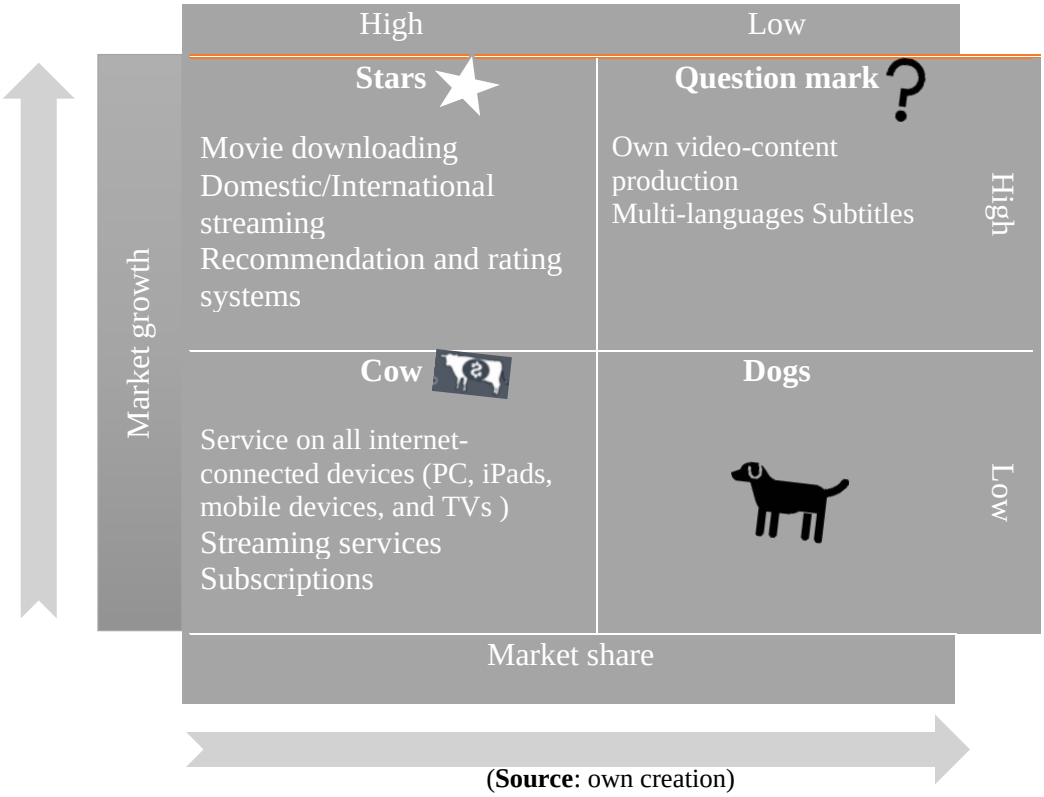
The conclusions from the analysis of the BCG matrix for individual segments look like this:

- The "Stars" should strive to hold the leadership position;
- "Cash cows" have to squeeze out the maximum benefit before sales decline;
- "Question Marks" should be invested in order to become "Stars";
- "Dogs" should be excluded from the goods and leave the market if there is something.

The Figure 15 shows the results of BCG matrix analysis for Netflix, Inc.:

[27] Daniel Sparks, *Here's Why Netflix Will One Day Be a Cash Cow*, www.fool.com, Nov 14, 2020 (https://www.fool.com/investing/2020/11/14/heres-why-netflix-will-one-day-be-a-cash-cow/)

Figure 15. BCG matrix of Netflix, Inc.



(**Source**: own creation)

4.6 SWOT analysis

Table 13. SWOT analysis for NETFLIX, Inc.

Strengths	Weaknesses
Competitive advantages of a " first-mover" include identification of a strong brand and knowledge base. The integrated flexible infrastructure and interface keeps operating costs low, increasing your subscription base. This leads to lower marginal operating costs and higher profits. Special video testing software, based on subscribers' evaluations, allows detecting prevailing video files besides video content. Unique NETFLIX service and "+" it is an advertisement free. Large library of video content (over 100,000 titles). The company investing a lot to media production for global as well as for local content. This increases customer and referrals' satisfaction. Netflix is serving more than in 190 countries across the world and has more than 167 million subscribers. This gives the company a strong position during the negotiation with the studios for securing exclusive content. Netflix adapted to various technologies and provide streaming on all internet-connected devices: PC, iPads, mobile devices, and TVs. That helped its business grew immensely over the years. In addition, in 2020 Netflix has received 160 nominations at the Emmys. It shows the popularity of Netflix's original shows.	Small financial resources compared to competitors such as Blockbuster. The strength and growth of Netflix depends on high average revenue per user, low subscription costs and maintaining low churn rate. Brand loyalty is not so great, although it has a high level of brand recognition. In 2011, a series of errors led to the loss of 800,000 consumers. Netflix has Limited Copyrights since it doesn't own the most of its content. After a few years when the rights taken from other studios expire, content becomes no more unique and people are able to watch it on other websites. The increase in debt every year (currently reported $14.17B and plans to raise $1B more) is a major weakness. The company has over-dependence on North America Market (in 2019 year it reported $10.05B revenue (50% of its total revenue) from this region). This a serious weakness so as this Market is getting closer to saturation. The number of hacked accounts increased during the first 6 months of 2020 because people were stuck at home as a result of the pandemic. Even worse, Netflix has reduced the number of support hours and this resulted in customers having to wait longer to get back their hacked accounts. The company increased subscription prices, while Disney+ ($6.99 per month) and Apple TV+ ($4.99 per month) introduced their services at significantly lower prices.

	Netflix still hasn't utilized renewable energy and hasn't created a business model to promote environmental sustainability unlike Amazon, Google, Apple, and Facebook. The lack of green energy Initiatives has a negative impact on Netflix's brand image.
Opportunities	**Threats**
The streaming industry is growing steadily every year, and Netflix can capitalize on this growth to expand the market. Expanded opportunities for downloading movies via the Internet. Another opportunity is the international growth (e.g. India or Sough America). To become stronger competitor, Netflix can invest its resources to localized content. Or it can invest in content ownership to increase its uniqueness. The service can an offer a lower price mobile streaming option to attract and keep subscribers in the international market. As they tested a cheaper cell phone plan in India (3$ a month only). Netflix can widen this cheaper option around the world to more effectively compete with cheaper alternatives (Disney+, Apple+, Peacock, etc.). The company can increase its revenue by applying an advertising-based business model. The company may also create alliances with different internet providers and offer packages in different countries. To show a great Corporate Social Responsibility, Netflix can support Black Educational Institutions (especially since it already promised them 100M$).	Risky production. Due to Netflix from just a streaming service moved to media producer, its revenue becomes flexible because of fluctuations in people's demand. The company cost (expenses) has looked more like expenses of company that produce media and not like high-tech company. Now it's better to compare it to Disney. Competitive pressure. The industry is constantly evolving thanks to formatting and technological innovations. Prices, products and customer preferences are subject to rapid change, creating irregular and volatile markets where competitors are usually a threat or an impressive new business model. There are some competitors (Disney+, Apple TV+, HBO, Amazon, Hulu and YouTube) who can potentially present streaming videos cheaper than Netflix. If these competitors appear with better streaming ability and lower prices, the Netflix business model could be seriously affected. Strict government policies and regulations regarding service providers such as Netflix can pose a major threat to them in many countries (e.g. expansion into China is unlikely). Next big threat is digital piracy that is still at its peak.

	Market saturation. In the future, Netflix will find it more difficult to add new subscribers because of the saturation of the market. It added 420,000 U.S. subscribers in Q4 2019 when its target of 600,000; in Canada is the same: added only 125,000 subscribers when the target audience was 218,000. Account hacking. The number of account hacking is increase dramatically in Q1 and Q2 2020. If account hacking continues in the future, disappointed Netflix users may massively migrate to competing companies.

(**Source**: own creation)

The conclusion based on the above analysis that the company has a strong presence in the market but needs constant improvement and constant new strategies, tactics, services because of the fact that competition in the market of this organization is extremely high, and one wrong step can lead to serious losses. Of course, the company is aware of this and does its best to keep its customers and be first in everything (in its industry). Exactly this constant work pressure allowed the company to become successful once, and it is the presence of this constant work pressure that allows the company to hold the market share now.

The company is not new in improving its service on the way. During its launch in Latin America in 2011, Netflix faced a very weak interest from users. This was due to the fact that fast Internet was not available everywhere, some content was not translated into local languages, the public did not want to pay for the service through international payment systems and in principle was not accustomed to watching videos online. Gradually Netflix introduced local payment systems, translated soap operas and movies and started buying local content from the library. As a result, by 2015, Latin America has brought Netflix already more than 5 million subscribers.

The SWOT analysis of NETFLIX shows that the company's business model has been highly successful and, in some way, due to pandemic time there is no sign of slowing down. But it doesn't mean that Netflix, Inc. doesn't have problems. There are a lot of difficulties due to

global organizations and competing in multiple markets. All these create some significant challenges in own dynamics.

The biggest risks are related to unique content. Primarily, the investment in content that will keep existing users and attract new subscribers is vitally important to Netflix's future.

5 Discussion of Results and Recommendations

In this part will be discussed all the results that was received during the application of the practical part.

5.1 Discussion of Results

In the near future, dividend policy of NFLX wouldn't change because of that dividend income for NFLX share isn't foreseeable (not expected). From dividend point of view, investment outlook for Netflix, Inc. is negative. Also, no big price increase is foreseeable so as above calculations of intrinsic value shows that market capitalization (212B$) is already 8 times more than fair price value (27B$). Moreover, the financial analysis demonstrated that cash flows are rather weak. The figures show that one can invest in either Vodafone Group or Disney with better performance. Geeks and tech-fans shoved NFLX stock to the apex and nobody wants now to accept that their own money lies in the bottom of that enormous Babylon tower.

Netflix business model becomes riskier due to the fact that company moves to the video-content production, which highly depend on viewers preferences and fashion. Thus, there is a large percentage of unpredictable income.

The results of Income statement analysis show the constant growth of Netflix net income that reached a record amount in 2019 year at 1,9B$. However, nobody can predict what may happen next year when Coronavirus, fortunately, will end. The results of balance sheet analysis show that company has constantly growing debt by 14,8B$ in 2019. Although, the figures of Q3, 2020 year demonstrates some decline in the indebtedness rise of the company (in 2019 the debt rose by 44% compared to only 7.8% by Q3 current year). Also, results of Cash flow statement analysis indicate that company has started to produce enough cash to cover its organic growth without external finance (only 37% in cash rise was financed externally in 2019 while more than 98% a year earlier).

One can believe that NFLX is a global company (as the majority of its IT- and/or media-rivals) BUT the ARPU report proves that global strategy of the company is not very strong - it has collected more than half (53.68% in 2018 year and 50,6% 2019 year) of its’ revenues in the domestic (US & Canada) market.

According to the SWOT and STEP analysis one of the main challenges for NFLX is maintenance of public interest and a kind of fashion for its production and services within rising penetration of wide broadcast services in the global markets and further changes in global demography.

Despite the fact that Netflix is the leader in its industry segment, the Porter's 5 forces model showed the intense competitive rivalry and high treat of new entrants.

The BCG matrix analysis shows the strong company's market position: NFLX outlined itself from its rivals by launching the AI advisor providing deeply-personalized recommendations for streaming clientele, and the ability to use service on all devices that have internet-connection which makes it easier to use.

5.2 Recommendations

One of the objectives of the paper was to understand if NETFLIX stocks can be recommended to buy. According to made calculations of intrinsic value and analysis, the recommendation is rather to not invest in NETFLIX, Inc. stocks due to high risk, which connected to the big company debt. If one evaluates the company in terms of produced cash flows potential investor will understand that either company must enlarge its CF to produce shareholders revenues or to reduce debt. Investor can see that significant part of company revenues goes directly to cover interest payments of the company, thus, reducing shareholders potential dividends.

In any case, one intending to invest shall first evaluate the market, then the instruments, then the issuer(s). Whilst valuating the issuer potential investor should not only base on the market figures and trends but also investigate the internal company' figures including its financial statements.

Regarding to the Netflix, Inc., it has to focus on optimization of the internal structure and expenses, reducing the debt and/or its cost. Nowadays, new content and streaming are the major services consumers desire. Thus, this is the core of the Netflix. Its recommendation scheme increases value for customers and content licensees. This option provides a stable competitive advantage against competitors (e.g. Hulu and Crackle) as well as opportunities for marketing. It makes content more accessible by delivering the information directly to users.

Thuse, for the company would be better if it allocates most of its resources to streaming and, secondly, to production. Obviously, Netflix was able to lead the market due to the adaptation of a new paradigm of cloud computing, which is to store their data in geographically remote areas by outsourcing to various content providers on networks with high connectivity and speed. For Netflix, content is a trademark. The best decision for the company is to continue to be developed on its basis.

Conclusion

The main aim of this diploma thesis was to calculate an intrinsic value of Netflix, Inc. in year 2020 to asses if its market value is reasonable. Considering the made calculations the fair value of the company 8 times less than its market value. Thus, the big difference in these 2 values makes certain doubts in direction of financial bubble. However, the results of Netflix historical stock price charts, STEP and SWOT analysis show that there are some external reasons of such market capitalization growth. The main reason is pandemic situation around the world and strict quarantine conditions. Another, reason is about first mover, which Netflix is in its industry. It gives some benefits to the company such as the top position in the market competitors list or market share.

Based on collected data from Financial statement analysis can be concluded the financial standing of NFLX is not as brilliant as one can think looking at its market capitalization.

Second objective of the research work was to understand what are the main factors that affect the company. The stock price is influenced by a number of factors, among which the future dynamics are primarily important. However, it cannot be predicted with a high degree of probability, so the securities market development forecasts are always purely speculative in nature. The joint-stock company, as it was determined, is also affected by several main factors such as supply and demand, ongoing events inside of the company (everything that happens inside the company will directly affect the value of the shares). Other factors that can change the stock price are company's management changes, acquisitions and mergers. The Hype (e.g. release of new products or services) and Financial reports are affected company position too.

Furthermore, the results, according another objective of this thesis that was aiming to

understand if Netflix stocks can be recommended to the protentional investor, is uncertain. The investor shall evaluate the above-mentioned figures whilst making investment decision. One should pay prior attention to the highly leveraged business of Netflix – weak own capital base doesn't allow to form significant cash flow for the shareholders. The investment outlook for NFLX rather duplicitous - one hand its overvalued at the moment, as the majority of technological companies gaining from coronavirus environment; the other hand it can become someday a cash cow if the company optimize its structure and expenses. Conservative investors would probable abstain from NFLX though more optimistic ones may believe that the trees can be sky-high or even higher.

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