Assignment Number 3-4

Industry and International Analysis

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Industry

The entertainment software industry is booming, even the recent economic crisis couldn't hold it back. In fact the "…industry's real annual growth rate from 2005 to 2009 exceeded 10 percent, which is actually more than seven times the growth rate of the U.S. economy as a whole." (Brightman, 2010). Blockbuster video game titles have been smashing movie box office opening weeks with record breaking sales of their own. In their first week Halo 3 made $300 million, Grand Theft Auto IV made $500 million, Call of Duty: Modern Warfare made $550 million and Call of Duty: Black Ops holds the current record with $650 million. For comparison in more familiar and reported on figures the following are the highest opening weeks in movie industry history: The Twilight Saga: New Moon ($140 million), Spider-Man 3 ($151 million), Batman: The Dark Knight ($158 million) and Avatar ($232 million) (Cantrell, 2011). The entertainment software industry is truly a force to be reckoned with.

Investors have a difficult time benefiting from the rise of video games because most publishers are either private or part of a huge company like Microsoft or Sony where video games only make up a fraction of their business. This paper will look at five publicly traded companies in the video game industry and try to distil which one is performing the best using a set of financial metrics.

The Companies

Electronic Arts

The largest game publisher in the world, EA is famous for its licensed sports games like Madden Football, Tiger Woods Golf and FIFA Soccer. They also publish the some of the industry's best selling games like The Sims, Mass Effect, Rock Band, Crysis and Dragon Age. EA has smaller studios working on niche games like Dead Space, Mirror's Edge and Brütal

Legend. They create games for almost every platform from mobile phones to PC and Mac to X Box 360 and Playstation 3 with everything in between.

Activision Blizzard

A merger of two big names in the video game industry, Activision Blizzard combines the world's best selling console game franchise (Call of Duty) with the world's number one subscription-based massively multi-player online role-playing game World of Warcraft. Activision is also known for the Guitar Hero series, Tony Hawk skating and Transformers. Blizzard brought the history and quality of such games as Diablo, Warcraft and the de facto national pastime of South Korea: Starcraft (Ashcraft, 2010).

Take Two Interactive

Long known as the HBO of video games, Take Two Interactive makes adult themed games that center on plot and character development as well as fast-action. Creators of the Grand Theft Auto series, the award-winning Red Dead Redemption, L.A Noir and Max Payne have long pushed the business of video games into becoming the art form it is today.

Konami

The Tokyo-based Konami has been around since 1969 making them the oldest company of the five on this list. They make games for all platforms including some gambling systems. Konami has many famous franchises like Metal Gear Solid, Dance Dance Revolution, Castlevania, Silent Hill and Contra. Konami is also famous in pop culture circles for the "Konami Code." Several of their early Nintendo Entertainment System games featured a code which gave the player more lives and/or ammo. To activate the Konami Code the player had to enter Up, Up, Down, Down, Left, Right, Left, Right, B, A, Start on their gamepad. Konami also has a toy division that makes playthings based on their video game characters.

THQ Inc.

THQ does a lot of business in the licensing of movies and TV shows and making them into video games. Hot Wheels, Hello Kitty, Scooby-Doo, Spongebob Squarepants and even the Sopranos have all been made into games for various systems by THQ. Red Faction and Saint's Row have been very popular original properties for them as well.

Company Rankings

The same set of financials were run on these five companies and after a careful comparison the companies have been ranked from best to worst in the following table:

Best Company				Worst Company
Take Two	Activision	Konami	THQ	EA

1. Take Two Interactive topped this list because in each category it was the second to worst company in only three measures. The rest of the measures ranked Take Two in at least third or forth in most categories. This consistency won out over the rest of the pack who had wide swings between what they did well and what they did not.
2. Activision Blizzard came in second in this list mostly because of poor asset management and liquidity ratios compared to the industry. Activision had the best debt management ratios of all the companies but it wasn't enough to rise above their above mentioned issues plus mediocre return ratios and performance metrics.
3. Konami did terrible in the asset management ratios and average over the rest of the metrics never leading in any category. A solid company with two competitors doing better and two doing worse. Konami would rise quickly with gains in their asset management.

4. THQ starts the race to the bottom. They are masters of asset management and liquidity, leading in all but one category. THQ falls apart where it counts most: Profitability and performance metrics. They posted negatives for all profitability and performance metrics which probably doesn't help their investors sleep well at night.
5. Electronic Arts rounds out our list in the bottom spot. There doesn't seem to be much financially that EA is doing correctly. They were the worst company in almost every category across the board. Apparently being the 800 pound gorilla in the room does not equal profits in this case.

Comparative Analysis

Overall Financial Analysis and Performance

Take Two

Take Two's liquidity ratios are right in the middle of the industry averages. This means they are neither over nor under leveraged. A happy medium is struck. Take Two could take out more loans and be a low risk to the bank and they still have some wiggle room if the industry takes a downturn.

Take Two is also on the high side of average in their asset management ratios. They're neck in neck with other firms in getting inventory out the door and cash into their coffers. Their strengths are fixed asset turnover, total asset turnover and days sales outstanding. Investors can be confident that Take Two is using purchased property, plant and equipment effectively. They're also efficient in turning around product into cash.

Debt management is another area where Take Two is on the high middle of industry averages. They only fall out of the second spot by fractions in two of the four categories. Take Two's debt ratios show that they follow the industry average and are a low risk for default.

Profitability is where Take Two really shines. Their return on assets (ROA) and return on equity (ROA) are tops on this list. Their profit margin is an industry respectable 4.7% twice that of the average. Take Two's high ROA & ROE shows investors that they are doing a good job using assets and their investments to produce revenue.

Finally Take Two's performance metrics price earnings growth (PEG), internal growth rate (IGR) and sustainable growth rate (SGR) lead this list of five indicating continued growth for investors.

The one question mark on Take Two's record is the over valuation of its stock. Take Two is a solid player and the best of the five on this list, but they could be in for a hit if they don't meet investor's high expectations.

Electronic Arts

There's not a lot for EA to be proud of in their financials. Their inventory turnover and inventory turnover are the only average scores they had. The rest of their ratios are consistently in the bottom two rankings of the five listed companies.

Especially poor are their profitability and performance metrics. EA's profit margin is negative 7.7%, their ROA is -5.7% and their ROE is down to -10.8%. EA's PEG ratio (-0.48), IGR (-0.05) and (SGR -0.11) are equally abysmal. These numbers would give any investor pause and ask themselves, what exactly is EA doing with my money?

WACC

Take Two (WACC 8.9%) Electronic Arts (WACC 8.7%)

Both companies' WACC are within fractions of each other. In fact after some research every company on this list and two larger companies (Sony and Microsoft) had WACC ratios from 8.5% to 9%. This seems to be the industry standard. Take Two's return on net assets cost them slightly more than EA's did.

SLEPT

Unemployment

Video games are usually a discretionary income purchase. When workers have less 'extra' income video games sales go down. Hardware sales took a hit previously and the trickle down effect of fewer consoles sold will be less software sold. (Paczkowski, 2009)

Violence stigma

Video games, as well as rock & music and television, have been blamed for a number of society's ills. After school shootings in particular it's common for the media to ask if the alleged perpetrator played "violent video games." (Benedetti, 2007) Continued poor attitudes towards video games could mean lower sales for the industry.

Piracy

Walk around the streets of Manhattan or Shanghai long enough and you'll see a plethora of blankets on the sidewalk with all of the latest video games neatly lined up with amazing prices. Unfortunately the developers never see a dime of those sales. "The Entertainment Software Association estimates that the video game industry loses about $3.5 billion every year due to this kind of hard-goods piracy. But these numbers don't include the 500-pound gorilla: Internet piracy and peer-to-peer transfers." (Kalning, 2007) P2P transfers are hard to count as losses because the users probably wouldn't have paid for the game in the first place. On the other hand anti-piracy measures usually hurt and frustrate honest users by inflicting unreasonable measures to play the game. Some of the measures being: always needing to be connected to the internet to play or entering your id code every session.

Intellectual Property / Copyright

Who owns digital property is still a wide-open question for the court system. In the case of MDY Industries LLC vs. Blizzard Entertainment attorneys for Blizzard used a novel approach to copyright infringement to win a verdict. Blizzard produces the massively multiplayer online game World of Warcraft (WoW). In the game the more a user plays the stronger and more adept their character becomes. These higher level characters have access to more parts of the game than lower level characters and it can take months of real-time playing to level high enough for the game's premium content. Players who didn't want to spend the time at their machine leveling their character could purchase a program from MDY Industries called WoWglider that would automate a lot of the repetitive tasks required to pass the lower levels. Blizzard sued claiming that the use of the software was copyright infringement because of the way it manipulated the game. MDY claimed that it wasn't infringement because the software only interacted with the game like a human user would. Blizzard countered that when a user is playing WoW, a copy of the game is downloaded onto the local machine so manipulating it at a software level was where the copyright infringement took place. Blizzard won the judgment and it has moved onto appeals. The implication for the video game industry is: many justices, court officials, lawyers, politicians and law enforcement officers don't understand the technology of software and how it works. This makes it easier for a savvy lawyer of lobbyist to present information that may favor opponents of the industry.

Gov. Arnold Schwarzenegger v. Entertainment Merchants Association

In 2005, then Governor Arnold Schwarzenegger, signed a bill that made it a crime to sell "exceptionally violent" video games to minors. The case was recently heard at the Supreme Court and, as of this writing, is awaiting a verdict. This case has been framed by supporters of the law as necessary to protect children and by detractors as an attack on first-amendment free-speech rights. Lawsuits like these have a chilling effect on the industry as no one wants to be the publisher that puts out a game which brings down the full force of government down with expensive new regulations.

Hackers

Hackers around the world are growing bolder and attacking all kinds of technology companies searching for poorly protected customer data. Sony Playstation Network, the system that enables online play for all PS3 games, was brought down for weeks while the company scrambled to plug the security hole (Schreier, 2011). Rockville, MD publisher Bethesda Softworks, creator of the best-selling Elder Scrolls IV: Oblivion and Fallout 3, was the latest victim (Pearson, 2011). Hackers got away with usernames and passwords which could lead to customer's credit card info. These sorts of attacks are becoming more common, forcing companies to reassess the security of their networks. This could leave many companies, who have left this issue at the bottom of their to-do list, vulnerable to data loss or facing expensive upgrades.

Mobile Phones and Tablets

Platforms other than the console, the bread and butter of game designers, are seeing huge growth. "A recent report from Deutsche Bank Securities Inc. projected that through 2014, spending on "social games" on networks like Facebook would grow 46% annually, other online games 23%, and mobile games 19%. Meanwhile, spending on console-game discs is projected to drop 6% a year." (Pham & Fritz, 2011) Consoles need to cater to the new market realities to remain relevant and developers need to be vigilant about where their audience is, whether it's on tablets, consoles or smartphones.

Creating Value

Take Two's numbers show that they have created shareholder value. Conversely, EA's numbers show how they've lost value for their shareholders. Take Two ran a profit margin of 4.7% while EA has a profit margin of -7.7%.

Take Two also has a solid economic value add (EVA) ratio of 65.24 with EA's at negative -166.19. EVA is a commonly used shareholder value metric because it calculates the between what the street or market value of a company is versus the amount of money investors have put into the company. In EA's case they've lost investor money to the tune of $166.19 per dollar earned.

Growth prospects are also clearly in Take Two's favor. Take Two's price/earnings ratio is 24.03 while EA's is down to -28.53%. As previously mentioned, Take Two enjoys a PEG ratio of 5.01, an IGR of 0.06 and an SGR 0.09. EA is last in all of those categories (PEG: -0.48, IGR: -0.05, SGR: -0.11)

Financial Market Changes

The gaming industry has been touted as recession-proof by many including the North America president of Nintendo Reggie Fils-Aime. In 2007 he told CNBC that "…he thought the sector — and his company in particular — would weather the coming storm. Historically, he said, video games have done well in tougher economic times." (Kalning, Is the video game industry recession proof?, 2008)

The numbers seem to support the assertion. "According to 2008 gaming-related sales figures from GfK, the gaming industry has shrugged off the global financial crisis and hit sales results of $1.96 billion with a growth rate of 47 per cent. GfK said that the level of growth remained steady throughout the year." (Ramli, 2009)

Video game software even seems inflation-proof. A look back at prices for video games in the early 1990's shows that when the prices are adjusted for inflation, gamers are playing more or less the same amount for $60 games than they did then.

Hal Halpin, president of the Entertainment Consumer's Association, said “I think the bottom line is that it's cumulatively less expensive to be a gamer today than it's ever been.” Looking at an old Sears catalog for games from 1990 “…put the price of [the original Nintendo Entertainment System] games around $30 to $50 each. At current prices that's $50 to $80.”

Conclusion

The video game industry has as many things going to it as it has going against it. The trick is for the industry to stay ahead of the curve because one bad move could be the difference between beating King Koopa and saving the princess and facing a screen with a gamer's least favorite phrase: “GAME OVER.”

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Final Comparison

Ratio	ERTS	ATVI	TTWO	KNM	THQI	Average	
Liquidity							
Current Ratio	1.52	1.85	2.45	2.52	2.95	1.94	Current ratio = current assets / current liabilities
Quick Ratio	1.48	1.81	2.35	2.08	2.87	1.88	Quick ratio = (total current assets - Inventory) / current liabilities
Asset Management							
Accounts Receivable Turnover	10.71	6.95	12.29	8.79	19.45	9.98	Accounts Receivable Turnover Ratio = sales / Total Accounts Receivabl
Days Sales Outstanding	34.07	52.53	29.70	41.53	18.77	38.77	Accounts Receivable / (Total credit sales / Number of days)
Inventory Turnover	46.61	39.71	46.26	11.28	64.36	44.19	sales / inventory
Days' Inventory	7.83	9.19	7.89	32.35	5.67	8.30	365 days / inventory turnover ratio
Fixed Asset Turnover	7.00	26.31	57.91	4.25	31.69	30.41	Net Sales / Net Property, Plan and equipment
Total Asset Turnover	0.74	0.33	1.17	0.90	1.26	0.75	sales / assets
Debt Management							
Debt Ratio	0.47	0.24	0.37	0.36	0.55	0.36	Debt / Total Assets
Debt-to-Equity Ratio	0.90	0.31	0.58	0.57	0.59	0.60	Total Liabilities / Shareholders Equity
Times Interest Earned (T.I.E.) Ratio	0.00	159.00	5.06	13.34	-1.19	54.69	EBIT / Interest
Fixed Charge Coverage Ratio	0.00	198.60	15.73	21.54	74.75	71.44	EBIT + Deprecation & Amortization / Interest
Profitability							
Profit Margin	-7.7%	9.4%	4.7%	5.1%	-1.0%	2.1%	net profit after tax / sales
Return on Assets (ROA)	-5.7%	3.1%	5.5%	4.6%	-1.3%	1.0%	Net income / total asstes
Return on Equity (ROE)	-10.8%	4.1%	8.7%	7.3%	-2.8%	0.7%	Net Income / Shareholder's Equity
Market Value							
Price/Earnings Ratio	-28.53	34.41	24.03	19.66	-31.45	9.97	Stock Price Per Share / Earnings per Share (EPS)
Cash Flow Ratio	-0.28	0.54	2.50	1.98	3.61	0.92	Net Income + Depreciation & Amortization / Average Shares Outstandir
Closing Price	$ 23.86	$11.77	$ 16.06	$ 21.22	$ 4.20	$11.77	Snapshot stock price
Book Value per Share	14.41	11.72	11.21	21.97	10.49	12.44	Stockholder Equity - Preferred Stock / Average Outstanding Shares
Market-to-Book Ratio	1.66	1.00	1.43	0.97	0.40	1.36	market value of firm / book value of firm
Performance Metrics							
Stock price utilizing the dividend growth model							
Economic Value Added (EVA)	-166.19	675.43	65.24	179.47	-4.06	191.49	Net Operating Profit After Taxes (NOPAT) - Capital Charge
Market Value Added (MVA)	5516.93	3263.82	776.79	1071.29	-38.57	3185.85	Market Value - Invested Capital
Price-Earnings-Growth (PEG) ratio	-0.48	0.12	5.01	0.54	-0.32	1.55	(price / Earnings ratio) / Annual EPS Growth x 100
Internal Growth Rate (IGR)	-0.05	0.02	0.06	0.03	-0.01	0.01	(ROA * Plowback Ratio) / 1 - (ROA * Plowback Ratio)
Sustainable Growth Rate (SGR)	-0.11	0.03	0.09	0.05	-0.03	0.00	(ROE * (1 - Dividend Payout Ratio))