Undergraduate Team Blue

Student Managed Fund

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Activison Blizzard (NASDAQ: ATVI) Long Report

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ATVI Investment Thesis

It was in our opinion that the company Activision Blizzard (NASDAQ: ATVI) was a buy at its current price based on the following value drivers:

Top Tier Proprietary Franchises - ATVI has a long track record of producing content that consumers know and love. Franchises like Call of Duty, World of Warcraft and Diablo have been around for years and will continue to dominate the industry.

Customer Loyalty / Network Effect - Consumers develop strong brand loyalty once they find a game they like. Also, when more people have these games user experience improves creating a network effect.

Strong Talent Base - ATVI has a strong ability to recruit and keep its talent base. Since its franchises give ATVI its value, it is important that they have the best developers, and we believe they will continue to recruit and retain top talent in the future.

These are the main reasons our team felt confident buying this company and were also the reasons that Microsoft plans to acquire this company for 68.7 billion dollars.

Company Overview

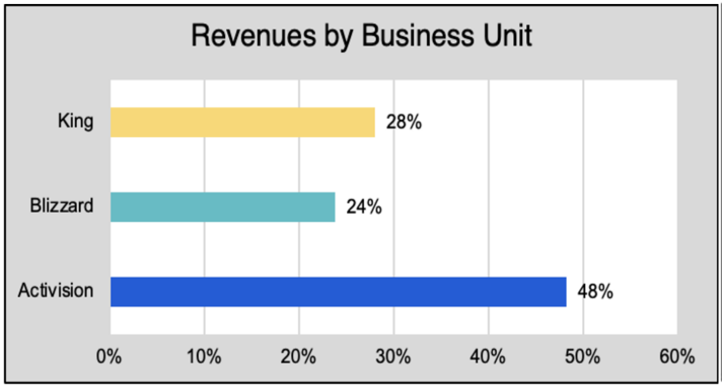
Activision Blizzard is a global developer and publisher of interactive entertainment for personal computers, video-game consoles, and mobile devices. ATVI benefits from a variety of revenue streams from its three core business segments (Activision, Blizzard, King) and produces many of the top video game franchises that consumers know and love.

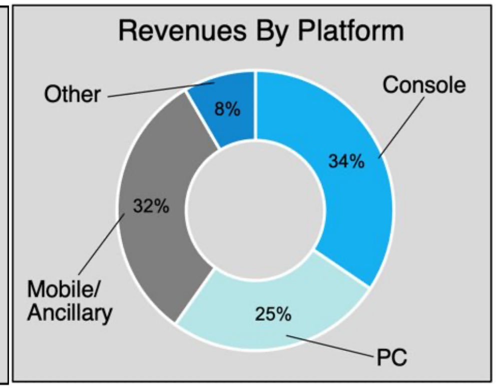
Activision is the business segment that is focused on producing premium content for consoles (PC and mobile devices to a lesser extent). This segment makes up 48% of total revenue and includes franchises such as Call of Duty and Guitar Hero. Blizzard Entertainment is another segment that is tailored to the computer market. It generates revenue (24%) from game purchases, in-game purchases, and subscriptions for its popular franchise World of Warcraft. Lastly, King Entertainment is a segment that is dedicated to the mobile device market. It produces free to play content and generates revenue (28%) through in game purchases. Its most notable franchise is Candy Crush Saga.

In terms of revenue by specific video game platform type Activision Blizzard's generates revenue from:

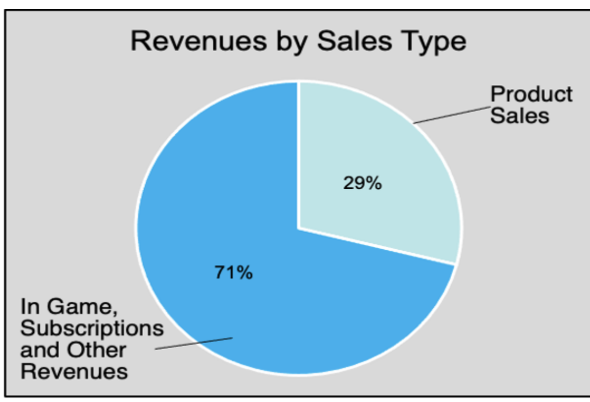
- 34% console devices (Xbox, PlayStation, etc.)
- 25% PC (computer devices like desktops and laptops)
- 32% Mobile (smart phones such as iPhones)

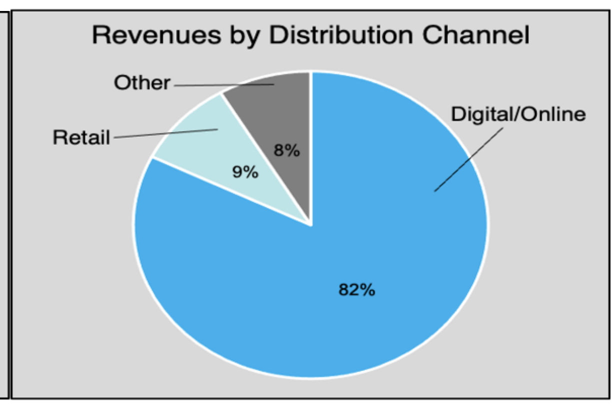
- 8% Other





While taking a deeper look into the operations of ATVI, we observe that 29% of sales come from actual product sales. This encompasses the actual distribution of their videogames to the end user. The remaining 71% of revenue comes from in game subscriptions and other revenues. After the consumers initial purchase of the video game, they can buy in game content such as skins for characters/ weapons as well as other items. These items represent a greater margin for ATVI because there is very little variable cost. In terms of where Activision Blizzard's products are sold, 9% come from brick-and-mortar stores like Walmart. To continue, 82% come from online channels such as their own online store and through console marketplaces like the Xbox Marketplace. This segment is the largest and most significant because selling direct to consumer provides the greatest margin.





Lastly, ATVI has a very strong balance sheet including a robust $6 billion net cash position, increasing margins, and targeted areas for growth. Shown below is the company's credit rating:

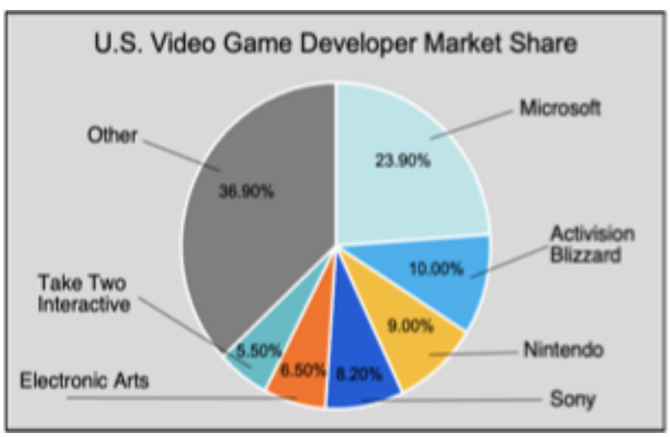
Moody's: **Baa1**
(Lower Medium Investment Grade)

Standard and Poor's: **A-**
(Upper Medium Investment Grade)

S&P	Moody's	Fitch	LEVEL	INVESTMENT TYPE
AAA	Aaa	AAA	Prime	INVESTMENT GRADE
AA+	Aa1	AA+	High Grade	
AA	Aa2	AA		
AA-	Aa3	AA-		
A+	A1	A+	Upper Medium Grade	
A	A2	A		
A-	A3	A-		
BBB+	Baa1	BBB+	Lower Medium Grade	
BBB	Baa2	BBB		
BBB-	Baa3	BBB-		
BB+	Ba1	BB+	Speculative	NON-INVESTMENT GRADE
BB	Ba2	BB		
BB-	Ba3	BB-		
B+	B1	B+	Highly Speculative	
B	B2	B		
B-	B3	B-		
CCC+	Caa1	CCC	Significant Risk	
CCC	Caa2		Imminent Default	
CCC-	Caa3		Default with low recovery expectations	
CC	Ca			
C	C			
D		DDD	Total Default	
		DD		
		D		

Industry Overview and Trends

Activision Blizzard currently operates in the digital entertainment industry. Out of the U.S. Video Game Developer market, Activision Blizzard occupies approximately 10% according to IBIS World. By an overwhelming margin, Microsoft develops the most digital content out of any developer in the U.S.. This industry is fragmented due to the low barriers to entry. Currently, growth in the smartphone gaming market is making it fairly easy for developers to create and bring their products to market. The traditional gaming-console is much harder to break into as a developer because companies such as Microsoft, Sony, and Nintendo act as gatekeepers to the consumer base. There are 2.5 billion users of video game software on mobile devices. According to Statista, the global gaming market is estimated to be worth between $250-260 billion by 2025, giving it a compound annual growth rate between 9-11%.



Comparable Analysis

To further support our discounted cash flow valuation, we performed a robust comparable analysis. From our research, we found that Activision outperforms its competitors in most of its profitability metrics. In terms of profit margin, return on assets, and return on invested capital, we can see that Activision clearly beats the industry average and its peer competitors. It is important to note that we see Electronic Arts (EA) and Take-Two Interactive (TTWO) as pure competitors as all they do is make digital content. We included the Nintendo

Company (NTDOY) as a competitor because they do make their own content and Activision themselves has cited them as a major competitor. They mainly produce console equipment in order to play digital entertainment from the likes of Activision Blizzard, Electronic Arts, and Take Two Interactive. In our analysis, we believe that Nintendo Company is important to include but should not be taken as an exclusive competitor.

Company	Ticker	Market Cap	Revenue TTM	Profit Margin	ROA	ROE	ROIC
Activision Bizzard	ATVI	58.3B	8.93B	30.2%	9.5%	13.6%	9.45%
EA Inc.	EA	38.9B	5.72B	13.1%	8.0%	10.7%	3.7%
Take-Two	TTWO	20B	3.35B	12.1%	8.0%	11.2%	6.22%
Nintendo Co.	NTDOY	58.8B	1.09B	27.0%	24.0%	26.8%	-
Avg	-	-	-	20.6%	12.3%	15.5%	7.05%

From a valuation standpoint, Activision would appear to be undervalued in terms of Price to Earnings ratio, Price to Free Cash Flow, EV/EBITDA, and EV/EBIT. The only metric that is within line of the valuation with other digital entertainment creators in EV/Sales. From this analysis, in conjunction with our discounted cash flow valuation, we feel confident that Activision Blizzard is undervalued in the current market.

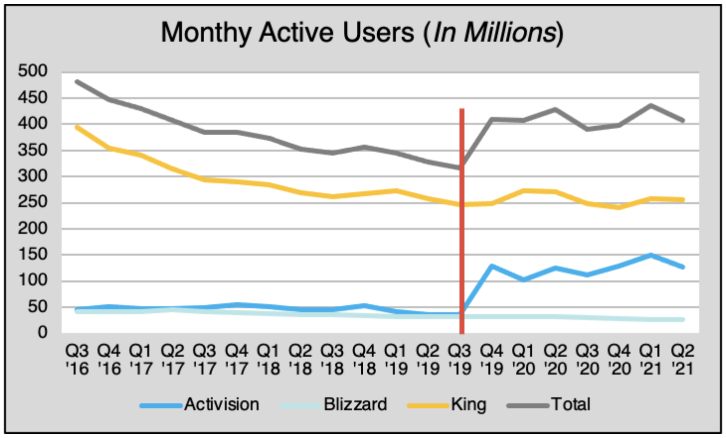
Ticker	EV/Sales	EV/EBIT	EV/EBITDA	P/E	P/FCF
ATVI	5.89x	16.85x	18.4x	21.6	23.33
EA	6.53x	41.67x	31.9x	53.0	30.9
TTWO	5.29x	24.56x	29.3x	52.8	42.0
NTDOY	40.67x	6.15x	6.5x	12.3	-
Avg	14.6x	21.5x	22.3x	35.0	32.1

Growth Catalysts

Our analyst team identified 4 potential growth catalysts for Activision Blizzard over the projected time horizon:

1. Mobile Gaming

Mobile gaming currently accounts for 32% of Activision Blizzard's revenue sources and is expected to grow faster than any other gaming segment. Through their acquisition of King in 2016, they have become a leader in the mobile entertainment space. Through their mobile and free-to-play strategy, they have tripled their player base over the past two years. Their recent launch of Call of Duty: Mobile has increased by nearly 100 million monthly active users. Mobile gaming is their highest margin segment due to the low cost of added digital content. Activision Blizzard is investing heavily in their mobile entertainment development arm to boost revenues and remain competitive on this new frontier of gaming. The graphic below shows the increase in monthly active users since their release of Call of Duty: Mobile.



2. **Concentration on Top Franchises**

Further investment in top-tier franchises will improve brand loyalty and customer reach abroad. The majority of their revenues are heavily concentrated on established franchises such as Candy Crush, Call of Duty, World of Warcraft, and Diablo. Trends show that customer loyalty and repeat purchases are higher among familiar brand franchises. As a result, management is focusing on making their franchises more consistent and expanding those to mobile platforms.

3. **Shift Away from Seasonality**

Bottom line growth will continue to expand as a result of their shift away from seasonality of their sales. In the digital entertainment industry, sales are seasonal in nature because most sales are centered around the release of popular gaming franchises. Plans to shift away from this model through the introduction of free-to-play games are well underway. They insist that this new gaming model with in-game additional pay-for content will smooth out the traditional seasonality of their business to produce consistent revenue streams.

4. **Talent Acquisition**

Last but certainly not least is their strong recruitment and talent acquisition. Within this industry, it is especially important to hire and retain top talent to produce the highest quality work for their customers. Consumer preferences and tastes are very sensitive and every release is very important due to the high costs of development. In some cases, successful releases can produce revenues for many years to come. Game development is very artistic in nature and requires a substantial investment in human capital. To sustain healthy growth, Activision Blizzard must be able to attract and retain top talent from the industry.

Management Team

In this highly competitive industry, it is of the utmost importance to have a competent management team. Activision Blizzard currently has 14 unique leadership positions in addition to their 10-member board of directors. Outlined below are some of the most important leadership positions and influential members of their executive team that can be attributed to their past and future success as a company.

Chief Executive Officer: Bobby Kotick is the co-founder and current CEO of Activision Blizzard. He has served as CEO of Activision from 1991 through 2008. Mr. Kotick navigated their firm into merging with Blizzard to create Activision Blizzard. Since 2008, he has served as chief executive officer of the newly merged firms. Under his leadership, this company has grown to become a leading developer and publisher of interactive entertainment. Prior to founding Activision, Bobby Kotick attended the University of Michigan.

Chief Operating Officer: Daniel Alegre is the newly appointed COO of Activision Blizzard. As COO, he works closely with the management team to grow their reach, engagement, and performance. Specifically, he is focused on fostering creativity, promoting product excellence, and maintaining their unwavering commitment to their players. Additionally, he is working towards improvements in their work culture to make Activision Blizzard an excellent place for their people to work. Prior to joining Activision Blizzard, Daniel Alegre worked for Google for more than 16 years on retail and global development.

Chief Financial Officer: Armin Zerza joined Activision Blizzard as CFO in 2021. In this role, he oversees finance operations. Mr. Zerza has extensive knowledge of the company's finances and operations from his prior experience as Chief Commercial Officer. During his tenure at Activision, Armin has spearheaded expansion into global regions while implementing plans to operate effectively and maximize their franchise value. Prior to joining Activision Blizzard, Armin Zerza held various CFO roles at Proctor & Gamble for over 20 years.

Chief People Officer: Julie Hodges is the newly appointed CPO of Activision Blizzard. As CPO, she is responsible for supporting a healthy work culture in addition to scouting for top tier talent across the industry. Prior to joining Activision, Julie was a human resource executive for Walt Disney Co for over 20 years. In her time at Disney, she spearheaded operations to attract, retain, and grow their Parks and Service segment with over 120 thousand employees.

These specific leaders in conjunction with the rest of the management team and board of directors allow Activision Blizzard to navigate through technological innovation while delivering superior content to their customers.

Environment / Social / Governance

Environment

Activision Blizzard is doing their part in preserving our environment and remaining conscious about their impact on the world stage. That being said, they have a net zero goal by 2050. In the near term, they plan on reducing packaging waste by 50% by 2023. Their current efforts to preserve the environment has saved 5.5 million pounds of plastic from landfills over the past five years through their packaging reduction program.

Social

In addition to their environmental preservation, management has placed a significant emphasis on giving back to the communities and charities that support their ideals. For instance, Chief Executive Officer Bobby Kotick founded the Call of Duty Endowment which gives veterans who are unemployed a chance to go back to work. Since its inception in 2007, Activision Blizzard has donated over $38 million. Aside from the Call of Duty Endowment, they hold strategic partnerships with organizations such as STEM Advantage, Girls Who Code, and Hello Tomorrow!.

Governance

Management has focused on bringing attention to gender inequality issues in the workplace through strategic initiatives designed to give women more leadership positions in this male dominated industry.

DCF Valuation + Microsoft Acquisition

For our valuation we used a 5-year discounted cash flow model to obtain the intrinsic value of ATVI, in our opinion. We used many assumptions in this model that are explained below:

- 9% hurdle rate as we use in most of our pitches as 9-10% is the long-term discount rate based of the market. This is also higher than the company's WACC, so we felt comfortable using this percentage.
- 3.25% perpetual growth rate, we expect ATVI's revenues to be substantially higher within the next 5-10 years but then reach this rate at maturity.
- Large revenue jump in 2023 as the release of Overwatch 2 and other games that consumers love are released
- We have gross margins increasing to 73% as games are increasing being sold through ecommerce channels and with this comes increasing margins.
- Deprecation and capex fluctuating to account that videogame development costs are lumped in as capex and slowly amortized over many years.

This model uses data and current share price of as of our repurchase of the company from November 4th and 9th of 2021. As of today, we hold 1251 shares at an average cost of $66.77. Although this model was useful during the pitch process, the recent acquisition of ATVI by Microsoft changes this.

On January 18, 2022, shortly after purchasing our position in ATVI, news broke that Microsoft would be acquiring the company for 68.7 billion dollars in an all-cash deal. If the deal closes in 2023 as expected, Microsoft will buy ATVI for $95 per share. With this acquisition, Microsoft will become the 3rd largest gaming company by revenue. In the meantime, Bobby Kotick will continue his role as CEO until the deal closes, in which case Phil Spencer of Microsoft will take over. As listed above, we currently hold 1251 shares of ATVI with a cost basis of $66.77 per share. If we were to continue to hold our position until the deal closes, we would make 28.23 dollars per share / a return of 42.28% respectively over a 1-2 year holding period.

ATVI (*Dollar Amounts in Millions*)	Historical Period						Forecasted Period				
	2016	2017	2018	2019	2020	2021 CY	2022	2023	2024	2025	2026
Total Revenue	**$6,608**	**$7,017**	**$7,500**	**$6,489**	**$8,086**	**$8,750**	**$9,406**	**$11,288**	**$12,416**	**$13,347**	**$14,015**
Growth Rate (%)	41.68%	6.19%	6.88%	-13.48%	24.61%	8.21%	7.50%	20.00%	10.00%	7.50%	5.00%
COGS	$2,394	$2,501	$2,517	$2,094	$2,260	$2,450	$2,540	$3,048	$3,352	$3,604	$3,784
% Revenue	36.23%	35.64%	33.56%	32.27%	27.95%	28.00%	27.00%	27.00%	27.00%	27.00%	27.00%
Gross Profit	$4,214	$4,516	$4,983	$4,395	$5,826	$6,300	$6,867	$8,240	$9,064	$9,744	$10,231
Gross Margin %	63.77%	64.36%	66.44%	67.73%	72.05%	72.00%	73.00%	73.00%	73.00%	73.00%	73.00%
SG&A	$1,844	$2,138	$1,884	$1,658	$1,848	$2,013	$2,163	$2,596	$2,856	$3,070	$3,223
% Revenue	27.91%	30.47%	25.12%	25.55%	22.85%	23.00%	23.00%	23.00%	23.00%	23.00%	23.00%
R&D	$958	$1,069	$1,101	$998	$1,150	$1,247	$1,340	$1,608	$1,769	$1,902	$1,997
% Revenue	14.50%	15.23%	14.68%	15.38%	14.22%	14.25%	14.25%	14.25%	14.25%	14.25%	14.25%
Other Operating Expenses	$0	$0	$10	$132	$94	$44	$47	$56	$62	$67	$70
% Revenue	0.00%	0.00%	0.13%	2.03%	1.16%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Total Operating Expenses	$2,802	$3,207	$2,995	$2,788	$3,092	$3,303	$3,551	$4,261	$4,687	$5,039	$5,291
% Revenue	42.40%	45.70%	39.93%	42.97%	38.24%	37.75%	37.75%	37.75%	37.75%	37.75%	37.75%
Operating Income	$1,412	$1,309	$1,988	$1,607	$2,734	$2,997	$3,316	$3,979	$4,377	$4,705	$4,940
% Revenue	21.37%	18.65%	26.51%	24.76%	33.81%	34.25%	35.25%	35.25%	35.25%	35.25%	35.25%
Non-Operating Income / Loss	$306	$158	$111	-$26	$118	$166	$179	$214	$236	$254	$266
% Revenue	4.63%	2.25%	1.48%	-0.40%	1.46%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%
EBIT	$1,106	$1,151	$1,877	$1,633	$2,616	$2,831	$3,137	$3,764	$4,141	$4,451	$4,674
Taxes	$140	$878	$29	$130	$419	$396	$439	$527	$580	$623	$654
% of EBIT	12.66%	76.28%	1.55%	7.96%	16.02%	14.00%	14.00%	14.00%	14.00%	14.00%	14.00%
NOPLAT	$966	$273	$1,848	$1,503	$2,197	$2,434	$2,698	$3,237	$3,561	$3,828	$4,020
D&A	$1,150	$1,100	$998	$553	$446	$250	$250	$2,000	$1,700	$100	$100
% Revenue	17.40%	15.68%	13.31%	8.52%	5.52%	2.86%	2.66%	17.72%	13.69%	0.75%	0.71%
Capital Expenditure	$5,227	$317	$464	$1,150	$550	$350	$350	$2,500	$400	$300	$300
% Revenue	79.10%	4.52%	6.19%	17.72%	6.80%	4.00%	3.72%	22.15%	3.22%	2.25%	2.14%
Change in NWC	-$62.00	-$740.00	$1,198.00	-$714.00	$205.00	$0	$0	$0	$0	$0	$0
% Revenue	-0.94%	-10.55%	15.97%	-11.00%	2.54%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Free Cash Flow	**-$3,049.00**	**$1,796.00**	**$1,184.00**	**$1,620.00**	**$1,888.00**	**$2,334.34**	**$2,597.81**	**$2,737.37**	**$4,861.10**	**$3,628.19**	**$3,746.10**

Terminal Value Assumptions	
Discount Rate	9.00%
Perpetual Growth Rate	3.25%
Terminal Value	$67,266.99
PV Terminal Value	$43,718.93
PV Cash Flows	$13,445.97
Enterprise Value	$57,164.90
(-)Debt	$3,895
(+) Cash	$8,647
Equity Value	$61,916.90
Shares Outstanding	777.00
Implied Share Price	$79.69
Current Share Price	$66.77
Margin of Safety	16.21%

Risks

Listed below are the major risks we identified for ATVI at the time of purchase:

Franchise Risk: Large majority of revenues comes from a few key gaming franchises. Need to keep games up to consumer tastes and preferences.

Political Risk: 52% of sales come from international markets. Significant regulation or approval standards have the potential to limit ATVI's respective market.

Management Risk: Current CEO Bobby Kotick and other high up executives have been under fire for their handling of workplace misconduct. Although we saw this as a possible buying opportunity, this issue has been weighing on the stock in the short term.

Consumer Preferences: Changes in consumers' tastes for interactive entertainment content or general digital content could negatively impact Activision's market share/revenues.

Cyclical Risk: Approximately 30% of sales come from Q4 due to the holiday season. Missing this pivotal opportunity could substantially reduce their top line revenue growth.

Free to Play: Failure to successfully implement free to play entertainment content could cause financial strain on Activision if consumers do not purchase game content.

Major risk after Microsoft acquisition:

Acquisition Falls Through: Majority of stocks recent gains are on the back of this acquisition news and hope for its approval. If this deal were to fall through, which we think is unlikely, the price could be impacted. One caveat of this acquisition is that if ATVI is owed over $2.5-$3 billion if Microsoft pulls out of the agreement which could alleviate some of this concern.

Appendix

Employee Tension:

Timeline

July
- ❑ Formal complaint filed with the State of California over toxic culture and sexual harassment
- ❑ ATVI employees stage a walkout and list various workplace demands

August
- ❑ Many senior developers leave across franchises/ HR accused of shredding evidence

Present
- ❑ SEC Launches Investigation, ATVI settles lawsuit with EEOC for $18 million

Alleged Complaints

1. ATVI fosters "toxic" workplace culture
2. Unfair pay, benefits, and promotion opportunities for female employees
3. Sexual harassment and workplace discrimination

Mitigants

- ❑ Future concessions regarding employee demands
- ❑ Former Disney executive hired to oversee HR and "rebuild trust" among employees
- ❑ Executives vow to remove any future offenders and to hold those accountable for past offences
- ❑ Committed to expanding workplace initiatives

China Restrictions:

We believe that the impact on Activision Blizzard due to the Chinese Video Game Restrictions will have a minimal effect on their sales and growth.

Only **12%** of revenues come from the continent of Asia and approximately **5%** from mainland China. We estimate that the value of sales are around $400 million.

We recognize that the risk associated with operating in China will continue to increase as market share increases.

China Restrictions 2021

- ❑ Impacts those under the age of 18
- ❑ Limits VG usage to 3 hours per week
- ❑ These rules are only slightly modified from the previous limit