

Leapfrog Enterprises Inc. (LF) Memo

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Company Description

Leapfrog Enterprises Inc. (NYSE-LF) designs, develops and markets technology-based learning products for children worldwide. Product offerings for the upcoming holiday season include the award-winning LeapPad Ultra, Leapster GS, and Tag reading system. Additionally, the company offers an online service called Learning Path that allows parents to monitor their children's educational progress and an app store for content downloads. The company sells its products to national and regional mass-market retailers.

Misperceptions

- **LF management and the market consistently underestimate EPS, only to be corrected when earnings are released.** Management consistently underestimates EPS guidance for the following quarter (**See Exhibit 1**). The Street takes management's guidance too seriously, as indicated by *their* consistent underestimation of EPS as well (**See Exhibit 2**). When earnings are released and EPS beats estimates, the stock usually spikes; when it doesn't spike, it is usually due to low EPS guidance for the following quarter. Management's EPS guidance for Q4 is absurdly low (\$0.08-\$0.18), compared to Q4 2011 of \$0.48/share and Q4 2012 of \$0.89/share. When earnings are released next February, EPS will *crush* estimates, and management will revise guidance for the next quarter, Q1, upwards (due to nonexistence of negative catalysts in Q4). This combination of a huge earnings beat and higher guidance for Q1 will result in a price spike.
- **Tablet competition will not be as harmful to sales of the LeapPad Ultra as the market predicts.** Management cited "increased competition" as a reason for lower EPS guidance. However, LeapFrog has developed an economic moat in the educational toy industry. **Exhibit 8** shows that the LeapPad beats competitors on price. **Exhibit 9** aggregates reviews from Amazon, Wal-Mart, Target and Toys-R-Us, and shows that consumers prefer the LeapPad rather than its competitors' tablets. **Exhibit 10** shows that Leapfrog has historically produced top selling toys, developing a strong brand image. **Exhibit 4** shows that LF's brand awareness is higher than competitors. **VAR #2** shows that store managers are already seeing high sales of the LeapPad Ultra. **VAR #3** shows that the average consumer associates LeapFrog with quality educational products. Additionally, LF has won over 1200 awards, including the prestigious Platinum toy award this year for the LeapPad Ultra. Moreover, the LeapPad Ultra is child-friendly (bigger, parental controls, durable) so competition from adult tablets like the iPad or Kindle Fire is unlikely.
- **Q3 earnings growth of -36.8% is due to an idiosyncratic, non-recurring tax benefit in 2012. Normalized earnings growth is 22.7%.** Many investors, after seeing positive Q3 yoy revenue growth but negative yoy earnings growth, will conclude that LF's cost structure is awful and either choose not to invest or take out a short position. Yet a careful reading of the Q3 earnings call transcript indicates that this negative earnings growth is due to a non-recurring tax benefit in 2012. According to the CFO on page 5: *In addition, tax expense for the U.S. was not recorded in the prior year due to the full valuation allowance against our domestic deferred tax assets. So normalized net income, which adjust for these tax items and applies a 37.5% tax rate to each year, are \$27 million in the current year compared to \$22 million in 2012.*
- **LF indicated Asian expansion plans on slide 103 of a February investor presentation, but refused to provide this information in the Q3 earnings call.** Slide 103 is titled "Supplemental Education is a Big Priority in Asia," and indicates that LeapFrog may expand more heavily in China, where supplemental education as a percent of household spending is 15%. However, when asked about expansion plans in the Q3 earnings call, the CFO explained that expansion initiatives were in progress but refused to disclose where for "competitive reasons." I think it is incredibly likely that LF expands to China, especially because all LF products are manufactured in China so inventory transportation costs could be minimized (improving operating margin). An expansion to China would be good for shareholders for two reasons 1) Childhood education is incredibly important in China, and 2) Learning English, the purpose of many LF products, is incredibly important in China.
- **LF management suggests that shortages caused by increased sales velocity will reduce EPS, but my VAR indicates that this is not true.** In the Q3 earnings call, management explained that since there is a week less between Thanksgiving and Christmas this year, increased sales velocity will make it harder for retailers to maintain sufficient inventory. The resulting shortages, they reasoned, would drive down sales. My VAR indicates that this will not necessarily be the case (**See VAR #1**). If retailers use information technology and frequent deliveries, as long as *distribution centers* have sufficient capacity, shortages will not occur. This will drive up sales, resulting in higher EPS for Q4.
- **LF management reduced Q4 EPS guidance due to a "weak retail environment," but retailers will do better than the market predicts.** According to the National Retail Federation, October retail sales were up 4.2% yoy. Additionally, the electronics sector, which categorizes most of LF's products, was up a whopping 5.6%. In this release, the NRF chief economist stated that, "Confidence and sales should continue to improve." Additionally, the US economy added 204,000 jobs in October, well above the expected 125,000. A healthier retail environment will allow LF to exceed EPS estimates by even more than normal.

Catalysts- How the Stock will Sustain Its Price After Market Misperceptions are Realized

- **Short Squeeze Possibility.** At 33.5% short percent of float, a stock spike due to one of my six misperceptions could result in a short squeeze, as short investors buy the stock to cover their positions. This will result in even greater price appreciation.
- **Increasing tablet ownership and increasing emphasis on childhood education.** Kids mimic parents, so if they see their parents on tablets, they'll want one too (**See VAR #3**). As tablet ownership increases (**See Exhibit #5**), child tablet ownership should

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increase as well. This is great for the LeapPad Ultra. Additionally, the US has experienced a trend of greater emphasis on childhood education, especially with e-books (**See Exhibit 6 and Exhibit 7**). This is also great for the LeapPad Ultra.

- **Advertising efforts were shifted from Q3 to Q4, which will result in greater sales during Q4.** In the Q3 earnings call, management indicated that advertising efforts normally occurring in October were shifted to November and December of this year. When asked, the CFO conceded that this advertising effort could push EPS guidance upward for Q4.
- **Strong international growth.** The company has been steadily increasing its international sales (**See Exhibit 11**). As indicated in misperception #4, there is huge growth potential in Asian markets. Additionally, greater geographic diversification hedges risk.
- **Network externalities from greater digital content.** On page 4 of the 2012 annual report, the CEO indicates that LF is transforming from an educational toy company to an educational entertainment company, with a much greater focus on digital toys. Greater emphasis on digital means network externalities (parents may want to compare their children's progress on Learning Path, or share LeapPad Ultra chargers, etc.). Greater network externalities means greater cost of substitution, strengthening customer loyalty and allowing the company to maintain high margins.
- **Buyout possibility mitigates downside risk.** Lastly, I want to mention that LF's two main competitors, Mattel and Hasbro, are much larger than LF (**See Exhibit 3**). Since LF already has a strong hold on the children's tablet industry, the only way for Mattel and Hasbro to enter the industry is by buying out LF. In 2011, LF CEO John Barbour indicated that he would be open to a buyout.

VAR

For my VAR, I spoke to managers at eight different stores that sell Leapfrog's products (Wal-mart, Target, Toys-R-Us), as well as a new mother who has used many Leapfrog products. Here are a few highlights from my interviews:

VAR #1: Inventory Constraints Not as Problematic As the Market Predicts (Store Manager- Target- Columbia, MD)

*We do get trucks with new inventory every night. We have a system; if we don't have an item in stock, our information technology system sends an alert to the distribution center, and we get a delivery that night. **Due to this, capacity constraints aren't a huge problem as long as the distribution center has stock. Most retailers have these types of systems.***

VAR #2: Leapfrog products are "flying off the shelf" this holiday season

(Store Manager- Wal-Mart- Eldersburg, MD): *It's selling just about as well as all Leapfrog items. **Flying off the shelf.***

(Store Manager- Wal-Mart- Towson, MD): *There is a lot of hype about the Leappad ultra. **I've sold more of those than any other toy.***

(Store Manager- Toys-R-Us- Columbia, MD): *There has. A lot of kids like the bigger products, and the LeapPad Ultra is a bigger product. **There's some competition but when it comes to tablets, the LeapPad is doing much better than everyone else.***

(Store Manager- Toys-R-Us- Gaithersburg, MD): *It's one of the new ones. We're selling a decent amount of them because everyone's looking for them. **Customers seem to like the product because there have been no returns.***

VAR #3: Leapfrog is a Recognized Leader in Childhood Education (Bobbi-Jo Pankaj- mother of 3 year old and infant)

*I think of Leapfrog as an educational toy company. **If I am interested in buying an educational toy and I see a Leapfrog product, I am much more likely to buy it.** Many of their products are great for supplementing traditional education. He's learning about alphabet and numbers in school, so now we're looking at toys that teach kids about alphabet and numbers. **He always wants to play with the iPad and iPhone.** He loves that it's bright and colorful and has a touch screen. He sees his parents on iPhones and iPads and wants one of his own. **We don't let him use our iPhones because he'll throw it, push the wrong buttons, or call the cops.***

How It Plays Out

- On February 3, LF will release its earnings. I expect EPS to significantly exceed expectations, and that management will provide higher guidance for 2014 Q1. This will cause a sustainable increase in price. After this price spike, we should reevaluate our position in LF, looking for additional misperceptions and evaluating the continued viability of market catalysts.

Risks / What Signs Would Indicate We Are Wrong?

- Weak consumer demand, retail shortages due to higher sales velocity, and success of competitors' tablets are all risks.
- Weak EPS for Q4 would indicate that my thesis is incorrect.

Signposts / Follow-Up

- Q4 EPS and Q1 guidance
- Monthly NRF retail sales reports
- Monthly changes in consumer confidence
- Broad macro trends like 2013 GDP, monthly jobs reports and Fed decisions about a tapering of quantitative easing

Important Company Financial Data

See **Exhibit #3** for financial data. **My price target for LF is \$11.95**, the high end of the 52 week moving average. Share price fell from \$11.95 on August 1 due to weak Q3 EPS guidance. Weak Q4 EPS guidance kept the share price low. When earnings are released in February, a strong earnings beat will push the price up, while high guidance for Q1 should prevent shares from falling again.

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APPENDIX

EXHIBIT 1

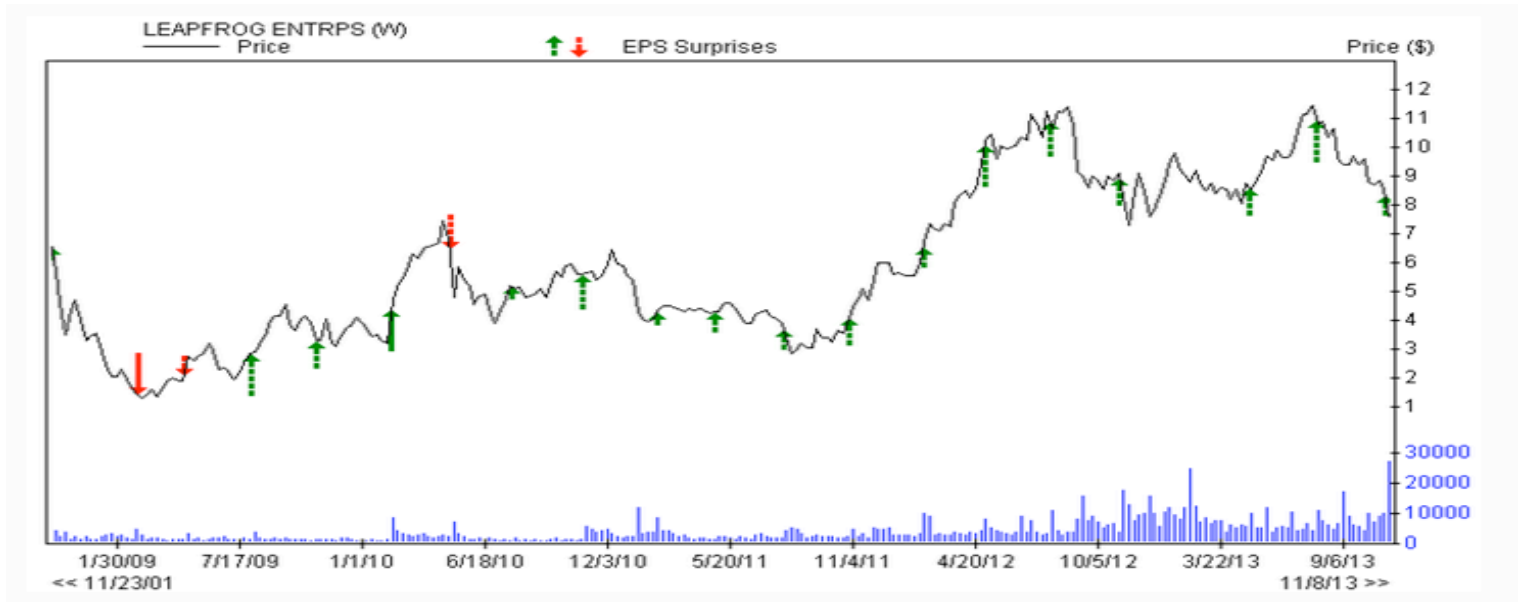


EXHIBIT 2

Date	Qtr.	EPS	Street Cons.	Surprise
11/4/13 ✓	Q313	\$0.38	\$0.32	+\$0.06
8/1/13 ✓	Q213	-\$0.04	-\$0.08	+\$0.04
5/2/13 ✓	Q113	-\$0.04	-\$0.07	+\$0.03
2/6/13 ✓	Q412	\$0.60	\$0.48	+\$0.12
11/5/12 ✓	Q312	\$0.60	\$0.41	+\$0.19
8/1/12 ✓	Q212	-\$0.12	-\$0.18	+\$0.06
5/3/12 ✓	Q112	-\$0.14	-\$0.26	+\$0.12
2/9/12 ✓	Q411	\$0.49	\$0.42	+\$0.07
11/1/11 ✓	Q311	\$0.35	\$0.27	+\$0.08
8/2/11 ✓	Q211	-\$0.21	-\$0.24	+\$0.03
5/2/11 ✓	Q111	-\$0.34	-\$0.38	+\$0.04

EXHIBIT 3

	LF	HAS	MAT
Market Cap:	578.26M	6.99B	15.67B
Qtrly Rev Growth	0.04	0.02	0.06
EBITDA (ttm):	88.07M	708.69M	1.42B
Operating Margin	0.13	0.14	0.18
Net Income (ttm):	82.35M	286.68M	833.07M
EPS (ttm):	1.16	2.18	2.39
P/E (ttm):	7.25	24.69	19.37
PEG (5 yr expected):	1.09	2.25	1.85
P/S (ttm):	0.92	1.71	2.35

Aided-Awareness

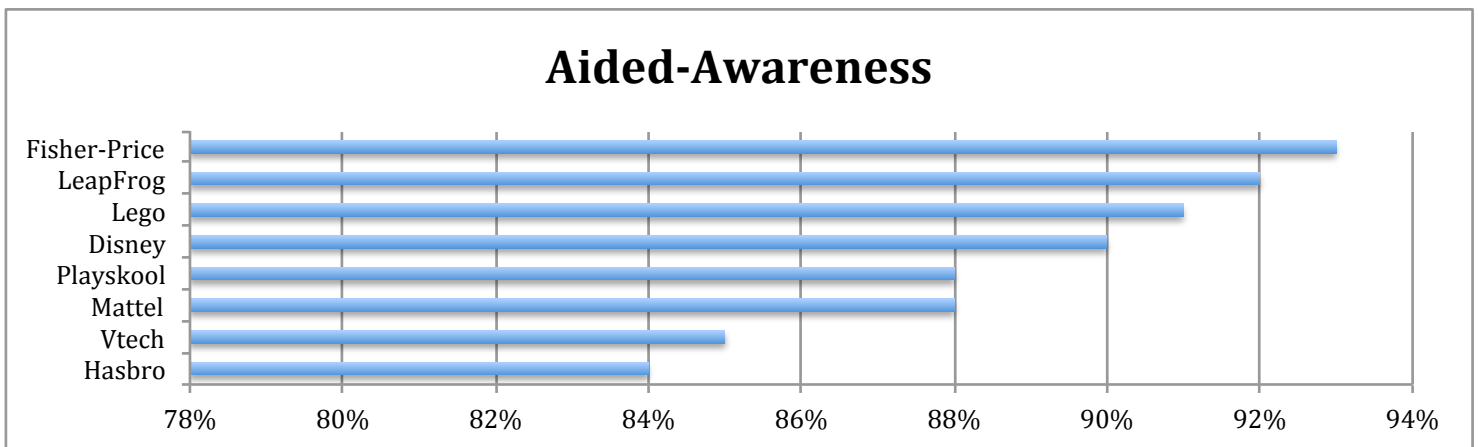


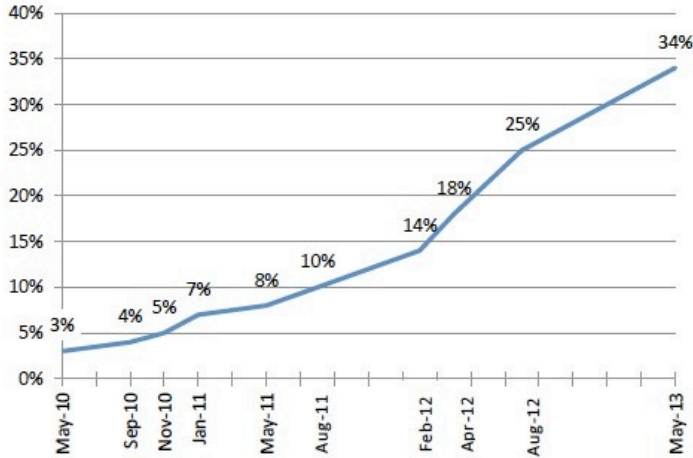
EXHIBIT 4

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EXHIBIT 5

Tablet ownership over time (2010-2013)

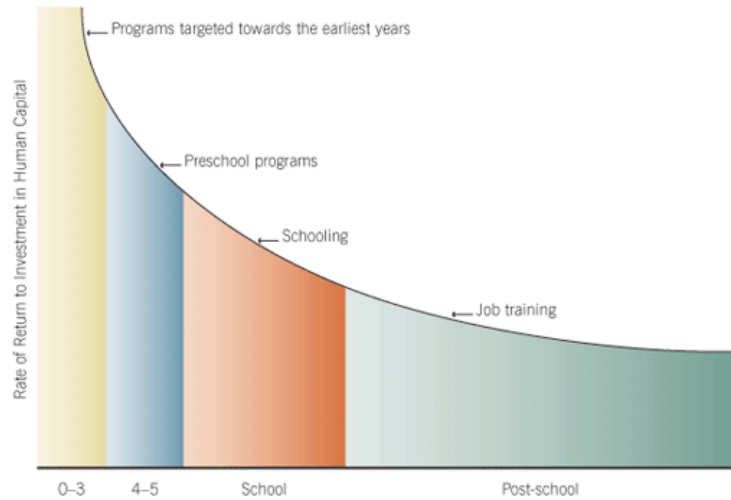
% of American adults ages 18+ who own a tablet computer, over time.



Source: Pew Research Center's Internet & American Life Project tracking surveys, May 2010 – May 2013. May 2013 data is from the Pew Research Center's Internet & American Life Project's April 17-May 19, 2013 Tracking Survey of 2,252 adults ages 18 and older. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error on the sample is +/- 2.3 percentage points.

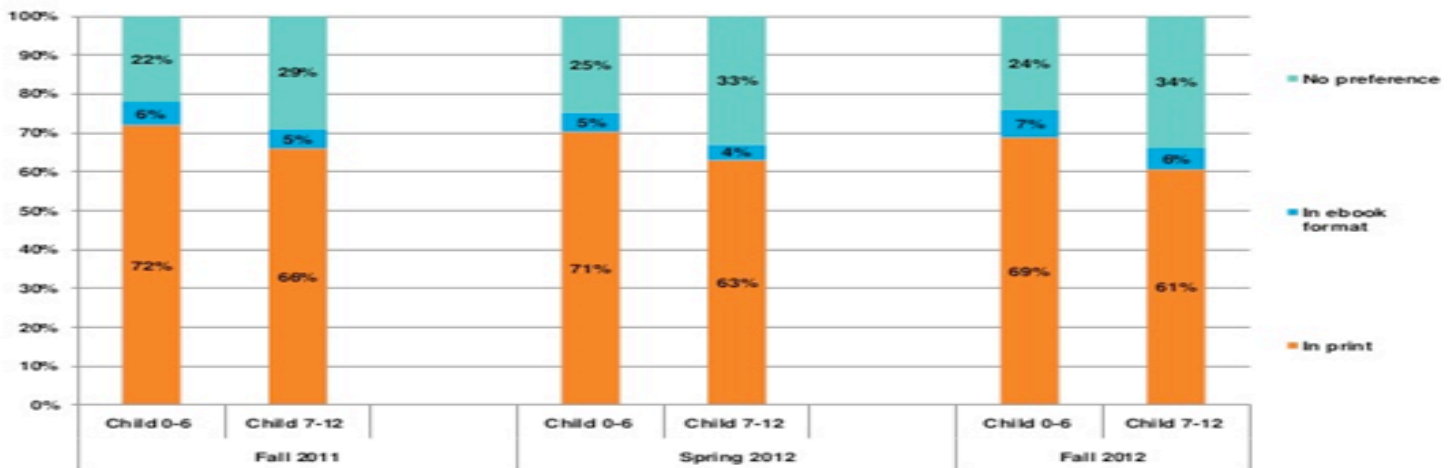
EXHIBIT 6

Figure 1: Rates of Return to Human Capital Investment at Different Ages: Return to an Extra Dollar at Various Ages



The Child's Environment:

❖ E-Books – how do parents prefer children read?



Bowker

EXHIBIT 7

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EXHIBIT 8

	Company	List Price	Operating System	Age Range	Education In Description
LeapPad 2	Leapfrog	\$99	Proprietary	3 to 9	5
Inno Tab 2	V-Tech	\$79	Proprietary	4 to 9	2
Kurio	Inspiration Works	\$200	Android	5 and up	0
Tabeo	Toys R' Us	\$175	Android	5 and up	0
Nabi	Fuhu	\$200	Android	4 to 10	1
Meep	Oregon Scientific	\$150	Android	6 to 10	0
I-Pad Mini	Apple	\$329	iOS	-	0
Kindle Fire	Amazon	\$159	Android Proprietary	3 to 8 (Freetime)	3
Nexus	Asus	\$229	Android	-	0

EXHIBIT 9

	Amazon Review	Walmart Reviews	Target Reviews	Toys R Us Reviews
LeapPad 2	4.0	91%	4.5	4.1
Inno Tab 2	3.8	88%	3.5	4.0
Kurio	2.5	77%	5.0	2.9
Tabeo	1.9	-	-	3.3
Nabi	3.2	87%	4.0	-
Meep	2.0	-	-	1.6
I-Pad Mini	4.5	97%	4.5	-
Kindle Fire	4.2	-	-	4.7
Nexus	4.0	95%	-	5.0



% of total revenue in US and International markets



EXHIBIT 10

EXHIBIT 11