



**ACC 712**  
***GROUP ASSIGNMENT***

**FINAL PROJECT**  
**LEARNING TREE INTERNATIONAL**



**Practical Hands-On Instructor-Led Training**

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## Company Business Overview

Learning Tree International, Inc. (LTRE) is a world leader in hands-on training for management and technology professionals. LTRE provides more than 150 courses that cover IT topics, such as client/server technology, operating systems, programming languages, web applications, computer networks and security, databases, software engineering, object-oriented technology, IT management, and over 30 intensive management skills training courses. LTRE offers its proprietary courses through operations in the United States and abroad. Learning Tree's objective is to be one of the world's leading providers of high-end training to IT professionals and managers in business and government organizations through the following long-term strategies: develop high-quality courses, employ experienced instructors, and nurture long-term relationships with customers. (Source: Learning Tree's 2003 10-K)

## Educational Services Sector and Industry

Firms in the for-profit education area have been leading performers in the *Diversified Commercial Services* sector for the past few years. Investors have favored these stocks, as weakening employment markets made many seek additional education, causing the sector to be in a strong growth phase. The S&P *Diversified Commercial Services* Index rose 45.2% in 2003, versus a 27.4% gain in the S&P 1500; it rose another 5.7% through March 5 in 2004, compared with a 4.4% increase in the 1500. (Source: S&P analyst report)

IT training is a \$20 billion industry. The market is highly fragmented, with no single company having more than 3% share. The table below lists Learning Tree's closest competitors and these firms' respective TTM sales and market cap:

Table 1: Learning Tree's closest competitors or comparable firms

	Ticker	TTM Sales \$Mil	Market Cap \$Mil
Learning Tree International	LTRE	150	273
Apollo Group A	APOL	1,442	17,372
DeVry	DV	732	2,186
New Horizons Worldwide	NEWH	137	64

## Sustainable Profitability

LTRE must continue to expand its business with both existing and new customers to turn the current situation (i.e. declining sales and profits, poor ROE, etc) around. With the slowdown of IT industry, LTRE must continue to expand its management skills training courses. Providing multiple-course discount programs not only enables LTRE to increase revenues directly, but fosters long-term relationships with participants and encourages participants to recommend Learning Tree's courses to their colleagues. Below we have listed strengths and weaknesses of Learning Tree in this industry as described by Morningstar.com's analyst.

## **Strengths**

- Learning Tree's vendor independence allows the company to provide unbiased perspectives on various products and the ability to compare technologies from different vendors during a single course.
- Learning Tree has a loyal customer base. Of the top 100 customers in 1995, 100% were customers five years later.
- The top two officers own half of the stock. With that much of their wealth tied up in the firm, it's a good bet they'll do everything possible to get Learning Tree headed in the right direction.

(This could be potentially negative in our view. With that much of their wealth tied up in the firm, the top officers' actions are likely to be conservative and their actions will not necessarily be aligned with shareholders interests, who already own a diversified portfolio. Also, they may consider the firm their "baby", and will not necessarily pursue shareholder wealth maximization.)

## **Weaknesses**

- Revenue has been volatile. The majority of revenue comes from individual course purchases rather than from contracts, which offer more-predictable cash flow.
- Most of their expenses are fixed.
- Hardware and software vendors have the advantage of bundling products with training. Also, vendors may have greater knowledge of upcoming developments in their products.
- Learning Tree's e-learning efforts have been a failure.

To summarize the firm and industry analysis, we believe that Learning Tree could improve their current poor financial situation (declining revenue and net income). Most of their success will depend on economic recovery rate, increase in incremental sales, and their ability to control costs. This is a huge industry, but competitors are ample, substitutes are plentiful, and there are no significant barriers to entry. In addition, Learning Tree does not possess any significant competitive advantage. However, they do have a loyal customer base, and with a bouncing economy and an increase in business IT and managerial educational spending, their revenue and profit margins should improve.

## **Accounting Analysis**

According to Learning Tree's 2003 10-K report, **The Prepaid Marketing Expenses and Course Development Costs** are charged in the period incurred. These activities can clearly generate revenues in periods beyond which the actual expenses have occurred, and thus these accounting policies distort Learning Tree's financial statements. These expenses should have been capitalized and amortized over a reasonable period, although immediate recognition of these expenses provides tax shields in earlier years. (The future benefits of many assets included in PPE are not practically measurable; however, this doesn't stop us from capitalizing such investments and depreciating/amortizing their costs.) Sales and Marketing expenses are about 29% of Sales, and they are a significant portion of total expenses. These policies give managers great tools to control and manipulate any year's bottom line. One or two % change in Sales and Marketing expenses could be the difference between positive or negative net income (or meeting or missing street expectations). While these policies can distort the

firm's valuation based on the P/E ratio and their current or forward earnings, it has no impact on the firm's valuation based on discounted free cash flow or residual income.

Based on their 2003 10-K report, no compensation cost was recognized for **stock options** granted to employees during fiscal 2001, 2002 and 2003. As shown by the figures below, 2003 earning per share would be overstated by almost 60%, if the stock compensations were expensed. The difference between the reported earnings and Pro forma has increased significantly from 2001 to 2003.

	<b>Fiscal Year Ended September 30,</b>		
	<b>2001</b>	<b>2002</b>	<b>2003</b>
Net income, as reported	\$24,991,000	\$7,895,000	\$5,161,000
Less: stock-based employee compensation cost, at estimated fair value, net of tax	(1,806,000)	(1,951,000)	(1,934,000)
Pro forma net income	\$23,185,000	\$5,944,000	\$3,227,000
<b>As reported:</b>			
Earnings per common share	\$1.21	\$0.42	\$0.30
<b>Pro forma:</b>			
Earnings per common share	\$1.13	\$0.32	\$0.19

It is correct that the stock options provide benefits beyond the periods they have incurred. Thus, stock option related expenses should not cloud the net income of the periods the expenses have incurred. However, these are expenses nevertheless, and they must be included in Operating Expenses for firm's valuation based on discounted free cash flow or residual income.

## Financial Analysis

Some of the key financial measures for Learning Tree and its closest competitors are listed in table 2 below. Learning Tree is the only firm here with negative TTM revenue growth. Although, their gross margin is second to best in the group, their operating margin is second to worst. Learning Tree is clearly a Glamour stock with a P/E ratio of 65.5 and P/B ratio of 3.8. Their comparable firms are also Glamour stocks, besides NEWH, which is a Turnaround stock because of their low P/B ratio.

Table 2: Comparable firms' selected financials (Source: Yahoo)

<b>Tickers</b>	<b>LTRE</b>	<b>NEWH</b>	<b>APOL</b>	<b>DV</b>
<b>P/E Ratio</b>	65.45	80	58.73	20.03
<b>Market/Book Ratio</b>	3.80	1.34	12.92	4.89
<b>Price/Sales Ratio</b>	1.83	0.47	10.11	2.96
<b>EV/EBITDA Ratio</b>	17.44	0.44	32.39	17.12
<b>Market Cap [billions]</b>	0.27	0.064	15.93	2.19
<b>Revenue Growth</b>	-12.80%	2.50%	32.70%	4.90%
<b>Gross Margin</b>	52.06%	43.07%	55.73%	46.75%
<b>Operating Margins</b>	2.30%	1.11%	30.38%	11.05%

Table 3 shows specific information about Learning Tree's various financial measures such as annual sales growth rates, cash flow from operation, operating margins, etc. These figures highlight how poor the financial situation of the firm is; sales, free cash flow, margins, and ROE have all been continuously declining since 2000. The situation

is definitely not caused only by recent cuts in IT spending or overall economic recession, as their competitors have not fared as badly. For example Apollo Group has had positive sales and earning growth rates, positive and growing free cash flows, and improving margins and ROE (TTM ROE for APOL is 30% vs. 6% for LTRE) every year for the same periods.

Table 3: Learning Tree's selected growth rates, cash flow, and margin information

Fiscal Year End Date	9/30/2000	9/30/2001	9/30/2002	9/30/2003
<b>Annual Growth Rates</b>				
Sales	18%	1%	-23%	-13%
Assets	46%	-21%	-12%	-9%
Common Equity	55%	-37%	-9%	-10%
Earnings	199%	-33%	-68%	-35%
<b>Cash Flow (\$000)</b>				
Cash From Operations	\$ 49,895	\$ 31,715	\$ (74)	\$ 705
Free Cash Flow to Common Equity	\$ (10,060)	\$ 53,226	\$ (1,697)	\$ (2,423)
Free Cash Flow to Investors	\$ (10,052)	\$ 53,245	\$ (1,678)	\$ (2,414)
<b>Margins</b>				
Net Profit Margin	17%	11%	5%	3%
Gross Margin	64%	59%	54%	52%
EBITDA Margin	22%	14%	6%	3%
EBIT Margin	22%	14%	6%	3%
Net Operating Margin	17%	11%	5%	3%
<b>Return on Equity</b>	34%	23%	10%	7%

Figure 1 highlights how Learning Tree's cumulative stock return since 1998 has mostly underperformed the market and its peers in the sector. (Source: S&P analyst report)

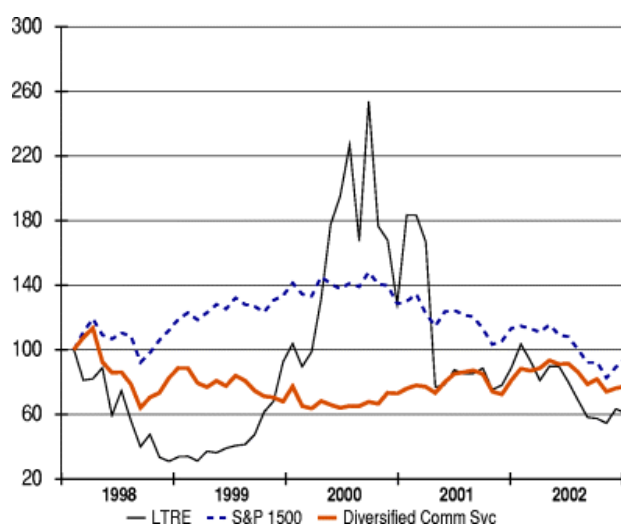


Figure 1: Cumulative stock returns since 1998.

## Forecasting

Below, we list all of our forecasting assumptions that have significant impact on the stock value of Learning Tree Inc. These forecasting assumptions are contingent on a main underlying assumption that Learning Tree will not change its current business strategy in the future. The most important part of forecasting is, of course, future revenues, which would essentially derive all other income statement and balance sheet variables.

Figure 2 shows a comparison between Learning Tree's revenue growth, GDP growth (source: Bureau of Economic Analysis) and changes in S&P and NASDAQ indexes (source: calculations based on closing values downloaded from Yahoo). (Note that GDP numbers for 2004 and 2005 are estimates; source Conference Board.) It is clear that their revenue growth has moved generally in parallel with GDP growth and changed to other market indexes.

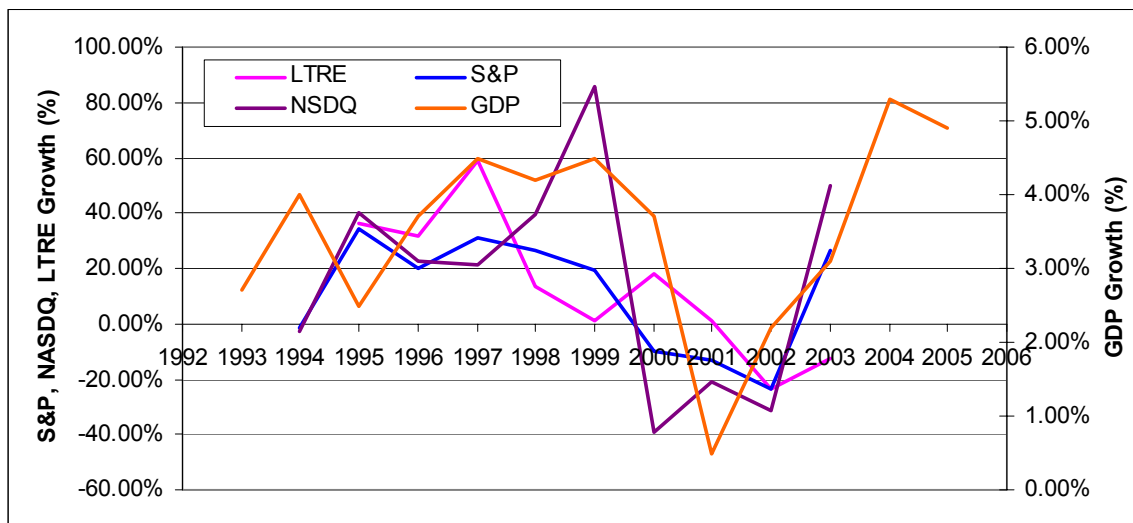


Figure 2: LTRÉ Revenue growth, PC shipment growth, GDP growth, and S&P and NASDAQ index changes.

Figure 3 shows the result of regression analysis between Learning Tree's revenue growth and GDP growth. Although the correlation is not perfect (note  $R^2$ ), a general trend is evident.

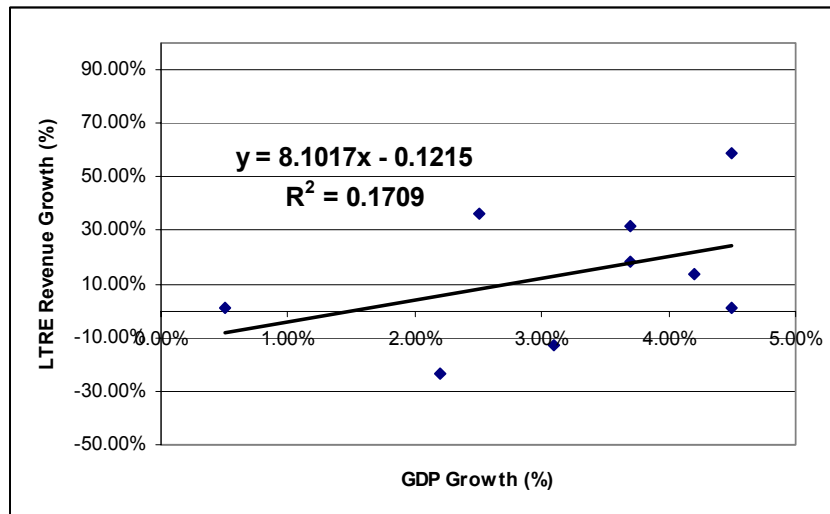


Figure 3: LTRÉ Revenue growth versus GDP growth.

However, as Learning Tree states in their 10-K, there is a lag between changes in economic growth and impact on their revenue. Figure 4 shows the results of a regression analysis where we have introduced a one-year lag in our analysis (plotted LTRE's revenue growth in year n vs. GDP growth in year n-1). As evident by  $R^2$ , the correlation is greater between these two sets of data. We will use this correlation to estimate Learning Tree's revenue growth for 2004 thru 2006 based on actual GDP growth for 2003 and estimated GDP growth rates for 2004 and 2005.

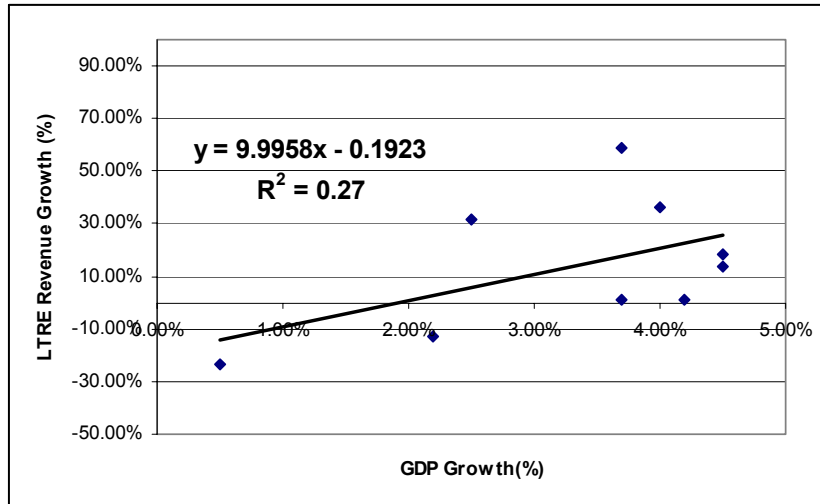


Figure 4: LTRE Revenue growth versus GDP growth, with one year lag.

Since we have shown a correlation between Learning Tree's revenue growth and GDP growth, we have to consider the cyclical nature of GDP growth when estimating Learning Tree's revenue growth for years beyond 2006. As shown in figure 5, at least every 5 years or so, the GDP growth has cycled since 1930. Accordingly, we will consider a 5 year cycle when estimating Learning Tree's revenue growth.

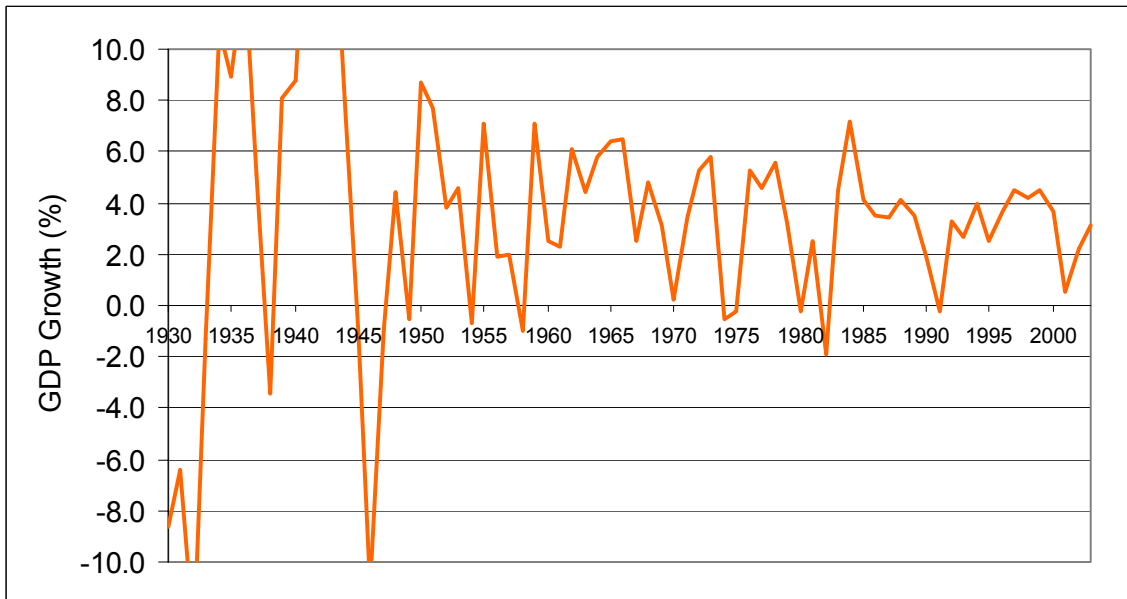


Figure 5: GDP growth since 1930 (Source: Bureau of Economic Analysis).

### ***Income Statement assumptions:***

**Revenue:** Based on our regression analysis discussed above, Learning Tree's estimate revenue growth rates for 2004, 2005, and 2006 are 11.8%, 33.7%, and 29.8% respectively. (The 2004 revenue growth rate is in accordance with their observed backlog growth, which is about 7%.) As previously discussed, we have to consider the cyclical nature of their business impacted by cycles in the global economic environment. Accordingly, we assumed a zero growth rate for 2007, followed by -20% growth rate for 2008 (these assumptions are in accordance with their historical revenue growth rates relative to changes in GDP growth rates). For 2009 thru 2013, we simply assumed the same growth rates assumed for 2004 thru 2008. Finally, we assumed a terminal growth rate of 5%.

**Operating Expenses:** Since Learning Tree's operating expenses are dominated by fixed expenses such as leases and salaries, we have broken down CGS, R&D, and SG&A expenses into two parts: fixed and variable. We used the historical expenses from 1999 to 2003 to estimate the fixed and variable portions of these expenses:

$$\text{CGS} = - 43476 - 0.191 \times \text{Sales}$$

$$\text{R\&D} = - 2660 - 0.037 \times \text{Sales}$$

$$\text{SG\&A} = - 16079 - 0.3 \times \text{Sales}$$

**Other Income (Loss):** As discussed before, we have chosen to include stock option expenses as they incur. Here we have assumed these expenses remains fixed as percentage of sales based on 2003 ratio.

### ***Balance Sheet assumptions:***

**Operating Cash:** remains fixed as percentage of sales based on average of Cash/Sales ratios in 2001-2003.

**All other Income Statement and Balance Sheet variables** are assumed to remain fixed as percentage of sales based on 2003 ratio. There are no data or evidences to change these variables otherwise.

## **Valuation**

### ***P/E Ratio and Forward Earning***

Based on median consensus 2004 earnings per share of 0.11 (source: I/B/E/S), and their current P/E ratio of 65.5, Learning Tree's share price is estimated at about **\$7 ♣**.

### ***Comparable P/E Ratio and Current Earning***

Based on the average P/E ratio of comparable firms (excluding LTRE), which is 52.9, and their 2003 earning, Learning Tree's share price is estimated at about **\$16 ♣**.

♣ Of course, these values are not the intrinsic value of the firm's shares. They just provide a range of valuation based on their current earning multiple or comparable firms' earning multiples.

### **Discounted Cash Flow or Residual Income**

With an equity beta of about 1.8 (source: Yahoo), and assuming risk free rate of 4% and historical risk premium of 7%, the cost of equity is estimated to be 17%. Since Learning Tree has no financed debt, WACC and cost of equity are the same.

We used eVal for valuation of Learning Tree. We entered all of our forecasted numbers discussed above into our eVal model. A value of **\$14.12 per share** was calculated.

The share value estimated by us is different than Morningstar.com's posted fair value of **\$17**. We believe the potential sources of differences between our valuation and theirs are:

- We have included employee stock options expenses as Other Income (Loss). It is not clear whether they have considered these expenses.
- They have assumed a long-term growth rate of 10% versus our 5%. We do not have exact details of their revenue growth assumptions, although, we do know that they have also considered a stumble in revenue growth every five-years.
- We do not know what discount factor they have used.

### **Sensitivity Analysis**

Below, we show a range of Learning Tree's share price when changing some of our key assumptions.

- We obtain a share value of about \$16, if we don't consider stock option expenses.
- When varying long-term growth rate and discount factor, the following share prices are obtained:

<b>LTRE Share Price</b>							
<b>g</b>	<b>Discount Factor</b>						
	<b>14.00%</b>	<b>15.00%</b>	<b>16.00%</b>	<b>17.00%</b>	<b>18.00%</b>	<b>19.00%</b>	<b>20.00%</b>
<b>1.00%</b>	17.08	15.44	14.03	12.82	11.76	10.83	10.00
<b>2.50%</b>	17.92	16.09	14.54	13.22	12.08	11.08	10.21
<b>4.00%</b>	19.02	16.92	15.18	13.71	12.46	11.39	10.45
<b>5.50%</b>	20.50	18.01	15.99	14.33	12.94	11.76	10.75
<b>7.00%</b>	22.62	19.51	17.08	15.14	13.55	12.23	11.11
<b>8.50%</b>	25.90	21.70	18.61	16.24	14.36	12.83	11.57
<b>10.00%</b>	31.63	25.20	20.90	17.80	15.46	13.64	12.17

- If we assume that the Operating Expenses remain fixed as a percentage of sales based on their 2003 ratios (recall that we had assumed that their fixed portions will not change with sales), we get a value of about **-\$2**.
- If we assume a fixed revenue growth rate of 5% in year 2009 and beyond, a share value of \$14.17 is estimated.