

# Activision Blizzard, Inc.

## (ATVI - \$46.60 - NASDAQ)



Source: esportsobserver.com - Overwatch League Finals 2018

## Press B to Buy:

**Initiate ATVI with a Buy, 2019 PMV \$62 per share**

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## G.research, LLC

### Investment Summary

Activision Blizzard, Inc. located in Santa Monica, California, develops and distributes video game content and services for gaming consoles, personal computers and mobile devices. The company operates through three reportable segments: Activision Publishing, Blizzard Entertainment, and King Digital Entertainment.

We are initiating coverage on Activision Blizzard with a Buy recommendation with a 2019 PMV of \$62 per share. We estimate that Activision Blizzard will generate 2019 revenue of \$7.8 billion, EBITDA of \$2.9 billion and EPS of \$2.75 per share.

Through the quality and diversity of franchises such as *Call of Duty*, *Overwatch*, *Diablo*, *Warcraft*, *Candy Crush* and *StarCraft*, Activision Blizzard has established itself as the leading video game publisher in the world.

- After the newest annual release of *Call of Duty*, we estimate the franchise has sold over 279 million copies worldwide, representing over \$16 billion in sales to date.
- Through *Overwatch*, ATVI has become one of the few leaders in the eSport space, and has built out a city-based league centered on the franchise. Activision Blizzard sold twenty franchises to the likes of sports leaders such as Bob Kraft and Kroenke Sports for speculated prices between \$20-60 million per team.
- Blizzard unveiled the next game in the *Diablo* franchise, *Diablo Immortal*. The game is being co-developed by Blizzard Entertainment and NetEase (NTES). We believe the pedigree and brand names of Activision Blizzard and NetEase gives *Diablo Immortal* the potential to become one of the most popular mobile MMORPGs in China.

ATVI continues to innovate in the fast changing \$140 billion gaming industry. Activision Blizzard is best positioned to benefit from the growth of eSports, mobile gaming, the digital revenue shift and the rise of the Chinese games market. We expect Activision Blizzard to continue be a consolidator in the industry and that the strong management team will be at the forefront of future trends and growth opportunities.

We recommend investors Buy ATVI, which trades at a 24.8% discount to our 2019 PMV estimate of \$62 per share, providing a sufficient margin of safety.

Table 1

### Activision Blizzard Inc. Earnings Model

2016A - 2022P

<i>Fiscal year end 12/31</i>	<u>2016A</u>	<u>2017A</u>	<u>2018E</u>	<u>2019P</u>	<u>2020P</u>	<u>2021P</u>	<u>2022P</u>	<u>CAGR</u>
<i>(\$ in millions, except per share)</i>								<b>'17-'22P</b>
Revenue	\$6,608	\$7,017	\$7,366	\$7,834	\$8,474	\$9,163	\$9,723	6.74%
Adj. EBITDA	2,457	2,383	2,625	2,935	3,430	3,769	4,010	10.97
EPS, cont ops	\$2.20	\$2.25	\$2.55	\$2.75	\$3.10	\$3.50	\$3.90	13.8

Source: Company data and g.research estimates

INITIAL REPORT  
BUY

## Activision Blizzard (ATVI-NASDAQ)

Current Price: \$46.60

52 Week Range: \$84.68 – \$46.45

Earnings Per Share:

2020P	\$3.10
2019P	2.75
2018E	2.55
2017A	2.25

Price/Earnings Ratio:

2020P	15.0x
2019P	16.9
2018E	18.3
2017A	20.7

Dividend: \$0.34

Current Return: 0.7%

Capitalization (09/30/18): (\$ millions)

Net Cash	\$638
Common Stock (763 mil shares o/s)	<u>35,558</u>
Total Capitalization	<u>\$34,920</u>

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## Company History and Management

Activision was founded on October 1, 1979 when four programmers from Atari left to create the first third-party development company for video game consoles. After struggling through ups and downs, Activision was purchased by current CEO Robert “Bobby” Kotick and his investor group which included current Chairman Brian Kelly. In 2003, Activision released the first installment of the *Call of Duty* franchise. This series would go on to be the highest grossing video game franchise of all time with fifteen installments and over 279 million copies sold. In December 2007, Activision merged with Vivendi Games, which owned the game publisher Blizzard. Blizzard at the time was known for some of the most popular PC games in the market such as *World of Warcraft*, *Diablo* and *Starcraft*. Bobby Kotick became CEO of the newly merged company in July 2008, and the company name was change to Activision Blizzard. Vivendi Games’ parent company Vivendi was the majority shareholder, with a 52% stake in the company.

In 2013, Activision Blizzard announced the purchase of 429 million shares from Vivendi for \$5.83 billion, to become an independent company. Activision Blizzard announced on November 2, 2015 that it was going to acquire the mobile gaming company King Digital for \$5.9 billion, to create a mobile gaming branch of the company. Activision Blizzard’s latest acquisition came on January 4, 2016 when the company purchased Major



Source: Activision Blizzard IR

League Gaming (MLG), in order to establish an eSports division and a platform for eSports television. As of December 2018, Activision Blizzard has eight billion dollar franchises, three under the Activision umbrella (*Skylanders*, *Destiny* and *Call of Duty*), four under Blizzard (*Overwatch*, *Hearthstone*, *Diablo* and *World of Warcraft*), and one under the King division (*Candy Crush Saga*).

### Bobby Kotick – CEO, Activision Blizzard

Mr. Kotick became the Chief Executive officer of Activision in July 1991. When Activision merged with Vivendi Games in 2008, Bobby became the CEO of the combined entity. Over the course of 27 years, Mr. Kotick has grown Activision Blizzard into the world’s most successful standalone interactive entertainment company. Bobby has a unique and innovative mindset, which has helped him lead Activision through mergers and strategic acquisitions to deliver shareholders increased value. Mr. Kotick also serves on the board of the Coca-Cola Company. He holds an undergraduate degree from The University of Michigan.

### Spencer Neumann – CFO, Activision Blizzard

Mr. Neumann has served as the CFO since May 2017. Prior to joining Activision Blizzard, Mr. Neumann held numerous positions at The Walt Disney Company, most recently the CFO and EVP of Global Guest Experience of Walt Disney Parks and Resorts. Mr. Neumann also was an EVP at ABC Television Network and CFO of the Walt Disney Internet Group from 1991-2001. He holds a B.A. in economics from Harvard, as well as an MBA from Harvard Business School.

### Collister “Coddy” Johnson – President and COO, Activision Blizzard

Mr. Johnson has served as the company’s President and COO since June 2017. Prior, he founded Altschool a public benefit education technology company. From 2008 to 2016 Mr. Johnson held numerous positions at Activision including CFO and head of operations at Activision Publishing. He holds a B.A. from Yale and an M.B.A from Stanford University.

### Riccardo Zacconi – CEO, King Digital Entertainment

Mr. Zacconi is a founder of King Digital Entertainment, the company behind *Candy Crush Saga* and *Candy Crush Soda Saga*. Prior to King, Mr. Zacconi was a VP of European Sales and Marketing at uDate.com, an online dating service, until its acquisition by InterActive Corp. 2002. He holds a B.A. in Economics and Business Administration from LUISS University in Rome, Italy.

## Video Game Market

The video game industry, also referred to as the interactive entertainment industry, is a subset of the entertainment industry and is comprised of companies that are involved with the development, marketing and distribution of video games. Video game content is enjoyed by millions of users on multiple platforms, including personal computers, mobile devices and consoles.

The global media and entertainment industry is currently estimated to be around \$2.2 trillion. The media and entertainment industry encompasses motion pictures, television programs, commercials, streaming content, music, broadcasting, radio, books and video games. Of the total global industry, the United States accounts for one third of the total industry revenue, or around \$730 billion. It is expected that the 2018 global video game industry will account for around 6-7% of the total global media and entertainment industry. This compares to expected total revenue for the video game industry to be around \$140 billion in 2018.

The global video game industry had revenue of \$121.7 billion in 2017, up 14% from \$106.5 Billion in 2016. The industry is expected to grow to \$180.1 Billion by 2021, with a CAGR of 11%. To put that growth rate in perspective, the global entertainment industry is only expected to grow at a rate of 3.7% per year.

In 2018, the Asian Pacific Region should account for a staggering 52%, or \$71.4 billion, of the total global gaming industry. China is fueling the growth of the Asia Pacific gaming revenue with expected Chinese gaming market revenue CAGR of 7% between 2017-2020. China is expected to account for about 27% of game revenue worldwide, or \$37.9 billion in 2018 while the United States is estimated to be 22% or \$30.4 billion. This growth can be mainly attributable to the growing number of mobile devices in China, which allow new users to access the thousands of games available in the market.

**Table 2** **Geographic Breakdown of Gaming Industry Total Revenues - 2018E**

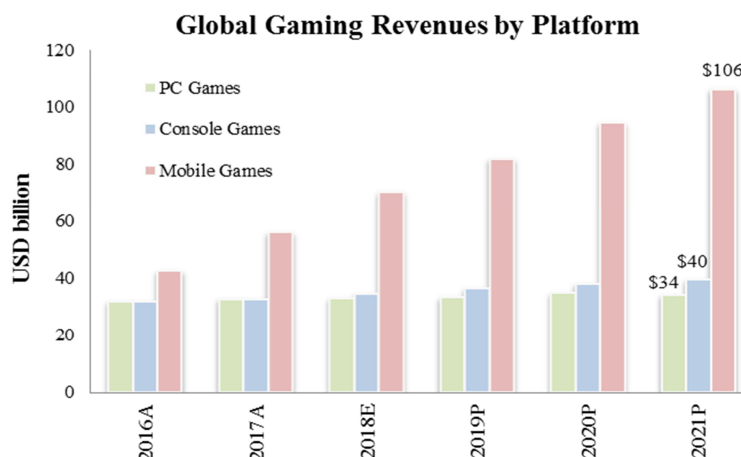
Geographic Region	Revenue	% of Total Global Revenue
Asia-Pacific ex. China	\$34	25%
- <b>China</b>	<b>38</b>	<b>27</b>
North America ex. US	2	1
- <b>United States</b>	<b>30</b>	<b>22</b>
Europe, Middle East and Africa	29	21
Latin America	6	4
Total	\$138	100%

Source: g.research estimates & newzoo.com

Another way to break down the industry is by the demographics of age and gender globally. The industry is dominated by the age group between 21-35 years old, which accounts for about 35% of the total gaming population. The next biggest age group falls between the ages of 36-50 years old, which make up about 28% of the gaming population. In recent years, the age groups between 10-20 years old have been growing at a rapid pace. The 10-20 year olds currently make up 22% of the gaming population. The gender demographic currently sits at 54% male, and 46% female, globally.

As of 2017, mobile gaming accounted for 46%, or \$55.9 billion, of the \$121.7 global gaming market. Console gaming and total PC gaming each accounted for 27% of revenue. By 2021 it is expected that the total Mobile Gaming market (smartphone and tablets) will account for 59%, or \$106.2 billion of the total industry.

**Exhibit 1**



Source: g.research estimates & newzoo.com

## Business Overview

Activision continues to be the premier video game company in the United States. GAAP Revenue for 2017 reached \$7.017 Billion, up 6.2% from 2016 and 12.9% from 2015. To put that in perspective, ATVI's biggest competitor in the United States, Electronic Arts (EA), achieved revenue of \$4.845 Billion in 2017. In addition, Take-Two Interactive Software (TTWO), another competitor of Activision Blizzard, had revenue of \$1.780 Billion in 2017. ATVI's 2017 revenue of \$7.017 Billion was higher than the combined revenue of its two biggest competitors in the US.

The company operates through three reportable segments: Activision Publishing, Blizzard Entertainment, and King Digital Entertainment. In addition to the three reportable segments, Activision Blizzard operates a premium live gaming events and streaming platform, Major League Gaming (MLG), as well as an original film and television content creation arm, Activision Blizzard Studios. From 2013-2015 the revenue of the company was heavily reliant on the Activision segment, which accounted for more than 50% of total company revenue. In 2016, revenue became more split between the three segments as the King acquisition added \$1.5 billion in revenue for the company, and the Blizzard division saw increased revenue due to the popularity of two of its new franchises, *Overwatch* and *Hearthstone*. Revenue for the company are no longer reliant on the Activision segment, which traditionally stemmed from the yearly release of a *Call of Duty*. The smoothing out of revenue streams from segments, as most notably seen in 2017 (37% Activision, 30% Blizzard and 26% King), has helped the company become the most diversified game company in the world on all platforms (PC, Mobile and Console).

In recent years, Activision Blizzard has undergone a campaign to shift its revenue streams from physical sales to digitally delivered avenues. Activision has transformed its business model into Games as a Service Model (GaaS). Games as a service represents providing game content on continuing revenue model in a similar way to software as a service. The aim of games as a service is to monetize video games after its initial sale, or to monetize a free-to-play (freemium) game. The rationale behind adopting the GaaS model is that it gives a game developer or publisher the ability to generate more revenue than a traditional single release game title. GaaS gives publishers the ability to release titles and not have to hope for a blockbuster hit result. If enough users engage in the services the games provide, the company will have access to a stream of recurring user revenue that has not been present in traditional game releases. Revenue streams for the games as a service model includes, game subscriptions, micro transactions, downloadable content and season passes. Activision Blizzard is also one of the few large game companies that have implemented nearly all facets of the GaaS model. Subscription revenue comes from *World of Warcraft*, in game purchases have been implemented in almost every new game released, and the company has created a digital marketplace for its games, Battle.net, where Activision has control over operations and near 100% margins on sales. Digital revenue (Subscription service, licensing and others) made up 70% of the Activision segment's revenue last year, as compared to 31% in 2010. As of Q3 2018, digital Non-GAAP distribution revenue was 87% of total revenue.

**Table 3**

### Segment

#### **Activision**

% Increase

% Total

#### **Blizzard**

% Increase

% Total

#### **King**

% Increase

% Total

#### **Distribution**

% Increase

% Total

#### **Total Non-GAAP Revenue**

% Increase

Source: Company Data

### **Segment Revenue**

	<b>2013A</b>	<b>2014A</b>	<b>2015A</b>	<b>2016A</b>	<b>2017A</b>
<b>Activision</b>	\$2,895	\$2,686	\$2,700	\$2,220	\$2,628
% Increase	-	-7%	1%	-18%	18%
% Total	67%	56%	58%	34%	37%
<b>Blizzard</b>	\$1,124	\$1,720	\$1,565	\$2,428	\$2,120
% Increase	-	53%	-9%	55%	-13%
% Total	26%	36%	34%	37%	30%
<b>King</b>	-	-	-	\$1,586	\$1,998
% Increase	-	-	-		26%
% Total	0%	0%	0%	24%	28%
<b>Distribution</b>	\$323	\$407	\$356	\$365	\$410
% Increase	-	26%	-13%	3%	12%
% Total	7%	8%	8%	6%	6%
<b>Total Non-GAAP Revenue</b>	\$4,342	\$4,813	\$4,621	\$6,599	\$7,156
% Increase		11%	-4%	43%	8%

**Table 4**

### **Digital vs. Physical Distribution Revenue Split**

<u>Revenue by Distribution Channel</u>	<b>2012A</b>	<b>2013A</b>	<b>2014A</b>	<b>2015A</b>	<b>2016A</b>	<b>2017A</b>
Subscription, Licensing and Other	\$3,013	\$2,701	\$2,104	\$2,502	\$4,865	\$5,497
% of Total	62%	59%	48%	54%	74%	78%
Retail Channels	\$1,537	\$1,559	\$1,897	\$1,806	\$1,386	\$1,033
% of Total	32%	34%	43%	39%	21%	15%
Other (Studios, eSports, Distribution)	\$306	\$323	\$407	\$306	\$357	\$505
% of Total	6%	7%	9%	7%	5%	7%
<b>Total GAAP Revenue</b>	\$4,856	\$4,583	\$4,408	\$4,664	\$6,608	\$7,017

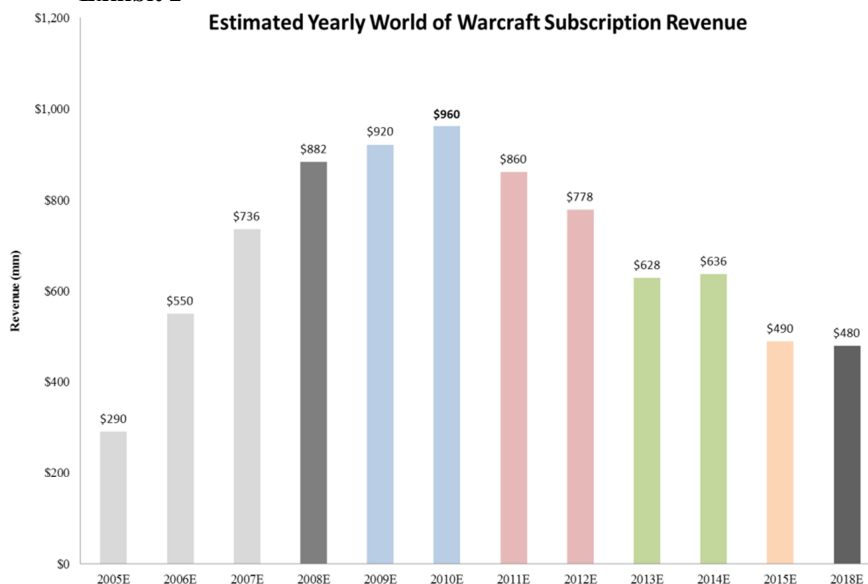
Source: Company Data



### World of Warcraft – Subscription Revenue

*World of Warcraft* (WoW) was released in 2004 by Blizzard Entertainment. It is a massively multiplayer online role-playing game (MMORPG), which has grossed over \$9 billion in revenue making it one of the highest-grossing video game franchises of all time. The game is a subscription based game which costs users \$14.99 per month to play. The game is the most popular MMORPG of all time by subscriber count. WoW had its peak subscription count in October 2010, with 12 million players. The last time Blizzard released the game's subscription count was in October 2015 when the game dropped to 5.5 million subscribers. Since inception, WoW has had seven expansion packs with the first coming in January 2007 and the latest coming on August 13, 2018. The latest expansion, *Battle for Azeroth*, set a sales record for the franchise by selling more than 3.4 million copies on launch day. We estimate that *World of Warcraft* currently has around 5-7 million subscribers, which is around the range the game had when

**Exhibit 2**



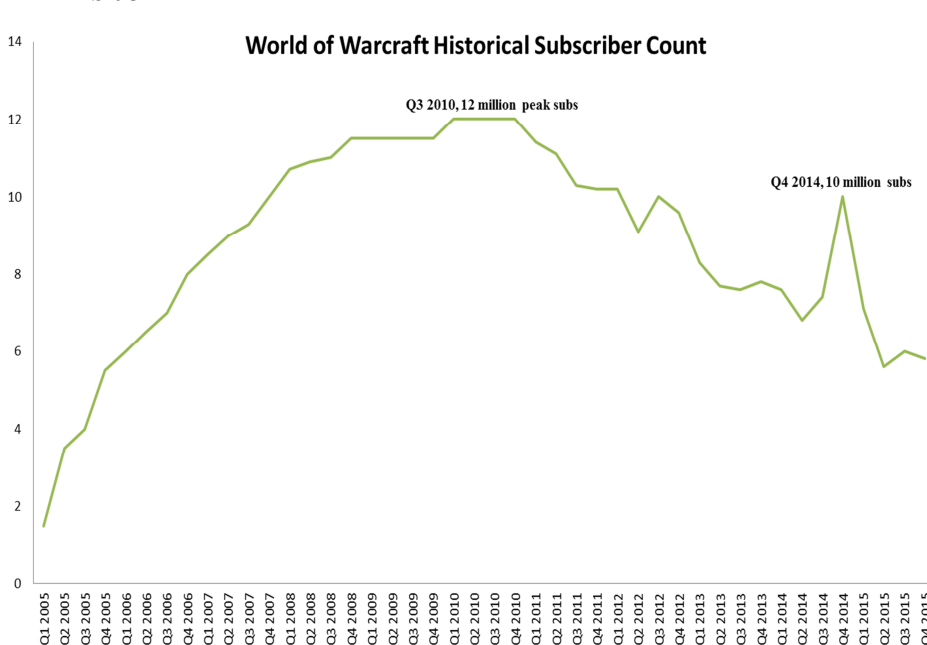
Source: g.research estimates & Company Data

Blizzard last released its subscription count. Taking that figure into account, the base case is that WoW is currently generating revenue of around \$40 million per month, or \$480 million per year from subscriptions. It is expected that the subscriber count for *WoW* will continue to decline in long-term future, as the game peaked in 2010, and has been declining ever since. Even with this, the game still has a large core player base that will continue to pay and play for the game for the foreseeable future. Activision Blizzard will continue to generate relatively predictable revenue from the game and will benefit from additional expansion packs. The sales record for *Battle for Azeroth* is a positive sign for the game as it shows the core base is still willing to spend \$14.99 a month, in addition to purchasing new and refreshing content for the game.

### World of Warcraft Classic

Fans of the *World of Warcraft* franchise have been waiting for Blizzard to release an original version of the game. Players want to experience the first version of the game without the numerous expansion packs and mechanic changes that came over the years. Blizzard announced after years of fan's pleas that it will be releasing a classic version of *World of Warcraft* in summer 2019. With the release of the classic version many players that quit the game over the years could come back and re-subscribe to the game which may boost the games subscription count back up substantially.

**Exhibit 3**



Source: Company Data

### In Game Purchases Earnings Potential – *Hearthstone* Case Study

*Hearthstone* is a free-to-play online collectible card video game developed by Blizzard and was released worldwide on March 11, 2014. *Hearthstone* builds up the lore of the *Warcraft* series, by using similar elements and characters from the game. Initially, *Hearthstone* was released for Microsoft Windows and macOS, with iOS and Android versions coming later in 2015. The game enables cross-platform play ability which enables users to compete with each other on multiple platforms.

The game is a turn-based card game between two opponents, using customizable 30 card decks along with hero and unique hero power. Players use mana crystals to play abilities or summon minions to attack an opponent with the goal of getting the opponents hero health to zero. The game incentivizes players to win games and complete quests that earn in game gold, new cards and prizes that can help a player strengthen their card deck. In addition to achievement based awards, players can buy packs of new cards through micro-transactions. New content for the game involves the addition of new card sets, or expansion packs, which introduces new concepts and abilities for players to utilize. The game has been a successful digital adaptation of the decades old physical battle card games such as *World of Warcraft Trading Card Game*, *Pokémon*, *Magic: The Gathering*, and *Yu-Gi-Oh!* *Hearthstone* is a critically acclaimed game having an average rating of 91 on Metacritic, the most well-known aggregate review website for video-games.

Despite the fact that *Hearthstone* is a free-to play game, it has been one of the most successful games in the freemium-model world. According to SuperData As of August 2017, four years after the initial release, *Hearthstone* was generating upwards of \$40 million per month, solely on its micro transaction feature. Many games that utilize the freemium model have trouble retaining user engagement and recurrent consumer spending, but *Hearthstone* has consistently retained both through its regular expansion packs and new content. Blizzard announced in 2017 that it planned to release at least three expansions per year, each featuring around 130 new cards. As of December 4, 2018, *Hearthstone* has had ten expansion packs, with the addition of The *Rastakhan's Rumble* expansion. The expansion packs with a planned addition of around 390 new cards a year, hedges the game against significant amounts of drops in recurrent spending and user engagement, as well as offers players new incentives to purchase in game items. As of November 2018, *Hearthstone* reached 100 million players, which is a significant achievement considering the game is over four years old.

After the *Rastakhan's Rumble* expansion, there are 1864 collectible cards in the *Hearthstone* universe. The large amount of available cards to collect in the game translates into high earnings potential for Activision. When people speak of the freemium model, they tend to mention that it theoretically has the ability to generate an infinite amount of revenue for the game provider. Instead of overly sensationalizing the model, as it is next to impossible that people will continue to spend endless amounts of money on a game, there is a way to accurately calculate the

**Table 5**

<i>Hearthstone</i> Total Collectible Card Breakdown						
Format	Card Set	Card Tier Rarity Per Set				
		Collectible Cards	Common	Rare	Epic	Legendary
Standard	Basic	133	Free	Free	Free	Free
	Classic	236	91	79	35	31
	Journey to Un'Goro	135	49	36	27	23
	Knights of the Frozen Throne	135	49	36	27	23
	Kobolds & Catacombs	135	49	36	27	23
	The Witchwood	135	49	36	27	23
	The Boomsday Project	135	49	36	27	23
	Rastakhan's Rumble	135	49	36	27	23
Wild	Curse of Naxxramas	30	18	4	2	6
	Goblins vs Gnomes	123	40	37	26	20
	Blackrock Mountain	31	15	11	0	5
	The Grand Tournament	132	49	36	27	20
	The League Explorers	45	25	13	2	5
	Whispers of the Old Gods	134	50	36	27	21
	One Night in Karazhan	45	27	12	1	5
	Mean Streets of Gadgetzan	132	49	36	27	20
	Hall of Fame	13	3	2	3	5
Total		1864	661	482	312	276

Source: [hearthstone.gamedpedia.com](http://hearthstone.gamedpedia.com)

which gives players the ability to create collectible cards. Common cards can be converted into 5 dust, Rare 20, Epic 100 and Legendary 400 dust. To create new cards players will need 40 dusts per Common cards, 100 Dust per Rare, 400 per Epic and 1600 per Legendary card. Taking the total crafting cost per card tier and the total amount of cards/tiers in the game, it would theoretically cost a player 641,040 dust to create all cards. If a player had all the cards in the game, they would only receive 154,545 dusts from converting the cards.

The large discrepancy between how much it costs to create new cards and how much can be received from converting cards into dust is the way Activision Blizzard can maximize recurrent spending and higher consumer engagement. Players have the ability to buy card packs in game for real money and have the ability to use these cards to convert them into dust, and eventually new cards. After a study conducted in 2014, it is expected that players will get Common Cards 71% of the time, Rare 23%, Epic 5% and Legendary 1% of the time. This translates into an expected dust conversion count of 88,811 per 1,000 card packs. As mentioned above players will need a total of 641,040 dust to create all cards, which equates to players needing a total of 7,218 packs to achieve the dust level. A pack of 60 cards in the game-store costs \$69.99, and players will need about 120 of these for 7,218 total packs. A player needs to spend \$8,420 (\$69.99 x 120), to unlock all the cards in the game, which is far more than what a player typically spends on a traditional \$60 console game, or a onetime mobile game purchase. Each expansion pack increases the cost of acquiring all the cards in the game by \$698, and in turn the potential each user spends.

Blizzard announced that there were 100 million total players in *Hearthstone* as of November 2018. We estimate that *Hearthstone* will generate revenue of around \$500 million for FY 2018. The average revenue per *Hearthstone* user (ARPU), assuming that all 100 million registered users play the game, is \$5.00. In reality, not all 100 million registered players are active users so the ARPU figure is much higher. For example as of Q3 2018 Blizzard had 37 million MAUs, and we estimate 5-7 million of those are *WoW* players. Taking the base case of 6 million *WoW* players that leaves 31 million MAUs for the rest of Blizzard. We estimate that *Hearthstone* represents around one third of the remaining MAUs of Blizzard, which equates to around a figure of 10 million MAUs. Our estimate of 10 million MAUs for *Hearthstone* would suggest an ARPU of \$50 per player annually. Each expansion pack to the *Hearthstone* universe increases the total amount of registered users, and the potential to increase ARPU over the current estimate of well over \$50.00.

Table 6

### *Hearthstone* in-game Earnings Potential Calculator

August 2014: E.R. Kjellgren Study (11,359 Packs Opened)

	Common	Rare	Epic	Legendary	
Counter Per 11,359 Packs	40,581	12,928	2608	678	Total Dust Value Per 11,359 Packs <b>993,465</b>
Percentage of Total	71.45%	22.76%	4.59%	1.19%	
Dust Value (Disenchanted)	202,905	258,560	260,800	271,200	
1,000 Pack Conversion					
Per 1,000 Packs	715	228	46	12	Total Dust Value Per 1,000 Packs <b>88,811</b>
Percentage of Total	<b>71.45%</b>	<b>22.76%</b>	<b>4.59%</b>	<b>1.19%</b>	
Dust Value (Disenchanted)	28,581	22,763	18,368	19,100	

Total Dust Needed to Craft Every Card	641,040
Total Dust Generated per 1,000 Packs	88,811
Packs Needed to Craft all Cards	7,218
60-Pack Purchases Needed	120
Cost Per 60 Packs - Blizzard Price	\$69.99

Total Cost for all Cards	<b>\$8,420</b>
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Estimated MAUs of <i>Hearthstone</i>	10,000,000
<i>Hearthstone</i> 2018E Revenue	500,000,000
<i>Hearthstone</i> ARPU	<b>\$50.00</b>



Source: g.research estimates & [hearthstone.gamepedia.com](http://hearthstone.gamepedia.com)



### King, Master of Freemium – New Advertising Avenues

King Digital Entertainment was acquired by Activision Blizzard in February 2016 for \$5.9 billion. The social games development company is known for its creation of *Candy Crush*, which has been coined as one of the most successful games that utilizes the freemium model. *Candy Crush* was released on April 12<sup>th</sup> 2012, and is still one of the highest grossing games on the US app store. As of the end of 2017, five years after initial release, *Candy Crush* was downloaded over 2.7 billion times. As of September 30 2018, *Candy Crush* in addition to its sequel *Soda Crush*, were two of the top-10 highest grossing titles in the US mobile app stores for the twentieth quarter in the row, with *Candy Crush* being #1. The King mobile division had 262 million monthly active users, with the average daily time spent on the game per user being 36 minutes.

The monetization of both *Candy Crush* and *Soda Crush* come in the form of in-app purchases. Players begin the game with five lives, with a life being lost every time a player fails a level. When a player runs out of their five lives, they will have to wait a half hour for one life to be restored to resume the game. Players are given the option to purchase new lives to ignore the thirty-minute wait period for new lives. A set of five new lives has traditionally cost players \$0.99. *Candy Crush* currently has 189 episodes, each with around 15 unique levels (around 2825 total levels) that players can try to beat. A new episode is released every week, which adds 15 new levels to the game per week, or 60 new levels a month. Players also can purchase access to new episodes when they are released into the game. According to thinkgaming.com, an app-sales data tracking website, *Candy Crush* is still generating around \$1.5 million per day on the US iOS app store, which equates to estimated annual revenue of \$548 million from the Apple platform alone. 2014 was the game's golden age as it had over 93 million DAUs, with reported three month revenue of \$493 million. Inevitably, the game's user base has started to decline, as it is over six years old. Activision Blizzard is aware of this trend and has introduced a new advertisement business within the King Digital universe. As of June 30, 2018, the advertising business was profitable for the second quarter in a row with net bookings growing sequentially. It is too early to tell how this advertising business will impact the revenue of Activision in the near future, but it has started to become profitable. This will allow the company to have new areas of revenue within the mobile sector even as player engagement in games decline due to the prospect of advertising at scale to the large amount of MAUs on King's platforms. Ad revenue is expected to continue to ramp later this year and into 2019.



Source: g.research pictures at Candy Crush Live NYC

King released a new installment to the *Candy Crush Saga* franchise, *Candy Crush Friends Saga*, on October 11, 2018. The new release has been dubbed by Activision as the biggest release yet from the *Candy Crush* franchise. The new release came at an optimal time, as many of King's current franchises have been on a decelerated path in terms of MAU's, as many of its titles are stale and have been around for 5+ years. The game comes with new gameplay experiences that combine innovative 3D visuals, with new game modes. King celebrated the new title with a launch party in New York City at Brookfield Place. The event became the biggest live video game launch of all time. High profile celebrities like Emily Ratajowski, Lil Jon and Vanessa Anne Hudgens, showed up to promote the launch of the game and helped make the launch a historic night for the video game world. *Candy Crush Friends Saga* reached the top of the iPhone download charts in 93 countries within the first three weeks of its release.

### Call of Duty Franchise

As Activision continues to move more towards a digitally delivered revenue model, the company still has other avenues for potential revenue. The biggest contributor to Activision's success has been its *Call of Duty* franchise which has had sixteen major installments, with the latest edition released on October 12, 2018. As of December 2018, we estimate the franchise has sold over 279 million copies for total lifetime sales of around \$17 billion. The addition of a new installment to the franchise each year, adds a predictable revenue stream for Activision Blizzard. If the company continues to sell around the expected 20-25 million copies each year, it will add a predictable stream of over \$1 billion in sales for the company in addition to its digitally delivered revenue from games like *Hearthstone*, *Overwatch* and *Candy Crush*.

Table 7

## CALL OF DUTY

Call of Duty Sales History				
Installment	Call of Duty Installment (Release Year)	Copies Sold	MSRP	Total Sales
1	<i>Call of Duty</i> (2003)	1,750,000		\$105,000,000
2	<i>Call of Duty 2</i> (2005)	2,120,000		\$127,200,000
3	<i>Call of Duty 3</i> (2006)	6,450,000		\$387,000,000
4	<i>Call of Duty Roads to Victory</i> (2007)	2,120,000		\$127,200,000
5	<i>Call of Duty 4: Modern Warfare</i> (2007)	17,280,000		\$1,036,800,000
6	<i>Call of Duty: World at War</i> (2008)	15,000,000		\$900,000,000
7	<i>Call of Duty Modern Warfare 2</i> (2009)	25,000,000		\$1,500,000,000
8	<i>Call of Duty: Black Ops</i> (2010)	30,400,000	\$60	\$1,824,000,000
9	<i>Call of Duty Modern Warfare 3</i> (2011)	<b>30,710,000</b>		<b>\$1,842,600,000</b>
10	<i>Call of Duty Black Ops 2</i> (2012)	29,580,000		\$1,774,800,000
11	<i>Call of Duty Ghosts</i> (2013)	28,100,000		\$1,686,000,000
12	<i>Call of Duty Advanced Warfare</i> (2014)	21,760,000		\$1,305,600,000
13	<i>Call of Duty Black Ops 3</i> (2015)	26,460,000		\$1,587,600,000
14	<i>Call of Duty Infinite Warfare</i> (2016)	12,690,000		\$761,400,000
15	<i>Call of Duty WWII</i> (2017)	22,000,000		\$1,320,000,000
16	<i>Call of Duty Black Ops 4</i> (2018)***	<b>8,333,333</b>		<b>\$500,000,000</b>
<b>Total</b>		<b>279,753,333</b>		<b>\$16,785,200,000</b>

\*\*\* Sales Figures from first 3 days of launch

Source: g.research estimates & statista.com

In addition to the original sale of the game to consumers, Activision has offered players the ability to purchase add-on content to the *Call of Duty* games in the form of Downloadable Content such as new map packs. The first introduction of DLC to the *Call of Duty* franchise came in 2006, in the *Call of Duty 2* game. That installment featured three additional map packs, and in last year's installment *Call of Duty WWII*, there have been four additional map packs since its release in 2017. In addition to the bonus map packs, Activision has implemented a season pass concept to *Black Ops 4* and *WII*, which enables users to pay a one-time fee of \$49.99 for access to all add-on content the game has to offer, in addition to unique bonus content that only comes with the purchase of a season pass. The addition of the DLC and season pass adds new content to the game that increases the replayability of the game for users, increases user engagement and offers additional streams of revenue for Activision in addition to the original sale of the game.

Activision also created a *Call of Duty* competitive league that started in January 2016. The league has been successful and has enabled the game to gain more exposure and increase its footprint in the competitive gaming space. The first year of the league had five tournaments with a total prize pool of \$2.7 million. The prize pool rose to around \$4 million in 2017 with 13 total official tournaments. The latest season of the league culminated on August 19, 2018, and was centered on *Call of Duty WWII*, which had nine official tournaments, and a total prize pool of \$3.3 million. The league has enabled Activision to explore additional revenue streams for its long standing franchise, and has allowed the game to expand into the eSports world.

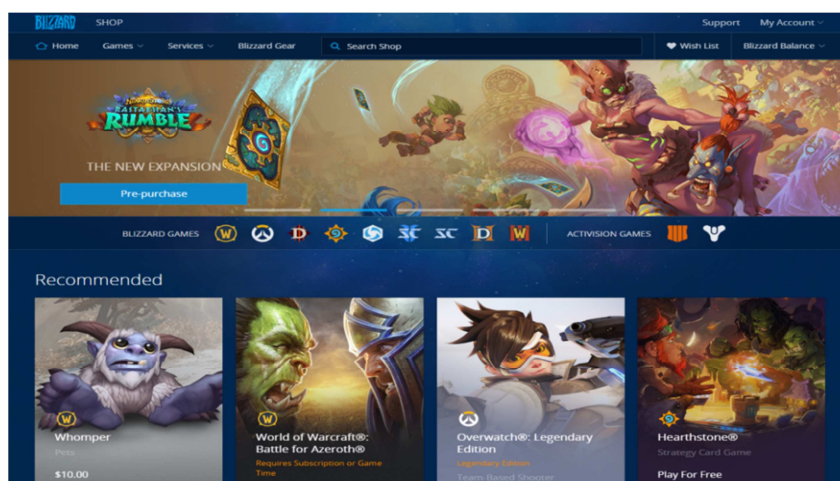
### Blizzard Battle.net – Digital Distribution

Blizzard's Battle.net is a digital distribution platform that combines online gaming, social networking and digital rights management. The platform was developed by Blizzard and was officially launched on December 31, 1996 with the release of the first *Diablo* installment. Blizzard Battle.net allows user to purchase a wide range of Blizzard's games, chat with friends and play games through the platform. In 2017, Blizzard released a mobile version of Battle.net for Android and iOS, which gives users the ability to communicate with friends and see which games they are currently playing. The platform supports matchmaking and storefront actions for all of Blizzard's current games including *Overwatch*, *Hearthstone* as well recently added Activision games such as *Destiny 2* and *Call of Duty: Black Ops 4*.

Exhibit 4

Battle.net Interface

Battle.net has been traditionally used as a platform for the Blizzard segment's games. With the latest release of *Call of Duty: Black Ops 4*, Activision Blizzard decided to make the Activision Segment game available on Battle.net for PC users of the game. The Company announced on its Q3 2018 earnings call that the implementation of *Call of Duty* on Battle.net was a success. *Black Ops 4* sold through more units than *Black Ops III*, with PC sales more than three times higher. After three weeks of launch total active users and hours played were 16% and over 20% higher than *Black Ops 3*, respectively.



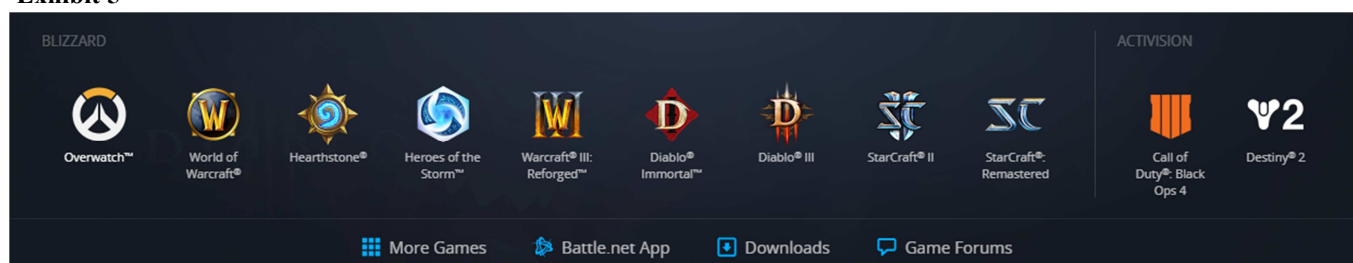
Source: battle.net

The decision to add an Activision game to Blizzard Battle.net has been proven to be fruitful. Adding a traditional console game to the digital PC platform has expanded the potential market for the game. When the millions of Blizzard users log onto the Battle.net platform, they will now see the addition of an Activision game mixed in with their favorite Blizzard titles. The PC sales figures for *Black Ops 4*, when compared to its predecessor, are an encouraging sign. Activision should and will continue to add its current and future titles to the platform to help expand its console heavy games into the PC market world. Blizzard currently has 37 million Monthly Active Users, which now have the option to purchase *Call of Duty*, when they log into games like *Overwatch* and *Hearthstone*. In addition the cross-mixing of games on Blizzard's platform will have the opposite effect as well. PC users who go onto Battle.net to purchase *Call of Duty* or future Activision games will have the option to purchase the many Blizzard titles on the platform. Combined Activision and Blizzard have 83 million Monthly Active Users that could potentially access Battle.net and purchase games from each division. The last time Blizzard released user figures for Battle.net was in 2004, when the platform had nearly 12 million users, spending over 2 million hours on the platform each day and an average of 200,000 concurrent users.

Blizzard Battle.net has the ability to appeal to gamers that are currently not users of Activision Blizzard's games. As of November 2018, Battle.net ranked 282 globally and 174 in the United States on Alexa Rank, the web traffic analytics website. Electronic Arts, Activision's biggest competitor, has created its own digital distribution platform known as Origin. Origin was created in 2013, and Electronic Arts and the plan is to allow users to subscribe to the platform which will give the player the ability to play old EA games as well as have access to new titles for a set price. EA's Origin has not had as much success as Battle.net and it currently ranks 2,815 globally and 2,629 in the United States on Alexa Rank.

Exhibit 5

BlizzardBattle.net Interface



Source: battle.net



### Activision Blizzard Studios

Activision Blizzard Studios is the film and television production and distribution arm of ATVI. The branch was created to leverage the company's popular game franchises through television and film adaptations. The studio is headed by Stacey Sher, a well-known film producer, and Nick Van Dyk, a former executive of Disney. Activision Blizzard Studios was founded on November 6, 2015, and has been responsible for the *Skylanders Academy* television series which is currently available on Netflix. CEO Bobby Kotick stated that the company wishes to "approach film and television development with the same unwavering commitment to excellence we are known for in game development." Since inception, the *Skylanders Academy* TV show has had three seasons, totaling thirty eight episodes. The series has been nominated for three awards including "Best New Series for Kids" by Kidscreen.



Source: skylanders.wikia.com

The company also announced plans to develop a "robust cinematic universe based on the *Call of Duty* franchise." The result is expected to be a Marvel-style universe with *Call of Duty* lore. Stacey Sher is quoted saying that the company has been plotting a live adaptation of the series for many years. Sher also said "There will be a film that feels more like *Black Ops*, the story behind the story. The *Modern Warfare* series looks at what it's like to fight a war with the eyes of the world on you. And then maybe something that is more of a hybrid." In addition to the different types of movies, Sher and Van Dyk are also exploring a *Call of Duty* TV series, which could revolve around World War II or the Vietnam War. The aim of the series is to focus on the characters just like Marvel did with Robert Downey JR. in *Iron Man*. The focus on the characters in the Marvel Universe made it easier to transform it into the *Avengers* movies, which *Call of Duty* hopes to emulate.

Speculation has risen that the director of the first *Call of Duty* film will be Stefano Sollima, the Italian director and screenwriter behind the hit television series *Gomorra* and movie *Sicario: Day of the Soldado*. Lead roles are expected to go to the likes of major actors such as Tom Hardy and Chris Pine. The live action adaptation of the *Call of Duty* franchise is expected to be released at some point in early 2020. Activision has stated that it will work with established entertainment companies but its gaming sales platform gives the company the option to self-distribute its adapted content.



Source: gamingfront.net



Source: cinepop.com.br

The Activision Blizzard Studios arm enables the company to adapt any of its proven and powerful IP into full feature films or television shows. Adaptations of content can be a long term catalyst for the company if it can successfully leverage its IP into different content avenues, which will help make its game content appeal to a wider audience. The success of the *Skylanders* TV adaptation reveals that the Studio has the ability to transform its IP into other forms of entertainment. If the *Call of Duty* universe becomes a success on either TV or in the box office, Activision Blizzard can transform its library of popular content into hit franchises beyond consoles and PCs. This is a unique catalyst to Activision Blizzard that many other video game publishers do not have the ability to replicate.

### **New Intellectual Property Creation**

Activision Blizzard has had a long history of creating innovative IP that has broadened the company's content library into multiple different genres and game modes. Since 2010, the company has published new highly valuable content such as *Skylanders* in 2011, *Hearthstone* and *Destiny* in 2014, and *Overwatch* in 2016. All four newly created franchises have generated over \$1 billion in revenue for the company since inception. The company has a total of eight billion dollar franchises, with four of them coming in the past eight years. Activision Blizzard has the capability to create new and innovative content that have the potential to become a leader in their categories for years to come.

#### ***Skylanders***

The first installment to the *Skylanders* video game series came in 2011. The game is an action 3D platformer game that is played by using toy figures that interacts with a "Portal of Power", that reads a tag on the toy to make it playable on a console. The game was the top selling console and handheld game worldwide in 2012, and it was announced by Activision that the game sold over 30 million *Skylander* toys. The game sold more than \$500 million in retail as of December 2012. *Skylanders* sales were almost more than three times higher than Activision expected, which led to additional installments to the franchise. The *Skylanders* series has six total installments to the series with the latest release, *Skylanders: Imaginators* coming in 2016. *Skylanders* was adapted into a television series, *Skylanders Academy*, debuting on Netflix in 2016. The second season was released in 2017, and the third season released in September 2018. As of February 2015, the *Skylanders* franchise had over \$3 billion in sales and by 2016 the franchise sold over 300 million toys, making *Skylander* the 11<sup>th</sup> biggest console franchise of all time, and one of the most successful kids' games of all time.

#### ***Hearthstone***

As discussed in the *Hearthstone* case study section, the game was released in March of 2014 and is playable on Microsoft Windows, macOS, iOS and Android. By September 2014, the game had more than 20 million registered players which grew to 50 million by April 2016. Activision Blizzard announced in May 2015 that the game had generated just about \$1 billion in revenue in the company, which took a little over a year to achieve. Blizzard reported on November 5, 2018 that *Hearthstone* eclipsed 100 million unique players since its inception five years ago.

#### ***Destiny Franchise***

*Destiny* is an online multiplayer first person shooter game published by Activision. It was developed by Bungie, the creator of the *Halo* franchise. The game is a mix between a player versus player and a player verses environment game, with some aspects of a role-playing game. The game became the biggest new franchise launch of all time when it was released in 2014, selling over \$500 million at retail on day one of release. In May 2015, Blizzard announced *Destiny* had generated almost \$1 billion in revenue for the company. The second installment of the series, *Destiny 2*, was released on September 6, 2017. *Destiny 2* became the second highest selling game in North America in 2017 behind Activision's *Call of Duty: WWII*, and surpassed sales of the original *Destiny*. More than half of the sales for the game were digitally downloaded, which is a promising sign as higher digital sales equate to higher margins for game publishers. *Destiny 2* also became the largest game on PC for Activision based on units sold for 2017. Even though *Destiny 2* sold well, it came with a few issues that made the overall *Destiny* franchise less appealing to the fan base. The negative side effects of the second installment can be seen through the latest expansion, *Forsaken*, which has struggled to fully reengage core *Destiny* fans to the franchise base.

#### ***Overwatch***

*Overwatch* became Activision Blizzard's eighth billion dollar franchise. It is a team-based multiplayer first person shooter game which is playable on Microsoft Windows, Xbox and PlayStation. The game was developed by Blizzard and it was announced that the game generated over \$1 billion in revenue in the first year of its release. The game achieved a record 40 million players after two years and quickly was considered one of the greatest video games of all time. The game has turned into one of the most popular eSports in the world, which will be discussed later in the report.



## Reinvented Franchises

### *Crash Bandicoot N. Sane Trilogy*

Activision published a remaster of the first three titles in the famed *Crash Bandicoot* series, *Crash Bandicoot N. Sane Trilogy*. The game was released on PlayStation 4 on June 30 2017, and was met with positive reviews. The game sold over 2.5 million copies by September 2017. The game was released for Nintendo Switch, PC and Xbox One on June 29, 2018.

### *Spyro Reignited Trilogy*

Activision published a remaster of the first three titles in the *Spyro* the dragon series, *Spyro Reignited Trilogy*. The game was released on PlayStation 4 and Xbox One on November 13, 2018. The game has been met with positive reviews from numerous game review sources.

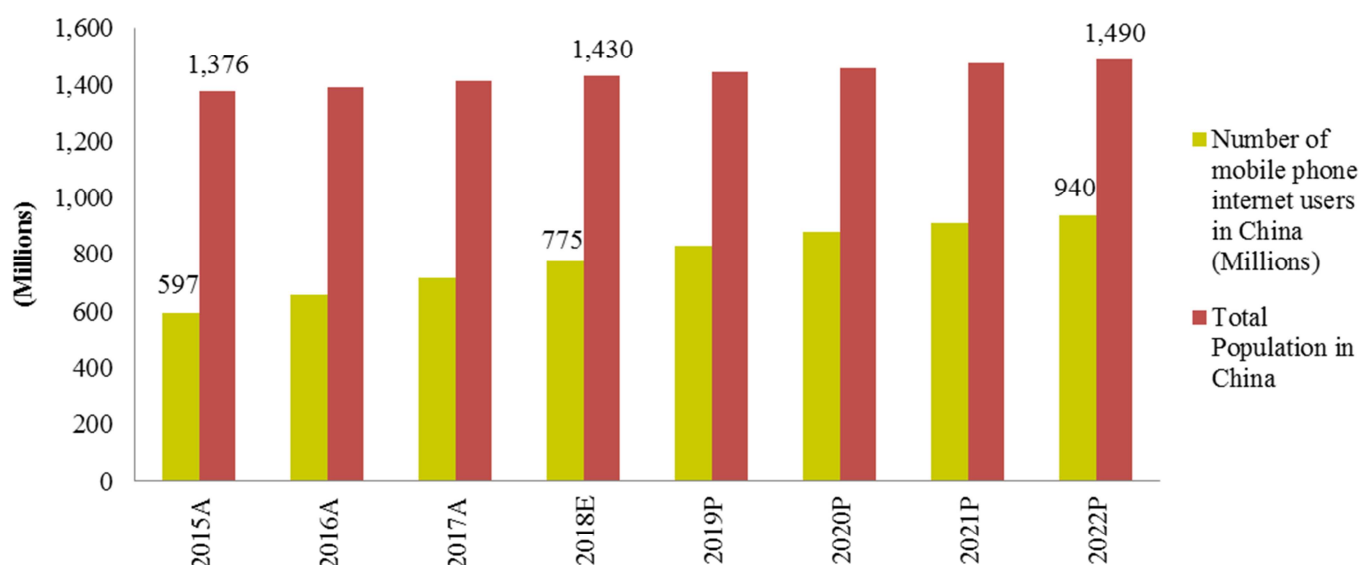
With the release of remastered versions of two of the most popular franchises from the 1990's, Activision is testing out how successful remade versions of nostalgic games can do in the market. *Crash Bandicoot N. Sane Trilogy* sold over 2.5 million units three months after its release. *Spyro Reignited* may have the same success in the marketplace, and remakes like these have the potential to add a sizeable revenue stream to Activision that many will overlook. Activision has many retired successful franchises that it can remake and release in the coming years.

## Mobile Gaming in China – Catalyst for Growth

Mobile and tablet gaming make up the majority of the gaming industry, and is expected to account for over 55% of revenue by 2021. The mobile sector is expected to continue to grow as more people across the globe gain access to phone services, especially in China and the Asia Pacific Region. China's smartphone penetration is currently only at 51%, and is expected to reach 63% by 2022. Exhibit 6 below shows the growth rate of mobile phone internet users in China from 2015 - 2022, as compared to the total population of China. The discrepancy allows for more mobile internet penetration in the country which will lead to more users who have access to an abundance of video games. In addition to the projected increase in mobile phone users in China, the household wealth in the APAC region is expected to increase in the coming years, which adds additional disposable income that could be spent on game entertainment.

Exhibit 6

### Total Mobile Phone Internet Users, Compared to Total Population in China



Source: g.research estimates & Statista.com

China will account for about 28% of game revenue worldwide, or \$37.9 Billion in 2018. Activision has a foothold in the Chinese gaming market with a strategic licensing partnership deal with China's biggest gaming company, Tencent (700-HK), and a joint venture deal with the second biggest game maker in China, NetEase (NTES). Back in July 2012, Activision signed a multi-year agreement with Tencent Holdings to bring the *Call of Duty* franchise to China. Bobby Kotick stated that "China is one of the most exciting places in the world for us to grow our business and develop new innovative games". Blizzard has had a strong relationship with NetEase since 2007, and in 2016 the two companies signed a pact to continue their partnership until 2020. NetEase distributes games from Blizzard Entertainment in China, including *World of Warcraft*, *Starcraft*, *Diablo* and *Overwatch*. The deal also states that any new games developed by Blizzard while the agreement is in place will be distributed by NetEase in China. Both Tencent and NetEase give Activision strategic exposure in the world's biggest gaming market.

#### Exhibit 7

##### Top 20 Highest Grossing Android Games in China Jul-18

Rank	Game Title	Publisher	Genre
1	Honor of Kings	Tencent	MOBA
2	QQ Racing	Tencent	Racing
3	Onmyoji	Netease	RPG
4	Mini World	Miniwan	MMORPG
5	Fantasy Westward Journey	Netease	MMORPG
6	Cross Gate	Tencent	MMORPG
7	Chu Liu Xiang	Netease	MMORPG
8	Cross Fire	Tencent	Shooter
9	Happy Doudizhu	Tencent	Card Game
10	Dream Journey	4399	2D Browser
11	Box Office	Joycombo	Simulation
12	MU: Online	Tencent	MMORPG
13	Anipop	Happy Elements	Match Game
14	Happy Mahjong	Tencent	Tile Based
15	Luan Shi Wang Zhe	Tencent	Strategy
16	QQ Dance	Tencent	Dance
17	PUBG: Mobile	Tencent	Shooter
18	Fate/Grand Order	Type-Moon	MMORPG
19	Subway Surfers	IDreamSky	Runner
20	FIFA Soccer	Tencent/EA	Sport

Source: newzoo.com

At Blizzcon 2018, Blizzard unveiled the next game in the *Diablo* franchise, *Diablo Immortal*. The game is being co-developed by Blizzard Entertainment and NetEase. The game will be a massive multiplayer online action role playing game (MMORPG) for mobile devices, including both Android and iOS. The announcement marks the first time Blizzard will adapt its IP into a mobile MMORPG. The reveal was met with hostility from the loyal fans of the *Diablo* franchise, who expressed concerns over a mobile adaptation of the beloved franchise. It is clear that *Diablo Immortal* is not targeted at the United States market, but at the APAC gaming market and more specifically China. The mobile MMORPG genre is a proven concept in the Korean, Japanese and Chinese markets with many of the most popular games being unlicensed copies of Blizzard's *Diablo* franchise. The most recent and successful example of this is a game known as *Lineage M*, created by the Korean games company NCSoft. *Lineage M* was launched in June 2017 and in its first month of release it is reported that the game generated over \$230 million in revenue. Within a year of release NCSoft announced the mobile game generated more than \$1.2 billion in revenue from countries including Korea, Taiwan and Japan. Another successful mobile MMORPG that is based off of *Diablo* is called *Endless of God*, published by NetEase. The game has been proven a success in the Chinese market, and Activision Blizzard will look to capitalize on this by officially developing its own version with NetEase and the official brand of *Diablo*. As of July 2018, 7 out of the 20 highest grossing mobile games in China fell under the RPG/MMORPG genre. Some of these games have amassed millions of users such as NetEase's *Fantasy Westward Journey*, which reached 310 million registered users in 2015.

Activision Blizzard with the help of NetEase will release *Diablo Immortal* into a proven market where many of the most popular games have been MMORPGs. In addition, the Blizzard brand is perhaps the most popular western game developer in the Chinese market. *World of Warcraft* stands as one of the most popular western game in China, and other IP like *Hearthstone* and *Diablo* have garnered large followings in China, which may help *Diablo Immortal* become one of the most popular mobile MMORPGs in China. Any new content developed by Activision or Blizzard will have direct avenues into mainland China. These two partnerships are invaluable to both Activision and Tencent/NetEase, and it is expected that the companies will renew their partnership deals in the coming years.

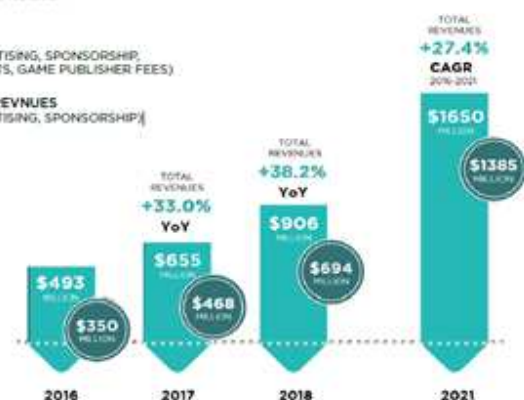
## The Rise of eSports and Activision's Biggest Catalyst

eSports are multiplayer video games that are played competitively for spectators, by professional gamers. Although video games have been competitively played for as long as they have existed, the eSports market is currently on a growth acceleration path that the industry has never seen before. This is due to many factors, mainly the increased interest and viewership rates from spectators, and the formation of official leagues and teams for the most popular games. Exhibit 8 is a newzoo.com global eSports revenue projection starting in 2016. The eSports industry is expected to grow at a CAGR of 27.4%, which equates to a \$1.65 Billion industry by 2021. Factors that go into this revenue projection are media rights to broadcast live games, advertisement rights for live commercials, sponsorship deals, team merchandise, live event tickets and fees paid to game publishers. Exhibit 9, also provided by newzoo.com, highlights the strong projected viewership and audience growth for the eSports industry.

**Exhibit 8**

### ESPORTS REVENUE GROWTH GLOBAL | 2016, 2017, 2018, 2021

- TOTAL REVENUES  
(MEDIA RIGHTS, ADVERTISING, SPONSORSHIP, MERCHANDISE & TICKETS, GAME PUBLISHER FEES)
- BRAND INVESTMENT REVENUES  
(MEDIA RIGHTS, ADVERTISING, SPONSORSHIP)

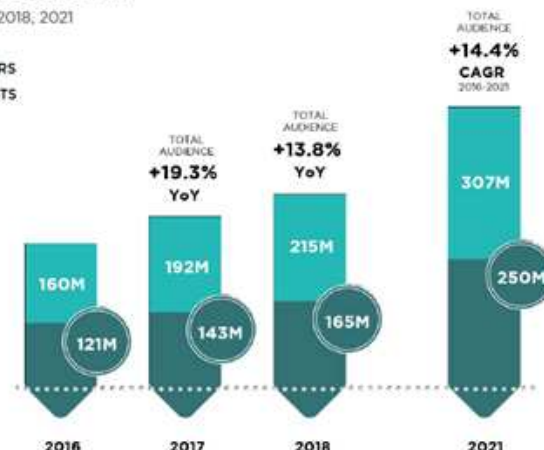


Source: newzoo.com/insights

**Exhibit 9**

### ESPORTS AUDIENCE GROWTH GLOBAL | 2016, 2017, 2018, 2021

- OCCASIONAL VIEWERS
- ESPORTS ENTHUSIASTS



Source: newzoo.com/insights

To best put the magnitude of the growth and size eSports viewership in perspective one should compare major gaming events to major United States Sporting Finals. The most popular sports leagues in the United State by championship viewership are the NFL, NBA, MLB, PGA Tour, and the NHL. All of the leagues mentioned have had a strong following in the United States for decades, and are heavily rooted into the culture of the country. eSports on the other hand, are a recent phenomenon that have not had the time and exposure the other leagues have had to grow. Despite this, viewership for major eSports events eclipsed all major sports with the exception of Super Bowl LI in 2017. Refer to Table 8, which compares the viewership figures for the 6 most popular US championship sporting events to the major eSports events in 2017. All events except for the Intel Extreme Masters Oakland were greater than all but Super Bowl LI in terms of viewership numbers. The premier eSports event is the League of Legends World Championship, which had 70 million unique viewers in 2017, up 63% from 43 million viewers for the 2016 World Championship event. Average viewership for the top six eSports events in 2017 was 37 million, as compared to the 28 million for the top 6 sporting events in the United States. This is especially impressive when taking into account the 111 million unique viewers Super Bowl LI had.

**Table 8**

Major eSports Final Event (2017)	Unique Viewers (mm)	Major U.S. Sporting Final Event (2017)	Unique Viewers (mm)
League of Legends World Championship	70	Super Bowl LI	111
Intel Extreme Masters Katowice	46	2017 NBA Finals	19
CFS World Championship	37	2017 World Series	19
DreamHack Masters Malmo	31	2017 Masters Final Round	11
ESL One Hamburg	25	2017 Stanley Cup Final	5
Intel Extreme Masters Oakland	11	2017 MLS Final	1
<b>Average Unique Viewers</b>	<b>37</b>	<b>Average Unique Viewers</b>	<b>28</b>

Source: Statista.com & espn.com

ATVI, which owns the game *Overwatch* and its respective competitive league, sold the franchise rights for twelve teams in 2017, each costing upwards of a speculated \$20 million, to the likes Robert Kraft, the owner of the New England Patriots, Comcast, and Kroenke Sports & Entertainment, which owns Arsenal FC, the Los Angeles Rams and the Denver Nuggets. The *Overwatch* League follows the model of a traditional North American professional sports league, using permanent teams and regular season play. Each team is backed by an owner, and players sign with the team at a minimum salary, with benefits and a portion of the team's winnings. The League had a total prize pool of \$3.5 million in 2017 after the first season. Currently eleven teams are located in the United States, four in China, two in the Europe, two in Canada and one in South Korea. In the inaugural 2018 season, The *Overwatch League* division signed a multiyear sponsorship deal with Intel (INTC) and Hewlett-Packard (HPE). The agreement states the League will use HP gaming computers and Intel processors in all League competitions. In addition to the two computer equipment sponsors, the League signed an undisclosed deal with Toyota (TM – NYSE), to be the official car sponsor of the League, and T-Mobile (TMUS), now the official wireless provider of the League. The four sponsorship deals highlight how confident large companies are in Activision's *Overwatch League* infrastructure and prospective growth. The *Overwatch League* grand finale match was held in the Brooklyn Nets' Barclays Center on July 27<sup>th</sup> and 28<sup>th</sup> of this year. The 20,000 tickets for the event sold out within two weeks of its public on-sale date. Blizzard announced that there were 10.8 million unique viewers for the finals event this year.

In early January 2018, Activision Blizzard struck a deal with twitch.tv, the leading live game streaming platform in the world, for a reported \$90 million, to have the rights to broadcast the League live on its website. This is believed to be the biggest exclusive distribution deal in eSports history. On July 11, 2018, Activision Blizzard signed a multiyear exclusive telecast agreement for the *Overwatch League*, with ESPN and Disney XD. This marks the first time the League will be broadcast on live TV. The terms of the deal have not yet been announced, but we expect the deal to be less lucrative for Activision than its two year \$90 million deal with Twitch. Activision Blizzard plans to expand its geographic reach for its *Overwatch League* to have more teams, and establish worldwide stadiums. Revenue are still undisclosed for the League, but it has been stated by insiders that revenue have eclipsed four times what the company had initially expected. It was announced on August 3 2018 that Activision had agreed to add two more teams to the League, one in Atlanta Georgia and one in Guangzhou China. On September 7, 2018, the League added six more teams, Vancouver, Hangzhou, Paris, Chengdu, Toronto and Washington D.C. The League now has 20 total teams that will compete in next year's season. The original 12 *Overwatch League* teams sold for a speculated price tag around \$20 million, and it was also speculated that the new teams would be priced at around \$50-60 million.

#### Exhibit 10

#### Activision-Blizzard *Overwatch League* Teams

Expansion	Team	City	Country	Owner
Original 12 Teams	Boston Uprising	Boston	United States	Kraft Group, owner of the New England Patriots
	Florida Mayham	Miami/Orlando	""	Misfits Gaming, professional eSports organisation
	Houston Outlaws	Houston	""	OpTic Gaming, professional eSports organisation
	London Spitfire	London	United Kingdom	Cloud9, professional eSports organisation
	New York Excelsior	New York City	United States	Sterling VC, venture capital sister company of the NY Mets
	Philadelphia Fusion	Philadelphia	""	Comcast Spectacor, owner of the Philadelphia Flyers
	Dallas Fuel	Dallas	""	Team Envy, professional eSports organisation
	Los Angeles Gladiators	Los Angeles	""	Kroenke Sports & Entertainment, owner
	Los Angeles Valiant	Los Angeles	""	Immortals, professional eSports organisation
	San Francisco Shock	San Francisco	""	NRG eSports, professional eSports organisation
	Seoul Dynasty	Seoul	South Korea	Gen. G, Silicon Valley eSports organisation
	Shanghai Dragons	Shanghai	China	NetEase, Chinese internet/gaming company
August 2018 Expansion	Atlanta Reign	Atlanta	United States	Cox Enterprises, an Atlanta based media conglomerate
	Guangzhou Charge	Guangzhou	China	Nenking Group, a Chinese conglomerate
September 2018 Expansion	Vancouver Titans	Vancouver	Canada	Aquilini Investment Group, owner of the Vancouver Canucks
	Hangzhou Spark	Hangzhou	China	Bilibili, Chinese video sharing website
	Paris Eternal	Paris	France	DM eSports, global eSports entertainment company
	Chengdu Hunters	Chengdu	China	Huya, Chinese streaming platform company
	Toronto Defiant	Toronto	Canada	OverActive Media, Canadian eSports entertainment company
	Washington Justice	Washington, D.C.	United States	Washington eSports Ventures

Source: Company Data

### Call of Duty: Black Ops 4

The newest installment to the *Call of Duty* series has the potential to unlock value that the franchise has not seen since the *Modern Warfare* Era (2007-2011). The game was released worldwide on October 12, 2018 and was met with positive reviews from the gaming community. Activision announced that the release of *Black Ops 4* delivered the biggest launch day one digital sales in its history. Digital sales broke the franchise record set in 2017 by *Call of Duty WWII*. *Black Ops 4* also set a PlayStation record for day one digital full game sales on PlayStation Store globally. It also became the best-selling Activision Xbox One

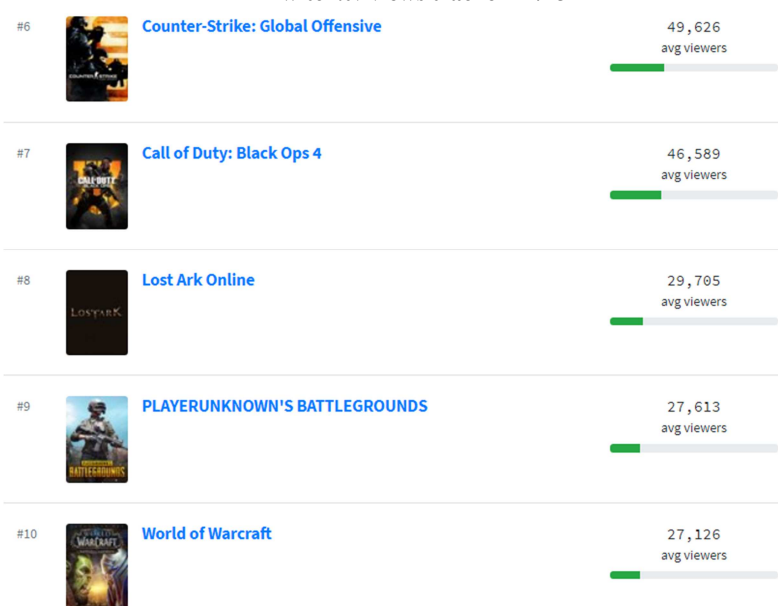


Source: Activision

digital game on day one globally. *Black Ops 4* became the first *Call of Duty* title to be released on Blizzard's Battle.net, which in turn doubled the PC digital sales year on year. On the first day of the game's availability, the total number of online users increased year over year from the previous installment to the series. On the day of release, *Black Ops 4* garnered an audience almost 2x the size of the most popular game in the world *Fortnite*. This year's *Call of Duty* comes with a Battle Royale mode, *Blackout*, which is meant to build on the popularity of the battle royale trend in the industry that sky-rocketed the success of games like *PUBG* and *Fortnite*. *Black Ops 4* is the first AAA title to enter the Battle Royale space, and it is evident that the game is a more polished version of older Battle Royale titles, which has led to its early success. The success of *Blackout* can also be attributable to the fact that *Call of Duty*'s traditional rival, *Battlefield* by Electronic Arts, had its newest release delayed by one month and its battle royale mode delayed until spring 2019. This has led *Blackout* to be the only AAA Battle Royale game on the market for at least a few months, which will help the game build a loyal fan base.

In Activision's third quarter 2018 results, the company announced that *Black Ops 4* sold-through more units than *Black Ops III*, with PC sales more than three times higher. In addition for the first three weeks after the game's launch, the total active users and hours played were 16% and 20% higher respectively, as compared to *Black Ops 3*. The game has higher user engagement than the previous version, which will help future revenue streams when Activision starts to roll out DLC's and cosmetic items. Activision announced viewership for *Black Ops 4* continues to break franchise records on both Twitch and YouTube Gaming. For the month of October *Black Ops 4* was the third most watched game content on Twitch by number of hours viewed. *Fortnite* held the top spot with 111 million hours viewed,

#### Twitch.tv views tracker 11/13



Source: twitch.tv

*League of Legends* was second with 110 million hours viewed, and *Black Ops 4* had 64 million hours viewed, according to statista.com. As of November 13<sup>th</sup>, a month after the game's original release, *Black Ops 4* was the seventh most watched game on Twitch, with forty-seven thousand average viewers. *Fortnite* still sat in the top spot, but *Black Ops 4*'s viewership was nearly double its main competitor, *PUBG*. The game has successfully taken some of the player base away from *PUBG*, but it still lags behind the biggest Battle Royale game in the industry *Fortnite*. *Black Ops 4* was released early in the holiday season as Activision wanted to get the game into users hands before the crowded holiday season. The company believes that as the traditional holiday season kicks off with Thanksgiving and spanning until New Year's, there will be a second wave of purchasers of the game. It is still too early to tell if Activision's belief will come to fruition, but if it were to happen, the game could have a second run of record digital sales numbers and concurrent users.



## Conclusion & Valuation

Activision Blizzard is trading in line with publicly traded video game companies (EA, Take-Two, Nintendo and Zynga at 12.0-16.0x 2019 EBITDA). We believe that Activision Blizzard should trade at a premium to its competitors as the company is the leader in the publishing industry and has the ability to exploit industry growth opportunities better than any other in the space.

Activision Blizzard is trading near its 52 week low, and far from its high of \$84.68, in which the company was valued at over 20x 2019P EBITDA. We believe that the stock has been oversold in recent weeks and the concerns over the Chinese video game approval halt, *Black Ops 4* sales concerns, and the decreasing MAU's in the King and Blizzard Segments are over stated. Mr. Kotick will continue to deliver value to the company's shareholders through acquisitions, and expansions into growing markets such as the eSports world and Asia.

As the entertainment industry continues to consolidate, we expect there to be M&A activity within the video game space. Disney agreed to acquire Twenty-First Century Fox for \$71 billion in June and AT&T agreed to buy Time Warner for \$85 billion. The media giants are looking for content in order to compete against the likes of Netflix and Amazon, and we expect that the traditional media companies will look to purchase interactive entertainment to bolster their positions in the media space. Although there has never been a deal the size of ATVI's current market value in the game industry, we believe that companies will be willing to pay a large price in order to gain access to the growing space and access to younger demographics of viewers and users.

The highest EBITDA large transaction multiple in the gaming space came when Activision merged with Vivendi games, which valued Vivendi games (Blizzard) at 27x TTM EBITDA. The most recent and largest transaction in the gaming space came in 2016 when Tencent purchased the mobile game developer, Supercell for \$10.2 billion, or 11.0x TTM EBITDA. We believe that if Disney and AT&T are willing to purchase traditional media companies for over \$70 billion, and Tencent purchased a strictly mobile game developer for \$10 billion, Activision Blizzard could be a target for the next wave of media consolidation. Activision Blizzard is the most attractive pure play video game company in the world through the strength of its franchises and its 345 million Monthly Active Users.

**Table 9**

Major Video Game M&A Comp Table (Millions)							
Year	Aquirer	Target	Deal Value	TTM EBITDA	TTM Revenue	EBITDA Multiple	Revenue Multiple
2002	Microsoft	Rare	\$375	-	\$150	-	2.5x
2005	Electronic Arts	Jamdat Mobile	680	-	-	-	11.0x
2007	Activision	Vivendi Games (Merger)	8,121	\$297	1,293	27.3x	6.3x
2009	Electronic Arts	Playfish	400	-	45	-	9.0x
2010	Disney	Playdom	563	-	-	-	9.5x
2011	Electronic Arts	PopCap Games	750	-	-	-	7.5x
2011	Tencent	Riot Games	400	-	40	-	10.0x
2012	Zynga	OMGPop	210	-	50	-	4.2x
2013	GAMEVIL	Com2uS	65	-	20	-	3.2x
2013	SEGA Games	Index	338	-	169	-	2.0x
2014	Microsoft	Mojang	2,500	-	-	-	8.0x
2014	Churchill Downs Incorporated	Big Fish Games	885	-	-	9.0x	-
2014	Zynga	NaturalMotion	527	15	-	35.1x	-
2014	Zhongrong Shengda Investment	Shanda Games	500	-	116	-	4.3x
2014	Leyou Technologies	Digital Extremes	73	-	16	-	4.7x
2015	Activision Blizzard	King	5,900	922	-	6.4x	-
2016	Take-Two Interactive Software	Social Point Games	276	20	91	13.8x	3.0x
2016	Tencent	Supercell	10,200	930	-	11.0x	2.3x

EBITDA Multiple	Revenue Multiple
Average	Average
17.1x	5.8x
Median	Median
12.4x	4.7x

Source: g.research estimates, Public Transaction Data

Table 10

**Private Market Value Analysis  
2017A - 2022P**

<b>FYE 12/31</b> <i>(in millions, except per share data)</i>	<b><u>2017A</u></b>	<b><u>2018E</u></b>	<b><u>2019P</u></b>	<b><u>2020P</u></b>	<b><u>2021P</u></b>	<b><u>2022P</u></b>
<b><u>Activision</u></b>						
Revenue	\$2,628	\$2,611	\$2,742	\$2,934	\$3,080	\$3,234
EBITDA	1,000	1,083	1,145	1,243	1,272	1,293
Valuation Multiple	16.0x	16.0x	16.0x	16.0x	16.0x	16.0x
Segment PMV	\$16,000	\$17,335	\$18,320	\$19,883	\$20,352	\$20,685
<b><u>Blizzard</u></b>						
Revenue	\$2,120	\$2,283	\$2,443	\$2,688	\$2,983	\$3,282
EBITDA	707	737	860	1,054	1,202	1,356
Valuation Multiple	16.0x	16.0x	16.0x	16.0x	16.0x	16.0x
Segment PMV	\$11,312	\$11,791	\$13,764	\$16,863	\$19,228	\$21,693
<b><u>King</u></b>						
Revenue	\$1,998	\$2,110	\$2,289	\$2,495	\$2,744	\$2,854
EBITDA	695	809	934	1,137	1,299	1,366
Valuation Multiple	14.0x	14.0x	14.0x	14.0x	14.0x	14.0x
Segment PMV	\$9,730	\$11,320	\$13,071	\$15,920	\$18,190	\$19,126
Total Private Market Value	\$37,023	\$40,443	\$45,152	\$52,663	\$57,766	\$61,499
Plus: Net Cash (Debt)	696	1,586	2,789	4,549	6,544	8,756
Less: Options (b)	0	(188)	(232)	(311)	(435)	(529)
Equity Private Market Value	\$37,719	\$41,840	\$47,708	\$56,900	\$63,875	\$69,725
Shares Outstanding (year-end)	757	775	775	775	775	775
<b>PMV per share</b>	<b>\$50</b>	<b>\$54</b>	<b>\$62</b>	<b>\$73</b>	<b>\$82</b>	<b>\$90</b>
<i>Current Discount to PMV</i>	<i>6.5%</i>	<i>13.7%</i>	<i>24.3%</i>	<i>36.5%</i>	<i>43.5%</i>	<i>48.2%</i>

Source: g.research estimates

## **Risks**

- The game approval halt and bans in China continue, and inhibit Activision Blizzard's ability to generate revenue in the largest video game market in the world. In August The General Administration of Press and Publications of China stated that it will implement control on the total number of online video games, and control the number of new video games coming to market. It is still too early to tell what the Chinese regulators will propose, but if stricter regulations are imposed, the barrier to entry into China may be raised, and the cost of getting licenses could significantly increase. In addition, if Tencent's model of age restriction technology appeals to the government, it can significantly limit the amount of time users spend on games, and will negatively impact recurrent consumer spending in the biggest games.
- Current franchises become stale and future sales and recurring revenue streams decline as a result.
- The Company may fail to create future hit franchises which can negatively impact profits.
- The eSports industry may not be as lucrative as many believe, which could cause expectations to be over inflated.
- CEO Bobby Kotick leaves his role at the company.

**Other Companies Mentioned:**

21 <sup>st</sup> Century Fox	(FOXA – NASDAQ)
Amazon.com Inc.	(AMZN – NASDAQ)
The Coca Cola Co.	(KO – NYSE)
Electronic Arts Inc.	(EA – NASDAQ)
Hewlett Packard Enterprise Co	(HPE – NYSE)
Intel Corp.	(INTC – NASDAQ)
Interactive Corp.	(IAC – NASDAQ)
NetEase, Inc.	(NTES – NASDAQ)
Netflix, Inc.	(NFLX – NASDAQ)
Take-Two Interactive Software, Inc.	(TTWO – NASDAQ)
Tencent Holdings Limited	(700-HK)
T-Mobile US, Inc.	(TMUS - NASDAQ)
Toyota Motor Corp.	(TM – NYSE)
Walt Disney Co.	(DIS – NYSE)
Zynga Inc.	(ZNGA – NASDAQ)

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**Important Disclosures**

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