ATVI - Buy Recommendation
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Video Game Industry Overview

Major Industry Trends
Trending from single-player to online, mobile, & esports
Increasing penetration with microtransactions
High rise in sales around the holiday season

Main Players & Strengths
Take-Two Interactive (TTWO)
- Strategy: Low Volume, High-quality developer
- Primary Platforms: PC, Consoles
- Key Strength: Quality & Reputation

Electronic Arts (EA)
- Strategy: Sports Heavy, One Shooter
- Primary Platforms: PC, Console
- Key Strength: Sports Game MOATs

Activision Blizzard (ATVI)
- Strategy: Esports, Mobile Expansion
- Primary Platform: PC, Console, Mobile
- Key Strength: Reputation & Portfolio

3 Primary Platforms
PC: Computers, largest segment for hardcore games
Console: XBOX & PS4. strong segment domestically
Mobile: Smartphones, largest & fastest growing segment worldwide and in Asia
<table>
<thead>
<tr>
<th>Market Segment</th>
<th>Activision</th>
<th>Competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPG</td>
<td><img src="image" alt="Diablo III" /> <img src="image" alt="World of Warcraft" /></td>
<td><img src="image" alt="Guild Wars" /> <img src="image" alt="Red Dead Redemption II" /> <img src="image" alt="Battlefield" /></td>
</tr>
<tr>
<td>WoW is definitive MMORPG having most active users; others are weak (WoW &gt;5 million, ESO 2.5 million),</td>
<td></td>
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<tr>
<td>FPS</td>
<td><img src="image" alt="Destiny 2" /> <img src="image" alt="Call of Duty: Forsaken" /></td>
<td><img src="image" alt="Red Dead Redemption II" /> <img src="image" alt="Battlefield" /></td>
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<tr>
<td>CoD is currently largest and most successful FPS; however, Red Dead 2 is closest competitor as it is a hybrid game and upcoming BV (negative reception)</td>
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<tr>
<td>E-Sports</td>
<td><img src="image" alt="Hearthstone" /> <img src="image" alt="Heroes of Warcraft" /> <img src="image" alt="Overwatch" /></td>
<td><img src="image" alt="League of Legends" /> <img src="image" alt="Dota 2" /></td>
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<tr>
<td>Games that have heavy online presence beyond the game itself Overwatch and Hearthstone are two of the top 5</td>
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<tr>
<td>Mobile (Casual Freemium)</td>
<td><img src="image" alt="Candy Crush Saga" /> <img src="image" alt="Friends" /> <img src="image" alt="Ninja Saga" /></td>
<td><img src="image" alt="Farm Heroes Saga" /> <img src="image" alt="Fruit Ninja" /></td>
</tr>
<tr>
<td>Candy Crush is best selling and most active mobile game with it being #1 on app store for 20 quarters straight and new Friends is #1 in 93 countries after release</td>
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</table>
**What Company Does**
Sells/makes video games, has a strong portfolio - Activision (CoD, Destiny), Blizzard Entertainment (Overwatch, WoW, Diablo, Hearthstone, etc), King Digital Entertainment (Candy Crush Saga, Candy Crush Friends, Bubble Witch, etc), Major League Gaming (eSports for its games like Overwatch and CoD)
Eight 1$ billion franchises

**Video Game Industry Exposure**
Exposed to every video game market and is the market leader within them (Mobile - Candy Crush, upcoming Diablo Immortal; Console and PC - Call of Duty, Destiny, Overwatch, Diablo (in 2012); eSports - Overwatch, CoD, and Hearthstone)

**Management Team**
Highly experienced management team, led by Bobby Kotick, who has been CEO for 25 years
Initial Drop
Initial decrease was caused by bad reaction to Diablo Immortal (mobile game) with no impact on fundamentals, followed by King MAU drop, and lower guidance for Q4; however, ATVI is lowering expectations/guidance to outperform in holiday season (seen in historical years) as well as grow significantly in future with pipeline/portfolio of games.

Lost around one-third of its value since hitting a 52-week high of $84.28 on October 1st. With this drop, Activision stock also now trades below levels seen this time last year. With video game companies Q4 is strong and going into 2019 with updates makes it compelling especially with King, CoD, and Blizzard both near/long term.
Analyzing Activision’s Recent Games

Call of Duty: Black Ops 4/Destiny Sentiment and Our View

**Black Ops 4**

- Investors expected higher sales for Black Ops 4 and were worried about engagement with Red Dead 2
- However, initial sales numbers tend to play a decreasing role over time as more publishers have a higher focus on post-launch monetization through live services and eSports. Black Ops 4 followed this trend by switching to the model based entirely online, as they removed offline single-player mode in this year's game. This means Black Ops 4 will generate much higher value over its lifetime than the previous games, especially with the addition of the Blackout mode which is similar to Battle Royale mode
- Black Ops 4 also set a new record for most combined players, average hours per player, and total number of hours played, on current generation consoles. The combined number of Black Ops 4 players across its three modes of play during those first three days tops both last year’s CoD and Black Ops 3 (single player, multiplayer and zombies), respectively, for the same period of time. This coupled with strong ratings for the game means higher engagement over time
- That is why I am not worried with engagement going into holiday season especially with increasing MAUs and ARPs

**Destiny**

- Forsaken tripled the game's player count from around 1.3 million players to approximately 4 million. That amounts to around 3 million people who bought the expansion during the first days of release - which shows the strength of the fanbase
- At BlizzCon, ATVI announced that Destiny is free for two weeks. ATVI wants the whole community loaded up and able to play it. Once people are playing, with the ongoing features and services and content, I expect deep engagement as well as an increase in microtransaction spending
Variant Perception

The Street is focusing on King’s performance rather than Activision and Blizzard’s segments and pipeline

The potential for Blizzard is strong as seen with their great development team for Overwatch, Diablo Immortal, and World of Warcraft that has upcoming releases and updates which the Street is undermining.

Q4 Guidance does not align with narratives and follow our expectations for Activision segment (Black Ops 4), Blizzard segment (WoW and Overwatch), and King’s (Candy Crush Friends)

Important Q3 Notes Supporting Variant Perception

Activision segment revenue for Q3 didn't include revenue from the recent Call of Duty: Black Ops 4 launch, which took place early in the fourth quarter (Management did say "Black Ops 4 is off to a strong start"). Q3 also did not include Candy Crush Friends which is now #1 selling app in 93 countries.

This means there is ambiguity surrounding Black Ops 4 and Candy Crush Friends performance which we believe is strong.

Moving towards mobile is what also deterred sell-side analysts; however, it should bring renewed MAU and ARPU growth with Candy Crush Friends and upcoming Diablo Immortal (Mobile game)
**Black Ops 4 DLC, new CoD, and CoD Mobile** - 4 DLC which are released each quarter effectively until next CoD game, this being the best selling CoD game in the franchise means recurring revenue from strong player base and new content every quarter is good. Activision is also collaborating with Tencent for a future mobile launch.

**World of Warcraft** - Battle of Azeroth (6th and best selling) and new Tide of Vengeance release Dec 10; Blizzard will celebrate 15th anniversary with events both in and out of the game. This includes the highly anticipated release of World of Warcraft Classic, available as part of the franchise subscription.

**Candy Crush Friends** - Released Oct, but will see renewed growth in end of 2018 as well as in 2019 through market traction and releases within game.

**Toys** - During BlizzCon 2018, Blizzard announced new Overwatch-themed toys (Nerf guns, etc) and Lego sets which will be available in 2019.

**Diablo Mobile** - Diablo but on the phone, targeting Asia and mobile players. Initial reception to idea was bad, but these were overreactions to the trailer. Game testers enjoyed the product and gave it strong reviews at Blizzcon 2018. Similar to NetEase's (a developer Blizzard outsourced to in the past) Crusaders of Light which was received very well in Asia and ATVI is leveraging Blizzard’s strong brand presence in Asia with a game that mirrors what the market wants.

**Diablo 4** - Last Diablo was released 2012 and there's a lot of hype for it. Blizzard confirmed it is coming out. Moreover, Blizzard event really showed that fans want a Diablo 4 due to massive outrage that it was not announced and rather a mobile game was. Once Diablo 4 gets released, I anticipate there will be strong sales all the while ATVI profits from the mobile game in Asia market and regular players.
King’s Mobile (Candy Crush Friends) - Expect to do well this holiday season as game just came out and more people will play into the holiday and spend on in-game items (it had two of the top 10 grossing games in app stores for 20th quarter in a row - Candy Crush Saga being #1)

Activision (Black Ops 4) - As seen with historical trends in Q4, there is quite a hike in MAU/ARPU in addition to sales; however, with this CoD game being the best selling and most highly reviewed in a while there will be more user spending (supply drops, gear, etc) with sales also in December

Activision Blizzard (World of Warcraft) - Do not see game sales increasing; however, ARPU will increase due to new update in addition to more micro-transaction spending and Tides of Vengeance release

Activision Blizzard (Overwatch) - Shouldn’t see increased sales, but increase in MAU/ARPU in addition to Overwatch League (as seen historically); reason why is update rolls out with new characters/skins and more people spend on micro-transactions (every big release they release new seasonal items and all items from last season which is quite significant for the Overwatch community)

Activision (Destiny) - Already has loyal player-base, so free release from Nov 1st - Nov 18th will attract players then hook them with the micro-transactions yet again as it hits December
**Blizzard segment** will outperform with Diablo Immortal, Overwatch updates, new WoW releases, and Hearthstone updates. Overwatch League expected to expand to **28 teams** with $30-$60 million team buy ins. Season 1 raised $240 million for 12 teams.

**King’s Entertainment** will show sustained user growth through newly released Candy Crush friends.

**Activision** growth will plateau but see spikes in DLC months and new CoD in 2019 end.

**Toy Overwatch** nerf guns and legos in 2019 - first venture into toys; growth in unknown, but expect good reception for Lego.

Anticipated release of **Sekiro: Shadows Die Twice** (same creators as Dark Souls which has a large playerbase) in March 2019 as well as **Spyro** and **Crash Bandicoot** will have strong upfront sales but not sustained growth as it is a single-player game; will see increased ARPU with DLC.
For Diablo Immortal (mobile game) targeting Asia: “And taking a game like [Diablo Immortal] mobile onto that platform in a way that is really reflecting our quality standards I think can really open a lot of – it can open that franchise and other franchises to a global audience, including people who don't have PCs, or especially in China where Blizzard is a very, very strong western brand.” - CEO

**THIRD QUARTER 2018 SEGMENT RESULTS**

- The sheer strength of Blizzard can be seen with its WoW and Overwatch League segments
- Activision revenue did not include Black Ops 4 but Call of Duty WWII performance + DLC; hence lower revenue
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- Metacritic Reviews
- Black Ops 4 - Best reviewed call of duty game since CoD 4 which released in 2007 - disregard remastered version since that was the same game
Despite the negative reception, reviews for hands-on experience are strong.

- The amount of effort Blizzard Entertainment puts into its games are why they continually show increasing ARPU.
- They release Overwatch shorts which showcase a backstory for a character.
- Recent one has great reception and already amassed 6.5 million views.
- Also released trailer with new player which also has great feedback and near 4M views.
- Blizzard isn’t like traditional video game companies as it really caters to its fans and invests significantly in its content to remain relevant.
Supporting Evidence

- Twitch views are in a way a proxy for fan engagement/interest
- Black Ops 4 remains strong
- WoW beats Red Dead 2, CSGO, and PUBG
- Hearthstone beats RDR 2

- As you can see - traditional Candy Crush comes out in 2012, then new Soda Crush in 2014
- After release, there is a spike of users then it decreases
- Candy Crush Friends will revive the growth for a few quarters
- Essentially, users return after new game comes out and it has been 4 years since a large release

- Overwatch alone has historically added 5 million new users every 4-6 months
Valuation & Risks

- Built out a sum of the parts analysis, splitting between mobile segment (King) and other segments (Console/PC)
- We are predicting a revenue beat for Q4, based on understated mobile and Activision sales
- Our 2019 assumptions are also above street expectations, we expect CoD to do better and King ARPU to be stronger continuing our 2018 Q4 assumptions

Risks

- Red Dead Redemption 2 beating our expectations for monthly active users

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<tr>
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<th>BIG Estimates</th>
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<tr>
<td></td>
<td>2018e</td>
</tr>
<tr>
<td>Shares outstanding</td>
<td>771</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>7,230</td>
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<tr>
<td>Fwd Rev - King</td>
<td>2,316</td>
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<tr>
<td>P/S - Mobile</td>
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<tr>
<td>Value</td>
<td>14.97</td>
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<tr>
<td>Fwd Rev - Act</td>
<td>2,665</td>
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<tr>
<td>P/S - Gaming</td>
<td>3.00</td>
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<tr>
<td>Value</td>
<td>29.93</td>
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<tr>
<td>Fwd Rev - Blizz</td>
<td>2,250</td>
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<tr>
<td>P/S - Gaming</td>
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<td>Value</td>
<td>29.93</td>
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<tr>
<td>Fwd Rev - Other</td>
<td>500</td>
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<tr>
<td>P/S - Other</td>
<td>1.00</td>
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<tr>
<td>Value</td>
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<tr>
<td><strong>Target Price</strong></td>
<td><strong>75.43</strong></td>
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<tr>
<td><strong>Return</strong></td>
<td><strong>36%</strong></td>
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We see Activision as a cheap (relative to industry and portfolio) way to be invested in the ever-growing video game industry especially with a company that is a leader in it.

TTWO and EA are expensive counterparts and neither have significant exposure to all platform markets, so if one market fails like PC/Console (which we don’t believe will anytime soon) they are not hedged.

Current stock price is not at all a reflection of the company’s fundamentals and video game IP (lost \(\frac{1}{3}\) of its value in a month).
Video Games

worldwide

- Revenue in the Video Games segment amounts to US$67,409m in 2018.
- Revenue is expected to show an annual growth rate (CAGR 2018-2022) of 4.9%, resulting in a market volume of US$81,599m by 2022.
- The market's largest segment is Mobile Games with a market volume of US$42,192m in 2018.
- User penetration is 30.2% in 2018 and is expected to hit 34.8% by 2022.
- The average revenue per user (ARPU) currently amounts to US$29.40.
In the Download Games segment, the number of users is expected to amount to 431.9m by 2022.

Source: Statista, September 2018; Selected region only includes countries listed in the Digital Market Outlook
Reading Support

With a market volume of US$19,854m in 2018, most revenue is generated in China.

Top 5

<table>
<thead>
<tr>
<th>Country</th>
<th>Revenue</th>
</tr>
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<tbody>
<tr>
<td>China</td>
<td>US$19,854m</td>
</tr>
<tr>
<td>United States</td>
<td>US$16,460m</td>
</tr>
<tr>
<td>Japan</td>
<td>US$10,890m</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>US$2,763m</td>
</tr>
<tr>
<td>South Korea</td>
<td>US$2,389m</td>
</tr>
</tbody>
</table>

Source: Statista, September 2018; Selected region only includes countries listed in the Digital M