

# Club Deals vs. Sole PE Sponsor Deals

---

## A Study of Operating Performance on the Swedish Buyout Market

**Philip Emtemark**  
20951@student.hhs.se

**Peter Olsson**  
40009@student.hhs.se

---

This thesis analyze whether investment consortiums in a buyout context, so called club deals, are better at creating abnormal operating value for its portfolio companies as opposed to sole PE sponsors. This is measured by looking at the Sales CAGR, change in EBITDA margin and change in ROIC. The operating metrics are industry adjusted in order to measure the PE sponsors ability to create abnormal operating performance. The sample consists of 193 buyouts on the Swedish market and is collected between 1998 and H1 2011. We find that club deals involving two PE sponsors or more are better at generating value to its portfolio companies than sole PE sponsors. However, when including all club deals which also include strategic investors and passive investors, club deals perform worse than sole PE sponsors. This effect is mainly due to the bad performance of club deals involving strategic investors. These club deals perform significantly worse than club deals involving two PE sponsors or more. The thesis also takes an interest in whether Swedish club deals are able to outperform International club deals. We find that a local advantage exists when it comes to club deals involving two PE sponsors or more. Finally, we find that club deals perform worse if the entry has occurred during a crisis year.

---

**Keywords:** Private Equity, Club Deals, Operating Performance, Swedish Private Equity Market, Consortiums

**Tutor:** Professor Per Strömberg

**Date:** December 20, 2011, 8:15-10:00

**Location:** Stockholm School of Economics, room 536

**Discussants:** Mårten Strömberg and Jonatan Raber

**Acknowledgements:** We would like to thank Professor Per Strömberg for valuable input and support during the process of writing this thesis.

# Table of Contents

<b>1</b>	<b>Introduction .....</b>	<b>3</b>
<b>2</b>	<b>Literature Review.....</b>	<b>5</b>
2.1	Value Creation in Private Equity.....	5
2.1.1	Governance Engineering.....	5
2.1.2	Financial Engineering.....	6
2.1.3	Operational Engineering.....	7
2.1.4	Operating Performance.....	8
2.2	Club Deal Literature.....	9
2.3	Motivating Factors of Club Deals.....	10
2.3.1	Skill Synergies .....	10
2.3.2	Capacity Synergies.....	11
2.3.3	Bidder Collusion.....	12
2.4	Drawbacks of Club Deals.....	12
<b>3</b>	<b>Hypotheses.....</b>	<b>14</b>
3.1	Hypothesis I - Club Deals vs. Sole PE Sponsor Deals.....	14
3.2	Hypothesis II - Strategic and Passive Investors.....	14
3.3	Hypothesis III - Swedish vs. International Club Deals.....	15
3.4	Hypothesis IV - Club Deals Performance During Crisis Years.....	15
<b>4</b>	<b>Methodology.....</b>	<b>16</b>
4.1	Operating Metrics .....	16
4.2	Peer Group Classification .....	17
4.3	Long-Run Operating Performance Study.....	18
4.4	Regression Models .....	20
4.4.1	Club Deals vs. Sole PE Sponsor Deals .....	21
4.4.2	Strategic and Passive Investors .....	21
4.4.3	Swedish vs. International Club Deals.....	22
4.4.4	Club Deals Performance During Crisis Years .....	22
<b>5</b>	<b>Data .....</b>	<b>24</b>
5.1	Transaction Data .....	24
5.2	Accounting Data .....	26
<b>6</b>	<b>Results and Analysis.....</b>	<b>28</b>
6.1	Club Deals vs. Sole PE Sponsor Deals .....	28
6.2	Strategic and Passive Investors .....	30
6.3	Swedish vs. International Club Deals .....	32
6.4	Club Deal Performance During Crisis Years.....	34
6.5	Summary.....	35
<b>7</b>	<b>Conclusions.....</b>	<b>37</b>
	<b>References .....</b>	<b>39</b>
	<b>Appendix.....</b>	<b>43</b>

# 1 Introduction

Private Equity (henceforth PE)<sup>1</sup> has since its development in the 1980s become increasingly popular as an investment form. Following the success in the US, the PE market has established itself in Europe, Asia and Australia through a tremendous growth during the last decade (Strömberg, 2008). The recent credit crisis in 2008-2009 led to an abrupt stop for PE investments. Since then, the PE investments have started to increase again and it seems that the PE model is here to stay. Sweden has an established PE market with several successful PE sponsors that are well respected throughout the industry. As a percentage of GDP, the capital allocated to PE is the third largest in Sweden, inferior only to the US and the UK.

In the PE industry, it is not uncommon that PE sponsors form consortiums in investments. These club deals are defined as deals involving a PE sponsor and one or more investor, such as another PE sponsor, a passive investor or a strategic investor. These consortiums exist both for Venture Capital (henceforth VC) investments as well as for later stage buyouts (Sorenson and Stuart, 2001; Wright and Lockett, 2003). This study focuses solely on club deals within the buyout segment.

Proponents of club deals claim that they facilitate skill and capacity synergies. The skill synergies can occur both before the transaction, through information and knowledge sharing between the PE sponsors, as well as after the transaction due to shared operational knowledge. The capacity synergies stem from utilization of shared resources, e.g. the possibility to undertake larger transactions. Opponents' claims that PE sponsors only cooperate in order to lower the transaction price, i.e. that club deals are anti-competitive. Additional drawbacks with club deals are due to coordination problems where the interests of the investors in the consortium are not aligned, e.g. governance problems where the PE sponsors differ in strategic views.

In this paper, we aim to study whether club deals in fact improve operating performance and whether they do it more successfully than sole PE sponsors. The study is conducted on the Swedish market where PE buyouts between 1998 and H1 2011<sup>2</sup> is considered. In order to study the improvements of operating performance we look at the Sales CAGR (Compound Annual Growth Rate), change in EBITDA margin

---

<sup>1</sup> Throughout this paper, PE refers only to the buyout segment if not otherwise stated.

<sup>2</sup> H1 2011 is the period 1 Jan 2011 to 30 June 2011.

and change in ROIC (Return on Invested Capital) during three different time periods. Next we benchmark these operating metrics with a peer group for each transaction and thereby isolate whether the PE sponsor has managed to create abnormal operational improvement.

We find that club deals involving two PE sponsors or more are better at generating value to its portfolio companies than sole PE sponsors. This is in line with previous VC literature and implies that PE sponsors should invest more together in order to create even better companies. However, when including all club deals which also include strategic investors and passive investors, club deals perform worse than sole PE sponsors. This effect is mainly due to the bad performance of club deals involving strategic investors. These club deals perform significantly worse in terms of Sales CAGR than club deals involving two PE sponsors or more. This implies that PE sponsors should be careful when considering co-investing with strategic buyers. The thesis also takes an interest in whether Swedish club deals are able to outperform International club deals. We find that a local advantage exists when it comes to club deals involving two PE sponsors or more. This is somewhat contradictive to previous literature that finds evidence that International PE sponsors are better at growing its companies. Finally, we find that club deals perform worse if the entry has occurred during a crisis year.

The thesis proceeds according to following. Section 2 consists of a short walkthrough of the methods of value creation in PE followed by a review of the club deal literature as well as motivating factors and drawbacks of club deals. In section 3, we define the hypotheses we aim to study with our dataset. Thereafter, in section 4, we describe the methodology used in order to conduct this study. Section 5 consists of a discussion and description of the data used in the study. In section 6, we present the results of the study which are further analyzed with respect to the stated hypotheses in section 3. The section is concluded by a summary of the key takeaways from the section. In the final section, we make our concluding remarks and provide suggestions for further research.

## **2 Literature Review**

### **2.1 Value Creation in Private Equity**

According to Jensen (1989), the PE ownership model is a superior organizational form where PE sponsors are able to generate value to their portfolio companies. Wright and Robbie (1998) describe PE investing as a cycle consisting of six stages: (i) Fund raising (ii) Deal generation (iii) Screening and selection of investments (iv) Deal structuring (v) Monitoring and value adding and (vi) Exiting investments and returning capital to investors. This cycle is then repeating itself as the PE sponsor raises a new fund. Kaplan and Schoar (2005) and Phalippou and Gottschalg (2009) finds that there seems to exist persistency in the performance of high performing PE sponsors. A PE sponsor that has generated high returns in the past is more likely to continue to generate high returns. This is a sign of fund manager skill and thus, evidence that good PE sponsors are able to, consistently, add value. As defined by Kaplan and Strömberg (2008), PE sponsors methods of value creation could be categorized into: (i) Governance Engineering (ii) Financial Engineering and (iii) Operational Engineering.

#### **2.1.1 Governance Engineering**

According to Beroutsos et al (2007), the most important source of returns for a PE fund is the governance model that it applies to the company. The governance engineering is achieved through reduction of agency costs, i.e. alignment of interests between the owners and the management. The agency cost reduction is mainly realized by giving employees and managers significant equity stakes in the company as well as through a better compensation system, more closely linked to performance (Jensen, 1989; Kaplan, 1989a). Kaplan and Strömberg (2008) find in their sample of 43 leveraged buyouts in the US, 1996 to 2004, that the management team has 16% of the equity, whereof the CEO has 5.4%. In addition, Heel and Kehoe (2005) finds that the most successful PE partners create management incentives commonly around 15-20 percent of the equity. The significant equity stakes incentivize management to make value maximizing decisions for the company. However, a high equity stake of management may also lead to excessive risk aversion as a large part of their wealth is tied to the company (Holthausen and Larcker, 1996).

PE sponsors usually utilize a small, active and motivated board consisting of PE partners, management and outside industry experts (Acharya et al, 2009). This implies a more efficient board structure that is value adding with improved management control. DeAngelo et al (1984) shows that PE sponsors have a comparative advantage in monitoring the management. This enables PE sponsors to more easily replace underperforming management which in turn could facilitate operational improvements for the company (Berg and Gottschalg, 2004). The authors also find that utilization of network and contacts can be value adding to the company. This can include headhunting of new management, finding a new business partner etc. According to Muscarella and Vetsuypens (1990), cost reduction programs and organizational restructuring are common after a PE buyout. The reorganizations that are occurring in post-buyout firms are often conducted to, among other reasons; reduce agency problems (Kaplan, 1989a).

### **2.1.2 Financial Engineering**

PE sponsors typically use significant amount of leverage which can facilitate increased firm value due to tax shield and incentive benefits. However, these effects should be measured with respect to the costs of increased probability of financial distress that comes with the higher leverage.

The tax shield creates value due to tax deductible interest payments, i.e. a PE sponsors could lower the company's tax payments by increasing the leverage. Kaplan (1989b) finds in his study of 76 MBOs (Management Buyouts) that the tax benefits associated with these deals are an important source of wealth gains. Additionally, PE sponsors utilize the tax benefits associated with shareholder loans between holding companies. By using shareholder loans, the net income is reduced since the company pays interest expense to the lender. The interest income is declared by a holding company in a tax haven where the interest income is tax free. Through this arrangement, PE sponsors are able to minimize the corporate taxes.

Leverage also incentivizes management since they want to avoid costly bankruptcy. Thus, management will work harder to reduce the probability of bankruptcy by: (i) Generate free cash flow (ii) Make optimal investment decisions and (iii) Cut down on perks (Berg and Gottschalg, 2004; Kaplan, 1989a). Hence, leverage is a method to align the interests of the PE sponsor and management and thereby

reduce agency costs and facilitate strategic and operating improvements in the company.

There are also some undesirable effects attributable to high leverage. According to Holthausen and Larcker (1996), high leverage could induce management to favor low risk investments in order to avoid bankruptcy. In addition, the higher the leverage the higher is the probability of a company defaulting on its interest payments. The costs of being close or going into bankruptcy are substantial and damages customer and supplier relationships etc. Hence, a PE sponsor should weigh the positive effects against the negative effects when determining the leverage.

There is however counterarguments for risk of bankruptcy associated with high debt in a PE setting. Hotchkiss et al (2010) finds that PE sponsors are more prone to keep their companies from bankruptcy and thus take greater measures to avoid bankruptcy. A typical example is that the PE sponsor invests more equity into the troubled company. The authors also find that if a company defaults, then it would be in better shape which enables a more efficient restructuring or acquisition process. These results are in line with the results of Andrade and Kaplan (1998) who finds that PE sponsors managed to be value-adding to the distressed companies in their portfolios from the buyout frenzy in the 1980s.

### ***2.1.3 Operational Engineering***

Governance Engineering and Financial Engineering used to be the typical approach by which PE sponsors' added value to their portfolio companies. During the recent past a third method, called operational engineering by Kaplan and Strömberg (2008), have come to be utilized. PE sponsors provide operational engineering to their portfolio companies by utilizing their industry and operational expertise. Traditionally, the PE sponsors only hired investment bankers with deal making and financial engineering skills. Nowadays, it is also common that management consultants, with a high degree of operational knowledge, are recruited. Moreover, the PE sponsors hire industry experts with a high degree of knowledge of specific industries and several of the bigger PE sponsors are divided into industry teams. This combined knowledge within a PE sponsor is then used in order to: (i) Identify the best investments (ii) Structuring a plan to create value and (iii) Act upon the plan (Kaplan and Strömberg, 2008).

### **2.1.4 Operating Performance**

Proponents of the PE model claims that the aforementioned methods facilitate improved operating performance. This is thoroughly researched in the academia and the conclusions are largely supportive of the PE model. According to e.g. Kaplan (1989a); Muscarella and Vetsuypens (1990); Lichtenberg and Siegel (1990), PE sponsors are able to generate improved operating performance. Furthermore, Bergström et al (2007) shows that this also hold in the Swedish market. A more recent study by Guo et al (2011) finds that operating performance of Public-to-Private buyouts are either comparable to or slightly exceeds the operating performance of benchmark firms.

Muscarella and Vetsuypens (1990) shows that cost reduction programs are more common after a buyout signaling that margin improvements are a common way for PE sponsors to achieve operating improvements. Kaplan (1989a) found improved operating performance, in terms of increases in operating income, decreases in capital expenditure and increases in net cash flow, post buyout of 48 MBOs in the US. Moreover, Lerner et al (2011) discovers that buyouts lead to significant increases in patent applications, i.e. in innovation. Thus, the authors provide a valid argument that PE sponsors are not short-term oriented but in fact contribute to economic development.

The academia also finds evidence that post buyout firms are more operationally efficient, i.e. they take measures to use the capital more efficiently. Berg and Gottschalg (2004) find evidence of increased capital productivity and reduction of capital requirement post-buyout. This is in line with Holthausen and Larcker (1996), who finds that post-buyout firms have less amount of working capital as opposed to industry peers, as well as Singh (1990) and Easterwood et al (1989) who finds that buyouts are associated with stricter management of inventory, working capital and accounts receivable. Davis et al (2009) conducts a study on US manufacturing establishments and shows that PE backed companies has a better productivity growth compared to companies that were not backed by a PE sponsor for two years after the buyout. Moreover, the cost reduction programs facilitate improvements of plant productivity (Lichtenberg and Siegel, 1990; Harris et al, 2005; Amess, 2003).

Critics of the PE model claim that all these measures to improve the operating performance of companies could as easily be done in another ownership form.



However, the PE ownership is limited in terms of holding period, which could create a much greater incentive and make the PE sponsors more efficient in utilizing a clear strategic road map.

## **2.2 Club Deal Literature**

The club deal literature is widely focused on the effect of competitiveness in the bidding process. Papers such as Boone and Mulherin (2011), Cao and Lerner (2009) and Officer et al (2008) focus on US Public-to-Private transactions and the target shareholders return in such and compare the returns in club deals vs. sole sponsor deals. Other potential effects of club deals are not acknowledged in the buyout literature. Effects such as skill and capacity synergies are ignored. These effects have a potential to affect club deals and their ability to add value to its portfolio companies. Additionally, the agency problems between the PE sponsors might also have a negative effect. A descriptive paper about the pros and cons of club deals was written by Schwartzman (2006) but no empirical study, to our knowledge, has been performed on the actual implications of club deals on the portfolio companies. However, the opportunities and drawbacks of club deals have been widely researched in the VC segment where syndication occurs frequently. To name a few, papers such as Lerner (1994), Sorenson and Stuart (2001) and Manigart et al (2002) have all contributed in this field. Although, the VC segment is widely studied, there are still, to our knowledge, no papers that take an overall approach in order to study the accumulated effects on the portfolio companies like we aim to do in the buyout segment.

Since the worldwide research on club deals is limited, this is also the case for the Swedish market. To our knowledge, no papers have been written about club deals in the Swedish market. A paper by Bergström et al (2007) studied the operating impact of PE buyouts in the Swedish market. The study concluded that buyouts have a significant positive impact on the operating performance but any distinguishing of club deal performance was not done. In this paper, we aim to study whether there are any differences in operating performance between club deals and sole sponsor deals. Another paper researching the Scandinavian PE market is Norman and Riboe (2011). They study whether a local advantage exists for PE sponsors. They find that non-local PE sponsors seem to be better at growing their portfolio companies while the local PE sponsors are better at improving the EBITDA margin. In terms of firm

value, estimated as EBITDA growth, non-local PE sponsors seem to outperform its local peers since the superior growth increases the EBITDA to a greater extent than the improved margins.<sup>3</sup>

## **2.3 Motivating Factors of Club Deals**

Although the majority of the studies are conducted on the VC market, we believe that several findings could be attributable to the buyout segment. The most commonly referred to motives for PE sponsors to enter into a club deal are presented below.

### **2.3.1 Skill Synergies**

Skill synergies in the context of club deals could prevail both before the transaction, i.e. facilitate the transaction, as well as after the transaction where the skills of the PE sponsors could be complementary and thereby enable superior operating improvements to the portfolio company. The latter is only valid when two, or more, active PE sponsors collaborate in the investment or when a PE sponsor collaborates with a strategic buyer, i.e. not in the case of a single active investor and passive investors.

One could argue that information and knowledge sharing between PE sponsors should be value adding. Lerner (1994) finds evidence supportive of shared information and knowledge in the VC market. The information and knowledge sharing could facilitate PE sponsors to invest in previous unfamiliar geographic regions or industries as found in Sorenson and Stuart (2001). These findings might be applicable to the buyout segment where investments frequently are made between local and international PE sponsors, i.e. the local sponsor share its knowledge and, as a consortium, the two sponsors can undertake an investment that might otherwise not have been undertaken. Malloy (2005) argues that local analyst are better at providing more accurate analysis while Orpurt (2004) finds that the local advantage is due to better understanding of the local language, financial statements as well as customs and cultures. These findings might be valid also on the PE market. It could also be argued that local investor has more at stake since it is important that the reputation in the market is preserved or improved (Ross Sorkin, 2007).

The information and knowledge sharing could also facilitate improved selection of investments. Sah and Stiglitz (1986) claim that it might be preferable that two

---

<sup>3</sup> It should be noted that the study does not adjust for add-on acquisitions.

separate firms evaluate a project and a consensus is required. Lerner (1994) interprets that this is applicable to VC syndication and hence improves the selection of investments. Brander et al (2002) also finds that there exists value of improved selection but that a VC firm's ability to add value is superior, i.e. VC firms have other abilities in excess of selecting the best investments. However, in interpreting these results, one should be aware of that the information and knowledge problem in VC investing are more severe than in the buyout segment since the investments are made in early-stage companies that are surrounded by more uncertainty. Syndication might therefore be a more critical factor in the VC segment than in the buyout segment.

Skill synergies could also occur during the ownership. PE sponsors have high incentives to focus on improving the operating performance of the company since they want to make a good exit. Since different PE sponsors have different experiences and skills, a combined effort of improving the portfolio company's operating performance should, *ceteris paribus*, be better than doing it as a sole sponsor (Schwartzman, 2006).

### **2.3.2 Capacity Synergies**

Entering into a club deal could facilitate capacity synergies for a PE sponsor. These synergies come in the form of mitigating different constraints, both financial as well as softer resources. A frequently mentioned motive for club deals is that individual PE funds can evade capital constraints. A PE fund is restricted by its capital and in order to be able to invest in a large buyout, the fund might need to cooperate with another fund. Lockett and Wright (2001) and Manigart et al (2002) find that this is a valid motivation in the VC context. Another constraint for a PE fund is, usually, the restriction in terms of how large a single investment can be as a fraction of the portfolio. In order to evade this constraint, a PE sponsor might find it attractive to enter into a club deal and thereby facilitate an investment (Schwartzman, 2006; Axelson et al, 2007). Moreover, a consortium may facilitate better debt financing than any sole sponsor could achieve (Schwartzman, 2006).

Another factor for collaboration might be resource sharing (in terms of managerial resources), i.e. a PE sponsor might not need to spend as much time on an investment and thereby liberate resources to other investments (Jääskeläinen et al 2006). In a VC context, Manigart et al (2002) discovers that risk-sharing and

increased portfolio diversification in Europe is a stronger motive for syndication than access of intangible resources or deal flow. Additionally, Brander et al (2002) find evidence that VC firms use syndication in riskier investments and should therefore generate higher returns than stand-alone VC investments.

### **2.3.3 Bidder Collusion**

Another potential motive for PE sponsors to enter into club deals is to avoid bid price escalation due to competition. Brander et al (2002) suggest that VC syndication might be used in order to decrease competition, facilitating a lower transaction price. This is widely acknowledged in standard auction theory where reducing the number of bidders could entail a more profitable outcome (e.g. Robinson, 1985; Graham and Marshall, 1987; McAfee and McMillan, 1992; Marshall and Marx, 2007). On the other hand, Boone and Mulherin (2011) claims that the assumptions of auction design theory, that the number of bidders is fixed, does not apply to company sale processes since new bidders can easily enter. They find that Public-to-Private transactions in US by consortium of LBO sponsors are not associated with lower competition than sole PE sponsors or strategic buyers. Additionally, they could not find any difference in abnormal returns for target shareholders between club deals and sole sponsor deals. This finding is confirmed by the study of Cao and Lerner (2009) who finds that shareholder returns in club deals does not decrease. Mares and Shor (2008) theorize that a club deal could actually increase the level of competition for a transaction. If several PE sponsors, individually unavailable to undertake the buyout, form a club deal consortium, it can be argued that the number of bidders actually increases. Hence, club deals could facilitate increased competition and thereby also increase transaction prices.

These studies are however contradicted by the study of Officer et al (2008) who discover a decrease in shareholder returns for US club deals conducted by the largest and most prominent PE sponsors. Their study finds that target shareholders return are approximately 10% lower in club deals than in sole sponsor LBOs.

## **2.4 Drawbacks of Club Deals**

In the view of the PE sponsors, a club deal can have some potential drawbacks as well. Internal issues can easily arise between members of a club deal consortium. Such issues could include responsibilities of monitoring the company, views on exit

strategies etc. These potential agency problems between the investors could be of major importance and be the difference between a successful and an unsuccessful investment. Pichler and Wilhelm (2001) finds, studying security underwriting syndications, that agency costs can occur due to conflicts of interest between the investors. This might arise since non-lead investors could have an informational disadvantage (Admati and Pfleiderer, 1994; Wright and Lockett, 2003). Uncertainty of the investment in combination with more control of the lead investor could lead to opportunism, i.e. the lead investor could make decision in their own favor at the expense of non-lead investors (Pichler and Wilhelm, 2001; Piskorski, 2004). Moreover, decisions in syndicate deals are usually taken by consensus. This implies more complicated and time-consuming decision making processes than for non-syndicated deals (Fried and Hisrich, 1995; Wright and Lockett, 2003). Additionally, the decision making process could be burdened with coordination and timing issues (Cumming, 2003; Steier and Greenwood, 1995; Wright and Lockett, 2003).

Williamson (1985) defines two types of uncertainty in an economic exchange: (i) Primary uncertainty and (ii) Behavioral uncertainty. Primary uncertainty is the uncertainty surrounding the underlying transaction while behavioral uncertainty regards the behavior of exchange partners. Hill (1990) claims in his paper, that if the primary uncertainty is high, then it is more likely that opportunism by one partner will go undetected. On the other hand, previous research has also indicated that it is important for a PE sponsor to maintain a good reputation (Wright and Lockett, 2003). This is due to the fact that PE sponsors are bound to each other through current and past investments (Bygrave, 1987; Hochberg et al, 2007; Sorenson and Stuart, 2001). Since previous investments matter in order to be able to syndicate new deals, a PE sponsor will probably make sure to act properly and to make decisions that are in the best interest of all partners in a consortium.

Another drawback of club deals with an active and a passive investor as stated by Brander et al (2002) is that the active PE investor gives up return to the passive investor. Usually, a passive investor would otherwise have invested in the fund. By investing directly instead, the passive investor avoids the fees of the active PE fund which is detrimental to the active investor whose effort is unchanged anyhow.

### **3 Hypotheses**

#### **3.1 Hypothesis I - Club Deals vs. Sole PE Sponsor Deals**

The main research question in this study is whether a club deal has better abilities to improve the operating performance of the portfolio companies than a sole PE sponsor. To our knowledge this proposal has not been studied before and certainly not on the Swedish market. However, there exists literature, mostly in the VC context, that supports syndication. For example, Lerner (1994) finds information and knowledge sharing in syndications. Schwartzman (2006) theorize, in a buyout context, that PE sponsors' combined expertise should benefit the portfolio company. In the formulated hypotheses below, we aim to analyze if these motivating factors are superior to the drawbacks of club deals, e.g. coordination and agency problems (Pichler and Wilhelm, 2001).

*1-a.) All club deals are able to generate higher abnormal operating performance than sole PE sponsor deals.*

*1-b.) Club deals with two active PE sponsors or more are able to generate higher abnormal operating performance than deals involving only one PE sponsor.*

#### **3.2 Hypothesis II - Strategic and Passive Investors**

In theory, the skill synergies (explained in section 2.3.1) might be more extensive in a consortium which combines PE sponsors and strategic buyers. However, we argue that such a consortium will lead to more severe coordination problems and, as such, a lower ability to generate abnormal operating performance. This should be mostly attributable to the fact that strategic investors are unfamiliar with the way PE sponsors' add value to its companies. Additionally, if the previous owner company remains as a shareholder in the divested company/business-unit, it could be argued that there will be no synergies because the company already has applied their knowledge to the company. Furthermore, it could be argued that in this situation the strategic investors could have a different strategic view than the PE sponsor.

Moreover, we argue that consortiums including two PE sponsors or more should be able to generate higher operating performance than consortiums with passive investors. This is due to the skill synergies between PE sponsors, whereas passive investors only act as capital providers to sole PE sponsors.

*2-a.) Club deals with only PE sponsors are able to generate higher abnormal operating performance than a consortium including strategic buyers.*

*2-b.) Club deals with only PE sponsors are able to generate higher abnormal operating performance than a consortium including passive investors.*

### **3.3 Hypothesis III - Swedish vs. International Club Deals**

With the third hypothesis, we aim to study the effects of local respectively international PE sponsors in the club deals. Norman and Riboe (2011) find evidence that non-local PE sponsors are better at growing its portfolio companies while local PE sponsors are better at improving the EBITDA margins. The sales effect is however mostly attributable to non-local PE sponsors with a local office. In our study, these PE sponsors' are deemed Swedish which implies that we should expect Swedish PE sponsors to perform better than their International peers in terms of EBITDA margin and not necessarily to perform worse in terms of Sales CAGR.

*3-a.) All International club deals underperform in comparison to all Swedish club deals.*

*3-b.) International club deals with two active PE sponsors or more underperform in comparison to Swedish club deals with two active PE sponsors or more.*

### **3.4 Hypothesis IV - Club Deals Performance During Crisis Years**

A potential drawback with club deals are the coordination problems between the investors as described in section 2.3. We argue that these problems will be more severe if the investment comes off to a bad start. Thus, the operating performance for club deals entered during economic downturns will be worse than for other club deals.

*4-a.) Club deals perform worse if the entry occurs during an economic downturn.*

## **4 Methodology**

In this study we aim to determine whether club deals are better at facilitating operating performance to their portfolio company compared to sole PE sponsors. The study is conducted on the Swedish market where 193 transactions are studied between 1998 and H1 2011. We determine the improvements of operating performance by studying accounting data for all companies and compare the chosen metrics to the respectively peer group assigned to each company.

### **4.1 Operating Metrics**

In order to study the operating improvements of each investment, we will measure Sales CAGR, change in EBITDA margin and change in ROIC over the event windows. These three operating metrics are deemed to be a good proxy for the value creation in a company.

The ability to grow the company is seen as an indicator of value creation mainly due to that Sales is a driver of EBITDA. A company that grows while maintaining or improving its margins will grow the EBITDA, which indicates value creation. However, the sales measure could be influenced by add-on acquisitions and some caution is taken with regards to conclusions drawn from this metric.

When studying the operating performance of a company it is highly relevant to include a metric which measures the companies' ability to generate earnings. We argue that the best earnings measure for this is the EBITDA margin. EBITDA has the benefit of being independent of changes in the capital structure which is often drastically changed after a PE buyout. Moreover, the EBITDA measure is not affected by goodwill recognition and should therefore be the earnings measure that is the least affected by potential add-on acquisitions. This argument is further strengthened by the fact that we are using the EBITDA margin and not the EBITDA growth as a metric. Using the EBITDA growth would also be problematic since some transactions have a negative EBITDA, making it impossible to calculate a growth rate. Thus we deem the EBITDA margin the best metric for measuring the operating performance of the portfolio companies.

ROIC is a metric that takes both profitability as well as capital efficiency into account. Since PE sponsors take measures to improve both, the ROIC becomes



highly relevant when studying the operating performance. ROIC is defined as EBIT less the theoretical taxes of an unlevered firm<sup>4</sup> divided by total assets less non-interest bearing short term payables.<sup>5</sup> Potential problems with the ROIC are due to the measurement of invested capital and the effects of changes to the capital structure. Additionally, PE sponsors have complex company structure where debt could be located in off-shore holding companies making it hard to identify the correct capital structure.

## **4.2 Peer Group Classification**

Since the aim of this study is to measure the PE sponsors ability to generate value to their portfolio companies we need to control the operating metrics using a peer group. This is done in order to measure the PE sponsors ability to generate abnormal operating performance, excluding effects of market timing. Thus, the performance of each company is compared to its peer group performance which is measured as the sales weighted value of all peer companies in the specific group.

The assignment of a peer group to each company is done using the ICB<sup>6</sup> system. First we classify each company into the NACE<sup>7</sup> Rev.2 system, using the Orbis database. In order to make the right classification we look at the company's principal operating subsidiary. This is due to the fact that the top-holding company usually is classified as a holding company or "Activities of head offices". With the help of the NACE Rev. 2 system we systematically reclassify each company into one of the twenty supersectors in the ICB system. The distribution of peer groups can be seen in the pie chart below. The most common industry is the Industrial Goods & Services which 42 % of the companies are assigned to, followed by Retail (13 %) and Health Care (9 %). Eight of the twenty supersectors have no transactions assigned to them. These are: Oil & Gas, Chemicals, Media, Utilities, Banks, Insurance, Real Estate and Equity/Non-Equity Investment Instruments.

---

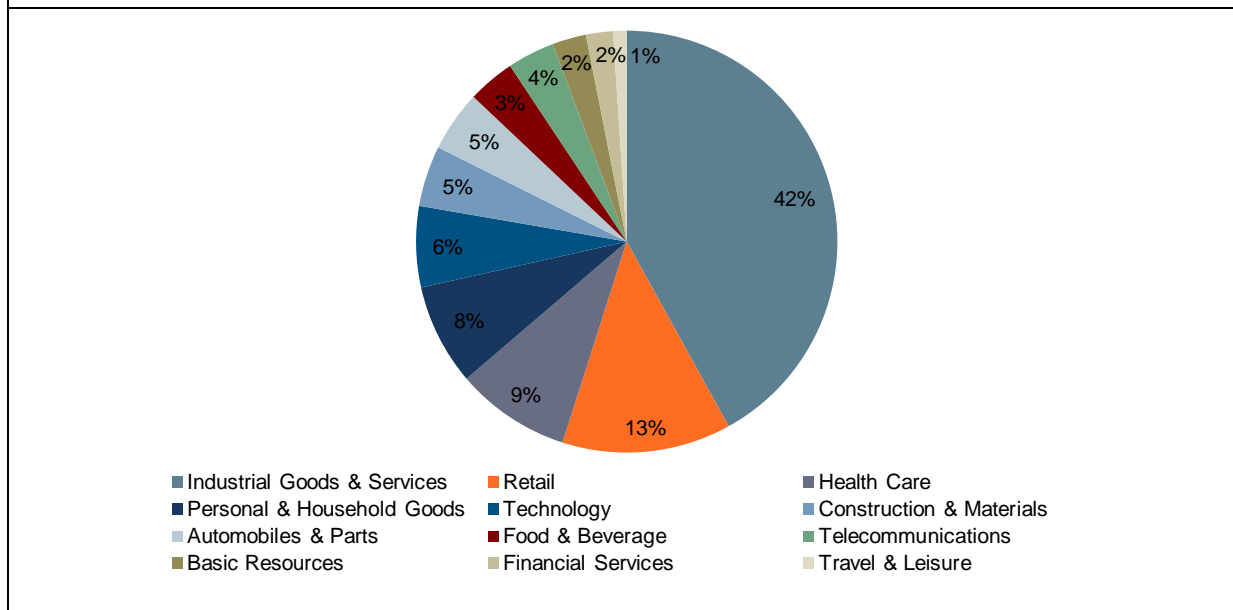
<sup>4</sup> Assumed to be 30%

<sup>5</sup>  $EBIT * (1 - tax) / (Total Assets - Non-Interest Bearing Short Term Payables)$

<sup>6</sup> Industry Classification Benchmark

<sup>7</sup> Nomenclature Generale des Activites Economiques dans l'Union Europeenne

Figure 1: Distribution of Transactions to Supersectors



The peer groups used for each company consists of all publicly traded Swedish companies in the respectively supersector. It could be argued that this rather crude approach of assigning peer companies will lead to large dissimilarities between the portfolio company and its peer group. However, by using this type of classification we capture the underlying changes in each industry. It could also be argued that the largest companies trade closer to steady state, and as such are to a larger extent affected by macro factors than firm specific events. We deem this approach of assigning peer groups satisfactory since the main reason for adjusting for peer group performance is to illustrate the PE sponsors' ability to generate abnormal operating performance.

### 4.3 Long-Run Operating Performance Study

In order to perform this study, we utilize the same method that has been used in several previous papers (e.g. Alemany and Marti, 2005; Bergström et al, 2007; Vinten, 2008). The used method studies the change in operating performance adjusted for the performance of peer groups.

In the study we use three different time periods. These are defined as a three year holding period, a five year holding period and the period between entry and exit, where only exited investments will be included. More specifically, the event window occurs between the entry year ( $t$ ) and either  $t+3$ ,  $t+5$  or the exit year. The time periods studied are chosen with regards to typical holding periods for PE sponsors. A

three year holding period or shorter is seen as a short investment period, whereas five years is longer than the average investment period. Since the PE sponsors have not exited all their investments within five years, it could be argued that there will be a bias due to that all improvements has not been made. Therefore, we also use the whole holding period as an event window since the exit implies that all improvements have been done to the portfolio company. Additionally, the last event window is chosen due to the J-curve effect in PE investment discovered by Burgel (2000). His study concluded that portfolio companies had a tendency to underperform up to the first four years of the investment and thereafter outperform. The underperformance is argued to stem from major restructurings in the portfolio companies during the early phase of the holding period. By using an event window which spans over the whole investment period we capture the possible J-curve effect.

The entry year is deemed to be the best starting point of the event windows since the data is unreliable at  $t-1$  (the year prior to the buyout). This is due to the fact that the company has been acquired during the year. There are also several cases where consolidated accounts are not established. For example, if the acquired company was a business unit or has been formed in a merger, the probability is high that there will be no data available at  $t-1$ . Additionally, if the data is available it is usually only available during the months that the PE sponsors have owned the company. This implies that the remaining period of the year has to be estimated, usually through annualizing the data. By doing so, seasonal effects are not taken into consideration and the data might therefore be highly inaccurate. Another issue is that during the acquisition year, there are usually problems with coherent financial statements due to change in ownership structure. Since we study the changes in the operating metrics, the first data point will be of major importance and we deem that using  $t-1$  as a base year in the study might give inaccurate results. Therefore we use the entry year as base year.

Since we perform our study on an annual basis we need to define how investments and exit years shall be counted. Similar to Bergström et al (2007), we use a six month cutoff period during the year. This implies that investments undertaken during the first six months of the year will have the investment year as entry year whereas investments undertaken during the last six months will have the

following year as its entry year. The same approach is used for deciding the ending year in the event window.

#### **4.4 Regression Models**

In this section we describe our statistical approach used in the study. As explained in the previous section we will utilize a long-run operating performance study in order to test our hypotheses. The hypotheses tests will be performed on a three year holding period, a five year holding period and finally for the whole investment period (including only exited transactions). When testing the whole investments period, the exit variable will be excluded since all transactions in the sample will be exited.

Since the aim of this study is to explain the operating performance, the dependent variables in all of our regression models will be our operating metrics (OPM) discussed in section 4.1. These are Sales CAGR, change in EBITDA margin and change in ROIC which are all adjusted with the operating metrics of each peer group.

The independent variables used in our models are used for all regressions in this study. The first general explanatory variable is a dummy explaining whether the transaction has been exited during the studied time period. A significant positive exit dummy implies that transactions which have been exited have a better operating performance compared to non-exited transactions. The next variable is the logarithmic of the total assets for each company at the year of entry. This variable is a proxy for firm size and explains if the size of a company has any impact on the operating performance. The third explanatory variable is the employee CAGR. The employee growth is deemed to be a strategic choice rather than a consequence of better performance and is therefore included as an explanatory variable. The last explanatory variable in our regression model is a crisis dummy. This dummy explains how the operating performance is affected by the underlying state of the economy. The crisis years are defined as 2001, 2002 and 2008.<sup>8</sup>

---

<sup>8</sup> The crisis dummy has also been tested when defined as the year before the crisis year, i.e. 2000, 2001 and 2007. This gave neither significant nor persistent results. We therefore use the original definition.

#### 4.4.1 Club Deals vs. Sole PE Sponsor Deals

$$(OPM_{t+n} - OPM_t) = \alpha + \beta_1 Club + \beta_2 Exit + \beta_3 Log(Totalassets_t) + \beta_4 Employees CAGR + \beta_5 Crisis + \varepsilon$$

The first regression model defined above is used in order to test hypothesis 1-a and 1-b. In order to study these we have constructed a club deal dummy which explains if club deals perform better than other PE deals. For hypothesis 1-a, the dummy is equal to one if the transaction is performed by a PE sponsor and an additional investor. This investor could be another PE sponsor, a passive investor or a strategic investor. For hypothesis 1b, the dummy is instead defined as a club deal that solely consists of transactions involving two active PE sponsors or more, i.e. excluding consortiums with passive investors or strategic investors. For the hypotheses to be verified, we expect that the club deal dummies will be positive and significant.

#### 4.4.2 Strategic and Passive Investors

In the second hypothesis, we aim to explore whether club deals including strategic investors perform worse due to increased coordination issues. Before running the regressions we will arrange the data such that only club deals are included. We use subsamples rather than running the regressions on the whole sample since it allows us to isolate the effect within club deals. Additionally, the interpretation of the results becomes more straightforward.<sup>9</sup> Thereafter we run the regression model stated below.

$$(OPM_{t+n} - OPM_t) = \alpha + \beta_1 (PE + Strategic) + \beta_2 (PE + Passive) + \beta_3 Exit + \beta_4 Log(Totalassets_t) + \beta_5 Employees CAGR + \beta_6 Crisis + \varepsilon$$

The key variables studied in this regression model are the dummies for club deals including a PE sponsor and passive investors and for club deals including a PE sponsor and strategic investors. We set club deals were two or more PE sponsors collaborate in an investment as the base case to observe the effect. Thus, our main assumption is that club deals consisting of two or more PE sponsors should be better at creating abnormal operating performance. Thus, we expect to find negative dummies. Strategic investors are defined as companies that operate within the same industry as the target company. In our sample, the strategic investor is usually the old owner company who continues to own a significant stake in the divested

---

<sup>9</sup> We also tested to run the regressions on the whole sample which gave similar results. This were done for all subsamples in the study.

company/business unit. Investors that are not active during the ownership but contribute with capital are deemed to be passive investors. These are investors such as the sixth AP fund and Investor. The remaining explanatory variables are the same as the regression model studied for hypothesis 1-a and hypothesis 1-b.

#### **4.4.3 Swedish vs. International Club Deals**

The data set including only club deals is also used when studying hypothesis 3-a. With this hypothesis we study if all Swedish club deals are able to outperform all International club deals. The regression model used is:

$$(OPM_{t+n} - OPM_t) = \alpha + \beta_1 \text{All International Club Deals} + \beta_2 \text{Exit} + \beta_3 \text{Log}(\text{Totalassets}_t) + \beta_4 \text{Employees CAGR} + \beta_5 \text{Crisis} + \varepsilon$$

The variable of interest in this model is the “All International Club Deals” dummy. The dummy is equal to one if the transaction includes an international investor. The remaining variables are the same as before.

In order to study hypothesis 3-b we need to arrange the data such that it only includes transactions which involve two active PE sponsors or more. Thus, no transactions involving passive or strategic investors are included. The regression model used is defined below.

$$(OPM_{t+n} - OPM_t) = \alpha + \beta_1 \text{International Club} + \beta_2 \text{Exit} + \beta_3 \text{Log}(\text{Totalassets}_t) + \beta_4 \text{Employees CAGR} + \beta_5 \text{Crisis} + \varepsilon$$

The “International Club” variable is a dummy which is equal to one if at least one of the PE sponsors’ is international.

#### **4.4.4 Club Deals Performance During Crisis Years**

In hypothesis 4-a we aim to study whether club deals undertaken during crisis years perform worse than sole PE sponsor deals during turbulent periods. In order to study this we only include transactions that have been entered during 2001, 2002 or 2008. These years are deemed to be crisis years. The data is then used in the following regression model.

$$(OPM_{t+n} - OPM_t) = \alpha + \beta_1 \text{Club Deal} + \beta_2 \text{Exit} + \beta_3 \text{Log}(\text{Totalassets}_t) + \beta_4 \text{Employees CAGR} + \varepsilon$$

The “Club Deal” dummy is simply defined as all club deals that have been entered during a year defined as a crisis year.

## 5 Data

### 5.1 Transaction Data

In order to collect the relevant transactions for this study, we have used Capital IQ and Mergermarket as our primary sources. We have also utilized the major Swedish and International PE sponsors' homepages as well as press releases to further complement our transaction list. This method was also used in order to determine whether a certain transaction should be classified as a buyout or a VC deal. All transactions deemed to be VC deals were systematically excluded from our transaction sample. It is not possible to guarantee that all relevant transactions are included in our sample but our sample does not have any systematic exclusion of certain transactions within the buyout segment.

Our transaction sample includes PE sponsored buyouts in Sweden between 1998 and H1 2011, larger than USD 5 million. However, between H2 2008 and H1 2011, new entries by PE sponsors are not considered as we aim to study PE deals with a holding period of minimum three years. We believe that this time period is sufficient, both due to the number of transactions performed during the time period and also because the time period captures both economic upturns and downturns. Furthermore, we also exclude deals in which a minority stake is acquired.

This method resulted in 248 PE sponsored transactions. Some companies have been acquired more than one time by a PE sponsor and are thus included as multiple transactions. Since our study is performed using accounting data we had to exclude transactions where no data could be found. The lack of data was mostly due to consolidating accounts abroad. Moreover, we excluded transactions that were considered outliers in terms of Sales CAGR, change in EBITDA and change in ROIC, for all studied periods. After excluding outliers and transactions with missing data, our sample consists of 193 transactions.<sup>10</sup>

The transactions used in the study consist of both investments that have been exited as well as investments that are still PE owned. As of 30 Jun 2011, 127 transactions had been divested which leaves 66 transactions that have not been realized by their PE sponsors. This might introduce a bias in our sample since it

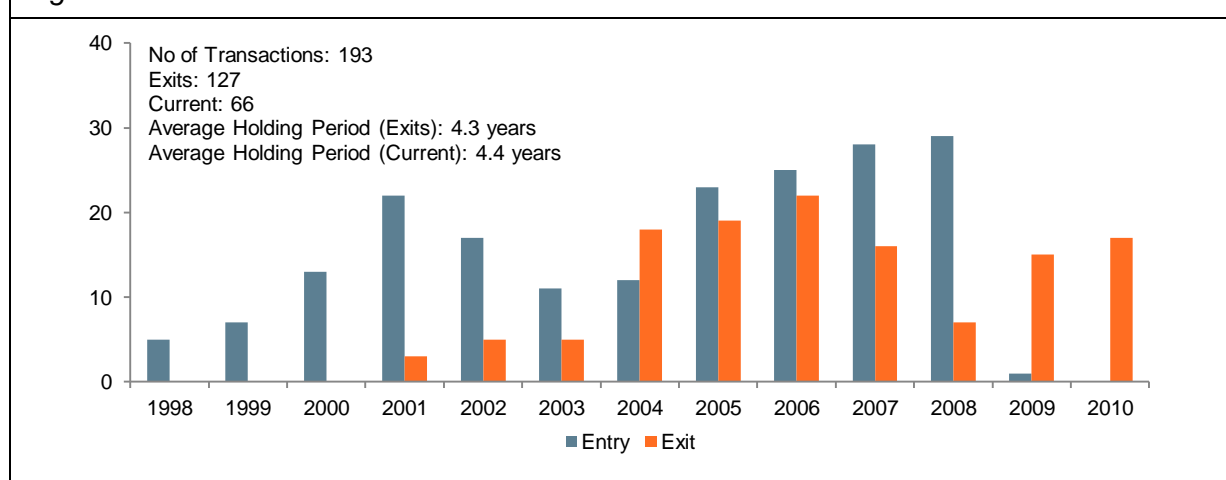
---

<sup>10</sup> See appendix for a complete list of all transactions included in this study.



could be argued that the PE sponsors' are not finished with all improvements of the portfolio companies'. The average holding period for the exited transactions is 4.3 years whereas the average holding period for the current investments are 4.4 years. This might seem surprising but this is due to the fact that we systematically exclude transactions that have been entered after 30 June 2008 if they have not been exited. In figure 2 we notice that investments have been made continuously throughout the period with a rising trend. This is natural since the PE market has been growing throughout the period.

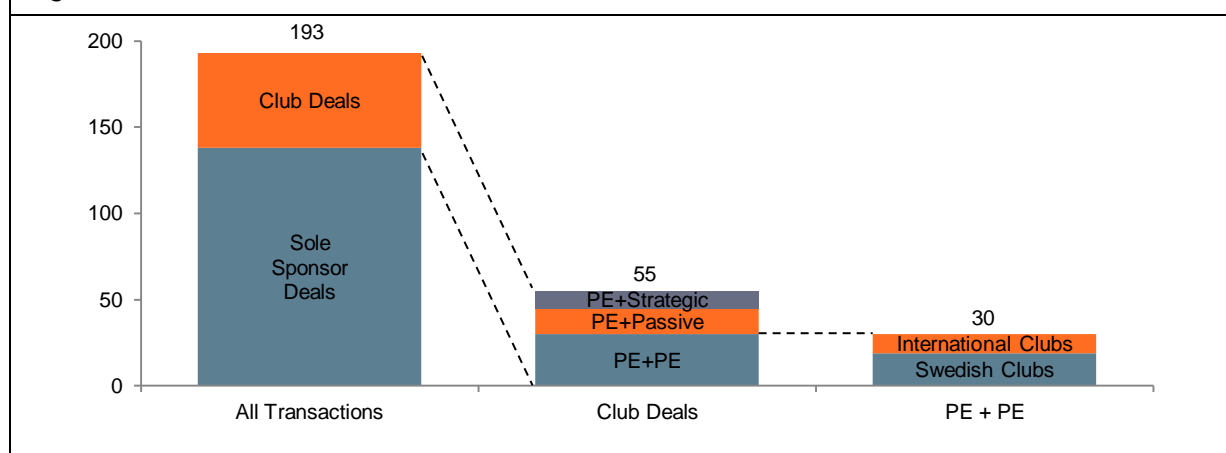
*Figure 2: Annual distribution of Entries and Exits*



When determining whether a certain transaction is a club deal or not we have used the information provided by Capital IQ and Mergermarket together with PE homepages and press releases. The same approach has been used for determining whether the club deal is Swedish or International as well as if the transaction was conducted by at least two active PE sponsors, one PE sponsor and a passive investor or by a PE sponsor and a strategic investor. The PE sponsor is deemed Swedish if they have a strong Swedish presence, e.g. 3i and Capman. If the club deal consists of both Swedish and International PE sponsors', the transaction is classified as an International club deal.

In total, our sample includes 55 club deals whereof 30 transactions involve at least two active PE sponsors, 15 transactions involve a PE sponsor and a passive investor and 10 transactions involve a PE sponsor and a strategic investor. Out of the 30 transactions performed by at least two active PE sponsors, 19 transactions are Swedish and the remaining 11 transactions are International.

*Figure 3: Distribution of the Transactions*



## 5.2 Accounting Data

In this study, the operating performance is measured through three accounting metrics. These are Sales CAGR, change in EBITDA margin and change in ROIC. The data for all portfolio companies has been collected in the annual reports which have been accessed using Affärsdata, Orbis and Retriever. We have collected the data from the consolidated statements since we aim to capture the performance of the whole group. We have collected data on Sales, EBIT, EBITDA, Total Assets, Current Liabilities and Short Term Interest-Bearing Debt in order to be able to calculate the operating metrics. Additionally, we have collected the number of employees. Since the data was collected manually we cannot guarantee that the data is completely free of errors due to the human factor in the process. However, we have made several sanity checks in the data and tried to double-check as much data as possible in order to minimize the potential errors. A potential problem with the data sample is that all add-on acquisitions are included. We choose to include the add-on acquisitions as this is a typical strategy of PE sponsors and a method of creating value to the portfolio companies. Moreover, it is also a common growth strategy for public companies where growth targets often include acquisitions. This is mitigated to a great extent since we also evaluate the operating performance using the EBITDA margin.

The accounting data for the peer groups were extracted using Datastream. This approach is in line with the study by Norman and Riboe (2011). We extracted Sales, EBIT, Depreciation and Amortization, Total Assets, Current Liabilities and Short Term Interest-Bearing Debt for each company. We also crosschecked some of the data with the annual reports in order to certify that the data generated by Datastream was

correct. We also certified that this method of extracting data was comparable to our manual data collecting for the portfolio companies. The data was then used to calculate the Sales CAGR, EBITDA margins and ROIC for each company. The company data was then transformed into industry data by weighting the operating metrics with the sales of each company for each year. This approach is used in order to minimize the impact of extreme outliers, mostly attributable to the small companies. This approach will also mitigate the survivorship bias in the data since the larger companies usually have a longer lifetime and are thereby more often included during all of the years attributable to this study. Obviously, this approach increases the importance of the largest companies in each industry. A valid argument is that the portfolio companies of the PE sponsors' will be smaller than its peer companies. This difference in size could imply different underlying growth, where smaller companies are expected to grow faster than larger companies. As described earlier, this should not have a major impact for the results of this study.

*Table 1: Descriptive Statistics*

Variable	Time Period	Mean	Median	Min	Max	Std. Dev.	Obs.
<b>Sales CAGR (Raw)</b>	3 Year	9.4%	6.7%	-23.3%	56.3%	14.2%	187
	5 Year	9.1%	7.5%	-23.3%	54.8%	13.3%	187
	Entry-Exit	10.8%	8.6%	-23.3%	43.6%	12.7%	124
<b>Sales CAGR (Adjusted)</b>	3 Year	5.5%	4.0%	-31.0%	49.3%	14.2%	187
	5 Year	5.1%	4.4%	-31.0%	48.5%	13.6%	187
	Entry-Exit	5.5%	4.4%	-31.0%	48.5%	13.8%	124
<b>EBITDA margin (Raw)</b>	3 Year	0.5%	0.1%	-29.4%	27.6%	7.6%	187
	5 Year	1.2%	0.4%	-25.0%	27.6%	7.5%	187
	Entry-Exit	2.8%	1.9%	-17.7%	27.6%	7.4%	124
<b>EBITDA margin (Adjusted)</b>	3 Year	-0.9%	-0.7%	-31.0%	29.5%	9.2%	187
	5 Year	-1.0%	-0.9%	-31.0%	23.8%	8.8%	187
	Entry-Exit	-0.1%	0.1%	-31.0%	23.8%	9.8%	124
<b>ROIC (Raw)</b>	3 Year	1.9%	1.6%	-47.8%	104.2%	13.0%	187
	5 Year	3.1%	2.1%	-47.8%	98.7%	13.5%	187
	Entry-Exit	5.2%	3.8%	-47.8%	98.7%	14.0%	124
<b>ROIC (Adjusted)</b>	3 Year	0.9%	1.2%	-50.0%	105.6%	14.3%	187
	5 Year	1.2%	0.9%	-47.4%	100.0%	14.5%	187
	Entry-Exit	2.4%	1.9%	-47.4%	100.0%	15.7%	124
<b>Total Assets (Entry) ('000)</b>	3 Year	2 431 929	749 364	39 844	38 500 000	4 745 294	187
	5 Year	2 426 613	728 213	39 844	38 500 000	4 747 184	187
	Entry-Exit	1 923 800	685 921	39 844	17 600 000	3 357 204	124
<b>Total Assets (Exit) ('000)</b>	3 Year	2 484 828	807 569	62 760	38 100 000	4 632 126	187
	5 Year	2 502 011	820 757	62 760	35 700 000	4 528 611	187
	Entry-Exit	2 084 424	772 138	62 760	16 900 000	3 370 439	124
<b>Employees CAGR</b>	3 Year	6.6%	3.7%	-33.0%	65.2%	15.6%	187
	5 Year	5.9%	3.5%	-33.0%	50.9%	14.1%	187
	Entry-Exit	7.1%	4.2%	-33.0%	50.9%	14.5%	124

## 6 Results and Analysis

In this section we will present the results generated from our regression models described in section 4.4. Each regression model is used on three different time periods, namely three years, five years and the whole holding period between entry and exit. The results and analysis are presented with regards to the stated hypotheses in section 3.

### 6.1 Club Deals vs. Sole PE Sponsor Deals

The main research question in this study is whether club deals are better at creating abnormal operating performance than sole PE sponsor deals. This question is studied through two hypotheses (1-a and 1-b), where the difference lies in the definition of club deals. In hypothesis 1-a, a club deal is defined as a consortium that involves a PE sponsor together with another PE sponsor, passive investors or strategic investors. In the next hypothesis (1-b), we define a club deal as a transaction involving two active PE sponsors or more. Thus, consortiums including passive investors or strategic investors are, in this case, not considered club deals.

Table 2 outlines the results from the regression model which aim to study hypothesis 1-a.<sup>11</sup> The coefficient in the table refers to the dummy variable for club deals. Although the change in EBITDA margin and ROIC have positive signs for all holding periods, no coefficient is statistically significant. Regarding the Sales CAGR, we discover a different result where club deals seem to have a negative effect. When looking at only exited investments, this result is significant with 95% confidence and the other time periods are significant with 90% confidence. Thus, club deals perform worse than sole PE sponsors when it comes to growing the portfolio companies. Since there is no evidence that club deals improve the EBITDA margin more than sole PE sponsors, we can conclude that club deals perform worse when it comes to generating value to its portfolio companies. This is the opposite to what we expected in hypothesis 1-a.

Our results indicate that club deals investments do not grow its portfolio companies at the same speed as sole PE sponsors. A reason for this could be that club deals are generally larger than sole PE sponsor deals. Lockett and Wright

---

<sup>11</sup> Please refer to the appendix for a complete regression output (same for all tables in the section).

(2001) and Manigart et al (2002) find that VC firms use syndication in order to enable investments in larger companies, while Schwartzman (2006) theorize that these capacity synergies are a valid motivation in the buyout segment as well. Thus, the fact that club deals are generally bigger implies that these companies will naturally have a lower growth rate as opposed to the smaller buyouts because they are closer to “steady state”. This is supported by the fact that the average size, estimated as total assets, is larger for club deals than for sole PE sponsor deals in our sample. However, in the regressions we control for the size of the portfolio companies by including the total assets as an explanatory variable. This implies that the size cannot be the only reason as to why club deals underperform in terms of sales growth.

*Table 2: Impact on Operating Metrics by all Club Deals*

Variable	Time Period	Coeff.	95 % Confidence Interval		P-value	R <sup>2</sup>	Adj-R <sup>2</sup>	Obs.
<b>Sales CAGR</b>	3 Year	-0.036	-0.077	0.006	0.091	0.240	0.219	187
	5 Year	-0.035	-0.074	0.005	0.086	0.240	0.219	187
	Entry-Exit	-0.050	-0.098	-0.004	0.035	0.215	0.188	124
<b>EBITDA margin</b>	3 Year	0.019	-0.010	0.048	0.201	0.093	0.068	187
	5 Year	0.012	-0.016	0.040	0.399	0.106	0.081	187
	Entry-Exit	0.013	-0.022	0.048	0.467	0.115	0.085	124
<b>ROIC</b>	3 Year	0.029	-0.018	0.076	0.224	0.040	0.013	187
	5 Year	0.018	-0.029	0.065	0.457	0.052	0.026	187
	Entry-Exit	0.023	-0.036	0.081	0.448	0.052	0.020	124

In hypothesis 1-b, we define club deals as consortiums involving two PE sponsors or more. When using this definition, the club deal does not have a negative effect on the Sales CAGR anymore. The ROIC is still insignificant but the EBITDA margins are positively significant. This implies that club deals involving only active PE sponsors are better at increasing the EBITDA margin than sole PE sponsors. Since this is consistent for all time periods reviewed, it strengthens this conclusion. As discussed in section 4.1, the change in EBITDA margin is deemed the best metric for measuring the operating performance of a company. Thus, we can conclude that club deals with two PE sponsors or more are better at adding value to its portfolio companies than sole PE sponsors. Especially since the Sales CAGR coefficients are insignificant.

The main reason for this is probably the skills synergies between the PE sponsors where the portfolio company can draw the benefits from the complementary expertise of several PE sponsors. According to Schwartzman (2006), the different experiences and skills of several PE sponsors should enable consortiums to improve the

operating performance, all other equal, more than a sole PE sponsor. It could also be argued that these types of club deals facilitate improved selection. In the VC context, Lerner (1994) finds that syndication improves the selection of targets. Thus, this improved selection could enable the PE sponsors to buy assets that are more accurately deemed to be easier to improve. However, Brander et al (2002) find that VC firms' add value in excess of improved selection, indicating that skill synergies improve the EBITDA margin. In conclusion, a club deal involving only PE sponsors outperform sole PE sponsors in terms of improving EBITDA margin by approximately 3.5 - 6 percentage points depending on holding period.

*Table 3: Impact on Operating Metrics by Club Deals with only PE sponsors*

Variable	Time Period	Coeff.	95 % Confidence Interval		P-value	R <sup>2</sup>	Adj-R <sup>2</sup>	Obs.
<b>Sales CAGR</b>	3 Year	-0.009	-0.062	0.044	0.735	0.229	0.207	187
	5 Year	-0.008	-0.056	0.042	0.752	0.227	0.206	187
	Entry-Exit	-0.033	-0.094	0.028	0.286	0.193	0.165	124
<b>EBITDA margin</b>	3 Year	0.042	0.006	0.079	0.024	0.110	0.086	187
	5 Year	0.034	-0.001	0.069	0.054	0.121	0.096	187
	Entry-Exit	0.058	0.013	0.102	0.011	0.158	0.129	124
<b>ROIC</b>	3 Year	0.001	-0.059	0.061	0.980	0.032	0.005	187
	5 Year	0.006	-0.053	0.065	0.831	0.050	0.023	187
	Entry-Exit	0.011	-0.065	0.086	0.783	0.048	0.016	124

When analyzing the results from the two different regression models it is possible that club deals involving strategic investors and/or passive investors perform worse than club deals involving only active PE sponsors. This subject is analyzed in the next hypothesis.

## 6.2 Strategic and Passive Investors

In the second hypothesis, we argue that consortiums including strategic buyers or passive investors should perform worse than consortiums with only PE sponsors. Strategic investors are generally unfamiliar with PE sponsors approach to generate value. Moreover, a strategic investor might have different strategic views and/or goals as opposed to the PE sponsor. This is argued to lead to greater coordination problems during the investment period and this effect is considered to be superior to the skill synergies in such a consortium. Passive investors will not contribute in terms of skill synergies and should therefore be inferior in performance to club deals with two or more active PE sponsors.

As could be seen in table 4 below, the consortiums involving strategic investors perform worse in terms of all operating metrics studied. The negative effects on the EBITDA margin are significant at the 5% level. Sales CAGR and ROIC seem to be negatively affected by the presence of a strategic buyer in the consortium but the results are not significant. For consortiums involving passive investors, both the Sales CAGR and EBITDA margin seem to be negatively affected but the results are not significant. As opposed to the results from consortiums with strategic investors, the ROIC is positive but as in the case of strategic investors, the results are insignificant.

These results indicate that consortiums involving strategic investors perform worse than consortiums including only PE sponsors. These results are consistent with the conclusions drawn from the results in table 2 and 3 as well as hypothesis 2-a where we argue that consortiums including strategic investors will perform worse. As discussed above, this might stem from different views and unfamiliarity on how to add value between PE sponsors' and strategic investors, different strategic goals etc. In our sample, the majority of the club deals involving strategic investors have their previous owner left owning a big part of the divested company. This could explain why the strategic club deals underperform since the strategic investor might be contra productive and have incentives not to change too much in the company out of strategic reasons. Additionally, it could be argued that the PE sponsor has more control of the investment than the strategic investors which might lead to opportunism by the PE sponsor (See Pichler & Wilhelm, 2001; Piskorski 2004). This might give rise to even more friction between the investors and thereby increased coordination problems.

The results regarding consortiums including passive investors did not prove to be significantly worse in improving operating performance. Thus, we cannot prove hypothesis 2-b that club deals involving more than one PE sponsor have better performance. This could be due to the small number of observations we have for each type. One could also argue that no coordination problems will occur since the co-investors are passive.

One important thing to note is that the significant negative Sales CAGR for all club deals cannot be totally explained by the negative effects from club deals involving strategic investors or passive investors or two PE sponsors or more. This leaves the

conclusion that club deals involving all types are worse than sole PE sponsors in terms of Sales CAGR.<sup>12</sup>

*Table 4: Impact on Operating Metrics by Club Deals Involving either a Strategic Investor or a Passive Investor vs. Club Deals Involving only Active PE Sponsors*

Variable	Time Period	Coeff.	95 % Confidence Interval		P-value	R <sup>2</sup>	Adj-R <sup>2</sup>	Obs.
<b>Sales CAGR</b>	3 Year	-0.040	-0.137	0.056	0.404	0.272	0.178	53
	5 Year	-0.043	-0.131	0.045	0.331	0.239	0.142	54
	Entry-Exit	-0.034	-0.119	0.051	0.427	0.400	0.319	43
<b>EBITDA margin</b>	3 Year	-0.090	-0.159	-0.020	0.012	0.221	0.120	53
	5 Year	-0.093	-0.162	-0.025	0.009	0.241	0.144	54
	Entry-Exit	-0.115	-0.185	-0.045	0.002	0.363	0.277	43
<b>ROIC</b>	3 Year	-0.013	-0.148	0.121	0.844	0.190	0.084	53
	5 Year	-0.023	-0.151	0.103	0.711	0.239	0.142	54
	Entry-Exit	-0.008	-0.166	0.150	0.922	0.204	0.097	43
<b>Sales CAGR</b>	3 Year	-0.071	-0.163	0.022	0.130	0.272	0.178	53
	5 Year	-0.069	-0.158	0.018	0.120	0.239	0.142	54
	Entry-Exit	-0.064	-0.142	0.019	0.129	0.400	0.319	43
<b>EBITDA margin</b>	3 Year	-0.012	-0.078	0.054	0.713	0.221	0.120	53
	5 Year	-0.017	-0.085	0.052	0.621	0.241	0.144	54
	Entry-Exit	-0.043	-0.111	0.025	0.209	0.363	0.277	43
<b>ROIC</b>	3 Year	0.075	-0.054	0.203	0.249	0.190	0.084	53
	5 Year	0.045	-0.082	0.173	0.475	0.239	0.142	54
	Entry-Exit	0.036	-0.118	0.190	0.638	0.204	0.097	43

### 6.3 Swedish vs. International Club Deals

In the third hypothesis we aim to study whether international presence in a consortium has any effect on the operating performance. As before, we use two types of definitions for club deals, one including all club deals whereas the second definition includes only the club deals consisting of two or more PE sponsors. The club deals are then deemed international if one party in the consortium is non-Swedish. However, PE sponsors with a strong Swedish presence are deemed Swedish.

Hypothesis 3-a explores all club deals and the results are presented in table 5 below. The results are widely negative which implies that consortiums including an international investor might be performing worse. However, the results are all insignificant except for the change in EBITDA margin at a five year holding period. This result could be due to either white noise, small number of observations (giving

<sup>12</sup> Regressions on the entire sample on PE+PE, PE+Strategic and PE+Passive can be found in the appendix. These results are in line with the conclusions above and the results in table 4.



higher sensitivity to each observation) or it could be due to that PE firms actually perform better around a five year time horizon. We would consider the last doubtful due to the insignificant results from the other time periods and the fact that the other operating metrics are also insignificant.

Although most of the results are insignificant, it is still possible to see a negative trend for international investors. This might be due to that the Swedish (local) PE sponsors have a superior ability to analyze and understand investments in their home market. This is consistent with the research of Malloy (2005) and Orpurt (2004), who find results that local analysts are better than non-local analysts. Since we have a different classification for international investors, our results in terms of Sales CAGR are not totally contradictory to Norman and Riboe (2011), who find that International PE sponsors are better at growing their portfolio companies.

*Table 5: Impact on Operating Metrics by all International Club Deals*

Variable	Time Period	Coeff.	95 % Confidence Interval		P-value	R <sup>2</sup>	Adj-R <sup>2</sup>	Obs.
<b>Sales CAGR</b>	3 Year	0.009	-0.073	0.091	0.824	0.234	0.152	53
	5 Year	-0.004	-0.078	0.069	0.903	0.196	0.111	54
	Entry-Exit	-0.017	-0.090	0.056	0.640	0.363	0.296	43
<b>EBITDA margin</b>	3 Year	-0.047	-0.107	0.013	0.124	0.146	0.055	53
	5 Year	-0.062	-0.119	-0.005	0.033	0.196	0.112	54
	Entry-Exit	-0.039	-0.104	0.027	0.238	0.204	0.120	43
<b>ROIC</b>	3 Year	-0.089	-0.199	0.022	0.113	0.203	0.119	53
	5 Year	-0.078	-0.180	0.024	0.131	0.260	0.183	54
	Entry-Exit	-0.071	-0.202	0.058	0.271	0.223	0.141	43

In hypothesis 3-b we focus solely on International club deals between PE sponsors. The results presented in table 6 imply that International club deals perform worse than Swedish club deals in terms of Sales CAGR. Although not significant with 95% confidence, they are with 90% confidence and the results are consistent throughout all time periods. The results in the regressions on the operating metrics EBITDA margin and ROIC are all positive but they are not significant. Thus, no conclusions can be made regarding the difference in profitability between Swedish and International club deals. However, for a three year holding period the change in EBITDA margin is significant with 90% confidence. This could be due to either white noise, small number of observations (giving higher sensitivity to each observation) or it could be due to that PE firms actually perform better at a short time horizon. We

would consider this unlikely due to the J-curve effect described by Burgel (2000), the low adjusted  $R^2$  and finally the insignificant results for the other time periods.

To conclude, the negative Sales CAGR together with insignificant results on the EBITDA margin implies that International club deals underperforms compared to its Swedish peers.

*Table 6: Impact on Operating Metrics by International Club Deals with only PE Sponsors*

Variable	Time Period	Coeff.	95 % Confidence Interval		P-value	$R^2$	Adj- $R^2$	Obs.
<b>Sales CAGR</b>	3 Year	-0.120	-0.241	0.000	0.050	0.589	0.496	28
	5 Year	-0.106	-0.216	0.004	0.058	0.548	0.450	29
	Entry-Exit	-0.102	-0.222	0.017	0.087	0.699	0.625	21
<b>EBITDA margin</b>	3 Year	0.087	-0.010	0.184	0.076	0.186	0.000	28
	5 Year	0.049	-0.049	0.147	0.309	0.203	0.030	29
	Entry-Exit	0.086	-0.043	0.215	0.175	0.213	0.018	21
<b>ROIC</b>	3 Year	0.043	-0.038	0.123	0.283	0.126	-0.073	28
	5 Year	0.058	-0.042	0.159	0.244	0.308	0.158	29
	Entry-Exit	0.076	-0.074	0.226	0.299	0.224	0.030	21

#### 6.4 Club Deal Performance During Crisis Years

In the last hypothesis, we aim to study whether club deals perform worse if the entry occurred during a crisis year. We argue that if the club deal comes off to a bad start, the coordination problems might become more severe.

The results are presented in table 7 and there seem to be a negative impact on the Sales CAGR if the investment has been undertaken during a crisis year. In terms of change in EBITDA margin and ROIC, an investment during a crisis year does not seem to matter. The results are consistent through all time periods which indicate that the results are robust.

To contrast this, we have also run the regression during the non-crisis years as can be seen in table 8. Since the Sales CAGR are negative but not statistically significant, it indicates that club deals perform worse during crisis years. This could to a large degree explain why club deals underperform in terms of Sales CAGR in hypothesis 1-a.

To conclude, our data supports that club deals underperform compared to sole PE sponsor deals during crises years in terms of Sales CAGR. Together with insignificant results on EBITDA margin and ROIC, this implies that club deals underperform in creating value for its portfolio companies during these years.

*Table 7: Impact on Operating Metrics by Club Deals in Crisis Years*

Variable	Time Period	Coeff.	95 % Confidence Interval		P-value	R <sup>2</sup>	Adj-R <sup>2</sup>	Obs.
<b>Sales CAGR</b>	3 Year	-0.075	-0.142	-0.008	0.028	0.395	0.353	63
	5 Year	-0.063	-0.131	0.004	0.064	0.378	0.335	63
	Entry-Exit	-0.083	-0.152	-0.013	0.020	0.425	0.384	47
<b>EBITDA margin</b>	3 Year	0.007	-0.043	0.057	0.775	0.057	-0.008	63
	5 Year	0.127	-0.036	0.061	0.603	0.056	-0.009	63
	Entry-Exit	0.003	-0.058	0.065	0.917	0.030	-0.039	47
<b>ROIC</b>	3 Year	-0.029	-0.088	0.029	0.315	0.068	0.004	63
	5 Year	-0.041	-0.106	0.025	0.218	0.012	0.054	63
	Entry-Exit	-0.047	-0.126	0.031	0.227	0.067	0.001	47

*Table 8: Impact on Operating Metrics by Club Deals during Non- Crisis Years*

Variable	Time Period	Coeff.	95 % Confidence Interval		P-value	R <sup>2</sup>	Adj-R <sup>2</sup>	Obs.
<b>Sales CAGR</b>	3 Year	-0.018	-0.072	0.035	0.494	0.165	0.137	124
	5 Year	-0.025	-0.074	0.024	0.321	0.158	0.130	124
	Entry-Exit	-0.034	-0.096	0.027	0.268	0.130	0.094	77
<b>EBITDA margin</b>	3 Year	0.025	-0.011	0.062	0.170	0.095	0.065	124
	5 Year	0.018	-0.016	0.052	0.297	0.145	0.116	124
	Entry-Exit	0.021	-0.024	0.066	0.359	0.031	-0.009	77
<b>ROIC</b>	3 Year	0.025	-0.029	0.080	0.354	0.049	0.017	124
	5 Year	0.025	-0.028	0.077	0.359	0.076	0.045	124
	Entry-Exit	0.030	-0.035	0.095	0.355	0.015	0.026	77

## 6.5 Summary

The major finding in the study is that club deals involving two PE sponsors or more are better able to increase its portfolio companies EBITDA margin than sole PE sponsors. The change in EBITDA margin is deemed to be the best proxy of value creation since ROIC is unreliable because we cannot verify that the observed capital structure is correct. The Sales CAGR is also deemed as a good indicator of operating performance but more uncertain than the EBITDA margin since it is influenced by add-on acquisitions.

When measuring all club deals, they seem to underperform in terms of Sales CAGR. This result does not seem to depend on type of club deal (table 3-4) but it seems to depend on the timing of the investment. Club deals perform worse during the crisis years (both negative and statistically significant) than during non-crisis year (negative and not significant). This implies that all club deals underperform compared to sole PE sponsors in terms of Sales CAGR when looking at the entire sample.

Another interesting finding is that club deals involving strategic investors underperform other club deals in terms of change in EBITDA margin. This confirms our hypothesis that the coordination problems might be more severe for these types of club deals. When studying Swedish vs. International club deals, the only clear result is that International club deals involving only PE sponsors underperform in terms of sales CAGR.

Another factor worth mentioning is that we find no clear results for the ROIC measure. As previously discussed in section 4.1, the ROIC measure is problematic due to major changes in the capital structure or unobservable debt in foreign holding companies. Thus, this finding is not totally unexpected.

In section 3, we formulated seven hypotheses that have been studied in this paper. We find that four out of the seven hypotheses were in line with our expectations, based on the academic literature.

*Table 9: Summary of Hypotheses*

	Hypotheses	True/False
<b>1-a</b>	All club deals are able to generate higher abnormal operating performance than sole PE sponsor deals.	<b>False</b>
<b>1-b</b>	Club deals with two active PE sponsors or more are able to generate higher abnormal operating performance than deals involving only one PE sponsor.	<b>True</b>
<b>2-a</b>	Club deals with only PE sponsors are able to generate higher abnormal operating performance than a consortium including strategic buyers.	<b>True</b>
<b>2-b</b>	Club deals with only PE sponsors are able to generate higher abnormal operating performance than a consortium including passive investors.	<b>False</b>
<b>3-a</b>	All International club deals underperform in comparison to all Swedish club deals.	<b>False</b>
<b>3-b</b>	International club deals with two active PE sponsors or more underperform in comparison to Swedish club deals with two active PE sponsors or more.	<b>True</b>
<b>4-a</b>	Club deals perform worse if the entry occurs during an economic downturn.	<b>True</b>

## 7 Conclusions

Private Equity has since its inception become increasingly popular as an investment form where more capital is allocated to the equity class than ever. This study takes an interest into differences in the operating performance between sole PE sponsor deals and club deals. The club deals are investments in which PE sponsors form consortiums with other investors.

Previous literature (although in a VC context) debates whether these club deals are better at adding value to its portfolio companies than sole PE sponsor deals. The proponents claim that the consortiums facilitate skill synergies and capacity synergies. Although not value adding for the portfolio companies, club deals could also facilitate lower prices of the companies which are good for the investors. Potential drawbacks of club deals mainly stems from coordination problems between the members of the consortium.

In this study we aim to measure whether the club deals actually are better at generating abnormal operating value. Our results indicate that club deals are not better at generating operating performance than sole PE sponsors and even perform worse in terms of Sales CAGR. However, this result is only seen when using the broad definition of club deals, where consortiums involving strategic and passive investors are defined as club deals. When we define club deals as only consortiums with at least two PE sponsors, we find that club deals are better at generating abnormal operating performance in terms of EBITDA margin. This result is in line with previous literature that, for example, finds information and knowledge sharing in a VC context. Additionally, it implies that the skill and capacity synergies outweigh the negative aspects of club deals between PE sponsors. This is a major finding in the study and would suggest that more club deals should be done between PE sponsors in order to create economic value.

Since club deals involving only PE sponsors are better while all club deals perform worse, the implication of this is that club deals involving strategic investors and/or passive investors should perform worse. Our data support the hypothesis that it is the consortiums involving strategic investors that are underperforming. This is argued to stem from greater coordination issues in such consortiums. Since our sample of club deals including strategic buyers are mainly consortiums between a PE sponsor and a

former owner, this implies that PE sponsors should be careful when considering these types of buyouts.

When comparing Swedish to International club deals, there seem to be an advantage of being local. This is not completely evident when examining all club deals but for club deals with only PE sponsors there is a significant negative impact on the Sales CAGR. This finding might be somewhat surprising since previous literature find that International PE sponsors are better at growing its portfolio companies.

In our final hypothesis we aim to study whether club deals perform worse if the investment was made during a crisis year. We argue that a bad start might worsen the coordination problems in the consortium and thereby lead to worse performance. Our data support our hypothesis due to the significantly worse performance in Sales CAGR for club deal investments made during non-crisis years.

Our study has found some potential upsides as well as drawbacks of different kinds of club deals. This research could help PE sponsors make more informed decisions and also give the academic community insight into the previously unexplored area of club deals within the PE market. Our recommendation for further research is to take this study abroad and compare the results found in Sweden with other PE markets. Another interesting study would be to measure and analyze differences in the IRR. However, this is dependent on whether accurate data could be obtained. Furthermore, a deeper qualitative study with regards to the negative effect of strategic investors in a consortium would be motivated since it is an unexplored topic with interesting implications.

## References

### Introduction

Acharya, Viral V., Hahn, Moritz., and Kehoe, Conor., 2009, Corporate Governance and Value Creation: Evidence from Private Equity, working paper, London Business School.

Admati, Anat R., and Pfleiderer, Paul., 1994, Robust Financial Contracting and the Role of Venture Capitalists, *The Journal of Finance*, Vol. 49, No. 2, 371-402.

Aleman, Luisa., and Martí, José., 2005, Unbiased Estimation of Economic Impact of Venture Capital Backed Firms, Working paper, EISB Conference, Barcelona, Spain.

Amess, Kevin., 2003, The Effect of Management Buyouts on Firm-Level Technical Inefficiency: Evidence from a Panel of UK Machinery and Equipment Manufacturers, *The Journal of Industrial Economics*, Vol. 51, No. 1, 35-44.

Andrade, Gregor., and Kaplan, Steven N., 1998, How Costly is Financial (Not Economic) Distress? Evidence from Highly Leveraged Transactions that Became Distressed, *The Journal of Finance*, Vol. LIII, No. 5, 1443-1493.

Axelson, Ulf., Strömberg, Per., and Weisbach, Michael S., 2007, Why are Buyouts Levered? The Financial Structure of Private Equity Funds, NBER Working Paper.

Berg, Achim., and Gottschalg, Oliver., 2004, Understanding Value Generation in Buyouts, working paper, INSEAD.

Bergström, Clas., Grubb, Mikael., and Jonsson, Sara., 2007, The Operating Impact of Buyouts in Sweden – A study of Value Creation, *Journal of Private Equity*, Winter 2007.

Beroutsos, Andreas., Freeman, Andrew., and Kehoe, Conor F., 2007, What Public Companies Can Learn from Private Equity, *The McKinsey Quarterly: The Online Journal of McKinsey & Co.*

Boone, Audra L., and Mulherin, J. Harold., 2011, Do Private Equity Consortiums Facilitate Collusion in Takeover Bidding?, *Journal of Corporate Finance*, Vol. 17, 1475-1495.

Brander, James A., Amit, Raphael., and Antweiler, Werner., 2002, Venture-Capital Syndication: Improved Venture Selection vs. the Value-Added Hypothesis, *Journal of Economics and Management Strategy*, Vol. 11, No. 3, 423-452.

Burgel, Oliver., 2000, UK Venture Capital and Private Equity as an Asset Class for Institutional Investors, Research report, London Business School.

Bygrave, William D., 1987, Syndicated Investments by Venture Capital Firms: A Networking Perspective, *Journal of Business Venturing*, Vol. 2, 139-154.

Cao, Jerry., and Lerner, Josh., 2009, The Performance of Reverse Leveraged Buyouts, *Journal of Financial Economics*, 139-157.

Cumming, Douglas J., 2003, The Determinants of Venture Capital Portfolio Size: Empirical Evidence, *Journal of Business*, Vol. 79, 1083-1126.

DeAngelo, H., DeAngelo, L., and Rice, E. (1984), Going Private: Minority Freezeouts and Shareholder Wealth, *Journal of Law and Economics*, Vol. 27, No. 2, 367-401.

Easterwood, John C., Seth, Anju., and Singer, Ronald F., 1989, The Impact of Leveraged Buyouts on Strategic Direction, *California Management Review*, Vol. 32, 30-43.

Fried, Vance H., and Hisrich, Robert D., 1995, Toward a Model of Venture Capital Investment Decision Making, *Financial Management*, Vol. 23, No. 3, 28-37.

Graham, Daniel A., and Marshall, Robert C., 1987, Collusive Bidder Behavior at Single-Object Second-Price and English Auctions, *Journal of Political Economy*, Vol. 95, No. 6, 1217-1239.

Guo, Shourun., Hotchkiss, Edith S., and Song, Weihong., 2011, Do Buyouts (Still) Create Value?, *The Journal of Finance*, Vol. 66, 479-517.

Harris, Richard., Siegel, Donald., and Wright, Mike., 2005, Assessing the Impact of Management Buyouts on Economic Efficiency: Plant-Level Evidence from the United Kingdom, *Review of Economics and Statistics*, Vol. 87, 148-153.

Heel, Joachim., and Kehoe, Conor., 2005, Why Some Private Equity Firms do Better than Others, *The McKinsey Quarterly*, Vol. 1, 24-26.

Hill, Charles W. L., 1990, Cooperation, Opportunism, and the Invisible Hand: Implications for Transaction Cost Theory, *The Academy of Management Review*, Vol. 15, No. 3, 500-513.

Hochberg, Yael V., Ljungqvist, Alexander., Lu, Yang., 2007, Whom You Know Matters: Venture Capital Networks and Investment Performance, *The Journal of Finance*, Vol. 62, No. 1, 251-301.

Holthausen, Robert W., and Larcker, David F., 1996, The Financial Performance of Reverse Leveraged Buyouts, *Journal of Financial Economics*, Vol. 42, 293-332.

Hotchkiss, Edie., Smith, David C., Strömberg, Per., 2010, Private Equity and the Resolution of Financial Distress, NBER Working Paper.

Jensen, Michael C., 1989, Eclipse of the Public Corporation, *Harvard Business Review*, September-October, 61-74.

Jääskeläinen, Mikko., Maula, Markku., and Seppä, Tuukka., 2006, Allocation of Attention to Portfolio Companies and the Performance of Venture Capital Firms, *Entrepreneurship, Theory and Practice*, 185-206.



Kaplan, Steven., and Schoar, Antoinette., 2005, Private Equity Performance: Returns, Persistence and Capital Flows, *Journal of Finance*, Vol. 60, 1791-1823.

Kaplan, Steven., and Strömberg, Per., 2008, Leveraged Buyouts and Private Equity, NBER Working Paper, No. 14207.

Kaplan, Steven., 1989a, The Effects of Management Buyouts on Operating Performance and Value, *Journal of Financial Economics*, Vol. 24, 217-254.

Kaplan, Steven., 1989b, Management Buyouts: Evidence on Taxes as a Source of Value, *The Journal of Finance*, Vol. 44, No. 3, 611-632.

Lerner, Joshua., 1994, The Syndication of Venture Capital Investments, *Financial Management*, Vol. 23, No. 3, 16-27.

Lerner, Josh., Sørensen, Morten., and Strömberg, Per., 2011, Private Equity and Long-Run Investment: The Case of Innovation, *The Journal of Finance*, Vol.66, No. 2, 445-477.

Lichtenberg, Frank R., and Siegel, Donald., 1990, The Effects of Leveraged Buyouts on Productivity and Related Aspects of Firm Behavior, *Journal of Financial Economics*, Vol. 27, 165-194.

Lockett, Andy., and Wright, Mike., 2001, The Syndication of Venture Capital Investments, *Omega: The International Journal of Management Science*, Vol. 29, 375-390.

Malloy, Christopher J., 2005, The Geography of Equity Analysis, *Journal of Finance*, 60(2), 719-755.

Manigart, Sophie., Lockett, Andy., Meuleman, Miguel., Wright, Mike., Landström, Hans., Bruining., Desbrieres, Philippe., and Hommel, Ulrich., 2002, Why do European Venture Capital Companies Syndicate?, Working Paper.

Mares, Vlad., and Shor, Mikhael., 2008, On the Competitive Effects of Bidding Syndicates, Working paper, Washington University and Vanderbilt University.

Marshall, Robert C., and Marx, Leslie M., 2007, Bidder Collusion, *Journal of Economic Theory*, Vol. 133, 374-402.

McAfee, R. Preston., and McMillan, John., 1992, Bidding Rings, *The American Economic Review*, 579-599.

Muscarella, Chris J., and Vetsuypens, Michael R., 1990, Efficiency and Organizational Structure: A Study of Reverse LBOs, *The Journal of Finance*, Vol. XLV, No. 5, 1389-1413.

Norman, Christoffer., and Riboe, Richard., 2011, Does a Local Advantage Exist in Private Equity?, Stockholm School of Economics.

Officer, Micah S., Ozbas, Oguzhan., and Sensoy, Berk A., 2008, Club Deals in Leveraged Buyouts, Working paper, Vanderbilt University and University of Southern California.

Orpurt, Steven F., 2004, Local Analyst Earnings Forecast Advantages in Europe, Working paper, University of Chicago.

Phalippou, Ludovic., and Gottschalg, Oliver., 2009, The Performance of Private Equity Funds, *Review of Financial Studies*, Vol. 22, 1747-1776.

Pichler, Pegaret., and Wilhelm, William., 2001, A Theory of the Syndicate: Form Follows Function, *Journal of Finance*, Vol. 56, No. 6, 2237-2264.

Piskorski, Mikolaj Jan., 2004, Networks of Power and Status: Reciprocity in Venture Capital Syndicates, Working Paper Graduate School of Business, Stanford University.

Robinson, Marc S., 1985, Collusion and the Choice of Auction, *The RAND Journal of Economics*, Vol. 16, No. 1, 141-145.

Ross Sorkin, A., 2007, Can Private Equity Firms Get Out of Buyouts?, *The New York Times*, August 21.

Sah, Raaj Kumar., and Stiglitz, Joseph E., 1986, The Architecture of Economic Systems: Hierarchies and Polyarchies, *American Economic Review* (September), 716-727.

Schwartzman, Eric., 2006, Club Deals: What it takes to make a consortium work, *International Financial Law Review*, Vol. 25, No. 1, 99-102.

Singh, Harbir., 1990, Management Buyouts: Distinguishing Characteristics and Operating Changes Prior to Public Offering, *Strategic Management Journal*, Vol. 11, Special Issue: Corporate Entrepreneurship, 111-129.

Sorenson, Olav., and Stuart, Toby E., 2001, Syndication Networks and the Spatial Distribution of Venture Capital Investments, *The American Journal of Sociology*, Vol. 106, 1546-1588.

Strömberg, Per., 2008, The New Demography of Private Equity, *World Economic Forum: The Global Economic Impact of Private Equity Report 2008*.

Vinten, Frederik., 2008, The Performance of Private Equity Buyout Fund Owned Firms, Working Paper, Copenhagen Business School.

Wright, Mike., and Lockett, Andy., 2003, The Structure and Management of Alliances: Syndication in the Venture Capital Industry, *Journal of Management Studies*, Vol. 40, No. 8, 2073-2102.

Wright, Mike., and Robbie, Ken., 1998, Venture Capital and Private Equity: A Review and Synthesis, *Journal of Business Finance and Accounting*, Vol. 25, 521-570.

# Appendix

## Transaction List

Portfolio Company	PE Sponsor(s)	Bought From	Sold To	Entry Year	Exit Year	Industry
Academedia	Bure Equity	P2P	EQT	2008	2009	Retail
Addici	Argan Capital Advisors	Manpower Business Solutions	Danske Bank	2007	2008	Industrial Goods & Services
AddPro	Polaris Management	Private	Current	2005	-	Technology
Aditro	Nordic Capital	Tieto	Current	2007	-	Industrial Goods & Services
Ahlsell	Cnven; Goldman Sachs MB	Nordic Capital	Current	2006	-	Industrial Goods & Services
Ahlsell	Nordic Capital; Trelleborg	Trelleborg	Cnven Limited; Goldman Sachs MB	2000	2005	Industrial Goods & Services
Akers	Altor	STC Interfinans	Current	2008	-	Industrial Goods & Services
Aleris	EQT	ISS World Services	Investor	2005	2009	Health Care
Alfa Laval	IK Investment Partners	Tetra Laval International	IPD	2001	2004	Industrial Goods & Services
Alignment Systems	3i; Accent Equity Partners; Euroventures Management	Zeteco	FSN Capital Partners	2002	2005	Automobiles & Parts
Alignment Systems	FSN Capital Partners	3i; Accent Equity Partners; Euroventures Management	Current	2006	-	Automobiles & Parts
Alimak Hek Group	3i; Ratos	Merger betw een Alimak & Hek	Triton	2002	2006	Automobiles & Parts
Alimak Hek Group	Triton	3i; Ratos AB	Current	2007	-	Industrial Goods & Services
Almody	Segulah	Smedvig Capital	Current	2008	-	Food & Beverage
Älö	3i; Balticgruppen	Balticgruppen	Altor	2003	2010	Industrial Goods & Services
Ambea	3i; Gov of Singapore Invest. Corp.	Merger betw een Carema & Mehläinen	KKR; Triton	2006	2009	Health Care
Annas Pepparkakor	Accent Equity Partners	MBO	Lotus Bakeries	2006	2008	Food & Beverage
Anticimex	Nordic Capital	TMX-Europe	Ratos	2002	2005	Industrial Goods & Services
Anticimex	Ratos	Nordic Capital	Current	2006	-	Industrial Goods & Services
Arca Systems	IK Investment Partners; MB Funds	Perstorp	Schoeller Arca Systems Services	1998	2004	Industrial Goods & Services
Aspen i Jönköping	Valedo Partners	MBO	CapMan	2008	2010	Personal & Household Goods
Atea	3i; Logica (WM Data)	WM Data	Ementor	2002	2005	Technology
Ateljé Margaretha	Litorina	Private	Current	2005	-	Retail
Atos Medical	Nordic Capital	Fisher Scientific International	EQT	2005	2011	Health Care
Attendo	Bridgepoint; Säkl AB; Mexab AB	P2P	IK Investment Partners; Intermediate Capital Group	2005	2006	Health Care
Attendo	IK Investment Partners; Intermediate Capital Group	Bridgepoint; Säkl AB; Mexab AB	Current	2007	-	Health Care
Aura Light International	Bridgepoint	DuroLite International	FSN Capital Partners	2000	2005	Industrial Goods & Services
Aura Light International	FSN Capital Partners	Bridgepoint	Current	2006	-	Industrial Goods & Services
Balco	3i	Ratos; 3i (Atle)	Segulah	2003	2010	Construction & Materials
Ballingslöv International	EQT	Electrolux	IPD	1999	2001	Personal & Household Goods
BE Group	Nordic Capital; Trelleborg	Trelleborg	IPD	2000	2006	Basic Resources
Bew ator	EQT; Mellby Gärd	Private	Siemens Building Technologies	2003	2005	Industrial Goods & Services
Bindomatic	Valedo Partners	Private	Current	2008	-	Industrial Goods & Services
Biovitrum	Nordic Capital; MPM Capital; ABN Amro Ventures	Spin-off from Pharmacia	IPD	2002	2006	Health Care
Bluestep Finans	Bregal Capital	Private	Current	2008	-	Financial Services
Boxer TV Access	3i; Teracom	Skandia Life Assurance	Teracom AB (Previously 70%)	2005	2008	Telecommunications
Bravida	Triton	Procuritas; Telenor; Latour; Sampo	Current	2007	-	Industrial Goods & Services
Bring Frigoscandia	Triton	Prologis	Posten Norge	2002	2005	Industrial Goods & Services
Bufab	Nordic Capital	Spin-off from Finnveden	Current	2006	-	Industrial Goods & Services
BYGGmax	Altor	MBO	IPD	2006	2009	Retail
Callenberg	Segulah	Expanda	Wilhelmsen Maritime Services	2001	2007	Industrial Goods & Services
Camfil	Ratos	Private	Larsson & Markman Families	2000	2010	Construction & Materials
Candyking	Accent Equity Partners; EQT	Oy Karl Fazer	Current	2008	-	Food & Beverage
Capella	Bridgepoint	Microgen	Itella Corporation	1999	2001	Industrial Goods & Services
Capio	Nordic Capital; Apax Partners	P2P	Current	2007	-	Health Care
CC Systems	Priveq	Private	Provider Venture Partners	2001	2004	Technology
Cederroth	CapMan; Litorina	Alberto-Oulver Company	Current	2009	-	Personal & Household Goods
Cefar Medical	Accent Equity Partners	Private	ReAble Therapeutics	2004	2006	Health Care
Cerbo Group	Vision Capital	Morgan Grenfell PE	Nolato	2003	2006	Industrial Goods & Services
Com Hem	EQT	TeliaSonera	Providence; Carlyle	2003	2005	Telecommunications
Com Hem	Providence; Carlyle	EQT	BC Partners	2006	2011	Telecommunications
Coor Service Management	3i	Skanska	Cnven	2005	2007	Industrial Goods & Services
Coor Service Management	Cnven	3i	Current	2008	-	Industrial Goods & Services
Coromatic	Litorina	Skanska Installation	EQT	2008	2010	Industrial Goods & Services
Crem International	Accent Equity Partners	Private	Current	2008	-	Personal & Household Goods
CTEK	FSN Capital Partners	Private	Altor	2008	2010	Industrial Goods & Services
Dahl International	EQT; Ratos	P2P	Saint-Gobain	1999	2003	Construction & Materials
Diab International	3i; Ratos	Atle Industri	Ratos (Previously 48%)	2001	2008	Industrial Goods & Services
DISAB Vacuum Technology	Accent Equity Partners; Sjötte AP-fonden	Private	ACAP Invest	2000	2006	Automobiles & Parts
Dometic International	BC Partners	EQT	DHAB	2005	2009	Personal & Household Goods
Dometic International	EQT	Electrolux	BC Partners	2001	2004	Personal & Household Goods
Dotcom Solutions	3i; Tietoator	Tieto	TDC	2001	2004	Technology
Driconex	Axcel	Private	Current	2008	-	Industrial Goods & Services
Dustin	Altor	Private	Current	2007	-	Retail
Dynapac	Altor	Metso Minerals	Atlas Copco	2004	2006	Industrial Goods & Services
Education & Entertainment	Duke Street; Segulah	Private	Consortium lead by Management	2000	2004	Retail
EFG European Furniture Group	Herkules Capital	Ebbe Krook Family; AP Fonden 4;	Current	2007	-	Industrial Goods & Services
Ekman & Co	Ratos; 3i; Priveq	Atle Industri	Ekman Family and Employees	2001	2006	Basic Resources
Eldon	EQT	Thule	Ageas	2001	2005	Technology
Elia	IK Investment Partners	Private	Daetwyler	2006	2007	Industrial Goods & Services
Epress	Ratos; 3i	Atle Industri	Lagercrantz Group	2001	2005	Industrial Goods & Services
Enotron	Polaris Management	Siem Capital	Crompton Greaves	2008	2010	Industrial Goods & Services
Erivac	3i; Ratos	Atle Industri	Stena Adactum	2001	2004	Industrial Goods & Services
Espresso House	Palamon Capital Partners	MBO	Current	2006	-	Retail
eTRAVELI	Norvestor Equity	Merger betw een Seat24 & SRG Online	Segulah	2008	2010	Travel & Leisure
EuroFlorist	Accent Equity Partners; Ledstierman	Private	Litorina	2003	2007	Retail
EuroFlorist	Litorina	Accent Equity Partners; Ledstierman	Current	2008	-	Retail
EuroMaint	Ratos	AB Sw edcarrier	Current	2008	-	Industrial Goods & Services
Exotic Snacks	Segulah	Private	MBO	2008	2010	Retail
Findus	EQT	Nestlé	Foodvest Global Holdings	2000	2005	Retail
FinnvedenBulten	Nordic Capital	P2P	IPD	2005	2010	Automobiles & Parts
Fiskarhedenvillan	Polaris Management	MBO	Current	2007	-	Construction & Materials
FlexLink	AAC Capital Partners	EQT; SKF	Current	2005	-	Industrial Goods & Services
Flextrus	Accent Equity Partners	Arcor	Current	2008	-	Industrial Goods & Services
Frösunda LSS	Polaris Management	Proliva	HgCapital	2008	2009	Health Care
Gambro	EQT; Investor	P2P	Current	2006	-	Health Care
Gant	3i	Phillips-Van Heusen	Maus Freres	2004	2007	Personal & Household Goods
GCE	Argan Capital Advisors	Triton	Current	2006	-	Industrial Goods & Services
GCE	Triton	The Linde Group; ESAB	Argan Capital Advisors	2004	2005	Industrial Goods & Services
Grycksbo Paper	Accent Equity Partners	Stora Enso Fine Paper	Arctic Paper	2006	2009	Basic Resources
Guide IT Consulting	Nordic Capital	FramFab	EDB ErgoGroup	2001	2005	Technology

## Transaction List (cont'd)

Portfolio Company	PE Sponsor(s)	Bought From	Sold To	Entry Year	Exit Year	Industry
Hændig	3i; Ratos	Atle Industrier	Ratos	2001	2003	Industrial Goods & Services
Haglöfs	Ratos	Atle Industrier	ASICS	2002	2010	Personal & Household Goods
Heatex	Odin Equity Partners	Private	Current	2007		Industrial Goods & Services
HemoCue	EQT	Malinckrodt	Quest Diagnostics	2000	2006	Health Care
Hilding Anders	Arle Capital Partners	Investcorp, Private Equity	Current	2007		Personal & Household Goods
Hilding Anders	Nordic Capital; Ratos; Priveq	Merger with Apax Intressenter	Investcorp, Private Equity	1999	2003	Personal & Household Goods
HMS Industrial Networks	Segulah	SEB V/C; Industrial Dev. & Invest.	IPD	2005	2007	Industrial Goods & Services
Hydrauto	Accent Equity Partners; Sjötte AP-fonden	MBO	Wipro Infrastructure Engineering	2002	2006	Industrial Goods & Services
Häels Modulsystem	Segulah	Private	Carl Bennet	1999	2002	Industrial Goods & Services
Hägglunds Drives	Ratos	Atle Industrier	Bosch Rexroth	2001	2007	Industrial Goods & Services
Inflight Service Europé	CapMan	Wasatornet Invest	Triton	2006	2009	Retail
Inredningsglas Skandinavien	Accent Equity Partners	Private	CapMan	2007	2010	Industrial Goods & Services
Inwido	Ratos	Triton	Current	2005		- Construction & Materials
Inwido	Triton	Skanska	Ratos	2000	2004	Construction & Materials
Isaberg Rapid	Segulah	Industrivärden	Esselle	2007	2009	Industrial Goods & Services
I/T Värmepumpar	3i	Atle Industrier	AAC Capital Partners	2001	2002	Industrial Goods & Services
I/T Värmepumpar	AAC Capital Partners	3i	BBT Thermotechnik	2003	2004	Industrial Goods & Services
JD Stenqvist	EQT	Duni	Triton	1999	2002	Industrial Goods & Services
JD Stenqvist	Triton	EQT	Papier-Mettler	2003	2007	Industrial Goods & Services
Jetpak	Accent Equity Partners; Polaris Management	Polaris Management	Current	2006		- Industrial Goods & Services
Kappahl	Nordic Capital; Accent Equity Partners	Kooperativa Förbundet	IPD	2005	2006	Retail
Kemetyl	Segulah; Pemco	Pemco	Current	2007		- Personal & Household Goods
KMT Ursviken	Sentica Partners	KMT Group	Current	2007		- Industrial Goods & Services
Lekolar	3i	Procuritas	Current	2007		- Personal & Household Goods
LGT Logistics	Litorina	DHL Express	Axcel	2006	2008	Industrial Goods & Services
Lindab	Ratos; Skandia; Sjötte AP-fonden	P2P	IPD	2001	2006	Construction & Materials
MecREGOR	IK Investment Partners; Gambro	Gambro	Cargotec	1998	2004	Industrial Goods & Services
Merlinsson Gruppen	Ratos; 3i	Atle Industrier	Atea	2002	2004	Technology
Menigo Foodservice	Nordic Capital	ICA	Current	2007		- Retail
Mercuri International	Bure Equity	CapMan	Current	2000		- Retail
Metallfabriken Ljunghäll	CapMan	Private	Current	2004		- Industrial Goods & Services
Mobile Climate Control	Ratos	Private	Current	2007		- Industrial Goods & Services
Mont Blanc	Accent Equity Partners	JAC Products	Current	2008		- Automobiles & Parts
Moving	Ratos; 3i	Atle Industrier	Knapp AG	2001	2007	Industrial Goods & Services
MQ	CapMan; Xetel Investors	RPE Holding	IPD	2007	2009	Retail
Multicom Security	GMT Communications Partners	IK Investment Partners; TeliaSonera	Current	2005		- Telecommunications
Multicom Security	IK Investment Partners; TeliaSonera	Telia	GMT Communications Partners	2001	2004	Telecommunications
Munksjö	EQT	Smurfit Kappa Group	Current	2005		- Basic Resources
mySafety	Litorina	Total Communications Infrastructure	Current	2008		- Retail
Mölnlycke Health Care	Apax Partners	3i; Nordic Capital; Bure Equity; Sjötte AP-fonden	Investor; Morgan Stanley PE	2005	2006	Health Care
Mölnlycke Health Care	Investor; Morgan Stanley Private Equity	Apax Partners	Investor	2007	2010	Health Care
NEA Gruppen	Segulah	P2P	Intech	2007	2009	Industrial Goods & Services
Nederman	EQT	Arle Capital Partners	IPD	2000	2006	Industrial Goods & Services
Nefab	Nordic Capital	P2P	Current	2008		- Industrial Goods & Services
Nicator	AAC Capital Partners	Private	Kaupthing Bank	2004	2007	Retail
Nimbus Boats	Altor	Pontona AB	Current	2006		- Personal & Household Goods
Nordisk Renting	3i; Sjötte AP-fonden	Founder	Nordea Bank	1998	2002	Financial Services
Norfoods	Segulah	Hexagon	Management	2001	2004	Food & Beverage
North Trade	Procuritas	Private	Current	2007		- Food & Beverage
NovAseptic	Priveq	Private	Millipore International	2002	2005	Industrial Goods & Services
NVS Installation	Segulah; Priveq	NCC	Triton	2002	2005	Industrial Goods & Services
NVS Installation	Triton	Segulah; Priveq; Skandia	Intech	2006	2008	Industrial Goods & Services
Pahlen	Litorina	Private	Current	2008		- Personal & Household Goods
Papyrus	Altor; Triton	Stora Enso	Current	2008		- Industrial Goods & Services
Parere	Bure Equity	TurnIT	WM-Data Novo	2002	2003	Technology
PAX Electro Products	Litorina	Private	Current	2006		- Industrial Goods & Services
Pelly	Litorina	Private	Current	2007		- Industrial Goods & Services
Permobil	Nordic Capital	Handinter Gamma; Permobil International	Current	2006		- Personal & Household Goods
Phadia	Cinven; AXA Private Equity	Silverfleet; Triton	Thermo Fisher Scientific, Inc.	2007	2010	Health Care
Phadia	Silverfleet; Triton	Pfizer	Cinven; AXA Private Equity	2004	2006	Health Care
PIAB	Altor	Private	Current	2007		- Industrial Goods & Services
Plastal	Gilde Buy Out Partners	Sapa	Nordic Capital	2002	2004	Industrial Goods & Services
PMC Group	Segulah	Hexagon	Current	2005		- Industrial Goods & Services
Point	Nordic Capital	MBO	Current	2005		- Industrial Goods & Services
Powermill Service Group	Segulah	Private	Merged with Infocare	2005	2006	Technology
Prevesta/Myresjöhus	IK Investment Partners	Skanska	Block Watne Gruppen	2005	2006	Construction & Materials
Proxima	CapMan	Praktikertjänst	Aleris	2008	2010	Health Care
Q-MATIC	3i; Litorina	Private	Altor	2005	2007	Industrial Goods & Services
Q-MATIC	Altor	3i; Litorina	Current	2008		- Industrial Goods & Services
Q-Park	Bridgepoint	UBS Capital	Q-Park	2002	2005	Retail
Q-Park	UBS Capital	Næckebo	Bridgepoint	1998	2001	Retail
SATS	Nordic Capital	24 Hour Fitness	Tryghedsgruppen	2003	2006	Retail
Scandbook	Accent Equity Partners	Narhøven (Default)	IPD	2007	2009	Industrial Goods & Services
Scandic Hotels	Accent Equity Partners; EQT	Hilton Worldwide	Current	2007		- Travel & Leisure
Securitas Direct	EQT	P2P	Bain Capital; Hellman & Friedman	2008	2010	Retail
Semantix	Accent Equity Partners	Private	Litorina	2006	2009	Industrial Goods & Services
Semper	Indigo Capital; Triton	Arila Foods	Hero Schweiz	2003	2005	Food & Beverage
Synerco	CapMan	Serco Group	Addici	2004	2006	Industrial Goods & Services
SmartTrust	GE Equity; Carlyle; Equitec Partners	TeliaSonera	Giesecke & Devrient	2003	2008	Industrial Goods & Services
Solhaga By	Valeo Partners	MBO	Bridgepoint	2007	2009	Retail
Swedish Orphan International	Investor Growth Capital; Priveq	Private	Swedish Orphan Biovitrum (Merger)	2004	2009	Health Care
SWE-DISH Satellite Systems	3i; Litorina	Private	Rockwell Collins Satellite Communications Systems	2002	2007	Telecommunications
Sven Axel Svensson Bijouterier	Accent Equity Partners	Private	Bergendahlgruppen	2001	2004	Retail
Svensk Pantbeläning	Preato	Rutland Partners	DFC Global	2008	2010	Financial Services
Svensk Pantbeläning	Rutland Partners	Cash America International	Preato	2005	2007	Financial Services
Svenska Fönster	Axcel; Velcap	Nobia	VKR Holding	2001	2006	Construction & Materials
Sydsvenska Kemi/Perstorp	IK Investment Partners	P2P	PAI Partners	2001	2005	Industrial Goods & Services
Sydsvenska Kemi/Perstorp	PAI Partners	Current	Current	2006		- Industrial Goods & Services
TAC	EQT	Incentive	Schneider Electric	1998	2002	Technology
Telefos	IK Investment Partners; TeliaSonera	TeliaSonera	Merged with Etel	2001	2004	Telecommunications
Teknikmagasinet	3i	Private	Current	2004		- Retail
Tesab	Accent Equity Partners	Private	Current	2006		- Industrial Goods & Services
Thule	Arle Capital Partners	EQT	Nordic Capital	2005	2006	Automobiles & Parts
Thule	EQT	P2P	Arle Capital Partners	2000	2004	Automobiles & Parts
Titanx Engine Cooling	EQT	Valeo	Current	2008		- Automobiles & Parts
Tolerans	Litorina	AB Traction	Current	2006		- Industrial Goods & Services
Tradex	EQT; Sjötte AP-fonden	Private	Brady Corp.	2000	2005	Industrial Goods & Services
Tribon Solutions	Accent Equity Partners	Private	Aveva Group	2002	2003	Technology
Wernland Paper	Procuritas	AB Initia	Nordic Paper	2004	2007	Basic Resources
Wernersson Ost	Accent Equity Partners	Private	Tine BA	2004	2007	Food & Beverage
Vittra Utbildning	Bure Equity	Private	Merged into Academedia	1999	2007	Retail
Xdin	Bure Equity	Private	Private	2002	2004	Technology

## Multicollinearity

In our study we use OLS regressions to explain our operating performance measures. For OLS to be valid, several critical criteria's must be fulfilled, such as the criteria that there are no multicollinearity between the explanatory variables. There are two ways to control whether we have multicollinearity in our data.

The first way is to see that the  $R^2$  is not too high at the same time that just a few explanatory variables have very high t-values. In general we observe low  $R^2$  values in our regressions. The highest  $R^2$  in our regressions on the whole samples is 0.2285 for the Sales CAGR regression. In this regression we observe large t-values for Employees CAGR and Crises. However, we do not believe that this indicates multicollinearity since the  $R^2$  value is low and the fact that this only appears in the regression on Sales CAGR and not for the EBITDA margin and ROIC regressions. Moreover, the Employees CAGR is always significant in the Sales CAGR regressions and we believe that this has a natural explanation due to the strong relationship between employee growth and sales growth. It also seems like there is no trend in our regressions that Employee CAGR and Crises or any other two explanatory variables have high t-values in combination with high  $R^2$  values. Thus, we do not observe multicollinearity between our explanatory variables when we look at all the regressions.

The second way to check for multicollinearity is to look for high pair-wise correlation between the independent variables. High correlation would be a correlation of above 0.8 between two independent variables or several above 0.5 (in absolute terms). In the table below we can see that there are no high correlations when looking at the regressions made on the whole sample. The only high correlation is the one between club deals and club deals including only PE firms, which is natural because club deal including only PE firms is a subpart of club deals and they are never used in the same regression. We have also checked the different subsamples for the same thing and found no high correlation. This implies that there is no multicollinearity in our sample since the correlations between the explanatory variables are low.

Since we do not observe any high  $R^2$  values in combination with high t-values for a few the explanatory variables and no high correlation between two independent variables we reject that our data suffer from multicollinearity.

### Correlation between Explanatory Variables on Entire Sample

3 Year	Exit	Log (Total Assets <sub>Entry</sub> )	Employee CAGR	Crisis	Club Deal <sub>All</sub>	Club Deal <sub>Only PE</sub>
Exit	1.0000					
Log (Total Assets <sub>Entry</sub> )	-0.1285	1.0000				
Employee CAGR	0.0670	-0.0893	1.0000			
Crisis	0.0926	-0.1868	-0.0438	1.0000		
Club Deal <sub>All</sub>	-0.0881	0.2066	-0.0485	0.0538	1.0000	
Club Deal <sub>Only PE</sub>	-0.0902	0.1453	-0.1669	0.1131	0.6673	1.0000

5 Year	Exit	Log (Total Assets <sub>Entry</sub> )	Employee CAGR	Crisis	Club Deal <sub>All</sub>	Club Deal <sub>Only PE</sub>
Exit	1.0000					
Log (Total Assets <sub>Entry</sub> )	-0.0967	1.0000				
Employee CAGR	0.0976	-0.1256	1.0000			
Crisis	0.1211	-0.1823	-0.0017	1.0000		
Club Deal <sub>All</sub>	0.1083	0.1994	-0.0410	0.0451	1.0000	
Club Deal <sub>Only PE</sub>	0.0328	0.1336	-0.1771	0.1010	0.6724	1.0000

Entry-Exit	Log (Total Assets <sub>Entry</sub> )	Employee CAGR	Crisis	Club Deal <sub>All</sub>	Club Deal <sub>Only PE</sub>
Log (Total Assets <sub>Entry</sub> )	1.0000				
Employee CAGR	-0.1422	1.0000			
Crisis	-0.1798	-0.0110	1.0000		
Club Deal <sub>All</sub>	0.1302	-0.0591	0.0594	1.0000	
Club Deal <sub>Only PE</sub>	0.0433	-0.1629	0.1347	0.6197	1.0000

### Heteroscedasticity

In order to be able to trust the results from OLS regressions, the error terms should not suffer from heteroscedasticity. Heteroscedasticity occurs if the variance of the error terms is not constant and not independent from the value of the explanatory variables along the regression line. To check that our regressions do not suffer from heteroscedasticity we have used the Breush-Pagan/Cook-Weisberg test. We found that none of our regressions suffer from heteroscedasticity at a 10% level.

## Regression Outputs

**Regressions for table 2: Impact on Operating Metrics by all Club Deals**

Sales CAGR			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	187	Constant	0.1036	0.0932	1.11	0.268	-0.0802	0.2875
			Exit	-0.0066	0.0188	0.35	0.725	-0.0438	0.0305
	R <sup>2</sup>	0.2401	Log (Total AssetsEntry)	-0.0058	0.0066	0.87	0.385	-0.0189	0.0073
			Employee CAGR	0.3987	0.0595	6.69	0.000	0.2812	0.5163
	Adj-R <sup>2</sup>	0.2191	Crisis	0.0497	0.0199	2.49	0.014	0.0103	0.0892
			Club Deal	-0.0356	0.0210	1.70	0.091	-0.0770	0.0057
5 Year	N	187	Constant	0.0501	0.0891	0.56	0.575	-0.1258	0.2261
			Exit	0.0034	0.0181	0.19	0.849	-0.0324	0.0393
	R <sup>2</sup>	0.2395	Log (Total AssetsEntry)	-0.0024	0.0063	0.39	0.700	-0.0149	0.0100
			Employee CAGR	0.4085	0.0630	6.48	0.000	0.2841	0.5329
	Adj-R <sup>2</sup>	0.2185	Crisis	0.0539	0.0190	2.83	0.005	0.0163	0.0915
			Club Deal	-0.0345	0.0199	1.73	0.086	-0.0739	0.0049
Entry-Exit	N	124	Constant	0.1081	0.1116	0.97	0.335	-0.1129	0.3292
			Log (Total AssetsEntry)	-0.0059	0.0081	0.73	0.468	-0.0219	0.0101
	R <sup>2</sup>	0.2147	Employee CAGR	0.3460	0.0781	4.43	0.000	0.1913	0.5007
			Crisis	0.0507	0.0234	2.16	0.032	0.0043	0.0972
	Adj-R <sup>2</sup>	0.1883	Club Deal	-0.0505	0.0237	2.13	0.035	-0.0975	-0.0035

EBITDA margin			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	187	Constant	-0.1133	0.0656	1.73	0.086	-0.2428	0.0161
			Exit	0.0235	0.0132	1.77	0.078	-0.0026	0.0497
	R <sup>2</sup>	0.0928	Log (Total AssetsEntry)	0.0075	0.0046	1.62	0.108	-0.0016	0.0168
			Employee CAGR	0.0022	0.0419	0.05	0.957	-0.0805	0.0850
	Adj-R <sup>2</sup>	0.0678	Crisis	-0.0441	0.0140	3.14	0.002	-0.0719	-0.0163
			Club Deal	0.0189	0.0147	1.28	0.201	-0.0102	0.0481
5 Year	N	187	Constant	-0.1190	0.0629	1.89	0.060	-0.2432	0.0051
			Exit	0.0325	0.0128	2.53	0.012	0.0072	0.0578
	R <sup>2</sup>	0.1057	Log (Total AssetsEntry)	0.0073	0.0044	1.63	0.105	-0.0015	0.0161
			Employee CAGR	0.0214	0.0444	0.48	0.630	-0.0663	0.1092
	Adj-R <sup>2</sup>	0.0809	Crisis	-0.0429	0.0134	3.20	0.002	-0.0695	-0.0164
			Club Deal	0.0119	0.0141	0.85	0.399	-0.0159	0.0397
Entry-Exit	N	124	Constant	-0.1092	0.0841	1.30	0.197	-0.2759	0.0574
			Log (Total AssetsEntry)	0.0093	0.0061	1.52	0.130	-0.0027	0.0214
	R <sup>2</sup>	0.1148	Employee CAGR	-0.0072	0.0588	0.12	0.902	-0.1239	0.1093
			Crisis	-0.0560	0.0176	3.17	0.002	-0.0910	-0.0210
	Adj-R <sup>2</sup>	0.0851	Club Deal	0.0130	0.0178	0.73	0.467	-0.0223	-0.0035

ROIC			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	187	Constant	-0.0232	0.1054	0.22	0.826	-0.2312	0.1847
			Exit	0.0233	0.0213	1.09	0.275	-0.0187	0.0654
	R <sup>2</sup>	0.0396	Log (Total AssetsEntry)	0.0021	0.0075	0.29	0.771	-0.0126	0.0170
			Employee CAGR	0.0109	0.0673	0.16	0.871	-0.1220	0.1438
	Adj-R <sup>2</sup>	0.0131	Crisis	-0.0501	0.0226	2.22	0.028	-0.0947	-0.0055
			Club Deal	0.0289	0.0237	1.22	0.224	-0.0179	0.0758
5 Year	N	187	Constant	-0.0531	0.1062	0.50	0.617	-0.2628	0.1565
			Exit	0.0394	0.0216	1.82	0.070	-0.0033	0.0822
	R <sup>2</sup>	0.0523	Log (Total AssetsEntry)	0.0036	0.0075	0.49	0.627	-0.0112	0.0186
			Employee CAGR	0.0667	0.0751	0.89	0.376	-0.0815	0.2149
	Adj-R <sup>2</sup>	0.0261	Crisis	-0.0503	0.0227	2.22	0.028	-0.0951	-0.0055
			Club Deal	0.0177	0.0238	0.75	0.457	-0.0292	0.0647
Entry-Exit	N	124	Constant	0.0813	0.1395	0.58	0.561	-0.1949	0.3575
			Log (Total AssetsEntry)	-0.0027	0.0101	0.27	0.785	-0.0228	0.0172
	R <sup>2</sup>	0.0516	Employee CAGR	-0.0076	0.0976	0.08	0.937	-0.2009	0.1855
			Crisis	-0.0722	0.0293	2.47	0.015	-0.1303	-0.0142
	Adj-R <sup>2</sup>	0.0197	Club Deal	0.0225	0.0296	0.76	0.448	-0.0361	-0.0035

### Regressions for table 3: *Impact on Operating Metrics by Club Deals with only PE sponsors*

Sales CAGR			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	187	Constant	0.1228	0.0934	1.31	0.190	-0.0615	0.3071
			Exit	-0.0049	0.0190	0.26	0.796	-0.0424	0.0326
	R <sup>2</sup>	0.2285	Log (Total AssetsEntry)	-0.0078	0.0066	1.18	0.239	-0.0209	0.0052
			Employee CAGR	0.3978	0.0606	6.56	0.000	0.2781	0.5175
	Adj-R <sup>2</sup>	0.2072	Crisis	0.0473	0.0202	2.34	0.020	0.0074	0.0873
			Private Equity Dummy	-0.0091	0.0268	0.34	0.735	-0.0621	0.0439
5 Year	N	187	Constant	0.0726	0.0890	0.82	0.416	-0.1031	0.2484
			Exit	-0.0001	0.0182	0.01	0.992	-0.0361	0.0357
	R <sup>2</sup>	0.2274	Log (Total AssetsEntry)	-0.0045	0.0063	0.72	0.472	-0.0170	0.0079
			Employee CAGR	0.4079	0.0644	6.33	0.000	0.2808	0.5350
	Adj-R <sup>2</sup>	0.2061	Crisis	0.0523	0.0192	2.71	0.007	0.0142	0.0903
			Private Equity Dummy	-0.0079	0.0252	0.32	0.752	-0.0577	0.0417
Entry-Exit	N	124	Constant	0.1231	0.1129	1.09	0.278	-0.1005	0.3469
			Log (Total AssetsEntry)	-0.0078	0.0081	0.96	0.337	-0.0239	0.0082
	R <sup>2</sup>	0.1925	Employee CAGR	0.3391	0.0801	4.23	0.000	0.1804	0.4978
			Crisis	0.0502	0.0239	2.10	0.038	0.0028	0.0976
	Adj-R <sup>2</sup>	0.1654	Private Equity Dummy	-0.0330	0.0308	1.07	0.286	-0.0941	0.0484

EBITDA margin			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	187	Constant	-0.1106	0.0646	1.71	0.089	-0.2382	0.0169
			Exit	0.0246	0.0131	1.87	0.062	-0.0012	0.0506
	R <sup>2</sup>	0.1101	Log (Total AssetsEntry)	0.0072	0.0045	1.59	0.114	-0.0017	0.0163
			Employee CAGR	0.0149	0.0419	0.36	0.722	-0.0678	0.0978
	Adj-R <sup>2</sup>	0.0855	Crisis	-0.0468	0.0140	3.35	0.001	-0.0745	-0.0192
			Private Equity Dummy	0.0424	0.0186	2.28	0.024	0.0056	0.0791
5 Year	N	187	Constant	-0.1160	0.0618	1.88	0.062	-0.2381	0.0060
			Exit	0.0327	0.0126	2.58	0.011	0.0077	0.0576
	R <sup>2</sup>	0.1205	Log (Total AssetsEntry)	0.0069	0.0043	1.58	0.115	-0.0017	0.0156
			Employee CAGR	0.0348	0.0447	0.78	0.437	-0.0534	0.1230
	Adj-R <sup>2</sup>	0.0962	Crisis	-0.0453	0.0133	3.38	0.001	-0.0717	-0.0188
			Private Equity Dummy	0.0340	0.0175	1.94	0.054	-0.0005	0.0685
Entry-Exit	N	124	Constant	-0.1127	0.0819	1.38	0.172	-0.2749	0.0495
			Log (Total AssetsEntry)	0.0092	0.0059	1.56	0.122	-0.0024	0.0209
	R <sup>2</sup>	0.1576	Employee CAGR	0.0141	0.0581	0.24	0.808	-0.1008	0.1292
			Crisis	-0.0612	0.0173	3.53	0.001	-0.0956	-0.0268
	Adj-R <sup>2</sup>	0.1293	Private Equity Dummy	0.0575	0.0223	2.57	0.011	0.0131	0.0812

ROIC			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	187	Constant	-0.0411	0.1052	0.39	0.697	-0.2488	0.1666
			Exit	0.0215	0.0214	1.01	0.315	-0.0206	0.0638
	R <sup>2</sup>	0.0317	Log (Total AssetsEntry)	0.0041	0.0074	0.55	0.585	-0.0106	0.0188
			Employee CAGR	0.0094	0.0683	0.14	0.890	-0.1254	0.1443
	Adj-R <sup>2</sup>	0.0050	Crisis	-0.0474	0.0228	2.08	0.039	-0.0924	-0.0024
			Private Equity Dummy	0.0007	0.0303	0.03	0.980	-0.0590	0.0605
5 Year	N	187	Constant	-0.0639	0.1054	0.61	0.545	-0.2721	0.1441
			Exit	0.0412	0.0215	1.91	0.057	-0.0013	0.0838
	R <sup>2</sup>	0.0496	Log (Total AssetsEntry)	0.0046	0.0074	0.63	0.532	-0.0100	0.0194
			Employee CAGR	0.0679	0.0762	0.89	0.374	-0.0824	0.2184
	Adj-R <sup>2</sup>	0.0234	Crisis	-0.0497	0.0228	2.18	0.031	-0.0947	-0.0046
			Private Equity Dummy	0.0064	0.0298	0.21	0.831	-0.0525	0.0653
Entry-Exit	N	124	Constant	0.0745	0.1395	0.53	0.594	-0.2016	0.3508
			Log (Total AssetsEntry)	-0.0018	0.0100	0.18	0.855	-0.0217	0.0180
	R <sup>2</sup>	0.0476	Employee CAGR	-0.0063	0.0989	0.06	0.949	-0.2022	0.1895
			Crisis	-0.0715	0.0295	2.42	0.017	-0.1301	-0.0130
	Adj-R <sup>2</sup>	0.0156	Private Equity Dummy	0.0105	0.0381	0.28	0.783	-0.0649	0.0280



**Regressions for table 4: Impact on Operating Metrics by Club Deals Involving either a Strategic Investor or a Passive Investor vs. Club Deals Involving only Active PE Sponsors**

Sales CAGR			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	53	Constant	0.4362	0.1817	2.40	0.020	0.0704	0.8020
			Exit	-0.0267	0.0366	0.73	0.469	-0.1005	0.0470
			Log (Total AssetsEntry)	-0.0274	0.0121	2.26	0.029	-0.0518	-0.0029
	R <sup>2</sup>	0.2725	Employee CAGR	0.4755	0.1272	3.74	0.001	0.2195	0.7316
			Crisis	-0.0382	0.0413	0.93	0.360	-0.1215	0.0450
	Adj-R <sup>2</sup>	0.1776	PE+Passive	-0.0706	0.0458	1.54	0.130	-0.1629	0.0215
			PE+Strategic	-0.0403	0.0479	0.84	0.404	-0.1367	0.0560
5 Year	N	54	Constant	0.2597	0.1711	1.52	0.136	-0.0845	0.6040
			Exit	-0.0283	0.0366	0.77	0.443	-0.1019	0.0453
			Log (Total AssetsEntry)	-0.0154	0.0111	1.38	0.174	-0.0378	0.0070
	R <sup>2</sup>	0.2393	Employee CAGR	0.5651	0.1527	3.70	0.001	0.2577	0.8724
			Crisis	-0.0033	0.0377	0.09	0.930	-0.0792	0.0725
	Adj-R <sup>2</sup>	0.1421	PE+Passive	-0.0693	0.0438	1.58	0.120	-0.1575	0.0188
			PE+Strategic	-0.0431	0.0438	0.98	0.331	-0.1313	0.0451
Entry-Exit	N	43	Constant	0.1893	0.1637	1.16	0.255	-0.1425	0.5212
			Log (Total AssetsEntry)	-0.0133	0.0114	1.16	0.252	-0.0365	0.0098
			Employee CAGR	0.7201	0.1494	4.82	0.000	0.4173	-0.0230
	R <sup>2</sup>	0.3997	Crisis	-0.0107	0.0355	0.30	0.765	-0.0827	0.0613
			PE+Passive	-0.0635	0.0408	1.55	0.129	-0.1462	0.0192
	Adj-R <sup>2</sup>	0.3186	PE+Strategic	-0.0337	0.0419	0.80	0.427	-0.1187	0.0513

EBITDA margin			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	53	Constant	-0.0515	0.1304	0.40	0.694	-0.3141	0.2109
			Exit	-0.0012	0.0263	0.05	0.962	-0.0542	0.0517
			Log (Total AssetsEntry)	0.0065	0.0087	0.76	0.454	-0.0109	0.0241
	R <sup>2</sup>	0.2212	Employee CAGR	0.0076	0.0913	0.08	0.933	-0.1761	0.1915
			Crisis	-0.0433	0.0297	1.46	0.152	-0.1031	0.0164
	Adj-R <sup>2</sup>	0.1197	PE+Passive	-0.0121	0.0328	0.37	0.713	-0.0784	0.0540
			PE+Strategic	-0.0896	0.0343	2.61	0.012	-0.1589	-0.0204
5 Year	N	54	Constant	-0.0125	0.1327	0.09	0.925	-0.2797	0.2545
			Exit	0.0385	0.0284	1.36	0.181	-0.0186	0.0957
			Log (Total AssetsEntry)	0.0021	0.0086	0.25	0.807	-0.0153	0.0195
	R <sup>2</sup>	0.2405	Employee CAGR	0.0534	0.1185	0.45	0.654	-0.1850	0.2919
			Crisis	-0.0568	0.0292	1.94	0.058	-0.1157	0.0019
	Adj-R <sup>2</sup>	0.1435	PE+Passive	-0.0169	0.0340	0.50	0.621	-0.0854	0.0515
			PE+Strategic	-0.0934	0.0340	2.75	0.009	-0.1618	-0.0249
Entry-Exit	N	43	Constant	-0.0478	0.1349	0.35	0.725	-0.3212	0.2255
			Log (Total AssetsEntry)	0.0090	0.0094	0.95	0.346	-0.0101	0.0281
			Employee CAGR	-0.0460	0.1231	0.37	0.711	-0.2954	0.2034
	R <sup>2</sup>	0.3634	Crisis	-0.0677	0.0292	2.31	0.026	-0.1270	-0.0084
			PE+Passive	-0.0430	0.0336	1.28	0.209	-0.1112	0.0251
	Adj-R <sup>2</sup>	0.2774	PE+Strategic	-0.1145	0.0345	3.32	0.002	-0.1846	-0.0445

ROIC			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	53	Constant	0.4476	0.2531	1.77	0.084	-0.0619	0.9572
			Exit	-0.0049	0.0510	0.10	0.923	-0.1078	0.0978
			Log (Total AssetsEntry)	-0.0270	0.0169	1.60	0.117	-0.0610	0.0070
	R <sup>2</sup>	0.1900	Employee CAGR	-0.1280	0.1772	0.72	0.474	-0.4847	0.2286
			Crisis	-0.1323	0.0576	2.30	0.026	-0.2483	-0.0162
	Adj-R <sup>2</sup>	0.0843	PE+Passive	0.0745	0.0638	1.17	0.249	-0.0539	0.2031
			PE+Strategic	-0.0132	0.0667	0.20	0.844	-0.1475	0.1210
5 Year	N	54	Constant	0.4005	0.2477	1.62	0.113	-0.0979	0.8989
			Exit	0.0749	0.0530	1.41	0.164	-0.0316	0.1816
			Log (Total AssetsEntry)	-0.0257	0.0161	1.59	0.118	-0.0582	0.0067
	R <sup>2</sup>	0.2393	Employee CAGR	-0.1766	0.2211	0.80	0.429	-0.6215	0.2682
			Crisis	-0.1628	0.0546	2.98	0.005	-0.2727	-0.0530
	Adj-R <sup>2</sup>	0.1422	PE+Passive	0.0457	0.0634	0.72	0.475	-0.0820	0.1734
			PE+Strategic	-0.0237	0.0634	0.37	0.711	-0.1514	0.1039
Entry-Exit	N	43	Constant	0.5571	0.3051	1.83	0.076	-0.0611	-0.1755
			Log (Total AssetsEntry)	-0.0327	0.0213	1.53	0.134	-0.0760	0.0105
			Employee CAGR	-0.2412	0.2784	0.87	0.392	-0.8054	0.3229
	R <sup>2</sup>	0.2043	Crisis	-0.1624	0.0662	2.45	0.019	-0.2966	-0.0282
			PE+Passive	0.0361	0.0761	0.48	0.638	-0.1180	0.1903
	Adj-R <sup>2</sup>	0.0968	PE+Strategic	-0.0076	0.0781	0.10	0.922	-0.1660	0.1507

### Regressions for table 5: Impact on Operating Metrics by all International Club Deals

Sales CAGR			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	53	Constant	0.3705	0.1817	2.04	0.047	0.0048	0.7361
			Exit	-0.0302	0.0374	0.81	0.423	-0.1055	0.0450
	R <sup>2</sup>	0.2337	Log (Total AssetsEntry)	-0.0250	0.0126	1.98	0.054	-0.0505	0.0004
			Employee CAGR	0.4054	0.1222	3.32	0.002	0.1594	0.6514
	Adj-R <sup>2</sup>	0.1522	Crisis	-0.0185	0.0401	0.46	0.646	-0.0993	0.0622
			All Intl. Club Deals	0.0091	0.0408	0.22	0.824	-0.0730	0.0913
5 Year	N	54	Constant	0.2049	0.1732	1.18	0.243	-0.1434	0.5533
			Exit	-0.0299	0.0374	0.80	0.427	-0.1052	0.0453
	R <sup>2</sup>	0.1955	Log (Total AssetsEntry)	-0.0132	0.0116	1.13	0.262	-0.0367	0.0102
			Employee CAGR	0.4469	0.1416	3.16	0.003	0.1621	0.7317
	Adj-R <sup>2</sup>	0.1117	Crisis	0.0117	0.0369	0.32	0.751	-0.0624	0.0860
			All Intl. Club Deals	-0.0044	0.0365	0.12	0.903	-0.0779	0.0689
Entry-Exit	N	43	Constant	0.1461	0.1658	0.88	0.384	-0.1896	0.4818
			Log (Total AssetsEntry)	-0.0117	0.0118	0.99	0.327	-0.0357	0.0122
	R <sup>2</sup>	0.3631	Employee CAGR	0.6265	0.1425	4.40	0.000	0.3379	0.9150
			Crisis	0.0043	0.0338	0.13	0.899	-0.0641	0.0727
	Adj-R <sup>2</sup>	0.2961	All Intl. Club Deals	-0.0169	0.0359	0.47	0.640	-0.0898	0.0558

EBITDA margin			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	53	Constant	-0.1221	0.1331	0.92	0.364	-0.3898	0.1456
			Exit	-0.0033	0.0274	0.12	0.904	-0.0584	0.0518
	R <sup>2</sup>	0.1461	Log (Total AssetsEntry)	0.0118	0.0092	1.28	0.208	-0.0068	0.0305
			Employee CAGR	-0.0505	0.0895	0.57	0.575	-0.2307	0.1295
	Adj-R <sup>2</sup>	0.0553	Crisis	-0.0541	0.0294	1.84	0.072	-0.1132	0.0050
			All Intl. Club Deals	-0.0469	0.0299	1.57	0.124	-0.1071	0.0132
5 Year	N	54	Constant	-0.0868	0.1345	0.65	0.521	-0.3573	0.1835
			Exit	0.0461	0.0290	1.59	0.119	-0.0122	0.1046
	R <sup>2</sup>	0.1961	Log (Total AssetsEntry)	0.0078	0.0090	0.86	0.391	-0.0103	0.0260
			Employee CAGR	-0.0501	0.1099	0.46	0.650	-0.2712	0.1708
	Adj-R <sup>2</sup>	0.1123	Crisis	-0.0730	0.0286	2.55	0.014	-0.1307	-0.0154
			All Intl. Club Deals	-0.0623	0.0283	2.20	0.033	-0.1193	-0.0053
Entry-Exit	N	43	Constant	-0.0704	0.1483	0.48	0.637	-0.3706	0.2297
			Log (Total AssetsEntry)	0.0094	0.0106	0.89	0.378	-0.0120	0.0309
	R <sup>2</sup>	0.2042	Employee CAGR	-0.1582	0.1274	1.24	0.222	-0.4162	0.0997
			Crisis	-0.0730	0.0302	2.42	0.021	-0.1342	-0.0118
	Adj-R <sup>2</sup>	0.1204	All Intl. Club Deals	-0.0385	0.0321	1.20	0.238	-0.1037	0.0265

ROIC			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	53	Constant	0.4374	0.2446	1.79	0.080	-0.0547	0.9296
			Exit	0.0047	0.0503	0.09	0.926	-0.0966	0.1060
	R <sup>2</sup>	0.2034	Log (Total AssetsEntry)	-0.0221	0.0170	1.30	0.201	-0.0564	0.0121
			Employee CAGR	-0.1139	0.1645	0.69	0.492	-0.4450	0.2172
	Adj-R <sup>2</sup>	0.1186	Crisis	-0.1693	0.0540	3.13	0.003	-0.2780	-0.0605
			All Intl. Club Deals	-0.0887	0.0550	1.61	0.113	-0.1994	0.0218
5 Year	N	54	Constant	0.3677	0.2405	1.53	0.133	-0.1159	0.8513
			Exit	0.0857	0.0519	1.65	0.105	-0.0187	0.1902
	R <sup>2</sup>	0.2602	Log (Total AssetsEntry)	-0.0205	0.0162	1.27	0.210	-0.0531	0.0119
			Employee CAGR	-0.1813	0.1966	0.92	0.361	-0.5767	0.2139
	Adj-R <sup>2</sup>	0.1831	Crisis	-0.1929	0.0512	3.76	0.000	-0.2960	-0.0899
			All Intl. Club Deals	-0.0777	0.0506	1.53	0.131	-0.1797	0.0241
Entry-Exit	N	43	Constant	0.5409	0.2964	1.82	0.076	-0.0591	-0.1410
			Log (Total AssetsEntry)	-0.0287	0.0211	1.36	0.183	-0.0716	0.0141
	R <sup>2</sup>	0.2231	Employee CAGR	-0.2381	0.2547	0.93	0.356	-0.7537	0.2775
			Crisis	-0.1816	0.0604	3.01	0.005	-0.3040	-0.0593
	Adj-R <sup>2</sup>	0.1414	All Intl. Club Deals	-0.0718	0.0643	1.12	0.271	-0.2020	0.0583

**Regressions for table 6: Impact on Operating Metrics by International Club Deals with only PE Sponsors**

Sales CAGR			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	28	Constant	-0.0240	0.2606	0.09	0.927	-0.5645	0.5163
			Exit	-0.0108	0.0443	0.25	0.808	-0.1027	0.0809
	R <sup>2</sup>	0.5891	Log (Total AssetsEntry)	0.0085	0.0174	0.49	0.628	-0.0276	0.0448
			Employee CAGR	0.6774	0.1822	3.72	0.001	0.2994	-0.0554
	Adj-R <sup>2</sup>	0.4957	Crisis	-0.0610	0.0588	1.04	0.311	-0.1831	0.0610
			Intl. Deals (Only PE)	-0.1202	0.0580	2.07	0.050	-0.2406	0.0000
5 Year	N	29	Constant	0.0350	0.2363	0.15	0.884	-0.4538	0.5238
			Exit	-0.0379	0.0418	0.91	0.373	-0.1245	0.0485
	R <sup>2</sup>	0.5481	Log (Total AssetsEntry)	0.0053	0.0154	0.34	0.735	-0.0267	0.0373
			Employee CAGR	0.7412	0.2266	3.27	0.003	0.2724	-0.2100
	Adj-R <sup>2</sup>	0.4499	Crisis	-0.0493	0.0511	0.96	0.345	-0.1552	0.0565
			Intl. Deals (Only PE)	-0.1063	0.0532	2.00	0.058	-0.2164	0.0038
Entry-Exit	N	21	Constant	-0.0003	0.2305	0.00	0.999	-0.4890	0.4883
			Log (Total AssetsEntry)	0.0051	0.0164	0.32	0.757	-0.0296	0.0400
	R <sup>2</sup>	0.6999	Employee CAGR	0.7687	0.2096	3.67	0.002	0.3242	-0.2131
			Crisis	-0.0652	0.0485	1.35	0.197	-0.1681	0.0375
	Adj-R <sup>2</sup>	0.6249	Intl. Deals (Only PE)	-0.1024	0.0561	1.82	0.087	-0.2216	0.0166

EBITDA margin			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	28	Constant	-0.1170	0.2099	0.56	0.583	-0.5524	0.3182
			Exit	0.0370	0.0356	1.04	0.311	-0.0369	0.1110
	R <sup>2</sup>	0.1858	Log (Total AssetsEntry)	0.0050	0.0140	0.36	0.723	-0.0241	0.0342
			Employee CAGR	0.1115	0.1468	0.76	0.455	-0.1928	0.4160
	Adj-R <sup>2</sup>	0.0007	Crisis	0.0500	0.0474	1.05	0.303	-0.0483	0.1483
			Intl. Deals (Only PE)	0.0870	0.0467	1.86	0.076	-0.0098	0.1840
5 Year	N	29	Constant	-0.0268	0.2106	0.13	0.900	-0.4625	0.4089
			Exit	0.0683	0.0373	1.83	0.080	-0.0088	0.1455
	R <sup>2</sup>	0.2034	Log (Total AssetsEntry)	-0.0016	0.0138	0.12	0.905	-0.0302	0.0269
			Employee CAGR	0.1396	0.2020	0.69	0.496	-0.2782	0.5574
	Adj-R <sup>2</sup>	0.0302	Crisis	0.0103	0.0456	0.23	0.822	-0.0840	0.1047
			Intl. Deals (Only PE)	0.0493	0.0474	1.04	0.309	-0.0488	0.1474
Entry-Exit	N	21	Constant	-0.1774	0.2488	0.71	0.486	-0.7049	0.3500
			Log (Total AssetsEntry)	0.0129	0.0177	0.73	0.477	-0.0246	0.0505
	R <sup>2</sup>	0.2134	Employee CAGR	0.1668	0.2262	0.74	0.472	-0.3128	0.6465
			Crisis	0.0162	0.0523	0.31	0.761	-0.0948	0.1272
	Adj-R <sup>2</sup>	0.0167	Intl. Deals (Only PE)	0.0860	0.0606	1.42	0.175	-0.0425	0.2145

ROIC			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	28	Constant	-0.0831	0.1739	0.48	0.637	-0.4438	0.2776
			Exit	0.0034	0.0295	0.12	0.909	-0.0579	0.0647
	R <sup>2</sup>	0.1257	Log (Total AssetsEntry)	0.0049	0.0116	0.42	0.678	-0.0192	0.0290
			Employee CAGR	0.0177	0.1216	0.15	0.885	-0.2345	0.2700
	Adj-R <sup>2</sup>	0.0730	Crisis	-0.0001	0.0392	0.00	0.996	-0.0816	0.0812
			Intl. Deals (Only PE)	0.0426	0.0387	1.10	0.283	-0.0376	0.1229
5 Year	N	29	Constant	0.1385	0.2161	0.64	0.528	-0.3085	0.5855
			Exit	0.0695	0.0382	1.82	0.082	-0.0096	0.1487
	R <sup>2</sup>	0.3083	Log (Total AssetsEntry)	-0.0120	0.0141	0.85	0.405	-0.0413	0.0172
			Employee CAGR	-0.0989	0.2072	0.48	0.638	-0.5276	0.3297
	Adj-R <sup>2</sup>	0.1580	Crisis	-0.0508	0.0468	1.09	0.289	-0.1476	0.0460
			Intl. Deals (Only PE)	0.0582	0.0486	1.20	0.244	-0.0424	0.1589
Entry-Exit	N	21	Constant	0.2558	0.2901	0.88	0.391	-0.3591	0.8708
			Log (Total AssetsEntry)	-0.0173	0.0206	0.84	0.414	-0.0611	0.0264
	R <sup>2</sup>	0.2240	Employee CAGR	-0.0856	0.2638	0.32	0.750	-0.6449	0.4736
			Crisis	-0.0409	0.0610	0.67	0.513	-0.1703	0.0885
	Adj-R <sup>2</sup>	0.0300	Intl. Deals (Only PE)	0.0759	0.0707	1.07	0.299	-0.0739	0.2258

### Regressions for table 7: *Impact on Operating Metrics by Club Deals in Crisis Years*

Sales CAGR			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	63	Constant	0.4130	0.1559	2.65	0.010	0.1008	0.7252
			Exit	-0.0144	0.0312	0.46	0.645	-0.0769	0.0480
	R <sup>2</sup>	0.3950	Log (Total AssetsEntry)	-0.0245	0.0115	2.13	0.037	-0.0475	-0.0015
	Adj-R <sup>2</sup>	0.3533	Employee CAGR	0.4871	0.1020	4.77	0.000	0.2828	0.6915
			Club Crisis Dummy	-0.0753	0.0334	2.25	0.028	-0.1423	-0.0083
5 Year	N	63	Constant	0.3725	0.1548	2.41	0.019	0.0626	0.6824
			Exit	0.0083	0.0330	0.25	0.801	-0.0577	0.0745
	R <sup>2</sup>	0.3783	Log (Total AssetsEntry)	-0.0228	0.0113	2.01	0.050	-0.0456	-0.0000
	Adj-R <sup>2</sup>	0.3355	Employee CAGR	0.5279	0.1111	4.75	0.000	0.3054	0.7505
			Club Crisis Dummy	-0.0632	0.0335	1.88	0.064	-0.1305	0.0039
Entry-Exit	N	47	Constant	0.4954	0.1575	3.15	0.003	0.1777	0.8130
			Log (Total AssetsEntry)	-0.0313	0.0118	2.65	0.011	-0.0552	-0.0074
	R <sup>2</sup>	0.4245	Employee CAGR	0.4868	0.1288	3.78	0.000	0.2269	0.7467
	Adj-R <sup>2</sup>	0.3843	Club Crisis Dummy	-0.0827	0.0343	2.41	0.020	-0.1521	-0.0134

EBITDA margin			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	63	Constant	-0.1771	0.1155	1.53	0.131	-0.4084	0.0541
			Exit	-0.0251	0.0231	1.09	0.282	-0.0714	0.0212
	R <sup>2</sup>	0.0571	Log (Total AssetsEntry)	0.0112	0.0085	1.32	0.193	-0.0058	0.0282
	Adj-R <sup>2</sup>	0.0079	Employee CAGR	-0.0109	0.0756	0.14	0.886	-0.1623	0.1404
			Club Crisis Dummy	0.0071	0.0247	0.29	0.775	-0.0425	0.0567
5 Year	N	63	Constant	-0.1709	0.1121	1.52	0.133	-0.3953	0.0535
			Exit	-0.0283	0.0239	1.19	0.240	-0.0763	0.0195
	R <sup>2</sup>	0.0563	Log (Total AssetsEntry)	0.0110	0.0082	1.34	0.186	-0.0054	0.0275
	Adj-R <sup>2</sup>	0.0087	Employee CAGR	0.0182	0.0805	0.23	0.821	-0.1429	0.1794
			Club Crisis Dummy	0.0127	0.0243	0.52	0.603	-0.0359	0.0614
Entry-Exit	N	47	Constant	-0.1981	0.1401	1.41	0.165	-0.4807	0.0844
			Log (Total AssetsEntry)	0.0120	0.0105	1.14	0.260	-0.0092	0.0332
	R <sup>2</sup>	0.0299	Employee CAGR	0.0079	0.1146	0.07	0.945	-0.2232	0.2392
	Adj-R <sup>2</sup>	0.0378	Club Crisis Dummy	0.0032	0.0305	0.10	0.917	-0.0584	0.0648

ROIC			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	63	Constant	-0.1473	0.1354	1.09	0.281	-0.4183	0.1237
			Exit	0.0094	0.0099	0.94	0.350	-0.0105	0.0293
	R <sup>2</sup>	0.0681	Log (Total AssetsEntry)	0.1325	0.0886	1.50	0.140	-0.0448	0.3099
	Adj-R <sup>2</sup>	0.0039	Employee CAGR	-0.0294	0.0290	1.01	0.315	-0.0875	0.0287
			Club Crisis Dummy	-0.1473	0.1354	1.09	0.281	-0.4183	0.1237
5 Year	N	63	Constant	-0.1210	0.1506	0.80	0.425	-0.4226	0.1804
			Exit	0.0085	0.0110	0.77	0.442	-0.0136	0.0307
	R <sup>2</sup>	0.1150	Log (Total AssetsEntry)	0.2305	0.1081	2.13	0.037	0.0139	0.4470
	Adj-R <sup>2</sup>	0.0539	Employee CAGR	-0.0407	0.0326	1.25	0.218	-0.1061	0.0246
			Club Crisis Dummy	-0.1210	0.1506	0.80	0.425	-0.4226	0.1804
Entry-Exit	N	47	Constant	-0.1810	0.1774	1.02	0.313	-0.5388	0.1768
			Log (Total AssetsEntry)	0.1170	0.1451	0.81	0.425	-0.1757	0.4098
	R <sup>2</sup>	0.0665	Employee CAGR	-0.0474	0.0387	1.23	0.227	-0.1255	0.0306
	Adj-R <sup>2</sup>	0.0014	Club Crisis Dummy	-0.1810	0.1774	1.02	0.313	-0.5388	0.1768

**Regressions for table 8: Impact on Operating Metrics by Club Deals during Non- Crisis Years**

Sales CAGR			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	124	Constant	0.0084	0.1139	0.07	0.941	-0.2172	0.2340
			Exit	-0.0037	0.0233	0.16	0.872	-0.0499	0.0423
	R <sup>2</sup>	0.1650	Log (Total AssetsEntry)	0.0009	0.0082	0.11	0.909	-0.0153	0.0172
	Adj-R <sup>2</sup>	0.1370	Employee CAGR	0.3465	0.0724	4.78	0.000	0.2030	0.4899
			Club Non-Crisis Dummy	-0.0184	0.0269	0.69	0.494	-0.0717	0.0348
5 Year	N	124	Constant	-0.0602	0.1061	0.57	0.571	-0.2704	0.1499
			Exit	0.0062	0.0214	0.29	0.773	-0.0362	0.0486
	R <sup>2</sup>	0.1578	Log (Total AssetsEntry)	0.0055	0.0076	0.72	0.470	-0.0095	0.0206
	Adj-R <sup>2</sup>	0.1295	Employee CAGR	0.3437	0.0753	4.56	0.000	0.1945	0.4928
			Club Non-Crisis Dummy	-0.0247	0.0248	1.00	0.321	-0.0739	0.0244
Entry-Exit	N	77	Constant	-0.0948	0.1432	0.66	0.510	-0.3803	0.1906
			Log (Total AssetsEntry)	0.0088	0.0104	0.85	0.400	-0.0119	0.0297
	R <sup>2</sup>	0.1301	Employee CAGR	0.2923	0.0942	3.10	0.003	0.1045	0.4800
	Adj-R <sup>2</sup>	0.0943	Club Non-Crisis Dummy	-0.0343	0.0308	1.12	0.268	-0.0958	0.0270

EBITDA margin			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	124	Constant	-0.1026	0.0780	1.32	0.191	-0.2572	0.0518
			Exit	0.0489	0.0159	3.07	0.003	0.0173	0.0805
	R <sup>2</sup>	0.0950	Log (Total AssetsEntry)	0.0059	0.0056	1.05	0.295	-0.0052	0.0170
	Adj-R <sup>2</sup>	0.0646	Employee CAGR	0.0110	0.0496	0.22	0.824	-0.0872	0.1093
			Club Non-Crisis Dummy	0.0254	0.0184	1.38	0.170	-0.0110	0.0619
5 Year	N	124	Constant	-0.1088	0.0730	1.49	0.139	-0.2534	0.0357
			Exit	0.0599	0.0147	4.06	0.000	0.0307	0.0891
	R <sup>2</sup>	0.1450	Log (Total AssetsEntry)	0.0054	0.0052	1.03	0.304	-0.0049	0.0158
	Adj-R <sup>2</sup>	0.1162	Employee CAGR	0.0123	0.0518	0.24	0.812	-0.0902	0.1149
			Club Non-Crisis Dummy	0.0178	0.0170	1.05	0.297	-0.0159	0.0517
Entry-Exit	N	77	Constant	-0.0810	0.1043	0.78	0.440	-0.2890	0.1269
			Log (Total AssetsEntry)	0.0071	0.0076	0.93	0.354	-0.0080	0.0223
	R <sup>2</sup>	0.0313	Employee CAGR	-0.0168	0.0686	0.25	0.807	-0.1536	0.1199
	Adj-R <sup>2</sup>	0.0085	Club Non-Crisis Dummy	0.0207	0.0224	0.92	0.359	-0.0240	0.0655

ROIC			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	124	Constant	-0.1260	0.1156	1.09	0.278	-0.3551	0.1030
			Exit	0.0459	0.0232	1.97	0.051	-0.0001	0.0920
	R <sup>2</sup>	0.0491	Log (Total AssetsEntry)	0.0085	0.0083	1.03	0.306	-0.0079	0.0250
	Adj-R <sup>2</sup>	0.0169	Employee CAGR	-0.0141	0.0722	0.20	0.845	-0.1573	0.1290
			Club Non-Crisis Dummy	0.0254	0.0273	0.93	0.354	-0.0287	0.0796
5 Year	N	124	Constant	-0.1303	0.1134	1.15	0.253	-0.3551	0.0943
			Exit	0.0600	0.0226	2.65	0.009	0.0151	0.1049
	R <sup>2</sup>	0.0762	Log (Total AssetsEntry)	0.0081	0.0081	0.99	0.322	-0.0080	0.0243
	Adj-R <sup>2</sup>	0.0449	Employee CAGR	-0.0132	0.0795	0.17	0.868	-0.1707	0.1443
			Club Non-Crisis Dummy	0.0246	0.0266	0.92	0.359	-0.0282	0.0774
Entry-Exit	N	77	Constant	0.0516	0.1508	0.34	0.733	-0.2490	0.3523
			Log (Total AssetsEntry)	-0.0014	0.0110	0.13	0.895	-0.0234	0.0205
	R <sup>2</sup>	0.0153	Employee CAGR	-0.0465	0.0975	0.48	0.634	-0.2410	0.1478
	Adj-R <sup>2</sup>	0.0257	Club Non-Crisis Dummy	0.0303	0.0325	0.93	0.355	-0.0345	0.0952

**Complementary Regressions for table 4: Impact on Operating Metrics by Club Deals Involving either two PE sponsors or more, a Strategic Investor or a Passive Investor (WHOLE SAMPLE)**

Sales CAGR			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	187	Constant	0.1043	0.0934	1.12	0.266	-0.0800	0.2887
			Exit	-0.0058	0.0189	0.31	0.759	-0.0432	0.0315
			Log (Total AssetsEntry)	-0.0058	0.0066	0.88	0.379	-0.0190	0.0072
	R <sup>2</sup>	0.2445	Employee CAGR	0.4092	0.0607	6.73	0.000	0.2893	0.5292
			Crisis	0.0477	0.0203	2.35	0.020	0.0076	0.0878
			PE+PE	-0.0181	0.0271	0.67	0.505	-0.0717	0.0354
	Adj-R <sup>2</sup>	0.2150	PE+Passive	-0.0535	0.0350	1.53	0.129	-0.1226	0.0156
			PE+Strategic	-0.0555	0.0416	1.33	0.184	-0.1377	0.0266
5 Year	N	187	Constant	0.0482	0.0894	0.54	0.590	-0.1281	0.2247
			Exit	0.0044	0.0182	0.24	0.808	-0.0315	0.0404
			Log (Total AssetsEntry)	-0.0023	0.0063	0.37	0.710	-0.0149	0.0102
	R <sup>2</sup>	0.2448	Employee CAGR	0.4230	0.0647	6.54	0.000	0.2953	0.5507
			Crisis	0.0516	0.0193	2.67	0.008	0.0134	0.0899
			PE+PE	-0.0169	0.0254	0.66	0.507	-0.0671	0.0333
	Adj-R <sup>2</sup>	0.2153	PE+Passive	-0.0555	0.0338	1.64	0.102	-0.1222	0.0112
			PE+Strategic	-0.0535	0.0398	1.34	0.181	-0.1320	0.0250
Entry-Exit	N	124	Constant	0.1061	0.1127	0.94	0.349	-0.1172	0.3295
			Log (Total AssetsEntry)	-0.0057	0.0081	0.70	0.483	-0.0219	0.0104
			Employee CAGR	0.3496	0.0799	4.37	0.000	0.1913	0.5079
	R <sup>2</sup>	0.2153	Crisis	0.0503	0.0241	2.08	0.039	0.0024	0.0982
			PE+PE	-0.0447	0.0313	1.43	0.156	-0.1067	0.0173
			PE+Passive	-0.0539	0.0379	1.42	0.158	-0.1290	0.0212
	Adj-R <sup>2</sup>	0.1751	PE+Strategic	-0.0590	0.0445	1.33	0.187	-0.1472	0.0291
EBITDA margin			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	187	Constant	-0.1123	0.0644	1.74	0.083	-0.2394	0.0147
			Exit	0.0260	0.0130	2.00	0.048	0.0002	0.0518
			Log (Total AssetsEntry)	0.0073	0.0046	1.60	0.112	-0.0017	0.0164
	R <sup>2</sup>	0.1355	Employee CAGR	0.0094	0.0419	0.23	0.822	-0.0732	0.0921
			Crisis	-0.0427	0.0140	3.05	0.003	-0.0703	-0.0151
			PE+PE	0.0408	0.0187	2.18	0.031	0.0038	0.0777
	Adj-R <sup>2</sup>	0.1017	PE+Passive	0.0281	0.0241	1.17	0.245	-0.0194	0.0758
			PE+Strategic	-0.0537	0.0287	1.87	0.063	-0.1103	0.0029
5 Year	N	187	Constant	-0.1180	0.0617	1.91	0.057	-0.2399	0.0037
			Exit	0.0329	0.0126	2.61	0.010	0.0080	0.0578
			Log (Total AssetsEntry)	0.0071	0.0044	1.62	0.106	-0.0015	0.0158
	R <sup>2</sup>	0.1496	Employee CAGR	0.0285	0.0446	0.64	0.523	-0.0595	0.1167
			Crisis	-0.0410	0.0133	3.07	0.002	-0.0674	-0.0146
			PE+PE	0.0312	0.0175	1.78	0.077	-0.0034	0.0659
	Adj-R <sup>2</sup>	0.1163	PE+Passive	0.0226	0.0233	0.97	0.334	-0.0234	0.0687
			PE+Strategic	-0.0599	0.0275	2.18	0.031	-0.1141	-0.0056
Entry-Exit	N	124	Constant	-0.1260	0.0813	1.55	0.124	-0.2871	0.0351
			Log (Total AssetsEntry)	0.0104	0.0059	1.77	0.080	-0.0012	0.0221
			Employee CAGR	0.0146	0.0576	0.25	0.800	-0.0995	0.1288
	R <sup>2</sup>	0.1902	Crisis	-0.0555	0.0174	3.18	0.002	-0.0900	-0.0209
			PE+PE	0.0513	0.0226	2.27	0.025	0.0065	0.0960
			PE+Passive	0.0070	0.0273	0.26	0.798	-0.0472	0.0612
	Adj-R <sup>2</sup>	0.1486	PE+Strategic	-0.0678	0.0321	2.11	0.037	-0.1314	-0.0042

ROIC			Name	Coefficient	Std. Error	t	P-value	95% Conf. Interval	
3 Year	N	187	Constant	-0.0239	0.1046	0.23	0.819	-0.2304	0.1825
			Exit	0.0244	0.0212	1.15	0.251	-0.0174	0.0663
			Log (Total AssetsEntry)	0.0021	0.0074	0.28	0.776	-0.0126	0.0169
	R <sup>2</sup>	0.0638	Employee CAGR	-0.0101	0.0680	0.15	0.882	-0.1445	0.1241
			Crisis	-0.0422	0.0227	1.86	0.065	-0.0871	0.0026
			PE+PE	0.0080	0.0304	0.27	0.791	-0.0519	0.0681
	Adj-R <sup>2</sup>	0.0272	PE+Passive	0.0949	0.0392	2.42	0.017	0.0174	0.1724
			PE+Strategic	-0.0150	0.0466	0.32	0.747	-0.1070	0.0769
5 Year	N	187	Constant	-0.0491	0.1061	0.46	0.644	-0.2586	0.1603
			Exit	0.0382	0.0216	1.76	0.079	-0.0045	0.0810
			Log (Total AssetsEntry)	0.0033	0.0075	0.45	0.656	-0.0115	0.0183
	R <sup>2</sup>	0.0653	Employee CAGR	0.0507	0.0768	0.66	0.510	-0.1008	0.2023
			Crisis	-0.0446	0.0229	1.94	0.054	-0.0900	0.0007
			PE+PE	0.0096	0.0302	0.32	0.750	-0.0500	0.0693
	Adj-R <sup>2</sup>	0.0287	PE+Passive	0.0630	0.0401	1.57	0.118	-0.0161	0.1423
			PE+Strategic	-0.0274	0.0472	0.58	0.563	-0.1207	0.0659
Entry-Exit	N	124	Constant	0.0764	0.1401	0.55	0.587	-0.2011	0.3540
			Log (Total AssetsEntry)	-0.0025	0.0101	0.25	0.803	-0.0226	0.0176
			Employee CAGR	-0.0160	0.0993	0.16	0.872	-0.2127	0.1807
	R <sup>2</sup>	0.0622	Crisis	-0.0654	0.0300	2.18	0.031	-0.1249	-0.0059
			PE+PE	0.0150	0.0389	0.39	0.700	-0.0620	0.0921
			PE+Passive	0.0600	0.0471	1.27	0.205	-0.0333	0.1534
	Adj-R <sup>2</sup>	0.0142	PE+Strategic	-0.0171	0.0553	0.31	0.757	-0.1267	0.0923