

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Trade and Finance



Bachelor Thesis

**Assessment of the Financial Position and
Performance of a Chosen Company Operating in the
Gaming Industry**

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BACHELOR THESIS ASSIGNMENT

Nuradil Zhaxylyk

Informatics

Thesis title

Assessment of the Financial Position and Performance of a Chosen Company Operating in the Video Game Industry

Objectives of thesis

The aim of this bachelor thesis is to assess the financial position and performance of a chosen company operating in the video game industry by analyzing the company's financial statements with focus on the representation and changes of the reported assets, liabilities, expenses, revenues, profit and cash-flow for a chosen period and to identify the potential financial problems and the most significant factors influencing the profit from the company and industry point of view.

Methodology

Methodology for the literature overview is based on data collection from the relevant legal framework, specialized publications and other written or online sources. The practical part of the thesis will be based on the information gained from the published annual reports of the chosen company. Vertical and horizontal analysis and ratio analysis of the financial statements will be used to assess the financial position and performance of the company and to prepare the practical part of the thesis. The methods of analysis, synthesis, comparison and deduction will be used to formulate the conclusions of the thesis.

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financial statements, financial analysis, financial position, balance sheet, assets, liabilities, equity, financial performance, Income statement, expenses, revenues, profit, cash-flow, video game industry

Recommended information sources

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Declaration

I declare that I have worked on my bachelor thesis titled "Assessment of the Financial Position and Performance of a Chosen Company Operating in the Gaming Industry" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on 15.03.2023

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Assessment of the Financial Position and Performance of a Chosen Company Operating in the Gaming Industry

Abstract

The main goal of the following thesis is to analyze the financial performance, position, and situation of a selected company operating in the gaming industry. To be more specific, the author will analyze the financial performance of Ubisoft, a French-based game developer that has made a series of tremendous commercial successes over the course of the last 20 years. Consequently, the author will answer the question of whether the situation of the company is favorable and stable.

The methodology of the work is based on the horizontal and vertical financial analysis of the company's financial statements on the selected time period – from 2019 to 2021. Apart from pertinent financial analysis, the author also focuses on calculating financial ratios related to liquidity, solvency, profitability, and market valuation. To conclude, the author is able to say that Ubisoft is a typical company operating in the gaming and game-developing industry, whose profit is significantly affected by the reception of their releases by gamers and critics.

All in all, the author believes that Ubisoft is an example of a successful and solvent company that might have found themselves rather trapped by their prior success, so now they have to produce really good products in order to live up to people's expectations, which is inevitably reflected on the company's financial statements.

Keywords: financial statements, financial analysis, financial position, balance sheet, assets, liabilities, equity, financial performance, Income statement, expenses, revenues, profit, cash-flow, video game industry

Posouzení finanční situace a výkonnosti vybrané společnosti působící v herním průmyslu

Abstrakt

Hlavním cílem následující práce je analyzovat finanční výkonnost, pozici a situaci vybrané společnosti působící v herním průmyslu. Abychom byli konkrétnější, autor bude analyzovat finanční výkonnost Ubisoftu, francouzského vývojáře her, který v průběhu posledních 20 let dosáhl řady obrovských komerčních úspěchů. V důsledku toho autor odpoví na otázku, zda je situace společnosti příznivá a stabilní.

Metodika práce je založena na horizontální a vertikální finanční analýze účetní závěrky společnosti za vybrané časové období – od roku 2019 do roku 2021. Kromě příslušné finanční analýzy se autor zaměřuje také na výpočet finančních ukazatelů souvisejících s likviditou, solventností, ziskovostí a tržním oceněním. Na závěr je autor schopen říci, že Ubisoft je typická společnost působící v herním a herním průmyslu, jejíž zisk je výrazně ovlivněn příjmem jejich vydání hráči a kritiky.

Celkově se autor domnívá, že Ubisoft je příkladem úspěšné a solventní společnosti, která se mohla ocitnout spíše v pasti svého předchozího úspěchu, takže nyní musí vyrábět opravdu dobré produkty, aby splnily očekávání lidí, což se nevyhnutelně odráží na finančních výkazech společnosti

Klíčová slova: finanční výkazy, finanční analýza, finanční situace, rozvaha, aktiva, pasiva, vlastní kapitál, finanční výkonnost, statment příjmů, výdaje, výnosy, zisk, cash-flow, průmysl videoher

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1 Introduction

The author of this thesis, like almost any other person belonging to the same generation and age, can surely claim that video games played a crucial part in his life in almost all stages of it – starting from the very childhood when he was first able to get his hands on his very first gaming console. Yet, as the author of the thesis was growing up, he came to the realization that the gaming industry was developing alongside him, where the industry became more and more profit-oriented with companies not really interested in making players better off, according to the author's own opinion.

For this purpose, the author expresses his profound interest in analyzing if one of his favorite game developers' financial situations can be considered favorable and prosperous. This prompted the author to apply the fundamental techniques of accounting learned by him during his studies at university. Based on his findings about one of the biggest companies operating in the selected industry and comparing them with the findings of author academists and researchers about the same industry, the author will draw relevant conclusions about the internal situation of Ubisoft compared to other companies and generally about the future development of Ubisoft in the context of phenomena happening around the company.

The author conducts an unbiased analysis, where his conclusions are based solely on the empirical results obtained by him during the analysis described in the practical part of the thesis and he also bases his conclusions on comparison with relevant findings of prominent researchers. The limitation of the work is the fact that the author assesses the situation from a perspective of an ordinary student who has a relevant background in accounting and economics but lacks understanding and ability to implement more complex techniques than just ratio analysis, horizontal analysis, and vertical analysis.

2 Objectives and Methodology

2.1 Objectives

The aim of this bachelor thesis is to assess the financial position and performance of a chosen company operating in the video game industry by analyzing the company's financial statements with focus on the representation and changes of the reported assets, liabilities, expenses, revenues, profit and cash-flow for a chosen period and to identify the potential financial problems and the most significant factors influencing the profit from the company and industry point of view.

2.2 Methodology

Methodology for the literature overview is based on data collection from the relevant legal framework, specialized publications and other written or online sources. The practical part of the thesis will be based on the information gained from the published annual reports of the chosen company. Vertical and horizontal analysis and ratio analysis of the financial statements will be used to assess the financial position and performance of the company and to prepare the practical part of the thesis. The methods of analysis, synthesis, comparison and deduction will be used to formulate the conclusions of the thesis.

3 Literature Review

3.1 Gaming Industry

In order to better understand the context of the work and better interpret the numbers of financial indicators in the practical part of the work, it is first essential to take an insight into the background of the firm and understand the mechanism of the selected industry. The author's choice for his bachelor thesis is the gaming industry, which is defined as a specific business sector focused on the development, maintenance and promotion of all kinds of games for people of all ages. Despite the common stereotype that games are usually played by children and teenagers, the reality shows absolutely different tendencies and facts, which suggest that the modern gaming industry is primarily driven by older players and large organizations who see a great opportunity in the segment (Baltezarevic, 2018).

Yet, before understanding the current state of affairs in the selected business segment, it is essential to take an insight into the history of gaming and mention some of the most important occurrences that were taking place in this relatively young industry. Of course, when considering the size of the modern video gaming industry, it is hard to believe that it all started with large arcade rooms in the 20th century, where the first games did not at all resemble something that can be observed today. However, like any other industry, the first companies specializing in the production of arcade games and games for first consoles such as Sega actually set the original vector of development in this highly competitive industry, whose evolution depended and still depends on the level of technological development. For this reason, it is fair to suppose that what was offered back then on Sega and Nintendo platforms was something that significantly contributed to the development of the whole industry. In addition to that, when considering the first stage and first generation of video games being developed and sold, it is wise to mention that the industry was split into two main segments – home video games and video games available in public places, such as arcades. However, it is fair to say that the second segment was eventually replaced by the first one due to its convenience and rising popularity, as well as the extensive support of leading game developers such as Nintendo (Wan, 2011).

Figure 1, an example of a retro arcade



Source: The Guardian, 2022

However, everything changed in the 90s, when the technological revolution finally brought a new cutting-edge technology based on the concept of 3D polygon graphics, which soon became the standard for video games and all related entertainment for both segments – arcades and soon home video gaming stations. In addition to that, when considering that period, it is also wise to highlight that firms and game developers saw a great opportunity in PC gaming, so the market was soon split not just between arcades and home gaming consoles, but there was also the third major player represented by PCs. Of course, the technological revolution did not only bring 3D graphics to video games, but it also boosted the capabilities of gaming platforms, which was largely driven by the adoption of graphics cards and new operating systems that allowed smoother operations and greater capabilities enabling running multiple operations at the same time. Fairly speaking, the 90s are considered the golden age of video gaming, as the world's most important franchises and gaming series were released back then, such as Mortal Combat, The Legend of Zelda, Half-Life (which soon set a new standard for games and graphics), Quake, Tony Hawk's Pro Skater, Resident Evil and Fallout (Buchman, 1996).

Figure 2, a screenshot from Mortal Combat



Source: Midway Games, 2018

When looking at the geography of game developers who developed the most important and critically acclaimed games mentioned by the author at the end of the previous chapter, it becomes evident that the gaming industry became inherent not only to the United States and Japan, where the first game developers were based, but other countries were soon to follow in the footsteps of their American and Japanese colleagues. What is more, gaming entirely changed its shape with more and more different topics being used for game development. In the 90s, game developers saw a great opportunity in developing numerous thematic projects related not only to fighting and shooting, which were the most important segments in the 70s and 80s but game developers were also focused on developing sports-related games and games related to racing. In addition to that, when looking at the games mentioned in the list by the author above, it becomes evident that not only the process and gaming mechanism were considered as the most important points, but game developers also started to offer players something deeper with more complex scenarios and actual script that sometimes could even be compared to films (Garrelts, 2006).

What is more, when considering the 90s in the context of the gaming industry, it is also wise to say that not only the platforms and specifics of the game developing market were

split, but also games themselves were soon to be split into single-player ones and online games, where the second segment gained real sympathy by players all over the world. Notably, the commercial success of the Counter-Strike series and notably Counter-Strike 1.6 which was released in 1999 was something that created an entirely new domain that partially alone led to the creation of cybersports (Witkowski, 2019).

Figure 3, a screenshot from Counter Strike 1.6



Source: Kotwani, 2020

Nevertheless, the evolution continued and the time period between 2000 and 2010 became even more fruitful with new game developers represented by individual companies taking the initiative and becoming the driving forces of the industry, whereas older studios and companies had had a slight contretemps that explained by lack of creativity and partial burnout of workers who had already been in the industry for more than 15 and 20 years in some cases. These, studios like Rockstar, Ubisoft, 2K, and Activision were the main driving forces with games primarily based on single-player, where the role of the multiplayer and online segment was sometimes overlooked. However, this did not stop gamers from playing those games as companies specializing in the video gaming industry were soon to reach millions of dollars in annual turnover with games like GTA series, Assassin's Creed, Call of Duty, and many others being released (Siwek, 2007).

Figure 4, the biggest game developers



Source: Cosug, 2023

Yet, the time period of the 00s brought something rather negative to the gaming industry and it is the excessive commercialization of video gaming with some of them being released on the annual basis, where new games were not really much different from what had been released a year ago. For this purpose, it is wise to say that the utility and satisfaction from single-player games soon started to diminish even despite the release of new video gaming platforms and starting rivalry between PlayStation and Xbox, which shaped the generation of video games released in the 00s and even 10s.

Figure 5, PlayStation and Xbox logos

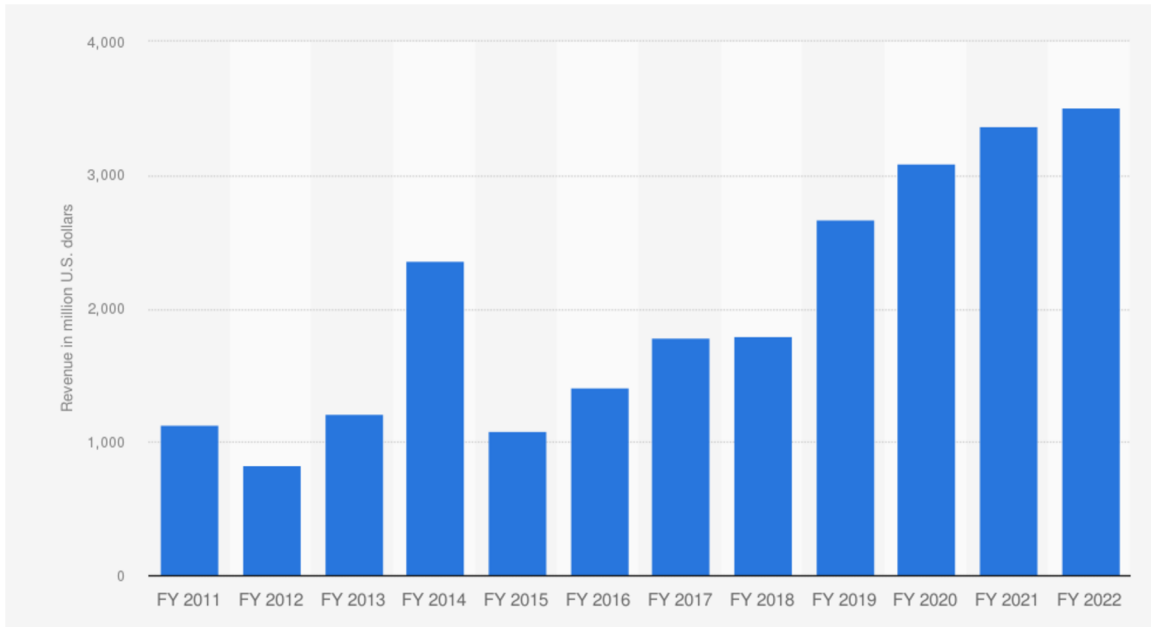


Source: McDonell, 2020.

Consequently, the 10s became the era of online games with Counter Strike Global Offensive and Dota 2 attracting more and more players and what is more important, more and more investors and big enterprises interested in exploring a relatively new domain for them. The 2010s became the time period, when game developers understood that games were not just ordinary time-killers, but can also be used for making endless cashflows. Notably, the development of the internal market of in-game items for Counter-Strike and Dota dropped a series of hints for ordinary game developers focused even on single-player games to allow in-game transactions and provide gamers with additional items for a particular fee. Undoubtedly, this was a turning point that finally set the vector of development of the gaming industry, where some gaming industries were rather too much interested in abusing this source of revenue, thus leading to the gradual deterioration of their public image and relationship with gamers. However, it is still wise to say that gamers who saw that everything is being commercialized in their favorite games did not really stop buying them as there was no alternative due to the fact that by 2017-2018, almost all games became centered around the idea of additional paid content. In the case of some games, it is wise to say that those in-game transactions were bringing such a big fortune to game developers that they even dropped all initiatives related to the improvement of the in-game process and development of potential DLCs for games, such as Rockstar Games with their

GTA online, which had originally been released in 2013 but still, as of 2023 continues to bring enormous profit from in-game purchases made by gamers (Tomic, 2017).

Figure 6, revenue generated by Take-Two, developer of GTA



Source: Clement, 2022

All in all, it is wise to say that by this time, the market and generally games were not really developing as the level of technology of platforms did not allow much more complex and detailed games to be hosted on outdated and old-fashioned platforms such as PlayStation 4 and Xbox One. Henceforth, it is wise to say that the release of new consoles in 2020 – PlayStation 5 and Xbox Series X gave a breath of fresh air to game developers who were finally able to continue making breathtaking games with the highest possible level of detail and game features (Kind, 2022).

Figure 7, the main gaming consoles of 2022



Source: NSC, 2020

Clearly, it is wise to say that by 2022, the gaming industry managed to finish its transformation from the industry where gamers and people interested in games are being brought to the fore with more and more game developers focused on increasing the amount of their money rather than being focused on improving the quality of the content offered. For this purpose, it is wise to say that it is believed by many experts that this decade is expected to be the turning point, where game developers who are still stuck in the past will eventually dissolve and those who can properly balance their own interests and interests of their audiences will survive and thrive (Kind, 2022).

3.2 Financial Statements and Reporting

Accounting as a discipline did not emerge in the 21st century, but the first practices of internal bookkeeping date back thousands of years and are traced to even ancient civilizations. Of course, people used to keeping books before and they keep doing it now for a very simple reason – accounting and bookkeeping in general both offer a perfect opportunity for firms, internal staff, and people affiliated with business to better understand the situation, capture the most important aspects and make sure that the organization will be developing in the proper way. However, there is no way for one to compare practices related to accounting dating back thousands of years ago with today's accounting. As the economies of nations and country blocks evolved, organizational structure and firms were also evolving, so the need for modern firms for a systemized accounting arose leading to the situation where almost any state on Earth has its own specific domestic accounting framework inherent to a given community or some countries can also use the harmonized system of international accounting as the main framework for financial reporting. Undoubtedly, when one considers the phrase "accounting framework" and "standards for financial reporting", it is almost inevitable for a person not to come across the IFRS standards that serve as a standard for the overwhelming majority of firms and companies, just as the English language serves as a primary language of international communication (Wysocki, 2011).

However, national identity and national standard do still persist despite the fact that over the course of the last 20 years, international organizations and enterprises worked closely with governments all over the world in order to harmonize accounting thus helping companies to prosper by not wasting millions of dollars on hiring specialists who can provide unique service in a given environment. All in all, it is still wise to say that as of 2022, every country has its own special financial aspects, as well as requirements that have to be fulfilled by those expressing their desire to conduct business operations in a given country (Tsakumis, 2009).

Nevertheless, it is still wise to consider that there is a series of fundamentals that are likely to be shared by almost all countries and communities around the globe. For instance, when considering the financial performance or financial situation of a company, a specific

time period has to be selected and this time period is called fiscal year, which usually starts on the 1st of January and finishes on the 31st of December, totaling one calendar year.

Apart from that, there are also numerous accounting principles that are integral, such as the principle of consistency (sticking to one particular method for all transactions, such as the FIFO method for valuation of own inventory, for instance), going concerned (carrying out obligations and commitments effectively), accounting year concept (preparation of financial statements is done in a given time unit, such as one fiscal year), business entity concept (business owners are treated independently from the business entities belonging to them), matching principle (for every expense recorded, there has to be a matching transaction thus leading to the correct calculation of profit), dual aspect concept (splitting all journals into two equally important parts – debit and credit) and money measurement (all transactions express elements in terms of a given currency) (Scott, 1941).

Consequently, it is wise to proceed to the most important part – any financial analysis and assessment involves meticulous analysis of financial statements, i.e., essential documents reflecting the company's performance in a particular domain. There are currently 5 different financial statements that are unanimously treated as the most important and influential ones. The author will briefly talk about each in special paragraphs dedicated to each of those five financial statements.

A balance sheet or the statement of financial position is the statement that describes the company's position in terms of assets (valuable items), liabilities (commitments that the company has), and equity (capital owned by the business owners or the company). The accounting equation has the following structure:

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

This equation practically means that assets are funded by either liability (debt financing) or equity (equity financing) or can also be funded altogether. Assets represent valuable items that the company possesses for generating revenue and this segment is split into current assets (inventory, cash, short-term investments, and receivables) and long-term assets (property, plant and equipment, long-term investments, land, and licenses). Short-term assets are expected to be used within one year. Long-term assets are also sometimes subject to depreciation, i.e., a gradual decrease in the book value as the item is slowly wearing off.

Liabilities are also split into two categories – short-term liabilities (payables, short-term debt, etc.) and long-term liabilities (long-term debt, etc.) with the same logic persisting that the first category has to be paid as soon as possible. Equity is represented by reserves that a company owns, treasury stocks (stocks bought back), paid-in capital (difference in selling stocks), and retained earnings (cumulative net income from previous years minus dividends) (Dichev, 2008).

An income statement or statement of operations is a statement that indicates the performance of the company in terms of the breakdown of revenue and expenses thus leading to the eventual calculation of profit. This statement is split into two segments – the operating part and the financing part. The statement itself can be concluded by function, where operating expenses are listed according to their function (costs of goods sold, administrative expenses, and distribution) and according to their nature (wages, depreciation, rent, etc.) (Luecke, 1998). However, the profit is the same in both kinds of income statements. The financing part usually involves a calculation of various interests and taxes, eventually leading to the value of net income or less, depending on the company's performance. Below net income, it is possible to find the value of EPS, standing for the earnings per share which are calculated as follows:

$$EPS = \frac{\text{Net Income}}{\text{Number of shares outstanding}}$$

A cash-flow statement is a statement that breaks down the movement of cash inside of an organization into three segments – operating cashflow (reflects the cash earned and spent on the maintenance of operations, has to be positive), investing cash flow (indicates the cash used for investments and this segment can be positive and negative, whereas the negative sign does not mean that a company has problems) and financing cash-flow (indicates cash inflows and outflows on financing matters, such as bank loans) (Weiss, 2007).

Statement of changes in equity shows all possible changes that were taking place over the course of the fiscal year with equity.

Notes is a compulsory extension to financial statements that explains methods and principles used for the creation and conclusion of financial statements that were mentioned above by the author in this chapter.

3.3 Financial Ratios

Financial ratios are useful tools based on mathematical formulas that help to extract valuable information from raw numbers in the financial statements of organizations. Those ratios are split into five main categories, each shedding light on a particular characteristic that can better explain the extent to which an organization is doing good in the analyzed field.

The first domain to which those ratios are related is liquidity, which refers to a company's ability to quickly convey its assets to cash and equivalents that can be used for covering short-term obligations of the organization. Some of the most important ratios related to liquidity are:

Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$ shows the degree to which a company's current assets cover current liabilities and it is good when the ratio is above one or equal to 1.

Acid – test ratio = $\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$, it shows the degree to which a company's current assets minus working inventory cover current liabilities with the same logic of the higher number the better (Costea, 2009).

The second domain is related to profitability, which refers to a company's ability to make money from assets and other elements in the possession of the company. There are many ratios related to this domain with the most common ones being margins – gross margin, EBIT margin, EBT margin, and net margin. However, there are also some other ones:

Return on Equity = $\frac{\text{Net Income}}{\text{Total Equity}}$ with this ratio showing the degree to which, the company generates return compared to its equity.

$Return\ on\ Assets = \frac{Net\ Income}{Total\ Assets}$ with this ratio showing the degree to which, the company generates return compared to its assets.

$Return\ on\ Investments = \frac{Interest\ Income}{Short\ term\ investments+Long-term\ investments}$ with this ratio showing the degree to which, the company generates return compared to the value of its original investment (Rutkowska-Ziarko, 2020).

The third domain is related to solvency, which is the company's degree of safety or ability to maintain its operations, as well as it also refers to the degree of indebtedness (Brindescu, 2016). Some of the most used ratios are presented below:

$Equity\ Ratio = \frac{Total\ Equity}{Total\ Assets}$, this ratio indicates if a company is focused on debt or equity financing.

$Debt - to - assets\ Ratio = \frac{Total\ Debt}{Total\ Assets}$, this ratio indicates the proportion of debt compared to total assets.

$Debt - to - equity\ Ratio = \frac{Total\ Debt}{Total\ Equity}$, this ratio indicates the proportion of debt compared to total equity.

The fourth domain is reflecting the market valuation when considering some internal aspects of an organization. This domain usually reflects if a given company's stock is overvalued or undervalued. Some of the most used ratios are presented below:

$Price\ to\ Earnings\ Ratio = \frac{Stock\ Price}{EPS}$, this ratio expresses how much an investor pays to get 1 monetary unit in earnings.

$Price\ to\ Book\ Value\ Ratio = \frac{Stock\ Price}{Book\ Value\ Per\ Share}$, this ratio expresses how much a given company is traded when comparing its stock price with its actual book value (Campbell, 2001).

The final domain is related to efficiency and performance with ratios such as inventory turnover, accounts receivable turnover, accounts payable turnover, etc.

4 Practical Part

4.1 Ubisoft

Ubisoft is a French gaming company that was established in 1986 technically meaning that the company is 36 years old, thus making Ubisoft one of the first-ever pioneers who set foot in the video gaming industry. The company managed to release a lot of games that were critically acclaimed by both the general public and critics with series like Assassin's Creed, Far Cry, For Honor, Just Dance, Prince of Persia, Watch Dogs, and other smaller projects developed by the group. The company initially started as a small indie developer of smaller games until they finally managed to gather a good team and start working on some of the most prominent single-player games in history. However, it is still wise to say that Ubisoft gain its popularity and unanimous approval after 2007 when their pretty much most important and successful game – Assassin's Creed was released (Spring, 2015).

As usually happens with companies who experienced real commercial success with one of their products, they managed to use the tremendous amount of cash flow acquired after the distribution and sales of Assassin's Creed for the development of other groundbreaking projects, such as Watch Dogs and Far Cry.

Development of the company slowly lead to the creation of countless subsidiaries scattered around the globe with offices in every more or less prominent city, where Ubisoft was cooperating with smaller game developers and offering them their assistance in order to find another game that will change the industry once and for all (Della Rocca, 2012).

Figure 8, gaming companies and their subsidiaries



Source: Reddit, 2020

However, the company's prominent figure and tremendous success alongside international popularity were soon to be replaced with a series of controversial moves followed by allegations of former workers of Ubisoft about sexual misconduct that was constantly being dismissed by the human resource department for the sake of the company's reputation. In addition to this series of recent problems, the company seems to have problems with the cooperation with individual departments, subsidiaries, and game developers as the company started to frequently postpone their releases. Yet, contrary to the company's attempts to put blame on individual game developers and other responsible people, people affiliated with Ubisoft claim that the main reason for not delivering projects on time is internal chaos and the toxic environment of the company (Santos, 2022).

In light of recent negative circumstances, it is quite tempting to start analyzing the company's financial performance and try to understand if those events had somehow impacted the company's financial performance.

4.2 Horizontal Analysis

4.2.1 Balance Sheet

In order to fully understand the situation of the company in terms of its financial position over the selected period of time, it is needed to analyze the changes that have been happening with the company over the last 3 years – 2019 – 2021. The author uses open-source financial databases such as Yahoo! Finance and The Wall Street Journal for the basis of data collection. Databases from those sources were then put into excel by the author and a particular analytical technique was applied shortly after. When it comes to horizontal analysis, the author computes the chain base index for all relevant elements of the balance sheet in order to find annual deviations in the elements of the balance sheet. The first figure of the practical part presents an overview of the company's balance sheet:

Figure 9, balance sheet, horizontal analysis of assets

	2019	2020	2021
Cash	\$ 1,050	\$ 1,079	\$ 1,868
Receivables	\$ 664	\$ 435	\$ 605
Inventories	\$ 34	\$ 15	\$ 27
Total current assets	\$ 1,889	\$ 1,658	\$ 2,615
Proprty, plant & equipment (GROSS)	\$ 364	\$ 634	\$ 758
Accumulated depreciation	\$ 204	\$ 230	\$ 276
Long-term investments	\$ 9	\$ 14	\$ 16
Intangible assets	\$ 1,174	\$ 1,450	\$ 1,674
Total non-current assets	\$ 1,400	\$ 1,947	\$ 2,270
Total Assets	\$ 3,289	\$ 3,605	\$ 4,885
% change			
	2020	2021	
Cash	3%	73%	
Receivables	-34%	39%	
Inventories	-56%	80%	
Total current assets	-12%	58%	
Proprty, plant & equipment (GROSS)	74%	20%	
Accumulated depreciation	13%	20%	
Long-term investments	56%	14%	
Intangible assets	24%	15%	
Total non-current assets	39%	17%	
Total Assets	10%	36%	

Source: own calculations based on annual statements

The dynamics of change in the company's total assets were positive in 2020 and 2021, when first the company increases the number of their total assets by 10% and then by 36% in 2020 and 2021, respectively. However, the company experienced a decrease in the number of total current assets in 2020, which can be related to the pandemic of coronavirus, when firms had infinitely many unnecessary expenses caused by the ongoing pandemic. Total current assets increased in 2021, which is a good sign that the company recovered some of its liquidity. When it comes to the long-term assets of the company, the situation is acceptable as the company was accumulating long-term investments. Accumulated depreciation was not increasing faster than property, plant, and equipment, which is also a good sign meaning that the company is doing great from the asset-management point of view, as they saw a need in replacing machinery that was quickly wearing off with a new one. Then, the analysis continues for the liabilities and equity of the company:

Figure 10, balance sheet, horizontal analysis of liabilities and equity

	2019	2020	2021
Short-term debt	\$ 453	\$ 246	\$ 200
Payables	\$ 189	\$ 139	\$ 152
Income tax payable	\$ 27	\$ 15	\$ 16
Other current liabilities	\$ 665	\$ 518	\$ 738
Total current liabilities	\$ 1,334	\$ 919	\$ 1,106
Long-term debt	\$ 890	\$ 1,176	\$ 1,895
Deferred Taxes	\$ 70	\$ 31	\$ 61
Other non-current liabilities	\$ -	\$ 60	\$ 34
Total non-current liabilities	\$ 1,035	\$ 1,364	\$ 2,114
Total Liabilities	\$ 2,369	\$ 2,283	\$ 3,220
Common stock	\$ 9	\$ 9	\$ 10
Treasury stock	\$ -534	\$ -441	\$ -263
Total equity	\$ 920	\$ 1,315	\$ 1,656
Total Liabilities + Equity	\$ 3,289	\$ 3,605	\$ 4,885
% change			
Short-term debt	-46%	-19%	
Payables	-26%	9%	
Income tax payable	-44%	7%	
Other current liabilities	-22%	42%	
Total current liabilities	-31%	20%	
Long-term debt	32%	61%	
Deferred Taxes	56%	97%	
Other non-current liabilities		-43%	
Total non-current liabilities	32%	55%	
Total Liabilities	-4%	41%	
Common stock	0%	11%	
Retained earnings	-17%	-40%	
Total equity	43%	26%	
Total Liabilities + Equity	10%	36%	

Source: own calculations based on annual statements

Evidently, under the circumstances when the company's total assets increased, a similar vector of changes should be expected for the second part of the balance sheet – liabilities and equity. The company's liabilities decreased in 2020 by 4%, which is a good sign meaning that the company was not really borrowing much during the pandemic, but they were rather paying off old debts, presumably out of fear for their solvency. Contrary to that, the number of total equities increased by 43%, which is surely a good sign presumably hinting that the company was more focused on equity financing. The number of current liabilities increases dramatically in 2020%, but the company started borrowing again in 2021 when the number of total current liabilities rose by 20% and the number of total liabilities increased by 41%, which is clearly a lot. Despite the fact that the company was reducing its short-term debt, the

situation with the long-term was slightly different as the company was accumulating it fast in 2020 and 2021 as well. Overall, the situation seems normal.

4.2.2 Income Statement

After analyzing the company's balance sheet, it is essential to focus on the income statement, which is essentially related to another domain of financial activity – financial performance or the ability to generate profit on the company's sales. The videogaming industry is a high value-added one, so the author expects big numbers for the company's income statement, whose breakdown is presented in the next figure.

Figure 11, income statement, horizontal analysis

	2019	2020	2021
Sales	\$ 1,846	\$ 1,595	\$ 2,224
COGS	\$ 864	\$ 772	\$ 874
Gross Income	\$ 982	\$ 823	\$ 1,350
Operating expenses	\$ 773	\$ 778	\$ 946
EBIT	\$ 208	\$ 41	\$ 400
Unusual Expense	\$ 36	\$ 101	\$ 110
Non-operating expense	\$ 18	-\$ 4	-\$ 7
Non-operating interest income	\$ 3	\$ 4	\$ 1
Interest expense	\$ 45	\$ 20	\$ 45
EBT	\$ 148	-\$ 79	\$ 238
Income Tax	\$ 48	\$ 46	\$ 133
Net income	\$ 100	-\$ 126	\$ 103
EPS	\$ 0.89	-\$ 1.12	\$ 0.82
% change			
	2020	2021	
Sales	-14%	39%	
COGS	-11%	13%	
Gross Income	-16%	64%	
Operating expenses	1%	22%	
EBIT	-80%	876%	
Interest expense	-56%	125%	
EBT	-153%	401%	
Income Tax	-4%	189%	
Net income	-226%	182%	
EPS	-226%	173%	

Source: own calculations based on annual statements

The very first thing that strikes the author's attention is the figure for the company's net income in 2020, which dropped below zero registering a decrease of 226% compared to the previous year, which is a bad result but still is believed to be a direct consequence of the

coronavirus pandemic, which caught the company unprepared, as it did to all other enterprises. The main reason for experiencing a net loss is the decrease in sales by 14%. This negative tendency resulted in a decrease in the company's EPS by 226% in 2020. The company recovered in 2021 and they even managed to exceed the value of gross income in 2019, which is a pre-pandemic year. This is achieved with the increase in sales in 2021, which might suggest that the company released a product that became a commercial success. The company's EBIT doubled compared to 2019 in 2021, which is a good sign, and so is the company's EBT. However, income tax was high, which is a traditional situation in France, the residence of the company's main office, so the effective net income in 2021 did not differ much from 2019 despite higher values for the company's sales. Unsurprisingly, positive changes resulted in the increase of the company's EPS from negative 1.12 to 0.82, which is still lower than in 2019. This might be explained by a higher number of shares outstanding in 2021, which was used by the company to accumulate cash by selling the company's shares.

4.2.3 Cash-Flow Statement

Figure 12, cash-flow statement, horizontal analysis

	2019	2020	2021
Operating cash flow	\$ 972	\$ 600	\$ 958
Investing cash flow	-\$ 648	-\$ 905	-\$ 868
Financing cash flow	-\$ 40	\$ 432	\$ 464
% change			
	2020	2021	
Operating cash flow	62%	-37%	
Investing cash flow	-28%	4%	
Financing cash flow	-109%	-7%	

Source: own calculations based on annual statements

Despite having a negative net income in 2020, the company's operating cash flow was positive in 2020, which suggests that the company did not really suffer from serious problems posing threats to the company's existence. So are operating cash flows for 2019 and 2021, which is quite good. Investing cash flow was negative, which is anticipated by a company specializing in the IT or related industry since they spend a lot of money on investments in other projects. Financing cash flow is initially negative and then becomes positive, which is generally okay as the company might have different deviations in that element of cash flow arising from a need to pay a bank loan or receive interest.

4.3 Vertical Analysis

4.3.1 Balance Sheet

Then, another kind of analysis selected by the author for his bachelor thesis is a vertical analysis of financial statements, which also considers different fiscal years with the help of the company's annual statements, but this time the author calculates percentages from totals and sub-totals for almost all elements in order to understand the way how company's elements, such as assets, liabilities, and equity are allocated. The author starts with the balance sheet of Ubisoft and more specifically, from assets:

Figure 13, balance sheet, vertical analysis of assets

	2019	2020	2021
Cash	\$ 1,050	\$ 1,079	\$ 1,868
% from current assets	56%	65%	71%
Receivables	\$ 664	\$ 435	\$ 605
% from current assets	35%	26%	23%
Inventories	\$ 34	\$ 15	\$ 27
% from current assets	2%	1%	1%
Total current assets	\$ 1,889	\$ 1,658	\$ 2,615
% from total assets	57%	46%	54%
Property, plant & equipment (GROSS)	\$ 364	\$ 634	\$ 758
Accumulated depreciation	\$ 204	\$ 230	\$ 276
% from property assets	56%	36%	36%
Long-term investments	\$ 9	\$ 14	\$ 16
% from long-term assets	1%	1%	1%
Intangible assets	\$ 1,174	\$ 1,450	\$ 1,674
% from long-term assets	84%	74%	74%
Total non-current assets	\$ 1,400	\$ 1,947	\$ 2,270
% from total assets	43%	54%	46%
Total Assets	\$ 3,289	\$ 3,605	\$ 4,885

Source: own calculations based on annual statements

Based on the vertical analysis of assets, it can be concluded that the company initially had more liquid assets than long-term ones with proportions equal to 57% for the current assets and 43% for the long-term assets. The situation changed in 2020 when the company's liquid assets proportion decreased from 57% to 46% resulting from a decrease in the total current assets and an increase in total non-current assets. In 2021, the situation returned back to the pre-covid numbers with almost the same percentages. Inventory represents just 1-2% of the company's total current assets, which is acceptable when considering the nature of the company and the industry where it is operating. The accumulated depreciation percentage from the property, plant, and equipment was 56% in 2019, which is not good suggesting that

the company's equipment was on its way to wearing off. The company saw this and managed to increase and renew its equipment, so the accumulated depreciation represented just 36% of 2021 the total equipment. All in all, the vertical analysis does not suggest any negative tendencies in the company's balance sheet apart from an obviously negative consequence of the coronavirus pandemic. Then, the author continues to the liabilities and equity:

Figure 14, balance sheet, vertical analysis of liabilities and equity

	2019	2020	2021
Short-term debt	\$ 453	\$ 246	\$ 200
% from current liabilities	34%	27%	18%
Payables	\$ 189	\$ 139	\$ 152
% from current liabilities	14%	15%	14%
Income tax payable	\$ 27	\$ 15	\$ 16
% from current liabilities	2%	2%	1%
Other current liabilities	\$ 665	\$ 518	\$ 738
% from current liabilities	50%	56%	67%
Total current liabilities	\$ 1,334	\$ 919	\$ 1,106
% from total liabilities	56%	40%	34%
Long-term debt	\$ 890	\$ 1,176	\$ 1,895
% from long-term liabilities	86%	86%	90%
Deferred Taxes	\$ 70	\$ 31	\$ 61
% from long-term liabilities	7%	2%	3%
Other non-current liabilities	\$ -	\$ 60	\$ 34
% from long-term liabilities	-	4%	2%
Total non-current liabilities	\$ 1,035	\$ 1,364	\$ 2,114
% from total liabilities	44%	60%	66%
Total Liabilities	\$ 2,369	\$ 2,283	\$ 3,220
% from L+E	72%	63%	66%
Common stock	\$ 9	\$ 9	\$ 10
Treasury stock	\$ -534	\$ -441	\$ -263
Total equity	\$ 920	\$ 1,315	\$ 1,656
% from L+E	28%	37%	34%
Total Liabilities + Equity	\$ 3,289	\$ 3,605	\$ 4,885

Source: own calculations based on annual statements

Liabilities represent 72% of the total liabilities and equity in 2019, suggesting that the company was practicing more debt financing in 2019, while the company increased its equity financing in 2020 when the share of total liabilities dropped to 63%. As the author has already noticed, the company's EPS dropped in 2021 despite higher net income than in 2019, which drops a hint that the company was selling shares, so it is surely related to the company's increase in total equity. However, the company started to return back to debt

financing in 2021, when the share recovered to 66%. Total liabilities represent a smaller part of the company's liabilities with just 56% and then diminished first to 40% and then to 34%, while long-term assets kept on increasing and notably, the long-term debt which might be related to some of the company's expansionary plans. Overall, the situation with the other part of the equation also seems quite acceptable and good.

4.3.2 Income Statement

Figure 15, income statement, vertical analysis

	2019	2020	2021
Sales	\$ 1,846	\$ 1,595	\$ 2,224
COGS	\$ 864	\$ 772	\$ 874
Gross Income	\$ 982	\$ 823	\$ 1,350
Gross Margin %	53.20%	51.60%	60.70%
Operating expenses	\$ 773	\$ 778	\$ 946
EBIT	\$ 208	\$ 41	\$ 400
EBIT Margin %	11.27%	2.57%	17.99%
Unusual Expense	\$ 36	\$ 101	\$ 110
Non-operating expense	\$ 18	-\$ 4	-\$ 7
Non-operating interest income	\$ 3	\$ 4	\$ 1
Interest expense	\$ 45	\$ 20	\$ 45
EBT	\$ 148	-\$ 79	\$ 238
EBT Margin %	8%	-5%	11%
Income Tax	\$ 48	\$ 46	\$ 133
Net income	\$ 100	-\$ 126	\$ 103
Net Margin %	5%	-8%	5%
EPS	\$ 0.89	-\$ 1.12	\$ 0.82

Source: own calculations based on annual statements

The vertical analysis of the income statement is done with the help of profitability ratios. The company's gross margin was 53% in 2019, which is a good result. The company experienced a slight decrease in 2020, when the gross margin dropped to 51.6%, but managed to recover in 2021 and even improve its profitability by attaining a gross margin of 60.7%. Nevertheless, the company has a lot of operating expenses, which leads to reducing the value of profit (EBIT margin) to 11.27% in 2019, 2.57% in 2020, and to 17.99% in 2021. Of course, this does not necessarily mean that the company's operating expenses are uncertain as they fluctuate, but it can rather be a consequence of developing or releasing games (marketing, distribution, etc.). EBT margin was 8% in 2019, negative 5% in 2020 and positive 11% in 2021, and once again, the author believes that it is related to the cycles in the game-development process. As for the net margin, the company seems to have a value

of 5% as a traditional situation, since they have it in 2019 and 2021. The company's net loss is 8% in 2020, which is a lot but still, it was an unusual year due to the pandemic of coronavirus.

4.4 Financial Ratio Analysis

4.4.1 Liquidity

Now, after directly analyzing changes and allocation of elements in the company's financial statements, it is essential to rely on a mathematical approach and calculate ratios that are related to particular domains of finance. First, the author considers the domain of liquidity, and the result of the ratio calculation is shown in the following figure:

Figure 16, liquidity ratios

Liquidity ratios	2019	2020	2021
Current ratio	1.42	1.80	2.36
Acid-test ratio	1.39	1.79	2.34

Source: own calculations based on annual statements

Based on the current ratio analysis, the number of the company's current assets is 0.42, 0.8, and two times higher than the number of current obligations in 2019, 2020, and 2021, respectively. This is good because the company will be able in case of problems to use this liquidity to pay its current outstanding obligations. Acid-test ratio or to put it more simply, the quick ratio indicates that the company will have a lot of liquidity even if the inventory is subtracted from the current assets number. All in all, the company does not seem to have any problems with liquidity.

4.4.2 Solvency

Then, continuing to solvency, the author presents the ratios calculated for this domain:

Figure 17, solvency ratios

Solvency	2019	2020	2021
Equity ratio	0.28	0.36	0.34
Debt to assets	0.41	0.39	0.43
Debt to equity	1.46	1.08	1.27

Source: own calculations based on annual statements

The equity ratio suggests that 28%, 36%, and 34% of the company's assets were funded by equity in 2019, 2020, and 2021, respectively. This practically means that the company was exercising debt financing, which is not necessarily a bad thing, but it is still preferred for companies to rely on equity financing rather than living on debt. Then, when it comes to the debt-to-assets ratio, it can be said that the number of debts does not exceed the number of the company's total assets and it is good. What is more, the values of the ratio are really, which practically means that the company's solvency in terms of assets is good. When combining this with the high liquidity identified, it can be assumed that the company has a good position. However, the same cannot be said for the result of the debt-to-equity ratio, which is greater than 1, and debts overweight the total number of equities, which is not at all good but still acceptable.

4.4.3 Profitability

The company's profitability in terms of margins was already discussed in the vertical analysis of the company's income statement, so the author focuses on another kind of profitability ratio. The calculations are presented in the following figure:

Figure 18, profitability ratios

Profitability	2019	2020	2021
Return on Investments	33.33%	28.57%	6.25%
Return on Equity	11%	-10%	6%
Return on Assets	3%	-3%	2%

Source: own calculations based on annual statements

According to the ROI ratio, it can be said that the company gets a return on its investments and the best result was in 2019 with the worst one in 2021. Yet, the figures are relatively low. Return on equity is quite good in 2019, but it was darkened by the drop in the company's net earnings, which lead to negative figures for the ROE ratio. ROA ratio is positive, but it is low, suggesting that the company does not really have high profitability.

4.4.4 Market Valuation

Finally, the author analyses the valuation of Ubisoft and for this purpose, the author calculates 2 ratios – P/E ratio and P/B ratio in order to understand if Ubisoft is undervalued or overvalued and if it is overpriced or underpriced.

Figure 19, market valuation ratios

Market Valuation	2023		
Measures	Price of Stock	EPS	Value
P/E Ratio	22.54	0.15	150.2666667
Measures	Price of Stock	Book Value Per Share	Value
P/B ratio	22.54	11.5	1.96

Source: own calculations based on annual statements

According to the P/E ratio, it can be said that investors would have to pay 150 USD in order to get 1 dollar in earnings, which is really low and not good at all. The company's P/B ratio suggests that the company's market valuation did not go far from its actual book value since the ratio of 1.96 is a really low one suggesting that the stock is not significantly overvalued. The only problem that the author identified in this domain is a direct consequence of low profitability resulting in low EPS.

5 Results and Discussion

5.1 Assessment of the Financial Position of the Company

The author has already briefly discussed the financial position of the company in his horizontal and vertical analysis of the company's balance sheet. Overall, the author believes that Ubisoft does not really experience any problems with its financial position even despite the pandemic of coronavirus. Of course, it is not at all possible to claim that the pandemic did not have any financial effect on the organization – quite on the contrary, it led to a series of serious changes in the company's financial position. However, the recovery that happened in the upcoming year even under the condition that the pandemic was still present suggests that the crisis was not serious and it created temporary adverse conditions for the company. Yet, it is wise to say that the company seems to be doing quite well as they managed to spot problems and tackle them, such as the problem with the surging accumulated depreciation and wearing off of equipment. What is also quite notable and interesting is the fact that the company does not have any short-term investments, but long-term ones. Of course, given the specificity of the company, it is quite logical that the company will not be interested in manipulations with any time of short-term investments.

In addition to that, the company has good indicators for liquidity and solvency, which are one of the most important aspects helping companies to ensure their long-term development and expansion.

All in all, if considering Ubisoft as an IT company which it partially is, it is fair to say that the author came to the same conclusions about just a rather low negative effect of the pandemic in 2020, which is quite similar to what was achieved by Rababah, 2020, who suggested that IT companies, as well as tech ones, are the ones that will be affected less by the pandemic.

5.2 Assessment of the Financial Performance of the Company

The financial performance of Ubisoft can be categorized as a positive one because the company managed to make a net profit for 2 years out of the 3 selected for the analysis – 2019 and 2021. The year 2020 was darkened by the pandemic of the coronavirus and the

drop in net profit under 0 was explained by the drop in sales, which is quite surprising when considering the nature of the products sold by the company. Of course, the pandemic might have partially reduced people's willingness to buy durable goods due to the drop in real earnings of people. At the same time, this was compensated by the amount of free time available to people since almost all developed societies were under lockdown. Henceforth, the author believes that the negative financial performance of Ubisoft in 2020 did not only happen due to the pandemic of the coronavirus, but also due to lower sales of Assassin's Creed Valhalla and Watch Dogs: Legion, which was the main headliners for Ubisoft, and they did not turn out to be real commercial successes, according to Tuckley, 2022. Apart from that, the company's return on assets is low, which is not also a good sign.

5.3 Factors influencing the Profit

Margin ratios help the author to conclude that the company does not have high profitability, but they have a stable source of profit, which primarily depends on the perception of Ubisoft's products by the general masses. If expenses spent on marketing are not underpinned by a commercial success of a given game, it is quite likely that the company will be in trouble and its profitability will drop even further than the ordinary 5% for Ubisoft. Also, another problem affecting the profit of the organization is the country in which Ubisoft is based – France. France traditionally had a very peculiar taxation system that is believed by the French government to accelerate the fairer distribution of wealth between the members of French society. Clearly, the effect of the system is visible when comparing indicators for the financial performance in 2019 and 2021 – the company's sales increases significantly in 2021 compared to 2019, but the net profit is almost the same with a net margin of 5% for both. When looking at the reasons behind it, it is noticed that it is the consequence of the income tax that has significantly reduced the company's net income to values similar to 2019. Faulhaber, 2019 also suggests that French taxation presents a significant challenge to companies and individuals, who both sometimes decide on starting their business elsewhere because of astonishingly high taxes.

5.4 Potential Financial Problems

The author believes that one of the biggest financial problems that might arise for Ubisoft is low profitability that might even drop under 0 and as a consequence of this, the

company's solvency will be questioned. However, in order for this to happen, it is required Ubisoft release products that will not be critically acclaimed publicly, it will lead to brand damage to Ubisoft and its projects, and it will also lead to diminishing sales of the company. Yet, according to the history of Ubisoft, they are not likely to release two products in a row that will be classified as a commercial flop.

6 Conclusion

To conclude, the author is able to say that Ubisoft is a typical company operating in the gaming and game-developing industry, whose profit is significantly affected by the reception of their releases by gamers and critics. Apart from that, the author identified that the pandemic of the coronavirus is likely to have caused the company's negative net income as well, thus the company is also affected by external factors, such as almost any other company on Earth, so gaming companies are no exceptions in that regard.

The author suggests that the company does not as of 2022 have any problems with liquidity or solvency, but the profitability of the company is relatively low – just 5% for the net margin. The company is focused on debt financing, but they were actively accumulating equity, which is also related to the company's actions during the pandemic when they increased the number of shares being sold by releasing them. As for the company's valuation, the author believes that this low profitability has had a negative consequence on the company being relatively overpriced since investors would have to pay 150 dollars in order to get just 1 dollar in earnings. As for the company's valuation assessment according to the P/B value, the situation is slightly better because the company is traded at the price just 2 times exceeding its book value, which is quite good and unusual with IT companies, who are traded at prices significantly exceeding their book value.

All in all, the author believes that Ubisoft is an example of a successful and solvent company that might have found themselves rather trapped by their prior success, so now they have to produce really good products in order to live up to people's expectations, which is inevitably reflected on the company's financial statements.

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8 Appendix

Figure 20, a part of income statement

In € millions	2021-22	%	2020-21	%
IFRS 15 sales	2,125.2		2,223.8	
Deferred revenues related to IFRS 15	3.3		16.7	
Net bookings	2,128.5		2,240.6	
Gross margin based on net bookings	1,858.8	87.3%	1,914.8	85.5%
Non-IFRS R&D expenses	(782.7)	-36.8%	(784.9)	-35.0%
Non-IFRS selling expenses	(408.6)	-19.2%	(438.1)	-19.6%
Non-IFRS G&A expenses	(259.9)	-12.2%	(218.4)	-9.7%
Total non-IFRS SG&A expenses	(668.6)	-31.4%	(656.6)	-29.3%
Non-IFRS operating income	407.6	19.1%	473.3	21.1%
IFRS operating income	241.5		289.4	
Non-IFRS diluted EPS (in €)	2.11		2.48	
IFRS diluted EPS (in €)	0.65		0.85	
Non-IFRS cash flows from operating activities⁽¹⁾	(191.6)		169.0	
R&D investment expenditure	1,195.6		1,104.2	
Non-IFRS net cash/(debt) position	(282.7)		79.2	

Source: Ubisoft, 2022

Figure 21, another part of the income statement

	FY 2021-22 (In €m)	Reported change vs. 2020-21	In % of total net bookings	
			12 months 2021-22	12 months 2020-21
IFRS 15 sales	2,125.2	-4.4%	NA	NA
Net bookings	2,128.5	-5.0%	NA	NA
Digital net bookings	1,665.7	+3.5%	78.3%	71.8%
PRI net bookings	812.8	+4.2%	38.2%	34.8%
Back-catalog net bookings	1,426.5	+11.1%	67.0%	57.3%
IFRS operating income	241.5	-16.6%	NA	NA
Non-IFRS operating income	407.6	-13.9%	19.1%	21.1%

Source: Ubisoft, 2022