Value Creation by Real Estate Funds

A Case Study of Value Creation in Real Estate

Abstract

This paper presents an overview of real estate private equity funds and their rapid growth in the last two decades. We describe their origin, strategies and show how they are structured. We provide an extensive overview over the investment and evaluation process applied by real estate funds and the rationale for investing in these funds from an investor perspective. Essentially, we aim to identify and outline the value drivers behind real estate private equity investments. In addition to financial theories, we have included a case study illustrating how a Swedish real estate fund added value to its grocery store portfolio through active management and partnership with a foreign local player. We find that real estate as an asset class has provided superior risk adjusted returns compared to the equity market. However, we acknowledge several potential biases to real estate return indices and discuss their potential impacts on our results. Through our interviews with industry professionals and previous research we discover two main reasons for investing in real estate funds. First, investors wish to invest without compromising the diversification argument, as they avoid tying up capital in directly owned properties. Secondly, investors see value in the unique management expertise of real estate funds and their ability to operate in foreign or less competitive markets. We find that a main source of value creation behind real estate private equity investments is their ability to transform less attractive properties into the ones that are sought after by institutional investors.

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1. Introduction

The Real Estate Fund industry has seen an explosive growth during the recent decade. However, relevant academic research still lags behind (Fuerst and Matysiak (2011)). With this paper we aim to uncover the nature of the real estate fund market in general, and real estate private equity funds in particular, to discover value creation abilities of real estate funds both in term of their functions as financial intermediaries as well as their skills as active owners. We have taken a qualitative approach to our thesis, which stems from the objective to describe the value drivers behind real estate investments and give way for more specific research studies in the future.

Our research questions are the following:

- How are real estate funds constructed?
- What are the risk and return characteristics of real estate funds as an asset class?
- What is the rationale for investing in real estate funds?
- What strategies do real estate funds employ in order to create value?
- What are the value drivers behind real estate investments compare to private equity investments?

To answer these questions this paper is constructed in the following manner. We start out by giving an extensive overview over the real estate fund market. We show why there has been such an explosive growth in the number of real estate funds, and we give a brief overview over the historical development of these funds. We then explain how the funds are constructed and how they are classified according to their risk profiles, as well as the investment philosophies of each fund category. We continue with the description of a typical real estate transaction, including valuation methodologies and value drivers for properties. Since the growth of real estate funds have essentially been driven by investor appetite, we also analyze the risk and return characteristics of real estate investments as to understand why institutional investors find real estate an attractive class for their portfolios.

The subsequent part of the thesis evolves more around value creation concepts and comparisons with Private Equity investments. With a qualitative framework based on Private Equity theories, we evaluate the similarities and differences between Real Estate and Private Equity funds in their strategies to create value in their investments. The value chain of real estate funds is also covered where we show that different types of real estate serves a particular objective in each part of the lifecycle of a property investment and how each type can add value. Most importantly, this serves to evaluate the role and functions of Non-Core real estate funds that mostly resemble private equity funds. From a theoretical perspective we

also show how real estate funds generate value by serving as a financial intermediary in an imperfect market, in addition to adopting operational and financial engineering strategies.

Finally we look at a specific case study which describes an investment made by a Swedish real estate private equity fund during 2006-2007. The fund, Sveafastigheter, acquired small grocery stores across Finland and implemented value-adding strategies, including consolidation of individual assets and collaboration with local partners, which transformed the properties to an attractive portfolio with marketable size and more stable income streams.

We find that Real Estate investments have outperformed the global equity market over the period of 1990 – 2011, and especially since 2004. This analysis is conducted by comparing the returns and Sharpe ratios of NCREIF Property Index which we use as a proxy for real estate prices, and MSCI World which is a proxy for global stock prices. However, we need to be skeptical about the results due to potential bias in the return data of real estate indices. Edelstein and Quan (2005) criticize the appraisal valuation method for real estate and its biased calculation which results in seemingly high risk-adjusted returns of real estate indices. As result, correlations with other asset classes would also be artificially too low and not provide an accurate comparison. Franzoni et al (2011) provide evidence for an illiquidity premium paid for private equity investments. While taking into account the liquidity factor, their model could remove the previously unexplained alpha returns. This has implications for our study, that the superior risk-adjusted return could simply be premium paid for the illiquid nature of real estate.

Through previous research and our interviews, we discover two main reasons behind investments in real estate funds. First, investors seek to gain exposure in real estate assets without compromising the diversification argument, as they avoid tying up capital in directly owned properties. Secondly, investors value the unique management expertise that these funds hold and their knowledge through local partnerships in regions that the investors seek exposure in. This could also be perceived as result of institutional investors' decisions to outsource this expertise rather than building it in-house.

Through our case study and interviews with practitioners in Sweden, we find strong similarities between the value-creation strategies of non-core real estate funds and traditional private equity funds. The common value drivers can be related to the screening process as well as financial, operational and governance engineering. However, a few differences arise due to the fundamentally different characteristics of the underlying assets. First of all, real estate investments can undertake higher leverage ratios since the properties serve as good collaterals and the strong cash generation of properties can serve to pay off interests and

amortization. In addition, the agent-principal problem is by default limited in real estate investments since income is mostly bound by contracts, which leaves management with limited influence on the value of the investment. This leads to less emphasis and room for governance engineering strategies, although we find that equity stakes still serve as an efficient tool to obtain local partners and incentivize the management, as shown via our case study. Through our interviews, we have observed a stronger emphasis on the asset transformation strategies with non-core real estate funds. This can be explained by the relatively fixed exit multiples for prime properties with stable contracted income. This implies higher value up-side for real estate fund managers to purchase distressed assets or other types of properties which they can improve and transform into the type of properties with sought-after risk and return characteristics.

2. Methodology

Real Estate is not a listed or liquid asset class like equities and bonds, which results in limited availability of data that complicates empirical research studies in this area. This issue is amplified in the research of Real Estate funds, which is a relatively new asset vehicle on the market. They have experienced a rapid growth and become one of the major sources of gaining exposure to Real Estate but research have not kept with this development, according to Fuerst and Matysiak (2011). In order to answer our research questions with knowledge of the limited amount of data, we have taken a more qualitative approach in our evaluation. Nevertheless, this thesis can be seen as both quantitative and qualitative since we also incorporate sections that describe the characteristics of underlying asset with the use of more data. We have referred to Private Equity Intelligence (Preqin) that has an extensive database over real estate fund performance and fundraising trends. INREV (European Association for Investors in Non-listed Real Estate Vehicles) has also been used to obtain data and statistics of closed-ended real estate funds. We use NCREIF indices over real estate prices to calculate correlations between Real Estate and the equity and bond markets, in order to assess the risk and return characteristics of real estate in comparison to other assets.

An important source of information has been personal interviews with leading industry professionals in the Swedish real estate sector. We aim to cover a broad sample of interviews with various fund categories in order to obtain an unbiased picture of the real estate fund market and the strategies adopted by real estate funds. The interview questions consist of both standardized and customized questions for the different market participants. Each interview lasted between 1-2 hours and covered approximately 20-30 questions, with additional follow-up questions after the interview if needed. During the interviews, we

focused our questions on the value drivers in real estate and otherwise tried to get a deeper understanding of the specific steps in the value creating process.

The final part of the thesis includes a case study of a recent investment made by an opportunistic real estate fund. The purpose of this case study is to incorporate the value creation theories we have obtained during the course of this thesis and show how they were implemented in practice to create value.

3. Previous Research

3.1. General Theories on Listed Funds Performance

The question of whether investment fund managers actually create value for investors has long been a well-researched area in finance. Carhart (1997) proves in his study that almost all of the return persistence produced by equity mutual fund managers can be explained by common risk factor loadings such and investment expenses. However, his study finds that fund managers do not create value to investors even when they claim to possess specific skills or superior information, i.e. positive alphas before fees. Fama and French (2010) take another approach in order to estimate if the returns on mutual funds are result of management skills. They bootstrap simulate long histories of fund returns to identify the existence of good and bad funds. They conclude as Carhart (1997) that only a few funds produce enough returns to cover their costs, but that managers do not seem to add value through their skillset or superior information.

Note that the above literature is not about listed real estate funds which have seen little research on performance and persistence. However, Eichholtz, Kok and Margaritova (2009) find evidence that managers of real estate mutual funds do create value in certain geographical areas. Real estate as an asset class is characterized by local segmentation and asymmetric information, according to Garmaise and Moskowitz (2004). These attributes of real estate could also explain why the better informed managers could generate more value to investors than fund managers in equity and bond markets, even though the empirical argument is weak[1].

3.2. Non-listed Funds

Compared to the listed funds, literature covering performance of non-listed funds are more limited due to difficulty in obtaining good data. However some studies have looked at this topic. Steveneson (2009) looked at a sample between years 2001-2004, and made a regression analysis on the performance of non-listed funds. His research did not provide a

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[1] Ling (2005) and, Peterson and Hsieh (1997)

significant result at any level which he claimed was due to a large number of newly started funds in the sample and lack of detailed information about non-listed funds at the time.

There is a large academic literature covering the predictability of returns in funds investing in real estate. A study by Mei and Liu (1994) looks at the possibilities of forecasting and timing the market in the real estate market. They found that the real estate market is easier to predict compared to other asset classes such as stocks and bonds. This could imply that it is easier to time investments in the real estate market compared to other classes, the authors conclude. A similar study is Ling (2005) that uses consensus factors as a tool of predictability for real estate returns.

Fuerst and Marcato (2009) share a similar perspective to Fama and French (1993) when evaluating and forecasting real estate returns. They first look at the single index model using market risk as the only factor affecting returns in real estate. Then they add factors in a Fama and French context, and eventually end up with a 5-factor model to explain total returns. Their research concludes that the most useful factors for explaining real estate returns are property size, property cap rates, concentration of tenant mix and lease length.

When looking at persistence in performance, a topic more researched among listed funds in the evaluation of returns, a study by Young and Graff (1996) provides empirical evidence of serial persistence in a sample of returns from NCREIF Property Index during 1978-1994. In a similar study done by Devaney et al (2007) on UK property returns, the results and conclusions were similar.

In terms of diversification effects, several studies have also applied this to the real estate market. Hoesli and Lekander (2005) first acknowledged the recent growth of capital inflow to real estate in Europe. They interpret this as a result of a better institutional framework for the real estate markets in Europe. More importantly their study shows that non-listed funds have a high correlation with the underlying real estate market, while providing diversification effects to investors. This leads to the conclusion, according to the authors, that non-listed funds are desirable alternative investments compared to direct property holdings. Brounen et al. (2007) also acknowledges the tremendous growth of the real estate market. Both papers explain this as a cause of search for diversification but also as a case of risk management. Direct real estate investments impose two main risk to investors, namely management risks and liquidity risks that according to the papers can be solved via investing in real estate funds.

3.3. Literature on Opportunity Funds

Opportunistic funds as we cover in this thesis evolve around investments in properties that they can help improve. Previous research has looked at their ability to generate superior value by investing in distressed assets. In general, a number of studies[2] have found that value investments generate good returns for investors by using data on real estate mutual funds and using style descriptors made for real estate connected securities. Contradictory to these findings, O'Neal and page (2000) used the same data but over a shorter period and found the opposite result. This leads to the interpretation that real estates are good long-term investments, but one should beware of short-term market volatility and the consequences of having limited fund lifetime. Shilling and Wurtzebach (2010) find that a large portion of the returns generated by opportunistic funds actually comes from other factors than management skills. They suggest that the largest effects are related to market conditions and timing, i.e. business cycle expansion and contraction, use of cheap debt and other market conditions.

3.4. Considerations Regarding Measurement of Return

A large number of studies have looked at the characteristics of real estate return indices and concluded that it provides a higher risk adjusted return compared to other asset classes.[3]

However, a lot of these studies have not taken into account that the standard practice to represent market values and thus returns is by using professional appraisals. Several difficulties restrict the practical use of real estate rates of return series computed from professional appraisal data. The main problem is that the aggregate real estate rate of return index is smoothed because it employs smoothed individual property appraisals as described by Edelstein and Quan (2005). They raise the concern that this will underestimate the variance of the real estate index based on these market values and could also over or underestimate the true return of the index.

The measurement of real estate indices is a complex subject that is heavily debated. We will not go further into this subject in this thesis, although we acknowledge the potential bias problems and will consider its impacts in our evaluation of the risk and return characteristics of real estate assets.

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[2] Lind and Yeung (2004), Gallo, Lockwood and Rutherford (2000), Damodaran and Liu (1993), and Kallberg, Liu and Trzcinka (2000)

[3] Fama and Schwert (1977), Miles and McCue (1984), Ibbotson and Siegel (1984), Brueggeman, et al (1984) and Hartzell (1986).

4. General Industry Background

4.1. Introduction

Fuerst and Matysiak (2011) describe how the investor interest for real estate as an asset class has grown explosively during the last decade. Real Estate shares a similar return structure to bonds – it offers a coupon-like income stream, while also providing a capital gain opportunity on the principal amount. The capital gain shares similar characteristics with equity investments, such as correlation with interest rates, inflation and trends in the general economy. In the long run, Real Estate investments have been proven to generate a stable passive income with a good risk-adjusted return and relatively low correlations with other asset classes, according to Rogalla (2005).

4.2. History of Real Estate Funds

Real estate funds started to develop during the last two decades, with a number of academic studies[4] proposing allocation of 15-40% of the total capital in diversified modern portfolios to real estate assets. These new insights by the academic community spurred an interest for investing in real estate assets, but prior to the introduction of real estate funds here were predominantly only two ways to invest in real estate. The first was to acquire the property directly by holding parts or a whole real estate asset. The second way was to hold shares in listed companies that owned real estate assets (Fuerst and Matysiak (2011)).

The first private equity Real Estate funds first came to light in the 1970s in the US (Linneman and Ross (2002)). However at the time owners and developers of real estate had good access to inexpensive debt so few opportunities for these funds to add value existed in the marketplace. However, with the collapse of the real estate market in the 1990's this all changed and many banks withdrew from the real estate market. This created a unique opportunity for real estate funds to acquire properties at significant discounts. The private equity LBO model was widely used for these acquisitions and the real estate funds adopting this method were named opportunity funds.

They offer the management expertise and diversification effects that investor often lack for direct investments. Also, the return characteristics of these funds are more correlated to the underlying assets than to the equity market (See Hoesli and Lekander (2005)).

According to Preqin, institutional investors are currently not meeting their allocation targets for real estate investment (see Figure 1 and Figure 2). Also, according to our interviewees

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[4] Hartzell, Hekman and Miles (1986), Firstenberg, Ross and Zisler (1988)

and consistent with the conclusions from Preqin data, even a few percentages increase in allocation would result in a huge demand for real estate assets considering the size of this industry and the asset under management of institutional investors.

Figure 1 – Average Real Estate Allocation by Investor Type

The vertical axis represents average capital allocation to real estate assets as a proportion of asset under management (AUM) across the 7 investor types worldwide as shown in columns on the horizontal axis. The dark-blue column to the left represents the current capital allocation to real estate asset class as a percentage of AUM across investor types worldwide. The light-blue column on the right-hand side represents the average target allocation of capital to the real estate asset class for the respective investor types. This figure shows that average allocation to real estate assets is below target, and the difference varies across investor types.

	Superannuation Scheme	Asset Manager	Insurance Company	foundation	Private Sector Pension Fund	Public Pension Fund	Endowment Plan
■ Average Current Allocation	11.6%	10.6%	8.1%	7.9%	7.6%	7.3%	6.2%
■ Average Target Allocation	11.3%	10.9%	9.6%	9.5%	9.0%	9.0%	8.0%
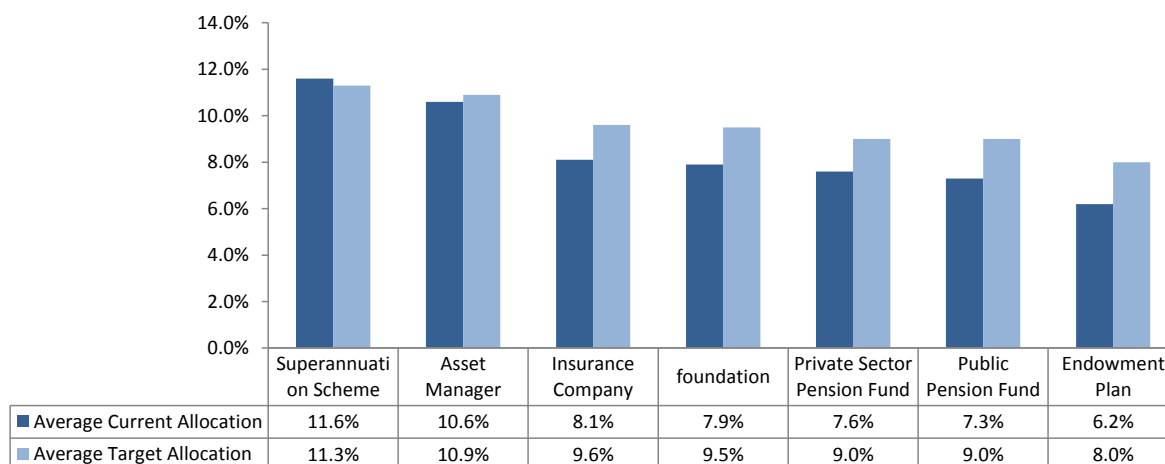
Source: Preqin – The 2011 Preqin Private Real Estate Investor Review

Figure 2 – Real Estate Allocations Compared to Target Levels by Investor Type

The vertical axis states average capital allocation to real estate assets as percentage of total asset under management across the six investor types shown on the horizontal axis. The top section in each column represents the percentage of each global investor type that allocated more capital to real estate assets than their target allocation rates. The midsection represents the percentage of investors that are currently at their average target allocation rates. The dark-blue bottom section represents the percentage of investors that have allocated less capital to real estate assets than required by their target allocation rates.
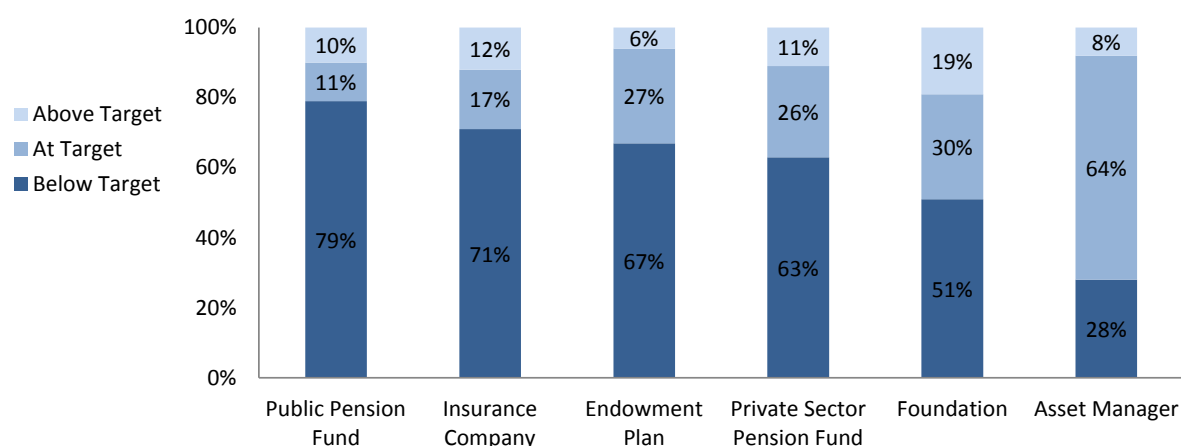
Source: Preqin – The 2011 Preqin Private Real Estate Investor Review

4.3. Different Types of Funds

Real Estate Funds is a broad definition that consists of several different investment vehicles that are all based on real estate as the underlying asset. There are typically two main investment vehicles that investors are exposed to when investing in real estate funds. The first one is the *Open Ended Real Estate Funds (OREFs)* which typically targets retail investors. These funds are structured similarly to mutual funds, which allow withdrawal of invested capital. As explained earlier one of the key issues when considering real estate as an investment is the concern about liquidity, Fuerst and Matysiak (2011). OREFs have solved this problem, as is explained below, and can therefore be offered to the broader retail market. The other type of investment vehicle is the *Closed End Real Estate Funds (CREFs)*. These have more of the characteristics of a private equity fund and are further categorized according to the risk and return profiles that they offer. These funds require a larger stake of committed capital, and lock the capital over the life of the funds which are normally 8-10 years. Since the 1990's we have seen an explosion of real estate funds, and according to INREV there were 301 open-ended funds and 166 close-ended funds at the end of 2010.

4.3.1. Open-Ended Real Estate Funds

The rationale behind OREF is for investors to obtain exposure to real estate assets while having the option to withdraw invested capital upon will. This structure solves investors' liquidity problem, by reserving a proportion of more liquid assets in the fund portfolio together with real estate assets. This more liquid asset typically makes up 10-20 percent of the fund, and serves to provide liquidity upon withdrawal of capital. The OREF structure requires good liquidity management to keep the inflow and outflow of capital in balance. Still, liquidity is an issue because if investors withdraw capital at the same time, the fund might not be able to divest assets in a timely manner nor at favorable prices. On the other hand, this withdrawal option has proven to have positive disciplinary effects on fund management (Fama and Jensen (1983)).

4.3.2. Close-Ended Real Estate Funds

In terms of structure, the close ended real estate funds are often non-listed and they lock the committed capital from investors over a specific time period. In recent years there has been an explosive growth of the number of non-listed real estate funds as seen in Figure 3.

Figure 3 - Non-Listed Real Estate Funds Market Growth: Funds by Launch Year

The left-sided primary axis shows the global market size and growth trend of non-listed real estate funds, denoted in total Gross Asset Value (GAV) from 1998 to the expected value in 2012. Secondary axis to the right-hand side represents number of non-listed real estate funds across this time period.
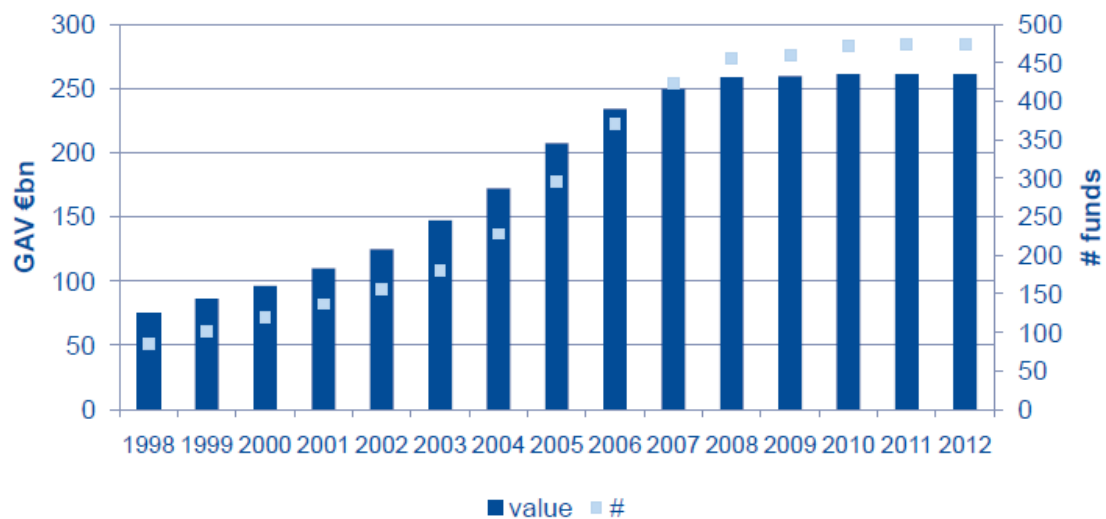
Source: INREV – Vehicles Database December 2011

CREFs have an advantage compared to OREFs in terms of liquidity management. Since the committed capital is locked over the entire fund life, which matches the cash flow of underlying assets, CREFs can utilize the capital more effectively and do not need to reserve capital for withdrawal. However, they have arguably a drawback in terms of transparency. Listed real estate investment vehicles are covered by market research reports and have better access to information. In recent years however industry organizations such as INREV have tried to implement industry standards that will give more transparency to the non-listed funds. INREV and its sister organization ANREV (Asian Association for Investors in Non-listed Real Estate Vehicles) have been covering the sector more extensively and most non listed funds provide data and research to these organizations that distribute them to the public investor community.

4.4. Fund Strategy Classification

In this section we intend to describe the classification of Real Estate Funds. (Prequin, 2011) have divided different funds based on their risk profile in three different categories. Core funds are the safest funds and opportunistic funds the most risky with value added funds in between with a moderate risk profile. The growth trend and distribution of the funds are shown in Figure 4. According to INREV, there are 474 real estate funds globally in 2011, with an aggregate gross asset value of €261bn. Among these funds, 271 vehicles (71% of total) are Core funds, 137 vehicles (20%) are Value-added funds, and 66 vehicles (9%) are Opportunity funds.

Figure 4 - Non-Listed Real Estate Funds Market Growth: By Fund Type

The vertical axis shows the global market size and growth trend of non-listed real estate funds, denoted in total Gross Asset Value (GAV) from 1998 to 2011. The funds are categorized according to their strategies – Core, Value Added, and Opportunity. Core funds are represented by the dark-blue area on the bottom, Value Added by the middle and Opportunity funds by the top area of the graph.
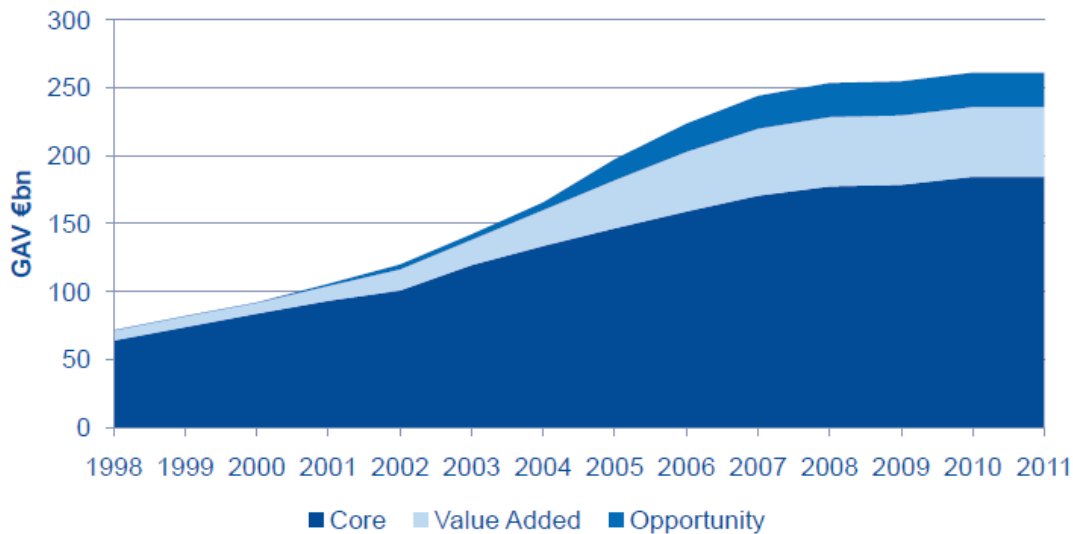
Source: INREV – Vehicles Database December 2011

4.4.1. Core Funds

Real Estate Funds that belong to this category generally invest in the safest real estate assets on the market. These funds therefore expect moderate returns and lower risk profile compared to other real estate fund classes. Core funds typically work with leverage rates around 30-55% with their investments. Examples of investments are multifamily, office, industrial and retail properties. The common factor for Core properties is they have longer lease terms and are not speculative in their nature such as raw land. Vacancy rates of a core investment usually do not exceed 25 percent and typically lies around 10 percent. However, this depends on the regional situation and type of asset. If the average vacancy rate in the region is around 7 percent a 10 percent rate can be seen as too much to be considered a core real estate.

The regional characteristics also define if the property is considered core or not. Core real estate is typically situated in central districts in major cities. The reason for why core properties are found in these areas is that they usually have occupancy rates that are higher than or in par with the market rates. Tenants also have strong credit rating with smooth maturities to avoid significant interruptions in cash flow. Because of these high occupancy rates with few leases terminating in any one year, there is little chance that prospective rents and therefore, cash flows will either increase or decrease significantly in the future. With

limited future increases in cash flow, the potential appreciation rate on the market value of the property is modest.

4.4.2. Value-Added Funds
These funds are in between the core funds and the opportunistic funds with regard to the risk and return profile. Leverage rates for these funds vary between 50-70% for their investments into property and investors in such funds are reportedly expecting an IRR in between 10-15%. The types of properties owned by value added funds can be more risky and varied than Core funds.

In this thesis we will categorize the value added funds under the opportunistic funds as result of similarity between investment strategies and value drivers. The categorization mainly serves the purpose of simplifying our references in this paper.

4.4.3. Opportunity Funds
Opportunistic funds (also named Opportunity funds) are the ones that invest in the most risky real estate on the market. The main difference between the core fund and the opportunistic fund is the need to make substantial capital expenditures in order to bring the asset up to competitive market standard. This often means high vacancy rates in the beginning as an effect of the large capital expenditures needed for the asset. Normal vacancy rates for most real estate assets that interest an opportunistic fund lies around 25 percent. Improving this will give a substantial increase in the value of the property if it succeeds. Opportunistic funds therefore expect a lot of their return to come from property appreciation rather than current income as in the case of core funds. This parameter is therefore a crucial factor to work with for an opportunistic fund in order to create value. The leverage level of these funds are much higher than those implemented by the core funds and typically lie above 70 percent in most cases making them far riskier. Investors in an opportunistic fund typically expect gross IRRs around 20 percent.

The properties that opportunistic funds invest in are typically situated in moderately sized areas and not in city centers. In these areas it is not enough to only work with the physical attributes of the real estate in order to make it attractive but you also have to have the economic cycle in your favor in order to generate demand for your property.

4.5. Fund Structure
The structures of most real estate funds have very similar characteristics like the structure of private equity firms (see Sahlman (1990)). They are structured as partnerships where you have general partners that act as senior managers and investors that are limited partners.

Investors in the real estate market mostly include institutional investors and high net worth individuals that wish to diversify their portfolios into real estate.

The general partners are responsible for the investments in the partnership and to create value through managing the property invested in. The lifetime of the funds raised or the partnerships is fixed and lasts about 6-10 years, according to our interviewees. The lifetime can be adjusted with the approval of the limited partners for up to one or two years normally. Fundraising from the limited partners occur during the first three to five years and after the fund has expired it is gradually liquidated. New funds are continuously raised in order to keep the real estate fund alive but each partnership is legally separate and managed independently of each other.

4.6. Fee Structure and Required Returns

The fee structure share many traits with private equity fee structures[5] as well. There is often a management fee for investing in the real estate fund. This fee is designed to keep the fund alive more or less and is used for paying salaries and keeping the day to day business of the fund running, which is consistent with our findings through interviews. Robinson and Sensoy (2010) discovered that management fee for real estate funds have historically been around 1.3 percent. On top of the management fees some funds also have transaction fee either fixed or in the form of a percentage of the deal value of the fund, however according to our interviews this solution is not very common with regard to real estate transactions. The investors in the fund gain from the returns in the fund through carried interest which often states that 20 percent of the gain over a specified hurdle rate should go to the general partners of the fund and that 80 percent should be distributed to the investors.

The funds requirement of the internal rate of return (IRR) differs depending on the type of fund. Typical core funds often have an IRR of around 12 percent while the more opportunistic funds usually have around 20 percent of IRR, Shilling and Wurtzebach (2010). Robinson and Sensoy (2010) looked at the fee structures and IRRs of a large sample of private equity funds including real estate private equity funds. Their sample dates back to 1984 until 2010 and they find that the average IRR of the period examined is around 12 percent for real estate funds. The highest 75 percentile in their sample had IRRs of 18 percent.

4.7. Summary

The growth of real estate funds have been very strong since the 1990's driven by a demand of institutional investors to shift their portfolios more towards real estate. Still intuitional

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[5] See Gompers and Lerner (1996) for description of Private Equity fee structure.

investors remain underinvested into real estate so the future for real estate funds looks bright from a demand perspective. We have also shown CREFs share many of the characteristics of private equity firms in its partnership structure, fund raising and fee structures.

Finally we have shown that real estate funds have a more widely accepted division into different risk categories ranging from opportunistic funds to core funds and thus exposing investors to different phases in the lifecycle of a real estate asset.

5. The Real Estate Transaction

5.1. Introduction

Transactions by real estate funds comprise of a detailed process with multiple stages which can be generally categorized as the Acquisition, Management and Exit phases. Each of these stages consists of further sub-phases which vary across asset types and geographical regions as result of differences in investment criteria and regulations. Through interviews with real estate practitioners in Sweden, we aim to present an overview of the real estate transaction and better understand value creation process in this business.

5.2. Fundraising

Real Estate funds typically raise capital in a similar way that private equity real estate funds do. Real Estate funds are often closed and have a finite lifespan of 10-12 years, which include two fund raising periods (Fuerst and Matysiak (2011)). In order for real estate funds to keep their business running despite the finite life structure of their funds they must continuously raise new funds. This process is time consuming and involves presentations to institutional investors or high net worth individuals. Important parameters for a successful fundraising include track record of the managers that will run the fund. If the real estate fund has been part of earlier fundraising periods for earlier funds they usually turn to old investors in order to minimize the cost of fundraising, according to our interviewees.

General partners are usually institutional investors, such as asset managers, insurance companies, foundations, pension funds and endowment plans. In accordance with modern portfolio theory, these investors aim to optimize their portfolios by allocating a certain percentage of capital to various asset types of which real estate has long been considered a mainstream asset class. As previously shown, we see that the global average real estate allocation has not yet met its target. This constitutes for a driving force behind institutional investments in real estate as well as demand for real estate private equity funds.

Since the economic decline in 2007, there has been a rising trend of fundraising for distressed strategies by opportunistic and value added funds (see Figure 5). An example would be Blackstone's $10.9 billion distressed real estate fund in 2008. Although, the majority of these distressed funds are based in the US which raised $24bn out of the worldwide aggregate commitment of $32bn during 2010 and September 2011, according to Preqin.

Figure 5 - Global Distressed Fundraising (2003 - September 2011)

Distressed real estate has been experiencing a considerable growth in recent years. It has become a noticeable part of the real estate sector following the economic downturn, with many firms looking to take advantage of the distressed real estate market. The left-hand side columns in dark blue represent number of distressed real estate funds raised on a global basis during 2003 – September 2011. The right-hand sided columns in light blue represent the aggregate commitment in terms of billions of US dollars into the raised funds.
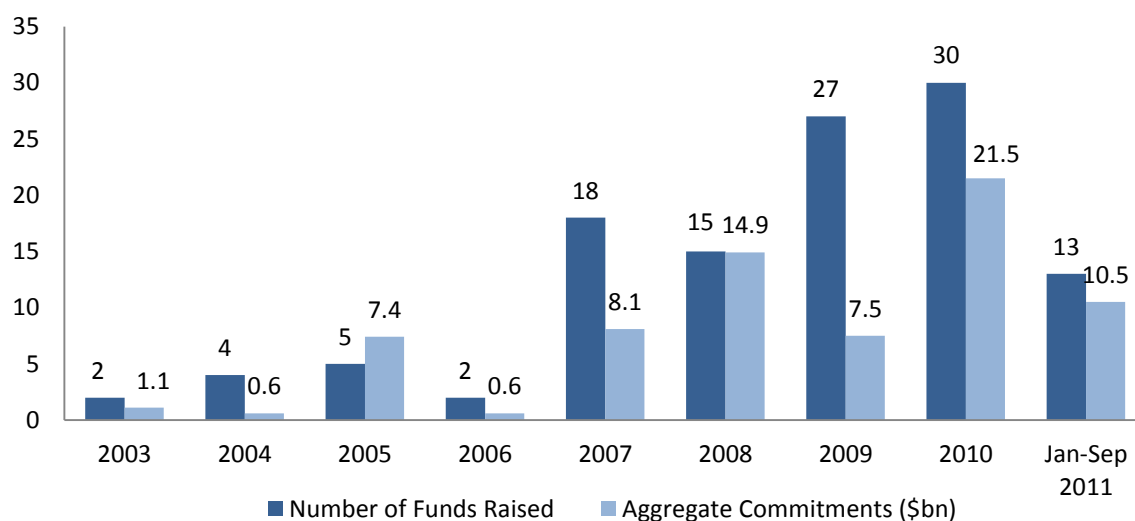
Source: Preqin – The 2011 Preqin Private Real Estate Investor Review

5.3. Acquisition Phase

5.3.1. Introduction

In our interviews we have collected different descriptions of the acquisition and evaluation process of a real estate transaction. However, the various descriptions share similar characteristics with clear functions for each stage. In order to present the process in a structured way, we have summarized the findings into these steps: Identification, Internal Evaluation, Due Diligence and Negotiations including final signing of the deal.

5.3.2. Identification

Naturally, the first step in the value creating process of a fund is to identify the right investment object. The fund type often decides what kind of real estate that is attractive for respective fund. Below we outline the difference between core and non-core funds when it comes to identification and looks through the process of identifying the investment object.

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Table 1 presents an overview of the different real estate assets and their main characteristics that attract Core and Non-Core funds.

Table 1 – Target Investment Assets by Fund Type

Fund Type	Physical Characteristics
Core	• Class A apartment, industrial, office and retail • Must meet current market operating standards
Non-Core	• Class B apartment, industrial, office and retail • Hotels, land, senior living and self-storage • Not meeting current operating standards • Properties with short leases • Little or no current income
Source: GMAC Institutional Advisors, 2005	

Generally Core funds have more specific investment criteria than non-core funds. The more opportunistic funds try to find value in almost all kinds of real estate ranging from football fields to grocery store chains. Their primary focus is to work more with the real estate itself rather than depending on the fixed income in the forms of rents. In our interviews, it was evident that core investors emphasize on the safe income streams and want to work as little as possible on the real estate itself as one manager put it.

Being able to review a good number of high quality investment objects is therefore an essential criteria, since that helps to maximize the probability of making low cost, high return investments. As result of the underlying motivation to find undetected opportunities and the difficulties of sourcing and filtering deals across geographical regions and asset types, private real estate investors often hire property brokers and search consultants for the continuous sourcing of properties on sale. The brokerage houses generally serve to continuously supply the funds with potential acquisition targets that could be of interest to the specific fund. This helps to improve the information transfer and liquidity in the market, which is a useful tool in a traditionally less transparent and liquid market as real estate.

In addition, various types of private real estate funds also build in-house databases and personal networks with traditional sellers, i.e. local municipalities, corporations, real estate developers and industry professionals. This requires more time and effort to conduct, but the upside is that in-house research leads to better sourcing opportunities and helps the funds create a competitive advantage against other bidders in terms of information access and timing of bid.

From our interviews with the Opportunistic and Core real estate funds based in Sweden, the investment managers are actively reviewing a number of proposals. They often adopt this

"top-down" approach to find appropriate investments on national basis even if it would be outside of the investor's targeted areas of expertise, for example residential properties in shuttle areas outside major cities or distressed commercial properties.

5.3.3. Internal Evaluation

"We define strategy as a coherent, structured, and integrative pattern of decisions formulated as means of investing in markets and assets to achieve above-average financial returns." – Lynn (2009)

After filtering through a portfolio of available investment objects, the fund manager conducts a more detailed evaluation of the assets and the potential value of improvements that can be realized. According to many of our interviewees, a special feature with real estate investments is that it is predominantly a local business which requires expertise in the local market dynamics and regulatory environment, as well as connections with key decision makers. This naturally blocks off some investors and opens up opportunities for the ones that do have a competitive advantage. Our interviews with real estate practitioners also confirm that the evaluation process could be specific and unique to each investor as result of their different strategies, fund types and required rates of return.

In general, tools available to real estate private equity investors include scenario analysis, econometric forecasting, modern portfolio theory, macroeconomic projections, empirical research and strategy formulation. To construct a simple framework for this evaluation based on our findings via the interviews and previous literature, we have categorized the considerations as underlying macroeconomic market analysis and property specific evaluation methods.

Market Analysis

Contemporary models of property valuation take into account the market, regulatory and social environments' impacts on property prices. The basic model entails that the equilibrium price is where demand meets supply. Examples of factors include GDP and population statistics, type and location of asset, and the overall demand and supply dynamics.

Among the many parameters, location is usually a main factor because land is a non-reproducible and heterogeneous asset, regardless of the utility function of that asset. Factors that distinguish locations include distance from city center, demand substitutability across locations, population density and segregation, etc. An example would be housing properties. In general, demand for housing units is approximately matched by the number of households, with adjustments for factors such as double living, mobility, vacation homes. Meanwhile, investors take into account other factors that affect housing demand, including user cost of housing services, income and wealth, employment rate, availability of credit and

demographic profile of the population (Hilbers et al (2008)). The major macroeconomic assumptions will be considered when forecasting financial performance of the assets in the valuation method described below.

Cash Flow Based Valuation

Apart from macroeconomic factors, every property has its own specific characteristics which determine its value. Examples of parameters include property return measurement, benchmarking, accounting and tax assessment, which help assessors to reach a market value of the asset. In addition, a Non-Core real estate investor takes into account the potential value that can be realized through improved operational management, re-positioning of the property and return from new investments, as well as the opportunity to exit with a profit.

From our interviews with industry professionals in Sweden and according to previous research conducted by the Swedish Property Index (2003) in partnership with the Investment Property Databank (IPD), the majority of surveyed funds base their valuation on a cash flow based model. The popularity of this methodology lies in its ability to incorporate both macroeconomic and property specific assumptions, as well as impacts of financing alternatives.

Table 2 – The IPD Cash Flow Based Valuation Framework

Valuation Formula	$V = \sum_{t=1}^{n} \dfrac{(H - D - U - F - T + RB - I)_t}{(1 + p)^1} + \dfrac{R_n}{(1 + p)^n}$
Description of Components	V = Present value H = Rental income D = Operational costs U = Maintenance costs F = Property tax T = Ground rent (RB = Interest subsidies, present value in particular is suggested in these guidelines) I = Capital expenditures R = Residual value t = Time variable n = Analysis period p = Discount rate
Source: Swedish Property Index (2006), Investment Property Databank (IPD)	

Specific to property investments is that both revenue and expenditures are determined by contracts, which make the operating cash flow relatively more predictable. Some assumptions still need to be made, such as long-term occupancy rates for the specific type of the property

in different markets. However, the uncertainty and impacts of those assumptions are minor in comparison to valuation of other investments like equity stocks.

From our interviews with investment professionals in Sweden, the most commonly used model is adapted versions of Leverage Buyout model instead of Discounted Cash Flow models. This is because of the relatively illiquid and less transparent market characteristics of property investments, which in many ways resembles the private equity industry.

First, future cash flows are estimated using contracts and steady state market condition assumptions. Then, an optimal financing structure is determined at purchase date and future cash flows to equity are discounted back using the fund's IRR target rate. By adding this present value to total debt financing and adjusted for probabilities of failure, the fund reaches a maximum price it can pay for the property. Any price paid below that will be reflected in higher expected IRR. Usually, Opportunistic funds use more debt financing in order to reach higher IRR targets, while Core investors are more restrictive with the use of financing as to reduce financial risks.

In comparison to stocks and bonds, real estate offers a much higher rate of relative income returns, making it a strong cash generating investment. If investors are concerned about the proportion return that is derived from realized sources, then real estate is a winner. With the same logic, it should be of relatively higher value to improve the cash flow of real estate compared to other investments as result of the importance of income returns. This explains the use of cash flow based valuation methods as the primary methodology for investors.

Market Yield

The market yield is a quick and rough metric used to describe the price and purchase willingness of the market. It is calculated as the Net Operating Income of year one in the forecast period divided by current market value of the property. This metric could be seen as reverted earnings multiple, where a lower market yield indicates lower return requirements by the buyer and therefore a higher purchase will. The practitioners we interviewed unanimously agreed that the market yield is broadly used metric, often because it is easy to communicate and functions as a benchmark for the market pricing of similar properties. It also functions as a sense check, i.e. by comparing the market level property yield with the implied property yield derived from a cash flow based valuation method used by the fund.

Comparative Sales Method

Apart from the above-mentioned methodologies, there are a number of other parameters can be used to estimate the appropriate price of a property. The Comparative Sales method is based on compilation of historical multiples paid for similar properties in same area, and

adaption of similar multiples on the properties that are being evaluated. This method tends to rely on historical prices and market conditions, which are lagging metrics and might result in prices that the market is no longer willing to pay. Nevertheless, this method provides a sense check and is widely used by external licensed property appraisers for legal and financing purposes.

5.3.4. Due Diligence and Negotiation

The real estate transaction may follow different processes depending on its type, for example whether if it is an exclusive sale or an auction. Nevertheless, after reaching an internal decision to proceed with the investment, the fund manager usually takes contact with the seller to gain more detailed information. It is at this state that the Due Diligence is performed, where buyers examine the financial accounts and technical standards of the property as well as legal considerations. This also leads to a more detailed evaluation process using similar methodologies as previously described.

In comparison to corporate stock, real estate transactions occur very infrequently. Therefore, the emergence and application of real estate appraisals or property valuation is needed for various purposes, including when buyer seeks bank financing. At the Due Diligence stage, accountants and third party appraisers are involved. Usually, buyers seek to find faults or potential risks in the property in order to try push down the final price or negotiate for more favorable terms, while sellers look to defend the higher valuation.

After the final negotiation stage, the parties will sign a final purchase agreement to close the transaction. Bank financing and payments will be arranged within days after the closing. A typical transaction takes a few months from identification to completion, whilst some could take longer.

5.4. Management Phase

Throughout our interviews, it was evident that a common feature of real estate investments is the focus on operational management, improvement and new investments that follow the acquisition of properties. This is usually the main argument for various types of investors to justify their value generation capabilities on top of spotting attractive entry levels. Below describes the main philosophies of and differences between Core and Opportunity funds in their strategies for operational improvement. The various strategies will be presented in detailed in the next section of this paper.

5.4.1. Core Fund Strategies

Core funds focus more on capturing the long-term value appreciation of property assets, and generating an appropriate risk-adjusted return through superior operational management.

Compared to Opportunity funds, Core investors will more often employ in-house own facility maintenance and repair teams, which lead to a superior understanding of the facilities and their cost structure. These funds often invest in low risk assets with less focus on market timing and exit price. Instead, operational cash flow and return on a running basis constitute for a higher importance. The case study in later part of this paper will show an example that further supports this argument. Generally, real estate investing is similar to private equity investments in terms of accurate measurement of returns. This is because these are not marked to market as often as stocks and bonds.

5.4.2. Opportunity and Value-Added Fund Strategies

Opportunistic real estate investments are one of the primary alpha-generating strategies. They include many different types of investment programs with the unifying theme of targeting unique, and potentially risk-oriented, investments in order to generate abnormal risk-adjusted returns. The strategy is therefore similar to private equity investing, with an IRR target of 20%. One common strategy is the use of asset transformation to increase the value of their holdings – making something that is currently unattractive to other investors, into an attractive asset. For these investments, fund managers take on both higher operational risks for realizing the planned synergies as well as higher financial risks through leverage. Likewise, it is a critical matter to have stable and favorable exit opportunities, which exposes the funds to macroeconomic risks in a higher degree than Core investors that are more cash flow focused.

5.5. Divestment Phase

Because of the limited contractual lifetime of real estate funds, investment exits are a key stage of the real estate transaction. Once the planned operational improvement and value creation strategies have been implemented, or when the fund life is about to expire, managers need to prepare for the divestments of assets. In short, it is a reversed process of the acquisition phase. This time, the managers usually seek to create a public and competitive bid process for the assets in order to ensure higher exit multiples.

The selling party prepares relevant documents about the properties, makes presentations before approaching the market in a structured way to evaluate purchase appetite in the market. Usually, brokers and consultants are involved in this process to help prepare the documentation and structure a competitive auction process whenever possible.

This is a critical stage because it is now that the final returns are realized and capital returned to the fund. To illustrate the sensitivity of fund performance in relation to exit opportunities, Robinson and Sensoy (2010) have compiled a study on correlation between

vintage years and fund returns. Its results show that funds raised during bad economic times have higher IRR as result of lower entry and higher exit valuations, while funds raised during economic booms have delivered less returns in comparison. See data in Figure 10 in the Appendix.

In general, Opportunity funds have well-structured investment cases and exit expectations in combination with high IRR targets. Core funds, on the other hand, can afford to hold the assets in a longer period if market condition is suboptimal. For example, Core funds could sell assets to recently raised funds within the same group, and therefore lessen the impact of short-term market declines and cyclicality of the general economy.

6. Return and Risk Characteristics of Real Estate Private Equity (REPE) Investments

6.1. Introduction
Real Estate as an investment class has been shown to be attractive due to its specific characteristics. It has very low correlation with other asset classes something that mutual funds and pension funds actively seek to gain a better diversification for their holdings. Ross (1991) looked into the return and risk characteristics of Real Estate and we use some of the same data to get a better overview over the characteristics of the underlying asset in real

6.2. Methodology
Many studies have looked into the return and risk characteristics of private equity investments since they have existed for a longer time period than real estate fund investments. In both cases, however, good data is hard to find due to the non-listed characteristics of these investment vehicles. Risk measurements of private equity funds have long been an issue and have not been possible to calculate using times series data, Ljungqvist and Richardson (2003). The same problem applies to close ended real estate funds due to its similar characteristics towards Private Equity Funds. We thus focus this section on the underlying asset instead and as previous works have concluded, close ended real estate funds correlate with the underlying asset, Hoesli and Lekander (2005). We believe this is the best proxy for our study over the characteristics of real estate funds.

The NCRIEF Property Index is presented quarterly and is a good measure of the investment performance of a large pool of individual commercial real estate properties acquired in the private market for investment purposes. Important to note is that all real estate that is accounted for in the index is have been acquired in part or whole by institutional investors with the great majority being pension funds seeking diversification into this asset

class. The index is divided into different categories including hotels, apartments, retail etc and is also summarized on a national level for the US market. Equity data was extracted from Datastream and US Treasury data was collected from Bloomberg.

The total return of the NCREIF index is calculated using two components – Income and capital return. The income return measures the return attributable to net operating income (NOI). NOI is the gross rental income and any other income less the operating expenses of the property. The capital return measures the change in market value from one period until the next. In our sample, it is a quarterly update. The market value is dependent on an estimated appraisal by an internal real estate staff or externally by an MAI (Member of an Appraisal Institute). The total return is then calculated by adding the income return and the capital return.

6.3. Previous Research about Risks and Returns in Real Estate

Two main studies have looked into the risk and return of real estate. Chan, Hendershott, Sanders (1991) look at equity REITs listed on the major stock exchanges and apply an APT model in order to find what risk factors that drive return for real estate. They find in their study that what drives returns in Real Estate are mainly unexpected inflation and the term structure of interest rates. Ross (1991) finds that real estate has a risk profile in between stocks and bonds which he argues is reasonable. The risk of a sample in between 1978 and 1985 indicates that the risk lies in between 9-13 percent.

A shortcoming of these studies is first that they look at listed REITS and not at Real Estate Funds as our study covers but it is a good proxy for real estate returns in general. Both Ross (1991) and Chan, Hendershott, Sanders (1991) study returns before the introduction of real estate funds making the comparison weak.

6.4. Data Interpretation

6.4.1. Historical Returns

Figure 6 - Historical Performance of U.S. Real Estate Funds (1990-2011)

This graph shows the historical performance of the NCREIF National Property Index from the U.S., and MSCI World index which is a proxy for development in the equity market, and the U.S. government 3-month T-Bill returns during 1990 – 2010. This provides a comparison of returns on gross basis, without further analysis about the underlying volatility and risk characteristics. The blue shaded area represents MSCI World. The dark blue line represents NCREIF Property Index. The red dotted line represents U.S. T-Bills. All three indices are rebased to 100 at start of 1990, and there is a dotted box at end of the date range which states gross return of the respective indices over the period 1990-2010.
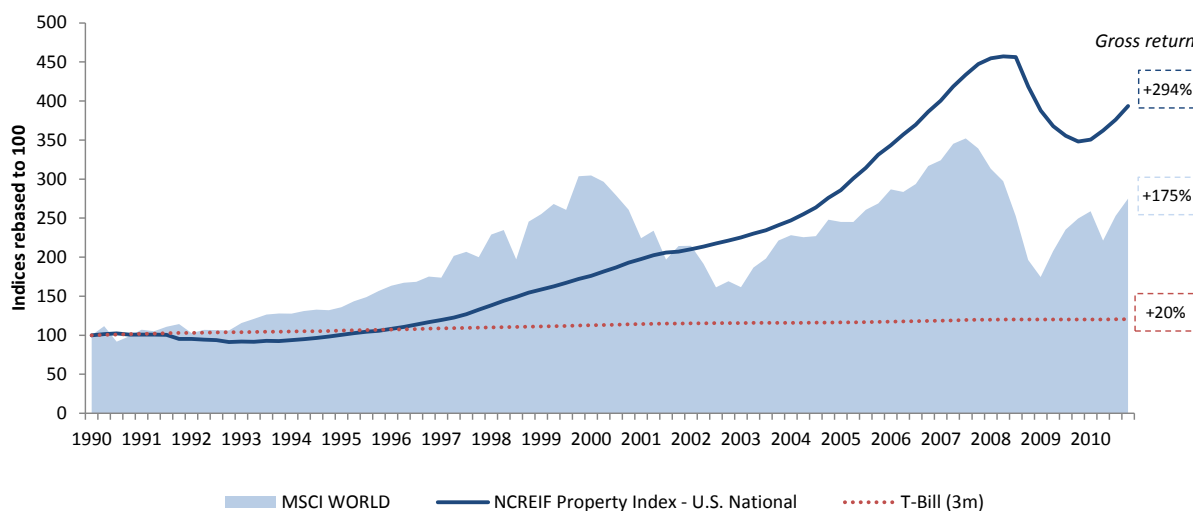
Source: NCREIF, Thomson Datastream

As we see in Figure 6, the real estate portfolio consisting of the NCREIF Property Index has outperformed the global equity index (MSCI World) in recent years. Especially after 2004 we have seen a particular strong growth in the return of real estate as an asset class. During our interviews, several practitioners provided the explanation that borrowing costs been at historical lows, thus leading to higher real estate valuations as investor capital moves to alternative cash flow generating assets. Piazzesi and Schneider (2009) explain that the current developments in the financial market has increased the use of cheap debt and that as explained by them is the parameter that have driven real estate prices and thus returns. In our interviews, it was evident that practitioners are aware of the importance of availability to financing and its impact on property valuation. Another explanation is that investment in real estate has been seen as a good alternative to other asset classes due to its unique risk and return characteristics. As shown in Figure 6, equities have been more volatile during recent years with many financial crises occurring in a short time. Bonds have been an alternative but they have not had the same level of return compared to real estate. This observation is also

supported by the fact that many investors have shifted their portfolios towards assets with lower volatility during recent years, RREF (2007).

However, we need to consider that real estates are rarely traded assets that are not marked-to-market. The standard method is to determine a proxy for market value through professional appraisals and then these values are used to construct rate of return indices. The problem with this approach is that the aggregate real estate rate of return index is smoothed because it employs smoothed individual property appraisals. Edelstein and Quan (2005) criticize the appraisal valuation method for real estate and its biased calculation which results in seemingly high risk-adjusted returns of real estate indices. According to the authors, metrics of risks that are dependent on dispersion in returns are not correctly measured and therefore the index will underestimate the true variance in prices. Correlations with other asset classes would also be artificially too low and not provide an accurate comparison. In terms of returns, the appraisal-based return is calculated using individual property appraisals. The individual appraisals and their errors are averaged and therefore one cannot a priori determine if the index will under- or over-estimate the true return. It is therefore possible that our results are biased and the risk measures we have calculated are too low, which also lead to biased comparison to other assets.

6.4.2. Risk-Adjusted Returns

Table 3 – Summary Statistics for NCREIF Real Estate Indices

This table is a continued analysis of the risk and return characteristics of real estate funds, using the NCREIF indices as proxy for the general industry. Calculations of returns, standard deviations, Sharpe ratios and correlations are based on the same index data as in Figure 6 – MSCI World, NCREIF Indices and U.S. T-Bill.

| 1990 - 2011 Q1 | Real estate | | | | | | Equity | |
	National	Hotel	Apartment	Retail	Industrial	Office	MSCI WORLD	T-Bill (3m)
Average return (quarterly)	1.7%	2.1%	2.1%	1.9%	1.8%	1.5%	1.38%	0.9%
Average return (annual)	7.0%	8.8%	8.5%	7.8%	7.3%	6.1%	5.6%	3.6%
Standard deviation (quarterly)	2.6%	3.5%	2.5%	2.2%	2.6%	3.2%	8.9%	0.5%
Standard deviation (annaul)	5.1%	7.1%	4.9%	4.5%	5.2%	6.3%	17.8%	1.0%
Sharpe ratio (annual)	**0.66**	**0.72**	**0.99**	**0.92**	**0.71**	**0.39**	**0.11**	**n/a**
Correlation with MSCI	**0.26**	**0.21**	**0.27**	**0.18**	**0.25**	**0.26**	**1.00**	**n/a**

| Last 60 months to 2011 Q1 | Real estate | | | | | | Equity | |
	National	Hotel	Apartment	Retail	Industrial	Office	MSCI WORLD	T-Bill (3m)
Average return (quarterly)	0.9%	0.8%	0.8%	1.1%	0.7%	1.0%	0.7%	0.5%
Average return (annual)	3.8%	3.2%	3.2%	4.6%	2.9%	4.1%	2.7%	2.1%
Standard deviation (quarterly)	4.1%	5.0%	4.3%	3.1%	4.0%	4.6%	10.7%	0.5%
Standard deviation (annaul)	8.1%	9.9%	8.6%	6.2%	8.0%	9.2%	21.5%	1.1%
Sharpe ratio (annual)	**0.21**	**0.12**	**0.14**	**0.41**	**0.11**	**0.22**	**0.03**	**n/a**
Correlation with MSCI	**0.48**	**0.44**	**0.48**	**0.44**	**0.45**	**0.49**	**1.00**	**n/a**

Source: Bloomberg, NCREIF, Thomson Datastream

By using the NCREIF data and MSCI World data, we calculate mean returns and standard deviations of the asset classes over the given time period. In our sample, the correlation between the National real estate index and the MSCI World is quite low at 0.26. This confirms earlier research that real estate and the stock market has a low correlation. This feature is attractive for institutional investors that wish to hedge their portfolios for bad returns in the equity markets by moving towards real estate. Interesting to note is also that the correlation of the last 60 months is almost twice as large indicating that correlations with the equity market have increased lately.

As a measurement of risk-adjusted return, the Sharpe ratio also shows very favorable characteristics of real estate investments. Over the sample period, Real Estate generated a Sharpe ratio that outperformed the equity and treasury markets. However, since we have a limited sample with relatively many financial crisis that impacted the equity markets the historical comparison between real estate and the equity market is somewhat biased

Apart from the previous discussion for biased calculation in real estate indices, we need to also consider that high returns in real estate could be a compensation for a liquidity risk premium. Research by for example O'Hara (2003) suggests that liquidity can affect asset pricing. Amihud (2002) confirms his hypothesis that expected excess return for equities is partly a compensation for expected market illiquidity. His study suggests that expected stock excess return would plausibly represent an illiquidity premium.

As previously described, Real Estate is a highly illiquid asset. Franzoni et al (2011) conducted a research within private equity, which have fsimilar liquidity concerns as real estate. The authors applied a four factor model with a liquidity factor on private equity return and found a significant beta of 0.64. The inclusion of this liquidity risk premium reduces alpha to zero in their four factor model. Their results suggest that private equity investments should be exposed to similar risk factors as equity and other asset classes. Also, they found that all the return that could not be explained by the risk factor loadings disappeared, when liquidity was taken into account. Therefore, we have to consider that the high return characteristics of real estate could be a compensation for the illiquid nature of real estate.

6.5. Summary

Our data suggests that Real Estate as an asset class has outperformed equities since the 1990's both on an absolute and risk-adjusted basis. The data also confirms the low correlations between real estate and the equity market, which is an attractive feature for institutional investors. We observe that correlations have increased during recent years (last

60 months), and according to some of our interviewees this trend could continue as the real estate market becomes more transparent.

In terms of the validity of this data, we need to consider a few issues with the evaluation of real estate indices as well as correct measure of risks. Researchers argue that the illiquid nature of real estate and the incorrect calculation of its return data have led to biased conclusions that exaggerate the performance of real estate investments (see Edelstein and Quan (2005), and Frazoni et al (2011)). This is consistent with the common skepticism for why academic literatures in modern portfolio theory do not suggest a higher target allocation to real estate, if this asset class would generate significantly higher risk-adjusted returns than other asset classes as suggested by our data.

7. The Value to Investors by Real Estate Funds

7.1. Introduction

The majority of investors in real estate funds are institutional investors and high net worth individuals. Most common institutional investors include large insurance companies, pension funds and mutual funds that wish to diversify their holdings into real estate. In this section we explain the main reasons that investors see benefits for investing into real estate funds. We show how real estate funds seem to resolve classical issues in corporate finance such as reducing transaction costs by acting as intermediary between investors and the asset.

7.2. Financial Theory around Intermediaries in Financial Markets

The central question regarding real estate funds goes back to their role in the financial market and the value of their existence. From an investor perspective, what values can real estate funds generate and add to existing investment vehicles? According to our interviews with practitioners, investments into real estate were mostly via direct investments into real estate and stocks in real estate companies before the growth of real estate funds.

Real estate funds fill the role as intermediaries in the real estate market, and make up a large proportion of the market. A main benefit of intermediaries in an imperfect market such as real estate is that it solves classical corporate finance problems and improves market efficiency.

First of all there exists a sorting problem in most markets characterized by direct investments. These problems were first analyzed by Leland and Pyle (1977), and Ross (1977) explains that owners of assets typically know more about their asset than outside investors and tend to bring forward the positive attributes of the asset and hide bad attributes.

Secondly, incentives remain a problem with direct investment. As discussed by Jensen and Meckling (1976), managers of companies often take action that benefit themselves but do not necessarily benefit the investors and therefore the managers and investors interest are not aligned. A solution to both of these problems would be the use of debt financing, but in the case of real estate other means are used to mitigate these problems. The problems discussed above can be solved through the engagement of pre-investment due diligence and post-investment monitoring (Fenn and Liang, 1995), which could be more efficiently done by an intermediary. Other problems that arise without intermediaries include that investors can overwork by performing double monitoring, or on the other hand free ride on each other's efforts to perform due diligence. Kaplan and Strömberg (2001) summarize a number of ways for investors to mitigate principal-agent problems in financial contracting, i.e. via sophisticated contracting, pre-investment screening, and post-investment monitoring and advising. The authors found their research on venture capitalists, which are intermediaries and real world entities that closely approximate the investors of theory. Their findings conclude that theoretical models can benefit by including investor costs of evaluating potential investments, and that contracting, screening, and monitoring are closely interrelated in the value creation of venture capitalists.

It is evident that intermediaries' accumulated expertise in finding objects and managing the post-investment assets is important to investors. However, institutional investors are in general unwilling to make most of the investments that are necessary for attaining this expertise, Fenn and Liang (1995). Intermediaries gain this knowledge by being part of many investments and they can refine their skills through specialization focusing on different parts of an assets development. Through our interviews, we have seen a common strategy of opportunistic funds to invest in distressed assets and turning them into attractive assets for institutional investors.

7.3. The Diversification and Allocation Argument

Many research papers have concluded that institutional investors should hold between 15-40% in real estate according to modern portfolio theory models[6]. Direct ownership of real estate assets is per say a violation of the diversification argument itself into real estate for a smaller institutional investors so by investing into real estate funds it can get exposure to a number real estate assets without putting a major part of its capital into few real estate asset by direct ownership, Cheng, Lin and Liu (2010). Larger financial institutions on the other hand can diversify their portfolios by having direct ownership into real estate since they can

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[6] For example Hartzell, Hekman and Miles (1986), Firstenberg, Ross and Zisler [1988], and Hudson-Wilson, Fabozzi and Gordon [2005], and others

afford to invest in many properties and reach diversification. Thus, the greatest value that real estate funds can provide to investors is towards smaller institutional investors.

7.4. Management Expertise

Real estate funds can offer good management expertise something that an institutional investor or high net worth individual sometimes lack. This is especially true in the case of opportunistic funds where the management expertise and ability to find value in an investment is the key factor to the success of the fund, as per our interviewees. They have developed a skillset and an understanding of certain property types that would take far too high resources to build up in house for the institutional investor or high net worth individual. Real Estate funds therefore seem to reduce one of the fundamental issues in finance namely transaction costs. Direct real estate investment has to employ a large number of professionals and takes a lot of in house resources or equal the transaction cost for this kind of investment is high. Coase (1961) explains transaction cost as the cost of carrying out a transaction in the marketplace. Real estate funds can reduce this cost by pooling together the needs of all investors and only take the fee required to monitor the real estate market of interest.

7.5. Local Knowledge

Finally market access is a key characteristic that institution investors see in certain real estate funds. Many larger institutional investors have a very good general overview over the real estate market but sometimes lack the appropriate knowledge to invest in more niched or local real estate markets and that is where real estate funds can provide a lot of value (Interview). Local knowledge and being close to the real estate asset is essential in order to find value according to one large pension fund. The real estate funds can provide this both on a regional basis and on a global basis. Large real estate funds have people situated in growth markets in real estate around the world that have country specific knowledge and experience something that an institutional investor lack or do not want to spend resources to build up. Regional knowledge is often found through local partners to the real estate funds that have good knowledge of regional characteristics of local real estate markets. Financial theory has long suggested a home bias by investors in the marketplace. Portfolio managers are assumed to have a better knowledge of the local market rather than foreign markets and therefore tend to bias their portfolios to domestic markets, Dziuda and Mondria (2009). Real Estate funds have through our interviews been referred to as an investment that portfolio managers use in order to gain access to markets outside of investment regions familiar to the manager. Real estate funds thus have a positive effect on diversification and limiting a home bias problem for portfolio managers.

7.6. The Allocation Puzzle

One interesting aspect of the investors that invest in real estate funds is the fact that they continue to be not meet their allocation targets in terms of exposure to real estate investments (Preqin). Several reasons for this have been brought up during our interviews and the main reason is simply resources. Stocks and bonds are easily traded through an investment bank or brokerage house and the liquidity for these assets is high. Real Estate takes much more resources and time to invest in. The market itself is characterized by imperfect information and poor liquidity.

Another reason is that there is a lack of investments that are suitable for an institutional investor. They often operate under certain risk criteria and even though they have the resources to improve their allocation rate into real estate there is simply not enough attractive property to cover their need. The supply of appropriate real estate cannot cover the demand for the large institutional investors. In Sweden specifically a lot of long term holders are having a major port of the real estate on the market and they are often unwilling to sell in good markets and also contribute to the lack of supply of attractive real estate assets to the institutional investors.

Finally another reason is cultural differences and industry pressure. In some countries the process of increasing real estate allocation by institutional investors has progressed faster than in other countries due to cultural differences and ownership structures of the real estate market. We have also discovered through our interviews that intuitional investors often look at other investors investments and if the normal allocation rate is a certain percentage point few funds are willing to deviate from that industry standard due to internal pressure to follow other industry participants.

8. Value Creation by Non-Core Funds

8.1. Introduction

To further evaluate the return generating characteristics and capabilities of real estate investment professionals, we have conducted interviews with multiple parties including Core and Non-Core funds and pension funds that directly invest in properties. From our understanding, the different parties all fill their roles in finding, improving and transforming non-target properties into quality assets that can be held by long-term owners. Below is an illustration that represents the degree of processing and value creation in the real estate investment industry. Most part of this section is based on our interviews with practitioners.

Figure 7 - Value Chain of Real Estate Investments

This graph aims to illustrate the order of processing and refining of properties amongst the real estate funds and institutional investors, including a short description of their strategies and areas of focus. The illustration shows that even though different investors can make direct investments in properties, each investor type can provide with different skill sets and focus alongside the refining process of a property.
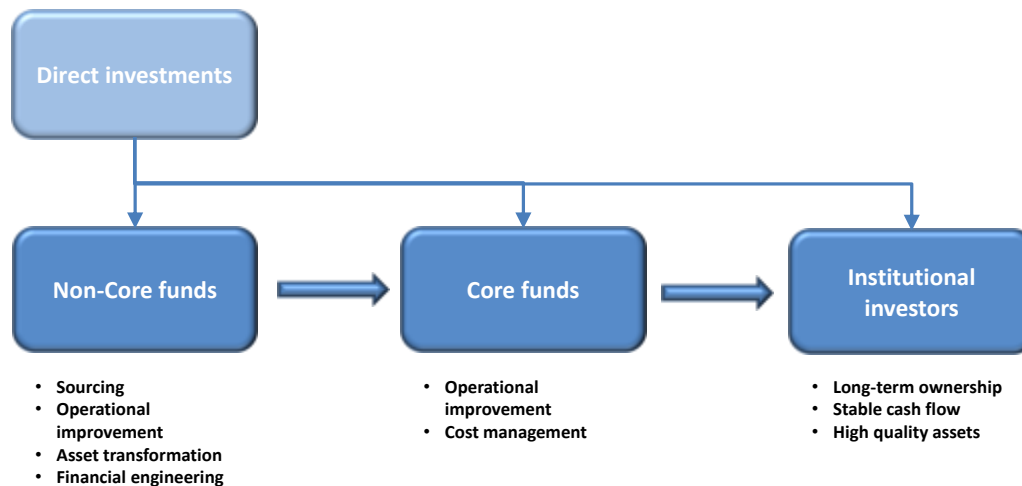
In particular, we investigate in detail the strategies and qualities of non-core investors to evaluate the drivers behind their value creation abilities. We also present a case study on a successful investment done by an opportunity fund, and include comparisons with the private equity industry, to strengthen our analysis of the value generating capabilities of real estate funds.

8.2. Value Drivers for Non-Core Funds

From our interviews with non-core funds, we have been given the impression that investment managers have well-planned and structured strategies before making any investment. There should ideally be unsolved issues or other difficulties that struggles the previous owner, problems that have set downward pressure on the purchase price. Fund managers' immediate plan would be to identify these issues and take actions to satisfy the requirements of current and new tenants, thus making operational improvements to the property. We have identified a list of strategies mostly adapted by Non-Core funds, which we also categorize into three main sources of value drivers – market arbitrage, operational improvement and financial engineering.

Table 4 – Strategies and Value Drivers for Non-Core Real Estate Funds

This table presents the most common strategies used by non-core funds to generate value on their investments, along with the underlying drivers for the value creation process. We have compiled this table using materials from interviews, previous literature and own judgment in order to make a structured presentation.

Value Drivers	Potential Issues	Non-Core Strategies
Screening	- Imperfect market - Illiquid asset type - Opaque market pricing - Investment bias	- Identify non-target investment opportunities - Find problem assets with solid fundamentals and promising exit potentials
Operational Improvement	- Mismanagement - Under-utilization - Disproportional owner interests across property types - Corporate governance issues	- Enhance revenue growth and operating profitability - Property upgrades - Asset transformation - Improve management incentives
Financing Engineering	- Inflexibility of financing structure - Volatility in capital markets affects cost and availability of financing	- Set up legal structures that allow market timing and flexible financing - Build close relationships with banks

8.2.1. Screening

As previously described, the real estate market is generally characterized as an illiquid and non-transparent market with relatively few but bulky transactions. According to our interviews with institutional investors, we have understood that these highly capitalized investors are either obliged to or prefer investing in low-risk and high cash-generating properties, which leads to fierce competition for quality assets in targeted geographical areas. Meanwhile, competition remains relatively small for the traditionally non-target assets that are often located in more remote areas. This allows Non-Core funds to scan through all asset types and geographical areas to find quality assets at discount values. Price should be low if the asset is currently having some issue, and the transaction is preferably sourced off-market to avoid competition and high bids.

As a result of internal policies and investment strategies by institutional investors and Core funds, exit opportunities for quality assets are normally stable. This adds further emphasis on the importance of finding attractive deals and ensuring favorable entry values to promising assets. From a theoretical perspective, the policies and bias of target investments result in market mispricing of non-target items.

8.2.2. Operational Improvement

In addition to finding attractive assets, a main focus of both Core and Non-Core funds is to improve the cash generating prospects of the property as to turn it into an attractive asset. See below for a list of value drivers which we summarized based on our interviews and previous literature.

Enhance Revenue Growth and Operating Profitability

As an asset class, property investments have a stronger emphasis on cash flow and operating profitability, as compared to the market timing and exit multiples. This is because a large percentage of property's present value derives from its cash flow, and also the exit value is normally calculated as a multiple on the profitability metric, Net Operating Income.

A Non-Core fund can enhance revenue growth of a property by working on its contracts and tenant base. Any means to fill the vacancy rate, as well as increasing rent and securing long-term tenants will be positive for the revenue expansion of the property. Meanwhile, Non-Core funds seek to improve the profitability of their investments through better cost management and specialized management expertise.

New Investments

To improve the technical standard and eventually generate higher returns, Non-Core fund managers look for profitable investments within the properties, i.e. renovations or expansion projects. If previous owners did not make the required maintenance, then chances are higher than further investments will be needed. These serve to build a product of higher quality.

Asset Transformation

A key value driver for Non-Core funds is the ability to transform non-target assets to attractive ones that investors are willing to pay for. As discussed, the long-term investors are normally bound to invest in a specific and narrow range of properties. Therefore, there are significant returns to be made if the fund managers can provide these buyers with the type of assets they are looking for.

By actively working with the positioning, extension of contracts, asset characteristics and tenant base of the property, Non-Core fund managers aim to lower the risks of the properties and stabilize the operating cash flows. Another strategy is to consolidate smaller assets into a sizeable portfolio that can be more easily acquired by large institutional investors. We can view this as a processing stage in the value chain of real estate investments.

Managerial Incentives

An issue with finding attractive investments in remote areas is the fund's ability to manage its investments and to monitor management performance ex-ante. To achieve these objectives

and reduce management inefficiencies, Non-Core funds can set up their investments in separate legal entities and offer equity stakes to the management whose incentives will be set to maximize their performance and the return to equity holders. With this structure, Non-Core funds also solve the issue of not having local expertise in remote geographical areas or new asset classes. Instead, the fund manager only needs to collaborate with local property management that can provide the operating expertise and who are strongly incentivized to maximize return on investment.

Network

In the private equity industry networks of different kinds serve a vital role for improving value for investments. Hochberg et al (2007) finds that portfolio companies of Venture Capitalist firms with better networks significantly positive impact on investment performance. In the case of real estate funds networks seem to play a very important role during the process of investing. First finding objectives senior managers often use their network of people in the business to find attractive properties. We have also found evidence that choosing of a financial advisor in the process is often a case of a social network tied to the fund. Recent academic works also support this. Kuhnen (2007) finds evidence that networks in the fund management industry bias which advisors and directors that are appointed different projects.

8.2.3. Financial Engineering

The real estate market is a cyclical business that correlates to the general economic and credit conditions. Without adequate financing, prices will tend to fall as result of higher cost of capital and fewer competing bids[7]. On the contrary, when financing is available at low costs, the use of leverage significantly increases expected IRR on same investments. This is a common tool to boost expected return, since the operational efficiency improvements are relatively fixed. Therefore, apart from results of the asset transformation process, financing structure remains an important determinant for fund performance.

However, the *Modigliani-Miller Theorem* argues that the risk-adjusted performance of the funds should be independent of financing structure, since risks should decline in line with leverage. To improve the discussion, we use findings from the Private Equity industry as proxy for Real Estate. Gompers and Lerner (1999) conclude that the private equity investment process is pro-cyclical, which leads to biased optimistic financing opportunities during good times and less available financing even for good projects during bad times. Axelson et al (2008) and Kaplan and Strömberg (2009) confirm this view with their

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[7] See findings from the Private Equity industry (Axelson et al (2010)).

observation that private equity activity is highly correlated with the liquidity in the corporate debt market. Axelson et al (2010) conducted a detailed empirical research on the performance of private equity funds, and find evidence that highly leveraged transactions tend to be associated with lower fund returns despite controlling for fund vintage and other relevant factors. The authors also document a significant relation between leverage and valuation of the portfolio companies, although there are alternative explanations for this finding[8]. However, through empirical analysis the authors provide evidence for consistently negative relations between fund returns and leverage ratios. An important implication of these results is that higher leverage undertaken by private equity funds during boom markets could likely not be in the best interests of their investors.

Whilst practitioners often state their interests in maximizing the amount of leverage to generate higher returns, one can relate this behavior to their compensation structure through carried interest that promotes risk-taking. Since non-core real estate funds share similar structure and compensation systems as private equity funds, one could expect similar risks and agency problems with the fund mangers' financing decisions.

However, researchers find evidence of persistence in performance private equity funds, where top performers can surpass the benchmark on a consistent basis (Kapland and Schoar (2005)). This is consistent this our finding through interviews, where most of the practitioners perceive the ability to optimize capital structure and benefit from market timing as an essential value-creating skill that is unique to successful real estate fund managers. For example, this requires a good understanding of the capital markets, as well as wide networks that allow the funds to benefit from more favorable financing terms and higher chances to time the market.

8.3. Findings from the Private Equity Industry

8.3.1. Introduction
As result of the similarities between Non-Core real estate funds and Private Equity funds in terms of structure and investment philosophies, we continue our investigation of value creation opportunities in real estate by looking into the value drivers in private equity investments. Traditionally, proponents of leverage buyouts argue that private equity firms create value by applying financial, governance, and operational engineering to their portfolio companies (Jensen (1989), Kaplan and Strömberg (2009)). Researchers and practitioners argue that leveraged buyouts create value through high leverage and powerful incentives.

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[8] For example, favourable credit conditions will lead to lower real interest rate and discount rates, which suggests that valuations and leverage ratios could be high simply due to changes in the discount rates)

8.3.2. Financial and Operational Engineering

Academic research in Private Equity has provided evidence that LBOs create value by significantly improving the operating performance of acquired companies in combination with the use of higher leverage. Kaplan and Strömberg (2009) provides empirical evidence that firms perform better post-LBO and that operational engineering has become a key private equity value driver in the last decade. Acharya and Kehoe (2008) provide evidence that the superior performance of alpha-generating PE houses is at least partly due to differences in human capital factors. In particular, the match between deal strategy and deal partner background is correlated with deal performance, which sets proof for the importance of competency and networks of investment professionals. As result, an argument for financial engineering would be to increase the leverage in situations where fund managers can generate alpha and therefore put leverage on the superior risk-adjusted returns.

We recognize the similarities between Non-Core real estate and traditional LBO investment philosophies and strategies. However, whilst financial and operational engineering are widely adopted in the real estate sphere as result of the physical attributes of property assets, we would like to investigate whether governance engineering would be a value driver for property investments as well.

8.3.3. Corporate Governance in Private Equity

Jensen (1989) suggested that private equity sponsors use the ideal corporate governance structure in their transactions which helps to generate value. According to Beroutsos et al (2007), this governance and incentive structure could be the main value driver for private equity investments. Governance engineering refers to the strategies adopted by private equity firms to improve the organizational form of the companies, for example by taking more active roles in the board of their portfolio companies and do not hesitate to replace poorly performing management.

Incentivization

Private Equity funds often create strong incentives to managers by making them share the future profits through equity stakes. Jensen (1989) looked at this and concluded that equity holding are very important in the reward system in a leverage buyout association. Kaplan and Strömberg (2009) collected research on 43 leveraged buyouts in the United States from 1996 to 2004 and found that the median CEO received 5.4% of the equity upside (stock and options) while the management team as a whole received 16%. The design of incentive packages normally requires a large personal input of the management, for the purpose of better aligning the interests of management and investors. In this way, buyout funds reduce the cost of agency-principal problems in organizations.

Monitoring and Control

On top of creating powerful incentives, buyout funds often seek control in portfolio companies via among others board seats, allocation of voting rights and control of access to additional financing. Acharya and Kehoe (2008) found that private equity portfolio companies have twelve formal meetings per year and many more information contacts, which is more than average benchmark company. Also, they report that the management turnover rate is higher in PE portfolio firms with two-third of CEOs of these firms are replaced over a four-year period. The improved control and monitoring possibilities in PE investments further reduces cost of moral hazard and asymmetric information.

8.3.4. Comparisons with Non-Core Real Estate Investments

At a first glance, we find apparent similarities between Private Equity and Non-Core Real Estate investments – emphasis on operational improvement, use of leverage and management incentives. However, there are also minor differences in value drivers as result of the fundamentally different characteristics in the underlying assets.

First, the average real estate investment can afford higher leverage ratios. This is because properties serve as good collaterals for lenders, and a large portion of total return comes from operating cash flow that can be used for interest payment and amortization. Also, real estate investments benefit from more predictable and stable operating cash flows, because the rent income is protected by contracts.

Secondly, the value generation through governance engineering should be relatively less in real estate investments. This is a natural consequence of the strong focus on physical attributes of property investments, while leaving less room for corporate governance improvements. Board seats and voting rights are not as applicable with properties as in private equity investments. Although, equity stakes are still used to incentivize management and form partnership with local operating partners. The latter helps to add value by identifying attractive deals in less competitive markets and gaining management capacities for additional investments.

Thirdly, we find stronger emphasis on asset transformation strategies with Non-Core funds. Whilst both real estate and private equity investors focus on operational engineering, the real estate investor has a clear strategy to improve the risk and return characteristics of the underlying asset. By creating a higher-quality asset base, real estate investors benefit from improved operating cash flows and more favorable exit multiples.

8.4. Value Creation Case Study:
Sveafastigheters acquisition of Finish grocery stores

8.4.1. Introduction

In several interviews we have compiled information about how real estate funds create value in their investments in different types of properties. We have selected Sveafastigheters acquisition of small grocery stores in Finland because of its similar characteristics with traditional private equity deals. This purpose of this case study is to highlight how a real estate fund creates value through identifying non-traditional investment objects, consolidating smaller properties into portfolios and collaborating with local partners.

In 2006-2007, Sveafastigheter through one of their funds decided to acquire grocery stores in Finland. This acquisition was made in seven steps and in total the fund acquired more than 150 small grocery stores spread throughout Finland. Sveafastigheters finish LAMP (local asset management partner) HGR Property Partners co-invested with Sveafastigheter and held a minority 9.9% share position. The characteristics of the properties acquired by local owners included short lease lengths, deferred maintenance, excellent micro locations and were often part of a few or the only grocery store in the respective location.

8.4.2. Methodology

In general, case study information is limited due to the secrecy nature of the real estate market. However, we managed to start our research by conducting a personal interview with the CEO of Sveafastigheter, who also provided us with personal insights and relevant documentations. We also gathered press releases and other public data as complementary material in this case study.

8.4.3. Case Background

Sveafastigheter

Sveafastigheter is a leading Nordic private equity house focusing solely on real estate investments. The Company has launched three funds since 2003.Their first fund Sveafastigheter Sweden I was the first major Swedish property fund aimed at institutional investors with committed capital of EUR 50 million. In February 2011 Sveafastigheter closed its third fund - Sveafastigheter Fund III. The fund has equity commitments of EUR 317 million and will focus on property acquisitions in the countries around the Baltic Sea, primarily Sweden and Finland, with a target gross IRR of 20%. The fund's investment strategy is opportunistic with a value-added approach to asset management.

Investment case

As an Opportunity Fund, Sveafastigheter's investment target includes out-of-favor property assets with strong fundamentals and value upside, which they found in this portfolio of locally owned grocery stores in Finland. The locations of most stores were excellent and often the only or one out of few available grocery stores in each region. However, the properties were under dispersed local ownerships, and often characterized by deferred maintenance and short lease lengths.

Sveafastigheter identified a few value drivers for this portfolio of properties and acted accordingly. First, the pricing of this portfolio was very attractive with unfashionably small or management intensive portfolios with a 20-30 percent discount to the pricing of larger portfolios at that time. Second, Sveafastigheter worked intensively to find alternative tenants to the properties as new quality contracts would lower the risk profile of the portfolio and make it more attractive. Therefore, it was a key issue for Sveafastigheter to proactively secure contract with potential tenants before pursuing an acquisition. Third, Sveafastigheter worked extensively with renovation of the premises and could therefore negotiate with current tenants to extend the lease period of several sites. This prolonged the average portfolio lease period of the portfolio and thus made it even more attractive to institutional investors.

Achievements

Following the implementation of planned strategies, Sveafastigheter managed to sign and renegotiate more than 100 lease contracts within 12 months. This increased the average lease length of the portfolio by five years and ensured a more stable cash flow.

In order to gain management expertise in the local markets, Sveafastigheter co-invested with its Finnish Local Asset Management Partner (LAMP), HGR Property Partners, who held a minority share position. In return, HGR managed to sign new quality tenants, such as Kesko, S-Group and Tradeka.

In the end, the portfolio was let to all the major Finnish grocery retailers at a distribution corresponding roughly to the market shares of the different retailers, thus further minimizing tenant risk. By pooling smaller portfolios into one large and homogenous portfolio, the portfolio attained a critical mass, attracting large international investors and financial institutions. This eventually led to the sale of the portfolio to ERIV II, an investment fund managed by AXA Reim for 2.6x equity multiple after approx. one and half years of the initial investments.

8.4.4. Financial Performance

The originally expected investment horizon was 5 years with exit at end of year 2011 and a target gross IRR of 20%. However, the actual exit occurred much earlier and also at a slightly higher equity multiple, which resulted in a significantly increased IRR. In this section, we evaluate the financial aspects of this investment and compare the expected and actual outcomes.

Figure 8 - Financial Overview of the Case Study

The table below provides an overview of the financial performance of the properties. Property value, Net Operating Income (NOI), IRR and Equity multiple of the investments have been listed, both on the pre-investment expected levels and the actual levels upon exit. Total return is decomposed to income and capital returns, and the impact of financing is shown by comparing the unleveraged and leveraged total returns (IRR).

Performance		Acquisitions	Expected exit	Actual exit
Date		Apr. '06 - Jan. '07	Dec. '11	Dec. '07
Property value, € million		120	112	154
Investments, € million		-	-	4.4
NOI, € million		9.6	8.3	10.7
Vacancy, %		0	0	0
Yield [1], %		8.0	7.5	7.0
IRR, %		-	22	101
Equity multiple, ×		-	2.1	2.6

Note: (1) Asset yield shift differs from market yield shift due to repositioning of assets
Preliminary numbers

Attribution of return, %		Unleveraged	Leveraged
Income return		7.4	-
Capital return	Indexation and transaction costs	2.2	-
	Yield shift [1]	-5.8	-
	Investment management	12.9	-
	Asset management	4.2	-
Total return		20.9	101.1

    Return from income, indexation and transaction costs ('passive')

    Return from yield shift ('market')

    Return from investment and asset management ('active')

Source: Sveafastigheter

Expected Outcome

From our previous discussion about valuation methods, we have noted that exit value of a property is often calculated as current *Net Operating Income (NOI)* over the prevailing *Property Yield* at year of exit. In Figure 8, we notice that Sveafastigheter expected a lower NOI for year 2011 in comparison to year 2006-2007, which we believe is a result of higher expected investments and maintenance expenditures as well as a potential consideration of

declining economic conditions. Meanwhile, the expected property yield would also decrease; thus lead to a higher exit price for the investment portfolio. This would be a result of the repositioning strategies and operational improvements that transformed the properties into higher quality assets which would trade at higher multiples.

In this particular case, we see that the expected exit value of properties is even lower than the entry price. However, this expected capital loss is compensated by a stable stream of income return throughout the investment period. With the use of high leverage, the investment is expected to generate an *Internal Rate of Return (IRR)* of c.20%.

Actual Outcome

By creating a homogenous and attractive retail portfolio, Sveafastigheter actually realized an IRR of 101% and an equity multiple of 2.6x. The actual IRR is significantly higher than the expected case, as result of an earlier-than-expected exit date and a higher exit value. Note that the NOI increased under the investment period, and buyers were pricing the portfolio as a lower property yield of 7.0% compared to the acquisition yield of 8.0%. In Figure 8, we see that the majority of the 20.9% in total return on invested capital come from active management. This could be an indicator for the success of Sveafastigheter and HGR's operational improvement capabilities, as well as the market's appetite for quality assets.

8.4.5. Identified Value Drivers in Case Study

In this investment example, we recognized a number of value drivers for real estate investments by Non-Core funds. These correspond to the drivers for value creation that we previously presented. By looking into these parameters, we aim to present a framework which can be used to analyze the sources of value creation in real estate investments.

Sourcing

By spreading a wide search net for potential transactions, both in terms of geography and asset type, Sveafastigheter could spot attractive assets in less competitive areas. Since the real estate industry is often characterized by home bias and market imperfection, reaching out to new markets is a good strategy to identify promising investments and avoid competing bids.

Operational Improvement

Through renovation of properties and negotiation with tenants, over 100 contracts were extended which further stabilized the cash flow and lowered the operating risks in the portfolio. This is a classic example of how active management helps to create value in real estate investments.

Asset Transformation

Through repositioning of the properties, and consolidation of individual assets into a homogenous portfolio, Sveafastigheter and HGR managed to change the risk and return characteristics of the portfolio. The properties transformed from individual assets under dispersed ownership across Finland, to a well-structured, homogenous portfolio with marketable size and long leases. Some of the less attractive properties were also separately divested in order to optimize the portfolio's attractiveness to potential investors.

Collaboration with Local Partner

By co-investing with HGR Property Partners, Sveafastigheter gained access to HGR's local network and operating expertise while contributing its financial strength and deal structuring capabilities. HGR's local presence and expertise added great value, for example by signing contracts with new quality tenants including Kesko, S-Group and Tradeka. This is a good example on how forming partnerships with local operating partners, and designing incentive packages based on equity stake, could be a value-adding strategy.

Execution Skills

We must also mention that the execution of the entire process also contributed to the value created through active ownership. The planned operational improvements, including renovations and renegotiations of contracts, would require a significant amount of effort and time to implement. Still, through an expedient and timely underwriting, and successful execution of business plan and divestments, the partners managed to add extra value by seizing the window of opportunity. Also, the partners lowered the risk level of the investment by securing alternative tenants to high risk properties prior to the acquisitions. This further shows how management expertise contributes to value creation.

Financial Engineering

We hold the view that whilst the use of leverage is often perceived as a commodity, it should still be considered an important value driver to correctly optimize the financing structure that matches the risk and return profile of the underlying asset. With available financing and stable income returns on investment, Sveafastigheter deployed a relatively high leverage ratio for this investment and managed to time the market to generate a high level of IRR.

8.4.6. Considerations

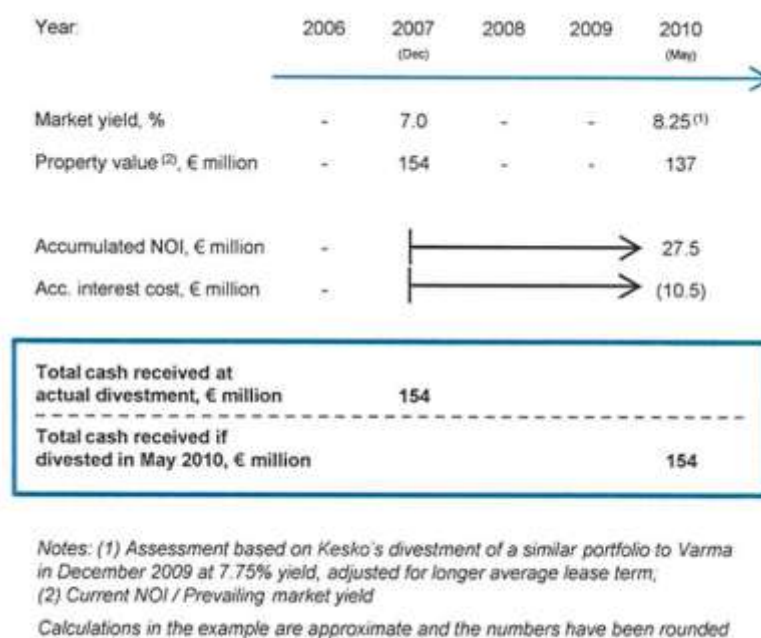The case study concluded with a successful outcome for Sveafastigheter and HGR, and through quantitative and qualitative evaluations we have set up a framework to help understand the value drivers behind their performance. However, we need to consider the sensitivity of returns based on factors such as macroeconomic conditions and exit multiples. Previous research conducted by Shilling and Wurtzebach (2010) shows that much of the

returns from opportunistic funds depend on other factors than management skill. Instead, they suggest that a larger portion of returns are dependent on business cycles, use of cheap financing and other market factors.

Using Sveafastigheter's analysis of divestment timing effects performed in May 2010, we aim to evaluate the sensitivity of real estate investments on market timing. In this example, they show that a later divestment date and lower exit price would be fully compensated by accumulated NOI throughout the investment period.

Figure 9 - Analysis of Divestment Timing Effects

Below, the cash flow effects from the actual divestment of the portfolio in December 2007 are compared to the cash flow effects if the portfolio were to have been divested in May 2010. This table shows that the pre-investment expected total gross return would be high even if the properties would be divested at a later stage and at lower exit price. For a general benchmark, the MSCI World Real Estate index declined by 42% over the period of Dec 2007 – May 2010.

Year:	2006	2007 (Dec)	2008	2009	2010 (May)
Market yield, %	-	7.0	-	-	8.25[(1)]
Property value [(2)], € million	-	154	-	-	137
Accumulated NOI, € million	-			→	27.5
Acc. interest cost, € million	-			→	(10.5)

Total cash received at actual divestment, € million	154
Total cash received if divested in May 2010, € million	154

Notes: (1) Assessment based on Kesko's divestment of a similar portfolio to Varma in December 2009 at 7.75% yield, adjusted for longer average lease term;
(2) Current NOI / Prevailing market yield
Calculations in the example are approximate and the numbers have been rounded

Source: Sveafastigheter, Thomson Datastream

Figure 9 shows that NOI would be approximately €11.3 million at the new exit date in May 2010, following a total index adjustment of c.5%. Market yield would be c.8.25% which is based on Kesko's divestment of a similar portfolio in December 2009 at 7.75% yield, adjusted for longer average lease. This leads to an exit value of €137 million[9], which is lower than the actual exit value of €154 million. However, the accumulated NOI since the actual exit date was €27.5 million, and accumulated interest costs would be approximately €10.5 million. This is based on an interest rate of c.4%, and positive cash flow effect from lower

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[9] Calculated as *NOI / Market Yield at the updated exit date*

interest costs due to amortization was not included. In this simple example with realistic assumptions, we show that total cash received and value created would not be much affected by exit date. By focusing on value creation, which is reflected in the income return, Sveafastigheter would be protected against unfavorable movements in yields and market timing.

8.5. Summary

In this section, we have identified three categories of value drivers for investments by Non-Core real estate funds. These are centralized around the physical attributes of the assets, as well as characteristics of the imperfect market conditions in real estate. We find strong similarities with value drivers for the Private Equity industry, although governance engineering opportunities are to a certain amount limited in real estate investments as result of the fundamentally different asset characteristics. With the case study, we show that some corporate governance improvements such as equity incentives to local operating partners are still adaptable to real estate investments. Also, the case study shows that operational improvements and operating cash flow are more important value drivers for real estate investments, as these could provide protection against unfavorable market timing and exit values.

9. Conclusion

In this paper we tried to present an overview of the real estate fund market and to discover what factors drive the value that these funds generate. We have showed that non-core real estate funds share many of the characteristics of private equity firms. However, real estate funds have a more structured value chain which leads to stronger emphasize on asset transformation and deal sourcing. This is the case because of the more specific investment criteria of long-term property investors. Therefore, by finding mismanaged and undervalued assets and then transforming these into more attractive properties, non-core funds can ensure more secure exits than private equity investments.

We find that the return and risk characteristics of real estate are attractive to investors as result of the diversification effects. Real Estate has shown superior risk-adjusted returns over the period of 1990-2010 and weak correlation with the equity markets.

<u>Value Drivers for Non-Core Real Estate Investments</u>

In addition to providing access to property assets, real estate funds also generate value to investors in other ways. First, we showed that non-core real estate funds actively search for

attractive deals in remote geographic and product areas. This role as a financial intermediary helps to improve the market efficiency and liquidity. Secondly, non-core funds add value through active ownership and strong focus on operational improvements. They also provide management expertise and local knowledge of investing in their markets. Institutional investors view it as too costly and personnel intensive to develop this expertise in-house, in addition to policies of focusing on top quality assets. Thirdly, the use of leverage and the knowledge of timing the market is another skill of non-core funds to enhance their performance.

In comparison to private equity, the return of real estate investments is more dependent on operational cash flow than divestment timing and exit value. Whilst there are limited opportunities for governance engineering in real estate, the market is characterized by imperfect pricing and information systems that allows keen fund managers to find underpriced assets.

Future Research

Our thesis should be seen as a general overview of real estate funds and we encourage future research to specialize in specific fields in this subject. There is still limited data on non-listed real estate funds but organizations such as INREV and its sister organization ANREV are gathering more data on the non-listed real estate funds. With a more extensive database it could be very interesting to more quantitatively investigate the value-adding capabilities of real estate funds.

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11. Appendix

Table 5 – Top 30 Real Estate Private Equity Investors in the World

2010 rank	Name of Firm	Headquarters	Capital Raised ($bn)
1	The Blackstone Group	New York	$24.05
2	Morgan Stanley Real Estate Investing	New York	$19.15
3	Tishman Speyer	New York	$13.62
4	Goldman Sachs Real Estate Principal Investment Area	New York	$13.58
5	Colony Capital	Los Angeles	$10.43
6	LaSalle Investment Management	Chicago	$9.48
7	Beacon Capital Partners	Boston	$9.40
8	The Carlyle Group	Washington DC	$8.80
9	MGPA	London	$7.60
10	Lehman Brothers Real Estate Private Equity	New York	$7.15
11	CB Richard Ellis Investors	Los Angeles	$6.47
12	Westbrook Partners	New York	$6.13
13	Starwood Capital Group	Greenwich, CT	$5.91
14	AREA Property Partners	New York	$5.72
15	Prudential Real Estate Investors	Parsippany, NJ	$5.48
16	Rockpoint Group	San Francisco	$5.13
17	daVinci Advisors	Tokyo	$4.33
18	Grove International Partners	New York	$4.30
19	Hines	Houston	$4.26
20	Lubert-Adler Real Estate	Philadelphia	$4.18
21	RREEF Alternative Investments	New York	$4.05
22	Walton Street Capital	Chicago	$3.93
23	Citi Property Investors	New York	$3.46
24	Angelo, Gordon & Co	New York	$3.40
25	Bank of America Merrill Lynch Global Principal Investments	New York	$3.28
26	Shorenstein Properties	San Francisco	$3.16
27	Lone Star Funds	Dallas	$3.11
28	Heitman	Chicago	$3.05
29	Aetos Capital	New York	$2.98
30	Rockwood Capital	New York	$2.45
	TOTAL		**$207.76**

Source: PEI Alternative Insight, PERE

Table 6 – List of Interviewees in Sweden

Company	Name	Position
Aberdeen Asset Management	Johan Temse	Fund Manager, Property Multi Manager
Andersson Real Estate Investment Management	Leif Andersson	CEO
Alecta Investment Management	Kent Jonsson	Head of Swedish Indirect Real Estate
Doughty Hanson	Stefan Björklund	Analyst, Real Estate
Ernst & Young AB	Ingemar Rindstig	Partner, Real Estate
Folksam	Birgitta Stenmark	Head of Alternative Investments
Genesta	Maria Ingelson	Acquisitions
	David Renger	Head of Acquisitions
Leimdörfer	Alexander Grankvist	Analyst
	Staffan Unge	Analyst
Sveafastigheter	Simon de Château	CEO
Svensk Fastighetsfond	David Ekberg	Transaction
	Johan Eriksson	CEO
	Leif Vang Hansen	Head of Marketing and Sales
Svenska Bostadsfonden	David Olsson	Analysis & Transactions
	Ebba Swahn	Analysis & Transaction

Table 7 – Characteristics of Core and Non-Core Assets

	Core	Non-Core
Physical characteristics	- Major property types that satisfy contemporary competitive standards	- Significant capital expenditures are required to meet contemporary standards
Tenant base	- Investment Grade tenants - Staggered leases - At-market rents - High occupancy levels	- Weaker tenant quality - Property types with shorter or more complicated leases - Leases ending in immediate future - Occupancy levels are below the market average
Property market	- Larger regional markets - Regional markets with major concentrations of property types - Regional markets with competitive advantages in particular property types	- Secondary properties in larger regional markets - High quality properties in secondary markets - Good business conditions - Fundamentals set to improve in near future
Investment returns	- Substantial income - Modest appreciation - Return close to gains on NCREIF Index	- Modest income - Substantial appreciation - Returns significantly higher than NCREIF Index
Capital structure	- Leverage generally does not exceed 40% of investment - Structure conveys essential control	- Leverage may reach 75% of investment - Structure may provide less control - Unsecured positions
Ownership	- Predominantly wholly-owned - Strategic joint ventures due to size or complexity - Experience in achieving better-than-market leasing	- Predominantly joint ventures - Highly motivated and incentivised management and leasing programs - Demonstrated asset turn-around experience

Source: GMAC Institutional Advisors

Figure 10 - IRR Performance by Vintage Year

This table reports size-weighted average final fund performance, measured both by IRRs and PMEs, by vintage year for each type of fund in the study sample used by Robinson and Sensoy (2010), for all funds combined, and for VC and buyout funds combined. PMEs are measured with respect to the S&P 500. The table includes only the sample of liquidated funds (those with vintage years prior to 2006 that were liquidated as of 6/30/2010)

	All			VC & BO			Venture			Buyout			Real Estate			Debt			FoF		
Vintage	N	IRR	PME	N	IRR	PME	N	IRR	PME	N	IRR	PME	N	IRR	PME	N	IRR	PME	N	IRR	PME
1984	9	0.20	1.06	9	0.20	1.06	6	0.10	0.78	3	0.38	1.56	-	-	-	-	-	-	-	-	-
1985	10	0.21	1.18	10	0.21	1.18	5	0.12	0.92	5	0.24	1.29	-	-	-	-	-	-	-	-	-
1986	4	0.03	0.87	4	0.03	0.87	3	-0.10	0.78	1	0.13	0.93	-	-	-	-	-	-	-	-	-
1987	15	0.19	1.24	15	0.19	1.24	6	0.06	0.73	9	0.20	1.30	-	-	-	-	-	-	-	-	-
1988	24	0.09	0.78	23	0.09	0.79	9	0.15	1.02	14	0.09	0.76	1	0.04	0.68	-	-	-	-	-	-
1989	25	0.20	1.15	25	0.20	1.15	10	0.18	1.17	15	0.20	1.15	-	-	-	-	-	-	-	-	-
1990	8	0.27	1.35	8	0.27	1.35	1	0.15	1.01	7	0.28	1.36	-	-	-	-	-	-	-	-	-
1991	2	0.16	0.82	2	0.16	0.82	-	-	-	2	0.16	0.82	-	-	-	-	-	-	-	-	-
1992	7	0.35	1.28	7	0.35	1.28	3	0.06	0.84	4	0.37	1.31	-	-	-	-	-	-	-	-	-
1993	12	0.42	1.44	11	0.42	1.43	5	0.36	1.19	6	0.44	1.50	-	-	-	-	-	-	1	0.36	1.53
1994	33	0.28	1.26	28	0.29	1.31	6	0.52	1.87	22	0.28	1.29	3	0.24	1.02	-	-	-	2	0.18	1.02
1995	41	0.17	1.29	35	0.18	1.32	11	0.21	1.22	24	0.18	1.33	1	0.16	0.96	4	-0.09	0.64	1	0.25	1.07
1996	54	0.10	1.09	42	0.09	1.08	6	0.27	1.26	36	0.09	1.08	6	0.11	1.11	3	0.04	0.87	3	0.28	1.16
1997	57	0.16	1.46	46	0.16	1.46	16	0.42	1.80	30	0.13	1.43	6	0.12	1.46	5	0.14	1.42	-	-	-
1998	91	0.07	1.27	80	0.07	1.28	26	0.30	1.53	54	0.06	1.27	4	0.05	1.20	6	0.00	0.91	1	0.14	2.15
1999	77	-0.09	1.07	67	-0.10	1.05	30	-0.27	0.61	37	-0.03	1.22	4	0.06	1.26	6	0.02	1.38	-	-	-
2000	97	0.03	1.08	94	0.03	1.07	34	-0.11	0.71	60	0.06	1.14	2	0.08	1.39	1	0.13	1.11	-	-	-
2001	37	0.01	0.99	30	0.00	0.98	8	-0.22	0.64	22	0.04	1.03	3	0.18	1.37	3	0.07	1.07	1	-0.01	0.80
2002	14	0.23	1.20	12	0.24	1.20	6	0.03	0.85	6	0.27	1.25	2	0.14	1.11	-	-	-	-	-	-
2003	10	0.45	1.33	7	0.50	1.43	-	-	-	7	0.50	1.43	3	0.22	0.74	-	-	-	-	-	-
2004	2	0.17	1.04	2	0.17	1.04	-	-	-	2	0.17	1.04	-	-	-	-	-	-	-	-	-
2005	3	0.14	1.03	3	0.14	1.03	1	-0.06	0.80	2	0.14	1.04	-	-	-	-	-	-	-	-	-

Source: Robinson and Sensoy (2010)