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# VALUE CREATION OF PRIVATE EQUITY FIRMS: STRATEGIC OR FINANCIAL?

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FRONTIERS OF BUSINESS STUDY

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## Summary

The private equity industry before the Lehmann Shock in late 2008 was hitting its all-time highs. However, along with financial crisis in 2008, private equity was one of the biggest industries that were affected. The firms were running out of cash, and the fundraising was at all time lows since the 1990s. Since the private equity firms were short on cash, they had to expedite their value creation methods for their portfolio companies. With private equity firms being around for a long time, they have adopted identities in value creation that are either based on finance or strategy. This paper examines which of the two bases are more effective over the period after the Lehmann shock in late 2008. It examines 102 portfolio companies, among 50 exited deals, to at least speculate which of the two value creation methods are more effective in the holding period of top, mature private equity firms. Unlike other scholarly articles that use Internal Rate of Return (IRR), as their main key performance indicator to evaluate the performance of the private equity firms, this paper used solely the profit generated from the deal by looking at initial investment amount and the exit amount of the deals. The data was collected through a database called Crunchbase, but due to the nature of the industry, a lot of the information still remained confidential and public data was scarce. This paper tries to at least take an educated guess in identifying the trend and with the scarcity of data with limited funding. The results indicate that finance based private equity firms are more efficient in value creation when compared to that of strategy-based private equity firms.

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# CHAPTER 1. INTRODUCTION AND INDUSTRY BACKGROUND

## Section 1. BACKGROUND

Private Equity firms, before the trend changed in 2004, were more towards buying the unattractive and unwanted businesses and divisions from companies. After the purchase, they would either hold onto it until it is back in the business cycle or bring it under their management and refurbish and re-polish the company and resell it at a higher price. However, after the change in the paradigm in 2004, private equity firms – aiming for greater growth – shifted their attention to the acquisition of entire public companies. This is where the often-heard phrase “taking a company private” is derived from. This had created new challenges for private equity firms. In public companies, easily realized improvements in performance often had already been achieved through better corporate governance or the activism and interference of hedge funds. For example, a hedge fund with a significant stake in a public company could, without having to buy the company outright, pressure the board into making valuable changes, such as selling unnecessary assets or spinning off a noncore unit. If a public company needs to be taken private to improve its performance, the necessary changes were likely to test a private equity firm’s implementation skills far more than the acquisition of a business unit would.<sup>1</sup>

Originally private equity firms, actually until 2008, after taking companies private, usually assumed normal operations and generally, ““The CEOs of the businesses in a private equity portfolio are not members of a private equity firm’s management. Instead, private equity firms exercise control over portfolio companies through their representation on the companies’ boards of directors. Typically, private equity firms ask the CEO and other top operating managers of a business in their portfolios to personally invest in it as a way to ensure their commitment and motivation. In return, the operating managers may receive large rewards linked to profits when the business is sold. In accordance with this model, operating managers in portfolio businesses usually have greater autonomy than unit managers in a public company. Although private equity firms are beginning to

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<sup>1</sup> Felix Barber & Michael Gould, “The Strategic Secret of Private Equity.” *Harvard Business Review*, (September 2007): 54

develop operating skills of their own and thus are now more likely to take an active role in the management of an acquired business, the traditional model in which private equity owners provide advice but don't intervene directly in day-to-day operations still prevails."<sup>2</sup> However, this trend has also been changing.

Many PE firms have started interfere with the governance and day to day operations of the companies, such as replacing board members and even changing the utmost positions. To make the sure board members and other members are motivated, "PE investors provide strong equity incentives to the management teams of their portfolio companies. At the same time, leverage puts pressure on managers not to waste money. In governance engineering, PE investors control the boards of their portfolio companies and are more actively involved in governance than public company directors and public shareholders. In operational engineering, PE firms develop industry and operating expertise that they bring to bear to add value to their portfolio companies."<sup>3</sup> The basis of changing board members and the cerebral group this behind the renowned idea of the learning curve. Private Equity, at some point, have realized that the idea behind value creation increase key performance measures and indexes, so-called KPIs, are similar between companies regardless of industry, because deep down, they are all businesses at the core.

Any investor, and especially those at Private Equity, pays attention a lot to their Internal Rate of Return (IRR), which is also is their KPI for their performance. Another indicator is multiple of invested capital (MOIC). According to a research conduct by Harvard Business School, the Private Equity firms roughly target about 25% IRR average for their investments. Although smaller PE firms tend to have higher IRR when they calculating their average, the bigger ones would usually target and consider about 25% returns a good mark.<sup>4</sup> The research also mentions that the target period has not changed as opposed to years from before, which basically means that the average holding period of the company is still maintained around a five-year period. However, one thing that

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<sup>2</sup> Barber & Gould: 55

<sup>3</sup> Paul Gompers, Steven Kaplan & Vladimir Mukharlyamov, "What do Private Equity Firms Say They Do?". Harvard Business School (April 2015). Internet, 9 March 2016. Available: [http://www.hbs.edu/faculty/Publication%20Files/15-081\\_9baffe73-8ec2-404f-9d62-ee0d825ca5b5.pdf](http://www.hbs.edu/faculty/Publication%20Files/15-081_9baffe73-8ec2-404f-9d62-ee0d825ca5b5.pdf)

<sup>4</sup> Ibid

they do consistently is adjust their target IRR for deal leverage. The reason behind is that there are macroeconomic and systematic risks and over a five-year period, it is a given that there will be a time where adjustments are necessary. The paper also states that “reports the fraction of deals that PE investors adjust cash flows or the IRR to reflect different risks. These risks can be divided into macroeconomic or systematic risks (unexpected inflation, interest rate, term structure, business cycle, and foreign exchange) and firm-specific risks (distress, size, market-to-book, momentum and illiquidity). As, seen below, after 2008, the IRR has dropped tremendously for the private equity firms after the Lehmann Shock.

Figure 1.1: IRR for Global Buyout Funds (Bain Capital Annual Report 2015)

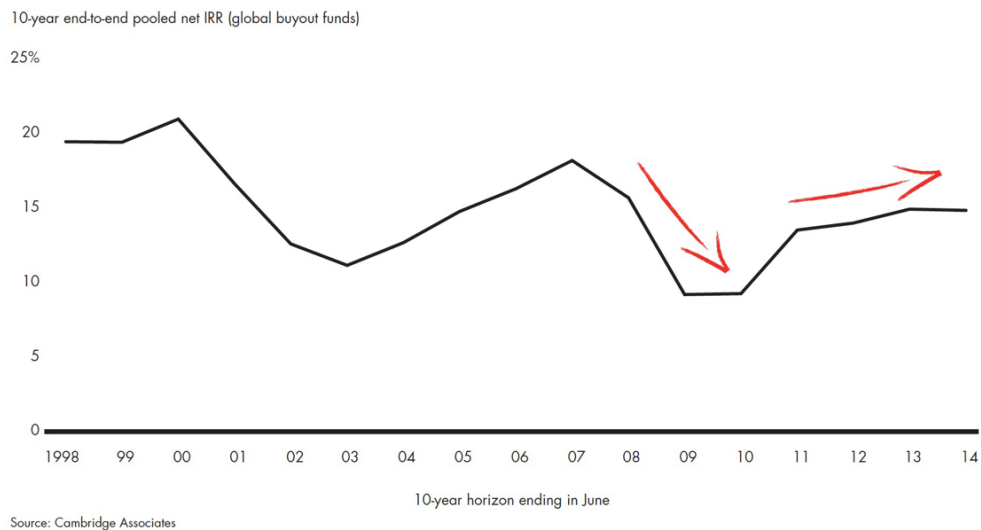
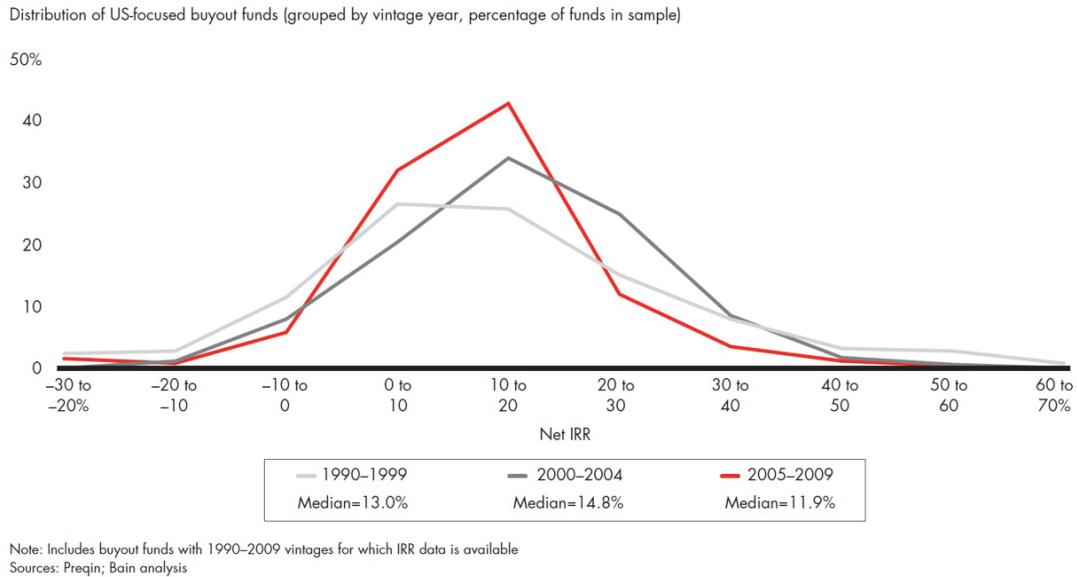


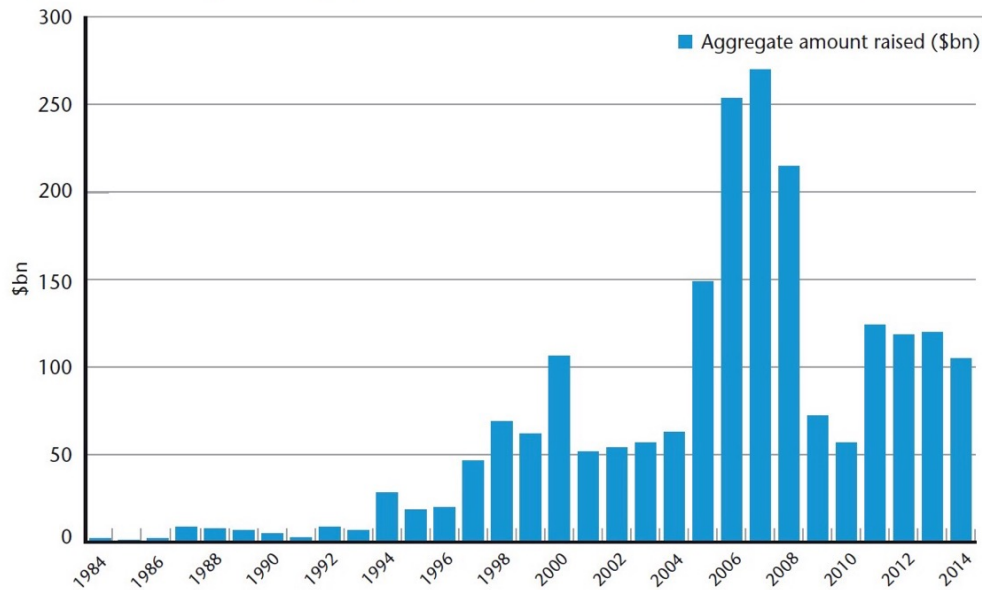
Figure 2: IRR Average Performance from 1990 – 2009 (Bain Capital Annual Report 2015)



The results indicate that PE investors are somewhat sensitive to macroeconomic risks, particularly GDP or business cycle risk where PE investors make some adjustment in roughly half of their deals. This is consistent with PE investors taking market or equity risk into account. This is also suggestive of PE investors having time varying hurdle rates. Firm-specific adjustments appear less important, although there are a variety of firm-specific factors that at least some of the PE firms use to adjust their target hurdle rates.<sup>5</sup> Especially, looking at the fundraised data for PE firms, according to Preqin, one of the leading PE databases, after the global financial crisis in 2008, private equity firms are not as well funded as they were in the prime times of the mid 2000s.

<sup>5</sup> Ibid

Figure 1.6: Global private equity funds raised (\$bn) 1984–2014 TD (July 2014)



This research conducted analyzes deals that were held after 2008, the Lehmann Shock. The financial crisis in 2008 had major impact on the private equity sector. This was especially dire because until the Lehmann shock, the private equity funding and performance were hitting all time highs. According to the Gilligan and Wright, the authors of “Private Equity Demystified,” The impact of financial crisis towards the end of 2008 on the private equity market was abrupt and precipitous. All banks needed to hold cash rather than to generate lending. Deal volumes, which are highly reliant on leverage through debt, collapsed due to the riskiness. The largest deals were the worst affected. Those who had used debt within their fund structures rapidly faced insolvency and bankruptcy as there was a major mismatch between the dates they were expecting to realize their investments and the date that their borrowings were repayable. However, after the shock and not long after, the private equity sector started to revamp again. The financial crisis revealed both the strengths and weaknesses in the private equity model. On the positive side of the balance, the traditional ‘ten plus two’ fund was bankrupt remote, it could not spread risk because the whole risk fell on its partners. This is an important and little publicized fact: private equity fund structures in a limited way stopped the creation of systemic risk. However, perverse situations arose between fund



managers and their partners. Many funds had raised billions of dollars prior to the crash on the assumption that leverage would be available to support deals. Investors were understandably unhappy. Also, the period of extremely low interest rates that has followed the crisis has prevented the feared collapse of many companies with high levels of borrowings, including buy-outs and other private equity investments. Had the recession been accompanied by high interest rates, the failure rate would have certainly been materially higher, in all types of businesses. As we emerge, blinking into the light of a period of economic growth, the private equity industry is still going through its process of slow adjustment to the crisis that started over half a decade ago. Some funds are in terminal decline, unable to raise new funds and managing out their portfolios motivated by a mix of maintaining fee income and hoping for carried interest to move into positive territories. Others who fared better are seeking to take advantage of downward pressure on asset prices to buy at the bottom of the cycle, hoping to profit on the upturn, although this may be too late as prices have already begun to rise. Models are emerging that embed active management methodologies into a fund's organization, moving ever further away from the old model of backing incumbent management to buy the businesses they run. Furthermore, some fund managers that started life as pure private equity investors are now in reality diversified alternative asset managers, with an array of different funds under management, moving to a model that could be characterized as a financial conglomerate model. In academia there has been a reappraisal of the past assumptions and analyses. Some old accepted wisdom (for instance, regarding persistence of returns) has been swept aside, some given new, more rigorous underpinning as new data sets have become available and new techniques applied to old questions.<sup>6</sup> Thus, this paper looks at deals that were closed after the Lehmann Shock how the private equity hemisphere changed after the 2008 crisis.

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<sup>6</sup> John Gilligan and Mike Wright, *Private Equity Demystified: An Explanatory Guide*, 3<sup>rd</sup> Edition, London, UK, 2014: 27, Internet, Apr 3, 2016, Available: [https://www.icaew.com/~/\\_/media/corporate/files/technical/corporate%20finance/financing%20change/tecplm12976\\_privateequityiii\\_full%20edition.ashx](https://www.icaew.com/~/_/media/corporate/files/technical/corporate%20finance/financing%20change/tecplm12976_privateequityiii_full%20edition.ashx)

## **Section 2. RESEARCH QUESTION & OBJECTIVES**

As private equity firms became grew bigger and bigger, they started forming identities of their own. Although they all share the same roots as investors are in the business for the money, they have found their own ways of adding value and their dealing with their portfolio companies. Their unique identities and methods of adding value has raised a question whether strategy based practices or finance based practices create better value for their portfolio companies. In other words, do strategic based private equity firms or finance based private equity firms do a better job in value creation?

Another question that is attempted to answer is, if the private firms have exited the portfolio company, which type, strategic or financial, allowed their portfolio companies to exit faster? The average holding period for private equity firms, regardless of whether they are considered strategic or financial based, is about three to five years. However, the recent trend is that many private equity firms are holding some of their portfolio companies for more than a decade.

Thus, through these series of questions regarding the value creation process of strategic and financial private equity firms, this paper will attempt to evaluate which of the two types of private equity firms do a better job of adding value to their portfolio companies and how fast they are able to do this.

## CHAPTER 2. LITERATURE REVIEW

### Section 1. PRIVATE EQUITY PERFORMANCE: WHAT DO WE KNOW? (ROBERT S. HARRIS, TIM JENKINSON, STEVEN N. KAPLAN) – FEBRUARY 2012

This paper actually is one of the most comprehensive and analytical papers regarding historical private equity performance in comparison to public markets and S&P 500 companies after its initial analysis of the public markets. The data traces back from 1984 and is provided up to 2008 about the overall performance of private equity and venture capital firms when compared to S&P 500 companies through a compilation of four major different data sources for greater objectivity and profoundness in terms of the data provided and drawing the bigger picture. Also, they were able to eliminate to the best to the best of their ability, biases that might have damaged the validity of the data.

Generally, many scholars use Internal Rate of Return (IRR) as a key performance measure (KPM) for private firms, and financial institutions, but this paper also incorporates two other measures, called multiple of invested capital, which is defined as “the sum all fund distributions and value of unrealized investments over sum of all fund contributions by institutional investors, and Public Market Equivalent (PME).”<sup>7</sup> The PME compares an investment in a private equity fund to an equivalently timed investment in the public market. The PME calculation discounts all cash distributions and residual value to the fund at the public market where the total return and divides the resulting value by the value of all cash contributions discounted (or invested) at the public market total return. A PME greater than one indicates the fund outperformed the public market net of fees. The PME can be viewed as a market-adjusted multiple of invested capital. For example, a PME of 1.20 implies that at the end of the fund’s life, investors ended up with 20% more than they would have if they had invested in the public markets.<sup>8</sup> Using these various measures, this article is able to provide a more well-rounded and convincing conclusion on the performance of private equity firms over a period from the mid 1980s to until the Lehmann shock in 2008.

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<sup>7</sup> Robert Harris, Tim Jenkinson, and Steven Kaplan, “Private Equity Performance: What Do We Know?” National Bureau of Economic Research, (Feb 2012), Internet, Feb 22, 2016, Available: <http://www.nber.org/papers/w17874>.:10

<sup>8</sup> Ibid

### 2.1.1. Do they outperform regular companies?

Through a series of data analysis compiled from four different data sources, this paper makes a statement that private equity firms, particularly buyout fund, have outperformed S&P 500 companies. This paper suggests that “it seems highly likely that buyout funds have outperformed public markets in the 1980s, 1990s, and 2000s...Our estimates imply that each dollar invested in the average fund returned at least 20% more than a dollar invested in the S&P 500. This works out to an outperformance of at least 3% per year. The other dataset...also implies that the average buyout fund has outperformed public markets. These conclusions appear to be insensitive to assumptions about benchmark indices and systematic risk. For the more recent vintage funds, however, the eventual performance will depend on the ultimate realization of their remaining investments, which could be higher or lower than the current valuations upon which we rely.”<sup>9</sup> In other words, private equity firms and other buyout funds have managed to have higher returns when compared with public companies. The S&P 500 is used as an index and proxy of how public companies perform on a greater scope and the S&P 500 has become a general threshold that many PE firms consider as a reliable guideline to measure their performance.

The significance of this paper is that there really has not been a comprehensive paper that sets a foundation of how the private equity firms have perform compared to regular companies and this paper does that using a variety of measures. Generally, it is common know that financial institutions, among them private equity firms, outperform normal companies, and but there has not been any real indicators to bolster this fact, and this paper proves through ample data collection that private equity firms have outperformed regular companies throughout the years.

## Section 2. THE PERFORMANCE OF REVERSE LEVERAGED BUYOUTS (JERRY CAO, JOSH LERNER) – OCT 2006

This paper argues and attempts to prove that Reversed Leverage Buyouts outperform the

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<sup>9</sup> Ibid, 29

regular or first time IPOs of companies. However, it is important to pay attention that private equity firms do not always exit directly after their portfolio company's IPO. The most dominant reason is that private equity firms believe that the stock price after the IPO is undervalued and will increase in value in time. Basically, firms, who are at the roots still investors, wait for the stock price to hit what they will believe to be the apex and sell at the right moment.

### 2.2.1. What exactly is a Reverse Leveraged Buyout (RLBO)?

In their paper, Cao & Lerner define a Reverse Leverage buyout as, “initial public offerings (IPOs) of firms that had previously been bought out by professional later-stage private equity investors.”<sup>10</sup> Although the definition of the RLBO maybe rather straightforward, identifying them is rather difficult. Cao & Lerner also express difficulty in this aspect, stating “One of the main barriers to research in this area is the identification and characterization of the RLBOs. The difficulty in identifying the buyout-backed IPOs arises from two factors.

- The first is the secretive nature of buyout organizations. Unlike venture capital organizations, these groups rarely disclose new investments on web sites or in press releases. As a result, the coverage of the major databases is considerably less complete than that of venture-backed transactions.
- Another complication comes from the fact that the boundaries between venture capital and buyout investments are increasingly blurred. For example, private equity firms that typically make buyout investments have in the past decade also often made venture capital type of investments. Hence, one cannot infer the deal type by just looking at the attributes of the investors. This gives rise to ambiguity in identifying the Reverse Leveraged Buyouts among the private equity-backed IPOs.”<sup>11</sup>

This actually is a common problem for many scholars and actually for this paper also. The restrictions and confidentiality of the information limits many different studies regarding this industry. Although this confidentiality goes hand in hand with the industry standard, the limitations make it a lot more difficult for people outside the industry to gather the information that they need.

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<sup>10</sup> Jerry Cao and Josh Lerner, “The Performance of Reverse Leveraged Buyouts” National Bureau of Economic Research, (Oct 2006), Internet, Apr 10, 2016, Available: <http://www.nber.org/papers/w12626>: 1

<sup>11</sup> Ibid, 6

### 2.2.2. How do they perform against a first time IPO?

According to the findings of Cao & Lerner, “RLBOs have better financial performance than other IPOs. RLBO firms on average outperform the industry average. The return on assets (ROA) is 1.68% higher than the industry-adjusted average of other IPOs. Similar results hold for the ratio of net income to assets, which is 0.95% above the industry. Consistent with the earlier LBO literature, RLBO firms are more levered than others: their long-term debt to asset ratio is 30%, more than 9% above the industry median. Moreover, RLBOs are backed by more reputable underwriters than other IPOs; differences are again statistically significant.”<sup>12</sup> They look over a period from 1980 – 2002 and their data suggest the outperformed the first time IPOs during the entire period and the performed extremely well during the late 1980s, 1990s, and the early 2000s. However, Cao and Lerner’s data only cover up to five years after the companies were taken public once again, and the performance of RLBO after a five-year period remains unknown. This literature serves pretty important because as the private equity industry became better funded after 2004, the private equity firms started to take a lot of private and either sell them after keeping it under their portfolio for a while, or they decided to take them public again, which according to the definition of Lerner & Cao, would be considered an RLBO. Thus, this paper serves as an important foundation and example to how RLBO has performed before the change in dynamics in the industry before the prospering in 2004 and the financial crisis of 2008.

### 2.2.3. Is exit through RLBOs a frequent tactic?

Out of the numerous transactions during the observed years, the numbers of RLBO transactions are considered rather minimal. There are a couple reasons behind this. First is that there are not that many transactions that cannot be considered as RLBOs. In order a transaction to be considered an RLBO, the firm or company has to be taken private, or taken off the stock market listing, and then they have to reinstate through another IPO, and only then they will considered a

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<sup>12</sup> Ibid, 11

RLBO. Another reason for this is the indefinite amount of capital that will be raised through the IPO. In a transaction where companies are sold as a portfolio company or an entity or division, the amount through the transaction is a guaranteed.

“Most observers attributed the deterioration of returns as capital under management has increased to increased competition for transactions. Over time, there were increasingly fewer opportunities to buy companies at relatively low prices without competition. Sellers of firms—having become aware of the numerous potential buyers— increasingly hired investment banks, who conducted auctions between leveraged buyout groups. As a result of the increased competition, buyers were required to pay more for transactions. Auctions also had another, less direct cost: that of “dry holes.” When assessing a proposed transaction arranged through close contacts where there is only one private equity group involved, the general partners can be confident that if they decide to go ahead with the transaction, they will be able to complete the transaction. In an auction where there are a dozen or more groups bidding, the dynamics are very different. Even if it wants to undertake the transaction, the private equity group has a low probability of success. Hence, the risks are much greater in this scenario. It might be anticipated that these changes would have affected the market performance of RLBOs as well, if, as press accounts suggested, competitive pressures were leading firms to take more marginal and more leveraged firms public.”<sup>13</sup> Basically, as PE firms became more well funded, they were able to put more money for acquisitions, but served as a double edged sword due to the fact that their pockets were a lot more loaded than before, they were able to basically put higher premiums and tended to over pay for acquisitions. Furthermore, if there was more competition, some firms ended paying way more than they should have compared to their initially thought price that eventually resulted in lowering returns and drove down their KPMs such as IRR.

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<sup>13</sup> Ibid, 5

Section 3. CORPORATE GOVERNANCE AND VALUE CREATION: EVIDENCE FROM PRIVATE EQUITY (VIRAL ACHARYA, MORITZ HAHN, CONOR KEHOE) - JANUARY 2009

Value creation is something that lies at the key of many private equity companies. It is the most essential part to their job and it essential is how these private equity firms make money. One of the key questions that this paper attempts to answer is “What is the effect of PE ownership on the operating performance of portfolio companies relative to that of quoted peers, and how does this performance relate to the financial value created (if any) by these houses?”<sup>14</sup> And “what are the distinguishing characteristics of the governance and operational approach of these PE houses relative to those of the PLC boards, and which of these characteristics are best associated with value creation?”<sup>15</sup> This paper mainly targets to investigate whether large, mature PE houses create enterprise value by engaging in “active” ownership or governance and operational engineering, in addition to employing leverage and powerful incentives.<sup>16</sup> Basically, this paper attempts to prove and explain how top mature private equity firms create value through change of corporate governance.

This paper concludes that top, mature PE houses create value for portfolio companies on average through turnarounds that improve their margins substantially and in a sustainable manner.<sup>17</sup> After private equity firms acquire the portfolio company, “PE ownership causes the deal margin (EBITDA/Sales) to increase by on average around 4% relative to that during the pre-acquisition phase and controlling for holding length (duration)... Interestingly, the duration reduces this impact by about 0.8% per year of holding.”<sup>18</sup> They also go onto state that impact is becoming less or that the private equity firms are becoming counterproductive, but simply because the private equity firms hold onto their portfolio longer in order to sell at the right time. Thus going back their conclusion, “the average PE impact on margins for deals is in total around 1.5-2.0%, given an average holding length of 3 (4) years. Surprisingly, but in line with the finding that alpha is the highest when the

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<sup>14</sup> Viral Archaya, Mortiz Hahn, and Conor Kehoe, “Corporate Governance and Value Creation: Evidence from Private Equity”, (Oct 2006), Internet, May 15, 2016, Available:

<http://ssrn.com/abstract=1324016>: 3

<sup>15</sup> Ibid,

<sup>16</sup> Ibid,

<sup>17</sup> Ibid, 7

<sup>18</sup> Ibid, 26



sector return is negative, a decreasing sector margin in fact has a positive impact on the deal margin. All deals out-perform their sectors on average in terms of growth in Enterprise Value to EBITDA multiple. While this could be the effect of sustainable margin improvements, which buyers pay for at the time of deal exit, it could also simply be linked to “selling high” since we have some evidence that PE houses hold on longer to dogs.”<sup>19</sup> The significance of this paper is that they identify the impacts of private equity ownership on the company and the effects that come from the ownership itself. Also, it is important to note that they also justify the idea that it is possible for major private equity firms to hold their portfolio longer than the average industry-holding period of three to five years. Thus, this paper serves as a cornerstone to how private equity companies create value and perform in their returns not long after the financial crisis in 2008.

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<sup>19</sup> Ibid, 5

## **CHAPTER 3. COMPARISON BETWEEN VALUE CREATION METHODS BETWEEN STRATEGIC & FINANCIAL PRIVATE EQUITY FIRMS**

### Section 1. CRITERIA OF ACCESS FOR PRIVATE EQUITY FIRMS

In general, there are few factors that PE firms pay attention to when analyzing a company. According to Professor Jeffery Towson, a renowned professor at Guanghai School of Business at Peking University and has been a dealmaker for the past 20 plus years in PE, Private Equity firms generally have a series of questions

#### Company Analysis

1. Is the industry attractive? Demand, Floor, Customers, Industry Picture?
2. Is the company Great, Good, Bad, Too hard? Does it have a competitive advantage?

#### Value & Price

3. What is the Intrinsic Value? What is your margin of safety?
4. Who is Selling and why is it a cheap? Is there a Catalyst?

#### Deal & Value Add

5. How much can engineering improve returns at purchase and / or sale?
6. How much operational value added in 3 months? In 1 year? 3 years?
7. Who are the competing bidders? What is your acquisition advantage?

#### Review

8. What is outcome tree with odds? What is the worst case?
9. Pass punch card test? Check against common mistakes.<sup>20</sup>

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<sup>20</sup> Towson, Jeffery, "Nine Investment Questions," Peking University, Guanghai School of Business, Peking, China, 19 September 2015, Class Lecture

The above list of questions is a general overview of the screening process of how private equity firms evaluate companies and decide whether to bring into their portfolio or not. However, this does not necessarily mean that they put emphasis on every single question above. Since different firms have their own unique way of deciding portfolio companies and adding value to them, they might put more emphasis on different questions. For example, some firms might feel more comfortable and specialize adding value through competitive advantage, or some firms may be extra acute in identifying the acquisition advantage. In other words, it all eventually boils down to their own specialty and how the different private equity firms manage their portfolio companies.

However, there still are some fundamental screening measures that both strategic and financial firms use when selecting their portfolio companies. According to Charlie Munger, the Vice - Chairman of Berkshire Hathaway, at the top of the checklist lies Return on Invested Capital (ROIC). He states that in any circumstance, ROIC has to be greater than Weighted Average Cost of Capital (WACC). After all this equation is the most rudimentary equation in the value creation and cost of capital metric. The equation states that if ROIC is greater than WACC, the investment creates value, but if ROIC is lower than WACC, it destroys value. However, this equation simply evaluates whether value is created or not, but it does not specify where it was created.

Another major expect that both strategic firms and financial firms consider extremely important is management. No matter what private equity firms do and operations they perform on the company, if the management cannot keep pace or do not have the ability to implement the necessary policies and changes, the company is not going to increase in value. This also goes along with the old adage of Warren Buffet, “When a management with a reputation for brilliance tackles a business with a reputation for bad economics, it is the reputation of the business that remains intact”<sup>21</sup> Thus, private equity firms start by re-managing the management, if necessary, or they supplement some members to the management of the company to catalyze and facilitate their process of value creation for their portfolio companies.

Now, although there are numerous private equity firms around the world, many scholars

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<sup>21</sup> Warren Buffett

believe that private equity firms can be classified under a category of either a strategic or financial firm. The reasoning behind this is that every private equity firm has a way of adding value and they all embody certain identities and traits in their firm culture or in their way of operation. In other words, when private equity firms acquire and manage their portfolio companies, they all have their own processes and phases of adding value and this process has to embody either a financial or strategic basis, or may even embody both. It is true at their quintessence is embedded the mentality as an investor, but at least when they are going through their process of adding value, generally, there is a dominant trait in their process, whether it be strategic or financial.

Generally, the average holding period of the private equity firm, according to many scholars also, is roughly between three to five years. However, along with the Lehmann shock and shift in the dynamics of the markets, it has become more common for firms to exceed the average holding period and wait till the point where the portfolio companies can be fully valued. Some portfolio companies are held up to 15 years after their initial investment date before they are fully exited by the PE firms. The reasoning behind this matter is that private equity firms wait till their portfolio is value at a price that is acceptable to them, which generally means the portfolio trend is back in the business cycle. Another reason that private equity firms hold over the industry average is that they believe that portfolio company has not reached its full potential, in terms of valuation, so they would keep it under their management a little longer until it is nurtured fully.

## Section 2. STRATEGIC PRIVATE EQUITY FIRMS (METHOD OF VALUE CREATION)

Strategic Private Equity firms start off with the question of “competitive advantage.” These firms also follow Michael Porter’s definition where competitive advantage is defined as “a function of either providing comparable buyer value more efficiently than competitors (low cost), or performing activities at comparable cost but in unique ways that create more buyer value than competitors and, hence, command a premium price (differentiation). You win either by being cheaper or by being different (which means being perceived by the customer as better or more

relevant).<sup>22</sup> However, for strategic private equity firms is that the competitive advantage has to be quantifiable and visible. According to Jeffery Towson, many different facades can be identified as competitive advantages that can be views as quantitative, such as market share, economies of scale, revenue, or production costs.

One notion that many people, not only strategists and consultants but also businessmen tend to forget at some point is that competitive advantage is not something perpetual. It maybe something that degrades over time, or maybe something that competitors emulate and try to imitate; however, the important point is that competitive advantage does not last forever. This is applied usually when they ask the second question. This notion of Great, Good, Bad, Too Hard (GGBT) became renowned because it actually is one of the standards that Warren Buffet, one of the most, if not, the most successful investor and the current Chairman and CEO of Berkshire Hathaway, uses when he decides whether to invest or not in a company. Many PE firms, especially strategic firms, have adopted this idea also. It is the ultimate and most necessary factor that gives them the cutting edge when creating value in their portfolio companies.

So then the question is what does GGBT exactly mean. Basically, if the companies have what many call competitive advantage, they fall into the Great or Good category, and if they do not, they fall into the Bad or Too Hard category. Too hard category just speaks for itself, the firms cannot either figure it out or it is just too complicated. Many people misunderstand this “Bad” category. Yes, it is true that there might be some bad companies in this section, but it also includes companies that from a private equity firm, or even in more general, an investors, point of view that does not have competitive advantage. Investors at private equity firms also admit the fact that the company might seem fine, maybe even growing and making profits, but they can be operationally intensive, which is a factor for avoidance for private equity firms. Then what companies are considered good and great? As mentioned before, good and great companies have the notion of competitive advantage and that their economic value per share will not decrease over time in common. However, Great companies will increase in economic value per share over time and provide the firm with steady cash

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<sup>22</sup> Porter, Michael, “The Competitive Advantage: Creating and Sustaining Superior Performance” NY. Free Press, 1985. (Republished with new introduction 1988.)

inflow.

Diverting the attention from the broad definition of competitive advantage. Strategic PE firms have a pretty wide range spectrum of where they see competitive advantage. There are several categories where strategic firms look for competitive advantage and it usually just isn't one, but it is usually combination. The rule of thumb usually for these types is that more the better, and lower the costs, higher the returns. According to Jeffery Towson, competitive advantages for companies are usually spotted in the below elements of business when private equity firms evaluate companies.

1. "Consumer – captive consumers / control over pricing
  - Buying Habits
  - Switching Costs (i.e. training costs)
  - Searching costs (i.e. brand names)
2. Producer – proprietary production capability/ manufacturing cost advantages
  - Proprietary technology
  - Lower cost of inputs
  - Location of Transportation
3. Scale economies- lower average costs at high volumes
  - Manufacturing
  - R&D
  - Marketing
  - Distribution / logistics
4. Government
  - License
  - Regulation (antitrust, zoning, environment)
  - Patents
  - Tariffs and quotas
5. Network Economies – each new customer creates value for existing
  - One-sided networks – Facebook, Wechat, telephone

- Two-sided networks – UnionPay, American Express, Apple App store,
  - Combos – Tencent multiplayer gaming is one sided and two sided
6. Efficiencies of Scale – one dominant company in a small market – high capital costs and history of attacking new entrants.
- Not a strict competitive advantage, but strong disincentive to new entrants.
  - For example, the only hospital or power plant in a small town. High capital costs, limited market and one dominant, entrenched player”<sup>23</sup>

One surprising element that was not considered a competitive advantage by many private equity firms was brand. Their reply to this question was rather simple. “We can just buy the brand.” At first, it did not make any sense, later it did. Brand is a conception, and according to Buffet, “It takes 20 years to build a reputation and five minutes to ruin it.” In other words, as strong and trustworthy a brand can be, the dark side remains the volatility of this issue.

In order to demonstrate how strategy-based private equity firms create value, it deemed necessary to include the processes of one of most renowned strategy based private firms, but also a consulting firm, Bain Capital.

### 3.2.1. Case Study: Bain Capital

Under Bain Capital lies the private equity division of Bain & Company, one of Big 3 consulting firms in the world. Bain Capital adopts a lot of Bain & Company’s value creation metrics, which is main derived from their consulting services that they provide to numerous clients around the world. They employ similar strategies for their value creation:

1. **Work the immediate elements that can create value in the short-term with minimal adjustments** – “Every deal presents immediate opportunities to make tactical operational improvements to boost revenue (by tweaking pricing, for example), shrink costs (through smarter procurement or by squeezing out excess inventories, perhaps) and pocket money

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<sup>23</sup> Ibid,

left on the table. Engaging quickly with management to tackle these as soon as the deal closes builds momentum and reduces risk in the investment in year one. Although it is important to harvest low-hanging fruit and put out fires, these actions are simply the start of a value-creation program. In fact, the quick gains captured by fine-tuning performance can breed complacency, and they can absorb resources and energy that distract the portfolio team's attention or may be more profitably invested in higher value activities with a larger long-term payoff.”

2. **Develop strategies to transform the businesses.** A long-term strategy that identifies and creates real competitive advantage for portfolio companies is the surest way to move the needle on portfolio returns. Portfolio activists need to formulate and quickly deploy a multiyear strategic transformation—a major product-line extension, say, or a push into a new adjacency or a channel expansion. Strategies designed to move a company onto a new trajectory need time to implement and mature if they are going to yield their expected results within the portfolio company's typical five-year holding period. Implementing a transformational change requires deep foundational understanding about the business and the competitive dynamics of its industry. The PE firms that are best able to do this are ones that stick to their deal sweet spot and have applied their change model over and over again with portfolio companies that share a similar profile. That focus enables them to bring to bear the unique capabilities for identifying where and how they can create untapped value and mobilize them effectively.
  
3. **Roll out a robust value-creation plan in year one.** Jointly formulated by the portfolio company's senior management team and the PE fund, the value-creation plan builds alignment around the three to five highest priority short-term actions and the longer range transformational initiatives that will achieve target equity value over the holding period. Strategy is about choices and resource allocation; the value-creation plan pares down the



laundry list of potential opportunities to the short list that really matters. It assigns accountability, details an actionable implementation roadmap, lays out key internal and external metrics to track performance, charges a program management office to oversee execution and provides the resources it will need to succeed. Far from being a static document, leading PE firms routinely refresh their value-creation plans at predetermined intervals or following a significant trigger event, such as an acquisition or a change in top management, to ensure the plan is moving toward its expected goals and making necessary course corrections. Prior to exit, the team updates the value-creation plan to build the economic case for the asset's sale and to identify future growth opportunities for the next owner. When done well and early in the PE ownership cycle, value-creation plans have a huge impact on deal success.

4. **Focus on talent and build high-performing organizations.** The quality of portfolio company management teams and their ability to drive change is perhaps the most critical—and sensitive—factor influencing a deal's ultimate success. In a recent survey by accounting firm Grant Thornton, PE executives ranked having a strong management team in place ahead of strategy, operational improvements or macroeconomic factors as the most important factor influencing their portfolio companies' results. Setting up the top management team to succeed and providing powerful incentives for them to deliver from the outset is essential. PE activists must strike a delicate balance between supporting a portfolio company CEO and being prepared to put someone new in the job early on. A delay in replacing an underperforming or ill-equipped CEO can significantly undermine even the best formulated value-creation plan. Bain found that among the portfolio companies it examined, slightly fewer than half of PE owners replaced a CEO at some point during the period they owned the business. In three out of five of those instances, the decision to fire the CEO was not an action the PE firm had planned to take at the outset. And in the overwhelming majority of those cases where an unplanned replacement was made, the PE owners did not act until after the all-important first year of ownership—after the

honeymoon period had ended and the opportunity to build early forward momentum had passed. Experienced activist firms anticipate the potential need to take decisive and quick action. They maintain a stable of seasoned senior executives on call who can be parachuted in to fill key senior management roles. They undertake an early, clear-eyed evaluation of the CEO and his or her chief lieutenants against the most important criteria of the value-creation plan, and they make necessary changes soon after the deal closes.”<sup>24</sup>

So how has this value adding process resulted for Bain? “Analyzing 128 exited deals in which Bain was retained to work with management post acquisition, we found that when the PE fund and management team rolled out a plan and operational blueprint within the first year of ownership, the fund realized a multiple of 3.6 times invested capital, twice the industry average.”<sup>25</sup>

Generally, the strategic firms all go through similar process during their value creation process. The sample value creation process applies broadly to the strategic firms value adding process after their acquisition of a portfolio companies, which results the immediate process of value creation. Among all firms, Bain has been one of the most fundamental firms that have performed well throughout time and still remains a good example and standard for many strategic firms to follow.

### Section 3. FINANCIAL PRIVATE EQUITY FIRMS (METHOD OF VALUE CREATION)

Financial private equity firms, as opposed to strategic ones, concentrated the value price and deal value added sections. This main is because financial firms usually stick to the KPMs that eventually contribute towards the increase in the valuation and enterprise value of their portfolio company. Usually, the main key performance measures that show the results the financial engineering can be seen in net sales, pre-tax and post-tax income, cash flow, ROIC, and most importantly EBITDA.

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<sup>24</sup> Bain & Company. *Bain Capital Private Equity Report 2015*. Boston, MA, USA., 2015,;56

<sup>25</sup> Ibid

Financial private equity firms also have a great deal of flexibility in adding value to their portfolio companies. The traditional way and certain one of the methods that prevail most commonly until today is that portfolio company that is bought is broken up into pieces and is sold for spare parts. Then, out of the remaining, if there are actually any, the private equity firms keep the company under their tutelage for an average of three to five years, add as much value possible to the portfolio company, and then sell it off.

Opposed to strategic financial firm who concentrate on competitive advantage, financial private equity firms look to the idea of economic value. Financial PE firms see different capabilities where they can perform such as with customers, products, brands, services, technology, management, and brainpower and expertise. Apart from the financial engineering and surgical operations that they perform, financial firms, similar with strategic PE firms, look to increase the economic value. Financial firms, in simple words, try to maximize revenue and profit, and minimize costs wherever it may be relevant. Furthermore, it is important to note that any financial firm knows how adjusting certain numbers on the balance sheet and profit/loss statement can impact the enterprise value of their portfolio companies, and basically maximizing that enterprise value and market valuation would be the ultimate goal of a finance-based private equity firm.

### 3.3.1. Case Study: 3G Capital

One of the firms known for this is 3G Capital. 3G Capital is a Brazilian firm that is notorious for cost cutting. 3G Capital is currently backed by Berkshire Hathaway, where Berkshire has funded and gave unyielding support to 3G Capital on major buyouts and acquisition such as AB InBev, Tim Horton, and Kraft-Heinz. After its acquisition, 3G Capital basically implements something called the 3G Way. The beginning starts off with 3G Capital's deployment their management team. 3G Capital has actually become notorious for switching the majority of the management team after their acquisitions, which is actually when all the real reforms start. The management starts to change their company culture and policies. At the basis of the 3G Capital's mentality lies the idea of zero-based budgeting. Zero based budgeting according to McKinsey &

Company is defined as “a repeatable process that organizations use to rigorously review every dollar in the annual budget, manage financial performance on a monthly basis, and build a culture of cost management among all employees. A world-class ZBB process is based on developing deep visibility into cost drivers and using that visibility to set aggressive yet credible budget target. The annual budgeting process does in fact start from zero and is very detailed, structured, and interactive in order to facilitate meaningful financial debate among managers and executives.”<sup>26</sup> Basically, every dollar spent has to count, and through this, 3G Capital is able to create an extremely transparent budgeting process. Also, zero-based budgeting allows 3G Capital to surgically add maximum amount of value during a short time period.

According to Fortune, the 3G way generally starts off with “widespread layoffs, lower budgets, new levels of austerity, and a shift in corporate culture, and then for shareholders: profit.”<sup>27</sup> 3G capital’s cost cutting starts off, as mentioned, with major layoffs. The layoffs usually start off with underperformers, regardless of what position they are in, All the so-called benefits and amenities are considered complimentary supplements to the position or being high up on the corporate ladder are gone. In case of Heinz, 25% of personnel were fired. This shows up on the balance sheet in different facades. “SG&A drops by 10%, GP goes up by 10% (due to lower COGS plus price increase). Adjusted EBITDA goes up by 35%. But these three were against changed accounting base and with one-time charges.”<sup>28</sup> Another major important mentality that 3G Capital implements is treating the company money as their own money. This allows the justification of the cost cutting in a way also, but mostly this is linked with the issue of compensation that will be mentioned later. However, treating the company money as their own money allows the staff to change their habits and performance measures also.

3G Capital also cuts down to the extreme. There are no more private offices, regardless of

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<sup>26</sup> Shaun Callaghan, Kyle Hawke, and Carey Mignerey. “Five Myths (and Realities) about Zero-Based Budgeting,” *McKinsey & Company*, October 2014, May 29, <http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/five-myths-and-realities-about-zero-based-budgeting>

<sup>27</sup> Daniel Roberts, “Here’s What happens when 3G Capital Buys Your Company.” *Fortune*. 25 March, 2015. 3 June, 2016. <http://fortune.com/2015/03/25/3g-capital-heinz-kraft-buffett/>

<sup>28</sup> Towson, Jeffery, “How Much Operational Value Can You Add,” Peking University, Guanghua School of Business, Peking, China, 24 October 2015, Class Lecture

position, everyone shares offices and works out of the bullpen. Workers also share secretaries and even all the reserved parking spaces are gone, not to mention all the executive dining rooms and bathrooms are closed down also. All this excess cash created through eliminating the benefits are used as incentives and are either stored as extra cash flow or reinvested into the company for reinvestment purposes, which is usually not the industry norm.

Despite all this squeezing and lack of benefits, why do people still stay with companies that are managed by 3G Capital? First, is the upward mobility, and second is the huge incentive. 3G Capital also employs the performance model of Jack Welch. The underperformers are fired and the well performing groups are promoted. It does not matter where one is from or what background they come from, if he performs, he is promoted, and if he performance is exceptional, he is picked out of extra educational training. The other part of how 3G Capital attracts talent is related with incentives. 3G Capital pays up to 18-month salary bonuses depending on the performance composition, which refers to the financial performance of the company, the performance of the business unit, and individual performance. Thus, through these policies, 3G Capital is able to acquire some of the most talented personnel for their portfolio companies and continue to nurture and train them into the 3G Way, and let them grow with the company.

### 3.3.2. Case Study: Carlyle Group

Another case study, which is a more typical example of how financial firms create value, is Carlyle's exit with Moncler. Moncler is a luxury fashion brand, now mainly known for their fashionable down jackets, became an iconic brand while it was managed by the Carlyle Group as its portfolio company. The Carlyle Group had acquired Moncler in October 2008 and started to gradually decrease their stake from June 2011, and made its final exit in December 2013, a holding period of five years and two months, which is extremely close to the industry average. Carlyle Group is actually renowned for short-term moves. What Carlyle basically does is it usually makes all the major moves within a 100-day period. Unlike 3G Capital, Carlyle, and many other financial private equity firms, does not necessarily replace the management unless it is absolutely necessary.

Carlyle attributed four different major changes to their value creation metrics,

- “Accelerated the rollout of a distinctive retail channel of Moncler Brand in all key geographies, growing the retailer network from 6 to 135 stores particularly in Asia and the U.S. where there were no stores pre-Carlyle ownership.
- Strengthened the management team by hiring several new senior executives
- Consolidated Moncler brand presence in the Japanese market, a key market for the Company, by converting the distribution agreements into joint venture agreements fully controlled by the Company.
- Bought the Moncler children’s line license by establishing dedicated joint venture with the previous license.
- Enhanced profitability through sale of non-sportswear brands.”<sup>29</sup>

Through this case study, it is possible to see that the questions and criteria that were mentioned earlier in this paper were emphasized. With Carlyle classified a financial firm, the key to Moncler was, which was the best way to add value to this fashion brand, and which will prove to be most effect without radically changing too much of the company. One of the most often used tactics of financial firms is that they shatter the company into pieces and only keep the most valuable part. As with Moncler, Carlyle did this by selling off the non-sportswear brands. Another thing that they did was what will vamp up the economic value of the company the most. In other words, how much operational value could we (Carlyle) add to Moncler? (Question #6)

The results of these changes allowed Moncler to grow exponentially. The Moncler brand had accelerated the expansion of its international presence with the assistance of the Carlyle Group. The core strategy was focused on new store openings and the direct management of strategic markets and distribution channels. “Since Carlyle’s acquisition in October 2008 through December 31, 2013, it has opened 129 new Moncler monobrand stores bringing the number of stores to 135,

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<sup>29</sup> The Carlyle Group. Case Study: *How Carlyle Creates Value: Moncler*. Washington, D.C., USA., 2014,

including flagship stores in Hong Kong, Beijing, Shanghai, Hangzhou, Shenyang, Nanjing, Tokyo, Osaka, Munich, London, Rome, Geneva, Zurich, Copenhagen, New York, Chicago, Los Angeles, Miami, Sao Paolo and Istanbul.

Through this expansion, Moncler has successfully increased direct retail sales from 13% of total sales in 2008 to 58% in the last twelve months ending December 31, 2013. With the new store openings, the Company has also successfully diversified its geographic revenue stream. The Italian market has decreased from nearly 52% of total sales in 2008 to approximately 22% in 2013. In the 2008-2013 period, Moncler has also increased sales in Europe (excluding Italy), Asia and North America by 4.1, 5.9 and 9.1 times, respectively. To support this growth, Moncler has added local management teams in China, Japan, Russia and the United States.<sup>30</sup>

During the holding period of the Carlyle Group, Moncler had averaged 42% growth overall as a company and their revenue grew 206% and their EBITDA increase by 311%. Moncler was one of the most classic example of how financially create value in their portfolio company. Carlyle identified which was the weakest element but the easiest to fortify and increase revenue, and for Moncler, it was the distribution channel. Their costs and profit was a good amount but Moncler needed experience to expand its channels and customer targets. Carlyle saw the potential and utilized its global influence to penetrate the markets with is capital, and successfully landed Moncler into differnet countries, which served as the key solution piece to the growth of Moncler.

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<sup>30</sup> Ibid

## CHAPTER 4. HYPOTHESES

With the research objectives mentioned, it is important to mention my personal hypotheses. After observing the literature review and the methods of value creation for strategic and financial firms, there are three hypotheses that can be drawn from the background information.

**H1:** Finance-based Private Equity firms are efficient in value creation as opposed to Strategy-base Equity firms.

**H2:** Longer Holding Period does not necessary guarantee more value creation and high valuation of the portfolio company when exited.

**H3:** A portfolio company is in a foreign country are more likely to be more efficient in value creation as opposed that is domestic for private equity firms.

These hypotheses will be later tested through the data collected with publicized private equity firms that will be later mentioned in the paper along with the data and the selection criteria and the KPMs that are used to measure the value creation aspect of the portfolio companies itself.

There are a few types of ideas these hypotheses. H1, and the most important one, it can be viewed that the financial private equity firms have more flexibility in working with different facades of the portfolio companies as opposed to strategic firms that usually concentrate on the notion of competitive advantage. H2, the nature of the private equity firms is to sell when the time is right, regardless of holding period. Just because a private equity firms holds on to their portfolio company longer does not necessarily mean that their value creation process is continuing, but actually maybe hindering the private equity firm from moving onto a different portfolio company; thus, deteriorating the efficiency. H3 is actually the trickiest one. Depending the country and regulation, I assumed that private equity firms will be more efficient in creating value through the reworking of the companies and bringing their expertise from the United States and applying it to foreign portfolio companies. Furthermore, with the lack of regulations in some countries, I also assumed the private equity firms would be able to expedite their process of value creation and exit their portfolios faster. These are the three hypotheses that will tested for in the following chapter.



## CHAPTER 5. DATA SELECTION & ANALYSIS

### Section 1. PRIVATE EQUITY FIRM SELECTION METHOD & CRITERIA

The ten private equity firms that were selected for this paper were mainly selected through cross-referencing the world's largest Private Equity Firms list from Forbes, PEI 300, and their media exposure on deals. Due to monetary restrictions, there had to be inclusion of private equity firms who had high media exposure to increase the sample size but not damage the reliability and validity of the data. Also, major firms who had private equity divisions and high exposure to the media but deals that were obscure, in the sense cannot be determined whether they were an private equity or venture capital deal, were also ruled out as much as possible to maintain the scope of the data and concentrate just on private equity itself. The classification of the private equity firms can be seen in Table 1.

### Section 2. DATA COLLECTION METHOD

Despite efforts to be as comprehensive and unbiased as possible, the sample may be subject to potential selection effects. Large and visible LBOs and buyouts are more likely to be included in the sample due to the fact that the buyout groups' attempts at secrecy are less effective here. Also, despite efforts to be as unbiased as possible, limitations on funds and resources may create biases and use unorthodox measures due to the fact that the traditional key performance measures (KPM) such as IRR and MOIC were unable to collected because of confidentiality.

Most of the data was collected from Crunchbase, a database providing collective information regarding private equity, venture capital, and other investment institutions. Although Crunchbase was the primary source of data, due to incomplete information regarding deals and exclusion of some domestic and foreign deals & initial public offerings (IPOs), there was a need to ferret out information from other major financial news sources (such as the Financial Times, Fortune, Forbes, Wall Street Journal, etc.) Also, in regards to the IPO valuations, in order to bolster the validity and credibility of the data collection, the IPO valuations were cross referenced and cross

checked with the valuations of the United States Security Exchange Commission (SEC) filings, and if the numbers were in discrepancy, the valuations of the SEC were used.

It made sense to use the price that it was sold for because the market of viewed the portfolio company to be worth that much when the portfolio company was sold after the investment and working by the private equity firms. It is important to note that the price that the portfolio companies were sold at does not necessarily reflect the enterprise value or any other valuations for that matter but it exit amount, whether that maybe an IPO or acquisition, the market viewed and valued the portfolio company, which essentially justifies the portfolio company being sold at that rate.

The data collected includes the firm name, the portfolio companies, initial investment date amount, if available, exit date and the exit amount, if the firms had exited.<sup>31</sup> Through this information, the holding period and profitability was calculated. Also, if the portfolio company was abroad, outside the United States, they were mentioned in a separate column.

The data and relevant information can be seen in table 2.

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<sup>31</sup> Portfolio companies that the firms that were not exited, but were currently under the management of the companies, the exit date was left blank.

## CHAPTER 6. DATA ANALYSIS & RESULTS

With the data collected, linear regression analysis was used to test the hypotheses. There were three hypotheses that were tested. Regarding the first hypothesis, where it is stated that financial private equity firms are more efficient in creating value in their portfolio companies, and the results from the analysis of the data collected proves its to be true. The linear regression analysis, when testing the value creation of strategic firms, proved to have a negative correlation with value creation, where it acknowledged the fact that finance based private equity firms did a more efficient job in creating value with their portfolio companies when compared to that of strategy based private equity firms (Results can be seen in Figure 1). The P-value resulted in 0.09, which supported the significance of the results. Also, another variable that was included when test was the holding period (this served as the dependent variable).

Regarding H2, both financial and strategic private equity firms set their holding period from three to five years on average. However, as it can be viewed from the data collected, a good proportion of the portfolio companies were held longer than that, and then it begged the question how does it impact the valuation of the portfolio company? The results from the analysis reveal that surprisingly, the longer that private equity firms hold their portfolio companies, the valuation of the portfolio companies increases, which proved our second hypothesis to be wrong.

Although this conclusion seems positive, another reason why the tests revealed this kind of data can be attributed to the nature of private equity. It is essentially at the quintessence for private equity firms to get the sale of their portfolio companies just at the write time when their valuation is at its pinnacle. In other words, the reason why the results indicate this type of conclusion is that, as it is visible from the data set, some of the portfolio companies were held longer than the maximum holding time of five years. Also, as it is viewable from the percentage increase from the initial investment, the returns from the minimal initial investment resulted in extra-high returns, which might have served as outliers and may have skewed the data a little, which resulted in this conclusion. It was established earlier in the first hypothesis that financial firms would be more efficient in creating value.

It can be concluded from the procedural reading and the data that financial firms are more efficient and flexible in value creation in general and in the short term, and many financial private equity firms, the Carlyle Group serving as the primary example and the most renowned for this, specialize in pumping up the value in the short term after the acquisition. The Carlyle Group targets 100 days after the acquisition for implementation of its financial surgery and value creation for their portfolio companies. Reorganizing the balance sheet and inputting cash where it is most demanding and surgically reworking the financials can bring up the KPMs in a very short term. Although the revenue or the sales numbers might not change much, the major KPMs, especially EBITDA, operating profit, and others that impact the EV can be worked in the short period of time, which allows the financial firms to repackage the portfolio company so it is more attractive to the buyers and bidders in the market who are willing to pay for the portfolio company at a higher price after majority of the problems are solved.

Meanwhile, strategic private equity firms look more towards the long-term benefits and having the competitive advantage last for a longer period of time. The process generally takes longer for the work of the strategic firms to add value to their portfolio companies. Although strategic firms work with numerical numbers, their position of adding value to the company also has qualitative measures that may reflect on the balance sheet gradually over the time when it reaches the average holding period but does not necessarily show up on the short-term basis like the financial firms. This hinders the strategic firms from selling short like many of the financial firms because the reworking and nurturing of the portfolio company has not completely burgeoned yet. Furthermore, this also coincides with their how strategic firms operate. Financial firms do not necessarily touch too much upon the company policies, especially at the beginning stages after the acquisition. On the other hand, strategic firms work with the management to diagnose what is wrong with the company on multilateral fronts, and provide consulting services to them. They roll out a plan that views them in the long term, and generally their plan is targeted at the industry average of three to five years.

However, this does not necessarily mean that all the work by both firms is completed. For some portfolio companies, it may take longer for certain policies or financial operation to show up

either qualitative or even quantitatively. There is necessarily no guarantee that the policies implement will roll out the way that the firms want to, especially in the volatile environment after the Lehmann shock. Thus, the value creation process may take longer for certain portfolio companies or simply the private equity firms did not feel that their efforts are not necessarily reflected quantitatively or qualitatively and wait for the results to show even though they have gone over the average holding period.

Finally, H3, that hypothesized that portfolio companies in foreign countries are more efficient in value creation as opposed to domestic portfolio companies, was also proved non significant. There can be a number of the reasons behind this. The most notable one would be culture and language. The operations that private equity firms perform on the foreign portfolio companies may result in different ramifications as opposed to those in domestic companies. When a policy is implemented, there is a general guideline and expectation that private equity firms will have in regards to the changes, but foreign portfolio companies can respond in a way that these private equity firms never thought of. This also goes with the language issue. Because all these private equity firms usually operate in English, when they perform their process of value creation outside of their territory, they tend to hit the language barrier. Let alone the fact that they are already unfamiliar with the territory that they maybe dealing in, the regulations are going to be different also. Simply, regulations and other unfamiliarity that was thought to facilitate the value creation process could be interpreted as being a hindrance for many private equity firms because of the uncertainty and avoiding risks at all costs.

Figure 1: Descriptive Data

	Obs	Mean	Std. Dev.	Min	Max
HoldingPeriod (Months)	102	56.38235	40.89204	3	184
InitialInvestment (Mil USD)	61	1326.208	4308.252	7.3	29000
ExitAmount (Mil USD)	51	1493.223	2417.775	65	12000
% increase	51	11.4308%	0.248334	-91%	14650%

Figure 2: Data Test Results

### Results

Variables	Coef.	Std. Err.	t	P>t
1 HoldingPeriod	0.253484	0.1024243	2.47	0.035
2 Private Equity: Strategic	-6.682846	3.518823	-1.9	0.09
3 Initial Investment	-4.64E-10	2.62E-10	-1.77	0.111
4 Foreign Firms	25.62128	22.4735	1.14	0.284

## CHAPTER 7. CONCLUSION

The private equity sector has continued to recover since the Lehmann shock and with the private equity firms forming their own identities it seemed pretty interesting to explore and research about the different major private equity firms. Although due to the nature of the private equity, there was a high degree of effort and patience needed to collect information on already the number reduced number of deals. Out of the deals that were collected, which already were small number to begin with, the sample size was reduced even more in order to evaluate and test the value creation of private equity firms.

This paper can be viewed as an attempt to identify which type of private equity firm, whether they maybe strategic or finance based, are more efficient in creating value for their portfolio companies. Out of the 102 observations, 50 had exited and the remaining 52 companies still remain under the management of the private equity firms that were included in this research. First, the results from the data analysis reveal that financial private equity firms were more efficient in value creation for their portfolio companies. Second, value of the portfolio companies tend to increase more if the holding period is longer, which actually calls for speculation, especially regarding this test. Last of all, foreign firms are not necessarily more efficient in value creation.

However, this research just serves as a mere foundation for the research that is to come following this paper, if it ever comes. There were a lot of hindrances and difficulties during the period of this research. First of all, as with noted by many private equity scholars, there remains the ambiguity of private equity. Although there were major efforts so solely included deals that were private equity based, and exclude deals that were either ambiguous or combination from other funding sources, mostly venture capital, there still can be some deals included in the data sample that can be up for discussion of whether the deal is solely private equity or not. Second, although it was generally defined and agreeable in the classification of private equity firms, the opinion of the firm classification may differ on how one treats the value creation process of each firm, which opens up dispute regarding the generalization. Last of all, due to limited resources and funding, there were major difficulties and restriction in the data collection. As mentioned in the background and data

analysis phase, the most accurate and widely accepted KPM for the measuring of private equity industry is the IRR or the MOIC, which happens to be confidential information or is information that comes at a charge from various databases. This monetary restriction, with databases costing \$500 - \$1000 USD per month, was a hindrance in collecting data. Also, this also reduced the sample size for both exited and non-exited observations because the databases were able to collect information that were from the private equity firm but not necessarily revealed to the public. Finally, it would have been better to include more variable that may increase the objectivity and broader analysis, but with the limited information, again, restrictions were struck upon in collecting data without monetary support for using specialized professional databases that would have opened up to wider sources of information and severely increase the observation of data.



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## APPENDIX

Table 1

Firm Name	Classification
Blackstone	Financial
KKR	Financial
Bain Capital	Strategy
Carlyle	Financial
Apollo	Strategy
CVC Capital	Financial
Apax	Financial
TPG	Financial
Cerberus	Financial
Warburg Pincus	Strategy

Table 2

Codes:

1: Firm Name

2: Portfolio Company

3: Initial Investment Date (MM/YYYY)

4: Exit Date (MM/YYYY)

5: Holding Period (Months)

6: Initial Investment Amount (Mil USD)

7: Exit Amount (Mil USD)

8: Profit = (Exit Amount – Initial Investment) / Initial Investment

9: Foreign (Identified as Foreign)

1	2	3	4	5	6	7	8	9
Blackstone	Extended Stay	Dec 2007	Nov 2013	71	160	720	350%	
Blackstone	Hindustan Power Projects	August 2010	Oct 2015	6	300	1800	500%	Foreign
Blackstone	Freescale Semiconductors	Sep 2006	Dec 2015	105	17600	12000	-32%	
Blackstone	Watchdox	Mar 2012	Apr 2015	37	9	150	1567%	

Blackstone	Kosmos Energy Ltd.	Feb 2004	May 2011	87	300	594	98%	
Blackstone	Vivint	Nov 2012		43				
Blackstone	Change Healthcare	Dec 2011		54				
Blackstone	Optiv	Apr 2014		26				
Blackstone	Mivisa	Apr 2011		62				Foreign
Blackstone	Pactera	March 2014		27				Foreign
Bain Capital	FleetCor Technologies	Jul 2005	Dec 2010	65	75	291.5	289%	
Bain Capital	Physio Control	Jan 2012	Feb 2016	49	487	1280	163%	
Bain Capital	IMCD	Dec 2010	Jun 2014	42	903.5	1125.9	25%	
Bain Capital	Hero MotoCorp	Feb 2011	Nov 2015		550	798.25	45%	Foreign
Bain Capital	Applied Systems	Aug 2006	Nov 2013	87	675	1800	167%	
Bain Capital	Canada Goose	Dec 2013		30				
Bain Capital	TOMS	Aug 2014		22				
Bain Capital	Toys R US	Mar 2005		135				
Bain Capital	Acadia Health Company	Oct 2014		20				
Bain Capital	Blackhawk Specialty Tools	Jul 2013		35				
Bain Capital	BMC Software	May 2013		37				
Apollo	Evertec	Sep 2010	Dec 2013	39	174	917	427%	
CVC	BJs Wholesale Club	Sep 2011		57				
CVC	Alix Partners	Jun 2012		48				
CVC	Leslie's	Sep 2010		69				
CVC	Petco	Jan 2016		5				
CVC	Cunningham Lindsey	Dec 2012		42				
CVC	Samsonite	Jul 2007	Jun 2011	47	1700	1250	-26%	
CVC	Univar	Jul 2007	Jun 2015	95	2000	770	-62%	
TPG	HCP	Jul 2012	Dec 2015	41	577	775	34%	Foreign
TPG	Box	Jul 2014	Jan 2015	7	150	175	17%	
TPG	Lynda.com	Jan 2015	Apr 2015	3	186	1500	706%	Foreign
TPG	Par Pharmaceutical Companies	Jul 2012	May 2015	34	1900	8050	324%	
TPG	Airbnb	Apr 2014		26				
TPG	Fender	Dec 2012		42				
TPG	Jonah Energy LLC	Mar 2014		27				

TPG	Neiman Marcus	Oct 2015		8				
TPG	Seagate	Oct 2010		58				
Cerberus	Aozora Bank	Aug 2003	Jan 2013	113	1166	1700	47%	Foreign
Cerberus	Albertson LLC	Jan 2006		125				
Cerberus	Bluelinx	Jul 2010		71				
Cerberus	Admiral Taverns	Jan 2013		41	323			Foreign
Cerberus	Renovalia Energy	Oct 2015		8				Foreign
Cerberus	Reydel Automotive	Nov 2014		19				
Cerberus	Steward	Mar 2010		75				
Warburg Pincus	GT Nexus	Oct 2013	Aug 2015	22	120	675	463%	
Warburg Pincus	Yodleee	Sep 2002	Aug 2015	155	20	590	2850%	
Warburg Pincus	PowerSchool	Apr 2000	Aug 2015	184	28.3	350	1137%	
Warburg Pincus	AAG Energy Ltd	Mar 2010	Jun 2015	63		364		
Warburg Pincus	Archimedes Pharma	Feb 2005	Jul 2014	113	40	380	850%	
Warburg Pincus	Aicent	Mar 2007	May 2014	86	14.3	290	1928%	
Warburg Pincus	Bausch & Loum Inc	Oct 2007	May 2013	67	4500	8700	93%	
Warburg Pincus	Secure Computing	Aug 2005	Sep 2008	37	70	465	564%	
Warburg Pincus	Ceres	Sep 2007	Feb 2012	53	75	65	-13%	
Warburg Pincus	58.com	Dec 2010	Oct 2013	34	60	187	212%	
Warburg Pincus	Sophiris Bio	Sep 2010	Aug 2013	35	35	65	86%	
Warburg Pincus	Complexcare Solutions	Jan 2014		40				
Warburg Pincus	CASA Exploration	Oct 2013		32	550			
Warburg Pincus	Zenith Energy	Aug 2014		22	600			
Warburg Pincus	Multiview	Jun 2008		96				
KKR	Gland Pharma	Nov 2013	May 2016	30	200	1200	500%	
KKR	Coherus Bioscience	May 2014	Nov 2014	6	55	80	45%	
KKR	First Data Corporation	Apr 2015	Oct 2015	6	29000	2560	-91%	
KKR	Fotolia	Jun 2012	Dec 2014	30	150	800	433%	
KKR	Rignet	Aug 2013		34	145			

KKR	Savant	Sep 2014		21	90			
KKR	Sedgewick	Jan 2014		29	2400			
KKR	Mitchell International	Sep 2013		33				
KKR	GoDaddy	Jul 2011		59	2250			
KKR	Arbor Pharmaceuticals	Dec 2014		18				
KKR	Alliant Industrial Services	Nov 2012		43				
Apax	King	Nov 2005	Mar 2014	100	40	3250	8025%	Foreign
Apax	King	Nov 2005	Feb 2016	123	40	5900	14650%	Foreign
Apax	Peregrine Semiconductor	Feb 2003	Aug 2014	138	10	471	4610%	
Apax	Peregrine Semiconductor	Feb 2003	Aug 2012	114	10	77	670%	
Apax	Composite Software	Jun 2003	Jun 2013	120	45	180	300%	
Apax	Real Page	Jan 2004	Aug 2010	79	20	135.3	577%	
Apax	mFoundry	Oct 2007	Mar 2013	65	7.3	165	2160%	
Apax	Karl Lagerfeld	Mar 2006		123				
Apax	Azelis	Feb 2015		16				
Apax	ColeHaan	Nov 2012		23				
Apax	Paradigm Ltd.	Jun 2012		48	1000			
Apax	Bankrate Inc.	Jul 2009	Jun 2011	23	571	300		
Apax	HUB International Ltd.	Jun 2007	Aug 2013	74	1800	4400		
Apax	Quality Distribution	Mar 2015		15				
Carlyle Group	AqueSys	Jun 2010	Sep 2015	63	39.3	300	663%	
Carlyle Group	Imagitas	Mar 2000	May 2015	182	20	310	1450%	
Carlyle Group	Ganji	Aug 2014	Apr 2015	8	100	446.2	346%	Foreign
Carlyle Group	Beats	Sep 2013	Aug 2014	11	514	925.2	80%	
Carlyle Group	Blackboard	May 1999	Jun 2004	61	30	77	157%	
Carlyle Group	Blackboard	May 1999	Jul 2011	146	30	1640	5367%	
Carlyle Group	Schoolnet	Jan 2009	Apr 2011	27	13	230	1669%	
Carlyle Group	China Pacific Insurance	Dec 2005	Jan 2013	85	800	4800	500%	Foreign

Carlyle Group	Liposonix	Jul 2004	Jun 2008	47	27	300	1011%	
Carlyle Group	Getty Images	Aug 2012		46	3300			
Carlyle Group	Syniverse Technologies	Oct 2010		68	2800			
Carlyle Group	Vogue International LLC	Feb 2014		28				
Carlyle Group	Vantage Energy	Jan 2007		113				
Carlyle Group	Bottle Rock Power	Aug 2006		118				
Carlyle Group	Ortho-Clinical Diagnostics	Jun 2014		24				
Carlyle Group	HCR ManorCare Inc.	Dec 2007		102				
Carlyle Group	Signode Industrial Group	May 2014		25				