



GLOBAL ESPORTS INDUSTRY

GOOD GAME, WELL PLAYED

eSports is moving into the mainstream. The immense popularity of survival-based games like Fortnite, growing prize pools for eSports tournaments, the rise of live-streaming, and improving infrastructures for pro leagues have all paved the way for eSports to reach nearly 646mm viewers by 2023, surpassing that of the NFL. For game publishers, we believe eSports will not only help to increase audience reach and engagement, but also drive direct revenue through established leagues. The industry is seeing growing media rights revenue as well as mobile eSports engagements. We see further tailwinds to the broader eSports ecosystem, including online video platforms, hardware manufacturers (core and peripheral), and chip makers - opportunities we outline in this report. This report will also analyze the effects of COVID-19 on the eSports industry outlook. All figures in the report are in USD.

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Introduction

Industry Overview

As gaming and game spectating have gained in popularity, eSports has also become more popular. The audience has grown multiple times over, and the revenues have followed suit. Today, eSports regularly makes headlines in the mainstream press, but it is also on the minds of the business world - not only within gaming but across industries from automotive to apparel. However, as the market has evolved and flourished, it has also grown more sophisticated and complex.

Our research highlights that 2019 was a seminal year for many teams, with strong growth in traditional revenue streams such as sponsorship and advertising. Meanwhile, leagues have been moving toward a "homestand" system in which teams play at their own venues. This potentially opens the door to increased matchday revenues for teams, including returns from ticketing and concessions, as well as larger merchandise revenues.

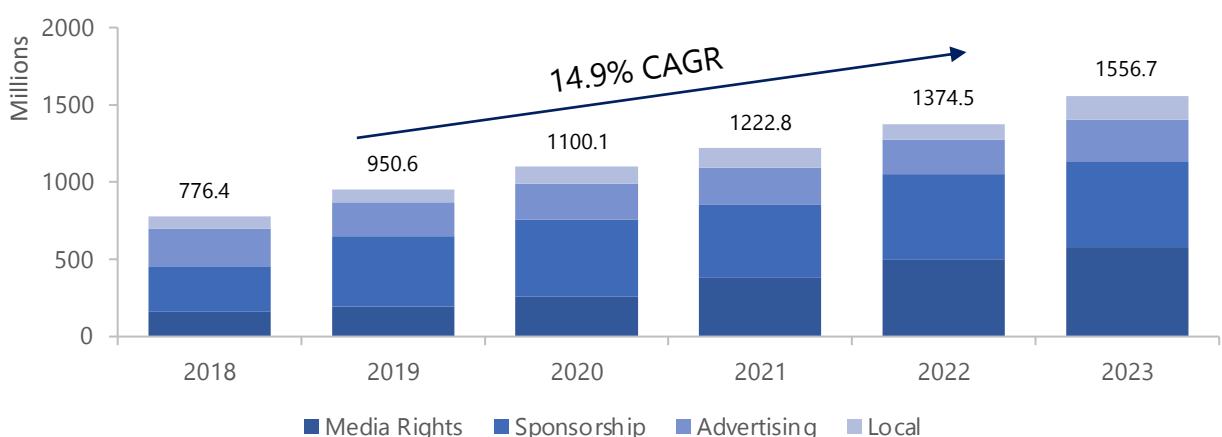
The market is also maturing in entirely new ways, with innovative revenue streams starting to develop, such as streaming and digital goods.

These are new ways to monetize competitive gaming that are not available to traditional sports; they also demonstrate a gap between how traditional sports and eSports generate revenues and scale businesses. These revenue streams have become vital for game publishers, broadcasters, teams, and players to generate cashflow within this new industry.

Key Facts & Figures

Total Revenue (2020)	\$1.1bn
Estimated Revenue (2023)	\$1.55bn
Sponsorship and Media Revenue (2020)	\$791.1mm
Global eSports Audience (2020)	495mm Viewers
Average Revenue per Enthusiast (2020)	\$4.94
Revenue per Enthusiast (2023)	\$5.27

eSports revenue is forecasted to grow at a 14.9% 5-year CAGR through 2023



Introduction

Key Players

The eSports industry has historically been broken down into three key players; game developers, publishers, and players. Now, as the industry makes its shift towards becoming a full-fledged professional sport, we are seeing the introduction of several new players including teams, audiences, and streaming services. These new players are driving the large-scale monetization and sponsorship growth that we are seeing today.

Game Developers & Publishers

At the very heart of the industry are game developers, who, for years, have been producing innovative graphics and gameplay. Industry leaders include Activision Blizzard, Take Two Interactive Software, and Epic Games in the United States, and Tencent, Sony Interactive Entertainment, and Nintendo in Asia.

Players

It goes without saying that video games are designed for players, but with the emergence of sharing platforms, some video game players have risen to prominence, including Ninja, PewDiePie, Preston, and Markiplier, among others. Combined, the top 10 gamers alone pull in over \$120 million a year in revenue.

Streaming Services

A relatively new entry into the eSports industry, streaming services such as Twitch and Mixer, are changing the way users interact with the game, taking it from a niche sideshow to a full-blown competitive sport. These services allow content creators to get more revenue while subscribers have access to more content.

Major Tournaments

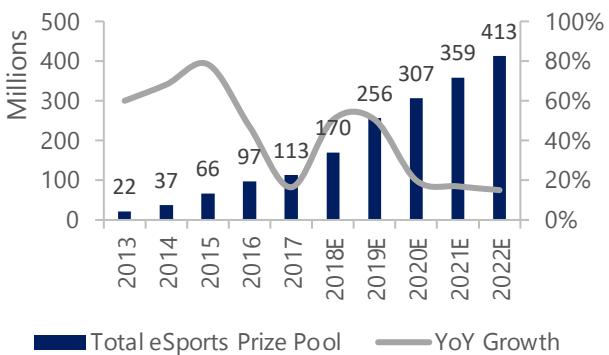
The International



Fortnite World Cup Finals



It is estimated the eSports prize pool will grow at a 30% 5-year CAGR between 2017 and 2022



Developments and Trends

Team Franchising Model

As competitive eSports become more popular over the last decade, game publishers have turned to a franchise model to expand their business. Riot Games and Blizzard Entertainment operate eSports leagues, Riot's League of Legends and Blizzard's Overwatch are among the most popular averaging around 500 K average viewers per match.

Franchise Structure

The structure of franchise agreements are relatively similar across the multiple leagues within the eSports industry. Each franchise has obligations to the game publisher and players with respect to profit sharing from ticket sales, sponsorship, and prize money. Revenue sharing is common across different franchised leagues and includes revenue from media deals, team branded merchandise (both physical and digital), and money won from prize pools. Similar to other pro sports leagues, players have minimum salaries of around 50,000 USD and are represented through a player's association. Furthermore, franchised teams with a growing and healthy fanbase present more opportunity for broadcasting and media deals as there are recurring viewers, which will be discussed further in the report.

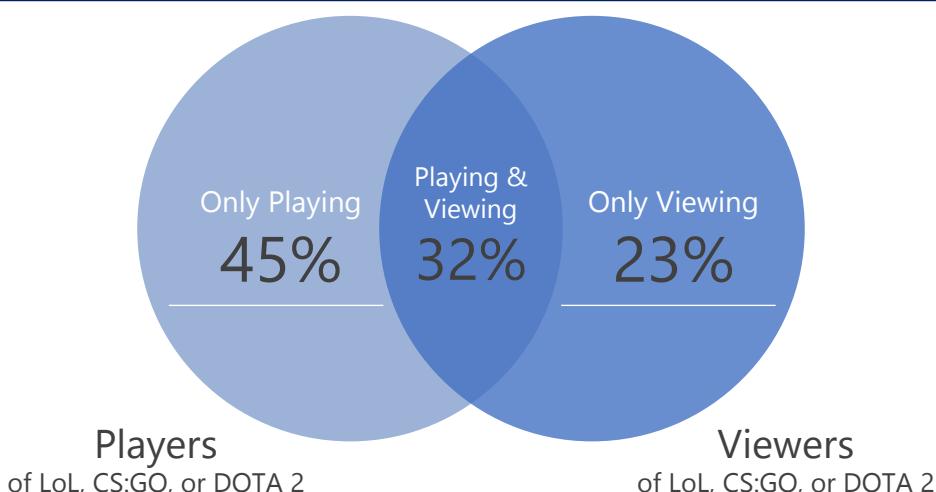
Franchise Financials

Franchises are offered to prospective investors at a cost of 10M-20M USD. Several high-profile sports teams' owners have purchased teams including Stan Kroenke of the LA rams purchasing an Overwatch team. Most teams are under 3 years old and have yet to turn a profit, raising questions about their long-term success.

Conclusion

The franchising, and subsequent growth, of organized eSports leagues represent a paradigm shift in the legitimacy of eSports as an industry. eSports viewership is no longer relegated to casual gaming on YouTube. The eSports industry has emerged from the early days of gaming and formed into a legitimate industry with multiple leagues attracting top gaming talent, blue-chip sponsorship, and investments from NBA and NFL team owners. Franchised Leagues give eSports more opportunities for growth, expansion, and media deals.

eSports Viewership is a Combination of Players and Spectators



Developments and Trends

Broadcasting & Media Rights

In 2020, eSports is projected to generate USD \$176 million in media rights deals. This number is expected to grow 11.5% year over year. The trade of content rights makes up 17% of total eSports revenue.

Previously, publishers allowed and encouraged players to share their in-game footage with an audience for free, under terms and conditions. As eSports becomes more popular with a wider audience, publishers are looking to monetize their intellectual property via selling media rights to broadcasters. We can see this trend with recent content deals like Twitch's (USD) \$90mm purchase of Overwatch League's broadcasting rights in 2018 and YouTube's 2020 reported \$160mm purchase of Activision Blizzard's exclusive content.

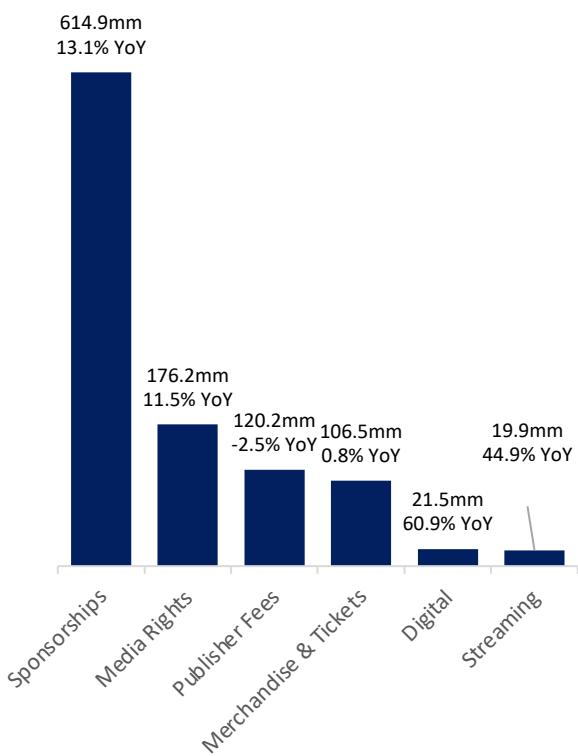
The opportunities of monetizing media rights lie in the access to premier features such as personalized viewing, exclusive shoulder content, and the removal of advertisements. Personalized viewing options would allow you to control which player to follow, which camera angle to see, what commentator to hear, etc. The access to shoulder content includes being able to view behind the scenes footage, player interviews, and other interactions both during and between live-streams.

The removal of advertisements for premium users is also a common monetization strategy for digital products as it incentivizes viewers to maximize their in-game experience. For example, Twitch currently offers a \$30 pass, providing fans with the aforementioned exclusive additional content for its Overwatch League.

The majority of the eSports media rights deals are generated in North America as of 2018, accounting for 44% of total revenue, and the trend is projected to continue.

Projected 2020 eSports Revenue

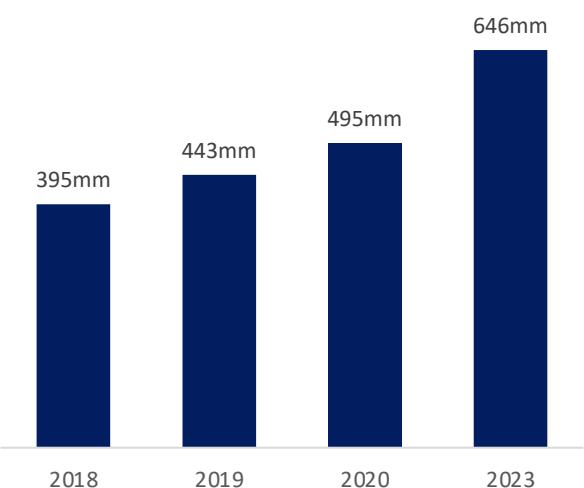
Streams in USD



Developments and Trends

Rise of Mobile eSports

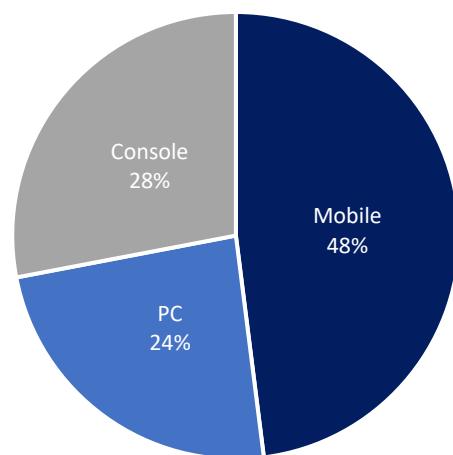
eSports Audience Growth



The global eSports audience totaled 443mm last year in 2019, and it is expected to grow to 495mm in 2020. This is a year over year growth of 11.7%. By 2023, the eSports audience is expected to reach 646mm. Of this population, an increasing portion of eSports views are fans of mobile games. Mobile game revenue in 2020 is projected to account for 48% of the global games market. Recent advancements in cellular technologies have lowered the production costs for mid to low tier game production companies and increased many games' compatibilities with lower-tier mobile devices. As a result, the introduction of many Lite apps and the accessibility to mobile gaming on a variety of devices have allowed for the entry of millions of fans into the world of eSports. For example, the Brazilian multi-gaming organization INTZ's Sales and Brand

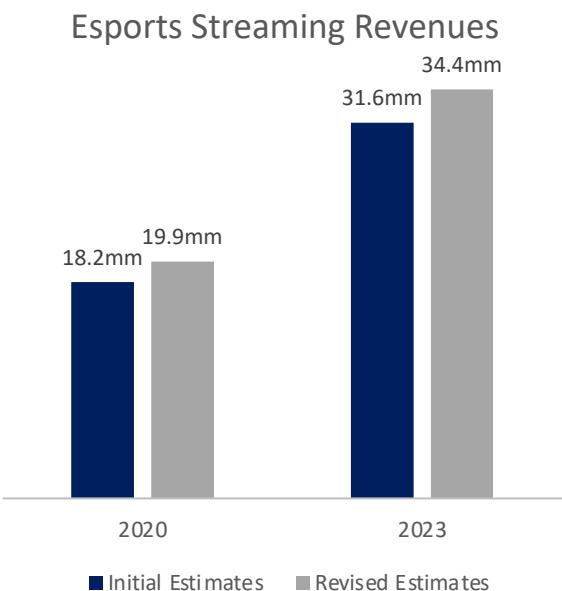
Partnerships Director, Chico Tattini, stated that the mobile survival shooter game 'Garena Free Fire' took off in the Brazilian market due to its compatibility with mid-tier smartphones and that "it broke the important under-\$500-phone barrier, bringing one million potential fans to the eSports community." Consequently, we can see that mobile gaming content has exploded in popularity and is contributing to a large jump in the viewing numbers for mobile eSports. Mobile eSports generated 50 million live viewership hours between September to November of 2019. This is approximately a ten-fold increase over the same period in 2018. Although PC games remain the higher grossing and more streamed gaming platform, it is clear that mobile eSports will start to grow significantly in Brazil, the Middle East, Africa, India, and Southeast Asia over the course of 2020.

2020 Global Games Market Revenue



Industry Drivers

COVID-19 Update



According to recent forecasts, it is estimated that streaming revenues are likely to grow more than previous expectations. The quarantine and lockdown implemented by most nations have led to increased viewership and an unexpected influx of new users to the market. Previously estimated figures have been recalculated, showing the revenues from team streaming to rise from \$18.2 mm to \$19.9 mm in the current year, and \$31.6 mm to \$34.4 mm in 2023.

The introduction of new competitions, titles, and developers have led to a higher demand, leading to an increase in developer fees. These unprecedented times have driven exponential growth with global developer fees reaching all-time highs of \$120.2 million in 2020. We remain confident that eSports will continue to be an attractive business and marketing opportunity for publishers, and that this growth will be sustainable for the coming years in both developed and developing markets.

Implementation of 5G Network

With the dawn of the 5G era, we can expect a massive jump in revenues for the eSports industry. 5G offers the ability of network slicing; basically, it will allow all the users' functions to be run on cloud-based infrastructures. Gamers would not require expensive equipment such as graphic cards or a fast processor, making eSports widely available to the common man. While the worldwide viewership for eSports is on track to surpass NHL figures by 2023, network slicing may allow consumers to not only be spectators but players, driving organic growth of the industry. The low-latency that 5G promises to deliver means publishers and e-gaming platforms can offload most of the heavy computational work to isolated datacenters running the latest hardware. Publishers have new prospects being opened by 5G gaming since they can introduce new genres to the mobile gaming market, such as first-person shooters (FPS) and real-time strategy (RTS) games. Contrary to popular belief, FPS and RTS games are available on mobile devices, but they are often of substandard versions of their console and PC counterparts. RTS games like 'They Are Billions', where up to 20,000 pixels can be shown in real-time, would be too strenuous for a smart device due to hardware limitations, but that can change if streamed from a datacenter.

In recent times, AR and VR have transformed the way we interact with e-sporting content; however, they have not been able to reach their maximum potential due to technical constraints. To employ them into mobile gaming would require intense rendering of graphics, only possible by splitting the process between the device and datacenter. This is known as split rendering, which will only require a mobile device and a reliable 5G connection.

Industry Drivers

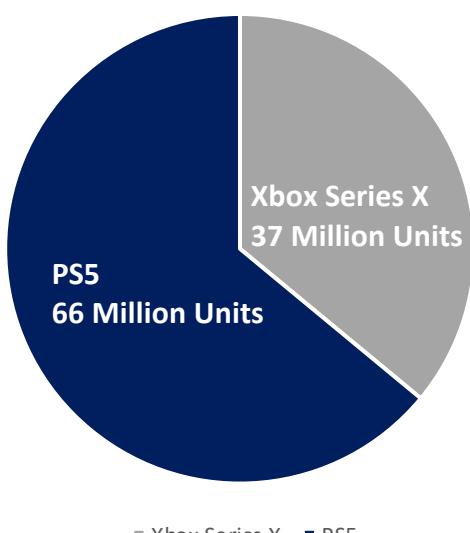
PS5 & Xbox Series X Release

Rivals Sony and Microsoft are expected to launch their premier gaming consoles by October 2020. The PS5 and Xbox Series X have attracted a great deal of attention since these are long overdue upgrades to their predecessors, launched in 2014. These consoles are equipped with better hardware, and an upgraded UI to make the experience as immersive as possible.

Given that they successfully capture the untapped demographic of children born around 2005, they can experience exponential growth of new users. Analysts predict that by the end of 2024 there will be a combined sale of 103 million units for both consoles.

Certainly, this will fuel the growth of eSports in the near future.

Expected units sold by 2024



Licensing Deals Between Major Publishers

Considered one of the largest revenue generating segment within the eSports ecosystem, major developers are collaborating with brand licensing agencies to increase viewership and penetration in growing markets. The most recent partnership which attracted the limelight is the strategic alliance between G2 eSports and Brandgenuity. This is an effort to boost exposure by awarding broadcasting rights to a channel with a large user base. This recent change has been adopted from the famous Pay-Per-View service which has proved successful for companies within the entertainment industry such as WWE.

With streaming capabilities of mobile phones improving, major players including Google and Microsoft are looking to develop and launch a "Netflix-Like" platform for livestreaming events on a mobile device.

eSports Varsity Programs

With more universities setting up an eSports Varsity program within their institutions, many students are starting to consider eSports as a prospective career. One of the main reason universities are setting-up varsity eSports programs is that players enhance their critical thinking and analytical skills which are useful in their practical life. Universities such as University of California – Irvine, and Texas Wesleyan University are actively improving their program by introducing eSports scholarships of up to \$6000, based on gaming history and performance.

Short-term Outlook

The Growth of Team Organizations

Team support and attachment have been reflected in the sheer amount of interest in gaming tournaments, another important revenue stream for eSport companies. In August, the Dota 2 International tournament had the world's largest prize pool in history at a whopping USD \$34.3 million in winnings, and OG took home the top prize.

But organizations are evolving to rely on more than just their athletes and tournaments - instead, they're taking a holistic approach to branding and maintaining a public image.

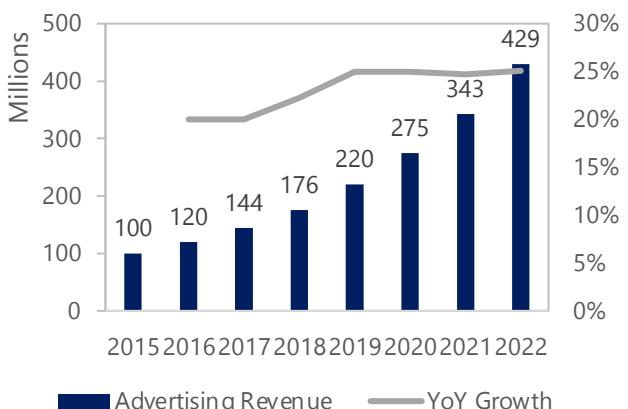
"It's going to ultimately come down to teams that can create brand lifestyles, create great content programming and diversify the revenue streams to find more profitability," Daniel Mitre, CEO of New Wave eSports (CSE:NWES), told INN via email.

Impact of Covid-19

Covid-19 has had, for the most part, a positive impact on the gaming industry. Put simply, Covid-19 has increased user engagement with video games, driving revenue and accelerating industry trends. The changing revenue model has only been reinforced as consumers are spending more within games, instead on buying new ones. As a result, the industry is laser focused on increasing engagement per user, through in-game monetization opportunities such as additional downloadable content (DLC).

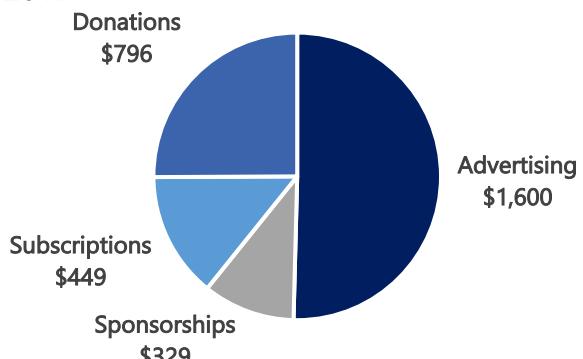
A New Paradigm of Distribution

We expect that eSports' gross advertising revenue will grow at a 25% CAGR from 2018 to 2022



Unlike traditional sports, the vast majority of eSports viewership is online, the same medium where multiplayer game play takes place and through which the eSports audience consumes media content. In the coming years, we believe eSports content (particularly live) will continue to grow in value, not only due to its audience reach but also the engagement it commands, creating an opportunity for advertisers to target a captive and young demographic.

Advertising represented 51% of overall Gaming Video Content gross revenue in 2017



Long-term Outlook

Introduction of the 5G Network

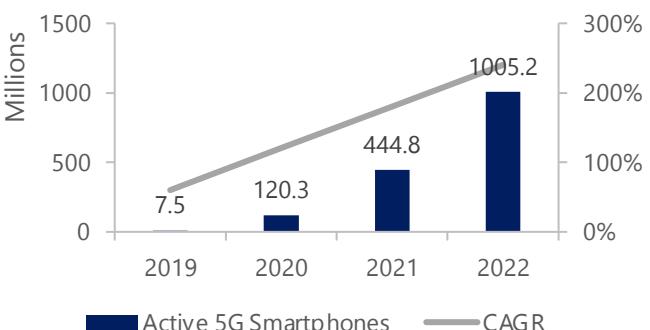
Gaming on portable devices has gained traction in recent years. However, the player experience depends hugely on the capacity and latency time of cellular network they are using. 5G technology is expected to bridge this gap by providing low-latency connectivity with even the most advanced graphics.

Currently, AR and VR gaming are in their infancy. VR remains a high-end concept on very exclusive platforms because the price of a VR system is beyond the budget of most users. As for AR, the AR part of the game often goes unused because of a lack of accuracy and battery drain. Experts say that 5G will turn mobile cloud computing into a reality, as cloud-based servers will handle heavy graphics and artificial intelligence (AI) lifting for powerful mobile devices. By 2028, 5G mobile games revenue could be \$100 billion per year.

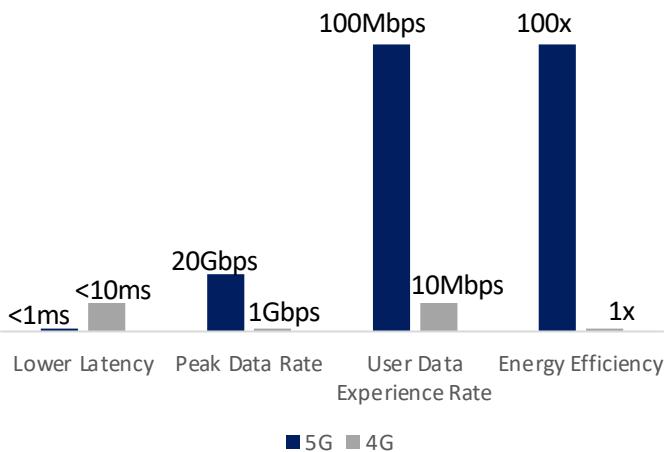
As 5G rolls out in the near future, consumers will have another major shift in the mobile gaming world - game-focused smartphones. The Razer phone manufactured by a gaming company demonstrates the potential of mobile gaming hardware. This gaming phone sports a smooth 120Hz display, front-firing stereo speakers, the latest Qualcomm processor, and laptop-like RAM.

These are specific examples, but they all point to a single overarching theme, and that is inclusion. 5G will give opportunities to the simplest of gamers and build on the large online community that exists today.

There Will be One Billion 5G-Ready Phones by 2022



What 5G vs 4G Means to Consumers



Valuation

Valuation Multiples

The eSports industry's different players are valued differently. The streaming services and the game publishers are fundamentally structured differently. The game publishers are the drivers of the eSports industry. The nature of the industry also allows us to choose companies across different geographies. Games produced by Tencent in China are played globally, and vice versa. This makes the gaming industry very unique.

Leading companies include Electronic Arts, Take-Two Interactive, Net Ease, Ubisoft, Activision Blizzard, and Tencent. Their capital structures are similar with around 20% debt and 80% equity, making them more attractive to investors. The industry has also seen an emerging trend of vertical integration where game publishers are acquiring the streaming companies like Tencent's acquisition of Huya in April this year.

The game publishers' main operating expenses are COGS (50%), SG&A (30%), and R&D (20%).

Looking at Tencent Holdings, it has a significantly larger market cap than its peers at almost \$593 billion, mainly due to its diverse subsidiary holdings, with most of the other companies falling under the range of \$35-60 billion.

In terms of EV/EBITDA, the average for the LTM is 62.0x, with the median falling at 31.60x. Tencent has the largest EV/EBITDA amongst its peers, which correlates with the fact that it is also the largest in terms of Enterprise Value.

In looking at the P/Diluted EPS, the industry average falls around 32.80x with the median sitting at 37.30x. There is a significant range in values however, as some companies are in different stages of maturation than others. Tencent, despite its large market cap, is still a fast-growing company, compared to EA which is considered to be a blue-chip stock.

Comparable Company Analysis
eSports Industry - Valuation Multiples

Ticker (Index:)	Market Data			Valuation			
	Price (\$/Share)	Market Cap (\$M)		EV (\$M)	P/Diluted EPS LTM x	EV/EBITDA LTM x	EV/EBIT LTM x
Electronic Arts	Nasdaq: EA	130.74	\$37,746.50	\$33,231.50	12.70x	19.30x	22.90x
Take-Two Interactive Software, Inc	Nasdaq: TTWO	140.40	\$15,217.40	\$13,392.90	39.70x	25.50x	31.50x
NetEase, Inc	Nasdaq: NTES	436.06	\$60,265.50	\$54,084.00	28.70x	21.70x	26.40x
Ubisoft Entertainment SA	ENXTPA: UBI	79.18	\$9,663.10	\$10,056.60	NM	70.80x	217.20x
Activision Blizzard, Inc	Nasdaq: ATVI	76.21	\$58,718.70	\$55,413.70	37.70x	27.00x	31.60x
Tencent Holdings	SEHK: 700	62.58	\$592,970.50	\$606,226.60	45.20x	29.20x	42.20x
Mean			\$129,096.90	\$128,734.20	32.80x	32.20x	62.00x
Median			\$48,232.60	\$43,657.80	37.70x	26.20x	31.60x

Comparable Company Analysis
eSports Industry - Operational Metrics

Company Name	Ticker (Index:)	Market Data			Operational			
		Price (\$/Share)	Market Cap (\$M)		EV (\$M)	EV/Revenue LTM x	P/E Ratio NTM x	EV/R&D LTM x
Electronic Arts	Nasdaq: EA	130.74	\$37,746.50	\$33,231.50	6.00x	25.86x	21.32x	
Take-Two Interactive Software, Inc	Nasdaq: TTWO	140.40	\$15,217.40	\$13,392.90	4.30x	37.17x	45.19x	
NetEase, Inc	Nasdaq: NTES	436.06	\$60,265.50	\$54,084.00	6.20x	24.69x	44.94x	
Ubisoft Entertainment SA	ENXTPA: UBI	79.18	\$9,663.10	\$10,056.60	5.60x	23.90x	12.44x	
Activision Blizzard, Inc	Nasdaq: ATVI	76.21	\$58,718.70	\$55,413.70	8.60x	28.58x	56.14x	
Tencent Holdings	SEHK: 700	62.58	\$592,970.50	\$606,226.60	10.70x	33.26x	134.50x	
Mean			\$129,096.95	\$128,734.22	6.9x	28.91x	52.42x	
Median			\$48,232.60	\$43,657.75	6.1x	27.22x	45.07x	