



## *ELECTRONIC ARTS, INC.*



INDUSTRY: Software

SECTOR: Entertainment and Games

RECOMMENDATION: Hold

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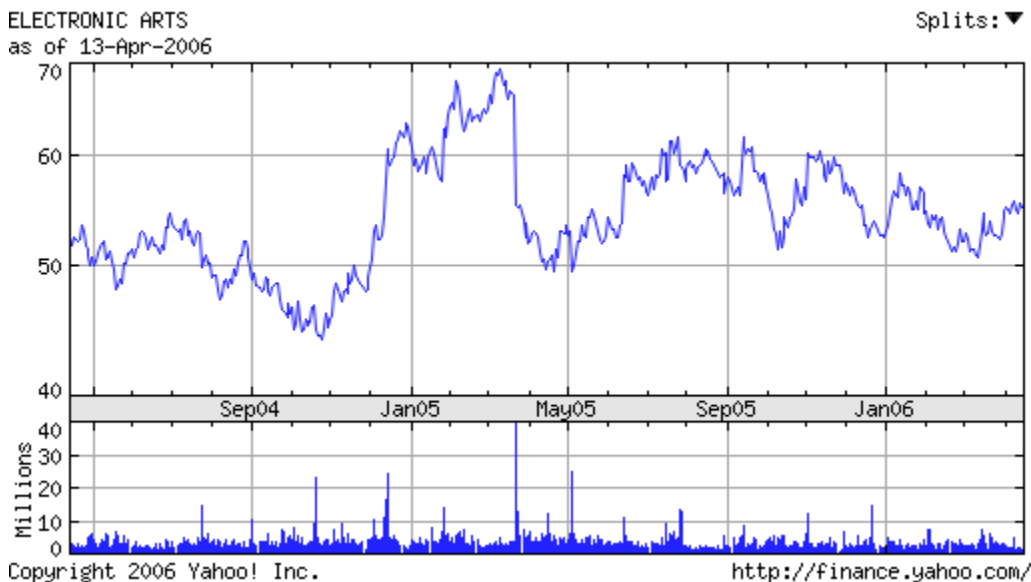
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## EXECUTIVE SUMMARY

### Electronic Arts (NASDAQ: ERTS) Quote data by Reuters dated 17-April-2006

Last Trade:	<b>54.39</b>	Day's Range:	54.13 - 55.35
Trade Time:	4:00PM ET	52wk Range:	47.45 - 63.12
Change:	<b>↓ 0.67 (1.22%)</b>	Volume:	1,945,109
Prev Close:	55.06	Avg Vol (3m):	3,258,890
Open:	54.85	Market Cap:	16.52B
Bid:	54.44 x 1000	P/E (ttm):	66.65
Ask:	54.72 x 100	EPS (ttm):	0.82
1y Target Est:	57.29	Div & Yield:	N/A (N/A)



In Spring 2004, Electronic Arts, Inc., a developer of interactive software games for the PC and console systems, was selected to be part of Finance 284's portfolio. This recommendation was based largely on the Growth potential, the valuation analysis performed at that time as well as the #1 position the company holds in the marketplace. However, while the company still holds the #1 position in the marketplace, some recent developments in the market have prompted our team to conduct an analysis to determine whether it is prudent to keep this stock in the portfolio.

At the time of the initial purchase, there were some more specific reasons for the purchase recommendation. The team believed, through their analysis, that the company was well positioned financially and competitively to benefit from the technological evolution in the interactive software industry. At the time of the purchase, according to the initial valuation analysis, Electronic Arts was trading below its true value of \$56.27 - \$67.48 and recommended a purchase of 300 shares. The group felt that this share amount was appropriate and would not overweight the portfolio. They also argued that EA is a growth stock, which had a Beta of .70 and was financially solid, and it would not add any significant risk to the Graduate fund's portfolio.

Our analyses led us to focus on several key aspects that may influence the stock's performance, namely, the console producers and software gaming industries, as well as the Company's present situation and its future plans.

Qualitative investigations proved inconclusive and thus extensive financial and technical scrutiny and a valuation model were employed to assist us in our decision.

Our findings indicate that the stock is undervalued, and that we should maintain our current position. We believe that Electronic Arts is a cash-producing market leader suffering a temporary bump.

## **BUSINESS SUMMARY**

Electronic Arts (EA) develops, markets, publishes and distributes interactive software games that are playable by consumers on the following devices:

- In-home video game consoles, such as the Sony PlayStation 2, Microsoft Xbox and Nintendo GameCube
- Personal computers (PC's)
- Mobile video game players and cellular handsets
- Online

Collectively, these are referred to as platforms.

Electronic Arts' ability to publish interactive software games for multiple platforms is the strength of the company. The products that are designed to play on consoles and mobile platforms are published under license from the manufacturers of these platforms and Electronic Arts pays a fee to the platform manufacturers for technology and intellectual property, which enable them to publish products on their platforms.

Electronic Arts invests in the creation of software tools to more efficiently develop games for multiple platforms. The company also invests in facilities and equipment that allow them to create and edit video and audio recordings that are used in their games. The interactive software games that they develop and publish are broken down into 3 major categories: (1) EA Studio Products, (2) co-publishing products and (3) distribution products. To date, Electronic Arts has published games for over 45 different platforms.

EA Studio Products are published under three major brands.

1. EA Sports – They publish realistic sports simulation games. Some of the recent products in this line include *Madden NFL 2005*, *NCAA Football 2005*, *Rugby 2005*, *FIFA Soccer 2005*, *NBA Live 2005*, *NCAA March Madness 2005*, *Tiger Woods PGA Tour 2005*, *NHL 2005* and *NASCAR 2005*.
2. EA Games – They publish a variety of games under this brand. Some of the recent products in this line include *Burnout 3: Takedown*, *The Lord of the Rings*, *The*

*Third Age, Golden Eye: Rogue Agent, The Sims 2, Need for Speed Underground 2 and Medal of Honor Pacific Assault.*

3. EA Sports Big – They publish arcade-style extreme sports and modified traditional sports games under this brand. Some of the recent products in this line include *NFL Street 2: Unleashed, Def Jam Fight for NY, NBA Street Vol. 3 and FIFA Street.*

Next we have the co-publishing and distribution products. Through the company's EA Partners global business unit, Electronic Arts teams with other game development companies that develop their own interactive software games with EA's assistance, which EA then publishes, markets and distributes the product.

Like most entertainment companies, their business is based on the creation, acquisition, exploitation and protection of intellectual property. Some of this intellectual property is in the form of software code, patented technology, and other technology and trade secrets that they use to develop their games and make them run properly on the platforms. EA's products also contain content licensed from others, such as trademarks, fictional characters, storylines and software code.

Electronic Arts acquires the rights to include these kinds of intellectual property in their products through license agreements such as those with sports leagues and player associations, movie studios and performing talent, music labels, music publishers and musicians. These licenses are typically limited to use of the licensed rights in products for specific time periods. Also, their products that play on consoles include technology that is owned by the console manufacturer and licensed non-exclusively for EA to use.

## **RECENT NEWS**

- February 1, 2006 – Laid off 5% of workforce (325 – 350 Employees)
- February 15, 2006 – Completed \$680 million purchase of Jamdat Mobile Inc.
- February 23, 2006 – EA cut its game prices by 20%
- Lazard Capital and Kaufman Brothers recently rated EA a buy.
- 43% of net revenues come from PlayStation 2 products. Release of PlayStation 3 is delayed until December 2006.
- A new Piper Jaffray survey<sup>1</sup> (published on Forbes.com) of over 600 high school teenagers shows 82% of student households own at least one videogame platform. The survey also found that 53% of the households owned multiple videogame consoles.
- 70% of teens indicated their interest in videogame play was decreasing. This decline can be taken as a sign the videogame industry is stabilizing, compared to 75% who said their interest was declining in fall 2005.
- The biggest risks facing videogame-makers include changing consumer preferences, dependence on key management members, the sector's cyclical nature, competition, pricing, and economic conditions.

## **EA MANAGEMENT TEAM**

### **Lawrence F. Probst III, 55    Chairman of the Board and Chief Executive Officer**

Mr. Probst has been a director of Electronic Arts since January 1991 and currently serves as Chairman and Chief Executive Officer. He was elected as Chairman in July 1994. Mr. Probst has previously served as President of Electronic Arts; as Senior Vice President of EA Distribution, Electronic Arts' distribution division, from January 1987 to January 1991; and from September 1984, when he joined Electronic Arts, until December 1986, served as Vice President of Sales. Mr. Probst holds a B.S. degree from the University of Delaware.

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<sup>1</sup> Video Game Sector not {Playing Games by Mary Crane

**Don A. Mattrick, 41**

**President, Worldwide Studios**

Mr. Mattrick has served as President of Worldwide Studios since September 1997. From October 1996 until September 1997, he served as Executive Vice President, North American Studios. From July 1991 to October 1996, he served as Senior Vice President, North American Studios, Vice President of Electronic Arts and Executive Vice President / General Manager for EA Canada. Mr. Mattrick was founder and former chairman of Distinctive Software Inc. from 1982 until it was acquired by Electronic Arts in 1991.

**Warren C. Jenson, 48**

**Executive Vice President and Chief Financial and  
Administrative Officer**

Mr. Jenson joined Electronic Arts in June 2000 as Executive Vice President and Chief Financial and Administrative Officer. Before joining Electronic Arts, he was the Senior Vice President and Chief Financial Officer for Amazon.com from 1999 to 2002. From 1998 to 1999, he was the Chief Financial Officer and Executive Vice President for Delta Air Lines. Prior to that, he worked in several positions as part of the General Electric Company. Most notably, he served as Chief Financial Officer and Senior Vice President for the National Broadcasting Company, a subsidiary of General Electric. Mr. Jenson earned his Masters of Accountancy-Business Taxation, and B.S. in Accounting from Brigham Young University.

**V. Paul Lee, 40**

**Executive Vice President and Chief Operating  
Officer, Worldwide Studios**

Mr. Lee has served as Executive Vice President and Chief Operating Officer, Worldwide Studios since August 2002. From 1998 to August 2002, he was Senior Vice President and Chief Operating Officer, Worldwide Studios. Prior to this, he served as General Manager of EA Canada, Chief Operating Officer of EA Canada, Chief Financial Officer of EA Sports and Vice President, Finance and Administration of EA Canada. Mr. Lee was a principal of Distinctive Software Inc. until it was acquired by Electronic Arts in



1991. Mr. Lee holds a Bachelor of Commerce degree from the University of British Columbia and is a Chartered Financial Analyst.

## **SIGNIFICANT RELATIONSHIPS**

### Hardware Platform Companies

*Sony* Under the terms of the licensing agreements, EA is authorized to develop and distribute DVD-based software products compatible with the PlayStation 2. Under the licensing agreement, EA engages Sony to supply PlayStation 2 DVD's for their products. In fiscal 2005, approximately 43% of EA's net revenue was derived from sales of EA Studio games designed for play on the PlayStation 2.

*Microsoft* Under the terms of the licensing agreements, EA is authorized to develop and distribute DVD-based software products compatible with the Xbox. In fiscal 2005, approximately 16% of EA's net revenue was derived from sales of EA Studio games designed for play on the Xbox.

*Nintendo* Under the terms of the licensing agreements, EA is authorized to develop and distribute propriety optical format disk products compatible with the GameCube. Under the licensing agreement, EA engages Nintendo to supply Nintendo GameCube proprietary optical format disk products for their products. In fiscal 2005, approximately 7% of EA's net revenue was derived from sales of EA Studio games designed for play on the Nintendo GameCube.

## **SWOT ANALYSIS**

### Strengths

- Another strength of the business is that they develop product families (franchises) around many products. Every year they release new version of most of their sports games.
- Games are capable of operating on multiple platform systems
- EA has exclusive deals with Major League Baseball, Madden Franchises

#### Weaknesses

- Electronic Arts acquires the rights to include these kinds of intellectual property in their products through license agreements such as those with sports leagues and player associations, movie studios and performing talent, music labels, music publishers and musicians. These licenses are typically limited to use of the licensed rights in products for specific time periods.
- Royalty fees are set by console manufacturers
- Sales are dependent on new release of platform systems
- Year over Year Revenue growth is down 11%

#### Opportunities

- New consoles set to debut next year
- Growth and Sales potential look promising – one year from now
- On-line gaming can be a potential new distribution source for the company

#### Threats

- Patent claims
- Rising costs due to development of next generation games
- Increasing licensing fees

## INDUSTRY ANALYSIS

EA competes in the entertainment industry. The software games segment is best viewed as a segment of the overall entertainment market. Currently, large software companies and media companies are increasing their focus on the software games segment of the entertainment market, and consequently, are becoming more direct competitors to EA. Sony and Microsoft have been publishing products to compete with EA for several years now. Currently, other diversified media/entertainment companies, such as Time Warner and Disney, have announced their intent to significantly expand their software game publishing efforts in the future.

The software games business is a highly competitive industry, characterized by the continuous introduction of new titles and the development of new technologies. The software games business is driven by hit titles, which require ever-increasing budgets for development and marketing. Competition is also based on product quality and features, timing of product releases, brand-name recognition, quality of in-game content, access to distribution channels, effectiveness of marketing and price.

EA currently competes with Sony, Microsoft and Nintendo, each of which develop and publish software for their respective platforms. EA also competes with numerous other companies, which are also licensed by the console manufacturers to develop and publish software games that operate on their consoles. These competitors include Activision, Atari, Capcom, Eidos, Koei, Konami, LucasArts, Midway, Namce, Sega, Take-Two Interactive, THQ, Ubisoft, and Vivendi Universal Games.

Also, the market for EA's products is characterized by significant price competition. This has caused EA from time to time to reduce their prices on certain products. Traditionally, software game prices tend to decline once a generation of consoles has been in the market for a significant period of time. The company recently reducing prices on all current generation games evidences this. This is in anticipation of new game consoles being released later this year and into next year.

## FUNDAMENTAL ANALYSIS

### Short-Term Liquidity Analysis

<u>Short-term Liquidity Analysis</u>			
	2005	2004	2003
Current Ratio	4.48	4.03	3.35
Acid-Test Ratio (Quick Ratio)	4.10	3.64	2.93
Accounts Receivable Turnover	12.32	20.12	18.21
Inventory Turnover	50.47	53.63	62.56
Day Sales in Receivables	29.62	18.14	20.04
Day Sales in Inventory	7.23	6.81	5.83
Working Capital	2,878,000	2,188,554	1,340,261
Average Trade Cycle	21.99	9.82	8.23
Cash Provided by Operation to Average CL	0.82	1.04	1.40

#### 1. Current Ratio

An indication of a company's ability to meet short-term debt obligations; the higher the ratio, the more liquid the company is. It measures the extent to which current assets are available to meet current liabilities. The Current Ratio indicates whether the business has ample assets used to meet short-term obligations, quickly take advantage of opportunities, and qualify for favorable credit terms.

Electronic Arts current ratio of 4.48 in 2005 implies there is \$4.48 of current assets available to meet each \$1 of current maturing obligations. Electronic Arts current ratio is increased to 4.48 in 2005 from 3.35 in 2003. Note that Electronic Arts decrease cash and increase other current assets including short-term investments, marketable equity securities, and accounts receivables in terms of growth rate from 2003 to 2005.

## 2. Acid-Test Ratio (Quick Ratio)

The acid-test ratio, often referred to as quick ratio, is obtained by subtracting inventories from current assets and then dividing by current liabilities. This ratio is usually used as a supplement to the current ratio, but is considered a more reliable indicator of a company's ability to meet its short-term financial obligations. It gives a more realistic picture of a business's ability to repay current obligations than the current ratio as it excludes inventories and prepaid items for which cash cannot be obtained immediately.

Electronic Arts acid-test ratio is 4.10 in 2005 implies there is \$410 of liquid assets to cover each \$1 of current liabilities. The acid-test ratio is increased to 4.10 in 2005 from 2.93 in 2003 which implies the company's financial strength is much stronger since it has much financial liquidity than before.

## 3. Accounts Receivable Turnover

The receivables turnover ratio is used to assess the liquidity of the receivables and it indicates how often receivable are received and collected during the year. A higher accounts receivable turnover ratio reveals the more effective granting of credit and collection from customers by the company's management.

Electronic Arts accounts receivable turnover ratio is 12.32 in 2005, which means that the company collects accounts receivables approximately 12 times a year. Note that the account receivables turnover ratio in 2005 is decreased from 18.21 in 2003. The decrease of the ratio in 2005 is due to the increase in their account receivable balance. Also, the accounts receivable growth rate is higher than the sales growth rate implies that the company has loosened its credit policy and increased its risk of bad debt.

## 4. Inventory Turnover

The inventory turnover measures the number of times inventory has been turned over (sold and replaced) during the year. It is a good indicator of inventory quality (whether the inventory is obsolete or not), efficient buying practices, and inventory

management. This ratio is important because gross profit is earned each time inventory is turned over. Also, this ratio should be compared against industry averages. A low turnover implies poor sales and, therefore, excess inventory; a high turnover implies either strong sales or ineffective buying.

For Electronic Arts, the inventory turnover has decreased from 62.56 in 2003 to 50.47 in 2005. This can be explained by an increased in inventories to \$62 million as of March 31, 2005 from \$40 million as of March 31, 2003. The increase in inventories was primarily due to overall growth in Europe in 2005. In 2005, the company has a higher inventory balance, as a percentage of net revenue, on hand in Europe than in North America, due to the need to provide multiple language versions of each title in the region.

#### 5. Days Sales in Receivables

The days sales in receivables measures the number of days it takes to collect accounts receivable. A lower ratio implies that the company can effectively manage its account receivables and collection process.

For Electronic Arts, the collection period is approximately 29.62 days in 2005 which is increased from 20.04 days in 2003. The increase is due to the decrease in Accounts Receivable Turnover as explained above.

#### 6. Days Sales in Inventory

This ratio indicates the possible number of days of sales with the inventory on hand. It is used to determine whether there is too great an investment in inventory.

Electronic Arts Days to sell inventory is 7.23 days in 2005 which is increased from 5.83 days in 2003. The increase is due to the decrease in Inventory Turnover as explained above.

#### 7. Working Capital

Working capital is a valuation metric that is calculated as current assets minus current liabilities. A very important value, it represents the amount of day-by-day operating

liquidity available to a business. A company can be endowed with assets and profitability, but short of liquidity if these assets cannot readily be converted into cash.

Electronic Arts has working capital of \$2.88M in 2005, a significant increase from \$1.34M in 2003. This means that while decreasing liquidity risk without impair expected profitability since it increases short-term investments, marketable equity securities rather than cash in terms of growth rate from 2003 to 2005.

#### 8. Average Trade Cycle

The average trade cycle measures a firm's need for liquidity. The longer the trade cycle, the greater the firm's need for liquidity increases.

Electronic Arts has an average trade cycle of 21.99 days in 2005 which is increased from 8.23 days in 2003. The increase is due to the high increase in Days Sales in Accounts Receivable. Since Electronic Arts' average trade cycle is increasing, Electronic Arts is less liquid. Also, the growth rate of average trade cycle from 2003 to 2005 is 167.19% and is larger than the growth rate of current assets from 2003 to 2005 which is 93.32% implying that Electronic Arts is less liquid.

#### 9. Cash Provided by Operation to Average Current Liabilities

This is a cash-basis measure of solvency and often referred to as cash debt coverage ratio. This ratio indicates a company's ability to repay its liabilities from cash generated from operating activities without having to liquidate the assets used in operations.

Electronic Arts has a cash debt coverage ratio of 1.40 in 2003 is considered a very healthy company. However, in 2005, the cash debt coverage ratio was 0.82 due to the fact that as of 2003, the firm generated \$714 million of cash from operating activities compared to \$634 million in 2005. The decline was primarily the result of an increase in operating costs. Electronic Arts has an increase in operating costs from \$953 million to \$1,263 million.

We have determined that the company is able to meet all their short-term debt obligations for the most part by analyzing the most important ratios in terms of short-term liquidity.

### **Capital Structure and Solvency Ratios**

<b><u>Capital Structure and Solvency Ratios</u></b>			
	2005	2004	2003
Total Debt to Equity	0.25	0.27	0.32
Debt Ratio	0.20	0.21	0.24
Financial Leverage Ratio	1.25	1.27	1.32
Financial Leverage Index	0.80	0.79	0.76
Altman Z-score	5.08	5.23	4.79

#### 1. Total Debt to Equity

It measures management's reliance on creditor financing as well as the business's indebtedness compared to the amount invested by its owners. This ratio indicates the amount of liabilities the business has for every dollar of shareholders' equity.

The debt to equity ratio for Electronic Arts is 0.25 in 2005 which is decreased from 0.32 in 2003. This shows us that Electronic Arts' credit financing equal \$0.25 for every dollar of equity financing. A lower debt to equity ratio generally means that a company has been less aggressive in financing its growth with debt.

#### 2. Total Debt Ratio

It is calculated as debt capital divided by total assets. This will tell you how much the company relies on debt to finance assets. In general, the lower the company's reliance on debt for asset formation, the less risky the company is since excessive debt can lead to



a very heavy interest and principal repayment burden. However, when a company chooses to forgo debt and rely largely on equity, they are also giving up the tax reduction effect of interest payments. Thus, a company will have to consider both risk and tax issues when deciding on an optimal debt ratio.

Electronic Arts' total debt ratio of 20% means that its capital structure consists of 20% of debt.

### 3. Financial leverage Ratio

The financial leverage ratio indicates the extent to which the business relies on debt financing. A high financial leverage or debt to equity ratio indicates possible difficulty in paying interest and principal while obtaining more funding.

The financial leverage ratio of Electronic Arts in 2005 is 1.25 which is decreased from 1.32 in 2003. This financial leverage ratio indicates that every \$1 of common equity commands \$1.25 in assets for the company. The decline is due to the increase of total stockholder's equity.

### 4. Altman Z-score

The Z-Score is a measure of a company's health and utilizes several key ratios for its formulation. The model incorporates five weighted financial ratios into the calculations of the Z-Score including Working Capital/Total Assets, Retained Earnings/Total Assets, Earnings Before Taxes + Interest/Total Assets, Market Value of Equity/Total Liabilities, and Net Sales/Total Assets. Altman Z-score predicts the likelihood of bankruptcy. A Z-score of less than 1.20 suggests a high probability of bankruptcy, while Z-score above 2.90 implies a low probability of bankruptcy.

Electronic Arts' Z-score in 2005 is 5.08 which considered a low probability of bankruptcy.

### 5. Financial Leverage Index

The financial leverage index measures the efficiency of a company to use its debt. Financial leverage index is computed as  $ROE/ROA$ . If and only if financial leverage

index is greater than 1.0, then the company's earning on asset return higher than debt, all extra benefits go to shareholders.

Electronic Arts' financial leverage index is 0.80, and shows that Electronic Arts uses its debt ineffectively. Note that Electronic Arts' ROE is lower than ROA means that the company did not use its debt effectively.

### **Asset Utilization Ratios**

<b><u>Asset Utilization Ratios</u></b>			
	2005	2004	2003
Sales to Cash and Equivalents	1.06	1.22	1.56
Sales to Inventories	50.47	53.63	62.56
Sales to Working Capital	1.09	1.35	1.85
Sales to Fixed Assets	8.86	9.92	9.47
Sales to Total Assets	0.72	0.87	1.05

### 1. Sales to Receivables

The sales-to-receivables ratio measures the number of times accounts receivables turned over during the period. The higher the turnover of receivables, the shorter the time between making sales and collecting cash.

Electronic Arts has sales to receivable of 10.57 in 2005, which has decreased from 30.24 in 2003. The decline was due to high increase in Accounts Receivable. This means that receivables turned over nearly 11 times during the year.

### 2. Sales to Inventories

The sales-to-inventory ratio is included to help address how well each manufacturer's product "moves." A firm's sales-to-inventory ratio is defined as their total sales divided by their current inventory. A high ratio indicates one of two things: either the brand has very high sales or the firm's sales are achieved without having too much excess inventory on hand. A low ratio, on the other hand, implies the opposite: the firm's sales are low or they hold a large amount of inventory, relative to their sales.

Electronic Arts' sales-to-receivable ratio in 2005 is 50.47, which is decreased from 62.56 in 2003. The decrease was due to inventories, net, increased to \$62 million in 2005 from \$40 million in 2003 primarily due to overall growth in Europe and the need to provide multiple language versions of each title in that region.

### 3. Sales to Working Capital

The ratio of sales to working capital represents the amount of return received for every dollar invested in working capital reserves. A high ratio may indicate inadequate working capital, which reflects negatively on liquidity. Generally, a substantial sales volume requires large working capital. Many factors can influence this ratio, such as the prevailing velocity of current assets and current liabilities among organizations.

Electronic Arts' ratio as of 2005 is 1.09, which is decreased from 1.85 as of 2003. The decrease was primarily due to the increase in working capital.

#### 4. Sales to Fixed Assets

The sales to fixed assets ratio is often called the asset turnover ratio and is a measure of the firm's assets utilization efficiency. A low sales-to-fixed assets ratio means inefficient utilization or obsolescence of fixed assets, which may be caused by excess capacity or interruptions in the supply of raw materials.

For Electronic Arts, in 2005, the ratio is 8.86. This tells us that for every one dollar of fixed assets, Electronic Arts generated \$8.86 in sales in 2005, which is decreased from \$9.47 in 2003.

#### 5. Sales to Total Assets

The asset turnover ratio simply compares the turnover with the assets that the business has used to generate that turnover. This ratio is useful to determine the amount of sales that are generated from each dollar of assets. Generally, companies with low profit margins tend to have high asset turnover, those with high profit margins have low asset turnover.

Electronic Arts' asset turnover for 2005 is 0.72, which is decreased from 1.05 for 2003. Electronic Arts was able to generate sales of \$0.72 for every \$1 of assets it owned and used for the year ended 31 March 2005. The decline was primarily due to the increase in total assets in 2005.

## Operating Performance Analysis

<u>Operating Performance Analysis</u>			
	2005	2004	2003
Gross Profit Margin	61.74%	62.70%	56.78%
Operating Profit Margin	21.38%	26.23%	18.38%
Net Profit Margin	16.11%	19.52%	12.77%

### 1. Gross Profit Margin

The gross profit ratio shows how much of each sales dollar you can expect to use to cover your operating expenses and profit. Without an adequate gross margin, a company will be unable to pay its operating and other expenses and build for the future. In general, a company's gross profit margin should be stable. Therefore, the gross margin is a good indication of financial health.

Electronic Arts' gross profit margin increased from 56.78% in 2003 to 61.74% in 2005. Sales continued to be strong.

### 2. Operating Profit Margin

The operating margin ratio determines whether the fixed costs are too high for the production volume. Also, the operating margin is another measurement of management's efficiency. Therefore, it can compare the quality of a company's operations to its competitors. A business that has a higher operating margin than its industry's average tends to have lower fixed costs and a better gross margin, which

gives management more flexibility in determining prices. This pricing flexibility provides an added measure of safety during tough economic times.

In 2005, the operating profit margin for Electronic Arts has increased to 21.28% from 18.38% in 2003. The increase was primarily due to the increase in operating income.

### 3. Net Profit Margin

Also called the Return on Sales Ratio, it shows the after-tax profit (net income) generated by each sales dollar by measuring the percentage of sales revenue retained by the company after operating expenses, creditor interest expenses, and income taxes have been paid. The profit margin tells you how much profit a company makes for every \$1 it generates in revenue. Profit margins vary by industry, but all else being equal, the higher a company's profit margin compared to its competitors, the better.

The net profit margin increased for Electronic Arts to 16.11% in 2005 from 12.77% in 2003. The increase was primarily due to the increase in net income.

### **Return on Invested Capital Ratios**

<b><u>Return on Invested Capital Ratios</u></b>			
	2005	2004	2003
Return on Assets	11.53%	16.98%	13.44%
Return on Equity	14.41%	21.55%	17.77%
Equity Growth Rate	30.60%	50.07%	43.55%
Disaggregation of ROCE	14.41%	21.55%	17.76%
Adjusted Profit Margin	16.11%	19.52%	12.77%
×	×	×	×
Asset Turnover	0.72	0.87	1.05
×	×	×	×
Financial Leverage Ratio	1.25	1.27	1.32

### 1. Return on Assets

The return on assets ratio tells an investor how much profit a company generated for each \$1 in assets. Return on assets measures a company's earnings in relation to all of the resources it had at its disposal. Thus, it is the most stringent and excessive test of return to shareholders. The lower the profit per dollar of assets, the more asset-intensive a business is. The higher the profit per dollar of assets, the less asset-intensive a business is. All things being equal, the more asset-intensive a business, the more money must be reinvested into it to continue generating earnings.

Electronic Arts' 2005 ROA has decreased from 13.44% in 2003 to 11.53%.

It means that the company earned \$0.11 for each \$1 in assets.

### 2. Return on Common Equity

One of the most important profitability metrics is return on equity. Return on equity reveals how much profit a company earned in comparison to the total amount of shareholder equity. Companies that generate high returns relative to their shareholder's equity are companies that pay their shareholders off handsomely, creating substantial assets for each dollar invested. These businesses are more than likely self-funding companies that require no additional debt or equity investments.

Electronic Arts' return on common equity is 14.41% in 2005, which is decreased from 17.77% in 2003. It implies its earnings decreased from \$0.17 to \$0.14 for each \$1 contributed by equity shareholders.

### 3. Equity Growth Rate

Electronic Arts has an equity growth rate of 30.60% in 2005, which is decreased from 43.55% in 2003. This measure implies Electronic Arts grows 30.60% in 2005 without increasing its current level of financing.

### 4. Disaggregation of Return on Common Equity

In order to separate and therefore better assess components of return on common equity, the disaggregation of return on common equity has calculated as: adjusted profit margin) \* asset turnover \* financial leverage ratio.

For Electronic Arts, in 2005, the disaggregation of return on common equity is 14.41%, which is decreased from 17.76% in 2003. The decline was primarily due to the decrease in asset turnover and financial leverage ratio.

#### 5. Adjusted Profit Margin

It shows the net profit generated by each sales dollar. Electronic Arts has increased adjusted profit margin from 12.77% in 2003 to 16.11% in 2005. The increase was primarily due to the increase in net income.

### **INVESTMENT RISK ANALYSIS**

1. The business is cyclical due to the cycle life of video game platforms and has entered a transition period heading into the next cycle.

Since Sony's PlayStation 2 was introduced in 2000 and Microsoft's Xbox and the Nintendo GameCube were introduced in 2001, it is expected that Sony, Microsoft and Nintendo to introduce new video game platforms into the market over the course of the next twelve month. As a result, we believe that the games software industry has entered into a transition stage leading into the next cycle. During the transition, Electronic Arts intends to continue developing new titles for the current-generation platform of video game platforms while they also make significant investments preparing to introduce products upon the launch of the next-generation platforms. Electronic Arts also expects development costs for next-generation video games to be greater on a per-title basis than development costs for current-generation video games. Electronic Arts has and expects to continue to incur increased costs during the transition to next-generation platforms, which are not likely to be offset in the near future. As the company moves



through the transition, their operating results could be more volatile and difficult to predict, which could cause their stock price to fluctuate significantly.

2. The business is highly dependent on the success and timely release of new video game platforms, on the continued availability of existing video game platforms, as well as their ability to develop commercially successful products for these platforms.

Electronic Arts derives their more than 65% of revenue from the sale of consoles for play on video game platforms manufactured by third parties, such as Sony's PlayStation and Microsoft's Xbox. If the platforms for which the company is developing products are not released when anticipated, are not available in adequate amounts to meet consumer demand, or do not attain wide market acceptance, their revenue will suffer, they may be unable to fully recover the resources they have committed, and their financial performance will be harmed.

3. Competition for acquiring licenses to intellectual property may make them more expensive, and increase their costs.

Many of the company's products are based on or incorporate intellectual property owned by others. For example, the EA SPORTS products include rights licensed from major sports leagues and players' associations. Similarly, many of their hit EAGAMES™ franchises, such as Bond, Harry Potter and Lord of the Rings, are based on key film and literary licenses. Competition for these licenses is intense and may also drive up the advances, guarantees and royalties that Electronic Arts must pay to the licensor, which could significantly increase their costs.

4. Their business, products and distribution are subject to increasing regulation of content, consumer privacy and online delivery in the key territories in which the company conducts business. If they do not successfully respond to these regulations, their business may suffer.

Legislation is continually being introduced that may affect both the content of their products and distribution. For example, privacy laws in the U.S. and Europe impose various restrictions on the company's web sites. Those rules vary by territory although the Internet recognizes no geographical boundaries. Other countries, such as Germany, have adopted laws regulating content both in packaged goods and those transmitted over the Internet that are stricter than current U.S. laws. Any one or more these factors could harm their business by limiting the products they are able to offer to their customers and by requiring additional differentiation between products for different territories to address varying regulations. This additional product differentiation could be costly.

5. The majority of their sales are made to a relatively small number of key customers. In the U.S., in fiscal 2005, over 80 percent of Electronic Arts' U.S. sales were made to six key customers. In Europe, their top ten customers accounted for over 30 percent of sales in that territory in fiscal 2005. Worldwide, they had direct sales to one customer, Wal-Mart Stores, Inc., which represented 14 percent of total net revenue in fiscal 2005. Though their products are available to consumers through a variety of retailers, the concentration of their sales in one, or a few, large customers could lead to a short-term disruption in their sales if one or more of these customers significantly reduced their purchases or ceased to carry their products. Also, having such a large portion of their total net revenue concentrated in a few customers reduces their negotiating leverage with these customers.

6. The international net revenue is subject to currency fluctuations. For the fiscal year ended March 31, 2005, international net revenue comprised 47 percent of their total net revenue. It is expected that foreign sales to continue to account for a significant portion of their total net revenue. Since foreign sales are primarily made in local currencies, it may fluctuate against the U.S. dollar. Therefore, the results of Electronic Arts' operations, including their reported net revenue and net income, and

financial condition would be adversely affected by unfavorable foreign currency fluctuations, particularly the Euro and Pound Sterling.

## TECHNICAL ANALYSIS



The stock has been performing below the 50 days moving average of \$55.45 for the past four months. During the past year the volume has been in constantly descending. Ever since the stock went down on March of 2005 it reached a lower level safety point at \$60. Electronic Arts stock has clearly entered new downward trend after eight months of resistant during 2005-2006. However with the up coming year of 2007 and the release of

new consoles by Microsoft, Sony, and Nintendo there are positive signs of growth in stock prices in sight.

## VALUATION ANALYSIS

### CAPM valuation:

Electronic Arts has been a rapid growth company for the past 5 years. The average growth in EPS has been in the vicinity of 89% over the last 4 years. The high growth rate has also contributed to high P/E ratios over the past 4 years. Keeping into account that in the future these growth rates and high P/E cannot be sustained an average of the low P/E of the last four years was obtained to derive a future target price. Furthermore the EPS growth rate of 90 % is unlikely to be sustained as recent financials have shown. The industry as a whole though has shown that there is still room for expansion in the US market as well as international markets. Hence in comparison with the company's annual report the growth rate for the projected future was pegged at 15%. This number we believe incorporates the future growth spurts as well as declines that the company may experience.

As the spreadsheet shows the average high P/E for the last 4 years for the company has been in the vicinity of 79. This P/E ratio is incredibly high and does not give a conservative estimate. Hence in the CAPM used an average of the low P/E which is 55. This number we believe will give a conservative and reliable number. The required return was determined to be 9.75% using the return on market of 11% and a risk free rate of 4.7%. The beta was calculated using static analysis. Beta is the overall risk of investing. By definition, Beta equals 1. A company's Beta is the risk of the company compared to the overall market. For Electronic Arts, the Beta is .8, which means that

electronic art's is less that riskier than the market. This implies that when the market changes by 1%, ERTS will react by changing .8.

**Beta Calculation:**

S&P 500 INDEX (\$INX)

Monthly prices

DATE	S&P 500	ERTS	Returns		Beta	
			S&P 500	ERTS	S&P 500	ERTS
Aug-99	1320.41	68.62				
Sep-99	1282.71	72.38	-2.86%	5.48%	1.00	0.8
Oct-99	1362.93	80.81	6.25%	11.65%		
Nov-99	1388.91	104.87	1.91%	29.77%		
Dec-99	1469.25	84	5.78%	-19.90%		
Jan-00	1394.46	81.75	-5.09%	-2.68%		
Feb-00	1366.42	100	-2.01%	22.32%		
Mar-00	1498.58	71.19	9.67%	-28.81%		
Apr-00	1452.43	60.5	-3.08%	-15.02%		
May-00	1420.60	63.88	-2.19%	5.59%		
Jun-00	1454.60	72.94	2.39%	14.18%		
Jul-00	1430.83	88.44	-1.63%	21.25%		
Aug-00	1517.68	107.94	6.07%	22.05%		
Sep-00	1436.51	49.38	-5.35%	-54.25%		
Oct-00	1429.40	50	-0.49%	1.26%		
Nov-00	1314.95	35.69	-8.01%	-28.62%		
Dec-00	1320.28	42.62	0.41%	19.42%		
Jan-01	1366.01	45.81	3.46%	7.48%		
Feb-01	1239.94	50	-9.23%	9.15%		
Mar-01	1160.33	54.25	-6.42%	8.50%		
Apr-01	1249.46	56.62	7.68%	4.37%		
May-01	1255.82	58.89	0.51%	4.01%		
Jun-01	1224.38	57.9	-2.50%	-1.68%		
Jul-01	1211.23	56.92	-1.07%	-1.69%		
Aug-01	1133.58	57.71	-6.41%	1.39%		
Sep-01	1040.94	45.67	-8.17%	-20.86%		
Oct-01	1059.78	51.46	1.81%	12.68%		
Nov-01	1139.45	60.46	7.52%	17.49%		

Dec-01	1148.08	59.95	0.76%	-0.84%
Jan-02	1130.20	53.07	-1.56%	-11.48%
Feb-02	1106.73	53.82	-2.08%	1.41%
Mar-02	1147.39	60.8	3.67%	12.97%
Apr-02	1076.92	59.05	-6.14%	-2.88%
May-02	1067.14	64	-0.91%	8.38%
Jun-02	989.82	66.05	-7.25%	3.20%
Jul-02	911.62	60.18	-7.90%	-8.89%
Aug-02	916.07	63.26	0.49%	5.12%
Sep-02	815.28	65.96	-11.00%	4.27%
Oct-02	885.76	65.12	8.64%	-1.27%
Nov-02	936.31	67.86	5.71%	4.21%
Dec-02	879.82	49.77	-6.03%	-26.66%
Jan-03	855.70	51.77	-2.74%	4.02%
Feb-03	841.15	52.8	-1.70%	1.99%
Mar-03	848.18	58.64	0.84%	11.06%
Apr-03	916.92	59.14	8.10%	0.85%
May-03	963.59	68.55	5.09%	15.91%
Jun-03	974.50	73.9	1.13%	7.80%
Jul-03	990.31	84	1.62%	13.67%
Aug-03	1008.01	89.97	1.79%	7.11%
Sep-03	995.97	92.18	-1.19%	2.46%
Oct-03	1050.71	98.94	5.50%	7.33%
Nov-03	1058.20	44.23	0.71%	-55.30%
Dec-03	1111.92	47.68	5.08%	7.80%
Jan-04	1131.13	46.86	1.73%	-1.72%
Feb-04	1144.94	47.16	1.22%	0.64%
Mar-04	1126.21	53.74	-1.64%	13.95%
Apr-04	1107.30	50.62	-1.68%	-5.81%
May-04	1120.68	50.83	1.21%	0.41%
Jun-04	1140.84	54.55	1.80%	7.32%
Jul-04	1101.72	50.13	-3.43%	-8.10%
Aug-04	1104.24	49.78	0.23%	-0.70%
3-Sep-04	1114.58	45.99		-7.61%
1-Oct-04	1130.2	44.92		-2.33%
1-Nov-04	1173.82	48.9		8.86%
1-Dec-04	1211.92	61.68		26.13%
3-Jan-05	1181.27	64.34		4.31%
1-Feb-05	1203.6	64.49		0.23%
1-Mar-05	1180.59	51.78		-19.71%
1-Apr-05	1156.85	53.39		3.11%
2-May-05	1191.5	52.54		-1.59%
1-Jun-05	1191.33	56.61		7.75%
1-Jul-05	1234.18	57.6		1.75%
1-Aug-05	1220.33	57.28		-0.56%
1-Sep-05	1228.81	56.89		-0.68%
3-Oct-05	1207.01	56.88		-0.02%
1-Nov-05	1249.48	56.36		-0.91%
1-Dec-05	1248.29	52.31		-7.19%
3-Jan-06	1280.08	54.58		4.34%

1-Feb-06    1280.66    51.97    -4.78%

The cash flows were discounted back by the required return and the terminal value of Electronic Arts was determined to be in 2007 as \$62.40. This discounted back gives present value of \$56.86.

After much consideration we determined that Electronic Arts according to this model should be held because even though on the conservative side this company is still fairly priced.

The risk free rate was derived from the T-bond of a five year T-bond. The current trend of similar short term and long term rates makes the differential in risk free rates very small. The risk rate used in the CAPM is 4.70% while the 2yr bond was pegged at 4.45%.

**CAPM Model:**

	Year	EPS	Growth			
Year 1	2001	-\$0.04				
Year 2	2002	\$0.35	3500.00%			
Year 3	2003	\$1.08	208.57%		average growth	88.92%
Year 4	2004	\$1.87	73.15%			
Year 5	2005	\$1.59	-14.97%		est. growth	15%
Year 6 est.	2006	\$1.00				
Year 7	2007	\$1.14				
Year 8	2008	\$1.31				
Year 9	2009	\$1.51				
Year 10	2010	\$1.73				
AVG LOW p/e		54.2597				
	2002	2003	2004	2005		
High p/e	188.5	48.51376	34.06952	44.75472	Average high	78.9595
Low p/e	142.2	21.79817	23.19786	29.84277	Average Low	54.2597
Projected price(2010) is		\$94.08				
CAPM	rf+(RM-RF)*beta					

	RF 5 Yr Tbond	4.70%
	RM	11%
	Beta	0.8
	CAPM	9.7400% Required return
	Price	Discount back by R/R
2007	\$61.86	\$56.37
2010	\$94.08	\$64.87

## RELATIVE VALUATION

In the relative valuation we analyzed 3 key ratios. The most important being the P/E ratio, which focuses on the amount of money an investor is willingly to pay for a dollar of earnings. In 2002 the high P/E for this company was at 181 this has significantly decreased for the company to an average between 30-35. This ratio is significantly above its competitors as well as the industry and market. But Electronic Arts have always traded above the markets rate being the leader and innovator of the industry. Electronic Arts competitors such as Atari and Activision do not have the game titles nor the revenue strength and growth of Electronic Arts.

The price per book value ratio also shows that Electronic Arts are valued above both the industry as well as the competitors. This is not against the norm especially in an evolutionary industry such as the gaming industry where there aren't huge inventories maintained and the bulk of cost is focused on development innovators such as ERTS can have a higher value. The price per book is far higher than the industry which averages around 2.85 while ERTS is around 5.

The price of sales reflects the same information as the price per earnings of Electronic Arts that ERTS does trade at a premium from the market.



Electronic Arts	2003	2004	2005
P/e	26.89908	28.43386	32.56604
P/sales	3.410154	5.479223	5.136629
P/book	4.742917	6.049362	4.594772

Atari			
P/e	6.846154	-8.525	63.2
P/sales	0.306199	0.881408	0.969173
P/book	1.278514	3.590721	3.175708

Activision			
P/e	15.04167	29.66667	22.2
P/sales	1.00308	2.292382	2.116729
P/book	1.450161	2.608971	2.705619

S&P					
500	2001	2002	2003	2004	2005
high	1366	1147	1111	1144	1249
Low	1040	815	841	1101	1181
Ave	1203	981	976	1122.5	1215

ERTS					
high	\$60.46	\$66.05	\$98.94	\$54.50	\$64.49
Low	\$45.67	\$49.77	\$44.23	\$44.92	\$51.70
Ave	\$53.07	\$57.91	\$71.59	\$49.71	\$58.10

## CONCLUSION

Electronic Arts is the number one video game publisher in the United States, which develops, markets, publishes, and distributes interactive software games for console's and PC's.

We believe our analysis of Electronic Arts has demonstrated the company is well positioned financially as well as competitively in the software industry. Based on our fundamental, technical, financial and valuation analysis, we are going to recommend a "HOLD" position on our shares.

The following is a list of reasons for our recommendation:

- The liquidity ratios show that the company is financially strong.
- EA's Debt-to-Equity ratio is 25% v. Industry Average of 38%.
- EA's Operating Profit Margin is 21% v. Industry Average of 6%.
- EA's Return on Assets is 12% v. Industry Average of 7%.
- The industry is in a transition period and we feel that with the release of the new game platforms due out in the next few months, EA's is positioned to benefit greatly in the sales of new generation games.
- The CPAM model reveals that the stock is currently fairly valued at a range between \$53- \$55. This is a conservative estimate because if the P/E ratio would increase this would impact the stock price positive.
- Relative valuation does show that the company is highly valued using the price per sales ratio as well as the P/E ratio. This is justified because the company is still regarded as a growth company and a leader of its own market.
- Investors in the past have paid the higher premium for the stock and we believe that they will do so in the future.
- The market has seen a recent upswing within Dow Jones and S&P 500 and ERTS Sports is positively correlated with the market as the Beta has shown
- Overall we believe that the stock should be held and not sold until more details about earnings are disclosed.

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## APPENDICES