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LEVERAGED BUYOUTS BETWEEN 2005-2007

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ABSTRACT

A Leveraged Buyout (LBO) is the purchase of a company, typically a publicly held one, with a large amount of debt financing used to take a publicly held company private. This is typically conducted by Private Equity firms seeking to create more profits out of a company and generate greater positive cash flows than what is currently being seen in the company's reports.

This paper is going to examine the success of these buyouts over the past several years. In order to check the success of these firms, paired t-tests were done on 10 firms in the pre- and post-buyout environment, as well as testing them against similar industry competitors. These tests helped to prove that there was strong statistical evidence to suggest that the LBO deal played a role in causing the target firms to deviate strongly from the common market. For the most part, this was a negative net impact, leaving the targeted firms weaker and more welcome to financial distress when the financial crisis took hold in late 2008.

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Chapter 1

Introduction

A leveraged buyout is a deal performed, typically by a Private Equity (PE) firm, in order to take a once publicly traded company into the privately held space. Generally these deals are performed using a substantial amount of debt financing so that the PE firm is not required to produce the full cash value of the deal. This debt is often leveraged against the assets of the company being acquired instead of the actual buying firm. For this reason, the purchased company can sometimes encounter problems in maintaining cash flows that allow them to remain a profitable company. These deals can then end with the PE firm either selling parts of, or their full position of, the company that they purchased in order to recoup the money that they spent in the acquisition. The debt burden can then be passed entirely on to the target company, and is either repaid in a painfully slow manner as the company returns to financial stability, or is enough to actually push the purchased company into bankruptcy.

I am looking at how successful deals have been over the past several years. I will analyze the companies' selected, mainly looking at how net income, operating costs, return on equity, return on sales, and debt to total assets, performed when compared to companies that are competitors in the same industry. I am interested to see what kinds of things will influence the success rate, and whether the companies that undergo LBO's follow a similar pattern of growth as those who did not undergo any similar styles of debt leverage.

There are three main questions that I am pursuing in order to focus my research:

- How successful were a sample of LBO deals done during 2005-2007?
- Was the restructuring of these companies able to target operating expense issues?
- How do LBOs performances compare to those of industry competitors?

Only a count of the largest deals will be included so that there is more information pertaining to their deals and hopefully a clearer picture of whether the companies are still successful.

Chapter 2

Defining Success

One of the biggest parts of this thesis is that I am going to have to make sure I reach a consensus as to what I define as a successful LBO. In order for an LBO to be declared as successful, it must meet certain criteria that I will list below.

- The first test of success is that any business that is bought out in an LBO cannot have undergone any bankruptcy filings, whether the companies as a whole or any of its direct divisions, within five years of the initial LBO deal.
- A company will be deemed a success if it is able to undergo a reverse LBO and reenter the public market. If the company launches a new IPO at any point in the decade following its LBO, then the deal will have been considered a success.

When a company launches back on to the IPO market, they must disclose at least three years of audited financial statements, and from these it can be better determined if the company was profitable prior to its IPO.

- The company cannot have undergone more than a 25% sale of its assets within the first five years post-deal. Often times these LBO deals are made with the assumption that the company being taken over will be cannibalized for prized assets, such as patents, services, or otherwise. I will not consider a deal a success if they have reduced their original business by such a significant margin.

- The company must also be profitable following the completion of the deal.
Reporting net losses any time in the 2-3 years following the deal will constitute a failure in terms of the deal's success.
- Cost as a percentage of sales will also be evaluated. One of the main reasons that a company would conduct an LBO is to try to get excessive costs reduced in a company. In order to be successful, these levels should have come down significantly post-acquisition.

Chapter 3

Literature Review

So far in my research, I have yet to find a source that covers the identical topic of what I am trying to look for. This is both a positive and a negative to my research as it means that I do not have a template to base my research off of, but it also means that I will hopefully be looking into a slightly new field of research that could generate fresh information. Several topics go into great detail as to what is going on in LBO markets and what kinds of deals occur within these markets. These papers and books also did not try to look to the how the deals affected the companies in the longer run compared to industry competitors.

The first source that I will be looking at will be one to provide general background knowledge on, and a better look at, reverse LBO's and LBO's that return from their private buyout stage back to the public sector. The name of this paper is *Efficiency and Organizational Structure: A Study of Reverse LBOs*. Researching companies that have transitioned from the public sector over to the private sector can be difficult, and this paper will hopefully offer some insight into methods used to find financial information on companies that have undergone LBO's. Using this paper will be beneficial as it will provide a good chance to examine those buyouts that were deemed successful from back in the eighties. Written in 1990, Muscarella and Vetsuypens were more focused on changes in the organizational structure and how that compared with the changes in returns for the company that underwent the leveraged buyout. However, it

does identify a strong list of candidates, specifically 72 firms, which were returned to the public sector from their previous LBO state, whether it was a full LBO or just a divisional one. One of the key findings of this paper was the idea that even after launching a reverse LBO, leverage ratios remained quite high relative to pre-buyout values. This could certainly be something that appears again in the research I am conducting on the more recent transactions. Even though I will not be studying a post-reverse LBO sample, I should be able to see the leverage ratios increase greatly following the initial acquisition. One of the most important parts of my research will be identifying those companies who represent successes and those who represent failures.

A second article, and one that may be more strongly related to mine, was published by the European Central Bank (ECB) in 2007. As part of their Monthly Bulletin in August of 2007, the ECB published a section titled *Leveraged Buyouts and Financial Stability*. Now, even though this focuses exclusively on transactions that take place in the European Union, it will still encompass some of the key ideas that I will want to look at in my paper. The paper also talked much about the risk that banks are exposing themselves to while undergoing these deals, outlining why some of the deals are not sound investments in the first place. This article could help to identify some of what the factors are that lead to potential successes in the leveraged buyout market; however it is not searching for the true value of the probability of success that my paper will focus on.

A third source with plenty of research on the topic is a book written by the financial author Josh Kosman. His book, *The Buyout of America: How Private Equity Will Cause the Next Great Credit Crisis*, takes a very negative look at the probability of success of leveraged buyout deals. Kosman wrote this book in 2010, shortly after the

onset of the financial crisis. This book will provide great insight into leveraged buyouts and the thinking that goes into how and why each deal is made. It will also provide general background knowledge on the current state of the US market, as well as the future outlook of the market. Starting off in just the first few pages, the book states that roughly half of the firms owned through leveraged buyouts by Private Equity firms will default on their loans in the next three to five years. In my opinion this hypothesis seems to be a high figure, even though the credit market does remain tight as a result of the credit crisis from the past few years. In Kosman's opinion the Great Recession has hit at just the worst time, when many of the loans taken on by firms in the big boom of 2000 to 2008 will be coming due. In order to payoff these large loans, companies will need to seek additional funding and it will most likely not be able to come from more debt financing, at least according to Kosman. In his opinion the companies will be forced to declare bankruptcy and layoff large numbers of workers in order to remain as operating businesses. This could result in an increase in unemployment and another major downward spike in consumer confidence. If Kosman's work holds true, this could create a domino effect that continues to ripple through these highly leveraged companies, creating more and more bankruptcies. This could push the likelihood of success even lower, possibly even below the one half mark, if the situation is as dire as Kosman believes it to be. It is with this assumption in mind that I will be trying to study the successfulness on LBO targets.

Frank Lichtenberg and Donald Siegel wrote a paper that was searching to find the economic effects of leveraged buyouts. This paper, published in 1989, was specifically looking at fairly large manufacturing plants that had undergone LBOs during the mid-

1980s. They wanted to determine if the LBO helped in making the firms more productive, or if they continued on almost the same trends that they had been on before the deal took place. Their main method of analyzing deals was to look at total factor productivity, or analyzing how much output is produced for every unit of total input. They were able to conclude, through the use of firm-level Census Bureau data, that LBOs generate a higher rate of productivity growth compared to manufacturing plants in the same industry. They believe that there are two main reasons for this: companies that undergo an LBO are more sensitive to positive and negative financial consequences, and thus have a more productive labor force, and that there is now a reduction of misallocated resources and inefficiencies that existed before the LBO deal.

Steve Kaplan and Per Stroemberg wrote a paper in 2008 that was focusing on Leveraged Buyouts and Private Equity. Their work was comparing the new wave of Leveraged Buyout deals done in the mid 2000's to those done in the 1980's. Their paper focuses more on the individual transactions however, really dissecting how these deals took place and what that could mean for the health of the company rather than trying to compare how the companies performed beyond the date of the acquisition. They also were trying to analyze the returns of private equity firms to figure out if they were truly boosted by the LBO deals that they conducted. In their research they conclude that Private Equity is very capable of creating economic value and thus will continue to play a major role for the foreseeable future. They also include the idea that Private Equity is going to continue to follow a boom and bust cycle, nearly identical to the one seen in the greater economic marketplace. This is not all too surprising as debt will become far more expensive when it is riskier in times of economic hardship. They finish by discussing the

idea that the 2004-2007 boom in LBO transactions was due more to cheap debt than to sound financial investments, something that drew my attention to LBO deals in the first place. This could seriously damage the companies that were bought out during this time since the stock market fell so sharply in 2008 and 2009.

Steve Kaplan wrote another paper in March of 1991 that was looking at the longevity of LBO deals. He wanted to study just how long companies stayed in this leveraged position, before either undergoing a reverse LBO or being sold to another private equity firm. His major finding was the idea that the median time for LBOs, at least those conducted between 1979 and 1986, was about 6.7 years. He uses this proof to suggest that LBOs are not long-term nor truly short-lived investments, but more in the mid-range of investment strategies. He also established that larger LBO's seemed to transition back to the public space far quicker than those of smaller companies. This would make sense as these larger scale deals will require more liquidity in order to function for several years past the time of the buyout.

Jerry Cao and Josh Lerner have a paper on the *Performance of Reverse Leveraged Buyouts* that was conducted in 2006. Their main discussion topic was whether LBO's, once returned to being publicly traded, would outperform companies that had not undergone similar deals. They focused on looking at the stock return comparisons for the reverse LBO deals with new IPOs and the stock market as a whole, during the time frame of 1980 to 2002. The best returners were ones that were done by larger reverse LBOs, specifically by companies with more capital under management.

Chapter 4

Company Analysis

The companies discussed as part of the analysis in the LBO market cover a wide range of industries in the marketplace. Because of this, they are going to vary greatly in success terms, based somewhat on how the industry performed as a whole. This section will take a look at each individual firm, describing the key characteristics of their performance over about a five year span, including both pre- and post-buyout. The companies are listed in chronological order of when their LBO deal took place. The individual company key financial data can be found in the appendix.

Sungard Data Systems:

This deal was completed towards the middle part of 2005. In searching for their financial history I was able to find information regarding the health of the company prior to the deal as well as following the LBO. The company appeared to be in relatively good health pre-LBO and then began to sink some following the execution of the buyout. Posting roughly 12-14 percent levels on both ROE as well as profitability, the company was fairly productive in both 2003 and 2004. After the completion of the deal however, the overall efficiency of the company seemed to drop with both ROE as well as profitability dropping to nearly nothing with negligible net gains and losses. The company also found that their debt ratio roughly doubled after a significant amount of debt was taken on to complete this deal. These liabilities showed up in both current and long term liabilities causing the debt ratio to balloon while the current ratio has fallen

steadily to favor the debt held by the company. The company also did not see expenses as a percentage of sales reduce in the way that they should have. Instead this percentage continued to rise as costs ate farther into Sales figures. Rising from their pre-buyout level of about 79% to nearly 87% for the three years following the deal, costs followed a path in the opposite direction of what would have been considered successful.

In my opinion this would not be classified as a successful deal. The company went from being a productive, money making business to one that was struggling to stay in the black immediately following the finalizing of the deal. The process of being bought out does not seem to have helped in the way of getting better returns out of the daily operations, but instead burdened this company with more liabilities than they seem to have been prepared to take on while still performing at their profitable level.

Hertz:

The second deal analyzed included the LBO done by a private investor group to purchase the ownership of Hertz from Ford Motor group. The data that was found for this LBO is mainly in the years following the completion of the deal and does not give a great view of the health of the company going into the LBO. Though the debt ratios of Hertz did not follow a pattern evident in other major LBO deals, it was clear that their profitability and ROE could not hold up following the acquisition. Now, being in the rental car business, it does make sense that the profit levels would decline during the times of the recession. Most likely, business people have cut down on travelling during this time, one of the main groups of people that help generate business for Hertz. The more discouraging part was that Sales did not drop much during 2008, but instead expenses skyrocketed compared to what they were in 2007. This can be attributed more

to a bit of a mismanagement problem as expenses were allowed to grow by nearly \$1.7 billion. Here again we see a company who is unable to control the percentage of sales that is being consumed by expenses. This is supposed to be one of the key targets for when an LBO takes place, and instead costs were allowed to rise to nearly 116% of Sales in 2008. Because of this, in my opinion, this deal would be viewed as not being a successful venture for the way that expenses were not able to be controlled, especially during such an important time of financial market turmoil.

Kinder Morgan Inc.:

This is another deal in which the data for the company comes mainly after the deal was completed in 2006. Kinder Morgan has remained relatively profitable, with not even much of a decrease in ROE and profitability ratios during the recession times of 2008-2009. They actually had their highest level of sales, out of the five years covered, during 2008 when most other companies were experiencing financial hardships. Cost as a percentage of sales looked very promising for Kinder Morgan. They spiked briefly after the acquisition took place, hitting a level of about 91%, but then began to come down rather quickly falling below 80% as 2009 came around. They definitely seem to have been a success story, owing to the fact that since the time of the deal, signs have only pointed towards the company continuing to grow and prosper.

Clear Channel Communications:

This deal took place in the latter half of 2006 with the data found covering the years leading up to and following the deal. The data for this company is a bit deceiving because it includes the income statement from 2004 that has a large tax correction that ends up skewing the results of that year in a very negative way. Taking out the actual

final number from that year, we can still see that the debt ratio was one that was favorable, and something that remained relatively stable until 2008. It appears that Clear Channel was another major victim of the financial crisis and saw a major dip in their net income and return on equity levels. They also suddenly needed to take on a huge amount of debt in the form of long-term liabilities that cause their debt ratio to more than double within the span of just a single year. The total liabilities that the company was carrying jumped almost \$14 billion, or an increase that was actually even higher than what the liabilities account had been as a total amount prior to 2008. Clear Channel's percentage of sales that ended up allocated to cost remained relatively stable for a number of years. They held right around 75%, however, they began to escalate towards the end of 2008, reaching a max of 88% in this year. It would seem then that one of the main goals of an LBO, getting costs back under control, was not maintained very well as they were able to begin growing fairly quickly as time went on. This would then not be classified as a successful LBO deal.

HCA Holdings:

The buyout of HCA took place towards the end of 2006 and the data collected for this company covers two years before the LBO as well as the three years following the completion of the deal. As can be seen in the tables in the appendix, their ROE was steadily dropping from the time of the LBO on. This is mostly due to the fact that following the deal, they actually ended up with a negative balance in their equity account, while also seeing their net income consistently drop almost 20 million dollars per year. The debt ratio also exploded from its pre-deal level of about half of the assets covered by liabilities, up to more than double that rate in the years after the deal was completed. This

is not a healthy sign going forward, as the liabilities account greatly increased without much of a noticeable increase in their asset accounts. An increase in the source of funds for the company should hopefully help boost the asset account in a similar way, but this does not seem to have happened. HCA's costs rose compared to their level of sales on a pretty steady line from the time of the deal. Their operating expenses started at about 90% prior to the deal taking place, and rose until they were about 96% a few years after the deal was completed. This deal would not be classified as a success in my mind as it does not show a truly sustainable growth trend for HCA following the deal taking place. It appears to me that, if anything, they took a company that was producing quality levels of income and returns and over leveraged them until they are no longer a strong and flourishing company.

Freescale Semiconductors Inc.:

Continuing the trend of the winter of 2006 LBO deals was Freescale which was bought out by the Blackstone Group along with a few other Private Equity firms. Here again we can see data that represents how the company was performing prior to the deal and then what the financial health of the target company was following the completion of the deal taking place. We are able to see that several of the key ratios that have been examined for previous companies reflect very poorly for Freescale. ROE and profitability have plummeted to some of the lowest levels compared to many of the other companies that we looked like. Posting nearly a negative 30 percent rate of return for its profitability for both 2006 and 2007, the return only gets even worse when the financial crisis set in during 2008. One of the biggest contributing factors to this sudden plummet was the increasing expenses that were not offset by any significant increases in sales

volumes from year to year. Instead expenses seem to rocket upward causing the company to post losses in the final three years of data collected. The debt ratio also offers a very negative outlook as assets on the books of Freescale disappeared quite rapidly even as liabilities held relatively stable at a high level following the completion of the acquisition. The use of funds that drained the asset accounts should have dropped the level of liabilities to a more respectable level, but instead it would appear that assets had to be used to cover the expenses that needed to be paid out in the short term while long-term liabilities were allowed to remain at their high level. An even worse indicator of the financial weakness of this company is the fact that costs were free to climb to a very large amount when compared to sales levels. Prior to the deal, cost as a percentage of sales was right around 90-95% and yet when the deal took place, the ratio began to climb well above 100% even peaking in 2008 at almost 250% cost to sales. I would classify this as a unsuccessful LBO deal as the company is clearly not in a position of financial strength, almost immediately following the time of the completion of the deal.

Biomet Inc.:

This deal was completed in the fiscal year of 2006, and the data range covers the five years post-deal completion. It seems that the deal was on the path towards success before the recession that hit in the fall of 2008. ROE and profitability had already started to decline before the recession set in, however, once the tough economic times really began, Biomet was unable to sustain financial health and began losing money at a very quick rate. ROE and Profitability not only dropped from their previous fairly high levels, but also plunged into a very negative range with rates bottoming out at about -20% for both 2008 and 2009. This also was followed by an increase in the debt ratio by about three times the original level. The ratio exploded after the level

of debt was increased by a huge amount. Beginning with about 500 million dollars in liabilities, the debt ratio was relatively low, however the debt level jumped to nearly 9 billion dollars during the years following the buyout. Biomet was not able to keep their cost levels low compared to their only slowly growing sales numbers. Beginning in 2006 with a level of about 70% operating expenses to sales, this value quickly rose, eclipsing 130% in 2008. That is a level that is far too high for a project that should have been focusing on getting this ratio reduced as time goes on. Even though the level came down to about 87% by the end of 2012, this still represents such an increase over the pre-buyout values that it is not a very favorable outlook. This would represent a deal that was not a true success since the company was not able to maintain the high levels of profitability seen in 2006, the last year that the company was still an independent entity from the Private Equity firm.

TXU Corp.:

The LBO deal to buy TXU was completed in 2007, and the data found covers from about a year before the deal until about three years following the deal. The final year before the deal occurred was in 2006 when ROE and profitability showed very strong levels, coming in at about 35 and 25 percent respectively. Once the deal took place however, the data starts to become tough to follow as TXU actually had a couple years of negative equity in the firm. They had increased their level of liabilities so much that they actually exceeded their assets and resulted in a negative value of capital on the books for the firm. They were also not able to control costs very well once the acquisition took place. Their operating expenses rocketed up following the deal, jumping from about 60% in 2006 to over 100% of sales following the completion of the deal. They did not appear to readjust much staying at this fairly high level for the next several years, even hitting nearly 200% in 2008. Combining this with the fact that the company was losing money steadily over this same time period, up to even a net loss of almost 9 billion dollars in 2008, and this does not appear to have been a successful LBO deal.

Alliance Boots Inc.:

The deal to purchase Alliance was completed in 2007 meaning that the data that was collected is coming from almost entirely post-LBO. The financial health of Alliance is relatively apparent as one looks at the key ratios of this firm over the course of the five years of data analyzed. ROE and profitability really began to increase in the years following the deal thanks in large part to significant increases in the sales values for Alliance over the past several years. Posting ROE that jumped into the double digits and profitability numbers that averaged right around 3 %, this was a very stable company as they maintained these consistent numbers for several years in a row. Going off of this consistency, was the fact that costs did not continue to rise in proportion to sales figures. Instead, Alliance was able to maintain an almost entirely unchanged level of about 95% of sales being taken up by cost. Now this is a relatively high mark, however the fact that it did not increase any further than this level is very promising. This deal would be classified as a success as the target company of the LBO did not seem to suffer any financial difficulties once the deal was completed.

First Data Systems Inc.:

First Data saw their LBO deal be completed around the midway point of the 2007 fiscal year. The data range covers from about a year before the deal took place until a few years post-buyout. Initially, this deal looked promising as the company actually did not see much of a change in their debt ratios and current ratios, making it appear that liabilities had not skyrocketed around the time of the acquisition. In fact, total liabilities actually had decreased for four years in a row following the deal as some of the debt was paid down and the company did not have to take on a large amount of new debt to cover lack of assets. Unfortunately, First Data did not have nearly as promising figures for their profitability and Return on Equity values. Both of these

ratios dipped heavily into the negatives as the deal was completed, with consistent net losses for the years from 2008 until 2010. They also saw steady increases in their costs as a percentage of their sales. From before the deal, this figure was right around the low 70's but jumped into the mid 90's just a few years after the completion of the deal and has held steady there for some time. It would appear that money paid out to try to offset increased operational expenses, as well as increased interest and tax expenses, caused First Data to remain unprofitable for several years. For this reason, this deal would appear to be another unsuccessful LBO completed during this mid-2000's period.

Chapter 5

Comparative Analysis

For this section, two main tests were done on each company, as well as a corresponding competitor within the same industry. Five key ratios were analyzed, including: Profitability, Return on Equity, Sales to Assets, Debt to Total Assets, and Cost as a Percentage of Sales. With each ratio, a paired t-test was used, though in two different forms. For each ratio, a paired t-test was performed to test whether the LBO companies pre-deal would differ statistically from their own ratios roughly five years later. Then, in order to test whether it was simply a market condition that was causing the firms to have statistically significantly different results, a paired t-test was applied to each company along with a matched competitor. A paired t-test is going to test the means of two different data sets. If the t-test crosses a certain threshold, then it can be determined with reasonable confidence that the two data sets are statistically different. The first time testing before the deal took place, and then matching fiscal years to check if there was much variance in the t score a few years after the deal took place. If the t-test showed a significant change in the result, it could be concluded that the undertaking of the LBO had in some way affected the performance of the targeted firm, causing it to behave independent of the general industry standards. For the purpose of this paper, the ten companies analyzed were matched with similar sized companies, based on annual revenue amounts, within the same industry. The companies were then analyzed in these pairs which will be seen in tables to follow. For reference, the list of the companies that were analyzed, alongside their corresponding “company” or “pairing” number can be found in Table 1.

Table 1 Company Pairings

Company Pairings Table		
<u>Pairing</u>	<u>LBO Company</u>	<u>Industry Competitor</u>
1	Sungard Data Systems	DST Systems Inc.
2	Hertz	Avis Group
3	Kinder Morgan Inc.	The Williams Companies
4	Clear Channel Communications	Viacom Inc.
5	HCA Holdings	Health Management Ass.
6	Freescale Semiconductors Inc.	Cypress Semiconductors
7	Biomet Inc.	Zimmer Holdings
8	TXU Corp.	CenterPoint Energy
9	Alliance Boots	Celesio Inc.
10	First Data Corp.	Fidelity National Info. Services

When the companies were analyzed independently from their competitors, the LBO company is the firm being recognized by the “company” numbered column. This will be seen in the following analysis, where the “company” column will correspond directly to the “pairing” column in the above table.

Profitability

The first ratio analyzed for each company was an examination of any significant changes in the Profitability ratio. As seen in the table below, this test was run on all ten companies to examine changes from pre- to post-buyout.

Table 2 Profitability (Each LBO Compared to Later Data)

Company	Before LBO	After LBO
1	12.53%	0.00%
2	1.44%	-0.41%
3	11.10%	16.43%
4	-60.86%	-5.35%
5	5.30%	2.37%
6	3.69%	-151.42%
7	20.04%	-1.76%
8	25.07%	-41.08%
9	0.08%	2.49%
10	11.98%	-8.16%
t-Test: Paired Two Sample for Means		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.03036881	-0.18689
Variance	0.05677272	0.238908
Observations	10	10
Pearson Correlation	-0.0605003	
Hypothesized Mean Difference	0	
df	9	
t statistic	1.23441524	
P(T<=t) one-tail	0.12415339	

This test did not return a statistically significant t-statistic. Therefore it does not appear that the profitability ratios varied, at least according to a statistical significance test, when compared with themselves over this period of time. This actually helps to show that profitability did not begin to grow or decline rapidly following the deal, meaning that the companies did not see significant change even though they were bought out, and were presumably supposed to begin seeing better returns after the private equity firms were in control of them. Next we will look at whether there was any significant variation from the industry standards for each company over this time.

Table 3 Profitability (Pre-deal on the left and post deal on the right)

Before LBO			After LBO		
Firm Pairing	Firm A	Firm B	Firm Pairing	Firm A	Firm B
1	12.53%	13.28%	1	0.00%	37.99%
2	1.44%	-35.05%	2	-0.41%	1.04%
3	11.10%	2.61%	3	16.43%	-9.59%
4	-60.86%	24.63%	4	-5.35%	8.55%
5	5.30%	10.24%	5	2.37%	3.76%
6	3.69%	2.60%	6	-151.42%	-56.19%
7	20.04%	23.87%	7	-1.76%	14.14%
8	25.07%	4.64%	8	-41.08%	5.03%
9	0.08%	-0.08%	9	2.49%	0.49%
10	11.98%	6.27%	10	-8.16%	7.68%
t-Test: Paired Two Sample for Means			t-Test: Paired Two Sample for Means		
	<i>Variable 1</i>	<i>Variable 2</i>		<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.030368808	0.0530017	Mean	-0.1868929	0.012907
Variance	0.056772721	0.02755	Variance	0.23890847	0.0560954
Observations	10	10	Observations	10	10
Pearson Correlation	-0.21948102		Pearson Correlation	0.79291111	
Hypothesized Mean Difference		0	Hypothesized Mean Difference		0
df		9	df		9
t statistic	-0.22444789		t statistic	1.89283678	
P(T<=t) one-tail	0.413710774		P(T<=t) one-tail	0.0454616	

Looking at these two time frames side by side allows us to see that now there is some statistical significance in the way the LBO companies have performed when compared to competitors in their same industry. Initially, pre-deal, there was nothing to suggest that these data sets are significantly different; registering a t-statistic of only -.22, however following the deal this t-statistic jumps considerably. They now hold a t-statistic of -1.89, making this statistically significant at the almost 5% level, giving strong confidence to the idea that they have grown significantly apart from each other a few years after these LBO deals were conducted. Because of

this movement, it would appear that undergoing the LBO deal has drastically reduced the profitability of the target firms, and due to the large negative t-statistic, it has far underperformed what was seen by many of the competitors within these similar industries. There were certainly some large outliers in the negative profitability range for some of the LBO deals that caused this t-statistic to be pulled sharply downward, however, on the whole the LBO companies were below the profitability of the non-LBO companies just a few years after the completion of the deal.

Return on Equity

The next ratio analyzed was the firms Return on Equity. This should follow a similar pattern as profitability as again net income will be used for the ratio.

Table 4 Return On Equity (Each LBO compared to later data)

Company	Before	After
1	13.39%	0.00%
2	4.57%	-1.44%
3	20.29%	18.20%
4	-42.56%	3.09%
5	28.27%	-6.56%
6	5.36%	-249.15%
7	23.60%	-1.24%
8	35.26%	66.87%
9	0.25%	10.03%
10	8.36%	-20.86%
t-Test: Paired Two Sample for Means		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.096793954	-0.18106
Variance	0.046497146	0.713249
Observations	10	10
Pearson Correlation	0.15981292	
Hypothesized Mean Difference	0	
df	9	
t statistic	1.049026761	
P(T<=t) one-tail	0.160759028	

Table 4 does not suggest that there was much of a significant difference for ROE for these firms pre- and post-deal. A relatively low t-statistic of about 1.05 does not offer evidence to suggest that the ROE has varied sharply for the five year spread.

Table 5 Return on Equity (Pre and Post deal)

Before			After		
Firm Pairing	Firm A	Firm B	Firm Pairing	Firm A	Firm B
1	13.39%	46.92%	1	0.00%	75.46%
2	4.57%	-81.62%	2	-1.44%	13.17%
3	20.29%	5.08%	3	18.20%	-10.70%
4	-42.56%	30.03%	4	3.09%	17.79%
5	28.27%	16.44%	5	-6.56%	108.38%
6	5.36%	3.74%	6	-249.15%	-66.77%
7	23.60%	16.96%	7	-1.24%	10.34%
8	35.26%	27.76%	8	66.87%	13.82%
9	0.25%	-0.82%	9	10.03%	4.99%
10	8.36%	8.24%	10	-20.86%	6.32%
t-Test: Paired Two Sample for Means			t-Test: Paired Two Sample for Means		
	<i>Variable 1</i>	<i>Variable 2</i>		<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.09679395	0.0727377	Mean	0.18105742	0.17280415
Variance	0.04649715	0.1185951	Variance	0.71324916	0.22088994
Observations	10	10	Observations	10	10
Pearson Correlation	0.04612128		Pearson Correlation	0.55214835	
Hypothesized Mean Difference		0	Hypothesized Mean Difference		0
df		9	df		9
t statistic	0.1912344		t statistic	1.58918022	
P(T<=t) one-tail	0.42629327		P(T<=t) one-tail	0.07324134	

The first part of table 5 shows that prior to the deals taking place, there was no statistical difference between the two average ROEs. Most likely they would have been very similar, operating as similar companies within the same industry for a number of years as direct competitors. The second section of table 5 however, shows that once again the t-statistic has climbed, not into an area of truly strong confidence, but at least statistically significant beyond the 10% mark. The ROE ratios have begun to diverge again to a point that we see that they are no longer nearly as close, with the LBO deals again being weighed down by some hefty outliers on the negative side. Something significant to note is that the ROE and profitability measures did not return the same results. The LBO companies have a higher average ROE than their competitors, while their profitability was, on average, lower than their competitors. This could be caused in part because of the fact that several of the LBO companies did not see much increase in equity since new financing came in the form of debt, while non-LBO companies grew their equity proportionately with their increases in net incomes.

Debt to Total Assets

The next ratio analyzed was debt to total assets. Here we would expect to see that companies undergoing LBO's will have significantly increased their debt load in order to finance these buyout plans. It would not be common to see their competitors have completed the same style of debt strategies within this same time frame. We would also expect that when compared with their own previous levels of debt to total assets, the LBO targets will show a very significant change when analyzed with the paired t-test. Table 6 with the LBO data from pre- and post- deal can be found on the following page.

Table 6 Debt to Total Assets for LBO companies

Company	Before	After
1	0.31	0.76
2	0.86	0.88
3	0.63	0.67
4	0.52	1.14
5	0.49	1.11
6	0.39	1.70
7	0.25	0.73
8	0.66	1.13
9	0.77	0.71
10	0.71	0.89
t-Test: Paired Two Sample for Means		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.559770966	0.97117595
Variance	0.041342204	0.098339977
Observations	10	10
Pearson Correlation	-0.202378633	
Hypothesized Mean Difference	0	
df	9	
t statistic	-3.198035381	
P(T<=t) one-tail	0.005432753	

Table 6 clearly shows that the means for the debt to total asset ratios for each LBO company are strongly statistically different. Registering a t-statistic of a little greater than -3, this is significant down to the .5% level, marking this as a very strong change in these ratios from the pre-buyout numbers to the post-buyout data. As stated before, this is not at all unexpected as the companies are setup to take on a large amount of new debt in order to finance these deals. Only the rare LBO deal would see its debt to total asset ratio decrease over this time.

The next set of tables will focus on how each LBO company compares with its industry competitor and can be found on the following page.

Table 7 Debt to Total Asset for LBO to competitor analysis

Before				After			
Firm Pairing	Firm A	Firm B		Firm Pairing	Firm A	Firm B	
	1	0.31	0.79		1	0.76	0.66
	2	0.86	0.82		2	0.88	0.96
	3	0.63	0.76		3	0.67	0.65
	4	0.52	0.59		4	1.14	0.69
	5	0.49	0.43		5	1.11	0.97
	6	0.39	0.58		6	1.70	0.31
	7	0.25	0.91		7	0.73	0.28
	8	0.66	0.70		8	1.13	0.84
	9	0.77	0.70		9	0.71	0.72
	10	0.71	0.59		10	0.89	0.55
t-Test: Paired Two Sample for Means				t-Test: Paired Two Sample for Means			
		<i>Variable</i>				<i>Variable</i>	
		<i>Variable 1</i>	<i>2</i>			<i>Variable 1</i>	<i>2</i>
Mean		0.55977097	0.685959	Mean		0.97117595	0.662897
Variance		0.0413422	0.019862	Variance		0.09833998	0.055661
Observations		10	10	Observations		10	10
Pearson Correlation		-0.0852259		Pearson Correlation		-0.1819529	
Hypothesized Mean				Hypothesized Mean			
Difference		0		Difference		0	
df		9		df		9	
t statistic		-1.5522328		t statistic		2.29189418	
P(T<=t) one-tail		0.07751136		P(T<=t) one-tail		0.02381342	

These tables reflect exactly what we had expected to see from a paired t-test run on these two data sets. The companies began with a somewhat weak significance, down to below the 10% mark which can show that there was some statistical significance that the debt ratios were not similar to begin with. What is worth noting with this initial position, however, is that it would appear that the companies that ended up undergoing LBO deals actually had generally lower levels of debt to total assets than did their industry competitors. This could also be an indication that they looked like better buyout candidates because they did not already carry any kind of significant debt burden. The second half of this table, though, shows that now the ratios have

reversed and the LBO companies, on average, carry far heavier debt burdens than their competitors. That is not something that was unexpected to see either, but reinforces the idea that the amount of debt placed on these companies is far more than would be seen taken on by your average firm. Coming in with a t-statistic of about 2.3, this test showed the difference in debt to total asset means was significant down to the 2-3% level, or in other words showed strong evidence that these ratios were statistically different between LBO companies and competitors.

Sales to Assets

Following along the lines of Asset use, the next ratio analyzed was how efficient each company was in the use of their assets. This ratio is determined by dividing a company's total sales for a year by their total assets.

Table 8 Sales to Total Assets

Company	Before	After
1	0.74	0.33
2	0.43	0.44
3	0.67	0.37
4	0.33	0.08
5	1.09	1.17
6	0.80	0.78
7	0.89	0.23
8	0.47	0.21
9	0.67	1.19
10	0.21	0.28
t-Test: Paired Two Sample for Means		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.62957949	0.506923
Variance	0.07307495	0.159707
Observations	10	10
Pearson Correlation	0.58356777	
Hypothesized Mean Difference	0	
df	9	
t statistic	1.18745456	
P(T<=t) one-tail	0.1327211	

Table 8, shows that there is not strong statistical difference between a company's pre-buyout asset efficiency and how they are operating post-buyout. The t-statistic of only 1.19 does not reflect a strong leaning to say that the companies are changing drastically overtime when analyzed against their historical selves.

Table 9 Sales to Total Assets (LBO companies and competitors)

Before			After		
Firm Pairing	Firm A	Firm B	Firm Pairing	Firm A	Firm B
1	0.74	0.76	1	0.33	0.68
2	0.43	0.43	2	0.44	0.50
3	0.67	0.47	3	0.37	0.39
4	0.33	0.50	4	0.08	0.65
5	1.09	0.91	5	1.17	0.98
6	0.80	0.60	6	0.78	0.82
7	0.89	0.59	7	0.23	0.53
8	0.47	0.53	8	0.21	0.44
9	0.67	2.90	9	1.19	2.81
10	0.21	0.54	10	0.28	0.37
t-Test: Paired Two Sample for Means			t-Test: Paired Two Sample for Means		
	<i>Variable 1</i>	<i>Variable 2</i>		<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.629579487	0.82233329	Mean	0.506922971	0.815646
Variance	0.073074946	0.554491381	Variance	0.159707043	0.528036
Observations	10	10	Observations	10	10
Pearson Correlation	0.186573842		Pearson Correlation	0.741893673	
Hypothesized Mean Difference	0		Hypothesized Mean Difference	0	
df	9		df	9	
	-			-	
t statistic	0.820077649		t statistic	1.926306868	
P(T<=t) one-tail	0.216676609		P(T<=t) one-tail	0.043090591	

Table 9 above shows again that there is significant change occurring following the occurrence of these buyout deals. Prior to the deals occurring, the ratio of sales to assets was not statistically different for LBO deals and their competitors. However, once the deals take place, the ratios separate to the point that the t-statistic on the post-deal data is roughly 1.93. This offers

confidence down to the 4% level that these companies are statistically different in the way there asset efficiency has changed overtime. It makes it more clear that sales have not simply been hurt by market trends as competitors within the same industry have managed to maintain fairly reasonable levels of asset efficiency over the same period. Therefore, asset efficiency is significantly worse for LBO firms than comparable competitors.

Cost as a Percentage of Sales

The final ratio analyzed was looking at cost as a percentage of sales. One of the biggest goals for any firm taken over in an LBO is to try to get costs under control, or at least begin to reduce them in order to make interest payments easier to handle.

Table 10 Cost as a % of Sales for LBO Companies

Company	Before	After
1	79%	87%
2	98%	100%
3	86%	80%
4	75%	88%
5	91%	96%
6	95%	249%
7	70%	87%
8	62%	136%
9	95%	95%
10	74%	94%

t-Test: Paired Two Sample for Means		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.824616305	1.1130864
Variance	0.015205584	0.2585017
Observations	10	10
Pearson Correlation	0.241479279	
Hypothesized Mean Difference	0	
df	9	
t statistic	-1.84890814	
P(T<=t) one-tail	0.04876012	

Table 10 on the previous page details the performance of the firms that underwent LBO's to get their ratios of cost as a percentage of sales under control. Generating a t-statistic of -1.85 is a good indication that the ratios are fairly statistically different from each other, to about the 5% level. This would tell us that there was a significant change that took place in these ratios from the first time they were generated, pre-buyout, compared to when they were checked again, post-buyout. Unfortunately, the change was not entirely for the best, as almost across the board costs appear to have risen relative to sales for most of the LBO target firms. This is not at all unexpected however, as this was reflected fairly well in the earlier seen decreases in ROE and profitability ratios.

Table 11 Cost as a % of Sales for LBO's and Competitors

Before			After		
Firm Pairing	Firm A	Firm B	Firm Pairing	Firm A	Firm B
1	79%	81%	1	87%	79%
2	98%	112%	2	100%	99%
3	86%	91%	3	80%	100%
4	75%	49%	4	88%	60%
5	91%	83%	5	96%	91%
6	95%	52%	6	249%	55%
7	70%	44%	7	87%	54%
8	62%	89%	8	136%	86%
9	95%	89%	9	95%	89%
10	74%	71%	10	94%	69%
t-Test: Paired Two Sample for Means			t-Test: Paired Two Sample for Means		
	<i>Variable 1</i>	<i>Variable 2</i>		<i>Variable 1</i>	<i>Variable 2</i>
Mean	0.8246163	0.761290233	Mean	1.113086359	0.78241
Variance	0.01520558	0.047155046	Variance	0.258501678	0.0301922
Observations	10	10	Observations	10	10
Pearson Correlation	0.35492544		Pearson Correlation	0.387226779	
Hypothesized Mean Difference	0		Hypothesized Mean Difference	0	
df	9		df	9	
t statistic	0.96177618		t statistic	1.74984873	
P(T<=t) one-tail	0.18064422		P(T<=t) one-tail	0.057035431	
t Critical one-tail	1.83311293		t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.36128845		P(T<=t) two-tail	0.114070862	

Table 11 relates the cost levels relative to sales for the LBO companies and their corresponding industry competitors. Initially there was no statistically significant difference between the two data sets as the t-statistic only came in at .96, meaning that it was not any strong indicator of a true difference between the means of the LBO's and competitors. However, this statistical difference grows in the post-buyout view with a t-statistic of about 1.75. This registers as far more significant since it can now show confidence down to about the 6% level, again reinforcing the idea that major changes occur within these LBO companies following the completion of their deals. In this instance, costs seemed to rise for the LBO firms relative to their sales more than they did for their comparable industry competitors. Seeing as one of the main goals of an LBO is to really rein in costs, this is not a very good indication of the strength of the LBO deals analyzed, since they did not seem to do a great job of curtailing rising costs.

Chapter 6

Conclusion

Companies would look to an LBO for a number of reasons. Whether they are looking for improved financing from taking on increased leverage, a management restructuring, or a Private Equity firm working to wring more profits out of an otherwise successful company. The firms listed in this paper were completed as part of buyouts that Private Equity firms conducted to take public companies private. The intent of this is usually to take the books of the company off of the public market and clean up the operations of the company before launching a new sale of assets or a reverse LBO. They normally want to reduce costs that a company is incurring or find some way to generate increased cash flows from their target companies. This paper was examining just how successful this practice has been in one of the boom times of LBO deals, the mid 2000's.

Beginning with a look into the financial performance of these companies across about five years of data, their finances were measured with key ratios including ROE, profitability, cost as a percentage of sales, and debt to total assets. Each company was scrutinized in this manner to determine if, as a standalone company, they would appear to have been successful over this time frame. In general these deals were not shown to be very successful, owing in some part to the unexpected recession that took place in the latter half of 2008 and continued into the early parts of 2009.

Building off of this analysis, paired t-tests were conducted to check the statistical significance of the differences between the pre and post-buyout environments. In order to try to take out the issues of having market conditions be reflected in an individual company's performance, industry competitors were paired with LBO companies to test for statistical

differences in the means of their key ratios. As expected, the companies that had undergone LBO deals were far more likely to have increased debt to asset ratios, decreased ROE, and decreased profitability. Each paired t-test conducted on the post-buyout data showed that there were strong statistical differences between LBO firms and non-LBO firms across each ratio measured. It helped to reinforce the idea that these deals may not have been the best decisions for the private equity firms, or at least the LBO targets were not able to keep up with competitors in the same industry. The LBO deals seemed to weaken a majority of the firm's financial positions, and leave them far more susceptible to the recession of 2008.

Further research on this topic could include looking at a bigger pool of LBO companies from this same time frame. Being about 6-8 years post-buyout for many of these firms, this is normally the time that either a majority stake would begin to be sold by the private equity firms, or a reverse LBO would take place to recoup some of the investment incurred by the heavy debt financing. It would be beneficial to know which of these companies studied, or what other kinds of companies from this same time were able to make it back to being healthy, publicly traded firms within a reasonable amount of time. This could certainly help contribute even more to deciding when to take on an LBO project and when a private equity firm should decide to pass on the deal.

Appendix A

LBO Company Data

This appendix contains the company data that was used in analyzing the LBO companies mentioned throughout this paper. They are listed in order corresponding to their “company” or “pairing” number that is used in previous tables. All values listed are in thousands of dollars. Each company is listed with their Key Financial Data (KFD).

Table 12 Sungard Data Systems (KFD)

	2006	2007	2008	2009	2010
Current Assets	3365648	3518794	3619622	3069673	4378510
Total Assets	18677401	19255662	16451367	16002419	17332221
Current Liabilities	1723745	2220992	2197570	1791849	2123995
Total Liabilities	16128026	16321245	14963085	13904978	15200898
Stockholders' Equity	2534562	2913389	1488282	2097441	2131323
Sales	8058405	8685631	8525055	7101507	7562534
Operating Expenses	7857754	8298811	9907862	7272516	7576127
EBIT	200651	386820	-1382807	-171009	-13593
Interest and Taxes	84708	122261	-196847	-59666	17068
Net Income	115943	264559	-1185960	-111343	-30661

Table 13 Hertz KFD

	2006	2007	2008	2009	2010
Current Assets	3365648	3518794	3619622	3069673	4378510
Total Assets	18677401	19255662	16451367	16002419	17332221
Current Liabilities	1723745	2220992	2197570	1791849	2123995
Total Liabilities	16128026	16321245	14963085	13904978	15200898
Stockholders' Equity	2534562	2913389	1488282	2097441	2131323
Sales	8058405	8685631	8525055	7101507	7562534
Operating Expenses	7857754	8298811	9907862	7272516	7576127
EBIT	200651	386820	-1382807	-171009	-13593
Interest and Taxes	84708	122261	-196847	-59666	17068
Net Income	115943	264559	-1185960	-111343	-30661

Table 14 Kinder Morgan Inc. KFD

	2006	2007	2008	2009	2010
Current Assets	103680	120970	124440	124470	128670
Total Assets	1354220	1517780	1788580	2026220	2186110
Current Liabilities	313730	255830	178210	201760	276420
Total Liabilities	859390	1074210	1176950	1353810	1456860
Stockholders' Equity	494830	443570	611630	672410	729250
Sales	904870	921770	1174030	700340	807770
Operating Expenses	775710	841000	1018880	548830	647260
EBIT	129160	80770	155150	151510	160510
Interest and Taxes	28750	21740	23300	23130	27800
Net Income	100410	59030	131850	128380	132710

Table 15 Clear Channel Communications KFD

	2004	2005	2006	2007	2008
Current Assets	2269922	2248409	2205730	2294583	2066555
Total Assets	19927949	18703376	18805528	18886938	21125463
Current Liabilities	2184552	2107313	1663846	2813277	1845946
Total Liabilities	10439871	9876914	10763187	10089447	24041694
Stockholders' Equity	9488078	8826462	8042341	8797491	-2916231
Sales	6634890	6610418	6457435	6816909	1684593
Operating Expenses	5001892	5142825	4894098	5164353	1483089
EBIT	1632998	1467593	1563337	1652556	201504
Interest and Taxes	5671167	531931	871820	714049	291691
Net Income	-4038169	935662	691517	938507	-90187

Table 16 HCA Holdings KFD

	2004	2005	2006	2007	2008
Current Assets	468300	521500	607800	620500	630100
Total Assets	2146500	2222500	2367500	2402500	2428000
Current Liabilities	317400	389500	357600	384900	391000
Total Liabilities	1053000	1047500	2840800	2730800	2698900
Stockholders' Equity	440700	486300	-1137400	-1053800	-1025500
Sales	2350200	2445500	2547700	2685800	2837400
Operating Expenses	2136100	2212800	2361500	2546000	2720400
EBIT	214100	232700	186200	139800	117000
Interest and Taxes	89500	90300	82600	52400	49700
Net Income	124600	142400	103600	87400	67300

Table 17 Freescale Semiconductors Inc. KFD

	2004	2005	2006	2007	2008
Current Assets	401200	297000	285000	279000	300200
Total Assets	717000	671900	1773900	1510300	667000
Current Liabilities	116900	113900	135900	105200	100400
Total Liabilities	278300	272300	1302200	1192700	1134300
Stockholders' Equity	393600	444700	471700	-467400	317600
Sales	571500	584300	635900	572200	522600
Operating Expenses	544900	524300	844500	743500	1302700
EBIT	26600	60000	-208600	-171300	-780100
Interest and Taxes	5500	3700	-9200	-10600	11200
Net Income	21100	56300	-199400	-160700	-791300

Table 18 Biomet Inc. KFD

	2006	2007	2008	2009	2010
Current Assets	1334153	1451788	1349700	1388100	1305000
Total Assets	2282647	2457861	13781800	12600900	11969000
Current Liabilities	517587	345812	564500	631200	518500
Total Liabilities	562453	408637	8945500	8235500	8760600
Stockholders' Equity	1720194	2049224	4836300	3733500	3840300
Sales	2025739	2107428	2383300	2504100	2698000
Operating Expenses	1417353	1617826	3133800	2852400	2341400
EBIT	608386	489602	-750500	-348300	356600
Interest and Taxes	202478	153710	268300	400900	404200
Net Income	405908	335892	-1018800	-749200	-47600

Table 19 TXU Corp. KFD

	2006	2007	2008	2009	2010
Current Assets	7090000	3335000	5514000	5502000	6238000
Total Assets	20196000	49060000	42957000	43223000	39139000
Current Liabilities	5135000	3351000	6277000	5801000	6252000
Total Liabilities	13407000	42844000	45611000	45006000	44198000
Stockholders' Equity	6789000	6216000	-2654000	-1783000	-5059000
Sales	9549000	6509000	9787000	7911000	8235000
Operating Expenses	5900000	6530000	19060000	6755000	11216000
EBIT	3649000	-21000	-9273000	1156000	-2981000
Interest and Taxes	1255000	-56000	-411000	447000	-402000
Net Income	2394000	35000	-8862000	709000	-3383000

Table 20 Alliance Boots Inc. KFD

	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
Current Assets	4333000	5022000	4935000	6516000	5789000
Total Assets	17793000	18975000	18744000	20254000	19352000
Current Liabilities	3325000	4245000	4019000	10118000	4561000
Total Liabilities	13745000	14751000	14404000	15130000	13651000
Stockholders' Equity	4048000	4224000	4340000	5124000	5701000
Sales	11865000	17195000	18722000	20218000	23009000
Operating Expenses	11330000	16495000	17937000	19186000	21915000
EBIT	535000	700000	785000	1032000	1094000
Interest and Taxes	525000	599000	181000	417000	522000
Net Income	10000	101000	604000	615000	572000

Table 21 First Data Systems Inc. KFD

	2006	2007	2008	2009	2010
Current Assets	22454300	21618500	11393500	10461600	7059100
Total Assets	34460700	52324300	38176100	39735400	37544100
Current Liabilities	21803300	22921500	10778000	9455200	7058900
Total Liabilities	24319500	45495300	35773800	34408400	33456100
Stockholders' Equity	10141200	6829000	2402300	5100100	4059900
Sales	7076400	8051400	8811300	9313800	10380400
Operating Expenses	5209200	7356000	8032600	8869300	9782200
EBIT	1867200	695400	778700	444500	598200
Interest and Taxes	1019500	536500	4386700	1459100	1445100
Net Income	847700	158900	-3608000	-1014600	-846900

BIBLIOGRAPHY

- Alliance Boots GmbH. *2008-2012 Annual Reports*. Bern, Switzerland: Alliance Boots GmbH. 2008-2012.
- Biomet Inc. *2006-2010 Annual Reports*. Warsaw, IN: Biomet Inc. 2006-2010.
- Cao, Jerry, and Josh Lerner. "The Performance of Reverse Leveraged Buyouts." National Bureau of Economic Research. October 2006.
- Clear Channel Communications, Inc. *2004-2008 Annual Reports*. San Antonio, TX: Clear Channel Communications, Inc. 2004-2008.
- First Data Corporation. *2006-2010 Annual Reports*. Atlanta, GA: First Data Corporations. 2006-2010.
- Freescale Semiconductor, Inc. *2004-2008 Annual Reports*. Austin, TX: Freescale Semiconductor, Inc. 2004-2008.
- HCA Holdings, Inc. *2004-2008 Annual Reports*. Nashville, TN: HCA Holdings, Inc. 2004-2008.
- Hertz Corporation. *2006-2010 Annual Reports*. Park Ridge, NJ: Hertz Coporation 2006-2010.
- Kinder Morgan Inc. *2006-2010 Annual Reports*. Houston, TX: Kinder Morgan Inc. 2006-2010.
- Kaplan, Steve and Per Stroemberg. "Leveraged Buyouts and Private Equity." National Bureau of Economic Research. July 2008.
- Kaplan, Steve. "The Staying Power of Leveraged Buyouts." National Bureau of Economic Research. March 1991.
- Kosman, Josh. *The Buyout of America*. Portfolio Hardcover, 2009. Print.

"LEVERAGED BUYOUTS AND FINANCIAL STABILITY." *ECB Monthly Bulletin*.

ECB. August 2007. Web. <https://www.ecb.europa.eu/pub/pdf/other/pp89-98_mb200708en.pdf>.

Lichtenberg, Frank and Donald Siegel. "The effects of Leveraged Buyouts on Productivity and Related Aspects of Firm Behavior." 1991.

Muscarella, Chris, and Michael Vetsuypens. "Efficiency and Organizational Structure: A Study of Reverse LBOs." *Journal of Finance*. 45.5 (1990): n. page. Web. 6 Apr. 2014.

Sungard Data Systems. *2003-2007 Annual Reports*. Wayne, PA: Sungard Data Systems, 2003-2007.

TXU Corp. *2006-2010 Annual Reports*. Dallas, TX: TXU Corp. 2006-2010.

ACADEMIC VITA

Ben Gorgonzola
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Education

The Pennsylvania State University

Smeal College of Business, Schreyer Honors College

Bachelor of Science in Finance

Minor in International Business

Minor in Economics

University Park, PA

Class of 2014

- Awarded the President's Freshman Award for Academic Excellence
- Awarded the Sparks Sophomore Award for Academic Excellence
- Inducted into Beta Gamma Sigma Business Honors Society during Spring of Junior year

Hochshule Pforzheim, Pforzheim University

Pforzheim, Germany

- Studied the European Union, Culture and Politics, and the German language Summer 2012
 - Completed 9 credits of study as well as visits to several German and French based companies
-

Relevant Experience

Siemens AG

Finance Leadership Development Program Intern

Malvern, PA

May-August 2013

- Positioned in Performance Controlling division for Siemens Healthcare covering the North American cluster
- Worked as support analyst, covering monthly reporting duties for the customer solutions team
- Created new method of tracking SG&A development on a monthly and forecast basis
- Responsible for planning out process improvement tasks to enhance monthly and quarterly reports

Appek Mobile Applications Business Plan

Chief Strategy Officer

University Park, PA

Fall 2011

- Collaborated with a local startup company to help produce a full, five year business plan for future investors
 - Tasked with forecasting and reporting the long-term presence of the company in the App creation market
 - Performed pitches on the progress of the business plan to CEO's of Appek Mobile Apps for approval
-

Leadership

Professional Management Association

Vice President

Service Committee, Platinum Member

University Park, PA

Spring 2013-present

Fall 2010-present

- Run Operational Meetings for the Executive Board with a focus on the day-to-day activities
- Collaborate with President in making strategic plan for the long-term success of the club