



Student Managed Fund 2018 Analyst Report

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Date: 4/14/2018

Current Price: \$65.88

Recommendation: BUY

Ticker - NASDAQ: ATVI

Headquarters: Santa Monica, CA

Target Price: \$80.09

Figure 1 – Share Price



Source: Yahoo Finance

Figure 2 – Company Metrics

Company Metrics	
Market Cap.	\$49.98B
P/E	45.36
Dividend Yield	0.52%
ROIC	1.96

Source: Bloomberg

Figure 3 – Market Price Metrics

Market Price Metrics	
Current Price	65.88
52 Week High	79.63
52 Week Low	48.41
Beta	1.1

Source: Bloomberg

Figure 4 – Company Breakdown



Source: Company Data

Investment Highlights

We recommend a **BUY** rating for Activision Blizzard Inc based on a 5-year target price of \$80.09 per share. This target price reflects a 21.57% margin of safety with respect to its closing price of \$65.88 on April 14th, 2018. The following factors contribute to our investment rationale:

Successful Multi-Platform Approach to Franchising Supported by Strong Brands

Activision Blizzard creates and acquires franchises that span the entire gaming industry; including console gaming, PC gaming, mobile gaming, virtual reality, and eSports. These franchises succeed and outpace competitors within the respective platforms year over year, creating a strong multifaceted system of gaming and entertainment that is hard to penetrate.

Opportunities in Growing Markets such as Mobile Gaming and eSports

Activision Blizzard's strategic acquisitions and movements toward growing gaming markets such as mobile gaming and eSports provide great growth potential. These ventures will also help diversify the company's revenue stream and are proving to be successful in the early stages.

Misplaced Conservative Market Valuations

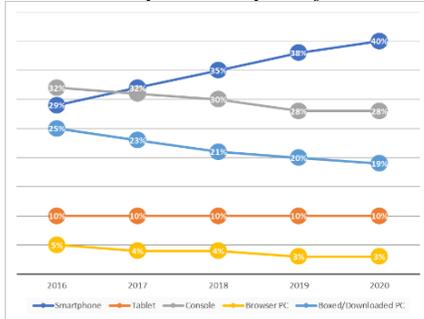
Due to the video game industry's complexities and nuances, it is a hard industry to accurately find value in. This coupled with the rising success of Activision Blizzard as well as people's skepticism about certain ventures such as eSports are leading to conservative and inaccurate valuations in the market; providing a great discount at this time.

Business Description

Business Overview

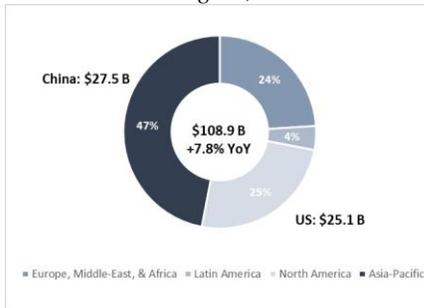
Activision Blizzard, Inc. is an American video game developer. It encompasses five primary operations: Activision Publishing, Blizzard Entertainment, King Digital Entertainment plc, Activision Blizzard Studios, and Major League Gaming. The Activision branch produces franchises such as *Call of Duty* and *Destiny*; focusing primarily on console gaming. Blizzard Entertainment produces franchises such as *World of Warcraft* and *Overwatch*; focusing primarily on online PC games with an emphasis on subscription-based and microtransaction business models. King Digital Entertainment produces mobile (phone-based) games, emphasizing a *freemium* (or free with microtransactions) business model. Activision Blizzard Studios is a television and film studio that produces original content based on Activision Blizzard's existing franchises, allowing it to strengthen those franchises. Finally, MLG is an online eSports broadcasting network.

Figure 5 – 2016-2020 Global Games Industry CAGR by Platform



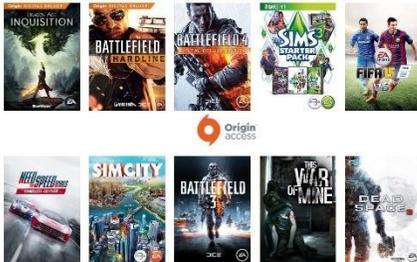
Source: NewZoo

Figure 6 – Global Games Market Per Region; 2017



Source: NewZoo

Figure 7 – Electronic Arts Games



Source: Company Data

Figure 8 – Take-Two Games



Source: Company Data

The company sells its products via retail and digital channels; more prominently with the later via services such as the self-created e-store *BattleNet* and externally-created services such as *Steam*, *PSN* (PlayStation Store), and *XBox Live*.

Industry Analysis

Industry Overview

The global video game industry reached nearly \$110 billion in revenue last year, with the total number of gamers reaching 2.2 billion according to the industry tracker Newzoo. The industry has been growing at a rapid rate; growing 7.7% from 2016 to 2017 and projected to further grow at a rate of 6% per year through 2020. This growth is fueled by the success of the mobile gaming scene as well as the emergence of eSports which, while still in its early lifecycle, has been solidifying itself as a legitimate medium. By the end of 2017, mobile gaming accounted for approximately 42% of the global games market, followed by console at 31% and PC at 27%. While the entire industry is projected to grow, mobile gaming is projected to grow the fastest. It is also noteworthy that eSports revenue growth was 51.7% last year and is projected to grow by 35.6% into 2020. It is widely accepted that eSports and mobile gaming are the future of the video game industry.

Software companies in this industry generally rely on creating a profitable game or idea that can be iterated in a multitude of ways; primarily via game sequels, expansions, and multi-media presence. Whereas publishers such as Electronic Arts and Konami attempt to fund new intellectual properties on a yearly basis to find such profitable franchises, other companies such as Activision Blizzard and Nintendo rarely stray from their core franchises and focus on building up as well as expanding current popular properties. Either way, iteration tends to be a constant amongst these companies; with game series such as Activision Blizzard's *Call of Duty* and Ubisoft's *Assassin's Creed* reaching their fourteenth and thirteenth installments (sequels) respectively.

Competitive Landscape

While there are a wide variety of content providers in the industry, only a limited amount maintain the largest portion of market share. Activision Blizzard and Electronic Arts (EA) are two of the group's biggest names. Take-Two Interactive (TTWO) is smaller in size, but the company is expected to post strong sales and earnings growth for the next two years. Chinese companies are also taking a larger share of the market. Tencent (TCEHY) is arguably the world's largest gaming provider. NetEase (NTES) is a staunch competitor and listed as IBD's top-ranked stock in the industry group.

Electronic Arts produces titles such as *FIFA*, *Madden NFL*, and *The Sims*. EA is heavily reliant on console game sales and has a negative public image due to questionable business practices such as excessive micro-transaction policies. Take Two Interactive is known for titles such as *Grand Theft Auto* under the publisher Rockstar. It has minimal mobile presence and a high reliance on console game sales. Activision Blizzard has positioned itself and arguably pioneered the industry towards the trends that will generate the largest area of growth over the next two to three years including eSports and mobile. Electronic Arts and Take-Two Interactive have been slow to adopt a strategy reflective of the where the industry is anticipated to grow.

Investment Thesis

Successful Multi-Platform Approach to Franchising Supported by Strong Brands

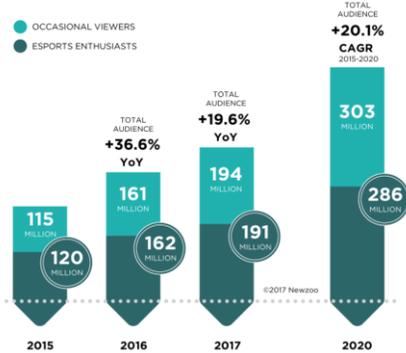
Unlike most of its closest gaming competitors, Activision Blizzard has a hand in all major segments of the gaming industry. To begin with, unlike most companies that specialize in making games for particular platforms, Activision Blizzard is able to

Figure 9 – Activision Blizzard Popular Properties



Source: Company Data

Figure 10 – eSports Audience Growth: 2015 - 2020



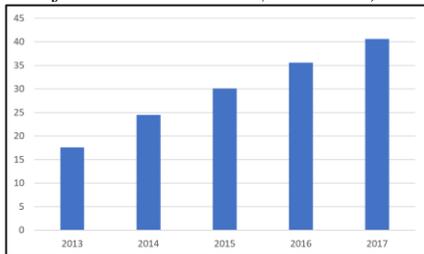
Source: NewZoo

Figure 11 – Overwatch League eSports Team Logos



Source: Company Data

Figure 12 – Mobile Gaming Revenue from 2013 to 2017 (\$ Billions)



Source: Statista

leverage its multifaceted and segmented company structure to target all platforms successfully. While the Activision branch produces successful games such as *Call of Duty* for consoles such as Playstation and Xbox, the Blizzard branch produces some of the most well-known franchises for PCs such as *Overwatch* and *Hearthstone*. Even further than that, with the acquisition of King Digital Entertainment, the company has successfully penetrated the emerging mobile (phone game) market with the heavy hitter *Candy Crush Saga*.

Activision Blizzard isn't just a part of all major gaming platforms, it is a prominent leader in them. Every year since 2009, the *Call of Duty* franchise (a console gaming phenomenon) has held the best-selling game of the year with the exception of 2013, when *Call of Duty: Ghosts* held the number two spot. In that same timeframe, games produced by the Blizzard branch such as *Overwatch* and *Hearthstone* were in the top 5 best-selling games of the year; with long-running games such as the Massive Multiplayer Online Role Playing Game (MMORPG) *World of Warcraft* continuing to grow in player-base as expansions came out.

This multi-platform approach to franchising is further strengthened by Activision Blizzard Studios, which creates television shows such as *Skylanders Academy*, movies such as *World of Warcraft*, and most prominently web shows/shorts such as the *Overwatch Animations* which all reinforce the company's strong brands and help them to tell more diverse and in-depth stories. They also act as great advertising mechanisms and help players remain engaged in their properties.

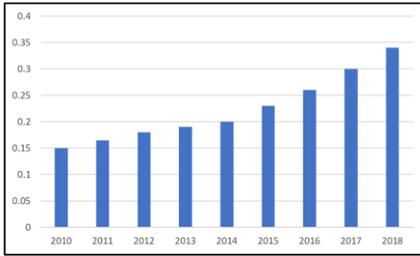
Opportunities in Growing Markets such as Mobile Gaming and eSports

Alongside the breadth of platforms Activision Blizzard is involved with lie emerging and growing platforms/markets; namely mobile gaming and eSports.

As was previously mentioned, mobile gaming is the fastest growing gaming category and is expected to continue being so in the next five years. Activision Blizzard can and is currently making steps to leverage this with its own multi-platform strategy. The most significant step the company has taken was the acquisition of King Digital Entertainment in early 2016. Along with rights to the popular mobile gaming franchise *Candy Crush Saga*, this gives Activision Blizzard the ability and industry expertise to further strengthen its existing franchises via the mobile space. It can do so by creating companion apps (mobile applications that help increase the experience of playing games on other platforms) or mobile games based on current franchises. Of course, owning the rights to the *Candy Crush Saga* also supports Activision Blizzard's strategy of multi-platform excellence (the main game is currently the number six mobile puzzle game; a great feat for a very saturated and overpopulated space).

Where Activision Blizzard is really focusing its growth is in eSports. eSports are essentially competitive multiplayer video games that professional gamers play at large events for money (the video game equivalent of traditional sports, with just as large if not larger prize pools and audience attendance). The company has been present in eSports for a while with their competitive game *Heroes of the Storm* as well as *Hearthstone*. It wasn't until the release of *Overwatch* however that Activision Blizzard began to identify itself as a leader in the emerging industry. In 2016 and 2017, the company created the *Overwatch League*; a system that essentially assigned US states and other countries individual geographic-based teams. It then built and filled existing stadiums across the US specifically for *Overwatch* tournaments created by the company and sponsored by big names such as Intel, T-Mobile, Sour Patch Kids, and Toyota. Since the creation of the leagues, the tournaments held have proven extremely successful with concurrent viewership reaching 425,000 in just the first day of the first tournament. With annual player compensation averaging between \$80,000 and \$120,000 excluding winnings, the

Figure 13 – Dividends from 2010 to 2018



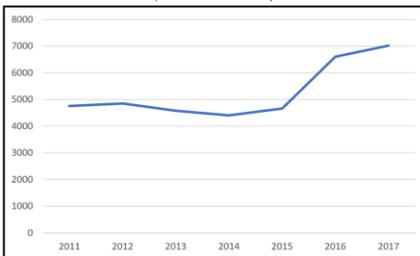
Source: NASDAQ

Figure 14 – “Heroes of the Dorm” Event for ATVI’s Game Hosted by ESPN



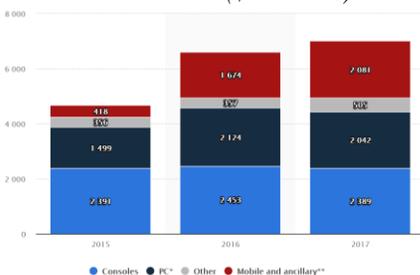
Source: SBNation

Figure 15 – Revenue from 2011 to 2017 (\$ Millions)



Source: Bloomberg

Figure 16 – Revenue by Platform from 2015 to 2017 (\$ Millions)



Source: Statista

Overwatch League is being taken not only seriously but competitively and is proving to be a great growth opportunity for the company. This along with the company’s acquisition of Major League Gaming in January of 2016 provide great potential value for it moving forward.

Misplaced Conservative Market Valuations

The video game industry is a complex one with many factors that are very difficult to judge, let alone understand, for the average investor. On the surface level, this can be proven very easily with spread of misinformation such as CNBC’s & Goldman’s talks of a non-existing *Overwatch 2* springing from a misunderstanding of video game expansion models, analyst reports that misidentify business practices (particularly confusing subscription-based practices for microtransactions and expansions), and the market punishing companies for the success of fads released by others.

Having established this innate misunderstanding, one reason the market is currently wrong about Activision Blizzard is that it is simply undervaluing the impact of the mentioned growth it is attaining from the expanding mobile and eSports spaces; particularly on the side of eSports. With great skepticism of the viability of video games as sporting events, many pass this phenomenon by as either a fad or a concept that simply won’t take off. The results of Activision Blizzard’s efforts (as well as others) prove otherwise however. With strong viewership, support from sports athletes, union-like protections enforced by companies such as Activision Blizzard for professional players, and even ESPN showing gaming events on their second channel (including *Overwatch*); eSports is not only sustainable but also very novel with a significant amount of room to grow.

The market is also not taking into account the great care Activision Blizzard is giving to its shareholders; with dividends increasing steadily since 2010 and a \$1 billion stock buyback program with an expiry of February, 2019.

More directly however, the stock has seen great appreciation in the past year, growing to over 80% of its price at the start of 2017. Fueled by the belief that this growth resulted from successful brand introductions and fearful that this large appreciation indicates deviation from fair value, we believe that this investment mindset coupled with the previously mentioned skepticism towards growth causes the differential in market valuations from our own.

Financial Analysis

Sales & Income

Activision Blizzard has seen consistently positive revenue growth in the past five years. In contrast, its income has been steady and even falling in the most recent year. This income plateau is attributed to the company’s various acquisitions and investments in expanding gaming markets, film/studio development, and eSports (particularly with the *Overwatch League*). In the past few years, revenues have been driven by various factors such as the acquisition of King Digital Entertainment in 2015/2016 (10% organic growth) and the release of the popular *Overwatch* in 2016. This has helped it recover from stagnant growth caused by the weakness in sales of *Call of Duty* in 2015 (a weakness that has since been remedied with the successful reception and sales of the newest *Call of Duty: WWII*). We expect both sales and income to increase in the future as a result of the company’s growth initiatives as well as the continuing shift of games to digital channels (which are significantly less expensive than physical distribution).

Figure 17 – Debt to Equity Ratio vs Market Cap



Source: Motley Fool

Figure 18 – Sensitivity Analysis

		Sensitivity Analysis				
		8.11%	8.61%	9.11%	9.61%	10.11%
Terminal Rate	1.50%	82.84	76.93	71.80	67.31	63.34
	2.00%	88.20	81.45	75.66	70.63	66.22
	2.50%	94.51	86.71	80.09	74.41	69.47
	3.00%	102.05	92.91	85.26	78.77	73.19
	3.50%	111.24	100.31	91.34	83.83	77.47

Source: Our DCF Model

Figure 19 – Weighted Average Cost of Capital

WACC	
Current Stock Price	\$ 65.88
Book Debt Value	\$ 4,390.00
Market Equity Value	\$ 49,980.00
D+E	\$ 54,370.00
US 10 yr (Rf)	2.83%
Tax Rate	20.43%
Return on Market	9%
Beta	\$ 1.10
Cost of Equity	9.34%
Cost of Debt	8.07%
WACC	9.11%

Source: Our DCF Model, CNBC, Value Line, & Google Finance

Figure 20 – “Fortnite” Interest Over Time by Google Search



Source: Google Trends

Liquidity and Leverage

Activision Blizzard’s liquidity is quite strong. Its current ratio has historically hovered above 2.00, although it did drop from 2013 to 2015 primarily as a result of its acquisitions in this timeframe. It has since gone back up and maintained an average current ratio of 1.8; which we believe to be safe and should improve as the company’s growth initiatives come to fruition.

Regarding leverage, the company saw a great increase in its debt to equity ratio between 2013 and 2014 due to its repurchase of shares from Vivendi in 2013 as well as its acquisition of King Digital Entertainment shortly after. Since then, the company’s market capitalization has risen to match the extra debt it put on, signifying a successful use of debt and effective utilization of leverage (Figure 17). It is also notable that the company has a high level of interest coverage with its strong cash flow generation.

Valuation

Discounted Cash Flow Model

Using a discounted cash flow model, we arrived at a value of \$80.09 per share (or an equity value of \$60.76 billion). This yields a margin of safety of 21.57% and indicates the equity is undervalued. The model can be seen in Appendix 5.

We grew top-line revenue growth at the analyst aggregate (found on Bloomberg) of approximately 7-8% between 2018 and 2019 then tapered it down to 7% by 2022. This represents a steady and even conservative growth resulting from the growth opportunities the company invested in between 2014 and 2017 (namely eSports and mobile gaming as well as the creation of new franchises). Cost of revenue, SG&A, and R&D are all projected to grow at a reduced rate moving forward as the company is exiting its investment and promotional period and entering a period of investment return. Regarding the discount rate, we used CAPM to arrive at a weighted average cost of capital of 9.11% (Figure 19). We also arrived at a terminal rate of 2.5% accounting for projected GDP growth. Both the WACC and terminal rate were adjusted in our sensitivity analysis in order to account for error or future changes; yielding generally positive results that indicate an undervalued equity a majority of the time (Figure 18).

Investment Risks

Risks to Investment Thesis

The company is fairly franchise-reliant, whereas competition tends to focus on video game volume. Over 70% of Activision’s net revenues are made up of their four largest franchises. This means that if the company’s core franchises lose popularity, it faces significant fiscal and market consequences. While the company’s franchises are currently the strongest in the industry, customer favor can sway and the company’s reliance on core franchises may prove suboptimal if not adjusted for adaptability purposes in the future.

It is also notable that the growth catalysts for Activision Blizzard are reliant on the success of eSports and mobile gaming. CEO Robert Kotick’s acquisition of King Digital Gaming and Major League Gaming (MLG) leave the company well positioned to drive the industry towards new and highly anticipated developments in both these scenes, but the risk of these investments not panning out still remains.

Risks to the industry

Video game stocks have been under pressure in recent months due to the success of Fortnite, a free online survival game. KeyBanc recently noted that Fortnite could harm the results at Activision, EA and Take-Two Interactive. According to the company, a

Figure 21 – Top Institutional Holders
2017

Investor	Current Holding	Change
FMR LLC	110.9M	(1.1M)
Blackrock	49.1M	0.2M
Vanguard	48.4M	2.2M
Tencent Holding LTD	37.1M	-
State St Corp	26.7M	1.2M

Source: Yahoo Finance

free-to-play style game trend may threaten traditional console and PC games such as the ones that Activision has built its gaming portfolio on. We largely believe that such a drastic claim centered on a zero-sum view of the market is representative of a misunderstanding of the market towards gaming, but it should still be considered as a potential risk.

Additionally, in the video game industry, a shared challenge all developers face is predicting how new content will be received. New developments can receive low expected sales due to a great number of unexpected changes in consumer tastes. This is a common risk faced by a majority of entertainment providers, and companies in such industries should be observed regularly.

Conclusion

In conclusion, we recommend a **BUY** recommendation for Activision Blizzard Inc with a target price of \$80.09 per share, providing a margin of safety of 21.57%. The company holds a great competitive advantage with its successful multi-platform approach to franchising, which is supported by a breadth of popular properties across all platforms. The company also has great growth potential in the form of eSports and mobile gaming, two spaces that Activision Blizzard is actively engaged in and even leading with innovations such as the *Overwatch League*. Furthermore, the company is currently at a significant discount due to a combination of market conservatism, skepticism, and misunderstanding. All of this make Activision Blizzard Inc a great investment as well as a solid yet ever-evolving company.

Appendix 1: Income Statement

Activision Blizzard Inc (ATVI US) - GAAP

In Millions of USD except Per Share 12 Months Ending	FY 2011 12/31/2011	FY 2012 12/31/2012	FY 2013 12/31/2013	FY 2014 12/31/2014	FY 2015 12/31/2015	FY 2016 12/31/2016	FY 2017 12/31/2017	Last 12M 12/31/2017	FY 2018 Est 12/31/2018	FY 2019 Est 12/31/2019
Revenue	4,755.0	4,856.0	4,583.0	4,408.0	4,664.0	6,608.0	7,017.0	7,018.0	7,510.5	8,100.2
+ Sales & Services Revenue	4,755.0	4,856.0	4,583.0	4,408.0	4,664.0	6,608.0	7,017.0	7,018.0		
- Cost of Revenue	1,772.0	1,662.0	1,531.0	1,525.0	1,585.0	2,394.0	2,501.0	2,501.0		
+ Cost of Goods & Services	1,772.0	1,662.0	1,531.0	1,525.0	1,585.0	2,394.0	2,501.0	2,501.0		
Gross Profit	2,983.0	3,194.0	3,052.0	2,883.0	3,079.0	4,214.0	4,516.0	4,517.0	5,382.6	5,911.5
+ Other Operating Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
- Operating Expenses	1,655.0	1,743.0	1,680.0	1,700.0	1,760.0	2,802.0	3,207.0	3,207.0		
+ Selling, General & Admin	1,001.0	1,139.0	1,096.0	1,129.0	1,114.0	1,844.0	2,138.0	2,139.0		
+ <i>Selling & Marketing</i>	545.0	578.0	606.0	712.0	734.0	1,210.0	1,378.0	1,378.0		
+ <i>General & Administrative</i>	456.0	561.0	490.0	417.0	380.0	634.0	760.0	761.0		
+ Research & Development	629.0	604.0	584.0	571.0	646.0	958.0	1,069.0	1,068.0		
+ Other Operating Expense	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Operating Income (Loss)	1,328.0	1,451.0	1,372.0	1,183.0	1,319.0	1,412.0	1,309.0	1,310.0	2,621.2	3,004.6
- Non-Operating (Income) Loss	-3.0	-7.0	53.0	202.0	198.0	306.0	158.0	159.0		
+ Interest Expense, Net	-10.0	-5.0	53.0	197.0	193.0	—	—	—		
+ <i>Interest Expense</i>	4.0	1.0	58.0	201.0	193.0	197.0	150.0	221.0		
- <i>Interest Income</i>	14.0	6.0	5.0	4.0	0.0	—	—	—		
+ Other Investment (Inc) Loss	-3.0	-7.0	53.0	202.0	198.0	214.0	146.0	159.0		
+ Foreign Exch (Gain) Loss	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—		
+ (Income) Loss from Affiliates	—	0.0	0.0	0.0	0.0	—	—	—		
+ Other Non-Op (Income) Loss	10.0	5.0	-53.0	-197.0	-193.0	-105.0	-138.0	-221.0		
Pretax Income	1,331.0	1,458.0	1,319.0	981.0	1,121.0	1,106.0	1,151.0	1,151.0	2,516.1	2,875.9
- Income Tax Expense (Benefit)	246.0	309.0	309.0	146.0	229.0	140.0	878.0	878.0		
+ Current Income Tax	170.0	319.0	137.0	196.0	240.0	151.0	1,057.0	—		
+ Deferred Income Tax	76.0	-10.0	161.0	-50.0	-11.0	-11.0	-179.0	—		
+ Tax Allowance/Credit	—	0.0	11.0	—	—	—	—	—		
Income (Loss) from Cont Ops	1,085.0	1,149.0	1,010.0	835.0	892.0	966.0	273.0	273.0	1,393.0	1,713.0
- Net Extraordinary Losses (Gains)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
+ Discontinued Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
+ XO & Accounting Changes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Income (Loss) Incl. MI	1,085.0	1,149.0	1,010.0	835.0	892.0	966.0	273.0	273.0		
- Minority Interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Net Income, GAAP	1,085.0	1,149.0	1,010.0	835.0	892.0	966.0	273.0	273.0	1,393.0	1,713.0
- Preferred Dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
- Other Adjustments	16.0	24.0	23.0	18.0	7.0	4.0	0.0	0.0		
Net Income Avail to Common, GAAP	1,069.0	1,125.0	987.0	817.0	885.0	962.0	273.0	273.0	1,393.0	1,713.0
Net Income Avail to Common, Adj	1,141.6	1,125.7	1,059.9	817.0	891.2	1,060.8	1,106.8	1,102.0	2,014.9	2,363.1
Net Abnormal Losses (Gains)	72.6	0.7	72.9	0.0	6.2	98.8	833.8	829.0		
Net Extraordinary Losses (Gains)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Basic Weighted Avg Shares	1,148.0	1,112.0	1,024.0	716.0	728.0	740.0	754.0	757.0		
Basic EPS, GAAP	0.93	1.01	0.96	1.14	1.21	1.30	0.36	0.37	1.87	2.19
Basic EPS from Cont Ops	0.93	1.01	0.96	1.14	1.21	1.30	0.36	0.37	1.87	2.19
Basic EPS from Cont Ops, Adjusted	0.99	1.01	1.04	1.14	1.22	1.43	1.47	1.46	2.61	2.98
Diluted Weighted Avg Shares	1,156.0	1,118.0	1,035.0	726.0	739.0	754.0	766.0	757.0		
Diluted EPS, GAAP	0.92	1.01	0.95	1.13	1.19	1.28	0.36	0.36	1.87	2.19
Diluted EPS from Cont Ops	0.92	1.01	0.95	1.13	1.19	1.28	0.36	0.36	1.87	2.19
Diluted EPS from Cont Ops, Adjusted	0.98	1.01	1.02	1.13	1.20	1.41	1.45	1.45	2.61	2.98

Appendix 2: Balance Sheet (Part I)

Activision Blizzard Inc (ATVI US) - Standardized

In Millions of USD except Per Share 12 Months Ending	FY 2008 12/31/2008	FY 2009 12/31/2009	FY 2010 12/31/2010	FY 2011 12/31/2011	FY 2012 12/31/2012	FY 2013 12/31/2013	FY 2014 12/31/2014	FY 2015 12/31/2015	FY 2016 12/31/2016	FY 2017 12/31/2017
Total Assets										
+ Cash, Cash Equivalents & STI	3,002.0	3,245.0	3,508.0	3,525.0	4,375.0	4,443.0	4,858.0	1,823.0	3,245.0	4,713.0
+ Cash & Cash Equivalents	2,958.0	2,768.0	2,812.0	3,165.0	3,959.0	4,410.0	4,848.0	1,823.0	3,245.0	4,713.0
+ ST Investments	44.0	477.0	696.0	360.0	416.0	33.0	10.0	0.0	0.0	0.0
+ Accounts & Notes Receiv	974.0	739.0	673.0	649.0	707.0	510.0	659.0	679.0	732.0	918.0
+ Accounts Receivable, Net	974.0	739.0	673.0	649.0	707.0	510.0	659.0	679.0	732.0	918.0
+ Notes Receivable, Net	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Inventories	262.0	241.0	112.0	144.0	209.0	171.0	123.0	128.0	49.0	46.0
+ Raw Materials	11.0	40.0	14.0	28.0	58.0	22.0	11.0	27.0	9.0	1.0
+ Work In Process	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Finished Goods	251.0	201.0	98.0	116.0	151.0	149.0	112.0	101.0	40.0	45.0
+ Other Inventory	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Other ST Assets	1,021.0	1,104.0	1,139.0	1,062.0	983.0	1,117.0	901.0	757.0	804.0	843.0
+ Derivative & Hedging Assets	—	—	1.0	0.0	0.0	0.0	0.0	0.0	—	5.0
+ Deferred Tax Assets	—	498.0	648.0	507.0	487.0	321.0	—	—	—	—
+ Misc ST Assets	—	606.0	490.0	555.0	496.0	796.0	901.0	757.0	804.0	838.0
Total Current Assets	5,259.0	5,329.0	5,432.0	5,380.0	6,274.0	6,241.0	6,541.0	3,387.0	4,830.0	6,520.0
+ Property, Plant & Equip, Net	149.0	138.0	169.0	163.0	141.0	138.0	157.0	189.0	258.0	294.0
+ Property, Plant & Equip	396.0	437.0	512.0	533.0	513.0	586.0	501.0	597.0	805.0	979.0
- Accumulated Depreciation	247.0	299.0	343.0	370.0	372.0	448.0	344.0	408.0	547.0	685.0
+ LT Investments & Receivables	78.0	23.0	23.0	16.0	8.0	9.0	9.0	0.0	0.0	0.0
+ LT Investments	—	23.0	23.0	16.0	8.0	9.0	9.0	—	—	—
+ Other LT Assets	8,979.0	8,252.0	7,823.0	7,718.0	7,777.0	7,624.0	7,935.0	11,670.0	12,364.0	11,854.0
+ Total Intangible Assets	9,139.0	8,243.0	7,808.0	7,694.0	7,736.0	7,589.0	7,586.0	7,657.0	11,680.0	10,955.0
+ Goodwill	7,227.0	7,154.0	7,132.0	7,111.0	7,106.0	7,092.0	7,086.0	7,095.0	9,768.0	9,763.0
+ Other Intangible Assets	1,912.0	1,089.0	676.0	583.0	630.0	497.0	500.0	562.0	1,912.0	1,192.0
+ Deferred Tax Assets	—	—	—	—	—	—	264.0	275.0	283.0	459.0
+ Derivative & Hedging Assets	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Misc LT Assets	-160.0	9.0	15.0	24.0	41.0	35.0	85.0	3,738.0	401.0	440.0
Total Noncurrent Assets	9,206.0	8,413.0	8,015.0	7,897.0	7,926.0	7,771.0	8,101.0	11,859.0	12,622.0	12,148.0
Total Assets	14,465.0	13,742.0	13,447.0	13,277.0	14,200.0	14,012.0	14,642.0	15,246.0	17,452.0	18,668.0
Liabilities & Shareholders' Equity										
+ Payables & Accruals	319.0	1,081.0	1,234.0	1,084.0	995.0	991.0	917.0	909.0	1,028.0	1,734.0
+ Accounts Payable	319.0	302.0	363.0	390.0	343.0	355.0	325.0	284.0	222.0	323.0
+ Accrued Taxes	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—
+ Interest & Dividends Payable	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—
+ Other Payables & Accruals	—	779.0	871.0	694.0	652.0	636.0	592.0	625.0	806.0	1,411.0
+ ST Debt	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0
+ ST Borrowings	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ ST Capital Leases	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Current Portion of LT Debt	—	—	—	—	—	25.0	0.0	0.0	—	—
+ Other ST Liabilities	1,765.0	1,426.0	1,726.0	1,472.0	1,657.0	1,389.0	1,797.0	1,702.0	1,628.0	1,929.0
+ Deferred Revenue	—	1,426.0	1,726.0	1,472.0	1,657.0	1,389.0	1,797.0	1,702.0	1,628.0	1,929.0
+ Derivatives & Hedging	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Misc ST Liabilities	1,765.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Current Liabilities	2,084.0	2,507.0	2,960.0	2,556.0	2,652.0	2,405.0	2,714.0	2,611.0	2,656.0	3,663.0

Appendix 3: Balance Sheet (Part II)

+ LT Debt	0.0	0.0	0.0	0.0	0.0	4,668.0	4,324.0	4,074.0	4,887.0	4,390.0
+ LT Borrowings	—	0.0	0.0	0.0	0.0	4,668.0	4,324.0	4,074.0	4,887.0	4,390.0
+ LT Capital Leases	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Other LT Liabilities	854.0	479.0	284.0	229.0	231.0	317.0	371.0	493.0	790.0	1,153.0
+ Accrued Liabilities	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Pension Liabilities	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Pensions	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Other Post-Ret Benefits	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Deferred Revenue	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Deferred Tax Liabilities	—	270.0	120.0	55.0	25.0	66.0	10.0	10.0	44.0	21.0
+ Derivatives & Hedging	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Misc LT Liabilities	854.0	209.0	164.0	174.0	206.0	251.0	361.0	483.0	746.0	1,132.0
Total Noncurrent Liabilities	854.0	479.0	284.0	229.0	231.0	4,985.0	4,695.0	4,567.0	5,677.0	5,543.0
Total Liabilities	2,938.0	2,986.0	3,244.0	2,785.0	2,883.0	7,390.0	7,409.0	7,178.0	8,333.0	9,206.0
+ Preferred Equity and Hybrid Capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Share Capital & APIC	12,170.0	12,376.0	12,353.0	9,616.0	9,450.0	9,682.0	9,924.0	10,242.0	10,442.0	10,747.0
- Treasury Stock	126.0	1,235.0	2,194.0	0.0	0.0	5,814.0	5,762.0	5,637.0	5,563.0	5,563.0
+ Retained Earnings	-474.0	-361.0	57.0	948.0	1,893.0	2,686.0	3,374.0	4,096.0	4,869.0	4,916.0
+ Other Equity	-43.0	-24.0	-13.0	-72.0	-26.0	68.0	-303.0	-633.0	-629.0	-638.0
Equity Before Minority Interest	11,527.0	10,756.0	10,203.0	10,492.0	11,317.0	6,622.0	7,233.0	8,068.0	9,119.0	9,462.0
+ Minority/Non Controlling Interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Equity	11,527.0	10,756.0	10,203.0	10,492.0	11,317.0	6,622.0	7,233.0	8,068.0	9,119.0	9,462.0
Total Liabilities & Equity	14,465.0	13,742.0	13,447.0	13,277.0	14,200.0	14,012.0	14,642.0	15,246.0	17,452.0	18,668.0
Reference Items										
Accounting Standard	US GAAP									
Shares Outstanding	1,312.2	1,250.4	1,183.3	1,133.4	1,111.6	703.7	721.9	734.5	745.5	757.5
Number of Treasury Shares	13.0	113.7	199.2	0.0	0.0	428.7	428.7	428.7	428.7	428.7
Pension Obligations	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Future Minimum Operating Lease Obligations	168.0	148.0	197.0	183.0	173.0	189.0	168.0	178.0	344.0	389.0
Capital Leases - Total	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Options Granted During Period	8.7	9.5	11.3	4.1	4.3	3.5	6.0	4.1	5.7	2.6
Options Outstanding at Period End	97.8	71.8	61.2	53.2	51.7	38.8	29.5	24.3	31.5	20.5
Net Debt	-3,002.0	-3,245.0	-3,508.0	-3,525.0	-4,375.0	250.0	-534.0	2,251.0	1,642.0	-323.0
Net Debt to Equity	-26.04	-30.17	-34.38	-33.60	-38.66	3.78	-7.38	27.90	18.01	-3.41
Tangible Common Equity Ratio	44.84	45.70	42.47	50.12	55.40	-15.06	-5.00	5.42	-44.37	-19.36
Current Ratio	2.52	2.13	1.84	2.10	2.37	2.60	2.41	1.30	1.82	1.78
Cash Conversion Cycle	107.83	63.27	27.48	0.93	12.30	8.44	-0.44	11.36	12.61	10.03
Cash Held Overseas	—	—	—	—	—	—	3,600.0	500.0	1,900.0	3,000.0
Number of Employees	7,000.00	—	7,600.00	7,300.00	6,700.00	6,900.00	6,800.00	9,600.00	9,600.00	9,800.00

Appendix 4: Statement of Cash Flows

Activision Blizzard Inc (ATVI US) - Standardized

In Millions of USD except Per Share 12 Months Ending	FY 2009 12/31/2009	FY 2010 12/31/2010	FY 2011 12/31/2011	FY 2012 12/31/2012	FY 2013 12/31/2013	FY 2014 12/31/2014	FY 2015 12/31/2015	FY 2016 12/31/2016	FY 2017 12/31/2017	Last 12M 12/31/2017
Cash from Operating Activities										
+ Net Income	113.0	418.0	1,085.0	1,149.0	1,010.0	835.0	892.0	966.0	273.0	273.0
+ Depreciation & Amortization	628.0	517.0	435.0	328.0	315.0	346.0	494.0	1,150.0	1,199.0	1,199.0
+ Non-Cash Items	122.0	175.0	103.0	213.0	207.0	125.0	136.0	287.0	-17.0	-66.0
+ Stock-Based Compensation	77.0	109.0	79.0	121.0	79.0	104.0	92.0	147.0	176.0	176.0
+ Deferred Income Taxes	-256.0	-278.0	75.0	-10.0	161.0	-44.0	-27.0	-9.0	-181.0	-181.0
+ Other Non-Cash Adj	301.0	344.0	-51.0	102.0	-33.0	65.0	71.0	149.0	-12.0	-61.0
+ Chg in Non-Cash Work Cap	320.0	266.0	-671.0	-345.0	-268.0	25.0	-263.0	-248.0	758.0	807.0
+ (Inc) Dec in Accts Receiv	235.0	43.0	13.0	-46.0	198.0	-177.0	-40.0	84.0	-165.0	-165.0
+ (Inc) Dec in Inventories	21.0	124.0	-34.0	-75.0	6.0	-2.0	-54.0	32.0	-26.0	-26.0
+ Inc (Dec) in Accts Payable	-18.0	70.0	31.0	-54.0	7.0	-12.0	-25.0	-50.0	85.0	85.0
+ Inc (Dec) in Other	82.0	29.0	-681.0	-170.0	-479.0	216.0	-144.0	-314.0	864.0	913.0
+ Net Cash From Disc Ops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash from Operating Activities	1,183.0	1,376.0	952.0	1,345.0	1,264.0	1,331.0	1,259.0	2,155.0	2,213.0	2,213.0
Cash from Investing Activities										
+ Change in Fixed & Intang	-69.0	-97.0	-72.0	-73.0	-74.0	-107.0	-111.0	-136.0	-155.0	-155.0
+ Disp in Fixed & Intang	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Disp of Fixed Prod Assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Disp of Intangible Assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Acq of Fixed & Intang	-69.0	-97.0	-72.0	-73.0	-74.0	-107.0	-111.0	-136.0	-155.0	-155.0
+ Acq of Fixed Prod Assets	-69.0	-97.0	-72.0	-73.0	-74.0	-107.0	-111.0	-136.0	-155.0	-155.0
+ Acq of Intangible Assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Net Change in LT Investment	—	0.0	—	—	—	—	0.0	0.0	0.0	0.0
+ Dec in LT Investment	—	—	—	—	—	—	0.0	0.0	0.0	0.0
+ Inc in LT Investment	—	—	—	—	—	—	0.0	0.0	0.0	0.0
+ Net Cash From Acq & Div	0.0	-4.0	-3.0	0.0	0.0	0.0	-46.0	-4,588.0	0.0	0.0
+ Cash from Divestitures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Cash for Acq of Subs	0.0	-4.0	-3.0	0.0	0.0	0.0	-46.0	-4,588.0	0.0	0.0
+ Cash for JVs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Other Investing Activities	-374.0	-211.0	341.0	-51.0	382.0	23.0	-3,559.0	3,547.0	-42.0	-42.0
+ Net Cash From Disc Ops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash from Investing Activities	-443.0	-312.0	266.0	-124.0	308.0	-84.0	-3,716.0	-1,177.0	-197.0	-197.0
Cash from Financing Activities										
+ Dividends Paid	0.0	-189.0	-194.0	-204.0	-216.0	-147.0	-170.0	-195.0	-226.0	-226.0
+ Cash From (Repayment) Debt	0.0	0.0	0.0	0.0	4,744.0	-375.0	-250.0	774.0	-510.0	-510.0
+ Cash From (Repay) ST Debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	0.0
+ Cash From LT Debt	0.0	0.0	0.0	0.0	4,750.0	0.0	0.0	6,878.0	3,741.0	3,741.0
+ Repayments of LT Debt	0.0	0.0	0.0	0.0	-6.0	-375.0	-250.0	-6,104.0	-4,251.0	-4,251.0
+ Cash (Repurchase) of Equity	-949.0	-864.0	-599.0	-277.0	-5,643.0	175.0	106.0	106.0	178.0	178.0
+ Increase in Capital Stock	160.0	95.0	93.0	38.0	187.0	175.0	106.0	106.0	178.0	178.0
+ Decrease in Capital Stock	-1,109.0	-959.0	-692.0	-315.0	-5,830.0	0.0	0.0	0.0	0.0	0.0
+ Other Financing Activities	0.0	0.0	-15.0	-16.0	-108.0	-66.0	112.0	-185.0	-66.0	-66.0
+ Net Cash From Disc Ops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash from Financing Activities	-949.0	-1,053.0	-808.0	-497.0	-1,223.0	-413.0	-202.0	500.0	-624.0	-624.0
Effect of Foreign Exchange Rates	19.0	33.0	-57.0	70.0	102.0	-396.0	-366.0	-56.0	76.0	76.0
Net Changes in Cash	-190.0	44.0	353.0	794.0	451.0	438.0	-3,025.0	1,422.0	1,468.0	1,468.0
Cash Paid for Taxes	257.0	255.0	317.0	159.0	138.0	34.0	20.0	121.0	176.0	
Cash Paid for Interest	5.0	2.0	4.0	2.0	19.0	201.0	193.0	209.0	145.0	

Appendix 5: Discounted Cash Flow Model

Free Cash Flow Buildup						5 Year Projected Annual Forecast					Historic		5 Year Proj
Period	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average	StDev	Check
						1	2	3	4	5			
Revenue	4,583.00	4,408.00	4,664.00	6,608.00	7,017.00	7,510.46	8,100.19	8,732.00	9,378.17	10,034.65			
Revenue Growth		-3.82%	5.81%	41.68%	6.19%	7.03%	7.85%	7.80%	7.40%	7.00%	12.46%	20.02%	
Cost of Revenue	1,531.00	1,525.00	1,585.00	2,394.00	2,501.00	2,127.86	2,188.67	2,648.53	2,844.53	3,043.64			
Cost of Revenue Margin	33.41%	34.60%	33.98%	36.23%	35.64%	28.33%	27.02%	30.33%	30.33%	30.33%	35.11%	1.01%	
Gross Profit	3,052.00	2,883.00	3,079.00	4,214.00	4,516.00	5,382.60	5,911.52	6,083.47	6,533.65	6,991.00			
Gross Margin	66.59%	65.40%	66.02%	63.77%	64.36%	71.67%	72.98%	69.67%	69.67%	69.67%	64.89%	1.01%	
S,G&A	1,096.00	1,129.00	1,114.00	1,844.00	2,138.00	1,860.19	1,975.39	2,129.47	2,287.05	2,447.14			
S,G&A Margin	23.91%	25.61%	23.89%	27.91%	30.47%	24.77%	24.39%	24.39%	24.39%	24.39%	26.97%	2.86%	
R&D	584.00	571.00	646.00	958.00	1,069.00	901.25	931.52	1,004.18	1,031.60	1,103.81			
R&D Margin	12.74%	12.95%	13.85%	14.50%	15.23%	12.00%	11.50%	11.50%	11.00%	11.00%	14.13%	0.97%	
Depreciation/Amortization	-	-	-	-	-	-	-	-	-	-			
D/A Margin	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Other Operating Expenses	-	-	-	-	-	-	-	-	-	-			
OOE Margin	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
EBIT	1,372.00	1,183.00	1,319.00	1,412.00	1,309.00	2,621.15	3,004.61	2,949.82	3,215.00	3,440.05			
Ebit Margin	29.94%	26.84%	28.28%	21.37%	18.65%	34.90%	37.09%	33.78%	34.28%	34.28%	23.79%	4.53%	
Taxes	253.58	250.72	309.00	210.14	267.40	523.78	600.41	589.46	642.45	687.42			
Tax Rate	18.48%	21.19%	23.43%	14.88%	20.43%	19.98%	19.98%	19.98%	19.98%	19.98%	19.98%	3.63%	
EBIAT	1,118.42	932.28	1,010.00	1,201.86	1,041.60	2,097.37	2,404.21	2,360.37	2,572.55	2,752.63			
D&A (+)	315.00	346.00	494.00	1,150.00	1,199.00	1,201.67	1,296.03	1,309.80	1,312.94	1,404.85			
D&A Margin	6.87%	7.85%	10.59%	17.40%	17.09%	16.00%	16.00%	15.00%	14.00%	14.00%	13.23%	4.77%	
Capex (-)	74.00	107.00	111.00	136.00	155.00	170.38	183.76	198.09	212.75	227.65			
Capex Margin	1.61%	2.43%	2.38%	2.06%	2.21%	2.27%	2.27%	2.27%	2.27%	2.27%	2.27%	0.17%	
Change in WC (-)		(449.00)	(16.00)	(24.00)	(785.00)	(414.57)	(447.12)	(481.99)	(517.66)	(553.90)			Terminal Time
Free Cash Flow		1,620.28	1,409.00	2,239.86	2,870.60	3,543.23	3,963.59	3,954.07	4,190.41	4,483.74	69,528.43		
Discount Period						1	2	3	4	5			
Discount Rate						9.11%	9.11%	9.11%	9.11%	9.11%	9.11%		
PV of FCF						3,247.39	3,329.35	3,044.04	2,956.64	2,899.46	44,961.38		

Valuation		Sensitivity Analysis						
Terminal Rate	2.50%			8.11%	8.61%	9.11%	9.61%	10.11%
Enterprise Value	60,438.27	Terminal Rate	1.50%	82.84	76.93	71.80	67.31	63.34
Debt (-)	4,390.00		2.00%	88.20	81.45	75.66	70.63	66.22
Cash(+)	4,713.00		2.50%	94.51	86.71	80.09	74.41	69.47
Equity Value	60,761.27		3.00%	102.05	92.91	85.26	78.77	73.19
Shares	758.63		3.50%	111.24	100.31	91.34	83.83	77.47
Yahoo Finance								
Intrinsic Value	80.09							
Trading Value	\$ 65.88	WACC	9.11%					
Margin of Safety	21.57%	Terminal R	2.50%					

						WACC		
	2013	2014	2015	2016	2017	Current Stock Price	\$ 65.88	
Total Current Assets	1,798.00	1,683.00	1,564.00	1,585.00	1,807.00	Book Debt Value	\$ 4,390.00	Balance Sheet Standardized
Accounts & Notes Receiv	510.00	659.00	679.00	732.00	918.00	Market Equity Value	\$ 49,980.00	Google Finance
Inventories	171.00	123.00	128.00	49.00	46.00	D+E	\$ 54,370.00	
Other Assets	1,117.00	901.00	757.00	804.00	843.00	US 10 yr (Rf)	2.83%	CNBC
						Tax Rate	20.43%	
Total Current Liabilities	2,380.00	2,714.00	2,611.00	2,656.00	3,663.00	Return on Market	9%	
Payables & Accruals	991.00	917.00	909.00	1,028.00	1,734.00	Beta	\$ 1.10	Value Line
Other ST Liabilities	1,389.00	1,797.00	1,702.00	1,628.00	1,929.00	Cost of Equity	9.34%	
						Cost of Debt	8.07%	
Net Working Capital	(582.00)	(1,031.00)	(1,047.00)	(1,071.00)	(1,856.00)			
Increase/(Decrease) in NWC		(449.00)	(16.00)	(24.00)	(785.00)	WACC	9.11%	
		-10.19%	-0.34%	-0.36%	-11.19%			