



EX 0010 Bachelor Thesis in Business Administration, 10 points

Leveraged Buyouts

- A Value Creating Process

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Abstract

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Title: Leveraged Buyouts: A Value Creating Process

Problem:

The Leverage Buyout (LBO) practitioners are the alchemists in the world of finance. The thing that specifies LBOs to ordinary acquisitions is the amount of debt used in the deal structure. Leverage buyouts have also historically given high returns to investors. We found it interesting to research more about this phenomenon. We will discuss questions like: how is the LBO deal structured and how do the LBO buyers create value?

Purpose: The purpose with the thesis is to develop a good understanding of how an LBO process is conducted from the private equity side of the process.

Method: The author's foundation of the thesis has been developed from literature and research studies. We have made intensive literature research in the beginning to find creditable theories that we could apply and develop the understanding even further. From the theory we have found, we have decided to divide it in to three main parts that will explain the different phases that are included in the LBO process.

Results: Finance books and interviews with finance professionals yield the conclusion that the high returns in leveraged buyouts are results of; high leverage, management incentives, operational improvements and the advantages with an LBO firm organization. A leveraged buyout is a kind of process that is designed to increase cash flow and in the end return shareholder value to the investors.

Sammanfattning

Datum: 2007-01-04

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Titel: Leveraged Buyouts: A Value Creating Process

Problem: Riskkapitalisterna är finansvärldens alkemister. Det som framför allt skiljer Leveraged Buyouts från vanliga företagsförvärv är finansieringen som till största del består av lånat kapital. Författarna fattade intresse för LBOs och forskade vidare om detta fenomen. Frågor som författarna ville diskutera och utreda var t.ex hur Lbo investerare skapar värde och hur affärsprocessen ser ut?

Syfte: Uppsatsens syfte är att försöka på bästa möjliga sätt klargöra hur en LBO process går tillväga och hur man skapar värde i processen.

Metod: Författarna grundar denna uppsats på den litteratur och forskning som de funnit. Författarna har gjort en noggrann granskning av den litteratur de funnit för att finna trovärdig teori inom området, som vi kan använda och utveckla förståelsen ännu mer för. Från den teorin vi hittat har vi bestämt oss för att dela upp uppsatsen som tre delar för att förklara de olika faserna som en LBO process omfattar.

Resultat: Resultatet är grundat på böcker och intervjuer med proffs inom området, vilket ger slutsatsen att de höga avkastningarna i företags utköp är ett resultat av, höga lån, managementincitament, operativa förbättringar och de fördelar en LBO firmas organisation för med sig. Leveraged Buyout är en sorts process som är konstruerad för att öka kassafödet och i slutändan ge investerarna en hög avkastning.

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List of Abbreviations

BO	Buyout
CAPEX	Capital Expenditures
CAPM	Capital Asset Pricing Model
CEO	Chief Executive Officer
CFO	Chief Financial Officer
EBITDA	Earnings before interest, taxes, depreciation and amortizations
EBIT	Earnings before interest and taxes
EV	Enterprise Value
EVCA	European Venture Capital Association
FV	Future Value
IPO	Initial Public Offering
IRR	Internal rate of return
LBO	Leveraged Buyout
M&A	Mergers and Acquisitions
MBO	Management Buyout
PE	Private Equity
R&D	Research and Development
ROC	Return on Capital
ROE	Return on equity
P&L	Profit and loss
VC	Venture Capital
WACC	Weighted average cost of capital
WC	Working Capital

1. Introduction

1.1. Background

A Leveraged buyout (LBO) is a type of acquisition of a company, where the financing of the deal consists of significant amounts of debt. The acquisition often regards a majority stake in the target company. The target company's cash flows and assets are used as collateral. The buyer is usually a group of private investors, usually referred to as private equity firms or LBO firms, with the intention to increase the value of the company. The buyer usually has a required annual return of 20% on capital and the investment horizon is usually 3-5 years. The successful practitioners of LBO transactions have historically received outstanding return on their invested capital, with annual returns usually stretching from 20% and upward.

Leveraged buyouts got its breakthrough in the 1980s M&A wave. Although Private Equity and Buyouts have been around both in America and Europe for quite some time, it wasn't until the 1980's LBOs became known to the wider public. LBO specialists like KKR (Kohlberg, Kravis and Roberts) and Carl Icahn became famous people and the term Corporate Raider was established. Another LBO boom occurred in 1999 to 2002. During both these booms, both Europe and America experienced high stock prices and low interest rates.

Jensen (1989a) argued that the wave of LBOs and takeovers in the 1980's was a response to failures in corporate governance. There were also bargains to be made on the stock markets. Industrial companies (often conglomerates) trading below their book value, gave LBO firms the opportunity to break them up or liquidate the company. Other reasons for increased LBO activity was the supply of money. Mike Milken invented the Junk Bond market that directly fuelled the LBO industry. Endless supply of money and greater competition for buyout targets forced LBO firms to take greater risks and invest in unsound deals. Eventually the LBO and Private Equity bubble burst and the number of transactions declined until the mid 90's.

Today 2006 the Private Equity industry is again at another high. The old LBO record from 1989, with the KKR purchase of NJR Nabisco for 31,4 Billion US dollar, was eclipsed in July 2006 by the purchase of the Hospital Operator HCR. The price tag was 33 Billion US Dollar, and the buyer was also this time the LBO firm KKR (Kohlberg, Kravis and Roberts).

Although the ways LBO deals are conducted haven't change so much since the 1980's the leverage is more modest today. Financing the buyout with 90% debt was not unusual in the 80's. Even though the supply of capital today is extreme, LBO firms favor more equity in their transactions. Maybe because LBO firms are more focused on growth in value creation rather than just cutting costs in their target companies.

1.2.Problem Statement

The world of leveraged buyouts stretches over several academic areas. Theories regarding Corporate Governance, finance theories like Miller Modigliani, marketing and management theory are all connected when explaining the value created in a leveraged buyout. Leveraged buyouts and other buyouts are according to research the only form of acquisition that is profitable, creating shareholder value for the shareholders in the acquiring company. Classic motives for companies to make acquisitions are; creating synergy effects, increasing market positions and other strategic business motives. When valuing a merger or an acquisition, the deal may look profitable, but not to the shareholders. In fact research show that M&A transactions give back zero or negative return to the shareholders of the acquiring company. Especially when the acquiring firm pay with it's own stock, the returns have been bad. Cash payment show better returns according to research.

So why is it that buyout acquisitions give much higher returns than corporate acquisitions? The authors will show that the LBO firm work under other conditions than the industrial buyer and create value using the advantages it has. The most crucial part when a company buys another company is the integration of the acquired company. LBO firms do not have to worry about any integration problems. There are other things that make the LBO transaction complicated.

Reading the background section raises a lot of interesting questions. What is the purpose of using so much debt and what values can LBO firms create, that an Industrial (Strategic) buyer can't? This thesis intends to describe the steps in the LBO deal process. Each step or phase in this process contributes in some way to the whole value chain in the process. What characterizes the target company and how do the investors create value during the years they own the company? These kinds of questions will be discussed further in this thesis.

1.3.Purpose

The purpose with this thesis is to examine the important aspects and steps in the LBO process and to explain the value creation-taking place during the process.

1.4.Target audience

The target audience for this thesis is business students, particularly those with an interest in finance and business strategy.

1.5.Scope and Limitations

The authors will focus on the most important parts of the Leveraged buyout process. The thesis will describe the LBO process from the buyer's point of view.

The thesis will not treat any legal aspects of Leveraged Buyouts, since it is a very vast area and demands specialization in Law. The Authors will also not further go into the area of management theory.

The thesis will not to any greater extent compare buyouts to other forms of company acquisitions.

1.6. Organization of thesis

The paper is divided into the following chapters

Chapter 1 Introduction

Contains background, problem discussion, purpose, scope and limitations.

Chapter 2 Methodology

The authors methods when writing the report.

Chapter 3 Theory and Private Equity

Finance theory and introduction to Private Equity

Chapter 4 Pre-buyout phase

The important work before a buyout. Search and screening for target company, Due Diligence, Valuation and Financing.

Chapter 5 Post-buyout phase

The target company becomes a LBO firm portfolio company. How the LBO firm operates and strategies for improving operations.

Chapter 6 Exit

Exit strategies for LBO firms.

Chapter 7 Summary of interviews

The interview material is presented

Chapter 8 Summary and conclusions

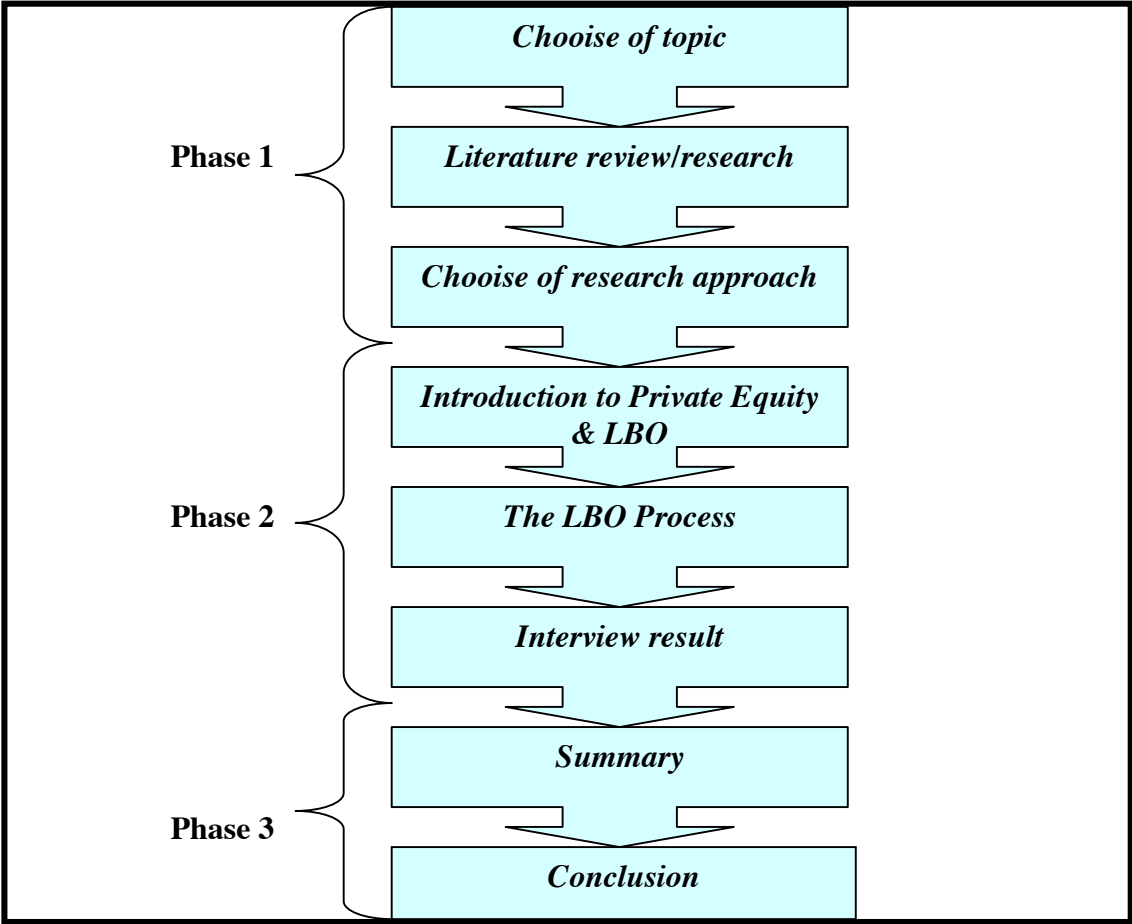
Summary and conclusions from the paper

2. Methodology

In this chapter we aim to discuss the method that we use in conducting our research. With method means to conduct a scientific approach on the area in question and how the area can be treated. The chapter should for the researchers (us) be a help in answering the questions that we have stated in the previous introductory part, as well as the problems and questions that could appear during our research. It aims also to give the reader an insight in how the authors have worked and to supply a tool for critical viewing.

2.1. Research Process

According to (Saunders, Lewis, Thornhill, 2000), a research process is often represented as a multistage process that one must follow in order to undertake and complete the research project. So the numbers of stages are different from research to research. Our research process is divided into three different phases. This is mainly for us to be able to map up and have a structured process to follow, as well as for the reader to see how we have structured our research approach. Then for our research processes, we have designed the following approach to follow:



Figur 1: Overview of the Research Process

2.2. Quantitative or Qualitative studies

According to Bryman (2001) one should use quantitative or qualitative studies to classify the different method/approaches within the area of scientific research. The difference between them can also be used as an “umbrella” which covers generally a number of questions around the area of scientific praxis.

The following table explains the basic differences between quantitative and qualitative research strategies.

	Quantitative	Qualitative
Principal orientation to the role of theory in relation to research	Deductive; testing of theory	Inductive; generation of theory
Epistemological orientation	Natural science model, in particular positivism	Interpretivism
Ontological orientation	Objectivism	Constructionism
Advantages	<ul style="list-style-type: none"> • Many units • Possibility to generalize from choices to population with high level of accuracy to relatively low cost 	<ul style="list-style-type: none"> • Deep an detailed understanding • Flexibility in the data process gathering • A good understanding of the situation/phenomenon
Disadvantages	<ul style="list-style-type: none"> • An analytical distance can give a difficult understanding • Views are frost upon one trough standardized questions and answers • Superficial information • Rigidnes in data gathering 	<ul style="list-style-type: none"> • To detailed information • High costs, especially in the analyse phase • To close to the respondent can disturb once ability to analytically distance one self • To big flexibility could led to an unfinished research

Tabell 1: Differences between Quantitative & Qualitative research strategies. (Bryman, 2001: Jacobsen, 2002)

One can also mention that quantitative methods should be used when one has good knowledge about the area in question, to test hypothesis and different theories or how often something has occurred. The qualitative method is more for one with little knowledge about the subject in study, also to develop new theories and hypothesis and to know what the area is about (Jacobsen 2002).

We believe that the qualitative method is best suited in our research since it will give us the opportunity to come closer to answering the problem statement that we have mentioned in the beginning. This instead of measuring, observing our objective and registering, we will take the step in and try to explain the object in question. This of course will put higher expectation on us in our ability for collecting information, but gives also the opportunity to have another point of view in answering our problem statement.

Our study is based on analysis of qualitative information, which we have gathered through literature, articles and interviews. The focus on gathering this information was that it was important for us that the sources had strong ties to the field in focus. According to Holmes and Solvang (1997), one should be aware of changes that could occur during an investigation. This then means that modifications during new information inflows should be conducted as our understanding increases, which is necessary in a qualitative study. Our aim to find the answers is namely to conduct our research and findings from qualitative literature.

(Jacobsen, 2002) A researcher's aim is to go in-depth into the area/subject of his interest to solve a specified problem of interest. With consideration of the restricted resources we have chosen to go in depth in explaining the process. Which we believe is necessary to fulfil the intention of this work. This structure makes it then possible for us to focus on the answers from small units in this paper. With this type of structure we are able to conduct a wider research for our area.

2.3.Secondary data

(Bryman, 2002) Undergraduate students in particular may not have the resources to conduct a very intensive research. Yet we know that large amount of quantitative data are collected by social scientists and others. There are several reasons why one first considers secondary data instead of primary data but there are also disadvantages, which one could summarize:

Advantages	Disadvantages
<ul style="list-style-type: none"> • Cost and Time efficient • High quality data • Opportunity for longitudinal analysis • Subgroup analysis • Opportunity for cross-cultural analysis • More time for data analysis • Reanalysis may offer new interpretations 	<ul style="list-style-type: none"> • Lack of familiarity with the data • Complexity of the data • No control over data quality • Absence of key variables

Tabell 2: Advantages & Disadvantages of Secondary data

There is also different categories of secondary data according to (Saunders, Lewis and Thornhill, 2000), we have documentary which include written materials and Non-written materials, multiple source including area based and Time series based, and the last one which is survey, this include censuses, continuous and regular surveys and also as hoc surveys.

Our main sources of secondary data will be covered from books, articles, databases and internet resources. These sources will first be analyzed critically of its validity. This is since we are mainly basing our research on the different literature we find. So we have conducted a literature research before writing, we begun by utilizing the school library's different data bases like *Science Direct*, *ABI/Infrom*, and we also used *Libris* as our main resource for finding some related papers concerning our area, but first of al to get access to the literature that we needed. Since Mälardalens library were not equipped with the literature of our needs. Then the papers we found on the area were used as a search for different literature reference

This secondary data we collected were important for us, especially the literature, which made us able to get familiar with our subject before starting. But it has also aid us in the construction of our theoretical framework. But some disadvantages with literature is that it often tends to be too generalized and not so applicable in today's world.

2.4.Primary data

The primary data has the role of a participant's ability to gather different type of observations. From (Saunders, Lewis and Thornhill, 2000) one can categorise the role for the participant observer can adopt. These roles are:

- Complete participation
- Complete observer
- Observer as participant
- Participant as observer

One could also say that when secondary data is not enough to cover or to answer the research problem, then it's up to the researcher to collect the information by themselves. Then this data collecting process is called primary data.

Our selection of obtaining primary data will be by conducting an open questionnaire interview and one telephone. This means according to (Neuman, 2000) that it is an unstructured and free response, to which the respondent can give any answer. The reason for choosing this approach is that, first the persons to be interviewed are spread on different geographical regions, and second we wanted their full professional opinion on the questions we where seeking to be answered.

2.5.The construction of the interview

Before we started to construct our interview question we absorbed a large content of literature on the area in question and also wrote a large part of the paper. Then from this we started to form the questionnaire that we were planning to send electronically and ask on the phone. The question were focused on answering our concerns on the parts that we could not find in the literature, and to see how this area in reality is related with the business professionals and get their point of view on this questions, which were not that clear from the secondary data that we found. This is also the reason why we choose to conduct an open interview approach.

According to Neuman (2000) this interview approach as both advantages and disadvantages for open questions, which are

Advantages	Disadvantages
<ul style="list-style-type: none"> ▪ They permit an unlimited number of possible answers. ▪ Respondents can answer in detail and can qualify and clarify responses. ▪ Unanticipated findings can be discovered. ▪ They permit adequate answers to complex issues. 	<ul style="list-style-type: none"> ▪ Different respondent give different degrees of detail in answers. ▪ Responses may be irrelevant. ▪ Comparisons and statistical analysis become very difficult. ▪ Coding responses is difficult. ▪ Questions may be too general for respondents who lose direction.

<ul style="list-style-type: none"> ▪ They permit creativity, self-expression, and richness of detail. ▪ They reveal a respondents logic, thinking process, and frame of reference. 	<ul style="list-style-type: none"> ▪ A greater amount of respondent time, thought, and effort is necessary. ▪ Answers take up a lot of space in the questionnaire.
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Tabell 3: Advantages & Disadvantages of Open Questionnaires

2.6. Reliability and Validity

Reliability and Validity are two of the most common criteria's in the evaluation of social research (Bryman 2004)

Reliability concerns the question of whether the results generated from the study are reliable or not. Especially in quantitative research one would prefer stable results, if one repeats a test over and over it should yield similar results to be called reliable.

Using many sources increases the reliability. The Authors have sought to use a broad base of reference litterateur and gather quality information from Professionals within the LBO industry.

Validity is an approach to show the integrity of the conclusions made in the study. There are several types of validity; the more common ones are Measurement Validity, Internal Validity and External Validity.

Measurement Validity applies primarily to quantitative research. It is to do with the question of whether a measure that is devised of a concept really does reflect the concept that it is supposed to be denoting (Bryman 2004).

Internal Validity concerns the reliability of a conclusion that involves a relationship between two or more variables. (Bryman 2004).

External Validity is the question of whether the results of a study can be generalized beyond the specific research context in which it was conducted.

In the case of the interview, we believed that by using an open questionnaire would reflect the true opinion and experience of the professionals working out there. But we also knew that the business language that they might use might be unfamiliar for us since we have not been out working in their field. It also meant that their explanations might be unclear or difficult to understand. To solve this we asked for permission to record the interview of one of them, but since the other two answered a questionnaire we asked the possibility from them to come back with follow up questions, and they were more then glad to answer any follow up question that we might have. We also asked them the possibility to send them a summarized outline of what we where going to present from their interviews. This because we wanted to be shore that we have not misinterpreted anything unconsciously. By doing this we believe to have increased the reliability of our work.

2.7.Critique of the Method

According to Bryman (2004) the critique for our thesis would be the point of the risk for subjectivity, generalization, and the lack of transparency.

This is since qualitative finding tends to make the researchers really to much on the findings, which gives unsystematic views about what would be significant and important. We as qualitative researchers my have a tendency for the problem formulating stage to be more explicitly stated in the matters of existing literature on the topic and the key theoretical ideas.

Bryman (2004) say that the scope of the findings of qualitative investigations is restricted. In our case when literature is used. And the open-ended questionnaire, were a small number of individuals participating. For an LBO study as this, it will be clear both from the interviews and the theoretical framework that the LBO process is difficult to generalise for one case. But then it's even more important to try to give an understanding how it's not so general.

For the reader it could also be unclear in the sense of how the authors actually have conducted the choice of interview participants and how the summary was conducted and how the conclusions may have been arrived at, which means that there may be a lack of transparency for the reader. For this reason we will try to make everything as clear has possible with references and our background.

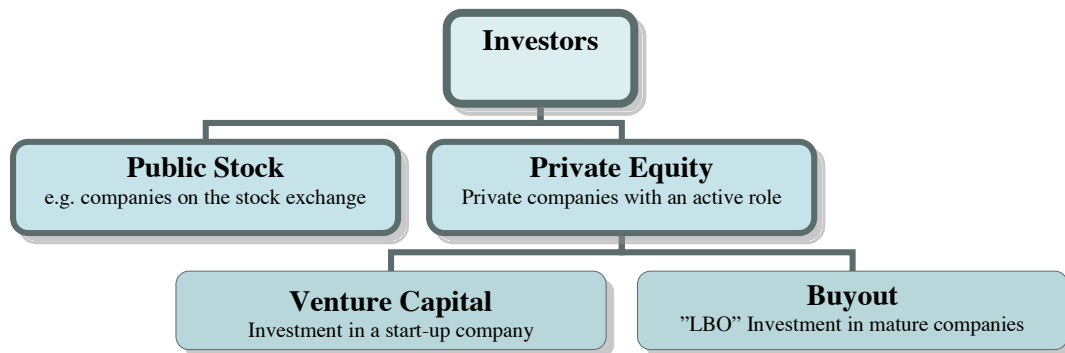
3. Theory and Private Equity

3.1.Characteristics of Private Equity

There are different ways of defining what private equity is, but we have decided to define it according to EVCA¹ (2005). Therefore private equity is defined as:

“Private Equity provides equity capital to enterprises not quoted on a stock market. Private Equity can be used to develop new products and technologies, to expand working capital, to make acquisitions, or to strengthen a company’s balance sheet. It can also resolve ownership and management issues - a succession in family-owned companies, or the buyout or buy in of a business by experienced managers may be achieved using private equity”.

Private equity is financed by different type of investors. The investments these investors can make are defined by the following figure:



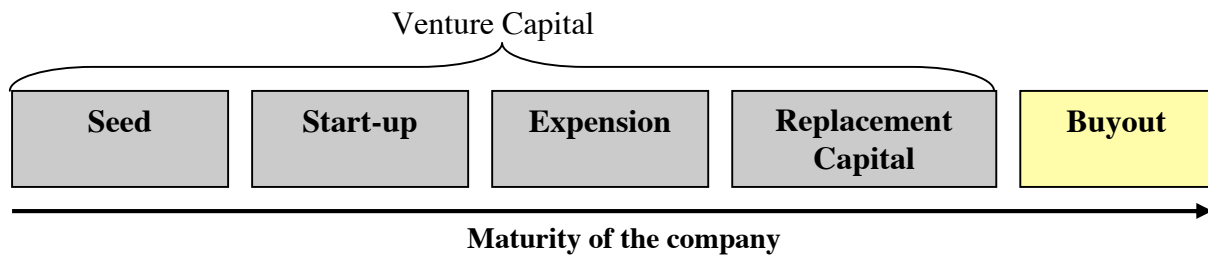
Figur 2: Overview of the definition of private equity

This figure gives a general overview of what the equity market has to offer different type of investor, whom might be e.g. an institute or a private investor.

Public stock or Public Equity as it can be referred to, is namely just the opposite of private equity. The public investments that are taking place are in e.g. the stock exchange where the private equity is investments on the private companies not traded on the stock exchange.

The private equity investment is typically a transformational, value-added, active investment strategy and for that reason it requires highly specialized competence by the investment manager, which among others areas is a key due diligence area for investors assessment of a fund management team (Loos, 2005). For the process of buyout and venture investing requires different assessments of their skills as they focus on the different stages of the company’s life cycle. According to Loos (2005) private equity is often divided into five broad categories, as this figure will show:

¹ European Private Equity & Venture Capital Association, represents the European private equity-sector and its members active in that market.



Figur 3: Areas of Private Equity Investment (Loos, 2005)

In this paper as we have mentioned our focus will be on the buyout side of private equity. But first we will give a general understanding of Venture Capital, which is the other type of private equity investment that is also common business in this area. That is because it's important to be able to clarify the differences between venture capital and buyout processes.

3.2. Venture Capitalist characteristics

(Higgins, 2004)The venture capitalists of corporate finance are of the riskiest type of investment alternative one can do. They are the one, which makes high-risk, high-return investments in the new or early stage companies that they would see are capable of growing rapidly into sizable enterprises. One reason is to say is that there often is a lack of historical information on the company in question. The case may also be that if it is new products that does not exist on the market it would be extremely difficult to predict the success of that product.

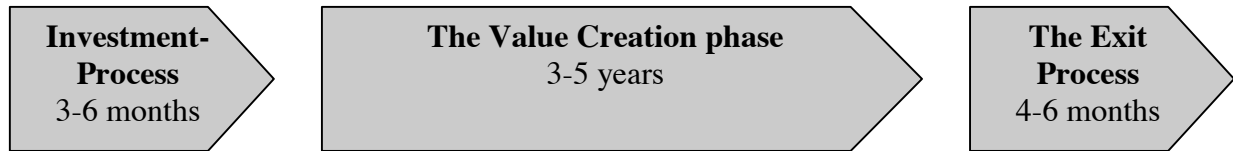
(SVCA², 2006)Venture capitalists focus on companies that have a:

- *Innovative & unique ideas*
- *A strong team whit competence of the industries*
- *High growth potential*
- *Engage in a growing international market*
- *High opportunities for profit*
- *Possibilities for exit*

3.3. The Venture Capital Process

(Higgins, 2004)A typical investment horizon for venture capitalists is typically 3-5 years, after which they will exit through IPO or selling out to a competitor. The typical Venture Capital process can be illustrated according to the following figure

² Swedish Private Equity & Venture Capital Association, represents the Swedish private equity-sector and its members active in that market.



Figur 4: The Value creation Process for venture capitalists (SVCA, 2006)

(Higgins, 2004)The way venture capitalists manage risk is typically by making stage investments, in which the company in question must meet a stated stage before enabling them to continue on to the next stage of financing.

This was just a general categorization of what venture capital is about and how it works in brief terms. The focus further on will be on the buyout side of private equity.

3.4. The buyout classification of private equity

A Leverage buy-out (LBO) can be defined as a transaction in which a group of private investors, usually the management are included, purchases a significant and controlling equity stake in a public or non-public companies or company division, using significant debt financing, which is raised by borrowing against the assets and/or cash flows of the target firm taken private, according to Loos (2005). Since the evolution of the LBO as a common form of takeover of public or private enterprises in the 1980s, several companies, hereafter referred to as *LBO firms* (or: leveraged buyout firms/funds, Private Equity firms/funds, financial sponsors or General Partners (GPs), GP firm, LBO association) Loos (2005), focused on making this kind of investment with capital, which is raised in the private equity market. However there are a group of different investors that can consist of any combination of a leveraged buyout firm, management or a corporation.

The different styles of investment firms in buyouts can vary widely, in the sense of ranging from *growth* to *value* and *early* to *late stage* strategy. The financing expansions through multiple acquisitions are often referred to as a buy and build strategy (Loos, 2005). Furthermore, buyout funds may take either an active role or a passive management role. Some important characteristic of buyouts are that, buyout investors ordinarily tend to invest in more mature companies with established business plans to finance expansions, consolidations³, turnarounds⁴ and sales, or spinouts⁵ of divisions or subsidiaries. The ideal LBO candidate is most often characterized by strong, non-cyclical and stable cash flows with a lot of unused borrowing capacity. The firms' service or product is preferably well established, with minimal requirements for capital expenditure, R&D⁶, or an aggressive marketing campaign Loos (2005). This means also on the other hand that, firm's experiencing high growth and/or rapid technological change are not attractive LBO candidates, since of the operating demands on cash and uncertain revenues. For the labour relations of the ideal LBO candidate are favourable and the regulatory environment is stable to assure consistent cash flows.

³ The purchase of relatively smaller companies in a sector by a rapidly growing company in the same sector. The strategy is to create economies of scale.

⁴ A process resulting in a substantial increase in a company's revenues, profits and reputation.

⁵ A division of an established company that becomes an independent entity.

⁶ Stands for research and development.

From Loos (2005) one can summarize the key characteristics of an ideal LBO candidate with the following table:

	Financial	Business
Criteria	<ul style="list-style-type: none"> • A history of demonstrated profitability and the ability to maintain above average profit margins • Strong, predictable cash flows to service the financing costs related to the acquisition • Readily separable assets or businesses which could be available for sale, if necessary 	<ul style="list-style-type: none"> • A strong management team • Products with well known brand names and strong market position • Status as a low cost producer within an industry, thereby creating the competitive advantage • Potential for real growth in the future • Not subject to prolonged cyclical swings in profitability • Products which are not subject to rapid technological change

Tabell 4: Characteristics of the Ideal LBO Candidate (Loos, 2005)

An LBO does also have effect on the governance structure of the acquired company, since the LBO firm has a large part of the control of the equity and they can also then have a closer control of the company's management. While traditionally large companies are typically public corporations with a professional management and LBO firms are private partnership as an organization. LBO firms act also as intermediaries between shareholders (essentially the investors in the LBO funds) and the management teams of the LBO funds individual portfolio companies. Also the incentive structure for the LBO fund managers is indeed also an important factor that needs to be considered, since it such that there is almost complete incentive alignment between them and the owners (Loos, 2005).

3.4.1. Different Types of Buyouts

There exist several different types of buyout strategies that a private equity firm can engage in. The biggest differences between them are if the management is active in the buyout process or not. The biggest similarities between them are that all of these buyouts are engaged in high leverage financing. The following table will distinguish in general the different types of leverage buyouts from an ownership and market perspective.

Form	Characteristics	Ownership
A Management Buy-Out (MBO)	Includes the current management team, seeking advice and financing from outside investors to acquire the company, generally with a LBO firm.	Change: LBO
B Management Buy-In (MBI)	Includes an external management team, seeking advice and financing from investors to acquire the company, generally with a LBO firm.	Change: LBO
C Public to Private (P-to-P)	Involves a LBO firm (and/or MBO/MBI), making a tender offer for shares of a public company, taking it private.	Change: LBO
D Private to private	Involves a LBO firm (and/or MBO/MBI), buying a controlling stake in a private company, often a family firm.	Change: LBO
E Divisional Spin-off	Involves a LBO firm (and/or MBO/MBI), Buying a division of a private or public company, running it as an individual business.	Change: LBO
F Internal LBO	There are several types of internal LBOs that can be explained: Internal Carve-Out, leaving ownership of division with parent company. Leveraged Partial Public Offering, offering part of the company on the public market. Corporate Management Buy-Out, with parent company retaining majority control. Joint Venture LBO, separation from parent, but parent company retains significant minority stake.	Generally no significant change: No LBO
G Leveraged Recapitalization	It generally involves a public company, which leverages itself in combination of a employee equity participation program in order to strengthen the incentive to maximize the company's performance.	No significant change: No LBO
H Secondary Buy-Out	A buyout investment is purchased in a transaction involving two LBO firms.	Change: LBO

Tabell 5: Different forms of Leveraged Buyout Transactions Classification

3.5. The Leverage Buyout Process

The LBO process starts at a target selection phase, for which the LBO firm evaluates the market for potential candidates meeting the criteria's set for a successful LBO candidate, as we summarized in table 4. There should also be potential for the value creation in the company in question, so that it could meet the high levels of internal rate of return (IIR) that LBO fund investors demand from the buyouts⁷. In the initial phase the majority of the transactions are privately negotiated, where the deals then need to be treated as highly

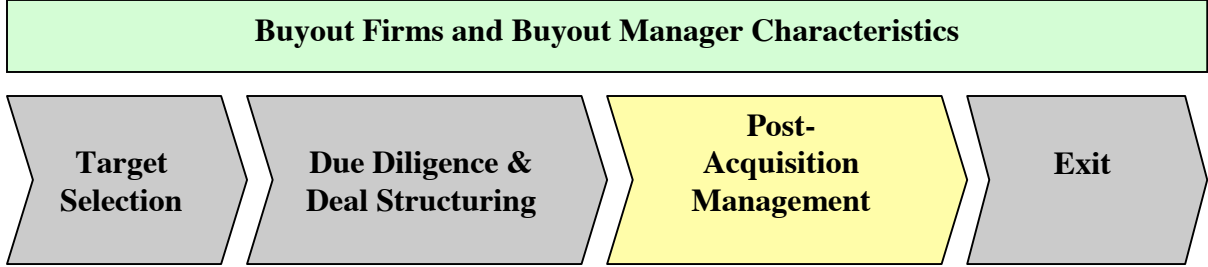
⁷ In general it should be between 20-30% IIR which represents the expected return from investors, but LBO firms general manage expectations and promises much less, but on the other side LBO firms generally target a 25-35% IIR (Loos, 2005).

confidential in order to avoid attention from competitors. This also means that for LBO firms to be able to early identify potential objectives it is vital for them to rely on superior contacts and industry knowledge.

It is also important to note according to Loos (2005) that unlike strategic acquirers, LBO firms typically do not spend time on aspects like strategic fitting their potential buyout candidates in to their existing portfolio of companies. There are many LBO firms with similar basic criteria’s for takeover candidates (mature industries, stable cash flows, low operational risk), but some of them are able to differentiate themselves from their competitors through a specialization strategy. This can be done by going in to companies with different size e.g. (small-caps or mid-caps), geography, industry and level of acceptable technological risk.

Then when a suitable target company has been identified, then the LBO firms next phase will be a potentially more lengthening process of “Due Diligence⁸” and “Deal Structuring”, under which a detailed business plan for proposed buyout candidate will be conducted. This, which will be presented by the target company’s management team, which is being developed, and the financial details of the transaction are negotiated with the current owner. Since more and more LBO firms enter into the market to compete for the limited number of possible takeover targets, now the typical acquisition mode is close related to an auction, for which several LBO firms submit their bids for a given takeover candidate. These bids include the proposed price and also a detailed financial package which include outlined levels and the conditions of the debt financing, information about debt service requirements and financial covenants as well as the regarding of management co-ownership and incentive plans (Loos, 2005).

The following table will give a general overview of how the buyout process is conducted:



Figur 5: Overview of the Buyout Process (Loss, 2005)

When the LBO firm buys a company, the acquired company becomes one of the LBO firms portfolio companies. Then this step can be said to be the value creation phase of the buyout process, which also to mention is the longest phase in the buyout process. Here the LBO firm quickly exercises its newly gained influence on managerial decisions of the buyout target (Loos, 2005). In this post-buyout phase the LBO firm has an important role of determining how the financial management of their portfolio should look going forward. The LBO firm introduce cost savings and active management of both side of the balance sheet, they also shift the financial focus from earnings to cash flows and helps the acquired companies management in their negotiations with its lenders (Smith, 1990). An LBO firm commonly limits their influence in the acquired company on the level of the operational management.

⁸ The investigatory process performed by investors to assess the viability of a potential investment and the accuracy of the information provided by the target company.

However some LBO firms have learned how to get involved in the strategic or operational management of their portfolio company. Then they both work together on issues like marketing, production, or the forgoing on strategic alliances (Loos, 2005).

The typical LBO is planned as an investment with a limited time horizon of three to five years. According to a research Butler (2001) did, where he studied 200 public-to-private chemical buyouts, he found that less than one third of the purchasers exited within five years, with an average exit time of 4.4 years between 1980 and 2000. When the LBO firm is going to conduct an exit from its portfolio company, it will then take place either in the form of an IPO⁹, a trade sale of the portfolio company to a strategic buyer or as a re-leverage and secondary buyout by some other financial investor. However in case of an unsuccessful investment, bankruptcy may then be taken as an exit alternative.

⁹ IPO stands for Initial Public Offering, where the company usually are sold/placed on the stock exchange.

3.6. The impact of Leverage on the firm

What is the point of leveraging the firm? Are there more advantages with debt than the leverage effect you get on your equity?

To answer these questions one must understand the fundamentals of Corporate Finance.

3.6.1. Tax advantages

The biggest advantage with debt versus equity is that debt is tax deductible. The interest payments decrease the corporate income tax, which in turn increases the value of the firm according to Miller and Modigliani's model (Ross, Westerfield and Jaffe, 2005). The M&M theorem¹⁰ states that the value of the levered company is equal to the unlevered company plus the value of the tax shield. The model does not take into account the costs of financial distress.

3.6.2. Effect on management

Another advantage is that debt has a disciplinary effect on management. Managers make wasteful investments with the firm's free cash flow (Jensen 1976). Jensen comes to the conclusion that corporate executives with access to large free cash flows have a "cash life jacket" against mistakes that gives them no incentive to be effective in the choice of investments. Making investment by borrowing money creates commitments to make interest and principal payments, which forces the management to be more careful with cash. Thus debt decreases agency costs.

There is evidence that increases in leverage are followed by improvements in operating efficiency, as measured by operating margins and ROC (Damodaran 2001). Kaplan (1989) and Smith (1990) find that firms earn higher ROC following Leveraged buyouts. Denis and Denis (1993) present direct evidence on improvements in operating performance after leveraged recapitalizations. Much of the improvements in EBIT and ROC seem to come from slashing unproductive CAPEX (Damodaran 2001)

3.6.3. Financial Distress

Debt also has disadvantages, which as mentioned earlier are commitments to make interest and principal payments. Lenders have the capacity to force a company into bankruptcy if they don't receive their interest payments. That is an opportunity Equity holders do not have, the company is not obliged to pay out dividends. Hence increased leverage increases the probability of bankruptcy. High debt ratios also create a loss of flexibility. The more the firm leverages it self, the more the lenders will put on covenants and restrictions what the firm can do with its cash. Example of bank covenants in LBO can be that the bank demands certain amounts of assets to be sold off within the first year. It also becomes more expensive to

¹⁰ See Miller and Modigliani theorem from June 1958

borrow money as the firm's credit rating drops. Firms can also experience costs of financial distress, which means that customers and suppliers may choose not to do business with the company because of its unfavorable financial situation.

4. Pre-Buyout phase

The pre-investment phase in the LBO cycle is where all the analyzing and structuring of a potential deal happens. It is very important to do a good job before an investment, it is the first step in the LBO process and the quality of the analysis and deal structure will reflect the return on the deal.

4.1. Searching for prospective buyout candidates

One can divide the post investment analysis into two parts; screening the markets for targets and the more intense analysis of the companies that made the first cut (Due Diligence). The purpose with the market screening is to create a short list of LBO candidates.

4.1.1. *Potential sellers*

Previous in the thesis the authors shortly described the common characteristics of an LBO candidate, but before continuing discussing the search process one must first define the sellers of the companies that are attractive to buyouts. Who are they and what reason is there to sell the company? According to (Greve, 1984) the sellers can be categorized into four major groups:

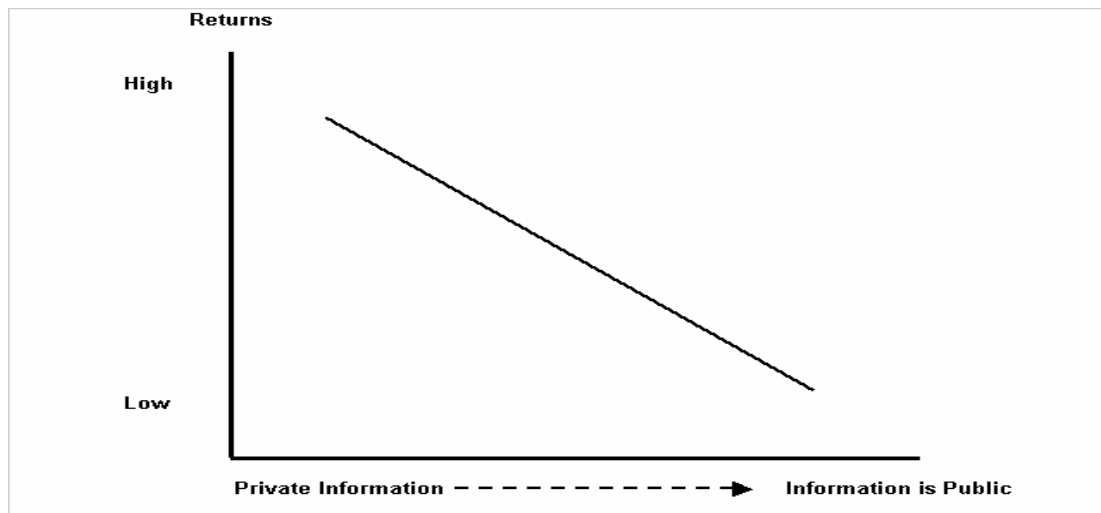
- **Private Sellers.** These are sellers of privately held companies, usually an entrepreneur who wants to cash in or the next generation in the family does not want to take over the business. This group sometimes invites buyers to an auction where the company is sold. The purpose of using auctions is of course for the seller to get the highest price.
- **Corporate Sellers:** Larger corporations that want to divest subsidiaries or a division. This group also sometimes uses auctions to get the highest price.
- **Public shareholders:** Are usually approached by PE groups through a public tender offer.
- **Institutional investors:** Similar to public shareholders but may have different motives for selling.

Analyzing the seller's future plans is just as important as analyzing the company itself. Screening the market for companies also include finding out whether the company's stock is in play, because there is no point in wasting time and effort on a company when the seller is not prepared to sell to a LBO firm.

4.1.2. *Information gathering*

When searching for possible buyout candidates you want to have access to the best information. The purpose with a search process is to generate a flow of information, that later can be filtered and categorized using different criteria's (Bruner, 2004). Information about prospective targets is found in equity research reports, company databases and public annual reports. Though there are shortcuts and hints in the jungle of information. Social Networks play a very important role in finding the right target company and Private Equity firms usually

have solid social network at their service that make the search process easier. Valuation is very time consuming and despite the help of consultants the PE firm can only value the really interesting deal opportunities. Information one receives through contacts often gives you insights you don't get with public information. The more private information you can get the better the chances are for a successful acquisition. Examples of social networking includes meeting people in the industry one is interested in, attending industry trade shows and keep contact with people that you have done business with before.



Figur 6: The Relation between information and returns. (Source: Bruner 2003)

One of the advantages Private Equity firms have over industrial buyers is that they can act faster on information and are professional buyers of companies. Private Equity firms staff often consist of people with background in the Investment Banking industry and management consultancies. Flat hierarchies are typical for private equity firms. Three hierarchy levels are distinguished: partner, investment manager and analyst (Degenhard, 2006). By dividing the organization into deal teams the search can be made more effective.

4.1.3. Screening the market

When this channel with a flow of information has been created and a couple of interesting prospective targets have been located, the LBO group's analysts will continue with a deeper analysis. As mentioned earlier, certain business aspects and criteria's are necessary for any acquisition search and analysis. Some of the popular screening criteria's according to Bruner (2004) would include:

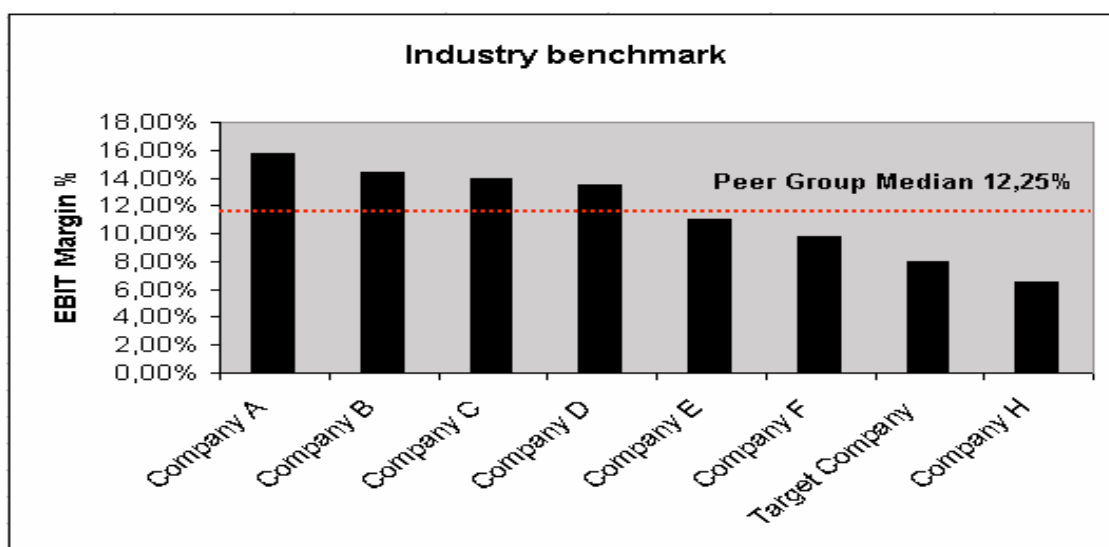
- **Industry and position in it.** That industry and competitor analysis can help illuminate the attractiveness of a firm's position in the industry.
- **Resources and strategic capabilities.** Buy instead of looking at the market position one would instead focus on the capabilities of the resources with in the company, and how it strategically can compete with the market leader.
- **Size of the business: sales or assets.** E.g. how large a firm must be must be to survive and prosper in the field, and the searchers own resources or investment budget.

- **Profitability.** This tests the financial health of the company. For one to see if it generates enough earnings by the criteria that is imposed.
- **Risk exposure.** This could be e.g. environmental liabilities, inflation exposure, and uncertainties about health care expenses for employees and retirees.
- **Asset type.** Meaning they might reject companies that has a lot of intangible assets that are difficult to audit and value (e.g. patents, brand names, and human capital).
- **Management quality.** Where the searchers should have a view of the quality of the management currently in place.
- **Prospective control.** The searcher should have in mind that not all transactions are for sale to 100%

These criteria's complements the buyout characteristics from the theory part in the way of how they are practically conducted. There are specialist searchers that would generate more screening criteria. But still this list can help to eliminate a lot of deals that are unfavorable and reduce time.

4.1.4. Benchmarking

LBO firms look for businesses that have a potential to be more effective and profitable. But how does one detect such potential? Well, one way is to compare the company with its competitors. Benchmarking is an example of an easy tool to get a quick overview of an industry and its players. To get a quick look of the industry underperformers the analyst can benchmark the EBIT or EBITDA margin. The following chart displays that the prospective "target company" has an EBIT margin that is below group median and has an improvement capacity of 4,25%. This gives the LBO firm a certain comfort to continue the analysis and make its first approach to the company and begin due diligence. One should have in mind that at this stage in the target search process, the data being analyzed is mostly public. It is during due diligence the internal company information comes out, on which the final decision on whether to buy the company or not will be based on.



Figur 7: The Industry: Benchmark (own source).

4.2.Approaching the target company

The contact between seller and buyer can be initiated either by the seller or the buyer. But as previously mentioned PE firms uses the help of consultants,” deal makers”, that links up the sellers and buyers. In the world of private equity there is almost always several LBO firms chasing the same target company. There are usually more buyers than sellers, so the competition on clear LBO candidates is very big.

4.3. Due Diligence

The meaning of Due Diligence is to conduct a thorough investigation of the target company. The concept of Due Diligence has many different meanings but in general the purpose is to find out if the company has any skeletons in the closet. In a due diligence the buyer gets access to the target company's internal information. An alternative to due diligence would be that the seller of the target company gives out guarantees to the buyer, saying that the company he is about to buy is healthy and has no skeletons in the closet. But giving out guarantees is very risky for the seller, so due diligence is common procedure.

4.3.1. *The process*

Due Diligence can be conducted in many different ways and split up into different phases. Some professionals and finance literature also includes the analysis of public company information into the concept of Due Diligence. The authors prefer to highlight the intensive part of the Due Diligence. Framework is provided by Bruner, 2004.

4.3.2. *First Proposal*

The intensive phase of due diligence starts when the buyer has located their target company and performed a valuation on it based on public information and the buyers expertise. The buyers make its first approach to the company and form a proposal to acquire it. The purpose with this first proposal phase is for the buyer and target company to start communicating and commence talks, which will lead to the next phase.

4.3.3. *Letter of intent*

The two parties are interested in continuing talks and sign a letter of intent. Letter of intent basically means that the seller agrees to give out private information in return of the buyer's confidentiality. Signing the Letter of intent opens a period of deeper due diligence research, which is oriented at preparing for the deal negotiations and get relevant information for the development of a future business plan¹¹. The buyer also has to assemble enough information on the business so he can effectively dialogue with his lenders and investors, who also keep an eye on the development in the due diligence. The buyer typically delivers a formal request for information that may run into thousands of pages of documents, which require the buyers to take in outside due diligence expertise (Bruner 2004). The seller usually set up a "data room" in which the due diligence materials can be accessed.

¹¹ The strategic plan the investor's use in the post acquisition phase to create value in the company.

4.3.4. *Signing the deal*

When having reached a formal agreement through negotiations, the focus is pointed at viewing target documents, making interviews with the target company key managers and field visits (Bruner, 2004). The aim is to test the accuracy for representations and warranties in the agreement and to prepare the deal structure to the investors (Bruner, 2004).

4.3.5. *Closing the deal*

Final negotiations are running at its peak. The conditions of the contract of sale are set and consideration is exchanged. The deal is closed.

4.3.6. *Documentation of Due Diligence*

The outputs of a standard due diligence process consist of five types of documents (Bruner, 2004).

- Raw data and all the material that has been processed with help of checklists etc.
- Summaries by specialist. Due Diligence consultants compile a report of their work during the Due Diligence Process.
- Diligence Synthesis, a technical overview of the work done. It contains the Specialist summaries and a master index to all the raw data. The synthesis is useful for the negotiators of the deal.
- Integration/Business plan recommendations gives the buyer an understanding of what the opportunities for a value creation plan are. What strategic measures can the new owners take.
- Executive summaries. This summary is produced for the Executives of the acquiring company and is most common among Industrial buyers. The executives in Private Equity firms and other LBO investors usually take part in all the foregoing documents. Simply because of their smaller organizations, divided up into “deal teams”. The Private Equity firm also benefits from shorter decision-making hierarchy.

4.3.7. *What to look for*

There are many aspects to consider when sorting out information in Due Diligence and the time is short. You may only get access to the private information for one day or two. Therefore it is important to be well prepared for the Due diligence. One have to know in detail what to look for, which saves both time and money for the buyer. Industrial buyers might have different focus than LBO investors. Industrial buyers are looking for synergy and need to integrate the target company. Private Equity firms are besides from minimizing uncertainty looking for business information that can be used to create value within the next five years, information that will lay the foundations of the post-investment value creation plan.

The following issues are examples of important areas in Due Diligence.

- Legal
- Accounting
- Tax
- Operations
- Marketing and Sales
- Environmental

These are just examples and the list can be made long. In Operations for example, the buyer might look at which suppliers the company have and are the supplier contracts unfavorable? In accounting the buyers want to if the P&L and balance sheet are right and maybe most important, are the cash flows right. Are there significant differences between the official Annual Report and the figures found in the Due Diligence the buyer might want to drop out of the deal. Due to the financing of LBO it is very important that the assets are valued in a correct manner, because they are going to be used as collateral by the acquirer in an LBO.

The buyer gets access to raw data, which has to be interpreted to the purpose of the buyer's requests. Therefore it is vital for both Industrial and Private Equity investors to use the help of Due Diligence experts who has the experience of due diligences and the right thinking frames for looking through raw data. Due Diligence specialist are usually provided by legal firms, investment banks, audit firms and management consultancies.

4.4. Valuation

This part is intended to show the characteristics of LBO valuation. The authors limit themselves by briefly describing the aspects of high debt ratios in valuing an acquisition.

4.4.1. Valuation of the target company

In any type of merger or acquisition a profound analysis of the target company must be made. The analysis will create the base from which the buyer and seller negotiates the price of the target company. The buyer and the seller make their own valuations of what they think is a reasonable price for the company. It is also custom to ask a third part, usually an Investment Bank, for a fairness valuation on the bid from the buyer.

4.4.2. Operational analysis

When an LBO buyer has found a possible target company a more detailed analysis begins. The buyer must have a very good understanding of how the company operates and the nature of its business. As previously mentioned LBO candidates have certain characteristics, which are all cash flow related. Increasing the Cash Flow is one of the objectives with LBO's, because that will increase the value of the company. To get a better understanding of the company one breaks it down in divisions, geographical operations, or business areas and studies it in detail. Then rebuilds the P&L, Cash Flow and Balance Sheet statement for the whole company. The purpose with scrutiny is to see where the cash flow is generated. When forecasting the cash flows of the business the first step is to translate the business plan of the company into a set of pro-forma financial statements and from there derive the future cash flows.

Cash Flow

	EBIT
+	Depreciation
±	Change in Net Working Capital
-	Capex
-	Tax
=	Free Cash Flow

There are two basic concepts in valuing a company for an LBO, the Discounted Cash Flow (DCF) model and Relative valuation (Multiples).

4.4.3. DCF

There are many variations of DCF valuation, but the basic principles are that one discounts the estimated free cash flows of the firm with the company's cost of capital. In a typical DCF model there is a prognosis period of five years where the company's free cash flows are estimated and discounted to present value using the company's weighted average cost of capital (WACC). After the five-year prognosis period one adds the residual value of the company to the five-year cash flows. The continuing value is the firm's value in perpetuity that has a growth in line with rest of the industry.

4.4.4. APV

When valuing for a possible LBO one has to adjust the discounted cash flows to the significant increase in leverage. Leveraged Buyouts and some recapitalizations result in temporary high levels of debt. Usually in an LBO the Debt to Equity ratio increases the first year and then decreases, as the cash flows are used to amortize the senior debt. Thus as the capital structure changes so must the cost of capital which is used as discount factor of the free cash flows. Free cash flows can be discounted using a WACC based upon the target debt ratio (Arzac, 2004), but there are easier ways to deal with changing capital structure in valuation.

There are several approaches to adjust the DCF model to value an highly levered transaction, but the authors will stick to describing one of the most common and basic methods used, the Adjusted Present Value (APV) model. The APV model is suitable for LBO valuation because the amount of debt in the LBO is usually predetermined and carefully analyzed with debt schedules for amortizations and the different interest expenses for the often complex financing of the transaction. The APV model divides the cash flows into more easily valued components such that the value of the firm is made up of the value of the firm without debt plus the value of its tax shield (Arzac, 2004). Thus the APV states that the maximum value of the levered company is equal to the value of the all equity firm plus the present value of its tax shield. The unlevered cash flows are discounted at the unlevered cost of equity and the Tax shield is discounted at the cost of debt. The tax shield is the value of the tax deduction the company gets and is computed by multiplying the interest payments with the tax rate.

$$\begin{aligned} V_L &= V_U + P V T S \\ &= \sum_{t=1}^{\infty} \frac{U C F_t}{(1 - r_0)^t} + \sum_{t=1}^{\infty} \frac{T_C r_B B_{t-1}}{(1 - r_B)^t} \end{aligned}$$

Formula 1: Adjusted Present Value (APV)

4.4.5. Relative Valuation

In relative valuation one compares the key financial ratios of the company being valued, with the ratios on companies in the same industry. Examples of these ratios are Price to Earnings (P/E) and Price to Book Value (P/BV) or Price to Sales (P/S). Thus one divides the stock price of the company with for example the net earnings per share, which gives us an estimate that the company is worth X times the net profit. The advantage with relative valuation is that it is easy to use and benchmark with. The big disadvantage is that ratios like P/E and P/S are dependent on accounting regulations and can vary, depending on what accounting methods the company is using. Especially comparing P/E ratios on companies in different countries is unreliable.

4.4.5.1. Multiples

Although relative valuation has its pitfalls it serves as a useful complement to Cash Flow valuation. A frequently used multiple in the LBO industry is EBITDA multiples. EBITDA stands for Earnings Before Interest, Taxes, Depreciation and Amortization. Why use EBITDA and not EBIT or net profit? The answer to that question is that EBITDA is also roughly an expression for gross Cash Flow and EBITDA multiples are sometimes referred to as cash flow multiples (Arzac, 2004). The EBITDA multiple is computed dividing the value of the enterprise (target company) by EBITDA (Arzac 2004). There are also forward multiples which are obtained by dividing future estimated enterprise value of the company by the future estimated EBITDA. Using EBITDA multiple to calculate the company's residual value is an alternative way to using Gordon's formula.

4.4.6. Affordable Price

The price an LBO investor is willing to pay for a company mainly depends on two aspects.

- The return the investors require on their invested capital, return on equity.
- The target company's debt capacity.

The price a private equity company can afford to pay is the target company's debt capacity plus the present value of its exit equity.

4.4.7. Debt Capacity

The target company's debt capacity is an estimation of how much money the company can borrow on the basis of future estimated cash flows, and at the same time be able to amortize senior debt and pay interest on both senior and subordinated debt. The use of debt capacity determines how much is left to equity holders at exit time. Debt capacity can be expressed as a multiple of EBITDA that makes it easier to compare the financing of the LBO with the Enterprise value of the transaction. For example a PE firm buys company X for 4 times

EBITDA of which 3 times EBITDA is Debt, and then sell it 5 years later for 6 times EBITDA.

4.4.8. The discount rate in Private Equity

The return the investors demand in an LBO is high compared to the demand for return in highly levered public companies. Private Equity firms usually require returns about 20% (Arzac, 2004). This high demand of return is justified by the risky nature of these highly levered transactions. Another factor explaining the required returns are illiquidity of Private Equity investments. On the stock market investors can realize their profits or losses in a matter of minutes. In a Leveraged Buyout the PE firm holds the acquired company in their portfolio for several years but they do not receive any dividend during the holding period, they receive their return when exiting the company. This illiquidity requires compensation and can be expressed as an illiquidity discount on the value of private companies (Arzac, 2004).

4.5. Financing and structuring the deal

4.5.1. *The financial structure of the deal*

There are two major events that are unique for leverage buyouts. These events occur during the life of the target company and takes place simultaneously, they are: a transfer of ownership and a major recapitalization. This recapitalization process involves outside financing sources, which then also makes the whole process more complex than a corporate acquisition. Then for the later case, this process is just an exchange of cash between a buyer and a seller. It is usually one of the buyout firm's own financial statements that need to be considered if they must raise capital to finance the acquisition. The leverage that will be taken (if any) in a typical corporate acquisition will show up in the balance sheet of the buying corporation. In a LBO transaction the debt can be placed either on the target company or in a holding company formed by the LBO firm. This change in the capital structure in the target company from a usually clean balance sheet to a heavy debt one will not only result in a new financial structure company's management and operations.

4.5.2. *The three Layers of financing*

To better understand the financial structure of a leverage buyout deal, the structure is illustrated as three horizontal layers on the balance sheet, and each layer represents each own class of participation.

Type of Financing	Investors
Senior Debt	A
	B
Subordinated Debt (Mezzanine)	C
	D
Preferred stock	E
	F
Equity	G
	Management

Tabell 6: The Three Layers of Financing

Within these layers of financing there may be several more sub-layers of further refinancing with different degrees of risk associated with different loans and investments. For the structuring of the buyout transaction, each of those involved in the financing will chose there own part of the layer that best suites there risk and return criteria. These investors also have requirements for their participation in financing the deal. They include; current yield expectations, security interests, priority calls on assets in case of liquidation and existing or future conversion rights to equity ownership.

During the recent years there have been major changes in the layers on the investor's side from the traditional approach to financial structure. First, the trend towards larger transactions

has required more institutional investors to participate in the financing of any given deal. Which also resulted in a more complex structure. Secondly, insurance companies and pension funds are more willing to take greater risk. So the distinction between subordinated lender and equity investors has been less clear. To successfully structure a deal, the buyer must be thoroughly familiar with the requirements of all the players (J. Terrence Greve, 1990).

4.5.3. *Characteristics of the Players*

From above we know that in an LBO there are several players involved in the deal. Also that each of them has specific needs and requirements that must be satisfied or the deal will not come together. So the deal must be structured from a financial and legal standpoint in a way that satisfies the various needs and requirements of all the players.

4.5.4. *The buyer characteristics*

The background of the buyer may be different in each deal. It might be an outside investor, an entrepreneur, incumbent management, or any combination of these. Regardless of who it is, they want to structure the deal in a way that will maximize ownership interest, and also to minimize the equity dilution¹² for the financial selection transaction. Generally all buyouts are financed from one or several of the following sources:

- *The financial resources of the buyer*
- *Funds borrowed from third party lenders*
- *Purchase money notes from the seller*
- *Equity capital provided by outside private or institutional investors*

The best way for the LBO investors to minimize dilution is to borrow from lenders that do not require equity participation. This group includes senior lenders and seller (J. Terrence Greve, 1990). The degree of dilution for the buyer's equity will depend on a number of different factors including price, financial resources, the financial characteristics of the deal, and the willingness of the seller to be involved as a lender. If they want to minimize the equity dilution then they should focus on using debt financing from senior lenders and/or the seller and personal financing recourses in forming a suitable financial structure.

4.5.5. *The Seller characteristics*

The seller is usually interested in getting paid quickly and in cash. There is also common that in some cases even the seller may be forced to participate as a lender if he wants to complete the transaction. (J. Terrence Greve, 1990) this happens e.g. when:

¹² the reduction in the ownership percentage of current investors, founders and employees caused by the issuance of new shares to new investors.

- *The company may be too small to attract institutional equity investor interest,*
- *The asset base is difficult to finance,*
- *The price is too high, or*
- *The company has operating problems*

Because of these reasons, the seller would have good reasons to be concerned with the prospect of future cash flows to meet the operational needs of the company and to repay the incurred debt.

4.5.6. Senior Lenders

The senior lender can be in either a secured or unsecured position against the company's asset. The major differences between these two approaches are that it centres on the relative importance and value of the collateral of the target company and the cash flow of the target company. But otherwise the major objective for senior lenders is to make a competitive return on the exposed funds and be sore to have the first claim on the company's assets or cash flow in the event of problems in the target company.

4.5.7. Subordinated Lenders

The characteristic of the subordinated lender is that, these lenders are usually willing to take on more risks on the return for which they require equity participation. The objective is to maintain balance between risk and return. Subordinated lenders may usually also charge a lower and fixed rate on debt securities. They are also relaxed then the senior lenders for the reason that they hold longer term notes.

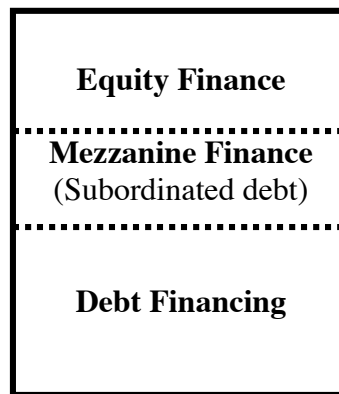
4.5.8. Equity Investors

Equity investors are involved if recourses from the current players are not sufficient, then it will be necessary to involve outside equity investors to complete the transaction. These equity investors can include private investors or institutional investors such as venture capital firms and insurance companies. Equity investor's objective is to get a high rate of return on investment. They will also focus on the importance of cash flows as well as the ability of the company to increase the value over a period of five to ten years through amortization its LBO debt, the capitalization of the increasing income streams, or both (J. Terrence Greve, 1990).

4.5.9. Another type of financing for LBOs

4.5.9.1. Mezzanine Financing

Mezzanine capital is difficult to classify since the differences between equity and debt is not defined as clearly so it may seem as a mixture of both debt and equity. The reason for using mezzanine financing is to fill up a gap in between equity and senior debt since this may not always be sufficient enough to cover the total cost (www.bofabusinesscapital.com, 2006). It can also be visualised by the following figure:



Figur 8: Structure of Mezzanine Financing

Mezzanine financing is, as we will see an important and common thing in LBOs. In many cases it's common that banks and other financiers, doesn't want to contribute with more money when the debt/equity is as large. Then the company in question will have the advantage with mezzanine financing, for which the senior debtors doesn't want to contribute with more funding or the management don't want to issue more equity. (J. Terrence Greve, 1990) Mezzanine will also have a increased advantage when the capital market with high returns has low liquidity. Then the financing that no longer can be obtained at the capital market will then be obtained by mezzanine in the form of e.g. mezzanine fund or insurance companies (Arzac, 2005).

Mezzanine debt has also the lowest priority form the different type of financing. Those that are the holders of the mezzanine debt will obtain a return in the form of interest payments and eventually the possibility to convert into equity. Mezzanine financing has a much higher interest that needs to be paid compared to traditional bank loans, which means that mezzanine will give the investors the possibility to gain around 20% return. This means also that mezzanine financing is the most expensive form of capital loan that one can take (J. Terrence Greve, 1990).

The repayment of mezzanine is often conducted in the later segment of debt repayment, which is pre determined with a repayment plan. This is just like for the senior debt repayment. But the different here is that the repayment will be conducted after all senior debt has been repaid. This also means that the mezzanine financiers will not start receiving back the capital until several years, so it has lowest priority.

4.5.10. *Financing multiples*

In LBOs the way to express the financing is in the way of debt to EBITDA. In small transactions it is common to express the financial structure to contain about 5 times EBITDA of debt and about 1,5 times EBITDA of equity for a purchase price of 6,5 EBITDA. But for a high-yield market its common to have multiples between 2,5 and 3 times EBITDA, and equity of about 1,5 EBITDA, for a purchase price between 7 and 6 times EBITDA (Arzac, 2005).. This will make it easier to compare the price of the transaction and the borrowing for the transaction, or generally having some kind of benchmarking to other deals and transactions.

The following table will give a general understanding of how the funds raised in a deal are spent.

Sources and uses of funds

Sources	(\$ millions)	Uses	
Senior Debt	154	Purchase price	554
Subordinated debt	286	Cash	2
Equity	131	Transaction costs	15
TOTAL	571	TOTAL	571

Tabell 7: Financial Allocation of the Buyout.

4.5.11. *Effects of Debt Financing*

Capital structuring with help of borrowed capital has both its advantages and disadvantages, and it creates unique opportunities as well as serious restrictions for the company and its investors. For the following part, we will discuss important aspects in the financing part of an LBO and positive and negative aspects will be presented.

(Arzac, 2005) When the cost of debt becomes as high as a pure equity investment, then there should be a reason to doubt the differences that is between leverage and equity. Why then should one use leverage when it brings the same cost of debt as equity financing does in practise? But there still exist important reasons why one should use leverage to an extended level for financing a buyout.

4.5.11.1. **Advantages with Leverage financing**

Arzac, (2005) describes the advantages of leverage from a tax reduction perspective. Debt will give accounting advantages in the sense of writing down the cost of debt tanks to the cost of interest from debt, which will decrease the company's annual tax payments. According to

Miller & Modigliani, taxes are typical in imperfect markets. According to these different theories, imperfections on markets are the reasons why businesses have different capital structures. Without these imperfections in markets the capital structure would not have any effect on the company's value.

Tax reduction is probably the most obvious cause for an LBO since it gives a direct positive effect. Although tax reduction is an important factor for value creation in LBO, it's still not enough to explain the total value increase.

As we pointed out the possibilities of tax reductions is probably the most common aspect of LBOs. But still it is important to point out that all companies can't to the full extent use this tax reduction possibility. According to Brealy & Myers (2003) it is important to look at the fact that not all businesses will profit or even make a profit during the future years in the analysis. This means that our strongest argument for high leverage in LBO has worsened.

Bierman (2003) describes, aside from the possible tax reduction, other advantages with leverage financing. They mean that the nominal cost of debt is lower than what today's cost of equity is. This means that the expected return on equity can increase with help of leverage. When the equity investors carry a higher financial risk, then the financial leverage will increase as well for the investor's own capital. Bierman (2003) has also listed a couple of other advantages as well with leveraged financing, they are:

- Financial leverage will reduce the process of completing a deal, which makes it possible to for several more acquisitions can be conducted
- Fast borrowing possibilities from banks
- The borrower can give the impression of optimism for the future
- The return on capital can, will increase faster if the company earns more than what the cost of debt is.

4.5.11.2. Disadvantages with Leverage financing

If an LBO has a higher leverage than what would be optimal for the company, which is not really uncommon. This means that the company must relatively fast pay off the amortization to be able to decrease its cost of capital and the risk for having unpaid debt.

According to Bierman (2003) there are several factors restricting the company from the possibilities of using debt instead of equity financing. One disadvantage with borrowed capital is the risk for insolvency and eventual bankruptcy, which means a higher risk for the equity holders. The company will experience costs of financial distress. The company can also lose the flexibility and have difficulties in making new investment because of the high level of debt that is taken. The repayment of high amount of debt may decrease the growth rate of the company's organic structure (Bierman, 2003).

4.5.12. *The determinants of financial structure*

The financial structure should reflect the best balance of the needs, objectives, and circumstances of all the parties for the transaction. This is made through negotiations between the players, which is conducted when the process of financing the deal is in motion. According to J. Terrence Greve (1990) there are also other important factor that needs to be considered for it to be the ultimate financial structure and this are:

- *The size of the deal*
- *The role of investor*
- *The quality of the asset base*
- *The relationship of Price to Book Value*
- *The managements track record*
- *The seller motivation*

4.5.13. *How should one determine the correct financial structure?*

Well it maybe not as easy to say that straightforward since there is no right or best financial structure that can be applied to all buyout transactions. Each deal is different and has its own unique set of circumstances and players. Therefore the “best” financial structure is the one that will satisfy all participants involved in each unique case.

But we can show with the following figure how a suitable financial transaction structure looks in general for most type of LBO transactions:

Financing type	% of Borrowing	Cost of Capital	Lending Variables	Sources
Senior debt	50–60%	7-10%	<ul style="list-style-type: none"> • 5-7 years payback • 2.0x-3.0x EBITDA • 2.0x interest coverage 	<ul style="list-style-type: none"> • Comercial Banks • Credit companies • Insurance companies
Mezzanine Financing	20-30%	10-20%	<ul style="list-style-type: none"> • 7-10 years payback • 1.0x-2.0x EBITDA 	<ul style="list-style-type: none"> • Public Market • Insurance companies • LBO/Mezzanine Funds
Equity	20-30%	25-45%	<ul style="list-style-type: none"> • 4-6 year exit strategy 	<ul style="list-style-type: none"> • Management • LBO funds • Subordinated debt holders • Investment banks

Tabell 8: A general Transaction Structure

5. Post-buyout phase

When the deal is closed the hard work begins. Over the next 3-5 years the LBO firm will first need to decrease the target company's mountain of debt and second, simultaneously with the amortizations increase the value of the company through operational improvements. The first is a bit of an irony because in the pre-buyout phase the LBO firm has used its creativity to lever the target company to the hilt and when the deal is closed they spend time and energy to quickly repay the senior debt.

The post-buyout phase is the most crucial. This is where the best LBO practitioners differentiate themselves from the amateurs. Anyone can raise debt and get the deal with paying a high price for the company. Achieving operational improvements requires entrepreneurial and management skills and is a handicraft. As the LBO market grows more competitive there are no bargains to be made just by using financial engineering and cutting cost in the companies. The LBO firm who wants to make fair returns on their investment have to use the whole knowledge and talent spectrum to increase the value of the company. This raises a question; LBO firms buy companies that they think they can run better than the present management, but how is that LBO firms and its partners who usually have no industry experience can achieve better results than executives with industry background?

The authors do not intend to give a complete answer to the question, but the authors will provide a description of how the LBO firms function and the strategies they use to create value in the target companies.

5.1. The organization behind a Leveraged buyout

Conducting a LBO requires expertise knowledge and resources to analyze and monitor the target company through the pre-buyout analyses, post-buyout value creation period and the exit.

5.1.1. Comparisons with other forms of organizations

The private equity firm can be compared to several forms of organizational headquarters (Baker and Smith 1998).

The classic corporate headquarters can administer a large number of diverse businesses, each of which might be organized as a subsidiary, business unit or unincorporated division (Baker and Smith 1998). These businesses might be related in synergy effects or strategic importance for the corporation, but remain distinct in their day-to-day operations. The responsibility for the management of these operations is delegated to business unit managers and head of divisions. This leaves the top executives of the corporation to focus on the big picture, that means working with strategy and investment decisions.

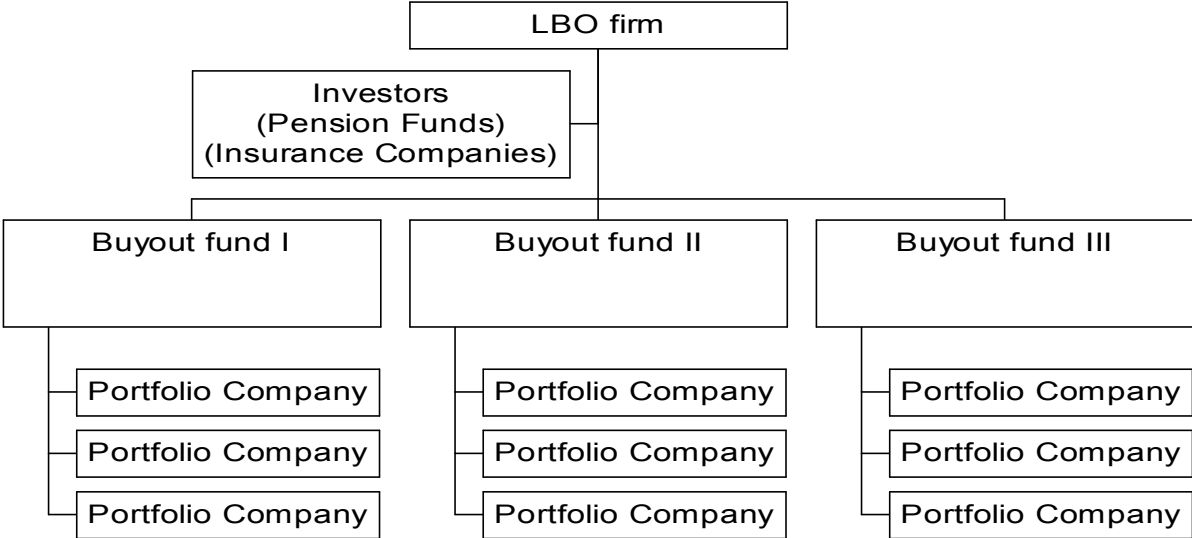
There is an irony of the organization characteristics of the LBO firms. They look a bit like the industrial conglomerates in the 80s, the same conglomerates the LBO firms bought and split up into pieces. The conglomerate headquarters in its purest form look much like a holding company (Baker and Smith, 1998). Making acquisitions of unrelated business, providing

finance functions for the subsidiaries and monitoring the performance of the operations within the conglomerate. In other words keeping an oversight of the empire.

The LBO firm is neither a holding company or a finance conglomerate, its legal form, capital structure and function separates it from other financial institutions and corporate headquarters. The LBO firm is a set of limited partnerships organized as equity funds (Baker and Smith, 1998). The equity funds have limited lives and at the end of a fund, the investment is realized and the capital is returned to its investors. When the LBO firm is about to make a new buyout, it creates a new fund were outside capital is raised. The organization above the different funds remains the same, as shown in figure 9 (A typical LBO firm organization).

The LBO firm usually stands for 1% of the capital in the equity funds (buyout funds), and the investors put in the remaining 99%. The LBO firm functions as managers of the funds and the investors remain passive and cannot exit the funds for a certain period. The equity funds are then leveraged with debt and the fund acquires one or several companies.

Structure of typical LBO association



Figur 9: A typical LBO association. (Own figure)

5.2. Advantages with privately owned companies

The reason why private equity firms make their target companies private are because privately owned companies have several advantages over public companies. A company's operations can be more effectively run if the company is private.

5.2.1. Working behind closed doors

CEOs of public companies constantly complain about the expectations the stock market puts on them. The stock market distracts the management of the firm and the value creation process. CEOs have to lead their companies to perform short goals set up by securities analysts. Goals that is almost impossible for management to reach in a quarter. Public companies also have to communicate with both analysts and media, usually through an investor relations department. All these activities interfere with managements running of the daily business. A private company does not have these problems. A private equity firm does not have analysts. Any earnings targets set by the management and owners for their own use. A failure to meet a target is not the subject of headlines and wild stock price fluctuations (Bierman, 2003). Private equity firms can attract top class CEOs to run their portfolio companies simply by offering them a job where they do not have to deal with securities analysts and media. Private equity groups are stepping up their efforts to lure senior executives away from public companies and making it more difficult for listed groups to attract and retain top talent. Industry figures and headhunters say the offer of large financial rewards by cash-rich buy-out groups and the prospect of being shielded from the short-term pressures of capital markets are prompting more top managers to move to private equity.¹³

5.2.2. Incentives

It is common that managers receive bonuses and options to give them an incentive perform top results. Bonuses and incentive programs are used in both public and private firms, but there are at least two major differences. First, bonuses in public corporations are always subject to media discussion about ethics and the whole existence of bonus programs. In a private company the board of directors can form the managements incentive programs without having to take notice of the opinions of media and loud minority stockholders. Second, executives in public companies have the opportunity to boost the company results in a short-term manner and increase the value of their publicly traded company options. Private equity bonus programs are more long term and require the management to reach their targets during the whole PE holding period to receive their rewards.

5.2.3. Decision Making

The decision-making hierarchy in PE groups is shorter than the hierarchies in large corporations (Bierman, 2003). Investments are made with better timing in firms owned by PE groups and the all-round decision making process is faster (Bierman, 2003).

¹³ www.ft.com, Aug 29 2006 : Private Equity Woos top talent.

5.3.How LBO firms operate

5.3.1. *On the board*

LBO firms as owners of companies have a different role than classic institutional owners of companies. On the portfolio company's board there is always at least one member representing the LBO firm, usually a managing director or a partner. That the board doesn't include more people from the buyout firm does not mean that only one person from the LBO firm will monitor the company. On the contrary the firm partner responsible for the specific portfolio company has at his service a "deal team" of staff including investment managers and analysts.

One of the characteristics of leveraged buyouts is active ownership. The LBO firm basically functions as any board of directors does to a company, but the LBO firms are more active in their role as owners. The LBO firm monitors the companies it controls, but it does not attempt to exercise managerial authority over the companies. It's primary responsibilities are to watch over it's companies on a close and continues basis, to structure executive incentive compensations, intervene when management run into trouble and to act as advisors. The advisory role includes strategy and financing. The financing is perhaps what the LBO firms do best, they hold specialized competence in refinancing, acquisitions, divestures and making timely changes in capital structure. Also on strategy the LBO firm give quality advice, the firm has an idea of how the operational improvements are to be achieved. These ideas are translated into a business plan that the CEO and management will follow.

5.3.2. *Outside specialists*

To the knowledge the LBO firms posses one can add their network of investment bankers, consultants and lawyers that supply any knowledge that the LBO firm is lacking. Corporations also use consultants and investment banks but not as frequent as LBO firms. As LBO firms means good business for the management consultants they receive the very best of expertise. The people in the network are not strangers to the LBO firm, they are people the LBO firm place a trust in and they have a history of successful co-operation. LBO firms choose banker rather than banks.

5.3.3. *Informal relations*

LBO firms follow their companies on an continuous basis, a partner at the LBO firm KKR summarized their relationship with the company management as; detailed written monthly reports sent to the board forms the basis for ongoing discussions between CEOs and the LBO firm representatives in the board. Formal board meetings are less important. KKR referred to typical board meetings as a "dog and pony show", meaning that corporate managers typically stage a show for people that have little awareness of what is going on in the company (Baker and Smith, 2003).

5.4. Creating value

Increasing the value of the company involves improving its operations. For the LBO firm that means making the company more profitable and competitive. That will in turn increase the probability for the LBO firm to sell the company for a higher price than they bought it. The valuation and the financing of the company is linked to the operational improvement part. The aim with the value creation is to increase the company's free cash flows, which will give a higher value of the company¹⁴. If the LBO firm has overpaid for the company, they are pressured to make radical changes in the company to earn their required return. There are three ways to improve the cash flow of a company: reduce the costs of making products or services; reduce the costs of operating the company; and increase sale profitability¹⁵.

5.4.1. Management Incentives

LBO firms set up goals for the management to reach, often a specific EBITDA margin. Reaching the EBITDA target within the normal LBO holding period 3-5 years requires incentives for the management to work harder. The incentive systems are constructed as either options or equity to the management. Whether management should own equity could be discussed. There are arguments that management ownership in equity leads to better management decisions, but there are also researchers claiming that owning equity make managers more risk averse (Loos, 2005).

5.4.2. Control Systems

The company's control systems are looked at already in the due diligence process and if they are weak they must be improved and if they are well functioning the LBO firm can focus on other problem solving activities. Sometimes when the buyout target is a division of a corporation, the LBO firm have to set up a finance and accounting department for the division when it starts operating as a stand-alone business. Well-functioning financial reporting systems are as fundamental as management incentives.

5.4.3. Strategies

There are many strategies for achieving operational improvements¹⁶. Already in the pre analyses and due diligence of the target company the LBO firm started to work on a business plan that is to lay ground for the company strategy. The company's problems and capacity for improvement have been allocated. The strategies used in the business plan vary depending on what kind of company it is and are unique for each company. Like Henry Kravis from the

¹⁴ DCF valuation

¹⁵ Financial Times July 12 2004, "The Balance between debt and added value", Colin Blaydon and Fred Wrainwright

¹⁶ See for example Michael Porters book Competitive Advantages.

LBO firm KKR expressed it: “We have no black book” (Baker and Smith, 1998), every company should be treated as a new case.

5.4.3.1. Focus on cost cutting and efficiency

Given the LBO firms short investment horizon it doesn't want to invest in a lot of capex in the company that is not going to bear fruit within the planned holding period. Cost cutting is the classic approach to create value. By purchasing a company with strong market position and stable cash flows the LBO firm can focus on reducing capex and working capital, which will immediately increase the free cash flow and give a quick return to the investors.

Capex can be divided into two categories; reinvestment needs; and expansion investments. Reinvestment needs are those a company needs to continue its operations and grow along with the market. If a company wants to outperform in the market it needs expansion investments for organic growth or acquisitions to become a bigger and stronger player. Decreasing the inventory holding period and closer control of accounts receivable can reduce working capital. An extension of payment period to suppliers will also help reduce working capital.

Other common ways to cutting costs are; downsizing labor force and cutting headquarter costs. Outsourcing production and laying off workers are often parts of an effectiveness program and the high leverage allows no slack in the business. Headquarter costs are also frequently revised by LBO firms. The partners of the LBO firm like to travel first class, but they will not allow any corporate jets in their portfolio companies (Baker and Smith, 2003)

The approach of just cutting costs is very shortsighted and quite simple. Although the company may become more efficient and profitable, slashing Research and Development costs and holding back the launch of new products is not going to work in the long run. As private equity has become a very competitive business, the competition among LBO firms to acquire the “turn around case” companies have effected the price tags on these companies were one can make a quick buck. The strategy is very predictable and can be carried out by any LBO firm. One should also remember that public companies undergoing cost savings programs and recapitalizations are effected in a similar way that of the leveraged buyout. Since the first LBO wave in the 1980's, corporations have learnt their lessons and have improved in those areas where LBO firms saw an opportunity for value creation from restructuring.

5.4.3.2. Focus on Growth and Profitability

LBO firms often are accused of robbing their portfolio companies and leaving them for bankruptcy. Although that might be true in some cases, LBO firms are nowadays more focused on increasing capex and generating growth to achieve operational improvements¹⁷. The key is profitable growth, if the company can increase its revenues and at the same time keep up it's profit margins there is of course potential for a hefty return on capital. This is of

¹⁷ Financial Times July 29, 2006, “Growth not cost cutting is new emphasis for LBOs”, Richard Beales

course what every corporation in the world is striving for and it is not an easy thing to accomplish, especially during a period of 3-5 years. Value increasing activities that have proven to be profitable in LBOs are for example; expansions of product lines, geographic expansion, new marketing strategies and many more (Loos, 2005).

For the LBO firm to take on a growth strategy, the financial structure of the buyout will have to be less aggressive to allow more flexibility in the company's finances. If the company has the opportunity to make a good investment it should not be restrained because all the cash go to debt repayments. Managers can also be restricted by debt covenants, but empirical research show that high level of leverage forces management to make more careful investment decisions¹⁸.

Since LBO firms think in terms of investors they impose their cash flow thinking on the management. LBO firms want management to create shareholder value. One measure that became popular in the 1990's is Economic value added (EVA). EVA is a financial management measure that aligns managerial and ownership interests by measuring how well managers make use of the capital under their control (Baker and Smith, 1998). Rather than measuring profits, EVA focuses on how efficiently assets are being used. EVA can be expressed as¹⁹:

$$EVA = \left(\begin{array}{c} \text{Net Operating} \\ \text{Profit After Taxes} \\ \text{(Nopat)} \end{array} \right) - \left(\text{Capital} \times \left(\begin{array}{c} \text{The Cost} \\ \text{of Capital} \end{array} \right) \right)$$

Formula 2: Economic Value Added (EVA)

5.4.4. Creating value through acquisitions and divestitures

5.4.4.1. Mergers and Acquisitions

If one finds organic growth hard to achieve, there is the possibility to make add-on acquisitions to the company. Add on acquisitions can of course also be combined with organic growth. Making several acquisitions with the portfolio company is often referred to as a buy-and-build strategy. Some buyout transactions are intended from the beginning to accomplish a buy-and-build strategy (Loos, 2006). With acquisitions the LBO firm can buy the add-on companies at a low EV/EBITDA multiple and then sell of the whole Enterprise for a higher multiple.

The acquired companies can either be bought by the portfolio company or another LBO firm equity fund. If the add-on company is bought directly by the LBO firm, the firm will merge the add-on acquisition with the portfolio company. By merging companies the LBO firm can gain synergy effects, often a higher EBITDA margin. In industries with a coming consolidation the LBO firm can act as a driving force and create a big player in the particular

¹⁸ See Michael Jensen (1989)

¹⁹ <http://www.sternstewart.com/>

market segment. By adopting the buy and build strategy, the company is made more attractive to an IPO at exit or a strategic buyer within the specific industry (Loos, 2005).

5.4.4.2.Divestitures

Divestitures are common in the LBO world and the reasons for divesting businesses are many. Debt covenants for example, can stipulate that the LBO firm must repay most of the loans during the first 6 months following the buyout. That may only be possible by selling of some of the target company's assets. The LBO firm has of course in the pre-buyout analysis of the target company located what assets that can be sold, which will not effect the long term goal of the buyout.

Another divestiture is to sell of non-core business. Non-core businesses are operations that are very different from the company's main activities. By divesting non-core activity the LBO firm refines the business and increases the value of the company. Streamlined businesses are often valued higher than conglomerates. Unprofitable operations might also be divested, instead of trying to achieve a turnaround.

5.5.A portfolio company in crisis

Leveraged buyouts are a risky business. They offer a chance of big returns but also the risk of bankruptcy. Not all buyouts are successful; some LBO firms exit their portfolio companies with zero return and if things go really bad the LBO firm might loose all it's equity. The biggest risk is of course the debt that is imposed on the company. As we mentioned earlier debt has its advantages and disadvantages. The characteristics of the target companies do not imply high business risk. On the contrary LBO firms look for "safe" companies with steady cash flows. Companies dependent on highly cyclical revenues are not suitable for LBOs (Baker and Smith, 2003).

There are many things that can go wrong in a buyout, things that the management has control over and things that they do not control. For example, recession in the global economy is out of the management's control, but they have direct control over the business. Common reasons why LBO firms fails in operational improvements are; faulty strategic assumptions and management problems. Management problems are often a result of bad incentive systems.

If one can foresee the risk of default, the LBO firm should act in time and recapitalize. If the cash flows are insufficient for interest payments and scheduled amortizations, the company must recapitalize to avoid default. Recapitalization of the company means that the capital structure is changed with the aim of stabilizing it. A classic move would be to repay junk debt, the most expensive, and increase equity. The end result of using the cheaper convertible debt or a direct addition in equity will be a dilution effect to the LBO investor's equity, which will lower the IRR. Apart from the recapitalization, the LBO firm must work even harder to support the management in turning the company on to it's right course.

Running a company in financial distress makes it harder to satisfy the investors, both equity and lenders. It is important to treat the investors fairly even if that means a lower return to the

PE firm. If the lenders are treated in a bad manner one might find it harder financing future deals.

6. Exit

6.1. Preparing the exit

Since there are several reasons of preferring investments in publicly held companies compared to private equity firms, the biggest reason is the liquidity of the equity investment. This then means that those that are holders of private equity might have a problem when the time comes to sell of their equity. Since finding a buyer is difficult because there is no ready market for private equity firms.

According to (Sudarsanam, 2005), that the liquation is an important consideration when exiting. This means that when its time to exit its important to know what state the capital market, and investors sentiment and the trend of acquisition trades or strategic buyers, which is important for providing liquidity for an exit.

According to J. Terrence Greve, (1990), when one is in the starting phase of conducting an exit strategy, it is important in the discussion to involve both investors and management to se that they are on the same page.

When it comes to the point of the price that the target company should be sold for Bierman (2003), says that the price investors are willing to sell the private equity stock depends on the liquidity preferences. When the price should be set for the target company it is important that it is priced at market price. To do that one uses different definitions of terms and specific standardized formulas for computing the fair market price. Otherwise if some one would set an artificial market price without any reference to the price, then the seller might think that the price is to low and the buyer might think it's too high, and no deal will be executed. Some other thing that also affects the price is the time interval after the offer has been made and before it is accepted. This could be that if it takes to long before accepted then the price maybe should have been different, the same if the time for acceptance goes to fast. So that's why the valuation to obtain the exit price is very important in the exit process.

It is also important to establish a good reputation, particularly when the exits are conducted by Initial public offerings (IPO) or secondary buyout markets. Since in these exit process they are likely to meet there fellow private equity investors. This then means that building up a is important, since it provides additional comfort to the investors regarding the strength of the business fundamentals and the valuation of the companies for sale at the market. So these LBO firms with high reputation will bring a kind of documented track record for the quality IPOs they bring to the market (Sudarsanam, 2005).

It should also be taken in to account that the LBO sponsors which are the financial investors with a constrained investment holding period for the time until the expiry of the funds. The time for exit will then be decided as earliest as possible time where they would be able to maximise their return. Since the longer they wait to exit may be an indication of the difficulty of more attractive and higher value exit possibilities

6.2. Common types of exits

So then when every one involved in the exit process has agreed on the terms of exit alternative it is then time to have one of the following exits. From SVCA (2006) there are five common alternative exit types to choose from. These and one more can be explained by the following table:

Exit alternatives	Explanation
Initial Public offering (IPO)	This means that the target firm will be sold to the public, by offering the equity on the stock exchange. Where the company also will be registered.
Trade sale (Financial Buyer)	To sell the firm to a financial buyer whose main interest is not to control the company but only to profit from them, and then to sell it for some profit.
Trade sale (Industrial buyer)	To sell the firm to a industrial buyer whose active industry. Their main interest is to go in and control the firm, which in that case may also obtain a syndication ²⁰ effect.
Secondary Buyout	Here another buyout firm might see more growth opportunities in the company, and that its full potential has not yet been fulfilled.
Liquidation	If the buyout firm has not been able to turn the company to a profitable investment then liquidation is to consider. Here they company will liquidate the assets in the company and retain what's possible after paying of the debt, and announce the company in bankruptcy.
Recapitalization	In this scenario the buyout firm will re-leverage the company, buy replacing equity with more debt. This is done for the reason to extract extra cash form the company.

Tabell 9: The common exit strategies.

It is easy to say that, when exiting LBO firms choose of course the option that generates the highest value. Often one doesn't know which option will generate the highest value, so there fore its common to do a so called dual track, which means that you do both an IPO and trade sale to a strategic buyer and you choose those that gives the highest value. This since the stock exchange value growth companies high, so if you have a growing company with big growth opportunities, then the stock exchange may be the right exit strategy. But also other LBO firms may be attractive to invest in this company and can then offer a higher price, a so called secondary buyout.

We know now that LBOs often have a pre-determined life, where then at the end investors have to be compensated for their investment. Therefore one could say that it is important for lenders and investors that during the pre-investment phase, that a clear and faceable exit strategy can be presented.

²⁰ A group of investors that agree to participate in a round of funding for a company.

If taking a company public one should have in mind that size of the company might matter, because if the company is a very small company, it might not cope with the cost of going and staying public. Going public has large fixed cost that small companies may not handle where bigger ones will have no problem to do, and also they may not be able to cope with the regulatory requirements expected from public companies. Then in this case the best exit strategy for a small company may be exit through trade sale or secondary buyout.

6.3. The Internal Rate of Return (IRR) measure

Then when it comes to the point of measuring how profitable the buyout investment has been, the most common measure to use is the IRR. Which to mention is also the primary measure in LBO transaction. The dependent variable here is the gross internal rate of return on invested capital by the fund. Buyout firms generally report both gross and net IRRs, which are both based on actual cash flows (Loos, 2005). The IRR is an easy computational measure which calculates the actual returns on a single buyout investment. It is also a measure in percentage, which also makes it a convenient measure to use when comparing different investment returns to their industries.

The valuation of the buyout is based on the entry and exit points of the enterprise value. The formula is then defined as follows:

$$IRR_{Gross} = \left(\frac{EquityValue_{Exit}}{EquityValue_{Entry}} \right)^{(1/HoldingPeriod)} - 1$$

Where

Equity Value_{Exit} = Amount of total realized and unrealized value at time of exit
(or at time of deal valuation)

Equity Value_{Entry} = Equity amount invested by the buyout partners at time of acquisition

Holding Period_t = Date of exit minus date of acquisition, expressed in years

Formula 3: Internal Rate of Return (IRR).

There is also another method used by the investors, which is a calculation method called exit returns. These are so called ex post estimates, these are not known really until the exit type is decided, since they are said to be the only available indication of historical returns. These exit returns are measured as an annualised exit multiple, and is one of the simplest and efficient way of measuring exit returns (Sudarsanam, 2005). The multiple will express how much money was received back as a multiple of the amount paid in.

Exit multiple X_i = (Exit Valuation / Entry Valuation)

Because different are held for different periods, so to use it to compare it to different investment it needs to be standardized so that it can be fair. Then one needs to annualise the multiple so that it's normalised for the different holding to exit periods. Buy using the following formula:

$$X_{\text{annual}} = [X]^{1/t} \quad \text{where } t = \text{day}/365$$

Formel 4: Annualized formula for Multiples.

Then annualising the return is obtained by the formula, $R_{\text{Annual}} = (X_{\text{annual}} - 1)$.

7. Summary of interviews

In the following section a summary of the interviews will be presented. The interviews have been carried through with analysts from Altor equity partners, Deutsche Bank and Goldman Sachs.

Under each question there are three fragments. The first one is comments from Fredrik Lundgren (Goldman Sachs), the second fragment is comments from Olof Andersson (Deutsche Bank) and the third is comments from Petter Samlin (Altor Equity Partners).

1. What role do the Investment banks have in the LBO Process?

They work as advisories as they would in ordinary merger & acquisition.

But depending on the complexity of the deal and which private equity firm it is, one may act without an investment bank in the process. The most common background one has in private equity is from the investment-banking world.

Investment banks act as financial advisors to LBO firms when they buy and sell companies. The LBO firms are important to investment banks since they contribute to almost one-third of the volume in Mergers & Acquisition (M&A), and this volume is still increasing. The LBO firms are the far most important clients to the investment banks M&A departments, because they stand for the largest proportions of the deals and are returning clients.

Investment banks have specialized departments that focuses on analysing different sectors to contribute with information to LBO firms. The LBO firms are small firms, which makes it difficult to have internal knowledge that is required to make buyouts in all sectors. That's why they need the investment banks large sector knowledge.

In the process there are several investment banks involved, as well as on the different buy and sell sides of the process. Nowadays these processes are conducted as an auction, where the buyout party have their own investment bank with them. The banks involved on the sell side has the roll of managing the whole process, they act by contacting the different parties, receiving bids, produce material, a kind of process manager. For the buyout side it's says to have the same roll but it becomes often a much smaller roll. We use investment banks e.g. to get access to their network, obtain information about the process and other similar players, and to make valuation and different valuation material. Especially if one would like to look at comparable companies or comparable sectors. They can also be used in the sense of getting access to their research department and the research analysts, to obtain information about a sector which gives a more in-depth knowledge. Basically they can be of help with all kind of administrative work where one can phone them up and ask any question about the process.

2. What is the difference of analysing an LBO verses an ordinary buyout?

An LBO has a limited time horizon and is financed with a large amount of debt. This also means that one needs to investigate the exit possibilities already from the starting investment phase for the target company, and also to insure that the financing part can be secured from the banks.

Technically the LBO analysis is about (1) to get the IRR as preferable as possible, (2) to be able to handle the leverage structure as good as possible, (3) and to structure as attractive bid price as possible. All this points has an effect on each other. E.g. if increase in leverage, one can pay more but also get a higher return.

Corporate acquisitions are usually more common than LBO-buyouts. When Deutsche bank helps regular companies to buy objectives they often use the DCF- valuation to value it, but an LBO- valuation is also important to do, since regular companies wants to know how much an LBO-firm would pay for that objective. The difference between this two is that in an LBO-analysis one looks more at what the cash flow will be after the payments of interest is made on existing debt, and taxes are smaller since its applied on EBT (earnings before tax) than on EBITA which usually is a larger amount.

It generally depends if you are a buyer or a seller in the transaction, but an important point is the choice of the company. Previously it has been demanded that the objects where stable cash flow generative businesses, which has been the foundation in leveraging a company. It can also be said that, the more market expansion, the more will the spectrum expanded. There is also the possibility now days to make an LBO on almost any company, even if they generate negative cash flows, and then to restructure the different kinds of debts, so that one can handle the negative cash flows. This is being conducted at the same time as the company is growing. This also means the possibility to look at all type of companies now days in conducting an LBO. The valuation will be conducted in the same way as all other valuations. Also a LBO analysis will be viewed to see what kind of multiples will be obtained when an exit is made after some years, and how much the money multiple and IRR would be. In this valuation one will look at what the value of the company is worth when making an exit and its multiples. A standardised valuation will be made from both parties. So in principle every one makes the same kind of valuation depending if they are a buyer or a seller.

3. What "extra" aspects needs to be considered when analysing a LBO candidate in e.g. BRIC countries (Brazil, Russia, India, China)?

It is very uncommon with big LBO deals in the emerging markets. This since the capital market is not fully developed yet in this markets for one to be able to finance large part of the deal. This market is more attractive for venture capital firms.

There is only a small amount of LBO firms that are active here, but one of them is KKR, which has an office in India. There is generally a higher risk that is taken for the investors, but if it would be successful then one could expect a profitable return.

Petter Samlin has not looked at any LBO candidates here but would believe that one of the difficult things would be the financing possibilities, since it would be difficult to get secured financing in such countries. There is also the question of the instability in the country, legal issues and political risks. There is a whole spectrum of new risks in emerging markets. But if it is a country with stable interest rates and not so much inflation, it might be a little safer to invest. Adjusting for risk, one should possibly increase the discounting factor through increasing the return requirements for it to be worth investing there, but there is also a lot of extra due diligence perspective to consider.

4. How much does it differ in the valuation based on public information and a valuation from due diligence?

It does not need to differ at all, since if one would make a public takeover the bid needs to be based on public information and then a confirmatory due diligence is made. The more information one has the smaller the margin one needs, so more information gives the potential for a larger bid.

It is believed not to be such a large difference between them. The due diligence is often used in a way to decrease the price at the last moment for the company that may be the only actor left in the process. The valuation will also be more creditable since one has a due diligence to back up with. If it would happen that the prices would be very different, it would mean that one has obtained some important information that no one knew before.

Our view of due diligence is generally just to investigate a company. If it is a public company then the due diligence is based on public information. But if it is a process, then they will have access to a computer room and access to management and material, which the investment banks have produced. This then gives more in-depth information, which can lead to an increase in the value of the object. This also means a decrease of insecurity of the object.

5. Is it easier to finance the buyout of public companies than private companies?

The notations of the company do not make any difference, given that it is a large and well-established corporation.

It probably is. This is because a public company is better known for its audience and in that sense is an advantage. Banks also prefer to finance a known actor than a private one. But nowadays this matter is not as important, it has become more important to show a good cash flow and assets that can be used as collateral to insure that the bank's loans will be repaid. The point nowadays is not to be able to finance or financially structure a buyout, but to manage operational improvements.

It's generally more difficult to finance a small company and finance businesses that have bad control of its information e.g. family businesses, since they don't usually have advanced financial functions. So it is more the size and quality of the company than the type of company that matters. You will also get a better due diligence pack when working with a public company. A problem with private companies may be that you only have public information and in that sense may miss a lot of important decision-making information that you cannot get a hold of, which then would make you take a higher risk as well. Generally one could say that a company in the public arena is a security of its own.

6. What prerequisites/characteristic do you think a target company needs to have?

One should seek stable companies with some extra potential, e.g. growth companies, cost cutting, platform for industry consolidation. Company in non-cyclical sectors with strong market position, high barriers to enter, unique product, faithful and diversified customer base, bargaining power against suppliers, possibility to adjust sales price after input cost price and good management. These are some of the attractive characteristics an object should have.

- 1, Money: Generate a lot of free cash flows according to the LBO-model.
- 2, The current and potential market position is an important factor that indicated high free cash flow generation. Generally the competitive advantage it has/ will have.
- 3, A good management is an advantage but not a requirement, since LBO firms often changes the management.

It is also good if the target firm has some real assets e.g. buildings and machinery, which the bank can take as collateral to easier to get larger loans. The reason could be if the buyout does not work as well as planed one can sell out the assets or a division without announcing bankruptcy, which one preferred to avoid.

At Altor their philosophy is that the requirements they have for a company is a slightly higher return requirement then others. They do this by looking more at businesses that have a little more restructuring potential. They don't see it as an advantage to approach a business that is operating really well and which generates high cash flow streams. For them to conduct a buyout they would see some possibility to do something extra with it, so that they can three double the profit or the margin. It is really important to try to see some angle for profitability, so that one can be prepared to pay a high price at the highly competitive auctions and still believe in a good return. It is also important to make a good due diligence and to have good thoughts and ideas of how to operate the target firm.

7. What trends do you see at the LBO market today?

The LBO funds are becoming larger and larger, which makes it possible to make larger buyouts. There exists a large liquidity in leverage financing, which also is one requirement for large buyouts.

- Many investment banks are starting their own LBO-fund since they are very profitable.
- Higher debt multiples when conducting a buyout. Before there were multiples of 5x EBITDA which was high, but today once see this reaching 9x EBITDA.
- The value has grown on the LBOs that are conducted today then previously.
- More and more LBO firma are starting to have a sector focus and special competence.

The auctions are becoming more and more competitive, and information is more controlled. The amount of leverage taken is not increasing as much any more, it might stay at the high level it is now. There is also a trend towards more secondary buyouts. And that more international player has entered in to the Nordic markets.

8. Is a specific type of exit more or less preferred in a certain type of business? If so, which fits best to what business?

It's hard to generalise the answer. But for an IPO it would be preferable to have a good growth on the market to have a good valuation.

Generally its the one that generates the most value that will be chosen. Often one doesn't know what option gives the best value, that's why its common to make a so called dual track,

where you make both an IPO and a trade sales, and in that sense choose a path that gives the highest value.

It generally depends on what exit and business it is, since they are both dependent on one another. The exit route through IPO is partly dependent on the market, the more open it is the more alternatives can be put there. Basically one should look at what would fit the object in question best and try to make exit that way.

9. What time horizon is most appropriate to value an LBO on?

It depends on the deal. Normally one uses an exit horizon of 3-4 years.

Usually the maximum holding period is up to 10 years since that is often the life time of the fund before it is forced to be liquidated. Also the shorter the holding period tends to be the higher the IRR tends to become and this is something one would seek. The LBO valuations have a standard time horizon of 10 years on its evaluations, since that's usually how long it takes to pay of the debts and IRR is calculated on about 3-5 years perspective. LBO firms often sell of the target company before all debt is paid of.

It depends from case to case and one should be flexible. For those with long perspective, the time horizon is about 2-7 years. Then there are cases where the time horizon might be longer for an infrastructure case, and then the return is expected to be lower also. The holding period is dependent on how long time it will take to implement the structural changes that is planned to take place. A short holding period can imply just making a merger of two companies, and a longer period could be plans for geographical expansion. But normally it is around 3-6 years. Everything depends on how the market environment is. There are several variables that can affect the decisions one makes. There is also a trend on the market that the holding period becomes less important and that one focuses more on the money multiple then IRR.

10. What are the most important possibilities to increase value of the companies in an LBO?

The financing part is important, but now days its more or less a commodity. Since the competition is intense it is important that one has an operational angle to create value, which is unique. Maybe a possibility to combine companies or that one can see new opportunities on a new market.

It is common to try to optimise (minimize) operating working capital to release more capital from the operational part of the company, so that one could pay back the debt. One can also sell of non-core businesses to focus more on the core business and to get a higher value of the company. Then one could make add-ons investments to build up a dominant company in its field. You can often buy these add-ons on larger multiples (EV/EBITDA) and then sell of the whole to get a higher multiple.

Something that has been important is how positively attractive the market is. And if you look back in history to see what has been a good investment it has often depended on when you have made it. So timing is an important fact and for specific cases to look at the value leavers. One should also look at specific businesses and see what could create value e.g. merge,

improve working capital, increase sales, expand geographically, enter a new market or create a new product.

8. Summary and Conclusions

8.1.Phase I: Target search and Due Diligence

There are certain factors that imply what kinds of companies are suitable for a leveraged buyout. First of all, the target company must be able to care the burden of all the debt the buyout involves. This means non-cyclical revenues and a strong market position. Second, the target company may also show the potential of operational improvements.

Finding the target company, the LBO firm works with the criteria framework, and scans the market for companies responding the criteria's. LBO firms network of consultants and industry executives is to great help when searching for, analyzing and buying the target company.

The due diligence and valuation of the target company is vital to future success with target company. The LBO firm must allocate the target companies value drivers, risks and find out if the management is trustworthy. The LBO firm must also not overpay for the company, which is not an easy thing to judge on forehand, especially in competition with other LBO firms.

Financing and structuring the deal is what the LBO people know best, and can vary between cases. LBO firms almost always pay in cash, but the financing above the bank loans offers a wide spread of choices and that is what makes the buyout a complex transaction.

8.2.Phase II: Post buyout period

The LBO firm's business idea is to create shareholder value through leverage and active ownership. In the Private Equity world today, value is not simply created just by using leverage. A leveraged buyout is more complex than that just buying stock for billions on the public stock market. The LBO firm does not rely on by buying cheap and selling at a high. Value creating activities take place in the target company, to make it more attractive when making an EXIT and to give back large returns to the buyout investors.

The LBO firm organization and its partners create the platform for a successful transaction. The LBO firm bring in specialized knowledge to the target company and has access to an army of management consultants and investment bankers. Active ownership and incentive programs are cornerstones in a leveraged buyout and they characterize the buyout business. They are indirect value drivers in the transaction. The operational improvements that LBO firms make are direct value drivers, and together with the indirect value drivers the LBO firm can achieve their goal of high returns.

The amount of debt in the portfolio company allows no slackness in the company's operations and management. The company is pressured to meet its interest payments and amortization of senior debt. If cash flow decreases because of outside factors or bad management, the LBO firm intervenes and take necessary actions, such as recapitalization of balance sheet or maybe finding the company a new management.

8.3.Phase III The exit

The market for exiting for LBOs is not as liquid as the markets for publicly traded equities, since it is not a public market place the company is active in. This also means that information needs to be spread for the object in question to find an attractive buyer of the target firm. But a lot also depends on the success of the target firm that is held by the LBO firm, and how the future market will look for that company. If the target firm has not been as successful as it was hoped, then it might be very difficult in finding a buyer of the object, but if it is a company that has been well developed by the LBO firm then the object will probably attract enough buyers to generate the LBO firm with a generous return on its investment. So when it comes down to choose of the correct exit strategy one should involve both management and investors according to (J. Terrence Greve, (1990). But also look at the conditions for the company both present and future to see which exit might be the most profitable and executable.

The pricing of the object to be sold is determined from case to case. But it is important to follow some kind of standardized pricing models, so that one can obtain as fair price as possible. But the buyer whom might be interested in this objective will as well make the valuation to see what price might be worth. The LBO firm will have already from the beginning of acquiring the target firm have made an analysis of what kind of exit might be possible to conduct in the future, and the value it hopes to reach. So these choices will be discussed already from the start of acquiring the target firm.

For the LBO firm the choice of exit from the investment is very much depending on how the market looks and the sector where the target firm is operating. Nowadays there is a trend toward more secondary buyouts, but also IPOs are popular. But the general options the LBO firms have to choose from is:

- *Initial Public Offering*
- *Trade sales (Financial Buyer)*
- *Trade sales (Industrial Buyer)*
- *Secondary Buyout*
- *Recapitalization*
- *Liquidation*

The choice of these options would generally depend how open the market is, the more open it is the more exit opportunities there will be. All LBO firm wishes to maximize the IRR at the selling of the target firm, so knowing which exit option to choose that gives the best value is a difficult decision.

9. Conclusions

A leveraged buyout can be described as a process, every part in the process contributes to the investors return. LBOs offers the chance of high returns for people with entrepreneurial finance skills. The authors have analyzed the broad parts of the LBO process and find that there are several ways in each phase of the process to create value.

In the first phase the LBO firm generates value by using the right financing and making correct valuations and careful analysis. Valuing an acquisition with high debt ratios is slightly different from other M&A valuation. Multiples are common in LBO valuation, such as the EV/EBITDA multiple. LBO valuation use different discounts rates due to high risk and illiquidity in the private equity market. Identifying the value drivers in the target Company is essential for developing a business plan.

In the second phase the LBO firm operates from the advantages it has with specialist knowledge, organization and being private. When reading old LBO case studies the authors were impressed with the LBO firms broad repertoire of operational improvement strategies. Especially the big firms like KKR and Carlyle are able solve problems in their portfolio companies no matter the industry the company is in. The Private Equity environment is a stimulating and challenging environment that is a breeding ground for good ideas and problem solving activities. LBO firms do not only cut cost in their portfolio companies, they also use growth strategies and add-on acquisitions to create a more profitable company.

In the third phase the LBO firm has several choices to Exit the portfolio company. It will choose the option that yields the highest return. The period the LBO firm holds the portfolio company varies on the type of business it is and other factors such as financing and development of value creation.

There are trends in the buyout arena, such as the mixture of strategies used to create value and the increased number of secondary buyouts. LBOs continue to modify in some areas although agency theory and leverage remain the cornerstones of the “buyout business”. LBOs are risky business and the risk of default is in some cases not far away. There are procedures to follow when a portfolio company run into financial distress, such as recaps and sale of assets.

The authors have presented a “typical” LBO process, but there are of course variations in the way LBOs are carried through. The process can be divided up further than just three phases. As the interview material reveals there are many aspects to consider in a buyout. The world of LBOs is growing bigger and the LBO firms differentiate themselves by specialising in certain industries, size of target companies and geographic areas.

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