Master Thesis in Finance
Stockholm School of Economics

Market Reactions of Corporate Real Estate Sale and Leaseback Announcements

A Study of the Swedish Corporate Real Estate Sale and Leaseback Market

Emilie Erhardt[♠] Emelie Höglind[♣]

Abstract

Over the last decades the augmented core business focus have initiated an increase of divestitures of corporate real estate (CRE) divisions, representing real estate assets owned by a firm not primarily in the real estate sector. A popular alternative to pure divestments of the CRE assets is sale and leaseback transactions where the property is sold to another party and simultaneously leased back from the new owner. The market reactions of CRE sale and leaseback announcements of the selling firm have generally been investigated on the U.S. and European markets. Nevertheless, the Swedish CRE sale and leaseback market in specific remains exceptionally unexamined. Therefore, this thesis aims at examining the Swedish stock market's reactions of CRE sale and leaseback announcements of the selling firm and the sources behind the reactions by using data obtained from 27 announcements of Swedish firms between the years of 1997 to 2007. We find that CRE sale and leaseback deals, on average, produce positive abnormal returns of 2.35 per cent at the event day and 2.42 per cent over the interval one day before to one day after the announcement. We furthermore conclude that the positive abnormal returns arise predominantly from CRE sale and leaseback deals which size is large in comparison to the market capitalization of the selling firm and deals announcing a large capital gain from the transaction in relation to the announced transaction value. We also discover that the tax rate of the lessee firm, on average, have a positive effect on the abnormal returns around the announcement, while the financial position of the lessee firm seem to have a low influence on the abnormal returns upon the announcement. Lastly, the abnormal returns around CRE sale and leaseback announcements appear not to be driven by the announced use of the proceeds from the transaction.

Keywords: Sale and leaseback, real estate, corporate real estate, market reaction, abnormal return

Tutor: Clas Bergström
Presentation: 13.00, June the 12th, 2008
Venue: C437
Discussants: Jenny Karlquist (19757) and Mahmoud Azzam (19935)

[♠] 19956@student.hhs.se
[♣] 19459@student.hhs.se

1. INTRODUCTION 1

1.1 Background and Objectives 1
1.2 Delimitations of our Study 3
1.3 Outline 3

2. DESCRIPTIVE ANALYSIS 5

2.1 Definition of CRE Sale and Leaseback Transactions 5
2.2 Accounting Effects of CRE Sale and Leaseback Transactions 5
2.3 Tax Effects of CRE Sale and Leaseback Transactions 7
2.4 The CRE Sale and Leaseback Process 8
2.5 The Swedish CRE Sale and Leaseback Market 9

3. THEORETICAL FRAMEWORK 11

3.1 Modigliani and Miller Theorem 11
3.2 Pecking Order Theory 12
3.3 Information Asymmetry Theory 12
3.4 Focus Hypothesis 13
3.5 Financial Significance Hypothesis 13
3.6 Incentives Hypothesis 14
3.7 Financial Position Hypothesis 14

4. HYPOTHESES 16

4.1 Hypothesis based on our Primary Objective 16
4.2 Hypotheses based on our Secondary Objective 17

5. METHODOLOGY 20

5.1 Test Methodology 20
5.1.1 Primary Objective 20
5.1.2 Secondary Objective 22
5.1.3 Multivariate Regression 23

6. DATA 25

6.1 Collection of the Data 25
6.2 Descriptive Statistics 26

7. EMPIRICAL RESULTS 30

7.1 Empirical Results from the Primary Objective 30
7.2 Empirical Results from the Secondary Objectives 34
7.3 Empirical Results from the Multivariate Regression 40

8. CONCLUSION AND FINAL REMARKS 43

8.1 Conclusion 43
8.2 Limitations of the Study 45
8.3 Suggestions for Further Research 46

9. REFERENCES 47

10. APPENDIX 51

1. Introduction

This preliminary chapter begins with a brief introduction to the corporate real estate sale and leaseback subject followed by a presentation of the objectives this master thesis sets to accomplish. The chapter is finalized with possible delimitations of our study and a description of the outline of the thesis comprising a short summary of the content of each chapter.

1.1 Background and Objectives

Over the last decades the corporate landscape has evolved towards a strong focus on core business functions and companies are on a global basis pursuing outsourcing as a strategy to follow the trend. This evolvement towards core business focus has affected several operations that are not direct contributors to the core success of a business (Adkison (1999)), among these several corporate real estate (CRE) functions.

The term CRE applies to real estate assets owned by a firm not primarily in the real estate sector (Manning and Roulac (1999)). Previous literature on the subject CRE has discovered that CRE holdings constitute a significant amount of total assets in companies. One of the pioneering studies of this topic executed by Silverman and Zeckhauser (1983) on the U.S. market in the 1980's indicated that 25 to 40 per cent of total assets in companies were in CRE and that corporate managers were regularly neglecting their CRE assets. Later on several U.S. studies indicated that CRE holdings were generally undermanaged, which together with the growing outsourcing trend initiated the commencement of divestitures of CRE in the U.S.

One popular way of dealing with undermanaged CRE assets without divesting the assets entirely is by employing CRE sale and leaseback transactions. Under these transactions, a firm (the lessee) sells real estate it owns to another party (the lessor), which then simultaneously leases the property back from the new owner. The transactions are often, due to their structure and characteristics considered as a financing alternative and a substitute for debt (Allen et al. (1993)). The CRE sale and leaseback transactions increased in popularity in the U.S. during the 1990's and a study by Nappi-Choulet (2002) suggested that the portion of CRE to total assets in U.S. firms in 2002 had decreased from 25 to 40 per cent to around 15 per cent. In the same study, Nappi-Choulet (2002) furthermore declared that the portion of CRE assets in Europe in 2000 was around 35 to 40 per cent and hence close to the U.S. numbers in the 1980's.

Despite the fact that the market for CRE sale and leaseback transactions has started to grow in Europe during the later years, there is still today a significant difference in the CRE assets to total assets ratio between European and U.S. corporations. This remaining divergence together with the fact the CRE sale and leaseback market in Europe commenced as late as in the beginning of this century indicate that there is reason to expect that the CRE sale and leaseback market will continue to evolve in the European countries (Charlton and Laposa (2001)).

As papers frequently investigate the market reactions to the announcements of different financing decisions, the CRE sale and leaseback announcements have also been investigated. However, the CRE sale and leaseback announcements have only been touched on the surface and a more thorough analysis on the rationales behind the market reactions of CRE sale and leaseback announcements is absent. Moreover, only a few studies have focused on explaining possible differences in stock market reactions between firms announcing CRE sale and leaseback transactions. Therefore, there is no preset theoretical framework neither of the expected market reactions of CRE sale and leaseback deals nor of the variations in the possible market reactions. Furthermore, the majority of the previous studies on the market reactions of CRE sale and leaseback announcements has been performed on the U.S. market (Slovin et al. (1990), Rutherford (1990), Allen et al. (1993), Ezzell and Vora (2001), Fisher (2004)) whereas a few have been performed on the European market (Liow (1997), Grönlund et al. (2004)). Nevertheless, the Swedish CRE sale and leaseback market in specific remains exceptionally unexamined. To our knowledge, no previous studies on CRE sale and leaseback announcements' effect on the share price of the lessee firm have been performed exclusively using Swedish data. Based on these facts we believe that there is a need to shed more light on the relatively unexplored CRE sale and leaseback market in Sweden and the potential sources behind the market reactions. A study on the Swedish market including both the market reactions of CRE sale and leaseback announcements and the sources behind the possible different reactions of CRE sale and leaseback announcements would consequently be of interest.

The aim of the thesis is therefore to examine the market reactions of CRE sale and leaseback announcements of Swedish publicly listed lessee firms. Furthermore, we aim to discover if the market reactions are contingent on different firm- and transaction specific variables. Consequently, the aim of the thesis is therefore twofold where the primary objective is to investigate the CRE sale and leaseback announcements short-term effects on the share price of the lessee firm. This primary objective will be accomplished by using quantitative data

from CRE sale and leaseback announcements among Swedish publicly listed firms between the years of 1997 to 2007. The methodology that will be applied is the standard event study methodology testing the abnormal returns of the firms around the announcement date. Our secondary objective is to examine the potential sources of the observed share price effects and hence discover if the abnormal returns are contingent on different firm- and transaction specific variables. This objective will be accomplished by using our quantitative data and investigate whether different sub-sample portfolios of the firm- and transaction specific variables experience different abnormal returns around the CRE sale and leaseback announcement date. Furthermore, in order to assess the explanatory power and the relative importance of the variables we will perform a multivariate regression analysis on the abnormal returns around the date of the announcement including the firm- and transaction specific variables as independent variables.

1.2 Delimitations of our Study

Our focus in this thesis will be to investigate the CRE sale and leaseback market in Sweden by examining the short-term market reactions of CRE sale and leaseback announcements of Swedish publicly listed lessee firms and discover if the market reactions are contingent on different firm- and transaction specific variables. Nevertheless, we find it useful to state some delimitation in order to eliminate any confusion regarding our topic of study. We will not perform valuations of the intrinsic value of the firms, but rather focus on the market's assessment of a CRE sale and leaseback announcement nor discuss the CRE sale and leaseback announcements long-term effect on the share price of the lessee firm. Furthermore, our study will solely focus on the perspective from the lessee firm and not on the purchasing firm in the transaction as well as exclusively explore the Swedish market for CRE sale and leaseback transactions.

1.3 Outline

The remaining thesis will be organized as follows. The descriptive analysis in section two will serve as a starting point for the thesis where the CRE sale and leaseback transaction and the market for CRE sale and leaseback transactions in Sweden are illustrated in detail. This section is mainly based on our qualitative data obtained from our interviews and surveys with practitioners in the CRE sale and leaseback market in Sweden. In section three, the theoretical

framework is presented, which will underlie our subsequent hypotheses formulations. In this section we will combine leasing theories and theories on divestitures of CRE holdings in order to construct a theoretical framework. The section will be based on three different sources; pure economic theories, previous research and additional contribution from our qualitative data from interviews and surveys with financial and legal advisors. Thereafter the hypotheses of the thesis are formulated based on our primary and secondary objective. In section five we present the methodology of our thesis where we have chosen to include a description of the methods that will be employed when performing the statistical testing of our hypotheses and our regression analysis. In section six we introduce our data set including the collection and descriptive statistics of the data and the variables together with an explanation of the sub-sample division of the data. In the sixth section we present the empirical results from the testing of our hypotheses and the results from the regression analysis while relating our results to previous studies on the subject. In the last section we will bring our study to a close by summing up our results, discuss possible limitations of our study and introduce suggestions for further research.

2. Descriptive Analysis

This section will present a descriptive analysis of the CRE sale and leaseback subject including a definition of CRE sale and leaseback transactions, the accounting- and tax effects associated with CRE sale and leaseback arrangements in Sweden and a background description of the Swedish CRE sale and leaseback market. The analysis will mainly be based on our qualitative data obtained from our interviews and surveys with practitioners in the CRE sale and leaseback market in Sweden, unless otherwise stated.

2.1 Definition of CRE Sale and Leaseback Transactions

A CRE sale and leaseback transaction occurs when a non-real estate firm (the lessee) sells real estate it owns to another party and simultaneously enters an agreement to lease the property back from the new owner (the lessor) for a pre-determined period of time (Manning and Roulac (1999)). This definition is consistent with IAS (International Accounting Standards) 17's definition of the sale and leaseback transaction as a transaction arising when a corporation sells an asset and immediately re-acquires the use of it by entering into a lease with the buyer (IAS 17). In a CRE sale and leaseback arrangement a buy back option can be added which gives the seller the option to buy the property back from the new owner. CRE sale and leaseback transactions are often considered as a pure capital acquisition method since it allows the seller of the property to receive cash and retain the use of the property in exchange for the obligation to pay future leasing charges for a predetermined period of time. The transactions are moreover in the option of many analysts simply a form of debt financing. This is especially apparent for CRE sale and leaseback transactions including the buy-back option since the ownership of the CRE is outsourced and the lessor is a lender and can be viewed as having made a secured loan (Allen et al. (1993), Myers et al. (1976))**.**

2.2 Accounting Effects of CRE Sale and Leaseback Transactions

The accounting for CRE sale and leaseback transactions is generally subject to IAS 17 for listed companies and specifically to local accounting principles. Both under IAS 17 and under the Swedish accounting principles, the CRE sale and leasebacks arrangements are divided into two subcategories, financial and operational leases. According to IAS 17 a lease is classified as a financial lease if the lessee (the seller) retains substantially all the risks and rewards subject to

ownership of the property, while all other leases are classified as operating leases. A CRE sale and leaseback transaction where the actual property related risks are not transferred to the buyer is hence classified as a financial lease which causes the CRE assets to remain as non-current assets on the seller's balance sheet. The assets are presented at the lowest of their actual value at the start of the lease period or at the present value of the minimum leasing costs. The present value of the minimum leasing costs is calculated by using the leasing contract's implicit interest rate or the lessee's marginal borrowing rate. Furthermore, the obligations to pay future leasing charges are posted as long-term- or current liabilities on the balance sheet. If a CRE sale and leaseback transaction results in a financial lease, any extra value from the proceeds of the sale in relation to the book value must furthermore not immediately be presented as income in the seller's financial statements. Instead, the value must be deferred and written down over the term of the lease.

Operational leases, on the other hand, resemble more traditional rental agreements. They are considered as off-balance sheet financing from the lessee's perspective since the leasing costs are merely brought up as expenses in the income statement systematically over the term of the lease (IAS 17). The operating lease obligation is reported in the financial statement notes as a contingent liability, as opposed to being reflected on the balance sheet. This implies that the arrangements are not shown as an asset or a debt obligation on the lessee's balance sheet provided that they meet the criteria for operational leases. Capital gains on assets sold under sale and leaseback agreements with all the characteristics of an operating lease are recognized directly in the income statement.

The interviewed financial advisors on CRE sale and leaseback deals in Sweden stated their clients' desire for an off balance sheet sale and leaseback arrangement since they do not want the asset and subsequent liability to weaken the performance figures. Hence, the management of most corporations engaging in a CRE sale and leaseback transaction attempt to transfer all financial risks and benefits associated with the properties to the lessor and hence classify the leasing contract as an operational lease. CRE sale and leaseback as operational leases are furthermore strengthened by the literature suggesting that most real estate leases usually are operating leases (Nourse (1990)). Displayed in *Table A* in Appendix is an example of an operating CRE sale and leaseback arrangement and the related accounting effects on the balance sheet and the income statement. However, the example is not representative for all CRE sale and leaseback deals since they differ largely in their structure and the use of the

proceeds from the transaction.

2.3 Tax Effects of CRE Sale and Leaseback Transactions

According to the Swedish tax laws applied to Swedish CRE sale and leaseback deals there is no separation made between financial and operational leasing. For both financial and operational leases the main tax advantage of a sale and leaseback transaction is that the lessee's lease payments under the lease are fully tax deductible. However, in conventional debt financing of a property, the borrower can deduct both the mortgage interest component of the loan and the depreciation of the property. Nevertheless, the rental deductions from a CRE sale and leaseback deal may exceed the deductions achieved when applying conventional debt financing of the property. This occurs if the loan to value of the property is moderately low and if the property has appreciated in value, since depreciation deductions are limited by the cost of the property while rental deductions may equal the fair market value of the property or if the property has been fully or substantially depreciated. The same reasoning holds for a firm owning a CRE asset which has been financed only by internal cash. The difference is however, that the firm financing property with conventional debt is subject to mortgage interest deductions, while a firm financing the property solely with internal capital is only subject to the depreciation deductions.

Furthermore, for firms in need of cash to expand their core operations a CRE sale and leaseback deal can be a more profitable capital acquisition method than conventional debt financing. Whereas most mortgage lenders impose a loan to value limits of around 70 per cent, a properly structured CRE sale and leaseback can provide 100 per cent of current market value of the investment. From a tax perspective, the seller will be able to deduct the full leasing payments compared to the mortgage where the seller only can claim deductions on the mortgage component.

Another tax consideration regarding CRE sale and leaseback transactions is the capital gain or loss involved in the transactions. Since the CRE holdings involved in a sale and leaseback deal generally is held for use in the seller's business, it qualifies for capital gain or ordinary loss treatment. A possible capital gain from an operating CRE sale and leaseback transaction will be taxable as ordinary income while if the sale results in a loss, it will be deductible in full as an ordinary loss. Furthermore, a seller can use a CRE sale and leaseback to time the recognition of gains or losses while retaining the use of a property. A business may want to recognize gains to net operating loss carryovers and if the business owns appreciated

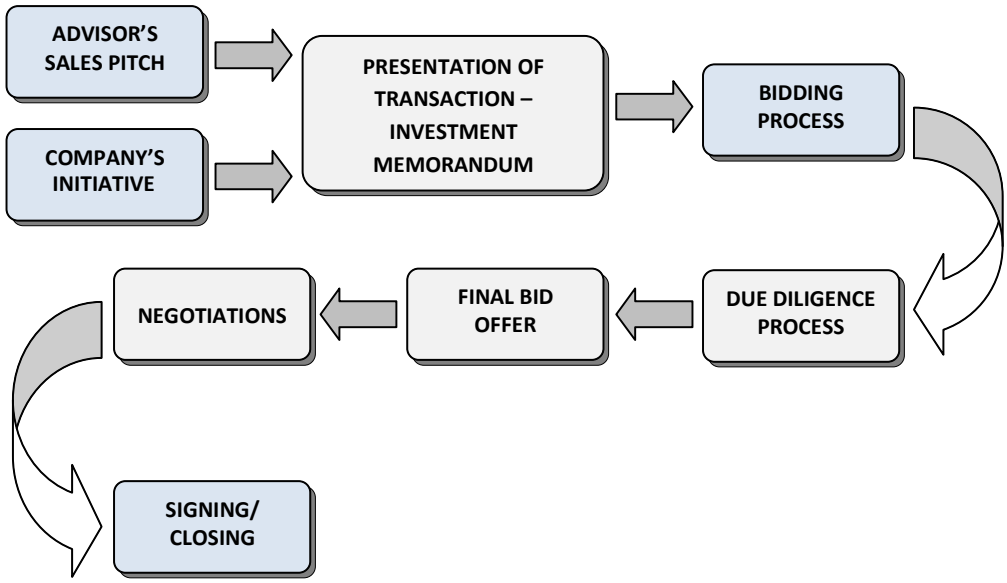
property, a sale of the CRE holdings will produce a gain that could be offset by the net operating loss carryovers.

The tax effects of a CRE sale and leaseback transaction for firms governed under the Swedish tax laws hence largely depends on the financing of the CRE holding when purchased, when the holdings were purchased, whether a capital gain is realized, the motivations behind the transaction and the financial position of the firm. Hence, there is no general tax effect for Swedish firms engaging in a CRE sale and leaseback transaction since each transaction must be evaluated separately depending on the firm- and transaction characteristics. Our interviews with legal advisors on the transactions furthermore state that for Swedish non-real estate firms, the decision to engage in a CRE sale and leaseback transaction must be based on substantial income-tax evaluations on each specific transaction.

2.4 The CRE Sale and Leaseback Process

The overall process in undertaking a CRE sale and leaseback transaction comprises a number of steps shown in *Figure 1* and can be initiated either by the company or from an advisor's sales pitch. However, the decision to perform a sale and leaseback transaction must be resolved either by the board of directors or the CEO of the selling company. This depends on the size and the art of the sale and leaseback transaction and whether the transaction is a part of the company's ongoing operations. Since CRE sale and leaseback transactions are performed by companies not primarily in the real estate business they are not considered a part of the company's ongoing operations and hence the decision is often made by the board. This implies that the board of directors often is the primary decision-taker regarding CRE sale and leaseback deals. Eventually, the company together with the financial advisors needs to find potential buyers of the real estate assets to be divested. An investment memorandum of the transaction is presented to the potential buyers and a bidding process is initiated. The next step involves due-diligence of the property by the potential buyers including property appraisals and information concerning property taxes, present or threatened claims, litigation or administrative actions relating to other tenants, damages to the asset, construction of the property and so forth. As the due diligence stage comes to an end, the buyer and the seller should be closing in on a specific price and a final bid, including specific stipulations. This is followed by negotiations of the specific terms and conditions of the leasing arrangement, resulting in a final step of signing and closing the deal.

Figure 1. The CRE sale and leaseback process



2.5 The Swedish CRE Sale and Leaseback Market

The European market for CRE sale and leaseback transactions has experienced a strong growth in recent years from approximately SEK 60 billion in 2004 to SEK 425 billion in 2007 in transaction values. The interviews with the practitioners in the CRE sale and leaseback market in Sweden assign the remarkable growth in Europe to the high prices on commercial real estate during the past few years that has enabled companies to realize substantial profits over book value on their real estate holdings. Another declared factor is the credit turmoil that has resulted in an increase in the cost of debt and furthermore made property divestment an attractive alternative to conventional debt financing.

The Swedish market for CRE sale and leaseback transactions has followed the same development as the rest of Europe with an escalating trend in recent years. The first large CRE sale and leaseback transactions in Sweden were made in the end of 1990 and in the beginning of 2000, which spurred later transactions and resulted in a fast growth in the market. Despite the favorable development of Swedish CRE sale and leaseback market, the general view is that non-real estate companies still tend to own a considerable amount of CRE holdings. At the same time, Sweden compared to other Nordic countries is the most developed market for CRE sale and leaseback transactions and is considered to be the leading Nordic country in the area.

The interviewed practitioners expect the increasing trend of CRE sale and leaseback transactions in Sweden to continue in a positive direction despite the current rather insecure economic situation, demonstrating less CRE ownership among Swedish companies. The public sector and the industrial area among others offer a considerable amount of potential transactions to be performed where the market expects to observe a significant growth in the coming years. Additionally, a significant increase in the share of foreign investors providing CRE sale and leaseback finance on the Swedish market has been noticed during the past few years and is expected to continue. The stated factors above together with the fact that many Swedish firms still hold extensive CRE holdings indicate a continued positive development of the Swedish CRE sale and leaseback market.

3. Theoretical Framework

In this section we present the theoretical framework which will underlie our subsequent hypotheses formulation. Due to the lack of a preset theoretical framework of CRE sale and leaseback announcements, the section will be based on three different sources; pure economic theories, previous research and additional contribution from our qualitative data from interviews and surveys with financial and legal advisors. In the section we will moreover combine leasing theories and theories on divestitures of CRE holdings in order to construct a theoretical framework of the expected market reactions of CRE sale and leasebacks and the sources behind the possible market reactions.

3.1 Modigliani and Miller Theorem

The fundamental corporate structure model in corporate finance was presented by Modigliani and Miller (MM) in 1958. The basic MM theorem states that under the assumption of perfect markets, in the absence of taxes, bankruptcy costs and asymmetric information the method of financing is irrelevant to the total value of the firm (Miller and Modigliani (1958)). According to the MM theorem leasing, as a financing alternative (Allen et al. (1993)), would hence not affect the value of the firm. This statement was examined by Miller and Upton (1976) who included leasing in the MM theorem within a perfect market and concluded that no financial advantages or positive net present value accrues from leasing.

The subsequent paper by Modigliani and Miller (1963) furthermore extended the initial theorem by including taxes (Brealey and Myers (2000)). The revised theorem states that in a world with taxes, debt financing maximizes the value of the firm and hence the financing decisions of a firm are not irrelevant. Myers et al. (1976) related these findings to the leasing alternative and revealed that, in the presence of taxation, CRE sale and leasebacks allow parties to generate wealth gains by expropriating wealth from the government. In their study, they concluded that there can be tax advantages from CRE sale and leaseback transactions, but the dimension of the tax effect depends on the specific transaction, the related tax rates and the country specific tax laws applying to the transaction.[1] The more recent study by Elayan et al. (2006) on the U.S. market extended the study by Myers et al. (1976) and examined the actual

[1] For further discussion regarding the specific tax effects on the Swedish CRE sale and leaseback market see section *2.3 Tax Effects of CRE Sale and Leaseback Transactions*

tax rate of the lessee firm as an explanatory factor to the extent of the market reaction upon CRE sale and leaseback announcements. Their intuition was that CRE sale and leaseback transactions should be relatively more valuable for firms paying higher taxes since the lease payments arising from the leasing will be a tax-deductible expense.

3.2 Pecking Order Theory

The pecking order theory of capital structure was first introduced by Myers and Majluf (1984) and explains how companies prioritize their sources of financing. The theory relies on two basic assumptions. The first one is asymmetric information about earnings and growth opportunities between the insiders of the firm and the investors. The second assumption relies on the fact that managers act in the interest of the existing shareholders. The theory concludes that due to adverse selection firms use a pecking order when acquiring capital in order to avoid the signaling effects associated with external financing. Retained earnings are selected first, secondly debt and only in extreme circumstances firms issue equity (Myers and Majluf (1984)). The empirical evidence of the pecking order theory indicates that stock price announcement effects of equity issues are on average significantly negative while returns to announcements of debt issues are generally non-positive but not significantly different from zero (Smith (1986)). Hence, if the market views the CRE sale and leaseback arrangement as a form of debt (Allen et al. (1993)), a CRE sale and leaseback announcement should have slightly negative or zero effect on the share price of the lessee firm (Slovin et al. (1990)).

3.3 Information Asymmetry Theory

According to the paper by Akerlof (1970) information asymmetry is based on the premise that different parties of a transaction often have different levels of information about the transaction. Potentially, this can lead to situations where one party can take advantage of the other party's lack of knowledge. A solution to these problems was first introduced by Spence (1973), who presented the theory of signalling. He proposed that in a situation with information asymmetry, it is possible for parties to signal their true value, thus believably transferring information to the other party and resolving the asymmetry.

The classical theories of information asymmetry and signalling have been applied to the CRE market. One of the investigated reasons for positive market reactions on real estate divestitures is based on information asymmetry (Owers and Rogers (1986)). CRE holdings

generally increase in value over time, however, under the historical cost accounting convention real estate assets are reported in the balance sheet at historical cost or at values determined during the last revaluation. The information asymmetry situations are caused since property revaluations are not carried out in a frequent manner. At the time of real estate divestiture announcements, information is hence disclosed on the value of the real estate assets, which enables the market to view the true value of the CRE assets. When CRE assets are sold at higher market values than the book values, it may furthermore create incentives for the market to believe that more values are hidden within the firm (Owers and Rogers (1986)). This reasoning is strengthened by one of our interviewees who mention the announced capital gain from selling the CRE asset as a variable that can have a positive effect on the market reaction around the CRE sale and leaseback announcement.

3.4 Focus Hypothesis

The focus hypothesis argues that an improved focus on the core business of a firm by divesting unrelated lines of business tend to increase the share price of the selling firm at the time of the divestment announcement (Berger and Ofek (1995)). Firms that sell off their CRE holdings which are not direct contributors to the core success of the business should hence experience an increase in their share price. This reasoning is confirmed by the interviewees who furthermore argue that firms owning CRE holdings generally has a lower return on the properties than on their core business activities. By divesting the CRE holdings the firm is hence able to employ the capital previously tied up in the CRE holdings more profitably in their core business.

3.5 Financial Significance Hypothesis

Although previous studies have focused on examining the market reactions of CRE sale and leaseback transactions, only a few have focused on stating possible reasons for differences in stock market reactions between firms announcing CRE sale and leaseback transactions. The study by Grönlund et al. (2004) does however bring up the relative size of the transaction value of the deal to the market capitalization as an explanatory variable. This variable has also been brought up in divestiture studies on announcement returns where differences between the relative sizes of the divested units partly have explained the different announcement returns (Klein (1986)). The previous research within this area has on average found a positive relationship between the relative size of the transaction and the abnormal returns around the

announcement date. The intuition behind the positive relationship and transaction value as a source to explain the different market reactions is based on the fact that the larger the relative size of the transaction, the larger is the economic significance of the transaction. All the interviews furthermore agree on the importance of the relative size of the announced deal for the market reactions; *"In order to have an effect on the stock price, the real estate holdings must constitute a large part relative to the total market capitalization of the firm"*.

3.6 Incentives Hypothesis

Previous research has pointed out various possible incentives[2] for firms to engage in CRE sale and leaseback transactions. Barris (2002) and Asson (2002) state raising cash in order to enhance growth of the core business or pay down debt as the two primary motivators of a CRE sale and leaseback transaction. Firms engaging in CRE sale and leaseback transactions can hence have different intentions for the use of the proceeds. Cooney et al. (2004) examine divestiture announcements distinguishing between firms announcing to use the proceeds for strategic investments such as enhance growth of the core business and firms announcing to use the proceeds to reduce debt. Their results suggest that firms announcing to use the proceeds in order to enhance growth of the core business are met with more favourable market reactions than firms announcing to use the proceeds in order to pay down debt. The intuition behind their results is that if the proceeds are used to enhance growth of the core business, the money will be invested in the business and the shareholders will hence gain from the transaction. Conversely, if the proceeds are used to pay down debt, the money will accrue to the debtholders and the shareholders will hence not have any significant gain from the transaction. Furthermore, if the announced motive is to use the proceeds to pay down debt, the market could view this as a weakening of the corporate governance function of debt and hence be met with a less favourable market reaction (Williamson (1988)).

3.7 Financial Position Hypothesis

The study by Elayan et al. (2006) evaluates whether the financial position of the lessee firm can have an effect on the market reactions upon the announcement of a CRE sale and leaseback transaction. They observe a difference in the market reactions between lessee firms that are

[2] See *Table 21* in Appendix for a summary of the incentives respectively the disincentives for firms to engage in CRE sale and leaseback transactions based on previous research on the subject

less creditworthy and have a high probability of financial distress and firms that have growth opportunities and are able to invest the proceeds in positive net present value projects. As one interview with a financial advisor working on CRE sale and leaseback transactions reveal; *"a company owning CRE holdings would expect a return on the properties of around 7 to 10 per cent while normal return on investment targets for growth companies range from 15 per cent to 30 per cent. Thus, a CRE sale and leaseback transaction should allow a company to net an 8 per cent to 20 per cent gain on the capital that is now available for more profitable investments in the company's core business*."

The results from Elayan et al. (2006) suggest that the market should reward firms with high growth opportunities using CRE sale and leasebacks with a positive market reaction since the market believes that the proceeds from the transaction will finance profitable investments at a higher rate of return than their CRE holdings. Conversely, firms with a high probability of financial distress in need of cash to meet debt obligations are expected to be penalized with negative market reactions. The intuition is that firms with higher probability of financial distress are less able to extract favorable leasing terms from the lessor and finance profitable investments with the proceeds and will hence be perceived by the market as value deteriorating (Elayan et al. (2006)). However, the importance of the financial position of the lessee firm prior to the announcement is weakened by findings on divestiture announcements of no relationship between the financial position of the firm prior to the announcement and the market reactions of the announcement (Miles and Rosenfeld (1983)).

4. Hypotheses

In the fist part of this section we will formulate the hypothesis intended to evaluate our primary objective of CRE sale and leaseback announcements' short-term effect on the stock price of the lessee firm. Thereafter we will formulate six hypotheses intended to test our secondary objective of whether different firm- and transaction specific variables can explain the market reactions of CRE sale and leaseback announcements. The formulated hypotheses in this section will mainly be based on our theoretical framework outlined in section three.

4.1 Hypothesis based on our Primary Objective

Our primary objective concerns CRE sale and leaseback announcements' short-term effects on the share price of the lessee firm. The MM-theorem, under the assumption of perfect markets discussed in section *3.1 Modigliani and Miller Theorem*, implies that leasing, as a source of financing would not have an effect on the stock price of the lessee firm. However, as the MM-theorem is extended to include taxes, the theory declare that there can be tax advantages from CRE sale and leaseback transactions and the market should react positively to a CRE sale and leaseback announcement. The argument for an enhanced value of the firm when employing CRE sale and leaseback transactions is furthermore supported by the information asymmetry hypothesis stating that a CRE sale and leaseback announcement should signal favourable information to the market. Conversely, according to the pecking order theory discussed in section *3.2 Pecking Order Theory*, the returns to announcements of CRE sale and leaseback arrangement are expected to be non-positive, but not significantly different from zero, if considered as a form of debt financing (Allen et al. (1993)). Nevertheless, the focus hypothesis argues that an improved focus on the core business of a firm by divesting CRE holdings unrelated to the core business should generate a positive market reaction upon announcement. Based on the reasoning above derived from the theoretical framework, our first hypothesis is hence that CRE sale and leaseback announcement, on average, should have a positive impact on the share price of the lessee firm as measured by abnormal returns.

Hypothesis 1: *CRE sale and leaseback announcements by lessee firms produce, on average, positive abnormal returns.*

4.2 Hypotheses based on our Secondary Objective

The second objective of the thesis aspires to explain the possible drivers behind the stock market reactions and potential dissimilarities in the reactions between firms announcing CRE sale and leaseback transactions. The objective will be achieved by testing different firm- and transaction specific variables' effect on the market reactions of CRE sale and leaseback announcements. The first hypothesis of the second objective will focus on the relative size of the transaction in relation to the market capitalization of the lessee firm. Based on the discussion in section *3.4 Financial Significance Hypothesis,* we anticipate a positive correlation between the size of the CRE sale and leaseback transaction in relation to the market capitalization of the lessee firm and the abnormal stock returns from a CRE sale and leaseback announcement. The hypothesis is hence formulated as:

Hypothesis 2: *The relative size of the CRE sale and leaseback transaction to the market capitalization of the lessee firm is positively related to the abnormal returns from a CRE sale and leaseback announcement.*

As suggested by the theory of information asymmetry and CRE divestments discussed in section *3.3 Information Asymmetry Theory* there should be a positive market reaction upon CRE sale and leaseback announcements since information on the true value of the CRE holdings are disclosed to the market, which may create incentives for the market to believe that more values are hidden within the firm. We hence anticipate that the larger gap there is between the net book value of the property and the announced transaction value (the capital gain) the larger is the probability that the market and the analysts assume that more values are hidden within the firm. Consequently, the firm will be priced higher due to the revealed information of hidden values.

Hypothesis 3: *The announced capital gain in relation to the announced transaction value is positively related to the abnormal returns from a CRE sale and leaseback announcement.*

In hypotheses four and five we intend to test whether the financial position of the lessee firm can have an effect on the market reactions upon CRE sale and leaseback announcements by using proxies for creditworthiness and growth opportunities. As discussed in section *3.6 Financial Position Hypothesis,* Elayan et al. (2006) observed differences in the market reactions of announcements between lessee firms that are less creditworthy with a high probability of financial distress and firms with growth opportunities that are able to invest the

proceeds in positive net present value projects. The discussion suggests that the market should reward firms with high growth opportunities using CRE sale and leasebacks with a positive market reaction since the market believes that the proceeds from the transaction will finance profitable investments in the business at a higher rate of return than their CRE holdings. For our empirical tests, we will follow the suggestion by McConnell and Servaes (1995) and use the P/E ratio the year prior to the announcement as a proxy for future growth prospects of the lessee firm. We anticipate that a higher P/E ratio of the firm implies a higher probability that the market believes that the proceeds from the transaction will be invested in the business to fund growth. The fourth hypothesis is hence formulated as follows:

Hypothesis 4: *The P/E ratio of the lessee firm is positively related to the abnormal returns from a CRE sale and leaseback announcement.*

The fifth hypothesis will conversely focus on the market reactions of a CRE sale and leaseback announcement for firms with high probability of financial distress. As a proxy for financial distress we have chosen to use the same proxy as Ezzell and Vora (2001), the interest coverage ratio of the lessee firm the year prior to the announcement. The ratio is interpreted as the higher interest coverage ratio the lower is the probability that the firm incur financial distress. Firms with high probability of financial distress in need of cash to meet debt obligations, are less able to extract favorable leasing terms from the lessor and more likely to use the proceeds from the transaction to cover current debt obligagtions (Elayan et al. (2006)). Since the proceeds will not be invested in the business and since their leasing terms will be less favourable we believe that the market will view the CRE sale and leaseback transaction as value deteriorating. This leads us to our fifth hypothesis:

Hypothesis 5: *The interest coverage of the lessee is positively related to the abnormal returns from a CRE sale and leaseback announcement.*

As discussed in section *3.5 Incentives Hypothesis,* firms engaging in CRE sale and leaseback transactions can have different intentions for the use of the proceeds. If the proceeds are used to enhance growth of the core business, the money will be invested in the business and the shareholders will gain from the transaction. Conversely, if the proceeds are used to pay down debt, the market could view this as a weakening of the corporate governance function of debt together with the fact that the shareholders will have less personal gain from the transaction. We hence anticipate that firms announcing to use the proceeds from the CRE sale and leaseback in order to enhance growth of their core business will be met with a more

favorable market reaction than firms announcing to use the proceeds in order to pay down debt.

Hypothesis 6: *Firms announcing that the proceeds from the CRE sale and leaseback transaction will be used in order to enhance growth of the core business experience higher positive abnormal returns from a CRE sale and leaseback announcement than firms announcing that the proceeds will be used in order to pay off debt.*

The seventh hypothesis is based on the tax considerations associated with CRE sale and leaseback transactions mentioned both in section *2.3 Tax Effects of CRE Sale and Leaseback Transactions* and section *3.1 Modigliani and Miller Theorem*. The dimension of the tax effects on the Swedish market depends heavily on the financing of the CRE holding when purchased, when the holdings were purchased, whether a capital gain is realized, the motivations behind the transaction and the financial position of the firm. Therefore we aim to test the results from the study by Elayan et al. (2006) on the U.S. market, suggesting that a CRE sale and leaseback transaction should be relatively more valuable for firms paying higher taxes, and apply the same examination on the Swedish market. Thus, our last hypothesis aims at examining if there is a positive relationship between the abnormal returns from a CRE sale and leaseback announcement and the tax rate of the lessee firm the year prior to the announcement, where the tax rate is measured as tax expense divided by EBIT as suggested by Elayan et al. (2006).

Hypothesis 7: *The tax rate of the lessee firm the year prior to the announcement is positively related to the abnormal returns of a CRE sale and leaseback announcement.*

5. Methodology

Chapter five presents the methodology involved in writing the thesis. The chapter begins with a detailed description of the test methodology for the formulated hypotheses together with a thorough description of the computation of the firm- and transaction specific variables included in our secondary objective hypotheses. Furthermore, the multivariate regression model together with the methodology of performing the regression will be presented.

5.1 Test Methodology

5.1.1 Primary Objective

To test our first hypothesis we will employ the standard event-study methodology (Bowman (1983)) to track the effects of CRE sale and leaseback announcements on the lessee firm's share price. The main objective of the methodology is to compare the expected return for each sample firm with the actual return around the announcement date. The actual day of each CRE sale and leaseback announcement is termed t = 0 while the event window includes the time period of one day before (t = -1) and one day after the announcement date (t = 1). The reason for using an event window of three days is mainly based on the thesis' intention to examine the short-term effects and additionally supported by the theory that prices in today's economy adjust in real time (Tapscott (1996)). By comparing the expected returns with the actual returns, the abnormal or unexpected returns that cannot be explained by the general market influences can be detected. Initially we hence need a measure of the expected return in order to appraise the announcements' impact on the share price of each firm. The expected returns are estimated by using the simple market model which assumes that daily observed returns conform the following structure:

$$R_{j,t} = \alpha_j + \beta_j R_{m,t} + \varepsilon_{j,t} \quad (1)$$

where

$R_{j,t}$ is the return of asset j at time t

$R_{m,t}$ is the rate of return of the OMXS All Share Index at time t

$\varepsilon_{j,t}$ the unexplained or abnormal return on day t ($AR_{j,t}$)

The simple market model (1) is employed in order to estimate the parameters α_j and β_j for each individual firm and transaction with an OLS regression using a 100 days pre-event estimation window designated as t = –101 to t =-1. The difference between the actual daily returns and the expected daily returns for firm j at time t, defined as the abnormal return, is calculated by rewriting equation (1):

$$AR_{j,t} = R_{j,t} - (\alpha_j + \beta_j R_{m,t}) \tag{2}$$

After the abnormal return for each firm is calculated, average abnormal returns AAR_t for each day within the event window are calculated as a simple cross-sectional average over N firms (all firms within the sample) as shown in equation (3):

$$AAR_t = \frac{1}{N}\sum_{j=1}^{N} A_{j,t} \tag{3}$$

By cumulating the abnormal returns over the event window for each firm we obtain the cumulative abnormal returns ($CAR_{T1,T2}$) for the period computed as the sum over the event window days accumulating from days $T1$ to $T2$:

$$CAR_{T1,T2} = \sum_{t=T1}^{T2} AR_{j,t} \tag{4}$$

The cumulative abnormal return for each firm thus captures the total firm-specific stock movement for the period when the market might be responding to new information. In addition, the cumulative average abnormal return for the whole sample is calculated by using equation (5):

$$CAAR_{T1,T2} = \frac{1}{N}\sum_{j=1}^{N}\sum_{t=T1}^{T2} AR_{j,t} \tag{5}$$

In order to achieve our primary objective we will test for zero average sample abnormal returns around the date of the announcement by using the equally weighted abnormal returns for each day within the event window (AAR_t) and the cumulative abnormal returns over the event window ($CAAR_{T1,T2}$). T-statistics will be given for two-tailed tests of zero average abnormal returns for each day within the event window and zero average cumulative abnormal returns

over the event window. The tests will hence disclose if the hypothesis of on average positive abnormal returns around the CRE sale and leaseback announcement date can be confirmed.

5.1.2 Secondary Objective

The six firm- and transaction specific variables that underlie our six hypotheses formulated to accomplish our second objective are the announced transaction value in relation to the market capitalization of the firm at the time of the announcement, the announced capital gain in relation to the announced transaction value, the P/E ratio, the interest coverage ratio, a variable indicating the use of the proceeds form the transaction and the tax rate of the lessee firms. A description of each variable together with the variable names is displayed in *Table 1* below.

Table 1. Description of the variables included in the study

Variable	Description	Variable name
Announced Transaction Value/Market Capitalization	Announced transaction value of CRE asset sold and leased divided by the market cap of the selling firm calculated as the share price of the selling firm at the announcement date times the number of outstanding shares at the same time	TVMC
Announced Capital Gain/ Announced Transaction Value	Estimated difference between book value CRE asset and announced transaction value (after tax) divided by the announced transaction value	CG
Price/Earnings	Market price per share divided by the earnings per share the year prior to the announcement	PE
Interest Coverage	EBIT divided by the interest expense the year prior to the announcement	COV
Use of the proceeds	Variable indicating the announced intended use of the proceeds from the transaction	USE
Tax Rate	Tax expense divided by EBIT the year prior to the announcement	TAX

Following Grönlund et al. (2004) we divide our sample into three different sub-samples in order to measure the differences in the market reaction between the sub-samples and hence evaluate each stated hypothesis. By using these sub-sample portfolios we aim to investigate whether the three different portfolios' abnormal returns differ in their reaction to the CRE sale and leaseback announcements. The division of the announcements into the three sub-sample portfolios is made on the basis of the size of each variable value for each announcement. For the majority of the variables we have divided the portfolios according to the device that portfolio 1 and 3 should represent approximately 35 to 40 per cent of the total sample each, constituting the lowest and highest values respectively. Portfolio 2 should represent approximately 20 to 25 per cent, comprising the middle values. These weights are used in order to achieve higher sample sizes for both ends of the distribution since these values are considered most relevant to the

testing. The tax rate variable, not divided according to this structure has yet been divided into three similar sub-samples, but the three portfolios represent slightly different percentages in order to better suit the variable. Lastly, the variable used to test the announced use of the proceeds is not divided according to values but grouped in two portfolios according to the two main stated uses of the funds.

After the division into sub-samples we examine the secondary objective's hypotheses by evaluating each variable separately by testing whether the different portfolios differ in their reaction to the CRE sale and leaseback announcement by using AAR_0 and $CAAR_{-1,1}$ as two measures of abnormal returns. T-statistics will be given for two-tailed test for zero AAR_0 and $CAAR_{-1,1}$ respectively. Each separate hypothesis is then tested by evaluating each portfolio's market reaction to the announcement of the CRE sale and leaseback transaction. Lower abnormal returns for portfolio 1 which represents the lowest variable values and higher abnormal returns for portfolio 3 which represents the highest variable values will indicate a positive relationship between the abnormal returns and the specific variable and vice versa. For the USE variable, higher abnormal returns for portfolio 1 indicate a more positive market reaction of announcements stating portfolio 1's firms' indicated use of the proceeds and vice versa if portfolio 2 demonstrates higher abnormal returns. By examining the abnormal returns using different portfolios divided according to the sizes of their values, we will consequently be able to observe whether there exist a positive or a negative relationship between each variable and the abnormal returns from the CRE sale and leaseback announcement.

5.1.3 Multivariate Regression

The multivariate regression aims at explaining the sources of the market reactions upon announcements of CRE sale and leasebacks transactions and hence assessing the explanatory power of the secondary objective's hypotheses. The multivariate regression model (Binder (1985)) has been used extensively to measure the sources of abnormal returns in stock market event studies. The regression method has an advantage over the sub-sample method used in our secondary objective testing since it is able to control for other factors that could influence the market's response to CRE sale and leaseback announcements and captures the effect of all the including variables simultaneously. Furthermore, by employing the regression we can assert the magnitude of each specific variable's impact on the market reactions upon CRE sale and leaseback announcements. When performing the regression we will moreover use the

multivariate regression with robust standard errors in order to obtain estimates adjusted for issues concerning heterogeneity and lack of normality.

The dependent variable in our study will be the abnormal return upon each announcement as measured either by the AAR_0 and the $CAAR_{-1,1}$ in order to capture the abnormal returns both at the specific announcement day and during the entire event window. The model that will be used in order to explain the variation in abnormal returns upon the date of CRE sale and leaseback announcements will include all variables tested in our secondary objective testing as independent variables. The model specifications with the two different dependent variables are shown in equation (6) and (7) where the independent variables are as defined previously in section *5.1.2 Secondary Objective* and ε is the error term.

$$AAR_0 = \beta_0 + \beta_1 TVMC + \beta_2 CG + \beta_3 PE + \beta_4 COV + \beta_5 USE + \beta_6 TAX + \varepsilon \quad (6)$$

$$CAAR_{-1,1} = \beta_0 + \beta_1 TVMC + \beta_2 CG + \beta_3 PE + \beta_4 COV + \beta_5 USE + \beta_6 TAX + \varepsilon \quad (7)$$

The dummy variable USE will take on the value 1 if the firm intends to use the proceeds from the transaction in order to enhance growth of the core business and the value 0 if the firm intends to use the proceeds in order to pay down debt. We anticipate that there can be a correlation between the USE, PE and COV variables. The intuition behind our anticipation is that we believe that a high P/E ratio is closely related to firms intending to use the proceeds to finance growth of the core business and that a low interest coverage ratio is closely related to firms trying to pay down debt. However, this will be tested for in section *7.3 Empirical Results from the Multivariate Regression.*

6. Data

In this fifth chapter we will present the collected quantitative data that will underlie our forthcoming empirical testing. The chapter starts by briefly explaining the approach chosen when collecting the data. Thereafter a thorough description of the data set is presented together with a description of the firm- and transaction specific variables included and their sub-sample portfolio division.

6.1 Collection of the Data

In order to investigate our two objectives for the thesis we use a sample of CRE sale and leaseback announcements made by publicly listed Swedish companies during a ten year period from 1997 to 2007. Since we have not found any database available where announcements of CRE sale and leaseback transactions are stated, we have searched for the announcements in news databases. Additionally, we searched for the announcements in other publicly available sources, including, among others, industry magazines, different Internet search services as well as the press release database from Stockholm Nordic Stock Exchange. Regarding the announcement dates of the transactions, we find it important to be precise in specifying the specific dates used when collecting our data in order to eliminate any confusion. To begin with, the announcements included are only those available in public sources. Secondly, the announcement date included in our sample is the earliest recorded announcement date of the transaction. This means that the announcement date can be several months before the actual transaction is executed while in some cases the announcement date is the same as the transaction date, if no announcements of the transaction have been revealed before. For example, if the CRE sale and leaseback transaction is executed on December the 1st 1996 but the firm announces the plans of the transaction August the 10th 1995, the announcement date that will be used for analysis will be August the 10th 1995. But if the deal is announced first at the date of the actual executed transaction, the date that will be used for analysis is December the 1st 1996.

We obtained 28 CRE sale and leaseback announcements made by 19 Swedish publicly listed companies during our time period beginning 1997 and ending 2007. After the 28 announcements were collected and registered, the stock return data from the included firms and returns from the OMXS All Share Index were listed from Datastream, which will be used in order to test for abnormal returns around the announcement date. However, in order for us to

be able to perform our tests and our analysis we had to set one additional criterion for the announcements. The criterion set was that no other major contemporaneous announcements or events were allowed to occur during the time period around the CRE sale and leaseback announcement. To determine whether an announcement was contaminated or not, we examined news databases and screened the firm's websites for contemporaneous announcements. This criterion narrowed our initial sample to a sample of 27 announcements made by 18 companies that will be used when testing our hypotheses.

Thereafter we assembled more detailed information on the transactions and the companies at the time of the announcement from firm websites, firm-specific press release archives and from the advisors working on the specific transactions. Included in our assembled more detailed information about the transactions were the firm- and transaction specific variables outlined in section *5.1.2 Secondary Objective*. The announced transaction values and the announced capital gains of the deals were obtained from the publicly available announcements. If the obtained value was announced as above a certain value we used the lower stated vale, and if the value was given as a range we used an arithmetic average. The market capitalization, the P/E ratio, the interest coverage ratio and the tax rate of the firm was collected by using information from the financial reports of the companies one year prior to the announcement. To assemble information on the announced intended use of the proceeds we identified the main motive stated in each announcement.

6.2 Descriptive Statistics

The data set in our study consists of the 27 CRE sale and leaseback announcements made by 18 Swedish publicly listed firms over our sample period from 1997 to 2007 (more detailed information on each transaction is displayed in *Table C-E* in Appendix). The 27 announcements included in our sample have very diverged announced transaction values with a minimum value of SEK 12 million and a maximum value of SEK 14 000 million. This variety is most likely related to the fact that the listed companies included in our study have very different market capitalization values and both small size companies and large size companies have been included in our data set. The mean, minimum, maximum and median values for the announced transaction values, the market capitalization values at the time of announcement and the announced capital gain from the transaction can be seen in *Table 2* underneath. The largest transaction value of SEK 14 000 million was the CRE sale and leaseback transaction announced

by Nordea in quarter one 2003 while the smallest transaction was the transaction announced by Nilörngruppen in quarter four 2006 which had an announced transaction value of SEK 12 million. Nilörngruppen is moreover the company included in our sample with the lowest market capitalization at the time of the transaction of SEK 74 million whereas ABB has the highest market capitalization of around SEK 165 000 million. The estimated capital gains were only observable for 20 transactions where the minimum announced capital gain was announced by Bong Ljungdahl of SEK 4 million in 2002 while the maximum announced capital gain was expected by the transaction announced by Nordea in 2003 of SEK 1 700 million.

Table 2. Descriptive statistics of the announced transaction value, the market capitalization and the announced capital gain

	Number of observations	Mean	Minimum	Maximum	Median
Announced Transaction Value	27	1 527	12	14 000	240
Market Capitalization	27	27 722	74	165 408	6 991
Announced Capital Gain	20	388	4	1 700	234

The announced transaction value divided by the market capitalization (TVMC) is included in order to demonstrate the financial significance of each announcement. The values of the ratio are fairly diverged where portfolio 1 represents TVMC values between 0 and 7 per cent, portfolio 2 values between 7 and 15 per cent and portfolio 3 values between 15 and 101 per cent. Portfolio 1 and 3 represents 10 transactions each in both ends while portfolio 2 represents the 7 announcements in between. As can be observed in *Table 3* below, the mean values differ significantly between the different portfolios where portfolio 1 has a mean TVMC value of 2.8 per cent while portfolio 3 has a mean of 52.0 per cent.

Table 3. Descriptive statistics of the TVMC variable for each portfolio

	Value range TVMC	Number of observations	Mean	Minimum	Maximum	Median
Portfolio 1	0-7%	10	2,8%	0,7%	6,6%	1,6%
Portfolio 2	7-15%	7	12,4%	7,8%	15,1%	12,8%
Portfolio 3	15-101%	10	52,0%	16,2%	101,3%	46,4%
Total	0-101%	27	23,5%	0,7%	101,3%	12,8%

The descriptive statistics for the announced capital gain of the transaction in relation to the announced transaction value (CG) can be seen in *Table 4*. Portfolio 1 represents CG values between 0 and 20 per cent, portfolio 2 values between 20 and 40 per cent and portfolio 3 values between 40 and 77 per cent. Portfolio 1 and 3 represents 6 respectively 9 transactions in both ends while portfolio 2 represents the 5 announcements in between. The highest CG ratio of 76.5

per cent was announced by Brio for their transaction announced in 2007 while the transaction announced by Capio in 2001 announced the minimum expected capital gain in relation to the announced transaction value of 0.7 per cent.

Table 4. Descriptive statistics of the CG variable for each portfolio

	Value range CG	Number of observations	Mean	Minimum	Maximum	Median
Portfolio 1	0 - 20%	6	11,3%	0,7%	19,2%	11,2%
Portfolio 2	20 - 40%	5	28,5%	23,3%	36,8%	24,3%
Portfolio 3	40 - 77%	9	49,0%	40,0%	76,5%	45,8%
Total	0-77%	20	32,6%	0,7%	76,5%	35,9%

The table of the descriptive statistics of the PE variable (*Table 5*) demonstrates that the firms included in our sample have very diverged P/E ratios. Portfolio 1 represents PE values between -61 to 0, portfolio 2 values between 0 and 13 and portfolio 3 values between 13 and 59. Portfolio 1 and 3 represents 11 transactions each in both ends while portfolio 2 represents the 5 announcements in between. The firm with the highest P/E ratio of 59 was Karolin Machine Tool in 2006 while the lowest value is represented by SAS in 2002 with a value of -61.

Table 5. Descriptive statistics of the PE variable for each portfolio

	Value range PE	Number of observations	Mean	Minimum	Maximum	Median
Portfolio 1	-61 - 0	11	-19,9	-61,0	-2,0	-10,8
Portfolio 2	0 - 13	5	9,8	6,5	11,9	10,8
Portfolio 3	13 - 59	11	24,9	13,0	58,9	19,0
Total	-61 - 59	27	3,9	-61,0	58,9	10,8

The variable COV representing the interest coverage of each firm the year prior to the announcement is divided in three portfolios where portfolio 1 represents values ranging from -7 to 0, portfolio 2 values ranging from 0 to 1 and portfolio 3 values ranging form 1 to 25 (see *Table 6*). The majority of the firms included in the sample have an interest coverage ratio below 1 which indicates that the majority of the firms are not generating sufficient revenues to satisfy their interest expenses. The minimum value of the coverage ratio of -6.5 was the ratio of Brio in 2006 while the maximum of 24.4 was the ratio of Swedish Match in 1997.

Table 6. Descriptive statistics of the COV variable for each portfolio

	Value range COV	Number of observations	Mean	Minimum	Maximum	Median
Portfolio 1	-7 - 0	8	-3,4	-6,5	-0,3	-3,6
Portfolio 2	0 - 1	5	0,4	0,3	0,5	0,4
Portfolio 3	1 - 25	10	8,6	2,1	24,4	5,9
Total	-7 - 0	23	2,7	-6,5	24,4	0,5

The variable stating the announced use of the proceeds from the CRE sale and leaseback transaction is not divided according to values but grouped according to the declared use of the funds. Portfolio 1 includes firms announcing that the proceeds from the transaction will be used in order to enhance growth of their core operations while portfolio 2 includes firms announcing that the proceeds will be used in order to pay down debt obligations. The third residual category is included in order to accommodate the announcements which do not fall under any of the two main categories of intended use of the proceeds or do not indicate how the firm intends to use the proceeds. However, this residual category will not be included in our testing, hence only portfolio 1 and 2 will be tested. *Table 7* demonstrates the announcements grouped according to the declared use of the proceeds. As can be seen in the table the majority of the firms in the sample (51.9 per cent) intends to use the proceeds from the CRE sale and leaseback transaction in order to enhance growth of their core business while 29.6 per cent of the firms in the sample intend to use the proceeds in order to pay down debt.

Table 7. Announcements grouped according to the declared use of funds from the CRE sale and leaseback transaction

Declared use of the proceeds	Number of observations	Portfolio	Percentage
Enhance growth of the core business	14	1	51,9%
Pay down debt obligations	8	2	29,6%
Other or missing	5	3	18,5%
Total	27		100,0%

The tax rates of the firms are divided into sub-samples somewhat differently than previous variables. Instead of focusing on achieving higher sample sizes for both ends, we have focused on using weights that better suits the variable values. Since the corporate tax rate in Sweden is at 28 per cent we have divided the sample into portfolios representing values far below the corporate tax rate, values close to the corporate tax rate level and values high above the corporate tax rate. The division can be seen in the *Table 8* where the maximum tax rate is at 198.5 per cent while the lowest is at -39.1 per cent.

Table 8. Descriptive statistics of the TAX variable for each portfolio

	Value range TAX	Number of observations	Mean	Minimum	Maximum	Median
Portfolio 1	-40 - 17%	11	-6,3%	-39,1%	12,7%	-0,6%
Portfolio 2	17 - 32%	9	23,4%	17,3%	27,2%	25,0%
Portfolio 3	32 - 200%	7	71,7%	32,3%	198,5%	43,5%
Total	-40 - 200%	27	23,8%	-39,1%	198,5%	20,5%

7. Empirical Results

In this section we will exhibit the results both from our primary objective's hypothesis testing and our secondary objective's hypotheses testing. For each hypothesis we will present the results from our testing as well as results from previous studies on the subject in order to discuss possible similarities or dissimilarities. We will moreover discuss a few specific results from single transactions in order to strengthen our reasoning. Finally we will examine the results received from our multivariate regression analysis on the abnormal returns around the date of the announcement in order to assess the explanatory power and the relative importance of our secondary objective's hypotheses.

7.1 Empirical Results from the Primary Objective

Our primary objective is to investigate the CRE sale and leaseback announcements' short-term effects on the share price of the lessee firm by examining if the abnormal returns are on average positive around the announcement date. In order to achieve our primary objective we have tested for zero average abnormal returns around the date of the announcement by using the average abnormal returns for each day within the event window (AAR_t) and the cumulative abnormal returns over the event window ($CAAR_{T1,T2}$).

Each one of the 27 announcements individual AR_t values are displayed in *Table F* in Appendix. In the table it can be seen the number of positive AR_t values at the day of the announcement (AR_0) are 19 relative to 8 negative. The large proportion of positive values (70 per cent) indicates that there seem to be an overall positive market reaction of CRE sale and leaseback announcements. The results from the AAR_t testing are summarized in *Table 9* where the average sample abnormal returns for each day within the event window and their respective *t*- and *p*-values are displayed.

Table 9. Sample average abnormal returns for event days -1 to + 1

Day	AAR_t	*t* -value	*p* -value
-1	-0,64%	-1,51	0,14
0	2,35%	2,80**	0,01
1	0,71%	1,21	0,24

T-statistics are given for the two-tailed test of zero average abnormal return for each day within the event window together with the p-value. Significant values at 5 per cent level are indicated with ** and significant values at 10 per cent are indicated with *.

The table distinctly shows a significant positive stock market reaction of 2.35 per cent in average abnormal return for CRE sale and leaseback announcements at the day of the announcement (AAR_0). The average abnormal return at the event date is furthermore found to be significantly positive at the standard 5 per cent level in the two-tailed test for zero average abnormal return. The results hence support the primary objective hypothesis that CRE sale and leaseback announcements by Swedish lessee firms on average produce positive abnormal returns. The abnormal returns one day prior to and one day after the event date are furthermore found to be -0.64 per cent and 0.71 per cent respectively, however, neither of the results are significant and are consequently regarded as being random.

We have moreover calculated the average cumulative abnormal returns over the event window ($CAAR_{T1,T2}$) in order to capture the share price movements for the total event window period when the market responds to the announcement. The individual $CAR_{-1,1}$ values for each one of the 27 announcements are displayed in *Table F* in Appendix. The number of positive $CAR_{-1,1}$ values are 17 relative to 10 negative, indicating a positive market reaction during the event window of 63 per cent of the sample announcements. The results of the average cumulative abnormal return testing over the event window for the entire sample, $CAAR_{T1,T2}$, are summarized in *Table 10*. For all intervals the cumulative abnormal return takes on a positive value, strengthening the indication of an overall positive market reaction to the announcement. The interval prior to the announcement day, the cumulative abnormal return ($CAAR_{-1,0}$) is 1.20 per cent significantly different from zero at the 10 per cent level. For the entire event window the cumulative abnormal return ($CAAR_{-1,1}$) is estimated at 2.42 per cent with a *t*-statistic of 2.25 which is significantly different from zero at 5 per cent level. The interval after the announcement day estimates an average cumulative abnormal return ($CAAR_{0,1}$) of 3.06 per cent, also significantly different from zero. We can hence state a significant positive abnormal return in the overall event window period.

Table 10. Sample average cumulative abnormal returns for different intervals within the event window

Interval	$CAAR_{T1,T2}$	*t* -value	*p* -value
[-1, 0]	1,20%	2,05*	0,05
[-1, 1]	2,42%	2,25**	0,03
[0, 1]	3,06%	2,96**	0,01

T-statistics are given for the two-tailed test of zero average cumulative abnormal return for each interval within the event window together with the p-value. Significant values at 5 per cent level are indicated with ** and significant values at 10 per cent are indicated with *.

Both the results from the AAR_t testing and the $CAAR_{T1,T2}$ testing hence supports our primary objective hypothesis that CRE sale and leaseback announcements by Swedish lessee firms on average produce positive abnormal returns. Our results of on average positive abnormal returns around the announcement date of a CRE sale and leaseback transaction are in line with previous empirical findings on market reactions of CRE sale and leaseback announcements. A summary of previous studies on the subject is displayed in *Table 11* below.

Table 11. Summary of prior results for studies of CRE sale and leaseback announcements effect on abnormal returns as measured by the abnormal average return at the announcement date and the cumulative average abnormal return for an interval surrounding the announcement date

Author	Year of study	Sample period	Sample region	AAR_0	$CAAR_{T1, T2}$
Slovin et al.	1990	1975–1986	U.S.	-	0,85% $_{(-1,0)}$
Rutherford	1990	1980-1987	U.S.	-	1,59% $_{(-1,0)}$
Allen et al.	1993	1979-1991	U.S.	0,85%	0,84% $_{(-1,0)}$
Liow	1997	1982-1991	Europe (UK)	1,41%	-
Ezzel and Vora	2001	1984–1991	U.S.	1,24%	2,36% $_{(-1,0)}$
Fisher	2004	1990-2000	U.S.	0,05%	1,30% $_{(-1,0)}$
Grönlund et al.	2004	1998-2003	Europe	1,03%	1,43% $_{(-1,1)}$

As can be observed, the reactions on the Swedish market appear considerably stronger compared to the results from the studies performed on the US and the European market. The increase of 2.35 per cent on the Swedish market is to be compared with 0.05 to 1.41 per cent for the referred studies on the US market and the European market. One possible explanation for the divergence of the extent of our results and the other studies is that our sample includes certain outliers, which might have an effect on the magnitude of our results. As an example, Bilia is an extraordinary case and as the company announced its CRE sale and leaseback transaction in June 2005 their share price increased with 12.4 per cent on the same day. This generated a total increase of the market capitalization of approximately SEK 260 million, as

compared to their total market capitalization of SEK 2 400 million at the day of the announcement. The deal itself was furthermore distinctive from other CRE sale and leaseback transactions. First, the properties constituted nearly 50 per cent of the total value of the firm and the announced transaction value to the market capitalization amounted to approximately 84 per cent. Secondly, the properties were announced to be transferred into a separate legal entity, Catena, and spun off as an initial public offer on the Stockholm Stock Exchange.

Another example of a strong market reaction upon a CRE sale and leaseback announcement is the CRE sale and leaseback transaction announced by Brio in 2007. At the time of the announcement of the CRE sale and leaseback transaction Brio's share price increased with 13 per cent, comprising approximately SEK 50 million of Brio's total market capitalization of SEK 446 million. The company was at the time making severe losses, however, selling off their properties played a major part in the recovery process. The transaction was estimated to generate SEK 98 million for the properties with an estimated capital gain of SEK 75 million, which is a considerably high ratio of announced capital gain to announced transaction value (approximately 77 per cent). Thus, there could be two explanations which affected the high abnormal return from the sale and leaseback announcement of Brio; partly the financial position of the company before and at the time of the announcement and partly the extraordinary high announced capital gain in relation to the announced transaction value.

In conclusion, our results of, on average, positive abnormal returns around the announcement date of CRE sale and leaseback transactions imply that the market perceives CRE sale and leaseback transactions as value enhancing deals creating substantial positive gains for the lessee firms. However, the results of positive abnormal returns contradict with the traditional theories of irrelevance of financing choices in a world without taxes and the theories of debt financing reported in section *3.1 Modigliani and Miller Theorem* respective section *3.2 Pecking Order Theory.* According to the theories of debt financing a CRE sale and leaseback announcement, since compared with a form of external debt financing announcement, should have on average a non-positive effect on the share price of the lessee firm. The findings of a significant positive effect of CRE sale and leaseback announcements could be argued to be unanticipated as the traditional theories assumes a non-positive effect. The CRE sale and leaseback transactions must hence provide some benefits favourable to the shareholders of the firm. The potential increase in the value of the lessee share price can be attributable to tax advantages, the financial position of the lessee firm, signalling of hidden values, and improved

focus on the core business or more efficient use of employed capital among others. Section *7.2 Empirical Results from the Secondary Objectives* and *7.3 Empirical Results from the Multivariate Regression* will however evaluate the potential sources of the observed share price effects more in detail in order to discover if the abnormal returns are contingent on different firm- and transaction specific variables.

7.2 Empirical Results from the Secondary Objectives

Our secondary objective aims at examining the potential sources of the observed share price effects and discover if the abnormal returns are contingent on the included firm- and transaction specific variables. The six hypotheses related to this objective are evaluated by examining each variable's three portfolios' abnormal returns around the date of the announcement by computing each portfolio's AAR_0 and $CAAR_{-1,1}$. *Table 12* summarizes the hypotheses and the variables tested as well as the expected results as measured by the average abnormal returns at the event date (AAR_0) and the cumulative abnormal returns over the event window ($CAAR_{-1,1}$). As stated previously the USE variable is only tested for portfolio 1 and 2, which represent firms announcing that the proceeds will be used to enhance growth of their core business and firms announcing that the proceeds will be used in order to pay down debt obligations.

Table 12. Summary of the variables included in the secondary objective testing and their expected relationship with the abnormal returns from a CRE sale and leaseback announcement measured by AAR_0 and $CAAR_{-1,1}$

Hypothesis	Expected results	Tested variable
Hypothesis 2	Portfolio 1< Portfolio 2< Portfolio 3	TVMC
Hypothesis 3	Portfolio 1< Portfolio 2< Portfolio 3	CG
Hypothesis 4	Portfolio 1< Portfolio 2< Portfolio 3	PE
Hypothesis 5	Portfolio 1< Portfolio 2< Portfolio 3	COV
Hypothesis 6	Portfolio 1> Portfolio 2	USE
Hypothesis 7	Portfolio 1< Portfolio 2< Portfolio 3	TAX

In line with our expectations we find that the TVMC variable is positively related to the abnormal returns from a CRE sale and leaseback announcement. This can be observed from the statistical testing results in *Table 13* where the AAR_0 and $CAAR_{-1,1}$ values for each portfolio are displayed together with the *t*-values and *p*-values for the two-tailed test of zero AAR_0 zero and $CAAR_{-1,1}$ respectively. The results show that portfolio 3 with the highest TVMC values experiences the significantly highest abnormal return of 3.99 per cent AAR_0 while portfolio 1 and 2 with low TVMC values only experiences 1.16 to 1.53 per cent AAR_0. The $CAAR_{-1,1}$ testing results

moreover corroborate with the AAR_0 results and the testing hence support our hypothesis that there is a positive correlation between the relative size of the CRE sale and leaseback transaction to the market capitalization of the lessee firm and the abnormal stock returns from a CRE sale and leaseback announcement. The results are in line with our previous reasoning that the larger relative size, the larger is the economic significance of the deal, and the larger should the overall gain to the company be. The findings by Grönlund et al. (2004) corroborate with our findings that a large part of the positive abnormal returns from a CRE sale and leaseback announcement is attributable to the transaction value sizes in relation to the lessee firms' market capitalization. In addition, our results can be related to previous studies of divestiture announcements, which found that the magnitude of the abnormal returns around the announcement is a function of the size of the divestiture (Klein (1986)). This can furthermore be seen in the case of Bilia, where the announced transaction value in relation to the market capitalisation was nearly 84 per cent and the abnormal return upon the announcement was 13 per cent. Although Bilia can be considered as an outlier (see section *7.1 Empirical Results from the First Objectives*), the case confirms our stated hypothesis.

Table 13. AAR_0 and $CAAR_{-1,1}$ test statistics from the testing of the TVMC variable

TVMC	AAR_0	*t* -value	*p* -value	$CAAR_{-1,1}$	*t* -value	*p* -value
Portfolio 1	1,53%	1,31	0,22	0,42%	0,20	0,85
Portfolio 2	1,16%	1,59	0,16	3,44%	2,31*	0,06
Portfolio 3	3,99%	2,17*	0,06	3,70%	2,22*	0,05

T-statistics is given for the two-tailed test of zero abnormal return together with the p-value. Significant values at 5 per cent level are indicated with ** and significant at 10 per cent level are indicated with *.

Concerning the testing of the CG variable it can be observed that portfolio 1 and 2 show a very small reaction to the CRE sale and leaseback announcement of 0.66 to 0.70 per cent AAR_0 and -0.17 and 0.07 per cent $CAAR_{-1,1}$ respectively (see *Table 14*). Conversely, portfolio 3 evidently differs from the other portfolios with a surprisingly high reaction of 4.65 per cent AAR_0 and 4.83 per cent $CAAR_{-1,1}$, both statistically significant at a 5 per cent level. These results consequently support our hypothesis that a larger announced capital gain in relation to the transaction value generates larger abnormal returns upon the announcement. These findings can be attributable to the markets belief that the larger gap between the CRE asset's net book value and its market value, the larger is the probability that more values are hidden within the firm and hence the firm is priced accordingly. Moreover, a case that supports this intuition is Brio. The company announced a capital gain in relation to announced transaction value of 77 per cent and had an

abnormal return of 13 per cent the same day. However, what contradicts our results is the fact that the capital gain is taxable as ordinary income. The larger capital gain from the transaction, the larger is the lessee firm's tax burden and hence the less favourable would the transaction be for the firm form a tax perspective. However, since our results prove a positive relationship between the abnormal returns and the capital gain, the market seem to value the disclosure of hidden values more than the increased tax burden of the firm. What can be seen as surprising about the market's reaction is that the market has not been able to value the full potential of the CRE assets into the market price prior to the announcement. The market's inability to value the CRE assets properly hence creates a possibility for the CRE sale and leaseback announcement to release information of possible hidden values within the firm and create shareholder value. We have not found any other studies that have evaluated the announced capital gain in relation to the transaction value of the CRE sale and leaseback deal and our results can hence neither be strengthen nor undermined by other findings.

Table 14. AAR_0 and $CAAR_{-1,1}$ test statistics from the testing of the CG variable

CG	AAR_0	*t* -value	*p* -value	$CAAR_{-1,1}$	*t* -value	*p* -value
Portfolio 1	0,66%	0,92	0,40	-0,17%	-0,09	0,93
Portfolio 2	0,70%	0,63	0,56	0,07%	0,02	0,98
Portfolio 3	4,65%	2,46**	0,04	4,83%	2,77**	0,02

T-statistics is given for the two-tailed test of zero abnormal return together with the p-value. Significant values at 5 per cent level are indicated with ** and significant at 10 per cent level are indicated with *.

The results from the testing of the PE variable deviate from the expected results from our hypothesis stating that the P/E ratio of the lessee firm at the time of the announcement is positively related to the abnormal returns from a CRE sale and leaseback announcement. As can be observed in *Table 15*, portfolio 1, representing firms with low P/E ratios, have the highest abnormal returns whereas portfolio 3, representing firms with high P/E ratios, experience much lower abnormal returns. The results indicate that firms with low P/E ratios and hence low growth prospects experience relatively higher abnormal returns from a CRE sale and leaseback announcement than firms with high P/E ratios and high growth prospects. The findings disagree with our hypothesis of a positive relationship between the market reaction of a CRE sale and leaseback announcement and the growth prospectus of the lessee firm and the results from Elayan et al. (2006). An explanation of our unexpected results might be the inadequacy of the P/E ratio as a proxy for growth prospects or the lack of importance of the financial position of

the lessee firm prior to the announcement as found on studies on market reactions of divestiture announcements (Miles and Rosenfeld (1983)).

Table 15. AAR_0 and $CAAR_{-1,1}$ test statistics from the testing of the PE variable

PE	AAR_0	*t* -value	*p* -value	$CAAR_{-1,1}$	*t* -value	*p* -value
Portfolio 1	4,30%	2,87**	0,02	5,15%	2,92**	0,02
Portfolio 2	-0,16%	-0,23	0,83	-2,58%	-1,91	0,13
Portfolio 3	1,49%	1,29	0,23	1,96%	1,38	0,20

T-statistics is given for the two-tailed test of zero abnormal return together with the p-value. Significant values at 5 per cent level are indicated with ** and significant at 10 per cent level are indicated with *.

The COV variable which is hypothesized to be positively related to the abnormal returns from a CRE sale and leaseback announcement demonstrates the opposite relationship when performing our tests. Portfolio 1, representing firms with low interest coverage ratios, experience abnormal returns of 5.73 per cent AAR_0 respectively 5.45 per cent $CAAR_{-1,1}$ significantly different from zero at a 5 per cent level (see *Table 16*). In contrast, portfolio 3 representing firms with higher interest coverage ratios experience notably lower abnormal returns, although not statistically different from zero. Firms with low interest coverage ratios, considered to have a high probability to incur financial distress, consequently seem to experience higher abnormal returns than firms with high interest coverage ratios, considered to be less likely to incur financial distress. In their study, Ezzell and Vora (2001) examined the interest coverage ratio's relation to abnormal returns from CRE sale and leaseback announcements and hypothesized a negative relation. Conversely to our hypothesis and supportive of our test results, they found a negative relationship between abnormal returns associated with CRE sale and leaseback announcements and interest coverage ratios. Their explanation of the findings was that firms close to financial distress can reduce the expected costs of distress by leasing rather than owning their assets. Conversely, the study by Elayan et al. (2006) expected a positive relationship between the ratio times interest earned (calculated as net income divided by interest expense and hence a proxy of the interest coverage ratio) and the abnormal returns around the announcement date of a CRE sale and leaseback announcement. Their results did however in accordance with our results and the results in the Elyan et al. (2006) study show a negative relationship. To summarize, firms with high probability of financial disress and low interest coverage ratios hence seem to achieve higher abnormal returns from a CRE sale and leaseback announcement than firms with low probility to incur financial distress and high interest coverage. However, neither the P/E ratio nor the interest

coverage ratio testing generate statistically significant results since only a few portfolios generate statistically significant values and the variables must hence be evaluated further in the multivariate regression analysis.

Table 16. AAR_0 and $CAAR_{-1,1}$ test statistics from the testing of the COV variable

COV	AAR_0	*t* -value	*p* -value	$CAAR_{-1,1}$	*t* -value	*p* -value
Portfolio 1	5,73%	3,08**	0,02	5,45%	3,28**	0,01
Portfolio 2	0,44%	2,14*	0,10	2,63%	0,82	0,46
Portfolio 3	1,33%	1,01	0,34	0,75%	0,43	0,68

T-statistics is given for the two-tailed test of zero abnormal return together with the p-value. Significant values at 5 per cent level are indicated with ** and significant at 10 per cent level are indicated with *.

When testing the USE variable we have only tested the two portfolios representing firms using the proceeds in order to enhance growth of the core buisness (portfolio 1) respectively firms using the proceeds in order to pay down debt (portfolio 2). The hypothesized result that portfolio 1 should experience higher abnormal returns around the CRE sale and leaseback announcement date than portfolio 2 is confirmed by our performed AAR_0 tests. Portfolio 1 experience a 3.16 per cent AAR_0 significant at a 5 per cent level cent while portfolio 2 experiences a lower AAR_0 at 2.13 per cent (see *Table 17*). The results hence support our hypothesis that the market reacts more positively if the proceeds from the transaction are announced to be used in order to enhance growth of the core business than if announced to be used in order to pay down debt. Our results from the AAR_0 testing can be related to the results from the study by Cooney et al. (2004) indicating that higher and more significant abnormal returns are observed for firms announcing to use the proceeds from a CRE divestiture in order to enhance growth of the core business, compared with lower and only marginally significant abnormal return for firms intending to use the proceeds to repay debt. The results are furthermore in line with the results from Williamson (1988) who find that announcements announcing that the proceeds will be used in order to pay down debt are met with a less favourable market reaction due to the market's view of a weakening of the corporate governance function of debt. The findings from the $CAAR_{-1,1}$ testing do however confirm the opposite relationship as portfolio 2 experience abnormal returns of 5.06 per cent $CAAR_{-1,1}$ while portfolio 1 experience an abnormal return of 1.78 per cent. Due to these deviating results, we can hence not draw any statistically significant conclusion of the relationship between the abnormal returns around CRE sale and leaseback announcements and the announced use of the proceeds.

Table 17. AAR_0 and $CAAR_{-1,1}$ test statistics from the testing of the USE variable

USE	AAR_0	*t* -value	*p* -value	$CAAR_{-1,1}$	*t* -value	*p* -value
Portfolio 1	3,16%	2,31**	0,04	1,78%	0,99	0,34
Portfolio 2	2,13%	1,51	0,17	5,06%	3,65**	0,01

T-statistics is given for the two-tailed test of zero abnormal return together with the p-value. Significant values at 5 per cent level are indicated with ** and significant at 10 per cent level are indicated with *.

The last firm- and transaction specific variable tested is the tax rate of the lessee firm. Our hypothesis suggested a positive relationship between the tax rate of the lessee firm and the abnormal returns around the CRE sale and leaseback announcement date. *Table 18* show somewhat dispersed results from the AAR_0 testing of the TAX variable since portfolio 1 have higher abnormal returns than portfolio 2, while portfolio 1 and 2 have lower abnormal returns than portfolio 3. The fact that portfolio 3 have the highest abnormal returns as measured by AAR_0 among all portfolios do however indicate a positive relationship. Furthermore, by examining the $CAAR_{-1,1}$ testing, which demonstrate higher abnormal returns for portfolio 2 and 3 in relation to portfolio 1, we can conclude that there seem to be a positive relationship between the TAX variable and the abnormal returns. Nevertheless, no statistically significant conclusion can be drawn since only one portfolio generates statistically significant values at a 10 per cent level. The reason might also be that the dimension of the tax effects on the Swedish market depends heavily on the specific transaction as mentioned in section *2.3 Tax Effects of CRE Sale and Leaseback Transactions* which might create difficulties to draw a general conclusion. The study by Elayan et al. (2006) did however found evidence that the lessee firm's tax rate is positively related to the abnormal returns from a CRE sale and leaseback announcement while Ezzell and Vora (2001) found the opposite. Our discovered fairly weak positive relationship together with the other studies conflicting results do hence suggest that the market reaction form a CRE sale and leaseback announcement is not generally driven by the lessee's tax rate.

Table 18. AAR_0 and $CAAR_{-1,1}$ test statistics from the testing of the TAX variable

TAX	AAR_0	*t* -value	*p* -value	$CAAR_{-1,1}$	*t* -value	*p* -value
Portfolio 1	2,43%	1,67	0,13	1,77%	1,01	0,34
Portfolio 2	1,93%	1,37	0,21	2,86%	2,01*	0,08
Portfolio 3	2,74%	1,66	0,15	2,86%	1,04	0,34

T-statistics is given for the two-tailed test of zero abnormal return together with the p-value. Significant values at 5 per cent level are indicated with ** and significant at 10 per cent level are indicated with *.

7.3 Empirical Results from the Multivariate Regression

As a final test we undertake the multivariate regression analysis as an attempt to assess the explanatory power of the secondary objective hypotheses and state the importance of each specific variable's impact on the market reactions upon CRE sale and leaseback announcements. As stated in section *5.2.3 Multivariate Regression***,** the dependent variable in our regression analysis is the abnormal return around each announcement measured either by AAR_0 or $CAAR_{-1,1}$. In the same section we furthermore anticipated a correlation between the PE, COV and USE variables. However, when examining the correlation matrix in *Table G* in the Appendix we observe reasonably low correlation between the PE, COV and the USE variables. A regression including all the firm- and transaction specific variables included in our secondary hypothesis testing should hence not lead to skewed regression results. The model specifications that will be applied in our regression are hence the specifications outlined in equation (6) and (7) in section *5.2.3 Multivariate Regression*. The USE variable in the equation is represented by a dummy variable set to 1 for firms announcing to use the proceeds in order to finance growth and 0 for firms announcing to use the proceeds in order to overcome liquidity constraints. The results from the two models is presented in *Table 19* where the intercept, the estimated parameter coefficients for the independent variables TVMC, CG, PE, COV, USE and TAX are presented together with the *t*-statistic, *p*-values, the number of observations in the regression, the adjusted R^2 and the F-statistics.

In the regression the data sample is reduced to a regression sample size of 15 observations since the announcements with missing independent variables are omitted. The TVMC parameter estimate and the CG parameter estimate are positive as predicted under the second hypotheses testing and significant at a 1 per cent level in both the AAR_0 and the $CAAR_{-1,1}$ regressions, except for the CG parameter estimate in the AAR_0 regression which exhibits significance at a 5 per cent level. The parameter estimates for the P/E ratio (PE) show unexpected negative signs in both regressions, though exceptionally modest negative values and insignificant both when regressed against AAR_0 and $CAAR_{-1,1}$. The interest coverage ratio (COV) estimates in the regressions show unpredicted negative signs, but they are negligible and not found to exhibit significance neither in the AAR_0 nor in the $CAAR_{-1,1}$ regressions.

Table 19. Multiple regression of all firm- and transaction specific variables regressed against AAR_0 and $CAAR_{1,1}$

Variable	AAR_0			$CAAR_{-1,1}$		
	Coefficient	***t*-value**	***p*-value**	**Coefficient**	***t*-value**	***p*-value**
Intercept	-0,0943	-3,63***	0,007	-0,0769	-2,11*	0,011
TVMC	0,1256	4,89***	0,002	0,1434	4,15***	0,014
CG	0,1492	2,80**	0,005	0,1830	3,96***	0,524
PE	-0,0003	-0,90	0,411	-0,0004	-0,72	0,602
COV	-0,0008	-0,88	0,459	-0,0008	-0,52	0,089
USE	0,0463	2,42**	0,050	-0,0186	-0,82	0,559
TAX	0,0181	1,63	0,216	0,0643	5,31***	0,014
	N		15	**N**		15
	Adj. R^2		0,7676	**Adj. R^2**		0,6570
	F-statistics		11,62***	**F-statistics**		12,99***
	(p-value)		0,0014	**(p-value)**		0,0010

This table reports the multivariate regression results when using the AAR_0 respectively $CAAR_{-1,1}$ as dependent variables. The independent variables in the regression are the TVMC-, CG-, USE-, and the TAX variables. The number of observations (N), adjusted R^2 F-statistic and the corresponding p-value are reported for each regression.
* Significant at the 10 per cent level
** Significant at the 5 per cent level
*** Significant at the 1 per cent level

The parameter estimates from the PE variable and the COV variable hence indicate that the variables are negatively related to the abnormal returns around a CRE sale and leaseback announcement, a result hence contrary to the formulated hypotheses. However, since the coefficients are insignificant and hence not significantly different from zero, the variables cannot provide a substantial explanation for the observed abnormal returns. The coefficient for the USE variable exhibits diverse results in the AAR_0 and the $CAAR_{-1,1}$ regressions with positive respectively negative signs, although the coefficient in the AAR_0 regression is the only significant at a 5 per cent level. The dummy variable USE indicates that firms announcing to use the proceeds in order to enhance growth of the core business on average experience higher AAR_0 than firms announcing to use the proceeds in order to pay down debt. In the $CAAR_{-1,1}$ regression the negative sign of the coefficient indicates that firms announcing to use the proceeds in order to enhance growth of the core business experience lower $CAAR_{-1,1}$ values than firms announcing to use the proceeds in order to pay down debt. To conclude, the results from the dummy variable in the AAR_0 and the $CAAR_{-1,1}$ regressions do not fully support the hypothesis that firms announcing to use the proceeds in order to enhance growth of their core business experience higher positive abnormal returns than firms announcing that the proceeds will be used in order to pay down debt. We can hence not state a significant statistical relationship between the announced use of the proceeds and the abnormal returns around the announcement date. The

parameter estimates for the tax rate of the lessee firm do however show a positive sign as predicted under the seventh hypothesis both in the $CAAR_{-1,1}$ regression and the AAR_0 regression.

The results from each individual firm- and transaction specific variable in general support our sub-sample testing in section *7.2 Empirical Results from the Secondary Objectives.* The regression method can not only strengthen the results from the sub-sample testing but moreover captures the effect of all the including variables simultaneously and state the importance of each specific variable. The most essential finding in the regressions is hence that the TVMC variable and the CG variable provide the strongest explanation for the observed abnormal returns around the announcement date of a CRE sale and leaseback transaction. The TAX variable is furthermore an important explanatory factor to the abnormal returns, although not as strong as the TVMC and CG variables, while the PE, COV and USE variables exhibit low explanatory influence on the observed abnormal returns. The coefficient of determination, adjusted R^2, measures the variation of the abnormal returns explained by the model as a percentage of the total variation in the dataset and are adjusted to take into account the sample size and the number of independent variables included in the model. The adjusted R^2-value of 0.7676 in the AAR_0 regression respectively 0.6570 in the $CAAR_{-1,1}$ regression thus demonstrate that the two models explain a sufficiently large per cent of the variation in the data, which we conclude is a good fit of the model. The significant *F*-statistics in both models reinforce our conclusion that most of the variation in the abnormal returns around the announcement date can be explained by the regression results. However, what should be noticed is that the model regressed against AAR_0 seems to exhibit the largest explanatory power and hence the results from this regression should be considered slightly more reliable.

8. Conclusion and Final Remarks

In this final section we will complete our study by summing up our results from our hypotheses testing and our multivariate regression. We will furthermore discuss possible limitations of our study and introduce suggestions for further research.

8.1 Conclusion

Over the last decades the increased core business focus has initiated a growth of divestitures of CRE divisions. The development to divest non-core operations together with the generally undermanaged CRE assets has given rise to the growth of CRE sale and leaseback transactions. The European CRE sale and leaseback market commenced later than in the U.S. but has in recent years experienced a strong growth. The Swedish market for CRE sale and leaseback transactions has followed the same development as the rest of Europe and has escalated in the past few years. Nevertheless, the Swedish CRE sale and leaseback market remains exceptionally unexamined compared with the European and U.S. markets. As no previous studies have been performed on the Swedish CRE sale and leaseback market, our study intended to examine the short-term market reactions of CRE sale and leaseback announcements of Swedish publicly listed lessee firms as measured by abnormal returns. Moreover, our study has focused on explaining possible sources behind the stock market reactions and potential dissimilarities in abnormal returns between firms announcing CRE sale and leaseback transactions.

Our empirical findings from the primary objective of investigating the CRE sale and leaseback announcements short-term effects on the share price of Swedish publicly listed lessee firms indicate that the abnormal returns at the date of the announcement is, on average, positive at 2.35 per cent. The findings are moreover confirmed by the findings from the cumulative abnormal return testing around the announcement date indicating an overall positive market reaction. The results hence support our hypothesis that CRE sale and leaseback announcements by lessee firms, on average, produce positive abnormal returns. Furthermore, the results are in line with previous studies on market reactions of CRE sale and leaseback announcements on the U.S. and European markets, however, the magnitude of our observed abnormal returns appear considerably stronger.

Our secondary objective of potential sources of the observed share price effects reveals that the positive abnormal returns arise primarily from CRE sale and leaseback deals

where the announced transaction value is large in comparison to the market capitalization of the selling firm and deals announcing a large capital gain from the transaction in relation to the announced transaction value. The results are in line with the theory of information asymmetry as well as the financial significance hypothesis. Secondly, our results indicate that the abnormal returns can be driven by the tax rate of the lessee firm. However, the tax rate cannot be considered as the main source behind the abnormal returns arising from a CRE sale and leaseback announcement. Thirdly, the PE ratio and the interest coverage ratio of the lessee firm the year prior to the announcement indicated a weak negative relationship with the market reactions of a CRE sale and leaseback announcement. However, the results are not statistically significant, indicating that the financial position of the lessee firm have a low influence on the abnormal returns upon the announcement of a CRE sale and leaseback transaction. Finally, the market seems to be indifferent to whether the firm intends to use the proceeds in order to enhance growth or pay down debt. Hence, the abnormal returns around CRE sale and leaseback announcements appear not to be driven by the announced use of the proceeds from the transaction.

Taken all together, our study indicates a positive abnormal return, on average, for CRE sale and leaseback announcements performed on the Swedish market. However, two deals with apparently comparable structures can have quite different market impacts since the abnormal returns around the date of the announcement are contingent on different firm- and transaction specific variables. Although the abnormal returns can be explained by some of the variables included in this study, there must be other sources affecting the market reactions of CRE sale and leaseback announcements. One possible underlying explanation for the market reactions are the ability for firms engaging in CRE sale and leaseback deals to focus on their core business where their primary profit potential is. We believe that an enhanced focus on the core business signals the managements' increased interest in creating shareholder value to the stock market by more efficient use of capital. The focus hypothesis is included in our study, however, its effect on the market reactions cannot be measured outright. The market reactions of CRE sale and leaseback announcements consequently seem to be driven only partly by fundamental value drivers such as the market value of the real estate holdings, the capital gain achieved and the tax advantages involved in the deal. Therefore, we suggest that the market reactions that are left unexplained by the fundamental value drivers is a consequence of the investors' belief of the managements' determination to create shareholder value.

To conclude, our study has shown that there are potential benefits to be received by Swedish companies performing CRE sale and leaseback transactions and that the transactions could be interpreted as a value increasing external financing alternative superior to other external financing alternatives. Nevertheless, positive market reactions of CRE sale and leaseback announcements cannot simply be assumed.

8.2 Limitations of the Study

There are certain limitations of the study that have potential effects on the obtained results. First, our sample is of a small size which limits the statistical power of the tests. The small sample size of 27 observations hence may have prohibited us from detecting consistent results. In order to increase the reliability of the results and draw more accurate conclusions, a larger sample would have been required. Nevertheless, according to Brown and Warner (1985) even a small sample size does not dramatically alter the specification of test statistics within the given sample. The reason is that even in the presence of abnormal returns that do not obey a normal distribution one can still use *t*-tests. Due to the small sample size, we have furthermore not been able to exclude any outliers; a fact which may decrease the *t*-statistic and thus perhaps eliminating a significant difference. The outliers have furthermore affected the magnitude of the positive abnormal returns, however, since we have concluded that the number of positive abnormal returns far exceeds the number of negative abnormal returns it should not affect our conclusion of a positive abnormal return. Moreover, there are numerous factors that affect the stock price change even though the thesis examines solely six variables. There are several factors that could potentially drive the market reactions from a CRE sale and leaseback announcement, but in order to stay within the boundary of this thesis only a few could be chosen. The factors selected in the thesis are variables assessable and supported by previous economical theory and empirical research on divestiture and leasing announcements. Another limitation considering the variables included in the tests are the proxies applied to these. There is a possibility that there are more accurate proxies that could have been used and we have no guarantee for using the correct ones. Nevertheless, the proxies chosen to explain the variables have been chosen cautiously by studying tests from previous research and studies. Furthermore, although we have set a criterion of no other major contemporaneous announcements or events to occur during the event window around the CRE sale and leaseback announcement, there could be a risk that some have been overlooked accidentally.

8.3 Suggestions for Further Research

In progressing with the thesis numerous areas for potential further research have appeared. As concluded in this thesis, the reactions on the Swedish market are considerably stronger compared to the results from the studies performed in the rest of Europe and the U.S. We hence believe that it would be of interest to evaluate whether the differences in the magnitude of the abnormal results are due to the potential outliers in our study or due to country specific factors. However, this is left as a suggestion for further research. Furthermore, it would be interesting to examine the post-effects of the companies involved in the sale and leaseback transactions. This particularly applies to the companies in a high probability of financial distress before the announcement of the transaction. Have these companies performed better after the CRE sale and leaseback transaction and how does CRE sale and leasebacks in general affect a company's performance over a long period? Are there any significant long-term advantages from CRE outsourcing? Since the thesis has focused on the short-term announcement effect of sale and leaseback, the question still remains as to whether, in the long-run, companies engaging in CRE sale and leasebacks create more value than companies owning their CRE assets. Finally, it would be interesting to make a detailed comparison of the abnormal returns between each company in our sample as well as study the possible relationship to the length of the leasing contracts as an explanatory transaction specific variable.

9. References

Academic references

Akerlof, George A., (1970), The Market for Lemons: Quality Uncertainty and the Market Mechanism, *Quarterly Journal of Economics*, vol. 84, issue 3, 488-500

Adkison, Jeff, 1999, Corporate real estate under siege?, *Journal of Corporate Real Estate* vol. 2, issue 1, 68-74

Allen, Marcus T., Ronald C. Rutherford and Thomas M. Springer, 1993, The Wealth Effects of Corporate Real Estate Leasing, *The Journal of Real Estate Research*, vol. 8, issue 4, 567-578

Asson, Tim, 2002, Real Estate Partnerships: A new Approach to Corporate Real Estate Outsourcing, *Journal of Corporate Real Estate*, vol. 4, issue 4, 327 – 333

Barris, Roger, 2002, Sale-leasebacks Move to the Forefront: What is Motivating Buyers and Sellers and What are their Preferred Methods, *Briefings in Real Estate Finance*, vol. 2, issue 2, 103-112

Berger, Philip G. and Ofek, Eli, 1995, Diversification's Effect on Firm Value, *Journal of Financial Economics*, vol. 37, 39–65

Binder, John J., 1985, On the Use of the Multivariate Regression Model in the Event Studies, *Journal of Accounting Research*, vol. 23, no. 1, 370-383

Bowman, Robert G., 1983, Understanding and Conducting Event Studies, *Journal of Business Finance & Accounting*, vol. 10, no. 4, 561-84

Brealey, Richard A. and Stewart C. Myers, 2000, *Principles of Corporate Finance*, 6th edn., McGraw-Hill, New York

Brown, Stephen J. and Jerold B. Warner, 1985, Using Daily Stock Returns - The Case of Event Studies, *Journal of Financial Economics*, vol. 14, 3-31.

Charlton, Mark and Steven Laposa, 2001, European vs. US corporations: a Comparison of Property Holdings, *Journal of Corporate Real Estate*, vol. 4, no.1, 34-47

Cooney, Mary R., Frank Finn and Angela Karl, 2004, Australian Divestiture Activity: An Examination of Gains to Sell-Off Announcements, *Australian Journal of Management*, Vol. 29, Special Issue 2004

Devaney, Steven and Colin Lizieri, 2004, Sale and Leaseback, Asset Outsourcing and Capital Market Impacts, *Journal of Corporate Real Estate*, vol. 6, no. 2, 118-132

Elayan, Fayez A., Thomas O. Meyer and Jingyu Li, 2006, Evidence from Tax-Exempt Firms on Motives for Participating in Sale-Leaseback Agreements*, Journal of Real Estate Research*, vol. 28, issue 4, 381-410

Etter, Wayne E. and Fred F. Caldwell , 1995, Buy or Lease? Commercial Property Decisions**,** Reprint from *Tierra Grande - The Real Estate Center Journal*, Publication 1064

Ezzell, John R. and Premal P. Vora, 2001, Leasing versus Purchasing: Direct Evidence on a Corporation's Motivations for Leasing and Consequences of Leasing, *The Quarterly Review of Economics and Finance*, vol. 41, issue 1, 33-47

Fisher, Lynn M., 2004, The Wealth Effects of Sale and Leasebacks: New Evidence, *Real Estate Economics*, vol. 32, no. 4, pp. 619-643

Grönlund, Tomi, Antti Louko and Mika Vaihekoski, 2004, Corporate Real Estate Sale and Leaseback Effect: Empirical Evidence from Europe, Working Paper, Helsinki School of Economics and University of Technology

Klein, April, 1986, The Timing and Substance of Divestiture Announcements: Individual, Simultaneous and Cumulative Effects, *Journal of Finance*, vol. 41, issue 3, 685-696

Liow, Kim Hiang, 1997, An Empirical Investigation of UK retail companies' Property Asset Strategies, Journal of Property Finance, vol. 8, no. 1, 24-34

McConnell, John J. and Henri Servaes, 1995, Equity Ownership and the two faces of Debt, *Journal of Financial Economics,* vol. 39, 131-157

Manning, Chris and Stephen E. Roulac*,* 1999, Corporate Real Estate Research within the Academy*,* Journal *of Real Estate Research*, vol. 17, issue 3, 265-280

Miller, Merton and Modigliani, Franco., 1958, The Cost of Capital, Corporation Finance and the Theory of Investment, *American Economic Review*, vol.48, no.4, 261-297

Miller, Merton H. and Charles W. Upton, 1976, Leasing, Buying and the Cost of Capital Services*, The Journal of Finance*, vol. 31, no. 3, 761-786

Miles, James A. and James D. Rosenfeld, 1983, The effect of Voluntary Spin-off Announcements of Shareholder Wealth, *Journal of Finance*, vol. 38, no. 5, 1597–1606

Myers, Stewart C. and Nicolas S. Majluf, 1984, Corporate Financing and Investment Decisions when Firms Have Informationthat Investors Do Not Have, *Journal of Financial Economics*, vol. 13, no. 2, 187-221

Myers, Stewart C., David A. Dill and Alberto J. Bautista, 1976, Valuation of Financial Lease Contracts*, The Journal of Finance*, vol. 31, no. 3, 799-819

Nappi-Choulet, Ingrid, 2002, Corporate Property Outsourcing in Europe: Present Trends and New Approach for Real Estate Economics, paper presented to the *IPD European Property Strategies Conference in Wiesbaden*

Nourse, Hugh O., 1990, *Managerial Real Estate - Corporate Real Estate Asset Management*, Englewood Cliffs, Prentice Hall

Owers, James and Ronald Rigers, 1986, The Divestiture of Real Estate Assets by Sell-off, *Real Estate Issues,* vol. 11, no. 1, 29-35

Roulac, Stephen E., 2003, Corporate-Owned Real Estate Represents a Substantial Investment Universe*, Journal of Real Estate Portfolio Management*, vol. 9, issue 2, 167-178

Rutherford, Ronald C., 1990, Empirical Evidence on Shareholder Value and the Sale-Leaseback of Corporate Real Estate. *Journal of American Real Estate and Urban Economics Association* vol. 18, 522–529.

Silverman, Robert and Sally Zeckhauser, 1983, Rediscover Your Company's Real Estate*, Harvard Business Review* 6 (1), 111-117

Sharpe, Steven A. and Hien H. Nguyen, 1995, Capital Market Imperfections and the Incentive to Lease, *Journal of Financial Economics*, vol. 39, 271-294

Steven A. and Hien H. Nguyen, 1995, Capital Market Imperfections and the Incentive to Lease, *Journal of Financial Economics*, vol. 39, 271-294

Slovin, Myron B., Marie E. Sushka and John A. Polonchek, 1990, Corporate Sale-and-Leasebacks and Shareholder Wealth*, The Journal of Finance*, vol. 45, no. 1, 289-299

Smith, Clifford W., 1986, Investment Banking and the Capital Acquisition Process, *Journal of Financial Economics*, vol. 15, issue 1-2, 3-29

Spence, A. Michael, 1973, Job Market Signaling, *Quarterly Journal of Economics*, vol. 83, 355-377

Tapscott, Don, 1996, *Digital Economy – Promise and Peril in the Age of Networked Intelligence*, McGraw - Hill

Williamson, Oliver E., 1988, Corporate Finance and Corporate Governance, *The Journal of Finance*, vol. 43, 567–591

Non-Academic Sources

International Accounting Standards Board (IASB), *Lease Accounting Regulation*, IAS 17

Other Sources

Andersson, Mikael, Head of Strategic Advisory and Research, Leimdörfer, 2008-04-02, Stockholm

Dahlman Löfgren, Elisabeth, Lawyer, Senior Associate Tax, Mannheimer & Swartling, 2008-04-11, Stockholm

Lundström, Stellan B. E., Professor of Real Estate & Construction Management at The Royal Institute of Technology, 2008-04-06, Stockholm

Persson, Thomas, Catella Property Group, 2008-04-21, Stockholm

Sven Dahlin, Partner and CEO, Leimdörfer, 2007-04-02, Stockholm

Wallin, Andreas, Associate, Investment Coverage, DTZ Sweden, 2008-04-07, Stockholm

Wejdmark, Jan, CEO, Newsec Corporate Finance AB, 2008-04-09, Stockholm

10. Appendix

Table A. Example displaying the effects of an operating CRE sale and leaseback transaction on the balance sheet and income statement of a fictive company

	Balance Sheet before CRE sale and leaseback	Change due to CRE sale and leaseback	Balance sheet after CRE sale and leaseback
Cash	23000	787000	810000
Other current assets	1000	0	1000
Non-current assets	2800000	-1748000	1052000
Total assets	**2824000**	**-961000**	**1863000**
Current liabilities	1027240	94160	1121400
Income tax payable	114240	174160	288400
Accounts payable	300000	0	300000
Current portion of long-term debt	80000	-80000	0
Line of credit	533000	0	533000
Non-current liabilities	1503000	-1503000	0
Total liabilities	**2530240**	**-1408840**	**1121400**
Shareholders' equity	293760	447840	741600
Total shareheolders' equity	**293760**	**447840**	**741600**

	Income statement before CRE sale and leaseback	Change due to CRE sale and leaseback	Income statement after CRE sale and leaseback
Sales	1000000	0	1000000
COGS	-300000	0	-300000
Gross income	**700000**	**0**	**700000**
Operating expense	-200000	130000	-330000
Lease payments	0	130000	-130000
Capital gain/loss	0	660000	660000
Depreciation	-92000	-92000	0
Income before tax	**408000**	**622000**	**1030000**
Income tax	-114240	-174160	-288400
Income after tax	**293760**	**447840**	**741600**

The example assumes real estate assets purchased for 5 years ago for 2300000 with an estimated useful life of 25 years and hence depreciated with 92000 yearly. The net book value is hence 1840000. The real estate asset is now sold in a CRE sale and leaseback arrangement for 2500000 and leased back simoultaneously with yearly lease payments of 130000. The tax rate employed in the example is 28 per cent. The cash received from the sale and leaseback transaction are assumed to be used to pay off the current portion of the long-term debt and the non-current liabilities in the company while the rest remains as cash within the company. Notice that the cash left over after paying down the debt stays within the company and is not invested in new projects.

Table B. Incentives respectively disincentives for engaging in CRE sale and leaseback transactions

Incentives - CRE sale and leaseback transactions	Disincentives - CRE sale and leaseback transactions
+ possibility to focus on core businesses	- inability to expand space at will
+ possibility to raise funds and pay down debt	- difficulties in choosing lease length and terms
+ possibility to raise funds in order to expand operations	- loss of potential increases in real estate values
+ possibility to increase occupational flexibility	- loss of capital allowance
+ off-balance sheet financing	- risk for variation of rent levels
+ more efficient usage of property by professionals	- if leased property is no longer required lease payments must be maintained
+ tax advantages	- uncertainty at the end of the lease term
+ substitute for debt capital	
+ maintenance of existing credit lines	
+ maintenance responsibility can be avoided	
+ CRE tend to be undervalued	
+ rent as fixed payments - better planning of cash flows	
+ rise off-balance sheet - enhance financial ratios	
+ disposing of low yield assets	
+ possibility to reduce the cost of capital	

Sources: Grönlund et al. (2004), Barris (2002), Nappi-Choulet (2002), Sharpe and Nguyen (1995), Roulac (2003), Asson (2002), Etter and Caldwell (1995), Lizieri and Devaney (2004)

Table C. Descriptive statistics over the sample of CRE sale and leaseback announcements by Swedish listed companies during the sample period from 1997 to 2007

Transaction ID	Seller/Lessee	Industry - SIC	Purchaser/Lessor	Period	Announcement date
1	Swedbank	Savings Institutions, Federally Chartered	Kungsleden/AMF Pension mfl	Q1 1998	1998-01-21
2	SEB	Savings Institutions, Federally Chartered	Vasakronan	Q1 1998	1998-02-12
3	Elekta	Electromedical and Electrotherapeutic Apparatus	Unknown	Q2 1998	1998-06-26
4	Swedish Match	Chewing and Smoking Tobacco and Snuff	Nordisk Renting	Q4 1998	1998-12-21
5	SKF	Ball and Roller Bearings	Kungsleden	Q2 1999	1999-04-22
6	Bong Ljungdahl	Envelopes	Nordisk Renting	Q3 2000	2000-09-18
7	SKF	Ball and Roller Bearings	Kungsleden	Q1 2001	2001-01-23
8	ABB	Electrical Components/Equipment	London & Regional Properties	Q2 2001	2001-04-09
9	Capio	Health Care	Nikko Principal Investments	Q2 2001	2001-05-08
10	Telia	Communications Services, NEC	Nordisk Renting	Q3 2001	2001-08-31
11	SAS	Air Transportation, Scheduled	Nordisk Renting and GE Capital Real Estate	Q4 2001	2001-12-06
12	SKF	Ball and Roller Bearings	Leasinvest	Q1 2002	2002-01-08
13	Bong Ljungdahl	Envelopes	Consortium of Norweigan Property Investors	Q1 2002	2002-02-25
14	ABB	Electrical Components/Equipment	Ohio State University	Q4 2002	2002-12-10
15	ÅF	Engineering Services	GE Capital Real Estate	Q1 2003	2003-02-03
16	Nordea	Savings Institutions, Federally Chartered	IXIS AEW Europe, Catella Investments etc.	Q1 2003	2003-03-14
17	Bong Ljungdahl	Envelopes	Unknown	Q2 2003	2003-05-23
18	SAS	Air Transportation, Scheduled	Nordisk Renting	Q2 2003	2003-06-10
19	ÅF	Engineering Services	GE Real Estate	Q3 2003	2003-09-17
20	SAS	Air Transportation, Scheduled	Keops	Q3 2003	2003-09-29
21	Bilia	Motor Vehicle Dealers	Shareholders of Bilia (IPO - Catena)	Q2 2005	2005-06-22
22	Intellecta	Direct Mail Advertising Services	Brostaden	Q1 2006	2006-02-16
23	Nilörngruppen	Textile Goods, NEC	Unknown	Q4 2006	2006-11-06
24	SEB	Savings Institutions, Federally Chartered	Homburg Invest Inc.	Q4 2006	2006-11-29
25	Mekonomen	Motor Vehicle Supplies and New Parts	AXA Group of France	Q1 2007	2007-01-15
26	Karolin Machine Tool	Metalworking Machinery	NLI Fastigheter Holding AB	Q3 2007	2007-07-02
27	Brio	Games, Toys, and Children's Vehicles	Kungsleden AB	Q4 2007	2007-12-14

Table D. Descriptive statistics over the sample of CRE sale and leaseback announcements by Swedish listed companies during the sample period from 1997 to 2007

Transaction ID	Location	Leasing-length	Nr buildings sold	Size [sqm]	Advisor	Type of use of property sold
1	Sweden	4 y	232	442 000	Unknown	Offices
2	Sweden	-	44	267 000	Enskilda Securities	Offices
3	UK	-	-	-	-	Offices
4	Sweden	-	1	44 000	-	Headquarters
5	Sweden	10 y	1	15 000	Leimdörfer	Headquarters
6	Sweden	-	-	55 000	-	Headquarters/Industrial properties
7	Sweden	-	-	29 000	-	Offices/Industrial properties/Warehouse
8	Sweden	1,5-15 y	54	1 200 000	Leimdörfer	Industrial properties
9	UK	30 y	20	-	Ernst & Young Real Estate Finance	Medical center
10	Sweden	-	-	101 600	TP Fastighetskonsult	Headquearters/Offices
11	Sweden, Norway, Denmark	20 y	11	285 000	Newsec	Airportrelated properties
12	Belgium	15 y	-	26 000	-	Offices/Warehouses
13	Norway	-	1	10 000	-	Industrial properties/Offices
14	USA	-	1	-	-	Offices/Industrial properties
15	Sweden	-	7	22 600	Leimdörfer	Offices/Industrial properties
16	Finland, Norway, Sweden	25 y	-	190 000	Catella, Citigroup, Nordea Securities	Offices/Industrial properties/Headquarters
17	UK	-	1	-	-	Industrial properties
18	Sweden	-	3	117 000	Newsec	Headquarters/Offices
19	Sweden	-	1	10 700	-	Headquarters
20	Denmark	10-15 y	5	80 000	DTZ	Offices
21	Sweden	11 y	-	252 000	Leimdörfer	Offices/Industrial Properties/Retail
22	Sweden	-	-	10 209	Leimdörfer	Offices/Industrial properties
23	Sweden	-	1	2 675	-	Headquarters
24	Baltics	-	63	108 000	Catella	Offices
25	Sweden, Denmark	-	50	90 000	Catella	Industrial properties
26	Sweden	10 y	-	29400	Leimdörfer	Offices/Industrial properties
27	Sweden	10 y	2	36 000	-	Retail

Table E. Descriptive statistics over the sample of CRE sale and leaseback announcements by Swedish listed companies during the sample period from 1997 to 2007 where all values are expressed in million SEK if not otherwise stated

Transaction ID	Share price (class 1 - sek)	Nr shares [million]	Share price (class 2 - sek)	Nr shares [million]	Market Cap (MC)	Transaction Value (TV)	TV/MC	Capital Gain after tax (CG)	CG/TV	Interest expense	Tax expense	EBIT	Interest Coverage	Tax rate	P/E
1	127	352	0	0	44 572	2920	6,6%	300	10,3%	-	-1 388	2 400	-	57,8%	36,6
2	89	588	111	22	54 973	4 300	7,8%	1000	23,3%	-	-1 077	3 129	-	34,4%	16,7
3	16	9	0	0	148	150	101,3%	-	-	-57,0	-10,0	-208,0	-3,6	-4,8%	19,0
4	29	431	0	0	12 651	725	5,7%	267	36,8%	-65	-512	1 586	24,4	32,3%	11,9
5	31	65	108	49	7 310	153	2,1%	-	-	-1 290	377	-999	-0,8	37,7%	-6,6
6	107	9	0	0	917	130	14,2%	25	19,2%	-	-19	92	4,9	20,5%	11,5
7	33	65	131	49	8 607	106	1,2%	-	-	-1 267	-1 001	3 674	2,9	27,2%	8,3
8	138	1 200	0	0	165 408	3 000	1,8%	-	-	-647	-273	1 385	2,1	19,7%	34,2
9	73	59	0	0	4 288	3 400	79,3%	24	0,7%	-21	-52	303	14,6	17,3%	30,0
10	42	3 001	0	0	127 311	1 030	0,8%	500	48,5%	-1 742	-1 447	12 006	6,9	12,1%	13,8
11	72	162	0	0	11 650	3 000	25,8%	700	23,3%	-798	-273	3 053	3,8	8,9%	6,5
12	44	81	174	32	9 238	123	1,3%	-	-	-1 173	-909	3 634	3,1	25,0%	10,8
13	62	13	0	0	808	52	6,4%	4	7,7%	-76	9	40	0,5	-21,6%	-26,0
14	21	1 200	0	0	25 608	170	0,7%	-	-	-702	-273	279	0,4	97,8%	-16,9
15	45	6	0	0	265	170	64,2%	30	17,6%	-25	17	-136	-5,4	12,7%	-4,1
16	38	2 928	0	0	109 800	14 000	12,8%	1700	12,1%	-	-3 701	14 374	-	25,7%	14,0
17	24	13	0	0	312	37	11,9%	9	24,3%	-65	40	-20	-0,3	198,5%	-2,2
18	43	165	0	0	6 991	2 000	28,6%	700	35,0%	-2 098	267	682	0,3	-39,1%	-61,0
19	56	6	0	0	318	240	75,4%	110	45,8%	-25	17	-136	-5,4	12,7%	-4,1
20	60	165	0	0	9 788	1 000	10,2%	500	50,0%	-2 098	267	682	0,3	-39,1%	-61,0
21	104	23	0	0	2 386	2 000	83,8%	800	40,0%	-35	-72	304	8,7	23,7%	13,0
22	41	4	0	0	172	40	23,2%	16	40,0%	-2	4	-8	-3,5	43,5%	-23,8
23	32	2	0	0	74	12	16,2%	-	-	-4	-1	-6	-1,6	-18,6%	-10,8
24	203	663	238	24	139 995	1 700	1,2%	700	41,2%	-	-2 770	34 227	-	8,1%	13,0
25	107	31	0	0	3 306	500	15,1%	200	40,0%	-15	-58	220	14,8	26,4%	24,9
26	116	10	0	0	1 163	170	14,6%	100	58,8%	-123	-17	67	0,5	25,4%	58,9
27	48	9	0	0	446	98	22,0%	75	76,5%	-21	-1	-135	-6,5	-0,6%	-2,0

Table F. Each one of the 27 announcements individual AR_t, $AAR_{-1,1}$ and $CAR_{-1,1}$ values

Company	AR_{-1}	AR_0	AR_1	$AAR_{-1,1}$	$CAR_{-1,1}$
1	-2,3%	-0,8%	-1,8%	-1,7%	-5,0%
2	-3,0%	-1,2%	3,0%	-0,4%	-1,2%
3	0,5%	0,1%	-0,7%	0,0%	-0,1%
4	-4,5%	0,8%	-2,0%	-1,9%	-5,8%
5	-5,6%	11,4%	1,3%	2,4%	7,1%
6	1,5%	0,7%	-0,9%	0,4%	1,2%
7	0,4%	1,4%	-1,9%	0,0%	-0,1%
8	2,5%	2,4%	2,1%	2,4%	7,1%
9	3,2%	-1,4%	1,2%	1,0%	3,0%
10	-3,4%	-0,3%	-0,6%	-1,4%	-4,3%
11	-3,3%	-1,7%	0,4%	-1,5%	-4,6%
12	-2,0%	-2,0%	0,3%	-1,2%	-3,7%
13	-1,2%	0,1%	-6,0%	-7,1%	-2,4%
14	1,4%	1,0%	9,8%	4,1%	12,2%
15	0,2%	2,8%	0,5%	1,2%	3,5%
16	0,2%	2,6%	0,5%	1,1%	3,3%
17	1,3%	4,7%	4,4%	3,5%	10,4%
18	0,2%	0,9%	0,4%	0,5%	1,4%
19	-0,5%	11,0%	1,6%	4,0%	12,0%
20	-1,2%	0,0%	7,5%	2,1%	6,3%
21	-2,8%	12,4%	1,5%	3,7%	11,0%
22	-1,0%	3,3%	0,0%	0,7%	2,2%
23	1,1%	-0,2%	-0,9%	0,0%	0,0%
24	1,5%	1,4%	0,8%	1,3%	3,8%
25	0,3%	1,1%	2,2%	1,2%	3,6%
26	1,3%	0,2%	-1,3%	0,1%	0,3%
27	-2,2%	12,9%	-2,2%	2,8%	8,5%
Mean	**-0,64%**	**2,35%**	**0,71%**	**0,63%**	**2,59%**

Table G. Correlation matrix all variables included in the model A respectively the model B regression

	AR_0	$CAR_{-1,1}$	TVMC	CG	PE	COV	TAX	USE
AR_0	1,0000							
$CAR_{-1,1}$	0,7457	1,0000						
TVMC	0,4448	0,5304	1,0000					
CG	0,5737	0,3647	-0,2000	1,0000				
PE	0,0792	-0,0269	0,2485	-0,1836	1,0000			
COV	-0,3907	-0,3959	-0,0980	-0,2372	0,5204	1,0000		
TAX	0,1480	0,3177	-0,0736	-0,1484	0,3595	0,0408	1,0000	
USE	0,3273	-0,0788	-0,3103	0,2594	0,4358	0,1002	0,3714	1,0000