

# Plugging into the Video Game Market

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Trends, Challenges and Opportunities in the Interactive Entertainment Market

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*I rather think the cinema will die. Look at the energy being exerted to revive it—yesterday it was color, today three dimensions. I don't give it forty years more. Witness the decline of conversation. Only the Irish have remained incomparable conversationalists, maybe because technical progress has passed them by. – Orson Welles*

## Summary

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- ❑ **OPPORTUNITY EXPANDS** During Fiscal Year 2009 (ending March 2009 – effectively comparable to Calendar Year 2008) video game software sales expanded 13% Y/Y to \$28.7B – which by comparison is greater than global box office receipts of \$27B. Nevertheless, the figure still represents just a fraction of the \$1.1T global media industry. Technology advances are enabling game makers to tell increasingly realistic interactive stories, that coupled with online connectivity and accessible control mechanics, greatly expand the opportunity for the games industry.
- ❑ **CYCLE NOT OVER YET** While recent data points to a decline in video game industry sales, we believe the root is one part economic pressure on consumer spending, and two parts content as the current slate of new releases faces a tough comparison against the biggest games of last year. We do not believe the data mark the end of the game cycle.
- ❑ **HOWEVER GROWTH HAS SLOWED** Based on our detailed analysis of data from prior cycles coupled with a view to medium term plans of the platform makers, we forecast the peak for current generation hardware will occur in FY11 (Mar-11). As with the last cycle, we forecast the software peak will occur 2 years after hardware, in FY13. However, we expect total industry sales growth to slow from a 13% CAGR to a 1.9% CAGR through FY13.
- ❑ **NINTENDO REMAINS LEADER** With the Wii console, DS handheld, and related software, Nintendo remains the primary growth driver. Nintendo based hardware and software accounted for 47% of industry sales in FY09, up from 24% at the start of the cycle in FY06. We forecast the Wii installed based will expand from 50M at the close of FY09 to 161M by FY13.
- ❑ **FOCUS ON QUALITY** Given the dynamics of a slowing market, we believe outperformance will be driven by company specific execution, and on this metric we continue to like the prospects for Activision, Nintendo and GameStop.

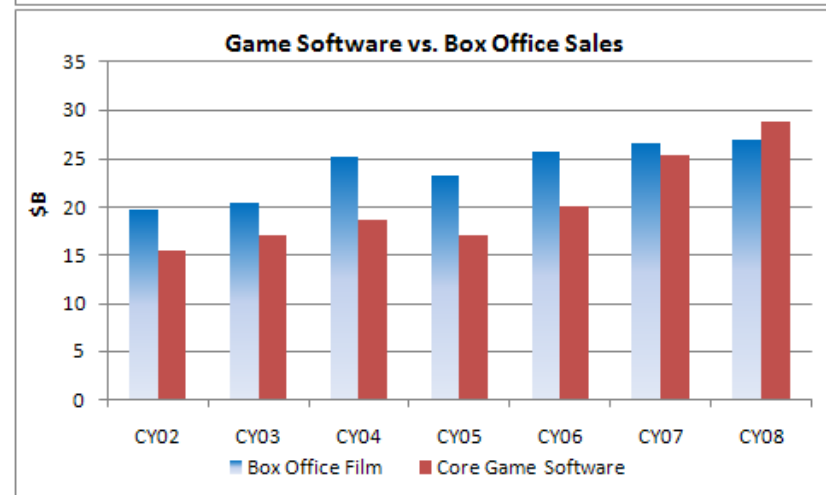
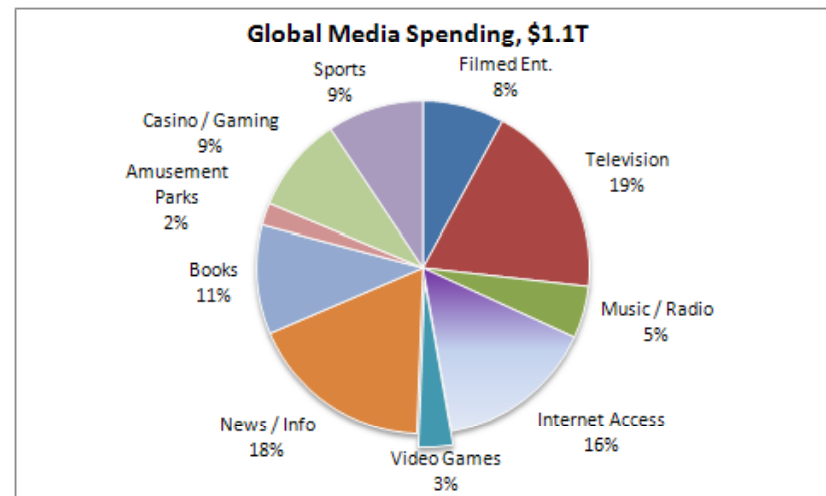
# Games and the Media Landscape

## GAMES EXCEED BOX OFFICE

- ❑ Following a 13% jump in global software sales, the video game industry has surpassed the film industry's box office receipts.
- ❑ In FY09 (ending March 09 – effectively comparable to CY08), core video game software sales reached \$28.75B, vs. \$27.0 at the film box office.
- ❑ Video game software revenues, however, still represents just a fraction of the \$1.1T global media industry.

## AUDIENCE EXPANDS

- ❑ 65% of U.S. households play computer or video games.
- ❑ The average game player is 35 years old and has been playing games for 13 years.
- ❑ The average age of the most frequent game purchaser is 40 years old.
- ❑ Women over the age of 18 represent 33% of gamers, vs. boys age 17 or younger at 18%.
- ❑ In 2008, 26% of Americans over the age of 50 played video games, an increase from nine percent in 1999.

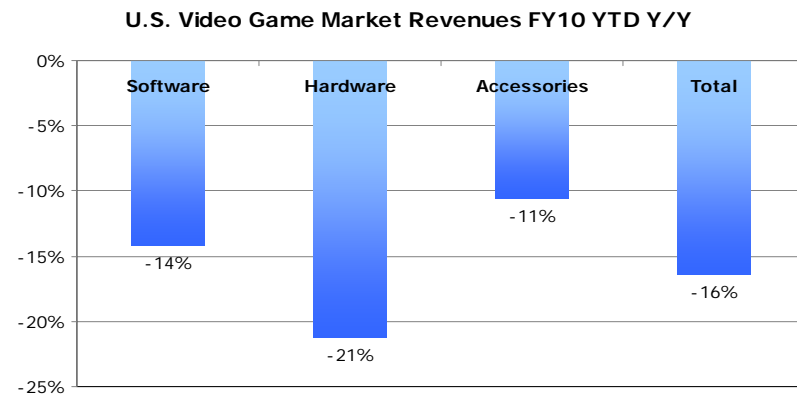
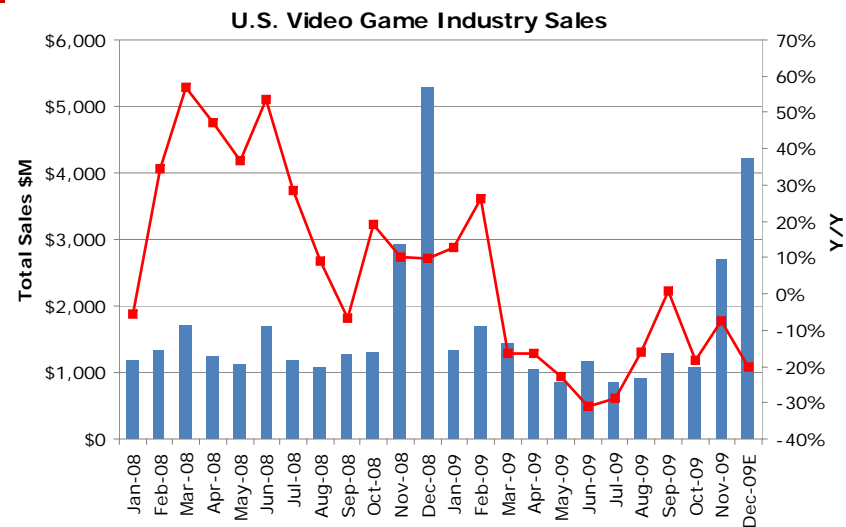


Sources: Company data, Hudson Square Research

# FY10 Market Down 16% Y/Y So Far

## U.S. Market Down 16% Y/Y

- ❑ Based on NPD data, the U.S. video game market is down 16% Y/Y during FY10 YTD.
- ❑ Hardware sales are down 21.2%. Accessory sales are down 10.5%. Software sales are down 14.1%.
- ❑ International data points to a similar experience in both Europe and Japan.
- ❑ While we expect upcoming titles and the recent hardware price cuts will spur second half and early 2010 sales, many analysts have suggested the current cycle is over.
- ❑ As we discuss later in this presentation, we do not believe the cycle is over, we believe the recent downturn is the result of 1) very tough comparisons against titles like Grand Theft Auto (GTA) and Mario Kart, and 2) the economy with unemployment near 10%.



Sources: NPD, Hudson Square Research

# Game Cycle History Points to Continued Growth

## LAST CYCLE HARDWARE PEAK IN YEAR 4

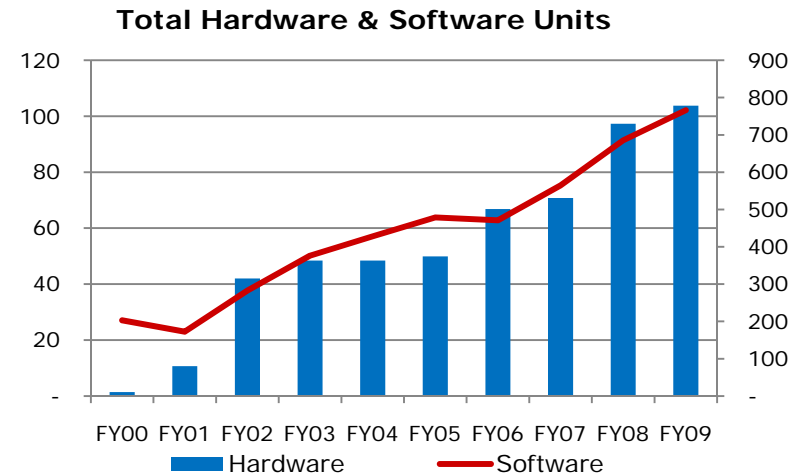
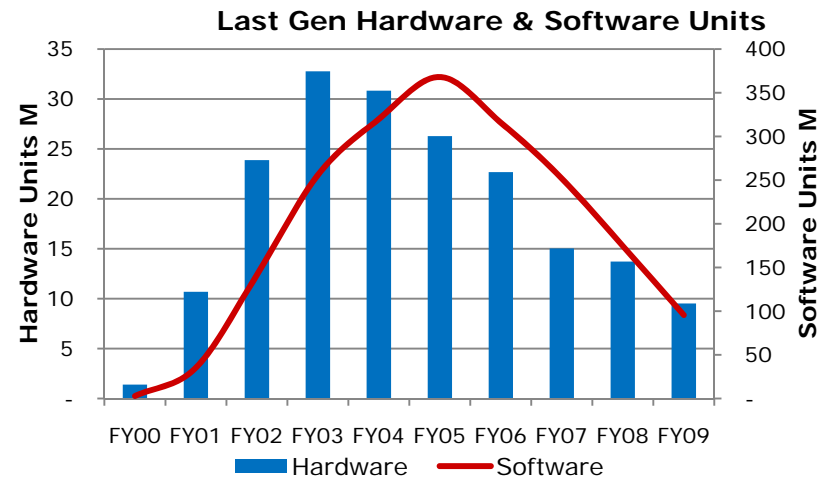
- Between FY00 and FY09, 186.8M last gen consoles (PS2, GameCube and Xbox) were sold. In addition, a fourth console, the Sega Dreamcast sold over 10M units, though the console was discontinued in 2001.
- Sony's PS2 dominated with 76% of the market followed by Microsoft's Xbox with 12% and Nintendo's GameCube with 11%.
- Combined hardware sales in the last cycle peaked in FY03 at 32.8M units.

## SOFTWARE PEAK IN YEAR 6

- In the last cycle, combined software sales peaked in FY05 at 368.1M units; Grand Theft Auto San Andreas (October 2004), and Halo 2 (November 2004) were released in FY05.

## OVERLAPPING CYCLES PROVIDE SUPPORT

- Even as the last gen cycle peaked, the total market slowed but did not decline as overlapping cycles, including handheld games, provided support.
- For instance, in FY05 as the PS2 fell 20% Y/Y, total PlayStation software units rose 5%.



Sources: Company data, Hudson Square Research

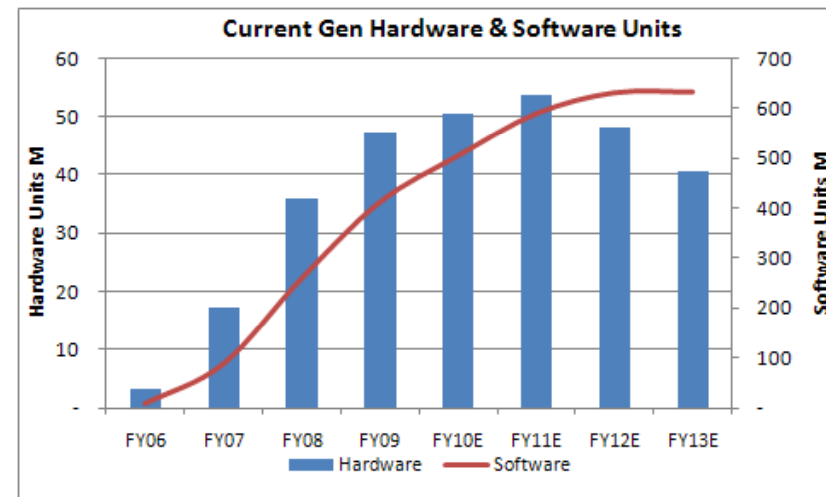
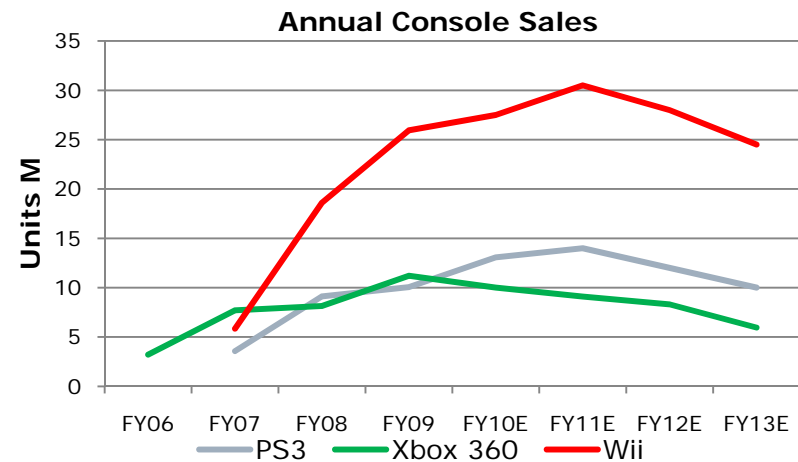
## Current Hardware Peak in FY11, Software Peak in FY13

### CURRENT CYCLE SHOULD EXTEND

- Assuming the same patterns hold true from the last cycle, we would expect hardware sales to peak in FY11 at 53.6M units and software sales to peak in FY13 at 633.5M units.
- We forecast the installed base of current gen consoles (Wii, Xbox 360 and PS3) will grow from 103.4M at the close of FY09, to 296.3M by the close of FY13. We note our forecast represents 58.6% growth over the installed base of last gen consoles.

### SOFTWARE HAS ROOM TO GROW

- We forecast the current gen software market will expand from 412M games in FY09 to 633M games in FY13.
- As with the last cycle, attach rates have already peaked, as early adopters of the consoles were by nature more avid players of games. Attach rates peaked at 4.62 games per console per year in FY08, and were 3.99 in FY09.
- We forecast attach rates will fall to 2.14 in FY13.



Sources: Company data, Hudson Square Research



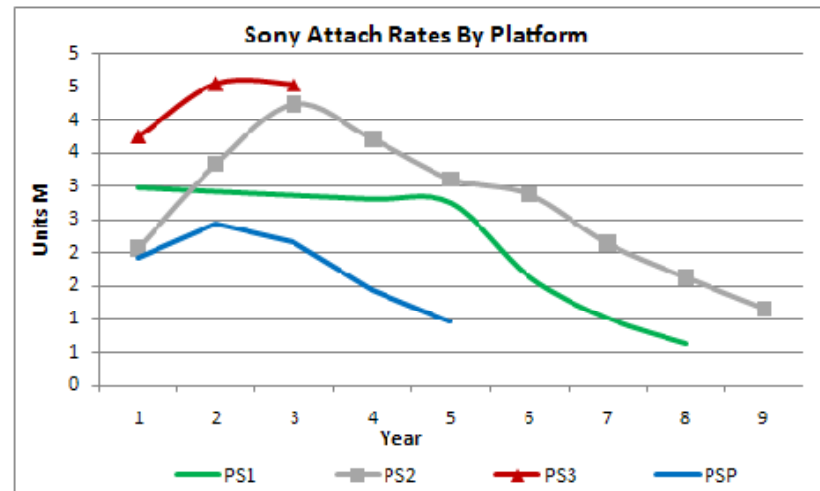
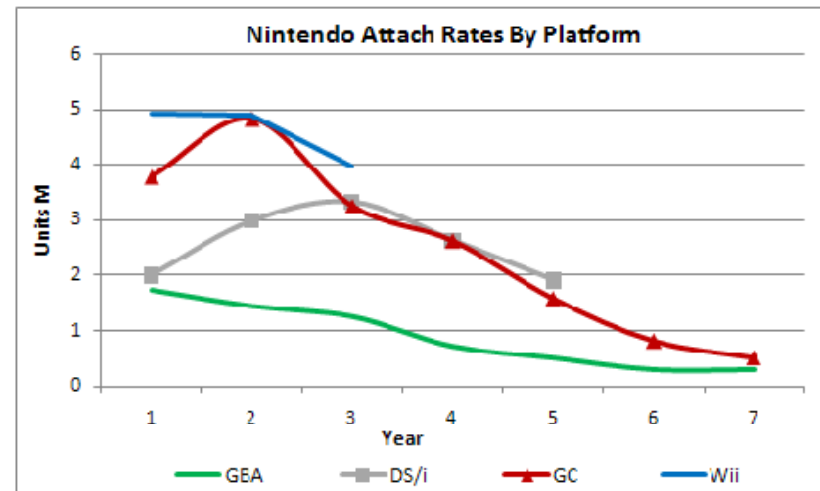
# Software Attach Rates Shift Up

## NINTENDO

- Annualized attach rates on the GBA at 0.9x were 17% higher than for the Game Boy, and at 1.4x, the DS is running 49% higher than the GBA did.
- Annualized attach rates on the GameCube were 45% higher than rates on the N64, and at 3x, the annualized attach rate on the Wii is running 54% higher than on the GameCube.
- We attribute Nintendo's attach rate to its success in broadening the appeal of gaming across the family (e.g. Mom and Dad buy games like Wii Fit and Tiger Woods for themselves in addition to games for the kids).

## SONY

- While we believe Sony's software sales have been overshadowed by the larger installed base of the Xbox 360 and the Wii, the PS3 is also demonstrating a higher level of attach rates than its predecessor with attach rates up 37% relative to the PS2 on a cumulative basis.



Sources: Company data, Hudson Square Research

## China a Vast but Hard to Tap Market

### NO CONSOLE MARKET

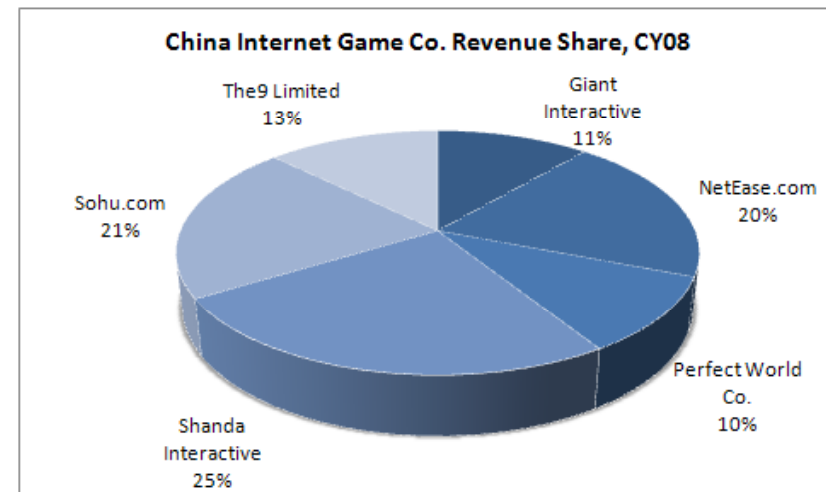
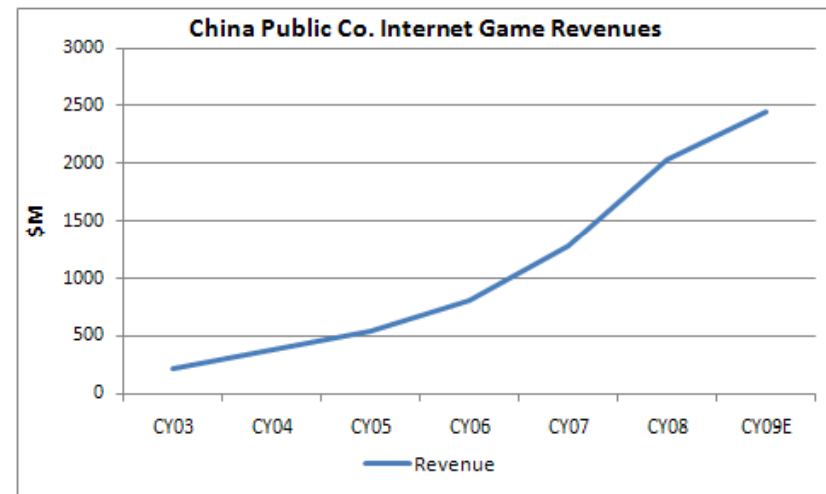
- Largely for fear of piracy, first party platforms have largely ignored the Chinese game market. Because consoles are often sold at a loss with profits made from software and royalties, the degree of piracy in China makes the console market effectively untenable.

### INTERNET / GAME CAFÉ BOOM

- With a low rate of PC ownership, the Internet café has become the primary distribution point for games in China.
- According to Pearl research, China's online game market rose 63% Y/Y in CY08 to \$2.8B.
- But, China is banning foreign investment in online games.

### YOUNG MARKET

- According to Pearl, 70% of China's 298 million Internet users are under the age of 30, and 65% of those have played online games.



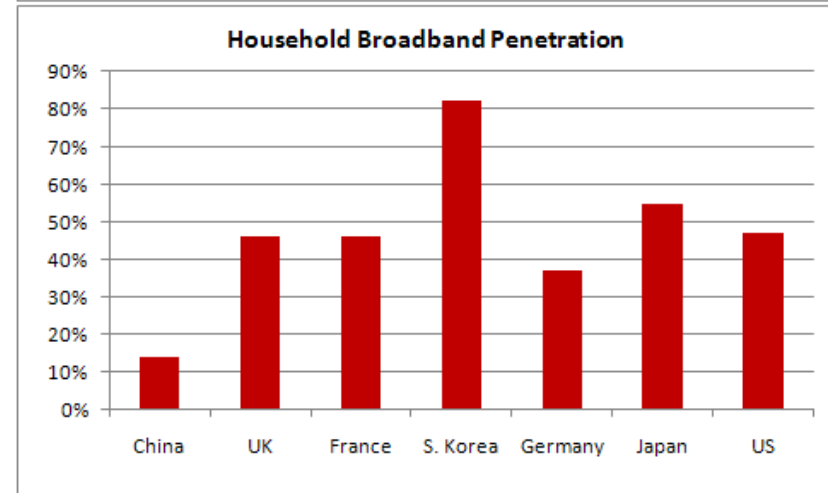
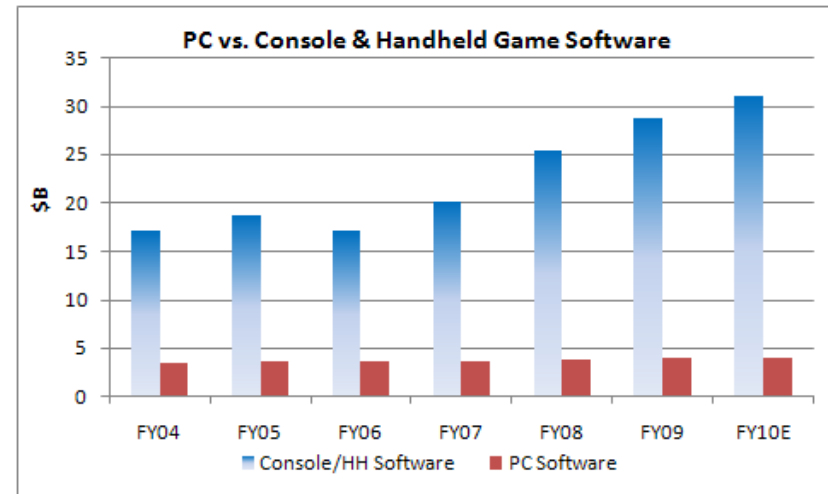
# PC Game Market

## BROAD PLATFORM

- ❑ The key advantage of the PC as a games platform is its virtual ubiquity.
- ❑ Where there are just over 100M current generation console owners there are over 1B PCs in use globally.
- ❑ In many markets like China, the presence of Internet cafés makes online gaming accessible to virtually anyone.

## NICHE MARKET

- ❑ However, while PCs are more prevalent than game consoles, PC gaming has a few limitations.
- ❑ A high-end gaming PC can cost as much as \$4,000, vs. the most expensive game console at \$399.
- ❑ We estimate the core PC market at \$3.9B globally (excluding MMOs).
- ❑ Including MMO and other digital distribution / pay to play revenue streams, the PC Gaming Alliance pegs the total PC game market at \$10.7B.

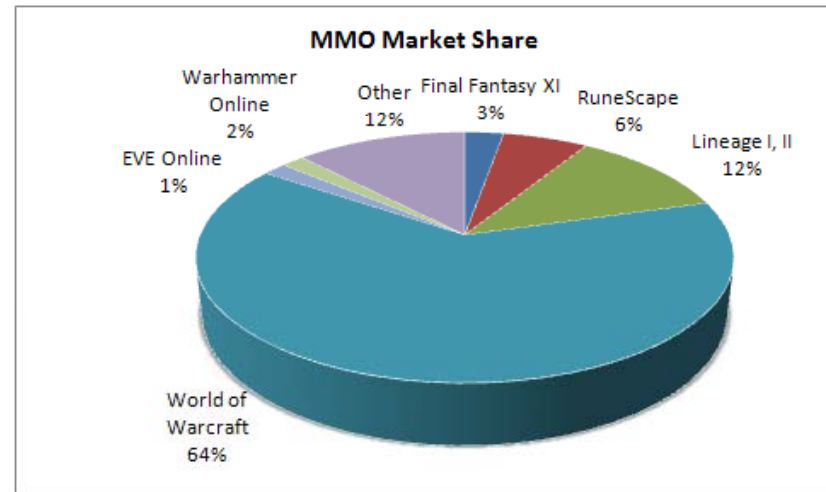
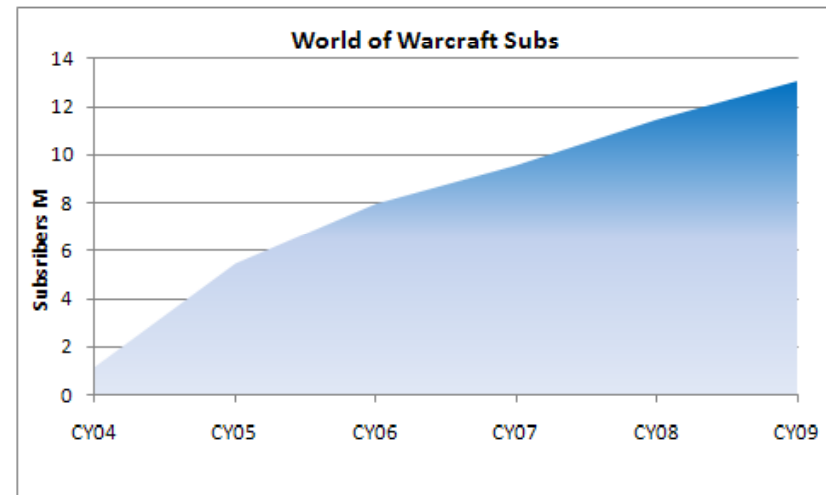


Sources: Company data, Hudson Square Research

# MMO Game Trends

## WOW DOMINATION

- ❑ Prior to the introduction of World of Warcraft (WoW), the market for MMO games was limited to a few million players, but since 2004, the market has grown to 17.9M subscribers, with WoW holding a 64% share.
- ❑ Over the last two years there have been several high profile MMO game launches, though none of those appear to have established a material subscriber base, and two of those, Tabula Rasa, and Hellgate London shut down within a year of launch.
- ❑ Because of the network effect (as the product base grows, the product becomes more useful to any one individual), we believe WoW is likely to maintain its leadership position for the foreseeable future.
- ❑ We estimate MMO revenues totaled \$1.5B in FY09, up from \$1.4B in FY08, although we note that market research firm DFC pegs the total online gaming market at \$5.7B.



Sources: Company data, Hudson Square Research

# Mobile Phone Trends

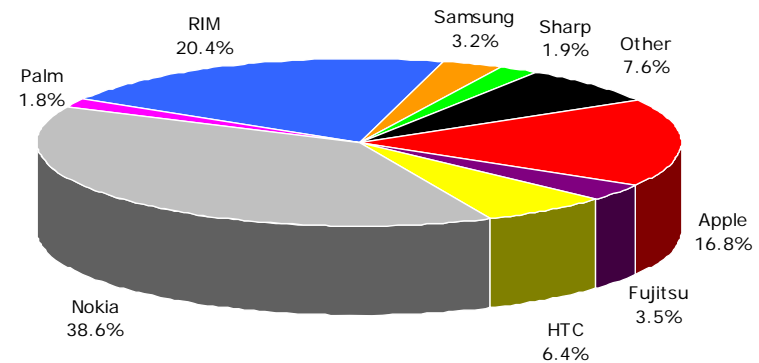
## BRICKBREAKER

- ❑ Global market for mobile phone games reached an estimated \$3.5B in FY09.
- ❑ Growth in the industry appears to have fallen short of earlier expectations.
- ❑ Limitations of handset technology, and a generally restrictive distribution mechanism likely explains the shortfall.

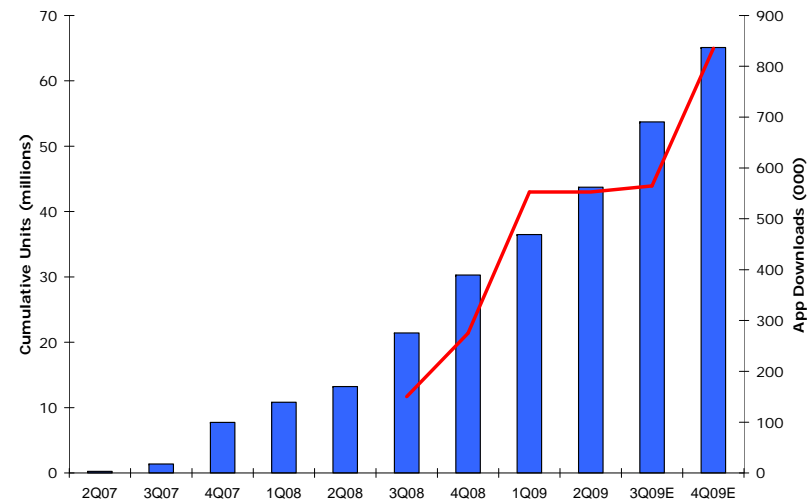
## iGAME

- ❑ Apple is solving two key hurdles to mobile phone gaming: 1) customizing every game for every device; and 2) distribution challenges.
- ❑ The iPhone/iPod Touch appear to be significantly altering the mobile phone game market.
- ❑ Still, control mechanics limit the scope of games that can be effectively played. For instance, using tilt to control games tilts the screen away from the player's field of vision.
- ❑ And, using onscreen virtual buttons that leverage Apple's touch sensitive screen also reduces the available space for depicting the game itself.

Smartphone Market Share, CY3Q09



iPhone / iPod Touch Units and App Downloads



Sources: Company data, Hudson Square Research

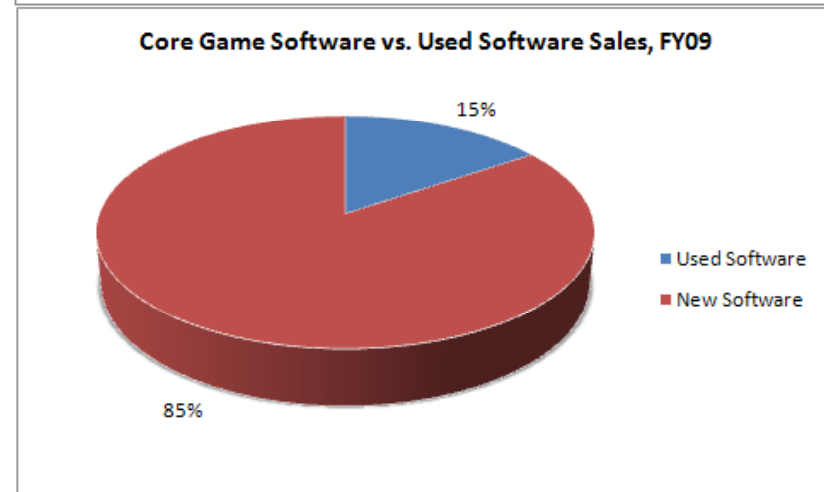
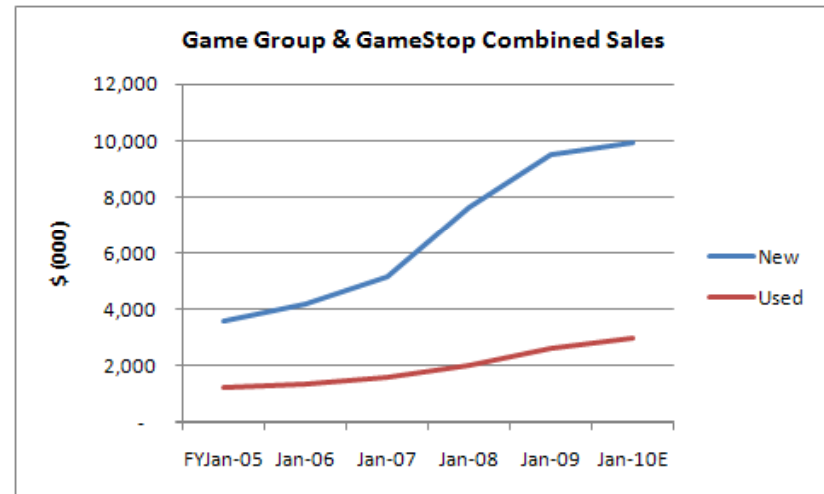
# Used Games Not Going Away Just Yet

## NOT GOING AWAY JUST YET

- ❑ Potential exists for an entirely digital model.
- ❑ But, a variety of technological and structural barriers prevent that transition this cycle, and might very well extend the physical media into the next cycle.
- ❑ We estimate the used game software market grew 30% Y/Y to \$5.2B in FY09 – adding roughly 18% in retail sales to our estimate for the global new game software market.

## COUNTERCYCLICAL MARKET

- ❑ The market for used games tends to be countercyclical to the hardware market.
- ❑ Market serves both core gamers looking for content, and value-oriented gamers.
- ❑ The new market has expanded faster than the used market, those increases were driven largely by hardware. Therefore in the medium term, we expect used market growth will outpace the industry.



Sources: Company data, Hudson Square Research

## Digital Distribution

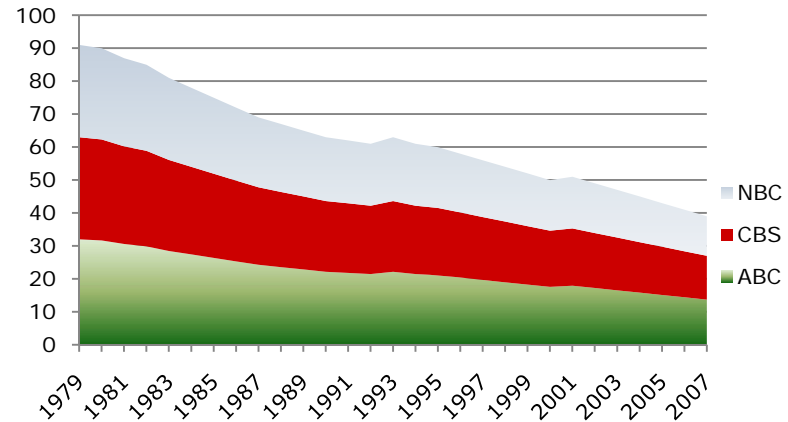
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- **ANECDOTAL** To date, statistics on the digital game distribution revenues have been largely anecdotal. While the individual milestones provide a compelling argument, in our view, there has not been enough progress to paint a meaningful picture.
  - In June, Microsoft reported over 21M Xbox Live registered accounts, up about 9M from June-08.
  - In September, Sony noted increasing momentum with its online services with 20M registered accounts, up 12M since the start of the year.
  - For FY09, Electronic Arts reported digital revenues (ex mobile sales) contributed \$193M in sales, comprising 4.6% of total revenues, up 3% Y/Y and 55% since FY06.
  - Take-Two launched the first of two Xbox 360 exclusive expansion packs for GTA IV on April 29. Titled The Lost and Damned, 1M downloads have been reported to an applicable installed-base of 8M Xbox 360 GTA IV owners. .
  - As of May, about 54M downloads have been reported for the Guitar Hero franchise, and as of October, 50M for Rock Band.
- **MOBILE APPS STORES** With the launch of the Apple iPhone / iTouch software application store in July 2008, the Nintendo DSi Shop and Blackberry App Store in April 2009, and Nokia's Ovi Store in May, there is growing momentum for digital games in the mobile world – a market largely geared for short time-filler games where digital distribution likely makes more sense in our view.
- **ONLIVE** One of the most intriguing new concepts we have seen in some time was the unveiling of OnLive's plans to launch an all digital, console free game platform. While we believe the service will likely encounter material technical obstacles in the field, the service does portend to completely change the game industry – removing the first-party platforms from the picture (though we doubt Microsoft, Sony, and Nintendo will merely roll over).

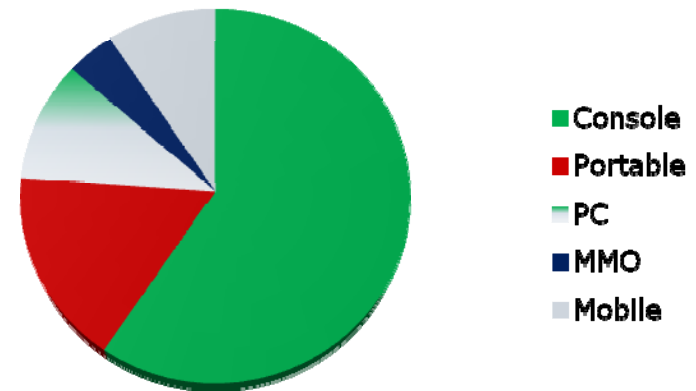
# Audiences Fragment

- Between 1979 and 2007, the prime time market share of the 3 major television networks fell from over 90% to under 40% as cable networks grew and audiences fragmented.
- The core market of consoles and portables accounted for 76% of game software sales in FY09.
- While new platforms like the iPhone and Facebook potentially open the game market to new audiences, we believe significant risk exists that those channels could cannibalize the core game market and fragment audiences in a similar fashion.

**Prime Time Network Share**



**Game Market Distribution, FY09**



Sources: Company data, Nielsen, Hudson Square Research



## Market Remains Optimistic

- Despite the sales weakness, the video game market has performed very well. Globally the stocks advanced 18.9% during 2009, and the stocks of U.S. publishers increased 23.1%, vs. gains of 43.9% and 19.0% for the NASDAQ and the NIKKEI, respectively.
- We believe the disconnect is driven by continued expectations that the video game market will resume growth in 2010, and more importantly by expectations that the game market will hold an increasingly important role within the media landscape.
- Consensus expectations are for the video game group to grow sales by 8% in CY10 and earnings by 25%.

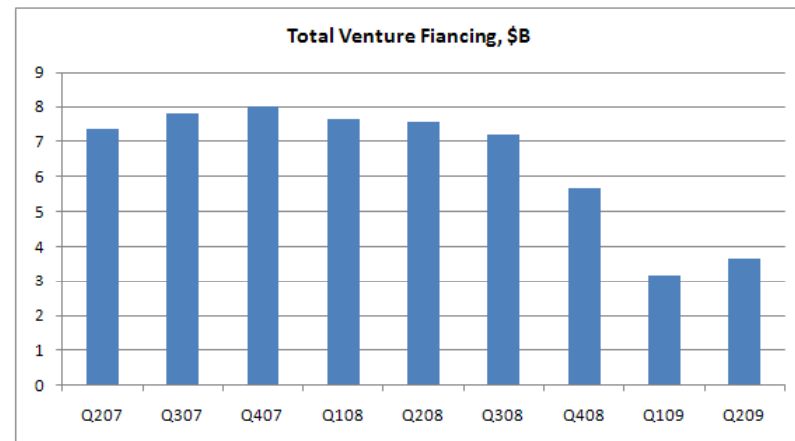
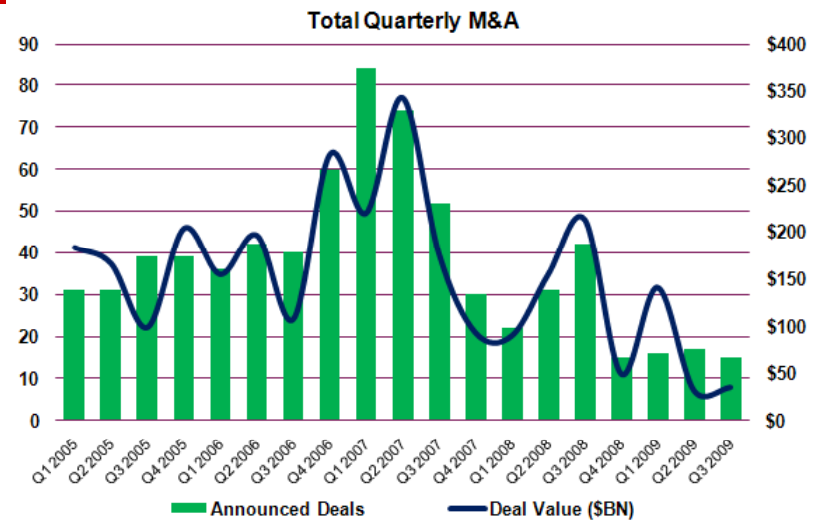
		Price	2008	2009	Market	Sales (Mil)		EPS		P/S		P/E	
		12/31/09	Return	Return	Cap (Mil)	2009E	2010E	2009E	2010E	2009E	2010E	2009E	2010E
<b>NORTH AMERICA (\$)</b>													
Dec	Activision Blizzard PF	11.11	-41.8%	28.6%	14,296	4,615	5,016	0.64	0.77	3.1	2.8	18.7	17.4
Mar	Electronics Arts	17.75	-72.5%	10.7%	5,732	4,396	4,270	0.16	1.07	1.3	1.3	110.9	16.6
Oct	Take-Two	10.05	-59.0%	32.9%	781	937	1,009	(1.10)	(0.23)	0.8	0.8	NA	NA
Mar	THQ	5.04	-85.1%	20.3%	338	847	891	(0.38)	0.33	0.4	0.4	NA	15.3
<b>U.S. GROUP</b>			<b>-64.6%</b>	<b>23.1%</b>						<b>2.x</b>	<b>1.9x</b>	<b>24.6x</b>	<b>17.1x</b>
<b>JAPAN (¥)</b>													
Mar	Capcom	1.53	-30.1%	-23.3%	103	99	91	54.5	116.1	1.0	1.1	28.1	13.2
Mar	Konami	1.66	-37.7%	-27.4%	238	296	303	53.0	126.6	0.8	0.8	31.2	13.1
Mar	NamcoBandai	0.89	-44.2%	-8.9%	222	397	395	13.8	37.1	0.6	0.6	64.6	24.0
Mar	Nintendo	22.04	-49.6%	-34.7%	3,122	1,610	1,659	2,567	2,944	1.9	1.9	8.6	7.5
Mar	SegaSammy	1.11	-25.7%	7.6%	316	416	399	27.4	73.5	0.8	0.8	40.7	15.2
Mar	Square Enix	1.95	-17.5%	-30.7%	225	177	184	101.4	144.6	1.3	1.2	19.3	13.5
<b>JAPANESE GROUP</b>			<b>-34.1%</b>	<b>-19.6%</b>						<b>1.4x</b>	<b>1.4x</b>	<b>10.6x</b>	<b>8.6x</b>
<b>EUROPE (€)</b>													
Dec	Gameloft	3.53	-75.0%	135.3%	260	124	136	0.09	0.15	2.1	1.9	39.2	23.5
Mar	Ubisoft	9.92	-79.9%	-28.9%	931	1,042	1,058	0.53	0.56	0.9	0.9	18.7	17.7
<b>EUROPEAN GROUP</b>			<b>-77.5%</b>	<b>53.2%</b>						<b>1.x</b>	<b>1.x</b>	<b>21.1x</b>	<b>18.7x</b>

Sources: Company data, FirstCall, Hudson Square Research

Note: Yen figures in billions

## Increasing Entry, Fewer Exits

- ❑ Venture financing appeared to have bottomed in 1Q09 at \$3.19B, and increased to \$3.67B in 2Q09.
- ❑ Video game related financing appear to be faring well with more than a dozen double digit financings over the last 18 months including: Big Fish, Bigpoint, Outspark, Onlive, Playfish, Pop Cap, Realtime, and Zynga.
- ❑ While M&A appears to be heating up, the aggregate M&A market remains subdued with YTD transactions down 56% Y/Y.
- ❑ Similarly their have been relatively few transactions in the games space which have included Bighole, Cryptic, and ID. Two notable deals were largely distressed situations; Eidos and Midway.



Sources: Company data, NVCA, Bloomberg , Hudson Square Research

## Summary-Opportunities and . . .

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- Broad and growing footprint of gaming devices – installed and portable consoles, smartphones, and PCs
- Publishers enhancing development across product segments and manufacturers-not the one horse race of the last gaming cycle
- Content remains the primary industry driver for the next several years
- Software attach rates are up versus previous cycle
- Expanding demographic – gaming is no longer constrained to a male teen target group
- Consumers voting with their spending – pushing gaming ahead of the box office as a preferred means of entertainment
- Increasing broadband penetration complemented by a rapidly increasing percentage of networked homes
- Strong appetite for gaming apps – 15K active (#1 category) of 85K available as of September 28, according to Apple

## Summary-Challenges

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- Audiences may be fragmenting
- Lack of platform standardization increases development costs and risks
- Consumers place a relatively high trade-in value on packaged/hard copy media
- International piracy remains a key concern for developers/publishers.
- Digital content, albeit growing, is still a small portion of the traditional console-based gaming industry
- Bandwidth and network latency remain limiting factors
- Natural strategic buyers are increasingly concentrated

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**SELL:** Over the next twelve months, we believe this stock should underperform the average total return of the stocks in the analyst's coverage universe.

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