

LeapFrog Enterprises, Inc.

David Chan

+1 (203) 747-4788

david.chan@yale.edu

Andrew Wishner

+1 (978) 835-0454

andrew.wishner@yale.edu

SELL

November 29, 2011

Please read the disclaimer at the end of this report for important information

Even though LeapFrog has returned more than 33% in the past month, its current stock pricing is in a contrarian trend to the rest of the industry.

Key Investment Considerations

- LeapFrog's current P/E ratio is close to double any of its industry peers, and its current stock price seems to be solely predicated on investors' belief in the unproven potential of the company's new LeapPad product.
- The company has only been profitable in 50% of the years since 1990, and given its severe losses in 2006, 2007 and 2008, it will need to see explosive revenue growth to earn back those losses.
- LeapFrog's retained earnings has been declining since 2005, and has been negative since 2006, meaning that there is technically no equity value in the company, apart from its assets and patents.

Vital Statistics

Our Forecast: Overvalued by 15.75%

Current Price: \$5.00 (of 11/29/2011)

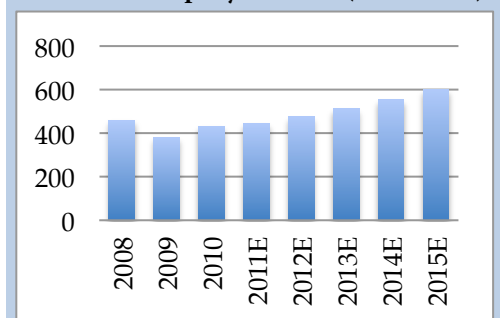
52-Week Range: \$2.57 - \$6.50

Market Capitalization: \$310.1 mm

P/E Ratio: 26.53

EPS: 0.18 million

Exhibit 1: Company Revenue (in millions)



Source: Historical Data Capital IQ, Chaner Capital Estimates

Contents

- 1.1 Company Overview**
- 2.1 Model Drivers**
- 3.1 Appendix**
- 4.1 Disclaimer**

© 2011, David Chan and Andrew Wishner

1.1 Company Overview

LeapFrog Enterprises (Public, NASDAQ: LF) is an educational entertainment toy company. It designs, manufactures, and markets technology-based learning toy products and related content worldwide directly to consumers, and through discount stores like **Wal-Mart Stores, Inc. (Public, NYSE: WMT)**, **Target Corporation (Public, NYSE: TGT)**, and **Sears Holdings Corporation (Public, NASDAQ: SHLD)**, toy chains like **Toys 'R' Us/Babies 'R' US (Private)**, department stores like **MACY'S, Inc. (Public, NYSE: M)**, online retailers like **AMAZON.COM, Inc. (Public, NASDAQ: AMZN)**, and small hobby and craft stores in local precincts.

Founded in 1995, the company is currently headquartered in Emeryville, California and competes with listed companies **Mattel, Inc. (Public, NASDAQ: MAT)**, **JAKKS Pacific, Inc. (Public, NASDAQ: JAKK)**, **Hasbro, Inc. (Public, NYSE: HAS)** and **Kid Brands, Inc. (Public, NASDAQ: KID)**, and other private companies like **SPIN MASTER (Private)** and **THE LEGO GROUP (Private)**. In international markets, LeapFrog also competes with foreign competitors that are often strong in a particular toy line or geographic region, such as **Namco Bandai Holdings (Public, Tokyo SE: 7832JP)** and **VTEch Holdings Ltd (Public, PINK:VTKHY)**, but who may not necessarily compete with LeapFrog worldwide. Competition among these companies is increasing, given shorter product life cycles for individual toy products, and the growing use of technology and digital media. Retailers also account for a significant proportion of toy sales, and have an influential role not only in allocating shelf space for one toy line but also in promoting one company over another. Sales invoiced to Wal-Mart, Toys 'R' US and Target in aggregate accounted for approximately 65% of domestic gross sales in 2010.

Exhibit 2: Comparison of LeapFrog with major competitors



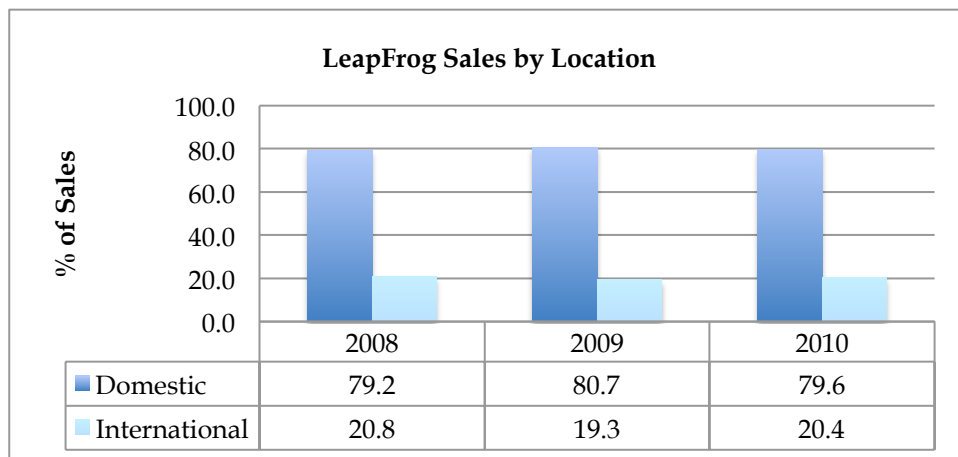
Source: Yahoo Finance

Exhibit 2: Comparison of LeapFrog with consumer indices


Source: Capital IQ; Individual Company SEC 10-Ks; Yahoo Finance

LeapFrog’s portfolio of brands and products are targeted at children aged 0-9 and are grouped into four categories: (1) Interactive Reading System, includes the Tag reading system, introduced worldwide in 2008, which focuses on fundamental reading skills and offers a library of over 50 interactive software-based books; (2) Mobile Learning System, includes the Leapster Explorer and Leapster 2, a multi-directional control handheld device with a touch screen that offers downloadable and online content; (3) Learning toys, aimed at developing motor skills, include its Scout collection, Fridge collection and Learn-and-Grove Collection; (4) Online Capabilities, includes LeapFrog Learning Path, a web-based service introduced in 2008 that combines its proprietary curriculum and its web content, and allows parents to keep track on their children’s development.

The company is largely focused on the domestic market, with the U.S. segment accounting for 80% of consolidated net sales in 2010. Internationally, LeapFrog is currently focusing on Australia, Japan, China, Spain, and Germany, but no single country represented 10% or more of consolidated net sales in 2010



LeapFrog, and the larger toy industry, has been significantly challenged by the increased popularity of digital devices. The educational toy category continues to be challenged by new entrants as well as innovative digital products, and LeapFrog faces an increasingly more competitive landscape with a variety of computer games, tablets, and handheld gaming systems competing directly with its line of mobile learning systems. More generally, toys suffer from seasonality, and their appeal rarely lasts a long time, forcing the company to constantly innovate and create new product lines to capture the zeitgeist. These changing consumer preferences reduce the product life cycle, and cause companies to incur product development and research costs.

2.1 Model Drivers

We will now walk through our model step by step:

Discounted Cash Flow Analysis for LeapFrog

Dollars in millions, except per share

	FY Ending			FY Ending				
	2008	2009	2010	2011	2012	2013	2014	2015
x Sales	\$459.1	\$379.8	\$432.6	\$443.4	\$474.9	\$513.4	\$554.9	\$599.9
EBITDA	(45.1)	3.1	19.5	12.8	27.5	55.3	83.3	114.2
Less: D & A	12.9	11.2	11.0	10.3	11.3	12.5	13.0	14.0
EBIT	(58.0)	(8.1)	8.5	2.5	16.2	42.8	70.3	100.1
Less: Effective Taxes	(1.9)	7.2	(1.0)	(0.5)	(4.1)	(12.5)	(23.2)	(37.1)
x Tax-effected EBIT	(59.9)	(0.9)	7.5	2.0	12.2	30.4	47.1	63.1
Plus: Depreciation	12.9	11.2	11.0	10.3	11.3	12.5	13.0	14.0
Less: Capital expenditures	(11.4)	(6.3)	(9.5)	(13.1)	(14.0)	(15.2)	(16.4)	(17.7)
Less: Purchase of intangibles	(11.9)	(8.2)	(13.0)	(10.3)	(10.5)	(10.8)	(10.5)	(11.0)
+ / - Changes in working capital	(89.1)	65.7	23.6	(16.7)	(16.9)	26.3	(22.9)	(16.0)
x Unlevered Free Cash Flow	(\$159.4)	\$61.5	\$19.6	(\$27.8)	(\$17.9)	\$43.3	\$10.2	\$32.4
Period				0.5	1.5	2.5	3.5	
Present Value FCF				-26	-15	33	7	
Terminal Value								\$380.8
Present Value Terminal Value								\$265.4
Pro Forma Enterprise Value (All Equity)	\$264.3							
- Fair Value Current Outstanding Debt 9/30	0							
+ Current Outstanding Cash 9/30	26							
Pro-Forma Equity Value	\$289.9							
Concentrated Ownership Discount	10.0%							
L. Ellison Ownership	61.5%							
L. Ellison Equity	\$178.3							
Other Public Ownership	38.5%							
Other Public Equity	\$111.6							
Other Public Discount	\$100.5							
Re-Grossed Pro Forma Equity Value	\$278.8							
Diluted Shares 9/30 Release	66.2							
Share Price a/o 11/29/11	\$5.00							
Target Share Price (long term)	\$4.21							
Under/Overvalued								-15.75%

Cost of Capital Data	
Amount of Debt (unadjusted) \$mm	0
MV of Equity	310
Current BV Equity	198
Tax Rate (future debt) %	37.0%
Return on Debt (projected)	10.0%
Return on Equity	10.9%
Unlevered Cost of Equity (rA)	10.9%
TV Growth Rate	2.4%
Return on []	$r_e = r_{fr} + B(Mrp)$
Credit Rating	N/A - Est. B/B+ if ever rated, depending on debt levels
RFR	2.5%
Market Risk Premium	5.0%
Debt Beta	0.00
Equity Beta	1.68
Unlevered Asset Beta	1.68
Market Risk Premium:	
Russell 3000 5-year yield	8.5%
Russell 3000 5-year return	-1.0%
Total Equity Return	7.5%

Sources

9/30 release

Google Finance

9/30 release

Standard & Poor's Rating Service

Federal Reserve Economic Data 10-year treasury constant maturity plus premium

5-year historical average return for Powershares Consumer Discretionary ETF including the distribution yield

Federal Reserve Economic Data - Total return analysis 0.75 weighting "BBB" and 0.25 weighting "A"

iShares

iShares

Valuation Overview

We recommend a “Sell” on LeapFrog with an 15% overvaluation. LeapFrog’s current PE ratio is around 26x, which is double any of its industry peers and double Apple’s PE ratio. Apple, as we explain in the *Revenue* section, is a close comparable in growth. LeapFrog has returned more than 33% in the past month while the industry has generally declined. Though we believe that this growth in stock price is supported by the investors’ belief in the potential from LeapFrog’s new LeapPad toys, LeapFrog’s current pricing is in a contrarian trend to the rest of the industry.

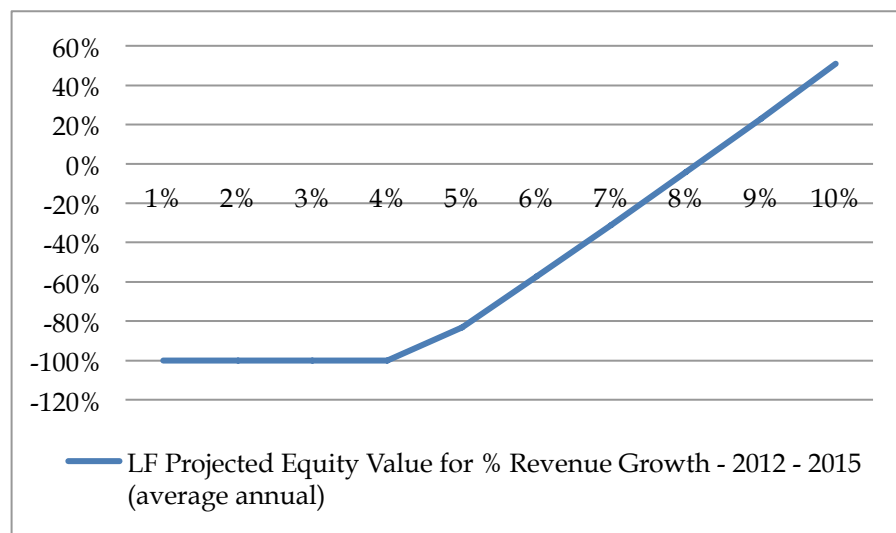
Exhibit 5: LeapFrog’s P/E Ratio Compared to Peers

As of 11/25/11	P/E	1-mo Perform.	YTD Perform.
Leapfrog	26.53	33.81%	-15.14%
Hasbro	11.75	-5.35%	-27.62%
Apple	13.14	-8.60%	12.71%
Mattel	13.63	-1.43%	8.34%
Jakks	14.62	-1.56%	0.22%
Kid Brands	3.38	30.28%	-66.78%

Source: Google Finance

Given our unease about over-estimating growth as explained in our *Revenue* section, we must note the possible downside to LeapFrog’s equity valuation in a scenario where LeapFrog does not return to profitability. In our *Revenue* section we note that based on an estimated 2% 2011 revenue growth, anything less than 8% revenue growth in 2012, 2013, 2014 and 2015 would result in a “Sell” recommendation. If revenues were to increase to around 8% annually we would issue a “Hold” recommendation. If revenues were to increase substantially to a sustained 10% annually, we would issue a “Buy” recommendation.

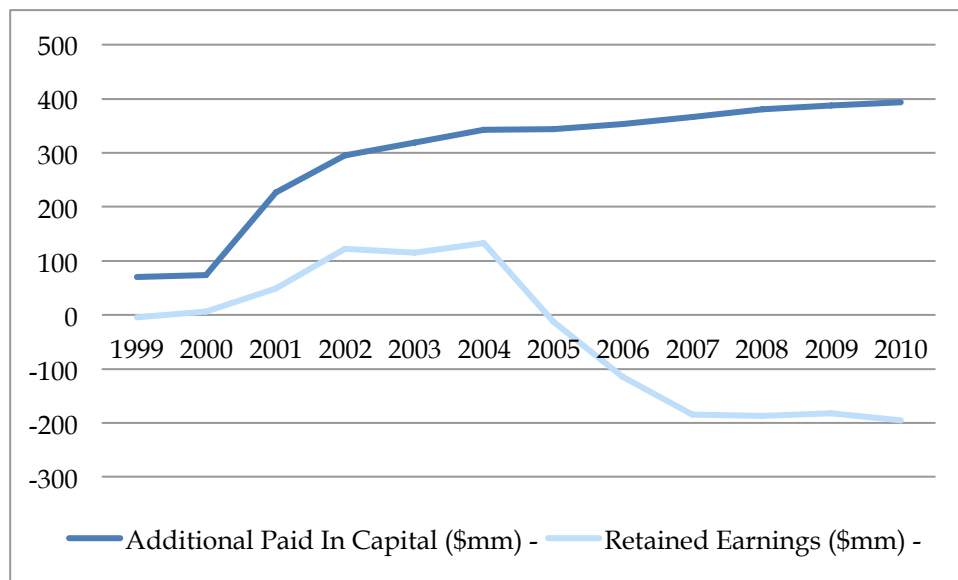
As you can see in our scenario analysis below, the drop off in share price value caused by a lack of revenue growth is extremely concerning to us:



Source: Chaner Capital Projections based on LeapFrog’s historical financial statements

This is extremely important. As illustrated above, the potential value of the company looks exactly like the payoff to a call option. As we explain in the *Debt* section of our report, we believe that this reality means that company management is incentivized to take risk. If management does not bring the company to profitability the current stock would be valueless (not including liquidation value as discussed below). If management manages to bring the company to high levels of revenue growth there could be substantial value in the company.

We believe that this is the case because of LeapFrog’s severe losses in 2006, 2007 and 2008. Over this period the company lost \$316 million dollars. In all of the years of public data that we have since 1999, *when* LeapFrog has had profitable income years the average net income has been \$25mm. Since 1999 LeapFrog has been profitable only 50% of those years. This means that on average, unless the company sees explosive revenue growth or consistent positive income, it would take a long time to earn back those losses. As a direct result of this, LeapFrog’s retained earnings has been declining since 2005 and has been negative since 2006:



Source: Chaner Capital Projections based on LeapFrog’s historical financial statements

The negative retained earnings means that there is technically no equity value in the company other than intellectual property potential, and intangible and tangible value of assets. The company is able to continue operating because it does not have any debt and the concentration of the ownership provides LeapFrog either the potential for fiscal support or the ability to sell itself/take itself private if current innovation cannot turn the company around. Technically LeapFrog can operate in this fashion forever as long as the majority equity holder continues to put money into the company.

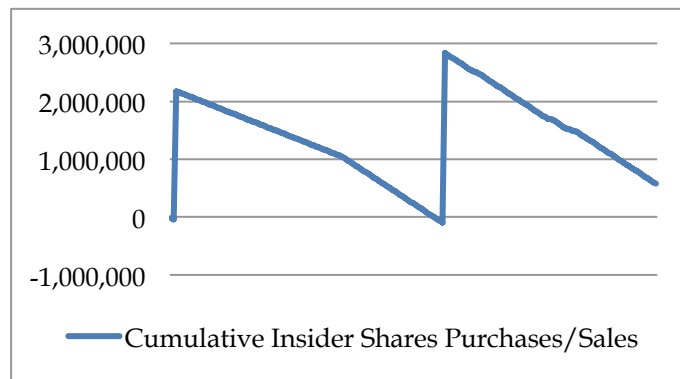
In our model if the company’s revenue is not substantial to pull the company into positive consistent earnings before the terminal value is calculated, the company has negative future earnings and therefore no present value. This is why companies like LeapFrog that have unstable or negative cash flows are not usually valued using a short-term DCF model.

In reality if revenue growth is not substantial enough to bring the company into profitability the stock value would not be worthless, but may represent the liquidation value of assets (tangible and intangible) and intellectual property. Equity holders are not responsible for liabilities.

We are not able to calculate the true value of LeapFrog’s intellectual property or whether any of the company’s assets are worth significantly more or less than their current book value. However, if we assume a liquidation value of LeapFrog’s assets at 9/30 book value the company would be worth \$302mm. Including a concentrated ownership discount as explained in our *Concentrated Ownership Discount* section, this would generate a target share price of \$4.39, or a 12% overvaluation. Due to the fact that the company is still operating as a going concern the stock price can fluctuate below the liquidation value and for this reason along with our analysis we maintain a “Sell” recommendation on the company. If LeapFrog’s ownership (Larry Ellison) decided that LeapFrog’s equity value was truly worthless on a future value basis and decided that the company should no longer operate as a stand-alone entity, we would ironically increase our recommendation to a “Hold” due to the value of the company’s assets that might increase the equity value should the company be pushed into a sale.

Point of Note: Insider Sales

Since the most recent 10-K which listed Mollusk Holdings as a 62.5% owner of LeapFrog’s public shares, there has been a significant amount of insider purchases and sales of LeapFrog stock. Compared to the 66 million shares outstanding, the total amount of insider ownership has not changed significantly year to date, but since the last quarter ending 9/30 Mollusk Holdings has sold a little more than 2 million shares. Over that time the stock has risen 35%, which is a sign to us that the owners believe that the stock, currently at \$5.00, is overvalued. The two large purchases shown below as vertical increases were exercised options.



Source: <http://www.secform4.com>

1. Sales

- **2011 sales: \$443.4 mm / 2012 sales: \$474.9 mm**

We ran revenue growth correlations and regressions against our industry-reliant factors (global disposable income growth, US disposable income growth, global GDP growth, population growth, etc) but the results were unable to project revenues forward. In our Mattel valuation (11/4/11), we used advertising projections to project growth in revenues – this however did not work for LeapFrog given its different focus on educational technology-related toys instead of traditional toys or movie-related products. We thus decided to use a different approach to calculate 2011 LeapFrog revenue. Looking at management quarterly projections from 2010 (when the company replaced its management team), we find that management has they have been accurate in predicting Q1 2011, Q2 2011 and Q3 2011 net sales trends, and actual performance has been consistently within the range of management’s quarterly predictions, giving us some confidence to use their Q4 2011 net sales prediction as a guide which we backed into their current performance.

This gives us an amount of \$443.4 million, which is also within the range of management's projections of \$435-\$445 million. This growth rate of 2% is also similar to our projected growth figures for the entire toy industry in 2011 (see report 9/25/2011), which we believe also serves as useful point of comparison. Furthermore, it is worth highlighting that management's confidence in its Q4 performance is based on the sales performance of its new product LeapPad. Launched earlier in 2011, the product sold –out in the pre-order stage, and management has indicated in their recent Q3 earnings transcript that demand is currently overwhelming supply, with the product on the top ten holiday shopping lists of all the major retailers in the United States and the United Kingdom, where it is currently the top-selling toy product for four consecutive weeks. Given the LeapPad's solid performance on Black Friday, we have reason to believe management's optimism at least for Q4 2011, and hence project a 2% growth rate in 2011.

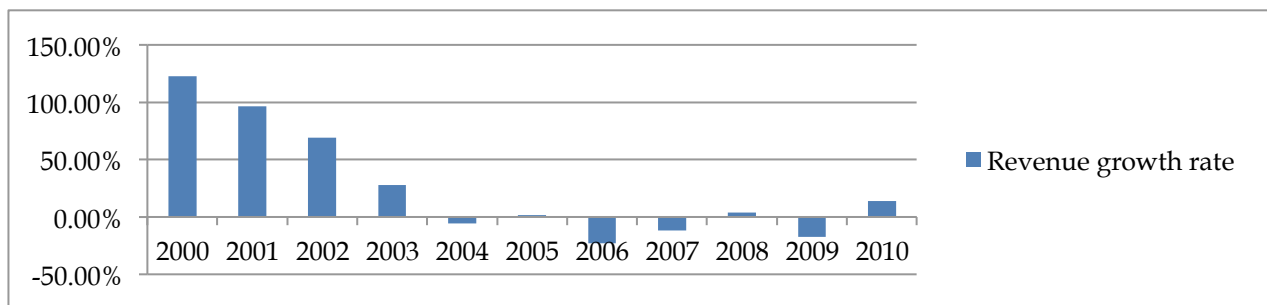
In order to reach a "Hold" recommendation on the stock (minimum qualification is overvalued by 10%), revenue would have to grow in 2012, 2013, 2014 and 2015 by 7.8% and a reasonable terminal value of 2.4% in perpetuity. This would generate a terminal value that is 91% of the value of the company. Any revenue growth value below 7.8% in 2012 will make it that much harder for us to justify a "Hold" recommendation on the company and would strengthen our recommendation for a "Sell."

In order to assess 2012 revenue and beyond we look at Apple's revenue growth rates. We liked Apple as a general comparison to LeapFrog for many reasons. In its early years LeapFrog was a technology company which focused on integrated circuit research to build toys. Once LeapFrog had backing from Knowledge Universe (Larry Ellison, Michael Milken), LeapFrog began to purchase technologies that the company would use down the line to build innovative products. This is similar to what Apple has done with its music and touch technology purchases in the late 90's and early 2000's before launching its major products. In LeapFrog's early successful years the company offered computer-based products and screen-based technology toys such as the LeapPad. Though LeapFrog's products were successful, a lack of innovation among a competitive field caused consumer interest to fade in LeapFrog's products, and LeapFrog's stock price fell from \$40 to \$10. This is very reminiscent of Apple's 1994-1997 period when the Macintosh computer faded, the company's CEO was replaced and Apple attempted to innovate through new platforms, new alliances and new operating systems¹. In 1996 Steve Jobs was brought back to Apple and in 1997 Jobs took the reigns as CEO. In a similar path, after 4 years of negative earnings from 2004-2009, LeapFrog replaced most of its management team in 2010, and announced a new CEO in 2011. In 2010 LeapFrog began successful product innovation again, releasing the Leapster Explorer which "supports online game play as well as learning apps, e-books, and videos."² This was a turnaround year for LeapFrog as the company finally returned to profitability. In 2011, LeapFrog introduced the LeapPad, "a personalized learning tablet for children²." This is very similar to Apple's reinvention of the company through the iMac, which changed the way people think about the computer (and is also a great comparison with the iPad). This product innovation returned Apple to profitability. We believe that LeapFrog is facing a very similar transition now to what Apple went through in 1999 after a full year of new product innovation. However, given the size of Apple at the time compared to LeapFrog today, we believe that Apple's product innovation had different barriers to market penetration than LeapFrog's products do today, and therefore we do not see Apple's more recent revenue growth as a continuing direct comparison to LeapFrog's revenue potential say, 5 years down the line, though we like the similarities.

Based on our time-line alignment of the two company's' stories above, if we use Apple's 2002 revenue growth of 7.1% as a proxy for LeapFrog's 2012 revenue growth, and use Apple's 2003 revenue growth of 8.1% as a proxy for LeapFrog's 2013 revenue growth (*and* even carry the 8.1% revenue growth figure forward for the next two years), we **still** believe that LeapFrog is **overvalued** by 15% and would issue a "Sell".

If LeapFrog were to stun us in 2012 with a greater than 8% revenue growth, and continue strong until 2015, we would issue a “Hold” recommendation. Note: We did not use 2001 as our starting point for revenue comparison due to the tech bubble crash that affected Apple’s revenues.

Assuming a 2% revenue growth in 2011 for LeapFrog, in order for Leapfrog to reach an 8% growth rate in 2012 with its current product lineup, it would require, for example, an estimated 350,000 additional units sold of its well-reputed LeapPad over 2011 sales. This implies a further penetration rate beyond 2011 sales of 1.7% of the US 5-9 age group. Youth electronics also accounts for 2.7% of the total toy industry¹, and of the electronics toy industry, an estimated 21% represents electronic learning aids². According to our 10/4/11 toy industry report, this would equate to projected electronic learning aid (i.e. toys like LeapPad) revenue of ~\$65 million in 2011 from Mattel, Hasbro, Jakks, LeapFrog and KidBrands combined. As stated above, to achieve a 8% growth rate in 2012 LeapFrog for example would have to sell approximately 350,000 additional units of the LeapPad in 2012 over 2011 at \$100 per unit (average 2011 “black Friday” store cost). This would generate \$35 million dollars in sales which represents 8% revenue growth for LeapPad. If this were to occur it would imply that LeapFrog’s LeapPad alone would own 54% of the electronic learning aid toy market and would also imply that the electronic learning aid toy market would increase 154% in 2012 over 2011. Although holiday sales projections for the LeapPad have been positive, we do not believe that that a 154% increase in sales in the electronic learning aid toy industry in 2012 is realistic given the amount of uncertainty that still remains surrounding global economic growth.

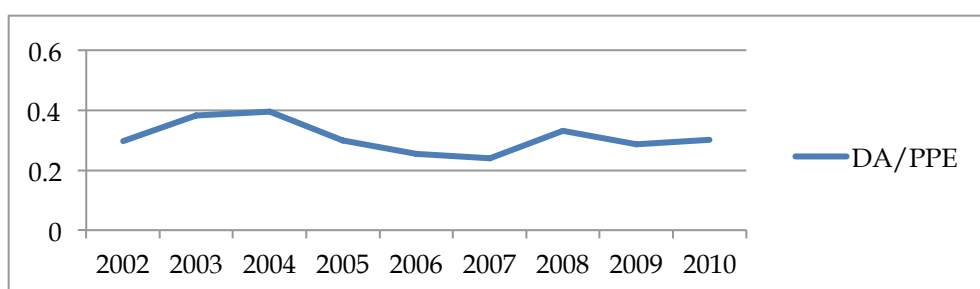


Source: Chaner Capital Projections based on LeapFrog’s historical financial statements

2. Depreciation and Amortization

- **2011 Depreciation & Amortization: \$10.3 mm/2012 Depreciation & Amortization: \$11.3 mm**

Since 2002, D&A as a percent of last year’s ending PPE, Goodwill and other intangibles has ranged between 25% and 40%, with a trend line at 30% and an average of 30%, excluding an outlier in 2001 due to a high level of one-off intangibles. Projecting forward, we use a trailing 5-year average of the historical



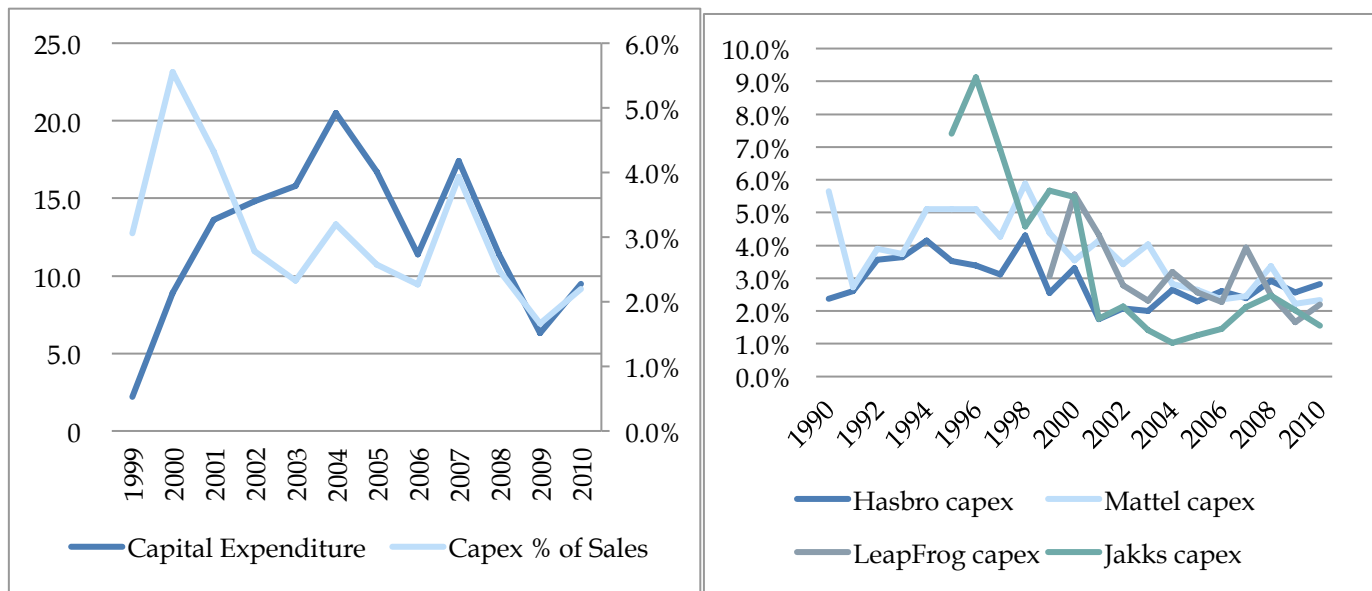
Source: LeapFrog financial statements, sourced from Capital IQ Database

In order to project forward net PPE we add in our capex and D&A projections to determine net PPE and calculate our future D&A figures.

2b. Capital Expenditure

- **2011 Capital Expenditure: \$13.1 million**
- **2012 Capital Expenditure: \$14.0 million**

Future capex is primarily for new product development and upgrading IT. A significant number of LeapFrog's products are electronic technology. Leapfrog expects to pay capex out of FCF. When FCF is not able to cover capital expenditures, the company expects to use operating cash to pay capex. We believe that without debt funding, this option could create a dangerous cycle if LeapFrog were to become unprofitable for an extended period of time. We do believe however that currently LeapFrog has passed the threshold of being able to generate enough FCF to pay for capex in a steady-state environment assuming R&D continued to contribute to new product development.



Source: LeapFrog financial statements, sourced from Capital IQ

Management does not provide guidance for capex. Since 1999, capex has ranged from around \$5mm to \$17mm, with an average of around \$12mm per year (excluding the purchase of intangible assets). Since 2000 capex as a percent of sales has generally declined over time from around 5% to around 2%, typically falling in the 2%-4% range. Although there is a nice trend over this time, as a majority of the management team has changed since 2010, we reviewed the 2010 and 9/30 2011 statements to determine any fluctuations from historical averages. For the first 9 months of 2011, capital expenditures have been over \$9mm. While this is about 25% higher than the first 9 months of 2010, it implies a 2011 capex of \$13.1mm, which is well within the historical range. We believe that the percentage of sales that this represents is an accurate representation of what to expect from management going forward as the look to preserve the ability to use FCF to pay future capex. This results in a 2012 capex of \$14 million. We believe that every few years capex will have to trend upwards as a percentage of sales in order to launch new products to sustain positive FCF.

We wanted to compare LeapFrog's capex as a percent of sales to that of LeapFrog's peers due to the fact that a number of capital expenditures are directed towards organizations owned by Larry Ellison, who also controls a majority voting share of LeapFrog's outstanding public equity. As illustrated in the chart above, Leapfrog's expenditures are within the normal range of other companies in the industry.

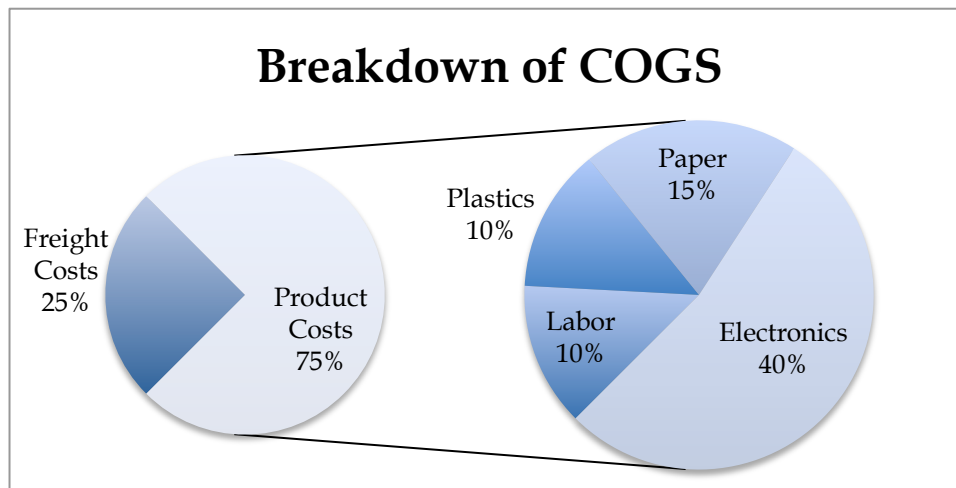
3: EBIT (note: EBITDA is backed into by calculating D&A and EBIT)

In order to calculate EBIT we projected cost of goods sold, other SG&A, and R&D.

3a. Cost of Goods Sold

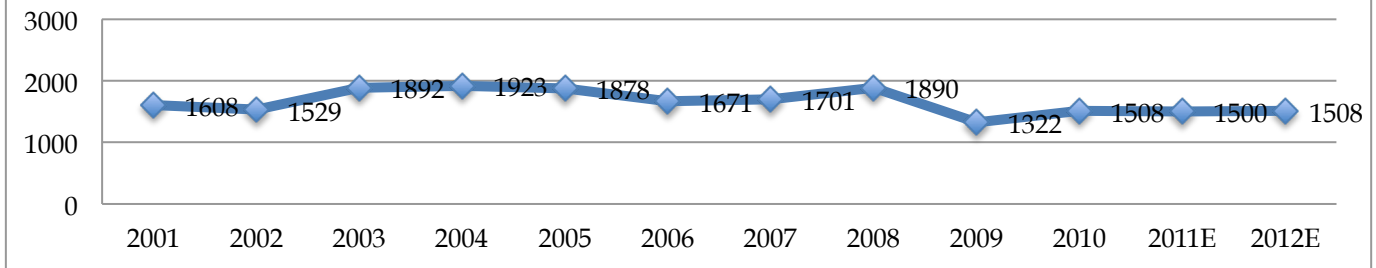
- 2011 effective COGS growth rate: 3.0%
- 2012 effective COGS growth rate: 2.4%

To determine cost of goods sold moving forward, we looked two major cost components in toy manufacturing: (a) product costs and (c) freight and logistics Fees. Leapfrog has not provided specific guidance as to their COGS breakdown, and we have thus looked at major companies in the toy manufacturing industry, other analyst reports and compared them with LeapFrog's production profile. We found that freight and transportation accounts for 25% of LeapFrog's total costs, while the remaining 75% is divided up among labor, plastics, paper, and electronics. Given that most of LeapFrog's products are electronic in nature, electronic parts constitute a significant proportion of product costs, at 40% of total COGS. Plastics, which are the second most used raw material in production, accounts for 15%, while labor and paper accounts for 10% each.



To calculate freight costs, we looked at the historical data provided by the United Nations Conference on Trade and Development (UNCTAD)'s Review of Maritime Transport annual reports from 2001. Given that LeapFrog has significant manufacturing facilities in China, we decided to focus on container freight rates for the East West Route, based on a standard Forty-Foot Equivalent Unit (FEU), and found a 0.7 correlation with COGS increase. 2011 data already has indicated flat growth from 2010 as overall freight traffic has declined, and we expect this to continue in 2012 for a number of reasons: the slowing of global economy has dampened consumer sentiment, and moderately reduced the demand for international trade. More significantly, the shipping and freight industry had increased capacity from 2009 to 2010 in anticipation of a global recovery after the 2008 financial crisis, but this has yet to materialized as the threat of a double dip recession continues to loom. Our analysis also highlights that freight companies are considering lowering freight and logistics prices in 2012 to spur demand for transportation services. We do not believe that prices will dip significantly given that the industry has already suffered from distressed freight rates for a number of years since 2008, but rather will stay flat in 2011, 2012.

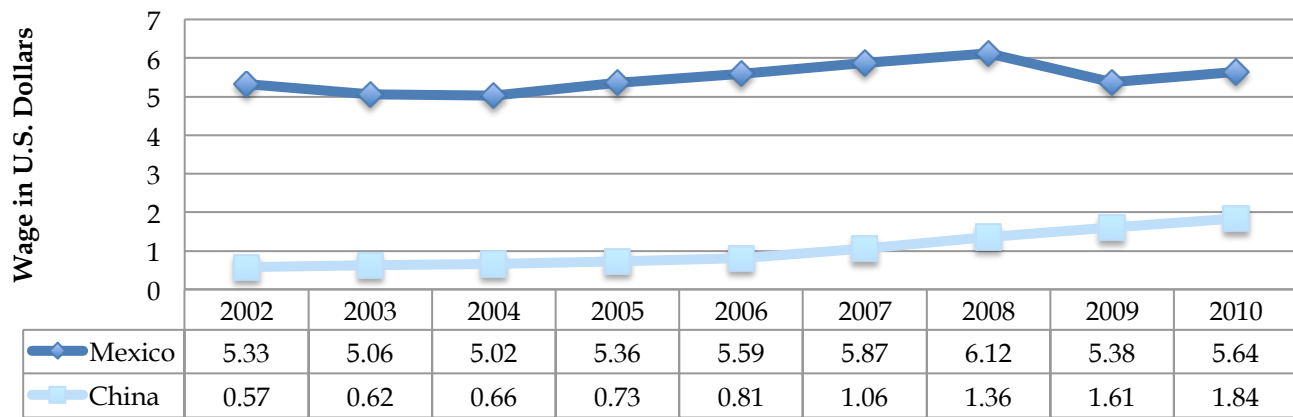
East West Freight Cost in U.S. Dollars



Source: UNCTAD Review of Maritime Transport 2001-2011

For labor costs, we used data from the U.S. Bureau of Labor Statistics, which monitors changes in international wages in the manufacturing sector. Given that LeapFrog manufactures its products primarily in China and in Mexico, we decided to focus on these two countries, and looked at changes in hourly wage rates since 2002.

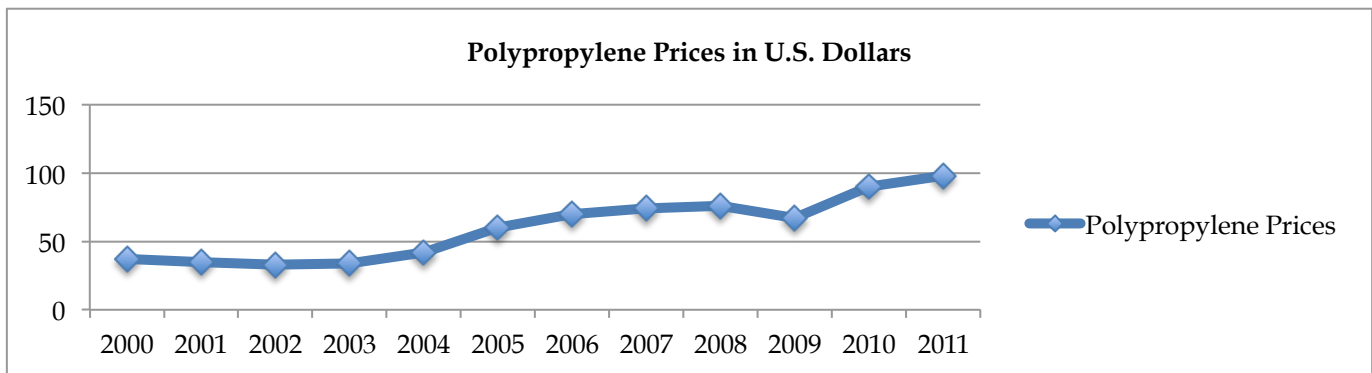
Hourly Wage in Manufacturing in U.S. Dollars



Source: U.S. Bureau of Labor Statistics, <http://www.bls.gov/fls/home.htm>.

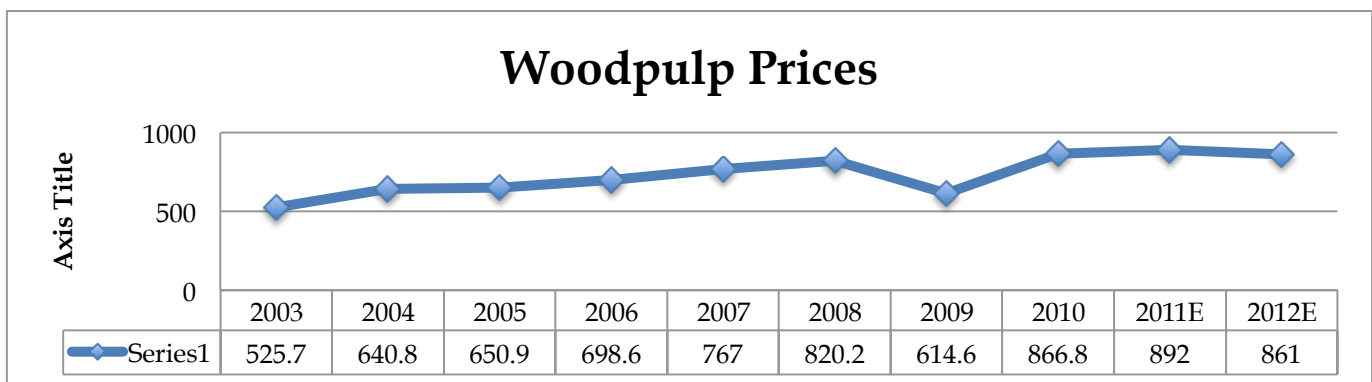
With the exception of 2008, we found that Mexican labor has been averaging a 5% wage increase since 2004, while China has been averaging a 15% wage increase over the same period. We believe that this trend is likely to continue for the following reasons: the Chinese government has just mandated a 22.8% increase in the minimum wage, and has signaled its intention to grow wages at this figure over the near term to bring wages in line with inflation rates. Like its competitors, LeapFrog is concerned about this trend, and management has indicated that this increase in labor costs over the coming years will be a significant pressure on COGS. Nonetheless, we do not think that labor costs will increase by that much as LeapFrog is able to redistribute production fairly easily to other production centers. Moreover, labor increases have historically not flown completely through. By combining the average increases in Mexican and Chinese labor, we project wages to rise by approximately 9% in 2011, 9% in 2012 given the relatively constant rate of increases due to active government policy on wage rates in both these countries.

For plastics, we looked how polypropylene prices have changed from 2000 to 2011, and found that there is a moderately strong correlation of 0.8 with change in COGS. On average polypropylene prices have increased by 10.5% over the past ten years, and in 2011, prices have increased by 9% year-to-date, allowing us to believe that the total 2011 polypropylene prices will increase by the same amount. To project plastic prices in 2012, we looked at the relationship between polypropylene prices and changes in global GDP, given how often commodity prices move in tandem with changes in global output. From 2000-2011, increases in plastic prices have also shown a strong correlation of 0.75 with global GDP, and we therefore used projected 2012 GDP estimates provided by the World Bank (as explained above) to forecast polypropylene prices, according it a figure of 10%, which is also in line with the 10 year price increases in this market. Growth in polypropylene prices have also been fairly consistent with this 10% figure during similar GDP periods, giving us the confidence to use projected GDP as a predictor.



Source: PlasticsNews, www.plasticsnews.com

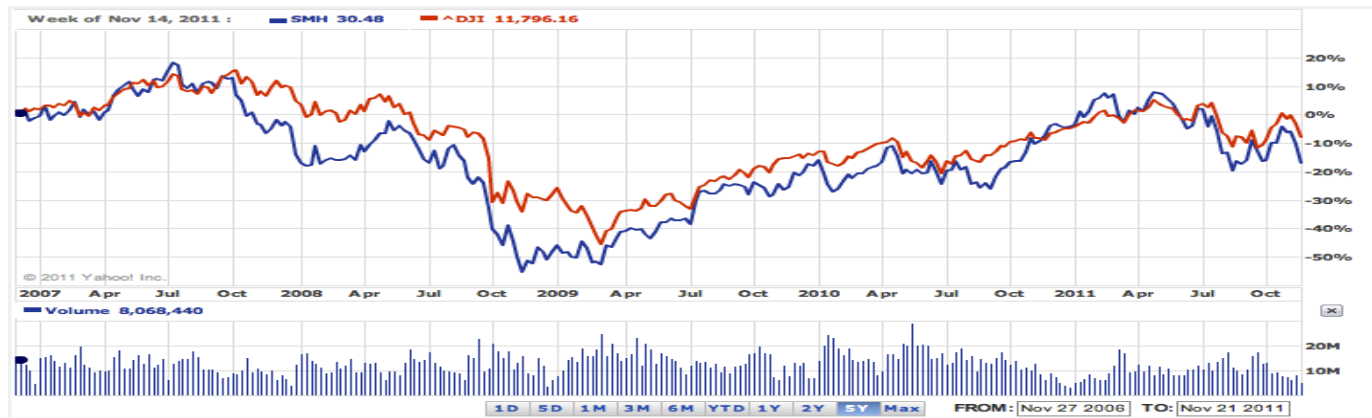
For paper, we researched the type of paper cardboard commonly used by toy manufacturing companies, and discovered that they tend to purchase wood-pulp. We then looked at how wood-pulp prices have changed from 2003 to 2011, and used data from the World Bank’s Commodity Price Data. We found that prices have increased at around 8% per year on average, but were skeptical about this figure for 2011 and 2012. We then turned to the CME Group’s projections for wood-pulp prices, as the CME Group is one of the largest trading hubs for wood pulp. Given increased global demand in the first two quarters of 2011, commodity prices had increased, but have now tampered by the slowdown in the global economy. Based on the CME data, we found that wood-pulp prices have increased by 3.0% year-to-date as a result, and we are comfortable using this figure to project wood-pulp prices for 2011. As for 2012, the CME Group predicts that the uncertain global economy will depress demand for wood pulp, leading to a -3.5% drop in prices as manufacturers cut back on production. Given the CME Group’s accuracy in predicting previous wood-pulp price movements, we have decided to use this number for 2012.



Source: Capital IQ; Individual Company SEC 10-Ks, LeapFrog Quarterly Transcripts, www.plasticsnews.com, World Bank Commodity Price Data 2003-2011, <http://data.worldbank.org/data-catalog/commodity-price-data>, CME Group, <http://www.cmegroup.com/trading/agricultural/lumber-and-pulp/wood-pulp.html>

Finally, to project electronics costs we looked at the major type of electronic unit that LeapFrog uses. As they highlight in the 10-Ks, LeapFrog uses application specific integrated circuits (ASIC), and we thus focused on the performance of the semiconductor industry and semiconductor prices.

Exhibit 3: Comparison of Semiconductor Holders ETF (SMH) against DJI



Source: Yahoo Finance

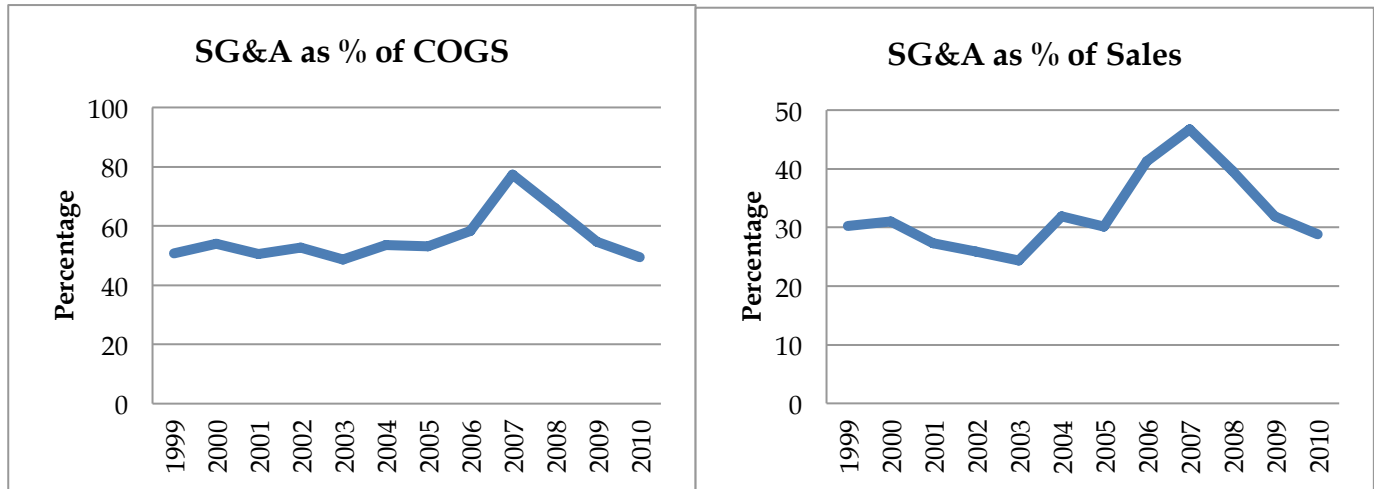
As seen above, the performance of the semiconductor industry is highly correlated with the performance of the larger market, and by extension, the global economy. Looking at a variety of research reports and data on industry revenue, we further confirm this pattern, giving us the confidence to limit growth in electronic prices based on projections in global GDP. However, in order to find a more specific number, we looked at the forecasts of IHS research group, which has been covering the semiconductor industry fairly accurately, and compared it with the outlook of the World Semiconductor Trade Statistics. Based on their combined projections, the semiconductor revenue is expected to grow at 1.2% in 2011, and 3.2% in 2012 – this is in line with the World Bank’s GDP projections, and gives us the confidence to use this as a proxy to project movements in electronics costs. It is also worth highlighting that LeapFrog does not have any long-term contract with their electronics, plastics or paper suppliers, and are hence very susceptible to market movements. Based on these assumptions, we projected a 3.0% COGS increase in 2011, and a 2.4% increase in 2012.

3b. Other SG&A

- **2011/2012 SG&A: 50% of COGS**

SG&A as a percent of sales has generally been trending in the 25-30% range prior to 2006 when LeapFrog ramped up advertising and increased headcount to support the launch of major products in the 2008 to 2009 period, such as the Tag reading system which continue as hallmarks of the brand. This resulted in the spike in SG&A as noted in the graphs below. However, based on our analysis of LeapFrogs earnings transcripts and 10-Ks, the company has been pursuing various cost-cutting measures, resulting in the decrease in the percentage of SG&A towards the historical average of 32% over sales, and 52% over COGS in the period from 1999-2010, in the past two years. Management has also indicated that it has been focusing on more efficient advertising, and the lower headcount will result in a decline in SG&A. However, management does not provide specific guidance, and while it has previously mentioned cost cutting schemes, they do not provide specific numbers on target program cuts, target costs as a percentage of sales, or other metrics that might help us determine whether how much SG&A would decline by.

Therefore, we have coupled SG&A to COGs in an attempt to make a more accurate projection. SG&A as a percent of COGs appears to trend around 50%, and given management’s commitment to reining in SG&A, we have confidence to use this figure for both 2011 and 2012.

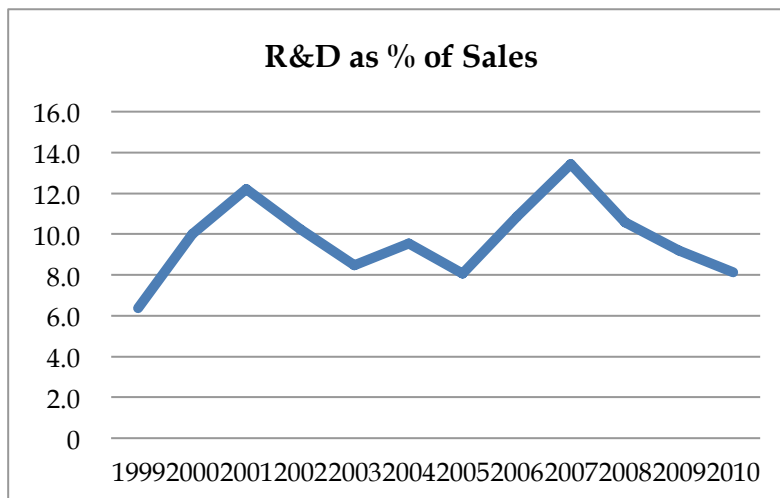


Source: Capital IQ

3c. Research and Development

- 2011 R&D: 9% of sales
- 2012 R&D: 10% of sales

LeapFrog engages in significant research and development costs in order to ensure that a project reaches technological feasibility - as management constantly highlights, research and development is key to strengthening the company’s portfolio of products. We thus looked through management’s earnings transcripts, in particular after 2010 given the change in leadership, to get a sense of where the company is heading. As highlighted in its Investor Day presentation, LeapFrog is aiming to launch a new wireless mobile device, and has been working on syncing its software and hardware with other devices like the iPad. We believe this indicates a continued emphasis on research, and looked historically averages to project figures. We note that it research accounts for 9.8% of sales over the period from 1999-2010, and we do not expect management to increase this significant as they have a general vision of keeping costs under control. Nonetheless, we see an increasing trend, and thus project R&D at 9% in 2011 and 10% in 2012.



4. Effective Tax Rate

- **2011-2015 Effective Tax Rate: 21.2%, 25.1%, 29.1%, 33%, 37%**

Prior to 2010 the company had several years of either a negative effective tax rate due to income losses or income tax benefits higher than the company's tax provisions. In 2010 the LeapFrog's effective tax rate was just above 17%, as it was the first year the company returned to profitability. As of the end of 2010, the company had \$21mm of unrecognized tax benefits of which \$7mm would alter the company's effective tax rate. In 2010 LeapFrog took advantage of around \$1mm of tax benefits. Additionally, the company estimates that \$2mm of these benefits are likely to expire within the next 12 months. That would leave \$5mm of effective tax rate benefits. Assuming that LeapFrog continues to grow and spends down this benefit from prior losses over the next 5 years, the company's effective tax rate will rise, though not likely to a full statutory rate due to benefits from expanding international operations that will be taxed at a lower rate than the US. Therefore under the assumption that LeapFrog continues operating in profitability, we grow the tax rate over 5 years to 37%, which is an approximate average of many US companies that operate meaningful global operations without substantial tax benefits.

5. Changes in Working Capital

- **2011: -\$16.7 mm / 2012: -\$16.9mm**

The working capital schedule is shown below. The following sections walk through the forecast for individual line items.

Working Capital Schedule for LeapFrog

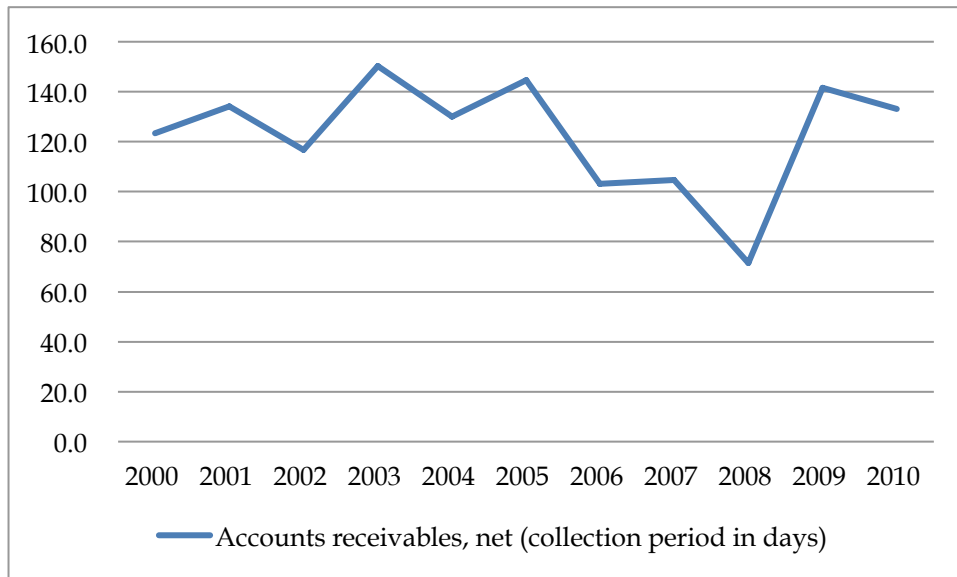
Dollars in millions

	FY Ending										FY Ending					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Sales	\$160	\$314	\$532	\$680	\$640	\$650	\$502	\$442	\$459	\$380	\$433	\$448	\$461	\$475	\$489	\$504
Cost of sales (excluding depreciation) (1)	92	170	262	340	380	370	355	267	275	222	253	271	279	287	296	305
Working Capital Balances																
Accounts receivables, net	\$54	\$115	\$170	\$280	\$228	\$258	\$142	\$127	\$90	\$147	\$158	\$157	\$156	\$151	\$165	\$170
Inventories	\$43	\$46	\$84	\$91	\$131	\$169	\$73	\$52	\$57	\$28	\$47	\$82	\$84	\$69	\$68	\$70
Other current assets	\$4	\$9	\$21	\$22	\$38	\$32	\$24	\$24	\$14	\$9	\$10	\$19	\$19	\$18	\$19	\$19
Total Non-Cash Current Assets:	\$101	\$171	\$276	\$393	\$398	\$459	\$239	\$203	\$161	\$185	\$215	\$258	\$260	\$237	\$251	\$259
Accounts payable	\$33	\$34	\$59	\$86	\$63	\$74	\$47	\$47	\$55	\$58	\$31	\$57	\$47	\$60	\$61	\$63
Accrued liabilities	\$10	\$14	\$41	\$45	\$54	\$43	\$48	\$56	\$43	\$38	\$39	\$38	\$40	\$41	\$42	\$43
Other current liabilities	\$0	\$13	\$25	\$6	\$2	\$2	\$2	\$2	\$2	\$2	\$3	\$2	\$2	\$3	\$3	\$3
Total Non-Debt Current Liabilities:	\$44	\$61	\$124	\$137	\$118	\$120	\$97	\$105	\$100	\$98	\$73	\$98	\$89	\$104	\$106	\$109
NET WORKING CAPITAL / (DEFICIT)	\$57	\$110	\$151	\$256	\$279	\$339	\$142	\$99	\$61	\$87	\$142	\$160	\$170	\$134	\$145	\$150
Increase/(Decrease) in Working Capital		\$52	\$42	\$104	\$24	\$60	(\$197)	(\$44)	(\$38)	\$26	\$55	\$18	\$10	(\$36)	\$12	\$4
Ratios and Assumptions																
Numbers of days in the period																
Accounts receivables, net (collection period in days)	124	134	117	150	130	145	103	105	71	142	133	128	123	116	123	123
Inventories (days outstanding)	171	99	118	98	126	167	75	72	75	46	68	110	110	87	84	84
Other current assets (as % of sales)	3%	3%	4%	3%	6%	5%	5%	5%	3%	2%	2%	4%	4%	4%	4%	4%
Accounts payable (days outstanding)	132	74	82	93	60	73	48	64	73	96	45	77	62	76	75	75
Accrued liabilities (as % of cost of sales)	11%	8%	15%	13%	14%	12%	14%	21%	16%	17%	15%	14%	14%	14%	14%	14%
Other current liabilities (as % of cost of sales)	0%	8%	9%	2%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%

5a. Accounts Receivable

Accounts receivable collection days ranges from around 120 days to around 140 days from 2000 to 2005. In 2006 receivables collection days fell rapidly and by 2008 the number was in the 70's. In 2009 and 2010 the days collection period was back around 140.

In reviewing LeapFrog’s 10-Ks, it is apparent that in 2006 accounts receivable declines due to earlier and better cash collections and in 2008 an increase in bad debt allowance had the effect of lowering receivables. However, in 2005-2007 there was an underlying trend of declining year over year sales. This decline resulted in lower accounts receivable. In 2009 more sales than usual took place late in the 4th quarter and were not due until 2010, which had the effect of re-inflating 2009 accounts receivable back to historical levels. Going forward, we project that accounts receivable collection days will trend down to around 120 days due to the normalization of the historical trend when removing the 2005-2007 period.



Source: LeapFrog financial statements, sourced from Capital IQ Database

5b. Inventories

- **2011: \$79 million / 2012: \$80 million**

Understanding inflection points in inventory levels:

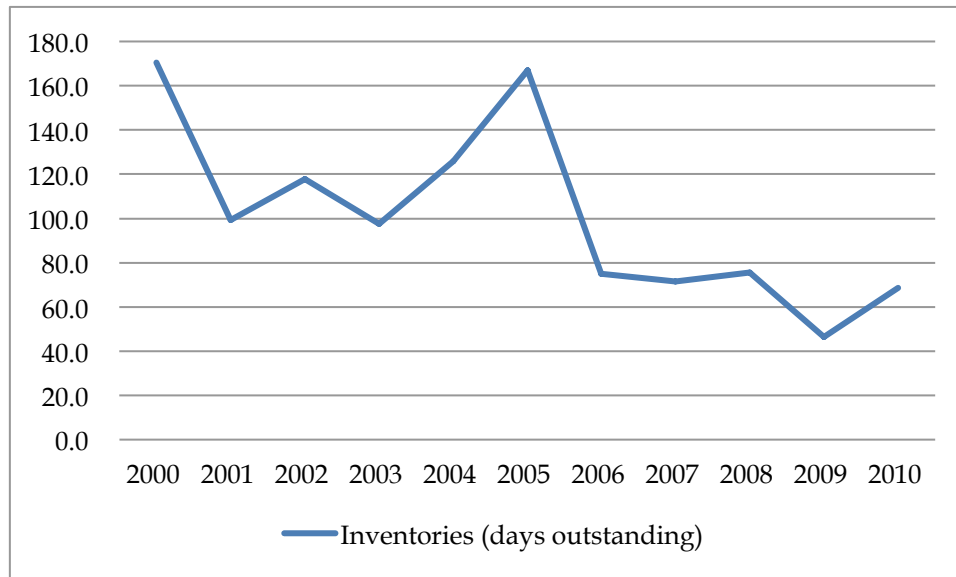
In 2005 inventory levels of LeapFrog products at retailers were high due in part to stocking new products such as the Pentop Computer. Inventories were also higher than normal due to challenges LeapFrog faced in adjusting shipment changes to a just-in-time order process from retailers in conjunction with higher forecasted sales volumes than what was realized.

In 2006 inventories declined significantly from 2005 due to retailers burning-off inventory of discontinued versions of Pentop Computer products. This reduced sales and along with it inventories of new products waiting to be pushed into the market due to expectations from management of retailers’ purchases.

In 2009 inventories reached a trough. Retailers maintained lean inventories and demanded better just-in-time shipping in order to hold less excess inventory after the holiday seasons. That in turn meant LeapFrog held lower inventories as it was more difficult to anticipate demand.

In 2010 inventories increased again slightly as a result of LeapFrog holding more finished goods. We believe that this is a direct result of a new product lineup that has shown strong sales.

Forecast: In the first nine months of 2011, inventories have decreased slightly year over year, but we believe that they will increase by the end of 2011 due to popular products being in high-demand, and the increasing use of internet and gifts cards will require retailers to hold LeapFrog’s products through the end of the year. In 2011 LeapFrog’s Leapster Explorer™ and My Own Leaptop™ won Toy of the Year awards from the Toy Industry Association. We believe that sales will be very strong for these products in 2011 and 2012, which will result in higher inventory levels in line with inventories in 2003. In 2003 LeapFrog released new large-scale products similar to 2011, such as LeapPad Plus Writing, LittleTouch LeapPad and Leapster, which combined for approximately 20% of LeapFrog’s U.S. sales in 2003. Following the next few years, we believe it is possible for inventory levels to decline again as sales of these products slow and excess inventories are phased out.



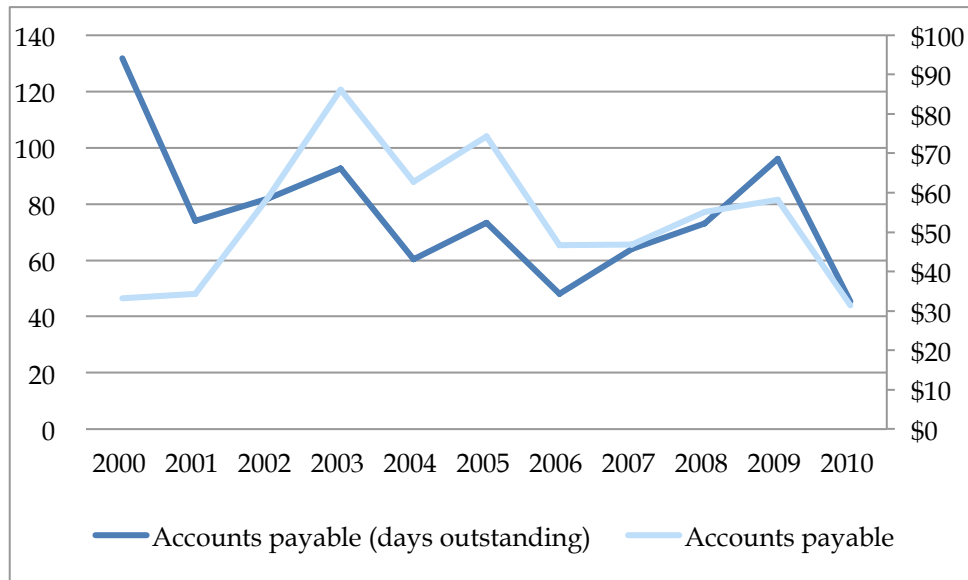
Source: LeapFrog financial statements, sourced from Capital IQ Database

5c. Other Current Assets:

2011 and 2012 other current assets as a percent of revenues are taken as an average of the 2001-2004 period due to that period’s similarity with our 2011 and 2012 forecast inventories and accounts receivable levels (the other asset portions of working capital). 2013 and beyond is an average of the 2000 – 2010 periods.

5d. Accounts Payable:

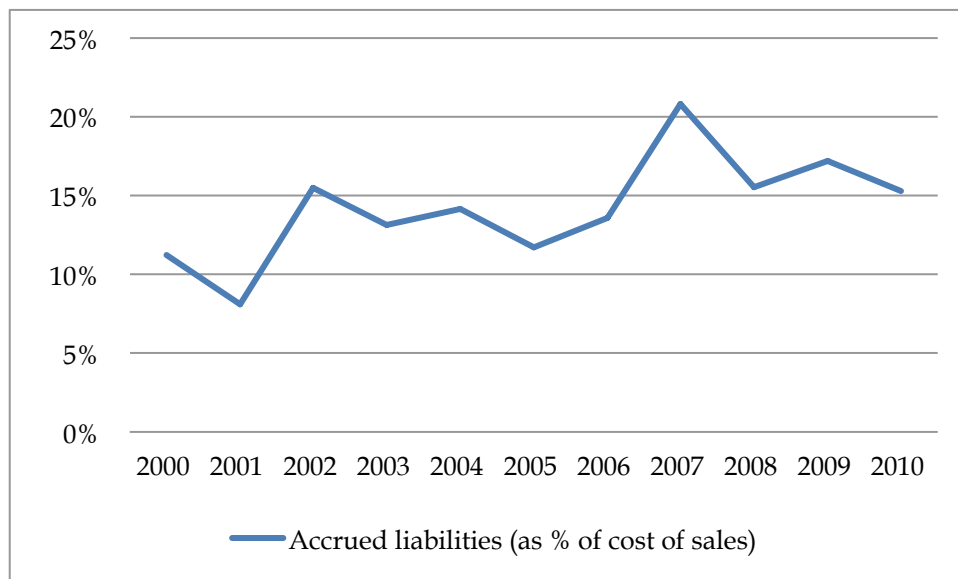
During periods of economic crisis the company tightens their cash management and as a result payables increase. This is evident in 2000 and 2009. In post crisis periods the days payable outstanding ranges from 50 to 90 days. While this is a big range, we can forecast 2011 and 2012 payables outstanding based on similar changes to the days outstanding in post-crisis periods of 2002-2005: 2011 as similar to the average of 2002-2005 and 2012 similar to 2005-2007. For projections beyond 2012, we used historical market cycle averages.



Source: LeapFrog financial statements, sourced from Capital IQ Database

5e. Accrued Liabilities

Accrued liabilities as a percent of cost of sales has both an average and a median of 14.2 with a standard deviation of only 3.3%. Given the relatively low volatility of this figure, we use the 14.2% average going forward with the understanding that in any given year the actual percent of the cost of sales may differ slightly.



Source: LeapFrog financial statements, sourced from Capital IQ Database

5f. Other Current Liabilities

Due to the minimal size of other current liabilities we use a rolling 5-year average to project future other current liabilities, which in 2011 and 2012 is 0.8% and 0.9% of the cost of sales.

6. Measuring Debt

In order to explain the debt and discount rate sections it is important to first explain the ownership concentration of LeapFrog which has control over financing decisions. In 2002 a company called Knowledge Universe was listed as owning 87% of LeapFrog's voting shares. Knowledge Universe was owned by Larry Ellison (Oracle) & Michael Milken (high-yield bonds). As a result of this relationship, LeapFrog purchased software from Oracle and also was involved in several JV's with entities that were controlled by Ellison. In 2004 Knowledge Universe changed its name to Krest and it appears that the ownership stake in LeapFrog was sold to Mollusk Holdings, also controlled by Ellison, which then owned 54% of LeapFrog. In 2010 the ownership stake by Mollusk increased to 61.5%. LeapFrog continued to do business with software companies that are owned by Ellison which is why we tested the level of capital expenditures to ensure that it was in line with the industry, which it is. As a result of the level of ownership, Ellison controls the composition of the board of directors, business direction, corporate activity such as purchases or mergers, sale of assets, financing activities and payment of dividends. A majority of the current management team was added during the 2010 and 2011 seasons. We believe that the current management team has the experience to bring LeapFrog out of its current income loss cycle.

LeapFrog has no corporate debt outstanding. LeapFrog has access to a credit facility that requires an EBITDA interest coverage ratio of 1.1:1.0. Given that LeapFrog's EBITDA is not substantial, and in 2006-2008 was negative, it is a clear signal that LeapFrog's balance sheet cannot support a substantial level of debt, and therefore management has chosen to not raise capital through corporate issuance. We made a difficult decision to not add balance sheet debt to LeapFrog's capital structure, which we realize will inherently discount future cash flows at an all-equity discount rate rather than a weighted cost of capital or an adjusted present value valuation that might be lower (i.e. raise our valuation). In this sense, our final valuation is not conservative. However, knowing that LeapFrog's credit facility has a tight interest coverage covenant, that LeapFrog requires this revolver in order to fund 4Q purchases before the holiday season, and that corporate debt would draw a higher interest rate than would LeapFrog's ability to expand their revolver from \$75mm to \$150mm (at an average of 4.5% interest rate), it is extremely unlikely that LeapFrog would issue corporate debt under these circumstances, unless it was a direct loan from one of Larry Ellison's funds.

The only times the company has issued debt in the past was to four executives as a loan for purchasing stock for the IPO. The loans were issued at an interest rate of 6.6% and repaid in January 2003. Debt was also taken out in 2000 from Knowledge Universe (equity owners) at a rate of 10% and 12% interest which was repaid in 2001. In the public market, we believe that a 10% interest rate would represent the minimum interest rate LeapFrog would have to pay to receive loans. Due to the small size of the company, competitive nature of the industry and extreme volatility of profitability and financial performance, the company would in our opinion receive a corporate credit rating for debt issuance of a B at the highest. Currently in the market companies that are rated B/B+ are issuing debt at 7% over LIBOR/T-Bills, which currently implies around a 10% yield. Though the actual total return on debt would be lower due to the level of defaults of B rated companies, the fact that the 10% rate is the starting point for LeapFrog's potential interest rate on debt, we feel that adding debt would not significantly reduce our model's discount rate, if at all. It is much more likely that Ellison would issue loans to the company at a lower interest rate than the market could provide. The problem with this is that the retained earnings account is very large and the equity holder's current stake is technically worth the future value of assets. Given this, the company (this implies Ellison as well) is incentivized to take risk.

In order to increase the value of equity, as equity holders are not responsible for liabilities in the event of bankruptcy. Under the notion that the company is “putting it all on the line” over the next few years with their new product development, it does not also make sense that the company in its current form would be an appropriate debt investment for Ellison. With this thinking, we again come to our conclusion to use the all-equity discount rate in our valuation model. If the company does change over the next few years and becomes consistently profitable, our decision to include debt may change along with the discount rate. By comparison, debt for Mattel and Hasbro, rated BBB+, have a 6.3% yield.

6b. Cost of Capital

As there is no debt, our discount rate is the (unlevered) cost of equity. We calculate our equity beta from 1/1/2004 – 10/31/2011. We begin at 2004 rather than since inception in 2002 due to the significant change in operations as Larry Ellison’s outstanding ownership interest in LeapFrog’s equity changed from 87% at the end of 2003 to 54% by the end of 2004. The current ownership by Ellison remains similar at 61.5%. This generates an equity beta of 1.68.

6c. Terminal Value

Since the company is still very new and growth rates have been erratic, the terminal value growth rate needs to be calculated based on factors outside of the company’s historical performance. We believe that the company has substantial potential for growth ahead of it armed with a new management team, strong software relationships and a popular toy image. However, due to the reliance on electronic toys which are generally more costly to make and more expensive to buy, as well as increasing negative equity, LeapFrog technically does not have “perpetuity” to reinvent themselves and it is possible that the company’s growth rate in perpetuity could be close to 0%. To be conservative, we use the positive scenario that LeapFrog continues profitability but will be subject to larger economic fluctuations than competitors such as Hasbro and Mattel. In order to gauge a proper perpetuity growth rate in this positive case, we believe that at some point Leapfrog’s penetration into their target customer will slow and their product sales will grow at a minimum at a rate equal to the population growth rate. As we determined in our 10/4/11 toy industry report, a weighted average of the US and international 0-14 age group population growth rates is a base case terminal value growth rate for LeapFrog.

The weighted average represents LeapFrog’s potential to grow into international markets from its current breakdown of 20% to a breakdown of 30%. We don’t believe that international sales can reach the level of Mattel or Hasbro at around 45-55% due to the higher cost of LeapFrog’s toys in general and focus on educational toys, which are likely geared largely towards US style of education, despite being offered in numerous languages. This results in a terminal value of 2.4%. Our terminal values for Hasbro and Mattel were 2.5% and 1.4% respectively. We don’t apply any “electronic competitor” discount to LeapFrog’s terminal value as we did for Hasbro in our 11/18/11 valuation because LeapFrog’s focus on personal computer, tablet, video-game and other screen-based toys will adapt easily to a more electronic future and also have a distinct market need servicing education that pure video-game entertainment has not been very successful in tapping.

7. Other issues

Based on various academic studies (Hertzel and Smith (Journal of Finance 1993) and Brophy et al (Review of Financial Studies, 2009)) there should be a discount applied to the non-concentrated public stock float due to the concentration of 62.5% ownership by Ellison in the public market. Literature suggests this discount could be between 15% and 20%. We apply only a 10% discount to the public portion of the float. Because the public portion of the float is only 38.5%, if we were to be conservative and not apply any discount, it would only change the valuation by around 4% to the upside.

3.1 Appendix

Discounted Cash Flow Analysis for LeapFrog

Dollars in millions, except per share

	FY Ending			FY Ending				
	2008	2009	2010	2011	2012	2013	2014	2015
x Sales	\$459.1	\$379.8	\$432.6	\$443.4	\$474.9	\$513.4	\$554.9	\$599.9
EBITDA	(45.1)	3.1	19.5	12.8	27.5	55.3	83.3	114.2
Less: D & A	12.9	11.2	11.0	10.3	11.3	12.5	13.0	14.0
EBIT	(58.0)	(8.1)	8.5	2.5	16.2	42.8	70.3	100.1
Less: Effective Taxes	(1.9)	7.2	(1.0)	(0.5)	(4.1)	(12.5)	(23.2)	(37.1)
x Tax-effected EBIT	(59.9)	(0.9)	7.5	2.0	12.2	30.4	47.1	63.1
Plus: Depreciation	12.9	11.2	11.0	10.3	11.3	12.5	13.0	14.0
Less: Capital expenditures	(11.4)	(6.3)	(9.5)	(13.1)	(14.0)	(15.2)	(16.4)	(17.7)
Less: Purchase of intangibles	(11.9)	(8.2)	(13.0)	(10.3)	(10.5)	(10.8)	(10.5)	(11.0)
+/- Changes in working capital	(89.1)	65.7	23.6	(16.7)	(16.9)	26.3	(22.9)	(16.0)
x Unlevered Free Cash Flow	(\$159.4)	\$61.5	\$19.6	(\$27.8)	(\$17.9)	\$43.3	\$10.2	\$32.4
Period				0.5	1.5	2.5	3.5	
Present Value FCF				-26	-15	33	7	
Terminal Value								\$380.8
Present Value Terminal Value								\$265.4
Pro Forma Enterprise Value (All Equity)	\$264.3							
- Fair Value Current Outstanding Debt 9/30	0							
+ Current Outstanding Cash 9/30	26							
Pro-Forma Equity Value	\$289.9							
Concentrated Ownership Discount	10.0%							
L. Ellison Ownership	61.5%							
L. Ellison Equity	\$178.3							
Other Public Ownership	38.5%							
Other Public Equity	\$111.6							
Other Public Discount	\$100.5							
Re-Grossed Pro Forma Equity Value	\$278.8							
Diluted Shares 9/30 Release	66.2							
Share Price a/o 11/29/11	\$5.00							
Target Share Price (long term)	\$4.21							
Under/Overvalued								-15.75%

Cost of Capital Data	
Amount of Debt (unadjusted) \$mm	0
MV of Equity	310
Current BV Equity	198
Tax Rate (future debt) %	37.0%
Return on Debt (projected)	10.0%
Return on Equity	10.9%
Unlevered Cost of Equity (rA)	10.9%
TV Growth Rate	2.4%
Return on []	re = rfr+B(Mrp)
Credit Rating	N/A - Est. B/B+ if ever rated, depending on debt levels
RFR	2.5%
Market Risk Premium	5.0%
Debt Beta	0.00
Equity Beta	1.68
Unlevered Asset Beta	1.68
Market Risk Premium:	
Russell 3000 5-year yield	8.5%
Russell 3000 5-year return	-1.0%
Total Equity Return	7.5%

Sources

9/30 release
 Google Finance
 9/30 release

Standard & Poor's Rating Service

Federal Reserve Economic Data 10-year treasury constant maturity plus premium

5-year historical average return for Powershares Consumer Discretionary ETF including the distribution yield

Federal Reserve Economic Data - Total return analysis 0.75 weighting "BBB" and 0.25 weighting "A"

iShares
 iShares

4.1 Disclaimer

Important Disclaimer

Please read this document before reading this report.

This report has been written by MBA students at Yale's School of Management in partial fulfillment of their course requirements. The report is a *student and not a professional report*. It is intended solely to serve as an example of student work at Yale's School of Management. It is not intended as investment advice. It is based on publicly available information and may not be complete analyses of all relevant data.

If you use this report for any purpose, you do so at your own risk. **YALE UNIVERSITY, YALE SCHOOL OF MANAGEMENT, AND YALE UNIVERSITY'S OFFICERS, FELLOWS, FACULTY, STAFF, AND STUDENTS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, ABOUT THE ACCURACY OR SUITABILITY FOR ANY USE OF THESE REPORTS, AND EXPRESSLY DISCLAIM RESPONSIBILITY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, CAUSED BY USE OF OR RELIANCE ON THESE REPORTS.**