

**MASTER OF SCIENCE IN
FINANCE**

**MASTER'S FINAL WORK
PROJECT**

**A CASE STUDY ON VALUING A FOOTBALL CLUB: AN
EXAMPLE OF MANCHESTER UNITED**

LEO FERDINAND ALLERT

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**SUPERVISION:
PROFESSOR TIAGO GONÇALVES**

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Abstract

This Master's thesis examines the valuation of football¹ clubs, focusing on the specific case of Manchester United. The valuation of companies and assets holds paramount importance for investors seeking to enhance their investment portfolios and identify lucrative opportunities. While valuation techniques for conventional businesses have been extensively studied in the field of finance, there remains a dearth of theoretical frameworks and practical examples when it comes to valuing football clubs. The primary objective of this thesis is to provide a pragmatic illustration of the critical factors that exert influence on the valuation process of a football club in contrast to other types of companies.

The study aims to offer insights that can be effectively incorporated into master 's-level courses, specifically within the domains of valuation, accounting, or business administration. To accomplish this, the research presents a comprehensive case study accompanied by relevant data. By doing so, the thesis equips instructors of this case with valuable resources to meet their course objectives and enhance the educational experience of students.

KEYWORDS: Valuation, Football, Discounted Cash Flow, Trading Multiples, Transaction Multiples, Case Study.

¹ This paper adopts the term "football" to refer specifically to European football, which is synonymous with the American term "soccer".

Resumo

Esta dissertação de mestrado analisa a avaliação de clubes de futebol², centrando-se no caso específico do Manchester United. A avaliação de empresas e activos é de extrema importância para os investidores que procuram melhorar as suas carteiras de investimento e identificar oportunidades lucrativas. Embora as técnicas de avaliação de empresas convencionais tenham sido amplamente estudadas no domínio das finanças, continua a haver uma escassez de quadros teóricos e de exemplos práticos no que se refere à avaliação de clubes de futebol. O principal objetivo desta tese é fornecer uma ilustração pragmática dos factores críticos que exercem influência no processo de avaliação de um clube de futebol, em contraste com outros tipos de empresas.

O estudo visa oferecer conhecimentos que possam ser efetivamente incorporados em cursos de mestrado, especificamente nos domínios da avaliação, contabilidade ou administração de empresas. Para o efeito, a investigação apresenta um estudo de caso abrangente acompanhado de dados relevantes. Ao fazê-lo, a tese fornece aos formadores deste caso recursos valiosos para cumprirem os objectivos dos seus cursos e melhorarem a experiência educativa dos estudantes.

PALAVRAS-CHAVE: Avaliação, Futebol, Fluxo de Caixa Descontado, Múltiplos de Negociação, Múltiplos de Transação, Estudo de Caso.

² O presente documento adopta o termo "futebol" para se referir especificamente ao futebol europeu, que é sinónimo do termo americano "soccer".

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I wish to extend my gratitude to Professor Tiago Gonçalves, my supervisor, whose availability, expert guidance, and invaluable support, accompanied by his indispensable suggestions, have enriched the progression of this study.

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In addition, I wish to convey my heartfelt appreciation to all individuals, both directly and indirectly, who have contributed to the successful culmination of this thesis.

Glossary

DCF – Discounted Cash Flow

AP – Abnormal Profit Model

APG – Abnormal Profit Growth Model

WACC – Weighted Average Cost of Capital

P/E – Price to Earnings

P/B – Price to Book Value

EBITDA – Earnings Before Interests, Taxes, Depreciation & Amortization

EBIT – Earnings Before Interests & Taxes

EV – Enterprise Value

M&A – Mergers & Acquisition

P/S – Price to Share Value

EPL – English Premier League

MLB – Major League Baseball

NBA – National Basketball Association

FR – Financial Risk

SR – Sport Risk

LR – Legal Risk

Kd – Cost of debt

NWC – Net Working Capital

CapEx – Capital Expenditure

D&A – Depreciation & Amortization

NOPAT – Net Operating Profit After Taxes

FCFF – Free Cash Flow to the Firm

MR – Market Risk

NHL – National

NFL – National Football League

Ke – Cost of Equity

Rf – Risk-free rate

KPI – Key Performance Indicator

CAGR – Compounded Annual Growth Rate

b – Beta

MRR – Market Rate of Return

E – Equity

D – Debt

TV – Terminal Value

CDF – Cumulative Discount Factor

FFP – Financial Fair Play

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1. Introduction

In recent years, the valuation of football clubs has garnered significant attention, particularly with high-profile acquisitions such as Chelsea Football Club being purchased for a record-breaking €2.9 billion (Forbes, 2022). This remarkable figure raises fundamental questions regarding the driving forces behind such valuations and the methodologies employed to determine the value of a football club. While numerous case studies exist on valuing companies like car manufacturers or fashion brands, there is a conspicuous absence of similar studies focused on valuing football clubs.

Given the escalating interest in purchasing football clubs as investment assets, the importance and relevance of conducting a comprehensive case study on valuation in this context cannot be overstated. Compounding the significance of this research, the current thesis centers on Manchester United, a football club that finds itself in current discussions regarding its potential sale (Financial Times, 2023). Consequently, this case study not only offers valuable insights but also reflects a realistic and timely examination of a highly relevant subject.

Although there are similarities between valuing a football club and a traditional company, it remains crucial to explore the potential influences that distinguish the valuation of football clubs from conventional enterprises. Understanding this is pivotal in refining the valuation methods and strategies employed within the football industry.

To enhance the appeal and applicability of this thesis, the research is presented in the form of a case study. Adopting a case study approach ensures a practical orientation and actively engages students in tackling real-world problems. This interactive format enables students to immerse themselves in the subject matter, offering a refreshing change from conventional lectures and fostering a deeper understanding of the complexities surrounding football club valuation.

The structure of this document is organized into three main sections to facilitate comprehensive exploration and analysis. The first section focuses on reviewing existing literature about the construction and utilization of case studies, as well as an examination of current valuation methods employed in various contexts. Within the second section, the case study itself is presented, serving as a dedicated space for students to engage with the subject matter. This section includes all the information needed for solving the case. Moreover,

accompanying financial statements are provided, enabling students to apply their knowledge and skills to analyze and resolve the case effectively. Finally, the third section is dedicated to the teaching note, specifically designed to support instructors in maximizing the educational potential of the case study. The teaching note provides valuable guidance and information to instructors, assisting them in facilitating classroom discussions and guiding students towards a comprehensive understanding of the case. Additionally, the teaching note offers a suggested method of resolution, presenting instructors with a possible approach to address the case's challenges and arrive at a viable solution.

2. Literature review

2.1. Case Studies

The primary objective of this thesis is to investigate the appropriate methodologies for determining the valuation of a football club by conducting a comprehensive analysis within the framework of a business case study. According to Merriam (1998), case studies have gained significant recognition as highly valuable educational tools, offering students practical opportunities to apply the theoretical concepts they acquire in the classroom. These studies employ comprehensive narratives, centered around real-life situations, which delve into specific problems and focus on a central concept.

Lundberg, Rainsford, Shay, and Young (2001: p. 452) define case studies as "a description of an actual situation, commonly involving a decision, a challenge, an opportunity, a problem, or an issue faced by a person (or persons) in an organization". Case studies serve as a fundamental tool for the practical application and acquisition of course material, offering a real-world context for learning. By centering on authentic organizational situations, case studies foster discussions and investigations, transferring the responsibility for learning from the instructor to the students.

The objectives of this document's presented case are to be achieved through the utilization of insights derived from literature and the incorporation of recommendations provided by multiple authors, all aimed at constructing a comprehensive and effective case study. Austin (1993), for example, suggests that a teaching note can enhance learning effectiveness while using a case study. Therefore, special attention was given to constructing a teaching note for the case presented in this document.

The teaching note aims to make the "why, what, and how" of teaching more explicit and, in turn, increase teaching effectiveness, as suggested by Austin (1993). The document includes well-defined learning objectives and facilitates class discussions through the teaching note, aligning with Austin's recommendation that teaching notes should serve as effective tools for fostering classroom success. By outlining learning objectives and proposing teaching strategies, the teaching note enhances the likelihood of fruitful class interactions and instructional effectiveness.

Concerning the case's structure, according to Baxter and Jack (2008), it is crucial to begin by characterising the case's limits. This helps prevent the creation of a case with an excessive number of objectives or a scope that is too broad. Authors such as Creswell (2003) and Stake (1995) suggest different methods for defining these boundaries, such as time and place, time and activity, and definition and context.

Given its objective to reinforce theoretical concepts and enhance comprehension of their practical implications, the present case study adopts the instrumental case study approach as described by Stake (1995) and expounded upon by Baxter and Jack (2008). This particular type of case study offers valuable insights into a specific matter and contributes to the refinement of existing theories.

2.2. Valuation

Asset valuation is the essence of the financial world. All rational investors strive to continually optimize their investments by analyzing market efficiency and identifying undervalued assets for potential exploitation. Therefore, having the ability to accurately assess the value of an asset is crucial for any rational investor. This principle holds even in the context of investing in a football club.

In the realm of finance, both academics and professionals employ a wide range of models and methodologies to discover the value of companies. These approaches vary from basic to highly intricate, sometimes relying on contrasting assumptions, all to determine the true worth of an asset (Figure 1). The central question might be posed as such: What constitutes the most reliable approach or, indeed, the existence of a definitive valuation method for a football club?

The literature review will undertake a detailed examination of the Discounted Cash Flow (DCF) valuation, which is a component of the income-based method. Additionally, it will examine market-based methodologies.

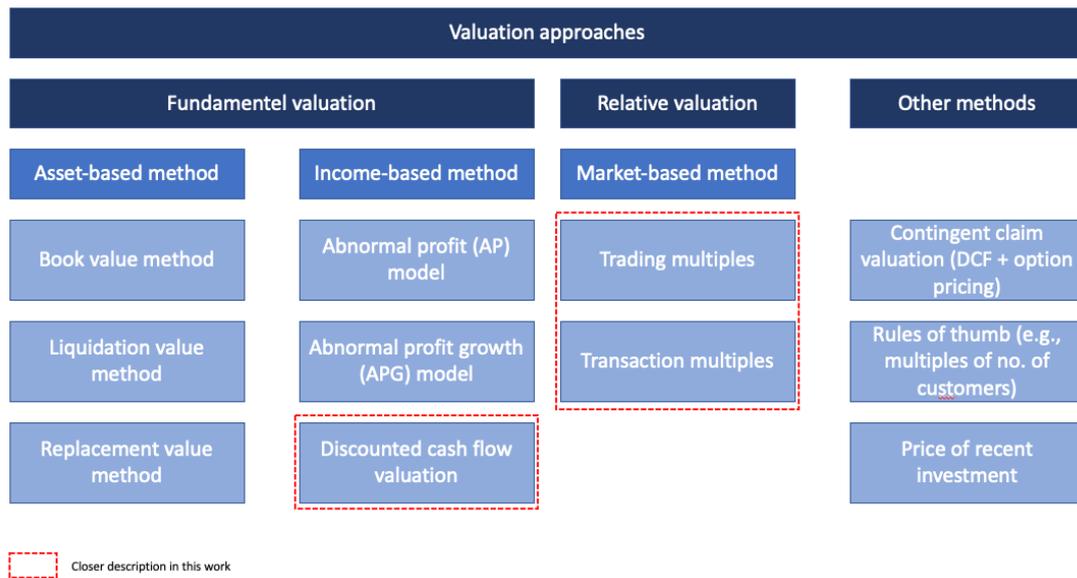


Figure 1: Valuation approaches (Damodaran, 2012)

2.2.1. Discounted Cash Flow Method

The DCF valuation is widely discussed in the literature and is a frequently used method for evaluating the financial worth of an investment or business. It involves estimating the future cash flows generated by an investment, discounting them back to the present value, and comparing the present value of the cash flows to the initial investment to determine its value. According to Damodaran (2012), the DCF method is based on the principle that the value of money decreases over time due to factors such as inflation and the opportunity cost of capital. By discounting future cash flows, the DCF takes into account the time value of money and provides a comprehensive assessment of an investment's profitability. Damodaran (2012) also highlights that DCF valuation provides a mechanism to evaluate investment opportunities objectively and compare them to alternative investments. He further emphasizes that the success of DCF valuation depends on the accurate estimation of cash flows, appropriate discount rates, and realistic growth assumptions.

One critical aspect of DCF valuation is the estimation of cash flows. The literature suggests various approaches and techniques for forecasting cash flows, including historical data analysis, industry trends, and financial projections. Steiger (2008) proposes using a combination of quantitative and qualitative factors to estimate future cash flows, considering factors such as market conditions, competition, and management capabilities. Additionally,

Pignataro (2022) emphasizes the importance of incorporating risk factors and uncertainties into cash flow projections to improve the accuracy of DCF valuation.

For Fernandez (2023), selecting an appropriate discount rate is another crucial component of DCF valuation. The discount rate represents the opportunity cost of capital and reflects the risk associated with the investment. Literature suggests various methods for determining the discount rate, such as the weighted average cost of capital (WACC).

The DCF approach involves several steps. The first is to forecast the expected cash flows of the asset over its entire economic life. These cash flows can be estimated using a variety of methods, such as historical trends, market analysis, or financial modeling. The second step is to determine the appropriate discount rate that reflects the risk associated with the asset. This discount rate is typically the WACC, which includes the cost of debt and equity. The third step is to calculate the present value of the expected cash flows by discounting them at the appropriate discount rate (Koller, Goedhart, Wessels, 2020).

The DCF approach is commonly recommended in various criteria or situations within the academic and professional realm. Firstly, the DCF approach is most appropriate when cash flows are reasonably predicted. It applies to businesses or investments that exhibit stable or foreseeable cash flow patterns over time. However, in cases where cash flow projections carry a significant level of uncertainty or volatility, alternative valuation methods may be more suitable.

Secondly, the DCF valuation method is particularly well-suited for assessing long-term investments or projects with an extended time horizon. By accounting for the time value of money, the DCF approach discounts future cash flows to their present value, providing a comprehensive evaluation (Damodaran, 2012).

Moreover, the DCF approach is often employed in the valuation of mature companies that have established a track record of generating consistent cash flows. These companies typically possess reliable financial data and projections, making the DCF analysis highly applicable in such cases. Furthermore, DCF analysis finds frequent utilization in capital-intensive industries, including infrastructure, manufacturing, and energy sectors. Given the substantial capital investments in these industries, the DCF approach is invaluable in assessing the value of

investments with significant cash flows occurring over an extended period (Koller, Goedhart & Wessels, 2020).

The above recommendations raise the question of whether the DCF method is also applicable to football clubs, which will be answered in the further course of the case study.

2.2.2. Multiple Approach

Despite being widely used, the application of multiples lacks comprehensive theoretical guidance. Existing literature in finance and accounting offers limited support for the selection of specific multiples or comparable firms in different contexts. In comparison to the DCF approach, traditional valuation textbooks pay little attention to the multiples valuation method.

Among standard textbook authors, Damodaran (2012) places significant emphasis on elucidating the characteristics and determination of various multiples. Another valuable resource for understanding the determination of equity multiples, such as Price-to-Earnings (P/E) or Price-to-Book (P/B), is the book authored by Lundholm & Sloan (2019).

Focusing on practical aspects, Arzac (2007) and Koller, Goedhart, and Wessels (2020) concentrate on establishing criteria for identifying comparable firms. In an ideal scenario, comparable firms would share similar operational and financial characteristics with the firm under evaluation. However, finding "true" comparables is not always feasible even within well-defined industries. Therefore, Koller, Goedhart & Wessels (2005) propose initially compiling a list of firms based on the most precise industry definition available, and subsequently narrowing it down by excluding firms that possess different profitability and growth prospects compared to the target firm. According to their recommendations, it is acceptable to end up with a peer group consisting of as few as five firms, or sometimes even fewer.

There are two primary categories of valuation multiples: equity multiples and enterprise value multiples (Corporate Finance Institute, 2023).

Equity multiples are particularly useful for investment decisions when investors seek to acquire minority positions in companies. However, investors and analysts must consider that

companies possess varying levels of debt that ultimately influence equity multiples (Lundholm, Sloan, 2019).

When evaluating a merger or acquisition, enterprise value multiples are more appropriate to utilize as they neutralize the impact of debt financing. Table 1 shows common equity and enterprise value multiples employed in valuation analyses.

Equity multiples	Enterprise value multiples
Price-to-Earnings (P/E) ratio	Enterprise Value-to-Revenue (EV/Revenue)
Price-to-Book (P/B) ratio	Enterprise Value-to-EBITDA (EV/EBITDA)
Dividend Yield	Enterprise Value-to-Invested Capital (EV/Invested Capital)
Price-to-Sales (P/S) ratio	

Table 1: Examples of multiples (Corporate Finance Institute, 2023)

Additionally, to the two main categories, there are two primary methods for conducting analysis using multiples: Comparable Company Analysis (Trading comps) and Precedent Transaction Analysis (Transaction comps) (Pignataro, 2022).

Comparable Company Analysis is a valuation methodology that examines the ratios of similar publicly traded companies and utilizes them to determine the value of another business. Trading comps is a relative form of valuation, in contrast to intrinsic forms such as the DCF analysis. To perform a Comparable Company Analysis it is important to identify appropriate comparable companies. This entails locating companies operating in the same industry with similar characteristics such as geography or size in terms of revenue or number of employees (Koller, Goedhart, Wessels, 2020).

Precedent Transaction Analysis is a valuation method that utilizes past merger and acquisition (M&A) transactions to determine the value of a comparable business in the present. This valuation approach is commonly employed when valuing an entire business as part of a merger or acquisition. Similar to Comparable Company Analysis, Precedent Transaction Analysis involves finding the right transactions. The process commences by identifying relevant transactions that have occurred, ideally in the recent past and within the same

industry (Arzac, 2007). This entails setting criteria such as industry classification, financial metrics, geography, and company size, among others, to screen for suitable transactions.

The utilization of the multiple approach as a valuation technique is contingent upon specific criteria, as identified in the literature:

Firstly, the availability of market data is essential for employing the multiple approach. Reliable and current market data about comparable companies is required. This encompasses crucial financial information such as revenue, earnings, and cash flows. Additionally, market multiples including price-to-earnings (P/E) ratios, price-to-sales (P/S) ratios, and enterprise value-to-EBITDA (EV/EBITDA) multiples need to be accessible.

Secondly, the literature suggests that the multiple approach is most suitable in relatively efficient markets with readily available comparable company data. In efficient markets, the prevailing market prices accurately reflect pertinent information, thereby enhancing the relevance and reliability of relative valuation techniques.

Furthermore, the applicability of the multiple approach may vary depending on industry and market conditions. In industries characterized by intense competition, homogeneous products, and standardized business models, the multiple approach is often regarded as a more dependable valuation method. However, in industries possessing unique or specialized characteristics, alternative valuation methods may be more appropriate and preferred (Damodaran, 2012).

Numerous valuation case studies are available in the field, focusing on typical industries and companies. Additionally, extensive literature exists, comprising books and courses that offer valuation techniques and guidelines for assessing "conventional" companies. However, certain enterprises pose greater challenges when it comes to valuation, such as football clubs. Unfortunately, the literature contains minimal, if any, case studies specifically addressing the valuation of football clubs. Hence, this thesis aims to bridge this gap by undertaking a comprehensive examination of the various aspects involved in valuing a football club. A practical example centered on Manchester United will be presented to facilitate professors and lecturers in acquainting students with the intricacies of football club evaluation.

3. Case Study

It is June 2023, and the Premier League season has come to an end. Following the final match of the season, David, John, and Harry, three inseparable best friends, gather at a pub in Manchester to reflect on the journey they experienced with their beloved club, Manchester United. Being devout United supporters for as long as they can remember, they have held season tickets for the past decade. David, a 32-year-old, works for BOSCH and tends to be the most outspoken and occasionally controversial among the trio. John, 34, pursued his studies in Manchester and later secured a job at Adidas. The youngest member of the group is Harry, aged 31, who studied finance abroad and returned to Manchester to work for Barclays. They faithfully assemble for each home game, watching together and drinking a beer or two afterward. With the final game played and triumphantly won the entire pub revels in a jubilant mood, savoring the delightful atmosphere.

John opens the conversation after finding a table to sit at:

"What a season! A bit like a rollercoaster with awesome wins, but also with heavy defeats, especially the derbys..."

David: "Yeah totally agree, but finally we have won a trophy again. It was good for the atmosphere within the team and us fans as well!"

"And we finished third in the league so we are playing Champions League next season. Maybe we find a game to which we all can travel?!" Harry added.

John: "Nice idea, I'm totally up for it! And boys finally Rashford played very well again, I mean he is our best and most valuable player with a market value of €80 million"

David: "Yes! His 17 goals were super important and he's one of the top earners that paid back something... I mean look at the salary of our players I think they are getting €250 million a year in total!"

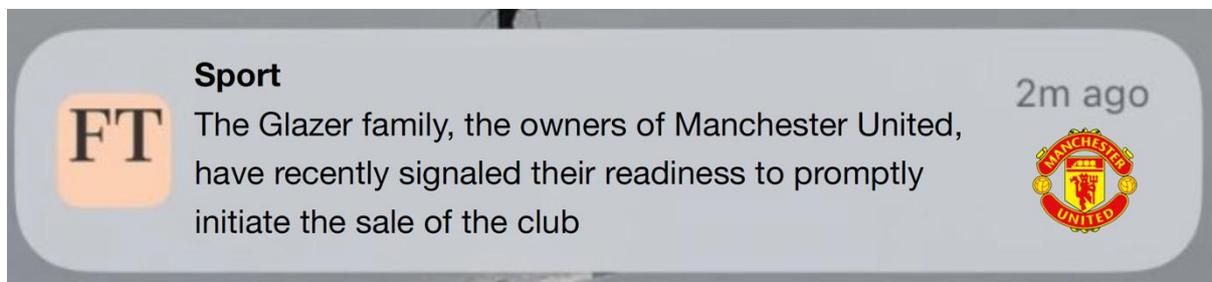
John: "DeGea for example played so inconsistent this season. In my opinion, we should sell him as long as we are getting some transfer fee for him..."

Harry: "I think so too. United needs to start selling more players or at least negotiate better because we had a transfer deficit of €230 million this season, which is obviously not good in economic terms."

David: "In my eyes, the club's mismanagement started with the Glazers' ownership in 2005... Of course, we've had the most successful time with Sir Alex Ferguson as head coach but the Glazers brought so much noise to the club and it should only be about the sport! Most of the fans want them to leave the club."

Harry: "Yeah, but I don't think that nowadays, or even in 2005 a club can only be successful with an investor from the outside. I agree with you that how the Glazers took over our club was not very, let's say smooth because they transferred a large part of the purchase price as a mortgage to the club... but on the other hand, we have won the Champions League and the Premier League multiple times afterward."

During the conversation, John receives a notification on his phone and he can't believe his eyes:



This news was immediately the number one topic of conversation in the pub.

John: "Oh my god, what a coincidence... Look at this! Manchester United with other owners than the Glazers?!"

David: "What news!!! Please, please let them find a new owner quickly. I want them out of the club as soon as possible! They can take their profit and leave!"

John: "Harry, for how much did they buy United in 2005?"

Harry: "They bought it through a series of transactions, but the overall price was approximately €1.14 billion."

David: "WHAT A NUMBER!"

Harry: "Does the article say something about potential buyers? Is there any official interest already?"

John: "No not yet as far as I can tell... But I mean, it's gonna be easy to find someone that wants to buy the club, don't you think?"

David: "Well, I hope this time it is someone that identifies themselves with the club and the city of Manchester! Someone who really wants to make the whole club better and doesn't just want someone that wants his dividend and profit..."

Harry: "I don't know, John. I mean in my eyes the environment for buying a sports club and especially a football club from the Premier League is pretty good right now. Look at last year's sale of Chelsea. Yeah, it had to do with the war and Abramovich sanctions but still, Chelsea was sold for €2.9 billion plus an extra €2 billion allocated just for the club's infrastructure."

John: "Right, that made it the highest sale of a sports team worldwide!"

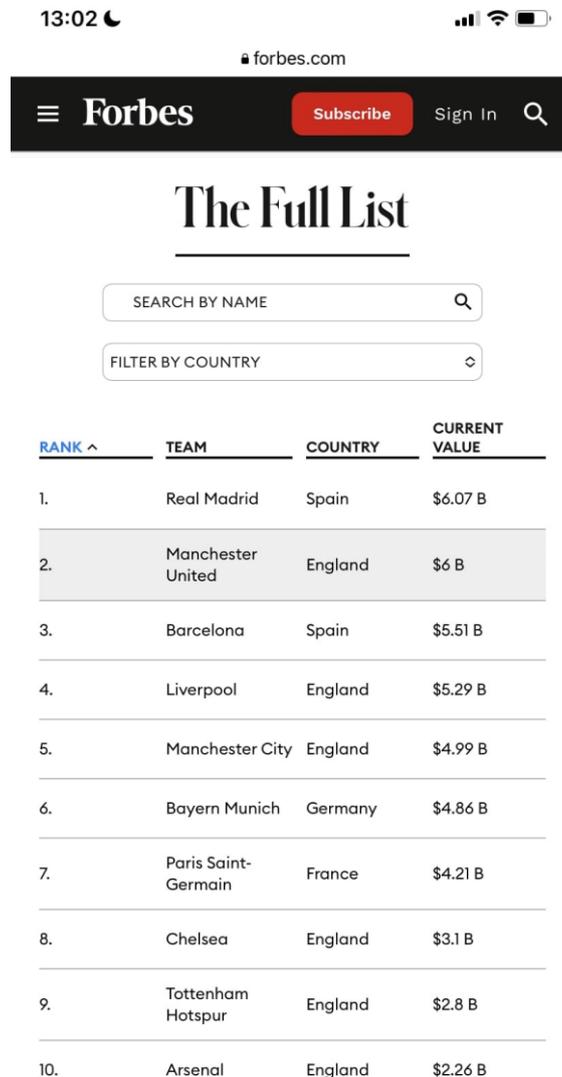
David: "Sounds all great and all, but look at Chelsea now! The new owner, Todd Boehly, has no idea of football and Chelsea finished, let me check, 12th this season HA, what a bad result"

John: "True, but guys, we are talking about our club here. Do you have any idea how United was managed finance-wise in the last years or even how much the club is worth or valued?"

Harry: "The Financial Statements can be easily accessed on the website, they are publishing them each year, but in terms of how much the club is worth or valued I have no idea... Maybe there are some hints on the internet, let me see."

Harry finds a list of the highest-valued football clubs published by Forbes.

Harry: "Look guys, I've found something":



13:02 forbes.com

Forbes Subscribe Sign In

The Full List

SEARCH BY NAME

FILTER BY COUNTRY

RANK ^	TEAM	COUNTRY	CURRENT VALUE
1.	Real Madrid	Spain	\$6.07 B
2.	Manchester United	England	\$6 B
3.	Barcelona	Spain	\$5.51 B
4.	Liverpool	England	\$5.29 B
5.	Manchester City	England	\$4.99 B
6.	Bayern Munich	Germany	\$4.86 B
7.	Paris Saint-Germain	France	\$4.21 B
8.	Chelsea	England	\$3.1 B
9.	Tottenham Hotspur	England	\$2.8 B
10.	Arsenal	England	\$2.26 B

David: "US\$6 billion !?! So that's around 5.6 billion in Euro... That's some profit for the Glazers..."

John: "Wow, only Real Madrid is valued higher than Manchester United. We even had the highest increase from last year's valuation."

Harry: "What do you guys think, how do they value a football club, or what are important aspects?"

David: " I don't know, maybe the revenue or income?"

Harry: "Yeah, obviously that must go into it, but besides these financial metrics, what do you think?"

John: "Probably the market value of the team or where the club finished in the league..."

David: "...because when you finish higher you will get more out of the billions from the TV money pool AND finishing in the top four or five makes you play in the Champions League next season. More Income as well."

Harry: " I also can imagine that the size of the stadium influences the valuation, because the bigger the stadium, the higher the income from ticket sales can get."

John: "Can you see the valuation of Chelsea, Harry?"

Harry: "Yes, one second... It is US\$3.1 billion. So pretty close to the actual purchase price!"

John: "And they even paid €2 billion more just for the club's infrastructure! So let's see who and more importantly, for how much Manchester will be bought."

Assignment: Using the given information from the conversation, the given material (Financial Statements), and other available information, to perform a valuation of Manchester United.

4. Teaching Note

4.1. Case Synopsis

Manchester United, commonly referred to as Man United or simply United, is a British football club that was founded in 1878. It holds a prominent position among Europe's most successful clubs and has the highest number of league titles in the Premier League, which is the top division in the English football league system. The club has amassed a total of 67 trophies throughout its history.

Under the leadership of Sir Alex Ferguson, the longest-serving and most successful manager in the club's history, Manchester United achieved remarkable success, securing 38 trophies. This period marked a significant milestone in the club's legacy (FootballHistory).

In 1991, Manchester United was floated on the stock market, attracting various takeover bids in subsequent years. In 1998, an attempt was made by American businessman Rupert Murdoch to acquire the club. In response, the formation of the Manchester Supporters Trust took place, urging supporters to purchase shares in order to prevent a hostile takeover. Despite these efforts, the club's board eventually accepted the offer, but it was ultimately blocked by the Monopolies and Mergers Commission.

In 2005, Malcolm Glazer purchased a 28.7% stake in Manchester United, granting him a controlling interest. Subsequently, the club was delisted from the stock exchange. The majority of the funds used for the takeover were borrowed by the Glazer family, also referred to as "the Glazers", resulting in the club assuming a substantial debt burden. Manchester United transitioned from a debt-free status before the takeover to being burdened with debts amounting to approximately 540 million pounds.

In 2012, the Glazers decided to bring Manchester United back to the stock exchange, this time listing on the New York Stock Exchange. Despite this move, the Glazer family still retains ultimate control over the club, possessing over 70% of the shares (Sportico, 2023).

As of 2023, the Glazer family is actively seeking a new investor for Manchester United and has received offers from multiple individuals.

4.2. Learning Objectives

This case study presents a valuable educational opportunity for students to delve into various valuation methods and their adaptability to diverse types of companies, in this case, a football club. By engaging with this case, three objectives are aimed at:

The first objective is to comprehend the fundamental drivers and challenges inherent in evaluating a football club. By exploring these aspects, students can develop a comprehensive understanding of the complexities involved in determining the value of such sports organizations.

Secondly, this case study encourages students to apply different valuation methodologies to estimate the intrinsic value of a sports franchise. By employing various approaches, students can gain hands-on experience in valuing a football club and recognize the diverse perspectives that these methodologies offer.

An important aspect of the learning objectives is the analysis of industry-specific factors and their impact on the valuation process. Students will explore how unique characteristics of the sports industry, such as broadcasting rights, fan loyalty, and sponsorship deals, can significantly influence the valuation outcomes.

Lastly, the case study prompts students to explore the potential risks and uncertainties associated with valuing a sports organization. By recognizing and analyzing these inherent risks, students can develop a nuanced understanding of the challenges involved in estimating the value of a football club.

Overall, this case study provides a comprehensive and practical learning experience, enabling students to deepen their knowledge of valuation methods, gain insights into the intricacies of valuing a football club, and enhance their ability to critically analyze industry-specific factors.

4.3. Pedagogy

This case study is designed for implementation in a Master's level class, offering instructors an opportunity to integrate theoretical concepts with real-world insights, thereby enhancing student engagement. The subject matter addressed in the case holds relevance within the context of Finance, Accounting, or Valuation courses. Furthermore, it proves valuable for broader Master's programs that allow students to specialize in the areas of finance, accounting, or valuation. The primary objective of this case study is to enable students to develop a practical understanding of the distinctions between valuing a football club and valuing a conventional company. Rather than merely relying on the instructor's presentation of various valuation possibilities or options for football clubs, students are encouraged to engage in their analytical work.

To initiate the class, a productive approach involves facilitating a brainstorming session with the students to identify the key drivers for valuing a company and, subsequently, the specific drivers relevant to valuing a football club. For this case, it can be assumed that the class is advanced in the different valuation methods and therefore focuses on the valuation itself but it is up to the instructor to give the students all three financial statements (Case study attachment) or let them construct the cash flow statement by themselves using the provided balance sheet and income statement. Following this preliminary exercise, students are expected to practically determine the value of the club using two or three different approaches. Within the class, students can engage in discussions regarding suitable valuation methods for football clubs and explore the possibility of developing alternative valuation formulas tailored specifically for this domain. By the conclusion of the course, students should have gained comprehensive knowledge and experience in various valuation methods, particularly as they pertain to football clubs. Additionally, they should possess a heightened awareness of the critical factors influencing the valuation process within the sports industry.

In addition to the business case, an Excel file (Attachment) is provided which contains the financial statements and the various valuations. This allows the students to change individual data and other assumptions to see how such a change affects Manchester United's valuations. The Excel contains multiple metrics that can be changed and which are marked yellow in the Excel.

4.4. (Possible) Assignment Questions and Solutions

The following questions are some questions that can be asked by the teacher to guide the students towards the goal of valuing Manchester United. These questions can also be developed further and or asked in a modified way. The answers are also suggestions that can be developed during the class or by the instructor.

Question 1: What are the key drivers of the valuation of a football club?

A club's valuation is influenced by various factors that contribute to its overall worth. One of the key elements is the brand value. The strength and recognition of a club's brand are pivotal in attracting sponsors, fans, and commercial partnerships. A strong brand not only enhances the club's marketability but also increases its value. Organizations like Forbes often publish valuations of clubs, taking into account their brand value.

Another crucial aspect is the on-field performance of the club. Success in domestic and international competitions, consistent qualification for prestigious tournaments, and achieving high rankings can significantly impact a club's valuation. This success brings increased revenue from various sources such as prize money, ticket sales, merchandise, and broadcasting rights.

The financial performance of a club also plays a vital role in determining its valuation. Factors such as revenue generation, profitability, and sustainability contribute to the club's financial health. Matchday revenue, broadcasting rights deals, sponsorship agreements, merchandising, and player transfer activity all influence the club's overall value (Football Benchmark, 2023).

The quality, capacity, and revenue-generating potential of a club's stadium and other infrastructure assets are additional factors that can influence valuation. Modern and well-maintained stadiums with high seating capacities provide opportunities for increased matchday revenue and better fan experiences.

The size, loyalty, and engagement of a club's fanbase are important considerations as well. A large and dedicated fanbase contributes to increased ticket sales, merchandise purchases, and

global reach, thereby attracting potential investors and sponsors. Additionally, clubs with a significant fanbase can generate extra revenue through social media platforms.

Broadcasting and media rights deals also impact a club's valuation. Securing lucrative deals, both domestically and internationally, can substantially increase revenue and overall value. These deals often account for a significant portion of a club's income (Deloitte, 2022).

The quality, market value, and potential resale value of a club's player assets are influential in determining its valuation. Clubs with talented and in-demand players can command higher transfer fees, generate significant revenue, and increase their overall value.

Finally, the ability of a club to secure lucrative sponsorship and commercial partnership deals contributes to its valuation. Strong partnerships with reputable brands provide financial stability and enhance the club's marketability and value.

In conclusion, a club's valuation is influenced by a combination of factors, including brand value, on-field performance, financial performance, stadium and infrastructure, fanbase and support, broadcasting and media deals, player assets, and sponsorships and commercial partnerships. These factors collectively shape the perceived worth of a club in the industry (Football Benchmark, 2023).

Question 2: Are there specific valuation methods for football clubs?

Certainly, within the realm of football, various valuation methods are employed to assess the value of a club.

The revenue multiples approach is particularly suitable for industries characterized by volatile earnings, as noted by Damodaran (2012). In the context of football club valuation, where sustained and predictable profitability is often lacking, this approach holds particular appeal compared to the DCF method, which relies on such stability (Markham, 2013).

The valuation process involves multiplying an organization's annual revenue by an appropriate multiplier. Although Deloitte Sports Business Group suggests employing the DCF analysis for corporate valuation, it recognizes that this approach may not effectively capture the true value of specific clubs. Dan Jones, a Partner in the group, describes the valuation of football clubs as both an art and a science (Harris, 2006). However, Forbes has reported that the average

multiple for the 20 most valuable teams was 5.9x. In addition, Forbes published that Paris Saint-Germain, for example, will likely raise money in a minority-stake sale in which the team will then be valued 5.7 times revenue (Forbes, 2023). A huge increase from 10 years ago when the Deloitte Business Group reported that English Premier League (EPL) clubs were sold at a price equivalent to 1.5 to 2.0 times their annual revenue.

It is important to recognize that revenue multiple valuation has some limitations. It overlooks a club's assets, debt, its proficiency in cost management, and its potential to generate profits.

Another valuation technique that can be used is the **Forbes valuation**. Since 1998, Forbes has been providing valuations for the top sports franchises in North America, encompassing Major League Baseball (MLB), the National Basketball Association (NBA), the National Football League (NFL), and the National Hockey League (NHL). In 2004, the publication broadened its coverage to encompass the "Most Valuable Soccer Teams," featuring the most valuable football clubs in Europe (Maidment, 2004). This yearly feature by Forbes presents a list of the thirty highest-valued football clubs worldwide, employing the magazine's proprietary valuation methodology.

Forbes' historical approach to valuing clubs primarily relied on revenue multiples, past transaction prices, and the current stadium situation of each club. If a club had plans to relocate to a new stadium that would potentially boost its annual revenue, this factor was considered in the valuation estimation (Forbes, 2003).

It is noteworthy that the Forbes valuation has undergone considerable development over the years. This is evident when comparing the Forbes valuations of North American sports franchises between 1998 and 2003 with their current valuations of football clubs. An analysis of the period from 1998 to 2003 reveals that, on average, the transaction costs of the franchises exceeded Forbes' estimated values by 27% (Vine, 2004). However, a recent example of the purchase of Chelsea FC in 2022 demonstrates that Forbes' valuation is closely aligned with the actual purchase price. Before the sale, Forbes valued Chelsea FC at \$3.2 billion, while the final sale price amounted to approximately \$3 billion. Furthermore, there are ongoing discussions among the owners of Manchester United regarding the potential sale of the club. Forbes has assigned a valuation of around \$6 billion to Manchester United, and rumors suggest that the club may indeed be sold for a similar amount (Forbes, 2023).

The third valuation method that is suitable for valuing a football club is called **Brokers valuation**. The financial sector is populated with numerous brokers whose role involves facilitating the sale of various commodities between buyers and sellers. Within the equity and money markets, brokers are especially prevalent.

When brokers evaluate the value of an asset they intend to sell, they often delve into its fundamentals. In the case of a company, its initial point of reference is typically the annual report. In the audited financial statements, the balance sheet offers insights into the company's assets and liabilities, while the profit and loss account discloses its present financial performance. Numerous investors regard historical performance as a more dependable metric when contrasted with uncertain projections of future performance (Damodaran, 2012).

Football clubs, as an example, possess two key fixed assets: tangible property such as stadiums or training facilities, and intangible player registrations, that grant ownership rights over players. Valuing property is relatively straightforward, whereas the valuation of player registrations is more complex (Morrow, 1999). Typically, registrations are amortized throughout a player's contract, with the initial value based on the transfer fee paid by the club to acquire the player (Amir and Livne, 2005; Rowbottom, 2002).

Question 3: Perform a valuation of Manchester United with the multiple approach.

In order to apply the revenue multiple approach, it is essential to know Manchester United's revenue for the year 2022. Based on the available information, it is evident that Manchester United generated €677.9 million in revenue. Once this information is obtained, there are three methods to perform the revenue multiple analysis in this particular case.

The first approach involves utilizing the Forbes Multiple, which can be accessed online by the students. According to the latest update, the average revenue multiple for the twenty most valuable clubs is reported to be 5.9x. Applying this multiple to Manchester United's revenue, the club would be valued at €3.9 billion.

The second method requires the students to search for comparable transactions that have disclosed the revenue multiple or EBITDA multiple within the past years. By conducting this search, they should be able to identify approximately five relevant transactions, with a median

or mean multiple of 9.9x. This higher multiple can be attributed to Qatar Investments' acquisition of a stake in a Portuguese club, Braga. Considering this multiple, Manchester United would be valued at €6.7 billion.

Lastly, the students should investigate trading multiples of publicly traded football clubs. They can explore clubs such as Juventus Turin, FC Porto, or Olympique Lyon, which are listed on exchanges. The mean revenue multiple of these listed clubs is approximately 2.8x, resulting in a valuation of €1.9 billion for Manchester United.

The present analysis reveals notable disparities in the three valuation approaches. Primarily, the Forbes multiple employed in the initial valuation appears somewhat ambiguous due to the lack of transparency surrounding Forbes' methodology. Their valuation process for football clubs involves dividing their internally calculated value by the club's revenue, which raises concerns about its reliability. Consequently, while the multiple of 5.9x may be considered, caution is warranted due to the non-disclosure of the evaluation procedure.

The variance observed between the valuation based on the transaction and trading approaches can be attributed to several factors. Firstly, the inclusion of a paid control premium is a common practice in acquisitions, wherein the acquirer pays an additional amount to gain control over the target company. This premium accounts for the enhanced value associated with acquiring a controlling stake and being able to influence the strategic decisions of the target company. As a result, transaction comps valuation tends to yield higher values compared to publicly traded companies not subject to such control premiums. Furthermore, the selection of transaction comps is meticulously tailored to include companies that closely resemble the target entity in terms of size, industry, and other pertinent factors. This bespoke approach to selecting comparable companies often leads to higher valuation multiples compared to trading comps, which encompass a broader range of companies with diverse characteristics. Consequently, the tailored nature of transaction comps can contribute to higher valuation outcomes. Additionally, transaction comps are based on recent deals, and the prevailing market sentiment and economic conditions at the time of the transactions can influence valuations. During periods of robust market performance and positive sentiment, M&A valuations may become inflated, further amplifying the valuation outcomes derived from transaction comps.

Due to the significant impact of an adjusted Forbes multiple, a potential new transaction comparable, or a newly listed football club on the stock exchange and therefore a new trading company on the different valuation multipliers, it is advisable to make adjustments to the earlier referred multipliers in the Excel spreadsheet. Such adjustments assess the extent to which the valuation increases when the multiplier experiences an incremental increase, e.g. an increase by a factor of 0.3.

Question 4: Perform a valuation of Manchester United using the DCF approach.

The DCF approach involves several steps. The first step is to forecast the expected cash flows of the asset over its entire economic life. These cash flows can be estimated using a variety of methods, such as historical trends, market analysis, or financial modeling. The cash flow that should be used in this DCF is the Free Cash Flow to the Firm (FCFF) because the goal is to calculate the enterprise value of Manchester United. FCFF measures the cash flows available to both equity and debt holders. It considers the cash generated by the company after accounting for all operating expenses, taxes, and investments in working capital and fixed assets. This makes it a suitable measure for valuing the entire firm, rather than just equity or debt separately (Damodaran, 2012). To calculate the FCFF the following formula can be used:

$$\text{FCFF} = \text{NOPAT} + \text{D\&A} - \text{CapEx} - \text{Change in NWC} \quad [1]$$

Where:

NOPAT = Net Operating Profit After Taxes

D&A = Depreciation & Amortization

CapEx = Capital Expenditures

NWC = Net Working Capital

With the aforementioned equation, it becomes apparent which figures should be forecasted, namely: Revenue, Earnings before Interest and taxes (EBIT), D&A, CapEx, and the Change in NWC. A reasonable time frame for such projections would span the subsequent five-year period.

	2023F	2024F	2025F	2026F	2027F
Total Revenue	727,62	810,12	850,15	918,95	993,31
EBITDA	176,45	218,73	238,04	266,49	297,99
EBIT	-29,10	8,10	29,76	41,35	49,67
EBIT	-29,10	8,10	29,76	41,35	49,67
(1-25%)	-21,83	6,08	22,32	31,01	37,25
Depreciatio & Amortization	205,55	210,63	208,29	225,14	248,33
CapEx	-11,14	-15,14	-14,14	-13,14	-17,14
Sale/ (Purchase) of intangible Asset	-118,06	-148,06	-138,06	-153,06	-133,06
Total Stock-Based Compensation	1,65	2,10	2,55	3,00	3,40
Change in NWC	-37,31	-8,98	10,72	21,72	37,05
FCFF	90,18	60,39	65,13	65,24	94,93

Table 2: FCFF Forecasting (own estimates)

To estimate the future revenue, the Compounded Annual Growth Rate (CAGR) of the preceding four-year period was employed for the identified metrics. The forecast for EBITDA was determined by projecting an increase in the EBITDA Margin from 24.25% in 2023 to 30% in 2027. Similarly, the projection for EBIT was derived by adjusting the EBIT Margin to account for a 5% increase in the year 2027. Given the absence of specific EBITDA and EBIT Margins for the football industry, benchmark insights were drawn from top-tier football clubs participating in prominent European leagues such as the English Premier League, La Liga, Bundesliga, Serie A, and Ligue 1. These clubs have demonstrated relatively high EBITDA margins, typically ranging from 20% to 40%, while EBIT margins have been observed to vary between single-digit and lower double-digit figures. As an illustration, some real-life margins are given: Bayern Munich, for instance, reported an EBITDA margin of 20.1% and an EBIT margin of 2.8%. Similarly, RB Leipzig posted EBITDA and EBIT margins of 28.5% and 2.4%, respectively, for the same period. In the Premier League, a noteworthy peer, Manchester City, recorded an EBITDA margin of 21.1% in the year 2022. Remarkably higher margins can be observed in the Spanish league, as exemplified by Real Madrid and Atletico Madrid. Real Madrid reported a substantial EBITDA margin of 31.5% and an EBIT margin of 9.9% for the fiscal year 2022. In parallel, Atletico Madrid achieved a commendable EBITDA margin of 27.3% during the same period.

D&A was calculated as the difference between EBITDA and EBIT, while the Total Stock-Based Compensation was adjusted to revert to its pre-Covid level of 3.4. As for forecasting CapEx, Sale/Purchase of intangible Assets, and Change in NWC, the average values from the five years preceding the analysis were utilized.

The second step is to determine the appropriate discount rate that reflects the risk associated with the asset. This discount rate is typically the WACC, which includes the cost of debt (Kd) and equity (Ke). None of the three metrics are provided, necessitating their calculation or assumption. One approach for determining the cost of debt involves dividing the aggregate interest payments by the total debt of a given company. Conversely, the cost of equity requires three distinct metrics: a Risk-free rate (Rf), the company's Beta (b), and the market rate of return (MRR)(Koller, Goedhart, Wessels, 2020). To ascertain the cost of equity, the following formula should be employed:

$$\text{Cost of equity} = R_f + b * (MRR - R_f) \quad [2]$$

Utilizing the previously computed values, the WACC can be determined using the subsequent formula:

$$\text{WACC} = ((E/V) \times K_e) + ((D/V) \times K_d \times (1-T_c)) \quad [3]$$

Rf	4,42%		Interes paid 2022	24,00
tax rate	25,00%		Total Debt 2022	748,2
			Total Equity 2022	148,2
Beta	0,74		Total	896,4
Market rate of return	7,43%			
			Cost of Debt	3,21%
Cost of equity	6,65%			
			WACC	3,11%

Table 3: Calculation of WACC (own estimates)

The risk-free rate utilized in this model is derived from a 10-year UK bond, which serves as a suitable proxy due to the fact that Manchester United is based in the United Kingdom. The corporate tax rate employed for computing the NOPAT for Manchester United is 25%, consistent with the prevailing tax rate in the UK. Furthermore, the beta coefficient of Manchester United indicates lower volatility relative to the market, contributing to the assumption that the asset is less prone to fluctuations when compared to the broader market. To determine the market rate of return, the performance of the FTSE 100, which serves as the primary British stock index, is employed. The FTSE 100's recent historical returns provide an essential benchmark for assessing the market's average performance and are therefore used in this analysis.

Since all the metrics mentioned above are based on assumptions or represent momentary snapshots, it is important to recognize that these metrics are subject to potential changes or the introduction of different assumptions. Consequently, these variables can be subject to modification within the Excel spreadsheet, thereby providing students with a practical means to observe the impact of even minor adjustments, such as a change in Manchester United's beta, on the cost of equity, and subsequently, on the overall valuation using the DCF method.

In order to derive the total debt of Manchester United, a comprehensive summation of various financial components is imperative. Specifically, this entails aggregating short-term borrowings, current portions of long-term debt, current portions of leases, long-term debt, and long-term leases. Based on this computation for the fiscal year 2022, the total debt of Manchester United amounted to €748.2 million.

It is imperative to consider the period beyond the forecasted timeframe, as the company under evaluation continues to generate cash flows. Therefore, it is necessary to calculate the Terminal Value (TV) using the following formula:

$$TV = \text{FCFF last forecasted year} * ((1 + \text{Growth rate}) / (\text{WACC} - \text{Growth rate})) \quad [4]$$

In the determination of the Terminal Value, the growth rate employed is derived from the CAGR of the forecasted FCFF, which is 1.29%. An alternative approach involves considering the anticipated Gross Domestic Product (GDP) growth rate of the United Kingdom, which currently stands at 0.3% for the year 2023. It is noteworthy that, within the context of this valuation and the specific industry, this GDP growth rate may be seen as too conservative.

The subsequent stage involves the valuation process, wherein the projected FCFFs need to be discounted to their present value. Utilizing the WACC as the discount rate is essential; however, simply multiplying each year's FCFF by the WACC is insufficient. It is crucial to account for the varying timing of financial statement disclosures by companies. For instance, Manchester United releases its financial statements at the end of June, necessitating the inclusion of a cumulative discount factor (CDF) in the FCFF discounting process. The CDF can be calculated using the following formula:

$$CDF = 1 / ((1 + \text{WACC})^t) \quad [5]$$

Where t is the month the financial statements are published divided by the full year.

Now, each projected FCFF can be discounted by multiplying the FCFF with CDF, except for the final forecasted year. In the last year, the TV must also be incorporated into the calculation. Hence, in the last forecasted year, the FCFF should be combined with the TV and then discounted using the CDF (Damodaran, 2012).

	2023F	2024F	2025F	2026F	2027F
FCFF	90,18	60,39	65,13	65,24	94,93
TV					5291,21
WACC	3,11%	3,11%	3,11%	3,11%	3,11%
time to cashflow as of 30 Jun'23	0,50	1,50	2,50	3,50	4,50
cumulative discount factor	0,98	0,96	0,93	0,90	0,87
PV of discounted CF	88,81	57,68	60,34	58,61	4693,32
Total PV of discounted CF	4958,77				

Table 4: Valuation (own estimates)

The final step involves aggregating all the discounted FCFFs to obtain the Present Value of the discounted FCFF which is €4.9 billion for Manchester United.

Question 5: Can you think of an alternative formula that includes different performance indicators to value a football club?

The valuation of football clubs is a complex process that requires considering various factors. Among these factors, revenue generation plays a crucial role, as highlighted by the revenue multiples and Forbes approaches. When examining football clubs specifically, three core revenue streams emerge: broadcast revenue, sponsorship, and match-day income.

In the realm of football, revenue has gained increased significance due to UEFA's Financial Fair Play (FFP) regulations, which clubs participating in European competitions must adhere to. These regulations aim to motivate clubs to operate within the bounds of the revenue they make. Recognizing the importance of financial controls, the EPL has also adopted similar measures. To comprehensively evaluate a club's financial health, all means of revenue generation should be included in an alternative valuation formula (Markham, 2013).

Controlling costs has proven to be a significant challenge for EPL clubs in the past, leading to the majority of clubs struggling to generate profits. This issue becomes a key consideration in club valuation. In 2017, the EPL witnessed an average wage/revenue ratio of 55%, while Manchester United exhibited a ratio of 45% (Deloitte, 2018). However, five years hence, the

average ratio has ascended to 71%, with Manchester United's wages/revenue ratio reaching 65% (Deloitte, 2022). A club's ability to demonstrate profitability or at least break-even status signifies prudent financial management and cost control. Therefore, an alternative valuation formula should incorporate a club's net profit figure (after player trading) to capture this aspect.

A comprehensive valuation of any company, including football clubs, requires a thorough assessment of its assets and liabilities. This holds for football club valuation as well. The main assets typically include the stadium, training ground, and player registrations, while liabilities generally encompass debt. Thus, the net assets figure (total assets less total liabilities) should be integrated into an alternative formula (Markham, 2013).

Additionally, certain numbers specific to the football industry warrant consideration. For instance, match-day income is not evenly distributed within the EPL due to variations in stadium capacities. For instance, Manchester United's Old Trafford has a capacity of 75,765, while Chelsea's Stamford Bridge can accommodate 40,341 spectators. Consequently, Manchester United earned an average of £3.96 million per home game in the 2018/2019 season, whereas Chelsea generated an average of £2.08 million per home game (Footballcritic, 2020).

Based on the aforementioned factors, it becomes evident that revenue, net assets, net profit, stadium capacity, and wage ratios are crucial in valuing a football club. Therefore, an alternative valuation formula could look like this and was developed by Tom Markham:

$$(\text{Revenue} + \text{Net Assets}) * [(\text{Net Profit} + \text{Revenue}) / \text{Revenue}] * (\% \text{ stadium filled}) / (\% \text{ wage ratio}) \quad [6]$$

Using the formula Manchester United would be valued in 2022 at €1 billion.

Question 6: Considering the different valuation approaches, which is the most suitable for a football club? Why?

A reliable and universally applicable valuation model is a fundamental requirement for considering it as the best or most appropriate approach to value a football team, particularly in the Premier League. The DCF approach is acknowledged as the most reliable method of valuing a company other than a football club. Nevertheless, when it comes to valuing a football team, the DCF approach has limitations because it requires consistent cash inflow and precise forecasts of future income to yield dependable valuations. Since some clubs of the Premier League do not have a positive cash flow and struggle to make accurate predictions about the future because of unpredictable on-field results, the DCF has its difficulties when applying to a football club. But for big and stable clubs, like Manchester United, the DCF approach can be a reliable valuation method for a football club.

While revenue multiples are endorsed by academics and professionals in the sports industry, it's worth noting that this methodology is too simple. While it may work reasonably well for estimating the value of EPL clubs with lower revenues, it often leads to significant undervaluation for more established clubs with higher revenues. Furthermore, revenue multiples fail to consider important factors such as the club's asset portfolio, debt position, cost management, and profitability. Therefore, although revenue multiples can be applied universally to value EPL clubs, their results are not consistently reliable.

Forbes has been annually publishing a list of the thirty highest-valued clubs in world football since 2004. This publication has become the industry benchmark by default, possibly due to its long-standing presence and widespread recognition. However, the methodology used by Forbes is often considered vague and lacks transparency, but it has gained a lot of accuracy over the last years and is therefore a useful source.

The created model in Question 5 for valuing football clubs utilizes audited accounting data and industry-specific key performance indicators (KPIs). This bespoke valuation method is specifically designed for the football industry, taking into account the unique characteristics and challenges of football clubs. Additionally, the formula offers flexibility, allowing for adjustments in club valuations based on different scenarios. This is crucial considering the unpredictability of football and the need to adapt to changing circumstances. However, the model was founded ten years ago and has never been adjusted since then. That could be a

reason why the valuation of Manchester United with the formula is extremely low compared to the other methods.

To comprehensively compare the various approaches, it is crucial to examine the calculated values for Manchester United. Each of the three different multiple methods yielded significantly different values. According to the Forbes Multiple, Manchester United's value amounts to €3.9 billion, while assessing it as a trading company results in a valuation of €1.9 billion. The highest value of €6.7 billion was obtained when employing transaction comps as the basis for evaluation.

Furthermore, the alternative method discussed in Question 5, known as the Markham formula, produced the lowest valuation of only €1 billion. On the other hand, applying the DCF approach with the recommended calculations placed Manchester United's value at €4.9 billion.

To determine which method truly reflects the value of Manchester United, it is necessary to monitor the ongoing negotiations between the owners of Manchester United and potential buyers. However, the DCF approach closely aligns with the Forbes valuation, and the valuation obtained through transaction comps indicates a similar direction.

Question 7: What are the risks when buying a football club? Think of risks that can have an impact on the valuation and of risks that can occur in the future.

Buying a football club can involve various risks, like market risks, financial risks, and sporting risks. That's why potential investors must conduct thorough due diligence, assess the club's financial situation, evaluate the competitive landscape, and have a long-term strategy to mitigate the risks effectively. These risks can have different reasons.

Market Risks (MR):

- Declining fan base: The club's popularity may decline, leading to reduced attendance, lower merchandise sales, and decreased revenue streams. Additionally, changes in ownership, management, or decision-making that are unpopular with fans can lead to protests, boycotts, or reduced support. (MR1)
- Competitive pressure: Competing against other well-established and financially strong clubs can make it challenging to attract top players, and sponsors, and secure broadcasting rights. Currently, Saudi Arabia is investing heavily in their football league.

They are attracting not only older players but also younger ones. For example, Cristiano Ronaldo is playing in Saudi Arabia and the 26-year-old top-tier striker Ruben Neves moved there as well. (MR2)

- Changing market dynamics: Changes in the media landscape, technology, regulations, or consumer preferences can impact revenue generation and club valuation. (MR3)

Financial Risks (FR):

- High operating costs: Football clubs typically have substantial operating expenses, including player wages, transfer fees, stadium maintenance, and staff salaries. If revenue streams are insufficient, it can lead to financial strain. (FR1)
- Debt burden: Some clubs may have existing debt obligations, such as loans, which can significantly burden the new owners. An example of this risk was indeed Manchester United in 2005 when the Glazers bought the club with a lot of debt and transferred it to the club. (FR2)
- Uncertain revenue streams: Revenue sources like ticket sales, broadcasting rights, sponsorship deals, and merchandise sales can be unpredictable, and a decline in any of these areas can negatively impact the club's financial health. (FR3)
- Overpaying for acquisitions: Purchasing players at inflated prices can lead to financial losses if their performance does not meet expectations. (FR4)

Sports Risks (SR):

- Performance fluctuations: On-field success is vital to maintaining fan interest, attracting sponsors, and securing broadcasting deals. However, the performance of a football club can vary from season to season, leading to uncertainties and potential financial implications. The minimum goal for a club like Manchester United is always to reach the Champions League. Not only because of the biggest competition in club football but also because of the money a club is receiving for reaching the Champions League. (SR1)
- Injuries and player performance: Injuries to key players or underperformance of expensive signings can impact the team's performance and potential revenue streams, such as prize money or qualification for lucrative tournaments, like the Champions League. (SR2)
- Relegation: The risk of relegation to a lower division can result in significant financial losses, reduced TV exposure, and difficulty attracting top-tier talent. (SR3)

Legal Risks (LR):

- Compliance issues: Football clubs operate within a complex legal and regulatory framework, including player contracts, transfer regulations, labor laws, and FFP rules. Failure to comply with these regulations can result in penalties, sanctions, or loss of competitive advantages. For example, Cologne from the Bundesliga received a transfer ban for breaking the FFP rules. (LR1)

Various risks with distinct probabilities and impacts exist for Manchester United. The financial risk associated with elevated operational costs carries a strong likelihood and exerts a significant influence on the club's valuation. Increased costs invariably necessitate counterbalancing measures, as failure to do so would result in a decline in the value of Manchester United. Conversely, while highly improbable, the sport's risk of potential relegation for the club would have the most profound impact on its valuation. This scenario would precipitate a substantial decrease in nearly all revenue streams, consequently diminishing the club's overall value.

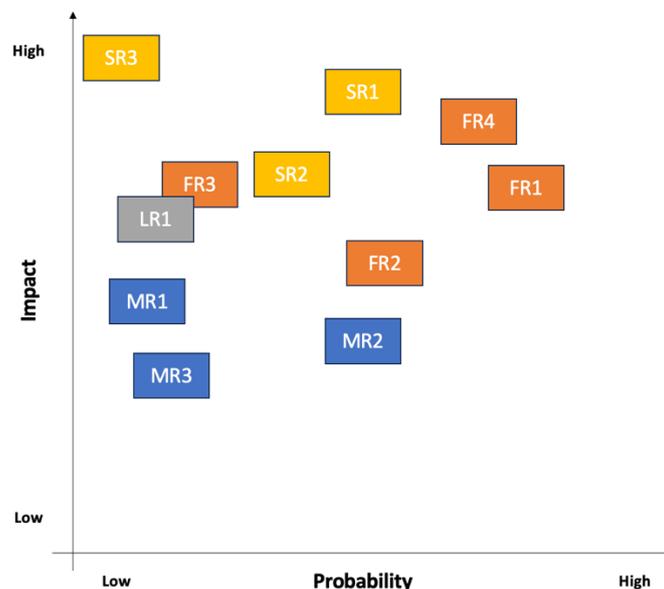


Figure 2: Risk matrix (own estimates)

By analyzing three key risks and evaluating their impact in numerical terms, the following part sheds light on how these risks can significantly influence the club's overall valuation.

FR3 represents a risk with a low probability but a high potential impact on the valuation of Manchester United. The club heavily relies on three major revenue streams: Matchday, Broadcasting, and Commercial, which collectively drive revenue growth. In the 2019/2020

season, the total revenue for Premier League clubs was GBP 4.49 billion, with broadcasting revenue contributing 52%, commercial revenue 36%, and matchday revenue 12%. Remarkably, even during the challenging 2020/2021 season, with close to 0% matchday income due to the pandemic, the overall revenue surpassed the previous season's figures (Deloitte, 2022).

Another critical risk that requires examination is the risk of increasing debt. Manchester United faces a moderate probability of this risk materializing, with the potential impact on valuation being significant. As of 2017, the club's net debt stood at GBP 213 million, but this figure rose to GBP 424 million by 2021 (Deloitte, 2022). It is worth noting that debt, while not always detrimental, can have negative implications for the valuation, particularly if it becomes excessive or unclear, potentially deterring prospective new owners from investing.

Performance fluctuation is identified as a risk with one of the highest impacts on Manchester United's valuation. Two key revenue streams, broadcasting, and merchandising, are directly linked to the team's on-field performance during a season. The distribution of broadcasting revenue by the EPL is divided into equal shares among the 20 clubs (50%), awarded based on league standing (25%), and distributed as a facilities fee for televised matches (25%).

Comparing the broadcasting revenue in the 2020/2021 season when Manchester United finished second and earned €288 million, with the 2021/2022 season where they secured 6th place, yielding €34 million less, demonstrates the clear impact of a lower spot in the table (footballtransfers, 2023). Additionally, qualifying for prestigious tournaments like the Champions League brings in €15.64 million, while qualification for the Euro League yields only €3.6 million.

Utilizing the revenue multiple derived from the analysis presented in Question 3, the combination of €34 million, along with an additional €12 million incurred due to non-participation in the Champions League, would have resulted in a diminution of €271.4 million in the overall valuation of Manchester United.

Sensitivity analysis is another important analysis while performing the DCF and for assessing and understanding the risk associated with the valuation. Sensitivity analysis helps evaluate how sensitive the estimated value of a business or investment is to changes in key assumptions or inputs used in the DCF model. It allows analysts to examine the impact of different scenarios and understand the range of possible outcomes, helping them make informed decisions.

DCF valuations rely on various assumptions, such as cash flow projections, discount rates, terminal values, and growth rates. Sensitivity analysis helps identify the key assumptions that have the most significant impact on the valuation. Therefore, in the context of this specific case, it is imperative to conduct a sensitivity analysis encompassing the key variables of Terminal Value, WACC, and Growth rate (Koller, Goedhart, Wessels, 2020).

In the context of this particular case, it is pertinent to undertake two sensitivity analyses. The initial analysis incorporates the Terminal Value and the WACC, which can be adjusted in the Excel spreadsheet, yielding the following results:

		Terminal Value					
		4958,77	3791,21	4541,21	5291,21	6041,21	6791,21
WACC	2,61%		3728,51	4396,41	5064,30	5732,20	6400,09
	2,86%		3689,63	4350,25	5010,87	5671,49	6332,11
	3,11%		3651,25	4304,70	4958,14	5611,58	6265,03
	3,36%		3613,38	4259,74	4906,10	5552,46	6198,82
	3,61%		3576,00	4215,38	4854,75	5494,12	6133,49

Table 5: Sensitivity Analysis WACC & Terminal Value (own estimates)

Upon examination of the findings, it becomes apparent that the maximum valuation for Manchester United is attained when a lower WACC and a higher Terminal Value are employed. As the WACC is a metric to evaluate the cost of financing a company's operation through a combination of equity and debt, it takes into account the proportion of equity and debt in the company's capital structure and the respective costs associated with each. Several factors can influence the WACC like the proportion of debt and equity a company uses to finance its operations because higher levels of debt (a more leveraged capital structure) typically lead to a lower WACC, as debt is often cheaper than equity due to tax advantages and lower risk for creditors. On the other hand, a higher proportion of equity in the capital structure will result in a higher WACC. Manchester United currently faces a higher debt-to-equity ratio, indicating that a higher WACC is not in prospect. Moreover, fluctuations in market interest rates exert a substantial influence on the cost of debt. When interest rates rise, the cost of debt also increases, consequently leading to a higher WACC. Conversely, a decline in interest rates would result in a reduced cost of debt and a lower WACC. As interest rates are currently on an upward trajectory, there exists a potential risk of escalated debt costs, consequently impacting the overall WACC for Manchester United. The risk profile of a company is also a factor that can influence the WACC. Companies with higher risk tend to

have a higher cost of capital, both for equity and debt because investors and creditors will demand higher returns to compensate for the increased risk resulting in a higher WACC.

But whether the valuation is going up or down for Manchester United is in this analysis not only dependent on the WACC but also on the terminal value. The growth rate, for example, utilized in the valuation process plays a crucial role in determining the terminal value. A higher growth rate employed in perpetuity results in a correspondingly higher terminal value, whereas a lower growth rate yields a reduced terminal value. The choice of the growth rate can be predicated on various factors, including the anticipated long-term growth of the company, industry growth rates, or overall economic growth.

In the specific case of Manchester United's valuation, the growth rate is determined by the projected growth of the company over the next five years. This projection serves as a fundamental basis for estimating the future performance and expansion prospects of the organization. Consequently, the selected growth rate significantly influences the terminal value and, by extension, the overall valuation of Manchester United. Furthermore, the discount rate (WACC) used to calculate the present value of the terminal value is crucial. If the discount rate gets higher, because of the bespoke reasons, the terminal value will decrease and vice versa. But after all the projected cash flows have the biggest impact on the terminal value because the terminal value depends on the projected cash flow and therefore higher cash flows lead to a higher terminal value.

In the second analysis, attention is directed towards assessing the influence of the growth rate and WACC on the valuation:

		WACC					
		4958,77	2,61%	2,86%	3,11%	3,36%	3,61%
Growth rate	0,79%		4027,24	3986,27	3945,85	3905,96	3866,59
	1,04%		4482,22	4436,29	4390,98	4346,26	4302,14
	1,29%		5062,39	5010,15	4958,60	4907,73	4857,54
	1,54%		5827,68	5767,10	5707,33	5648,35	5590,15
	1,79%		6883,51	6811,43	6740,31	6670,14	6600,89

Table 6: Sensitivity Analysis Growth Rate and WACC (own estimates)

Through this analysis, it becomes evident that the valuation of Manchester United reaches its highest point when a higher growth rate and a lower WACC are utilized. For instance, a heightened growth rate may be achievable if the FCFF experiences an increase beyond the forecasted figures outlined in this case study because the used growth rate in this valuation

is the CAGR of the forecasted cash flows. But there are also other factors that can influence the growth rate. The growth prospects of the company's industry, for instance, play a vital role in determining the growth rate. Industries with strong growth potential are likely to have a higher growth rate in their cash flows. Additionally, the economy's overall health can impact a company's growth rate. During periods of economic expansion, companies may experience higher growth, while economic downturns, like the COVID-19 pandemic, may result in lower growth rates.

All metrics that have an impact on critical factors such as the WACC, growth rate, and Terminal Value, including the cost of equity, can be subject to modification within the Excel file. This analytical approach provides students with a more comprehensive comprehension of the interrelationships among these metrics and facilitates the identification of which variables have a greater influence on the valuation of Manchester United in comparison to others.

5. Conclusion

The primary objective of this particular case study was to ensure that students, upon completion, gain an understanding of the distinctions and challenges involved in valuing a football club as opposed to a conventional company. Furthermore, this objective was pursued by presenting a practical example to enhance student engagement and enable them to further cultivate their existing skills in company or football club valuation. Moreover, this case study can be considered an ongoing project that remains open to continuous development and improvement by instructors or teachers.

In the valuation section of this thesis, different methodologies were employed to assess the valuation of Manchester United, each yielding valuable insights and learnings. The Forbes multiple method, while straightforward in its application, raised some concerns about the utilized multiples, because of the lack of transparency of how the multiple is calculated. Transaction multiples revealed a notable finding – that even when parameters such as industry, size, and geographical region align, no two transactions are identical and therefore totally comparable. Additionally, an examination of trading multiples unveiled that the stock exchange is emotional and the used multiples can be higher or lower on certain dates depending on the market movement. Another used method, the DCF, showed that football clubs are not usually valued companies because of different external and internal factors. The DCF approach is well suited for bigger clubs, like Manchester United but not for smaller clubs with no steady Cash Flow. Lastly, an alternative formula was introduced, representing a departure from the conventional approach. This alternative formula incorporated different metrics while abstaining from making assumptions about the future and potential growth.

This Master Final Work has some limitations, mainly in the valuation part. The goal of this thesis was to value a football club with common methods but also to think of other methods that are possible. But to value a football club, certain things can not be valued or have a big impact on the valuation but can not be assumed. For example, external factors like a player, whose jerseys were sold all over the world and was scoring the most goals for the club, leaving the club or getting injured. Additionally, football is a fast-growing business; therefore, no one knows how much individuals or companies are willing to pay in premiums to buy a football club.

6. References

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7. Attachments

7.1. Case Study

All the following numbers are taken from CapitalIQ accessed 02.06.2023.

Income Statement (in Mio. €)

	2018	2019	2020	2021	2022
Revenue	667,0	700,3	560,1	575,6	677,9
Cost of Goods Sold	84,4	73,6	65,7	44,8	80,5
Gross Profit	582,6	626,7	494,4	530,8	597,4
Selling General & Admin Expenses	334,4	372,8	312,8	374,9	446,9
Research & Development	0,0	0,0	0,0	0,0	0,0
Other Operating Expense / (Income)	47,2	46,6	37,0	44,2	56,1
Total Other Operating Expenses	381,6	419,4	349,8	419,1	503,0
EBITDA	201,0	207,3	144,6	111,7	94,4
Depreciation & Amortisation	12,2	13,1	16,2	17,4	16,6
Amortisation of Goodwill and Intangibles	156,5	144,2	139,5	144,9	176,1
EBIT	32,3	50,0	(11,1)	(50,6)	(98,3)
Interest	20,8	19,4	21,9	23,2	27,5
Taxes	71,8	9,6	2,7	79,4	(39,7)
Currency Exchange Gains / (Loss)	(3,2)	3,3	4,1	(36,8)	41,0
Other Non Operating Income / (Expense)	3,9	2,4	1,8	(0,4)	3,9
Gain / (Loss) On Sale of Assets	(20,6)	(28,8)	(20,2)	(8,6)	(25,5)
Assets Writedown	0,0	1,1	4,2	0,0	0,0
Other Unusual Items	2,2	21,9	0,0	0,0	28,8
Net Income	(42,6)	21,1	(25,6)	(107,4)	(134,3)

Balance Sheet (in Mio €)

	2018	2019	2020	2021	2022
Cash and Equivalents	273,7	343,6	56,7	128,9	140,9
Total Cash & ST Investments	273,7	343,6	56,7	128,9	140,9
Accounts Receivables	177,7	70,8	178,2	105,9	99,3
Other Receivables	1,0	2,0	1,6	1,8	7,2
Total Receivables	178,7	72,8	179,8	107,7	106,5
Inventory	1,6	2,4	2,4	2,4	2,6
Prepaid Exp.	12,3	14,6	7,2	8,6	18,1
Other Current Assets	1,3	0,3	1,3	0,4	7,7
Total Current Assets	467,6	433,7	247,5	248,0	275,8
PPE (Gross)	409,4	411,7	434,7	460,4	465,4
Acc Depreciation	(131,8)	(136,9)	(149,7)	(167,5)	(178,6)
Net PPE	277,6	274,8	285,0	292,9	286,8
Long-term Investments	5,1	0,0	0,0	0,0	2,9
Goodwill	476,6	470,7	463,7	490,9	489,9
Other Intangibles	9,8	9,7	7,5	5,9	6,5
Long-term Accounts Receivables	5,3	11,0	48,1	23,8	34,6
Deffered Tax Assets, LT	71,6	65,2	64,2	0,0	0,0
Deffered Charges, LT	417,9	378,3	381,6	382,1	367,6
Other Long-Term Assets	16,6	27,9	24,5	24,5	39,8
Total Assets	1.748,1	1.671,3	1.522,3	1.468,2	1.503,9
Accounts Payable	185,8	133,1	116,5	89,3	106,4
Accured Exp.	114,4	120,9	113,2	110,1	129,1
Short-term Borrowings	0,0	0,0	0,0	69,9	116,2
Current LT Debt	10,3	6,1	6,2	6,0	6,7
Current Leases	0,0	0,0	1,2	1,5	1,8
Current Income Taxes Payable	4,4	3,2	4,4	7,0	0,0
Current Unearned Revenue	204,1	212,3	188,8	137,4	192,8
Other Current Liabilities	2,9	3,3	8,0	26,2	22,1
Total Current Liabilities	521,9	479,0	438,3	447,4	575,3
Long-Term Debt	550,4	567,4	582,2	547,7	616,5
Long-term Leases	0,0	0,0	3,7	3,6	3,3
Non-Current Unearned Revenue	41,9	37,2	20,6	26,7	19,4
Non-Current Def. Tax Liabilities	32,9	35,6	34,5	41,4	8,6
Other Non-Current Liabilities	117,9	88,4	56,5	83,9	132,5
Total Liabilities	1.265,0	1.207,6	1.135,8	1.150,7	1.355,7
Common Stock	0,1	0,1	0,1	0,1	0,1
Additional Paid in Capital	77,8	76,9	75,7	80,2	80,0
Retained Earnings	154,7	148,3	95,9	(15,9)	(197,7)
Treasury Stock	0,0	0,0	(23,4)	(24,8)	(24,8)
Comprehensive Income and Other	250,5	238,4	238,2	277,9	290,6
Total Common Equity	483,1	463,7	386,5	317,5	148,2
Total Liabilities and Equity	1.748,1	1.671,3	1.522,3	1.468,2	1.503,9

Cash Flow Statement (in Mio. €)

	2018	2019	2020	2021	2022
Net Income	(42,6)	21,1	(25,6)	(107,4)	(134,3)
Depreciation & Amortization	169,4	158,0	156,3	163,0	193,5
(Gain) Loss From Sale Of Assets	(20,6)	(28,8)	(20,2)	(8,6)	(25,5)
Asset Writedown & Restructuring Costs	0,0	1,1	4,2	0,0	0,0
Stock-Based Compensation	3,3	0,8	0,9	2,4	0,2
Other Operating Activities	80,8	19,9	19,6	38,5	1,7
Change In Acc. Receivables	(83,4)	90,0	(98,6)	89,8	4,4
Change In Inventory	0,2	(0,8)	(0,1)	0,1	(0,1)
Change In Acc. Payables	26,2	9,0	(12,5)	6,3	26,1
Change In Unearned Revenue	(28,8)	6,6	(36,5)	(57,6)	48,4
Change In Other Net Operating Assets	3,2	(3,6)	8,2	5,0	(2,4)
Cash From Operating Activities	107,7	273,3	(4,3)	131,5	112,0
CapEx	(15,0)	(15,3)	(23,4)	(7,3)	(9,7)
Sale Of PPE	0,1	0,0	0,0	0,0	0,0
Sale (Purchase) Of Real Estate properties	0,0	(13,9)	0,0	0,0	0,0
Sale (Purchase) Of Intangible Assets	(122,2)	(151,0)	(210,8)	(107,4)	(98,9)
Other Investing Activities	0,0	0,0	0,0	(1,1)	0,0
Cash from Investing	(137,1)	(180,2)	(234,2)	(115,8)	(108,6)
Total Debt Issued	0,0	0,0	0,0	69,9	46,5
Total Debt Repaid	(0,5)	(4,2)	(2,1)	(1,9)	(1,6)
Total Dividens Paid	(24,9)	(26,0)	(49,0)	(12,5)	(39,0)
Cash From Financing	(25,4)	(30,2)	(51,1)	55,5	5,9
Foreign Exchange Rate Adjustment	0,2	10,3	7,7	(2,6)	3,0
Net Change In Cash	(54,6)	73,2	(281,9)	68,6	12,3

7.2. Excel File

[MU valuations final 1.xlsx](#)