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Video Gaming & Esports Taking Media and Entertainment to the Next Level

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An in-depth look at the investment case
for video gaming and esports.



The video game industry is projected to reach \$159B in revenues in 2020, and gaming is more popular than ever.¹

How can investors get in the game as well?

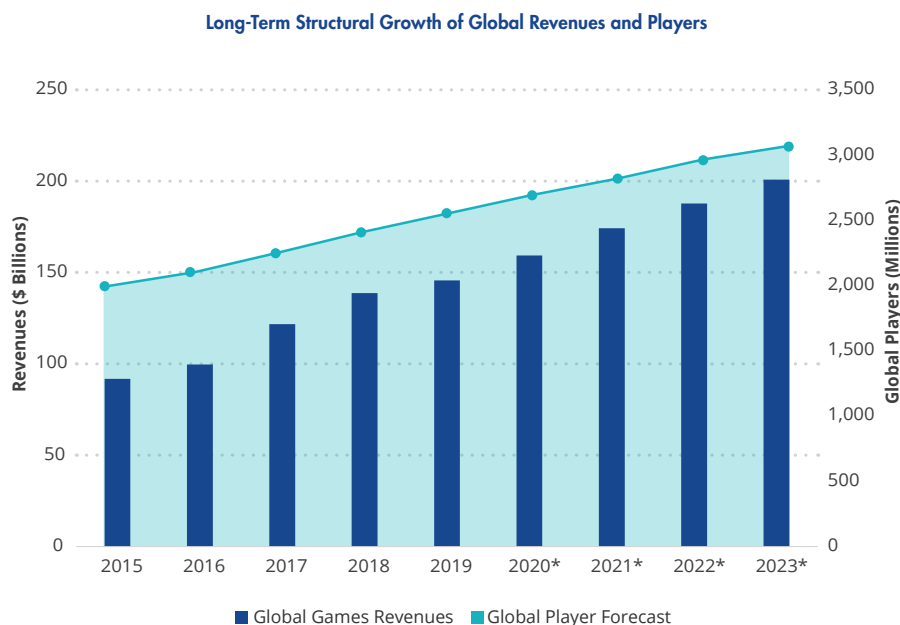
More people around the world are turning to interactive games as a form of entertainment. Digital game sales are continuously breaking records, and industry revenues have continued to hit all-time highs for the last few years.² Esports, a form of competitive video gaming, has taken hold around the world, with ballooning cash prizes and front-page news coverage. In-game concerts and events are drawing millions of people into their favorite game's universe, blurring the line between the game and live events.

The growing popularity of gaming, along with the revenue potential across the industry, help make this industry a compelling investment opportunity, in our view. In this whitepaper, we provide an in-depth breakdown of the industry to help investors better understand what's driving the long-term potential of this space as well as how to incorporate it into a portfolio. Key trends currently shaping this investment opportunity include :

- The video game industry is earning hundreds of billions in annual revenues, and reaching billions of consumers around the world.
- Trends like demographic shifts and changing consumer demands provide long-term structural support for this growth industry.
- Mobile gaming now represents the largest and fastest-growing platform by revenues.
- Publishers are using new businesses models to accelerate growth through recurrent in-game spending.
- Esports, a form of competitive video gaming, represents a segment of the broader video gaming industry, and video game publishers are steadily gaining control over revenue streams in this space.
- Risk factors affecting companies both individually and collectively as a group.

Fast-Growing Revenues and User Base

The video game industry is tapping into global consumer demand for online, interactive entertainment, leading to record-setting revenues and an unprecedented user base. In 2020, the total video game industry is projected to reach \$159B in revenues, which makes it a bigger industry than both cyber-security and robotics.³ By 2023, over 3 billion people around the world are expected to play video games in some form.⁴ The video game industry represents a long-term structural growth industry, supported by broader trends including demographic shifts and cord-cutting.



Source: Newzoo Global Games Market Report, 2016, 2017, 2018, 2019, 2020

*Projected by Newzoo

Gaming Surge: An Acceleration of Existing Trends

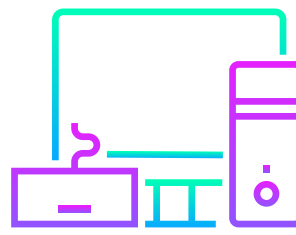
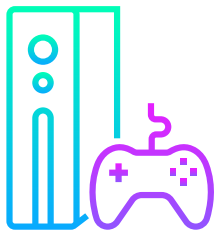
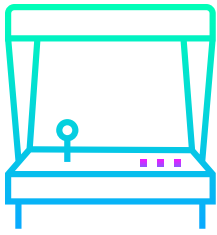
With the global outbreak of COVID-19 in 2020, billions of people around the world were locked inside, and gaming's rise in popularity took center stage. Economies and stock markets faltered, but gaming companies saw a spike in users, engagement and revenues. While the spike in engagement can be tied to the lockdown, there are trends that have been in place for years that are helping to support gaming industry revenues and growth rates.

Consumer demand for online, interactive entertainment. Since the launch of social media in the early 2000s, it has become clear that people love to hang out online and interact with each other. The rise of MySpace and Facebook crystallized and heightened people's social connections by placing them online for the world to see. In the last few years, video games have naturally evolved into a form of social media, where friends can congregate online and play their favorite games together.

Fragmentation of digital media landscape. Netflix, Hulu, Disney+... Fortnite? As the cord-cutting phenomenon has unfolded, consumers have been given the opportunity to customize their entertainment options. Increasingly, consumers are bucketing a subscription to a video game as part of their overall package. In their Q4 2018 annual report, Netflix specifically mentioned Fortnite, a free-to-play game, as bigger competition than HBO.⁵

Demographic shifts. Underpinning these seismic shifts in how people play, consume entertainment and interact with others, lies the natural aging of the population. Younger consumers (30 and below) have grown up online and on their parent's phones and iPads. As millennials have grown into adults, they have continued to spend time and money on playing video games. According to the Entertainment Software Association, 65% of American adults play video games.⁶





Mobile Gaming: Growth Powerhouse for Interactive Entertainment Industry

Since video gaming went mainstream decades ago, the industry has evolved alongside the technology used to facilitate gameplay. Arcade machines led to in-home gaming consoles, PC gaming gave rise to LAN parties and online gaming, and now mobile gaming has taken the world by storm.

Gaming platforms are the method by which consumers play the game and are key to understanding the gaming ecosystem. The three main platforms that drive gaming revenue currently are PC, console and mobile.

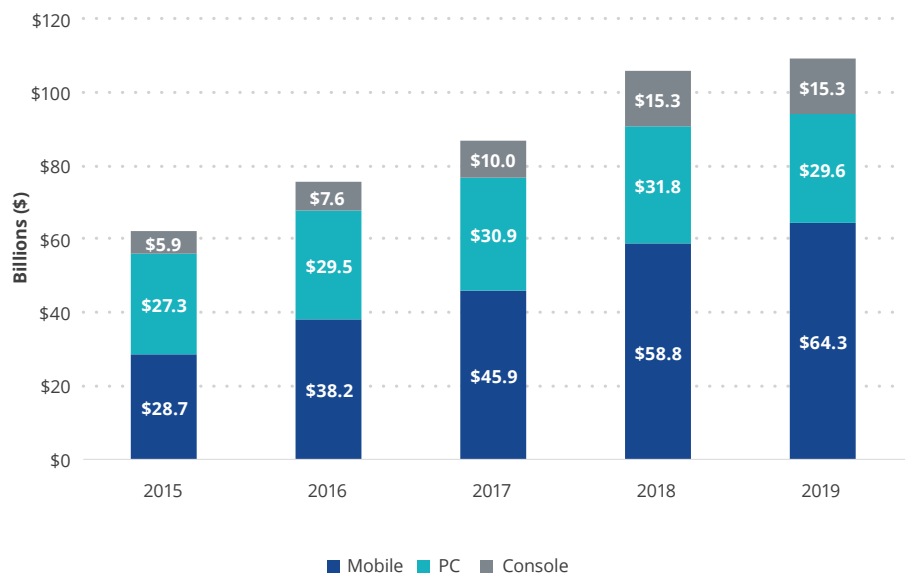
The PC platform allows consumers to play games on their personal computer. The PC platform is generally considered to be the most invested and “hard-core” of the group, as it requires the gamer to purchase a gaming computer, which is typically the most expensive option of the three. Console refers to a gaming device—such as the PlayStation 4, Nintendo Switch and Xbox One— that facilitates gameplay for the user, but is not a full-fledged personal computer. Mobile gaming refers to games played on smartphones or tablets.

Mobile gaming represents both the largest and fastest growing platform by revenues and the fastest growing one. Since 2015, mobile revenues have grown at an annualized rate of 22%, outpacing the total gaming revenues growth rate of 15%.⁷

Game publishers, as a group, have a vested interest in diversifying their revenue streams and game titles across the different platforms. While there is some degree of crossover (i.e., PC consumers can also be mobile consumers and vice versa), each channel can be viewed as a separate and distinct sales opportunity for the publisher.

As technology has evolved over time, game publishers have been successful at identifying and leveraging emerging technologies to facilitate gaming to as many people as possible. Mobile gaming encapsulates this phenomenon.

Mobile Gaming: Largest and Fastest Growing Platform by Revenues



Revenues reflect Global Digital Gaming Revenues. Source: SuperData, a Nielsen Company. Data as of 2019.

In-Game Spending: Revolutionizing the Revenue Model

Game publishers are also embracing new business models for games to maximize revenue potential for titles. The “game as a service” model illustrates this phenomenon. Rather than a one-time transaction, publishers are moving towards an ongoing subscription-based model with a much longer time horizon of purchases from a single user. Revenues generated under this model are known as *recurrent consumer spending*, where a consumer continues to make purchases within the game, over a period of time.

In the traditional business model, known as “game as a product”, a game publisher develops a game and then sells it to the consumer for a single, revenue-generating fee. After the consumer buys the game, the video game publisher has to develop another video game or add-on to generate additional revenues from that consumer.

In the mid-2000s, video game publishers began testing the game as a service model. In this model, the consumer typically bypasses the initial cost of purchasing the game, and then pays ongoing fees to continue playing the game and accessing content. There are a number of different ways the game publisher can generate revenues under this model, including game subscriptions, micro-transactions and season passes. While transactions in the service model may entail smaller amounts, the publisher opens the door to an indefinite purchasing lifespan from each consumer, which can increase the total revenues generated from a single game.

Recurrent in-game spending has become a major source of revenue growth for publishers across all platforms. The top publishers, including Activision, Electronic Arts and Tencent, are all focused on maximizing this new revenue model to boost the bottom line.

In Take-Two’s Q1 fiscal 2021 earnings report, recurrent consumer spending grew by 52%, and accounted for 58% of net revenue.⁸

Fortnite: A Free Game with Record-breaking Revenues

Fortnite stole the show in 2018, earning \$2.4 billion for the year—the highest annual revenue of any game in history.⁹ Fortnite is free to play, generating the majority of its revenue using the game as a service model.

Crucially, an actively engaged online community sprang up around Fortnite, centered around online streaming websites like Twitch and YouTube. The most-watched Twitch streaming channel was held by Tyler “Ninja” Blevins, who garnered roughly 226 million hours of views

How Esports Fit in to the Gaming Industry

Over the last few years, media coverage of esports, a form of competitive video gaming, has reached a fever pitch. News of sold-out stadiums, multi-million dollar franchise fees for professional teams and big-brand sponsorship deals have driven the esports mania narrative. However, comparing esports revenues to the broader video game industry can help keep things in perspective.

According to Newzoo, out of the \$159 billion in revenue that the global video gaming industry is expected to generate in 2020, roughly \$1.1 billion will be generated by esports.¹⁰ In other words, the global video gaming industry should generate around 144 times the revenue of the global esports industry in 2020.

But what about all the front-page articles about the esports boom? It’s easy to conflate the two industries, or at least to fail to draw a clear distinction between the two. At VanEck, we view the esports industry as a sub-industry within the broader video game segment. The video gaming and esports industries encompass a wide range of companies, from video game publishers (Activision) to semiconductor companies (Nvidia) to media companies (HUYA).

Video game publishers and related hardware companies have been in business for decades, while the esports business model is relatively young and in development.



throughout the year.¹¹ Across Twitch and YouTube, viewers watched more than 1.6 billion hours of Fortnite gaming, according to the Newzoo 2019 Global Esports Market Report.

Other tech and entertainment conglomerates have recognized the scope of the phenomenon. Netflix, in its Q4 2018 report, directly referenced Fortnite, stating, “We earn consumer screen time, both mobile and television, away from a very broad set of competitors. We compete with (and lose to) Fortnite more than HBO.”¹²

The 1.6 billion hours of Fortnite streaming represent a shift away from traditional TV and entertainment, and towards the next-generation entertainment ecosystem. Unsurprisingly, demographics play a huge role in this. Esports enthusiasts are, on average, around 30 years of age. These are younger consumers (adults with purchasing power) who have grown up online and playing video games. Large numbers of this demographic are turning away from traditional media channels in favor of online video game streaming.

As League Owners, Publishers Control the Esports Ecosystem

Over the past few years, video game publishers have invested millions of dollars in developing, launching and running professional esports leagues. Previously, esports leagues were run by independent third parties separate from the publishers who make the games. We believe the end result of this development is that video game publishers are now primed to gain the most from the esports phenomenon.

Activision Blizzard

- Overwatch League
- Call of Duty League
- Major League Gaming

Epic Games

- Fortnite World Cup
- (40% Owned by Tencent)

Riot Games

- League of Legends Championship Series
- (Owned by Tencent)

Take Two Interactive

- NBA 2K League
- (League 50% Owned by NBA)

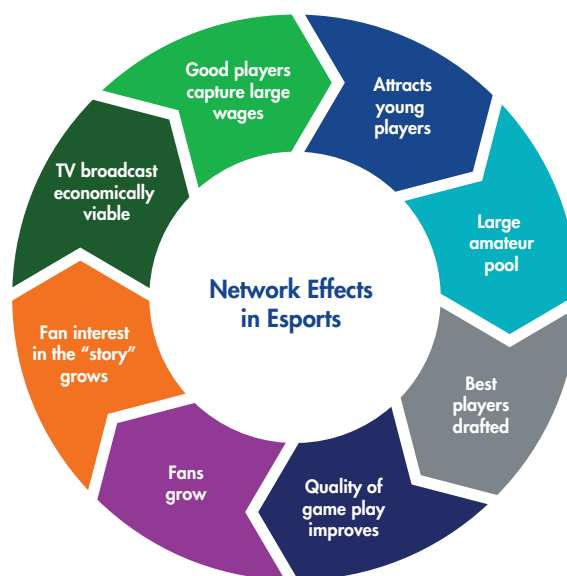
Publishers own the rights to the games played in competition, as well as the broadcasting rights, which are sold to media and communication services companies (like Twitch and Facebook). According to Goldman Sachs, media rights are expected to grow from representing around 20% of all esports revenues to 40% by 2022.¹³ This means that, after factoring in other revenue sources like sponsorship and game publisher fees, video game publishers are in a position to potentially own the majority of revenues coming from esports.

Currently, revenues from esports are still a relatively small part of publishers’ revenue streams and not typically broken out into a separate line item in financial statements. Activision Blizzard, which runs the Overwatch League, Call of Duty League, and also owns Major League Gaming (MLG), reported \$6.5 billion in consolidated net revenues in their 2019 annual report. Of that, only \$648 million (10%) included revenues from its “Distribution business and the Overwatch League.”¹⁴ In other words, esports revenues are lumped in with other revenues, and that portion still represents only 10% of Activision’s overall business.

Maximizing the Esports Halo Effect

A large esports audience for a specific game typically equates to a large video game fan base. If publishers can build and maintain a popular international esports league surrounding a hit title, then that should (in theory) sustain the popularity of the game itself among consumers, creating a positive feedback loop. This may lead to an expanded revenue cycle beyond a single transaction to purchase the game, to one with a much longer timeframe that includes additional in-game purchases and subscriptions. This fits in neatly with the game as a service model that many publishers have adopted.

In a highly competitive entertainment landscape, publishers are actively looking for any edge to gain marketshare (and mindshare) among video game consumers and enthusiasts. Esports represent a unique and new way for companies to attract and retain loyal fans over a longer time period.



Source: Citi Research, 2019

Gaming Industry Risks

Despite positive industry tailwinds, there are still risks which can affect companies that are participating in the space.

Single-game risk affects developers and publishers, and occurs when a company is too dependent upon a single game or franchise's success in the marketplace. For example, if a company's flagship game comes out to negative reviews or poor consumer reception, that could negatively affect a company's bottom line (and stock price) if the company is too dependent upon that game. For this reason, gaming companies attempt to diversify across different game titles and platforms, to avoid becoming too reliant on any single game's success.

Regulatory risk is the risk that a change in laws and regulations will materially impact gaming revenues. Regulatory risk has taken a few different forms over the last few years. China, in particular, has strict regulations for releasing new games in the Chinese marketplace. The government has to effectively grant approval for publishers to begin distributing new games to consumers. In 2018, the government branch in charge of granting approvals ceased operations, and no new games were released for almost nine months, until a new governmental authority was formed and began approving new games. More recently, the U.S. has indicated a willingness to ban Chinese applications and software, which could have ramifications for the industry.

Loot boxes (a type of item purchased in-game) have also come under fire from some governments who viewed loot boxes as a form of gambling that was easily accessible to children. Some countries in the European Union released strict laws banning loot boxes, and game publishers do not offer loot boxes in some European countries to avoid fines or additional regulations.

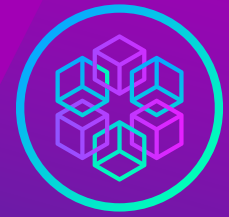
Valuation risk is the risk a video game stock's valuations have extended beyond what the company's underlying business and cash flows can support. Growth stocks (including video game companies) have experienced an extended stretch of outperformance over other investment styles and the broad market, leading to extended valuations compared to the broad market.

Competitive risk from new entrants into the industry could potentially affect video game companies with high exposure to the mobile gaming segment. Mobile gaming, by definition, has a lower cost of entry for new businesses, because the cost of developing mobile games is much lower than traditional PC and console games. Industries experiencing high levels of growth naturally attract new competitors in the marketplace who want to participate in the upside. Companies heavily involved in the mobile gaming space must constantly fend off competition from new and existing companies, while at the same time developing new games to attract and retain paying customers.

Return to normalcy risk is the risk that video games fall out of favor with consumers once the COVID-19 pandemic fades away, and people are able to resume their normal entertainment options that involve leaving the house. While the industry is supported by long-terms like demographics and global consumer demand, a return to normalcy could have an effect on industry revenues, which have been hitting all-time highs during the pandemic. This could lead to a drop in stock price for companies whose valuations are highly dependent on forward-looking growth metrics.

A variety of risk factors affect video game companies both individually and collectively as a group, which is why a globally diversified approach to investing in this industry makes sense.

How Investors Can Gain Exposure to Video Gaming and Esports



The **MVIS Global Video Gaming & eSports Index** is a global index that tracks the performance of the global video gaming and eSports segment. The key features of the index's underlying methodology guide the investment philosophy:

Pure Play. To be initially eligible for index inclusion, companies must generate at least 50% of their revenues from video gaming and/or esports.

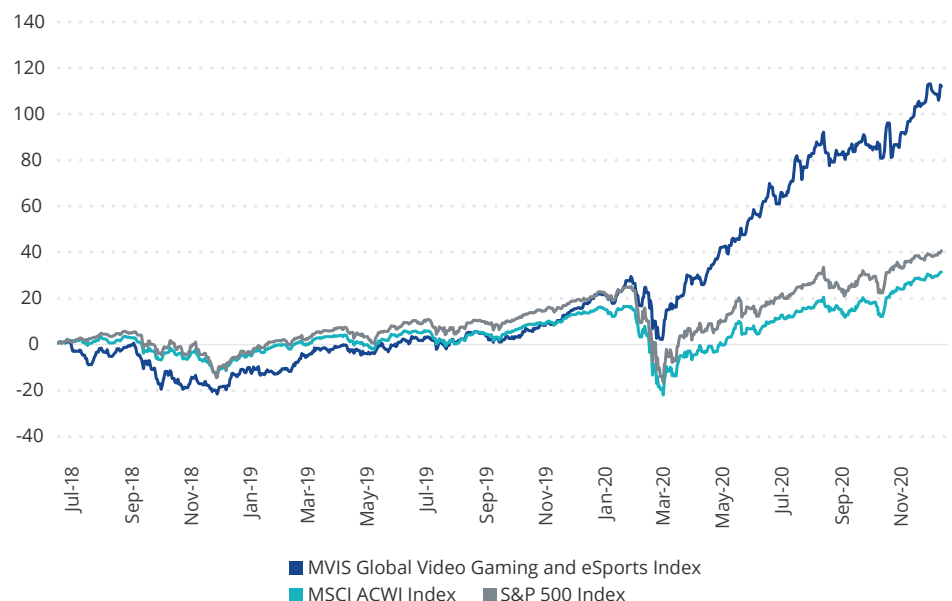
Free-float weighted exposure to 90% of universe. By using available free-float market capitalization (as opposed to market capitalization), weights are determined by the shares actually available for purchase to investors.

Positions capped at 8%. The cap lowers the single-issue risk of the portfolio and also increases portfolio diversification and exposure to mid- and small-cap companies.

The index-based approach to investing in video gaming and esports allows investors to express an opinion on the industry without making active bets on which companies will outperform or underperform.

Video game companies may provide the potential for alpha generation within a client portfolio.

Video Gaming and Esports vs the Broad Market
7/16/18 - 12/31/2020



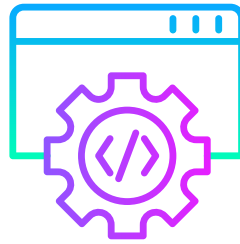
Source: Morningstar Direct. Chart reflects returns since Index inception date (7/16/2018).

Companies and Business Lines Included in the Index



PUBLISHERS

are companies that publish video games after they have been developed. Publishers are responsible for the distribution and marketing of games.



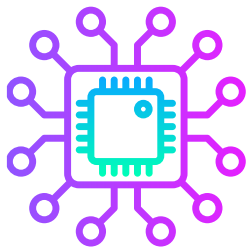
DEVELOPERS

are software developers that specializes in video game development. Developers are responsible for the storyline, gameplay and other features that are unique to a specific game.



CONSOLE MAKERS

develop and manufacture video game consoles, which are used by consumers to play video games at home.



CHIP MAKERS

develop and manufacture semiconductor chips which define the graphic experience of the player. Chips are crucial to the gameplay experience, and certain chip makers focus primarily on chips used for games.



ESPORTS

are a form of competitive video gaming. Exposure to esports revenues can take the form of publisher-run leagues, event hosting, corporate sponsorship of events and teams, and more.



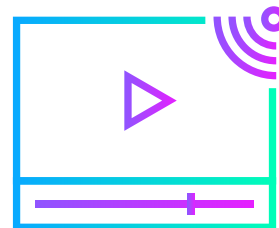
MOBILE GAMING

refers to games played on a personal mobile device, and is the largest, fastest-growing platform, despite being the youngest.



HARDWARE

refers to physical hardware used to play games, including specialized keyboards, mice, headphones and other related products.



LIVE STREAMING

refers to platforms that facilitate online streaming media, which is simultaneously recorded and broadcast in real time, often focused on gaming content.

COMMUNICATION SERVICES								
Name	Publisher	Developer	Console	Chips	Esports	Mobile Gaming	Hardware	Live Streaming
Activision Blizzard	❖	❖			❖	❖		
Electronic Arts	❖	❖			❖	❖		
Tencent Holdings	❖	❖			❖	❖		
Nintendo	❖	❖	❖			❖	❖	
NetEase	❖	❖			❖	❖		
Sea	❖	❖			❖	❖		
Take-Two Interactive Software	❖	❖			❖	❖		
Ubisoft Entertainment	❖	❖			❖	❖		
Zynga	❖	❖				❖		
Bilibili	❖	❖			❖	❖		❖
CD Projekt S.A.	❖	❖			❖	❖		
NCSOFT	❖	❖			❖	❖		
Nexon	❖	❖				❖		
Square Enix	❖	❖			❖	❖		
Capcom	❖	❖			❖	❖		
Netmarble	❖	❖				❖		
Konami	❖	❖			❖	❖		
Embracer Group	❖	❖				❖		
Stillfront	❖	❖				❖		
Unity		❖				❖		

INFORMATION TECHNOLOGY								
Name	Publisher	Developer	Console	Chips	Esports	Mobile Gaming	Hardware	Live Streaming
Advanced Micro Devices				❖	❖		❖	
Nvidia				❖	❖		❖	
Micro-Star International				❖	❖		❖	
Kingsoft	❖	❖				❖		

CONSUMER DISCRETIONARY								
Name	Publisher	Developer	Console	Chips	Esports	Mobile Gaming	Hardware	Live Streaming
Bandai Namco	❖	❖				❖		

IMPORTANT DEFINITIONS AND DISCLOSURES

¹ Newzoo, 2020

² The NPD Group (<https://www.npd.com/wps/portal/npd/us/news/press-releases/2020/the-npd-group-us-consumer-spend-on-video-game-products-continues-to-break-records>)

³ Bloomberg Intelligence, 2019

⁴ Newzoo, 2020

⁵ Netflix, Q4 2018 Earnings Report

⁶ VentureBeat.com (<https://venturebeat.com/2019/05/09/65-of-american-adults-play-video-games/>)

⁷ SuperData, a Nielsen Company. Data as of 2019.

⁸ Take-Two Interactive Software, Q1 2021 Earnings Report

⁹ Gamesindustry.biz (<https://www.gamesindustry.biz/articles/2019-01-16-fortnite-tops-2018-superdata-chart-with-usd2-4b-digital-revenue>)

¹⁰ Newzoo, 2020

¹¹ Tubefilter.com (<https://www.tubefilter.com/2018/12/31/ninja-how-many-hours-streamed-watched-twitch-fortnite/>)

¹² Netflix, Q4 2018 Earnings Report

¹³ Goldman Sachs, "The World of Games: eSports: From Wild West to Mainstream," 2018

¹⁴ Activision Blizzard Annual Report, 2019

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Esports: Competitive gaming at a professional level and in an organized format (a tournament or league) with a specific goal (i.e., winning a championship title or prize money) and a clear distinction between players and teams that are competing against each other.

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