

A Work Project, presented as part of the requirements for the Award of a Master's degree in  
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MICROSOFT'S PURSUIT OF ACTIVISION BLIZZARD:  
EXAMINING SYNERGIES IN A PRE-ACQUISITION CONTEXT

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## **Abstract**

This work project analyzes Microsoft's acquisition of Activision Blizzard from a strategic and financial perspective. The strategic rationale behind the acquisition includes strengthening Microsoft's gaming portfolio, expanding into mobile gaming, and enhancing its competitive position against Sony and Tencent. From a financial perspective, the analysis covers valuation, synergies, deal structuring, and financing, with this study focusing on the valuation component. The core of this analysis is a Discounted Cash Flow (DCF) valuation of potential synergies post-acquisition. The results indicate a Net Present Value (NPV) of synergies totaling \$8.21 billion, factoring in integration and restructuring costs.

Keywords: Synergies, Valuation, Discounted Cash Flow, Mergers & Acquisitions, Video Gaming Industry

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# 1 Case Study (group part)

## 1.1 Introduction

In early December 2021, Phil Spencer, Head of Microsoft Gaming, and Satya Nadella, CEO of Microsoft, engaged in a series of in-depth discussions with Bobby Kotick, the long-time CEO of Activision Blizzard. These talks were initiated after several investment bankers approached Phil Spencer to highlight Microsoft's increasingly vulnerable position in the gaming sector. Central to these discussions was the growing dominance of key players like Sony and Tencent, whose substantial market shares and strategic product portfolios had firmly established their leadership in the industry. While Sony had solidified its position as the leader in console gaming, Tencent – recognized as the world's largest video game company by revenue – had significantly strengthened its position in both the PC and mobile gaming markets (Kent 2021). These developments, combined with the rapid growth of the global gaming market, which was projected to surpass \$150 billion in 2021 (**Case Exhibit 8**), put Microsoft under considerable pressure to consolidate its position in this highly competitive sector.

This situation posed a crucial question for Microsoft: how can the company sustainably improve its position in the gaming industry and increase its competitiveness against Sony, Tencent and other major players?

The investment bankers have already presented a possible answer to this question: the acquisition of Activision Blizzard, a leading publisher and developer in the gaming industry. Such a move would not only give Microsoft access to a portfolio of high-profile and established gaming brands, but also significantly expand its resources in game development and mobile gaming.

However, pursuing an acquisition of this magnitude – which would be considered the largest transaction in gaming history – also presents substantial challenges. First, the deal requires a significant financial investment, demanding careful consideration of its long-term profitability. Second, integrating a company of Activision Blizzard’s size could create not only opportunities for synergies but also significant costs, such as those associated with restructuring. Third, the scale of the transaction raises critical questions about its financing, including how Microsoft would structure such a large deal without compromising its balance sheet or liquidity. The complexity and scale of such a transaction highlight the importance of conducting a comprehensive and in-depth analysis to determine whether such an acquisition would ultimately be both strategically and financially justifiable in the long run.

## **1.2 Microsoft Corporation**

### **1.2.1 Company History**

Microsoft Corporation (hereinafter referred to as Microsoft) was founded in 1975, by Bill Gates and Paul Allen. The company’s name, derived from the words “microcomputer” and “software,” reflected its focus on developing software solutions for the emerging personal computer market. The breakthrough came in 1980 when Microsoft partnered with IBM to provide the MS-DOS operating system for IBM’s personal computers. This collaboration allowed Microsoft to benefit from IBM’s market presence and positioned MS-DOS as the software standard for IBM-compatible PCs. The widespread adoption of the operating system enabled Microsoft to gain a strong position in the expanding personal computer market, competing effectively with other industry players such as Intel and Apple (Good 2020).

In the following years, Microsoft expanded its influence with the introduction of Windows, a graphical operating system that played a central role in the company’s success. The release of Windows 95 in 1995 was particularly notable, as it popularized graphical user interfaces and

was well-received by consumers globally. Around the same time, Microsoft introduced its Office suite, which included applications such as Microsoft Word, Excel, and PowerPoint. These tools quickly became widely adopted in business and professional environments, further strengthening Microsoft's position in the software market (Good 2020).

Entering the 21st century, Microsoft expanded its business further. In 2001, the company launched the Xbox, marking its entry into the gaming industry. Simultaneously, Microsoft began focusing on cloud computing, and with the introduction of Microsoft Azure in 2010, it established itself as a leading provider of cloud services (Good 2020).

In 2014, Satya Nadella took on the role of CEO and gave Microsoft a new strategic direction, focusing on cloud computing, artificial intelligence, and advanced enterprise solutions (Tabrizi 2023). This shift strengthened the company's market position and also expanded its influence across a wide range of industries. Microsoft's mission – “to empower every person and every organization on the planet to achieve more” – highlights its commitment to fostering innovation and inclusivity. By developing products and services that empower individuals and businesses worldwide, the company continued to drive progress in the technology sector (Liu 2023).

Today, Microsoft has grown into one of the world's largest and most valuable companies, consistently maintaining a market capitalization in the trillion-dollar range (Poinski 2024). With a workforce comprising approximately 181,000 employees distributed across more than 190 countries, Microsoft's global presence underscores its role as a cornerstone of the modern economy. In 2021, the company generated over \$168 billion in revenue (**Case Exhibit 1**) and held approximately \$130 billion in cash reserves (**Case Exhibit 2**), ranking as the third largest among all S&P 500 companies in terms of cash holdings (Staley 2021). This financial strength enables Microsoft to invest heavily in research and development and to push ahead with new technologies such as artificial intelligence and cloud solutions, ensuring Microsoft remains a key player in the global technology sector.

### **1.3 Main business divisions**

Microsoft's revenue is distributed across three primary segments: Productivity and Business Processes, Intelligent Cloud, and More Personal Computing (Good 2020). The Productivity and Business Processes segment, which accounted for approximately 32% of total revenue in 2021, includes a wide range of tools such as Microsoft 365, the Office suite, LinkedIn, and Dynamics 365. These offerings enhance productivity, communication, and business operations for individuals, small businesses, and enterprises. Microsoft 365 stands out for its cloud-based solutions, including Word, Teams, and Excel, which streamline workflows and improve efficiency. LinkedIn provides professionals with networking opportunities and delivers talent, marketing, and learning solutions. Dynamics 365, meanwhile, offers ERP and CRM tools that simplify complex business processes. In this space, Microsoft faces competition from Google, Apple, Salesforce, Slack, and Zoom. However, its emphasis on integration, robust security, and cross-platform compatibility has allowed Microsoft to maintain a competitive position in the market (Microsoft Corporation 2021).

The Intelligent Cloud segment, which contributed approximately 36% of Microsoft's total revenue in 2021, supports businesses and developers through a variety of offerings such as Azure, server products, and enterprise services (Microsoft Corporation 2021). Azure is a cornerstone of this segment, providing cloud computing, storage, and AI solutions that enable companies to innovate while minimizing infrastructure management burdens. Alongside Azure, tools like Dynamics 365 and Microsoft's server platforms further improve IT efficiency. Azure's ability to meet the rising global demand for cloud services has made it a major growth driver for Microsoft. Competing with Amazon AWS, Google Cloud, and IBM, Microsoft has leveraged its extensive global infrastructure and hybrid cloud capabilities to solidify its leading status in cloud computing (Microsoft Corporation 2021). The Intelligent Cloud segment plays

a central role in Microsoft's long-term strategy, reflecting the company's focus on scalable and future-oriented technologies.

Lastly, the More Personal Computing segment, which accounts for around 32% of revenue in 2021, includes products and services such as Windows, Surface devices, search advertising, and gaming. Windows remains a cornerstone of this segment, offering a secure and consistent operating system for millions of users worldwide. Surface devices, including premium laptops and tablets, reinforce Microsoft's presence in the hardware market. Bing's search advertising delivers tailored online ads through partnerships. Microsoft Gaming, led by Xbox, combines exclusive content, cloud gaming, and subscription services to engage users across multiple devices (Microsoft Corporation 2021).

## **1.4 Microsoft Gaming**

In 2021, Microsoft Gaming generated \$15.37 billion in revenue, accounting for approximately 9.1% of Microsoft's total revenue. The revenue grew by 33%, significantly outpacing the company's overall revenue growth of 12%, underscoring the increasing importance of gaming within the company's More Personal Computing segment (**Case Exhibit 3**). Microsoft's gaming revenue is driven by two primary streams: hardware sales and Xbox content and services.

Hardware sales are centered around the Xbox family of gaming consoles. The Xbox is a video game console developed by Microsoft, primarily designed for gaming but also capable of streaming movies, series, and music. In 2021, this category contributed approximately \$3.1 billion in revenue (**Case Exhibit 3**).

Xbox content and services, the largest contributor, generated \$9.3 billion in 2021 (**Case Exhibit 3**). This category includes digital game sales, licensing revenue from third-party developers, in-game transactions, advertising, and cloud services. A key factor in Microsoft's

success in this area is its ability to offer both first-party and third-party titles, which appeal to a broad and diverse audience. By leveraging strategic partnerships and exclusive content, Microsoft has created a robust ecosystem that attracts gamers across various platforms (**Case Exhibit 4**).

A standout component of Microsoft's gaming strategy is the Xbox Game Pass, a subscription service introduced in 2017. Priced at \$9.99 per month, the Xbox Game Pass generated \$3.0 billion in revenue in 2021, demonstrating its significant contribution to the gaming segment (**Case Exhibit 3**). This service grants subscribers access to a rotating library of games for Xbox consoles and PCs. In 2021, this library offered an estimated total value of \$6,300 alone, giving subscribers a substantial return on their investment. This expansive and accessible model not only diversifies Microsoft's revenue streams through recurring subscription fees but also fosters higher levels of customer engagement by delivering a seamless and integrated user experience. By 2021, the Xbox Game Pass had attracted 25 million subscribers, underscoring its transformative impact on gaming consumption patterns (**Case Exhibit 15**).

## **1.5 Microsoft's acquisition history**

Microsoft's history highlights a strategic use of acquisitions to adapt to technological advancements, secure market leadership, and influence the evolution of entire industries. This approach underscores the company's ability to identify transformative opportunities and effectively integrate them into its ecosystem, ensuring they contribute to long-term growth and align with Microsoft's broader objectives.

One of the earliest examples of this strategy was Microsoft's 1987 acquisition of Forethought, the maker of PowerPoint (Zonana 1987). Recognizing the potential of presentation software in the burgeoning productivity tools market, Microsoft transformed PowerPoint into a cornerstone

of its Office suite. This move strengthened its product ecosystem and established Microsoft as an indispensable partner for businesses worldwide.

In 1997, the acquisition of Hotmail enabled Microsoft to capitalize on the rising influence of the internet. At the time, web-based email was an emerging trend, and by integrating Hotmail into its offerings – eventually rebranding it as Outlook.com – Microsoft positioned itself as a leader in online communications, capturing a growing base of digital users (Microsoft Corporation 2022b).

As the tech industry advanced, Microsoft pivoted toward opportunities in professional networking and software development. The purchase of LinkedIn in 2016 exemplified this shift, allowing Microsoft to integrate LinkedIn's professional networking platform with its enterprise tools like Office 365. This strengthened Microsoft's position in the corporate sector and reinforced its role in professional connectivity (Hern, Kasperkevic 2017). Two years later, the 2018 acquisition of GitHub marked another significant milestone, bridging the gap between Microsoft and the open-source community. By acquiring GitHub, a platform central to millions of developers, Microsoft strengthened its position as a leader in software development tools and services (Weinstein 2018).

Microsoft's approach stands out for its ability to integrate acquisitions effectively and align them with long-term goals. By anticipating market trends and addressing integration challenges, Microsoft ensures each acquisition contributes to its broader ecosystem. This history highlights how Microsoft has used acquisitions as a strategic tool to adapt to industry shifts and strengthen its position in emerging markets.

## **1.6 Activision Blizzard**

Activision Blizzard, a prominent player in the global entertainment industry, was founded in 2008 through the merger of Activision, a leading developer and publisher of video games, and

Vivendi Games, the parent company of Blizzard Entertainment (Sotamaa, Švelch 2021). Activision itself, established in 1979, was one of the first independent game developers in California, known for its early successes with games for consoles such as the Atari 2600 (Schreier 2024). Blizzard Entertainment was founded in 1991 under the name Silicon & Synapse and achieved significant success in the 1990s with games such as Warcraft, Diablo and StarCraft (Schreier 2024). The merger in 2008 brought together Activision's expertise in console gaming with Blizzard's strength in the PC gaming community, enabling the company to build a broad portfolio of successful game franchises.

In August 2015, Activision Blizzard became, alongside with Electronic Arts, one of only two game developers included in the S&P 500 Index. Three months later, in November 2015, Activision Blizzard made the announcement to acquire King Digital Entertainment for a sum of \$5.9 billion (Sotamaa, Švelch 2021). King, a company originally founded in Sweden in 2003, became widely known for its popular mobile games, including the globally successful Candy Crush Saga (Schreier 2024). This strategic move allowed the company to establish a significant presence across all three primary gaming platforms – console, PC, and mobile – thereby broadening its reach and diversifying its revenue streams (**Case Exhibit 5**).

Today, Activision Blizzard's gaming operations are divided across three major brands: Activision, Blizzard Entertainment, and King. Each brand specializes in specific gaming genres and platforms, contributing to the company's extensive reach and diverse portfolio. (**Case Exhibit 6**). The Activision segment is best known for the Call of Duty series, which has become a major force in the first-person shooter genre. The series is available on multiple platforms, including consoles, PCs and mobile devices, with titles such as Call of Duty: Warzone and Call of Duty: Mobile increasing its reach. The Activision segment also manages a range of esports initiatives, with one of the most prominent being the Call of Duty League. Launched in 2020, the Call of Duty League is a professional esports league centered around the

Call of Duty franchise, serving as a powerful marketing tool for the franchise, keeping it in the spotlight and maintaining its relevance in a highly competitive gaming market (Schreier 2024).

Blizzard Entertainment focuses on PC and console games and is known for franchises such as World of Warcraft, a well-known title in the Massively Multiplayer Online Role-Playing Games (MMORPG) genre. Other major franchises include Diablo and Hearthstone, which cover different game genres and maintain active player bases. Blizzard supports these games through its own Battle.net platform, which facilitates digital distribution and online services (Schreier 2024).

The King segment focuses exclusively on mobile gaming and is best known for the Candy Crush series, a globally recognized title that has consistently maintained its popularity since its release. Candy Crush has become a cornerstone of the casual gaming market, attracting a broad demographic of players with its accessible gameplay and free-to-play model supported by in-game purchases. King's portfolio also includes other casual mobile games such as Bubble Witch and Farm Heroes, which appeal to similar audiences (Schreier 2024).

In terms of financial performance, Activision Blizzard ranks among the world's leading game developers. The company achieved revenues of approximately \$6.5 billion in 2019, which rose to \$8.1 billion in 2020, and further increased to \$8.8 billion in 2021 (**Case Exhibit 9**). This consistent growth underscores Activision Blizzard's strength and relevance in the global gaming industry.

## **1.7 The global gaming market**

The global gaming market has developed into one of the most dynamic and profitable sectors of the entertainment industry in recent decades. What once started as a niche industry has developed into three-digit billion-dollar industry, driven by technological innovations, changing consumer habits and the rise of new platforms (Wolf 2008). Today, the gaming industry is

broadly categorized into three primary segments: console gaming, PC gaming, and mobile gaming (GVR 2022).

### **1.7.1 Development of the console market**

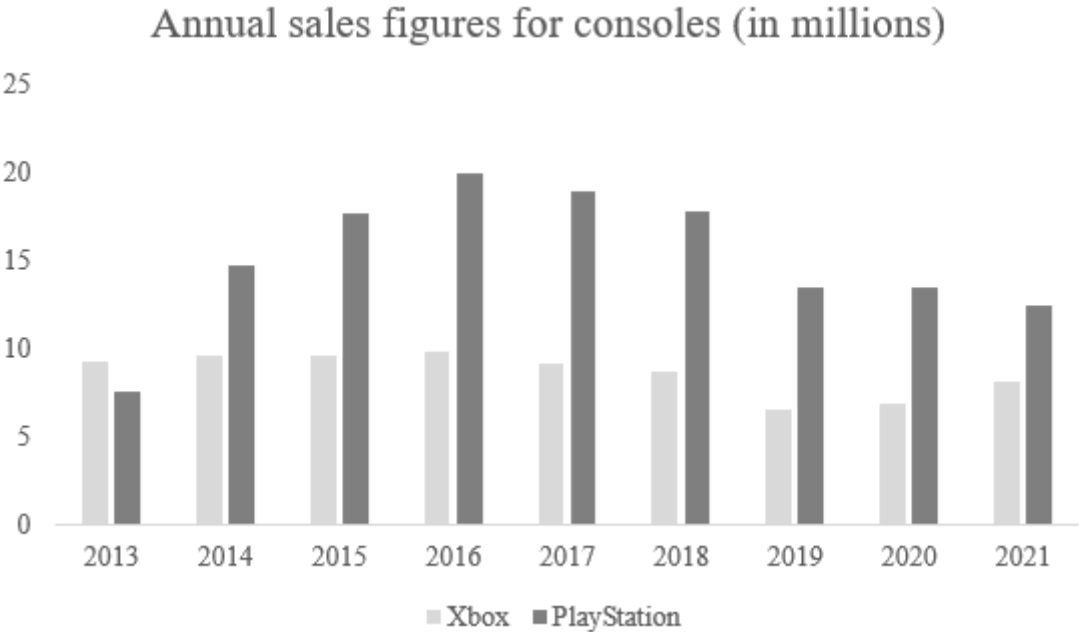
The beginnings of the video gaming market can be traced back to the 1970s when the first arcade games, such as Pong and Space Invaders, introduced a new form of entertainment. These early video games laid the foundation for home video game consoles, which entered the market in the late 1970s and early 1980s. One of the first companies to successfully market home consoles was Atari with its Atari 2600 console. This generation of consoles paved the way for the entry of major players such as Nintendo, and later Sony and Microsoft (Wolf 2008).

Nintendo entered the console market in 1983 with the Famicom (known in the United States as the Nintendo Entertainment System, or NES) and achieved worldwide success with games like Super Mario Bros and The Legend of Zelda. Nintendo quickly established itself as a leading player in the console market and continued to build its reputation as a developer of innovative gaming platforms over the following decades. The next major turning point in the history of the console market was Sony's entry with the PlayStation in 1994. The PlayStation revolutionized the industry with its powerful hardware and focus on 3D graphics, providing new opportunities for game developers. With popular titles like Final Fantasy VII and Gran Turismo, Sony set new standards and established the PlayStation as a leading platform in the console market (Wolf 2008).

In 2001, Microsoft entered the console market with the Xbox to position itself against Sony and Nintendo (Wolf 2008). The Xbox offered impressive technical specifications and was the first console with a built-in hard drive and a comprehensive online gaming service (Xbox Live), which allowed Microsoft a new way of building customer loyalty. Especially the game Halo: Combat Evolved was a groundbreaking title that increased the Xbox's popularity in the United States and laid the foundation for the platform's success (Wolf 2008).

During the 2000s, Sony and Microsoft engaged in a head-to-head competition in the console market. While Nintendo launched the innovative Wii (2006), a motion-sensor console that appealed to a wide audience, Sony and Microsoft focused on powerful hardware and exclusive content (Schreier 2017). The competition intensified with the introduction of the PlayStation 3 (2006) and the Xbox 360 (2005). Both consoles offered impressive graphics, a wide range of games, and the ability to use online services.

With the release of the next generation of consoles in 2013, Sony was able to significantly outpace Microsoft in the competitive console market. The PlayStation 4 achieved extraordinary success, selling over 116 million units worldwide, compared to just 50 million units for the Xbox One (Kent 2021). This dominance continued with the next generation of consoles, where Sony’s PlayStation 5 consistently outperformed Microsoft’s Xbox Series in sales, further solidifying its leadership position in the market.



*Source: Sony Interactive Entertainment 2024, VGChartz 2024*

A key factor behind Sony’s success lies in the proprietary nature of gaming consoles. Unlike open platforms such as PC, consoles operate within a closed infrastructure, meaning that their

hardware is typically not compatible with competing platforms. As a result, the appeal of a console is heavily influenced by the exclusivity of its game library, as exclusive titles are often a decisive factor in consumers' purchasing decisions (Kent 2021).

Sony has effectively leveraged its exclusivity strategy to establish and maintain its dominance in the market. The PlayStation platform boasts a range of critically acclaimed and commercially successful exclusive titles, including Horizon Zero Dawn, Spider-Man, and God of War. These games have not only garnered widespread acclaim but have also cultivated a loyal fan base, significantly enhancing the appeal of the PlayStation ecosystem. Sony's exclusive titles have been instrumental in driving hardware sales and fostering long-term player retention, as many consumers are drawn to PlayStation specifically to access these high-quality games. This strategy not only differentiates Sony from competitors but also ensures sustained success in the console market (Kent 2021).

Microsoft, on the other hand, initially prioritized technical innovations over exclusive content during the Xbox One era. For instance, the Xbox Kinect, a motion-sensing device that enabled players to interact with games through body movements, was a significant technological advancement but failed to capture the sustained interest of a broad audience. Recognizing the importance of exclusive content in driving console sales, Microsoft eventually shifted its focus back to strengthening its game library. Despite this effort, the Xbox platform has struggled to rival the depth and appeal of Sony's exclusive lineup (Kent 2021).

This disparity in consumer perception and sales is evident in the market data. At a 2022 press conference in Brussels, Xbox CEO Brad Smith acknowledged that Sony dominates the European console market with an 80% share compared to Microsoft. In Japan, Sony's market share is even more pronounced, reaching 96%. Globally, Sony maintains a commanding market dominance of approximately 70% (Dring 2023). These figures underscore the effectiveness of Sony's exclusivity strategy.

## **1.7.2 Development of the PC gaming market**

The PC gaming market has experienced remarkable growth and transformation since its beginnings in the late 1970s and early 1980s, evolving into a key segment of the gaming industry. Early titles such as Zork and King's Quest demonstrated the potential of personal computers as platforms for interactive entertainment. Although constrained by the hardware limitations of the time, these pioneering games laid the foundation for the PC gaming industry's future development (Wolf 2008).

The 1990s marked a turning point for PC gaming, driven by rapid advances in hardware and the increasing availability of PCs. The introduction of Microsoft Windows, particularly Windows 95, played a crucial role as it standardized the PC environment and made it more user-friendly for developers and consumers alike. At the same time, other companies such as Blizzard Entertainment, id Software and Valve rose to prominence with innovative games and new approaches to engaging audiences (Wolf 2008).

The late 1990s and early 2000s brought a revolution with the rise of the internet, which enabled online multiplayer experiences that became defining features of the PC gaming market. Games like Counter-Strike and World of Warcraft capitalized on this connectivity, fostering global communities and competitive ecosystems. This era also saw a significant shift in game distribution with the launch of Valve's Steam platform in 2003. Steam provided a centralized hub for purchasing, downloading, and managing games, revolutionizing the industry. While Steam quickly became the dominant digital distribution platform due to its extensive game library, Microsoft continued to hold a central role by providing the technological infrastructure for PC gaming through its Windows operating system (Wolf 2008).

By the 2010s, the PC gaming market was defined by its diversity and adaptability, catering to a wide range of audiences. Tencent emerged as a dominant force, particularly in the online gaming and free-to-play segments, thanks to titles like League of Legends and PUBG. Blizzard,

with hits such as World of Warcraft maintained its position as a major player, while Epic Games gained momentum with Fortnite and its aggressive push to compete with Steam via the Epic Games Store (Kent 2021).

Microsoft, which had so far only played an important role in the PC gaming sector by providing the Windows operating system, began to focus more directly on the gaming market during this period. With initiatives such as the Xbox Game Pass for PC – an alternative to platforms like Steam – and strategic acquisitions like Mojang (developer of Minecraft), the company sought to strengthen its position (Kent 2021).

Despite some successes, Microsoft has struggled to match the dominance of companies like Tencent and Valve in the PC gaming market. Tencent's leadership is underpinned by significant investments in a broad portfolio of game developers and its deep penetration of global markets. Valve, on the other hand, has maintained its dominance in digital game distribution through Steam, leveraging its early entry and a vast game library to secure a central position in the market (Kent 2021).

### **1.7.3 Development of the mobile gaming market**

After dominating most of the gaming industry until the 2000s, the console and PC market saw the rapid rise of mobile gaming in the 2010s. Advances in smartphone and tablet technology opened up new possibilities for game developers, and mobile gaming quickly became one of the most profitable segments of the gaming market. The breakthrough came with the launch of the iPhone in 2007 and the App Store in 2008, which allowed developers to sell their games directly to users (Kent 2021). Games like Angry Birds and Candy Crush became worldwide hits and set the standard for the 'free-to-play' model, in which games are offered for free but monetized through microtransactions (Activision Blizzard 2020).

Leading companies in the mobile gaming market include Tencent, King, and NetEase (Kent 2021). Tencent, the world's largest gaming company, has leveraged its stronghold in China to generate substantial revenue from blockbuster games such as Honor of Kings and PUBG Mobile. King, best known for the enduring success of Candy Crush, has firmly cemented its place as a cornerstone of the mobile gaming sector (Activision Blizzard 2020). Meanwhile, NetEase has emerged as another major player, creating and distributing popular mobile titles both within China and globally (Kent 2021).

By 2021, mobile gaming accounted for over 50% of global gaming revenue, firmly establishing itself as the dominant segment of the industry (Kent 2021). It is projected to remain the fastest-growing sector in the coming years, underscoring its evolution from a niche category into a core component of the gaming ecosystem. Asia, widely regarded as the epicenter of mobile gaming, represents a particularly lucrative market. High smartphone penetration and widespread internet access have allowed developers to reach millions of users in the region, fueling unprecedented growth (Kent 2021).

#### **1.7.4 Future outlook of the gaming market**

The gaming market has experienced remarkable growth in recent years, particularly in the years 2019 to 2021, which were heavily impacted by the COVID-19 pandemic. As governments worldwide imposed lockdowns and social distancing measures, millions of people turned to gaming as a primary form of entertainment and social interaction. This period saw an extraordinary surge in demand across all major segments – console, PC, and mobile gaming – spurred by the need for accessible, engaging, and home-based activities during a time of restricted movement. The pandemic created a unique environment in which gaming not only thrived but also reached new audiences, with consumers spending more time and money on gaming than ever before (World Economic Forum 2022).

The compound annual growth rates (CAGR) for this period illustrate the pandemic's transformative impact on the industry. Console gaming grew at a CAGR of 5.1% (**Case Exhibit 8**), supported by the heightened interest in gaming consoles as a key source of home entertainment and the release of next-generation consoles such as the PlayStation 5 and Xbox Series X/S. Similarly, PC gaming expanded at a CAGR of 8.0% (**Case Exhibit 8**), driven by increased investments in gaming hardware as more people upgraded their setups to engage with high-quality online multiplayer games and immersive experiences.

However, the most substantial growth occurred in the mobile gaming segment, which achieved a remarkable CAGR of 16.9% (**Case Exhibit 8**). This was fueled by the widespread adoption of smartphones and tablets, as well as the growing popularity of free-to-play games supported by in-app purchases. Mobile gaming also benefited significantly from its accessibility, allowing a diverse range of players – including those in emerging markets – to engage with gaming content from virtually anywhere.

Looking forward, the gaming market is expected to continue growing, but at a more moderated pace as demand normalizes following the pandemic-driven spike. Between 2021 and 2026, projections indicate a significant deceleration in growth across all segments, reflecting a return to more sustainable levels of expansion. Console gaming is forecasted to grow at a CAGR of 2.2% (**Case Exhibit 8**), as the initial rush for next-generation consoles subsides and the market stabilizes. PC gaming is expected to achieve a CAGR of 4.6% (**Case Exhibit 8**), maintaining steady growth through ongoing technological advancements and the platform's broad appeal to both casual and dedicated gamers. Mobile gaming, while still the largest and most lucrative segment, is projected to grow at a slower CAGR of 3.8% (**Case Exhibit 8**). This moderation follows its unprecedented boom during the pandemic but is supported by continued growth in emerging markets and innovations in smartphone technology, particularly the adoption of 5G (Global Newswire 2024).

## 1.8 Future industry trends

The future of the gaming industry will be shaped by a series of interconnected trends that are transforming the entire ecosystem. One of the most significant drivers of this transformation is the rapid growth of the smartphone and tablet gaming market, particularly in emerging economies like India and China. These regions, with their large, tech-savvy populations, represent some of the most lucrative opportunities for the gaming sector.

The demand for affordable games is rising rapidly, driven by a young population eager to engage in accessible entertainment (Statista Market Insights 2024). Advances in mobile technology, such as more powerful devices with expanded storage and better internet connectivity, are further enabling this trend. The release of Pokémon Go in 2016 served as a landmark moment, demonstrating the immense potential of mobile gaming to reach global audiences and reshape consumer behavior (Mahoney, Tang 2021).

This shift toward mobile platforms is closely tied to another pivotal change: the decline of physical game purchases in favor of digital distribution. As consumers increasingly opt for downloading games rather than buying physical copies, the industry has accelerated its transition to fully digital distribution models. This shift is particularly pronounced in mobile gaming but has also become a dominant force in the console and PC markets. Digital distribution not only reduces production and logistical costs but also aligns with players' growing preference for convenience and instant access to content (Valuates Reports 2024).

A further evolution within the gaming industry is the rise of subscription-based models, which are redefining how players consume games. By paying a recurring monthly or annual fee, users gain access to expansive libraries of games at a fraction of the cost of purchasing individual titles. Subscriptions also encourage players to experiment with new titles, driving game discovery and engagement. For developers and publishers, the model provides predictable

revenue streams and opportunities to build long-term relationships with players. Companies increasingly bundle subscriptions with exclusive content, early access, and integrated cloud gaming, making the service more attractive for consumers. As competition intensifies, continued innovation will be key to differentiating offerings and retaining subscribers (GamesIndustry.biz 2021).

Simultaneously, significant investments in virtual reality (VR) and augmented reality (AR) technologies are revolutionizing the gaming experience. These technologies allow for immersive, interactive, and realistic environments that go beyond the limits of traditional gaming. By enabling deeper interaction, these technologies are opening new possibilities for game design, storytelling, and player engagement. The adoption of VR and AR is expected to grow substantially as hardware becomes more affordable and developers leverage the technology to create more sophisticated and captivating experiences (Mordor Intelligence 2024).

Underlying and amplifying these trends is the emergence of cloud gaming. Cloud technology has the potential to transform the industry by eliminating the need for expensive gaming hardware. Players can stream high-quality games on a variety of devices—such as smartphones, tablets, and low-end PCs—by leveraging cloud servers to handle processing power. This innovation reduces barriers to entry for consumers and democratizes access to premium gaming experiences globally. For regions with limited access to powerful hardware, cloud gaming represents a game-changing solution. As infrastructure for high-speed internet continues to improve, particularly with the expansion of 5G, cloud gaming is expected to grow in accessibility, ultimately redefining the market dynamics of the global gaming industry (Lewis, Keohane 2024).

These interconnected trends – mobile gaming expansion, digital distribution, subscription services, VR/AR integration, and cloud gaming – are collectively shaping the future of gaming.

Together, they reflect a fundamental shift in how games are produced, distributed, and consumed, opening new opportunities while challenging companies to innovate and adapt in an increasingly competitive market.

## **1.9 The proposed Acquisition**

### **1.9.1 Microsoft's position in the gaming market**

In mid-October 2021, a team of investment bankers from Goldman Sachs delivered an in-depth presentation to Microsoft's executive board, precisely examining the company's position within the rapidly evolving and increasingly competitive gaming industry. This presentation provided a detailed overview of the challenges Microsoft faced, as well as the opportunities available to strengthen its foothold in the sector. Through a strategic analysis, the bankers offered valuable insights into Microsoft's standing across the three key segments of the gaming market: console gaming, PC games, and mobile gaming.

#### **Console market challenges**

The presentation underscored Microsoft's ongoing challenges in competing with Sony's dominant position in the console market. Sony, with a commanding global market share of 70%, has secured its lead primarily through an extensive portfolio of high-quality exclusive titles. In contrast, Microsoft's efforts to compete have been hindered by a comparatively underwhelming library of exclusive, platform-defining content. This gap has constrained Microsoft's ability to attract and retain console users, limiting its growth within the highly competitive console ecosystem (Kent 2021).

The investment bankers further cautioned that these weaknesses would become even more pronounced with the release of the next console generation. If Microsoft fails to significantly strengthen its exclusive content pipeline, Sony is poised to capitalize on its established momentum, attracting an even larger share of the market and further solidifying its dominance.

Beyond the immediate threat to console sales, the bankers also highlighted a growing concern related to the rise of subscription-based models in the gaming industry. Sony's PlayStation Plus service has already gained significant traction, offering a robust subscription platform with competitive content that enhances user retention. Should Microsoft fail to close the gap in terms of its games library, Sony could extend its lead not only in console sales but also in the increasingly critical subscription market.

This dual threat – spanning both hardware and subscription services – underscores the urgency for Microsoft to adopt a focused and aggressive content strategy. Without such a shift, the Xbox Game Pass risks being overshadowed by Sony's offerings, making it even more difficult for Microsoft to compete effectively in future console cycles and in the rapidly growing subscription-based gaming segment.

### **PC gaming market observations**

In the PC gaming market, Goldman Sachs highlighted Microsoft's strong foundation as the provider of the Windows operating system, which remains the backbone of the gaming ecosystem. However, despite this central role in infrastructure, Microsoft faces increasing competition from key players that are rapidly pulling ahead in this segment. Valve, through its dominance with Steam, and Tencent, with its global reach and extensive game portfolio, have positioned themselves as market leaders, leaving Microsoft struggling to establish a comparable level of influence.

Adding to this competitive pressure, Epic Games has emerged as a formidable player in recent years with its Epic Games Store, successfully building a strong presence in the digital distribution market. These competitors have attracted vast user bases and strengthened their platforms with extensive game libraries and exclusive titles.

The bankers warned that Microsoft's current challenges in the PC gaming segment closely mirror its struggles in the console market against Sony. If Microsoft fails to address these gaps, there is a significant risk that these competitors will further entrench their dominance, making it increasingly difficult for Microsoft to attract customers to the Xbox Game Pass on PC.

### **Mobile gaming market weakness**

Lastly, the presentation of the investment bankers also placed particular emphasis on Microsoft's glaring absence in the mobile gaming market, which remains the fastest-growing and most lucrative segment of the gaming industry. Mobile gaming has not only surpassed console and PC markets in revenue generation but also broadened its appeal by providing affordable and accessible entertainment to billions of users worldwide (Shorthouse 2019).

Competitors such as Tencent and NetEase have seized this opportunity by adopting highly targeted strategies that cater to regional preferences and technical limitations. Tencent, for instance, has made substantial inroads into emerging markets by offering lightweight versions of its popular games, such as PUBG Mobile Lite, which are optimized for low-spec smartphones. This approach has enabled Tencent to achieve tens of millions of downloads in regions like Brazil, Indonesia, Thailand, and India, where affordability and accessibility remain key factors for success (Shorthouse 2019).

In contrast, Microsoft's mobile gaming portfolio remains barely existent, leaving the company unable to tap into the massive and still-growing global player base or the substantial revenue streams generated by microtransactions and in-app purchases. The investment bankers identified this deficiency as Microsoft's most significant strategic weakness in the gaming sector. They further cautioned that if Microsoft continues to overlook the mobile gaming market, it risks missing out on one of the industry's most critical areas of growth and allowing competitors to solidify their dominance.

## **1.9.2 Leveraging acquisitions as a strategic solution**

The presentation from Goldman Sachs provided a sobering assessment of Microsoft's current position within the gaming industry, underscoring the critical need for decisive action to address its existing challenges. The investment bankers recommended bold strategic measures, including targeted acquisitions, as a viable solution to strengthen Microsoft's competitive position. They emphasized that in the rapidly evolving gaming market, acquisitions have proven to be one of the most effective strategies for gaining a sustainable edge.

Drawing on Microsoft's strong track record of executing successful acquisitions, the bankers expressed confidence in the company's ability to leverage this approach effectively. They pointed to Microsoft's history of integrating acquired companies, such as LinkedIn and GitHub, to bolster its market position and open doors to new opportunities. These examples demonstrate how Microsoft has consistently turned strategic purchases into long-term value drivers by enhancing its product offerings and expanding its influence in key markets.

The bankers further highlighted the transformative potential of acquisitions within the gaming industry. Acquiring established studios or publishers could provide Microsoft with immediate access to exclusive content, a critical factor in competing against market leaders like Sony and Tencent. Additionally, acquisitions could enable Microsoft to expand into high-growth segments such as mobile gaming, where it currently lags behind competitors. By acquiring companies with expertise in mobile game development or distribution, Microsoft could not only address its glaring absence in this lucrative market but also create synergies with its existing Xbox games, thereby enhancing its cross-platform ecosystem.

The presentation concluded with a clear message: if Microsoft aims to avoid falling further behind in an industry that is increasingly driven by content and platform strength, proactive measures are essential. While Microsoft remains a formidable player with significant resources, maintaining its relevance and competitiveness will require deliberate actions to address its

current weaknesses and capitalize on emerging opportunities. By leveraging its proven acquisition capabilities, Microsoft has the potential to secure a stronger position in the market and ensure it does not lose ground to more aggressive competitors in the years to come.

### **1.9.3 Activision Blizzard as a Strategic Target**

Based on their analysis of Microsoft's position in the gaming market, the investment bankers at Goldman Sachs presented the acquisition of Activision Blizzard as a particularly promising solution to address the company's competitive challenges.

The bankers' recommendation was grounded in a detailed assessment of Activision Blizzard's strategic assets and its potential to strengthen Microsoft's position across the console, PC, and mobile gaming markets. The investment bankers outlined how an acquisition of Activision Blizzard would provide Microsoft with the critical content, market reach, and capabilities needed to close competitive gaps in all three segments and position itself for long-term success in the gaming industry.

#### **1. Strengthening the console gaming segment**

In the console market, Activision Blizzard's flagship franchises would provide Microsoft with highly sought-after exclusive content. Especially Call of Duty is one of the most successful gaming franchises globally, with a loyal player base and annual releases that consistently generate billions in revenue. By acquiring Activision Blizzard, Microsoft would gain control over these high-profile titles and could leverage them to enhance the appeal of the Xbox ecosystem. For example, making future Call of Duty installments Xbox-exclusive or providing early access on Xbox platforms could attract significant numbers of players, directly countering Sony's dominance in the console market. Moreover, integrating these titles into Xbox Game Pass subscription service could significantly boost its value proposition, driving subscription growth and user retention.

## **2. Strengthening the PC gaming segment**

In the PC gaming market, Activision Blizzard's extensive portfolio, including World of Warcraft and Diablo would allow Microsoft to establish a stronger foothold as both a content creator and distributor. These titles, particularly World of Warcraft, have demonstrated exceptional longevity and revenue potential, with strong player engagement through expansions, subscriptions, and in-game purchases. By integrating these franchises into the Xbox Game Pass for PC, Microsoft could attract a broader audience, increase subscriptions, and position itself as a direct competitor to dominant platforms like Valve's Steam.

## **3. Expanding into the mobile gaming segment**

In the mobile gaming market, Activision Blizzard's ownership of King, the developer behind Candy Crush, represents a critical opportunity for Microsoft to enter and compete in the fastest-growing segment of the gaming industry. Candy Crush remains one of the most recognizable and profitable mobile games, generating substantial revenue through microtransactions and boasting a massive global player base. Moreover, drawing on King's extensive expertise in mobile game development and monetization, Microsoft could reimagine its flagship franchises, such as Halo or Forza, for the mobile platform, unlocking access to a broader audience. Additionally, King's proven capabilities could accelerate the creation of original mobile-exclusive titles, positioning Microsoft to appeal to both casual players and the growing community of competitive mobile gamers. The investment bankers emphasized that this would provide Microsoft with an immediate presence and proven capabilities to capitalize on the growing trend of mobile gaming, particularly in emerging markets where smartphones are the primary gaming platform.

The bankers also emphasized two additional factors that added urgency to the opportunity. First, they noted the growing trend of consolidation within the gaming industry, where major players regularly acquire game developers to secure exclusive content and gain competitive advantages.

Given Activision Blizzard's extensive portfolio and market leadership, it is highly likely that other major players are also considering a move to acquire the company. If Microsoft hesitates, it risks losing out on this opportunity to a competitor.

Second, the bankers raised concerns about the increasing prominence of regulatory scrutiny surrounding large-scale acquisitions. They highlighted the increasingly challenging regulatory environment for mergers and acquisitions within the technology sector, that is driven by global concerns over market concentration, competitive fairness, and the growing dominance of cash-rich Big Tech companies. Therefore, in late 2021, regulatory bodies across the globe intensified their scrutiny of large-scale deals as governments aimed to prevent monopolistic behavior and address systemic risks posed by market consolidation (La Monica 2022).

In the United States, the bankers pointed to key developments that signal a stricter antitrust landscape. On the regulatory front, the selection of Lina Khan to lead the Federal Trade Commission (FTC) and Jonathan Kanter to head the Antitrust Division at the Department of Justice (DOJ) signifies a notable turn toward more stringent antitrust enforcement. Both leaders are focused on tightening scrutiny of mergers, particularly those involving vertical integration, where ownership of platforms combines with content production or distribution (Hyman et al. 2021). Given the interconnected nature of the gaming industry, such regulatory concerns are particularly relevant to Microsoft, as its acquisitions could raise questions about ecosystem dominance or barriers to competition.

The bankers also noted that increased funding for both the FTC and DOJ underscores the U.S. government's commitment to more rigorous antitrust enforcement. Enhanced financial and human resources are expected to improve the agencies' ability to investigate, evaluate, and challenge major acquisitions (Hyman et al. 2021).

On a global scale, the bankers highlighted that regulators in key markets, including Europe and Asia, are also adopting a stricter stance on acquisitions (Hyman et al. 2021). This reflects a

coordinated international effort to address concerns around market consolidation and platform dominance. Given the scale of a potential acquisition like Activision Blizzard, the bankers warned that Microsoft could face intense regulatory scrutiny across multiple jurisdictions.

The bankers concluded by emphasizing the sense of urgency surrounding acquisitions in the current environment. The increasing pressure from regulatory authorities, combined with Microsoft's financial strength, offers only a small window of opportunity for a deal of this scale. If Microsoft delays its decision, impending regulatory changes could make future approvals much more difficult or even impossible. The bankers pointed out that other cash-rich companies are already accelerating their M&A activities to stay ahead of these challenges, creating a highly competitive environment for strategic targets (La Monica, 2022). This trend highlights the importance of Microsoft acting quickly and decisively before other major players express interest in acquiring Activision Blizzard.

For Microsoft, the bankers point out, that a strategic acquisition of Activision Blizzard would not only resolve key competitive weaknesses across the console, PC, and mobile gaming markets but also act as a safeguard against evolving regulatory constraints. By acting now, Microsoft could secure a critical asset that would be far more difficult to pursue in the near future.

#### **1.9.4 The board meeting: discussing the banker's recommendation**

In late November 2021, Microsoft's executive board convened to discuss the potential acquisition of Activision Blizzard, building on the detailed presentation previously delivered by Goldman Sachs. From the outset, there was broad consensus on one key point: the strategic alignment between Activision Blizzard and Microsoft's gaming division was clear. The company's portfolio of renowned franchises, strong foothold in mobile gaming, and established market reputation made it an attractive target to address Microsoft's challenges in the gaming sector.

However, as the discussion progressed, differing views emerged regarding the timing and execution of such a significant acquisition. A faction within the board, led by senior executives from Microsoft's gaming division, argued for a fast-track analysis phase to quickly prepare and present an offer. They pointed to the investment bankers' warning that other major players, including Tencent, Amazon, and even Sony, had expressed interest in Activision Blizzard. This created a sense of urgency, as prolonged inaction could risk Activision Blizzard entering negotiations with competitors. Proponents of this approach emphasized that a swift move could position Microsoft as the frontrunner in what would likely become a bidding war.

Additionally, they underscored the growing concerns surrounding regulatory issues, which the bankers had cautioned. This added another layer of urgency, as waiting too long could allow evolving regulations to further complicate or prevent the acquisition altogether.

Opposing this sense of urgency, a more cautious faction within the Board expressed concerns about the scale and complexity of the deal. They raised issues related to the substantial acquisition cost and the operational challenges of integrating a company as large as Activision Blizzard. Further concerns were voiced about cultural misalignment and the reputational risks stemming from Activision Blizzard's recent controversies surrounding workplace misconduct. This group highlighted past acquisitions in the gaming industry that failed to deliver on their promise, warning that not all large-scale deals translate into financial or strategic success. One skeptical member remarked, "The gaming industry has seen its fair share of acquisitions that looked brilliant on paper but ultimately became costly mistakes. We need to ensure we're not setting ourselves up for the same outcome."

As the discussion grew increasingly heated, Microsoft CEO Satya Nadella intervened to restore order. Recognizing the validity of both perspectives, he emphasized the need for a data-driven approach before making any further decisions. Nadella stated, "We cannot let urgency or fear

drive this decision. Before we move forward, we need to put concrete numbers and analyses on the table.”

To address the varying viewpoints and ensure a thorough evaluation, Nadella ordered an in-depth analysis of Activision Blizzard, focusing on three critical areas: Valuation, Synergies, and Deal Structure and Financing. To guide this process and ensure a structured approach, a steering committee was established to oversee the analysis.

With this directive in place, the Board agreed to suspend further debate until the results of the analysis were available. This structured evaluation would provide the necessary foundation to make an informed decision about pursuing the acquisition, ensuring that Microsoft could act boldly but prudently in a moment that could shape its future in the gaming industry.

## 2 Teaching Note II: Synergies (Paul Zimmer)

### Case synopsis

Following the presentation of the recommended implied equity value, Microsoft's (MSFT) leadership convened to address one of the most pivotal aspects of the Activision Blizzard (ATVI) acquisition: synergies. Illustrated by the formula  $\text{Value}[A + B] > \text{Value}[A] + \text{Value}[B]$  (Feldman, Hernandez 2022), this concept highlights its transformative potential. CEO Satya Nadella emphasized that the realization of synergies is not merely a supporting component but a cornerstone of the acquisition's value. He underscored the importance of ensuring that the anticipated synergies – whether operational or financial (Damodaran 2005) – are identified, precisely quantified and included in the overall assessment to offset the anticipated integration costs.

Revenue synergies were recommended to be done by focusing on integrating ATVI's game catalog into the Xbox Game Pass. The integration was expected to provide two key growth opportunities: increased subscriber numbers and enhanced pricing potential. However, it may also negatively impact ATVI's existing distribution channel revenues, which required thorough evaluation. Additionally, the committee advised MSFT Gaming must explore synergies achievable in the mobile segment. For cost synergies, the committee recommended identifying opportunities in three main areas: Research & Development (R&D), General & Administrative (G&A), and Sales & Marketing (S&A). Eliminating redundancies in these functions was expected to yield significant savings. Financial synergies in working capital (WC) management were to be analyzed as a transformative benefit.

The committee recommended to also address the inevitable costs of integration, recognizing layoffs, restructuring, and other transitional measures as substantial expenses that cannot be

overlooked. A dedicated team of analysts was assigned to quantify these costs and incorporate them into the broader net present value (NPV) calculation for synergies.

### **Learning objectives**

- Learn to quantify operational and financial synergies based on company financials and publicly available data and assess their contribution to the overall success of an acquisition.
- Develop the ability to project revenue synergies, identify cost reductions, and incorporate integration-related expenses into a comprehensive synergy analysis.
- Understand how variations in synergy assumptions can impact the overall valuation and develop strategies to account for uncertainties in projections.

### **Target audience**

The target audience for this case includes graduate students in MSc or MBA programs with a focus on finance, strategy, or management. It is also suitable for participants in executive education programs seeking to deepen their understanding of synergy valuation and their practical application in strategic decision-making, particularly in the context of mergers and acquisitions.

### **Teaching plan**

The case study is designed to be completed as a semester-long group assignment. Students will conduct a pre-acquisition analysis to ultimately determine whether ATVI represents an attractive target for MSFT. This decision will be based on the analysis of three key areas: Valuation (TN I), Synergies (TN II), and Deal Structure and Financing (TN III).

For the synergy part, which will be presented in this Teaching note, students will build a detailed valuation model using the DCF in Microsoft Excel. Each synergy valuation must be well-documented, and all assumptions must be justified based on scientific literature or practical

industry insights, which requires independent research. At the end of the semester, students will submit their Excel valuation models and prepare a PowerPoint presentation summarizing their findings, which they will present in class for peer discussion and feedback.

### **Assignment questions**

#### Questions 1: Analysis of Operational Synergies and Financial Synergies

- a) How would you project subscriber growth and price increases for Xbox Game Pass, and assess potential negative synergies in Activision Blizzard's distribution channels?<sup>1</sup>
- b) What market growth synergies for MSFT Gaming could arise in mobile gaming?<sup>1</sup>
- c) How would you quantify cost synergies in R&D, G&A, S&M
- d) How would you quantify working capital synergies?<sup>1</sup>

#### Question 2: Integration and Restructuring Cost Analysis:

How would you evaluate the total integration and restructuring costs, including their timing and, if applicable, provide a temporal breakdown?

#### Question 3: Consolidated Synergies and Sensitivity Analysis:

- a) How would you factor in the uncertainty of achieving the projected synergies, using relevant benchmarks?
- b) How would you calculate the NPV of synergies incorporating a sensitivity analysis to account for varying synergy growth assumptions?<sup>2</sup>

#### Question 4: Recommendation:

What are your recommendations based on the analysis?

*Note: Students may forecast from 2022 to 2026, after which the terminal value is applied.*

*1) Develop assumptions to forecast synergy potential, including timing and duration.*

*2) Use Microsoft's WACC (TN II Exhibit 8) as the discount rate*

**Case Analysis**

Question 1a: Subscription growth analysis:

The integration of ATVI into MSFT's Xbox ecosystem offers the opportunity to realize significant revenue synergies - particularly through the expansion of Xbox Game Pass. Since its launch in 2017, this subscription-based model has established itself as a central pillar of MSFT's gaming strategy and has seen significant growth. With over 25 million subscribers in 2021 (Warren 2023), Game Pass generates a stable and scalable revenue stream, with each subscriber paying \$9.99 per month (**Case Exhibit 15**). The addition of ATVI's extensive catalog of games promises a significant increase in appeal and therefore subscriber numbers.

A 2021 survey by Civic Science underlines the potential: 5% of respondents said they were very likely to subscribe and 7% were interested if ATVI's game catalog was added to Game Pass (Shriber 2023). Based on this data, it was assumed for the calculation of synergies that 100% of 'very likely' and 50% of 'interested' potential subscribers would actually convert. This leads to a projected increase in subscriber numbers of 8.5% from 2024. 2024 was chosen due to expected delays caused by regulatory reviews and approval processes.

Game-Pass subscription growth	2019	2020	2021	FC 2022	FC 2023	FC 2024	FC 2025	FC 2026
Subscriber development w/o deal (in m)	10	21	25	27	30	34	38	43
Subscriber development with deal (in m)	10	21	25	27	30	37	41	46
<i>Difference (in m#)</i>	0	0	0	0	0	3	3	4
<i>Game-Pass price (in \$ monthly)</i>	9.99	9.99	9.99	10.93	11.95	11.95	12.24	12.24
Game-Pass price (in USD p.a)	119.88	119.88	119.88	131.21	143.41	143.41	146.83	146.83
<b>Add. subscribers synergy (in mUSD)</b>						<b>416</b>	<b>476</b>	<b>533</b>

*Illustration 1: Game Pass Subscription Growth*

The future growth rate of the subscription model for both the no-deal and deal scenario from 2022 to 2026 is based on the market development of the subscription-based gaming sector (KBV Research 2022). For the analysis of the price development, it is assumed that the first price increase for the Game Pass will take place in 2022 due to rising operating costs and inflation and will reach \$12.24 per month in 2026. The price development forecast is based on average historic price increases of other subscription services from the entertainment industry

(TN II Exhibit 1). The incremental revenue from this subscriber increase in 2024 is estimated at \$416 million, rising to \$533 million in 2026.

Increased pricing power:

The integration into the Xbox Game Pass opens up room for a targeted adjustment of the pricing strategy. Such synergies arise from increased pricing power resulting from an expanded market position, a unique value proposition, and reduced competition (Gaughan 2018). While competition is stimulated by the expansion of the Game Pass catalog with ATVI's games, the greater attractiveness of the offer raises the threshold for price adjustments.

Since the launch of Game Pass in 2017, the monthly price has remained stable (Maas 2024) - a deliberate move by MSFT to gain market share during the growth phase. However, the integration of ATVI's extensive game catalog, which alone accounted for an estimated total value of around \$630 in 2021 (Case Exhibit 6), warrants a reassessment of the pricing strategy. Compared to MSFT's \$6,300 value for the entire Game Pass catalog in 2021 (Cryer 2021), this corresponds to an increase of 10%. A price adjustment of this amount therefore appears both appropriate and in line with the market, as it reflects the increased value of the offer while remaining within an acceptable tolerance range for consumers (Roth, Bösenner 2015).

Game-Pass price increase	2021	FC 2022	FC 2023	FC 2024	FC 2025	FC 2026
Game-Pass price w/o deal (in m)	119.88	131.21	143.41	143.41	146.83	146.83
Game-Pass price with deal (in USD, monthly)	9.99	10.93	11.95	13.15	13.46	13.46
Game-Pass price with deal (in USD p.a.)	119.88	131.21	143.41	157.80	161.52	161.52
Price difference (in USD)	0	0	0	14.39	14.69	14.69
Price difference in %	0%	0%	0%	10.0%	10.0%	10.0%
<b>Total effect of price increase (in mUSD)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>533</b>	<b>608</b>	<b>680</b>

Illustration 2: Game Pass Price Increase

With the integration of ATVI in 2024, a price markup of 10% is assumed, resulting in considerable synergy effects. The combined effect of subscriber growth and price markup leads to an estimated revenue increase of \$949 million in 2024, rising to \$1.21 billion in 2026.

### Negative Game Pass effects:

Next to the significant positive Game Pass synergies, there are also challenges in the form of negative synergies in the form of cannibalization effects. This loss occurs because customers who are both Game Pass subscribers and MSFT Gaming users no longer need to purchase ATVI games directly through traditional console and PC channels. The projected loss starts at \$157 million in 2024 and rises to \$214 million by 2026, reflecting the disruption to ATVI's established distribution model (**Case Exhibit 5**).

The calculation begins with ATVI's net revenues from console and PC game distribution as the baseline (**Case Exhibit 5**). These revenues are projected forward using the growth rates for the console and PC markets (**Case Exhibit 8**), ensuring the estimates reflect market expansion. The number of active MSFT Gaming customers is forecasted using the same growth rates, incorporating historical data (**Case Exhibit 4**). Next, the penetration rate of Game Pass – the proportion of MSFT Gaming customers subscribing to Game Pass – is calculated based on subscriber growth following the ATVI catalog's integration in 2024. To determine the revenue loss, historical ATVI revenue data from MSFT customers, averaged between 2019 and 2021, serves as a benchmark (**TN II Exhibit 2**).

By combining these inputs, the analysis estimates the total revenue loss caused by the inclusion of ATVI games into Game Pass. Starting in 2024, Xbox and MSFT PC customers with a Game Pass subscription will no longer purchase ATVI games directly, since they can play them via their subscription, thus disrupting ATVI's traditional console and PC game sales channels. This highlights the trade-off between driving subscription growth and the resulting decline in distribution revenue, underlining the importance of considering potential downsides alongside opportunities in the overall assessment.

Negativ synergetic effect (in mUSD)	2019	2020	2021	FC 2022	FC 2023	FC 2024	FC 2025	FC 2026
Net revenue console distribution	1,920	2,784	2,637	2,917	3,138	3,274	3,359	3,402
Net revenue PC dictribution	1,718	2,056	2,323	2,534	2,752	2,944	3,117	3,256
Microsoft Gaming Customers (in m)	57	65	100	110	119	125	131	135
Subscriber development with deal (in m)	10	21	25	27	30	34	41	46
Xbox customers with Game-Pass (in %)	18%	32%	25%	25%	26%	27%	32%	34%
ACTV revenue through Microsoft (in %)	9%	10%	9%	9%	9%	9%	9%	9%
Losses in console distribution						83	99	110
Losses in PC distribution						74	92	105
<b>Losses in ACTV distrubtion (in mUSD)</b>						<b>157</b>	<b>191</b>	<b>214</b>

*Illustration 3: Distribution Channel Loss*

After accounting for the negative effects, the Game Pass synergies still yield a net positive value of \$793 million in 2024, increasing to \$982 million in 2025 and \$999 million in 2026. This demonstrates that integrating the ATVI catalogue into Game Pass would have a significant positive impact on the growth of Microsoft's gaming division.

Question 1b: New market growth synergies:

The potential acquisition of ATVI by MSFT not only offers the opportunity to secure existing market shares, but also opens the door to the mobile gaming market - currently the fastest growing area of the gaming industry (**Case Exhibit 8**). With the successful Studio King, known for titles such as Candy Crush, ATVI brings in an experienced mobile gaming team. This team provides MSFT with the strategic foundation to quickly enter this market and build a strong position (Zheng 2024). In addition to expanding the existing ATVI catalog, MSFT also has the opportunity to adapt its own brands, such as Halo or Forza Horizon, to the mobile market. High-quality video games (AAA-Games) generally require a development period of two to five years (Juego Studios 2020). However, as there is already a software base for MSFT's games and the experienced King team can be integrated, a market entry at the lower end of this range - i.e. from 2025 - is considered realistic.

At the start of market entry in 2025, MSFT Gaming's revenue share of mobile gaming of 3.68% is assumed (**TN II Exhibit 3**). This is based on Nintendo's average mobile gaming revenue between 2018 and 2021 (see **TN II Exhibit 4**) and is expected to increase continuously as the market grows. A share of 3.92% is therefore expected for 2026, based on mobile gaming market

growth (**Case Exhibit 8**). The choice of Nintendo as a benchmark is based on its comparable product portfolio and standing in the gaming market, while pure development studios were excluded due to their different business focus. Sony was not taken into account here as it does not have a presence in the mobile gaming market.

With an estimated value of synergies of \$739 million in 2025 and \$811 million in 2026, these figures illustrate the strategic importance of the mobile gaming market for Microsoft and show how the acquisition of ATVI would enable a long-term growth strategy in the most dynamic segment of the gaming industry.

#### Question 1c: Research & Development (R&D) synergies:

Cost synergies begin where direct control over internal structures and processes takes hold - an area that is often easier to influence than external factors that shape revenue synergies. While revenue synergies depend on market conditions, customer behavior and competitive situations and are therefore more difficult to predict, cost synergies focus on tangible and measurable aspects within the company (Sirower, Sahni 2006).

A particularly significant lever for cost synergies lies in the integration of R&D at ATVI and MSFT. Historically, MSFT's R&D costs in the gaming segment have averaged 13.0% of estimated revenue over the past three years (**Case Exhibit 3**), compared with 14.6% at ATVI (**Case Exhibit 9**). By merging the two departments, resources can be pooled, processes optimized, and significant efficiency gains realized.

The expectation that ATVI's R&D costs can be reduced to the level of MSFT (13.0%) after the integration promises significant savings. According to Horsley et al. (2024), the process of R&D optimization may take place one year after the integration starts. As a result, a one-off cost reduction of \$155 million is expected in 2023 (**TN II Exhibit 5**), which can be achieved by layoffs in game studios with comparable genres (**TN II Exhibit 6**), amounting to 11% of the workforce, or 298 employees (**TN II Exhibit 7**).

### General & Administrative (G&A) synergies:

A significant proportion of the synergies are achieved by reducing general and administrative costs. There is great potential for savings, particularly in departments such as IT and customer service, quality assurance, legal & compliance and finance. The consolidation of these areas enables a leaner organization and leads to a reduction in the number of employees, which results in direct a cost effect (Hamilton et al. 2011).

The basis for the calculation of cost synergies is an analysis of historical G&A costs. Between 2019 and 2021, these amounted to an average of 8.5% of revenue at ATVI (**Case Exhibit 9**). In comparison, MSFT Gaming has significantly more efficient structures, with G&A costs of just 3.4% of revenue in the same period (**Case Exhibit 3**). It is therefore assumed that a comparable level of efficiency can be achieved through the integration, which will also reduce ATVI's G&A costs to 3.4% of revenue.

Based on this assumption, one-off cost synergies of \$491 million result for the year after the integration starts (2023) (**TN II Exhibit 5**), mainly due to layoffs, amounting to approximately 60% of the workforce or 920 employees (**TN II Exhibit 7**). The rapid realizability of these savings is based on the studies by Horsley et al. (2024), which examine the non-recurring nature of G&A cost savings, and by Chartier et al. (2018), which analyze the rapid effect of G&A savings following acquisitions.

### Sales & Marketing (S&M) synergies:

In addition to synergies in the area of G&A costs, sales & marketing costs also offers significant savings potential. These result primarily from the integration of ATVI's games catalog into Game Pass from 2024 and the use of MSFT's existing distribution infrastructure, reducing sales expenditures. Additionally, MSFT's extensive global marketing channels, including digital platforms, can significantly reduce the need for separate, costly marketing campaigns. This

means that in the future, joint campaigns will eliminate the marketing expenses for MSFT console and PC games on behalf of ATVI.

The calculation is based on sales & marketing expenses of ATVI (**Case Exhibit 9**). S&M costs are projected in proportion to revenue (**TN II Exhibit 5**), using the allocation pattern observed from 2019 to 2021 as a basis. It is first assumed that S&M expenditures for console and PC are allocated in proportion to their respective revenue shares (**Case Exhibit 5**). These revenue shares are projected based on their individual growth rates (**Case Exhibit 8**). With that, S&M cost for both console and PC can be calculated. In the next step, only the portion of S&M costs attributable to Microsoft Gaming is included. It is assumed that ATVI's revenue share with Microsoft, which averaged around 9% over the last three years (**TN II Exhibit 2**), is proportionate to the S&M costs. Therefore, approximately 9% of the total S&M costs are allocated to Microsoft Gaming. This percentage is then multiplied by the console and PC S&M costs to determine the final amount.

Sales & Marketing costs	2019	2020	2021	FC 2022	FC 2023	FC 2024	FC 2025	FC 2026
S&M costs (in mUSD)	1,062	926	1,064	1,025	1,208	1,258	1,341	1,408
Console in % of revenue	30%	34%	30%	31%	32%	32%	31%	30%
PC in % of revenue	29%	26%	25%	26%	27%	28%	29%	29%
Console S&M cost (in mUSD)	314	319	319	323	392	400	417	426
PC S&M cost (in mUSD)	309	245	271	270	330	358	383	406
Share responsible for Microsoft (in %)	9%	10%	9%	9%	9%	9%	9%	9%
Sales & Marketing synergies (in mUSD)						70	75	78

*Illustration 4: Physical retail channel synergies*

The resulting S&M cost synergies, which will take effect from 2024, are based on the permanent use of the shared distribution infrastructure and marketing campaigns for MSFT Gaming content, which eliminates redundant processes (Feldman, Hernandez 2022). In total, these measures will generate cost savings of \$70 million in 2024 and \$78 million in 2026.

Question 1d: Working Capital Synergies:

Working capital synergies arise when companies can improve their liquidity and financial flexibility by optimizing receivables and liabilities. In the case of a potential acquisition of ATVI by MSFT, synergies arise as the payment terms for receivables and payables of the two

companies are different. While ATVI already has more efficient accounts receivable policies, they could realize additional financial benefits by adapting to MSFT's longer payables terms. The following section examines how these synergies work in concrete terms and what impact they could have on ATVI's financial situation.

In the context of the acquisition of ATVI by MSFT, the analysis shows that ATVI has shorter average days sales outstanding of 45 days in the period from 2019 to 2021 (**Case Exhibit 7**), compared to MSFT's 83 days (**Case Exhibit 2**). This efficiency means that ATVI is paid faster, which improves cash flow. However, an adjustment to MSFT's longer days sales outstanding would be detrimental and a burden on cash flow. It is therefore assumed that ATVI retains these more efficient policies. On the other hand, ATVI pays its suppliers much faster in terms of average payment terms, with 48 days on average (**Case Exhibit 7**), while MSFT takes 135 days (**Case Exhibit 2**). Thus, ATVI could likely have access to better credit lines (longer payment terms) after the acquisition due to MSFT's financial strength and historical performance. This would allow ATVI to gain more financial flexibility. This release of liquidity through working capital optimization is assumed to occur in 2023, the year after the integration is expected to start, thus a one-time release of funds. However, it should be noted that the resulting benefits, such as improved financial flexibility and a stronger balance sheet, may have long-term positive effects on the company (Koller et al. 2005).

The calculation of working capital synergies is based on the assumption that ATVI adopts MSFT's average payment terms (135 days), while the other financial ratios until 2023 remain comparable to the 2019-2021 average. ATVI's average accounts payable over this period was \$291 million with an average payment term of 48 days. Assuming that the payment terms increase to MSFT's level in 2023, the new accounts payable amount to \$822 million, calculated by proportionally adjusting the liabilities based on the payment terms ( $291/48 * 135$ ). The

difference between the original and adjusted liabilities, which is defined as working capital synergy, is therefore \$531 million in 2023.

<b>Working Capital Synergies</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Average</b>
<i>in mUSD</i>				
<b>Accounts receivable</b>				
ACTV receivables	848	1,052	972	957
ACTV average days receivables (in days)	48	47	40	45
Microsoft Corporation receivables	29,524	32,011	38,043	33,193
Microsoft Corporation average days receivables (in days)	86	82	83	83
<b>Accounts payable</b>				
ACTV payables	292	295	285	291
ACTV average days payables (in days)	51	48	45	48
Microsoft Corporation payables	9,382	12,530	15,163	12,358
Microsoft Corporation average days payables (in days)	104	141	160	135
<b>Potential positive synergies</b>				
ACTV accounts payable balance	598	876	1,014	821
ACTV accounts payable increase	306	581	729	531
<i>ACTV accounts payable increase (in %)</i>	<i>105%</i>	<i>197%</i>	<i>256%</i>	<i>183%</i>

*Illustration 5: Working Capital Synergies*

This synergy represents the additional liquidity that can be realized through extended payment terms and demonstrates the potential for more efficient working capital utilization by aligning payment terms with MSFT's established standards.

Question 2: Integration and Restructuring Cost Analysis:

The acquisition and integration of companies aim to achieve synergies through Post-Merger Integration (PMI). PMI involves reorganizing resources, aligning product lines, and integrating business units to create value and unify operations. This process may require resource reallocation, divestment, or layoffs. Success depends on balancing efficiency with autonomy while mitigating risks like customer loss or employee turnover (Bodner, Capron 2018).

A deal analysis pursued by EY of M&A integration costs of 229 deals between 2010 and 2022 found that PMI in the Technology, Media, and Telecommunications (TMT) sector, to which MSFT Gaming and ATVI belong, can require significant financial resources. The study indicates that average integration costs amount to approximately 5.5% of the target's revenue

(Kaske 2023). Another notable benchmark is the merger of Activision and Blizzard in 2008, which incurred restructuring expenses equivalent to about 8.6% of Blizzard's 2007 revenue. These costs were distributed over 2008 (80.2%) and 2009 (19.8%) to facilitate organizational adjustments and process harmonization (Activision 2009). In 2016, ATVI acquired and integrated the mobile games developer King Studios. Fees and expenses of the acquisition of King amounted to \$5 million, \$47 million, and \$15 million for the years 2015, 2016 and 2017, respectively. The total restructuring costs amounted to approximately 3.4% of King's revenue in 2015 (Activision Blizzard 2018).

For the calculation of the integration costs, a potential range of 3.4% to 8.6% of the target's revenue is assumed. Based on the size of the target company, and degree of necessary integration measures, the higher end of this range is assumed, meaning a value of 8.0% integration cost of ATVI 2021 revenue. That leads integration cost amounting to \$704 million, which will be distributed in similar manner as in the ATVI acquisition of King in 2016. That means 7.6% in 2022, 70.0% in 2023, and 22.4% in 2024.

#### Question 3a: Achievability of Synergies:

Revenue synergy predictions are challenging due to their complexity and high uncertainty. Thus, it is assumed that only 69% of the synergies will be realized, based on a McKinsey study for the telecommunications, multimedia, and software sector (Chartier et al. 2018). Cost and financial synergies are assumed to be fully realized, given MSFT's extensive M&A experience and the internal nature of these synergies, as they are not significantly influenced by external factors or competition.

#### Question 3b: Sensitivity Analysis and NPV:

Free cash flows are discounted using MSFT's WACC (**TN II Exhibit 8**). Given the difficulty in forecasting synergy duration (Feldman, Hernandez 2022), three scenarios were developed in a sensitivity analysis to address potential variations.

Synergy analysis	FC 2022	FC 2023	FC 2024	FC 2025	FC 2026	TV
<i>in mUSD</i>						
<b>Revenue synergies</b>						
Subscription growth	0	0	416	476	533	533
Price increase	0	0	533	608	680	680
ATVI retail channel loss	0	0	-157	-191	-214	-214
Mobile Gaming Growth	0	0	0	739	811	811
<b>Total</b>	<b>0</b>	<b>0</b>	<b>793</b>	<b>1,631</b>	<b>1,810</b>	<b>1,810</b>
Achievability of synergy	69%	0	0	547	1,125	1,249
<i>EBIT Margin based on MSFT 2019-2021</i>	<i>37.6%</i>	<i>37.6%</i>	<i>37.6%</i>	<i>37.6%</i>	<i>37.6%</i>	<i>37.6%</i>
<b>EBIT impact of revenue synergies</b>	<b>0</b>	<b>0</b>	<b>206</b>	<b>423</b>	<b>469</b>	<b>469</b>
<b>Cost synergies</b>						
R&D Synergies	0	155	0	0	0	0
G&A cost redundancies	0	491	0	0	0	0
Sales & Marketing cost redundancies	0	0	70	75	78	78
<b>Total</b>	<b>0</b>	<b>646</b>	<b>70</b>	<b>75</b>	<b>78</b>	<b>78</b>
Achievability of synergy	100%	0	646	70	75	78
<b>Total Gross Operating Synergies</b>	<b>0</b>	<b>646</b>	<b>276</b>	<b>498</b>	<b>547</b>	<b>547</b>
<b>Integration- and Restructuring Cost</b>						
<b>in %</b>		<i>7.6%</i>	<i>70.0%</i>	<i>22.4%</i>	<i>0.0%</i>	<i>0.0%</i>
Of ATVI FC2023 revenue	8.0%	<b>-54</b>	<b>-493</b>	<b>-158</b>	<b>0</b>	<b>0</b>
<b>Pre-tax Net Synergies</b>		<b>-54</b>	<b>153</b>	<b>118</b>	<b>498</b>	<b>547</b>
<i>Marginal Tax-rate</i>		<i>35.00%</i>	<i>35.00%</i>	<i>35.00%</i>	<i>35.00%</i>	<i>35.00%</i>
<b>Post-Tax Net Synergies</b>		<b>-35</b>	<b>100</b>	<b>77</b>	<b>324</b>	<b>356</b>
<b>Financial synergies</b>						
ACTV accounts payable increase	0	531	0	0	0	0
<b>Total</b>	<b>0</b>	<b>531</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Achievability of synergy	100%	0	531	0	0	0
Free Cash-Flow		-35	630	77	324	356
Discounted FCF (Best)	<b>10,033</b>	-33	560	64	256	265
<b>Discounted FCF (Base)</b>	<b>8,214</b>	<b>-33</b>	<b>560</b>	<b>64</b>	<b>256</b>	<b>265</b>
Discounted FCF (Worst)	<b>6,993</b>	-33	560	64	256	265

*Illustration 6: Combined synergies*

**Best case** assumes the combined company benefits indefinitely from sustainable competitive advantages and a strengthened market position due to the merger, cash-flow growth is based on the expected inflation rate (Devos et al. 2009), which is 2% for the long-term Personal Consumption Expenditures Price Index (FED 2024), resulting in a NPV of \$10.03 billion. The **base case** assumes a 1% growth is accounted for in the terminal value. This provides a realistic basis for scenarios in which market conditions remain diminishing against inflation due to

decreasing long-term competitive advantages (Feldman, Hernandez 2022), resulting in a NPV of \$8.21 billion. **Worst case** simulates a diminishing synergy effect over time, with no growth rate, to reflect a stronger gradual decline in synergistic cash flows, leading to a NPV of \$6.99 billion.

#### Question 4: Recommendation:

Based on the analysis of the teaching note, the steering committee recommended planning the integration based on the base scenario, with totaling NPV synergies of \$8.21 billion, providing a realistic basis for securing long-term value creation. Cost synergies accounted for approximately 17% of the targets revenue– a realistic estimate compared to the TMT industry average of 14% (Horsley et al. 2024). The recommended implied equity value for ATVI was estimated at \$72.69 billion (TN I), with an upper limit of \$80.90 billion to maintain a positive net acquisition value and capitalize on synergies (Gaughan 2018).

#### **What actually happened**

ATVI was fully integrated into the MSFT Group on October 13, 2023, after a 20-month legal dispute with regulators over competition concerns (Warren 2023). By adding ATVI titles like Call of Duty and Overwatch to Xbox Game Pass, MSFT boosted subscriber numbers to 34 million (Warren 2024) and strengthened its position in the competitive gaming market, particularly in mobile gaming (Microsoft Corporation 2024b). Microsoft optimized cost structures, leading to the dismissal of 1,900 employees in January 2024, about 8% of its gaming workforce (Warren 2024). A Game Pass price increase was announced for July 2024 (Microsoft Corporation 2024b). The total value of synergies was not disclosed.

### 3 Appendix I: Case Exhibits (group part)

#### Case Exhibit 1: MSFT Profit and Loss Statement MSFT 2017-2021

Microsoft Corporation Profit & Loss Statement	2017	2018	2019	2020	2021
<i>in mUSD</i>					
<b>Revenue</b>	<b>96,571</b>	<b>110,360</b>	<b>125,843</b>	<b>143,015</b>	<b>168,088</b>
Gross Margin	62,310	72,007	82,933	96,937	115,865
<i>in % of Revenue</i>	64.52%	65.25%	65.90%	67.78%	68.93%
<b>Operating Expenses</b>	<b>32,979</b>	<b>36,949</b>	<b>39,974</b>	<b>43,978</b>	<b>45,940</b>
Research & Development	13,037	14,726	16,876	19,269	20,716
<i>in % of Revenue</i>	13%	13%	13%	13%	12%
Sales & Marketing	15,461	17,469	18,213	19,598	20,117
<i>in % of Revenue</i>	16%	16%	14%	14%	12%
General & Administrative	4,481	4,754	4,885	5,111	5,107
<i>in % of Revenue</i>	5%	4%	4%	4%	3%
<b>Operating Income</b>	<b>29,331</b>	<b>35,058</b>	<b>42,959</b>	<b>52,959</b>	<b>69,925</b>
<i>in % of Revenue</i>	30%	32%	34%	37%	42%

Source: Microsoft Corporation Annual Report 2021, Microsoft Corporation Annual Report 2019, Microsoft Corporation Annual Report 2017.

## Case Exhibit 2: Balance Sheet MSFT 2017-2021

Microsoft Corporation Balance Sheet <i>in mUSD</i>	2017	2018	2019	2020	2021
<b>Assets</b>					
Current assets:					
Cash and cash equivalents	7,663	11,946	11,356	13,576	14,224
Short-term investments	125,318	121,822	122,463	122,951	116,110
<b>Total cash</b>	<b>132,981</b>	<b>133,768</b>	<b>133,819</b>	<b>136,527</b>	<b>130,334</b>
Accounts receivables	22,431	26,481	29,524	32,011	38,043
Inventories	2,181	2,662	2,063	1,895	2,636
Other current assets	5,103	6,751	10,146	11,482	13,393
<b>Total current assets</b>	<b>162,696</b>	<b>169,662</b>	<b>175,552</b>	<b>181,915</b>	<b>184,406</b>
Property and equipment	23,734	29,460	36,477	44,151	59,715
Operating lease right-of-use-assets	6,555	6,686	7,379	8,753	11,088
Equity investments	6,023	1,862	2,649	2,965	5,984
Goodwill	35,122	35,683	42,026	43,351	49,711
Intangible assets, net	10,106	8,053	7,750	7,038	7,800
Other long-term assets	6,076	7,442	14,723	13,138	15,075
<b>Total assets</b>	<b>250,312</b>	<b>258,848</b>	<b>286,556</b>	<b>301,311</b>	<b>333,779</b>
<b>Liabilities</b>					
Current liabilities:					
Accounts payable	7,390	8,617	9,382	12,530	15,163
Short-term debt	9,072				
Current portion of long-term debt	1,049	3,998	5,516	3,749	8,072
Accrued compensation	5,819	6,103	6,830	7,874	10,057
Short-term income taxes	718	2,121	5,665	2,130	2,174
Short-term unearned revenues	24,013	28,905	32,676	36,000	41,525
Other current liabilities	7,684	8,744	9,351	10,027	11,666
<b>Total current liabilities</b>	<b>55,745</b>	<b>58,488</b>	<b>69,420</b>	<b>72,310</b>	<b>88,657</b>
Long-term debt	76,073	72,242	66,662	59,578	50,074
Long-term income taxes	13,485	30,265	29,612	29,432	27,190
Long-term unearned revenue	2,643	3,815	4,530	3,180	2,616
Deferred income taxes	5,734	541	233	204	198
Operating lease liabilities	5,372	5,568	6,188	7,671	9,629
Other long-term liabilities	3,549	5,211	7,581	10,632	13,427
<b>Total liabilities</b>	<b>162,601</b>	<b>176,130</b>	<b>184,226</b>	<b>183,007</b>	<b>191,791</b>
Commitments and contingencies					
Stockholders' equity					
Common stock and paid-in capital	69,315	71,223	78,520	80,552	83,111
Retained earnings	17,769	13,682	24,150	34,566	57,055
Accumulated other comprehensive income	627	-2,187	-340	3,186	1,822
<b>Total stockholders' equity</b>	<b>87,711</b>	<b>82,718</b>	<b>102,330</b>	<b>118,304</b>	<b>141,988</b>
<b>Total liabilities and stockholders' equity</b>	<b>250,312</b>	<b>258,848</b>	<b>286,556</b>	<b>301,311</b>	<b>333,779</b>

Source: Microsoft Corporation Annual Report 2021, Microsoft Corporation Annual Report 2019, Microsoft Corporation Annual Report 2017.

### Case Exhibit 3: MSFT Gaming Profit and Loss Statement MSFT 2019-2021

Microsoft Gaming Profit & Loss Statement	2019	2020	2021
<i>in mUSD</i>			
<b>Revenue</b>	<b>11,386</b>	<b>11,575</b>	<b>15,370</b>
<b>Hardware</b>	<b>2,814</b>	<b>1,575</b>	<b>3,070</b>
<b>Content &amp; Services</b>	<b>8,572</b>	<b>10,000</b>	<b>12,300</b>
First & Third-Party Titles	7,373	7,483	9,303
Game Pass Subscriptions	1,199	2,517	2,997
<b>Gross Margin</b>	<b>7,504</b>	<b>7,846</b>	<b>10,595</b>
<i>in % of Revenue</i>	<i>66%</i>	<i>68%</i>	<i>69%</i>
<b>Operating Expenses</b>	<b>3,617</b>	<b>3,559</b>	<b>4,201</b>
<b>Research &amp; Development</b>	<b>1,527</b>	<b>1,560</b>	<b>1,894</b>
<i>in % of Revenue</i>	<i>13%</i>	<i>13%</i>	<i>12%</i>
<b>Sales &amp; Marketing</b>	<b>1,648</b>	<b>1,586</b>	<b>1,840</b>
<i>in % of Revenue</i>	<i>14%</i>	<i>14%</i>	<i>12%</i>
<b>General &amp; Administrative</b>	<b>442</b>	<b>414</b>	<b>467</b>
<i>in % of Revenue</i>	<i>4%</i>	<i>4%</i>	<i>3%</i>
<b>Operating Income</b>	<b>3,887</b>	<b>4,286</b>	<b>6,394</b>
<i>in % of Revenue</i>	<i>34%</i>	<i>37%</i>	<i>42%</i>

Source: Own figure, based on Microsoft Corporation Annual Report 2021, Microsoft Corporation Annual Report 2019, Cryer 2021.

### Case Exhibit 4: MSFT active user base 2019-2021

Microsoft Gaming active customers	2019	2020	2021
<i>in m#</i>			
<b>Estimated active users p.a.</b>	<b>57</b>	<b>65</b>	<b>100</b>
<i>Based on company information (Q2 2023) and Statista Market Insights</i>			

Source: Microsoft Corporation 2023.

### Case Exhibit 5: ATVI revenue split by distribution platform 2019-2021

Activision Blizzard revenue by distribution platform	2019	2020	2021
<i>in mUSD</i>			
<b>Total revenue</b>	<b>6,489</b>	<b>8,086</b>	<b>8,803</b>
<b>Console</b>	<b>1,920</b>	<b>2,784</b>	<b>2,637</b>
<i>in %</i>	<i>30%</i>	<i>34%</i>	<i>30%</i>
<b>PC</b>	<b>1,718</b>	<b>2,056</b>	<b>2,323</b>
<i>in %</i>	<i>26%</i>	<i>25%</i>	<i>26%</i>
<b>Mobile</b>	<b>2,203</b>	<b>2,559</b>	<b>3,182</b>
<i>in %</i>	<i>34%</i>	<i>32%</i>	<i>36%</i>
<b>Other*</b>	<b>648</b>	<b>687</b>	<b>661</b>
<i>in %</i>	<i>10%</i>	<i>8%</i>	<i>8%</i>

\*Net revenues from "Other" primarily includes revenues from our Distribution business, the Overwatch League, and the Call of Duty League

Source: Activision Blizzard 2021, Activision Blizzard 2019.

## Case Exhibit 6: ATVI game catalog value 2021

Activision Blizzard game catalogue value 2021 in USD	2021
<b>Premium titles</b>	
Call of Duty: Black Ops Cold War	\$ 60
Call of Duty: Modern Warfare	\$ 60
Crash Banicoot 4: It's about Time	\$ 60
Crash Banicoot N: Sane Trilogy	\$ 40
Tony Hawk's Pro Skater 1 + 2	\$ 30
Sekiro: Shadows Die Twice	\$ 60
Spyro Reignited Trilogy	\$ 30
Diablo III	\$ 30
World of Warcraft	\$ 30
World of Warcraft Shadowlands	\$ 30
<b>Subscription-based games</b>	
World of Warcraft	\$ 180
<b>Free-to play</b>	
Call of Duty: Warzone	-
Hearthstone	-
Candy Crush Saga	-
<b>Legacy titles</b>	
Diabolo II	\$ 20
<b>Total</b>	<b>\$ 630</b>

Source: Own figure, based on Activision Blizzard information depicting the current game catalog, prices in USD as of 2021. In-game prices and game extensions and or DLCs are excluded.

## Case Exhibit 7: ATVI Balance Sheet 2017-2021

Activision Blizzard Balance Sheet	2017	2018	2019	2020	2021
<i>in mUSD</i>					
<b>Assets</b>					
Current assets:					
Cash and cash equivalents	4,713	4,225	5,794	8,647	10,423
Accounty receivables	918	1,035	848	1,052	972
Inventories, net	46	43			
Software development	367	264	322	352	449
Other current assets	476	539	328	514	712
<b>Total current assets</b>	<b>6,520</b>	<b>6,106</b>	<b>7,292</b>	<b>10,565</b>	<b>12,556</b>
Software development	86	65	54	160	211
Property and equipment, net	294	282	253	209	169
Deferred income taxes, net	459	403	1,293	1,318	1,377
other assets	440	482	658	641	497
Intangible assets	1,106	735	531	451	447
Goodwill	9,763	9,762	9,764	9,765	9,799
<b>Total assets</b>	<b>18,668</b>	<b>17,835</b>	<b>19,845</b>	<b>23,109</b>	<b>25,056</b>
<b>Liabilities</b>					
Current liabilities:					
Account paybale	323	253	292	295	285
Deferred revenues	1,929	1,493	1,375	1,689	1,118
Accrued expenses and other liabilities	1,411	896	1,248	1,116	1,008
<b>Total current liabilities</b>	<b>3,663</b>	<b>2,642</b>	<b>2,915</b>	<b>3,100</b>	<b>2,411</b>
Long-term debt, net	4,390	2,671	2,675	3,605	3,608
Deferred income taxes, net	21	18	505	418	506
Other liabilities	1,132	1,147	945	949	932
<b>Total liabilities</b>	<b>9,206</b>	<b>6,478</b>	<b>7,040</b>	<b>8,072</b>	<b>7,457</b>
Additional paid-in capital	10,747	10,963	11,174	11,531	11,715
Less: Treasury stock	5,563	5,563	5,563	5,563	5,563
Retained earnings	4,916	6,558	7,813	9,691	12,025
Acumulated other comprehensive loss	-638	-601	-619	-622	-578
<b>Total shareholder's equity</b>	<b>9,462</b>	<b>11,357</b>	<b>12,805</b>	<b>15,037</b>	<b>17,599</b>
<b>Total liabilities and shareholder's equity</b>	<b>18,668</b>	<b>17,835</b>	<b>19,845</b>	<b>23,109</b>	<b>25,056</b>

Source: Activision Blizzard Annual Report 2021, Activision Blizzard Annual Report 2019, Activision Blizzard Annual Report 2017.

## Case Exhibit 8: Market growth

Market growth rates	2019	2020	2021	2022	2023	2024	2025	2026
<i>in mUSD</i>								
Console games	25,600	28,600	28,300	29,200	30,000	30,600	31,100	31,500
<i>in %</i>		-11.7%	1.0%	-3.2%	-2.7%	-2.0%	-1.6%	-1.3%
PC games	28,900	31,300	33,700	35,200	36,900	38,600	40,400	42,200
<i>in %</i>		-8.3%	-7.7%	-4.5%	-4.8%	-4.6%	-4.7%	-4.5%
Mobile games	68,000	77,000	93,000	92,000	90,000	98,000	105,000	112,000
<i>in %</i>		-13.2%	-20.8%	1.1%	2.2%	-8.9%	-7.1%	-6.7%

Source: World Economic Forum 2022, Knezovic 2024.

## Case Exhibit 9: ATVI Profit and Loss Statement 2017-2021

Activision Blizzard Profit & Loss Statement	2017	2018	2019	2020	2021
<i>in mUSD</i>					
<b>Revenue</b>	<b>7,017</b>	<b>7,500</b>	<b>6,489</b>	<b>8,086</b>	<b>8,803</b>
Product Sales	2,110	2,255	1,975	2,350	2,311
In-game subscriptions, other revenues	4,907	5,245	4,514	5,736	6,492
COGS	2,501	2,517	2,094	2,260	2,317
Product Sales	1,033	1,090	896	974	995
In game, subscriptions	1,468	1,427	1,198	1,286	1,322
<b>Gross Profit</b>	<b>4,516</b>	<b>4,983</b>	<b>4,395</b>	<b>5,826</b>	<b>6,486</b>
SG&A	3,077	2,857	2,664	2,975	3,122
Product development	1,069	1,101	998	1,150	1,337
Sales & Marketing	1,378	1,062	926	1,064	1,025
General & Administrative	630	684	608	667	683
Restructuring Cost		10	132	94	77
<b>EBITDA</b>	<b>1,439</b>	<b>2,126</b>	<b>1,731</b>	<b>2,851</b>	<b>3,364</b>
Depreciation	130	138	124	117	105
<b>EBIT</b>	<b>1,309</b>	<b>1,988</b>	<b>1,607</b>	<b>2,734</b>	<b>3,259</b>
Interest & other expenses (Income) net	146	71	-26	87	95
Loss on extinguishment	12	40		31	
<b>Income before income tax expense</b>	<b>1,151</b>	<b>1,877</b>	<b>1,633</b>	<b>2,616</b>	<b>3,164</b>
Income tax expense	878	29	130	419	465
<b>Net income</b>	<b>273</b>	<b>1,848</b>	<b>1,503</b>	<b>2,197</b>	<b>2,699</b>

Source: Activision Blizzard Annual Report 2021, Activision Blizzard Annual Report 2019, Activision Blizzard Annual Report 2017.

## Case Exhibit 10: ATVI Debt Obligations 2022-2026

### *Commitments and Obligations*

In the normal course of business, we enter into contractual arrangements with third parties for non-cancelable operating lease agreements for our offices, for the development of products which may include obtaining rights to intellectual property, and for hosting services to support our games and our administrative functions. Under these agreements, we commit to provide specified payments to a lessor, developer, or hosting provider, as the case may be, based upon contractual arrangements. The payments to third-party developers are generally conditioned upon the achievement by the developers of contractually specified development milestones. Further, these payments to third-party developers typically are deemed to be advances and, as such, are recoupable against future royalties earned by the developer based on sales of the related game. Additionally, we also enter into arrangements in which we commit to spend specified amounts for marketing to support and promote our content and services. Assuming all contractual provisions are met, the total future minimum commitments for these and other contractual arrangements in place at December 31, 2021, are scheduled to be paid as follows (amounts in millions):

Contractual obligations	Facility & Equipment	Developer & Hosting	Marketing	Long-term debt obligations	Total
<i>in mUSD</i>					
<b>For the years ending December 31,</b>					
2022	86	149	167	105	507
2023	81	104	115	105	405
2024	64	12	-	105	181
2025	43	-	-	105	148
2026	21	-	-	955	976
Thereafter	15	-	-	4,102	4,117
<b>Total</b>	<b>310</b>	<b>265</b>	<b>282</b>	<b>5,477</b>	<b>6,334</b>

(1) We have omitted uncertain income tax liabilities from this table due to the inherent uncertainty regarding the timing of the potential issue resolution of the underlying matters. Specifically, either (a) the underlying positions have not been fully developed under audit to quantify at this time or (b) the years relating to the matters for certain jurisdictions are not currently under audit. At December 31, 2021, we had \$483 million of net unrecognized tax benefits included in "Other liabilities," in our consolidated balance sheet.

Additionally, at December 31, 2021, we have a remaining net Transition Tax liability of \$142 million associated with the U.S. Tax Reform Act. The remaining Transition Tax liability is payable over the next five years and is not reflected in our Contractual Obligations table above.

*Source: Activision Blizzard Annual Report 2021*

## Case Exhibit 11: Biggest M&A Transactions in the Gaming Industry

Year	Acquirer	Target	Deal Value (bn USD)	EV/EBITDA Multiple
2021	Byte Dance	Moonton	4.0	n/a
2021	Embracer Group	Asmodee	3.1	n/a
2021	Electronic Arts	Glu Mobile	2.1	82.28x
2021	Embracer Group	SpinX games	2.2	n/a
2021	Tencent	Playdemic	1.4	n/a
2020	Microsoft	Gearbox Software	1.3	n/a
2020	Electronic Arts	Codemasters	1.2	n/a
2020	Microsoft	ZeniMax	7.5	n/a
2020	Flutter Entertainment	FanDuel	4.2	n/a
2016	Tencent	Supercell	8.6	58.22x
2015	Activision Blizzard	KING	5.9	6.21x
2014	Microsoft	Mojang Studios	2.5	n/a
2014	Meta (former: Facebook)	Oculus VR	2.0	n/a

*Source: Orbis 2024, Statista 2024.*

## Case Exhibit 12: MSFT R&D Initiatives 2021

### RESEARCH AND DEVELOPMENT

#### Product and Service Development, and Intellectual Property

We develop most of our products and services internally through the following engineering groups.

- *Cloud and AI*, focuses on making IT professionals, developers, and their systems more productive and efficient through development of cloud infrastructure, server, database, CRM, ERP, management and development tools, AI cognitive services, and other business process applications and services for enterprises.
- *Experiences and Devices*, focuses on instilling a unifying product ethos across our end-user experiences and devices, including Office, Windows, Enterprise Mobility + Security, and Surface.
- *AI and Research*, focuses on our AI innovations and other forward-looking research and development efforts spanning infrastructure, services, applications, and search.
- *LinkedIn*, focuses on our services that transform the way customers hire, market, sell, and learn.
- *Gaming*, focuses on developing hardware, content, and services across a large range of platforms to help grow our user base through game experiences and social interaction.

Internal development allows us to maintain competitive advantages that come from product differentiation and closer technical control over our products and services. It also gives us the freedom to decide which modifications and enhancements are most important and when they should be implemented. We strive to obtain information as early as possible about changing usage patterns and hardware advances that may affect software and hardware design. Before releasing new software platforms, and as we make significant modifications to existing platforms, we provide application vendors with a range of resources and guidelines for development, training, and testing. Generally, we also create product documentation internally.

We protect our intellectual property investments in a variety of ways. We work actively in the U.S. and internationally to ensure the enforcement of copyright, trademark, trade secret, and other protections that apply to our software and hardware products, services, business plans, and branding. We are a leader among technology companies in pursuing patents and currently have a portfolio of over 65,000 U.S. and international patents issued and over 21,000 pending worldwide. While we employ much of our internally-developed intellectual property exclusively in our products and services, we also engage in outbound licensing of specific patented technologies that are incorporated into licensees' products. From time to time, we enter into broader cross-license agreements with other technology companies covering entire groups of patents. We may also purchase or license technology that we incorporate into our products and services. At times, we make select intellectual property broadly available at no or low cost to achieve a strategic objective, such as promoting industry standards, advancing interoperability, supporting societal and/or environmental efforts, or attracting and enabling our external development community. Our increasing engagement with open source software will also cause us to license our intellectual property rights broadly in certain situations.

While it may be necessary in the future to seek or renew licenses relating to various aspects of our products, services, and business methods, we believe, based upon past experience and industry practice, such licenses generally can be obtained on commercially reasonable terms. We believe our continuing research and product development are not materially dependent on any single license or other agreement with a third party relating to the development of our products.

*Source: Microsoft Corporation Annual Report 2021.*

## Case Exhibit 13: Activision Blizzard unsecured senior notes

Unsecured Senior Notes	Interest Rate	Semi-Annual Interest		At December 31, 2021	
		Payments Due on	Maturity	Principal (\$m)	Fair Value (\$m)
2026	3.40%	Mar. 15 & Sep. 15	Sep. 2026	850	912
2027	3.40%	Jun. 15 & Dec. 15	Jun. 2027	400	430
2030	1.35%	Mar. 15 & Sep. 15	Sep. 2030	500	463
2047	4.50%	Jun. 15 & Dec. 15	Jun. 2047	400	480
2050	2.50%	Mar. 15 & Sep. 15	Sep. 2050	1,500	1,320

*Source: Activision Blizzard Annual Report 2021.*

## Case Exhibit 14: Overview of main players in the gaming industry

in mUSD	Revenue		EBITDA		EBIT	
	2021	2020	2021	2020	2021	2020
<b>Company</b>						
Electronic Arts Inc.	6,991	5,629	1,615	1,227	1,129	1,046
Ubisoft Entertainment	2,359	2,607	1,032	1,118	276	346
Sony Group Corporation	81,593	81,289	16,647	14,967	9,823	8,468
Nintendo Co., Ltd.	13,851	15,889	4,929	5,885	4,869	5,808
NetEase, Inc.	13,752	11,273	2,745	2,408	2,577	2,225
Take-Two Interactive Software Inc	3,505	3,373	802	862	474	629
CD Project S.A.	223	571	95	384	59	308
BANDAI NAMCO HOLDINGS INC.	7,265	6,693	1,254	1,009	1,003	620
Tencent Holdings Limited	108,044	78,712	47,292	31,073	36,883	22,599
Keywords Studios plc	604	478	98	81	57	49
Nexon Co., Ltd.	2,407	2,843	900	1,253	800	1,077
Roblox Corporation	1,919	924	-419	-221	-495	-266
Unity Software Inc.	1,111	772	-461	-228	-532	-275

in mUSD	Net Profit		Enterprise Value		Net Debt	
	2021	2020	2021	2020	2021	2020
<b>Company</b>						
Electronic Arts Inc.	789	837	34,393	34,446	-1,184	-4,490
Ubisoft Entertainment	88	121	6,238	9,666	686	267
Sony Group Corporation	7,207	9,301	137,627	133,389	6,471	1,302
Nintendo Co., Ltd.	3,903	4,339	51,455	57,778	-13,978	-15,740
NetEase, Inc.	2,646	1,846	57,261	53,992	-12,524	-11,785
Take-Two Interactive Software Inc	418	589	15,192	17,620	-2,552	-2,732
CD Project S.A.	51	306	4,621	7,184	-166	-173
BANDAI NAMCO HOLDINGS INC.	758	442	14,742	14,166	-2,111	-1,663
Tencent Holdings Limited	35,292	24,461	571,514	702,489	8,932	4,734
Keywords Studios plc	39	26	2,938	2,752	-77	-91
Nexon Co., Ltd.	1,006	543	14,176	24,665	-3,319	-2,541
Roblox Corporation	-492	-253	51,239	n.a.	-2,017	-894
Unity Software Inc.	-533	-282	40,863	39,804	-34	-1,752

Source: Orbis 2024.

## Case Exhibit 15: Overview of main players in the gaming industry

Microsoft Gaming Xbox Game Pass	2019	2020	2021
Subscribers (in Mio)	10	21	25
Average Price (USA) p.a.	119.88	119.88	119.88

Source: Cryer 2021, Maas 2024, Microsoft Corporation 2023 Note: The Standard Game Pass is depicted, as MSFT does not provide detailed subscriber data for each Game Pass tier.

## 4 Appendix II: TN II Exhibits (Paul Zimmer)

### TN II Exhibit 1: Subscription services prices

Subscription based services price development (USA in USD)	2016	2017	2018	2019	2020	2021
Netflix Standard	11.99	12.99	13.99	13.99	14.99	14.99
Playstation Plus	4.17	5.00	5.00	5.00	5.00	5.00
Amazon Prime Video	8.25	8.25	9.92	9.92	9.92	9.92
Average	8.14	8.75	9.64	9.64	9.97	9.97

Subscription based services price development (USA in % change)	2016	2017	2018	2019	2020	2021
Netflix Standard		8.34%	7.70%	0.00%	7.15%	0.00%
Playstation Plus		20.00%	0.00%	0.00%	0.00%	0.00%
Amazon Prime Video		0.00%	20.20%	0.00%	0.00%	0.00%
Average		9.45%	9.30%	0.00%	2.38%	0.00%

Note: Note: Examples serves as indication how subscription-based entertainment industry services have increased their prices historically

Source: Own figure based on company information.

### TN II Exhibit 2: Activision Blizzard revenue through Microsoft Corporation

Activision Blizzard revenue with Microsoft in in % of total revenue	2019	2020	2021
ATVI revenue through Microsoft	9%	10%	9%

Source: Activision Blizzard Annual Report 2021.

### TN II Exhibit 3: Microsoft Gaming projected revenue

Microsoft Gaming in mUSD	FC2022	FC2023	FC2024	FC2025	FC2026
Revenue	16,885	18,248	19,283	20,100	20,677

Source: Based on average PC game and Console game growth rates (Case Exhibit 8).

### TN II Exhibit 4: Nintendo mobile revenue share

Nintendo mobile revenue in mUSD	2018	2019	2020	2021
Revenue	9,599	10,914	12,115	15,990
Mobile Gaming revenue in %	3.72%	3.83%	3.91%	3.24%

Source: Nintendo Annual Report 2021, Nintendo Annual Report 2019.

## TN II Exhibit 5: Activision Blizzard forecast

Activision Blizzard Forecast <i>in mUSD</i>	FC 2022	FC 2023	FC 2024	FC 2025	FC 2026
<b>Revenue</b>	<b>9,272</b>	<b>9,657</b>	<b>10,294</b>	<b>10,813</b>	<b>11,245</b>
<b>SG&amp;A</b>	<b>3,468</b>	<b>3,612</b>	<b>3,850</b>	<b>4,044</b>	<b>4,206</b>
Research & Development	1,350	1,406	1,499	1,574	1,637
<i>in % of revenue</i>	<i>14.56%</i>	<i>14.56%</i>	<i>14.56%</i>	<i>14.56%</i>	<i>14.56%</i>
Sales & Marketing	1,208	1,258	1,341	1,408	1,465
<i>in % of revenue</i>	<i>13.02%</i>	<i>13.02%</i>	<i>13.02%</i>	<i>13.02%</i>	<i>13.02%</i>
General & Administrative	784	817	871	915	951
<i>in % of revenue</i>	<i>8.46%</i>	<i>8.46%</i>	<i>8.46%</i>	<i>8.46%</i>	<i>8.46%</i>
Restructuring & Related	126	131	140	147	153
<i>in % of revenue</i>	<i>1.36%</i>	<i>1.36%</i>	<i>1.36%</i>	<i>1.36%</i>	<i>1.36%</i>

Source: Own calculations, based on market forecasts (Case Exhibit 8) and historical ratios (Case Exhibit 9).

## TN II Exhibit 6: Research & Development shared infrastructure

R&D shared infrastructure between Microsoft Gaming and Activision Blizzard		
	Microsoft Gaming	Activision Blizzard
<b>First Person Shooters</b>	343 Industries id Software MachineGames	Infinity Ward
<b>Role-Playing Games</b>	Bethesda Games Studios Obsidian Entertainment inXile Entertainment	Blizzard Entertainment
<b>Platformers and Family-Oriented Games</b>	Rate Ltd. Double Fine Productions	Toys for Bob
<b>Real-Time Strategy</b>	World's Edge	Blizzard Entertainment
<b>Racing and Simulation</b>	Turn 10 Studios Playground Games	Beenox
<b>Mobile Gaming</b>	n/a	King

Source: Own figure based on company information.

## TN II Exhibit 7: Activision Blizzard headcount per department

Additional calculations: Headcount per department	2019	2020	2021	FC 2022	FC 2023	FC 2024
# of employees	9200	9500	9800	11332	11802	12580
<b>Direct and indirect game development</b>	<b>6149</b>	<b>6301</b>	<b>6678</b>	<b>7604</b>	<b>7920</b>	<b>8442</b>
Product Sales	1782	1800	1819	5004	5211	5555
Operation & Distribution	2383	2376	2416	2600	2708	2887
Game development	1985	2125	2444	3728	3882	4138
<b>Support functions</b>	<b>3051</b>	<b>3199</b>	<b>3122</b>	<b>3728</b>	<b>3882</b>	<b>4138</b>
G&A	1209	1233	1248	1468	1529	1630
S&M	1842	1966	1873	2259	2353	2508
<b>Revenue p. employee</b>	<b>705,326</b>	<b>851,158</b>	<b>898,265</b>	<b>818,250</b>	<b>818,250</b>	<b>818,250</b>

Calculation based on cost proportion to total costs less restructuring - restructuring costs are related to external employees, thus are excluded

Additional calculations: Headcount per department	2019	2020	2021	FC 2022	FC 2023	FC 2024
# of employees	9200	9500	9800	11332	11802	12580
<b>Direct and indirect game development</b>	<b>67%</b>	<b>66%</b>	<b>68%</b>	<b>67%</b>	<b>67%</b>	<b>67%</b>
Product Sales	29%	29%	27%	66%	66%	66%
Operation & Distribution	39%	38%	36%	34%	34%	34%
Game development	32%	34%	37%	33%	33%	33%
<b>Support functions</b>	<b>33%</b>	<b>34%</b>	<b>32%</b>	<b>33%</b>	<b>33%</b>	<b>33%</b>
G&A	40%	39%	40%	39%	39%	39%
S&M	60%	61%	60%	61%	61%	61%

Employee to revenue ratio 705,326 851,158 898,265 818,250 818,250 818,250

Forecasts based on historic average 2019 to 2021, forecast for total number of employees based on forecasted revenue and average employee revenue

Source: Own calculations.

## TN II Exhibit 8: WACC Microsoft Corporation

### Microsoft Corporation WACC

in %

WACC **6.0824%**

Source: Own calculations.

## TN II Exhibit 9: Activision Blizzard net revenue distribution by channel

Activision Blizzard net revenue distribution by channel	2019	2020	2021
<i>in mUSD</i>			
<b>Revenue</b>	<b>6,489</b>	<b>8,086</b>	<b>8,803</b>
Digital online channel	4,932	6,658	7,663
<i>in % of revenue</i>	76%	82%	87%
Retail channel	909	741	479
<i>in % of revenue</i>	14%	9%	5%
Other (own distribution business)	648	687	661
<i>in % of revenue</i>	10%	8%	8%

Source: Activision Blizzard Annual Report 2021, Activision Blizzard Annual Report 2019.

## 5 List of references

- Activision Inc. 2009. 2008 Annual Report. Activision Inc. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.activision.com/cdn/activisionblizzard/investors/annual-reports/Activision\_08\_AR\_full.pdf.
- Activision Blizzard. 2018. 2017 Annual Report. Activision Blizzard. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.activision.com/cdn/activisionblizzard/investors/annual-reports/Activision-Final-2017-Annual-Report.pdf.
- Alphabet Inc. 2021. Annual Report 2021. Mountain View, CA: Alphabet Inc. <https://abc.xyz/assets/4a/c8/34b486974fedadb02099e3845df0/2021-alphabet-annual-report.pdf>.
- Amazon.com, Inc. 2021. Annual Report 2021. Seattle, Washington: Amazon.com, Inc. [https://s2.q4cdn.com/299287126/files/doc\\_financials/2022/ar/Amazon-2021-Annual-Report.pdf](https://s2.q4cdn.com/299287126/files/doc_financials/2022/ar/Amazon-2021-Annual-Report.pdf).
- Apple Inc. 2021. Consolidated Financial Statements FY 2021/Q4. Cupertino, CA: Apple Inc. [https://www.apple.com/newsroom/pdfs/FY21\\_Q4\\_Consolidated\\_Financial\\_Statements.pdf](https://www.apple.com/newsroom/pdfs/FY21_Q4_Consolidated_Financial_Statements.pdf).
- Bodner J., Capron L. 2018. Post-merger integration: Journal of Organization Design, a SpringerOpen Journal, 7:3. 1-20. <https://link.springer.com/article/10.1186/s41469-018-0027-4>.
- Breuer, Adela, Mihaela Lesconi Frumușanu, Beatrix Lighezan Breuer, and Andra Manciu. 2012. "Cash and Liquidity/Liquidity and Liquidity Ratio." Annals of the "Constantin Brâncuși" University of Târgu Jiu, Economy Series 4. [https://www.utgjiu.ro/revista/ec/pdf/2012-04.I/11\\_BREUER%20Adela.pdf](https://www.utgjiu.ro/revista/ec/pdf/2012-04.I/11_BREUER%20Adela.pdf).

- Chartier J., Liu A., Raberger N., Silva R. 2018. „Seven rules to crack the code on revenue synergies in M&A”. McKinsey & Company, October 2018. 2-8. <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/seven-rules-to-crack-the-code-on-revenue-synergies-in-ma>.
- Cryer, Hirun. 2021. “Xbox Game Pass Added Over \$6,300 Worth of Games in 2021 According to a New Report.” Gamesradar. <https://www.gamesradar.com/xbox-game-pass-added-over-dollar6300-worth-of-games-in-2021-according-to-a-new-report/>
- Damodaran, Aswath. 2005. The Value of Synergy. Stern School of Business: 1-47. <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://pages.stern.nyu.edu/~adamodar/pdfiles/papers/synergy.pdf>.
- Dring, Christopher. 2023. “As It Happened: Microsoft’s Activision Blizzard Press Conference in Brussels.” GamesIndustry.Biz. <https://www.gamesindustry.biz/live-microsofts-activision-blizzard-press-conference-in-brussels>.
- Devos, E., Kadapakkam, P.-R., & Krishnamurthy, S. 2009. How Do Mergers Create Value? A Comparison of Taxes, Market Power, and Efficiency Improvements as Explanations for Synergies. *The Review of Financial Studies*, 22(3), 1179–1211. Oxford University Press. 1179-1211. <https://academic.oup.com/rfs/article-abstract/22/3/1179/1579974>.
- FED 2024. Personal Consumption Expenditures Prices Index: Percent Change from Year Earlier. Federal Trade Reserve. <https://www.federalreserve.gov/economy-at-a-glance-inflation-pce.htm>.
- Feldman, Emilie R., Hernandez Exequil. 2021. Synergy in Mergers and Acquisitions: Typology, Lifecycles, and Value. *Academy of Management Review*. The Wharton School: 1-119. <https://journals.aom.org/doi/full/10.5465/amr.2018.0345>.

- Gaughan, P. A. 2018. Mergers, Acquisitions, and Corporate Restructurings. Wiley, Seventh Edition: 1-109. <https://www.wiley.com/en-be/Mergers%2C+Acquisitions%2C+and+Corporate+Restructurings%2C+7th+Edition-p-9781119380764>.
- Global Newswire. 2024. Growth Trends in the Mobile Gaming Industry, 2024-2029. Mobile Gaming Market Soars with 5G Revolution, AAA-Quality Games, and Free-to-Play Models Redefining Global Entertainment. Digital Media Innovations, LLC. <https://www.globenewswire.com/news-release/2024/12/06/2992938/28124/en/Growth-Trends-in-the-Mobile-Gaming-Industry-2024-2029.html>.
- Good, Dan. 2020. The Microsoft Story: How the Tech Giant Rebooted Its Culture, Upgraded Its Strategy, and Found Success in the Cloud. Nashville: HarperCollins Leadership. <https://www.perlego.com/book/1388442/the-microsoft-story-how-the-tech-giant-rebooted-its-culture-upgraded-its-strategy-and-found-success-in-the-cloud-pdf>.
- GVR. 2022. Video Game Market Size, Share & Trends Analysis Report By Device (Console, Mobile, Computer), By Type (Online, Offline), By Region (Asia Pacific, North America, Europe), And Segment Forecasts, 2023 – 2030. Grand View Research, Inc. <https://www.grandviewresearch.com/industry-analysis/video-game-market>.
- Hamilton R., Trevear T., Kontaridis C. 2011. Legal entity simplification Quantifying potential cost savings. Deloitte. 1-4. [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www2.deloitte.com/content/dam/Deloitte/us/Documents/Tax/us-tax-le-simplification-cost-savings-112111.pdf](https://www2.deloitte.com/content/dam/Deloitte/us/Documents/Tax/us-tax-le-simplification-cost-savings-112111.pdf).

Hern, Alex, and Jana Kasperkevic. 2017. "LinkedIn Bought by Microsoft for \$26.2bn in Cash." The Guardian. <https://www.theguardian.com/technology/2016/jun/13/linkedin-bought-by-microsoft-for-262bn-in-cash>.

Horsley D., Rutan J., Horan S., Hartman M. 2024. Keys to Unlocking Merger Value: Cost Synergies. L.E.K. Consulting LLC 2024. 1-5. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/<https://www.lek.com/sites/default/files/insights/pdf-attachments/keys-cost-synergies.pdf>.

Hyman, Graham J., Jon B. Dubrow, Joel R. Grosberg, and Lisa P. Rumin. 2021. "Antitrust M&A Snapshot | Q2 2021." McDermott Will & Emery. <https://www.mwe.com/insights/antitrust-ma-snapshot-q2-2021/>.

Juego Studios 2020. How much does it cost to make a AAA video game in 2024? Juego Studios. <https://www.juegostudio.com/blog/everything-you-need-to-know-about-aaa-game-development-costs#:~:text=It%20takes%20nearly%202%20to,%24313%20million%20in%20game%20development>.

Kaske, Elizabeth. 2024. Beyond the deal: accurately estimating M&A integration costs. EY. [https://www.ey.com/en\\_us/insights/strategy-transactions/four-current-trends-estimating-mergers-acquisitions-integration-costs#:~:text=Accurate%20estimation%20of%20one%2Dtime,success%20and%20long%2Dterm%20value.&text=In%20brief%3A,is%20a%20major%20cost%20driver](https://www.ey.com/en_us/insights/strategy-transactions/four-current-trends-estimating-mergers-acquisitions-integration-costs#:~:text=Accurate%20estimation%20of%20one%2Dtime,success%20and%20long%2Dterm%20value.&text=In%20brief%3A,is%20a%20major%20cost%20driver).

KBV Research. 2022. Global subscription-based gaming market size, share & industry trends analysis report by device type (PC, console, smartphone, and others), by genre (action, fighting, adventure, shooting, role-playing, sports, racing), by regional outlook and

- forecast, 2022–2028. <https://www.kbvresearch.com/subscription-based-gaming-market/>.
- Kent, Steven L. 2021. *The Ultimate History of Video Games, Volume 2: Nintendo, Sony, Microsoft, and the Billion-Dollar Battle to Shape Modern Gaming*. New York: Crown.
- Knezovic, Andrea. 2024. “200+ Mobile Games Statistics: Market & Revenue Report”. Udonis. <https://www.blog.udonis.co/mobile-marketing/mobile-games/mobile-gaming-statistics>.
- Koller, Tim, Goedhart, Marc and David Wessels. 2020. *Valuation: Measuring and Managing the Value of Companies*. New York: John Wiley & Sons.
- La Monica, Paul R. 2022. "Flush with Cash, Big Companies Are Ready to Buy Up Rivals and Reward Investors." *CNN Business*. <https://edition.cnn.com/2022/01/19/investing/companies-cash-mergers-buybacks/index.html>.
- Lin, Richard. 2021. “What to (and Not to) Fear When the Fed Tightens: Quantitative Observations from the Past Thirty Years.” *Nasdaq Investment Intelligence*. <https://indexes.nasdaqomx.com/docs/Interest%20rate%20sensitivity%20of%20the%20Nasdaq-100.pdf>.
- Liu, Yiqi 2023. "Microsoft's Evolution in Digital Era: A Financial Analysis and Porter's Model." *Highlights in Business Economics and Management* 23: 1171–1179. <https://doi.org/10.54097/7q5nes25>.
- Maas, Jennifer. 2024. Xbox Game Pass to Increase Price, Limit Day-One Releases to Most Expensive Tier. *Variety Media, LLC*. <https://variety.com/2024/gaming/news/xbox-game-pass-price-increase-ultimate-day-one-releases-1236066476/>.
- Microsoft Corporation 2023. Microsoft Fiscal Year 2023 Second Quarter Earnings Conference Call. Microsoft Corporation. <https://www.microsoft.com/en-us/investor/events/fy->



- Schreier, Jason. 2017. "Blood, Sweat, and Pixels: The Triumphant, Turbulent Stories Behind How Video Games Are Made." HarperCollins.
- Schreier, Jason. 2024. "Play Nice: The Rise, Fall, and Future Of Blizzard Entertainment." Grand Central Publishing.
- Shriber, Sara. 2023. Microsoft's Activision Blizzard Deal Gained Significant Consumer Interest From Last Year. Civic Science. <https://civicscience.com/microsofts-activision-blizzard-deal-gained-significant-consumer-interest-from-last-year/>.
- Shorthouse, Louise. 2019. "NetEase Drives Mobile Games Business in Japan While Tencent Builds Presence in Emerging Markets." Game Developer. <https://www.gamedeveloper.com/business/netease-drives-mobile-games-business-in-japan-while-tencent-builds-presence-in-emerging-markets?>
- Sirower M. L., Sahni S. 2006. Avoiding the "Synergy Trap": Practical Guidance on M&A Decisions for CEOs and Boards. Journal of Applied Corporate Finance, A Morgan Stanley Publication Volume 18 Number 3. 83-95. [https://papers.ssrn.com/sol3/Data\\_Integrity\\_Notice.cfm?abid=962507](https://papers.ssrn.com/sol3/Data_Integrity_Notice.cfm?abid=962507).
- Sony Interactive Entertainment. 2024. Business Data & Sales. PlayStation® Hardware Cumulative Worldwide Hardware Unit Sales (Sell-through). Sony Inc. <https://sonyinteractive.com/en/our-company/business-data-sales/>.
- Sotamaa, Olli and Švelch, Jan. 2021. "Game Production Studies." Amsterdam University Press B.V.
- Staley, Oliver. 2021. "Tech Stocks Powered the S&P 500 Index to a Monster Performance in 2021." Quartz. <https://qz.com/2108056/apple-amazon-microsoft-and-alphabet-drove-the-sp-500-in-2021>.

Statista 2024. “Largest video game industry acquisitions worldwide as of February 2023, by deal value.” <https://www.statista.com/statistics/1248063/biggest-video-game-industry-acquisitions/>.

Statista Market Insights 2024. Number of monthly active users (MAU) of Microsoft Xbox Network from fiscal January 2016 to December 2022. Statista Market Insight. <https://www.statista.com/statistics/531063/xbox-live-mau-number/#:~:text=First%20launched%20in%202002%2C%20the,at%20the%20beginning%20of%202016.>

Tabrizi, Behnam. 2023. “How Microsoft Became Innovative Again.” Harvard Business Review. <https://hbr.org/2023/02/how-microsoft-became-innovative-again.>

VChartz. 2024. Yearly Hardware Comparisons – Global. VGChartz Ltd. [https://www.vgchartz.com/tools/hw\\_date.php?reg=Global&ending=Yearly.](https://www.vgchartz.com/tools/hw_date.php?reg=Global&ending=Yearly.)

Warren, Tom. 2021. “Microsoft Completes Bethesda Acquisition, Promises Some Xbox and PC Exclusives.” The Verge.. <https://www.theverge.com/2021/3/9/22319124/microsoft-bethesda-acquisition-complete-finalized.>

Warren, Tom. 2023. Microsoft is hiking the price of Xbox Series X and Xbox Game Pass / Xbox Series X pricing will remain the same in the US and match PS5 pricing in most other markets. Xbox Game Pass prices are going up in most markets. The Verge. <https://www.theverge.com/2023/6/21/23768400/microsoft-xbox-series-x-xbox-game-pass-price-increase.>

Warren, Tom. 2024. Microsoft’s Xbox Game Pass service grows to 34 million subscribers / Microsoft finally provides new subscriber numbers after more than two years. The Verge. <https://www.theverge.com/2024/2/15/23570040/microsoft-xbox-game-pass-subscriber-numbers-34-million.>

- Weinstein, Paul. 2018. "Why Microsoft Is Willing to Pay so Much for GitHub." Harvard Business Review. <https://hbr.org/2018/06/why-microsoft-is-willing-to-pay-so-much-for-github>.
- Wolf, Mark J. P. 2008. The Video Game Explosion: A History from PONG to PlayStation and Beyond. Greenwood. <https://www.perlego.com/book/4171196/the-video-game-explosion-a-history-from-pong-to-playstation-and-beyond-pdf>.
- World Economic Forum. 2022. "Gaming is booming and is expected to keep growing. This chart tells you all you need to know." <https://www.weforum.org/stories/2022/07/gaming-pandemic-lockdowns-pwc-growth/>.
- Zheng, Junwen. 2024. A Study of Microsoft's Acquisition of Activision Blizzard in the Gaming Industry. School of Cross-border E-commerce, Yango University, Fuzhou. Highlights in Business, Economics and Management Volume 36: 417-423. [https://www.researchgate.net/publication/382578966\\_A\\_Study\\_of\\_Microsoft's\\_Acquisition\\_of\\_Activision\\_Blizzard\\_in\\_the\\_Gaming\\_Industry](https://www.researchgate.net/publication/382578966_A_Study_of_Microsoft's_Acquisition_of_Activision_Blizzard_in_the_Gaming_Industry).
- Zonana, Victor F. 1987. "\$14-Million Deal : Microsoft Buys Software Competitor - Los Angeles Times." Los Angeles Times. <https://www.latimes.com/archives/la-xpm-1987-07-31-fi-319-story.html>.