

December 9, 2019

## Activision Blizzard, Inc. : (ATVI)

Alexandros Giannakitsidis

Sector: Communication Services

Industry: Entertainment

Current Price: \$55.21

Target Price: \$70.47

**Company Description:** Activision Blizzard, Inc. publishes, develops, and distributes interactive entertainment software and peripheral products. The company has a diverse portfolio of products that covers various game categories, including action/adventure, action sports, racing, role-playing, simulation, first-person action, music-based gaming, and strategy. Activision is the biggest producer of video games including some of the most durable franchises like Call of Duty and World of Warcraft.

### BUY

Current Price: \$55.21

Target Price: \$70.47

Market Cap: \$42B

Beta: 0.74



Source: Bloomberg

## ATVI is Blue Chip Stock in a High

**Growth Market:** Being a market leader with high growth opportunities in a rapidly evolving industry leads me to believe that ATVI is underpriced at its current price. I am initiating a Buy rating for Activision Blizzard, Inc (ATVI). The gaming industry is the fastest growing industry at the moment and with the introduction of next-gen consoles, increase in mobile gaming, esports initiatives, introduction of cloud sourced gaming, and continued advancements in pc gaming. ATVI is currently in a transition period from their history of being a publisher of games to a more diverse suite of products. I believe that ATVI is a buy at \$55.21 with a 12 month target price of \$70.47. With the esports initiatives, free to play model proving to be a success, mobile gaming boom and continued growth in underdeveloped gaming markets, ATVI becomes an attractive investment for investors looking for a growth stock with a blue chip stock pedigree.

**Catalysts:** Forward looking projections that call for positive/negative outlook that will strengthen your thesis.  
Example:

- Short Term(within the year):  
With 2019 being a transitional period for ATVI in terms of revenue, there is a potential inflection point towards a positive earnings making the current price a reasonable entry point for the stock.
- Mid Term(1-2 years):
  - Rapidly growing market and industry trends that are favorable. Steady growth in underdeveloped mobile gaming markets like USA, India, and Europe. Growth in mobile gaming segment and penetration into mature markets like China and Korea where consumer spending on mobile games are greater.
- Long Term(3+):
  - Franchising model for esports initiatives becoming more valuable similar to traditional sports leagues, increased growth in mobile gaming, sustained growth and popularity of their key franchises (COD, WOW, Starcraft, Overwatch), and favorable developments into virtual reality gaming becoming more mainstream.

Recommendation	BUY		Current Price: \$55.21	Upside: 27.64%		Taret Price: \$70.47
Activision Blizzard, Inc.			2019	2020E	2021E	2022E
ATVI	Revenue (mil)		\$6,884	\$7,365.88	\$7,955.15	\$8,563.74
Communication Services	EBITDA (mil)		\$2,847.52	\$2,563.30	\$2,977.72	\$33287.58
Entertainment	Capex (mil)		\$120.24	\$157.96	\$166.55	\$175.19
Dividend: \$0.37						
52 week High: \$57.52						
52 week Low: \$39.85						
Daily Volume (mil): 5.05						
Short interest 3.21%						
ROC : 10.80%						
Adj. EBITDA: 37.50%						
ROE: 12.00%						
WACC: 10.90%						
D/EV: 19.43%						
D/E: 24.11%						
Shares Outstanding (mil): 768.26						
Q3 EPS: \$0.32						
P/E: 25.92						
Volume: 5,051,548						

Source: 10K, Capital IQ, own estimates

## Earnings Performance:

Based on the recent Q3 results reported on 11/07/2019 we see that EPS was \$0.32 vs. \$0.23 as the consensus estimate. The company reported revenue of \$1.214B vs. \$1.169B and Net income of \$247M vs. \$181.944M and EBITDA of \$329M vs. \$287.375M. Activision also reported the monthly active users were 36 million players, Blizzard with 33 million and 247 million players. Candy Crush as a franchise grew yoy when compared to 2018 due to the launch of Candy Crush Friends Saga with advertising bookings doubling from a year ago. The decline in stock price after earnings was reported is due to the fact that the company had yoy decline in revenue and mau for each segment of their business. The company lowered revenue forecasts for the holiday quarter to \$2.65B vs analysts' estimation of \$2.75B. Product launches like World of Warcraft and Call of Duty mobile has allowed Activision to beat their prior expectations of Q3 results. As ATVI introduces mobile and free-to-play games based on their franchises.



Source: Bloomberg

Shows the performance of ATVI vs. the gaming index EEFVGGTR



Source: Bloomberg

I expect that there will be an increase in audience size, engagement and monetization across all franchises. With strong products in the pipeline like Overwatch 2 and Diablo 4 confirmed alongside mobile, esports and advertising. The company has been down 20% to date due to an earnings release in 2018 that beat estimates, but reported a significant drop when compared to the third quarter of 2017 leading many analysts to downgrade their estimations for the company. This caused the stock price to fall and cause lower expectations for ATVI. Currently 2019 is a transition year for ATVI as there are in the process of updating their current pipeline of games as well and producing content for

gamers. My expectations for the holiday quarter and further earnings performance is estimated to be improving at a growing rate due to new content releases, increased mau, free-to-play model implementation, growth in advertising, expansion of esports, and increase in digital sales leading to a higher profit margin.

## Growth in Mobile Gaming:

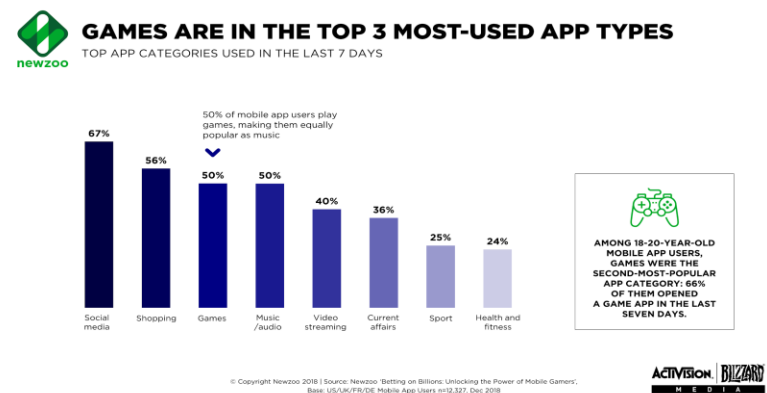
Mobile Gaming has seen an increase of 10% year over year when I compare it to a more established gaming channels like the pc or console gaming market and is estimated to be larger than both of those industries are. ATVI had reported \$7.5 billion in revenue for the year of 2018 and their mobile gaming revenue of mobile gaming, accounted for 29% of this. Another promising trend for this market is that consumers are spending more and more time playing video games on their mobile device. According to some key statistics published by Newzoo 1 in 2 mobile users will use a mobile gaming app meaning that 50% of mobile users are downloading games creating a large population of consumers. The acquisition of King in 2016 has helped ATVI greatly bolster their entry in the mobile gaming market that is projected to be worth 68.2 billion by the end of 2019 according to a Newzoo report.. Realising the potential for success ATVI created a mobile version of one of their legacy games, Call of Duty, and based on recent reports for the game. In the first days there were 20 million new gamers making it one of the most successful mobile gaming launches ever and by the end of the week there were 100 million downloads for the game. Another key success factor for ATVI is their continued success of Candy Crush from. Their legacy series. Candy Crush was a key game addition to their roster after the acquisition of King. Another key metric to look into with regards to mobile gaming is revenue creation as most mobile games are made free to play. Candy Crush and Call of Duty are both free to play on mobile, but have micro transactions within each game for items that will help the player progress in the game of have other features. Another way for revenue growth is through advertisements in-game, but these usually aren't well received by consumers as they believe these take away from the experience of the game, but in a select amount they could be sustainable meaning that some advertisements may not cause a loss in gamers attention.

## Exhibit 1: Growth in Mobile Gaming revenue



Source: Newzoo

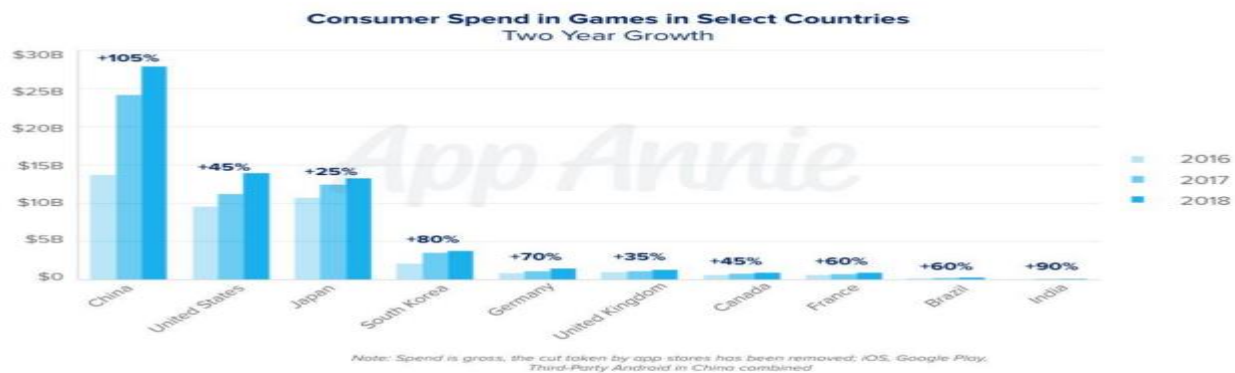
## Exhibit 2: Mobile usage by app type



Source: Newzoo



### Exhibit 3: Consumer spending growth over a two-year period in different

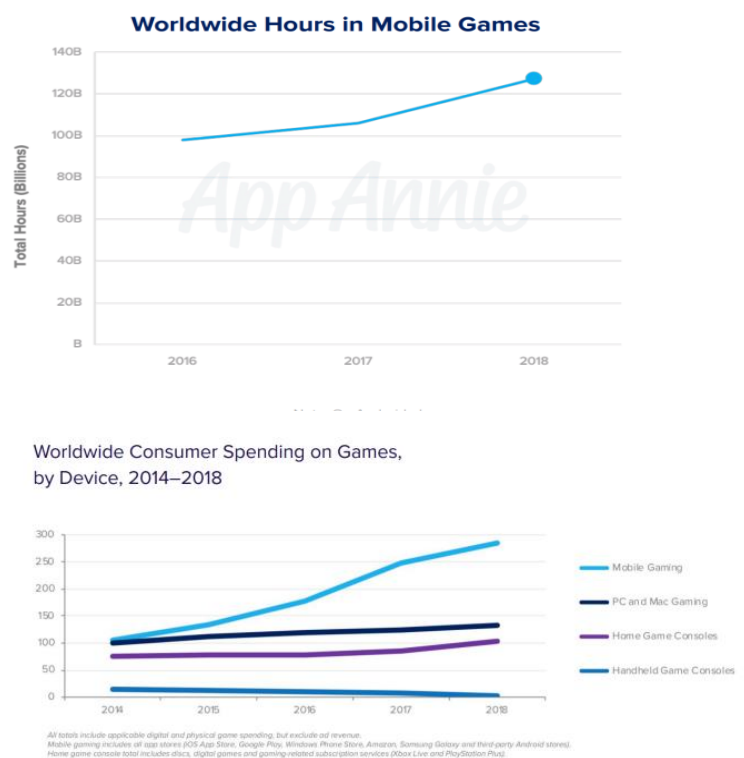


Source: App Annie

With the success of titles like Call of Duty Mobile, we could see ATVI push to develop mobile games for their other franchised games. Diablo Immortal has underperformed as of late, but there is still potential in the game as it is not just a simple game placed into the mobile arena. It is a complex story that is unique in the franchise and needs key development if ATVI wants to create a successful mobile adaption.

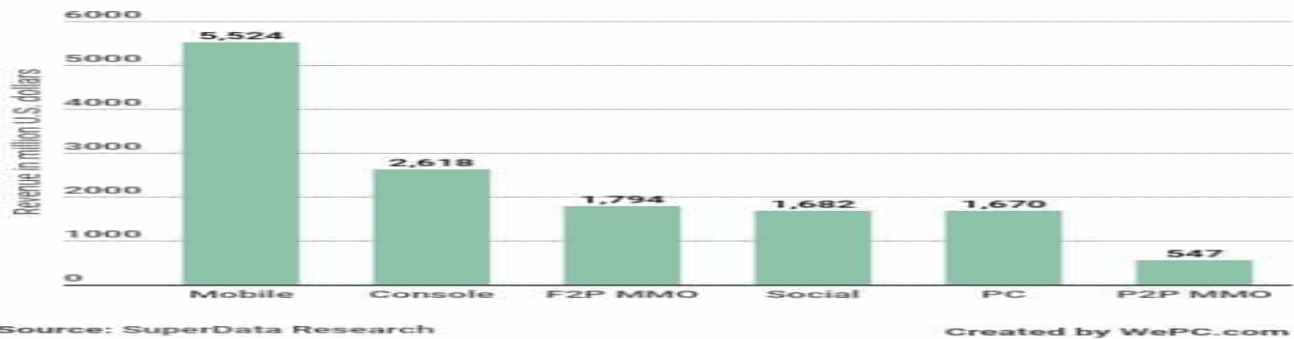
Consumer spend is key in a free-to-play model, especially for mobile gaming. Developed markets like Japan, China, and Korea who have had gaming become a household activity since the early days of. In these developed markets there is region based games that dominate the share of mobile downloads as these games are created with different cultural aspects tailored towards this region. Developed markets like Korea, China, and Japan have games that are centered on their regions preferences in mobile gaming, but with name titles like Call of Duty and Diablo, ATVI should have no problem penetrating these markets and making an immediate impact. In other markets like India, South Africa, some European countries and Brazil ATVI is able to take greater attention and market their products at a better angle due to their brand and legacy franchises in their portfolio. With the name brand of their franchise games and the acquisition of King, ATVI is poised with a potentially capable suite of established games

### Exhibit 4-5: Chart showing the substantial growth in mobile gaming spending relative to other developed outlets showing slower growth



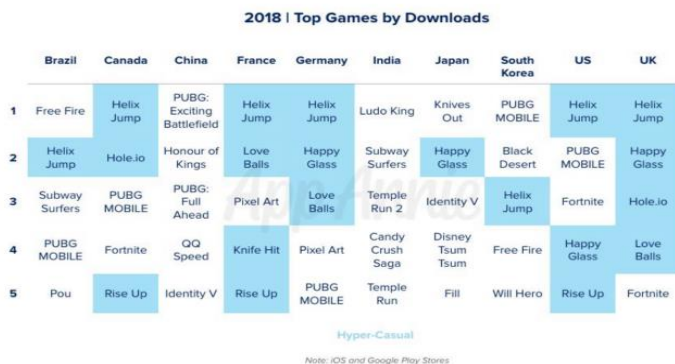
and upcoming blockbuster releases to make a substantial impact in the growing mobile gaming industry.

**The Revenue of Digital Games Industry in the U.S. in Million U.S. Dollars by Game Category (2016)**



Source: SuperData

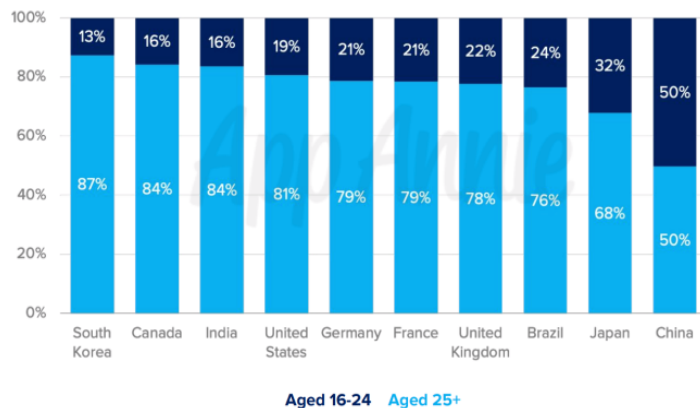
**Exhibit 6: Top Mobile game downloads for Hyper-Casual Games**



Source: App Annie

**Exhibit 8: A large amount of time is spent playing games in all regions**

**2018 | Percentage of Time Spent in Games by Age Group in Select Markets**



Source: App Annie

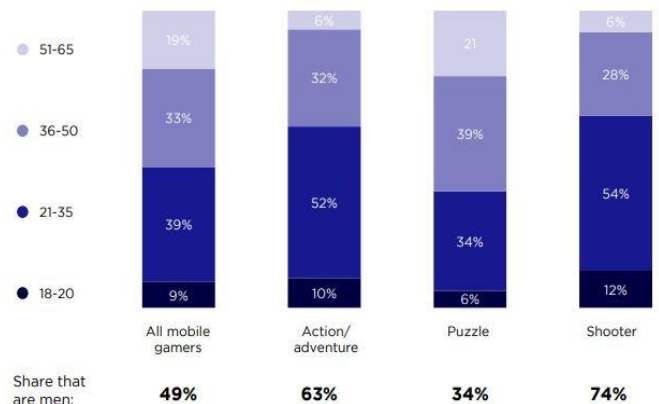
**Exhibit 7: Top Mobile Game downloads**



Source: App Annie

**Exhibit 9: Share of men at each age Group that play video games**

**AGE DISTRIBUTION OF GAMERS & SHARE THAT ARE MEN PER GENRE**



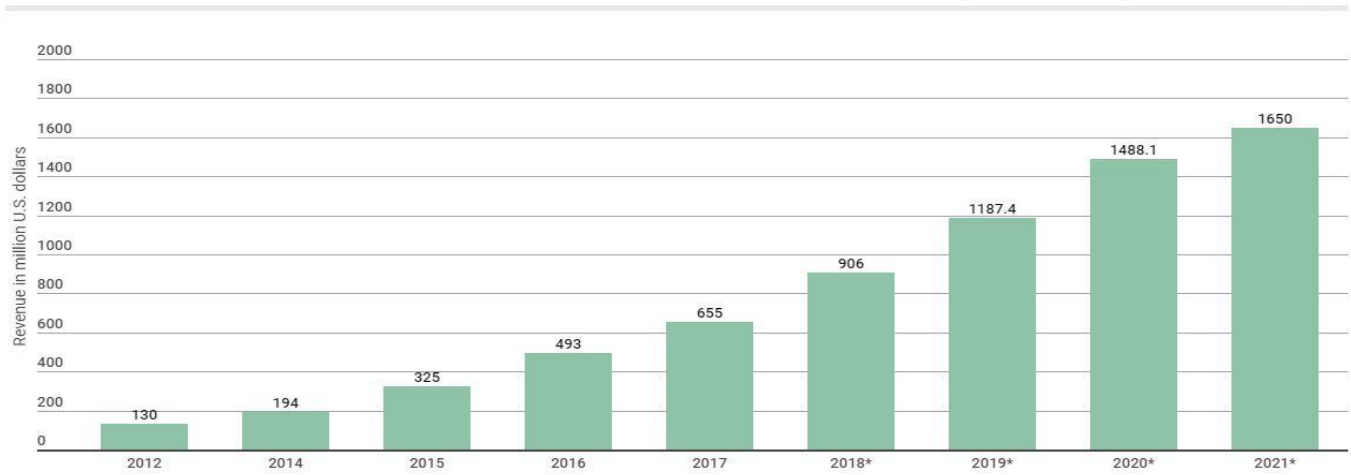
Source: App Annie

## Growth and Expansion of Esports:

Exhibit 11

### Esport

The Worldwide Revenue of eSports Market in Million U.S. Dollars (2012 to 2021)



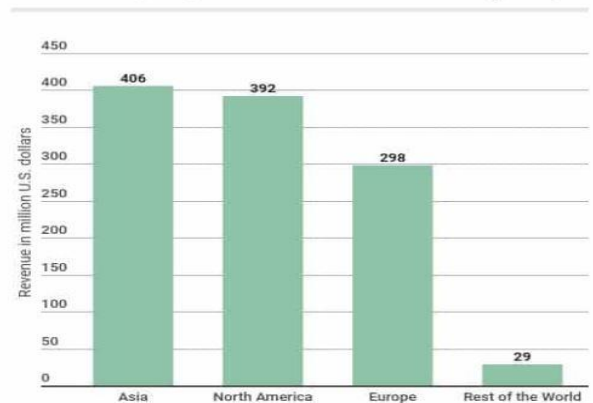
Sources: Newzoo; Various sources (esportsbets.com)

Created by WePC.com

One major component of the whole gaming industry that has seen rapid growth is the esports segment of gaming. From competitive tournaments to professionals sharing their talents in video format for casual viewers. The increased push from sponsors is great for the space as more investment is thrown into the space. Activision is an early leader in the franchising model for esports similar to traditional sports leagues. The Overwatch League was first introduced in 2018 with 12 teams with each team being tied to a city from the world and each having a price tag of \$20-\$30 million each. Now the League for 2020 has 20 teams and the expansion slots are valued between \$30-\$60 million each allowing for \$480-\$840 million in revenue for Activision. Now Activision is planning to bring their biggest game into this model. Call of Duty League 2020 is scheduled to have 12 teams with a price tag of \$25 million each providing revenue of \$300 million for the company. This almost creates a revenue stream of \$1 billion in revenue. The company has also secured sponsors for their Overwatch League with big names like Coca-Cola, Toyota, Intel, and HP to name a few. My estimation is that the growth in esports will lead to increased sponsoring and increased advertising revenue will be accumulated due to the increase in big companies wanting to advertise to the new emerging market of consumers.

Exhibit 12

The Estimated Revenue of the Global eSports Market by Region in Million U.S. Dollars (2017)



Sources: SuperData Research; Medium

Created by WePC.com

Esports has a global footprint, but has long been established in Asian culture and has recently made a huge impact in Europe and North America, with growth potential in the rest of the world. In Asian markets it is considered a mature industry as many top name brands have invested into the growth of esports in their respective regions. For example, Korea was seen as the first esport accepted nation by many gamer historians and has always remained part of the culture there. Recently with the rapid growth in esports, American and European markets are seen as a lucrative opportunity for companies.

My view is that with the growth of esports into a franchising model that ATVI is trying to accomplish that is similar to the traditional sports model, it allows for increased sponsorship and viewership deals. This allows for increased ad revenue and monetization avenues for their league to become improved and with the expansion in size of the league, it incorporates many new teams into the fray. Ultimately I believe that esports is a positive avenue for revenue creation for the company. There is a possibility that people who view the game do not play, but this is similar to traditional sports viewing. I do not see this as a negative and more of a positive as it allows even non-gamers in to enjoy the entertainment these leagues can bring to consumers.

### Exhibit 13-15

#### ESPORTS REVENUE STREAMS GLOBAL | 2018

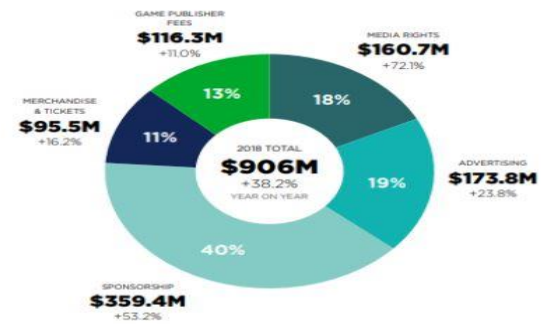


Image Source: [Newzoo](#)

#### TWITCH KEY PERFORMANCE INDICATORS

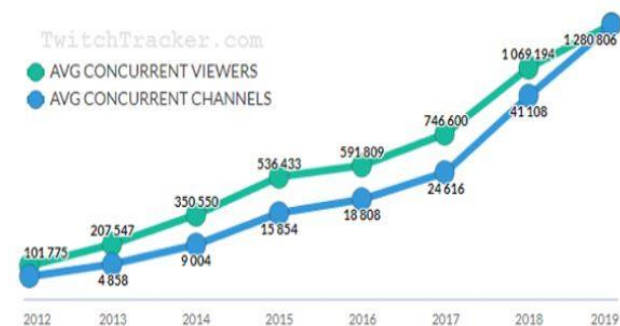


Image Source: [TwitchTracker](#)

#### The Global Distribution of Frequent Viewers and Enthusiasts of eSports (by region)

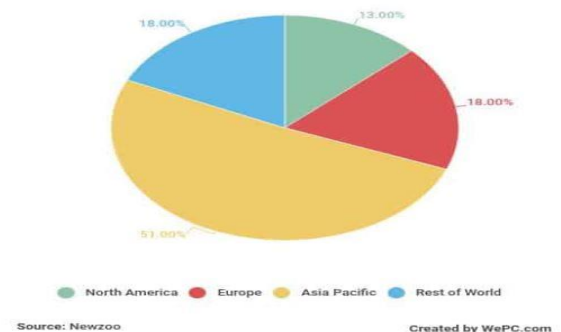




Exhibit 16

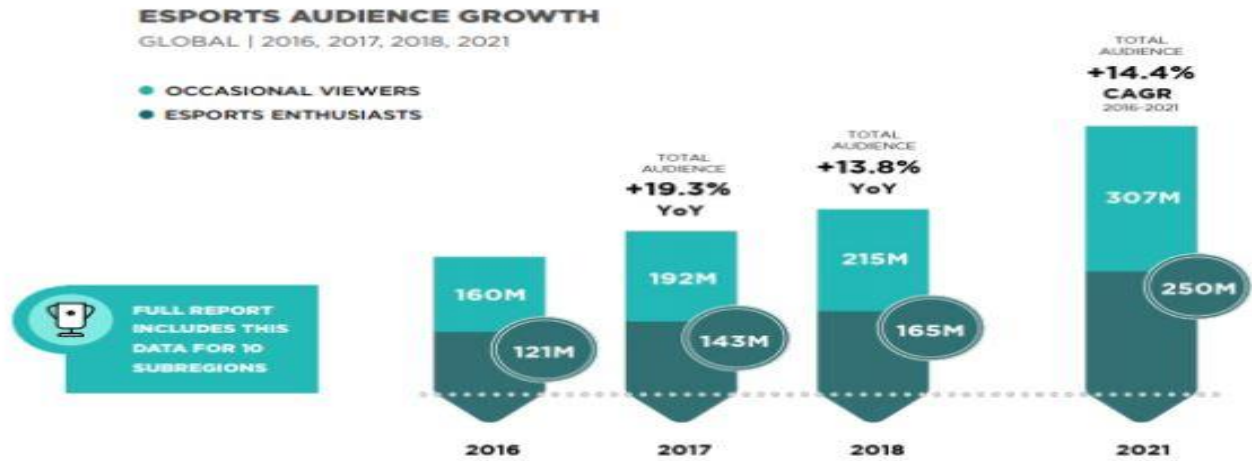





Image Source: [Newzoo](#)

## New Generation of Video Game Consoles:

With the announcement by Sony and Microsoft of the next generation of video game consoles my belief is that there will be an uptrend in revenue projections for both companies, while at the same time reinvigorating the “traditional” game market and continue the success of current market. Both consoles are slated for release in December 2020 with both companies presumed to release exclusive games for each model. Activision can benefit from the release of new consoles because of the inflection of an uptrend in consumption of gaming content. With games growing more technically ambitious and with game environments becoming more advanced, the Xbox Scarlett and Playstation 5 will be better equipped to handle these industry trends than their current line of consoles. Currently consoles have sales have been waning due to the age of the product itself. Both Xbox One and Playstation 4 will have been in the market for 6+ years until the release of the new-gen consoles. My belief is that once the console market becomes energized and renewed

Exhibit 17

Console	2017	2018	2019	Lifetime
	19,808,528 48.8%	18,277,267 43.9%	11,930,275 38.9%	103,736,169 53.7%
	7,644,053 18.8%	6,829,443 16.4%	3,775,444 12.3%	44,911,567 23.2%
	13,116,268 32.3%	16,482,594 39.6%	14,988,472 48.8%	44,587,334 23.1%
<b>Total</b>	<b>40,568,849</b>	<b>41,589,304</b>	<b>30,694,191</b>	<b>193,235,070</b>

current owners will shift to the new system due to the increase of gaming content available on Twitch and Youtube, increasing gaming population, general acceptance of gaming in media, and the

growth in gaming market. This all creates a large growth opportunity for Activision and a potential inflection point for revenue as it has been.

declining in the past few years. My view is that with the new consoles becoming available accompanied with the announcement that Activision has Overwatch 2 and Diablo 4 in the works currently and with both I have presumed will be available for the next gen consoles due to the fact that both do not have a release date and with the next gen consoles being slated to be released in late 2020. Both systems will have backwards compatibility allowing for play of older generation games.

Activision will benefit from the increased technology and speed of connection that these new consoles will have. My belief is that the games produced by these companies will benefit from the increased ability of the graphics driver and frame rate allowing for creation of more compelling and sophisticated environments. Activision and its line of legacy games from Diablo, Overwatch,

Call of Duty, Sekiro and Crash Bandicoot all have the potential for an increase in revenue due to the quality of the hardware that will be available. This all creates a positive experience for gamers and will see a positive trend in premium sales of video games. Based on research by SuperData, premium video game sales in 2018 accounted for \$17.8 billion. This is an increase in sales of 10% from 2017. I believe that premium game sales will jump to 15% in 2021 due to the release of the next-gen consoles in the holiday season of 2020 from current 2018 levels reported by SuperData. My assumptions are because consumers still want to play premium games due to their name brand, higher

Exhibit 18

Top premium PC and console games by revenue, 2018

Rank	Title	Publisher	Genre	Revenue
1	PlayerUnknown's Battlegrounds <sup>1</sup>	Bluehole	Shooter	\$1.035M
2	FIFA 18	Electronic Arts	Sports	\$830M
3	Red Dead Redemption 2	Take-Two Interactive	Action-Adventure	\$732M
4	Call of Duty: Black Ops IIII	Activision Blizzard	Shooter	\$689M
5	Grand Theft Auto V	Take-Two Interactive	Action-Adventure	\$593M
6	Call of Duty: WWII	Activision Blizzard	Shooter	\$536M
7	Monster Hunter: World	Capcom	RPG	\$468M
8	Overwatch	Activision Blizzard	Shooter	\$426M
9	FIFA 19	Electronic Arts	Sports	\$415M
10	Counter-Strike: Global Offensive	Valve Corporation	Shooter	\$414M

Above: Top premium PC and console games in 2018.

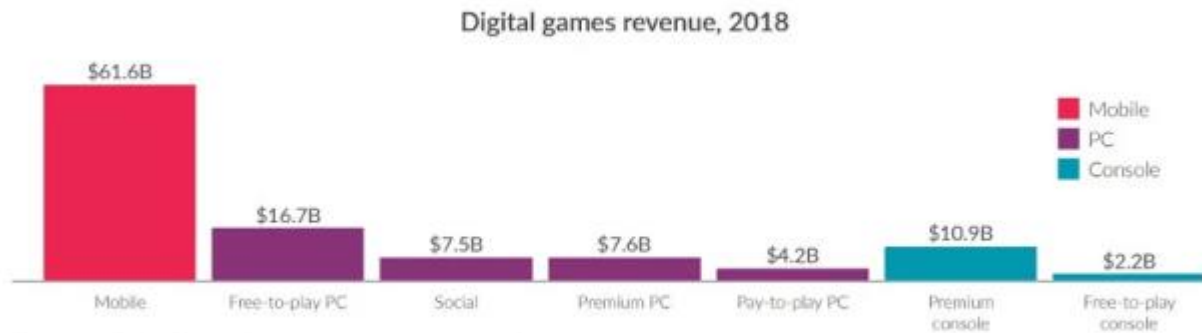
Image Credit: SuperData

quality, and detailed storylines due to the emphasis for premium games to tell a more compelling story, rather than a gameplay focus. Next-gen consoles have a major impact to play in the gaming industry and present a positive growth factor for premium game sales allowing Activision to find a new source of growth in a market that has seen some decline due to the explosion of games like Fortnite that follows a free to play model.

With Greater focus on digital sales rather than physical store sales, this allows for companies like Activision to increase margins due to the decrease in costs of creating physical copies and distribution of these. The ability to have these decreases in costs leads me to assume that adjusted EBITDA margins will increase to 40% due to the lower costs of distribution through digital sales.

Exhibit 19-20

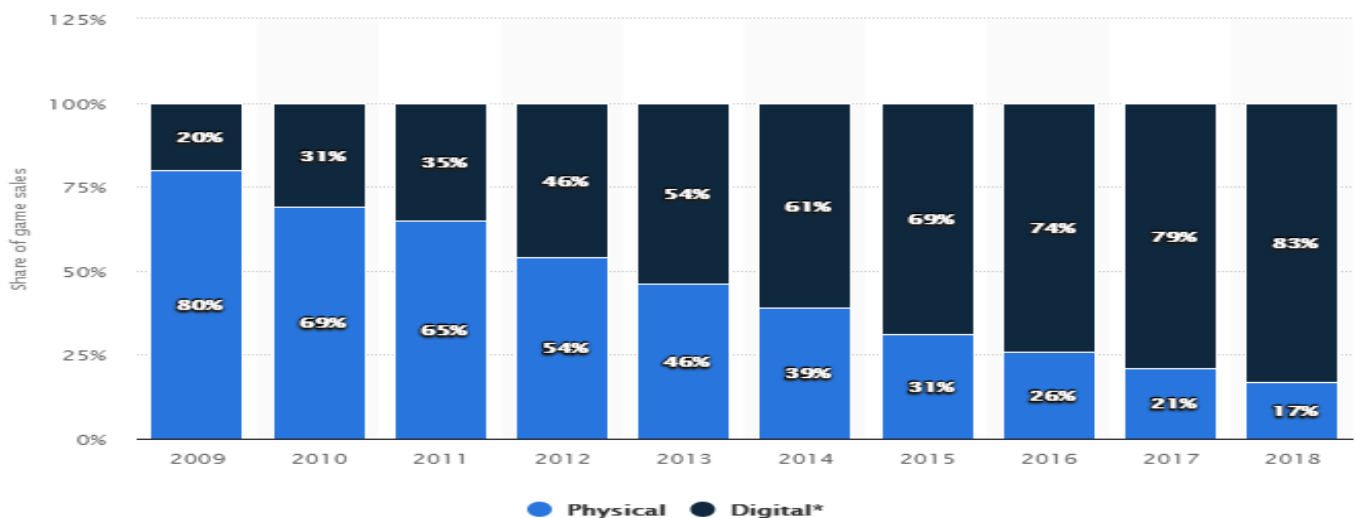
## Digital games revenue jumped to \$110.7B in 2018, up 11% year-over-year



Above: Digital gaming grew 12 percent in 2018.

Image Credit: SuperData

## Digital accounts for a majority of game sales



Source: Statista

## Expansion into Free to Play Models:

With the success of Fortnite by Epic Games and Apex Legends by EA, I forecast that the free to play (F2P) model is a viable option for success in the gaming industry. Free to play generates revenue through various revenue channels. The most controversial being Loot boxes. Gamers do not like to have loot boxes because these usually give an unfair advantage to players who pay the extra amount for these items and takes away from the point of buying the full game. This concept is usually called pay to win or pay to play models. A Loot Box may not be a viable option if we recall the reception for EA implementing loot boxes into their game Battlefield 2. The game itself was a masterstroke with in-game mechanics optimized and game play, graphics, and modes all receiving better features, but the reception of loot boxes quelled any further expansion and ultimately caused

the game to underperform. Activision should learn from this and not make the same mistake. Another option for F2P games is through advertisements. This also has its negatives as gamers may lose interest in a game with too many ads and not enough gameplay between ads. The key to success in a free to play market is learning from Fortnite, Apex Legends and now CS: GO. All these games offer in game skins, dances, cosmetics or other aesthetic features that do not affect a player gameplay or allow for an advantage. This allows for the gameplay being front and center and adding a customizable feature to gamer's avatar allowing for personalization in game. With an added feature of scarcity, skins or other items are limited in a community and could add value to the overall market for these items.

Based on reports by management and recent game release successes, Activision is looking towards making Overwatch a free to play game. We see this as a positive for the game as recently sales for the game has been declining. Overwatch has been experimented with the idea of F2P as they have had multiple free trial weekends for the game that has seen an increase in player base. Overwatch has in game cosmetics similar to Fortnite that could be expanded on in a similar fashion if the model changes to F2P. I forecast that this change in business model will not only increase player population as more gamers will be inclined to try it due to the reduced costs, but non-gamers as well will now want to try the game since there is no purchase cost for the game anymore. My belief is that due to their being no purchase price, consumers will spend more on in game cosmetics because there is no initial costs to play the game and players will want to customize the layout of their avatar similar to that of Fortnite. The

## Exhibit 21: Top grossing Free to Play games with ATVI owning 1 of them (Candy Crush)

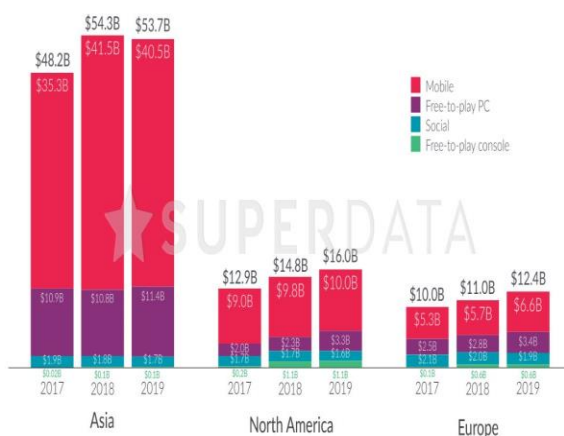
Top free-to-play games by revenue, 2018<sup>1</sup>

Rank	Title	Publisher	Genre	Revenue
1	Fortnite	Epic Games	Shooter	\$2.4B
2	Dungeon Fighter Online	Nexon	RPG	\$1.5B
3	League of Legends	Riot Games, Tencent	MOBA	\$1.4B
4	Pokemon GO	Niantic	Adventure	\$1.3B
5	Crossfire	Neowiz Games	Shooter	\$1.3B
6	Honour of Kings <sup>2</sup>	Tencent	MOBA	\$1.3B
7	Fate/Grand Order	Aniplex	RPG	\$1.2B
8	Candy Crush Saga	King, Activision Blizzard	Puzzle	\$1.1B
9	Monster Strike	Mixi	RPG	\$1.0B
10	Clash Royale	Supercell, Tencent	Strategy	\$0.9B

The top 10 grossing free-to-play games, according to SuperData. SuperData

## Exhibit 22: F2P dominates revenue

Free-to-play market and forecast by region

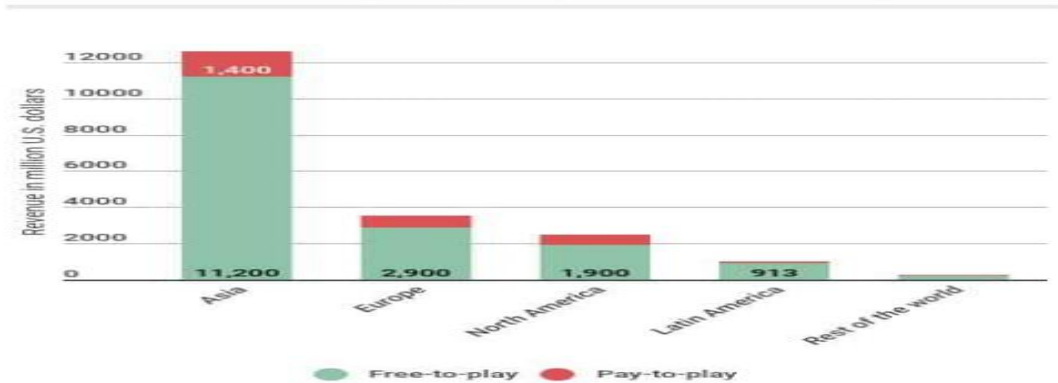


increased player population will mean that there will be an increase in consumer spending at every level of gamer from the off-cycle gamers to the expert to pro level gamers. My forecast is that gamer population will increase due to the fact that there is no added cost to the consumer to play and consumers will be more inclined to spend on in-game items due to the fact that they want to customize their character with the money they didn't spend to purchase the game.



# Exhibit 23

**The Worldwide Revenue Generated by Free-to-Play and Pay-to-Play MMO Games in Million U.S. Dollars by region (as of June 2016)**



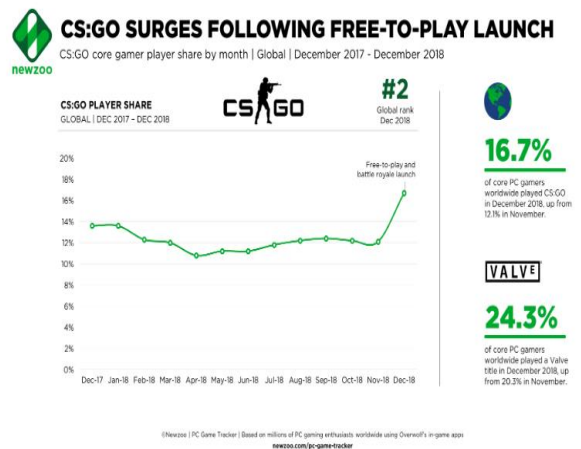
Source: SuperData Research; gameindustry.biz

Created by WePC.com

Delving further into the free to play model once we look at the overall gaming market we see that free to play model actually generates most of the revenue based on a study by SuperData. They reported that free to play accounts for global revenue of \$88 billion in 2018 with the top 10 free to play games generating \$14.6 billion in revenue.

“Traditional” gaming is constituted by games that have a purchase price averaging around \$60 per game and this accounted for \$16 billion in 2018 across pc and console gaming. The vast majority of revenue comes from the Asian markets like China, Japan, and Korea. Activision has a footprint in these markets with their games like Call of Duty and Overwatch. With the announcement of the F2P Call of Duty mobile and the possibility of Activision taking Overwatch to a free to play model we see a possibility for further gamer population growth similar to that of CS:GO when they went from a premium to a F2P model. A F2P model is successful due to the environment they are able to create. To create a social hangout spot for people to interact with one another, compete, team-up or possible meet celebrities. This environment is able to exist because a F2P model focuses on the environment and gameplay, instead of the story or mechanics that traditional games focus on. This is why I believe that the success of Call of Duty Mobile and potential for switching other franchise games into a F2P model will be profitable and essential for growth.

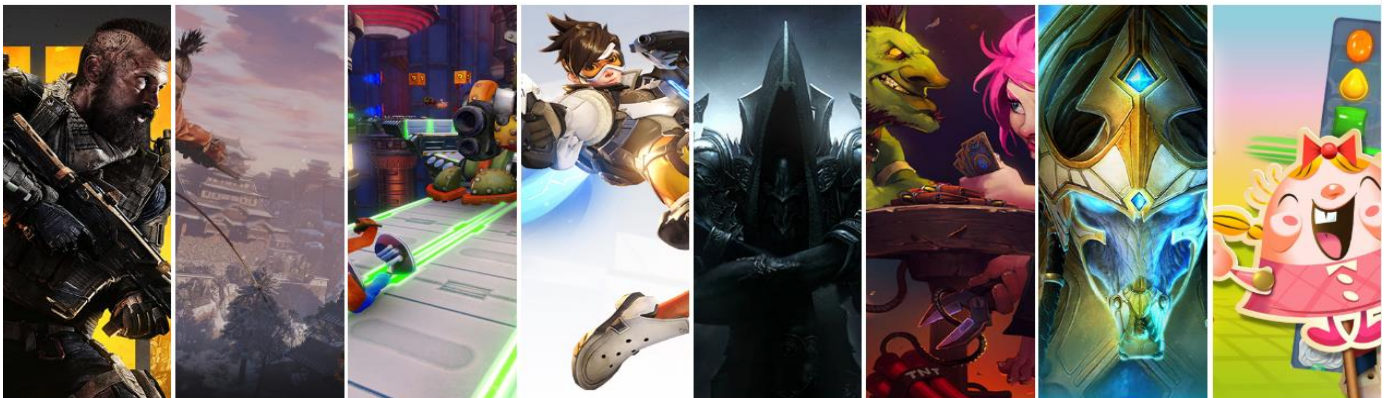
**Exhibit 24: showcases the point where CS:GO went F2P and a large increase in player base happened**



## Continued Growth in Franchise Titles:

Activision has three main segments of their business. These three segments are Activision, Blizzard and King. All of these brands have major franchised games that are associated with each segment. Blizzard is most known for their Overwatch, Diablo, Starcraft, World of Warcraft, and Hearthstone. Activision is known for their Call of duty and Sekiro titles. Finally, the acquisition of King gave ATVI a complete set of brand products that are proven in the mobile industry like, Candy Crush and Bubble Witch Saga. My belief is that with the recent announcement of an Overwatch 2 and Diablo 4, the success of the recent release of Call of Duty, continued gaming content with specific franchised titles like Overwatch, and the continued growth in viewership of casual gaming and professional gaming content on Youtube and Twitch, and a switch to a free-to-play model for certain titles will lead to an increase in player population as well of an increase of in-game purchases due to consumers having more money to spend on in game cosmetics. ATVI has seen a decrease in player base for most of their segments due to certain circumstances like media misrepresentation, player base switching from a traditional premium game model and the aging of some of their titles like Overwatch and unsuccessful expansion pacts. If ATVI is able to increase the popularity of their franchise titles, the growth and sustainability of the company is well secured into the future. Based on monthly active user (mau) estimates by Activision from their 10K we are able to see that there has been a decline in almost all of their segments over each quarter, but my belief is that with the introduction of Overwatch 2 the success of Call of Duty mobile with updates to Diablo mobile and increased viewership on twitch, there will be an increase in for the next quarter and continuing periods.

	September 30, 2019	June 30, 2019	March 31, 2019	December 31, 2018	September 30, 2018	June 30, 2018
Activision	36	37	41	53	46	45
Blizzard	33	32	32	35	37	37
King	247	258	272	268	262	270
Total	316	327	345	356	345	352

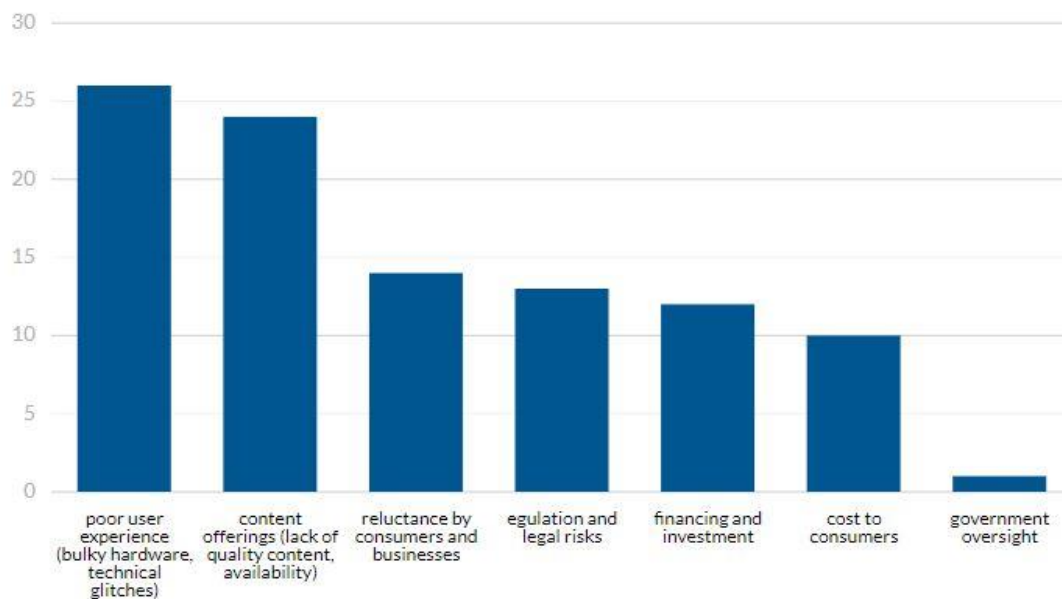


## Advancement in VR Gaming:

VR gaming brings in a new aspect to a traditional gaming model as it allows the player to have physical movements within a game instead of having controls to move the game avatar. VR gaming presents a positive growth avenue for ATVI as many of their games will be well suited for a VR experience like Call of Duty or World of Warcraft as these presents a very open world and rapidly moving parts that many gamers would like to experience. Having that physical connection to a game by adding in physical bodily movements is an interesting technology. Currently VR gaming is not as advanced as it should be to run games like Call of Duty or ATVI franchise titles. I truly believe that with the advancement of technology and gaming tech there will be a significant movement from traditional console or pc gaming to a VR focused type of gameplay mechanic. I believe that ATVI will most likely benefit from this development in the market, but is a long term project that is not going to be a short term gain due to the fact that games cannot be run optimally at this point in time. My estimation is that VR gaming will account for 10% of revenue in 2025 as a conservative estimate. Below there is a graph that describes the technical barriers with VR gaming at the moment proving why it isn't optimally beneficial for ATVI to become fully invested into the market. More research and development is needed for this market segment.

Exhibit 25

Top Virtual Reality's Adoption Barriers in 2019



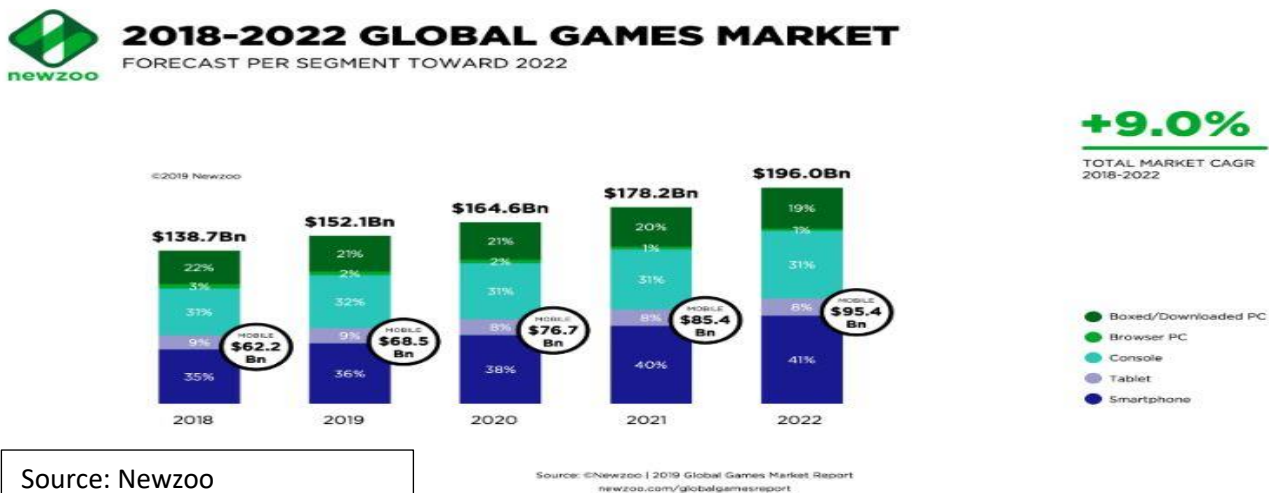
Credit: Perkinscoie

Designed by  FinancesOnline

## Market analysis:

Gaming is an industry that is one of the fastest growing in the world currently. ATVI is well positioned to benefit from this growth in the industry. The growth in the industry is due the acceptance of gaming as a profession, the explosion of esports, gaming content on Twitch and YouTube and the increasing population that are playing some form of gaming entertainment. ATVI is a leader in the market and has the highest market cap among its peers. There are several key aspects to note in the current market.

Exhibit 26



Source: Newzoo

## Cloud Gaming:

With the announcement of the Google Stadia where customers are able to stream games online in 4k resolution without the need for a physical console to conduct this type of gaming. This allows for an ease of access to consumers and creates a growth opportunity as players are now able to play games without needing a conventional console or pc. The offer is \$9.99 a month with an initial purchase of a stadia for access to a library of games.

## Growth in esports and sentiment:

Esports is a rapidly growing environment that will lead to increased consumer consumption of gaming content and possibly increasing active player population in those specific games. The other positive is that major sponsor like Toyota are starting to get involved in the market creating a large advertising revenue opportunity for ATVI due to the fact that they own two leagues at the moment.

## Increased advertising and bookings:



Due to increasing player populations and increasing acceptance of gaming in general there has been a steady increase in advertising in games. With a switch to a free-to-play model is increasing bookings and purchases by each customer due to the psychological effect of the consumer thinking he is saving money by playing a free game so a couple dollars will not have an effect since that is what they saved. Other reasons for the increase in bookings is due to new content releases or customization of avatars.

### Increase in Consumer engagement:

Increasing consumer engagement by allowing for feedback on games through open beta testing. This increases trusts in consumers thinking that the company is doing its best to create the best game available to the customer. Another way to increase engagement is through Twitch and YouTube content creators producing viewing content about ATVI's games. This allows players to showcase their skills in-game to viewers and through this there will be an increase in want by customers to play a specific game.

### Asia is considered a matured Market:

Asia is considered by many experts as a mature video game market and as such has to be tailored in a certain way. The belief is that ATVI can gain a larger share in these markets by attaining a better understanding of what games will succeed in these markets, as they are different from others.

### The EU and Americas are considered growth regions:

Europe and America is considered a better growth prospect due to the fact that these regions are still discovering their foothold in the gaming market and these regions have not fully integrated gaming into their culture allowing for ATVI to attain a large share in these rapidly growing market. These markets are still young, but due generate a substantial amount of revenue and at the increasing pace of gaming, I suspect that it will soon overtake the market in Asia

Exhibit 27



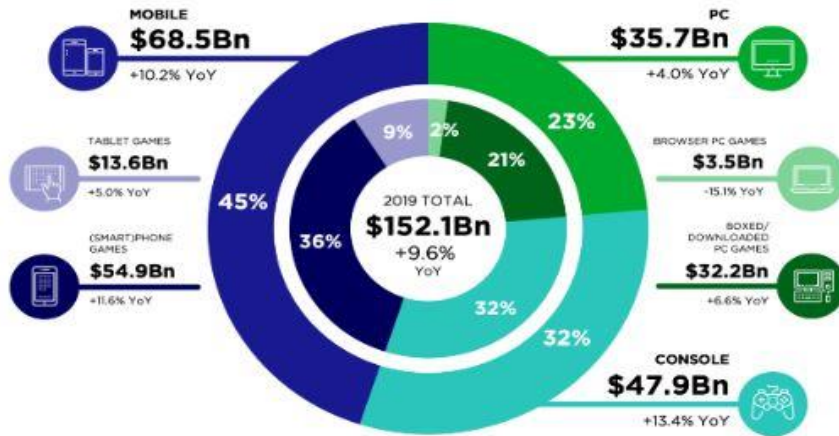
Source: Newzoo

Exhibit 28



## 2019 GLOBAL GAMES MARKET

PER DEVICE & SEGMENT WITH YEAR-ON-YEAR GROWTH RATES



**\$68.5Bn**

Mobile game revenues in 2019 will account for 45% of the global market.

Source: ©Newzoo | 2019 Global Games Market Report  
newzoo.com/globalgamesreport

Source: Newzoo

Name	Sales Growth (%)	EBITDA Growth (%)	EBITDA Margin	Operating Income Margin	Net Income Growth (%)	Net Profit Margin	Capex/Sales (%)	Return on Invested Capital	Return on Assets	Return on Equity
Median	10.90%	-1.14%	26.08%	19.10%	16.55%	15.63%	2.46%	11.51%	9.61%	14.32%
100 ACTIVISION BLIZZARD ..	-3.87%	13.67%	40.83%	28.53%	18.98%	23.90%	1.75%	11.51%	9.53%	14.38%
101 NETEASE INC-ADR	15.64%	-25.31%	9.15%	5.20%	110.38%	16.84%	3.76%	3.01%	12.98%	22.60%
102 NINTENDO CO LTD	17.29%	40.29%	23.27%	22.50%	27.54%	15.55%	0.89%	--	11.09%	14.26%
103 ELECTRONIC ARTS INC	-1.57%	-9.24%	26.08%	22.90%	138.86%	54.70%	2.40%	42.33%	29.20%	44.58%
104 SEA LTD-ADR	151.57%	--	--	-58.65%	-47.75%	-86.39%	29.87%	-70.71%	-49.90%	-161.83%
105 TAKE-TWO INTERACTIV..	75.85%	74.67%	17.57%	7.54%	58.21%	11.23%	2.51%	15.51%	8.45%	17.35%
106 NEXON CO LTD	-5.74%	-15.68%	42.00%	39.20%	14.11%	49.67%	0.66%	--	18.03%	20.69%
107 NCSoft CORP	-15.24%	-31.23%	31.53%	28.74%	-22.09%	23.48%	1.56%	11.60%	11.80%	14.88%
108 UBISOFT ENTERTAINME..	-12.63%	-26.73%	40.52%	7.05%	-96.56%	0.64%	3.33%	1.00%	0.31%	1.01%
109 WUHU SANQI INTERACT..	60.59%	--	--	18.98%	39.39%	15.71%	4.25%	20.15%	19.29%	28.74%
110 PERFECT WORLD CO LT..	5.23%	--	--	23.20%	6.69%	22.09%	1.75%	16.02%	11.27%	20.83%
111 CD PROJEKT SA	21.03%	6.96%	34.10%	25.26%	-4.83%	24.88%	4.18%	10.10%	9.68%	11.07%
112 KONAMI HOLDINGS COR..	6.16%	13.06%	26.79%	19.22%	7.79%	13.33%	9.07%	13.06%	9.03%	12.84%
113 NETMARBLE CORP	-1.82%	-17.74%	14.40%	8.98%	-13.25%	9.28%	1.14%	3.37%	3.48%	4.33%
114 SQUARE ENIX HOLDING..	21.06%	31.16%	13.52%	10.89%	28.63%	7.76%	3.18%	--	7.96%	10.63%
115 ZYNGA INC - CL A	30.73%	--	-28.79%	-35.79%	65.25%	-5.64%	1.26%	-14.96%	-2.35%	-3.70%

Source: Bloomberg



Source: Bloomberg

## Corporate Management:

### SENIOR CORPORATE MANAGEMENT

BOBBY KOTICK

CHIEF EXECUTIVE OFFICER

DENNIS DURKIN

CHIEF FINANCIAL OFFICER AND  
 PRESIDENT OF EMERGING  
 BUSINESSES AT ACTIVISION  
 BLIZZARD

CODDY JOHNSON

PRESIDENT AND CHIEF  
 OPERATING OFFICER

CHRIS WALTHER

CHIEF LEGAL OFFICER OF  
 ACTIVISION BLIZZARD

CLAUDINE NAUGHTON

CHIEF PEOPLE OFFICER OF  
 ACTIVISION BLIZZARD

Source: Activision 10K

Many of the top brass has experience within the industry with the CEO being with the company for many years leading me to believe that the company is in good hands as it has grown at a positive rate in the time that he has been in charge. The other members of management are studded with credentials and leads me to believe that there should be no concern with management going forward.

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## **Downside Risks:**

### **Government Regulation of Loot Boxes:**

If the Government decides to act on the legality of Loot Boxes and decides to deem these interactions are similar to gambling. This could result in the decline in revenues from specific franchise titles and could negatively influence the business.

### **Narrative in the media that links gaming to violence:**

Currently video games are conveyed negatively in the overall market and isn't seen as a good influence on kids due to certain violent actions portrayed in video games. The media chooses to highlight these actions and link these actions shown in game to the actions of a person in the real world. If this persists, there may be a reluctance for parents to allow their children to play video games causing a decrease in consumer population.

### **Faster than expected decay of franchise titles:**

If due to the fact of bad content updates, negative fan reaction to certain title releases or just overall disapproval by the community, there may be a faster decline in franchise titles. This is a horrible situation, as this would cause us to discontinue franchises that are name brand to the gaming community

### **Slower content Releases:**

If ATVI delays or cancels certain releases this could cause players to move to a different platform of game. This switch is due to player dissatisfaction due to game update delays or game releases. Constant content releases are needed to keep the game up to date and change a constant model to provide new content to fans.

### **Consumers use leisure time for other things:**

If consumers decide that gaming is not what they want to do anymore and choose to move to other activities, this will create a loss in marketable population. This decreases in consumer population and will decrease revenue. If consumers choose to use their time to do other things this will create a declining market, which will ultimately lead to the decay of the business due to consumers wanting to spend their time and money on other activities.

### **Negative reactions to content releases:**

If ATVI were to release an update or incomplete game to the public, this will create a negative situation towards the company similar to the reaction that EA got once they included loot



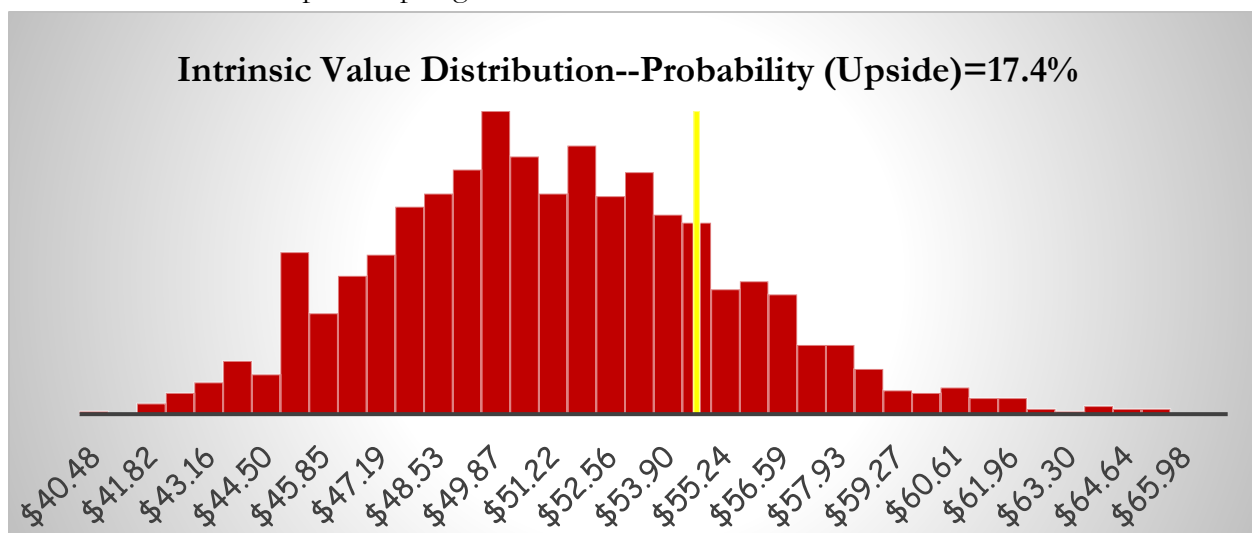
boxes in their star wars games leading to a negative connotation about the game. This view ultimately cause the game to fail in market and cause a loss to a key franchise for EA

### Esports is just a fad and will die out:

Esports is a growing market, but it is not the first time when there has been an interest in professional gaming. In the early 2000's there was a push by companies for esports, but ultimately failed and caused the whole market to downfall. If this were to happen, again this will be detrimental to ATVI as they will have significant exposure to this type of risk because of their investment in an Overwatch and Call of Duty League

### Conclusion:

My belief is that ATVI is a great company within a growing industry allowing for substantial growth in a company that is a leader in its industry. ATVI is able to benefit from the growth in free-to-play model as most revenue creation is through this model. ATVI is in a transitional period now due to negative reactions from the media regarding video games and recent launch failures of games like Diablo mobile. ATVI is a market leader in their current industry and has multiple franchise titles that help generate recognition and revenue for the company. I believe that ATVI is a buy at \$55.21 and a target price of \$70.47 because of their esports initiatives, a transition to a free to play model proving to be a success (Call of Duty Mobile), expansion into VR gaming, the introduction of next-gen consoles, a star-studded product pipeline, mobile gaming boom and continued growth in underdeveloped gaming markets, ATVI becomes an attractive investment for investors looking for a growth stock with a blue chip stock pedigree.



Activision Blizzard, Inc.	Symbol: ATVI	Cost of Capital Estimates			
Analyst	Alexandros Giannakitsidis		C6FS Credit Rating	Credit Rating Model	Probability of Default ModelModel
Buy below	\$49.91	Implied Cost of Borrowing (ATVI)	3.1%	4.4%	3.4%
Sell above	\$70.49	Implied Cost of Borrowing (Peers)	4.8%	5.1%	5.0%
Probability of Price Increase	17%		Base Year	Explicit Period (15 years)	Continuing Period
Last Price	\$55.21	Cost of New Debt Estimate	3.20%		3.11%
Intrinsic Value	\$56.78	Country Risk Premium Estimate	7.00%		7.00%
Target Dividends	\$0.39	Cost of Equity Estimate	10.20%		10.11%
Target Price	\$70.49	WACC Estimate	9.70%		9.61%

Forecast Assumptions						
Fiscal Year	Revenue Growth	EBITDA Margin	CAPEX/Revenue	DPR/CAPEX	Other	
Base Year (Actual)	6.18%	41.4%	1.7%	1.05	SBC/Revenue	2.50%
year 1	7.00%	34.8%	2.1%	0.96		Constant/same as LTM
year 2	8.00%	37.4%	2.1%	0.96	Lease term	10
year 3	7.65%	38.4%	2.0%	0.96	Rent Expense/Revenue	0.89%
year 4	8.08%	39.0%	2.1%	0.96		Tappers off to historical average
year 5	7.00%	42.3%	2.0%	0.96	R&D life	10
year 6	7.00%	44.0%	1.9%	0.96	R&D Expense/Revenue	13.64%
year 7	6.50%	45.0%	1.8%	0.96		Constant/same as LTM
year 8	6.00%	44.6%	1.9%	0.96	LIFO Reserve	Tappers off to zero
year 9	5.00%	44.1%	1.9%	0.96	Non-operating pension costs	Tappers off to zero
year 10	4.50%	43.7%	1.9%	0.96	Net financing pensions costs	Tappers off to zero
year 11	3.50%	43.2%	1.9%	0.96	Overfunded pension plans	Tappers off to zero
year 12	3.30%	42.8%	1.9%	0.96	Capitalized interests	Constant/same as LTM
year 13	3.00%	35.0%	1.9%	0.96	Dividends/Revenue	3.45%
year 14	2.90%	37.0%	1.9%	0.96	Tax Rate	21.42%
year 15	2.70%	41.0%	1.9%	0.96		
Continuing Period	2.50%	41.0%	2%	0.96		

Simulation Assumptions						
Random Variables	Distribution Assumption	MAX	Likely	MIN	Sensitivity: Price Variance Attribution Analysis	
Deviations in annual Revenue Growth--Expl. Per.	Triangular	1.11%	0%	-0.50%	1.98%	Revenue growth
Deviations in annual Revenue Growth --Cont. Per.	Normal	1.41%	0%	-1.41%	0.89%	EBITDA Margin
Deviations from EBITDA Margin base annual estimates	Triangular	6.61%	0%	-7.07%		CAPEX/Rev
Deviations from CAPEX/Revenue base annual estimates	Triangular	0.09%	0%	-0.05%	90.79%	Discount Rate
Deviations from Kd base annual estimates	Triangular	2.10%	0%	-0.21%	5.59%	TEV/Rev
Deviations from CRP base annual estimates	Triangular	2.00%	0%	-1.74%	0.00%	TEV/EBITDA
Deviations from TEV/Revenue base estimate	Triangular	0.93	0%	-1.95	0.00%	P/BV
Deviations from TEV/Revenue base estimate	Triangular	1.81	0%	-1.14	0.00%	P/E
Change in P/BV (TTM)	Triangular	9.62	0%	-2.42	0.00%	Asset Recovery Rate
Change in P/E (FW)	Triangular	4.69	0%	-1.09	0.00%	
Recovery Rate	Triangular	10.00%	0%	-10%	0.00%	

Valuation				Intrinsic Value Distribution--Probability (Upside)=17.4%	
DCF Valuation					
	Base	Explicit Period (Average)	Continuing Period		
Revenues	\$6,884.00	\$11,354.88	\$15,656.76		
Net Margin	28%	34%	48%		
LFCF	\$1,898.48	\$3,204.48	\$6,991.18		
Ke	10.20%	10.11%	10.11%		
ROE	12.04%	15.70%	10.11%		
Relative Valuation					
	Median Justified Multiple	Basis	Implied Equity Value		
EV/Rev (FW)	4.1x	\$7,499.07	\$32,836.55		
EV/EBITDA (FW)	15.0x	\$2,649.80	\$42,035.96		
P/BV (TTM)	4.4x	\$19,942.43	\$87,065.86		
P/E (FW)	21.2x	\$2,276.28	\$48,291.31		

Asset Based Valuation				Valuation Summary			
Recovery Rate	60%			Intrinsic Value	Target Price	Model Weight	
Capital	\$54,029.21			DCF Valuation	\$ 57.09 \$	61.23	100%
Intangibles	\$10,456.00			EV/Rev (FW)	\$ 42.27 \$	45.94	0%
Claims	\$10,131.23			EV/EBITDA (FW)	\$ 54.11 \$	58.93	0%
Implied Equity Value	\$16,012.69			P/BV (TTM)	\$ 112.07 \$	122.52	0%
				P/E (FW)	\$ 62.16 \$	67.76	0%
				Asset Based Valuation	\$ 20.61 \$	22.18	0%
				Price per Share	\$ 57.09 \$	61.23	100%