ŠKODA AUTO VYSOKÁ ŠKOLA o.p.s.

Course: Economics and Management

Field of study/specialisation: Corporate Finance in International Business

Valuation of Netflix, Inc.

Diploma Thesis

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ŠKODA AUTO VYSOKÁ ŠKOLA o.p.s.
Department of Finance and Accounting

Academic year: 2020/2021

ŠKODA AUTO Vysoká škola

REGISTRATION FOR FINAL THESIS

Candidate: **Bc. Alena Vershinina**

Study programme: Economics and Management

Thesis title: **Valuation of Netflix Inc.**

Aim: The purpose of the thesis is to study business valuation methodologies, perform the valuation of a publicly-traded company based on selected methods, and discover the intrinsic value of the company. The thesis will value Netflix Inc. as of June 30, 2020, and create an investment report with a buy, sell, or hold recommendation based on the current share price.

Content areas:

1. Theoretical essence of business valuation
2. Business valuation methods
3. Overview industry-standard sources of data and indicators used for analyses
4. Characteristics of Netflix Inc.
5. Case study: apply valuation methodologies to Netflix Inc.
6. Evaluation of the company's intrinsic value and creation of an investment report.

Length of thesis: 55 – 65 stran

Recommended literature:

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Date of registration: May 2020

Date of submission: January 2021

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I would like to thank doc. Ing. Tomáš Krabec, Ph.D., MBA for his professional supervision of my thesis, advice, and information. I also want to thank the ŠAVS management for their support of the students' initiative.

Contents

List of Abbreviations and Symbols

A/P	Accounts Payable
A/R	Accounts Receivable
APM	Arbitrage Pricing Model
CAPEX	Capital Expenditure
CAPM	Capital Asset Pricing Model
COGS	Cost of Goods Sold
DCF	Discounted Cash Flow Method
DIH	Days Inventory Held
DPO	Days Payable Outstanding
DSO	Days Sales Outstanding
EBIAT	Earning Before Interests after Taxes
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
EBVS	European Business Valuation Standards
EMM	Exit Multiple Method
EV	Enterprise Value
FCFF	Free Cash Flow to the Firm
IFRS	International Financial Reporting Standards
IVS	International Valuation Standards
IVSC	International Valuation Standards Council
KPVH	Adjusted Operating Income
MD&A	Management's Discussion & Analysis
NOPAT	Net Operating Profit After Taxes
NWC	Net Working Capital

PP&E	Property, Plant, and Equipment
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
ROCE	Return on Capital Employed
R&D	Research and Development
SEC	U.S. Securities and Exchange Commission
SG&A	Selling, General & Administrative
TEGoVA	European Group of Valuers' Associations
TSM	Treasury Stock Method
TV	Terminal Value
WACC	Weighted Average Cost of Capital
YoY	Year-Over-Year
YTD	Year-to-Date

Introduction

The individual investors' interest in the financial market has increased over the years. In 2020, there was record growth of new investors in the stock market globally. Low or negative central banks' interest rates only supported the trend. Applications such as Revolut and RobinHood allow access to the global stock market for virtually everyone, facilitating buying a security in a few clicks. A common question for every investor is the current price acceptability of stocks.

The diploma thesis is structured into several parts. The first part is focused on the theoretical basis of business valuation. The theoretical part describes international and regional valuation standards, provides basic definitions of chosen terms, and determines the bases of value and value measures according to standards. A description of strategic and financial analysis tools are located in the first section. The final section of the theoretical part includes the overview and the detailed step-by-step description of the chosen valuation methods.

The second part of the diploma thesis provides a strategic analysis of Netflix, Inc. Strategic analysis includes a historical development overview and the application of strategic tools which were described in the theoretical part. Business model Canvas describes the company's business model. PESTLE and Porter's five forces analyses characterize the macro-and microenvironment, affecting Netflix, Inc. SWOT analysis combines the results of the previous findings in a matrix of strengths, weaknesses, opportunities, and threats. The final section of the second part is financial analysis, which includes horizontal, vertical, and ratio analyses.

The third part of the thesis is the valuation of Netflix, Inc. by the comparable companies and discounted cash flow methods. The final part of the thesis includes the value drivers projections, financial plan creation, free cash flow calculation, and WACC estimation. The company’s value is calculated by the standard two-phase method. Terminal value is calculated using the perpetuity growth method and exit multiple method. The company's value is determined at the enterprise level; subsequently, EV is adjusted to the share price. Sensitivity analysis finalizes the valuation.

The purpose of the thesis is to study business valuation methodologies, perform the valuation of a publicly-traded company based on comparable companies and

discounted cash flow methods, and discover the intrinsic value of the company. The thesis will value Netflix Inc. as of the end of 2020, as the most current data available.

The valuation will be performed from the individual investor's perspective, who considers buying Netflix, Inc. shares, and wants to understand the reasonableness of the investment. The valuation will be realised on the market value bases. The estimated intrinsic value will be compared with the market price.

1 Theoretical Essence of Business Valuation

1.1 Valuation Standards

The valuation process of a company has a framework led by the valuation standards. The standards indicate the minimum level of quality against which valuers should evaluate their products. In turn, clients are provided with standards for measuring their reasonable expectations of the valuers' competence and compliance with professional and ethical standards (Jesipov, Machovickova, 2016).

There are international, regional, and national valuation standards. The following section overviews International Valuation Standards and European Business Valuation Standards as an example of regional standards.

1.1.1 International Valuation Standards

IVS is a globally used essential guide, issued by an independent, not-for-profit, private sector organization named The International Valuation Standards Council. IVSC was founded in 1981; previously referred to as The International Assets Valuation Standards Committee. The name was changed in 1994. The organization's "primary objective is to build confidence and public trust in valuation by producing standards and securing their universal adoption and implementation for the valuation of assets across the world" (IVS, 2020, p. 1).

The IVS aims to fulfil its objective by bringing transparency and consistency to valuation practices. "The standards provide the following:

- identify or develop globally accepted principles and definitions,
- identify and promulgate considerations for the undertaking of valuation assignments and the reporting of valuations,
- identify specific matters that require consideration and methods commonly used for valuing different types of assets or liabilities" (IVS, 2020, p. 1).

IVS can be downloaded from the official web of the IVSC www.ivsc.org

1.1.2 European Valuation Standards

European Valuation Standards are published by the European Group of Valuers' Associations. There are 72 associations from 38 countries and more than 70000

valuers working in the real estate valuation market. The group has published the standards since the beginning of the 1980s. The last, the eighth edition (The Blue Book), was launched at the Brussel's TEGoVA valuation conference in 2016. This year, TEGoVA released the first edition of European Business Valuation Standards based on its members' demand on the European market. The reasons for new publications are the importance of real estate in the business process, changing the economic and professional environment, and the business valuation field's attractiveness. The primary purpose of EBVS is to ensure consistency in important business valuation issues, such as code of conduct, terms of engagement, the definition of value bases, approaches, and reporting (TEGoVA, 2020).

Both of these valuation standards can be found on the official web www.tegova.org

1.2 Basic Definitions

Before analysing the theory of business valuation, it is also necessary to understand the basic definitions.

What is a business? EBVS explains the **business** as "an integrated set of activities and assets that is capable of being conducted and managed for the purpose of providing goods or services to customers, generating investment income (such as dividends or interest) or generating other income from ordinary activities" (EBVS, 2020, p. 13).

In his famous book, Benjamin Graham wrote that a good business generates more money than it consumes and that its value grows in the long run (Graham, 2009). It is necessary to understand the **value**, how it relates to the **price**, and whether there are differences in the meanings. One of the most cited statements of the famous investor, who topped the list of the world's wealthiest people, can be used to understand the difference. Warren Buffett said: "Price is what you pay; value is what you get."

The price is a certain amount of money paid for the business at a given time and place. Many factors influence the price, like supply and demand, economic development stages, and psychological factors. The value, or the objective value, is an amount regardless of the sale's specific circumstances. In theory, the price of a business should correspond to its value (Dlohošová, 2010).

Based on IVS (2020), the word “value” “refers to the judgment of the valuer of the estimated amount consistent with one of the bases of value” (IVS, 2020, p. 5).

Damodaran (2011) highlights that "value is more than a number" (Damodaran, 2011, p. 18). The investor should not be a cynic from the definition of "knows the price of everything and the value of nothing," given by Oscar Wilde. The critical rule of investing is not to pay more than the worth of an asset. Based on the author's opinion, though the value is not accepted the same by different people and any price can be justified, it is incorrect.

Before describing the theoretical essence of **valuation**, its definition must be examined. According to the Oxford dictionary, valuation is a process of estimating something's worth, often provided by professional valuers (Lexico, 2020). IVS defines valuation as “the act or process of determining an estimate of value of an asset or liability” (IVS, 2020, p. 5).

There are two different opinions on the valuation process. The first is that valuation is a complicated science, with little or no place for a human mistake. The second considers the process of valuation to be an art, where the analyst can play with numbers to achieve a desired result. The truth is somewhere in the middle due to several components which are often not taken into consideration (Damodaran, 2016). They are overviewed below.

1.3 Imperfections During the Valuation

Nothing is perfect, including the company’s valuation.

Biases

Bias is present right at the beginning of a valuation when the valuer chooses a company. He chooses to value the company for one reason or another. The valuer has likely been exposed to news, rumours, opinions, or other coverage of the firm which would suggest the company is either over-or undervalued. These sources of information were likely also biased. A bias will continue to be present during the creation of the model. Sources of information, such as an annual report or financial statements, include accounting numbers and management decisions that are always described in the best numbers.

There are also institutional factors which can further amplify an already substantial bias. Key among them is the relationship between professional analysts and the companies they follow and report on. In an effort to maintain good relationships with companies, analysts may issue "buy" recommendations rather than “hold” or "sell". Inputs used by the valuer are also likely to reflect his optimistic or pessimistic view of the company. For example, should a valuer be predisposed to favour a company, then, in his model, he may assign a higher growth rate to the company than would be realistic.

Wrongs

Even the best predications in models, despite being derived from the best sources, will not match the actual outcomes. Mistakes valuers make in the forecast will affect the whole model. The future development of the company can be better or worse than the prediction. Additionally, unforeseen situations may arise in the market which make the model irrelevant. When evaluating a young company, there are more inaccuracies and uncertainties than when evaluating an established company. In this case, collecting and assessing more data may exacerbate inaccuracies rather than reduce them.

Time Influence

Over the past two decades, there has been a trend towards increasing the complexity of valuation models. This has been driven by the development of computer technology and the increased computing power of calculators as well as the greater availability of information. More accurate information to leads to more accurate forecasts. However, the risk that incorrect data will be included in the model is also increased, which leads to the distortion of the final result (Damodaran, 2011).

1.4 Business Valuation Purposes

There is a wide variety of reasons to perform a business valuation. “The purpose for which the valuation assignment is being prepared must be clearly identified as it is important that valuation advice is not used out of context or for purposes for which it is not intended” (IVS, 2020, p. 10).

European Business Valuation Standards (2020) is determining the following valuation purposes:

- Sale or purchase of the company
- Sale or purchase of a business division
- Winding-up of a company
- Merger with another company
- Sub-division of the company into separate businesses
- Financial reporting
- Tax purposes
- Valuations for legal purposes
- Financial restructuring
- Non-cash contributions to other companies
- Estimation of stock-market quotation

Based on Krabec (2009), the reasons for a valuation can be can be grouped as follows:

- Valuation is based on "various business needs such as buying or selling a business, mergers, equity or debt investments, non-cash deposits (including the transfer of all of the company's assets), listing, management buyout or value-oriented management concepts" (Krabec, 2009, p. 214).
- Exceptional valuation standards for external reporting purposes and tax reasons.
- Valuation arising from commercial legislation - such as business agreements, squeeze out, company conversion law.

Valuated objects can have different values at the same time. The value will differ based on the subject and the specific goal of the valuation. The classification of value subjects and purposes is presented in the table below (see Table 1).

Table 1 Classification of Business Valuation Purposes

Subject	Valuation purpose
Company like a legal entity	Ensuring economic security Making a business development plan Shares issue Evaluating the efficiency of management
Owner	Compilation of consolidation and dividing balance sheets during a restructuring Justification of the purchase and sale price of an enterprise or its share Determination of the number of proceeds during the orderly liquidation of an enterprise
Bank	Checking of financial capacity Granting a loan
Insurance company	Determining an insurance fee Determining a sum of insurance payments
Stock market	Calculation of market characteristics Checking the validity of quotations for securities
Investors	Checking the feasibility of investment Determining an acceptable purchase price
State	Preparing the company for privatization Determining the taxes bases Valuation for judicial purposes

Source: (Jesipov, Machovickova, 2016, p. 38)

1.5 Bases of Value

Bases of value describe the predictions on which the value will be based. The valuers should choose the right bases of value by following the valuation purposes. Bases of value can affect the choice of the valuation method, inputs, and a final decision about the value. According to IVS 104 (IVS, 2020), there are six bases of value.

- Market Value
- Market Rent
- Equitable Value

- Investment Value
- Synergistic Value
- Liquidation Value

1.5.1 Market Value

"Market value is the estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion" (IVS, 2020, p. 18).

Definition framework:

The "estimated amount" is the most reasonable price for the assets in a market transaction on the valuation date.

"An asset or liability should exchange" means that the value is a supposed sum, which has not been predetermined before.

"On the valuation date". Because of changing market circumstances, the value has to be specified to the date.

"Between a willing buyer" means that the buyer is motivated, but not obliged, to buy.

"And a willing seller" also describes the prepared transaction participant, a seller who is not compelled to sell.

"After proper marketing" means that the asset has been put up for sale in the most appropriate way in order to sell it at the best price that can be obtained.

"Where the parties had each acted knowledgeably, prudently," means that participants of the transaction were well informed about assets and market circumstances at the valuation date.

"And without compulsion" means that participants' decisions about selling or buying are made independently and neither has been coerced or otherwise influenced or forced to complete the transaction.

There is a professional estimate of the value of assets, in this case, that do not have price quotations to the valuation date. However, an open competitive national or international market exists where this type of asset can be sold. In order for the

estimated market value to be determined, the "highest and best use" condition must be fulfilled (IVS, 2020, p. 20). That means that the use of assets maximizes its economic potential, which is possible, within the law, and financially realistic.

The results from the “highest and best” analysis are used to determine the future business valuation in two scenarios. The first, the **going concern** scenario, supposes the business continues generating a profit by using its assets. The second, the **liquidation scenario**, reflects a situation when the business will not continue to use its assets to generate profits under the current business circumstances (EBVS, 2020).

1.5.2 Market Rent

Market rent is the expected "amount for which an interest in real property should be leased between a willing lessor and a willing lessee" (IVS, 2020, p. 21).

Prerequisites are an established valuation date, proper marketing, and knowledgeable actions of both parties without compulsion. Market rent can be used as a basis of value when evaluating a lease or an interest arising from a lease.

1.5.3 Equitable Value

Equitable value is an estimated amount for the transfer between identified and informed sellers and buyers of asset or liability that reflects both parties' interest. In contradistinction to the market value, equitable value considers the advantages and disadvantages that both parties will have from the transaction. Based on transaction consequences, equitable value requires the estimation of the fair price for both sides. Although the equitable value is a broader perception of the future amount, it will be similar to the market value in many cases.

The estimation of the shareholding price of a non-quoted business for two parties, who will have other conditions in the case of a stock trading, can be an example of using the equitable value concept (IVS, 2020).

1.5.4 Investment Value

Investment value "is the value of an asset to a particular owner or prospective owner for individual investment or operational objectives" (IVS, 2020, p. 22). Investment value reflects the amount that can be realized in selling assets and liabilities to other

parties and takes into account advantages and benefits from holding the assets, which would not involve the supposed exchange. Investment value also considers the current circumstances and financial purposes of the object of valuation. This value base is often used to measure investment performance (IVS, 2020).

1.5.5 Synergistic Value

Synergistic value is based on the parties' expectations and requirements (Trigman, 2016), reflects the interests' combination result, which is higher than a sum of separate values (Caruso, 2020).

1.5.6 Liquidation Value

"Liquidation value is the estimated amount that the dissenting creditors or equity holders could reasonably expect to receive in the event of the liquidation of the debtor's business, whether by piecemeal liquidation or by sale as a going concern, depending on the particular circumstances of each debtor" (EVBS, 2020, p. 38). Liquidation value is used during a company's liquidation scenario or following highest and best use research which demonstrates a liquidation to be advantageous to a going concern basis (EVBS, 2020).

1.5.7 Fair Value

There are also bases of value that are not defined in the IVS. These are bases of value provided for by the legislation of individual jurisdictions or recognized and accepted in the framework of international agreements. Fair value is one of such bases. Depending on the context, there varying definitions of fair value.

In the investment, fair value is an asset price determined by willing parties and accepted in the market. Although fair value is similar to the market value, which is related to the asset price, it is not equal because of imperfect market dynamics. Fair value is a comprehensive measure of an asset's worth.

Accounting perceives fair value as the estimated worth of assets and liabilities based on the company's financial statement (Chen, Scott, 2020a).

International Accounting Standards Board published IFRS 13 fair value measurement that defines fair value as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal market at

the measurement date under current market conditions regardless of whether that price is directly observable or estimated using another valuation technique "(IFRS 13, 2020, p. A675).

1.6 Valuation Measures

It is also necessary to define the measure of a company's total value. This means that a valuation must specify if a firm has been evaluated inclusive of its obligations, or if the only equity has been considered. Two value measures are equity value and enterprise value.

1.6.1 Equity Value

Equity value, or shareholder equity, reflects the company's total value that is referable to investors' equity; in other words, it is a value of shareholders' interest. It is a more accurate measure of a companies' net worth (Silver, 2020).

Other common terms for equity value include: market value, offer value, market capitalization (Training the street, 2015).

The formula to calculate the measure is presented below.

$$Equity\ Value = Share\ Price \times Fully\ Diluted\ Shares\ Outstanding \quad (1)$$

Calculation of fully diluted shares outstanding is in the following table (see Table 2).

Table 2 Fully Diluted Shares Outstanding Calculation

Basic Shares Outstanding
+ "In-the-Money" Options and Warrants
+ "In-the-Money" Convertible Securities
= Fully Diluted Shares Outstanding

Source: (Rosenbaum, Pearl, 2013, p. 30)

The total shares described by in-the-money options and warrants are calculated under the treasury stock method. Shares represented by "in-the-money" convertible securities are defined with the if-converted method.

The treasury stock method. The TSM supposes that in-the-money options and warrants are realized at their strike price. Then the option proceeds are used to repurchase the companies' outstanding shares at the current market price. "In-the-

money" means that the options and warrants realization price is lower than the current market share price. "As the strike price is lower than the current market price, the number of shares repurchased is less than the additional shares outstanding from exercised options. This results in a net issuance of shares, which is dilutive" (Rosenbaum, Pearl, 2013, p. 31).

If-converted method. Under this method, in-the-money cash-pay convertible bonds are converted into incremental shares by their conversation price (Rosenbaum, Pearl, 2013).

1.6.2 Enterprise Value

Enterprise value, or firm value, is a company's total value measure, including short and long-term debts, cash, and cash equivalents.

The formula for EV calculation is in the table below (see Table 3).

Table 3 Enterprise Value Calculation

Equity Value
+ Total Debt
+ Preferred Stok
+ Minority Interest
- Cash & Cash Equivalents
= Enterprise Value

Source: (Rosenbaum, Pearl, 2013, p. 35)

An alternative formula:

$$EV = Market\ Capitalization + Total\ Debt - Cash\ \ Equivalents \quad (2)$$

EV can be the theoretical takeover price of a company in the case of selling or buying. It is also used in many financial multiples that reflect the companies' performance (Murphy, 2020).

1.7 Recommended Valuation Steps

The valuation process varies based on the valuation purposes, bases of value, valuation approaches, and available dates (Mařik, 2018).

The Czech professor Mařik (2018) suggests the following valuation steps:

1) Input Data Collection

These are data identifying the company. For example, name, legal form, business subject, ownership shares information, history of the company, and management structure.

The following important information is economic **data**. Financial statements, annual reports, and business plans are examples of economic inputs.

Next is **market information**. Market segmentation, development forces, attractiveness, and size fall under this category.

It is also necessary to collect data about **competitors**. Who are the main competitors? Are there substitute products on the market? What are the barriers to entry into the segment? The valuer should answer all these questions.

Marketing also plays an important role in valuation. The pricing policy, comparison of the product with competitors, advertising expenses, sales channels should be overviewed.

2) Data Analysis

The next recommended step is data analysis. The valuer performs data analysis using strategic analysis and financial analysis as covered under section 1.8.

3) Financial Plan Creation

In the case that the valuer is using the income approach, then a financial plan must be drawn up. Otherwise, if the valuer is using, for example, the market approach, then a financial plan is not necessary.

The step-by-step theory behind creating a financial plan is described in the discounted cash flow method section (see discounted cash flow method step 2).

4) Valuation

The final step is the valuation by the selected method.

1.8 Data Analysis

1.8.1 Strategic Analysis

The strategic analysis of the company is an essential activity which aims to provide information about the company's current situation and to analyse all relevant factors

that could affect its future development. For the strategic analysis to be complete, it must present the whole business, including details.

There are numerous strategic tools which help organize the information relevant to valuing the company. The most popular and widely applied practice will be demonstrated in this thesis.

The business model Canvas. Canvas is a strategic planning tool used to describe business models. This model suits both new and established companies. It has a one-page matrix form showing all the business processes of a company. This strategic tool was developed by Alexander Osterwalder and Yves Pigneur (2010).

The matrix consists of nine interrelated blocs that illustrate the company's activities: key activities, key partnerships, key resources, customer segments, channels, customer relationship, value proposition, cost structure, and revenue streams.

The next strategic tool, which will be used in the practical section, is **PESTLE analysis**. PESTLE analysis describes macro-environmental factors, including political, economic, social, technological, legal, and environmental factors.

Table 4 provides an overview of the framework along with possible factors to consider. It is the valuer’s responsibility to ensure that all of the appropriate factors are included in the analysis.

Table 4 PESTLE Analysis components

P	Government policy Political stability Foreign trade policy	Tax policy Trade restrictions Tariffs
E	Economic growth Interest rate Exchange rate	Inflation Wages rates
S	Population growth Age distribution	Cultural trends Customer buying trends
T	Producing goodsand services The rate of technological change	Technology incentives Automation
L	Equal opportunities Advertising standards Consumer rights and laws	Labour lows Competitive legislation
E	Business ethics and sustainability	Environmental legislation

Source: (Thiele, 2018)

After determining the macro-environmental factors, the next step is to assess the microenvironment estimation. One of the most popular tools for doing so was published in 1979 by Michael Porter in the Harvard Business Review. **Porter's five forces analysis** suggests that five driving forces in the market determine a company's potential profit level. Each force in Michael Porter's model represents a different level of product competitiveness.

Porter's five forces are:

- Competition in the industry
- Power of suppliers
- Power of customers
- Potential of new entrants into the industry
- The threat of substitute products

This model is widely used in practice to analyse the company's industry structure and its corporate strategy.

The final strategic analysis tool, **SWOT analysis,** combines the results of the previous findings in a matrix of strengths, weaknesses, opportunities, and threats.

1.8.2 Financial Analysis

Financial statement analysis reviews a company's statements in order to understand its financial health, business performance, and value. The goals of the financial statement analysis may differ between parties. Investors use the analysis to evaluate a company's long-term earning power. Creditors consider debts and interest payments a company owns as well as the cash flows. Management reviews the results and searches for areas of untapped potential (Kenton, Kindness, 2020).

Based on HSE professor Grigorieva (2017), there are three common financial statement analysis techniques:

- Horizontal analysis
- Vertical analysis
- Ratio analysis

Horizontal analysis, or trend analysis, "is a technique for evaluating a series of financial statement data over a period of time. Its purpose is to determine the increase or decrease that has taken place" (Weygandt, Kimmel, Kieso, 2009, p. 647).

Both absolute comparisons and percentage comparisons are used in the analyses. Horizontal analysis provides insight into a company's financial performance drivers and uncovers possible spot trends and growth patterns, such as seasonality (Tuovila, James, 2020).

Vertical analysis, or common-size analysis, "is a technique that expresses each financial statement item as a percent of a base amount" (Weygandt, Kimmel, Kieso, 2009, p. 651). The analysis shows the relative size of each category in a financial statement.

Ratio analysis “expresses the relationship among selected items of financial statement data" (Weygandt, Kimmel, Kieso, 2009, p. 654).

Table 5 provides an overview of financial ratios.

Table 5 Financial Ratios Overview

Profitability Ratios	Liquidity Ratios
Gross margin	Current ratio
Operating margin	Quick ratio
Net profit margin	Cash ratio
EBITDA margin	Cash conversion cycle
Operating cash flow margin	Operating cash flow ratio
Return on assets	Receivables turnover
Return on equity	Inventory turnover
Return on capital employed	Working capital turnover
Leverage Ratios	**Valuation Ratios**
Debt to total assets	Price-to-earnings
Debt to equity	Price-to-book
Interest coverage ratio	Price-to-sales
Net income to liabilities	Price-to-cash flow

Source: (Elmerraji, 2021)

As can be observed in Table 5, there is a large number of financial ratios. Because financial ratios are used in the comparable companies method, the most commonly used ratios, based on Rosenbaum and Pearl (2013), are described in the next section of the thesis (see the comparable companies method step 3).

1.9 Valuation Approaches Overview

In practice, analysts use a wide range of models, starting from the simplest to the most complicated and sophisticated. The assumptions on which these models are based differ. Nevertheless, they have some similarities, which can be divided into broad categories (Damodaran, 2016).

Damodaran (2005) split the valuation methods into four valuation approaches:

Discounted cash flow valuation. In general, the purpose of a discounted cash flow valuation is to find the present value of the supposed future cash flows associated with an asset.

Liquidation and accounting valuation is based on the existing firm assets valuation.

Relative valuation. The idea is to compare the prices of similar assets relative to a common variable—for example, cash flows, sales, or book value.

Contingent claim valuation "uses option pricing models to measure the value of assets that share option characteristics" (Damodaran, 2005, p. 2).

Valuation methods can be identified from another perspective. In that case, approaches will be classified into earning-based, market-based, and asset-based valuation (Kumar, 2015).

IVS (2020) defines three main approaches to business valuation, which confirms the information described above. "They are all based on the economic principles of price equilibrium, anticipation of benefits, or substitution" (IVS, 2020, p. 29).

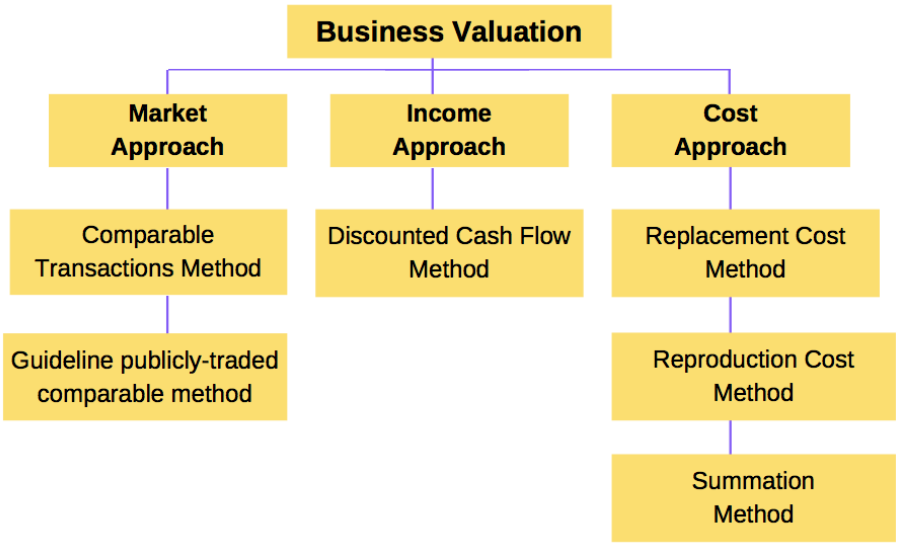
The following approaches exist:

- **Market approach**
- **Income approach**
- **Cost approach**

Standards highlight that the chosen method must reflect the valuation purpose. There is no standard method that suits all circumstances.

Each assessment approach includes several methods. Referring to paragraph 10, the evaluator, in case of high confidence in the chosen method's correctness, is not obliged to use more than one. However, the possibility of using other methods should be implied.

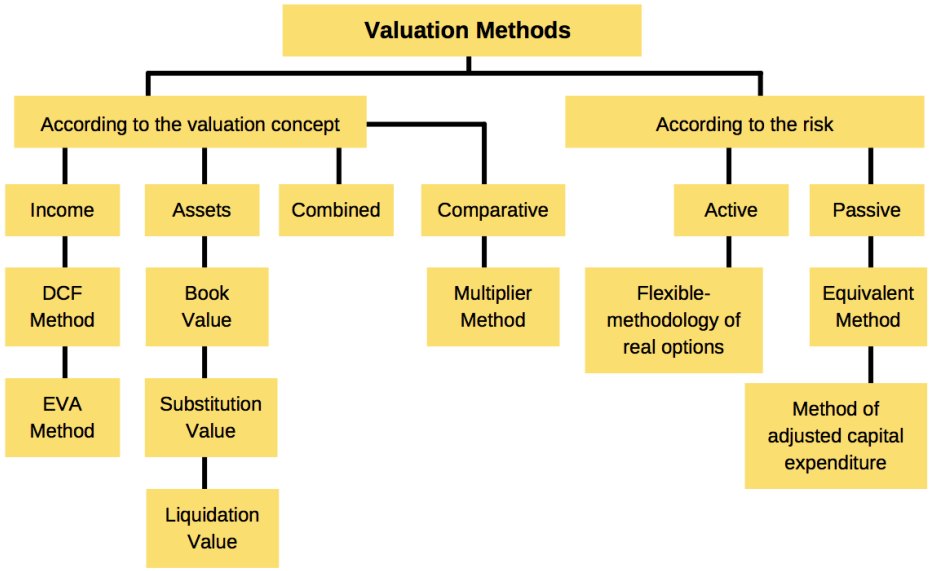
International Valuation Standards (2020) describe some valuation methods. They are visualized below (see Figure 1).



Source: (IVS, 2020)

Figure 1 Valuation Approaches and Methods

There are numerous valuation methods. Several sources provide a more detailed spectrum. The overview given below (see Figure 2) is taken from the pages of the Czech author Dlohošová (2010).



Source: (Dlohošová, 2010, p.173)

Figure 2 Valuation Methods Overview

Two methods will be used in the practical section of the thesis: the comparable companies method and the discounted cash flow method. The underlying theory behind these methods will be covered in detail.

1.10 Comparable Companies Method

The comparable companies method is one of the bases for valuing a company, business, or a collection of assets. This method provides a market benchmark that a valuer can use to establish a private company value or analyze the value of a public trading company at a specific time. There is a broad spectrum of applications: investment decisions, initial public offerings, mergers & acquisitions, and restructurings.

The tenet of the method is the idea that "similar companies provide a highly relevant reference point for valuing a given target due to the fact that they share key business and financial characteristics, performance drivers, and risks" (Rosenbaum, Pearl, 2013, p. 13). Consequently, the valuer can determine the target valuation parameters by analyzing its relative position between equal companies. This method involves determining a comparable companies universe for the target. These selected companies are benchmarked against the financial statistics and ratios of the valuation target and one another. Then, trading multiples are calculated for the comparable companies' universe. The universe is the base for determining a valuation range. "This valuation range is calculated by applying the selected multiples to the target's relevant financial statistics" (Rosenbaum, Pearl, 2013, p. 13).

The following steps are used in the comparable companies method:

1. Select the universe of comparable companies
2. Locate the necessary financial information
3. Spread key statistics, ratios, and trading multiples
4. Benchmark the comparable companies
5. Determine valuation

1.10.1 Step 1. Select the Universe of Comparable Companies

The selection of a comparable companies' universe for the target is the basis for performing the method. This task can be simple for certain sectors and relatively complicated for others. Companies should be selected on the basis of profitability, risks, and future growth. There is little opportunity to find companies for which these parameters will be identical. That is why a simpler framework for selecting

comparable companies is shown below (see Table 6). This framework compares companies by profiling, core business, and financial characteristics.

Table 6 Business and Financial Profile Framework

Business profile	Financial profile
Sector	Size
Products and services	Profitability
Customers and markets	Growth profile
Distribution channels	Return on investments
Geography	Credit profile

Source: (Rosenbaum, Pearl, 2013, p. 18)

1.10.2 Step 2. Locate the Necessary Financial Information

After determining the comparable universe, the valuer should locate the necessary financial information. This data will be used for analysing selected companies and calculating ratios, financial statistics, and multiples. There are comprehensive primary information sources for calculating these metrics, including SEC filings, press releases, and equity research reports[1]. A summary of primary financial data sources is listed in Table 7. The exact financial reports available significantly depend on the jurisdiction of a company.

[1] Equity research report is a study of a company and its circumstances. It usually concentrates on financial analysis, disclosures, industry analysis, projections.

Table 7 Summary of Financial Data Primary Sources[2]

Information Item	Source
Income Statement Data	
Sales Gross Profit EBITDA EBIT Net Income	10-K, 10-Q, 8-K Press Release
Balance Sheet Data	
Cash Balance Debt Balance Shareholders' Equity	10-K, 10-Q, 8-K Press Release
Cash Flow Statement Data	
Depreciation & Amortization Capital Expenditures	10-K, 10-Q, 8-K Press Release
Share Data	
Basic Shares Outstanding	The most recent data
Market Data	
Share Price Data	Bloomberg Yahoo Finance Reuters

Source: (Rosenbaum, Pearl, 2013, p. 27)

The Securities and Exchange Commission is a US federal agency created by the Securities Exchange Act of 1934. The purpose of the Commission was to restore investor confidence in the stock market during the Great Depression. The SEC supervises and regulates the securities market in the US. It provides three central tasks: protecting investors, facilitating capital formation, and maintaining fair, orderly, and efficient markets (SEC, 2020).

10-K. The 10-K is an annual report which provides an overview of the company's prior year performance. The report provides comprehensive information, including the management's discussion & analysis, a detailed description of the company, audited financial statements, basic shares outstanding, and debt detail. The 10-K

[2] The exact financial reports available significantly depend on the jurisdiction of a company.

also contains vast data about the company's sector, business segment, end markets, customers, recent events, acquisitions, and risks.

10-Q. The 10-Q is the quarterly report. It is less comprehensive than the 10-K report. The report reviews the latest quarter and year-to-date period. Similarly, to the 10-K, the 10-Q includes financial statements, share count information, MD&A, and reviews the company's recent performance.

8-K. An 8-K is issued whenever the company must report a significant change or event which is important to and relevant for shareholders or security holders. Triggering events may include earning announcements, capital market transactions, acquisitions, disposition of assets, bankruptcies.

Proxy Statement. "A proxy statement is a document that a public company sends to its shareholders prior to a shareholder meeting containing material information regarding matters on which the shareholders are expected to vote" (Rosenbaum, Pearl, 2013, p. 25).

Press Release. A press release is issued when the company must announce critical information to the public. Press releases are often issues to announce earnings, management changes, M&A activity, capital market transactions, or declare dividends.

1.10.3 Step 3. Spread Key Statistics, Ratios, and Trading Multiples

After locating the necessary financial information, a valuer is prepared to spread fundamental ratios, statistics, and multiples. The valuer calculates equity value, enterprise value, essential income statement items, ratios, and metrics. Trading multiples are then calculated by using selected financial statistics.

Key Financial Data

Sales. The amount realized by a company's activity during a given period is the primary factor demonstrating the company's position among its peers.

Gross profit. The amount earned by a company after subtracting production costs. The calculation formula is sales less cost of goods sold. Gross profit is an indicator of operational efficiency and pricing power.

EBITDA. It is an important indicator of profitability.

EBIT. It is a useful measure for comparing companies with different capital structures.

Net income. The residual profit after a company's expenses. "Earnings available to equity holders once all of the company's obligations have been satisfied" (Rosenbaum, Pearl, 2013, p. 37).

Profitability

Gross profit margin. The measure shows the percentage of sales after subtracting COGS. A direct cost per unit drives this measure.

$$Gross\ Profit\ Margin = \frac{Sales - COGS}{Sales} \tag{3}$$

EBITDA and EBITDA Margin are metrics showing a company's operating profitability.

$$EBITDA\ Margin = \frac{EBITDA}{Sales} \tag{4}$$

$$EBIT\ Margin = \frac{EBIT}{Sales} \tag{5}$$

Net income margin is affected by capital structure. It measures a company's overall profitability.

$$Net\ Income\ Margin = \frac{Net\ Income}{Sales} \tag{6}$$

Return on Investment

Return on capital employed determines the return generated by all capital.

$$ROCE = \frac{EBIT}{Total\ Assets - Total\ Current\ Liabilities} \tag{7}$$

Return on equity indicates "the return generated on the equity provided to a company by its shareholders" (Rosenbaum, Pearl, 2013, p. 39). Companies are concentrated on shareholder returns. That is why this indicator is important for showing the company's performance.

$$ROE = \frac{Net\ Income}{Average\ Shareholders'\ Equity} \tag{8}$$

Return on assets "measures the return generated by a company's asset base, thereby providing a barometer of the asset efficiency of a business" (Rosenbaum, Pearl, 2013, p. 39).

$$ROA = \frac{Net\ Income}{Average\ Total\ Assets} \quad (9)$$

Credit Profile

Leverage. Leverage refers to a debt level of a company. It discloses data about the risk profile, financial policy, and growth capacity of a company. Higher leverage leads to higher financial distress risk.

$$Leverage = \frac{Debt}{EBITDA} \quad (10)$$

Debt-to-total-capitalization determines the debt of a company as a percentage of its capitalization. A higher result indicates a higher risk of financial distress.

$$Capitalization\ Ratio = \frac{Debt}{Debt + Preferred\ stock + Noncontroling\ Interest + Equity} \quad (11)$$

Coverage. Coverage is a broad term that describes a company's ability to "cover" its interest obligations. A higher ratio means the company's position to deal with its obligations is stronger; consequently, leading to a better credit profile.

$$Interest\ Coverage\ Ratio = \frac{EBITDA,\ (EBITDA - Capex),\ or\ EBIT}{Interest\ Expense} \quad (12)$$

Supplemental Financial Concepts and Calculations

Calculation of LTM financial data. Public companies must publicize their financial performance quarterly and report full year performance at the end of the fiscal year. To measure a company's financial performance for the LTM period, a valuer should sum up the financial results of the last four quarters. "LTM financials are typically calculated by taking the full prior fiscal year's financial data, adding the YTD financial data for the current year period ("current stub"), and then subtracting the YTD financial data from the prior year ("prior stub")" (Rosenbaum, Pearl, 2013, p. 42).

$$LTM = Prior\ Fiscal\ Year + Current\ Stub - Prior\ Stub \quad (13)$$

Adjustments for non-recurring items. A valuer should adjust reported financial data for non-recurring items to analyse a company's financial performance correctly.

Otherwise, the future company's valuation may be incorrect. The adjustments mean the adding back or eliminating of one-time gains and charges. The charges include the following items: restructuring events, changes in accounting principles, losses on asset sales, goodwill impairment, inventory write-off, losses from litigation settlements, and others. Typical benefits are favorable litigation settlements, tax adjustment, gains from assets sales, and others. The sources of information about non-recurring items are the MD&A, 10-K, 10-Q, and earnings announcements. These items are often described as "one-time", extraordinary", "non-recurring", or "unusual".

Calculation of Key Trading Multiples

After the key financial statistics spreading, a valuer calculates the trading multiples for the comparable universe. The most widely used multiples include a market valuation measure in the numerator and the financial performance measure in the denominator.

Equity Value Multiples

Equity value multiples include a financial statistic that flows to equity holders. Price-to-Earnings ratio is the most common and the most widely recognized multiple. Assuming the current profit level is maintained, the P/E ratio shows how many years it will take for an investment into the company to pay off. The P/E ratio is equivalent to equity value-to-net income. "These ratios can also be viewed as a measure of how much investors are willing to pay for a dollar of a company's current or future earnings" (Rosenbaum, Pearl, 2013, p. 47). A company that has a higher P/E ratio than its peers tends to have higher earnings growth expectations.

Two formulas for P/E calculation are shown below.

$$P/E = \frac{Share\ Price}{Diluted\ EPS} \tag{14}$$

$$P/E = \frac{Equity\ Value}{Net\ Income} \tag{15}$$

Enterprise Value Multiples

Unlike the previous multiples, enterprise value multiples include a financial statistic that flows to equity and debt holders. The denominator employs financial statistics

such as EBIT, EBITDA, and sales. The most widely used multiples are EV/EBITDA, EV/EBIT, and EV/Sales.

In certain cases, a company may have negative EBITDA or EBIT, or not produce sales, as is frequently the case in high-growth start-ups. In these situations, the primary valuation multiples shown below cannot be applied; other denominators must be used. For instance, pre-revenue technology firms whose business model relies on an active user base may utilize an EV to “active subscribers” or “monthly active users” multiple.

The appropriateness of a multiple is often determined by industry adoption and will develop over time. The aforementioned EV to average monthly users multiple was not commonly used 30 or 40 years ago because few, if any, such business models existed at the time. The types of valuation multiples evolve over time alongside evolving industries and business models (Haught, 2017).

The Most Commonly Used Valuation Multiples

The EV/EBITDA Multiple ratio shows how long the company's unspent on amortization and interest and taxes profit will pay off the cost of acquiring the company. It is independent of capital structure and taxes. The calculation is shown below.

$$\frac{EV}{EBITDA} \tag{16}$$

The EV/EBIT Multiple is similar to the previous one. Nevertheless, it takes into account the depreciation expense. This multiple may be utilized in industries where equipment costs are high.

$$\frac{EV}{EBIT} \tag{17}$$

Enterprise Value-to-Sales Multiples. This multiple is less relevant than others described above. Sales can indicate size, "but it does not necessarily translate into profitability or cash flow generation, both of which are key value drivers"(Rosenbaum, Pearl, 2013, p. 48). EV/Sales is often used for checking the earning base multiples.

$$\frac{EV}{Sales} \tag{18}$$

1.10.4 Step 4. Benchmark the Comparable Companies

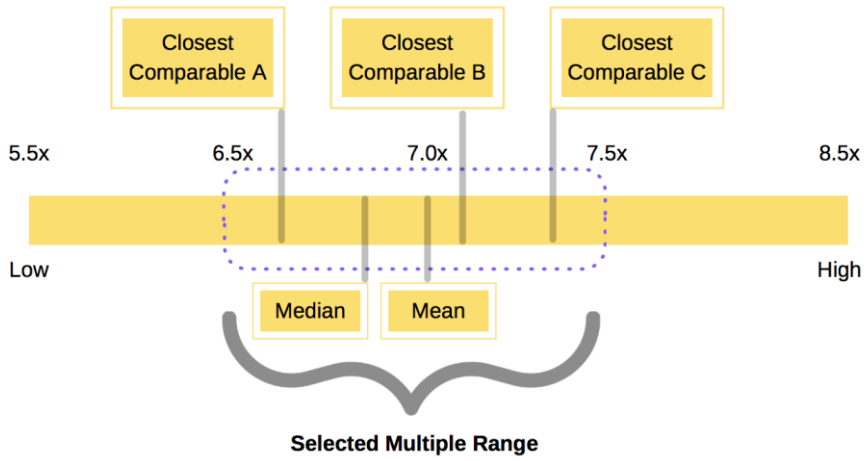
Based on Rosenbaum and Pearl (2013), the next step in the comparable companies method is performing the benchmarking analysis. It means comparing the peer companies with one another and the target. "The ultimate objective is to determine the target's relative ranking to frame valuation accordingly" (Rosenbaum, Pearl, 2013, p. 48).

The benchmarking exercise is separated into two stages. The first is comparing the key financial ratios and statistics. The second is analysing the trading multiples for the peer group. The results of this exercise are displayed in an easy-to-compare form on spreadsheet output pages. These pages also show the median, mean, maximum, and minimum for the comparable universe, establishing the target's valuation range.

1.10.5 Step 5. Determine Valuation

The trading multiples are the basis for a valuation range for the target. The valuer uses the means and medians of the multiples to determine a range of multiples. The high and low multiples provide further guidance. Finally, the most similar peer companies (ideally two or more) provide the final valuation basis, while the broader group provides reference points.

Figure 3 illustrates a multiple range for a target based on three comparable companies (“comparables”). They are traded in the range of 6.5x to 7.5x EBITDA. The high/low range is from 5.5x to 8.5x, a mean of 7.0x and a median of 6.8x.



Source: (Rosenbaum, Pearl, 2013)

Figure 3 Selected Enterprise Value-to-EBITDA Multiple Range

The selected multiple range is then applied to the financial statistics to obtain the valuation range.

Pros and Cons

Pros

- Market-based; information that a valuer uses for valuation is based on relevant public data that reflects the market's overall sentiments, including growth and risk expectations.
- Quick and convenient; a valuer can determine a valuation based on a few inputs.
- Current; data that are used in the valuation can be updated daily.

Cons

- Market-based; data from the market can be skewed during some periods, named "irrational exuberance" or "bearishness".
- Absence of relevant comparables; in some cases, it is difficult to identify the relevant peer group. Consequently, the valuation can be less meaningful.
- Potential disconnect from cash flow; valuation based on market data can significantly vary from the projected cash flow valuation.

A valuer should also compare valuation results from the comparable companies method to other methodologies. In this thesis, the discounted cash flow method will be used.

1.11 Discounted Cash Flow Method

The discounted cash flow method is a primary method used in practice by investment bankers, investors, university professors, corporate officers, and other finance professionals. The main principle of this method is the time value of money. The value of the company is determined from the present value of its projected free cash flow. Projected free cash flow is derived from the future expected company's performance.

The valuation implied by DCF is also known as the company's intrinsic value. This value measure is compared to the market value of the company. Consequently, the DCF method is an alternative to the market-based valuation methods, such as the comparable companies method described in the previous chapter.

There are two DCF methods. The first is the *DCF entity* method. The purpose of the method is to value the whole company. Free cash flow to the firm or unlevered free cash flow is the metric used in this method. FCFF is independent of capital structure.

The second is the *DCF equity* method that evaluates the holders' equity. In this case, only the projected free cash flows (free cash flow to equity) available to equity holders are used (Mařik, 2018).

There are five steps to performing a DCF valuation based on Rosenbaum and Pearl (2013).

1. Study the target and determine the key performance drivers
2. Project free cash flow
3. Calculate the weighted average cost of capital
4. Determine the terminal value
5. Calculate the present value and determine the valuation

1.11.1 Step 1. Study the Target and Determine Key Performance Drivers

First, the valuer must study and analyse as much as possible about the target company; its business model, financial profile, end markets, customers, and competitors. This exercise will be completed during the strategic analysis.

Next, the essential drivers of a company's performance for supporting a defensible set of free cash flow projections must be determined. These drivers can be internal and external. Internal drivers include opening new stores/facilities, securing new customer contracts, developing a new product, and improving working capital efficiency. Acquisitions, customer buying patterns, end market trends, legislative changes, and macroeconomic factors are examples of external drivers.

1.11.2 Step 2. Project Free Cash Flow

After analyzing the target’s significant performance drivers, a valuer can project its free cash flow. As was mentioned before, there are two DCF methods. The commonly used is the DCF entity method, which will be applied in the practical section. In the case of this method, free cash flow represents the cash available for both debt and equity holders.

The formula for calculating FCF is presented in Table 8.

Table 8 Free Cash Flow Calculation

1	Earnings Before Interest and Taxes
2	Less: Taxes
3	**Earnings Before Interest After Taxes**
4	Plus: Depreciation & Amortization
5	Less: Capital Expenditures
6	Less: Increase/(Decrease) in Net Working Capital
7	**Free Cash Flow**

Source: (Rosenbaum, Pearl, 2013, p. 131)

Considerations for Projecting Free Cash Flow

Historical Performance

Historical performance can provide important information for the DCF projection. Past ratios are often reliable indicators of the company's future performance. In practice, the length of the historical performance is three years. "This historical financial data is sourced from the company's financial statement with adjustments made for non-recurring items and recent events, as appropriate, to provide a normalized basis for projecting financial performance" (Rosenbaum, Pearl, 2013, p. 131).

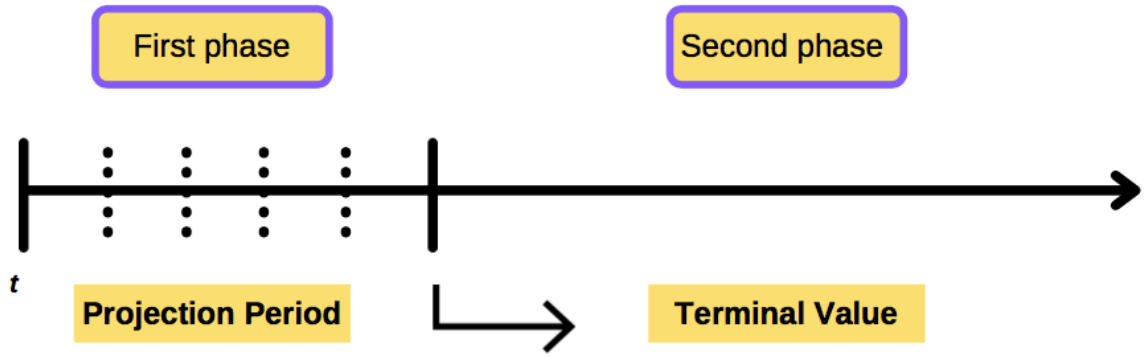
Projection Period Length

In practice, it is usually assumed that the company will exist indefinitely ("going concern" scenario). There is a question of how to determine the cash flows for the following years. The literature provides two solutions:

- Standard two-phase method
- Methods based on estimating average growth rates

The standard two-phase method is more commonly used. The method is based on the idea that the forecast period can be divided into two phases. The first phase is a projection period determined by the valuer. The second phase is a terminal value; the company's value beyond the projection horizon.

Figure 4 displays the graphical representation of this method.



Source: (Mařík, 2018)

Figure 4 Two-phase DCF method

The length of the first phase can be determined based on several approaches:

- depending on the period in which the company is expected to be able to generate positive economic value added
- depending on the life cycle of the company
- depending on the phase of the business cycle
- the period following which the company has reached a state of equilibrium
- a period length equal to the plans prepared by the management of the valued company (Mařík, 2018).

Typically, a valuer projects the first period for five years depends on the company's stage of development, sector, and the predictability of its financial performance. A five-year projection usually covers one business cycle and "allows sufficient time for the successful realization of in-process or planned initiatives" (Rosenbaum, Pearl, 2013, p. 132).

Sales Projection

The sales projection is based on the strategic analysis results. It should reflect the company's future performance expectations. "Consensus estimates[3] for peer companies can be used as a proxy for expected sales growth rates, provided the trend line is consistent with historical performance and sector outlook" (Rosenbaum,

[3] Consensus estimates “is a forecast of a public company's projected earnings based on the combined estimates of all equity analysts that cover the stock” (Chen, Scott, 2020b).

Pearl, 2013, p. 133). Additional sources include industry reports and consulting studies, which provide long-term sector trends and growth rates. A valuer should pay attention to the sales projection for a highly cyclical business, which is more volatile and depends on its point in the cycle.

COGS and SG&A Projections

For COGS and SG&A projection, a valuer relies upon historical data and strategic analysis estimations. For the years beyond the projection period, it is typical to hold the COGS and SG&A as a constant percentage of sales.

EBITDA and EBIT Projections

A two- or three-year period is often sourced from consensus estimates. These projections cover gross profit performance and SG&A expenses. An ordinary EBITDA and EBIT projections approach for the following years holds the margin at the same level as the last year from the consensus estimates. A valuer may also analyse the historical trends and consensus estimates for other segments' companies to comprehend the projected margin.

Tax Projections

The first step for calculating FCF from EBIT is to deduct tax. The result is Earning Before Interests after Taxes or Net Operating Profit After Taxes.

$$EBIAT = EBIT \times (1 - t) \quad (19)$$

t – tax rate

Depreciation & Amortization Projections

"Depreciation is a non-cash expense that approximates the reduction of the book value of a company's long-term fixed assets or property, plant, and equipment over an estimated useful life[4] and reduces reported earnings" (Rosenbaum, Pearl, 2013, p. 135).

[4] Useful life is the length of time the asset can generate income and benefit the company (Maverick, 2020).

There are two depreciation methods: the straight-line method, which assumes uniform expense, and the accelerated method. Under the accelerated method, the asset loses its value faster at the beginning of its useful life.

For a DCF projection, depreciation is often designed as a percentage of sales or capital expenditures related to the historical performance. The values of previous years reflect a company's capital spending, which may support top-line growth.

An alternative approach assumes the creation of a detailed PP&E schedule. This schedule is based on the company's existing depreciable PP&E base and includes an incremental capital expenditures projection. In this case, a valuer who chose the alternative approach has to assume an average remaining life for the PP&E base and new capex. Based on Rosenbaum and Pearl (2013), the final result of either approach would not be substantially different.

For a DCF model designed on an EBITDA and EBIT projection, depreciation (and amortization) may be calculated as the difference between them. In this case, a valuer must be sure that the implied D&A is consistent with the projections' historical level and capital expenditures.

In contrast to depreciation, amortization reduces the value of definite life intangible assets. Definite life intangible assets include licenses, patents, copyright, intellectual property, customer lists, information technology, and others.

Amortization can also be projected by same two methods described above for depreciation; as a percentage of sales or by creating a schedule of the company's intangible assets. Amortization and depreciation are often combined in the financial statement as a part of one line-item.

Capital Expenditures Projections

"Capital expenditures are the funds that a company uses to purchase, improve, expand, or replace physical assets such as buildings, equipment, facilities, machinery, and other assets. Capex is an expenditure as opposed to an expense" (Rosenbaum, Pearl, 2013, p. 137). It is reflected in the balance sheet once and then expended as depreciation in the income statement.

Historical capex is disclosed on the cash flow statement under the section of investing activities. It is also disclosed in the 10-K under the MD&A section or in

research reports. Research reports often describe expenditures for the future period. The historical level can be used for projecting future capex. However, a valuer must consider a company's sector, strategy, and phase of operations, all of which could affect the capex projection, causing it to differ from historical values.

Change in Net Working Capital Projections

Net Working Capital "serves as a measure of how much cash a company needs to fund its operations on an ongoing basis" (Rosenbaum, Pearl, 2013, p. 137).

All of the necessary components to calculate NWC are in the company's balance sheet. Table 9 shows the main current assets and liabilities considered in NWC.

Table 9 Current Assets and Liabilities Components

Current Assets	Current Liabilities
Accounts Receivable	Account Payable
Inventory	Accrued Liabilities
Prepaid Expenses	Other Current Liabilities
Other Current Assets	

Source:(Rosenbaum, Pearl, 2013, p. 137)

The formula for calculation NWC is the following.

NWC = (Accounts Receivable + Inventory + Prepaid Expenses and Other Current Assets) - (Accounts Payable + Accrued Liabilities + Other Current Liabilities) (20)

The change in NWC is an important component of the discounted cash flow calculation. This indicator reflects the company's annual source or use of cash. An increase in NWC, as well as an increase in A/R, means the use of cash. On the other hand, an increase in A/P is a source of cash.

For the FCF calculation, a positive change (an increase in NWC) is subtracted from EBIAT. Conversely, if the change in NWC represents a source of cash, then the value is added to EBIAT.

The following formula presents the calculation of YoY change in NWC.

$$\Delta\ NWC = NWC_n - NWC_{(n-1)} \quad (21)$$

n – the most recent year

(n - 1) – the prior year

A valuer projects the current assets' and liabilities' individual components for the following years in the projection period. Then, NWC and YoY change are calculated.

Current Assets

Account Receivable

Accounts receivable is an accounting term that refers to amounts owed to a company for products and services by its customers. In other words, amounts of products and services sold on credit. A/R is projected on the days' sales outstanding basis.

$$DSO = \frac{A/R}{Sales} \times 365 \tag{22}$$

DSO represents how well a company manages its A/R. The number of days demonstrates, on average, how long it will take the company to receive payment following a sale. Accordingly, companies try to reduce their DSO. Numerous factors can cause an increase in DSO, including: customer leverage during renegotiation of payment terms, poor collection systems, worsening customer credit, or a change in product mix.

Inventory

Inventory refers to the company's raw materials, finished goods, and work in progress. A valuer projects inventory on the days' inventory held basis.

$$DIH = \frac{Inventory}{COGS} \times 365 \tag{23}$$

DIH determines the number of days it takes for the company to sell its inventory. Companies also tend to minimize the length of DIH.

An alternative approach for measuring the efficiency of the company at selling its inventory is the turns ratio. This ratio represents the "number of times a company turns over its inventory in a given year" (Rosenbaum, Pearl, 2013, p. 139).

$$Inventory\ Turns = \frac{COGS}{Inventory} \tag{24}$$

Prepaid Expenses and Other Current Assets

The company accumulates prepaid expenses before receiving a product or providing a service. Insurance premiums could be an example of prepaid expenses. A valuer will project this asset as a percentage of costs/expenses.

Current Liabilities

Accounts Payable

Accounts payable is an accounting term that refers to amounts owed by the company for purchased goods and services. A/P is projected on the days' payable outstanding basis.

$$DPO = \frac{A/P}{COGS} \times 365 \tag{25}$$

This measure determines the number of days it takes the company to make payments for goods and services. Hence, companies tend to maximize their DPO. A higher DPO allows the company to increase short-term liquidity and use it for business purposes before paying outstanding bills.

Accrued Liabilities and Other Current Liabilities

Accrued liabilities are expenses such as rent, taxes, salaries, and interests that the company has incurred but has not paid yet. Accrued liabilities and other current liabilities are projected as a percentage of expenses in line with historical values.

Once all of the above items are projected, the FCF can be calculated with the formula represented in Table 6.

1.11.3 Step 3. Calculate Weighted Average Cost of Capital

During its existence, a company uses various sources and types of capital for its financing purposes. However, these sources are not provided to the company for free. Investors expect a return. This required rate of return is governed primarily by the size of the risk perceived by the investor. Capital providers can be divided into two primary groups. The first group is investors or shareholders, who are the owners of the company. The second group is creditors (Čižinská, 2018)

For calculating the price of invested capital, using the WACC is a broadly accepted standard. "It represents the weighted average of the required return on the invested

capital in a given company" (Rosenbaum, Pearl, 2013, p. 141). The WACC depends on the company's capital structure, since debt and equity components have different tax ramifications and risk profiles (Welch, 2014).

WACC also can be assumed as an opportunity cost of capital. It reflects investors' expectations of future earnings from an alternative investment with a similar risk profile.

$$WACC = (r_d \times (1 - t)) \times \frac{D}{D + E} + r_e \times \frac{E}{D + E} \quad (26)$$

r_d – cost of debt

r_e – cost of equity

D – market value of debt

E – market value of equity

The calculation of WACC can be divided into the following four steps:

1. Determine target capital structure
2. Estimate cost of debt
3. Estimate cost of equity
4. Calculate WACC

Step 1. Determine Target Capital Structure

When valuing a publicly traded firm, the target capital structure used is most often the current capital structure. The level of debt should be compared across the comparable companies selected as part of the comparable companies analysis. If the level of debt of the selected firm is at an extremely high or low level when compared to its peer group, then the target capital structure can be defined as the mean or median capital structure of the comparable companies universe.

Step 2. Estimate Cost of Debt

The cost of debt reflects the credit profile of a company at the target capital structure. This structure is based on numerous factors, including sector, size, cyclicality, outlook, credit statistics, ratings, and cash flow generation. If the company is already at its target capital structure, the cost of debt is by and large determined from the blended yield on its outstanding debt instruments, which may include a mix of private

and public debt. If the company is not at its target capital structure, the cost of debt is extrapolated from peer companies (Rosenbaum, Pearl, 2013).

When the company has publicly traded outstanding bonds, the yield to maturity in the long term can be used as an interest rate. If a company is rated, the rating and default spread on bonds can be used to estimate the cost of debt. In case the company has a borrowed term loans from the bank, the interest rate on the borrowing can be used as the cost of debt (Damodaran, 2021).

Step 3. Estimate Cost of Equity

The cost of equity is the rate of return that equity investors of a company expect to receive.

There are four basic models to estimate the cost of equity (see Table 10).

Table 10 Basic Models to Estimate the Cost of Equity

Model	Inputs Needed
CAPM	Risk-free rate Beta relative to market portfolio Market risk premium
APM	Risk-free rate of factors Betas relative to each factor Factor risk premiums
Multi factor	Risk-free rate of macro factors Betas relative to macro factors Macro-economic risk premiums
Proxy	Proxies Regression coefficients

Source: (Damodaran, 2021)

In practice, the capital asset pricing model is widely used to calculate the cost of equity. "The capital asset pricing model makes the most restrictive assumptions and arrives at the simplest model to estimate and use" (Damodaran, 2021, p. 25).

The CAPM model was first proposed by William Sharpe (1964) and was based on the portfolio theory from Harry Markowitz.

An essential aspect of this model is the split of risk into two types of risk. The first is systematic risk. CAPM is based on the concept that investors should be

compensated for systematic risk by a risk premium. "A company's level of systematic risk depends on the covariance of its share price with movements in the overall market, as measured by its beta" (Rosenbaum, Pearl, 2013, p. 144). The second type of risk is unsystematic or "specific" risk. The CAPM model deals only with systematic risk because the other can be avoided through portfolio diversification.

CAPM builds on several critical assumptions:

1. Investors evaluate investment portfolios based on expected returns and their standard deviations over the holding period.
2. Investors are never satiated. They prefer the portfolio which maximizes their utility.
3. Investors do not want to take risks. When choosing between two portfolios, they will prefer the one that has the lowest standard deviation.
4. Assets are infinitely divisible. If desired, the investor can buy a part of a share.
5. Taxes and transaction costs are insignificant/absent.
6. Investors expect the same development in the future.
7. The investment period is the same for all investors.
8. The risk-free interest rate is the same for all investors.
9. Information is freely and immediately available to all investors.
10. Investors have uniform (homogeneous) expectations. They value the same expected returns, standard deviations, and covariance of securities returns (Pakhalov, 2017).

$$Cost\ of\ Equity = r_f + \beta \times (r_m - r_f) \quad (27)$$

r_f – fisk-free rate

β – beta

r_m – expected return on the market

$r_m - r_f$ – market risk premium

Risk-Free Rate

The risk-free investment tends to equal the expected return. Consequently, there are two conditions for "riskless" investment: no default risk and no reinvestment risk. When determining the risk-free rate, a valuer should keep the following points in mind:

- Time horizon matters when determining a risk-free rate because the valuation will depend upon when the cash flow is expected to occur and the change in cash flow change over time
- The currency also matters because the fisk-free rate for different currencies may vary
- Not all government securities are riskless

The market accepts U.S. government securities as "fisk-free". The most frequent choice is the 10-year bond as the most liquid of the treasuries (Damodaran, 2021).

Market Risk Premium

The market return premium is the difference between the expected market return and the risk-free rate.

Mařik (2018) provides the procedure for estimating the market risk premium:

1. Determine the rate of return on shares on the capital market.
2. Calculate the average yield on government bonds.
3. Determine the risk premium as the difference between the return on shares on the capital market and government bonds' return.

Numerous questions can arise during this process concerning the length of the chosen period, geometric or arithmetic averages, and countries' data sources.

Table 11 examines the historical variation of market risk premium. All these values could be called a historical risk premium. This table was created using publicly accessible data on the S&P 500, treasury bills, and 10-year treasury bonds on the Federal Reserve of St. Louis website (Damodaran, 2021).

Table 11 Historical Risk Premium

	Arithmetic Average		Geometric Average	
	Stocks T-bills	Stocks T-bonds	Stocks T-bills	Stocks T-bonds
1928-2020	8,28%	6,43%	6,47%	4,84%
Std Error	2,06%	2,18%		
1971-2020	7,67%	4,90%	6,35%	3,91%
Std Error	2,38%	2,70%		
2011-2020	13,83%	9,70%	13,24%	9,35%
Std Error	3,88%	4,87%		

Source: (Damodaran, 2021)

In practice, Damodaran's solutions are often used. This solution is based on an adjustment of the basic calculation based on data from the United States of America. The adjustment takes into account the country's risk. A county's rating, which is considered in the risk premium or the country's default risk, plays a significant role in this adjustment. (Mařik, 2018).

Beta

"The beta (β) of a security can be defined as an index of responsiveness of the changes in the return of the security relative to a change in the stock exchange or market" (Watson, Head, 2010, p. 239). The beta of the market[5] is always one and serves as a benchmark for systematic risk. The *beta of a security* reflects the sensitivity of the returns of that security to changes in systematic factors.

Beta interpretations are as follows:

$\beta > 1$ stock dynamic correlates with the stock index dynamics, but the stock is more sensitive to the index's movement.

$\beta = 1$ the movements of the stock perfectly correlate with the movement of the market index.

$0 < \beta < 1$ the stock dynamics correlate with the dynamics of the stock index, but are less sensitive to market movements.

[5] S&P 500 is traditionally used as a proxy for the market.

$\beta = 0$ a beta of zero indicates that the stock's movement has nothing to do with the market index's movement.

$-1 < \beta < 0$ the stock is inversely correlated with the stock index. The sensitivity of the stock's reaction is lower than that of the market index.

$\beta < -1$ the stock is inversely correlated with the market index. The stock will move in the opposite direction to the market and react more strongly to any market index movement (Pakhalov, 2017).

Levered beta can be sourced from financial information resources, such as Yahoo Finance, Google Finance, Reuters, Bloomberg.

Step 4. Calculate WACC

Once all the above steps are completed, the WACC can be calculated by Formula #26.

1.11.4 Step 4. Determine Terminal Value

As mentioned above, the DCF valuation is based on estimating the present value of all future FCF and terminal value, the company's value beyond the projection period.

There are two widely accepted methods to determine the terminal value -the exit multiple method and the perpetuity growth method. While the latter is the more academically proven approach, the exit multiple method is more often used in practice (Training the street, 2015).

Exit Multiple Method

"The EMM calculates the remaining value of a company's FCF produced after the projection period based on a multiple of terminal year EBITDA or EBIT. This multiple is based on the current LTM trading multiples for comparable companies" (Rosenbaum, Pearl, 2013, p. 149).

$$TV = EBITDA_n \times Exit\ Multiple \quad (28)$$

n – terminal year of the projection period

Perpetuity Growth Method

The perpetuity growth rate is often chosen following the company's expected long-term industry growth rate. This rate corresponds to the value of nominal GDP.

$$TV = \frac{FCF_n \times (1 + g)}{(r - g)} \tag{29}$$

FCF – unlevered free cash flow

n – terminal year of the projection period

g – perpetuity growth rate

r – WACC

Mařik (2018) also describes a third method to estimate a company's terminal value, known as the parametric method.

The parametric method works with two basic value drivers. The first is a growth rate of adjusted operating incomes subtracted from adjusted taxes. The second is the expected return of net investment (r_i) to operationally necessary fixed assets and working capital (r_k).

$$r_k = \frac{KPVH_t}{K_{t-1}} \tag{30}$$

$KPVH_t$ – adjusted operating income

K_{t-1} – operationally necessary invested capital at the beginning of year t

t – the last year of the projected period

$$r_i = \frac{KPVH_t - KPVH_{t-1}}{K_{t-1} - K_{t-2}} \tag{31}$$

$$TV = \frac{KPVH_{T+1} \times \frac{g}{r_i}}{r - g} \tag{32}$$

1.11.5 Step 5. Calculate Present Value and Determine Valuation

The purpose of calculating the present value is to account for the time value of money. A certain amount of money today does not reflect the same amount in the future. "The present value calculation is performed by multiplying the FCF for each year in the projection period and the terminal value by its respective discount factor" (Rosenbaum, Pearl, 2013, p. 151).

$$Discount\ factor = \frac{1}{(1 + WACC)^n} \quad (33)$$

n – year in the projection period

The projected FCF and terminal value of the company are discounted to the present value and summed to provide an enterprise value.

$$Enterprise\ Value = \sum_{n=1}^{n} \frac{FCF_n}{(1 + WACC)^n} + \frac{TV}{(1 + WACC)^n} \quad (34)$$

The equity value can then be found by subtracting the debt, preferred stock, and minority interest of the company from the Enterprise Value, and then adding the cash and cash equivalents.

Dividing the equity value by the fully diluted shares outstanding will yield the share price.

$$Share\ Price = \frac{Equity\ Value}{Fully\ Diluted\ Shares\ Outstanding} \quad (35)$$

It should be noted that the company's value will change depending on the key valuation drivers, such as WACC, perpetuity growth rate, and exit multiples. A valuer needs to provide a *sensitivity analysis* to demonstrate how the company's value will change based on changes to these parameters (Zavadovskaja, 2018).

Pros and Cons

Pros

- Cash-flow based; the method reflects the value of projected free cash flows, which is a more fundamental approach than using multiple-based methodologies.
- Widely applicable; the DCF method provides a detailed analysis of the company.
- Market independent; the discounted cash flow model does not require a comparison with peer industry companies.
- Flexibility; the built model is flexible, which allows for a sensitivity analysis by changing key parameters and analysing their impacts.

Cons

- Personalized; building a model requires a large number of hypotheses and forecasts based on personal judgments.
- Challenging; constructing the DCF model and estimating parameters is quite complex.
- Biased; a high level of detail in the calculations can lead to overconfidence and potential loss of accuracy (Zavadovskaja, 2018).

2 Strategic Analysis of Netflix, Inc.

2.1 Historical Development of Netflix, Inc.

Netflix, Inc. is an American-based, worldwide (except China, Syria, Crimea, and North Korea) content platform and production company with its headquarter in Los Gatos, California. Netflix was founded by Reed Hastings and Marc Randolph in 1997. Its cofounders had previous experience in the IT industry before the company was founded. For instance, Reed Hastings is the founder of Pure Software, which was sold in 1997 for $ 700 million. A portion of this amount was invested in Netflix, which started purely as a movie rental service (Pogue, 2007).

Netflix has over 203 million paid streaming memberships in over 190 countries as of the end of 2020. Below is an overview of the most important historical milestones for the company.

1997 Foundation of the company.

1998 Launches the first DVD rental and sales site.

1999 Netflix. Inc. debuts a subscription service, offering unlimited DVD rentals without late fees, due dates, or monthly rental limits.

2000 Netflix. Inc. introduces a personalized movie recommendation system, which uses ratings on past titles to predict future member's choices accurately.

2002 600 000 memberships in the United States. Netflix, Inc. makes its IPO on the Nasdaq under the ticker NFLX.

2003 Number of members surpasses **1 million**. Netflix, Inc. issues a patent with the U.S. Patent and Trademark Office for its subscription rental service.

2004 2 million members.

2005 The Profiles feature launches, allowing members to create the list of recommendations for different users or/and different moods.

2006 5 million memberships. Launching the "Netflix Prize", with a one-million-dollar prize for a winner who can achieve a set accuracy goal in recommending movies based on personal preferences.

2007 Netflix, Inc. introduces streaming, called "Watch Now", which allows members

to watch series and films instantly.

2008 The company partners with consumer electronics brands to allow streaming on Xbox 360, Blu-ray players, and TV set-top boxes.

2009 12 million subscribers. Streaming partnerships expand to internet-connected TVs and other Internet-connected devices.

2010 The company expands into Canada and connects to mobile devices. **20 million** members by the end of the year.

2011 Netflix, Inc. splits the streaming and DVD rental service into two separate services. The company launches in Latin America and the Caribbean. Also, the first Netflix button appears on remote controls.

2012 Number of subscribers reaches **25 million**. Expansion to Europe, including the United Kingdom, Ireland, and the Nordic Countries. Also, the company premieres its first original stand-up special.

2013 Netflix, Inc. presents original series, including "The House of Card" and others, which received **31 primetime** Emmy nominations.

2014 50 million subscribers. The company continues expansion into six European counties. Increase in the quality, now Netflix, Inc. provides streaming in 4K Ultra HD.

2015 Expansion into Australia, New Zealand, and Japan. The first original feature film's debut, the first non-English original series, and the first Asian original.

2016 Netflix, Inc. expands to **130 countries** worldwide and reaches a total of **190** countries. The company also offers programming in **21 languages.**

2017 Membership reaches a **100 million** members globally. Netflix wins its first Academy Award.

2018 Netflix, Inc. is the most-nominated studio at the Emmys. Netflix acquires the book publisher Millarworld which allows it to adapt properties into films and TV shows.

2019 Netflix, Inc. wins four Academy Awards, announces its agreement with Tesla to provide streaming service on Tesla screens, opens hubs in London, Madrid, New York, and Toronto.

2020 Membership reaches **200 million**. Netflix, Inc. is the most-nominated studio at the Academy Awards and Emmys. The company's fund launches to aid workers impacted by COVID-19, and two percent of cash holdings are transferred to financial institutions which support Black communities.

The company's history is described in more detail and with graphic support on the official website www.netflix.com

2.2 Business Model Canvas

As it can be observed from the timeline above, the company's business model has changed over time. Netflix, Inc. was developing together with dynamically changing market conditions.

The Canvas model (see Figure 5) describes the current business structure of Netflix, Inc.

<table>
<tr><th>Key Partners</th><th>Key Activities</th><th>Value Propositions</th><th>Customer Relationships</th><th>Customer Segments</th></tr>
<tr><td rowspan="2">Investors
Filmmaker guilds
Media producers
Content owners
Cinemas, theaters
Consumer electronic companies
Amazon
Prizes and film festivals
Influencers</td><td>Tech & development
Content licensing
Content production
Content distribution
Marketing
Data analytics</td><td rowspan="2">Content library
24/7 On-demand
Unlimited access
Netflix Original
Access to all episodes
30 Day free trial
Personalization
Simple pricing
No ads
High-speed connection</td><td>Self-service
User support
Social media
Recommendation system</td><td rowspan="2">Micro-segmentation: 2000 taste clusters
User segmentation: technology, viewing behaviors, browsing behaviors
Macro segments: geographic, demographic</td></tr>
<tr><td>Key Resources

Brand
Website and application
Algorithms & data
Employees
Filmmakers, producers
Awards & prizes</td><td>Channels

Any devices
Netflix app
Online advertising
Offline advertising
Social Media
Film festivals
DVD mail delivery</td></tr>
<tr><th colspan="3">Cost Structure</th><th colspan="2">Revenue Streams</th></tr>
<tr><td colspan="3">Technology
Marketing
Licensing
Production
R&D

Content amortization
Payment processing fees
Customer service
Streaming delivery costs
Operating costs</td><td colspan="2">Subscription fees (basic, standard, premium):
• International streaming
• US streaming
• US DVD rental
Potential future model: licensing Netflix, Inc. owned content</td></tr>
</table>

Figure 5 Business Model Canvas

2.2.1 Key Partners

Investors provide access to the money needed for the new content and development.

Filmmaker guilds: writers, directors, actors, and their unions are professionals and the most known on the (US) market.

Media producers provide licensed content to Netflix, Inc.

Content owners provide content to the company.

Consumer electronic companies: Netflix, Inc. has a comprehensive list of partnerships with most prominent electronic companies, such as LG, Sony, and Samsung, who bundle the company with their systems.

Amazon: Netflix, Inc. technology platform is hosted on Amazon AWS.

Prizes and film festivals: the company's films are nominated for festivals (Cannes Film Festival) and receive awards (Oscar), directly affecting future development.

Influencers: TV shows, magazines, and other sources provide promotion.

2.2.2 Key Activities

Tech & development: the company continually invests in renewing and developing technologies.

Content licensing. When Netflix, Inc. started streaming, licensing and acquisition of content were the primary ways Netflix added content.

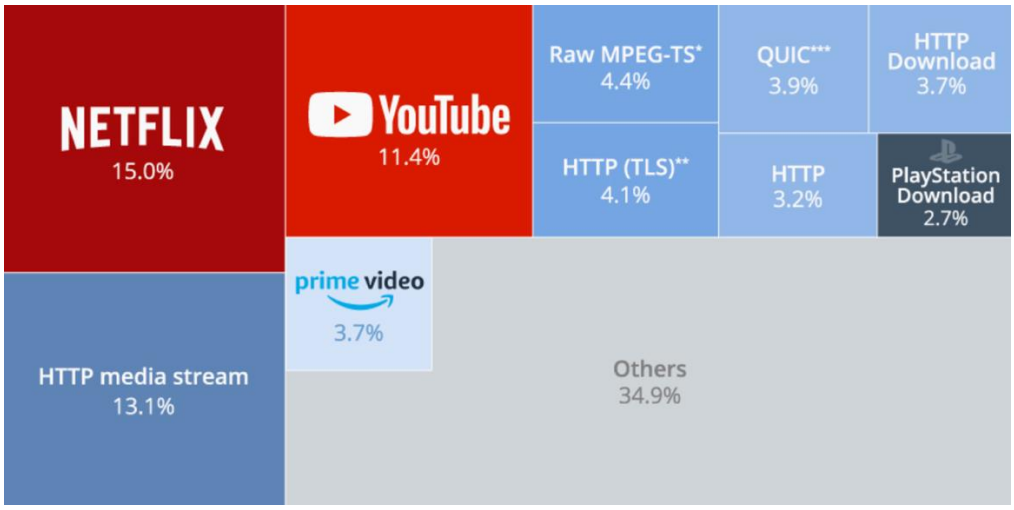
Content production. From 2013, Netflix, Inc. started to make its own content-Netflix Originals.

Content distribution. The company optimizes video streaming across the globe. For instance, Netflix, Inc. reduced the video quality on the services in Europe to reduce the strain on internet providers during the first wave of COVID-19 in March 2020.

Marketing to increase the number of customers.

Data analytics to understand customer behavior, improve the overall user experience, and reduce churn.

Netflix, Inc. accounted for 15 % of global internet traffic in 2018 (see Figure 6). In March 2020, the number increased to 25% because of the global situation, restrictions, and social distancing (Florance, 2020).



Source: (Armstrong, 2018)

Figure 6 Global Internet Traffic

2.2.3 Key Resources

Brand: Netflix, Inc. Has a strong brand name, which, based on the Best Global Brands statistics (2021), ranks in the top 100.

Website and application are the main channels for content delivery.

Algorithms & data: the company analyses data based on algorithms for the improvement of the business frequently.

Employees: general and technical staff maintain ordinary processes.

Filmmakers, producers: Netflix, Inc. works with famous people from the film industry as well as newcomers.

Awards & prizes: the company's nominations at prominent film festivals promote Netflix original content to the global audience.

2.2.4 Value Propositions

Content library: subscriber has **unlimited access** to the huge content library, including **Netflix's original** movies and shows.

24/7 On-demand streaming and consumption: the content is available anytime from any device; moreover, all episodes of TV series are in the library, so the customer does not need to wait.

30 Day free trial: new customers have a free trial with no restrictions.

Personalization: customers receive a list of recommendations based on their previous watches.

Simple pricing: there are three flat fees.

No ads: there is no interruption during viewing.

High-speed connection: Netflix, Inc. uses pre-positioning of content during non-peak hours. The Netflix ISP Speed Index measures the prime-time performance on particular internet service providers globally. This index has become a benchmark for measuring connection speed.

2.2.5 Customer Relationships

Self-service: most of the interactions are managed through the application and website, including the help system.

User support: Netflix, Inc. provides customer services through email, website, or directly, by telephone and live chat.

Social media: the company uses Facebook, Instagram, Linked In, Twitter, and Snapchat to inform, help gain the high attraction of customers and new sign-up user conversions.

A **recommendation system** is a useful tool that gives tips on what to watch next and saves customers' time.

2.2.6 Customer Segments

Micro-segmentation is determined by categorizing viewing history into 2000 taste clusters.

User segmentation is based on usage parameters like the used technology (the screen size), viewing behaviors (home, weekend, weekday, patterns, on-the-go), and browsing behaviors.

Macro segments are determined by geographical, demographic, and age factors.

2.2.7 Cost Structure

The company invests in **new technologies**.

Marketing costs include advertising expenses and payments made to the company's marketing partners, including consumer electronics manufacturers,

multichannel video programming distributors, mobile operators, and internet service providers.

The amount spent on **licenses** is another part of the cost structure.

Cost of producing the content.

R&D costs. This group of costs includes testing, maintaining, and modifying the user interface, recommendation system, merchandising, infrastructure, and streaming delivery technology. R&D costs also include costs associated with computer hardware and software.

The **cost of revenue** includes content amortization (which makes up most of the cost of revenues), payment processing fees, customer service, streaming delivery costs, and other operating costs.

2.2.8 Revenue Streams

The primary source of revenue is monthly **membership fees**. The DVD **rental service** continues to be a revenue stream but has become less important. Presently, approximately 2 million members in the United States subscribe to the company's DVD-by-mail service.

Licensing of Netflix's owned content is a potential future revenue model.

Figure 7 shows the development of total revenue since 2004. The graph is created based on the 10-K Netflix, Inc. reports.

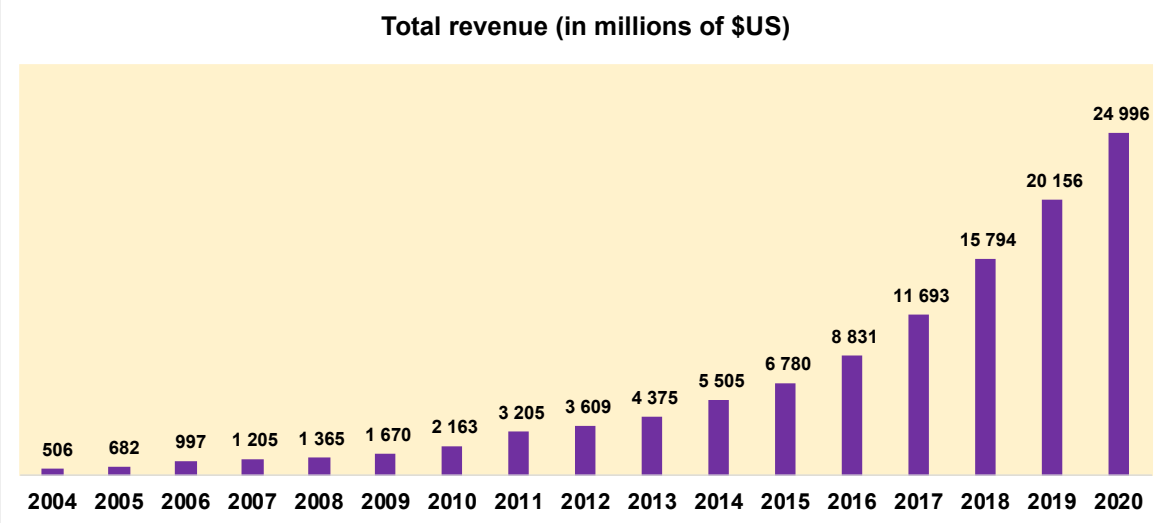


Figure 7 Netflix, Inc. Revenue Development Trend

2.3 PESTLE Analysis

2.3.1 Political Factors

As mentioned before, Netflix, Inc. is a worldwide company, but there are territories to which is has not expanded. These can be observed on the map below (see Figure 8). North Korea, Syria, and Crimea are three affected territories where Netflix does provide its services due to U.S. sanctions. These sanctions restrict all U.S. companies from conducting business in the affected territories, not only Netflix, Inc.

The company does not operate in one of the world's largest markets, China. In this case, it is not the result of U.S. government sanctions, but Chinese censorship laws and government requirements. To provide their streaming services in China, Netflix, Inc. would have to censor its content. The censorship rules would likely require excluding from several films and programs, including Netflix's original content, from its library. Netflix may receive permission to operate in China from the Chinese government only after adhering to strict censorship measures.

Source: (Netflix.com, 2020)

Figure 8 International Expansion of Netflix, Inc.

To summarize the political factors that can affect the company's operation, the main risks are **outgoing** (from the U.S. government) and **incoming** (from any other countries) **restrictions** that may affect existing or future revenue streams and result in deteriorating the company's value.

2.3.2 Economic Factors

Netflix, Inc. is a worldwide company; as such a significant economic factor that affects the company is **foreign currency exchange rates**. Revenues denominated in foreign currencies (other than the U.S. dollar) account for 54% of consolidated revenues as of the valuation date. Foreign currency risk is primarily related to the following currencies: the euro, the Canadian dollar, the British pound, the Japanese yen, the Australian dollar, the Mexican peso, the Brazilian real, and the Argentine peso.

By the end of 2020, Netflix, Inc.'s revenue would have been about $596 million higher if foreign exchange rates had remained the same as the previous year.

The company also experiences fluctuations in its net income due to remeasurements of monetary assets and liabilities denominated in foreign currencies. As of the valuation date, Netflix, Inc. recognized a $660 million foreign exchange loss due to the remeasurement of cash and content liabilities denominated in foreign currencies as well as with the remeasurement of its senior notes denominated in euros.

The fair value of the debt will also fluctuate based on foreign currency rate changes.

Netflix, Inc. does not use derivatives or foreign exchange contracts to hedge any foreign currency exposures.

Another economic factor that may affect the company is the prevailing **interest rate**. Netflix, Inc. generally invests cash equivalents in money market funds. Interest paid on such funds varies with the prevailing interest rate.

The fair value of the company's debt will vary with interest rate changes, declining in periods of increasing interest rates and vice versa.

Inflation risk is another economic factor that can affect the company's activities.

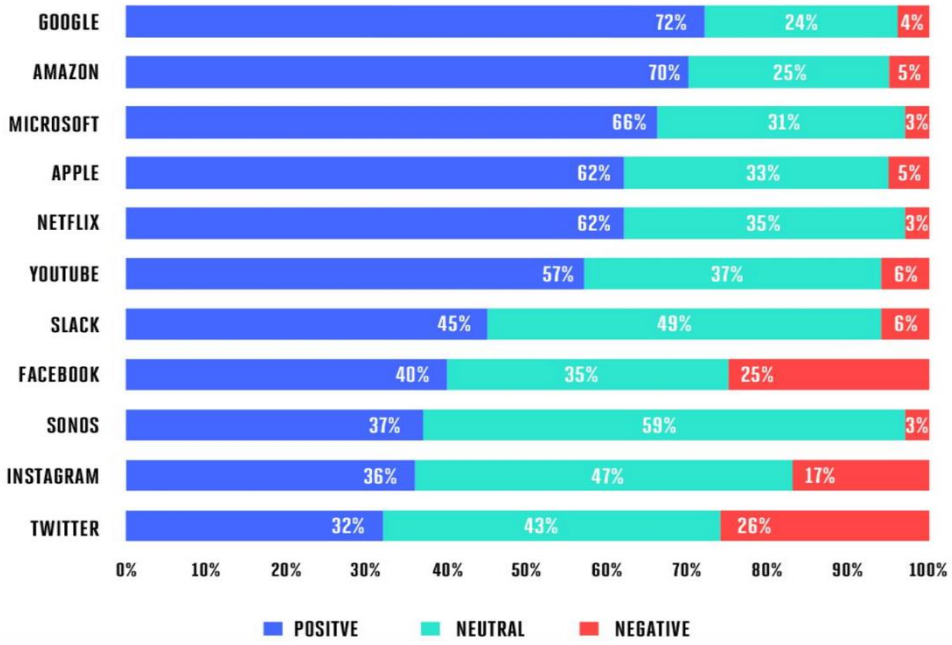
The final economic factor relates to the **capital market**. Netflix, Inc., as a public traded company, has an additional form of currency, which is equity. There are advantages and disadvantages related to this. For instance, if the company needs to raise cash, it can issue new shares to the capital market. Also, Netflix, Inc. uses stock options as a financial incentive for its employees. As the share price rises, the company will accumulate a larger liability. However, if the share price were to fall,

employees could become demotivated and underperform because the issued stock options may become worthless.

2.3.3 Social Factors

People in the digital age tend to enjoy more **customization** in terms of their content; people want to have **flexibility** with their time. This is reflected in the public's increasingly negative attitude towards TV and favourable perception of Netflix, Inc. There is a trend to "**cut the cord**" in the U.S. The high price of TV subscriptions exacerbates this trend.

Recently, big tech companies have come under **pressure from the public**. Based on the verge tech survey (2020), 56 percent said that the government should break up technological companies if they exert too much control over the economy. 72 percent answered that Facebook has too much power. However, people also believe there are tech companies that positively affect society. Netflix, Inc. is on the list of these companies. Figure 9 shows the survey results. The company actively follows social events. As was previously mentioned, Netflix, Inc. transferred part of its funds to organizations supporting Black communities. Netflix also has a scholarship program to support students. The CEO, among other things, is known for his charitable activities. The working conditions of the company's employees are recognized as one of the best and most progressive. Nevertheless, there is still a **risk that public perception** may change over time.



Source (The Verge Tech Survey, 2020)

Figure 9 How Do Brands Impact Society?

Because of its original content, Netflix, Inc. is associated with famous actors, producers, and directors. This factor introduces **social risk** to the company's operations. For example, the actor Kevin Spacey, who was one of the main heroes in the "House of Cards" series, was accused of sexual misconduct against an individual in 2017. As a result of the scandal, Netflix, Inc. terminated its contract with Spacey and suspended production of the drama. The company also severed ties with Spacey's other projects. The scandal involving Kevin Spacey cost Netflix, Inc. $39 million. Netflix reported in the 10-Q report that the charge was related to unreleased content the company decided not to move forward with (Reuters, 2018).

Another social trend that may affect the company's results is **reduction of gadgets' time usage**. For example, some devices, such as Apple gadgets that measure active screen time, have caused some people to be concerned about how much time they spend in front of a screen.

2.3.4 Technological Factors

Netflix, Inc. is a technology company that primarily stream licensed and original content. As a result, the technological factors that can affect the company's work can be divided into two categories.

The first relates to the process of producing content. The business model is subject to technological advances; Netflix, Inc. relies on the most advanced technologies for making its original content. The company is obliged to use the best animations, computer graphics, and other cutting-edge tools.

The second set of tech factors relates to the distribution of content. The company's performance directly depends on internet accessibility. If a user does not have access to the internet, Netflix's operation is entirely irrelevant for him. Netflix, Inc. has to ensure that its operations will work in the latest technologies, such as 5G. The company needs to manage the amount of data transferred and its effect on content quality. As was mentioned in the Canvas analysis, Netflix, Inc. reduced the video quality of its services in Europe to reduce the strain on internet providers during the first wave of COVID-19 in March 2020. If the company's competitors handle this trade-off better, then they could cause potential problem for Netflix. Also, Netflix, Inc. must be aware of how customers consume the content, including which gadgets they use: TV, computer, tablet, smartphone, and how this trend changes. Suppose a company cannot adapt its content to new technologies emerging in the market, such as virtual reality or another novel technology. In such a case, it may be left behind.

2.3.5 Legal Factors

The company's work depends on the content streaming possibilities. Suppose content providers, studios, or other rights holders refuse to **license** distribution rights, content streaming rights, or other related elements, such as music rights, on terms acceptable to Netflix, Inc. In such an instance, Netflix's business could be strongly affected.

The next factor that impacts the current Netflix, Inc. business model is **piracy-based video offerings**. Piracy is a significant threat to the business, as its fundamental proposition to consumers is compelling and challenging to compete against; whereby content is most often provided for free. While there is various copyright legislation across different countries which aims to limit piracy, the level of legislation enforcement is another matter. For example, in the United States, it is almost impossible to find free content. At the same time, Czech consumers have access to the "uloz.to" website, which provides free content, including copyrighted content,

and the government seemingly has not interfered in order to enforce its copyright legislation. Similar examples can be found across the globe.

The company also faces complications in complying with **local regulations**, laws, and customs in foreign jurisdictions in the following areas: user and data protection, privacy, data localization, data export, and others.

Netflix, Inc., as a multinational company, is affected by **taxation-related risk** in multiple jurisdictions. While the company's position is consistent with the jurisdictions' tax laws, there is a risk these positions may be challenged by tax authorities, which may impact the company's global provision for income taxes.

Many countries and organizations, such as the Organization for Economic Cooperation and Development in the European Union, actively consider changes to existing tax laws. Should some of these changes be enacted in law, they could increase the company's tax obligations. If domestic or foreign tax authorities change applicable tax laws, overall taxes paid by Netflix could increase. Consequently, the financial condition, operational results, or the entire business could be adversely impacted.

Another factor that can impact the Netflix, Inc. business model is **government regulations related to the internet**. Any possible changes could impede the company's growth, cause it to incur additional expense, or otherwise negatively affect the whole business.

2.3.6 Environmental Factors

The most significant environmental factor that affects the Netflix, Inc. business and any other companies, states, and individuals currently is **COVID-19**.

In response to government mandates, Netflix, Inc. has operatively altered certain aspects of its operations. The company's workforce has had to spend most of their time working from home, which may have affected productivity. International travel has been curtailed; consequently, almost all productions were paused. The company's partners also had their operations altered or suspended, including those used for operations and development, production, and post-production of content.

As a result of the pandemic, Netflix, Inc. may lose some vendors, resulting in supply constraints and increased costs or delays to its productions. Production pauses may

cause Netflix, Inc. content to be available later than anticipated, which could negatively impact consumer demand and the number of paid memberships.

The impact of COVID-19 in its entirety is difficult to predict, but the company highlighted the following factors which could affect its business in the 10-K report:

- the duration of the pandemic
- governmental, business, and individuals' actions
- the availability and cost to access the capital markets
- customer demand and ability to pay for services
- disruptions or restrictions on employees' ability to work and travel
- interruptions related to the streaming services over the internet.

The pandemic has also increased Netflix, Inc. net paid membership additions relative to the quarterly forecast and historical trends. Due to local government mandates of home confinement and long-term trend toward streaming on-demand entertainment, paid net membership additions increased 64% during the first wave of COVID-19.

These results and other financial and operating metrics may not be indicative results for future periods.

2.4 Porter's Five Forces Analysis

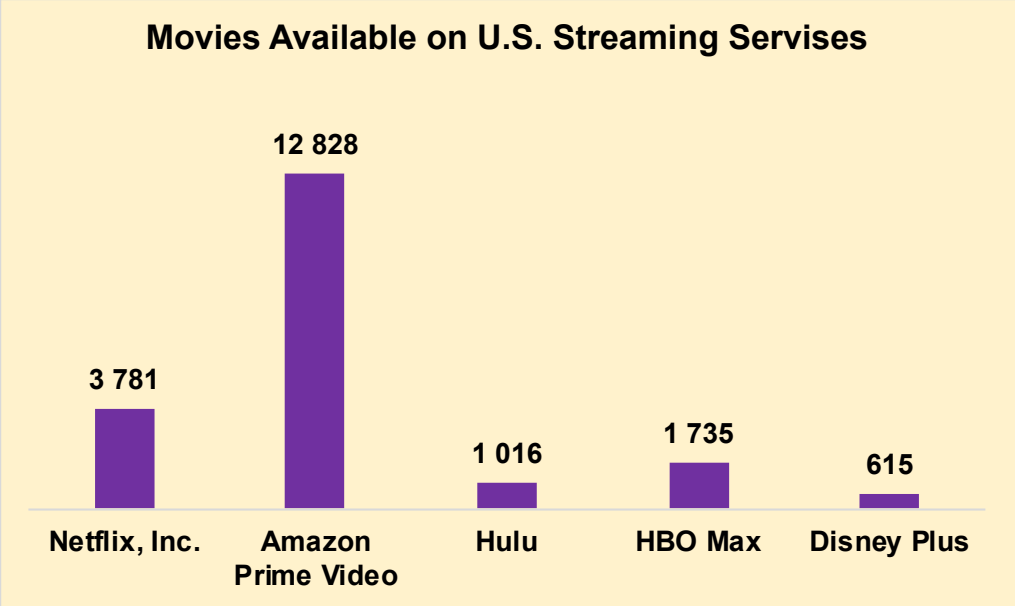
2.4.1 Competition in the Industry

Netflix, Inc. has the most subscribers on its platform among its peers, but it is not the only player on the market. There is a long list of existing competitors:

- Amazon Prime Video
- Hulu
- Disney Plus
- HBO Max
- CBS All Access
- Apple TV Plus

- YouTube TV
- Curiosity Stream
- Sling TV
- Fubu TV
- ShowTime
- Others

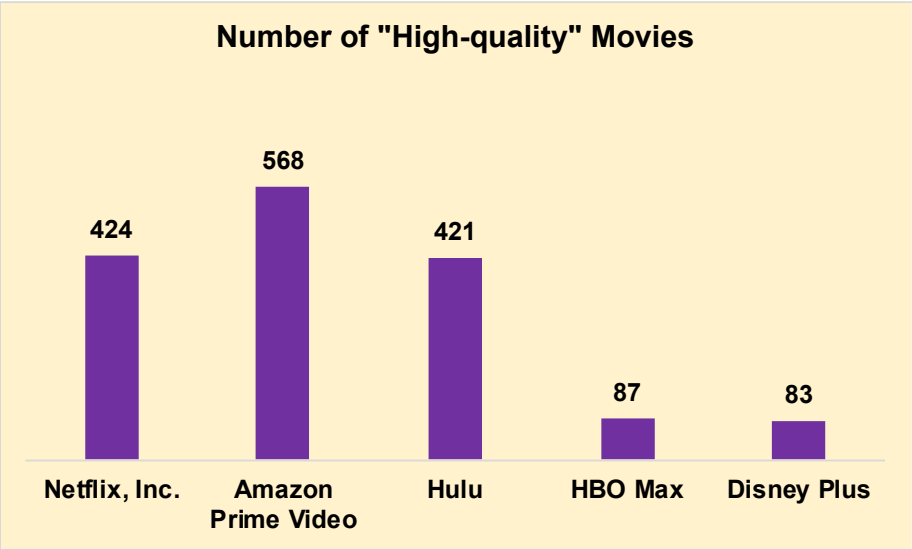
Of the major streaming competitors, Amazon Prime Video has the most content, according to an analysis by streaming search engine, Reelgood (2020) (see Figure 10).



Source: (Business Insider, 2020)

Figure 10 Movies Available on U.S. Streaming Services

The streaming provider also has the most "high-quality" movies, defined by a 7,5 rating or higher on IMDb (see Figure 11).



Source: (Business Insider, 2020)

Figure 11 Number of "High-quality" Movies

On the other hand, Netflix, Inc. has the most "high-quality" TV shows, based on the IMDb results. Netflix original series represent nine out of the ten most searched shows globally in 2020; simultaneously, Netflix original films accounted for two of the top ten (see Figure 12).

	TV Shows		Movies
1	*Tiger King* N	1	*Parasite*
2	*Big Brother Brasil*	2	*1917*
3	*Money Heist* N	3	*Black Panther*
4	*Cobra Kai* N	4	*365 Dni* N
5	*The Umbrella Academy* N	5	*Contagion*
6	*Emily in Paris* N	6	*Tenet*
7	*Ozark* N	7	*Enola Holmes* N
8	*The Queen's Gambit* N	8	*Harley Quinn: Birds of Prey*
9	*Outer Banks* N	9	*Mulan*
10	*Locke & Key* N	10	*Jojo Rabbit*

Source: (Netflix, Inc. Letter to Shareholders, 2021)

Figure 12 Google Year in Search, 2020 (Global)

Moreover, Netflix original content becomes the part of the cultural zeitgeist. For instance, The Queen's Gambit not only became the most extensive limited series in Netflix, Inc. history, but it even stimulated sales of chess sets.

In spite of this, **competitive rivalry** is **high** in the entertainment industry.

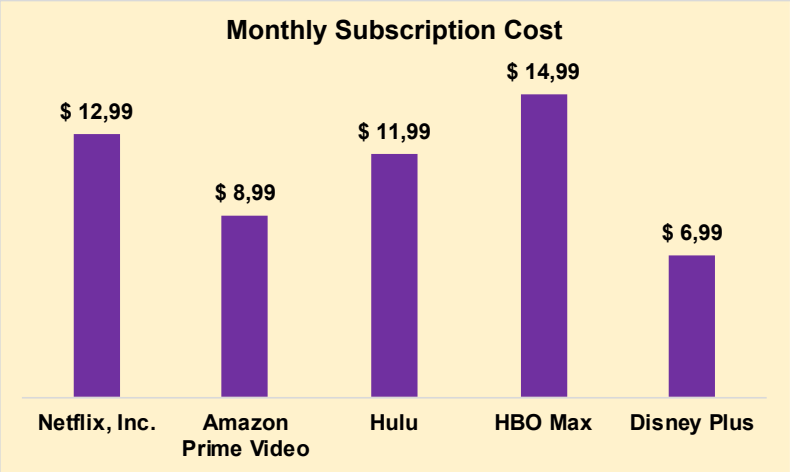
2.4.2 Power of Suppliers

This force should be observed from two sides: license providers' power and original content makers' power. Both of these powers are **high**.

On the one hand, Netflix, Inc. has licensing agreements with content providers. Once the agreement expires, the supplier may not prolong the agreement or switch to an alternative streaming service, significantly impacting the business. This would reduce the content available to Netflix, Inc. customers. On the other hand, the company selects the best directors, actors, and producers for its original content. However, there is a limited number of high-quality artists, thus causing even greater competition between streaming services.

2.4.3 Power of Customers

The power of customers depends on the content they consume. If the customer consumes exclusively licensed third-party content, his power is high. First of all, customers have can cancel their subscription at zero cost; they can cancel the subscription anytime and start to use an alternative streaming service almost instantly. Also, customers are highly price-sensitive. An increase in prices may cause them to switch to competitor's services. Figure 12 shows the most popular U.S. streaming services monthly subscription cost by the middle of 2020. At the end of October 2020, Netflix, Inc. announced price increases for its most popular plan. The difference is one dollar.



Source: (Business Insider, 2020)

Figure 13 Monthly Subscription Cost

However, if the customer consumes the company's original content, especially multi-season series, his power decreases.

2.4.4 Potential of New Entrants into the Industry

The potential of new entrants into the industry is **medium**. Large companies that were mentioned in part above are already on the market. New companies with low investment capital have few opportunities to enter this market; barriers in legislation, technical requirements, and others are too high. Nevertheless, there is still an opportunity for some big companies with substantial financial, technical, and audience capabilities to get a part of the market share, which could directly affect the financial performance of Netflix, Inc.

2.4.5 The Threat of Substitute Products

The demand for traditional broadcast television has declined, as was mentioned during the PESTLE analysis, especially among young adults. There is a trend of switching to online video service providers for reasons such as, managing time, content preferences, the wide library of the content, and the suitable price. The threat of substitute products from traditional television providers is low for Netflix, Inc. Nevertheless, this threat increases with quickly changing customer preferences, technology development, and new possible entertainment industry trends, such as virtual reality or games. To summarize, the threat of substitute products is **low to medium** for Netflix, Inc.

2.5 SWOT Analysis

SWOT analysis summarizes the outputs of the previous analyses.

2.5.1 Strengths

- Strong brand name
- Successful experience of working in quickly changing circumstances
- Exponential growth by adapting to the surrounding conditions
- Global customer base in 190 countries
- Hight quality, award-winning original content made by the best artists
- Comprehensive content library with access to all episodes

- Broad partnerships with prominent companies
- Availability on any devices
- Simple, affordable pricing
- User-friendly interface
- Society acceptance

2.5.2 Weaknesses

- Dependence on licensed content
- Rising subscription prices and customers' price sensitivity
- Unhedged currency risks
- Increase of debts and obligations
- Over-dependence on North American markets despite the global representation
- Support shortages: in the first six months of the pandemic, the number of users dramatically increased along with the number of account hacks
- Rising subscription prices
- Growing operational costs
- The volatility of the stock price

2.5.3 Opportunities

- Expansion of global customers' base
- Replacement of the licensed content with the Netflix original offers
- Increasing partnerships
- Content localization
- Niche marketing
- Social trends support
- VR technology development
- Subscription plans expansion

2.5.4 Threats

- The growing power of existing competitors
- The increasingly complex process of attracting and retaining customers
- Government restrictions and regulations to the internet or other areas of the business
- Piracy-based video offerings
- Expiring license threat
- Content adaptation for specific cultural and language differences
- Economic, political, and social instability
- Fluctuations in currency exchange rates
- Censorship requirements
- Taxation related threats in multiple jurisdictions
- Technological failures

2.6 Financial Analysis

The financial analysis is prepared based on publicly available annual reports for the years 2017 to 2020. The balance sheet, income statement, and cash flow statement are placed in the appendix of this thesis. The complete vertical and horizontal analysis of the financial statements is also placed in the appendix of the thesis. The following paragraphs examine only selected parts of the reported results.

2.6.1 Assets Vertical & Horizontal Analysis

The most significant portion of assets are non-current assets, which include licensed content and produced content. The ratio of licensed to original content varies over time. In 2018, the value of produced content more than doubled; the following year, it grew by 63%. Even though 2020 was a difficult year for shooting films and shows, the company managed to increase its original content by 19%. The proportion of current assets fluctuates over time. In the latest year, the current assets accounted for 25% of total assets.

2.6.2 Liabilities Vertical & Horizontal Analysis

A significant portion of liabilities consists of long-term debt. From the horizontal analysis, in 2020, indebtedness increased by a billion. The volume of stockholders' equity increases by an average of 45% every year. As of the end of 2020, the amount of equity on balance is 28%. Total current liabilities have been at the level of 20% of total liabilities in the last monitored years; in absolute numbers, they have grown by $950 million.

2.6.3 Income Statement Vertical & Horizontal Analysis

Consolidated revenues for 2020 increased 24% YoY. The increase was primarily due to the growth in average paying memberships. The growth in the number of subscribers is a result of the consumer trend of increased consumption of on-demand streaming entertainment due to social restrictions and government mandates in certain jurisdictions.

Cost of revenues increased primarily due to a $1,5 billion increase in content amortization relating to new original content. Expenses associated with the licensing, acquisition, and production of content increased by $1,2 billion.

The operating margin increased by about 5% compared to 2019. The increase in operating margin to 18% is the result of increased revenues and decreased marketing costs, costs of technology and development, and general and administrative costs growing slower than a 24% increase in revenue.

Expenditures on marketing have been reduced the most by 420 million.

The company reported net income at 11% of revenue, a 48% increase compared to 2019.

2.6.4 Ratios Analysis

A peer group was chosen to better assess the ratios and the subsequent market analysis. The essential selection criterion is the **core business**, and that is the provision of streaming services for a monthly fee. It is also necessary for the company to be publicly traded.

Only The Walt Disney Company has been selected from the direct main competitors' services already listed in the strategic analysis to the peer group. The non-election

of Amazon Prime Video and HBO Max is based on the small share of the service in the consolidated revenue of the parent company.

The selected companies are presented in Table 12.

Table 12 Peer Group

Video streaming platforms	
The Walt Disney Company	USA
Discovery, Inc.	USA
IQIYI, Inc.	China
Music streaming platforms	
Spotify Technology SA	Sweden
Tencent Music Entertainment Group	China
Game streaming platform	
Huya, Inc.	China

Indicators of Financial Stability

Netflix, Inc. has the highest indebtedness rate among the peer companies. The debt ratio is decreasing over time, but it is still above the competitors' median value. Huya, Inc. shows the best coefficient of indebtedness between peers. Its debt ratio is 21% as of the valuation date. Indicators of financial stability are shown in Table 13.

Table 13 Leverage Ratios

	Netflix, Inc.					
	2017	**2018**	**2019**	**2020**		
Leverage Ratios					**Mean**	**Median**
Debt Ratio	81%	80%	78%	72%	**52%**	**57%**
Debt-to-Equity ratio	4,31	3,96	3,48	2,55	**1,92**	**1,30**
Financial leverage	5,31	4,96	4,48	3,55	**2,92**	**2,30**

Profitability Ratios

The profitability coefficients of Netflix, Inc. show annual growth. The only ratio that has hardly changed is the return on equity. Profitability ratios are well above the mean and median values set by peers. Moreover, the return on capital employed shows that the requirement for the **going concern scenario** is met; ROCE is higher than the paid interest rate. It can also be underlined that Netflix, Inc. and Huya, Inc. are the only companies whose profitability changed positively in the last twelve

months. The other comparable companies show a decrease in profitability. Spotify Technology SA and IQIYI, Inc. have a negative return. Profitability ratios are presented in the following table (see Table 14).

Table 14 Profitability Ratios

	Netflix, Inc.					
	2017	**2018**	**2019**	**2020**		
Profitability Ratios					**Mean**	**Median**
ROCE		12%	13%	17%	**-3%**	**6%**
ROE		39%	40%	40%	**-3%**	**6%**
ROA		7%	8%	9%	**-3%**	**5%**
ROS	6%	9%	10%	12%	**0%**	**7%**

Liquidity Ratios

Liquidity coefficients fluctuate during the last four monitored periods. At the end of 2020, the current ratio value increased compared to 2019, but is lower than the mean values of peer companies. The quick ratio increased from 0,9 in 2019 to 1,3, which is equal to the mean and median among the peer group. The cash position ratio has also increased compared to the previous period and is at 1,1. Such a value is higher than the peer companies' mean of 0,9. Liquidity ratios are shown in Table 15.

Table 15 Liquidity Ratios

	Netflix, Inc.					
	2017	**2018**	**2019**	**2020**		
Liquidity Ratios					**Mean**	**Median**
Current Ratio	1,4	1,5	0,9	1,3	**2,0**	**2,0**
Quick Ratio	0,6	0,7	0,9	1,3	**1,3**	**1,3**
Cash Position Ratio	0,5	0,6	0,7	1,1	**0,9**	**0,9**

Activity Ratios

The total assets turnover ratio is approximately 0,6. In 2020, it was 0,64, which is slightly below the mean. Assets turnover is 574 days in the monitored last year, which is the lowest indicator for the monitored four periods. The average of the selected companies is 685 days. The mean is pulled upwards primarily because of

The Walt Disney Company and Discovery, Inc., which have a total assets turnover ratio of over 1000 days. The number of day sales outstanding increased by two days compared to 2019 and is at 20 days. The mean of comparable companies is 50 days sales outstanding. Activity ratios are shown in the following table (see Table 16).

Table 16 Activity Ratios

	Netflix, Inc.					
	2017	**2018**	**2019**	**2020**		
Activity Ratios					**Mean**	**Median**
Total Assets Turnover	0,61	0,61	0,59	0,64	**0,69**	**0,69**
Assets Turnover	594	600	615	574	**685**	**685**
Day Sales Outstanding		13	18	20	**50**	**50**

Ratios analysis of comparable companies is placed in the appendix of the thesis (see Appendix 6).

3 Valuation of Netflix, Inc.

3.1 Comparable Companies Method

As was already mentioned, the main criterion for chosen comparable companies is the core business.

The task of locating the necessary financial information was completed during the financial analysis; the graphic form is included in the appendix (see Appendix 7) of this diploma thesis. Before spreading key statistics, ratios, and multiples, normalization for non-recurring items was performed. For example, The Walt Disney Company's financial statements have been adjusted for goodwill impairment.

Key trading multiples are presented in the trading multiples output page (see Table 17).

Table 17 Trading Multiples Output Page

		Market Valuation				Price		Enterprise Value			
Company	**Ticker**	**Share price ($) 7.4.21**	**Shares outstanding (Millions)**	**Equity Value**	**Enterprise Value**	**Earnings**	**Book Value**	**EBITDA**	**EBIT**	**Revenue**	**Active Subscribers**
Netflix, Inc.	NFLX	546,99	441	241 223	249 326	82,4x	22,4x	15,7x	54,4x	10,0x	1225,0x
Video streaming											
The Walt Disney Company	DIS	187,56	1 911	358 393	399 600	94,6x	4,3x	21,4x	98,6x	5,6x	3036,5x
Discovery, Inc.	DISCA	43,39	692	30 016	43 570	18,3x	2,9x	10,3x	15,7x	4,1x	3960,9x
IQIYI, Inc.	IQ	17,60	824	14 511	16 000	N/A	10,2x	8,2x	N/A	3,5x	149,5x
Music streaming											
Spotify Technology SA	SPOT	280,15	188	52 594	52 020	N/A	18,8x	N/A	N/A	6,6x	335,6x
Tencent Music Entertainment Group	TME	19,65	1 505	31 283	30 420	48,8x	3,9x	45,5x	53,3x	6,8x	543,2x
Game streaming											
Huya, Inc.	HUYA	18,63	211	3 936	3 020	27,8x	2,6x	23,8x	27,2x	1,8x	431,4x
Mean						**47,4x**	**7,1x**	**21,9x**	**48,7x**	**4,7x**	**1409,5x**
Median						**38,3x**	**4,1x**	**21,4x**	**40,2x**	**4,9x**	**487,3x**
High						**94,6x**	**18,8x**	**45,5x**	**98,6x**	**6,8x**	**3960,9x**
Low						**18,3x**	**2,6x**	**8,2x**	**15,7x**	**1,8x**	**149,5x**

The table shows that traditional multiples cannot be calculated for some companies due to negative results for the last twelve months. As a result, the following multipliers were chosen for the market approach: P/BV, EV/EBITDA, EV/Revenue, EV/Active subscribers. Market values and multiples are calculated as of 7.4.2021, as the most current data when writing this thesis.

P/BV Multiple

The mean is 7,1x; the median value is 4,1x. The selected multiple range consists of The Walt Disney Company and IQIYI, Inc., the companies closest to the mean and median values. It should be emphasized that, ideally, a peer group would consist of more companies so that the multiple range is not so large. However, the application of the method does not change according to the number of companies in the peer group.

Multiples of chosen companies have been applied to the book value of Netflix, Inc. The resulting implied share price ranged from **$107 to $257** (see Table 18).

Table 18 P/BV Multiple

In mil.		P/BV		
Chosen Multiple			From	To
4,3x	10,2x	Equity Value	47 171	113 189
		Shares outstanding	441	441
		Price ($)	**107**	**257**

EV/EBITDA Multiple

The Walt Disney Company and Huya, Inc. are the companies closest to the mean and median. 21,4x and 23,8x ratios were chosen for the following calculation. By using an EV/EBITDA multiple, the EV of Netflix, Inc. was determined. Subsequently, using Formula #2, the EV value was converted to an equity value. By dividing the equity value by the number of shares outstanding, the implied share price of Netflix, Inc. was found to range from **$756** to **$842** (see Table 19).

Table 19 EV/EBITDA Multiple

In mil.		EV/EBITDA		
Chosen Multiple			From	To
21,4x	23,8	EV	341 539	379 410
		Net Debt	8 103	8 103
		Equity Value	333 435	371 307
		Shares outstanding	441	441
		Price ($)	**756**	**842**

EV/Revenue

Mean and Median are also very similar to each other. The selected multiple range is based on Discovery, Inc. and The Walt Disney Company, whose values are 4,1x and 5,6x, respectively. When applying the EV/Revenue multiples and then adjusting to Equity value measure, the implied share price range is **$213** to **$300** (see Table 20).

Table 20 EV/Revenue Multiple

In mil.		EV/Revenue		
Chosen Multiple			From	To
4,1x	5,6x	EV	102 060	140 609
		Net Debt	8 103	8 103
		Equity Value	93 956	132 505
		Shares outstanding	441	441
		Price ($)	**213**	**300**

EV/Active Subscribers

The unconventional EV/Active Subscribers multiple significantly varies from company to company. Discovery, Inc. has the highest multiple of 3960x. The lowest value among comparable companies belongs to IQIYI, Inc., at 149,5x. Tencent Music Entertainment Group and Huya, Inc. are the chosen companies from the peer group. After applying the multiple and consequently adjusting the results by subtracting the net debt and dividing by the number of shares outstanding, the determined share price ranges from **$181** to **$232.** (see Table 21).

Table 21 EV/Active Subscribers Multiple

In mil.		EV/Active Subscribers		
Chosen Multiple			From	To
431,4x	543,2x	EV	87 839	110 598
		Net Debt	8 103	8 103
		Equity Value	79 735	102 495
		Shares outstanding	441	441
		Price ($)	**181**	**232**

Subsequently, a football field was compiled for a better graphic representation of the market valuation result using the comparable companies method (see Figure 14).

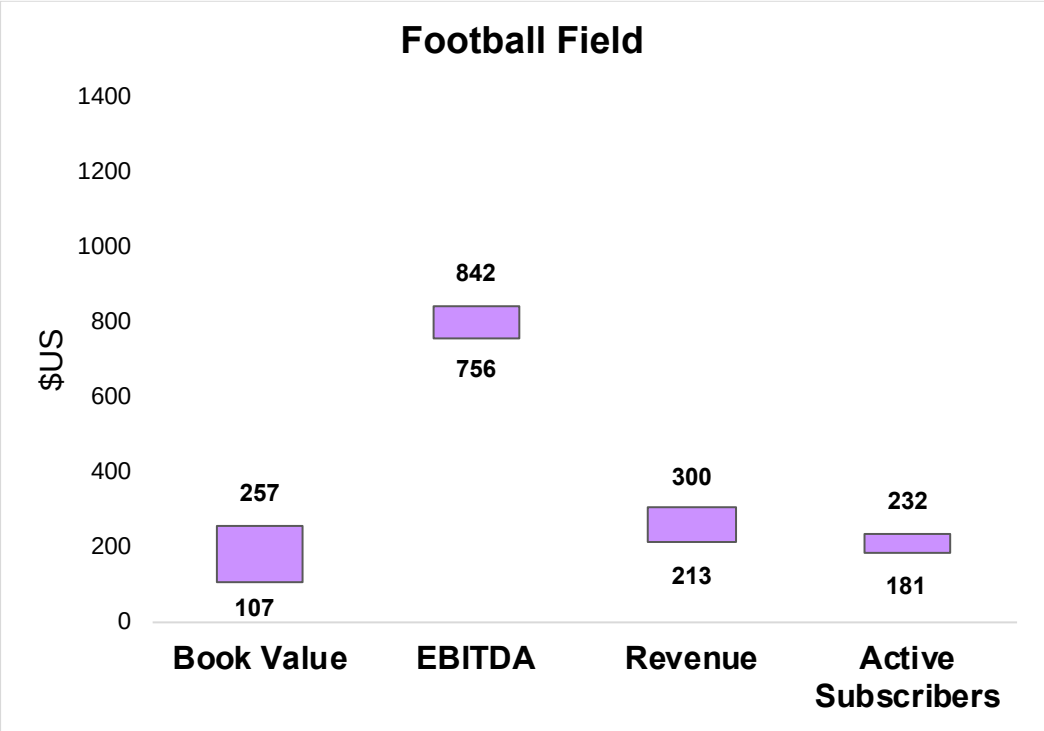


Figure 14 Football Field

Netflix, Inc.'s share price was $546 as of the valuation day, 7.4.2021. The market price is in the range presented on the football field. Nevertheless, none of the peer group companies invest as much as Netflix, Inc. does into original content. If the assumption that using EV/EBITDA is incorrect, then the estimated price range would change. If the EV/EBITDA was excluded from the list of chosen multiples, the maximum price from the football field would be $300. The market price as of 7.4.2021 is almost double that figure.

3.2 Discounted Cash Flow Method

Netflix, Inc.'s intrinsic value was determined at the enterprise level by the standard two-phase DCF method.

3.2.1 Value Drivers Projections

Value drivers are projected based on historical results and publicly reported future management expectations.

Sales Projections

Netflix, Inc.'s revenue is primarily composed of monthly subscription payments. The historical development of the number of subscribers in four reported regions was examined to determine streaming revenue. It can be observed that by 2020 the company shows a declining rate of new subscribers growth. Although Netflix, Inc. showed a record growth of new subscribers in 2020, the growth rate slowed down compared to 2019 in two of the four regions (see Table 22).

Table 22 Historical Paid Memberships at the End of Period

Financial Results: (in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Paid memberships at end of period	**110 644**	**139 259**	**167 090**	**203 663**
United States and Canada (UCAN)	58 422	64 757	67 662	73 936
YoY change		11%	4%	9%
Europe, Middle East, and Africa (EMEA)	26 004	37 818	51 778	66 698
YoY change		45%	37%	29%
Latin America (LATAM)	19 717	26 077	31 417	37 537
YoY change		32%	20%	19%
Asia-Pacific (APAC)	6 501	10 607	16 233	25 492
YoY change		63%	53%	57%

The letter to shareholders states that management expects a strong slowdown in the growth of new users. A relatively **conservative** development of new users is projected for the following calculation. The results are presented in the Table 23. Planned, manually entered cells are marked in blue.

Table 23 Planned Memberships at the End of Period

Financial Results: (in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Paid memberships at end of period	**222 403**	**242 398**	**260 843**	**276 071**	**288 216**
United States and Canada (UCAN)	75 415	76 923	77 692	78 469	79 254
YoY change	2,00%	2,00%	1,00%	1,00%	1,00%
Europe, Middle East, and Africa (EMEA)	72 034	77 076	81 701	85 786	89 217
YoY change	8,00%	7,00%	6,00%	5,00%	4,00%
Latin America (LATAM)	40 540	42 972	45 121	46 475	47 869
YoY change	8,00%	6,00%	5,00%	3,00%	3,00%
Asia-Pacific (APAC)	34 414	45 427	56 329	65 342	71 876
YoY change	35,00%	32,00%	24,00%	16,00%	10,00%

Then, average paying membership is calculated as the average of paid memberships at the end of the standing and previous periods.

The next step is to model the average monthly revenue per paying membership. A minor trend is observed in the UCAN region from the historical development, primarily because of small foreign exchange changes (see Table 24).

Table 24 Historical Average Monthly Revenue per Paying Membership

Financial Results: (in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Average monthly revenue per paying membership	**9,43**	**10,31**	**10,82**	**10,91**
United States and Canada (UCAN)	9,97	11,16	12,57	13,32
YoY change		12%	13%	6%
Europe, Middle East, and Africa (EMEA)	9,17	10,45	10,33	10,72
YoY change		14%	-1%	4%
Latin America (LATAM)	8,09	8,19	8,21	7,45
YoY change		1%	0%	-9%
Asia-Pacific (APAC)	9,11	9,33	9,24	9,12
YoY change		2%	-1%	-1%

Because the management has not published comments about the subscription's price development, price increases from 2020 to 2025 are modeled based on world inflation of 3 percent. The annual price development is derived from average growth rates from 2017 to 2020 in the APAC region. The results of the average monthly revenue forecasts are shown in the following table (see Table 25).

Table 25 Planned Average Monthly Revenue per Paying Membership

Financial Results: (in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Average monthly revenue per paying membership	**11,09**	**11,27**	**11,44**	**11,63**	**11,84**
United States and Canada (UCAN)	13,72	14,13	14,56	14,99	15,44
YoY change	3,00%	3,00%	3,00%	3,00%	3,00%
Europe, Middle East, and Africa (EMEA)	11,04	11,37	11,71	12,07	12,43
YoY change	3,00%	3,00%	3,00%	3,00%	3,00%
Latin America (LATAM)	7,67	7,90	8,14	8,39	8,64
YoY change	3,00%	3,00%	3,00%	3,00%	3,00%
Asia-Pacific (APAC)	9,12	9,13	9,13	9,14	9,14
YoY change	0,05%	0,05%	0,05%	0,05%	0,05%

Streaming revenue is determined by multiplying average monthly revenue per paying membership by average paying memberships and by 12 months.

DVD revenue decrease 19% every year. That rate is also used for the planned period.

Total planned revenue is presented in the Table 26.

Table 26 Planned Total Revenues

Financial Results: (in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Streaming revenues	**28 359 587**	**31 424 768**	**34 541 617**	**37 451 135**	**40 078 314**
United States and Canada (UCAN)	12 294 193	12 916 279	13 502 665	14 046 823	14 612 910
Europe, Middle East, and Africa (EMEA)	9 190 929	10 174 836	11 159 514	12 124 812	13 049 018
Latin America (LATAM)	3 594 741	3 960 340	4 302 910	4 608 196	4 888 835
Asia-Pacific (APAC)	3 279 724	4 373 313	5 576 529	6 671 304	7 527 551
DVD revenues	**193 899**	**157 058**	**127 217**	**101 774**	**80 401**
YoY	**-19%**	**-19%**	**-19%**	**-19%**	**-19%**
Total revenues	**28 553 485**	**31 581 826**	**34 668 834**	**37 552 908**	**40 158 715**

COGS and SG&A Projections

Cash Costs of Revenue Projections

The cash costs of revenue for the projected period are based on historical development; the rate of cash cost to the cost of revenue increases year-to-year (see Table 27).

Table 27 Historical Cash Costs of Revenues

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Cash costs of revenues	1 401 192	2 394 238	3 223 966	4 469 407
As a % of COGS	18,3%	24,0%	25,9%	29,3%

For the following years, the rate of cash costs is planned at 32% and, consequently, at 33% (see Table 28).

Table 28 Planned Cash Costs of Revenues

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Cash costs of revenues	5 413 812	5 989 630	6 672 271	7 145 796	7 650 949
As a % of COGS	32,0%	32,0%	33,0%	33,0%	33,0%

Content Amortization Projections

The historical rate of amortization was explored in order to model content amortization for the following five years. It is observed that the rate fluctuates from 37% to 43% of total content assets (see Table 29).

Table 29 Historical Content Assets & Amortization

in thousands of $US, except %	FY 2017	FY 2018	FY 2019	FY 2020
Non-current content assets, net	10 357 754	14 951 141	24 504 567	25 383 950
Current content assets, net	4 310 934	5 151 186	0	0
Sum	**14 668 688**	**20 102 327**	**24 504 567**	**25 383 950**
Amortization of streaming content assets	6 197 817	7 532 088	9 216 247	10 806 912
% of content assets	42%	37%	38%	43%
CAPEX				
Additions to streaming content assets	9 805 763	13 043 437	13 916 683	11 779 284
AS % of revenue	84%	83%	69%	47%

The average of previous years' rate is chosen for the projected years.

Additions to streaming content assets historically show significantly different values. In 2017 and 2018, additions to streaming content assets were as high as 84% and 83% of revenue. Netflix, Inc. actively expanded the offer of the original content to obtain a higher number of new subscribers. In 2020, the rate changed to 47% of revenue due to the partial suspension of filming due to the COVID-19 pandemic. In the letter to shareholders (2021), management expects that Netflix, Inc. is close to sustainable positive FCFF. Due to management expectations, the financial plan calculates additions to streaming content assets at 50% of revenue in 2021 and 2022, and at 45% thereafter.

The following Table 30 shows the calculation results for the planned period.

Table 30 Planned Content Assets & Amortization

in thousands of $US, except %	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Non-current content assets, net	28 059 392	31 043 813	33 040 809	35 385 688	37 887 184
Current content assets, net	0	0	0	0	0
Sum	**28 059 392**	**31 043 813**	**33 040 809**	**35 385 688**	**37 887 184**
Amortization of streaming content assets	11 504 351	12 727 963	13 546 732	14 508 132	15 533 745
% of content assets	41%	41%	41%	41%	41%
CAPEX					
Additions to streaming content assets	14 179 793	15 712 384	15 543 728	16 853 011	18 035 241
AS % of revenue	50%	50%	45%	45%	45%

Marketing Projections

Marketing expenses were not calculated as a percentage of sales. Rather, they were determined on the bases of cost per net added customer for the company.

Subsequently, by dividing the cost of acquisition of a new customer by average monthly revenue per paying customer, the number of break-even months for acquiring a new customer was found (see Table 31).

Table 31 Historical Marketing Costs

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Marketing	1 278 022	2 369 469	2 652 462	2 228 362
Net user additions	21 554	28 615	27 831	36 573
$ per net added customer	59,3	82,8	95,3	60,9
Avg monthly revenue per paying customer	9,4	10,3	10,8	10,9
Acquisiton cost / monthly revenue	6,29	8,03	8,81	5,58

For the modelled years, marketing spending is planned to assume that the marketing break-even cost is nine months. Otherwise, if marketing were to be higher, it would not be efficient. The results are shown in the Table 32.

Table 32 Planned Marketing Costs

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Marketing	1 860 622	2 016 561	1 888 482	1 593 313	1 293 843
Net user additions	18 740	19 996	18 445	15 228	12 145
$ per net added customer	99	100,9	102,4	104,6	106,5
Avg monthly revenue per paying customer	11	11,3	11,4	11,6	11,8
Acquisiton cost / monthly revenue	8,95	8,95	8,95	9,00	9,00

Technology and Development Projections

As mentioned in the vertical analysis, Netflix, Inc. invests in technology and development, which is approximately 7% of sales every year. The average rate of the last three years is left constant for the next five years (see Table 33).

Table 33 Planned Technology & Development Costs

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Technology and development	2 098 609	2 325 433	2 556 080	2 771 384	2 965 795
As a % of sales	7,4%	7,4%	7,4%	7,4%	7,4%

General and Administrative Projections

General and administrative expenses are also calculated as percentages of sales. The planned rate is constant for the following years as an average rate of the last three years (see Table 34).

Table 34 Planned General & Administrative Costs

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
General and administrative	1 213 187	1 344 311	1 477 646	1 602 112	1 714 499
As a % of sales	4,3%	4,3%	4,3%	4,3%	4,3%

Stock-based Compensation Projections

Stock-based compensation is included as a cash expense. Such inclusion reduces the complexity of determining dilution during the valuation application. The rate of stock-based compensation as a cash expense is planned as 1.8% of sales (see Table 35). The rate is calculated as an average of the historical values.

Table 35 Planned Stock-based Compensation Expenses

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Stock-based compensation as a cash expense	514 772	570 410	626 986	679 798	727 486
As a % of sales	1,8%	1,8%	1,8%	1,8%	1,8%

Operating Margin Projections

The operating margin changes positively in the planned periods (see Table 36). According to management's expectations, the operating margin will change approximately 2% year by year. The new subscribers' additions are planned more conservative, compared to management expectations. As a result, the operating margin grows slower than reported in the letter to shareholders assumptions.

Table 36 Operating Margin

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Operating income	**5 754 233**	**6 450 460**	**7 773 421**	**9 150 599**	**10 191 996**
Operating margin	**20%**	**21%**	**23%**	**24%**	**25%**

Capital Expenditures Projections

Capex has already been partially projected. Purchases of property and equipment projection are based on the same logic as additions to streaming content assets. Netflix, Inc. invests in property and equipment at approximately 1,7% of revenue per year. Historical rates are presented in Table 37 below.

Table 37 Historical Capex

in thousands of $US, except %	FY 2017	FY 2018	FY 2019	FY 2020
Property and equipment, net	319 404	418 281	565 221	960 183
Depreciation and amortization of property, equipment	71 911	83 157	103 579	115 710
% of property, equipment	23%	20%	18%	12%
CAPEX				
Purchases of property and equipment	173 302	38 586	253 035	497 923
AS % of revenue	1,5%	0,2%	1,3%	2%

The average rate of last four years is used for the projections.

The depreciation rate is also projected based on historical development. Results of the calculations are presented in Table 38.

Table 38 Planned Capex

in thousands of $US, except %	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Property and equipment, net	1 182 721	1 417 543	1 679 137	1 949 839	2 225 630
Depreciation and amortization of property, equipment	130 099	155 930	167 914	194 984	222 563
% of property, equipment	11%	11%	10%	10%	10%
CAPEX					
Purchases of property and equipment	352 637	390 751	429 508	465 686	498 354
AS % of revenue	1,2%	1,2%	1,2%	1,2%	1,2%

Change in Net Working Capital Projections

The company's management did not publish plans or expectations regarding the development of the NWC in publicly available sources. For this reason, some of the working capital items were forecasted based on historical development.

Current Assets Projections

Historical trade receivables and DSO are presented in Table 39. A slight trend of increasing DSO is observed.

Table 39 Historical Trade Receivables

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Trade receivables	-	362 712	454 399	610 820
DSO		8	8	9

This trend is maintained for the projected period. Days sales outstanding are nine and ten days (see Table 40).

Table 40 Planned Trade Receivables

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Trade receivables	737 349	817 044	898 082	1 011 181	1 082 114
DSO	9	9	9	10	10

Previous **prepaid expenses**, which are lease expenses, and percentage rate of the operating expenses, are shown in Table 41.

Table 41 Historical Prepaid Expenses

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Prepaid expenses	-	178 833	180 999	203 042
As a % of opex		4,2%	3,5%	4,0%

The average rate for the previous years of 3,9% is used for the modelling (see Table 42).

Table 42 Planned Prepaid Expenses

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Prepaid expenses	222 395	244 666	256 103	259 912	262 064
As a % of opex	3,9%	3,9%	3,9%	3,9%	3,9%

Other receivables' historical development along with DSO is presented in the Table 43.

Table 43 Historical Other Receivables

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Other receivables	-	206 921	524 669	742 169
DSO		5	10	11

The growing trend is maintained for the following periods (see Table 44).

Table 44 Planned Other Receivables

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Other receivables	1 010 067	1 205 334	1 419 519	1 539 088	1 866 661
DSO	13	14	15	16	17

Current Liabilities Projections

Current content liabilities and the percentage rate of cash costs are shown in Table 45 below.

Table 45 Historical Current Content Liabilities

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Current content liabilities	4 173 041	4 686 019	4 413 561	4 429 536
As a % of cash costs	297,8%	195,7%	136,9%	99,1%

A decreasing trend is observed. Slowly decreasing ratios are projected for the forecast (see Table 46).

Table 46 Planned Current Content Liabilities

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Current content liabilities	4 331 050	4 192 741	4 003 363	3 572 898	3 442 927
As a % of cash costs	80,0%	70,0%	60,0%	50,0%	45,0%

Previous **accounts payable** values and DPO are presented in the following Table 47. DPO is decreasing.

Table 47 Historical Accounts Payable

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Accounts payable	359 555	562 985	674 347	656 183
DPO	94	86	76	54

Values close to the sector median ratios are chosen for the projection (see Table 48).

Table 48 Planned Accounts Payable

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Accounts payable	741 618	820 497	822 609	880 989	943 268
DPO	50	50	45	45	45

Accrued expenses previous values are observed in Table 49.

Table 49 Historical Accrued Expenses

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Accrued expenses	315 094	477 417	843 043	1 102 196
As a % of operating expenses	9,9%	11,3%	16,5%	21,5%

Accrued expenses increase historically. The conservative increase is maintained for the projected period (see Table 50).

Table 50 Planned Accrued Expenses

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Accrued expenses	1 308 054	1 501 612	1 637 298	1 728 118	1 809 438
As a % of operating expenses	23,0%	24,0%	25,0%	26,0%	27,0%

Historical **deferred revenue** is presented in Table 51.

Table 51 Historical Deferred Revenue

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Deferred revenue	618 622	760 899	924 745	1 117 992
As a % of Sales	5,3%	4,8%	4,6%	4,5%

A decreasing historical trend is observed. The trend is maintained for the following periods.

Table 52 Planned Deferred Revenue

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Deferred revenue	1 247 822	1 351 265	1 450 748	1 535 497	1 603 133
As a % of Sales	4,4%	4,3%	4,2%	4,1%	4,0%

Debt Projections

The companies' management believes Netflix, Inc. does not need to raise external financing. The amount of long-term debt is forecasted based on data published in the annual report. The overall debt model is included in the appendix of this thesis (see Appendix 8). The debt model includes interest expenses, which are calculated depending on the obligations' maturity date. In February 2021, Netflix, Inc. decreased the debt by 500 million $US. The company will also pay 3 billion outstanding notes during the projected period.

Other Items Projections

Other non-current liabilities include unrecognized tax benefits, penalties. Due to the nature of these liabilities and other non-current assets, they are extremely difficult to project; other items are left constant as of the last non-projected year.

Tax Projections

The effective tax rate differs from year to year. The tax rate was 14% in the monitored last year. For the projected period, the 21% effective tax rate is chosen. This rate is the average that US corporates pay. Moreover, an increase in the tax rate for corporations is expected due to the new US policy.

3.2.2 Financial Plan Projections

Once the value drivers are projected, it is possible to compose a financial plan.

The Pro-forma of the income statement is presented in the Table 53.

Table 53 Pro-forma Statements of Operations

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Revenues	**28 359 587**	**31 424 768**	**34 541 617**	**37 451 135**	**40 078 314**
Cost of revenues	**16 918 163**	**18 717 593**	**20 219 003**	**21 653 928**	**23 184 694**
Cash costs of revenues	5 413 812	5 989 630	6 672 271	7 145 796	7 650 949
Content Amortization	11 504 351	12 727 963	13 546 732	14 508 132	15 533 745
Gross profit	**11 441 424**	**12 707 175**	**14 322 615**	**15 797 206**	**16 893 619**
Marketing	1 860 622	2 016 561	1 888 482	1 593 313	1 293 843
Technology and development	2 098 609	2 325 433	2 556 080	2 771 384	2 965 795
General and administrative	1 213 187	1 344 311	1 477 646	1 602 112	1 714 499
Stock-based compensation as a cash expense	514 772	570 410	626 986	679 798	727 486
Operating expense	**5 687 191**	**6 256 715**	**6 549 194**	**6 646 607**	**6 701 623**
Operating income	**5 754 233**	**6 450 460**	**7 773 421**	**9 150 599**	**10 191 996**
Interest and other income, net	**(752 837)**	**(715 306)**	**(712 098)**	**(692 931)**	**(625 396)**
Interest expense	(752 837)	(715 306)	(712 098)	(692 931)	(625 396)
Income before income taxes	**5 001 396**	**5 735 154**	**7 061 323**	**8 457 668**	**9 566 600**
Provision for (benefit from) income taxes	**1 050 293**	**1 204 382**	**1 482 878**	**1 776 110**	**2 008 986**
Effective tax rate	21,0%	21,0%	21,0%	21,0%	21,0%
Net income	**3 951 103**	**4 530 772**	**5 578 445**	**6 681 558**	**7 557 614**

Consequently, the Pro-forma of the balance sheet is presented in the following Table 54.

Table 54 Pro-Forma Balance Sheet

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Assets					
Current assets:					
Cash and cash equivalents	6 967 545	7 358 425	10 198 781	13 144 538	15 784 014
Short-term investments	-	-	-	-	-
Current content assets, net	-	-	-	-	-
Other current assets	1 969 812	2 267 043	2 573 704	2 810 181	3 210 839
Trade receivables	737 349	817 044	898 082	1 011 181	1 082 114
Prepaid expenses	222 395	244 666	256 103	259 912	262 064
Other receivables	1 010 067	1 205 334	1 419 519	1 539 088	1 866 661
Total current assets	**8 937 356**	**9 625 468**	**12 772 484**	**15 954 719**	**18 994 854**
Non-current content assets, net	28 059 392	31 043 813	33 040 809	35 385 688	37 887 184
Property and equipment, net	1 182 721	1 417 543	1 679 137	1 949 839	2 225 630
Other non-current assets	3 174 646	3 174 646	3 174 646	3 174 646	3 174 646
Total assets	**41 354 116**	**45 261 470**	**50 667 076**	**56 464 892**	**62 282 313**
Liabilities and Stockholders' Equity					
Current liabilities:					
Current content liabilities	4 331 050	4 192 741	4 003 363	3 572 898	3 442 927
Accounts payable	741 618	820 497	822 609	880 989	943 268
Accrued expenses	1 308 054	1 501 612	1 637 298	1 728 118	1 809 438
Deferred revenue	1 247 822	1 351 265	1 450 748	1 535 497	1 603 133
Short-term debt	-	-	-	-	-
Total current liabilities	**7 628 544**	**7 866 115**	**7 914 018**	**7 717 501**	**7 798 766**
Non-current content liabilities	1 417 979	1 256 991	1 036 249	749 023	801 566
Long-term debt	15 309 095	14 609 095	14 609 095	14 209 095	12 335 095
Other non-current liabilities	1 982 155	1 982 155	1 982 155	1 982 155	1 982 155
Total liabilities	**26 337 773**	**25 714 355**	**25 541 516**	**24 657 774**	**22 917 582**
Stockholders' equity:					
Common stock	3 447 698	3 447 698	3 447 698	3 447 698	3 447 698
Accumulated other comprehensive loss	44 398	44 398	44 398	44 398	44 398
Retained earnings	11 524 247	16 055 018	21 633 464	28 315 022	35 872 636
Total stockholders' equity	**15 016 343**	**19 547 114**	**25 125 560**	**31 807 118**	**39 364 732**
Total liabilities and stockholders' equity	**41 354 116**	**45 261 470**	**50 667 076**	**56 464 892**	**62 282 313**

Statement of cash flows is placed in the appendix of the thesis (see Appendix 9). It is also important to mention that Netflix, Inc. has announced a stock repurchasing process. The board approved a stock buyback of 5 billion US dollars without no expiration to the plan. If utilized, the process should not affect the equity value because it will use excess cash. Therefore, the stock buyback is not reflected in pro-formas.

3.2.3 Free Cash Flow Calculation

Netflix, Inc. reports free cash flow; FCFF are "defined as net cash provided by operating activities less purchases of property and equipment and change in other assets" (10-K Netflix, Inc. report, 2021, p. 27).

The free cash flow calculated in this way does not contradict the formula in Table 8. For the next valuation, FCFF was calculated as described in the 10-K report.

Table 55 shows the results of FCFF calculations.

Table 55 FCFF Calculations

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Net cash used in operating activities	114 511	1 481 631	3 269 864	3 811 444	5 011 830
Purchases of property and equipment	(352 637)	(390 751)	(429 508)	(465 686)	(498 354)
FCFF	**(238 126)**	**1 090 880**	**2 840 356**	**3 345 758**	**4 513 476**

Table 55 shows the results of FCFF calculations.

As previously mentioned, the company's management believes that Netflix, Inc. is close to sustainable positive cash flow. However, as reported in the letter to shareholders, managers do not have high expectations for FCFF in 2021. "For the full year 2021, we currently anticipate free cash flow will be around break-even" (Netflix, Inc. Letter to shareholders, 2021, p. 5). The financial plan and FCFF results match with the forecast.

3.2.4 WACC Calculations

Cost of Debt

The cost of debt is calculated by dividing the interest expenses by the debt amount. The cost of debt varies year by year, but the average rate is approximately 4,9% (see Table 56).

Table 56 Cost of Debt Calculations

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Debt	15 309 095	14 609 095	14 609 095	14 209 095	12 335 095
Interest expense	(752 837)	(715 306)	(712 098)	(692 931)	(625 396)
Cost of Debt	**4,92%**	**4,90%**	**4,87%**	**4,88%**	**5,07%**

Cost of Equity

The cost of equity is determined using the CAPM model.

Risk-free Rate

The 10-year US treasury bond yield to maturity is chosen as the risk-free rate. The current YTM is 1,64%. The value is taken from the website www.investing.com as of 29.4.2021.

Market Risk Premium

The market risk premium is calculated with the help of data from the website of American professor Damodaran. Each of the four regions reported by Netflix, Inc. is assigned a market risk premium from the professor's database. The values are current up to the beginning of 2021. Because the revenue ratio differs in the regions, weights are assigned to individual territories for more accurate calculations. The weighted market risk premium is consequently calculated. The results are in the following Table (see Table 57).

Table 57 Market Risk Premium Calculations

	Revenue thousands $US	Weight	Market Risk Premium	Market Risk Premium weighted
United States and Canada (UCAN) total	11 694 777	47%	4,72%	2,21%
Europe, Middle East, and Africa (EMEA)	7 772 252	31%	7,06%	2,20%
Latin America (LATAM)	3 156 727	13%	8,71%	1,10%
Asia-Pacific (APAC)	2 372 300	9%	6,98%	0,66%
SUM	**24 996 056**			**6,17%**

Beta

The theoretical part of the thesis states that unlevered beta can be found on certain websites. In practical applications, it has been concluded that the beta value is often given for the whole sector. Because companies have a different capital structure, unlevered beta is calculated manually.

Beta values for the entertainment industry in four regions are taken over from A. Damodaran's website. Subsequently, with the same logic as for market risk premium, unlevered beta weighted is calculated (see Table 58).

Table 58 Unlevered Beta Calculations

	Revenue thousands $US	Weight	Unlevered Beta	Unlevered Beta weighted
United States and Canada (UCAN) total	11 694 777	47%	**0,79**	0,37
Europe, Middle East, and Africa (EMEA)	7 772 252	31%	**0,81**	0,25
Latin America (LATAM)	3 156 727	13%	**1,09**	0,14
Asia-Pacific (APAC)	2 372 300	9%	**0,83**	0,08
SUM	**24 996 056**			**0,84**

After determining the necessary data, the cost of equity and then WACC are calculated. Results are in the table below (see Table 59).

Table 59 WACC Calculations

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Equity	15 016 343	19 547 114	25 125 560	31 807 118	39 364 732
Debt	15 309 095	14 609 095	14 609 095	14 209 095	12 335 095
% of Equity	49,52%	57,23%	63,23%	69,12%	76,14%
% of Debt	50,48%	42,77%	36,77%	30,88%	23,86%
Risk-free Rate	1,64%	1,64%	1,64%	1,64%	1,64%
Unlevered Beta	0,84	0,84	0,84	0,84	0,84
Market Risk Premium	6,17%	6,17%	6,17%	6,17%	6,17%
Effective Tax Rate	21%	21%	21%	21%	21%
Levered Beta	1,82	1,52	1,34	1,23	1,14
Cost of Equity	12,87%	11,01%	9,89%	9,21%	8,66%
Cost of Debt	4,92%	4,90%	4,87%	4,88%	5,07%
WACC	**7,52%**	**7,40%**	**7,31%**	**7,24%**	**7,22%**

WACC decreases year by year.

3.2.5 Determine Valuation

All necessary items for performing a valuation by discounted cash flows method were defined in previous chapters.

As mentioned in the theoretical part, the valuation is performed by a standard two-phase method.

The value of the first phase is determined by discounting the already calculated FCFF.

Two different methods determine the second phase or terminal value.

The first being the **perpetuity growth method**, which assumes a constant growth rate. A 3% growth rate, as the world inflation rate, and 7% WACC are chosen for

the calculation. When using this method, the terminal value is $116 billion. By subsequent discounting, TV is adjusted to the present value of $81 billion. The sum of both phases' discounted values is the enterprise value of the company. EV is $90 billion. By decreasing this value by the amount of net debt, the equity value is $82 billion. Then equity value is divided by shares outstanding. The estimated intrinsic value of a share of Netflix, Inc. is $186.

Even though the technical application of the method is correct, this method may not reflect reality. It is difficult to conclude that Netflix, Inc. will **reach a steady-state** during the forecast period. Therefore, this method for determining the intrinsic value of the company will not be considered.

The second method is **exit multiple method**. A 21x EBITDA multiple was chosen because it is the median of the comparable companies. The resulting TV is $332 billion. Following the subsequent adjustments described earlier, the intrinsic share price is estimated to be $531. This result is close to the market price as of 31.12.2020. The closing price was $540 that day.

However, in the case of Netflix, Inc., the **EBIT multiple** should also be considered. None of the peer group companies invests as much as Netflix, Inc. in original content. As a result, the company reports huge amortization and depreciation. Using EV/EBITDA multiple can lead to incorrect values. The median of the comparable companies' values was chosen as the exit multiple. After the multiple application, the terminal value is $184 billion. The resulting intrinsic value of a share, determined following the necessary adjustments, is $295. This price is 40% lower than the market price at the end of 31.12.2020. DCF calculations are presented in the following table (see Table 60).

Table 60 DCF Valuation

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TV
FCFF	(238 126)	1 090 880	2 840 356	3 345 758	4 513 476	
First Phase Value	**8 701 004**	9 593 096	9 212 335	7 045 140	4 209 486	
TV Value Perpetuity Growth	**81 570 246**	87 701 046	94 193 025	101 075 866	108 394 273	116 222 018
EV	90 271 251					
Equity Value	82 167 829					
Share price $	**186**					
TV EBITDA Multiple	**233 466 170**	251 013 430	269 594 437	289 294 154	310 240 523	332 644 691
EV	242 167 174					
Equity Value	234 063 752					
Share price $	**531**					
TV EBIT Multiple	**129 370 760**	139 094 235	149 390 540	160 306 757	171 913 781	184 328 618
EV	138 071 764					
Equity Value	129 968 342					
Share price $	**295**					

3.2.6 Sensitivity Analysis

EV/EBIT multiple is chosen as the most meaningful for the TV estimation and intrinsic share price calculation. However, the price will change depending on the decrease or increase in the WACC and EV/EBIT parameters. Table 61 shows how the share price will change depending on the parameters' changes.

Table 61 Sensitivity Analysis

		EBIT multiple		
		35,0x	44,6x	45,0x
	6,5	$268	$308	$344
	7	$261	$300	$336
WACC	calculated	$257	$295	$330
	8	$249	$286	$320
	8,5	$243	$279	$312

3.2.7 Final Recommendation

The intrinsic value of Netflix, Inc. is **lower** than its market value **from the fundamental financial perspective**. The recommendation, based on these estimations, is **sell**.

Theoretically, the company's intrinsic value may be higher. For example, if the number of new subscribers will grow faster than it has been forecasted.

Alternatively, if the management decides to considerably increase subscription prices.

Netflix, Inc. is one of the companies that has benefited from the pandemic. The company's active development and adapting to the world's situation has become a hot topic and discussed on many platforms. These facts are directly connected with investors' psychology, behavioral finances and may support the demand for the share.

The demand affects the price. As was mentioned at the beginning of the thesis, the number of new individual investors entering the financial markets has reached record levels. How many of them are intelligent investors? Does the financial market reflect the fundamental principles Graham was talking about? Are the multiple values rational? Can traditional approaches be applied to the current market circumstances? Only time will provide answers.

Conclusion

The purpose of the diploma thesis was to study the valuation methodologies and perform the valuation of Netflix, Inc. by comparable multiple and DCF methods. The valuation has been performed from the individual investor's perspective who considers buying Netflix, Inc. shares.

The first part of the thesis described the international and regional valuation standards, bases of value, and value measures. Valuation subjects and related valuation purposes were presented. Recommended valuation steps from the professor Mařik were described. The theoretical essence of the necessary strategic tools was explained. Then, based on Rosenbaum and Pearl, the chosen valuation methods were explained in detail with pros and cons relating to each method.

The second part overviewed Netflix, Inc.'s history from its beginning. The historical timeline included the development of subscribers, original content, achievements, international expanse, and social activities. The business model Canvas examined the company's business model, described factors, which adds value to the valuated company. PESTLE analysis observed macro factors and risks which influence Netflix, Inc. This analysis also included examples and precedents, which have already affected the company's work. Porter's five forces analysis explained the microenvironment. Netflix, Inc.'s position among its main competitors was described together with the evaluation of the risk of a new entrant. SWOT analysis combined the results of the previous findings in a matrix of strengths, weaknesses, opportunities, and threats. The financial analysis finalized the strategic portion of the thesis—for example, income statement vertical analysis showed an increase in operating margin by 5%, comparable to 2019. Horizontal analysis of the balance sheet showed that Netflix, Inc. decreased marketing expenses the most compared to other items. Ratio analyses showed that Netflix, Inc. had much better results than its peer group.

The comparable companies' method evaluated Netflix, Inc. as 7.4.2021, the most current data when writing the thesis. Adjusted for non-current events, financial data and current market data were used for this purpose. Subsequently, using the chosen multiple, the enterprise value of the company was estimated. The following

adjustments to the share price range showed that the current share price is higher than the estimated range.

Netflix, Inc.'s intrinsic value has been determined on the enterprise level. Value drivers were projected based on historical results and publicly reported future management expectations. Following the value drivers' projections, the financial plan was presented. Free cash flows were calculated based on the company's reported method. WACC was calculated as a discount rate. The cost of debt was determined as the level of paid interest rates. The cost of capital was calculated using the CAPM model and data from the database of professor Damodaran. The estimated WACC was approximately 7% and varied by year to year. The value of the first phase was calculated by discounting FCFF. The second phase value was determined by the two methods described in the theoretical section of the thesis. The terminal value was also discounted to the present value. Subsequently, the intrinsic value of the share was determined by EV adjustments. The estimated intrinsic value of $295 is lower than the share price as of the valuation date of 31.12.2020. The final recommendation, based on findings from the fundamental financial perspective, is to sell.

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Appendix 1 Consolidated Statements of Operations

(in thousands of $US, except per share data)	FY 2017	FY 2018	FY 2019	FY 2020
Revenues	**11 692 713**	**15 794 341**	**20 156 447**	**24 996 056**
Cost of revenues	7 659 666	9 967 538	12 440 213	15 276 319
Cash costs of revenues	1 401 192	2 394 238	3 223 966	4 469 407
Content Amortization	6 258 474	7 573 300	9 216 247	10 806 912
Gross profit	**4 033 047**	**5 826 803**	**7 716 234**	**9 719 737**
Marketing	1 278 022	2 369 469	2 652 462	2 228 362
Technology and development	1 052 778	1 221 814	1 545 149	1 829 600
General and administrative	863 568	630 294	914 369	1 076 486
Operating expense	**3 194 368**	**4 221 577**	**5 111 980**	**5 134 448**
Operating income	**838 679**	**1 605 226**	**2 604 254**	**4 585 289**
Interest and other income, net	**(353 358)**	**(378 768)**	**(542 023)**	**(1 385 940)**
Interest expense	(238 204)	(420 493)	(626 023)	(767 499)
Interest and other income (expense)	(115 154)	41 725	84 000	(618 441)
Income before income taxes	**485 321**	**1 226 458**	**2 062 231**	**3 199 349**
Provision for (benefit from) income taxes	**(73 608)**	**15 216**	**195 315**	**437 954**
Effective tax rate	-15,2%	1,2%	9,5%	13,7%
Net income (reported)	**558 929**	**1 211 242**	**1 866 916**	**2 761 395**
Earnings per share (reported):				
Basic	1,29	2,78	4,26	6,26
Diluted	1,25	2,68	4,13	6,08
Weighted-average common shares outstanding:				
Basic	431 885	435 374	437 799	440 922
Diluted	446 814	451 244	451 765	454 208

Appendix 2 Consolidated Statements of Cash Flows

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Cash flows from operating activities:				
Net income	558 929	1 211 242	1 866 916	2 761 395
Adjustments to reconcile net income to net cash used in operating activities:				
Additions to streaming content assets	(9 805 763)	(13 043 437)	(13 916 683)	(11 779 284)
Change in streaming content liabilities	900 006	999 880	(694 011)	(757 433)
Amortization of streaming content assets	6 197 817	7 532 088	9 216 247	10 806 912
Amortization of DVD content assets	60 657	41 212	-	-
Depreciation and amortization of property, equipment and intangibles	71 911	83 157	103 579	115 710
Stock-based compensation expense	182 209	320 657	405 376	415 180
Other non-cash items	57 207	40 428	228 230	293 126
Foreign currency remeasurement loss on long-term debt	140 790	(73 953)	(45 576)	533 278
Deferred taxes	(208 688)	(85 520)	(94 443)	70 066
Changes in operating assets and liabilities:				
Other current assets	(234 090)	(200 192)	(252 113)	(187 623)
Accounts payable	74 559	199 198	96 063	(41 605)
Accrued expenses	114 337	150 422	157 778	198 183
Deferred revenue	177 974	142 277	163 846	193 247
Other non-current assets and liabilities	(73 803)	2 062	(122 531)	(194 075)
Net cash used in operating activities	**(1 785 948)**	**(2 680 479)**	**(2 887 322)**	**2 427 077**
Cash flows from investing activities:				
Acquisition of DVD content assets	(53 720)	(173 946)	-	-
Purchases of property and equipment	(173 302)	(38 586)	(253 035)	(497 923)
Change in other assets	(6 689)	(126 588)	(134 029)	(7 431)
Purchases of short-term investments	(74 819)	-	-	-
Proceeds from sale of short-term investments	320 154	-	-	-
Proceeds from maturities of short-term investments	22 705	-	-	-
Net cash (used in) provided by investing activities	**34 329**	**(339 120)**	**(387 064)**	**(505 354)**
Cash flows from financing activities:				
Proceeds from issuance of debt	3 020 510	3 961 852	4 469 306	1 009 464
Debt issuance costs	(32 153)	(35 871)	(36 134)	(7 559)
Proceeds from issuance of common stock	88 378	124 502	72 490	235 406
Other financing activities	255	(1 956)	-	-
Net cash provided by financing activities	**3 076 990**	**4 048 527**	**4 505 662**	**1 237 311**
Effect of exchange rate changes on cash and cash equivalents	29 848	(39 682)	469	36 050
Net increase (decrease) in cash and cash equivalents	1 355 219	989 246	1 231 745	3 195 084
Cash and cash equivalents, beginning of period	1 467 576	2 822 795	3 812 041	5 043 786
Cash and cash equivalents, end of period	**2 822 795**	**3 812 041**	**5 043 786**	**8 238 870**

Appendix 3 Consolidated Balance Sheets

(in thousands of $US)	FY 2017	FY 2018	FY 2019	FY 2020
Assets				
Current assets:				
Cash and cash equivalents	2 822 795	3 794 483	5 018 437	8 205 551
Short-term investments	-	-	-	-
Current content assets, net	4 310 934	5 151 186	-	-
Other current assets	536 245	748 466	1 160 067	1 556 031
Trade receivables	-	362 712	454 399	610 820
Prepaid expenses	-	178 833	180 999	203 042
Other receivables	-	206 921	524 669	742 169
Total current assets	**7 669 974**	**9 694 135**	**6 178 504**	**9 761 580**
Non-current content assets, net	10 371 055	14 960 954	24 504 567	25 383 950
Licensed content, net	7 460 844	8 930 277	14 703 352	13 747 607
Produced content, net	2 896 910	6 020 864	9 801 215	11 636 343
Released, less amortization	1 427 256	2 403 896	4 382 685	5 809 681
In production	1 311 137	3 305 126	4 750 664	4 827 455
In development and pre-production	158 517	311 842	667 866	999 207
DVD	13 301	9 813		
Property and equipment, net	319 404	418 281	565 221	960 183
Other non-current assets	652 309	901 030	2 727 420	3 174 646
Total assets	**19 012 742**	**25 974 400**	**33 975 712**	**39 280 359**
Liabilities and Stockholders' Equity				
Current liabilities:				
Current content liabilities	4 173 041	4 686 019	4 413 561	4 429 536
Accounts payable	359 555	562 985	674 347	656 183
Accrued expenses	315 094	477 417	843 043	1 102 196
Deferred revenue	618 622	760 899	924 745	1 117 992
Short-term debt	-	-	-	499 878
Total current liabilities	**5 466 312**	**6 487 320**	**6 855 696**	**7 805 785**
Non-current content liabilities	3 329 796	3 759 026	3 334 323	2 618 084
Long-term debt	6 499 432	10 360 058	14 759 260	15 809 095
Other non-current liabilities	135 246	129 231	1 444 276	1 982 155
Total liabilities	**15 430 786**	**20 735 635**	**26 393 555**	**28 215 119**
Stockholders' equity:				
Common stock	1 871 396	2 315 988	2 793 929	3 447 698
Accumulated other comprehensive loss	(20 557)	(19 582)	(23 521)	44 398
Retained earnings	1 731 117	2 942 359	4 811 749	7 573 144
Total stockholders' equity	**3 581 956**	**5 238 765**	**7 582 157**	**11 065 240**
Total liabilities and stockholders' equity	**19 012 742**	**25 974 400**	**33 975 712**	**39 280 360**

Appendix 4 Statements of Operations Vertical & Horizontal Analysis

	Vertical Analysis				Horizontal Analysis (%)			Horizontal Analysis		
					(%)			(absolute numbers)		
(in thousands of $US, except per share data, %)	FY 2017	FY 2018	FY 2019	FY 2020	18/17	19/18	20/19	2018/2017	2019/2018	2020/2019
Revenues	**100%**	**100%**	**100%**	**100%**	**35%**	**28%**	**24%**	**4 101 628**	**4 362 106**	**4 839 609**
Cost of revenues	66%	63%	62%	61%	30%	25%	23%	2 307 872	2 472 675	2 836 106
Cash costs of revenues	12%	15%	16%	18%	71%	35%	39%	993 046	829 728	1 245 441
Content Amortization	54%	48%	46%	43%	21%	22%	17%	1 314 826	1 642 947	1 590 665
Gross profit	**34%**	**37%**	**38%**	**39%**	**44%**	**32%**	**26%**	**1 793 756**	**1 889 431**	**2 003 503**
Marketing	11%	15%	13%	9%	85%	12%	-16%	1 091 447	282 993	(424 100)
Technology and development	9%	8%	8%	7%	16%	26%	18%	169 036	323 335	284 451
General and administrative	7%	4%	5%	4%	-27%	45%	18%	(233 274)	284 075	162 117
Operating expense	**27%**	**27%**	**25%**	**21%**	**32%**	**21%**	**0%**	**1 027 209**	**890 403**	**22 468**
Operating income	**7%**	**10%**	**13%**	**18%**	**91%**	**62%**	**76%**	**766 547**	**999 028**	**1 981 035**
Interest and other income, net										
Interest expense	2%	3%	3%	3%	77%	49%	23%	182 289	205 530	141 476
Interest and other income (expense)										
Income before income taxes	**4%**	**8%**	**10%**	**13%**	**153%**	**68%**	**55%**	**741 137**	**835 773**	**1 137 118**
Provision for (benefit from) income taxes	**-1%**	**0%**	**1%**	**-2%**						
Effective tax rate	-15%	1%	9%	14%						
Net income (reported)	**5%**	**8%**	**9%**	**11%**	**117%**	**54%**	**48%**	**652 313**	**655 674**	**894 479**
Earnings per share:										
Basic	1,29	2,78	4,26	6,26						
Diluted	1,25	2,68	4,13	6,08						
Weighted-average common shares outstanding:										
Basic	431 885	435 374	437 799	440 922	1%	1%	1%	3 489	2 425	3 123
Diluted	446 814	451 244	451 765	454 208	1%	0%	1%	4 430	521	2 443

Appendix 5 Balance Sheets Vertical & Horizontal Analysis

	Vertical Analysis				Horizontal Analysis			Horizontal Analysis		
					(%)			(absolute numbers)		
(in thousands of $US, %)	2017	FY 2018	FY 2019	FY 2020	18/17	19/18	20/19	2018/2017	2019/2018	2020/2019
Assets										
Current assets:										
Cash and cash equivalents	15%	15%	15%	21%	34%	32%	64%	971 688	1 223 954	3 187 114
Short-term investments	0%	0%	0%	0%	-	-	-	-	-	-
Current content assets, net	23%	20%	0%	0%	19%	-100%	0%	840 252	(5 151 186)	-
Other current assets	3%	3%	3%	4%	40%	55%	34%	212 221	411 601	395 964
Trade receivables	0%	1%	1%	2%	-	25%	34%	362 712	91 687	156 421
Prepaid expenses	0%	1%	1%	1%	-	1%	12%	178 833	2 166	22 043
Other receivables	0%	1%	2%	2%	-	154%	41%	206 921	317 748	217 500
Total current assets	**40%**	**37%**	**18%**	**25%**	**26%**	**-36%**	**58%**	**2 024 161**	**(3 515 631)**	**3 583 076**
	0%	0%	0%	0%						
Non-current content assets, net	55%	58%	72%	65%	44%	64%	4%	4 589 899	9 543 613	879 383
Licensed content, net	39%	34%	43%	35%	20%	65%	-7%	1 469 433	5 773 075	(955 745)
Produced content, net	15%	23%	29%	30%	108%	63%	19%	3 123 954	3 780 351	1 835 128
Released, less amortization	8%	9%	13%	15%	68%	82%	33%	976 640	1 978 789	1 426 996
In production	7%	13%	14%	12%	152%	44%	2%	1 993 989	1 445 538	76 791
In development and pre-production	1%	1%	2%	3%	97%	114%	50%	153 325	356 024	331 341
DVD	0%	0%	0%	0%	-26%	-100%	0%	(3 488)	(9 813)	-
Property and equipment, net	2%	2%	2%	2%	31%	35%	70%	98 877	146 940	394 962
Other non-current assets	3%	3%	8%	8%	38%	203%	16%	248 721	1 826 390	447 226
Total assets	**100%**	**100%**	**100%**	**100%**	**37%**	**31%**	**16%**	**6 961 658**	**8 001 312**	**5 304 647**
Liabilities and Stockholders' Equity										
Current liabilities:										
Current content liabilities	22%	18%	13%	11%	12%	-6%	0%	512 978	(272 458)	15 975
Accounts payable	2%	2%	2%	2%	57%	20%	-3%	203 430	111 362	(18 164)
Accrued expenses	2%	2%	2%	3%	52%	77%	31%	162 323	365 626	259 153
Deferred revenue	3%	3%	3%	3%	23%	22%	21%	142 277	163 846	193 247
Short-term debt	0%	0%	0%	1%	-	-	100%	-	-	499 878
Total current liabilities	**29%**	**25%**	**20%**	**20%**	**19%**	**6%**	**14%**	**1 021 008**	**368 376**	**950 089**
Non-current content liabilities	18%	14%	10%	7%	13%	-11%	-21%	429 230	(424 703)	(716 239)
Long-term debt	34%	40%	43%	40%	59%	42%	7%	3 860 626	4 399 202	1 049 835
Other non-current liabilities	1%	0%	4%	5%	-4%	1018%	37%	(6 015)	1 315 045	537 879
Total liabilities	**81%**	**80%**	**78%**	**72%**	**34%**	**27%**	**7%**	**5 304 849**	**5 657 920**	**1 821 564**
Stockholders' equity:										
Common stock	10%	9%	8%	9%	24%	21%	23%	444 592	477 941	653 769
Accumulated other comprehensive loss	0%	0%	0%	0%	-5%	20%	-289%	975	(3 939)	67 919
Retained earnings	9%	11%	14%	19%	70%	64%	57%	1 211 242	1 869 390	2 761 395
Total stockholders' equity	**19%**	**20%**	**22%**	**28%**	**46%**	**45%**	**46%**	**1 656 809**	**2 343 392**	**3 483 083**
Total liabilities and stockholders' equity	**100%**	**100%**	**100%**	**100%**	**37%**	**31%**	**16%**	**6 961 658**	**8 001 312**	**5 304 648**

Appendix 6 Ratios Analysis of Comparable Companies

	The Walt Disney Company				Discovery, Inc.				IQIYI, Inc.					
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	Mean	Median
Leverage Ratios														
Debt Ratio	57%	51%	54%	58%	80%	74%	71%	69%	59%	60%	79%	81%	**52%**	**57%**
Debt-to-Equity ratio	1,32	1,02	1,18	1,40	3,89	2,88	2,41	2,26	1,44	1,48	3,68	4,21	**1,92**	**1,30**
Financial leverage	2,32	2,02	2,18	2,40	4,89	3,88	3,41	3,26	2,44	2,48	4,68	5,21	**2,92**	**2,30**
Profitability Ratios														
ROCE		19%	21%	2%		15%	11%	9%		-97%	-37%	-24%	**-3%**	**6%**
ROE		19%	21%	2%		15%	11%	9%		-97%	-37%	-24%	**-3%**	**6%**
ROA		13%	11%	2%		8%	8%	5%		-42%	-21%	-12%	**-3%**	**5%**
ROS	16%	21%	16%	5%	17%	17%	22%	17%	-17%	-34%	-33%	-19%	**0%**	**7%**
Liquidity Ratios														
Current Ratio	0,8	0,9	0,9	1,3	5,3	1,1	1,6	2,0	0,5	1,0	1,0	0,9	**2,0**	**2,0**
Quick Ratio	0,6	0,5	0,7	1,2	4,9	0,9	1,3	1,5	0,3	0,5	0,6	0,6	**1,3**	**1,3**
Cash Position Ratio	0,2	0,0	0,2	0,6	3,9	0,2	0,5	0,7	0,1	0,2	0,3	0,4	**0,9**	**0,9**
Activity Ratios														
Total Assets Turnover	0,58	0,60	0,36	0,35	0,30	0,32	0,33	0,31	0,86	0,56	0,62	0,62	**0,69**	**0,69**
Assets Turnover	634	606	1017	1037	1198	1126	1105	1166	424	654	584	592	**685**	**685**
Day Sales Outstanding	57	57	81	72	98	91	86	87	47	67	75	61	**50**	**50**
Days Payable Outstanding	78	73	120	103	24	17	23	38	148	137	99	116	**55**	**55**

	Spotify Technology SA				Tencent Music Entertainment Group				Huya, Inc.					
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	Mean	Median
Leverage Ratios														
Debt Ratio	92%	52%	60%	56%	13%	15%	17%	23%	56%	21%	24%	21%	**52%**	**57%**
Debt-to-Equity ratio	12,05	1,07	1,51	1,26	0,15	0,18	0,21	0,31	1,28	0,26	0,31	0,27	**1,92**	**1,30**
Financial leverage	13,05	2,07	2,51	2,26	1,15	1,18	1,21	1,31	2,28	1,26	1,31	1,27	**2,92**	**2,30**
Profitability Ratios														
ROCE		-4%	-3%	-11%		7%	10%	9%		4%	5%	8%	**-3%**	**6%**
ROE		-4%	-3%	-11%		7%	10%	9%		4%	5%	8%	**-3%**	**6%**
ROA		-3%	-4%	-9%		6%	9%	8%		-46%	5%	8%	**-3%**	**5%**
ROS	-30%	-1%	-3%	-6%	12%	10%	16%	14%	-4%	-42%	6%	8%	**0%**	**7%**
Liquidity Ratios														
Current Ratio	1,0	1,0	0,9	0,8	2,1	3,3	3,2	3,3	1,8	4,8	4,3	4,7	**2,0**	**2,0**
Quick Ratio	0,5	0,6	0,6	0,6	0,9	1,8	1,1	0,3	1,1	3,9	2,9	2,6	**1,3**	**1,3**
Cash Position Ratio	0,3	0,4	0,4	0,4	0,5	1,6	0,8	0,0	0,9	3,6	2,8	2,5	**0,9**	**0,9**
Activity Ratios														
Total Assets Turnover	1,32	1,21	1,32	1,25	0,37	0,43	0,48	0,43	1,68	0,66	0,74	0,88	**0,69**	**0,69**
Assets Turnover	277	301	276	293	997	858	756	855	217	556	495	415	**685**	**685**
Day Sales Outstanding	32	28	22	22	43	31	34	37	25	32	13	5	**50**	**50**
Days Payable Outstanding	27	28	27	27	53	57	56	66	1	1	0	0	**55**	**55**

Appendix 7 Financial Statistics and Ratios

Company	LTM Profitability Margins				LTM Return on Investment		
	Gross Profit (%)	EBITDA (%)	EBIT (%)	Net Income (%)	ROCE	ROE	ROA
Netflix, Inc.	39%	64%	20%	12%	17%	40%	9%
Video streaming							
The Walt Disney Company	37%	26%	6%	5%	2%	2%	2%
Discovery, Inc.	64%	40%	26%	15%	9%	9%	5%
IQIYI, Inc.	20%	43%	-20%	-21%	-24%	-24%	-12%
Music streaming							
Spotify Technology SA	26%	0%	-4%	-6%	-11%	-11%	-9%
Tencent Music Entertainment Group	32%	15%	13%	14%	9%	9%	8%
Game streaming							
Huya, Inc.	21%	8%	7%	8%	8%	8%	8%
Mean	**33%**	**22%**	**5%**	**3%**	**-1%**	**-1%**	**0%**
Median	**29%**	**21%**	**6%**	**7%**	**5%**	**5%**	**3%**
High	**64%**	**43%**	**26%**	**15%**	**9%**	**9%**	**8%**
Low	**20%**	**0%**	**-20%**	**-21%**	**-24%**	**-24%**	**-12%**

Company	LTM Leverage Ratios			LTM Coverage Ratios		
	Debt/Tot.Cap	Debt/EBITDA	Net Debt/EBITDA	EBITDA/Int.Exp	EBITDA-Cpx/Int.	EBIT/Int.Exp.
Netflix, Inc.	7%	1,0x	0,5x	20,7x	20,1x	6,0x
Video streaming						
The Walt Disney Company	16%	3,1x	2,2x	N/A	N/A	N/A
Discovery, Inc.	52%	3,7x	3,2x	6,2x	5,6x	4,0x
IQIYI, Inc.	22%	1,6x	0,8x	11,6x	11,3x	-5,4x
Music streaming						
Spotify Technology SA	1%	N/A	N/A	0,0x	-0,2x	-0,7x
Tencent Music Entertainment Group	3%	1,3x	-1,3x	N/A	N/A	N/A
Game streaming						
Huya, Inc.	-	-	-7,2x	N/A	N/A	N/A
Mean	**0,2x**	**2,4x**	**-0,5x**	**5,9x**	**5,6x**	**-0,7x**
Median	**0,2x**	**2,4x**	**0,8x**	**6,2x**	**5,6x**	**-0,7x**
High	**0,5x**	**3,7x**	**3,2x**	**11,6x**	**11,3x**	**4,0x**
Low	**0,0x**	**1,3x**	**-7,2x**	**0,0x**	**-0,2x**	**-5,4x**

Appendix 8 Debt Model

			FY	FY	FY	FY	FY		
Interest rate			**2021**	**2022**	**2023**	**2024**	**2025**	**Issuance Date**	**Maturity Date**
5,38%	$	Senior Notes	500 000	0	0	0	0	February 2013	February 2021
		Interest expense	2 240	0	0	0	0		
5,50%	$	Senior Notes	700 000	700 000	0	0	0	February 2015	February 2022
		Interest expense	38 500	3 208	0	0	0		
5,75%	$	Senior Notes	400 000	400 000	400 000	400 000	0	February 2014	March 2024
		Interest expense	23 000	23 000	23 000	3 833	0		
5,88%	$	Senior Notes	800 000	800 000	800 000	800 000	800 000	February 2015	February 2025
		Interest expense	47 000	47 000	47 000	47 000	3 917		
3,00%	€	Senior Notes	574 000	574 000	574 000	574 000	574 000	April 2020	June 2025
		Interest expense	17 220	17 220	17 220	17 220	7 175		
3,63%	$	Senior Notes	500 000	500 000	500 000	500 000	500 000	April 2020	June 2025
		Interest expense	18 125	18 125	18 125	18 125	7 552		
4,38%	$	Senior Notes	1 000 000	1 000 000	1 000 000	1 000 000	1 000 000	October 2016	November 2026
		Interest expense	43 750	43 750	43 750	43 750	43 750		
3,63%	€	Senior Notes	1 588 000	1 588 000	1 588 000	1 588 000	1 588 000	May 2017	May 2027
		Interest expense	57 565	57 565	57 565	57 565	57 565		
4,88%	$	Senior Notes	1 600 000	1 600 000	1 600 000	1 600 000	1 600 000	October 2017	April 2028
		Interest expense	78 000	78 000	78 000	78 000	78 000		
5,88%	$	Senior Notes	1 900 000	1 900 000	1 900 000	1 900 000	1 900 000	April 2018	November 2028
		Interest expense	111 625	111 625	111 625	111 625	111 625		
4,63%	€	Senior Notes	1 344 000	1 344 000	1 344 000	1 344 000	1 344 000	October 2018	May 2029
		Interest expense	62 160	62 160	62 160	62 160	62 160		
6,38%	$	Senior Notes	800 000	800 000	800 000	800 000	800 000	October 2018	May 2029
		Interest expense	51 000	51 000	51 000	51 000	51 000		
3,88%	€	Senior Notes	1 466 000	1 466 000	1 466 000	1 466 000	1 466 000	April 2019	November 2029
		Interest expense	56 808	56 808	56 808	56 808	56 808		
5,38%	$	Senior Notes	900 000	900 000	900 000	900 000	900 000	April 2019	November 2029
		Interest expense	48 375	48 375	48 375	48 375	48 375		
3,63%	€	Senior Notes	1 344 000	1 344 000	1 344 000	1 344 000	1 344 000	October 2019	June 2030
		Interest expense	48 720	48 720	48 720	48 720	48 720		
4,88%	$	Senior Notes	1 000 000	1 000 000	1 000 000	1 000 000	1 000 000	October 2019	June 2030
		Interest expense	48 750	48 750	48 750	48 750	48 750		
		Debt summ	**15 916 000**	**15 216 000**	**15 216 000**	**14 816 000**	**12 942 000**		
		Interest expense summ	**752 837**	**715 306**	**712 098**	**692 931**	**625 396**		

Appendix 9 Pro-forma Statements of Cash Flows

(in thousands of $US)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Cash flows from operating activities:					
Net income	3 951 103	4 530 772	5 578 445	6 681 558	7 557 614
Adjustments to reconcile net income to net cash used in operating activities:					
Additions to streaming content assets	(14 179 793)	(15 712 384)	(15 543 728)	(16 853 011)	(18 035 241)
Change in streaming content liabilities	(1 298 591)	(299 298)	(410 121)	(717 690)	(77 427)
Amortization of streaming content assets	11 504 351	12 727 963	13 546 732	14 508 132	15 533 745
Depreciation and amortization of property, equipment and intangibles	130 099	155 930	167 914	194 984	222 563
Changes in operating assets and liabilities:	**7 342**	**78 648**	**(69 379)**	**(2 529)**	**(189 423)**
Other current assets	(413 781)	(297 232)	(306 660)	(236 477)	(400 659)
Accounts payable	85 435	78 879	2 112	58 380	62 279
Accrued expenses	205 858	193 558	135 687	90 819	81 320
Deferred revenue	129 830	103 443	99 483	84 749	67 636
Other non-current assets and liabilities	-	-	-	-	-
Net cash used in operating activities	**114 511**	**1 481 631**	**3 269 864**	**3 811 444**	**5 011 830**
Cash flows from investing activities:					
Purchases of property and equipment	(352 637)	(390 751)	(429 508)	(465 686)	(498 354)
Proceeds from maturities of short-term investments	(499 880)	-	-	-	-
Net cash (used in) provided by investing activities	**(852 517)**	**(390 751)**	**(429 508)**	**(465 686)**	**(498 354)**
Cash flows from financing activities:					
Proceeds from issuance of debt	(500 000)	(700 000)	-	(400 000)	(1 874 000)
Debt issuance costs					
Proceeds from issuance of common stock	-	-	-	-	-
Net cash provided by financing activities	**(500 000)**	**(700 000)**	**-**	**(400 000)**	**(1 874 000)**
Effect of exchange rate changes on cash and cash equivalents					
Net increase (decrease) in cash and cash equivalents	(1 238 006)	390 880	2 840 356	2 945 758	2 639 476
Cash and cash equivalents, beginning of period	8 205 551	6 967 545	7 358 425	10 198 781	13 144 538
Cash and cash equivalents, end of period	**6 967 545**	**7 358 425**	**10 198 781**	**13 144 538**	**15 784 014**

ANNOTATION

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FIELD	**Specialization Corporate Finance in International Business**		
THESIS TITLE	**Valuation of Netflix, Inc.**		
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DEPARTMENT	**KFU - Department of Finance and Accounting**	**YEAR**	**2021**

NUMBER OF PAGES	**122**
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SUMMARY	**The purpose of the thesis is to study business valuation methodologies, perform a valuation of Netflix, Inc., discover the intrinsic value of the company, and compare the result to market data.** **The diploma thesis is divided into three parts.** **The first describes the theoretical basis of valuation.** **The second characterizes the company and examines a strategic and financial analysis of the company.** **The final part contains the company's valuation by comparable companies and standard two-phase DCF methods.**
KEY WORDS	**Valuation, market value, intrinsic value, enterprise value, equity value, strategic analysis, financial analysis, peer group, ratio, multiple, DCF, value drivers, FCFF, WACC, adjustments.**