Evaluating and executing a tender offer

A case study on factors allowing Private Equity firms to outbid strategic buyers in tender offer processes.

This paper describes a case study of the Private Equity firm Nordic Capital's buyout of Munters, which was completed in competition with the industrial firm Alfa Laval in 2010. The study aims to identify what factors allow Private Equity firms to outbid strategic buyers in tender offer processes. Using both corporate valuation theory and game theoretic research, we study how differences in how the bidders assess the value of Munters as well as in their actions during the tender offer process impacted its outcome. Reconstructing the bidders' valuation models, we show that Nordic Capital included significantly larger operational improvements in their valuation than Alfa Laval did. Further, we find that the activities of the selling and bidding parties during the tender offer process impacted the bidders' relative competitive advantage. Our conclusions highlight the importance of taking the bidding process into account in order to achieve an in-depth understanding of the outcome of tender offer processes.

Authors: Gustaf Nyrén (20863@student.hhs.se) and Martin Skoglund (21255@student.hhs.se)

Tutor: Henrik Nilsson
Date: 14 may, 2012

Table of contents

1. Introduction

"Alfa Laval tried to buy Munters cheaply. But everything is allowed in war, love, and bidding processes."
(Affärsvärlden, October 26, 2010)

On October 18, 2010, Nordic Capital could finally entitle themselves winners of the bidding war for Munters, a public Swedish industrial company. Having faced the Swedish industrial group Alfa Laval, competition had been tough. The 41 day long bidding process had resulted in long days and nights, four subsequent public bids, several side agreements with shareholders, and a trip to the US. When Alfa Laval withdrew from the bidding process, many observers asked themselves the same question; *how could a Private Equity firm outbid an industrial incumbent with large potential for synergies?*

Value generation through synergistic gains – *synergies* – arising from strategic relatedness between firms is a rationale for takeovers with strong support among both practitioners and researchers. In research on corporate takeovers, bidders with potential for such gains are generally referred to as *strategic buyers*, and synergies are often perceived as a main driver of valuations in bidding processes (Gorbenko & Malenko, 2008).

More recently, another type of bidder with a different rationale has emerged in research; *the Private Equity firm* (PE firm). Jensen (1989) argued that these firms constitute a superior organizational form, allowing them to create value through alignment of interest, a more rational focus on cash flows, and inclusion of large amounts of debt.[1] Following this, researchers seem to have diverging perceptions of where PE firms' value creation stems from; either from developing companies operationally (Berg & Gottschalg, 2005), or from taking advantage of market mispricing and tax breaks (Kaplan & Strömberg, 2008).

Nordic Capital's acquisition of Munters is but one example of an event where these two types of bidders clash. In these events, the diverging views on PE firms frequently stimulate a debate discussing Private Equity firms' role in society. Are they developers of companies? Or do they generate value in some other way? Further, the extensive activity during the bidding process for Munters warrants one more question; can takeovers be explained by value alone?

This paper aims to address the competitive dynamics between strategic buyers and PE firms in order to increase the understanding of what factors dictate the outcome of competitive tender offer processes. By studying both bidders' actions during tender offer processes and their valuations, we answer the following questions:

1. Do differences exist between how strategic buyers and private equity firms evaluate and conduct tender offer processes?

2. If so, how can such differences affect the outcome of tender offer processes?

1.1 Scope
Our desire is to generate an in-depth understanding of the dynamics of tender offer processes. Therefore, we have decided to perform a single case study of the previously outlined competitive process; that when Nordic Capital ("Nordic") acquired Munters in competition with Alfa Laval ("Alfa"). An obvious factor making us deem this process suitable for our purpose is that it included both a PE firm and a strategic buyer. Further, as we aim to understand what potential effects the bidding process might have on the outcome of tender offer processes, we desired to identify a deal with several subsequent bids. Due to the broad nature of our research question, we have

---

[1] For a more detailed review of the characteristics of Private Equity firms, please refer to Kaplan & Strömberg (2008).

opted not to study whether the price tag was right; the post-acquisition development of Munters is beyond our scope.

1.2 Contribution

From reviewing previous research, our perception is that both PE firms' and strategic buyers' rationales for participating in tender offer processes are rather well researched areas, covering both how value is generated from corporate acquisitions and how this value is measured. Further, optimal behavior in takeover processes is a field that has received attention in game theoretic research. Thus, separately, these two research streams give us a stable ground to start from. However, they generally take each other for granted; research on value creation in takeover processes generally takes the bidding process for granted (see for example Barney, 1988), and game theoretic research generally treats value as something "drawn from a distribution" (Fang & Morris, 2006). In this study, we combine game theoretic research with theory on value creation and measurement in order to consider both the activities during the tender offer process for Munters and the bidders' valuations. In this way, our aim is to create a more integrated view of tender offer processes.

From our analysis, we find that uncertain information, transaction costs, and time pressure might impact the outcomes of tender offer processes, and that bidders adjust their actions during these processes in relation to these variables. Further, among other things, we find that Nordic planned to carry out significant operational improvements in Munters, enabling them to include higher free cash flows in their valuation model than Alfa. All else equal, such an FCF advantage was required to yield a higher value, as their implied cost of capital was clearly above that of Alfa.

1.3 Outline

The first following section reviews previous literature relevant to our study. The second section contains a discussion of our method of choice, and what implications it has for the interpretation of our findings. The third section contains the empirical data on which we base our subsequent analysis. After a brief introduction to the case, this data is divided into two parts; the bidding process, and the bidders' valuation methods and inputs. The fourth section analyses the empirical data on the basis of previous research, and consists of two parts according to the same division as in our empirical section. Due to the scope of our research question and our desire to facilitate the reading process, we will explicitly highlight relevant findings throughout the section, and each part will be concluded with a discussion of its main findings. The fifth and last section contains our concluding remarks, as well as suggestions for future research.

2. Previous research

This section consists of previous research related to our study subject. We start off broadly by reviewing research on corporate transactions, and then focus on two main areas of research; game theory on bidding processes and corporate valuation. The aim in this section is to present the base for our research as well as to establish a framework that will help the analysis of our case.

2.1 Introduction to the market for corporate control

An early contributor to the research on corporate transactions was Manne (1965). In his argumentation against antitrust legislation, he introduced a theoretical concept called 'the market for corporate control'. In essence, Manne's proposition was that control of companies could constitute a valuable asset, and that takeovers are a mechanism enabling an active market for this control to exist. This analysis rested on the assumption of a high positive correlation between managerial efficiency in a company and the market price of its shares. Managerial efficiency in this case refers to a management team's ability to manage their company and generate returns to its shareholders. With this assumption, Manne (1965) argued that takeovers are a market mechanism making more efficient management teams take control over companies run by less efficient managers, motivated by capital gains from increased share prices arising from the increased managerial efficiency. A functioning market for corporate control would therefore benefit both shareholders, through providing a well-needed measure of managerial efficiency, and society at large, through allowing a more efficient allocation of resources (Manne, 1965).

While contributing with the important proposition that takeovers may transfer control of companies to those who can excerpt the highest value from them, the only source of increased value Manne (1965) spoke of was that arising from increased managerial efficiency. However, since its inception, further research on the market for corporate control has highlighted other sources from which potential takeover candidates might excerpt value from taking control over companies. One such source of value is synergistic gains, arising from relatedness between acquiring firms and their targets. Such relatedness exists when the net present value (NPV) of the cash flows from combining two firms is larger than the NPV of the cash flows arising from the two firms acting independently (Barney, 1988), or;

NPV (A+B) > [NPV (A) + NPV (B)]

Going back to Manne's (1965) theory, an acquirer with potential for such synergistic gains from taking over a company would do this in order to achieve capital gains from the increased net present value. However, Barney (1988) argued that under an assumption of perfectly competitive markets, several bidders with potential for synergistic gains would compete for targets, and drive up the price until the bids reflected the value of the target including all value from synergistic gains. Under this assumption, while economic value would be created from the shift in control, all this value would be captured by the shareholders of the acquired firm and not by the bidders (Barney, 1988). With this analysis, Barney (1988) concluded that bidders could only make capital gains from taking over companies in the presence of "market imperfections" enabling them to generate more value from control than competing bidders. Further, in such cases, the only capital gains accruing to acquirers would be the difference between their valuation and that of the competitor with the second-highest value, due to the competitive bidding process.

While persuasive in theory, the passage above makes several strong assumptions regarding the workings of takeovers that might vary in accuracy in practice. Firstly, it assumes that (i) all potential bidders know everything about potential targets, and secondly, that (ii) given such knowledge, determination of the targets value is a straightforward and standardized process. Further, the takeover competition process is assumed to be costless. In practice, such processes usually include (iii) transaction costs and require a bidder to consider the (iv) ownership structure. Lastly, the bidders are assumed to (v) act rationally and continue bidding as long as it is in the interest of their firm. With this in mind, and on the basis of the coming research review, we find it appropriate to take all

areas above into account in order to answer our research question. In order to divide our research into manageable parts, we separate our analysis into two *"case-in-cases"*. The first case-in-case will study how the different players' actions during the bidding process relate to (i) *information availability*, (iii) *transaction costs*, and (iv) *ownership structure*. The main research stream used to analyze this will be game theory on corporate takeovers, which usually takes valuation for granted, but analyzes how a specific player will act rationally given a certain bidding situation. The second case-in-case will study how the different players (ii) *asses the value* of their targets, by both studying how value is created and how it is measured. The main research stream used to analyze this case will be theory on corporate valuation and value creation. The (v) *rationality of bidders,* in the sense of bidding in the interest of the firm, will be discussed where applicable in both cases. However, while the subdivision into two cases facilitates a structured approach, we will discuss how they interrelate during both cases as well as in the conclusions.

Case 1: Game theory on tender offer processes			Case 2: Corporate valuation
Information availability	Transaction costs	Ownership structure	Corporate valuation

The remainder of this review will outline the previous research relating to bidding rationality, takeover game theory, and corporate valuation and value generation in greater depth.

2.2 Rational behavior in bidding processes

Previous research on corporate takeovers has outlined how takeovers may be completed despite being sub-optimal for the return to the acquiring firm's shareholders. Going back to Barney (1988), such a decision would be taken when the price of acquiring a company exceeds the net present value of owning it, and can be taken either unconsciously or consciously. A description of unconscious non-value maximizing takeover decisions was outlined by Roll (1986), who argues that managerial 'hubris' could make managers unconsciously overcommit in bidding processes, due to overconfidence in the value they could excerpt from the company. This theory has been tested empirically by several researchers, such as Hayward & Hambrick (1997) who showed that CEO hubris was positively related to bid premiums, and Malmendier & Tate (2008) who found that markets reacted less favorably to acquisitions completed by CEOs classified as overconfident and that such CEOs were more likely to perform acquisitions. Theories of conscious non-maximizing takeover decisions have their roots in the classic theory studying the effects of separation between ownership and control (Berle & Means, 1932). This was further conceptualized into *agency theory* by Jensen & Meckling (1976), explaining how corporate managers, or *agents*, might maximize their individual utility through knowingly taking decisions that are sub-optimal to that of their shareholders, their *principals*. Building on this, research into how agency problems relate to takeovers has shown that corporate managers might complete suboptimal takeovers for reasons such as building a larger "empire" in order to achieve social status or higher personal compensation (Jensen, 1986), or "herd behavior" making managers complete acquisition in replication of competition (Martynova & Reneboog, 2007).

2.3 Game theory and tender offer processes

The recent years have seen increased interest in studying bidding processes, and what strategies participants in such processes should employ in order to optimize their outcome (Eckbo, 2008). Such studies are usually undertaken within the frame of game theory; a method of studying strategic decision making, or *"the study of mathematical models of conflict and cooperation between intelligent rational decision-makers"* (Myerson, 1991). Game theoretic work on takeovers generally constructs mathematical models of takeover processes in order to draw conclusions on optimal strategic decision-making of bidders and sellers.

2.3.1 Auction settings and tender offer processes

In order to model a takeover mathematically, game theorists generally rely on a variety of assumptions regarding the conditions of the takeover process. First, an assumption is made regarding the selling mechanism, which can take the shape of a negotiation, an auction, or a negotiation followed by an auction (Bulow & Klemperer, 1996). Tender offer processes are inherently structured as auctions, which is the selling mechanism generally found optimal for sellers in theory. The main reason for this is a widely held view that the final price increases with the number of bidders, making it optimal for sellers to engage as many potential bidders in a process as possible (see for example Bulow & Klemperer, 1996). Auctions are generally modeled as English auctions[2], and it is assumed that both sellers and bidders act to maximize their respective shareholders' wealth (Eckbo, 2008). This entails for sellers perform their *fiduciary duty* to sell at the highest price possible, and for bidders to continue bidding until their bid exceeds the value of the target (Betton et al., 2008). On the topic of value, Goeree & Offerman (2002) outlined that classic game theory classifies auctions as either *common value auctions,* in which the target's value is the same to all bidders, or *private value auctions*, where each bidder has an individual perception of the value of the target. They argued that such a dichotomy is inapplicable to real-world takeover processes, which are likely to include elements of both common value representing the underlying value of a target, and private value representing additional value from individual factors such as synergistic gains (Goeree & Offerman, 2002). Further analysis of where value stems from is generally not made in game theoretic literature; valuations are often described as "observed" or "drawn from a distribution", without further explanation for why they may differ among bidders (see for example Fang & Morris, 2006).

2.3.2 Information and optimal auction behavior

Several game theory researchers have studied the effects on optimal behavior in takeovers when information uncertainty is introduced. Early on, Manne (1965) explained the high proportion of takeovers within the same industry by highlighting that in a world of uncertainty, profitable transactions would more often be completed by those whose information on target companies is relatively more reliable. Decades later, Goeree & Offerman (2002) highlighted that when there is uncertainty regarding the common value, the outcome of auctions with both common and private value elements risks becoming inefficient. For example, such uncertainty could result in a bidder with a lower private value but a higher perception of the common value outbidding a bidder with a higher private value. In order to reduce such inefficiency, sellers could *publicly release information* about the common value, and thereby increase the relative importance of the private value (Goeree & Offerman, 2002).

A common problem in takeover game theory arising from information uncertainty is that of the *winner's curse,* first discussed in auctions for oil drilling rights but applied to common value auctions in general by Thaler (1988). In a situation where uncertainty requires several bidders to make an estimate of the common value of an item, estimation difficulties will make some bidders estimate a higher value and some a lower value, even if the mean estimate is accurate. When subsequently bidding based on these estimations, the winning bidder is likely to be *'cursed',* in the sense of paying more than the item's value. As the number of contesting bidders increases, the distribution of the estimates grows larger, and with that the likelihood of the winning bidder being cursed. Knowledge of this phenomenon requires rational bidders to consider two contradicting factors; as competition in an auction increases he must bid more aggressively in order to win, but he must also bid less aggressively in order to avoid the winner's curse (Thaler, 1988). The theory of the winner's curse was further adapted to auctions with asymmetric information by Povel & Singh (2006), who highlighted that when bidders are not equally informed, the more well-informed bidders have an advantage due to a lower fear of falling victim to the winner's curse.

Fishman (1988) showed how, if information acquisition is costly, an initial bidder could optimize by initiating a high-premium, *"pre-emptive"* bid. He modeled a private value takeover auction, with two bidders in an environment in which information was asymmetric and costly to acquire. He highlighted time as an important factor in

---

[2] An auction process in which bidders submit successively higher bids until one has won (Fishman, 1988)

auctions, arguing that bidders may acquire information on targets not only through pre-auction investigation, but also through acquiring information during the auction process. According to Fishman's (1988) theory, when an initial bid is made, potential competing bidders learn something about the initial bidder's value, and if the values of bidders are correlated, they might also learn about their own value. With a longer lasting duration, Fishman (1988) argued, potential competing bidders may adapt their information acquisition strategy based on their observation of the initial bid. As the cost of acquiring information makes entering the auction costly, a competing bidder's expected profit from participating decreases with their perceived size of the initial bidder's value. Fishman (1988) showed that, taking this into account, the first bidder might optimize by making a high pre-emptive bid, signaling a high private valuation to potential competing bidders. When the bid signals a sufficiently high value to make the expected profit from announcing a competing bid lower than the costs of it, the pre-emptive bid deters competition from entering the process, and thereby maximizes the value for the initial bidder (Fishman, 1988). Testing the efficiency of such pre-emptive bidding strategies is hard, as deterred bidders and their private valuations are unobservable (Betton et al., 2008). However, Jennings & Mazzeo (1993) indeed found that high initial bid premiums were less likely to face competition, providing empirical support for the effectiveness of pre-emptive bids.

Having noted the effects from pre-emptive bidding, Fishman (1988) illustrated that the final price is maximized if the cost of information for the second bidder is minimized. On a similar subject, Jennings & Mazzeo (1993) found competition to be more likely in takeovers with more public information. Building on these effects of information, Hirschleifer (1989) showed that target firm management teams may raise the final price by disclosing information to bidders with an informational disadvantage.

2.3.3 Transaction costs and optimal auction behavior
A standard assumption in takeover game theory is that a bidder's outcome if failing to win is zero (Betton et al., 2008) and, except for the aforementioned concept of costly information, the implications of transaction costs on takeover auctions are not well documented in game theory. However, Officer (2003) showed how sellers may use *termination fees* to reduce bidder's transaction costs and encourage them to participate in auction processes. A termination fee is a fee which the seller guarantees to pay to an individual bidder if failing to win the auction. Officer (2003) hypothesized dual reasons for using such fees; either for self-serving managers to defend "sweetheart deals" from competing bidders, or for managers performing their fiduciary duty to encourage bidders to participate despite costly auction processes. In an empirical test, he found no evidence of termination fees being used by self-serving managers, but that their inclusion resulted in takeover premiums that were no lower but potentially as much as 7% higher (Officer, 2003). Similarly, Bates & Lemmon (2003) found deals including termination fees to have higher completion rates and bid premiums, and that they were more common in deals with large bidder-target information asymmetries and higher expected costs of bid failure.

2.3.4 Ownership structure and optimal auction behavior
The fact that share ownership in takeovers of public companies is diluted gives rise to several issues highlighted by game theorists. Firstly, Grossman and Hart's (1980) classic work on *the free-rider problem* shows how societally profitable takeovers might not take place due to individual shareholder acting in an individually rational manner. Basically, target shareholders expect their shares to appreciate in value after a new, more effective owner has taken over control of the firm. Through not tendering their shares, they may "free-ride" on this value appreciation if their decision to tender does not affect the outcome of the takeover. With that logic, bidders able to add societal value through acquiring and improving the performance of target companies are not able to reap the whole benefits from it. Further, if the shareholder structure is atomistic[3] and all shareholders attempt to free-ride, the

---

[3] The shareholder structure of a firm is atomistic when it is owned by a continuum of holders who each own a negligible portion of the firm (Spatt, 1986).

takeover fails, and societal value is lost (Grossman & Hart, 1980). In order for such socially beneficial transactions to be facilitated, research has suggested the use of exclusionary devices in order to restore bidder's incentives to take over firms (see for example Grossman & Hart, 1980 and Bradley et al., 1988). However, when the assumption of an atomistic shareholder structure is relaxed, the relative concentration of share ownership might mitigate the free-rider problem and the need for such exclusionary devices. Bagnoli & Lipman (1988) showed how the existence of a majority shareholder or minority *blockholders* might make a few shareholders' decision to tender pivotal to the outcome of the auction. While there are various definitions of what ownership percentage constitutes a blockholding position, the significance of a block holder in blocking or facilitating a takeover depends on its voting rights in relation to the remaining shareholders (Burkart & Panunzi, 2006).

An ownership related strategy through which an acquirer can gain an advantage in a takeover process is through acquiring a *toehold*[4] prior to tendering the initial bid. Several advantages with acquiring such toeholds have been described in theory. Firstly, in the absence of blockholders, a toehold might mitigate the free-rider problem, as a gain can be made on the toehold even if the bidder does not make a profit when acquiring the remaining shares (Eckbo, 2008). Secondly, as a toehold reduces the number of shares acquired at a full takeover premium, granting the owner of a toehold a competitive advantage towards other bidders (Ravid & Spiegel, 1999; Bulow et al., 1999). Thirdly, toehold owners may gain from selling their toehold position in case they lose the bidding process (Bulow et al., 1999). Toeholds have also been proven empirically to increase bidders' chances of winning takeover processes (Walkling, 1985). However, despite both theoretical and empirical support for the benefits of toeholds, Betton et al. (2005) find them to be rarely used in practice.[5] They label this "*the toehold puzzle*". While one drawback with toeholds is that they might initiate a pre-bid increase in the share price, they empirically find this risk insufficient in explaining the toehold puzzle (Betton et al., 2005). In an alternative explanation, they conclude that toeholds increase the risk of resistance from target management, as they increase the bidder's probability of acquiring the target and thereby eliminating the target management's private benefits of control. Thus, bidders must compare the benefits from the toehold with the costs of launching unsolicited tender offers (Betton et al., 2005). In accordance with this, they find toeholds to be uncommon in friendly takeovers but the norm in hostile bids.

Lastly, another potential yet scarcely discussed takeover strategy that bidders can employ in order to maximize their probability of success is to gain *irrevocable commitments* prior to launching bids. Such agreements are undertakings given by existing shareholders before bids are announced, in which they agree to tender their shares in the event of a bid. Such commitments become public at the same time as the bid, and work as a pre-bid action to both secure acceptance of the deal and to deter alternative bidders (Wright et al., 2007).

---

[4] Purchasing an amount of shares in the open market before announcing a tender offer.
[5] In a sample of twelve thousand bidders initiating control contests for publicly traded targets, only two percent acquired target shares shortly prior to the bid.

The table below summarizes the main takeaways from the review of this research stream:

Table 1: Summary of game theory related to tender offer processes

	Information	Transaction costs	Ownership structure
Bidder	Avoid the winner's curse Bid pre-emptively	Expected costs from failing increases with transaction costs	Make blockholders pivotal Acquire toeholds Irrevocable agreements
Seller	Make information public Decrease information cost	Termination agreements	Fiduciary duty to maximize price

2.4 Generating and measuring value in takeovers

In our previous section, a bidder's value of a company was treated as a given input. But how is such value measured, and where does it stem from?

2.4.1 The definition of value

The general theoretical approach to value is measuring it in terms of cash. Further, having cash today is generally perceived as more valuable than having the same amount tomorrow – the present value of an amount of cash decreases the longer into the future you expect to receive it. Conversely, corporate valuation is concerned with calculating the present value of all future cash flows generated by a company. In order to do this, expected future cash flows are discounted with a 'cost of capital' representing the compensation, or return, an investor requires for committing their capital to the investment (Koller et al., 2010). This required return is generally assumed to increase with the riskiness of the investment, representing a compensation for investors willing to take on additional risk of losing all or parts of their investment.

Attributing the development of valuation theory to any specific author would, in our opinion, be misleading. While many credit Irving Fisher or John Burr Williams as some of the first to formalize the concept of discounted cash flows, it has been further developed by a plethora of other researchers such as Miller and Modigliani over time (Miller & Modigliani, 1958; 1961). Today, several models based on the concept of discounted cash flow exist, such as Enterprise Value DCF (Koller et al, 2010), Residual Income Valuation, and Adjusted Present Value (Penman, 2007). Whereas the models are structured differently, the key components are still the same; determining the future free cash flows accruing to an investor or a group of investors, and discounting it with their required cost of capital.

2.4.2 Measuring the value of companies

The Enterprise DCF model
A model that has been well received among practitioners is the "enterprise discounted cash flow (DCF)" model (Koller et al., 2010). This model discounts the free cash flow (FCF) of a firm, i.e. the cash flow to all investors (holders of debt, equity and hybrid instruments) at the investors' weighted average cost of capital (WACC). The valuation is divided into two parts; an explicit forecast period during which cash flows are discounted on an annual basis, and a terminal value calculation, which uses a growing perpetuity assumption in deciding the value of the non-explicitly forecasted cash flows. This yields the value of operations; the enterprise value (EV). If the final objective is to calculate the value of the company's equity, this is achieved by subtracting the value attributable to

debt holders and other non-equity claimants from the enterprise value (Jennergren, 2011). Using the terminology of the model, a company generates value as long as its return on invested capital (ROIC) is higher than its WACC. Another important value driver is the growth rate; given that a firms business is value creating, as long as this business grows, value increases more.[6] The DCF model works best when the valued firm maintains a constant capital structure, as a changing one would theoretically imply a need to change the WACC, which can be difficult to forecast (Koller et al., 2010).

The LBO valuation model
Due to their limited investment horizon and their focus on generating returns to their fund, Private Equity firms' corporate valuation models differ slightly from those of strategic buyers. While the underlying fundamentals of discounted cash flows and required returns are the same, the so-called Leveraged Buyout (LBO) model calculates the expected internal rate of return (IRR) on equity from an investment (Kaplan, n.p). Thus, transactions with debt holders are treated as cash outflows. During the holding period, free cash flows to equity holders are discounted, similarly to the DCF. However, the terminal value is not calculated using the growing perpetuity assumption, but instead through using an earnings multiple to predict the EV at the Private Equity firm's exit. The proceeds from selling at this EV is then used to amortize debt, and the remaining parts of it accrues to the equity holders, and is discounted in the same manner as the holding period equity cash flows (Kaplan, n.p). Intuitively, the model can also be used in the same way as the DCF model in order to determine what value to attach to a company given a predetermined IRR, which typically lies between 20-30%. Kaplan (n.p) argues that this rate in general lacks a theoretical justification, and instead represents the Private Equity fund's return target.

As the LBO valuation model contains elements that might be considered loosely anchored in theory, a model with similar characteristics but with a strict theoretical foundation is the flows-to-equity (FTE) model. Similarly to the LBO model, this method discounts free cash flows to equity holders, but with a cost of equity rather than an IRR (Cooper & Nyborg, 2010). This allows it to take changes into a firm's capital structure into account, by adjusting the cost of equity as leverage changes, and is therefore suitable for valuing leveraged buyouts. According to Cooper & Nyborg (2010), the correct way of making such adjustments to the cost of equity is to calculate the implied leverage ratio on the basis of market values at each future date, and thereafter re-leverage the cost of equity in order to reflect this leverage ratio. Whereas such adjustments might be immaterial in some settings, they become important in highly levered transactions where the tax benefit of debt is a large value driver (Cooper & Nyborg, 2010).

Valuation using multiples
Multiples valuation implies identifying a firm's comparable companies, or peers, and using their average or median value of a specific multiple (there are many types of multiples, such as EV/EBITDA, price/earnings, price/book value etc.) to obtain the value of a firms equity or enterprise value (Koller et al., 2010). The procedure can be used as alternative valuation method, or as a sensitivity check to the DCF valuation. Moreover, multiples are often used in the terminal value calculation of a DCF model. Liu et al. (2001) states that while valuation using multiples is widely used in practice, there is little academic research on the subject.

2.4.3 Value generation in the market for corporate control
In order to win a tender offer process, bidders are generally required to pay a premium to the prevailing stock market price, implying that rational bidder's must expect higher value to accrue from owning the target company than the present shareholders do. Such differences in expectations might stem from different factors; factors

---

[6] A more technical description of the DCF model lies outside the scope of this thesis, please refer to Koller et al. (2010) for a more detailed description.

unrelated to changes to the target company; plans to excerpt additional value from the target company's operations, or plans to excerpt value from the target through factors relating to its capital structure.

Capturing value without making changes to targets
Research to date has highlighted several ways in which acquirers might excerpt value from acquisitions without making any changes to their targets (Berg & Gottschalg, 2005). Whereas this literature mainly has focused on Private Equity buyers, these ways are likely to be applicable also for strategic buyers. DeAngelo et al. (1984) and DeAngelo (1986), among others, argued that having insider information such as superior knowledge on the future performance of a target might be a source of capturing value. On a similar note, Fox et al. (1992) and Anders et al (1992) described how PE firms might capture value through having superior market information, or superior ability to interpret such information. Butler (2001) highlighted that superior "deal making skills", e.g. through professional experience in negotiations or through the ability to limit competition, might enable PE firms to capture equity value without making improvements to their targets underlying performance. Further, among others, Singh (1993) highlighted that buyout investors might take advantage of conglomerate discount effects, allowing them to capture eventual value appreciations when acquiring undervalued subsidiaries. Lastly, Berg & Gottschalg (2005) described how private equity firms might benefit from '*multiple riding*', changes in equity value from its correlation with public market valuation multiples.

Synergistic gains and operational performance improvements
A large body of research has also outlined how both strategic buyers and private equity firms might add value through making changes to their targets' operations. Arguably, the potential for strategic buyers to generate synergies when acquiring related companies is a well-documented phenomenon (Dodd & Ruback, 1977; Bradley, 1980). Bradley et al. (1988) argued that in takeover processes, the bidder able to reallocate a target's assets most effectively would always be able to offer the highest bid in a takeover process. More recently, Gorbenko & Malenko (2010) supported this view arguing that synergies are a primary driver of valuations in takeovers, and that it therefore is common belief that strategic acquirers should be able to outbid financial buyers. Previous research has highlighted numerous sources of such operational synergies, including economies of scale in production and sales, increases in market power, gains from enhanced sales channels, gains from knowledge transfer, or managerial efficiency improvements (Lewellen, 1970; Trautwein, 1990). On a more critical note, Roll (1986) argued that the value attached to synergies in takeovers often is overestimated, making the bid premium represent wealth transfers from acquiring firms to target shareholders rather than only the potential for synergistic gains. Nevertheless, although this might lead to cases when takeovers fail to generate value to acquiring companies, the concept of synergies arguably has general acceptance among researchers.

Whereas PE firms' acquisitions generally are not expected to generate synergistic gains unless making add-on acquisitions (Gorbenko & Malenko, 2010), research has highlighted a magnitude of ways in which they might create value through changing the operational side of their targets. Again, a large portion of these are not to be perceived as PE-specific. Jensen (1989) was an early commentator on Private Equity, arguing that the structure of what he called "LBO Association's" enabled them to resolve important conflicts of interest, to be more adaptable to changing circumstances, to allow strong efficiency improvements through heavy incentives, and to result in a more rational focus on cash flow as a measure of value. Further, several authors have outlined how PE firms work with operational efficiency to improve margins and reduce costs in their targets (see for example Kaplan, 1989; Holthausen et al, 1996). Indirectly, this can be made through replacing underperforming management teams (Jensen & Ruback, 1983; Anders, 1992). More directly, operational efficiency can be improved through increasing controls on corporate spending (Phan & Hill, 1995), cost reduction programs (Muscarella et al., 1990) or through reduction of overhead costs (Easterwood et al., 1989; Samdani et al., 2001). Further, several authors have noted how Private Equity firms reduce capital requirements through efforts such as reducing inventories and other parts of working capital (Baker, 1989; Easterwood, 1989).

Research has also found PE firms to generate value through *increasing strategic distinctiveness* in their targets. Several authors have described how buyouts have led to a corporate refocusing, in which divestment of peripheral activities or business units has resulted in decreased complexity and an increased focus on core competence (see for example Muscarella, 1990 or Anders, 1992). Further, Samdani (2001) described how targets have been acquired to carry out "buy and build" strategies, in which the intention is to perform several add-on investments and thereby reach favorable market positions or realize economies of scale.

A less direct effect on operations from PE firm's acquisitions identified by researchers is a *reduction of agency costs* stemming from pre-acquisition agency problems between targets' managers and owners. Firstly, the relatively high ownership concentration in leveraged buyouts and PE firms' role as active investors has been found to enable an improved monitoring and controlling function, reducing agency problems (DeAngelo 1984; Jensen 1989). Further, the increased amount of interest payments stemming from a higher debt burden leaves managers with less cash at their hands, reducing their likelihood of using it for sub-optimal investments (Jensen 1989; Newbould et al, 1992). The large amounts of leverage used by PE firms has also been shown to give lenders a higher incentive to monitor the performance of target managers, which in effect works an outsourcing of the governance function towards lenders (Baker et al., 1994). However, critics of the above reasoning has pointed out that such large increases in leverage might make firms short-term oriented, due to the increased risk for financial distress (Palepu, 1990). Another factor through which PE firms may reduce agency costs is through the use of financial incentives given to target management teams (Kaplan & Strömberg, 2008). The usage of such incentives has been shown to motivate managers to find and cure inefficiencies, not only through the potential for an upside in case of high performance, but also through a personal downside for managers in case underperformance (Palepu, 1990; Weir et al., 1998). However, in a similar criticism to that of the disciplining effects of high leverage, other researchers have argued that high equity-linked incentives might make managers risk-averse, making them take sub-optimal decisions (Berg & Gottschalg, 2005). Lastly, on the governance note, researchers have highlighted that PE firms' tight relations with their holdings, often through board representation and more frequent board meetings, enable them to contribute with management and industry expertise as well as with a valuable network of contacts (Baker, 1989). In some cases, the less bureaucratic structure of buyouts has also positively impacted entrepreneurial activities (Jensen, 1989).

Further, researchers have highlighted how PE firms have been able to excerpt value from their targets through *reducing corporate tax*. Except for the tax related effects from increased leverage (see next section), PE firms have been found to generate value in terms of future cash flows through adjusting assets' book values and their subsequent depreciation schedules (Kaplan, 1989). Norbäck et al. (2011) further argued that higher reporting requirements on public firms give them tighter requirements in terms of bookkeeping, accounting and reporting standards, allowing them to take advantage of tax planning to a lesser extent than PE firms.

Generating value through financing decisions
The work of Modigliani & Miller (1958) is arguably among the most influential contributions to the discussion of capital structure's impact on corporate value. In their first proposition, they showed how the market value of any firm, and its average cost of capital, is independent of its capital structure (Modigliani & Miller, 1958). Basically, this follows from the assumption that the expected returns (or cash flows) from the firm is unaffected by the capital structure, which only determines how these returns are distributed. Further, investors are assumed to be able to replicate the leverage of a firm by borrowing on his own account. Building on this in their second proposition, they showed that an equity investor's expected rate of return in a levered firm would be equal to what it would have been if the firm had been unlevered, plus a premium calculated as the debt-to-equity ratio multiplied by the spread between the unlevered cost of equity and the cost of debt (Modigliani & Miller, 1958). Whereas these initial propositions assumed no corporate taxes, Modigliani & Miller found that when taxes were introduced, the value from tax shields accruing from deductibility of interest expenses enables firms to create value through using debt financing rather than equity.

Several researchers have related the value of tax shields to the large amount of debt used by PE firms, and argued that these tax shields constitute a main source of value creation in buyouts (see for example Kaplan, 1989 and Fox et al., 1992). Bartlett (2007) took this argument one step further, in arguing that debt distorts the outcomes of takeovers through significantly increasing the valuations of targets. This, he argued, allows economically inefficient buyers - often PE firms - to win bidding competitions. Norbäck et al. (2011) carried the same argument; that tax advantages from extensive use of leverage affects the efficiency of the market for corporate control, allowing PE firms to outbid incumbent bidders. The notion of increased value through debt has not been left entirely without criticism, however. Opler & Titman (1993) argued that as many PE firms use more debt than what is required to eliminate tax shields, the crucial role for debt is unlikely to be taxes. Further, a body of research on what capital structure is optimal has developed the so-called "trade-off theory". This theory adds a cost associated with the risk of bankruptcy to Miller & Modigliani's (1958) first proposition (Kraus & Litzenberger, 1973). Conceptually, this gives rise to a trade-off in that increasing the proportion of leverage yields both a positive and a negative effect on value. When the marginal bankruptcy costs from increasing leverage exceeds the marginal benefits from tax shields, the optimal capital structure maximizing the value of the firm is found (Kraus & Litzenberger, 1973). However, in replying to this, Miller (1976) argued that for large companies, the size of potential gains from increasing tax shields severely outweighs the costs of bankruptcy.

A body of research has proposed that PE firms are able to create value in their targets not only through the amount of debt itself, but through their ability to procure it. For example, Kaufman & Englander (1993) found that PE firms, through expertise in financial market mechanisms and through an extensive network within the debt market, might help their targets to reach better financing terms than they could have reached by themselves. This is further described by both Demiroglu & James (2010) and Ivashina & Kovner (2011), who highlight that PE firms' status as "repeat customers" in the debt market might make lenders deal with them on looser terms than stand-alone targets; both due to decreased information asymmetries and due to lenders' intentions to cross-sell other business. PE firms' special relation to leverage was further highlighted by Axelson et al. (2012), who in a recent article outlined how PE firms are *"uniquely positioned to time the market by arbitraging debt versus equity when leverage is relatively cheap"* (Axelson et al., 2012). In their study, they found support for what they perceive as a general statement among practitioners; that PE firms usually use as much leverage as they can. Further, the main factor found to constrain the amount of leverage included PE firms' deals was the debt market itself. They contrasted this with public firms, where leverage decisions are mostly driven by firm characteristics (Axelson et al., 2012).

3. Method

3.1 Empirical method

Our method of choice to answer our research questions is a single qualitative case study including numerical elements. As our indicated by our review of previous research, answering the research questions will require us to consider the interplay between several factors influencing the outcome of tender offer processes, where numerical valuations are an integral part. It is commonly stated that quantitative studies are more generalizable than qualitative studies (see for example Verschuren, 2003 and Alvesson & Sköldberg, 1994). However, we argue that it would not be possible to get the same in-depth understanding of tender offer processes, and the interplay between bidding processes and valuation, with a more quantitative approach. In other words, as the phenomenon we study is complex and dynamic, we believe that it is more suitable with a case study approach (see for example Cooper & Morgan, 2008 and Meriam, 1994). Moreover, it is probable that the bidding process involves social factors that had not been captured in a quantitative study. Our inclusion of numerical elements has been made to substantiate our qualitative reasoning and amplify our possibility of analyzing the bidding process. It is our firm belief that it would be inaccurate to study only the bidding process taking valuation for granted, as that might imply overlooking important aspects that contribute to the outcome of the tender offer process as a whole. Further, our decision to perform one single case study as opposed to studying multiple cases, has been taken to allow us a

deeper understanding of the case at hand. Thus, in line with Dyer & Wilkin's (1991) reasoning, we have decided to try to achieve deep insights of one case instead of looking at several cases on a surface level.

The qualitative analysis is conducted through interpreting and finding patterns in our interview material and supplementing resources, taking a starting point in the theoretical review outlined above. The numerical analysis is conducted through attempting to replicate the valuations that laid the foundation for the different parties' bids in the takeover process. These valuations are based on the bidders' own assumptions to an as large extent as possible. However, in cases where the interview objects decided not to give us numerical inputs, we have made our own assumptions. These assumptions have been based on either historical averages or forecasts provided by equity researchers. Our valuations are used as a tool for understanding why the bidding firms decided to submit the bids that they did and what impact their choices of input numbers had on the valuations. Moreover, they are used to illustrate the differences in conditions between PE firms and industrial firms and seeing what impact that has on the bidding process.

Our method of relating previous research with empirics resembles a deductive approach in the sense that our research question is based on previous theory stating that strategic buyers with synergies should be able to outbid PE firms, which has guided us in what case we are studying. However, the information that we have received throughout the interviewing process has made us expand and revise the theory that we now base our thesis on. Therefore, we argue that our process can be expressed as abductive (Dubois & Gadde, 2002). Relating to Edmondson & McManus (2007), we argue that our research could be labeled "intermediate theory research", in that we have used different streams of previous research and related them to each other, and that an abductive approach is appropriate for doing so.

3.2 The case: Nordic Capital's acquisition of Munters

To study what factors enable PE firms to outbid strategic buyers, we needed to identify a transaction where this had actually happened. In that sense, our research question guided us in the search for a case study, in accordance with what is suggested by Yin (1994). Further, the transaction would have had to have occurred recently enough for it to be fresh in mind among our interviewees, and for sufficient material to be available. Another factor increasing the importance of finding a recent transaction is to avoid disturbance from changes in factors that might affect the outcome of our study, such as tax and takeover legislation.

Nordic Capital, a PE firm based in Sweden, acquired Munters in October 2010. Munters is an industrial company based in Sweden, and was at that point in time quoted on NASDAQ OMX Stockholm. The tender offer process was initiated by the Swedish based industrial company Alfa Laval. Both parties increased their bids during the bidding process, and the final bid represented a relatively high premium over the pre-bid announcement stock price, albeit not the highest premium on the Swedish stock market over a period of five years. Considering that this was a high bid premium and that a PE firm won over an industrial firm that was expected to have operational synergies[7], we argue that the case is a deviant case (Cooper and Morgan, 2008). Early on, we were able to secure access to interviewees, as well as to ensure that they could recall the process. This made Nordic Capital's acquisition of Munters an ideal study object for the purposes of our thesis.

---

[7] According to media coverage and equity research at the time, see for example Dagens Industri, October 1, 2010

Figure 1: Bid premiums in NASDAQ OMX Stockholm 2007-2012[8]
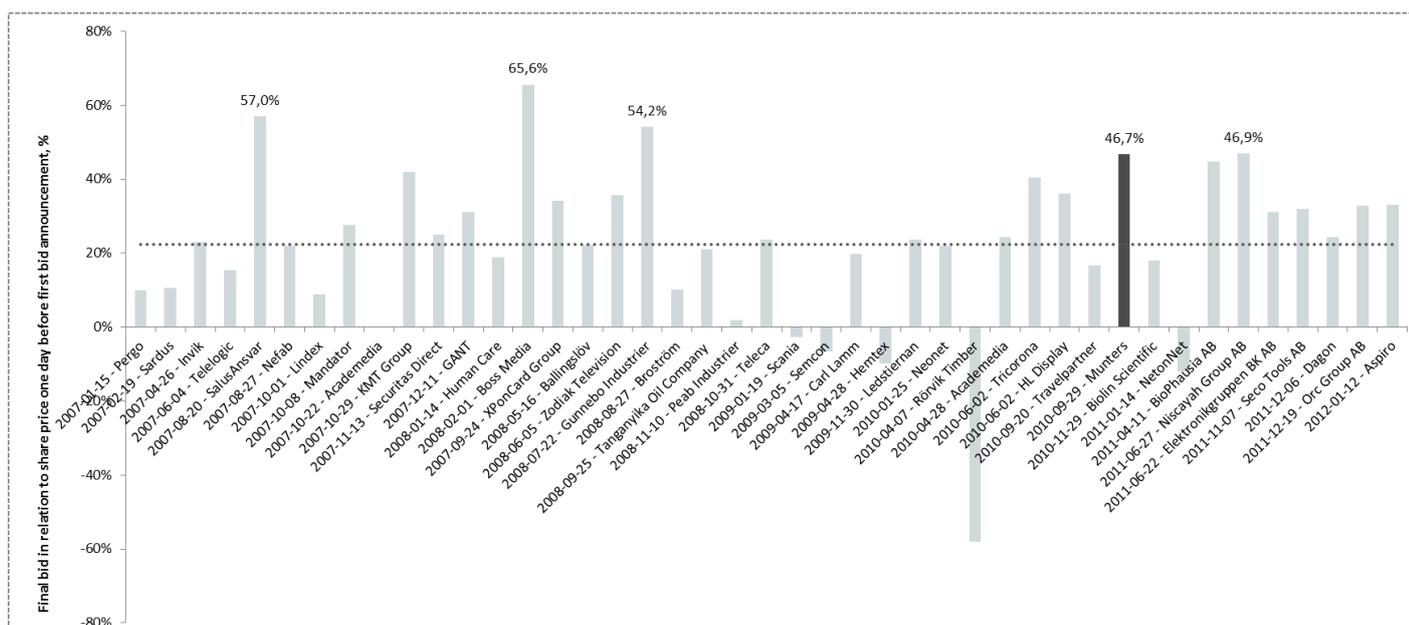
3.3 Data collection

For the purpose of our study, we chose to collect data through a combination of interviews and document studies. Interviews served as the primary source of data on the bidding process, for several reasons. Firstly, public documentation on the different players' actions during the process is brief, and focuses on factual descriptions of what happened during the process. Secondly, the negotiation process encompassed a limited amount of persons primarily interacting in person or per phone, reducing the existence of internal documentation. Interviews with the persons involved in the process allowed us to understand in detail how their decisions were taken, and what the underlying reasons for taking them were. Understanding such factors was perceived as crucial for the purposes of our study. Interviews also served as the primary source of collecting data on the bidders' internal processes for valuation, and their valuations of Munters. Whereas obtaining their respective internal valuation documents would have been ideal for this part of our study, this was not possible due to respective players' reluctance to reveal detailed information on their business going forward. Interviews allowed us to excerpt information up until the point where the interview objects decided to draw their line for where the information became sensitive to their business.

In preparation for the interviews, as well as to enhance the understanding of the data collected during them, we used studies of external and internal documentation as a complimentary source of data. The external documentation includes financial reports, equity research reports, media coverage on the deal, and other online sources covering the parties involved and the process.

3.3.1 Selection of interview objects

In order to gain a wholesome picture of the case, we chose to interview persons from all parties involved in the transaction. Interview objects from the respective parties were selected based on their influence on, and activity in, the transaction and valuation process. Given this selection criteria, we interviewed the CEO's of Munters' two main shareholders before the acquisition, the CEO and CFO of Alfa, a Director at Nordic who was part of their investment team for the acquisition and at present a representative in Munters board of directors, as well as two

---

[8]Based on press releases at deal announcement and previous share prices

board members and the CEO of Munters. Further, to enhance our understanding of specific valuation related phenomenon, we have performed interviews with representatives from the Swedish Tax Authorities, from a law firm engaged in the structuring of Private Equity funds, and from a bank that generally finances industrial and private equity takeovers.

3.3.2 Interview structure

Our interviews took place in 2012, between February and May. The interview objects were split into different groups depending on their role in the transaction (main shareholder, competing bidder, target, unrelated) and separate interview documents were developed for every group of roles. This was made in order to cover the areas where each interviewee could contribute to the study of our research question given their role in the transaction. For example, while we aimed to cover general valuation processes, their valuation of Munters, and the bidding process when interviewing the bidders, our interviews with the main shareholders were centered only on the bidding process. However, all interview documents included a main template of questions, covering their understanding and involvement in the bidding process as well as their perception of the different bidding parties' valuation.[9] This interview format is best described as semi-structured (see Merriam, 1988), as we set the main frame for the interviews with our interview documents but urged the interview objects to tell 'their version' of the case before answering more detailed questions. This format was deemed suitable, as we wanted to learn each interview object's perception and reflection of the case, while assuring that data was gathered on areas relevant to our study. Moreover, their way of describing the whole process gave us new questions that we asked during the interview but had not thought of on beforehand.

As interviews constituted our primary way of gathering data, all efforts were made to both excerpt as much data as possible from them and to ensure that this data was interpreted and documented accurately. The interviews lasted between 45 and 105 minutes, with an average length of approximately 75 minutes. During the interviews we held with parties unrelated to the transaction, documentation in the form of excerpts from annual reports were brought in order to get their input on our specific case.

The data acquired from our interviews did not only make us revise our theoretical base as stated in section 3.1. It also made us conduct additional interviews and deepen our knowledge in areas that we had not thought of based on our review of previous research.

3.4 Reliability and validity

Our choice of method has impacted the reliability of our study – the possibility to reach the same conclusions through replicating it – in several ways. First of all, future researchers need to consider the fact that the study is based on an event at a set point in time. As the primary source of data is personal interviews rather than documentation, it is likely that the interview objects' recollection of the event will decline with time, thereby decreasing the accuracy with which the study could be replicated as time goes by. Further, the nature of the semi-structured interview relies on interplay between researcher and interview object. This implies that partly different data could be acquired in replication of such interviews, which reduces the study's reliability. This reduction is only partly redeemed by our use of a base template for our interview documents. Lastly, interview based research requires interpretation that to a certain extent is subjective, another factor reducing the possibility to replicate the study.

Similarly, our method of choice has impacted the extent to which our study depicts reality - the inner validity of our research (Merriam, 1994). As mentioned, interview based research is inherently dependent on the researcher's

---

[9] This does not include the interviews with parties unrelated to the bidding process (tax authorities, law firm and bank)

subjective perception of the gathered data. We have attempted to structure our collection of empirical data and the subsequent analysis of it in a way that reduces such impact on our study's depiction of reality. It is important to note that we wanted a subjective depiction of reality in the sense that we wanted to hear the perspectives of the interviewees. They differ on several aspects, which do not mean that one should question the validity of our study. Rather, this strengthens our inner validity, as it reveals complexity of the takeover process that we want to express (compare with Merriam, 1994).

In order to allow our interview objects to recall the case on beforehand and thereby increase the amount of data excerpted during our interviews, a brief description of our research topic was e-mailed to them before the day of the interview. Further, to reduce the risk of misinterpretation, all but two interviews were made in person.[10] Further, both authors were present during the interviews except for one case, in which one of the authors was related to the interview object. This interview was undertaken by the unrelated author alone, in order to avoid the risk of bias.[11] Conscious of the potential for such bias, we considered not including this interview object or interviewing another employee at his firm. However, as this interview object represented one out of two previous major shareholders and was the one taking part of the bidding process from their side, we decided to include him in order to get a wholesome picture of our study object. It is worth mentioning that being familiar with this interviewee made it easier to get in touch with other interviewees. However, it is our firm belief that it has not affected the interviewees' answers to a large extent. As can be seen in our empirical section, the interviewees have been open with their views on the tender offer process and have expressed opinions on how other actors behaved within this process.

An active decision was taken not to record the interviews. While recording and subsequently transcribing arguably might be the most accurate way of denoting the discussion during an interview, the nature of our research study and the role of our interviewees made us decide against doing so. The reason for this decision was to establish a stronger sense of security among the interview objects and to create the sensation of a discussion rather than a strict interview. The importance of this was emphasized by the fact that several interviewees represented companies quoted on stock exchanges. In order to compensate for the eventual loss in transcription accuracy from the decision not to record the interviews, one author took primary responsibility for managing the discussion and the other one took primary responsibility for making accurate notes. Both authors rewrote their notes separately after each interview, after which eventual uncertainties or discrepancies were discussed. All interview objects agreed to have further contact with us after their initial interview, should we require clarifications or further data. This opportunity was taken with both Alfa and Nordic, as they were the main objects of our study. Moreover, we did so with one board member of Munters, as he was our first interview object. This allowed us to cover several questions that developed later on during the interview process.

It is difficult to achieve generalizability, or outer validity, in case study research. This is true also for our case. As the tender offer process is a socially complex one, the exact events leading up to Nordic winning the process are not likely to be the same in other takeover processes. Further, future tender offer processes are highly unlikely to see the same exact valuations. However the elements of the bidding process and the conceptual findings from our valuation comparisons are likely to be similar to those of other takeover processes. Thus, it is plausible that our findings regarding the relative importance of factors impacting the outcomes of tender processes might be applicable in enhancing the understanding of future cases.

---

[10] The interview with the Swedish Tax Authorities was held by phone, due to geographical distance. Our second interview with the CFO of Alfa was also held by phone due to the same reason. This second interview was mostly undertaken to clarify previous information that had been given to us.
[11] The interview with Industrivärden's CEO

4. Empirics

4.1 Case background

4.1.1 Involved parties

Target company: Munters

In July 1, 2010, Munters was listed on Nasdaq OMX Stockholm, in the Mid-Cap segment, and had registered headquarters in Kista, Sweden. Munters' operations were centered on indoor climate solutions, and organized in two product divisions – Dehumidification (DH) and HumiCool (HC). The divestment of a service division, Moisture Control Services (MCS), had just been completed. Munters' net sales for 2009 amounted to MSEK 6,524, of which MSEK 2,768 were attributable to MCS.[12] The market capitalization was MSEK 3,487 and the share price was 46.5.

Figure 2: Share price development in Munters from the start of 2001[13]
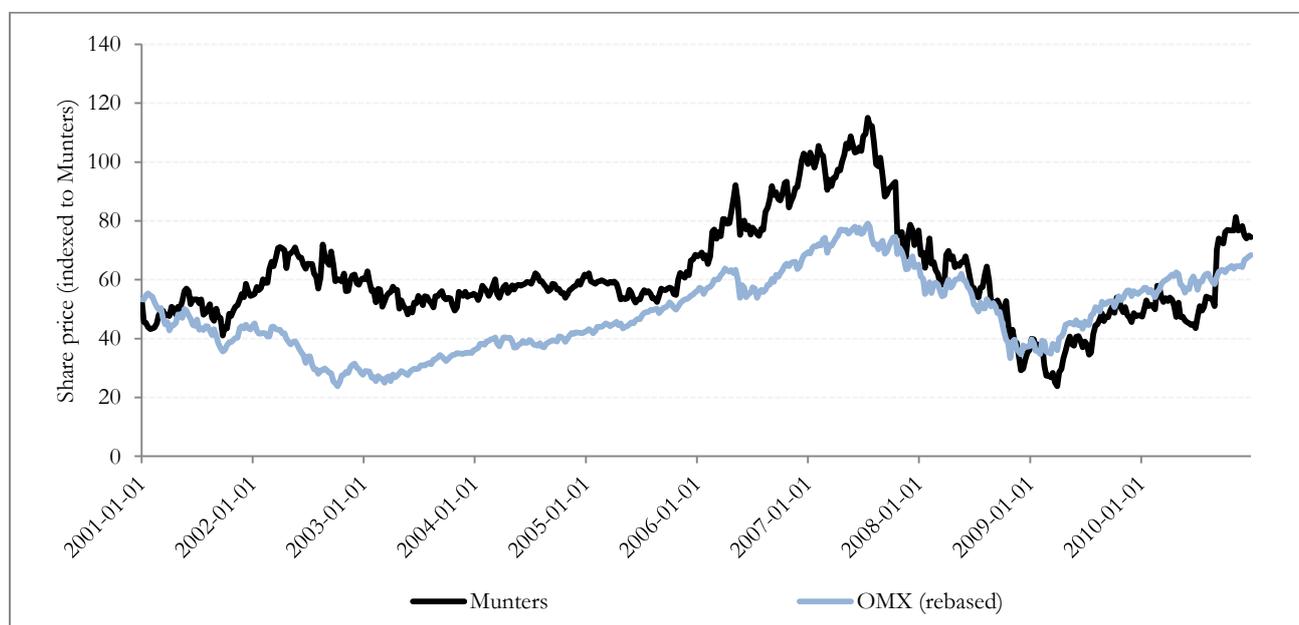
Munters' main owners: Industrivärden and Investment AB Latour

On July 1, 2010, two shareholders held significant but non-controlling ownership stakes in Munters; Industrivärden (14.6%) and Investment AB Latour (Latour, 14.6%). Industrivärden and Latour are both Sweden-based investment companies listed on Nasdaq OMX Stockholm, in the Large-Cap segment. While both companies invest in listed companies, often as the principal owner or one of the principle owners, Latour's investment portfolio also includes wholly owned industrial operations. Latour's CEO was a member of the board of Munters and Industrivärden also had a connection to the board as their previous vice president was a board member (he represented Industrivärden previously but had quit working for them the same year as the deal took place). Moreover, these owners installed the current chairman of the board[14].

---

[12] Munters, Annual Report 2009. Please refer to this document for more detailed financial information and information on Munters' business areas.

[13] Source: Datastream

[14] Confirmed during interviews with the CEOs of Industrivärden and Latour

Strategic buyer: Alfa Laval

Alfa Laval (Alfa) is an industrial company listed on Nasdaq OMX Stockholm, in the Large-Cap segment, and has registered headquarters in Lund, Sweden. Alfa Laval develops products and solutions within areas such as heat transfer, separation, and fluid handling. Net sales for 2009 amounted to MSEK 26,039. Alfa Laval has a global presence, with 40.8% of 2009 sales in Europe, 22.0% in the Americas, and 35.0% in Asia[15] and a market capitalization of MSEK 55,700.[16]

Private Equity bidder: Nordic Capital

Nordic Capital (Nordic) is one of the largest Private Equity firms active in Sweden, primarily investing in Europe-based companies. Nordic launched its first fund, Fund I, in 1990, and has in total raised seven funds. Fund VII, the one that acquired Munters, started investing in 2008 and is their largest one to date, with EUR 4,300m in committed capital.[17]

---

[15] Alfa Laval, Annual Report 2009. Please refer to this document for more detailed financial information and information on Alfa Laval's business areas.
[16] Share price 2012-05-11 multiplied by the number of shares in the annual report for 2011
[17] Nordic Capital's website, www.nordiccapital.com, as of 2012-04-05

4.2 The tender offer process for Munters

The following section will guide you through the acquisition process – from what was perceived as the starting point to the final bid. This section is largely based on interviews with the included parties, in which our aim has been to understand important events and decisions, and the reasoning behind them.

A history of attention from potential buyers, pre-July 1, 2010

Munters had attracted the interest of several potential buyers over the years, but their attention had never translated into an actual bid. Nordic had been in talks with Industrivärden and Latour to acquire Munters alone or together with them, and had been very close to an acquisition in 2008, but their process was shut down when access to financing disappeared abruptly with the crash of Lehman Brothers.[18] Alfa Laval had also shown interest in Munters, and had asked the main owners to facilitate a bid by divesting the service division MCS.[19] *"We had been following Munters for almost ten years, but it had always failed on MCS. We did not want that division, and the transaction risk of buying it just to divest it again was too big. It was like a poison pill".[20]* With this in mind, the main owners felt that a bid for Munters was likely if MCS was divested.[21]

Divestment of a poison pill made Munters an attractive takeover target, July 1

Munters' board decided to divest MCS during a corporate strategy meeting in the autumn of 2009. MCS was the least profitable division, and the divestment would allow Munters to focus on developing their more profitable divisions. The investment bank Lazard was hired to conduct the divestment process, and in July 1 it became official that the PE firm Triton agreed to acquire MCS.[22] The press release announcing this divestment was perceived as a catalyst for the events to come. All interviews with representatives of the parties involved in the transaction have confirmed that MCS was a problem for Munters, and that the divestment transformed it into a more interesting acquisition target. [23]

Alfa acted fast when they saw the press release. Both the CEO and the CFO of Alfa stressed that it was important to move forward quickly, as they knew that many potential acquirers had made calculations on the Munters.[24] Shortly after the press release, a financial advisor was contacted, and a proposal was presented to Alfa's board which granted their management a frame within which they were allowed to negotiate a bid for Munters.

Pre-bid negotiations, July 22

On July 22, during the summer vacation, initial pre-bid negotiations were held during a meeting in Torekov, Sweden, in the home of Alfa's financial advisor. The parties attending to the meeting, in addition to the advisor, was Alfa's management and the CEO's of Industrivärden and Latour.[25] Alfa's intention with the meeting was to negotiate on an acceptable price before any tendering of a public offer, to ensure that the main owners would accept it. "*We needed them on our side, as they had 28% ownership stake, and we wanted more than 90%".[26]*

Having started on a slightly lower level, the negotiations ended up in Alfa suggesting a price tag of SEK 68 per share. However, Industrivärden's CEO was not satisfied with this price; he perceived the implied premium to be too low, both in relation to the prevailing stock market price and to Industrivärden's perception of what the

---

[18] Director, Nordic Capital, 2012-03-27
[19] Chairman of the Board, Munters, 2012-03-08
[20] CEO, Alfa Laval, 2012-03-13
[21] CEO, Investment AB Latour, 2012-03-12
[22] Chairman of the Board, Munters, 2012-03-08
[23] Those deemed as parties involved in the transaction are Alfa Laval, Nodic Capital, Munters, Industrivärden and Latour.
[24] CEO, Alfa Laval, 2012-03-13; CFO, Alfa Laval, 2012-03-13
[25] CEO, Investment AB Latour, 2012-03-12
[26] CEO, Alfa Laval, 2012-03-13

company would be worth to Alfa.[27] This view was stated during the meeting, and he instead suggested that Alfa should bid higher, in which case the owners would commit to selling their shares to them or even have sold them directly.[28] "H*ad he [Alfa's CEO] bid SEK 75 directly, it would have been game over – he would have gotten the company directly"*. However, Alfa did not want to stretch their bid further. The main shareholders then told him that if Alfa did not bid higher, a selling process would be initiated in which Alfa would have to compete for the company.[29] However, as the main shareholders perceived Alfa as a good owner of Munters, they granted Alfa an irrevocable promise to accept their offer of SEK 68 as long as no other bidder announced a competing offer that Alfa decided not to match.[30]

Directly after the meeting, the two CEO's discussed the bid down by the pier. Latour's board had decided on beforehand what to do in case of a bid for Munters. *"My board was ready to divest Munters in the event of a bid. In the long run, the DH division would become a competitor to our company Swegon. So we had decided to sell."* The CEO of Latour's view was that it would take a long time to reach that valuation, and that it was better to divest and use the money for something else.[31] Industrivärden had also made a decision not to remain long-term owners in Munters prior to the meeting with Alfa. The two main shareholders were in agreement; they would like to sell their shares, but Alfa's bid was too low to be desirable right away. [32]

Our interviewees have divergent views on the discussions and the outcome of this meeting. Industrivärden's CEO notes that Alfa's CEO had stated in an interview with Dagens Industri that he was in agreement to buy the main shareholders' shares, whereas Industrivärden's CEO only looked upon the agreement as if they had committed to give Alfa the opportunity to match another bid. He said that the previous owners explicitly had stated that, considering the low bid, they would start a process of selling the company and that "*the board will have to fulfill its obligations to all shareholders*".[33] A board member of Munters states that he believes that Alfa put too much comfort into what they had agreed upon with the main shareholders before bidding, especially as over 70% of the shareholders were not in any agreement at all with Alfa.[34]

Munters' board is informed of Alfa's interest in the company, August 9
In August 9, Munters' chairman received a phone call from Industrivärden's CEO, who explained that they, together with Latour, had an agreement to sell their stake in Munters to Alfa. Twenty minutes later, this was confirmed via a call from Latour's CEO. The two main owners wanted Munters' chairman to meet with the representatives from Alfa.[35] Munters' chairman knew the CEO of Alfa since earlier, having worked together at another Swedish industrial company, and so a meeting was set up at Munters' chairman's house in Halmstad, with Alfa's CEO, CFO, and financial advisor being present. During the meeting, the representatives from Alfa wanted to ensure that Munters' chairman would write a positive recommendation to the shareholders regarding the bid[36], as well as be granted the possibility to perform a due diligence investigation on Munters. *"They took for granted that I would accept their demands, given their deal with the main owners. But I said that we would have to think through what information we could give them, and make our own calculations regarding the value of the company".*[37] Directly after the meeting, Munters' chairman arranged a telephone conference with the rest of the board, explaining Alfa's demands, and they agreed

[27] CEO, Industrivärden AB, 2012-04-17
[28] CEO, Investment AB Latour, 2012-03-12; CEO, Industrivärden AB, 2012-04-17
[29] CEO, Industrivärden AB, 2012-04-17
[30] CEO, Investment AB Latour, 2012-03-12; CEO, Industrivärden AB, 2012-04-17
[31] CEO, Investment AB Latour, 2012-03-12
[32] CEO, Industrivärden AB, 2012-04-17
[33] CEO, Industrivärden AB, 2012-04-17
[34] Board Member, Munters, 2012-03-06
[35] Chairman of the Board, Munters, 2012-03-08
[36] Swedish takeover legislation requires the boards of publicly listed companies to issue a press release commenting and making a recommendation on public tender offers.
[37] Chairman of the Board, Munters, 2012-03-08

to have a look at the valuation, and that they would only give Alfa Laval access to public information for their due diligence.

Intense activity in Munters between negotiations and the first bid, August 9 – September 5

Despite their main owners' deal with Alfa Laval, the board was in agreement that they were representing all the company's shareholders, and that it would be in their best interest to maximize the value from any eventual bid.[38] Having been informed of Alfa's intention to bid for the company, Munters' board created a committee responsible for managing the bidding process. The committee consisted of the chairman, two board members with previous M&A experience, the CEO, and the financial advisor from Lazard that had assisted during the divestment of MCS. Together they were given space to act as long as they informed the remaining parts of Munters' board.[39] Having analyzed the bid, the committee perceived Alfa's suggested bid of SEK 68 per share to be underpriced.[40] One factor contributing to this perception was that one of Munters' board members (also part of the bid committee) had previously worked at Industrivärden, and during that time Alfa had presented their case for an acquisition of Munters together with them.

In an attempt to maximize Munters' shareholders gain from an eventual takeover, the committee decided to start looking for potential alternative bidders already before Alfa had submitted their tender offer. It became the financial advisor's task. *"All kinds of potential buyers in the US and Europe were contacted – both industrial companies and Private Equity companies. We wanted to find and prepare any potential rival bidders."*[41] Munters also had the structure for a "data room", a room with financial information for due diligence purposes, ready since the divestment of MCS. A legal advisor was brought in to prepare it for the purposes of the new bidding process, with only public information. Alfa was granted access to the data room before launching their bid. *"I think Alfa Laval were surprised when they saw how structured our data room was. They asked us what we needed it for. At that point, they may have started to realize that the deal was not going to be that simple, after all"*.[42]

A second wave of negotiations between Alfa and Munters was held at a hotel in Malmö, the Friday the week before Alfa's first bid was submitted. Present at this meeting was Munters' chairman, Alfa's chairman, Alfa Laval's CEO, and the respective parties' financial advisors. The purpose of the meeting was to discuss how Munters' board would comment on Alfa's bid in their public recommendation. The bid committee's own valuation of Munters was based on its valuation before the financial crisis, and included synergies with Alfa of approximately MSEK 200. While the actual calculations were not presented, Munters' chairman argued during the meeting that they deserved a valuation of around SEK 80 per share. Alfa's representatives argued that no potential for synergies existed, and in reply Munters' chairman revealed that the synergies were based on previous valuations presented by Alfa themselves. *"We sat down for about 3-4 hours, and I argued that the value was well above SEK 68. I hoped that they would raise their bid, and I would probably have recommended it if they had bid approximately SEK 74-75 per share"*. Munters' chairman never thought that Alfa would bid as high as SEK 80 per share, but stated that he wanted to give Alfa some *"room to maneuver"*.[43] Munters' chairman's deal-making skills was stated as one of the reasons for why Industrivärden had wanted him as chairman.[44] However, Alfa's CEO's reply was that Munters was not worth more than SEK 68, and that they therefore probably would not submit a bid.[45]

---

[38] Board Member, Munters, 2012-03-06
[39] CEO, Munters, 2012-03-20
[40] Board Member, Munters, 2012-03-06
[41] Board Member, Munters, 2012-03-06
[42] Chairman of the Board, Munters, 2012-03-08
[43] Ibid.
[44] CEO, Industrivärden AB, 2012-04-17
[45] Chairman of the Board, Munters, 2012-03-08

Alfa Laval officially bids SEK 68 per share, September 6

On Sunday 5, 2010, two days after the second round of negotiations, Alfa's CEO called Munters' chairman again and told him that he would still bid SEK 68 per share and asked what the board would say in their recommendation.[46] The bid became public the day after that.

Alfa offered SEK 68 cash per Munters share, under the condition that the bid was accepted to the extent that they received more than 90 percent of the total number of shares. Further, Alfa's special deal with Industrivärden and Latour stipulated that, in the case of a rival bidder, Alfa would be allowed to purchase their shares by matching the rivaling bid within ten business days. The acceptance period for the tender offer was from September 16 up to and including October 8.[47]

During our interviews, several of the interviewees have stated that they believed that it was a tactical miss of Alfa not to bid higher than SEK 68 in the first round.[48] However, Alfa stated that that they did not see higher value in Munters at the time and could not have bid higher than SEK 68 per share without new information in terms of a higher than expected order intake.[49]

Munters works to find rival bidders, September 6 – 29

With the launch of Alfa's bid, a deadline for entry of rivaling bidders was established; October 8 – the last day of the acceptance period. Many parties were interested, both industrial companies and PE firms, and entered the data room to look through Munters' information. Munters' CEO held management presentations for one other industrial company and two other PE firms.[50] However, the limited time needed to come up with a bid was perceived as a constraining factor. *"Time was scarce, about 3-4 weeks. Many companies, especially those from outside of Sweden, did not manage to prepare a bid with such short notice. Some did not even have time to gather the Board within such a short time frame."*[51]

Munters' board continued working actively to engage rival bidders. Two days after Alfa's bid, another press release was issued. Munters' had experienced a strong order intake during the last three months. While this was known by insiders, it was not public information and therefore not known by the potential bidders. The committee decided that making this information public could be beneficial for the turnout of the bidding process, and so a press release was issued on September 8 showing year-on-year increases of sales of 18%, 22%, and 25% in June, July, and August, respectively.[52] *"We issued a press release announcing order intake that was higher than what all equity researchers following us had predicted. We know that it was about to turn order intake wise, and we wanted to convey this to potential bidders, so that they could switch up their calculations".*[53]

Further, to provide bidders with extended information on Munters' future operational developments, the committee decided to include some private information in the data room. Munters had developed a plan for acquisition driven growth, and supplemented it with a list of potential acquisition targets. This list was made available in the data room for bidders willing to sign confidentiality agreements and become "insiders". Further, the data room included plans for a restructuring program suggested by the CEO, also available under confidentiality agreements. According to members of Munters' board, Alfa chose not to become insiders, and was

---

[46] Chairman of the Board, Munters, 2012-03-08
[47] Press release, Munters, 2010-09-06
[48] CEO, Industrivärden AB, 2012-04-17; Board Member, Munters, 2012-03-06; Chairman of the Board, Munters, 2012-03-08; CEO, Investment AB Latour, 2012-03-12
[49] President and CEO, Alfa Laval, 2012-03-13
[50] CEO, Munters, 2012-03-20
[51] Chairman of the Board, Munters, 2012-03-08
[52] Press release, Munters, 2010-09-08
[53] Board Member, Munters, 2012-03-06

therefore not granted access to these internal documents. [54] However, the representatives from Alfa do not recognize this sequence.[55]

Munters' board followed up the bid with a recommendation that was intentionally cryptic, stating that they found that the bid to be "not unfair to the shareholders of Munters".[56] The reasoning behind the recommendation was based on the committee's decision to maximize the value to all shareholders, rather than only listening to the main owners. Given the short time constraint and the substantial premium offered in comparison to the share price, the committee perceived the bid to be acceptable. However, at the same time, they thought that potential existed for a higher valuation.[57] *"We wrote a cryptic recommendation saying that the bid was not unfair. We did not want to not recommend it, but we still wanted to let the market know that we did not think the offer was especially good"[58]*. Latour's CEO noted that the chairman of Munters had an interesting role in terms of corporate governance, as he was put in place by the major shareholders, but had to fight for all shareholders instead of recommending something that the majority owners supported.[59] However, commenting on the recommendation, Industrivärden's CEO appreciated the cryptic recommendation that Munters' board had prepared; *"it was exactly what we wanted".[60]*

Nordic's initiation into the process, up until September 29

As described previously, Nordic possessed a previously worked-up knowledge base and did not have to start their work from scratch; there was a base of material that could be updated and reused.[61] On the day of Alfa's bid, an investment case for Munters' was presented to their internal investment committee. That Alfa came with a bid the same day was a coincidence. Originally, the committee was only to decide on increasing the budget for the case, but with Alfa's bid the situation changed and they decided to start a full-blown process. *"While it was tough when the bid came, it was also positive to know that the deal was in play, because if the board of directors rejects us we do not like to go hostile".[62]* After this decision, Nordic started committing resources to external consultants for a large body of services relating to the process; investment banking, debt financing, lawyers, management consultants for commercial due diligence, audit, tax and public relations advice.

Nordic's team saw several barriers decreasing the attractiveness of taking part in the process for Munters. Firstly, they perceived Alfa's irrevocable deals with the main shareholders as frustrating. Nordic had reached out to the main shareholders to get similar deals, but they had been rejected. They did not feel particularly welcome into the process; *"It was almost as if we were gatecrashing their party".* [63] Secondly, Nordic knew that taking part in the process would be costly; they estimated costs of about 15-20 MSEK for running the whole process with all external advisors involved. In addition, the fact that they would compete against a large industrial company with synergies was perceived as deterring, implying a high risk of failure. Everything considered, these uncertainties made Nordic perceived the price to participate as very high.[64] In response to this, Nordic's representatives asked Munters, through their financial advisor, for a cost coverage agreement under which Munters would cover parts of the bidding process related costs in case Nordic participated but lost. Within a week after Alfa's bid, Munters' bid committee accepted to grant Nordic such an agreement under the condition that it was accepted by the Swedish Securities Council.[65] *"We got them into the process, which was what was important. Paying MSEK 12.5 to get them to raise the*

[54] Board Member, Munters, 2012-03-06
[55] CEO, Alfa Laval, 2012-03-13; CFO, Alfa Laval, 2012-03-13
[56] Press release, Munters, 2010-09-24
[57] CEO, Munters, 2012-03-20
[58] Chairman of the Board, Munters, 2012-03-08
[59] CEO, Investment AB Latour, 2012-03-12
[60] CEO, Industrivärden AB, 2012-04-17
[61] Director, Nordic Capital, 2012-03-27
[62] Director, Nordic Capital, 2012-03-27
[63] Director, Nordic Capital, 2012-05-02
[64] .Director, Nordic Capital, 2012-03-27
[65] Press release, Nordic Capital, 2010-09-29

bid was a really good deal for the shareholders. It implied an increase in the value of the company of approximately SEK 500m. Any shareholder would do that."[66]

After the decision to start a process for Munters, a managing partner (MP) at Nordic that had previously shown interest for Munters spent much time getting to know the company in greater detail. Together with one director from Nordic and a management consultant, he joined Munters' CEO and financial advisor for a trip to look at Munters' factories and facilities in the US. The reason for doing such a trip was to get a feel for the company management. Moreover, any additional information on Munters they could get was perceived as valuable.[67] Nordic highlighted that although they were not given separate treatment in this regard, Alfa and other potential bidders did not ask to participate.[68] During the trip, Munters' CEO was surprised by the approach of Nordic's MP; *"He was very hands on for a partner, and he updated his model constantly. He was very engaged and driven, and he was so well initiated in the deal that he could make all the calculations himself. And he worked very hard, for long hours."* Munters' CEO believes that the MP's personal engagement and drive combined with their previous knowledge of the company gave Nordic an information advantage compared to Alfa.[69]

On the topic of public and private information, the director from Nordic highlighted that the process was structurally and correctly managed by Alfa's legal advisor, as common in public processes. Whereas this fact allowed them no further information than what was already public, he argued that given their level of knowledge, gaining more inside knowledge might not be optimal as such information would have had to become public to all bidders. *"If we already have more knowledge, we don't want that to become publicly known information."*[70]

Nordic Capital bids SEK 73 per share, September 29
Nordic's bid, released on September 29, was priced at SEK 73 per share, and was conditioned on Nordic receiving more than 90 percent of the total number of shares. The acceptance period was set to start on October 1 and end on October 21. Munters' board of directors recommended the shareholders to accept the offer.[71]

Alfa Laval bids SEK 75 per share, September 30
Again, Alfa acted quickly when Nordic's bid came. *"We were satisfied with how fast we reacted. In that way, we gave Nordic a little less time."* Alfa had perceived that a counterbid was highly likely, but from an industrial player in North America and not from a PE firm. *"The American players might have thought that what we offered was a full price. It might be that they didn't think that the company was worth more. It could also be that they did not have enough time to prepare a counter-bid."*[72] A member of Munters' board confirms that there were several other bidders involved and that there existed one additional industrial player that was ready to bid over Alfa's first bid to SEK 73 per share. However, when Nordic submitted their counterbid, this third company decided to withdraw from the process.[73] In response to Nordic's bid, Alfa's team adjusted their valuation for the new information regarding order intake, and held a new meeting with their board of directors, which was required in order to be allowed to raise their bid.[74] *"When you raise your bid, there's a lot of money involved. So a board meeting is required".* According to Alfa's CEO they would not have been able to bid SEK 75 per share in the first place, as they viewed SEK 68 per share as a full valuation of Munters. However, the higher than expected order intake enabled them to raise the valuation.[75]

---

[66] Chairman of the Board, Munters, 2012-03-08
[67] Director, Nordic Capital, 2012-05-02
[68] CEO, Munters, 2012-03-20
[69] Ibid.
[70] Director, Nordic Capital, 2012-05-02
[71] Press release, Nordic Capital, 2010-09-29
[72] CEO, Alfa Laval, 2012-03-13
[73] Board Member, Munters, 2012-03-06
[74] CEO, Alfa Laval, 2012-03-13
[75] Ibid.

Alfa increased their bid on September 30. The new bid was priced at SEK 75 per share, and still conditioned on Alfa receiving more than 90 percent of the total number of shares. The acceptance period was extended to October 15. Munters' board of directors recommended the shareholders to accept the offer.[76] In addition, a new agreement with Industrivärden and Latour required them to accept Alfa's offer unless no other bidder announced a bid that was at least five percent higher.[77]

Alfa's CEO described their irrevocable agreement with the main owners as "pure bidding tactics"[78], and it was indeed a factor that was perceived as a complicated factor by Nordic's team. *"Alfa Laval's counterbid was not entirely unexpected, but it was cumbersome. And the 5% premium deal was really irritating. At first we hadn't received the same treatment, and then they were given even better treatment in the second round. We did not feel particularly welcome into the process."[79]* Industrivärden's CEO says that the idea of the five per cent agreement was entirely Alfa's, and that Industrivärden agreed on it in order to convince them to bid.[80]

Nordic Capital reconsiders their requirements, and seeks shareholder support, 9-10 October
Nordic's team considered what options they had left, given Alfa's increased bid and new agreement with the main shareholders. Topping that deal was not perceived as realistic. *"Alfa Laval can model the case in order to find out how much we can pay, and they probably had done so. Bidding 5% more than their increased bid would be too much; in that case we would breach all kinds of limits for the valuation. So instead, we thought about getting similar support from other shareholders."[81]* Nordic also started thinking about what would happen if they would announce a bid that was lower than the 5 percentages needed to gain the main shareholders acceptance. *"We thought; 'Alfa Laval won't buy Industrivärden's and Latour's equity stakes if they don't reach 90% ownership in total. It is an illusion; we should be able to trash right through it. So we started calling all other shareholders."[82]*

By that time, a proportion of Munters shares had been acquired by a body of hedge funds speculating in the value appreciation from the bidding contest. Several of these were international, from countries such as Brazil and USA. Some had started taking such positions already when MCS was divested, and many more had entered when Alfa announced their bid.[83] During the weekend before Nordic's final offer was announced, Nordic's financial advisor called representatives from such hedge funds as well as institutional investors invested in the Munters share. The goal was to counterbalance Alfa's irrevocable agreements through gaining irrevocable promises from as many shareholders as possible if increasing their bid to SEK 77 per share.[84] *"We called the Swedish institutions to reach an irrevocable deal to balance out the one Alfa had been given, but they told us to submit a real bid instead. And dealing with the hedge funds was hard; if you have a small merger arbitrage fund, you often have administrational and compliance departments in tax havens".* The complexity of this task, due to the ownership dispersion and differing time zones, made it easier to perform during the weekend. However, come Monday, the tactic had proven to be less successful than hoped for. Nordic had been given an irrevocable promise from hedge funds constituting 10.3% of the shares, but the Swedish institutions had been unwilling to grant such promises and instead encouraged a public bid. There was a feeling of failure among Nordic's team members. *"When we did not get the deal together during the weekend, we almost… but we still threw in a press release leaving all options open to us."[85]*

The director at Nordic commented that while today it might seem that the irrevocable agreements might not have had importance, during the process when there are a lot of parties involved that just want to finish the deal and *"nobody has slept for a month"* it seemed like the agreements had great substance. Moreover, he highlighted that it is

---

[76] Press release, Nordic Capital, 2010-09-29
[77] Press release, Alfa Laval, 2010-09-31
[78] CEO, Alfa Laval, 2012-03-13
[79] Director, Nordic Capital, 2012-03-27
[80] CEO, Industrivärden AB, 2012-04-17
[81] Director, Nordic Capital, 2012-03-27
[82] Ibid.
[83] Confirmed during the interviews with representatives at both Nordic Capital and Munters' board
[84] Reuters, 2010-10-11
[85] Director, Nordic Capital, 2012-03-27

difficult to understand exactly what such agreements imply, as the exact structure of the agreements cannot be told from the press releases.

Nordic Capital bids 77 SEK per share, October 13
On October 13 Nordic increased their bid despite their failed efforts during the weekend. The new bid was priced at SEK 77 per share, and now only conditioned on Nordic receiving more than 50 percent of the total number of shares. The acceptance period was extended to October 26. In addition, the press release disclosed that shareholders owning 10.3% of Munters' shares irrevocably had accepted the offer, unless another bidder offered a price exceeding SEK 82.5.[86] In that way, Nordic had created an artificial 'corner position' – a position in control over shares constituting more than 10% of the total shareholding, blocking a majority owner from consolidating Munters for tax purposes and from launching a compulsory offer for the remaining shares.[87] The director at Nordic argued that making this bid, they took a bet that Alfa would not want to buy Munters if they could not secure more than 90% of the shares.[88]

The corner position held through hedge funds was perceived as a complicating factor by the team at Alfa. *"It is a complicating factor, because they know that you want to own over 90% of the shares, and therefore they buy more than 10% trying to push the price up".*[89] Alfa did not want to buy a company with a lasting minority interest, and had never had an intention on acquiring shares in the market themselves. *"We wanted to be able to integrate Munters into Alfa Laval, in order to be able to extract the synergies. Buying shares in the market on beforehand was never an option to us".*[90] With Nordic's offer of SEK 77, Alfa perceived the valuation to be too high, and decided to withdraw from the bidding competition. *"In the Munters case, as we chose to withdraw after a number of twists and turns, it was more than evident that we thought it was more than expensive, and let's hope that the winner can excerpt such values.*[91]

Resolving the deal
Alfa issued a press release announcing their intention not to launch further bids. As their irrevocable deal with Industrivärden and Latour was conditioned on an acceptance of over 90% of the shares, it fell out of play. After this point, Alfa concentrated on an alternative investment target, Aalborg Industries. *"When they raised the bid, we thought that the valuation became too high, and we saw Aalborg as a better alternative. The M&A process for Aalborg was not finished, and we quickly announced a bid. We paid 8-9 times EBITDA instead of 13 which was the valuation for Munters. It was a better deal for our shareholders. The Munters deal must be seen in the light of this, that we had a lucrative alternative given a valuation of over SEK 77."*[92] Acquiring both companies was not possible, according to Alfa's CEO. While Alfa could have afforded both, they did not possess the capacity to integrate two companies of that size at the same time.

As Alfa did not submit any more offers, Nordic was the highest bidder with their bid of SEK 77, which represented a 46.7% premium to the share price one day prior to Alfa's first bid. On October 18, Alfa announced that they would not complete their bid to the shareholders of Munters. On October 28, Nordic had received acceptances representing 96.0 percent of the shares. In November 25, Munters applied for delisting.[93]

---

[86] Press release, Nordic Capital, 2010-10-13
[87] A process described and confirmed by interviewees from Alfa Laval, Nordic Capital, and Munters
[88] Director, Nordic Capital, 2012-05-02
[89] CEO, Alfa Laval, 2012-03-13
[90] Ibid.
[91] Ibid.
[92] Ibid.
[93] For a more detailed description of the delisting process after Alfa Laval's withdrawal, please refer to press releases on www.munters.se.

4.3 Generating and measuring value of takeovers

In this section, we describe how the bidders evaluate acquisitions by outlining their decision making processes, valuation models, operational forecasting procedures, and capital structure considerations. General information in each area will be followed by specific information on the Munters case.

4.3.1 Alfa Laval

Decision-making process and acquisition criteria

Alfa has a history of growth driven by acquisitions, having completed around 30 acquisitions of varying size during the last five years at the time of their bid for Munters.[94] Alfa claims not to pursue purely financially motivated acquisitions; potential for synergies must be present for an acquisition to be interesting to them. The acquisitions have to be motivated by at least one of three drivers:

1. Acquiring a complement to the current product offering, that Alfa can include in their global sales organization. *"These acquisitions grant us products that we don't have, but that we can sell as we have a fantastic global coverage. This is where we can find the most of our synergies".*

2. Gaining access to complementary sales channels. *"We acquire companies that have their own go-to-market strategy through their own sales channels. This is because we want to be able to offer our customers an alternative. We have previously acquired our major competitor within the heat transfer segment in the US and let it continue under its own brand. We would not have realized the same value if we had integrated it completely".*

3. Increasing Alfa's geographical presence, through acquiring companies based in the USA and Asia in order to increase the geographical presence in these markets.[95]

Alfa has a predetermined structure for how to conduct their acquisition process. When initiating an acquisition process, Alfa sets up a dedicated team consisting of the Group CEO and CFO, one employee within the Corporate Development department specializing in M&A, and the manager of the division into which the acquisition target is to be integrated. Alfa has three employees specializing in M&A; two of them are based in Sweden, one in Shanghai. When not working on acquisition processes, these M&A-specialists work actively with searching for potential acquisition targets. These employees have been employed by Alfa for a long time, which is described as important for their work with acquisitions. *"We want people that have worked in the company for a long time, so that they understand our industrial logic, as we want to excerpt synergies from our acquisitions. There are other firms that build conglomerates, for which it is enough to find acquisition targets that are good companies by themselves. These firms can employee people that work with M&A who have a purely financial focus. That is not enough for us, as we want to integrate the target companies into our business."[96]*

Alfa categorizes their acquisitions into two groups based on their contribution to Alfa's revenues. The smaller category involves 'bolt-on acquisitions', which are defined as acquisitions of companies that result in an increase in Alfa's sales that is less than 10%. These acquisitions are conducted without the assistance of a financial advisor. The reason for this is that Alfa's internal competence is deemed sufficient given the level of complexity and size of the deal. *"It concerns our core business, which we know quite well. And in these acquisitions we pay SEK 1Bn at most, so it is not such a big deal".[97]*

However, a financial advisor is always contacted for the larger category of acquisitions, adding more than 10% to Alfa's sales. This financial advisor, typically an investment bank, aids Alfa in assessing what a reasonable price would be for the target, as well as how much Alfa would be likely to have to pay to acquire it. This assessment is

[94] CEO, Alfa Laval, 2012-03-13
[95] Ibid.
[96] Ibid.
[97] Ibid.

based on financial benchmarking as well as the financial advisors' knowledge of the market for acquisitions. Alfa's CEO also highlighted the value of the financial advisor's network; *"All these financial advisors pretty much know one another, and they most often know the sellers as well".[98]* The financial advisor also aids Alfa with their knowledge of the conditions on the debt market, enabling them to evaluate how much debt eventual competing Private Equity bidders would be able to raise, and at what rates. This enables them to make an assessment of how much a financial buyer would be able to pay.

When Alfa's management team has identified an acquisition opportunity, either by themselves or through any of their M&A focused employees, an eventual bid has to be accepted by Alfa's board of directors. This acceptance is gained or rejected in a board meeting during which Alfa's management team presents their acquisition plans. The financial advisor usually attends to these board meeting as well; *"In these situations, it is common that the advisor attends to our board meetings in order to answer questions regarding the bidding strategy, financing, how much banks are willing to lend, what leverage that can be used, and so on. The management team represents the industrial view, whereas the financial advisor adds the financial perspective."[99]* During these meetings, the management team and the financial advisor presents their calculations of the value of the target on a stand-alone basis, as well as the value of synergies. Thereafter, the board discusses how much of the value from synergies may be given up to the current shareholders in the form of a bid premium, and the board dictates a maximum level up to which Alfa's management team is allowed to bid for the target.[100] During the larger acquisitions, external advisors in addition to the financial advisor are hired for a variety of purposes; financial and legal due diligence, environmental investigation, and tax. Further, Alfa uses internal resources for studying commercial aspects, insurances, the supply chain, IT, and HR.[101]

The Munters case is claimed to fit well with the general description of Alfa's decision making process. With regards to the rationale for acquiring Munters, Alfa's CEO stated that it would fit into the first category; bringing complementary products that Alfa could to sell through their global sales network. Due to its size, Munters was treated as a potential acquisition in the larger category, and thus Alfa contacted a financial advisor for assistance. The main team in the Munters case consisted of Alfa's CEO, CFO, the financial advisor, and one divisional manager. Initially, another Sweden based M&A employee was part of the team, but as his focus market was the USA he played a small part in the process.

Valuation model
"First, the management team has to be convinced that the operations are good for our business, and then board has to believe so too. Then, after we have crossed these thresholds, we come to the valuation. Initially, we check if the multiples are sensible, and after that we look at the DCF, and the implications for key ratios and margins. We look at the whole spectrum."[102]

As illustrated above, Alfa's evaluation of companies is described as a stepwise process that takes more than one factor into consideration. Alfa uses two different discounted cash flow (DCF) models when modeling the value of acquisitions. Referring to valuation theory, they describe their technique as "*by the book*"[103], but with a few changes in order to make it more viable in the long term. A less complex model is used for small bolt-on acquisitions, and a more complex one is used in the case of the larger acquisitions with sales of over SEK 0.5 Bn, such as Munters. The latter model is built around Alfa and the target company separately, and what effects the combination of them would imply. The model is built in Excel, and consists of three parts:

---

[98] CEO, Alfa Laval, 2012-03-13
[99] Ibid.
[100] Ibid.
[101] CFO, Alfa Laval, 2012-04-24
[102] CFO, Alfa Laval, 2012-03-13
[103] Ibid.

1. Data on Alfa Laval (pre-acquisition), with historical data and their forecasts for the coming five years, which in turn are based on what has been agreed with the board.

2. A DCF valuation of the target. It also includes Alfa's own assumptions of cost and revenue synergies, growth in cash flows, and weighted average cost of capital (WACC). This valuation yields two DCF values; one with synergies excluded and one with synergies included.

3. An analysis of the acquisition's consequences for Alfa in terms of impact on a set of key performance indicators, such as; EBITA margin, return on equity, return on capital employed, earnings per share, cash earnings per share.

Forecasting operations and synergies

In their DCF model, Alfa prepares explicit forecasts of their targets' balance sheets and income statements for the first 6-7 years in order to model the free cash flows generated by operations in detail. These forecasts are then followed by a simplified forecast for the next 4-5 years, before calculating the terminal value through inserting a terminal growth rate of 1.5 - 2.0 %.[104] The basis for this is the forecasts provided by the target's management. An assessment of the reasonability of these assumptions is made, after which eventual adjustments follow. Their perception of how realistic these assumptions are varies, but they generally find estimates provided by Swedish firms to be less aggressive than their North American peers.[105] According to Alfa, the business cycle is another important aspect they take into account when modeling acquisitions. *"It should not affect valuations too much, but if you get a tough start, it might be difficult to recapture that."*[106]

Alfa conducts their synergy calculations separately, and their CFO noted the importance of taking into account that synergies are not realized immediately but accrue during an implementation phase. Further, the costs of realizing synergies, for example costs related to closing down factories or reducing personnel, are included in the calculations. The estimations of the realization of synergies is based on experience. On the cost side, realizing synergies within purchasing generally takes less than 6 months, consolidating offices between 6 and 12 months, and closing down factories between 1 and 2 years. Realization of sale side synergies, on the other hand, is not expected until Alfa and the target have been integrated. When it comes to paying for synergies, Alfa highlighted that they under no condition would give away the full value of the synergies.[107] However, the CFO admitted that while it naturally would be optimal not to give any value of synergies away, they usually end up giving away about half of them.[108]

In the Munters case, Alfa primarily expected synergies with Munters on the sale side, as they would have been able to bring Munters' products to the fast growing markets in Latin America, Eastern Europe and Asia. *"Munters was a small company that operated globally, without really affording to. Their turnover was too low and that gave them a cost disadvantage – their administrative costs were too high. With us, they could have made use of our infrastructure and reached our customer base. Thus, the synergies were mainly within higher sales and we could have made them grow faster and become a global company. So I think it would have been good for us."*[109] Munters would have been allowed to keep their own brand and product line. Moreover, Alfa saw the possibility to realize cost side synergies as they viewed Munters' selling, general and admin costs (SG&A) as too high and that these could have been lowered through integrating the company with Alfa.[110] The potential for both cost and sale side synergies between Alfa and Munters was shared by all interview objects representing parties that were involved in the bidding process.

---

[104] CFO, Alfa Laval, 2012-03-13
[105] CFO, Alfa Laval, 2012-04-24
[106] CFO, Alfa Laval, 2012-03-13
[107] Ibid.
[108] CFO, Alfa Laval, 2012-04-24
[109] CEO, Alfa Laval, 2012-03-13
[110] Ibid.

While agreeing to discuss the sources of synergies, the representatives from Alfa did not want to discuss their value in terms of actual numbers. However, several other interviewed parties mentioned operational synergies to amounting to SEK 200-300m before tax on an annual basis. The interviewed board member from Munters had previously been employed at Industrivärden, and at that point in time Alfa had visited them and presented a case for acquiring Munters. Thus, he had the benefit of being able to make good assumptions of their magnitude and viewed them as significant.[111] Latour's CEO spoke of "enormous synergies" accruing both from increased sales and from cost savings arising from economies of scale in research, manufacturing, and sales.[112] Munters' chairman of the board also estimated that the cost side synergies with Alfa would amount to SEK 200m per year.[113] Munters' CEO claimed to be able to find synergies with Alfa amounting to SEK 250-300m on a short calculation "on the back of an envelope"[114], and one of the investment managers at Industrivärden highlighted that Alfa's sheer size gave them a more effective cost structure and that the same structure would give Munters operating synergies of SEK 200m annually.[115] The representative from Nordic also thought that large synergies had been present for Alfa, but was unsure about whether Alfa had been knowledgeable of them: *"If they had polished their operational case… If they had really thought through all the synergies that actually exist, then they should have been able to bid more."[116]*

Capital structure considerations

In accordance with what was outlined in our theoretical section, Alfa discounts future cash flows with a WACC. The WACC is based on the target long-term capital structure, and prevailing market costs of capital are described as the basis for the WACC calculation.[117] However, in cases when the market conditions are deemed misrepresentative to what is applicable in the longer term, they adjust their WACC to take this into consideration. This is made in order for the cost of capital to better reflect market conditions that are more stable in the long term.[118] Such an adjustment was made in the Munters case, which was to be financed with new debt. The WACC calculated using the market cost of capital at the time of the acquisition was found to be too low to represent a long-term cost of capital. To reach a cost of capital that was more viable in the long term, Alfa decided to raise both the risk-free rate and the market risk premium in their WACC calculation. *"If we would use the method described in theory and look at the current market rates, this would give us a too low discount rate, because the risk free rate is too cheap today if you evaluate it on a long-term basis. It would make it too easy to bid. Therefore, we adjust the market price of capital. Theory would give us a WACC of approximately 6% today, but we use a rate of 8-9% instead".[119]*

Comparing Alfa's cost of capital with that of Nordic, Alfa's CFO argued that industrial companies generally achieve a lower cost of debt than PE firms; both as they have their whole business to back up their loan with, and as they generally have a higher solvency ratio. *"When thinking of the argument that Private Equity would be able to pay more for companies due to a leverage advantage, one must consider that we could have financed 100% of the acquisition with senior facility debt priced at about one percentage point above the market rate, incrementally. In comparison, they might only be able to finance around 55% with debt, and maybe another 20% with mezzanine. However, if you look at the WACC, it's another story."[120]*

Other aspects affecting Alfa's perception of Munters

"One important aspect of the outcome of processes like this is timing and coincidence. In the case of Munters, we had an alternative acquisition – Aalborg Industries."[121]

---

[111] Board Member, Munters, 2012-03-06
[112] CEO, Investment AB Latour, 2012-03-12
[113] Chairman of the Board, Munters, 2012-03-08
[114] CEO, Munters, 2012-03-20
[115] Investment Manager, Industrivärden, 2012-02-28
[116] Director, Nordic Capital, 2012-03-27
[117] CFO, Alfa Laval, 2012-04-24
[118] CFO, Alfa Laval, 2012-03-13
[119] Ibid.
[120] Ibid.
[121] Ibid.

Alfa had been following another industrial company, Aalborg Industries (Aalborg), in parallel with Munters for several years. As it turned out, auction processes for both companies were initiated during the autumn of 2010, and for a limited time these processes were overlapping. In late June, 2010, Alfa's acquisition team attended to a presentation held by Aalborg's management, who presented Aalborg in preparation for a bidding process. However, a few days after attending this presentation, Munters' sale of MCS was announced. Thereby, Munters came into play before the bidding process for Aalborg commenced. *"The process for Aalborg took time to start, and we decided to go for Munters. It is important to strike while the iron is hot."*[122]

However, when Nordic launched their bid of SEK 77 per share for Munters, Alfa decided to back out of the process and launch a bid for Aalborg instead, as that process had not been settled yet. Alfa claimed to lack the capacity to integrate two acquisitions of that size at once. With hindsight, Alfa describes Aalborg as a better acquisition than Munters;

"We acquired Aalborg at an EV/EBITDA multiple of around 8-9 instead of 13 for Munters. Aalborg is a part of the group since May 2011 and has an EBITA margin of 24%. It was a better deal for Alfa's shareholders."[123]

However, Aalborg was a different type of acquisition than Munters. A third division has been formed by merging Aalborg with Alfa Laval's existing Marine and Diesel segment. This has created a more transparent and focused Alfa Laval.[124] The perception of Aalborg as an alternative to Munters varies among the other interview objects, with some arguing that Alfa should have been able to buy both[125], others that it is probably a valid argument as they went through with it[126], and yet others that Munters' must have been their first choice but the decision to withdraw might have been a case of bidding war discipline[127].

[122] CEO, Alfa Laval, 2012-03-13
[123] Ibid.
[124] Ibid.
[125] Chairman of the Board, Munters, 2012-03-08
[126] Board Member, Munters, 2012-03-06
[127] CEO, Munters, 2012-03-20

4.3.1 Nordic Capital

Decision-making process and acquisition criteria

Acquisitions being an important part of their business model, Nordic's personnel follow and evaluate a range of potential acquisition targets on an ongoing basis. Approximately, twenty companies are followed closely and another twenty are *"kept track of"*.[128] The targets that are perceived as most interesting are discussed in an investment committee, which meets every Monday and at the time of the Munters acquisition consisted of all of Nordic's fifteen partners. During these meetings, it is decided what recommendation to make to the decision making authority of the fund. The fund located on Jersey[129] then decides whether to initiate investment processes for companies or not, and once such a process is initiated, every sequential bid has to be discussed in the committee.[130]

For Nordic to recommend the initiation of an investment process, a qualified majority of the investment committee must be in favor of this. When the decision to initiate such a process has been taken, Nordic forms a dedicated team responsible for preparing a value creation hypothesis, performing valuations, and deciding how much leverage the target can manage to take on. Further, the typical team includes one or two employees specializing in debt. In the Munters case, Nordic's team consisted of one of their co-managing partners, one director with a background in investment banking, two investment managers with banking and management consulting background, respectively, and Nordic's head of financing.[131]

Furthermore, during a bidding process, Nordic usually engages a range of other external advisors for a variety of services; investment banking, commercial, financial, and legal due diligence, financing, structuring for acquisition and tax purposes, and public relations in case of public deals. The point in time at which these advisors are engaged depends on within what time frame Nordic has to act. Public bid processes initiated by competing bidders are perceived as very costly, as the limited time frame makes Nordic have to engage all advisors at once. *"When you start the machinery, it starts ticking, and it gets very costly. In a normal process you can process a little bit at a time, and you can engage the whole battery when you see a relatively good chance of making an investment, i.e. when there are fewer contenders left."*[132] However, one factor counterbalancing this is that while it is more costly to hire all consultants at once, these processes usually last a shorter time.

Valuation model

Nordics main valuation tool is the LBO valuation model, which was also used in the case of Munters. All Nordic's investment opportunities are evaluated based on an IRR requirement, which normally is 25%. This implies that an investment process should only result in an actual investment as long as Nordic can expect this IRR given their value creation thesis and the acquisition price. However, the IRR requirement is not treated as absolute; it depends on the specific characteristics of the target company. Nordic explained this as the potential for *"get lucky factors"* and *"get unlucky factors"*, which cannot be captured in the models but might affect the realized IRR. Thus, in a case where Nordic can identify significant get lucky factors, they may allow their models to point towards a lower IRR requirement in the base case. In the case of Munters, Nordic expected significant get lucky factors, and thus their projected IRR for Munters was described as *"in between 20 and 25 percent, but close to 25"*[133].

Forecasting operations

Preparing an accurate forecast of their targets' operational performance as well as a hypothesis for how to create value in their acquisition targets is perceived as something of high importance for Nordic; it is even described as

---

[128] Director, Nordic Capital, 2012-05-02
[129] A more thorough elaboration on the relationship between the different bodies concerning the private equity company can be found in the appendix.
[130] Director, Nordic Capital, 2012-05-02
[131] Ibid.
[132] Director, Nordic Capital, 2012-03-27
[133] Director, Nordic Capital, 2012-05-02

"*the future battlefield*" for PE firms.[134] In order to succeed with this, Nordic puts much emphasis on developing their operational case and building comfort around their input variables. *"The most important thing for us is to construct an operational model where we forecast balance sheets, income statements and cash flows. The most difficult parts to forecast are those above EBIT. The variables that take the most time are sales, margins and CAPEX, whereas net working capital is less important – it usually doesn't drive IRR more than 1%."*[135] In order to build comfort around their assumptions and their value creation case, Nordic utilizes a wide spectrum of sources for information. Firstly, Nordic generally hires management consultants to increase their understanding of the commercial and operational side of the targets' business. Secondly, during the process, Nordic normally also talks to as many alternative information sources as possible; equity researchers, industrial specialists in the management consultants' network, and previous employees and board members of the target company. They also have their own informal network of industrial specialists. In the Munters takeover process, Nordic did not have the time to make use of all of these resources, instead they had to rely more on their previous work.[136] While this work did not allow Nordic to create any actual plans for post-acquisition implemental in the Munters case, it allowed them to form hypotheses about how they could create value in the company.

In the case of Munters, Nordic had been following the company for approximately ten years, and as described previously they had even been close to launching a bid in 2008. At that time, Nordic had worked together with several people that had previously held positions in either the management team or the board of directors of Munters. Further, one of Nordic's managing partners had been in and out as a shareholder in Munters, and thereby stayed updated on the company.[137] Munters was classified as a growth case and Nordic were able to construct several value creation hypotheses; that the factory footprint could be improved, that procurement efficiency could be improved through centralization, that sales growth could be significantly increased which would generate returns to scale and that they would be able to help Munters execute add-on acquisitions. Add-on acquisitions were described as a way through which Nordic almost always is able to create value. *"Add-on acquisitions are an area where we are very comfortable, and where we believe public boards to be too passive. Yes, there will always be some complications, but it is something we have done from day one of our jobs"*[138]. Further, the interview object from Nordic also mentioned how their ability to attract talent grants them something he referred to as an "HR-arbitrage". One type of this is setting up a "project management office (PMO)" at the target, responsible for carrying out a number of change initiatives, in effect working to realize the value creation hypotheses. This PMO is filled with a number of persons with management consulting background, which while they are compensated less than at their previous employer, may be motivated through a small shareholding and the opportunity to run these changes initiatives. Such a PMO was also set up in the case of Munters.

In their model, Nordic planned to exit Munters after a holding period of five years, implying an exit at the end of 2015. During the holding period, Nordic planned to grow Munters' sales and more than double EBITA. Munters' management received set financial targets described as *"fifteen to the power of four"* [139]; 15% sales CAGR, 15% market share and 15% EBITA margin, in 2015. However, these goals did not go into the valuation model when acquiring Munters, but were used as a way of motivating employees. Munters' CEO described the new sales goals as *"quite aggressive"*, as they had previously grown with approximately 6% organically and 2-3% through acquisitions, and as he expected the market to grow at approximately 5% per year the coming years.[140] Overall, Munters' planned performance during the holding period is described as a "J-curve". In order to reach their targets, Nordic planned to make investments in *"sales force and services"* in the first years of holding Munters, making them project zero or negative earnings growth for the first years. However, as the effects of these investments together with efficiency

---

[134] Director, Nordic Capital, 2012-05-02
[135] Director, Nordic Capital, 2012-03-27
[136] Director, Nordic Capital, 2012-05-02
[137] CEO, Munters, 2012-03-20
[138] Director, Nordic Capital, 2012-05-02
[139] Ibid.
[140] CEO, Munters, 2012-03-20

programs kick in, earnings receive an upswing in the later parts of the holding period. *"It is of course a bit unconventional, but it is an investment worth making. This could not have been done on the stock market in the same way."[141]* Further, Nordic modeled net working capital at 12% of sales and a CAPEX of little less than 2% of sales. The effort put into deciding these parameters is described as relatively low in this case, due to relatively capital-light nature of Munters' business. An increased spending on R&D was also modeled, as Nordic wants to be able to pinpoint growth potential even when they exit the company.

Munters corporate taxes were another area of improvement recognized by Nordic. As a listed company, Munters often paid a corporate tax rate of 35%[142] and in 2009 the corporate tax rate was 45% (Munters Annual Report, 2009). The main reason proposed for this was that Munters made a large proportion of their profits in subsidiaries in the USA, where the corporate tax rate is high. Moreover, Munters had made losses in Italy, where some taxes are paid regardless if the company makes profits. To solve this, the Munters' CEO stated that they could work with transfer pricing and leverage in order to shift income to subsidiaries where it can be matched with expenses.[143] Munters had started looking at this before being acquired, but had not yet made much progress.[144] Support for this was provided by the representative from Nordic, who claimed that this was a neglected area in Munters before the acquisition. *"In connection with the acquisition, we brought Munters more in line with other multinational companies in the Nordic region and optimized the tax structure by directing more profits to Sweden than historically and thereby paying more tax in Sweden."[145]* This was made in two ways: both through changing the financing structure and through *"updating and correcting"[146]* the allocation of immaterial assets among subsidiaries.

Exit valuation
Nordic claims to never expect to sell their companies at higher multiples than what they acquired them for. However, the exit multiple is perceived as a large risk factor as it is a large value driver, and thus Nordic analyzes the potential exit in several ways; by looking at historical trading multiples for the company and the industry, by studying past and expected future growth relative to peers, and by studying relevant transaction multiples. By doing so, they come up with a range within which to expect the exit multiple. Nordic further highlighted how their discretion to decide when to exit provides them additional security; if trading multiples at the time of planned exit are low, they might simply wait the business cycle out.

In the case of Munters, Nordic believes that the acquisition was made at a high multiple (approximately 14 times EBITA if taking the figure for 2010), and they did not expect to receive the same exit multiple in their valuation model. However, they believed that they would achieve a premium in comparison to the industry overall, as Munters has had both a higher growth rate and a higher cash flow conversion, and as they believe that macro trends that are positive for Munters will prevail. In their model, Nordic assumed an exit EV/EBITA multiple between 11 and 13; 11 motivated only by the financials, whereas the multiple could go to 13 or beyond if several industrial companies become interested.[147]

Capital structure considerations
Nordic is highly reliant on debt financing, which motivates their use of employing personnel specialized in taking responsibility for the securing and structuring of the target's debt financing. The reasons for using a specialized debt team are described as twofold; it allows Nordic to be updated on the conditions on the debt market, and it allows them to form relationships with debt financiers. Such relationships are mentioned as an important factor when procuring debt financing. *"In some cases, a typical PE investor simply wants to maximize the amount of leverage. In good times, and so, and when you bid for targets with very stable cash flows. In these cases having the best contacts on the debt side might*

---

[141] Director, Nordic Capital, 2012-03-27
[142] CEO, Munters, 2012-03-20
[143] Ibid.
[144] Board Member, Munters, 2012-03-06
[145] Director, Nordic Capital, 2012-05-02
[146] Ibid.
[147] Ibid.

decide who wins.''[148] The decision of what amount of debt to include is, however, taken by the rest of the team and not by the debt specialists, and it varies between cases. When cash flows are more volatile or when Nordic plans to perform costly changes, some leeway is required which reduces the desired amount of debt.

In the Munters case, the acquisition was financed with a combination of 58% equity (SEK 2878m) and 42% financial debt (approximately SEK 2100m).[149] Despite being significantly higher than before the acquisition, the leverage level is described as relatively low for a Private Equity buyout by several interview objects, including the director at Nordic.[150] He compared their investment case for Munters to other potential targets with more stable cash flows, and described how their plans for Munters required them to keep a higher equity stake in order to carry out the business plan and reduce the risk of financial distress. The initial acquisition financing included a temporary bridge of approximately MSEK 400. This was excluded in Nordic's modeling of the target, which used a net debt position of approximately SEK 2.1Bn. The financial debt was structured in A and B- tranches, for which they had to pay on average 400-450 percentage points in margins. Their average interest cost for the acquisition amounted to approximately 8%[151], and was hedged against changes in STIBOR and LIBOR[152]. Nordic expected to be able to amortize parts of their debt during their holding period, decreasing the average interest rate. However, due to the projected "J-curve", amortizations are not likely to yield significantly decreased interest costs until 2013-2014.[153]

Shareholder loan effects
When structuring their acquisitions, Nordic usually designs parts of their equity investment as a shareholder loan.[154] The basic effects of such loans are that, through letting a Group company in a high tax country borrow funds from another Group company in a country with lower tax, income is moved to countries with lower (or no) income taxes.[155] Nordic claims to include the effects of such loans in their valuation models, or at least they did so up until 2011. While agreeing that it is doubtful if the Swedish Tax Authorities will keep allowing such structures, the director at Nordic claims that not using them would result in a competitive disadvantage as long as other PE firms or listed large corporates may use it; *"If they would remove the opportunity to use shareholder loans, there would be a level playing field. But as long as the opportunity exists, we follow the law and use them in order to stay competitive. If a competitor uses them, and we don't, an IRR swing of 1.5% from using shareholder loans can decide the deal."*[156]

In the case of Munters, SEK 2480m of the equity investment was structured as shareholder loan at an interest rate of 8% (Munters Topholding Annual Report, 2010). Further, the loans were structured as pay-in-kind, meaning that every year's interest was added to the opening balance of the loan instead of paid at the end of each period.[157]

---

[148] Director, Nordic Capital, 2012-03-27
[149] Calculated using transaction value, multiplying number of shares outstanding with the price per share, and net debt confirmed in interview with Director, Nordic Capital, 2012-05-02
[150] CEO, Handelsbanken Sverige, 2012-03-29; Director, Nordic Capital, 2012-03-27
[151] Director, Nordic Capital, 2012-03-27
[152] Director, Nordic Capital, 2012-05-02
[153] Ibid.
[154] Recently, Swedish Private Equity firms have been criticized for using such shareholder loans to evade Swedish tax payments, and therefore we to include the effects of such arrangements in our analysis. For the purpose of understanding the impact such loans might have on their users' valuation, we have tried to include this in our analysis of Nordic Capital. To get a wholesome understanding of such structures, we collected empirical data from Nordic, the Swedish Tax Authorities, and from meetings with lawyers specializing in setting up such structures.
[155] Tax auditor, Skatteverket, 2012-04-03
[156] Director, Nordic Capital, 2012-05-02
[157] Confirmed by Director, Nordic Capital, 2012-03-27. Please see the "Shareholder loan" section in the Appendix for further details.

Figure 3: Illustration of Munters' ownership structure and tax effects of shareholder loans.[158]

---
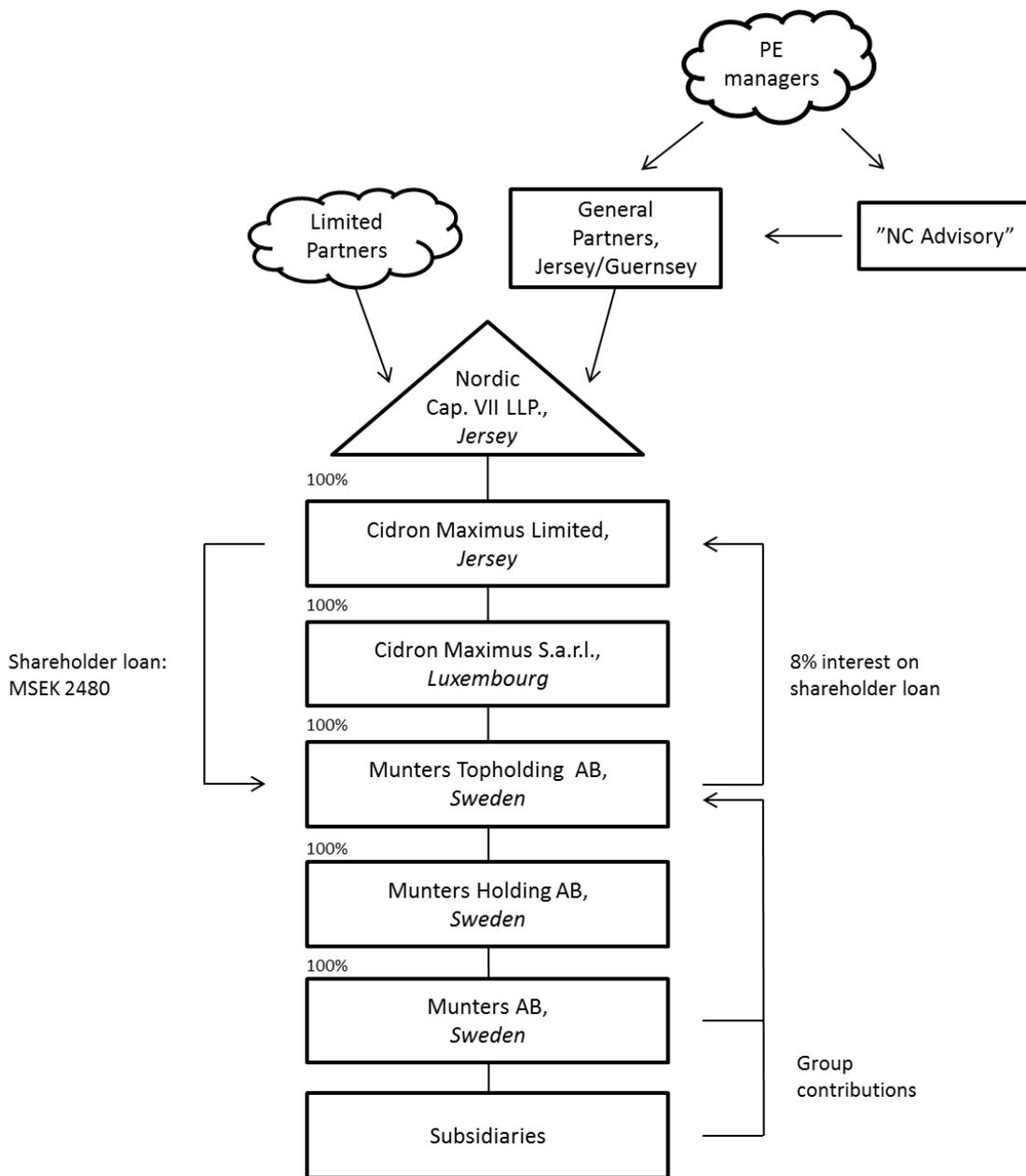
[158] The illustration is constructed by the authors on the basis of interviews with representatives from the Swedish Tax Authorities and lawyers specializing in setting up fund structures, as well as 'Skatteverket promemoria – Ränteavdrag I företagssektorn'. Actual names, domiciles, and amounts have been gathered from year 2010 annual reports for Munters Holding AB and Munters Topholding AB.

Further, the director at Nordic highlighted that their structure was entirely legal and that most industrial companies may use similar set ups: *"Most Swedish industrial companies are equally aggressive with their structures."*[159] He further argued that through Nordic's work to bring profits to Sweden, Munters will end up paying more Swedish tax than previously, and possibly even more than what they had paid under an industrial buyer's ownership.[160] That the opportunity to utilize such set-ups is not limited to PE firms was confirmed by the representative from the Swedish tax authorities: *"The same effect can be reached by other types of companies, including listed ones, through using other kinds of structures. But that might seem a little more aggressive. Both Munters and Alfa Laval were listed companies, and in that case you might have higher ethical boundaries.* [161]

---

[159] Director, Nordic Capital, 2012-03-27
[160] Director, Nordic Capital, 2012-05-02
[161] Tax auditor, Skatteverket, 2012-04-03

5. Analysis

5.1 The tender offer process for Munters

In this section, we analyze what impact the actions of the participants in the bidding process might have had on its outcome. The basis for this analysis is the previously reviewed game theoretic concepts around information availability, transaction costs, and ownership structure.

5.1.1 Information availability

Information uncertainty and the risk of the winner's curse

The role of information uncertainty in the takeover process for Munters was manifested by the actions and comments by all participants in the process. An initial parallel can be drawn to Manne's (1965) argument that bidders with more reliable information will be more likely to complete profitable transactions. In the case of Munters, both bidders deciding to enter the competition possessed a knowledge base at the outset of the competition; albeit gathered in differing ways. An explanation to this can be found by resorting to Povel & Singh's (2006) argument of asymmetric information; given that other potential competing bidders had a lower amount of information on Munters to start with, their perceived risk of falling victim to the *winner's curse* was higher. If acquiring a matching knowledge base in order to avoid being cursed is either impossible or costly, the attractiveness of participating for an unprepared bidder decreases (Fishman, 1988). Arguably, this was the case in the Munters process, where both the costs of acquiring information and the pressured time frame within bidders had to do so was highlighted by several respondents. In addition to its impact on the amount of information bidders bring to an auction, and their costs of gathering it, our case also showed how the limited time frames of tender offers might reduce the amount of bidders due to time consuming internal investment processes. As highlighted during the interviews, foreign industrial bidders might not have had time to gather their boards, much less build certainty around their valuations, and thereby not been able to participate. In the words of Munters' chairman; *"Munters had many potential buyers, but the problem was that time was scarce. Many American bidders that were interested hardly had time to start up a process to start looking at the company".[162]* Going back to Bulow & Klemperer's (1996) proposition, such a loss of bidders might have lowered the competition for Munters. We perceive this as highly relevant, as Munters largely was a "US business", which had motivated potential synergistic gains from American buyers. In any case, it seems like Alfa's and Nordic's pre-bid knowledge of Munters put potential other bidders at an information disadvantage, which likely was emphasized by the cost of acquiring information and the short time frame of the tender offer process. Given this disadvantage, the competing bidders chose not to participate and would have expect a higher possibility of overpaying - being cursed - if deciding to participate (as outlined by Thaler, 1988).

Comparing Alfa and Nordic from an information perspective, it is hard to tell whether any of them entered the process with a relative information advantage. Whereas Manne (1965) would suggest that Alfa had an advantage in their role as an industry incumbent, PE firms were not present in the same manner when he formulated his theory. However, studying their actions during the process, we find both similarities and differences in how they relate to information and uncertainty. On the similarities side, the two sides arguably recognize the value of information, both to themselves and to other potential competitors in the process. By Alfa, this is manifested by their desire to initiate and rush the bidding process forward, which may have worked to maintain their information advantage towards and reduce the likelihood of competing bidders (which, according to Bulow & Klemperer, 1996 is desirable for buyers as it decreases the final value in expectation). By Nordic, this is manifested in their comment on how they did not want more information to be made public due to their information advantage, which relates well to Hirschleifer's (1999) take on the role of management teams in evening out

---

[162] Chairman of the Board, Munters, 2012-03-08

information asymmetries through releasing public information. We perceive a difference, however, in how the bidder's acted during the process to adapt their knowledge base. Starting with Alfa, their decision to rely on internal information rather than that provided by Munters (the classified parts of the data room and factory round trips), seems to contradict an assumption where more information is always valuable, which usually is the case in the theory we reviewed. In contrast, during the process, Nordic utilized all ways to strengthen their information base; hiring consultants for understanding the business, taking part in all information provided by Munters' board, and going on the factory trip.

In searching for an explanation to this difference, one can resort to Goeree & Offerman's (2002) division of value into common and private components, and compare the way in which the bidders think of valuation. As argued by Manne (1965), Alfa, with their knowledge of the market and operations of Munters, might have had a better understanding than Nordic of the common value component (the going concern value of Munters), and both bidders claim to include this value in their bids. However, when studying the private value component (arising from synergies or performance improvements), the players' arguably treat this differently in their valuations. Whereas Alfa seems unwilling to pay in full for synergies, the operational improvements are an inseparable part in Nordic's valuation model. With this argumentation, the common and private value in Nordic's case seems more tightly intertwined than in Alfa's, justifying a more in-depth search for information in order to avoid not making correct valuations. Alfa seem to make thorough calculations of their common value, i.e. the value of Munters excluding synergies, whereas their private value, the synergies, are more difficult to calculate and the fact that they do not want to give away that value makes it less important to quantify them in an exact way. On the other hand, "*building comfort around assumptions*" is a recurring phrase in the discussions with the director from Nordic. Referring back to Goeree & Offerman's (2002) argument that differing perceptions of common value could enable bidders with lower private values to win, the same outcome could result from the above situation; if common values are relatively certain, uncertainty in private values might give bidders' with lower actual private values a higher willingness to pay for these, given better information, which reduces their risk of the winner's curse.

Finding 1: *Potential participants in the bidding process for Munters had far from full information about the company. Thus, Nordic's and Alfa's relatively high knowledge of Munters gave them a competitive advantage towards potential competing bidders, which was further emphasized by the costs of acquiring information and the limited time available for bidders to do so. Further, both bidders recognized the value of this information advantage and worked to use it in their favor; through pushing for a quick deal while the advantage lasted (Alfa), and through maintaining their advantage through actively working to extend their private information while minimize the amount of information made public (Nordic). Moreover, Nordic's work to reduce the risk of the winner's curse inherent in their private value reasons well with the importance of performance improvements in their business model.*

Pre-emption

As initiators of the bidding process, Fishman's (1988) theory suggested that Alfa had the opportunity to signal their value towards potential competing bidders through the use of a *pre-emptive bid*. As Alfa perceived the entry of competing bidders as likely such a bid seems plausible, and as it turned out, Alfa's bid did include a premium. While it is hard to determine, as argued by Betton et al. (2008), the fact that several parties showed interest in Munters suggests that Alfa's initial bid might have deterred some of them from entering the process. As highlighted previously, a potential contributing factor to this deterrence was the scarce amount of time for acquiring information, and not only the amount information at the outset of the bid. What we do know is that Alfa's bid did not deter the third bidder that was ready to submit a bid higher than Alfa's bid of SEK 68. Most importantly, the bid was not high enough to deter Nordic, which arguably might have had a lower cost of information than other bidders due to their previous attempt to purchase Munters. This is consistent with Fishman (1988), in that the efficiency of a pre-emptive bid is lower towards a second bidder with lower costs of information. Further, it is possible that the initial bid lost part of its signaling effect due to Munters' board's reluctance to recommend the bid. Moreover, Munters' board's decision to release value enhancing information after Alfa's initial bid partly limited the effectiveness of Alfa's bid in deterring competition. Referring to Jennings

& Mazzeo (1993), this is optimal to the seller of Munters, increasing the likelihood of competition for the company.

While in hindsight offering a higher pre-emptive bid might have seemed rational, especially due to the interview objects' arguments that Alfa would have gained support directly if bidding SEK 75, there are disadvantages with the pre-emptive bidding strategy as well. As the pre-emptive bid increases, the risk of *the winner's curse* related to uncertainty of one's own value must increase as well. However, this uncertainty is questionable here both because Alfa, according to our calculations, should have been able to realize a value of SEK 75 taking synergies into account and because they bid SEK 75 in a matter of only two days after Nordic's bid of SEK 73. However, while Alfa argues that their bid increase was based purely on the new order intake information, we question whether it is plausible that order intake for three months should raise the value of the firm with SEK 7 per share, or approximately 10%.

Another weakness of the pre-emptive bidding strategy is that the appropriate level of pre-emptive bid is hard to determine due to uncertain information regarding potential competing bidders' value. This information is somewhat mitigated by Alfa's decision to engage financial advisors to try to decipher Nordic's and other PE firms' valuation. It seems like a bid of SEK 75 would indeed have had a deterring effect, and thereby being classified as a pre-emptive bid, as the previous owners were determined to sell to that price and that would have made it more difficult for other bidders, wanting control of the company, to enter. The main shareholders' willingness to sell directly for SEK 75 and not SEK 68 is in our view a good proxy for viewing the bid levels as pre-emptive or not. Thus, having concluded that SEK 75 could have been classified as pre-emptive, it is interesting to analyze whether Alfa themselves misjudged other bidders' valuations or if they simply did not intend to come with a pre-emptive bid. In our view, the quote from Alfa's CEO stating that they perceived it to be likely with a competing bid undermines the idea of viewing SEK 68 as a pre-emptive bid. Thus, it seems like they did not want to bid higher and simply hoped that no other bidder would enter, and their motivation of viewing SEK 68 as a full value of the Munters share is questionable for aforementioned reasons. Hence, according to theory, it seems as if Alfa preferred to take the risk of letting other bidders enter instead of submitting a higher bid to deter competition (as suggested by Fishman, 1988).

Finding 2: *Firstly, whereas the size of Alfa's initial bid premium might have deterred potential competitors from entering, it was insufficient to deter Nordic's entry. This might partly be a result of Nordic's previous knowledge of the company, giving them lower relative costs of getting informed of the value of Munters. Secondly, the decision of Munters' bid committee to make new information public after Alfa's initial bid is consistent with value maximizing behavior in reducing the deterring effect of Alfa's pre-emptive bid. Thirdly, Alfa seemed willing to take the risk of letting other bidders entering instead of submitting a high pre-emptive bid to deter competition.*

Making information public and decreasing the cost of information
The actions of Munters' bid committee impacted the bidder's amount of information in several ways. Firstly, their decision to contact other potential bidders already before Alfa submitted their tender offer may have worked to reduce Alfa's information advantage from initiating the process. This is much in line with Hirschleifer's (1989) proposal that sellers optimally should work to reduce information asymmetries, albeit in this case, the previously discussed time pressure made it optimal for the sellers to do this already *before* the auction is initiated. Further, the preparation of a public data room on beforehand also worked to reduce competing bidder's cost of information, which is consistent with Fishman's (1988) suggestion of maximizing value in the event of pre-emptive bids. On the notion of pre-emptive bids, Munters' bid committee's cryptic recommendation to shareholders as well as their decision to comment on the bid openly in media constitute ways of signaling the value inherent in Munters, in order to counterbalance the potential deterring effects from the signals sent by Alfa's premium offer. Lastly, the decision to offer potential bidders inside information on acquisition plans and cost-reduction programs, through making the increased order intake public, and through offering bidders a round trip to factories, further enhanced

the amount of information available to bidders and was thereby likely to stimulate valuable competition for the company, as outlined by both Jennings & Mazzeo (1993) and Bulow & Klemperer (1996).

Finding 3: *Munters' bid committee's work to increase the bidders' information throughout the process was a factor ensuring a competitive auction process, which is consistent with value maximization to sellers according to theory. Moreover, given the limited time frame to gather information, pre-emptive actions on behalf of the committee might have impacted the bidder's relative competitive advantage coming into the process.*

5.1.2 Transaction costs

Expected loss from failing to bid and transaction fees
As highlighted during the interviews, taking part in bidding processes involves a large amount of costs, regardless if the bid is won or not. This, already, is in sharp contrast to the common assumption of zero costs of failure outlined by Betton et al., (2008). Whereas part of these costs can be viewed as costs of acquiring information, other costs are purely transaction related, such as costs for lawyers and auditing. As highlighted by the representatives at Nordic, the fact that a larger proportion of such costs must be taken earlier on in public processes creates higher expected losses from failing. Nordic's expected loss was further increased by the signals sent by Alfa's irrevocable agreements with the main shareholders, making Nordic perceive an increased probability of failure. Hence, in accordance with Bates & Lemmon's (2003) findings, we deem Nordic's situation to be one with relatively high likelihood of termination fee inclusion, due to their high expected costs of failing. As argued by the director at Nordic; "*asking for such a fee in this situation was a no-brainer*"[163]. The reasoning behind the committee's decision to grant such a fee, as well as the outcome of the deal, resonates well with Officer's (2002) second hypothesis for the use of termination fees; that of using them to encourage bidder participation and thereby increase bid premiums. This suggests that Fishman's (1988) suggestion that sellers might maximize the final price through minimizing a second bidder's costs of information can be extended to include other transaction related costs. While it is uncertain if Nordic had decided to participate even without the presence of a termination fee, its inclusion seems consistent with Bulow and Klemperer's (1996) statement of value maximization through increasing bidder participation.

Finding 4: *The presence of bidding related transaction costs in combination with Alfa's status as a strong and credible initial bidder made the expected loss from failing in the process relatively high in comparison to the expected benefits from participating. Through reducing these transaction costs, Munters' bid committee effectively minimized Nordic's expected loss from failing, encouraging them to participate in the bidding competition.*

5.1.3 Ownership structure

Effects of the presence of blockholders
Arguably, Alfa can be said to have had superior access to the two main shareholders which with ownership stakes of 14.6% each can be classified as *blockholders* in accordance with Burkart & Panunzi (2007). The reason for this access advantage was twofold; both due to personal relations between the management teams since previous contacts, and due to the sellers' perception of Alfa as a "good buyer". This contact with the majority blockholders opened up several opportunities for Alfa, as despite owning less than a majority of shares, the blockholders played an important role during the bidding process. Firstly, as outlined Bagnoli & Lipman (1988), their decision of whether to tender shares or not became *pivotal* to the deal's outcome due to Alfa's condition of 90% ownership. Alfa's pre-bid access to these blockholders allowed them to ensure that these pivotal shareholders would tender their shares already before initiating a tender process. Another interesting factor related to the blockholding is

---

[163] Director, Nordic Capital, 2012-05-02

how much the fact that the shareholders had lost interest in owning Munters impacted their decision to tender despite not being entirely satisfied with the price. Had this not been the case, the outcome of the process might have been different. For example, Alfa might not have initiated a bid, or they may have raised their bid in order to receive acceptance, and thereby potentially *pre-emptively* deterred Nordic's entry (in accordance with Fishman, 1988).

Toeholds

Alfa's opportunity to buy the blockholders' shares prior to tendering an offer had allowed them to circumvent the auction process and thereby gain a *toehold*, which as outlined by Ravid & Spiegel (1998) and Bulow et al. (1998) would have granted them an advantage towards competing bidders. However, whether or not it had been optimal to acquire such a toehold is not straightforward, as it depends on assumptions regarding the entry of rivaling bidders and the final acquisition premium. Further, Alfa's main reason for not viewing it as an option; that they wanted to avoid ending up with a minority stake, might pose an alternative explanation to the *toehold puzzle* identified by (Betton et al., 2007). In any case, despite not being utilized, Alfa's opportunity to purchase the blockholders' shares prior to bidding would in theory have impacted Alfa's chances of winning the process for Munters (according to the propositions of Ravid & Spiegel (1998) and Bulow et al. (1998), and the findings of Walkling, 1985).

Irrevocable agreements

Alfa's and Nordic's usage of *irrevocable commitments* with shareholders add to the relatively scarce literature on such commitments. From our interviews, we argue that it is evident that the bidder's put great weight in these agreements and perceived them as deterring factors, as described by Wright et al. (2007). As Alfa's CEO put it; "*they were pure bidding tactics*" which according to Nordic "*were very frustrating*", and decreased their expected benefits of participating in the bid process. Considering Nordic's conditional acceptance limit of 90%, Alfa's irrevocable acted as somewhat of an "artificial toehold", blocking out Nordic or requiring them to increase their bid significantly. Interestingly, the entrance of hedge funds as owners concentrated the ownership of remaining shareholders, thereby reducing the significance of the blockholders in accordance with Burkart and Panunzi (2008). Although it was still difficult to contact these hedge funds and reach an agreement with a sufficient amount of shares for creating the "artificial corner position", it was easier than it would have been had they not entered – there were at least identifiable shareholders to contact.

On a more critical note, studying these irrevocable agreements in hindsight merits a discussion whether their deterring effects described by Wright et al. (2007) in reality should impact rational bidders' decisions. From our interviews, it seems as if the exact workings of the agreements are rather unclear to most of the respondents. For example, none of the respondents could in detail explain the relation between the irrevocable agreements and the acceptance condition of the bids they were attached to. For example, in their final bid, what would happen to Nordic's agreement with 10.3% of the shareholders if failing to fulfill their conditioned on 50% tender offer acceptance? It seems that, in contrast to the findings of Wright et al. (2007), irrevocable agreements might only be effective in takeover contests when their implied acceptance equals or exceeds the required acceptance level in a bidder's tender offer. Otherwise, competing bidders might submit higher offers, blocking the first bidder's condition of acceptance, and making their agreement irrelevant. This possibility to circumvent such irrevocable agreements was manifested by Nordic's decision to lower their condition of offer acceptance, and thereby put Alfa's deal out of play. As Nordic's director put it, "*it was an illusion; we should be able to trash right through it*". However, despite this, it is remarkable how irrevocable agreements impacted the decisions of bidders through their *perceived* important role, giving some support to Wright et al.'s (2007) theory.

Finding 5: *Alfa's superior relations to blockholders with relatively large influence in Munters granted them an advantage, in terms of a wider spectrum of options on how to exercise their bidding strategy, through pre-negotiations with pivotal shareholders and through acquiring a significant toehold. Further, the change in the shareholder structure during the bidding process affected Nordic's ability to*

counterbalance this advantage; share ownership became more geographically dispersed, but to a higher extent controlled by owners that might have been more likely to give Nordic their final irrevocable agreement.

Finding 6: *While an outside analysis of irrevocable agreements seems to suggest that they are a rather weak form of deal protection, we find that their strategic role was perceived as important by the players competing for Munters. Seemingly, this stems from a lack of knowledge of how such agreements are conditioned in detail. This might make them a strategic tool in practice, as highlighted by their perceived influence in making Alfa back out when Nordic included an irrevocable corner position in their final bid.*

Acting in the interest of shareholders

Lastly, the blockholders' influence in Munters' bid committee also created a potential agency problem that could have benefitted Alfa. As Munters' chairman had been selected by the main shareholders, who had already shown some signs of accepting Alfa's bid, pushing for recommending that initial bid or at least neglecting to search actively for rival bidders could have been perceived as acting in favor of the main shareholders who selected him. The potential for this was evident during our interviews, both when interview objects stated that the chairman was *"our"* or *"their"* man, and in how several interviewees described how Alfa's team seemed confident that Munters' committee would "honor their deal" with the main shareholders[164]. Arguably, such a decision would have been suboptimal to the selling shareholders as a group, and represented a step away from the assumption of boards performing their *fiduciary duty* as described by Betton et al. (2008). However, from the interviews, it also became evident that the perception of Alfa's deal with the main shareholders differed; whereas Alfa's seemed to regard their deal as rather in agreement, the selling parties highlighted that the agreement only was there as long as no one else would pay more. With this latter interpretation, selling at a higher price was in the interest of all shareholders, decreasing the potential agency problem for Munters' chairman. However, due to Alfa's first interpretation, it is possible that overconfidence in the effects of this agency problem may have made them miss out on preparing sufficiently for a bidding war, or as one of the interviewees put it; *"They trusted their pre-bid process and that they were in agreement with Industrivärden and Latour. It was probably a big mistake."[165]*

Finding 7: *All evidence points towards that Munters' bid committee acted in all shareholders interest, in the sense that they worked to maximize the final bid price. At the same time it is possible that overconfidence in the agreement with the main shareholders, as well as in that this agreement would be honored by Munters' bid committee, made Alfa less than optimally preferred for the bidding competition that followed.*

5.1.4 Discussion: The impact of the tender offer process on the outcome of the deal

The bidders' actions during the bidding process, together with our analysis above, suggests that we are pretty far from Barney's (1988) ideal situation described at the outset of this thesis.

Firstly, it is evident that all bidders' do not possess full information about targets, and that this may have impacted the outcome of the takeover process in both bidders' favor. In accordance with Povel & Singh (1996), we find tender offer processes to be impacted by an element of uncertainty, which is asymmetrically distributed among bidders. This makes some bidders relatively more certain of their individual value of a target than others. Further, much in line with the arguments of Fishman (1988), we argue that the effects of this uncertainty is amplified by the costs of participating in processes, both costs of acquiring information and pure transaction costs, as well as the time pressure within competing bidders have to act. Both similarities and differences exist in how these uncertainties impacted the bidder' actions during the tender offer process. The impact of uncertainty on the outcome of the bidding process was recognized by both players, and whereas both acted to use this in their favor, their ways of doing so differed in a way that corresponds well with their differing perceptions of what value to bid for. Using Goeree & Offerman's (2002) terminology, as Alfa where relatively well informed about the part of

---

[164] Interview object, anonymized
[165] Interview object, anonymized

Munters' they were willing to pay for, the *common value*, rushing the process forward made sense in that it limited potential rivals' time to appraise their own values. In contrast, Nordic's does not separate *common* and *private* parts of value when considering whether to bid. In a sense, this makes them willing to pay for both, increasing the risk of the *winner's curse*, thus motivating their decision to take all possible measures to reduce uncertainty.

Secondly, the Munters case highlights that tender offer processes are, to an extent, games between *people* rather than firms, and that a discrepancy might exist between the theoretical assumption of rational individuals (as described by Eckbo, 2008) and human behavior in such processes. One example of this is the players' differing perceptions of the outcome of the pre-negotiations, which was followed by Alfa's potential overconfidence in that Munters' bid committee would honor their "agreement" with the blockholders. Another example, while we can only hypothesize around its effect, is how the rationality in Alfa's decision to walk away from the Munters was impacted by their requirement to gather their board for every increased bid. Moreover, it seems like both Nordic and Alfa put too much weight into the irrevocable agreements. In any case, whereas Alfa's status as a "good" buyer granted them a more personal contact with the blockholders and a range of options that might have resulted in an advantage - such as acquiring a toehold or negotiating acceptance in advance - the risks inherent in focusing on such relations might have proved a disadvantage in the process for Munters. Not being granted the same personal contacts, Nordic's process became more oriented towards winning "through the numbers". This became an advantage in the bidding war that followed.

Lastly, the Munters case underlines a seller's potential impact on the competitive dynamics in a tender offer process. The actions of Munters' bid committee resembles a text book example of how to facilitate competition in the bidding process; both in how they granted Nordic a termination fee to encourage them to participate (as described by Officer, 2002), and in how they acted to maximize information and reduce information asymmetries (Fishman, 1988; Hirschleifer 1989). While impossible to tell, it seems plausible that Nordic would have neglected to enter the competition in the alternative scenario; if the committee had rejected Nordic's fee request and recommended Alfa's first bid.

5.2 Sources of value and corporate valuation

This section focuses on how the bidders deciphered their value of Munters. Firstly, we briefly present our reconstruction of the two bidders' valuation models based on our empirical findings. Secondly, we compare and discuss differences in the bidders' valuation procedures. This discussion encompasses both differences in their valuation models, and in their perception of Munters' future performance. When applicable, the potential impact of both such differences for the valuation of Munters is illustrated numerically through adjusting the valuation models.

Valuation model reconstruction

The models have been reconstructed using the two bidders' own explanations of their valuation models, as well as information on their inputs provided during the interviews. Where first-hand data on such inputs was missing, this has been complemented through data from secondary sources. The main area where secondary information has been used is in Alfa's operational forecasts. Again, it is therefore important to highlight that we do not claim that our models will correctly represent the bidders' exact calculations; but they will work as a tool for reasoning regarding their ways of measuring value. The highlights of these models are presented below. Further details on inputs and modeling technicalities can be found in the appendix.

Figure 4: Reconstruction of Alfa's DCF valuation

ALFA LAVAL VALUATION OF MUNTERS, EXCLUDING SYNERGIES

Financial Statements SEKm	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sales	3613	3771	3978	4177	4386	4605	4835	5077	5280	5439	5574	5714
Growth	-4,5%	4,4%	5,5%	5,0%	5,0%	5,0%	5,0%	5,0%	4,0%	3,0%	2,5%	2,5%
EBITDA	401	445	469	485	509	534	561	589	612	631	647	663
Margin	11,1%	11,8%	11,8%	11,6%	11,6%	11,6%	11,6%	11,6%	11,6%	11,6%	11,6%	11,6%
Depreciation	-69	-72	-76	-79	-83	-87	-92	-96	-100	-103	-106	-109
Depr/sales	1,9%	1,9%	1,9%	1,9%	1,9%	1,9%	1,9%	1,9%	1,9%	1,9%	1,9%	1,9%
EBITA	360	373	394	405	425	447	469	492	512	528	541	554
Margin	10,0%	9,9%	9,9%	9,7%	9,7%	9,7%	9,7%	9,7%	9,7%	9,7%	9,7%	9,7%
Effective tax rate	36%	32%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
Taxes on EBITA	-130	-119	-110	-113	-119	-125	-131	-138	-143	-148	-151	-155
NOPLAT	230	254	284	292	306	322	338	355	369	380	389	399
Net working capital (11% of sales)	397	415	438	459	482	507	532	558	581	598	613	629
CAPEX (1.7% of sales)	61	64	68	71	75	78	82	86	90	92	95	97

Free cash flow SEKm	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
NOPLAT	38	254	284	292	306	322	338	355	369	380	389	399
Depreciation	11	72	76	79	83	87	92	96	100	103	106	109
Δ working capital	3	-17	-23	-22	-23	-24	-25	-27	-22	-17	-15	-15
CAPEX	-10	-64	-68	-71	-75	-78	-82	-86	-90	-92	-95	-97
Free cash flow	43	244	269	278	292	307	322	338	357	373	386	395
t	1	2	3	4	5	6	7	8	9	10	11	0
FCF discounted back to jan 1 2010	39	205	208	197	190	183	176	170	164	158	149	0

Valuation	
Total discounted value, jan 1	1839
Total discounted value, nov 1	1990
Terminal value	5645
Terminal value, jan 1	2188
Terminal value, nov 1	2367
Enterprise value, jan 1	4027
Enterprise value, nov 1	4358
Net debt	-730
Equity value	5088
Shares outstanding (million)	73,9
Share price	68,8

Further assumptions	
WACC	9,0%
g	2,0%

Figure 5: Reconstruction of Nordic's LBO valuation

NORDIC CAPITAL LBO VALUATION OF MUNTERS

1. Income statement figures

	2010	2011	2012	2013	2014	2015
Sales	602	3830	4213	4634	5190	5813
Growth		6%	10%	10%	12%	12%
EBITDA	71	264	438	667	773	830
Margin	0	7%	10%	10%	10%	14%
Depreciation	11	73	80	88	99	110
EBITA	60	191	358	579	675	720
Margin	10,0%	5,0%	8,5%	12,5%	13,0%	12,4%
Interest on financial debt	28	164	164	76	60	42
Interest rate (debt)	8%	8%	8%	4%	4%	4%
"Interest" on shareholder loans	33	201	217	234	253	274
Interest rate shield shareholder l	8%	8%	8%	8%	8%	8%
EBT	-1	-174	-23	269	361	405
Tax	0	0	0	-75	-101	-113
Tax rate	36%	32%	28%	28%	28%	28%
Earnings	-1	-174	-23	194	260	291
Working Capital	434	460	506	556	623	698
ND/EBITDA	0	8	4	2	1	1

2. FCF calculation

	2010	2011	2012	2013	2014	2015
EBITA	60	191	358	579	675	720
Depreciation	11	73	80	88	99	110
Tax	0	0	0	-75	-101	-113
Increase in WC	3	-26	-46	-51	-67	-75
CAPEX	-2	-65	-72	-79	-88	-105
FCF	73	173	321	463	517	538

3. Exit price calculation

	Entry/transaction multiple	Exit multiple	Implied exit EV
EV/SALES	6,0	6,0	34878
EV/EBITDA	12,4	10,0	8307
EV/EBITA	14,9	12,3	8856

4. IRR Calculation

Year	2010	2011	2012	2013	2014	2015	Exit - Jan 1, 2016
FCF from Munters	73	173	321	463	517	538	
Interest expense	28	164	164	76	60	42	
Debt amortization	45	9	157	387	457	496	549
Opening financial debt	2100	2055	2046	1889	1502	1045	
Closing financial debt	2055	2046	1889	1502	1045	549	
Opening shareholder loan	2480	2513	2714	2931	3166	3419	
Closing shareholder loan	2513	2714	2931	3166	3419	3693	
Equity/PE-fund cash flows	-2878	0	0	0	0	8307	8307

IRR: 22,4%

5.2.1 Valuation procedure

Relative importance of valuation models for the evaluation of takeovers

A primary observation we make is that there seems to be a significant difference in between what emphasis Alfa and Nordic puts on valuation modeling. Starting with Alfa, as highlighted during the interviews, the starting point for the analysis of a potential takeover is the target's strategic fit with Alfa. While the DCF model constitutes their main model for determining the value of a target, they also complement it with several other tools such as multiples and earnings accretion analyses, in order to consider *"the whole spectrum"[166]*. In contrast, Nordic's starting point for analyzing a potential takeover entails studying value, and the potential for generating returns through enhancing it. Further, this analysis is largely centered around their valuation model, and what numerical effects potential adjustments and improvements might have on the IRR. This is illustrated by the description of Nordic's CEO when travelling to the US; *"He was constantly updating the model with different assumptions. He could say 'how fast can Wall Mart grow?' and then try that assumption in his model".[167]* Thus, whereas both companies arguably have structured valuation processes, they put different emphasis on the numerical inputs and outputs of their main models. The explanations to this can be manifold. Firstly, whereas it is the main business of Alfa to run a multinational industrial company, Nordic's business model is highly centered on conducting highly profitable acquisitions. Secondly, the fact that Nordic has a materially shorter forecasting horizon might make explicit forecasting both more relevant and simpler. We find support for this in the following contrast discovered during our interviews; whereas Nordic pinpoints the importance of being confident in that their forecasts are achievable during a certain timeframe, Alfa's emphasis on acquiring companies that are "good for them" highlights their perception of strategic fit rather than numbers as important for understanding the value of owning a company in eternity.

On a shorter note, a second observation we make is that Nordic's IRR requirement is not static, as commonly assumed in theory (see for example Kaplan, n.p), but it varies from case to case. The practice of decreasing the required IRR in the presence of *"get lucky factors"* partly contradicts our finding of Nordic as model-focused; then again, it might also be interpreted as a way of including unquantifiable risk factors in the discount rate rather than in the expected FCF.

Finding 8: *The main valuation model and its numerical output has a more central role in Nordic, whereas Alfa also puts large emphasis on the strategic fit as well as into alternative valuation methods such as multiples and key performance indicators.*

5.2.2 Forecasting operations

Alfa's description of the importance of excerpting synergies from their targets, Munters included, presents a strong case for the argument that synergies are a main motivator of acquisitions (see for example Dodd and Ruback, 1977 and Gorbenko & Malenko, 2010). However, when it comes to the willingness to include the value of such synergies in the bid price, Alfa's comments are in sharp contrast to what was argued by Barney (1988). Alfa's statement of being willing to "give away" the value of some but not all synergies suggests that Alfa, in the words of Barney (1988), requires their targets to give rise to some degree of expected abnormal return, possibly enabling less efficient buyers to win in case they accept a lower amount of abnormal returns. Whereas the perception of Alfa's sources for synergy potential varied among the interviewees, both the discussed synergies on the cost side (arising from increased cost efficiency and scale economies) and on the sales side (arising from an enhanced sales network) fit well with those outlined by Lewellen (1970).

Similarly, Nordic's forecasts of Munters' future operations fit well with several of the operational value generating activities outlined in our previous research review. As argued by the director at Nordic, Munters was defined as a growth case, and thus operational measures became of relatively high importance, meriting the extensive work together with consultants to form hypotheses on how to create value through Munters' operations. Largely, the

---

[166] CFO, Alfa Laval, 2012-04-24
[167] CEO, Munters, 2012-03-20

hypotheses that Nordic came to include in their valuation of Munters are largely supported by previous research on how PE firms create value in their targets. Firstly, Nordic's hypothesized operational efficiency improvements relate well to Jensen's (1989) theory on how PE firms make "*remarkable gains in operating efficiency*". Further, Nordic's decision to create a "J-curve" effect through investing in costly efficiency programs relates well to Muscarella et al's (1990) finding that PE firms tend to undertake use restructuring programs during their ownership periods. On the sales side, Nordic's hypothesis of being able to generate value through increasing sales growth, partly from being able to conduct add-on acquisitions, is in line with Samdani's (2001) notion on how PE firms implement buy-and-build strategies in order to create value through economies of scale. However, Nordic's sales growth hypothesis was not only driven by such a strategy, but also an intention to grow the business into services. Such an extension of the business model might well be called an adaption of the strategic alignment, in the words of Berg & Gottschalg (2005), but one that is in contrast to the corporate refocusing outlined by several authors (Phan et al, 1995; Anders, 1992), in which PE firms tend to reduce the width of their targets' business.

Secondly, the director at Nordic spoke of several value generation activities which were harder to quantify. These also have a base in previous research, and although they were not directly translatable into numbers, they were perceived by Nordic to add comfort to their forecasting case. For example, the "*HR-arbitrage*" realized through the creation of a PMO might reinforce Nordic's forecast in two ways. Firstly, it might work as a way of building comfort around that the operational hypotheses will be realized, and secondly it might create a second layer of governance function without necessarily more involvement from Nordic. These gains relate well to those of Jensen (1989), however, the difference is that in this case they are realized indirectly through the creation of a PMO.

Another interesting point highlighted by several interviewees is how Nordic, in their status as a private company, would be able to perform some long-term beneficial measures that that Alfa simply could not have performed. The reason for this was the perception that the stock market would punish management for performing such measures as they would decrease profits in the short term, such as that of Nordic's projected efficiency gains through a "J-curve". Relating back to the agency problem and PE firms, the authors describing this (see for example DeAngelo, 1984 and Jensen, 1989) argue that management under PE ownership will act more in the interest of owners through the increased monitoring and control combined with financial incentives. This argumentation assumes that managers, in the lack of monitoring, would perform activities that are suboptimal to the value of the firm; that the agents fail to maximize the value to the principals. With the arguments of our interview objects, it seems as if there could be a twist to this problem; we call it a "reversed agency problem". If a short sighted stock market hinders managers in performing value-maximizing or 'optimal' decisions, it seems that principals hinders agents from performing optimal tasks, or alternatively, that the principals are more interested in earnings in the short term than in the long term. In a way, this explanation adds to Jensen (1989) argument that PE ownership might create more efficient monitoring, but through unleashing efficiency gains previously held back by a short-term focused market.

Finding 9: *Both Alfa's and Nordic's forecasts for Munters' operations contain elements that are well founded in theory; Alfa projects significant synergy gains, and Nordic has a plan for efficiency improvements that contain several elements highlighted in previous research on private equity.*

Finding 10: *Seemingly, what can be referred to as a "reversed" agency problem allows PE companies to benefit from efficiency gains that were not possible to realize on the stock market.*

Impact of operational forecasts on the bidders' valuations

Consider Figure 6. In order for our models to yield the respective bidders' valuations, Nordic has had to model significantly higher FCFs accruing from Munters' operations. Whereas the time-wise distribution of these inputs might differ, using these FCF projections as inputs yield the value of Alfa's and Nordic's valuations.

Figure 6: FCF projections in the three scenarios

Free cash flow SEKm	2010	2011	2012	2013	2014	2015
Alfa	40	244	269	278	292	307
Alfa with synergies	40	321	441	459	482	506
Nordic	68	169	316	458	512	538

In our stylized example, the main drivers of increased FCF in Nordic's case as compared to Alfa's are sales and margins. Both are significantly lower in our case for Alfa, if not including synergies during the forecast period (see appendix). Inserting Nordic's FCFs into our version of Alfa's DCF model yields a valuation of SEK 108 per share[168]. Thus, given that Alfa and Nordic could hold the same capital structure and cost of capital, Nordic would have been able to bid 59% more for Munters than Alfa had. Conversely, by inserting our FCF forecasts for the Alfa base case into our version of Nordic's LBO model (keeping Nordic's capital structure for Munters constant), we get an IRR of 7.8%.[169] This lower IRR when using Alfa's numbers is mainly a consequence of Nordic's more aggressive forecast of a "J-curve" of EBITA. In order for the IRR to remain at Nordic's 22.4%, a maximum price of SEK 52.5 per share could have been paid using Alfa's FCF. It is evident that given Nordic's high IRR requirement, they could never have bid SEK 77 for Munters unless assuming a significantly higher FCF and earnings growth than what our Alfa model shows.

Finding 11: *From our reconstruction of the bidders' valuations, it seems that Nordic included significantly larger projections of future FCF than what Alfa did in their bids for Munters.*

Forecasting the terminal value of operations

Alfa's and Nordic's valuations differ much in their continuing value calculations; both in terms of when this value kicks in, and how it is measured. Discounting Alfa's future cash flows from the date of Nordic's planned exit enables a comparison of the two bidders' modeling of the value of Munters after that date.

Figure 7: Comparison of modeled enterprise values 2015

Enterprise Value SEKm	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Discounted to beginning of year	4024	4347	4494	4629	4768	4905	5040	5171	5298	5418	5533	5645

Value 2015, Alfa	4905
Value 2015, Nordic	8856
Difference	81%

As illustrated from this comparison, Nordic's value of future cash flows at the point of exit is 81% higher than that projected in our version of Alfa's model. This is well in line with previous research highlighting PE firms' ability in making profit from developing their companies (see for example Kaplan, 1989; Holthausen et al, 1996). However, it must be kept in mind that the present value attached to this exit value differs due to differing discount rates. Further, the relatively high proportion of value stemming from the continuing value in Nordic's model makes their IRR highly sensitive to the expected exit valuation; an exit multiple of 11 would give an IRR of 19.6% and an exit multiple of 13 would give 23.8%. This is partly highlighted by the director at Nordic, when commenting on how they never expect to achieve a 'multiple arbitrage'. In turn, this weakens the ability of 'multiple riding' as outlined by Berg & Gottschalg (2005) in explaining the outcome of takeover competitions.

---

[168] DCF value calculated by changing the FCFs 2010-2015 and using Nordic's exit value as terminal value 2015 and keeping other inputs constant
[169] IRR calculated by inserting Alfa's FCFs 2010-2015 and their EBITA for 2015, using Nordic's EV/EBITA multiple of 12.3

The value of synergies

Our reconstruction of Alfa's valuation above included no calculations of synergies, both as the accuracy of such calculations is uncertain without inside information, and as we wanted to show their potential impact separately.[170]

Figure 8: Summary of Alfa's valuation with synergies added

Free cash flow SEKm	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Synergies	0	113	239	251	263	276	290	305	317	326	334	343
Synergies after tax	0	77	172	180	189	199	209	219	228	235	241	247
New NOPLAT	35	331	455	472	496	521	547	574	597	615	630	646
Depreciation	11	72	76	79	83	87	92	96	100	103	106	109
Δ working capital	3	-17	-23	-22	-23	-24	-25	-27	-22	-17	-15	-15
CAPEX	-10	-64	-68	-71	-75	-78	-82	-86	-90	-92	-95	-97
New free cash flow	**40**	**321**	**441**	**459**	**482**	**506**	**531**	**557**	**585**	**608**	**626**	**642**
Free cash flow (excl. synergies)	40	244	269	278	292	307	322	338	357	373	386	395
Free cash flow increase	*0%*	*32%*	*64%*	*65%*	*65%*	*65%*	*65%*	*65%*	*64%*	*63%*	*62%*	*62%*

New DCF value	103,4

As can be seen above, Alfa's valuation changes dramatically when adding our hypothesized synergistic gains. In this alternative case, the value Alfa could attach to Munters increases to approximately SEK 103, well above the winning bid of SEK 77, which Nordic claimed was a stretched valuation for them. However, such synergy calculations are difficult to project correctly. Therefore, we have also tested only including the synergies up to 2015, which gives a value of SEK 76 or adding only half of the synergies, yielding a value of SEK 85. Adding SEK 200m of synergies each year, which is something that the interviewees mentioned, renders a value of SEK 93. Thus, had the value from our projected synergies been included, Alfa would have had a great advantage over Nordic. This is in line with what all interviewees, including the director at Nordic, stated during the process; that Alfa and Munters should have had enormous synergies together, making Alfa an ideal bidder. Further, it gives support for Gorbenko & Malenko's (2010) argument that synergies are the primary drivers of valuations in takeovers. Further, our projected synergies are based only on efficiency improvement on the cost side; allowing Munters to lower their ratio of SG&A as a percentage of sales to that of Alfa, which does not seem like an unreasonable assumption from what we have learnt during our interviews. The scenario above does not take expected synergies on the sales side into account, which according to Alfa's CEO constituted a large part of the synergies.

Taking the full value of these synergies into account, it seems puzzling that Alfa did not outbid Nordic, especially given Alfa's statement to highly value strategic fit and to take synergies into account when performing takeovers. One answer to this might be found in Alfa's attitude towards paying for synergies. As their CFO put it; *"We don't want to give away any synergies at all. We see them as our reward for making acquisitions. The sellers would not sell if they could do something more with it."*[171] Albeit subsequently admitting that they tend to give up some of the value of synergies, this highlights a reluctance to factor in the full value of synergies in their bids. Such a viewpoint is far from the theoretical assumption outlined by Barney (1988), in which bidders would continue to bid until their NPV is zero. Further, analyzing the Munters deal in isolation fails to consider that the possibility of acquiring Aalborg at a *"better"* price represented an opportunity cost for Alfa in the bidding process for Munters. However, we argue that whereas in hindsight Aalborg might have proved to be a successful acquisition, no guarantees that Alfa would not face similar competition in that process existed when the decision to leave the Munters process was taken.

Implications of multiples valuations

Throughout our interviews we have noticed how interviewees seem to discuss pricing of companies in terms of multiples; the CEO of Alfa stated that the EV/EBITA multiple of Aalborg in comparison with that of Munters made Aalborg an attractive acquisition target, the CEO of Latour evaluated if Munters was cheap or expensive through looking at the same multiple, and for Nordic the multiple is even more crucial as it goes into their exit

---

[170] Please refer to the Appendix for a more detailed explanation of the calculation of synergies.
[171] CFO, Alfa Laval, 2012-04-24

valuation. This is in line with Liu et al.'s (2010) statement that valuations using multiples is widely used in practice. It can also be seen as an additional evaluation tool that might be preferred by Alfa in comparison to their DCF model. The high price of Munters in terms of the EV/EBITA was probably a deterring factor for Alfa.[172] However, when looking at earnings per share (EPS), which is another key ratio that Alfa uses for evaluating their acquisitions, it is evident that they could have submitted a bid that was a lot higher and still had accretive EPS (see appendix).

Finding 12: *Taking our projected synergies into account, Alfa seemingly had a great advantage and should have been able to outbid Nordic. However, synergy calculations are uncertain, and Alfa had an outside option in terms of Aalborg.*

5.2.3 Capital structure

Generally, Nordic's inclusion of debt specialists in their deal team and their statement of the importance of relations with financiers highlights the importance of financing in their business model. Further, it gives some support for Kaufman & Englander's (1993) statement that PE firms in general might make them generate value through reaching better financing terms than the targets would have had themselves. However, such an advantage is likely at least balanced when competing against a large industrial group such as Alfa. An exact comparison of who gets the better financing is difficult, as the bidders would have taken on varying amounts of debt with varying amounts of security. However, Nordic financed their acquisition with 42% debt at an average cost of 8% and Alfa could have financed it with 100% debt at an interest cost 1% above the market rate. This makes it hard to argue that Ivashina & Kovner's (2011) proposal that PE firms would be granted benefits due to being repeat debt purchasers holds in the case of Munters.

Implications of the choice of valuation model on the cost of capital

Alfa's and Nordic's financial models are largely different in how they calculate the cost of capital. Firstly, while Alfa's way of adjusting their WACC in order to reflect long-term market conditions might be optimal in a long-term perspective, this makes it incapable of accommodating short-term swings in market rates on both debt and equity (Koller et al, 2010). In comparison, Nordic's LBO model inherently utilizes the prevailing market rates on financial debt through including the projected interest costs and amortizations as outright cash outflows. The accuracy of these projections is strengthened through financial hedging of interest rates. In combination with the fact that it only requires projections to be made for a limited time horizon, this makes Nordic's LBO model better suited to take advantage of temporary slumps in market interest rates than Alfa's DCF model. Relating to Axelson et al (2012), this is another factor potentially allowing PE firms to time the market - or "*arbitrage debt versus equity*" - when leverage is cheap.

Further, Nordic's selection of a required IRR around 23% is interesting from a theoretical standpoint. Arguably, the IRR in an LBO model can be compared to the cost of equity in the previously described FTE model. As outlined by Cooper & Nyborg (2010), in such a model the cost of equity should be based on, and adjusted for, the market weights of equity and debt starting from the cost of equity had the firm been unlevered. With this in mind, Nordic's usage of a loosely motivated IRR symbolizes a step away from theoretical valuation much in accordance with what was argued by Kaplan, (n.p).

Finding 13: *Alfa's valuation model requires them to discount future cash flows with a rate that is deemed applicable in the long term. Thus, potential effects of temporarily cheap or expensive financing on Alfa's cost of capital are excluded in their model. In contrast, Nordic's model allows them to better accommodate favorable market rates in their calculations, giving them a relative advantage in situations with temporarily low market interest rates.*

Leverage and the value of tax shields

---

[172] EV/EBITA of 13.8, looking at 2010 EBITA, or 15.6 looking at EBITA last twelve months in the half year report of 2010. Calculated using the enterprise value implied by Nordic's price and dividing it by the EBITA forecast in 2010 of SEK 360m.

The valuation effect of the differing amounts of financial debt used by the two players can be analyzed by resorting to Miller & Modigliani's (1958) aforementioned proposition of the present value of tax shields. With their assumption, in the presence of corporate tax, increasing debt financing would lower the average cost of capital and maximize value to the firm. With this logic, it would seem like Alfa's opportunity to finance the whole acquisition with debt would yield a significant advantage towards Nordic, including "only" 42% debt in their financing package. This reasoning would conflict Norbäck et al's (2011) argument that large debt levels and tax shields allow PE firms to outbid strategic buyer. This ambiguity became evident in the discussion with both sides, who argued that the perception of an advantage for Nordic relating to their amount of debt financing was a misconception. However, as Alfa's WACC is based on their Group wide capital structure target rather than the incremental effects from the Munters acquisition, the maximum amount of tax shields captured by the model are those relating to the debt proportion of this target, disregarding the actual financing included. Whereas this at first might be perceived as contradictory to what's proposed by Miller and Modigliani (1958), Alfa's financial debt from the acquisition uses the whole firm as collateral, and therefore the firm's weighted average cost of capital is the appropriate discount rate according to Koller et al. (2010). In contrast, as argued above, Nordic's LBO model treats interest expenses as outright cash outflows, and is therefore accurate in adjusting the valuation for the value of tax shields (much similar to the workings of the FTE-method described by Cooper & Nyborg, 2010).

From the discussion above, we conclude that Alfa's DCF model includes a value of tax shields attributable to the debt share of the target capital structure, regardless of how Alfa finances their acquisition. Alfa's debt to equity target is to be "below 0.75", which equals a debt to assets ratio below 0.42.[173] Using this maximum target enables an assessment of the size of tax shields included in the valuation of Munters[174];

Figure 9: Comparison of projected tax shields

Tax Shields Alfa SEKm	2011	2012	2013	2014	2015
Debt	4815	4815	4815	4815	4815
Interest rate	3,3%	3,3%	3,3%	3,3%	3,3%
Interest expense	158	158	158	158	158
Tax	32%	28%	28%	28%	28%
Tax shield	51	44	44	44	44
Tax shield implied by WACC	**22**	**19**	**19**	**19**	**19**

| Tax Shields Nordic SEKm	2011	2012	2013	2014	2015
Debt	1988	1978	1820	1435	982
Interest rate	8,0%	8,0%	4,0%	4,0%	4,0%
Interest expense	159	158	73	57	39
Tax	32%	28%	28%	28%	28%
Tax shield, debt	51	44	20	16	11
Shareholder loans	2530	2732	2951	3187	3441
Interest rate	8,0%	8,0%	8,0%	8,0%	8,0%
Shareholder loan expense	202	219	236	255	275
Tax	32%	28%	28%	28%	28%
Tax shield, shareholder loans	65	61	66	71	77
EBT	-169	-17	272	364	407
Utilization of tax shield, shareholder loans	11	56	66	71	77
Total tax shield	**62**	**101**	**86**	**87**	**88**
Difference	*40*	*82*	*68*	*69*	*69*

In Figure 9 the effects of the tax shields can be seen. As illustrated, the annual size of tax shields included in Nordic's model are larger than Nordic's. Whereas the debt-to-equity levels are largely similar at the outset, the reason for Nordic's larger tax shields are twofold; higher interest costs on their debt, and "artificial" interest expenses from shareholder loans. Taking away the difference in the tax shields in Nordic's model changes the IRR from 22.4% to 21.4%. In order to keep the same IRR with Alfa's tax shields, Nordic would have had to bid SEK 75 instead of SEK 77.

Finding 14: *Whereas Alfa's potential for all-debt financing might have added larger debt tax shields than those of Nordic, Alfa's DCF model only incorporates the value of tax shields proportional to the debt in their capital structure. In our stylized example, the larger tax shields in Nordic's model are driven by two factors; higher interest expenses, and the presence of shareholder loans.*

Differences in weighted average cost of capital in the bidders' models
Comparing Alfas WACC with the weighted average of Nordic's required return on equity (the IRR of 22.4%) and debt (8%) gives an interesting insight into the difference in costs of capital implied by the two bidders' valuation models. Nordic's initial "implied WACC" amounts to approximately 15%, significantly higher than Alfa's WACC of 8-9%. Further, allowing this weighted cost of capital to change during the holding period to reflect changing market weights in debt and equity (albeit a fixed IRR) yields a further annual increase in the implied WACC. [175]

Figure 10: Comparison of Alfa's WACC with Nordic's implied WACC
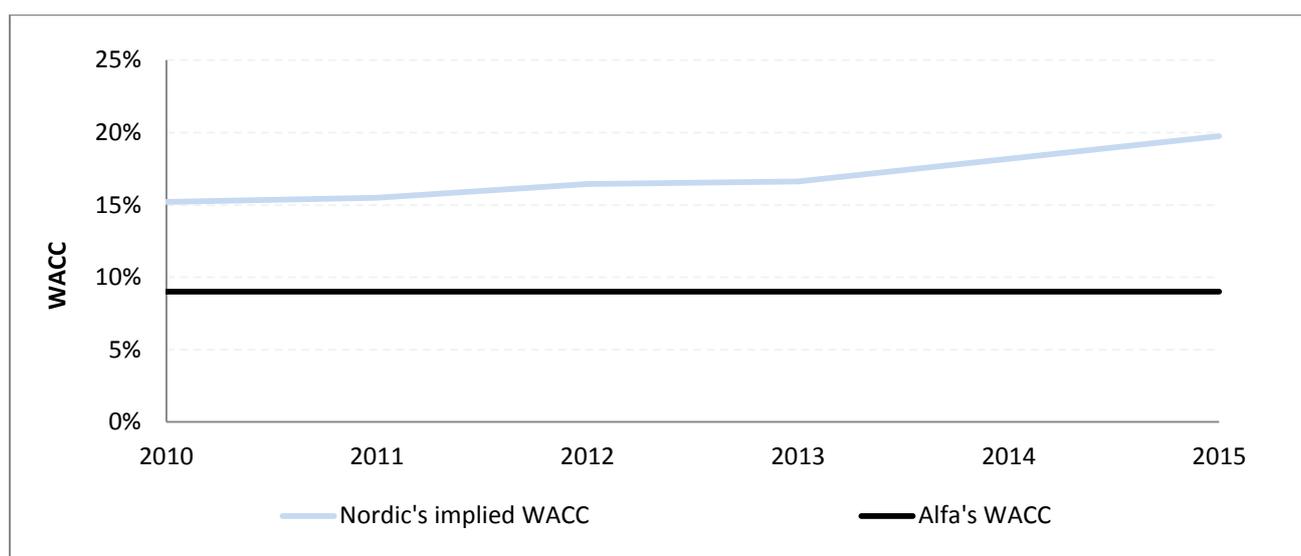
This outcome is interesting for several reasons. According to Miller & Modigliani (1958), capital structure decisions should not affect the value - or cost of capital - of a firm unless through corporate tax effects. In this case we are comparing Alfa's WACC, that they use for their whole group, with Nordic's implied WACC of Munters. The fact that Nordic's implied WACC is increasing throughout the period is in accordance with Miller & Modigliani's (1958) theorem as they are losing out on tax shields. The outcome of our comparison suggests that while the implied cost of capital in Nordic's model indeed increases during the period, it is constantly higher than that used in Alfa's DCF-model. Therefore, FCF generated throughout Nordic's holding period will be valued lower in Nordic's model than in that of Alfa. This suggests that in terms of capital costs Nordic is at a clear disadvantage, requiring them to generate higher absolute FCF values in order to compete with Alfa.

---

[175] Nordic's implied WACC is calculated using the WACC formula: $WACC = \left(\frac{D}{(E+D)}\right) * r_d * (1 - \tau) + \left(\frac{E}{(E+D)}\right) * r_e$, where E is calculated by discounting back the terminal equity value to the beginning of the year, D is the opening balance of debt, r_d is the interest rate on debt for the corresponding year, τ is the year's tax rate and r_e is the IRR requirement of 22.4%.

Analyzing the potential source of this higher capital cost quickly brings us to the previously discussed fixed IRR of 22.4% included in Nordic's model. Firstly, as highlighted, this rate does not seem to stem from any theoretically motivated calculation of the required return of Munters unlevered (r_u) (which, for example, could have been done using the CAPM[176]). Secondly, whereas in theory the required rate of return on equity (r_e) should change when the leverage ratio is changed (as outlined by both Miller & Modigliani, 1958 and Kraus & Litzenberg, 1973, among others), it remains fixed in Nordic's model. Thus, whereas the theoretical case would allow a lower r_e (or IRR) as the proportion of debt decreases, the fact that it remains the same while its relative proportion increases yields an increase in the average cost of capital as installments are made in Nordic's model.

One factor potentially justifying Nordic's higher level of cost of capital is that the underlying risk of the firm, the (r_u), could be different with Nordic as an owner than what it would be with Alfa. In accordance with Miller & Modigliani (1958), this would categorize Munters as within a *different risk category*, implying that the assumption of capital structure invariance (expect for that implied by taxes) need not hold when comparing Nordic's case to that of Alfa. Considering that we classified Nordic's case as significantly more aggressive in terms of operational improvements and FCF forecast, such an explanation likely carries some weight in explaining the higher cost of capital implied in Nordic's model. Another potential explanation would be that Alfa's cost of capital is calculated for their whole firm combined with Munters.

Finding 15: *Despite larger amounts of tax shields in absolute terms, Nordic's weighted average cost of capital is higher than Alfa's. Theoretically, this can be explained in part by a cost of equity calculation that is loosely based in theory, and by that Nordic's plans for Munters might have impacted the risk of the firm and thereby the unlevered cost of equity. In any case, all else equal, Nordic had to forecast substantially larger free cash flows to win a bidding competition.*

Effects of shareholder loans
As shown previously and as confirmed during the interviews, Nordic's shareholder loans give rise to tax shields that are incorporated in Nordic's valuation model. As it starts at a similar interest rate and a higher opening balance than financial debt, and as it keeps growing until exit, Nordic's shareholder loan creates larger tax shield effects than those created by financial debt. When excluding these tax shields from Nordic's model, their IRR drops from 22.4 to 21.5%, based on a price of SEK 77 per share. In order to maintain the same IRR without the shareholder loans, Nordic could only have bid SEK 75.1 per share. Although this analysis is dependent upon Nordic's ability to transfer income to Sweden and on the level of earnings to match these tax deductions with, it highlights how the inclusion of such loans might impact the valuation.[177] In our model, the shareholder loan's impact on valuation compares well with that described by the director at Nordic; the loans seem not to be a large driver of value in themselves, but they might indeed impact a PE firm's competitiveness in a bidding process. In relation to Norbäck et al's (2011) argument that extensive tax shields from debt grants PE firms a bidding advantage, we find that a similar advantage can be reached through shareholder loans. Further, by referring Kraus and Litzenberger (1973) argument on the effects of bankruptcy cost for a firms' cost of capital, shareholder loans should not imply such an effect in the same way as other loans, making them a seemingly superior way of generating value through tax shields. Relating back to Miller & Modigliani's (1958) classic proposition of capital structure irrelevance, shareholder loans seem to represent a further "imperfection" to add to its criticism; through structuring part of an investment as a shareholder loan, partial corporate tax deductibility of *equity* is introduced. [178]

---

[176] For a further explanation, see Berk & DeMarzo (2007)

[177] Nordic's total interest expenses (on debt and shareholder loans) are higher than their earnings before taxes in 2011 and 2012, which implies that they cannot realize the value of the tax shields for those years since it is not possible to make loss carry-forwards based on shareholder loan interest expenses

[178] Interestingly, albeit outside the scope of this thesis, is that a similar effect to that of shareholder loans have been included in Belgium's corporate tax legislation since 2007 through a notional interest deduction (NID) on equity.

Finding 16: *Nordic's usage of shareholder loans creates additional tax shields, impacting their valuation positively. Whereas the impact on valuation per se might have been relatively small, the shareholder loans seem indeed to have strengthened Nordic's relative competitiveness in the bidding process for Munters.*

5.2.4 Discussion: Value generation and measurement, and its impact on tender process outcomes

Firstly, we find Nordic's operational case to be significantly more aggressive than that projected for Alfa when not considering synergies. In terms of performance improvements and FCF, Alfa's scenario carries a relatively stable projection, whereas Nordic expects to decrease FCF early on in order to invest in operational improvements allowing them a higher upside when selling the company. The sources of these hypothesized operational improvements are consistent with much of our reviewed theory. Nordic's valuation process relies on being able to insert numerical effects of value creation hypotheses in their model. Thus, it seems that the *direct* ways of generating value through operations have a higher explanation factor for what numbers are put into their model than *indirect* factors. By direct, we refer to the more quantifiable improvements outlined in theory, such as cost efficiency programs described by Muscarella (1990). Thus, we propose that while *indirect* effects such as reduced agency problems (DeAngelo, 1984) and disciplining effects of debt (Jensen, 1989) might impact PE firms' ability to carry out hypothesized improvements, they are not sufficient in creating enough value per se to allow PE firms an advantage in bidding processes. Furthermore, we identify indications of what can be called a *"reverse agency problem"* on the stock market, which becomes an advantage for PE firms; they are exempted from reporting requirements and short-termism, enabling them to undertake operational changes more rapidly or make changes in target firms that would not have been possible for a publicly listed company.

Consistent with Gorbenko & Malenko (2010), we find that when including our projected synergies, Alfa seemingly should have been able to outbid Nordic while still bidding below their full value. However, this was not the outcome. One potential explanation for this is found in Alfa's self-stated reluctance to pay for synergies, which contradicts Barney's (1988) argument on efficient allocation through takeovers. However, considering the uncertainty inherent in synergy calculations, this might be rational in terms of being averse of *hubris* (Roll, 1986) or *the winner's curse* (Thaler, 1988). Regardless if Alfa did not expect large synergies from Munters or if they simply did not want to pay for them, we conclude that the aggregated operational expectations (in terms of future cash flows) included in Alfa's bid were significantly lower than those of Nordic.

Moreover, weighing together Nordic's interest costs with their IRR requirement, we find Nordic's valuation model to imply a higher cost of capital than that of Alfa. Thus, higher discount rates seemingly made Nordic's higher FCF projections from Munters a prerequisite for them to be able to outbid Alfa. Further, in line with the arguments of Kaplan (1989) and Barlett (2007), Nordic's valuation model includes a larger absolute amount of tax shields than Alfa's. However, excluding the value of these tax shields from Nordic's valuation results in a change that is relatively small in comparison to when changing the projected operational improvements; the IRR drops to 21.4% and the bid price has to be lowered to SEK 75 to compensate for the loss of tax shields. Thus, we argue that in the Munters case, the tax shield related advantage described by Norbäck et al. (2011) is rather weak in comparison to the effects from operational performance and average capital cost. Much similar to debt tax shields, Nordic's shareholder loans imply an advantage for Nordic, albeit with a relatively small impact.

On a last, more qualitative note, the bidders' differing reliance on their valuation models might have impacted their importance as a deciding factor in the takeover process. Given Nordic's business model and investment horizon, their model centered approach and their work with building comfort around explicit forecasts becomes highly relevant for the return they will realize at exit. In contrast, the fact that Alfa plans to own their targets in eternity might make explicitly forecasting the nearest forthcoming years of lower priority. As highlighted by Alfa's CFO, to them *"the most important thing is what comes before the valuation; the operations' fit with Alfa Laval."*[179] Further, it is

---

[179] CFO, Alfa Laval, 2012-03-13

possible that the fact that Munters' was sold at a historically high multiple, and the presence of an alternative in Aalborg, impacted Alfa's desire to drive the Munters case further.

6. Concluding remarks

Our paper highlights the importance of studying the bidding process, in addition to valuations, for understanding the outcome of tender offer process. Further, the buyout of Munters shows that clear differences might exist between PE firms and strategic buyers both in how they assess value, and in how they act during tender offer process.

Firstly, we identify a significant difference in the bidders' conception of what proportion of value to include in their bids, which shifts the outcome of the process in Nordic's favor. Alfa makes a clear distinction between *common* and *private* parts of value (as described by Goeree & Offerman, 2002), in that they are reluctant to pay for the value of their synergies. Whereas this contradicts Barney's (1988) assumption of bidding up until the full value, considering the uncertainty inherent in realizing synergies, such a decision might be rational in the sense of avoiding the *winner's curse* (Thaler, 1988) or *managerial hubris* (Roll, 1986). In contrast, Nordic's valuation model does not separate between common and private parts of value, implying that both Munters' as-is-value and that generated by operational improvements are included in their bid. Further, instead of reducing their full value in the same manner as Alfa, Nordic performs a thorough investigation during the tender offer process in order to reduce uncertainty and thereby the risk of the *winner's curse* without having to decrease their bid.

Secondly, we show that differing perceptions of Munters' future performance allows Nordic to include significantly larger FCF in their valuation model. The main drivers identified for these difference is Nordic's hypothesized operational improvements, relating well with several *direct* ways of creating value outlined in theory, such as through efficiency programs (Muscarella, 1990) and buy-and-build strategies (Samdani, 2001). Whereas we do not find the *indirect* efficiency improvements outlined in theory to be explicitly included in Nordic's model, we find support that improved incentive alignment, partly through the usage of financial incentives (as described by Kaplan, 1989), adds to their comfort in their projections.

Thirdly, the FCF projected by Nordic is implicitly discounted at a higher rate than those of Alfa, suggesting that Nordic had to generate significantly higher FCF in order to generate a value similar to that of Alfa. In part, this difference is driven by Nordic's usage of a fixed IRR in their valuation model. Further, as argued by Norbäck et al. (2011), we find that Nordic are able to generate higher tax shields. These tax shields stem both from the usage of ordinary debt and shareholder loans. However, the effect on value when reducing the level of tax shields to Alfa's level is relatively low, in comparison to the effects of operations and average cost of capital. Thus, contrary to Bartlett (2007), we argue that tax shield effects have relatively low relevance in explaining distortion in our case.

Fourthly, our study of the bidding process suggests that, as argued by Fishman (1988), uncertainty, cost of information, and time pressure are factors potentially impacting bidders' relative competitiveness in tender offer processes. At the outset of the process, both Nordic and Alfa possessed a relative information advantage as compared to other potential bidders. Given this advantage, both bidders acted to use it in their favor, albeit differently; Alfa through rushing the process in order to preventing others from having time to reach the same amount of information, and Nordic through using it as a base to further construct their value creation hypotheses. Furthermore, Munters' bid committee's actions to reduce transaction costs and information asymmetries compare well with optimal seller behavior in theory (as outlined by Fishman, 1988; Bulow & Klemperer, 1994, and Officer, 2002). Going back to the differing impacts of more information for Nordic's and Alfa's value, it is possible that such actions by the bid committee benefited Nordic more than Alfa. Further, had it not been for the termination agreement, Nordic might not even have taken part in the process.

Lastly, from our case study, we conclude that tender offer processes are, to an extent, games between *people* rather than firms. This is highlighted by the fact that Alfa, being considered a "good" buyer in their role as an industrial incumbent, received superior access to the main shareholders during the process. In turn, this granted them the potential advantage to pre-negotiate a recommendation of a bid, or the possibility to acquire a toehold through purchasing the main shareholders ownership stakes. Moreover, being a game between people, our case highlighted

that a discrepancy might exist between the theoretical assumption of rational individuals (Eckbo, 2008) and human behavior. This was manifested in how Alfa's perceived overconfidence in their "deal" with the main shareholders might have made them unprepared for a bidding competition, as well as by the large perceived impact of irrevocable agreements which proved to be circumvented in the end.

6.1 Avenues for further research

Our case study underlines the importance of studying the bidding process for gaining a comprehensive understanding of the outcome of tender offer processes. Evidently, tender offer processes are far from the theoretical example of an auction where bidders secretively submit small, incremental bids, guaranteeing the one with the highest valuation to win. In part, this is illustrated by how Alfa could have won with a bid that they later submitted but lost with. We argue that there is more to learn from case studies within the field of tender offer processes, especially focusing on how human interaction and behavior can alter the outcome of such processes. In doing so, our findings point out that it is important to relax some conventional assumptions in game theory when studying a real life case; transaction costs, irrational behavior and outside options were factors that impacted the outcome of the process.

Furthermore, our case study has been entirely based on studying what factors allowed Nordic to win the bidding process, we have not intended to take a stance on whether it was a good acquisition for them or not. Naturally, it would be interesting to see a follow-up study of this case, focusing on if and how Nordic's operational improvements were realized, and if the outcome of the deal was successful.

7. References

7.1 Interviews

Alhanko, Peter, Partner, Mannheimer Swartling Advokatbyrå, 2012-04-18
Engström, Lars, President and CEO, Munters, 2012-03-20
Kahnlund, Lars, Head of Credit, Handelsbanken Sverige, 2012-03-29
Ilstam, Anders, Chairman of the Board, Munters, 2012-03-08
Kjell, Bengt, Board Member, Munters, 2012-02-09 and 2012-03-06
Melander, Jens, Investment Manager, Industrivärden, 2012-02-28
Mossinger, Tommy, CEO, Handelsbanken Sverige, 2012-03-29
Noring, Börje, Tax auditor, Skatteverket, 2012-04-03
Nyrén, Anders, CEO, Industrivärden 2012-04-17
Näsvik, Andreas, Director, Nordic Capital, 2012-03-27 and 2012-05-02
Renström, Lars, CEO, Alfa Laval, 2012-03-13
Svensson, Jan, CEO, Investment AB Latour, 2012-03-12
Sigfrid, Peter, Equity Analyst, Industrivärden, 2012-02-20
Thuresson, Thomas, Chief Financial Officer, Alfa Laval, 2012-03-13 and 2012-04-24

7.2 Litterature

Alvesson, M. & Sköldberg, K. 1994, "*Tolkning och reflektion*". Lund, Sweden: Studentlitteratur.

Anders, G. 1992, "The "barbarians" in the boardroom", *Harvard Business Review,* vol. 70, no. 4, pp. 79-87.

Axelson, U., Jenkinson, T., Strömberg, P. & Weisbach, M.S. 2012, Borrow cheap, buy high? The determinants of leverage and pricing in buyouts, *ECGI Finance Working Paper No. 329/2012.*

Bagnoli, M. & Lipman, B.L. 1988, "Successful takeovers without exclusion", *Review of Financial Studies,* vol. 1, no. 1, pp. 89-110.

Baker, G.P., Montgomery, C.A. 1994, *Conglomerates and LBO associations: A comparison of organizational forms,* Harvard Business School Working Paper, No. 10-024, September 2009.

Baker, G.P. & Wruck, K.H. 1989, "Organizational changes and value creation in leveraged buyouts:: The case of the OM Scott & Sons Company", *Journal of Financial Economics,* vol. 25, no. 2, pp. 163-190.

Bargeron, L.L., Schlingemann, F.P., Stulz, R.M. & Zutter, C.J. 2008, "Why do private acquirers pay so little compared to public acquirers?", *Journal of Financial Economics,* vol. 89, no. 3, pp. 375-390.

Barney, J.B. 1988, "Returns to bidding firms in mergers and acquisitions: Reconsidering the relatedness hypothesis", *Strategic Management Journal,* vol. 9, no. S1, pp. 71-78.

Bartlett III, R.P. 2007, "Taking Finance Seriously: How Debt Financing Distorts Bidding Outcomes in Corporate Takeovers", *Fordham L. Rev.,* vol. 76, pp. 1975.

Bates, T.W. & Lemmon, M.L. 2003, "Breaking up is hard to do? An analysis of termination fee provisions and merger outcomes", *Journal of Financial Economics,* vol. 69, no. 3, pp. 469-504.

Bebchuk, L.A. 1982, "The case for facilitating competing tender offers", *Harvard law review,* pp. 1028-1056.

Berg, A., Gottschalg, O. "Understanding value generation in buyouts", *Journal of Restructuring Finance*, Vol. 2, mo. 1, pp. 1-29

Berk, J. & DeMarzo, P. 2007, *Corporate finance,* Addison-Wesley.

Berle, A.A. & Means, G.C. 1932, *The modern corporation and private property,* Transaction Publishers.

Betton, S., Eckbo, B.E. & Thorburn, K.S. 2009, "Merger negotiations and the toehold puzzle", *Journal of Financial Economics,* vol. 91, no. 2, pp. 158-178.

Betton, S., Eckbo, B.E. & Thorburn, K.S. 2008, "Corporate takeovers", *Handbook of Corporate Finance: Empirical Corporate Finance,* vol. 2, no. 15, pp. 291-430.

Betton, S., Thorburn, K. & Eckbo, B.E. 2005, "The toehold puzzle", *CEPR Discussion Paper No.5084* .

Bradley, M. 1980, "Interfirm tender offers and the market for corporate control", *Journal of Business,* vol. 53, no. 4, pp. 345-376.

Bradley, M., Desai, A. & Kim, E.H. 1988, "Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms", *Journal of Financial Economics,* vol. 21, no. 1, pp. 3-40.

Bruining, H. & Wright, M. 2002, "Entrepreneurial orientation in management buy-outs and the contribution of venture capital", *Venture Capital: An International Journal of Entrepreneurial Finance,* vol. 4, no. 2, pp. 147-168.

Bull, I. 1989, "Financial performance of leveraged buyouts: an empirical analysis", *Journal of Business Venturing,* vol. 4, no. 4, pp. 263-279.

Bulow, J., Huang, M. & Klemperer, P. 1999, "Toeholds and takeovers", *Journal of Political Economy,* vol. 107, no. 3, pp. 427-454.

Bulow, J. & Klemperer, P. 1996, "Auctions Versus Negotiations"*, The American Economic Review,* vol. 86, no. 1 (mar., 1996), pp. 180-194.

Burkart, M. 1995, "Initial shareholdings and overbidding in takeover contests", *Journal of Finance,* vol. 50, no. 5, pp. 1491-1515.

Burkart, M. & Panunzi, F. 2006, "Takeovers", *CEPR Discussion Paper No.5572,N. 118/2006* .

Chowdhry, B. & Jegadeesh, N. 1994, "Pre-tender offer share acquisition strategy in takeovers", *Journal of Financial and Quantitative Analysis,* vol. 29, no. 1.

Cooper, D.J. & Morgan, W. 2008, "Case study research in accounting", *Accounting Horizons,* vol. 22, pp. 159.

Cooper, I. & Nyborg, K. 2010, "Consistent valuation of project finance and LBO's using the flows-to-equity method", *Swiss Finance Institute Research Paper No. 10-51.*

Cotter, J.F. & Peck, S.W. 2001, "The structure of debt and active equity investors: The case of the buyout specialist", *Journal of Financial Economics,* vol. 59, no. 1, pp. 101-147.

DeAngelo, H., DeAngelo, L. & Rice, E.M. 1984, "Going private: Minority freezeouts and stockholder wealth", *JL & Econ.,* vol. 27, pp. 367.

DeAngelo, L.E. 1986, "Accounting numbers as market valuation substitutes: A study of management buyouts of public stockholders", *Accounting Review,* vol. 61, no. 3, pp. 400-420.

Demiroglu, C. & James, C. 2007, "Lender control and the role of private equity group reputation in buyout financing", Available at SSRN: http://ssrn.com/abstract=1106378 or http://dx.doi.org/10.2139/ssrn.1106378.

Dodd, P. & Ruback, R. 1977, "Tender offers and stockholder returns: An empirical analysis", *Journal of Financial Economics,* vol. 5, no. 3, pp. 351-373.

Dubois, A. & Gadde, L.E. 2002, "Systematic combining: an abductive approach to case research", *Journal of Business Research,* vol. 55, no. 7, pp. 553-560.

Dyer, W.G. & Wilkins, A.L. 1991, "Better stories, not better constructs, to generate better theory: a rejoinder to Eisenhardt", *The Academy of Management Review,* vol. 16, no. 3, pp. 613-619.

Easterwood, J.C., Seth, A. & Singer, R.F. 1989, "The Impact of Leveraged Buyouts on Strategic Direction.", *California Management Review,* vol. 32, no. 1, pp. 30-43.

Eckbo, B.E. 2009, "Bidding strategies and takeover premiums: A review", *Journal of Corporate Finance,* vol. 15, no. 1, pp. 149-178.

Edmondson, A.C. & McManus, S.E. 2007, "Methodological fit in management field research", *The Academy of Management Review,* vol. 32, no. 4, pp. 1155-1179.

Fama, E.F. 1970, "Efficient capital markets: A review of theory and empirical work", *Journal of Finance,* vol. 25, no. 2, pp. 383-417.

Fama, E.F. & Jensen, M.C. 1985, "Organizational forms and investment decisions", *Journal of Financial Economics,* vol. 14, no. 1, pp. 101-119.

Fang, H. & Morris, S. 2006, "Multidimensional private value auctions", *Journal of Economic Theory,* vol. 126, no. 1, pp. 1-30.

Fishman, M.J. 1988, "A theory of preemptive takeover bidding", *The Rand Journal Of Economics,* vol 19, no. 1 , pp. 88-101.

Fox, I. & Marcus, A. 1992, "The causes and consequences of leveraged management buyouts", *Academy of Management Review,* vol 17. no. 1, pp. 62-85.

Gilson, R.J. 1982, "Seeking competitive bids versus pure passivity in tender offer defense", *Stanford Law Review,* vol. 35, no. 1, pp. 51-67.

Goeree, J.K. & Offerman, T. 2002, "Efficiency in auctions with private and common values: An experimental study", *The American Economic Review,* vol. 92, no. 3, pp. 625-643.

Gorbenko, A.S. & Malenko, A. 2009, *Strategic and financial bidders in takeover auctions,* Available at SSRN: http://ssrn.com/abstract=1559481 or http://dx.doi.org/10.2139/ssrn.1559481

Grossman, S.J. & Hart, O.D. 1980, "Takeover bids, the free-rider problem, and the theory of the corporation", *The Bell Journal of Economics,* vol. 11, no. 1, pp. 42-64.

Hayward, M.L.A. & Hambrick, D.C. 1997, "Explaining the premiums paid for large acquisitions: Evidence of CEO hubris", *Administrative Science Quarterly,* vol. 42, no. 1, pp. 103-127.

Hirshleifer, D. & Png, I.P.L. 1989, "Facilitation of competing bids and the price of a takeover target", *Review of Financial Studies,* vol. 2, no. 4, pp. 587-606.

Holthausen, R.W. & Larcker, D.F. 1996, "The financial performance of reverse leveraged buyouts", *Journal of Financial Economics,* vol. 42, no. 3, pp. 293-332.

Ivashina, V. & Kovner, A. 2011, "The private equity advantage: Leveraged buyout firms and relationship banking", *Review of Financial Studies,* vol. 24, no. 7, pp. 2462.

Jennergren, P.L. (2011), A tutorial on the discounted cash flow model for valuation of companies, SSE/EFI working paper series in business and administration, No.1998:1

Jennings, R.H. & Mazzeo, M.A. 1993, "Competing bids, target management resistance, and the structure of takeover bids", *Review of Financial Studies,* vol. 6, no. 4, pp. 883-909.

Jensen, M. 1989, "Eclipse of the public corporation", *Harvard Business Review (Sept.-Oct.1989), revised 1997.*

Jensen, M.C. 1986, "Agency costs of free cash flow, corporate finance, and takeovers", *The American Economic Review,* vol. 76, no. 2, pp. 323-329.

Jensen, M.C. & Ruback, R.S. 1983, "The market for corporate control: The scientific evidence", *Journal of Financial Economics,* vol. 11, no. 1-4, pp. 5-50.

Kaplan, S. 1989, "Management buyouts: Evidence on taxes as a source of value", *Journal of Finance,* vol. 44, no. 3, pp. 611-632.

Kaplan, S.N. & Strömberg, P. 2008, "Leveraged buyouts and private equity*", Journal of Economic Perspectives,* vol. 22, no. 4.

Kaufman, A. & Englander, E.J. 1993, "Kohlberg Kravis Roberts & Co. and the restructuring of American capitalism", *The Business History Review,* vol 67, no. 1, pp. 52-97.

Koller, T., Goedhart, M. & Wessels, D. 2010, *Valuation: measuring and managing the value of companies,* John Wiley & Sons Inc.

Kraus, A. & Litzenberger, R.H. 1973, "A state-preference model of optimal financial leverage", *The Journal of Finance,* vol. 28, no. 4, pp. 911-922.

Lewellen, W.G. & Huntsman, B. 1970, "Managerial pay and corporate performance", *The American Economic Review,* vol. 60, no. 4, pp. 710-720.

Liu, J., Nissim, D. & Thomas, J. 2002, "Equity valuation using multiples", *Journal of Accounting Research,* vol. 40, no. 1, pp. 135-172.

Malmendier, U. & Tate, G. 2008, "Who makes acquisitions? CEO overconfidence and the market's reaction", *Journal of Financial Economics,* vol. 89, no. 1, pp. 20-43.

Manne, H.G. 1965, "Mergers and the market for corporate control", *The Journal of Political Economy,* vol. 73, no. 2, pp. 110-120.

Martynova, M. & Renneboog, L. 2008, "A century of corporate takeovers: What have we learned and where do we stand?", *Journal of Banking & Finance,* vol. 32, no. 10, pp. 2148-2177.

Merriam, S.B. & Nilsson, B. 1994, *Fallstudien som forskningsmetod,* Studentlitteratur.

Miller, M.H. 1977, "Debt and taxes", *Journal of Finance,* vol. 32, no. 2 , pp. 261-275.

Miller, M.H. & Modigliani, F. 1961, "Dividend policy, growth, and the valuation of shares", *the Journal of Business,* vol. 34, no. 4, pp. 411-433.

Modigliani, F. & Miller, M.H. 1958, "The cost of capital, corporation finance and the theory of investment", *The American Economic Review,* vol. 48, no. 3, pp. 261-297.

Morck, R., Shleifer, A. & Vishny, R.W. 1988, "Management ownership and market valuation:: An empirical analysis", *Journal of Financial Economics,* vol. 20, pp. 293-315.

Muscarella, C.J. & Vetsuypens, M.R. 1990, "Efficiency and organizational structure: A study of reverse LBOs", *Journal of Finance,* vol. 45, no. 5 , pp. 1389-1413.

Myerson, R.B. 1997, *Game theory: analysis of conflict,* Harvard University Press.

Newbould, G.D., Chatfield, R.E. & Anderson, R.F. 1992, "Leveraged buyouts and tax incentives", *Financial Management,* vol. 21, no. 1, pp. 50-57.

Norbäck et al., (2010), Ownership efficiency and tax advantages: the case of private equity buyouts, IFN Working Paper No. 841, 2010

Officer, M.S. 2003, "Termination fees in mergers and acquisitions", *Journal of Financial Economics,* vol. 69, no. 3, pp. 431-467.

Opler, T. & Titman, S. 1993, "The determinants of leveraged buyout activity: Free cash flow vs. financial distress costs", *Journal of Finance,* vol. 48, no. 5., pp. 1985-1999.

Palepu, K.G. 1990, "Consequences of leveraged buyouts", *Journal of Financial Economics,* vol. 27, no. 1, pp. 247-262.

Penman, S.H. 2007, *Financial statement analysis and security valuation,* McGraw-Hill/Irwin.

Penman, S.H. & Sougiannis, T. 1998, "A Comparison of Dividend, Cash Flow, and Earnings Approaches to Equity Valuation*", *Contemporary Accounting Research,* vol. 15, no. 3, pp. 343-383.

Phan, P.H. & Hill, C.W.L. 1995, "Organizational restructuring and economic performance in leveraged buyouts: an ex post study", *Academy of Management Journal,* vol. 38, no. 2, pp. 704-739.

Povel, P. & Singh, R. 2006, "Takeover contests with asymmetric bidders", *Review of Financial Studies,* vol. 19, no. 4, pp. 1399-1431.

Rappaport, A. 1990, "The staying power of the public corporation", *Harvard Business Review,* vol. 68, no. 1, pp. 96-104.

Ravid, S.A. & Spiegel, M. 1999, "Toehold strategies, takeover laws and rival bidders", *Journal of Banking & Finance,* vol. 23, no. 8, pp. 1219-1242.

Roll, R. 1986, "The hubris hypothesis of corporate takeovers", *Journal of Business,* vol. 59, no. 2, pp. 197-216.

Samdani, G.S., Butler, P. & McNish, R. 2001, "The alchemy of leveraged buyouts", *Value Creation: Strategies for the Chemical Industry,* pp. 93-107.

Singh, H. 1993, "Challenges in researching corporate restructuring*", *Journal of Management Studies,* vol. 30, no. 1, pp. 147-172.

Thaler, R.H. 1988, "Anomalies: The winner's curse", *The Journal of Economic Perspectives,* vol. 2, no. 1, pp. 191-202.

Thompson, S., Wright, M. & Robbie, K. 1992, "Buy-outs, divestment, and leverage: restructuring transactions and corporate governance", *Oxford Review of Economic Policy,* vol. 8, no. 3, pp. 58-69.

Trautwein, F. 1990, "Merger motives and merger prescriptions", *Strategic Management Journal,* vol. 11, no. 4, pp. 283-295.

Verschuren, P. 2003, "Case study as a research strategy: some ambiguities and opportunities", *International Journal of Social Research Methodology,* vol. 6, no. 2, pp. 121-139.

Walkling, R.A. 1985, "Predicting tender offer success: A logistic analysis", *Journal of Financial and Quantitative Analysis,* vol. 20, no. 04, pp. 461-478.

Weir, C. & Laing, D. 1998, "Management buy-outs: the impact of ownership changes on performance", *Journal of Small Business and Enterprise Development,* vol. 5, no. 3, pp. 261-269.

Wright, M., Weir, C. & Burrows, A. 2007, "Irrevocable commitments, going private and private equity", *European Financial Management,* vol. 13, no. 4, pp. 757-775.

Yin, R.K. 2003, "*Case Study Research: Design and Methods*", vol. 5, Sage Publications.

7.3 Internet

Affärsvärlden, En fuktansvärd affär, 2010-10-26,
http://www.affarsvarlden.se/tidningen/article2598394.ece

7.4 Unpublished material

Kaplan, S.N. "A note on valuation in entrepreneurial settings", University of Chicago Graduate School of Business, Chicago

7.5 Other sources

Alfa Laval, 2011, Annual Report [pdf] Available at: < http://www.alfalaval.com/about-us/investors/reports/pages/reports.aspx> [accessed 20 mars, 2012]

Alfa Laval, 2010, Annual Report [pdf] Available at: < http://www.alfalaval.com/about-us/investors/reports/annual-reports/pages/annual-reports.aspx> [accessed 20 mars, 2012]

Alfa Laval, 2009, Annual Report [pdf] Available at: < http://www.alfalaval.com/about-us/investors/reports/annual-reports/pages/annual-reports.aspx> [accessed 20 mars, 2012]

Munters, 2009, Annual Report [pdf] Available at: < http://www.munters.nl/en/Munters-Corporate-Home/Investor-Relations/Financial-reports21/> [accessed 20 february 2012]

Munters, 2008, Annual Report [pdf] Available at: < http://www.munters.nl/en/Munters-Corporate-Home/Investor-Relations/Financial-reports21/> [accessed 20 february 2012]

Munters, 2007, Annual Report [pdf] Available at: < http://www.munters.nl/en/Munters-Corporate-Home/Investor-Relations/Financial-reports21/> [accessed 20 february 2012]

Munters, 2006, Annual Report [pdf] Available at: < http://www.munters.nl/en/Munters-Corporate-Home/Investor-Relations/Financial-reports21/> [accessed 20 february 2012]

Munters, 2005, Annual Report [pdf] Available at: < http://www.munters.nl/en/Munters-Corporate-Home/Investor-Relations/Financial-reports21/> [accessed 20 february 2012]

Munters, 2004, Annual Report [pdf] Available at: < http://www.munters.nl/en/Munters-Corporate-Home/Investor-Relations/Financial-reports21/> [accessed 20 february 2012]

Munters, 2003, Annual Report [pdf] Available at: < http://www.munters.nl/en/Munters-Corporate-Home/Investor-Relations/Financial-reports21/> [accessed 20 february 2012]

Munters, 2002, Annual Report [pdf] Available at: < http://www.munters.nl/en/Munters-Corporate-Home/Investor-Relations/Financial-reports21/> [accessed 20 february 2012]

Munters, 2001, Annual Report [pdf] Available at: < http://www.munters.nl/en/Munters-Corporate-Home/Investor-Relations/Financial-reports21/> [accessed 20 february 2012]

Munters, 2010, Q3 Interim Report [pdf] Available at: < http://hugin.info/992/R/1466773/404502.pdf> [accessed 1 mars 2012]

Munters, 2010, Q2 Delårsrapport [pdf] Available at: < http://www.munters.se/sv/se/Om-Munters/Rapporter/> [accessed 1 mars 2012]

8. Appendix

8.1 Details on shareholder loans

PE firms' structuring of their target companies is usually complex, and includes companies on many levels, in several countries. This structure varies in practice. However, based on our understanding of how funds of similar size and scope generally are structured following interviews with lawyers specialized in setting up such structures, we conclude that Nordic's set-up represents a somewhat standardized set up used by several of the largest PE firms in Sweden.[180] In the Munters case, two levels of Swedish holding companies were created in connection with the acquisition; Munters Holding AB and Munters Topholding AB. As illustrated in Figure 2, these companies own the companies with operations, and are in turn owned by limited companies in Luxembourg and Jersey.[181] Tax is not paid on income in Jersey. The purpose of going to Jersey via Luxembourg is to avoid paying withholding tax on dividends, which would have been the result if the dividends had been paid directly to the company in Jersey. In the usual setup, the Jersey registered company is owned by what is commonly referred to as the "Private Equity fund", which in this case is Nordic Capital Fund VII. Legally, this entity is neither a limited company nor a fund, but a partnership (hence the triangle symbol) and therefore transparent for tax purposes.[182] This allows investors in the fund to avoid dual taxation.[183] The funds committed to the partnership are controlled by the GP in accordance with their agreement with the LP's. The GP is a limited company usually registered in Guernsey or Jersey, which is led by a group of professional GP board members. These board members are in turn advised by the PE firm managers (often cited as the private equity team) through advisory firms registered in Sweden or elsewhere where the PE firm acts. Lastly, the owners of these advisory firms are generally the owners of the GP (see for example Kaplan & Strömberg, 2008).

The shareholder loans are usually issued by the Jersey registered company to one of the Swedish holding companies, in our case Munters Topholding AB. In some cases, these loans are passed on down to other holding companies. In any case, the shareholder loans carry an interest rate, in our case 8%, giving rise to interest expenses in the non-operating holding companies. These expenses are netted against Group contributions from the operating companies. Such contributions are tax deductible in Sweden. In this way, the tax base in Sweden is reduced, and profit from interest income is made in Jersey, where no income tax is paid. While using group contributions to shift income between Swedish companies is allowed according to Swedish tax legislation, the ability to shift income from other countries to Sweden depends on local tax legislation. Munters makes a proportion of their profits in the US, a country in which tax authorities make it somewhat difficult to shift income to Sweden, according to several of the respondents.[184] Usually, the shareholders loans are structured as PIK – pay in kind, meaning that no down payment is made on the loan, and the accrued interest for the year is added to the opening balance of the loan. In this way, the size of the shareholder loan and the interest expenses related to it increases during a holding period.[185]

The perception of the purpose of the shareholder loans varies among our interview objects. While the representative from the tax authorities saw no other reason for shareholder loans than for reducing the payment of tax[186], the representative from the law firm mentioned that incentive schemes for target managers usually are structured so that the mangers are allowed to invest in the equity of the target company alongside the private equity fund. The shareholder loans contribute to the overall leverage and thereby the equity investment made by the managers is sweetened.[187] The representative from Nordic, however, argued that this effect could be created in

---

[180] Based on interview with Partner, Mannheimer Swartling Advokatbyrå, 2012-04-18
[181] Munters Annual Report 2010
[182] Tax auditor, Skatteverket, 2012-04-03
[183] Partner, Mannheimer Swartling Advokatbyrå, 2012-04-18
[184] This was highlighted by the representative from Nordic Capital and confirmed by the Swedish Tax Authotirites
[185] Tax auditor, Skatteverket, 2012-04-03
[186] Ibid.
[187] Partner, Mannheimer Swartling Advokatbyrå, 2012-04-18

other ways.[188] Another reason for basing the fund in Jersey is avoiding double taxation. Many of the investors in PE funds are tax-exempt in their home countries, for example the Swedish national pension funds (AP-fonderna), and thus they may want to avoid paying taxes in other areas.[189]

8.2 Reconstruction of valuations

8.2.1 Alfa's DCF valuation inputs

Sales

The sales figures for 2010-2012 are based on equity research. They represent the median of the research following who updated their numbers on July 22, when MCS was sold.[190] We believe that equity research numbers can be a fair proxy for the financial markets view of Munters the following years. However, for the years following 2012 have decided to use the growth rate for Munters relevant market (5%), given by their CEO before lowering it to a steady state growth given by Alfa. Alfa's range was 1.5-2.5%; we have used 2%. This can be compared to a compounded annual growth rate of 5.9% 2000-2009, or 8.8% 2005-2009.

EBITA

The forecasts for 2011 and 2012 are received in the same way as the sales figures, i.e. the median figure of the research following. However, we revised the 2010 earnings as the number provided by research was distorted by the lower earnings of the MCS division, which had been divested.[191] Thus, we used the number of one equity researcher, which was deemed to be reasonable according to the director of Nordic, and it is thereby the same value as we used in the LBO model. Thereafter, we have used the historical average margin for the combined entity of the Dehumidification and Humicool divisions, including historical overhead costs, implying a margin of 9.7%.

Taxes

We have decided to use a tax rate of 36% for the first year. The historical average is even higher, but includes several extreme years that are not a good base for future forecasting (see figure 14). Thus, we have used a number that company management deemed as reasonable for a normal year.[192] Thereafter we have assumed that the tax rate is decreasing towards Alfa's corporate tax rate (their average tax rate was 28%, 2008-2010). We have assumed that it decreases to 32% in 2011 and that it thereafter reaches Alfa's level.

CAPEX

We have forecasted CAPEX through the historical CAPEX/sales average 2005-2009 of 1.7%.

Depreciation

We have forecasted depreciation through the historical depreciation/sales average 2005-2009 of 1.9%.

Working capital

We have used the average equity research forecast for 2010-2012, implying a ratio of working capital to sales of 11% for the whole period.

WACC

Alfa's WACC in the range of 8-9% was given to us by Alfa's CFO.

---

[188] Director, Nordic Capital, 2012-05-02
[189] Partner, Mannheimer Swartling Advokatbyrå, 2012-04-18
[190] Öhman Equities, Swedbank, Handelsbanken, SEB Enskilda, Carnegie
[191] Director, Nordic Capital, 2012-05-02
[192] CEO, Munters, 2012-03-20

Invested capital

We have defined invested capital as in Figure 11. The only balance sheet excluding MCS available when Alfa came with their bid could be found in Munters' half year report 2010. We have used it to calculate return on invested capital[193] (ROIC), which ended up being 14% in 2010 and 15% for the rest of the forecasting period when we forecast invested capital as growing with sales. It would have been more theoretically correct of us to forecast Munters' balance sheet in a more detailed fashion. However, this would not add a lot to our thesis as we are trying to replicate Alfa's valuation model with their own input, which we do not have. Thus, we have kept it simple and focused on the general drivers of free cash flows.

Figure 11: Calculation of Munters' invested capital

	Balance Sheet	Q2 10
	Assets	
	Fixed Assets	
OA	Buildings and land	148
OA	Plant and machinery	108
OA	Equipment, tools, fixtures and fittings	42
OA	Construction in progress	9
OA	Patent, trademarks and similar rights	99
GW	Goodwill	765
	Participation in associated companies	0
OA	Other long-term receivables	17
NOA	Deferred tax assets	125
		1313
	Current Assets	
OA/WC	Inventory etc.	462
OA/WC	Accounts receivable	554
OA/WC	Other receivables	186
NOA	Cash and cash equivalents	321
		1523
	Assets held for sale (=MCS)	1046
	Total Assets	**3882**
	Equity and Liabilities	
	Equity	**1431**
	Long-term liabilities	
D	Interest-bearing liabilities	941
OL	Provisions	147
EE	Deferred tax liabilities	70
	Other liabilities	0
		1158
	Short-term liabilities	
D	Interest-bearing liabilities	34
OL/WC	Advances from customers	72
OL/WC	Accounts payable	375
OL/WC	Provisions	84
OL/WC	Other liabilities	337
		902
	Liabilities held for sale (=MCS)	391
	Total Equity and Liabilities	**3882**
	Operating fixed assets (excl. GW)	423
	Goodwill	765
	Net working capital	334
	Operating long-term liabilities	147
	Invested Capital	**1669**
	Invested Capital (excl. GW)	**904**
	Net debt	654

---

[193] Calculated as net operating profit less adjusted taxes (NOPLAT) divided by invested capital. See Koller et al. (2008) for a further elaboration

Alfa's synergies

Our synergy calculations are based on a lowering of Munters' selling general and admin costs (SG&A) in relation to sales to Alfa's level of this ratio, which has been an approach mentioned in our empirics. It is beyond the scope of this thesis to dwell into how to quantify the different types of synergies mentioned by Alfa Laval's CEO. Moreover, sell side synergies, quoted as the main source of synergies in this case are inherently difficult to quantify[194]. Thus, we have decided to focus on a simple calculation to illustrate how it impacts on Alfa's valuation. The yearly pre-tax synergies are calculated by taking the difference between what the SG&A costs would have been with Munters and what they would be when integrated with Alfa. We have assumed that they will not be fully realized until 2012, based on their CFO's statement that it normally takes six to twelve months for them to realize integration of offices and one to two years to integrate factories.[195]

Figure 12: Alfa's and Munters' SG&A costs

IS SEKm	2008	2009	H1 2010
Net sales Alfa	27850	26039	11740
SG&A	-4433	-4311	-2116
SG&A/sales	16%	17%	18%
Net sales Munters		3759	1682
SG&A		-835	-397
SG&A/sales		22%	24%
Average SG&A/sales, Alfa	17%		
Average SG&A/sales, Munters	23%		

Figure 13: Calculation of Alfa's synergies with Munters before tax

Cost synergies	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sales	3613	3771	3978	4177	4386	4605	4835	5077	5280	5439	5574	5714
SG&A/sales (old)	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%
SG&A/sales (new)	23%	20%	17%	17%	17%	17%	17%	17%	17%	17%	17%	17%
Synergies	0	113	239	251	263	276	290	305	317	326	334	343

---

[194] Anonymous equity researcher
[195] CFO, Alfa Laval, 2012-03-13

8.2.2 Nordic's LBO valuation inputs

Time horizon

Nordic's explicit forecasting period up until 2015 (at which point divesture is planned) was given to us during the interview with their director.

Capital structure

The capital structure for the financing was given to us by the representative of Nordic during the interviews. They financed the acquisition with net debt of SEK 2,100m. Deducting these from the enterprise value, implied by the bid price of SEK 77, gives a total equity value of SEK 2,878m. Out of this equity, shareholder loans made up SEK 2,480m. The shareholder loans were found in the annual report of Munters Topholding AB[196] and were thereafter verified during the interview with the Nordic director.[197] The paid down with the FCF during the holding period, whereas the shareholder loan base increases with the interest rate. The debt carries an interest rate of 8%, which was given to us during the interviews, and the shareholder loans carry an interest rate of 8% as well, which was found in the 2010 annual report of Munters Topholding AB. We forecast the interest rate on debt to be lowered when the net debt to EBITDA ratio is lowered to below 2. The interest rate is then lowered to 4% in our scenario. We have based that on the assumption that there financing cost should be slightly more expensive than Alfa's financing which is 3.3%.

IRR

During the interviews, the Nordic director conveyed that their IRR for the Munters investment was expected to be in the range of 20-25%, albeit closer to 25%.

EBITA

Nordic expects a "J-curve" for EBITA. This means that it will be lowered initially before increasing to the 2015 level, which is expected to be two times the 2010 EBITA (their director indicated that figure to be in the range of SEK 330-360m). The 2011-2015 numbers are forecasted on margins of 5-13%.

Sales

Munters' management has implemented a goal of a sales growth of 15% in 2015, although this is not something that they expect in the model. Moreover, the CEO stated that the market is expected to grow with 5% per year the coming years. We have forecasted a sales growth of 6% in 2011, which is increased to 12% in 2015 to accompany their aggressive EBITA forecast.

Taxes

In our scenario, Nordic's interest expenses on debt and shareholder loans make earnings before taxes negative in 2010-2012. Thereafter we forecast a tax rate of 28%, 2013-2015. Nordic will work actively to bring profits home to Sweden and we believe that they are good at transfer pricing arrangements as well and will be able to lower Munters' high tax rate.

CAPEX

Nordic used a ratio of CAPEX to sales slightly below 2% in their model. We have used 1.8% for the whole forecasting period, which is in line with the historical average.

Working capital

We have used Nordic's projected ratio of working capital to sales of 12% for the whole period.

---

[196] Munters Topholding AB annual report, 2010
[197] Director, Nordic Capital, 2012-05-02

Figure 14: Munters' historical figures

Historical Figures(excluding MCS) SEKm	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sales	**2250**	**2580**	**2718**	**2365**	**2482**	**2857**	**3149**	**3701**	**3794**	**3783**
Growth	*0,0%*	*14,7%*	*5,3%*	*-13,0%*	*4,9%*	*15,1%*	*10,2%*	*17,5%*	*2,5%*	*-0,3%*
Dehumidification	1284	1501	1503	1262	1344	1514	1635	1936	2051	2300
growth	*17,4%*	*16,9%*	*0,1%*	*-16,0%*	*6,5%*	*12,6%*	*8,0%*	*18,4%*	*5,9%*	*12,1%*
HumiCool	966	1079	1215	1103	1138	1343	1514	1765	1743	1483
growth	*40,2%*	*11,7%*	*12,6%*	*-9,2%*	*3,2%*	*18,0%*	*12,7%*	*16,6%*	*-1,2%*	*-14,9%*
EBITDA	**275**	**291**	**327**	**236**	**290**	**352**	**461**	**548**	**424**	**405**
Margin	*12,2%*	*11,3%*	*12,0%*	*10,0%*	*11,7%*	*12,3%*	*14,6%*	*14,8%*	*11,2%*	*10,7%*
Depreciation					-64	-58	-54	-63	-68	-83
%of sales					*2,6%*	*2,0%*	*1,7%*	*1,7%*	*1,8%*	*2,2%*
Corporate EBITA	**248**	**264**	**300**	**208**	**201**	**259**	**375**	**441**	**319**	**274**
Margin	*11,0%*	*10,2%*	*11,0%*	*8,8%*	*8,1%*	*9,1%*	*11,9%*	*11,9%*	*8,4%*	*7,2%*
Dehumidification	136	152	163	109	138	159	194	234	201	251
Margin	*10,6%*	*10,1%*	*10,8%*	*8,6%*	*10,3%*	*10,5%*	*11,9%*	*12,1%*	*9,8%*	*10,9%*
HumiCool	139	139	164	127	88	135	213	251	155	71
Margin	*14,4%*	*12,9%*	*13,5%*	*11,5%*	*7,7%*	*10,1%*	*14,1%*	*14,2%*	*8,9%*	*4,8%*
Corporate Overhead	-27	-27	-27	-28	-25	-35	-32	-44	-37	-48
Net working capital										416
%of sales										11%
CAPEX			81	48	53	40	57	94	72	41
%of sales			*3,0%*	*2,0%*	*2,1%*	*1,4%*	*1,8%*	*2,5%*	*1,9%*	*1,1%*

Historical Taxes (including MCS) SEKm	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EBT	303	389	436	280	318	391	514	526	285	246
Taxes	-119	-149	-169 [73]	-108	-118	-139	-186	-190	-120	-111
%of sales	*39,3%*	*38,3%*	*38,8%*	*38,6%*	*37,1%*	*35,5%*	*36,2%*	*36,1%*	*42,1%*	*45,1%*

Figure 15: Alfa's earnings accretion at a price of 75 SEK

EPS accretion (price = 75)	2011e	2012e
Net income	3204	3526
Additional EBIT	373	394
Synergies	113	239
Additional int. exp	-340	-340
Additional EBT	147	293
Tax rate	32%	28%
New taxes	-47	-82
Additional net income	100	211
New net income	3304	3737
Previous EPS	7,6	8,4
New EPS	7,8	8,9
Accretion	3,1%	6,0%
# of shares Munters (million)	73,9	
Munters net cash	730	
Price paid/share	75	
Additional loan	4815	
Interest rate	3,3%	

Figure 16: Alfa's earnings accretion at various prices

EPS accretion	2011e	2012e
Price = 90	6%	9%
Price = 110	5%	8%
Price = 150	3%	6%

The net income numbers are based on equity research forecasts. Alfa's interest rate is taken from weighting two loans in Alfa's 2010 annual report, as they do not show their overall interest rate.[198] All other income statement numbers are taken from our DCF of Munters. From the lower part of the figure one can see that Alfa could have bid a lot higher before the bid would have become EPS dilutive.

Comparison of sales and EBITA

For comparison, see Figure 17 for differences in the projected sales and EBITA numbers included in Alfa's and Nordic's valuation models.

Figure 17: Comparison of sales and earnings

Forecast comparison SEKm	2011	2012	2013	2014	2015
Alfa sales	3771	3978	4177	4386	4605
Nordic sales	3830	4213	4634	5190	5813
Difference	2%	6%	11%	18%	26%
Alfa EBITA	332	373	394	405	425
Nordic EBITA	191	358	579	675	720
Difference	-42%	-4%	47%	67%	69%

---

[198] A senior facility banking syndicate of USD 348m to an interest rate of 2.5% and private placement in the U.S. of USD 110m to an interest rate of 5.75%