UNIVERSITY OF TURKU
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REAL ESTATE INVESTMENT FORMS IN FINLAND

Comparison between most common direct and indirect real estate investment

Master´s Thesis
in Accounting and Finance

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The purpose of this study is to examine the real estate market in Finland, available ways to invest into real estate, and how different real estate investment forms differ from each other. These include Indirect real estate investment through either publicly traded real estate companies, REIT's, or special purpose investment trusts, and direct investments into real estate. This Thesis offers insight and information on the specific characteristics, classes, and investment means, and explores the tax exempt relatively new special investment funds as an alternative. The benefits and disadvantages of different types of real estate are studied as are the differences between the different investment forms.

As the real estates differ substantially due to their heterogeneity, different types of real estate and companies investing in them are difficult to compare. In Finland, there are large differences between regions, and the subsegments within them. To be able to compare two different property companies and their performance, you would need to know what the geographical regions and property types are. In the thesis, differences in legislation and characteristics are compared. The old problem of NAV variations continues and remains unsolved, although delistments of property companies have been near NAV.

The drivers for real estate total returns derive from two main components, cash flow and capital gains. In growth centres the cash flow has for a long time already been unable to reflect the value of the real estate, and the required return is satisfied with the capital gain component. The yield requirements are also historically low, and the overall growth rate is not sustainable in the long run.

One of the findings in the thesis is that investments into real estate in special investment funds have grown, whilst listed property companies have dwindled. This seems to specific to Finland, as the legislation for special investment funds is different. When compared to Nordic and European countries, the required rates of return for most real estate types are below average, meaning that the yield required is higher than on average, and investments are continuing. In some property segments such as office and retail, there is a market transition in demand.

Key words: Real Estate, investments.

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Tutkielman tarkoitus on tutkia kiinteistömarkkinaa Suomessa, mitä eri keinoja on sijoittaa kiinteistöihin ja kuinka eri sijoitusmuodot eroavat toisistaan. Tässä mukana muotoina ovat epäsuorat kiinteistösijoitukset pörssilistattujen kiinteistösijoitusyhtiöiden kautta, REITit, erikoissijoitusrahastot, sekä suorat kiinteistösijoitukset. Tämä progradu tutkielma syventyy kiinteistösijoitusmuotojen lainsäädännöllisiin eroihin, kiinteistötyyppien eroihin, erityispiirteisiin, sekä verovapaan erikoissijoitusrahaston ominaisuuksiin. Eri muotojen etuja ja haittoja vertaillaan.

Koska kiinteistöt poikkeavat merkittävästi toisistaan kiinteistöjen heterogeenisyydestä johtuen, vertaileminen eri kiinteistöjen ja kiinteistösijoitusyhtiöiden välillä on vaikeaa. Suomessa on suuria eroja maantieteellisen sijainnin ja kiinteistötyypin välillä, ja nämä muuttuvat jatkuvasti. Jotta voisi vertailla kahden eri kiinteistösijoitusyhtiön tuottoa, pitäisi tietää minkä tyyppisiä ja missä niiden omistavat kiinteistöt sijaitsevat. NAV variaatiot ovat edelleen olemassa eikä niitä ole ratkaistu, joskin molemmat Helsingin pörssistä poistuneet yhtiöt myytiin lähellä tasearvoa.

Kiinteistöjen kokonaistuoton pääajurit ovat kassavirta sekä pääomakasvu. Kasvukeskuksissa kassavirta suhteessa kiinteistön arvoon on ollut jo pitkään niin alhainen, että tuottovaatimus on saatu täytettyä pääoman arvon kasvun kautta. Tuottovaatimukset ovat historiallisen matalat keskimäärin, eikä nykyistä kokonaistuottoa pidetä pitkällä tähtäimellä kestävänä.

Yksi tutkielman päähavainnoista on että sijoitukset erikoissijoitusrahastoinin ovat kasvaneet, kun taas sijoitukset pörssilistattuihin kiinteistösijoitusyhtiöihin ovat Suomessa vähentyneet. Tämä vaikuttaa olevan erityispiirre nimenomaan Suomessa, sillä erikoissijoitusrahastojen lainsäädäntö on poikkeuksellinen. Verratessa Pohjoismaihin ja Eurooppaan, tuottovaatimukset Suomessa ovat ovat hieman alle keskiarvon, eli tuottovaatimus on hieman keskimääräistä suurempi, ja investoinnit jatkuvat. Joissain markkinasegmenteissä kuten toimisto ja liikekiinteistöt on havaittaissa kysyntälähtöinen markkinamuutos.

Avainsanat: kiinteistot, sijoittaminen

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1 INTRODUCTION AND BACKGROUND

1.1 Purpose of the study

The purpose of this study is to examine the real estate market in Finland, available ways to invest into real estate, and different real estate investment forms differ from each other. The initial idea of the study was to compare and solely publicly traded property companies, with a focus in NAV deviations and if different marketplaces offer abnormal risk adjusted returns. This scope expanded in focus from the listed companies to other forms, as interviews revealed a transition in investments from public companies to especially special investment funds in the last few years. Concurrently, as comparing investment forms with different real estate classes proved difficult, the research question was re-iterated to broadly study the different forms of both investment and real estate classes, as well as determine drivers for both supply and demand in the different segments. This helps understand the market as a whole. Also, with public property companies, the research seems to be in slight contradiction with the theory, and many researchers argue that the anomalies should not exist at all. The anomaly of the deviations especially between different markets, such as Finland compared to other Nordic countries, has been accepted as an endogenic characteristic and one of the variables present (Krokfors, 2017).

This study is divided into categories: indirect real estate investment through either publicly traded real estate companies, REIT's, or special purpose investment trusts, and direct investments into real estate. The different types of real estate categories are explored, as quite substantial differences between asset classes exist. This Thesis offers insight and information on the specific characteristics, classes, and investment means, and explores the tax exempt relatively new special investment funds as an alternative. The research question is to find the benefits and disadvantages of different types of real estate as well as the differences between the different investment forms and offer a basis on which to understand what combination, if any, is most beneficial.

1.2 Research methods and limitations

NAV ("Net Asset Value") deviations in public property companies is of interest to property investors in addition to the returns, and specific exchange traded anomalies are explored. This pertains specifically to differences in returns when comparing Finnish and Swedish based companies, but also the different assets classes. NAV deviation simply put is the difference between the non-leveraged balance sheet value and market capitalization.

The purpose of this study is not to study share pricing per se or analyze how the balance sheet etc. items are derived when comparing the exchange traded investment instruments. These factors as well as the share price will therefore be considered external, with the study offering some explanation as to why asset values may differ from market values and trying to determine which variables offer more information. Market price mechanisms in the specific share prices observed will not be a main focus, but due to the nature of the study they will also be a part of this thesis. Albeit the focus will not be on share price valuation, market anomalies and differences between stock exchanges will be considered as possible contributors to deviation and dispersion of earnings, and in determining if there is a difference between Finland and Sweden.

The EPRA NAV is a special way of calculating the value of balance sheet items, where the intent is to better reflect the unique characteristics of real estates. For this the information is not readily available, but for the Finnish companies it will be explored if they manage to better reflect the returns. They will offer a comparison point, due to the freedom offered by IFRS 40 in fair value valuation, and income relating to other than core (in this case property income) businesses. With these non-property related NRI's dealt with, the focus will be on the actual assets and the returns they generate. As stated, the problem here is that EPRA NAV is not very common, so it will not be able to offer comprehensive results.

Data for the indirect investments will be market data for the listed property companies, with emphasis on the volatility and total returns of the companies. Some REIT's can be categorized to act as direct investments (erikoissijoitusrahasto), as the value is determined by the estimated value of the market portfolio, and therefor has no NAV deviation as opposed to listed property companies. REITs are more common in markets outside of Finland, as the special investment funds offer most of the benefits after their introduction. The difference to direct investments is the diversified portfolio and leverage used within the fund itself, as opposed to the nature of direct investments where you own the property or real estate directly. The main barrier of entry for direct investments is of course the size of the investment you need to make, and substantial funds required to diversify the

portfolio. Here the investor must be much more aware of the yields and void periods present depending on both the location and usage of the real estate to be able to evaluate the risk involved and to determine the proper demanded rate of return. As with the public real estate companies, it is not within the scope of this study to determine if the asset values are correct, they are considered exogenic and taken as are. The real estate values are especially prominent in the special investment funds, as all investments and redemptions are made at NAV.

The theoretical background will be divided into corresponding segments of the research questions. The first section will consist of brief exploration on share price valuation in general, specifically DCF, as well as establishing a foundation for comparing the data and share price movements in accordance to the overall stock market.

The theory on share price valuation will somewhat cross over with the NAV deviation theories, which will mainly rely on the extensive research conducted on REIT's and closed end funds. The valuation of real estate's will also be introduced, as real estates are a very specific and unique class of assets. The literature review and theoretical background will be used as a basis upon which the different real estate investment forms are more thoroughly studied. Due to the heterogeneity and higher transaction costs related to especially direct real estate investment, divestment of properties in for instance default situations is quite specific to country and banking laws, meaning that defining the risk is very specific to the region. In this study the risk is country specific and is related to the development of the regions and real estate class in general, and risks related to a specific property can be mitigated by diversification. It was not in the scope of the study to define a specific amount of diversification required in direct real estate ownership as is easier in stocks for instance. This is also due to the heterogeneity of real estate.

The markets are broadly introduced as well as the investor types, and the underlying assumption in the thesis is that the market is currently acting efficiently, with enough interest and transactions for the pricing to be effective in most cases. The most important factors and value drivers for different real estate types are introduced, to help understand the underlying value drivers when contemplating on investment forms to better be able to understand the underlying asset. The returns for different properties are introduced and briefly compared but determining if the returns are correct is not in the scope of the study.

To better understand the market as a whole, professionals in the field have be interviewed to give better insight into the different market segments and fields. SEB real estate analyst Svante Krokfors was interviewed in 2017 and will be used in the section regarding public listed companies. Kari Kolu has also been interviewed for the thesis. He is the former CEO of now delisted property company Sponda, and chairman for a special real

estate investment fund Trevian. Kari has a very unique and long holding track record in the Finnish real estate market, and the interview is used to offer explanations for both past and upcoming development of the markets, as well as insight through the scope of a seasoned professional in the field. Hanna Kaleva, CEO of KTI institute has provided data and an interview on the broadly the same subjects, but more from a research point of view. KTI is the main source of market information for institutional real estate investors for bench marking and market analysis.

All of the interviews where semi structured, with the questions based around comparing the different forms of investment, different types of real estate, taxation, differences between different market areas, and key indicators for different market segments.

1.3 Structure of the study

The study is structured as follows. Chapter 2 introduces the theoretical background for both for share price valuation, explanations on anomalies and diversification, the valuation principles similar in real estate valuations, and the unique characteristics of real estate properties that differ from more common investment assets. Chapter 3 reviews the markets and real estate types pertaining especially to the market in Finland, with some comparison to similar markets in Europe, especially in terms of yield requirements. This is done to establish a commonality between the different markets, and emphasize the similarities where they are present, and that movements are at least somewhat in tandem.
The fourth chapter more thoroughly explores the different investment forms for real estate, going from most liquid indirect real estate forms to the concept of direct ownership. In the 5th chapter, the real estate investments are compared and the interviews are used to explain the differences and questions. Chapter 6 concludes with a summary and conclusions.

2 THEORETICAL BACKGROUND

In this chapter, the literature and theoretical background for the thesis is examined. The first part of this chapter focuses on the specifics of share price valuation, and how the characteristics of share price valuation also have commonalities with real estate. In a perfect world, share price valuation and real estate valuation are based on discounted cash flow, so the basis is quite similar. Common explanations that literature finds on explanations on anomalities can also be found in this chapter.

2.1 Share Price Valuation

The most accepted principle for risk adjusted share price valuation seems to be the Capital Asset Pricing Model, deriving mainly from Harry Markowitz's Modern Portfolio Theory. (Niskanen & Niskanen 2007, 170–180.) Although the model is clashing time to time with the Fama-French three and five factor models, The CAPM has been chosen due to its simplicity and insufficient evidence of the superiority of either model. Additionally, when talking to Svante Krokfors, a real estate analyst for SEB, the Fama-French model is not commonly used. The context of a large portfolio of RE in a single share offers an intriguing linkage between these theories, as it brings together the portfolio of already diversified real estate assets but offers the commonly absent liquidity in the form of the share price. This should help offset the common liquidity premium requirements, but discounts persist, as is observable in the Findings section.

Although the market valuation will be studied from the point of view of risk adjusted returns, being very similar to the valuation of the individual real estates as will be established later, the fundaments of the actual valuation of shares will not be explored further than this, taking the share price to be more of an exogenic factor. This is due to the nature of this study, whose focus is not on establishing how the share price is derived, but more as to observe and attempt to explain the deviation of the value of assets from the market capitalization of the company. CAPM is also the easiest way of linking the market valuation and asset valuation together. real estate companies do however have many specific characteristics in both structure and valuation of assets, as well as comparability of figures, which will be discussed under "Real Estate Valuation".

Discounted cash flow analysis ("DCF") can in essence be summarized into three steps:

1) Forecast the expected future cash flows
2) Ascertain the required total return
3) Discount the cash flows to present value at the required rate of return

(Geltner et al. 2007, 203.)

The Formula for this is:

$$V = \frac{E_0\ [CF_1]}{1 + E_0\ [r]} + \frac{E_0\ [CF_2]}{(1 + E_0\ [r])^2} + \cdots + \frac{E_0\ [CF_{T-1}]}{(1 + E_0\ [r])^{T-1}} + \frac{E_0\ [CF_T]}{(1 + E_0\ [r])^T}$$

where CF_T is net cash flow generated by the property in period T, $E_0\ [r]$= Expected average multiperiod return (per period) as of time zero (present), the opportunity cost of capital (OCC) for the investment, expressed as going in IRR, and T= The terminal period is the expected holding period, such that CF_T would include the resale value of the property at that time, in addition to normal operating cash flow.
(Geltner et al. 2007, 204.)

In this context, the opportunity cost of capital, or OCC, refers to the discount rate used, which should also be the required rate of return, when establishing the value of the property. However, one of the most important aspects to take into to account is the realistic estimation of the cash flows to be discounted, considering the factors listed above, and lease renewability probabilities.

Net Present Value, ("NPV") is a natural accommodation of DCF valuation. The NPV of a project by definition is the present value of the asset being obtained, less the present value of the cost that is required to obtain the asset. (Geltner & al. 2007, 214; Niskanen & Niskanen 2007, 90–92.) Discounted cash flow is the basis of the real estate appraisal method used for the quarterly evaluation of the real estate assets, i.e. the balance sheet items of real estate companies.

2.1.1 Capital Asset Pricing Model

The capital asset pricing model ("CAPM"), developed in the 1960's, is a balance model offering a rate of return with which to price individual securities. It is the best known and most used model, and due to its simplicity, it offers a good insight into risk and return co-operation (Grasberger 2008, 5). The underlying idea of the CAPM is that a security carrying more risk must also have a higher expected return, for the investors to accept to keep the security. The required, or expected, return therefore must increase as risk increases. The risk-free interest rate used as the foundation for establishing risk and return for a single security is commonly the return on a 10-year treasury note.

The model helps to determine the expected return, which then defines the required rate of return for a security. The model takes into account the Beta, which accounts for the sensitivity to systematic risk for the security, expected market return, and the expected risk-free return. After the expected return has been established the security's price can be calculated by discounting the specific securities expected returns by the required rate of return. (Niskanen & Niskanen 2007, 180–190.)

$$E(R_i) = R_f + \beta_i(E(R_m) - R_f)$$

where $E(R_i)$= Expected return of the security, R_f = Risk free return, β_i= Beta- multiplier, $E(R_m)$= Expected market return, and $E(R_m) - R_f$= Market risk premium.

(Niskanen & Niskanen 2007, 189).

The CAPM has been used in real estate as well, but there are some limiting factors to consider with the residuals when going into the high and low ends of spectrum. Cheng, Copeland and O'Halon state as follows:

> *" Autocorrelation in the 'Net Asset Value Return' and the 'Discount Return' Examination of the results (not reported) generated by the use of market model residuals and CAPM residuals to perform the test described in the previous subsection revealed an interesting phenomenon. The results using CAPM residuals were similar to those reported in Table 2, but those generated by the use of market model residuals were considerably more extreme with the high (low) discount portfolios producing even larger positive (negative) abnormal returns. The contrast between the results generated by the market adjusted returns and the CAPM residuals on the one hand, and the market model residuals on the other hand, is similar to that*

> *which one might expect to see if one used these abnormal return computation techniques in a stock market overreaction test of the type carried out by DeBondt and Thaler (1985).”*
> (Cheng, Copeland & O’Halon 1994, 822–823.)

This passage from Cheng & al’s study into investment trust discounts in the UK validates the use of CAPM as both a risk adjusted means of valuation, and also a measure for evaluating risk adjusted returns. The capital asset price model is extremely important in being able to understand the fundamental workings of the discount and risk factor. Despite the critique CAPM has experienced, betas are still the most used measure of systematic risk my managers and analysts (Milionis 2011, 312). Although the practical uses of the CAP model can be synthesized into three main points:

> Equilibrium help investors understand the concept of reasonable expected returns, with a clearer perspective of the future and risks related to the specific asset class, easing the comparability of different classes of assets and securities.
> Asset pricing models in general help identify specific mispriced in relation to the long-term equilibrium.
> By quantification of the capital markets risk, asset pricing models help to adjust returns to the risk related to them, leading to a better understanding on the actual risk adjusted performance.
> (Geltner, Miller, Clayton & Eichholtz 2007, 562–563.)

The most common critique towards the CAPM is to do with the complete irrelevance of systematic or non-diversifiable risk, also often called market risk. CAPM only measures risks within risk, if you will, by virtually disclosing all changes deriving from changes in the market risk, as there is no such thing as a truly riskless asset. The real usefulness of the basic, or classical CAPM model is the relative ease and simplicity, of use, in which the fundamental assumptions though not corresponding 100% with reality are fairly close. (Geltner 2007, 562–570.) The CAPM is a good basis for comparing risk adjusted returns in the different asset classes.

2.1.2 CAPM implementation on real estates

The CAPM has a relevant application in mainly two separate contexts of focus, REITs and listed real estate companies. The application to individual real estate properties is slightly more challenging, albeit it offers some help in defining required rates of return in different locations and different real estate classes, for instance commercial or residential differences in the same area. In the 1970s and 80s CAPM implementation suggested zero

to negative figures, inspiring debate over the flaws of the model and the correlation of the real estate market with the stock markets.

Studies have however later shown that the calculation of real estate beta considering the correlations between different asset classes, instead of correlation of real estates to the whole market portfolio, offers rates of return very close to the Portfolio theory derived security market line. (Millionis 2011.)

The implementation to single private real estates is however challenging, due to restrictions in the relative risk amounts in a single property in a single location. (Geltner & al. 2007, 571-578.) Jaganathan and Wan (1995) have offered a conditional CAPM model allowing beta to vary over time, but these are slightly flawed by the lack of research in how to choose and link the conditionals and betas together. (Millionis 2011, 308.) According to Hamilton, market value can be defined as a composition on 9 characteristics:

> *"What is the definition of market value? A common definition would include the following items. Market value is the most probably price which a specified interest in . . . property that is likely to bring under the following conditions:*
> *(1) Consummation of a sale as of a specified time.*
> *(2) Open and competitive market for the property interest being appraised.*
> *(3) Buyer and seller each acting prudently and knowledgeably.*
> *(4) Price not affected by undue stimulus.*
> *(5) Buyer and seller typically motivated.*
> *(6) Both parties acting in what they consider to be their best interests.*
> *(7) Adequate marketing efforts made and a reasonable time allowed for exposure in the open market.*
> *(8) Payment made in cash in US dollars or in terms of financial arrangements*
> *comparable thereto.*
> *(9) Price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."*
> (Hamilton 2011, 360).

2.2 Efficient market Hypothesis

Much of the micro-economic theory is based on the game theory derived rationalization that all participants seek to maximize their own return, assuming that all other participants

are equally self-optimizing. While it is recognized that individuals are can make cognitive mistakes and behave irrationally, the market consensus and other investor that are ample in a financial market, should move in and force the correct price to the security or asset, as any type of mispricing should lead to an arbitrage opportunity. (Caginalp & DeSantis 2011, 1014.)

This is somewhat contradicted in the specified case of real estates, as will be reviewed in the Investor Sentiment chapter. The concept of efficiency is usually divided into three categories, Weak, Semi strong and Strong, in which the information is limited, public information all being accounted for, and finally the strong form which suggests all information is constantly present. The consensus currently is not in debating the efficiency of market, but rather the definition on efficiency. The conclusions suggest that the market is semi strong, at best.(Gau 1987.)

2.3 Unique characteristics

It is suggested that it may be possible to make abnormal returns with systematic investment into high discount investment trusts, suggesting that market derived NAV discounts beyond a certain point in any asset class may not be rational. (Cheng et al 1994.)

In the last few decades, NAV deviations have escalated. Research indicates that market capitalization commonly departs from the NAV of the investment properties owned by a property company, which is also evident in the findings. Brounen and Laak (2005) examined a set of 72 European property shares. Their findings indicated an average discount to NAV of 36 percent. The dataset of Barkham and Ward (1999) for UK property companies, ranging from 1986 to 1995, showed an average discount to NAV of 22.4 percent with a variation of 53 percent to a premium to NAV of 29 percent. (According to Nellensen & Zuelch 2011, 61.) These findings and variations do not offer a very sound basis for drawing definitive conslusions, and further research is required. (Nellensen & Zuelch 2011; Morri 2005.)

2.3.1 Managerial discounts

One predominant theory on discounts, although also applicable to premiums, is the relation of agency costs and management expenses, as Capozza and Lee (1996) have found a positive correlation between REIT discounts and management fees. Unrealized taxes,

tax differences to direct ownership, and agency costs are also indicators of NAV discounts. (Capozza & Lee 1996, 524–526.)

For the chosen companies in this study (chapter 4) SEB has looked at the managerial discounts issue as an explaining factor for deviations.

The effects of managerial discounts and theories surrounding the phenomenon will be explored here. The power is however quite limited and can at best offer only a very partial explanation. For the companies chosen for this thesis SEB finds that Admin costs, which in this context are relatable to the NAV discounts, may offer partial explanation. However, one might wonder that would this not also translate to the price of asset, as owning and operating a real estate is bound to generate cost whatever the ownership structure. Therefor a managerial discount in my view should also be in the price of the asset, therefor mitigating the discount present in companies as an explanatory factor. On the relation and explanatory power of administrative costs, SEB finds that the administrative costs are not always comparable:

> *"We have also looked at administration costs in relation to net operating income. This could partly explain a possible NAV discount, or be an obstacle for a higher NAV premium. The findings are summarized in the table below. It seems that Finnish companies have on average higher administration costs in relation to net rental income than their Swedish peers. The charts above show that administration costs in relation to net rental income vary greatly among companies, and reporting might explain part of the differences, i.e. some companies might book some property costs in administration costs and vice versa. Therefore, we also look at the surplus ratio after administration costs as this is more comparable as there is no difference where the administration costs or property related costs are booked. Apart from the outlier D. Carnegie & Co. on the low side and Pandox on the high side, which have unique business models, the variation is rather small with Wallenstam at 61% and Wihlborgs at 73%. Citycon also ranks relatively high in this comparison although it has the highest administration cost in relation to net rental income."*
>
> (SEB 2017, 23).

Net rental income and administration costs 2015

Company	Rental income 2015 (ccy)	Net rental income 2015 (ccy)	Surplus ratio 2015 (%)	Administration costs 2015 (ccy)	Admin costs to net rental income (%)	Surplus ratio after adm. costs 2015 (%)
Atrium Ljungberg	2,122	1,450	68	60	4	66
Balder	2,711	1,944	72	185	10	65
Castellum	3,299	2,225	67	113	5	64
Citycon	224	200	89	37	19	73
D. Carnegie & Co.	1,217	554	46	97	18	38
Fabege	1,998	1,429	72	65	5	68
Hemfosa	2,443	1,670	68	112	7	64
Hufvudstaden	1,611	1,144	71	39	3	69
Klövern	2,718	1,766	65	92	5	62
Kungsleden	2,314	1,545	67	106	7	62
Pandox	1,431	1,280	89	94	7	83
Sponda	230	166	72	19	11	64
Technopolis	150	111	74	13.9	13	65
Wallenstam	1,549	1,130	73	188	17	61
Wihlborgs	1,910	1,445	76	51	4	73
Average			**71**		**9**	**65**
Median			**72**		**7**	**65**

Source: SEB

Figure 1 2015 Net rental and administrative costs. SEB (2017, 22).

2.3.2 Deferred tax benefits

Mostly to do with funds, structure and taxing of properties differs from IFRS substantially in some cases. Sources indicate that taxes would not play a significant role as explaining factors. This will be mitigated by the TRI index comparison as well as the very similar corporate tax rate for both Swedish and Finnish companies.

Under the current tax legislation, where properties can largely be sold as companies without a tax effect on capital gains, we believe the "true" NAV is somewhere between EPRA NAV and current NAV. However, tax legislation can change, and for companies with a high transaction activity, the impact could be significant if tax legislation would change. We use a normalized tax rate of 5% on the deferred tax but this could change significantly for Swedish companies in spring 2017 when a proposal on changes in the tax treatment of property sales in companies specifically created to own a property. The possible changes, we believe, will address the real estate sector's total tax contribution in relation to the earnings and capital gains they have produced. It is quite possible that the taxation of property companies could increase, and that the estimated deferred tax of 5% as an approximation could be increased, shifting the current NAV further away from EPRA NAV.

We will not make any guesstimates for NAV as the outcome of the study is highly uncertain." (Kroksfors 2017, 21)

Deferred taxes are a possibility therefore for deviations, but not in such a meaningful way that they would merit being a predominant figure. The deferred tax benefit also are quite similar to generate for the companies in question, and do not therefor in this context call for special recognition in this study.

2.4 Trade volumes, market size, and investor sentiment

One theory explaining differences in market valuation is the overall size of the market. This can be taken into account by observing the trade volumes and overall size of the market, in this case volumes and market size in the Finnish and Swedish stock exchange. There is a huge set of reason why the Finnish and Swedish stock markets behave differently, for one they are under a different currency. In addition, there seems to be evidence according to Martikainen Virtanen and Yli-Olli (1993, 412) to support that there are psychological barriers present to invest in Scandinavian stock as they are not as well known. Also, the Scandinavian stocks appear to be a bit different As the Scandinavian countries are more integrated.

One of the prevailing financial explanations for stock prices being perceived to be incorrect is investor sentiment. It refers to the observations in major events, such as the Black Monday, Dot Com bubble and others similar events, which contradict the Efficient market Hypothesis and theories of investors acting as unemotional rational forces making valuation meet expectations. Investor sentiment, defined broadly by Delong et al in 1990, is that future cash flows and risks are not justified by the facts at hand. (Baker & Wurgler 2007, 129). This leads to market imbalance, where the market fluctuations are sometimes strengthened by the absence or inability of arbitrageurs to act. (Shleifer & Vishny 1997.)

Research has indicated that certain characteristics in stock make them more prone to investor sentiment; the key trigger seems to be the heightened difficulty to predict the future cash flows, thus weakening if not eliminating the fundament based true value, which needs to be known to arbitrageurs in order the correct the market.

These weakening characteristics are youth, uncertain earnings, and fast growth. With these traits the firm can virtually be anywhere from zero to rocketing up, depending on the investor sentiment. (Baker & Wurgler 2007, 130.) This was quite visible below 2007 where both Citycon and Technopolis show strong premiums in NAVs. This phenomenon is also present quite frequently in Initial Public Offerings (“IPO”), and in REITs. (Clayton & Linder Hall 2000, 5–10.)

Due to the specified nature of real estate properties listed in chapter 2, real estates cannot be short sold, thus mitigating the markets correctional abilities to counteract mispricing. The findings indicate that funds with lower expense ratios and experienced management can achieve more persistent returns, and trade closer to their NAV in comparison to funds with poorer performance. (Clayton & al. 2007, 7.) Despite the importance of fundamentals and sentiment in private Real Estate dynamics, there has been no research on that directly examines the relative influences of these factors. There is however strong empirical support for fundamental being the main driver in Real Estate cap rates, but

investor sentiment also contributes to the 1996-2007 pricing period studied. (Clayton, Ling & Naranjo 2009, 34–35.)

2.5 Noise trading

The noise theory suggests that departures from the NAV value are caused by changes in investor sentiment, and the long term deviation would be a result of rationality falling victim to the noise trader risk, where noise traders would continue to offset the correct price, hence effectively mitigating the efforts of rationales to correct the market balance. Once the REITs are yet again perceived as high yield low growth stocks, the NAV and market price could once again meet, as noise traders move to other stocks that they can help elevate. (Clayton & Linder Hall 2000, 3.) Despite the paper relying heavily on research conducted towards REITs and closed end funds, as Clayton and Linder Hall (2000) bid that it seems to be valid towards stocks in general, especially the "over hyped" style securities with which the expectancies are high at the time of IPO's and secondary offerings.

Previous studies have also shown markets to reflect excess volatility when attempting to test for weak or semi-strong market efficiencies, with Black stating that due to noise, the price can be anywhere from have the real value to double. (Gau 1987, 6.)

Noise traders do not trade on market information or fundaments, but rather on sentiment. The noise trader influence is asserted to be pervasive, and unlikely to be arbitraged away due to noise trading sentiment being both stochastic (unpredictable) and systematic, in comparison to the rational investors' shorter horizon. (Morri 2005, 12.)

2.6 NAV deviations

The existence of NAV variations should not exist according to classical finance theories, yet NAV discounts and premiums have been present in real estate companies, REITs, and Closed End Funds, but there is no prevailing theory to validate their existence, baffling both managers and analysts. (Morri 2005, 2.)

The capital Asset Pricing model offers the expected return, beta figure and required rate of return. (Niskanen & Niskanen 2007, 189.) This offers one way of defining the reasons for the variations in market valuation and fair value of securities. DCF and NAV offer a quite common and used way on defining a single real estates value. (Geltner et al.

2007, 571–578.) The CAPM can be used in real estate investment, despite contradicting findings and evidence from the 80's, as long as the correlations of real estate investments are correctly acquired (Geltner et al. 2007, 571–578).

The rational reasons for the NAV deviations include taxes, agent costs, and management expenses, of which positive correlation has been found with NAV discounts. (Cheng et al. 1994, 821-824.) As inadequate research on the NAV deviations of property companies was found, I have relied mainly on research towards discounts in REITs.

The financial theories that try to explain the existence of discounts are numerous, ranging from investor sentiment to the efficient market hypothesis, with findings showing some information contradicting with the efficient market hypothesis. (Baker & Wurgler 2007, 129.) It is suggested that investor sentiment may be main driver for discounts. (Chen, Kan & Miller 1993, 795.) Investor sentiment leads to market imbalance, leading to strengthened market fluctuations due to the absence or inability of arbitrageurs to act. (Shleifer & Vishny 1997). Due to the specified nature of real estate properties, real estates cannot be short sold, thus mitigating the markets correctional abilities to counteract mispricing. (Clayton & al, 2007, 5.) This has been confirmed by research indicating investor sentiment affecting real estate Cap rates. (Clayton, Ling & Naranjo 2008, 24-29.)

The inability to short sell property due mainly to the heterogeneity of it does however support the misevaluation of assets, as the commercial property market tends to clog up in financial times of need, thus eliminating price corrections through the absence of transactions.

Although classical finance theory does not accommodate for neither investor sentiment nor mispricing, the bubbles and subsequent crashes suggest behavioral factors.

2.7 Real Estate Valuation

With the term real estate in this thesis mean land areas and all equipment and structures on the area, unless otherwise specified (Kiinteistöliiketoiminnan sanasto, 2001). The Classical finance theory suggests that the value of a real estate, or any asset for that matter, is its risk adjusted future income streams, with no room for investor sentiment. (Clayton, Ling & Naranjo 2009, 5.) Focus will therefore be on the valuation principles of real estates, as they, according to the law of one price, should lead to equal valuation in net assets and price to book. (Morri 2005, 2.) As with the share price valuation, the dynamics of the valuation of the Real Estate portfolio will be presumed to be accurate, as this is done by external professional valuators. Therefore, the value of the real estate assets will

also be considered exogenic. There are specific ratios and figures used in real estate valuation, or more specifically in the valuation on portfolios. However, due to the somewhat differing legislation in European countries, the comparability of certain aspects is hindered due to lack of a common language. The European Public Real Estate association has however devised some specific calculation methods, which should help the comparability of Real Estate companies and REIT's.

Net Asset Value is the mark-to-market value of a company's equity capital, as of a given date, using an estimate of the open-market (i.e. private market) value of its real estate and other adjustments. These are often presented on a per share basis (Green Street Advisors 2009, 14).

EPRA NAV is a derivative of this, but it focuses on the IFRS based mandate to value the company's real estate assets on fair value basis in the accounting statements. The main difference to the normal NAV is that the EPRA NAV distinguishes between the different assets, and rolls some of the IFRS disclosed or changed values back. It adjusts for dilution from the likes of options and convertibles, and presents finance leases, development and trading properties at lower of cost or realizable value, adds deferred tax assets, and restates derivatives at book value, rather than the fair value of IFRS for derivatives deemed as hedges. (EPRA 2011, 9.) This leads to more comparable results; with fewer items I would classify as "non-recurring items".

Economic Cap Rate: Net operating income divided by property value. This term essentially is the reversed P/E- figure of real estate investment, as it tells the actual return of the core business, without any non-recurring or non- real estate related gains (Green Street Advisors 2009, 14).

NOI is used to calculate the return on the portfolio, and is very similar to earnings before interest, tax amortizations and depreciation ("EBITDA"), as depreciation and amortization are added back, but the figure excludes overheads. 10-15% of direct costs relating to the property are excluded from the NOI figure. (Green Street Advisors 2009, 14-16.)

Another very common term used frequently in real estate valuation- and business is Triple Net, which means in essence that the tenant is responsible for all of the costs, also often referred to as equity rent, as it indicates the "pure" rental value of the property. This term is not considered in any further extent in this study, but is included because it is extremely relevant in defining the required rates of return, in this context often referred to as yield, when the asset portfolios are evaluated by external evaluators mandated by IFRS and FAS (EPRA 2011, 11). IAS 40.30 allows real estate companies to choose either the fair value model or the cost model as their accounting policy for its investment properties.

2.7.1 Unique characteristics of real estate appraisal

There are three defining physical and four financial characteristics that separate real estates from most other assets. These physical characteristics as defined by Olkkonen, Kaleva and Land (1997) include the following four defining factors:

> 1) Immobility: The real estate in question is situated in a specific location and cannot be moved to another. Therefore, there are always micro scale factors affecting a specific real estate's value.
> 2) Heterogeneity: As each location is specific and heterogeneous, so is the real estate itself unique in some aspect, be it the layout, the land formation or some other factor. This sets real estate's aside from other common factors of production, as you mostly cannot exactly replicate the demographic or other specific characteristics of a real estate.
> 3) Indestructibility: Although the building or other establishment were to be destroyed or torn down, the specific properties and location of the land remain; nothing can bring the value down to zero.
> (4) Large unit size: Although not listed in the three main physical characteristics, the large unit size and therefore hindered liquidity also influence the valuation.
> (Olkkonen, Kaleva & Land 1997, 26.)

The financial defining characteristics of real estate as defined by Olkkonen et al. (1997) are the following four factors:

> 1) Scarcity: Out of the financial characteristics the most important is the uniqueness of the location, for instance the limited available land in city centers.
> 2) Longevity: As a factor of production the establishment has a very long productive life with many establishments topping a hundred years. The land on which the establishment is constructed upon is virtually eternal.
> 3) Adaptability/refinement/development: The value of the real estate can be boosted by additional construction, improvements to existing facilities, or by redevelopment for other usage.
> 4) Locationality: The strong correlation of value and location; the real estate may elevate the value of surrounding real estates, and vice versa.
> (Olkkonen et al. 1997, 26.)

These factors set real estates aside from most of factors of production, and due to the nature and adaptability described above also provide for a much sounder valuation, meaning that the impacts of external shocks should not sway valuation as much, offering low volatility for individual real estates, especially in business districts and city centers, where demand is more stable. (KTI market report 2011.)

2.7.2 Indirect real estate investments

Listed real estate companies are companies that invest in real estates, develop them and either sell them after development or rent the premises out. These companies, as other listed companies in Europe, must comply with IFRS reporting standards, in which the market value of assets is presented. In this study, the pricing mechanisms of the real estates are studied, as are some of the prevailing theories on deviations of market value from the presumed exogenic correct value. REIT's are real estate investment trusts, and differ somewhat from listed property companies, but share similarities in valuation and liquidity. With these, it is also easier to leverage the stake in the asset. You do not own specific assets within the fund, but a share corresponding to your investment amount of the equity. The newest form are special investment funds with specific and differing legislation.

2.7.3 Direct real estate investments

Real estate can be purchased also directly, as in owning a house or apartment. Apartment ownership in Finland is usually structured so that you own shares which give ownership to a specific apartment, so technically you own part of a company or legal entity that owns all the apartments. Due to the nature of the share ownership however, we will consider it as direct ownership. Unlike in REIT's you do not own an equal share of all the apartments, but a specific one. The problem of direct investments that are not traded is that the costs of acquisition are higher, and due to the high unit price, diversification and risk are an issue. This can be mended by diversifying into many apartments or real estates but requires much more equity to do so. As an added benefit however, it is much easier to leverage the portfolio.

2.7.4 Traded real estate investments

The source of interest is in a specific phenomenon also present in real estate Investment trusts ("REIT") and other closed end funds, known as the Net Asset Value ("NAV") deviation, which has been the source of research and controversy for a long time (Morri 2005, 6). NAV refers to the difference between the value of the net assets and market capitalization of a security (Green Street Advisors 2009, 9). For instance, a publicly traded fund with no debt has a market value of 90 but has assets worth 100. The net assets of the fund are therefore 100, and the difference of 10 between these figures would be a net asset value discount. Companies however also have debt, so the assets value must be compared to the net assets of the company, which is virtually the same as the price to book figure, but due to IFRS regulations some deviations do occur.

The purpose of the Price to book ratio is to establish how much you pay for the company's equity, be it discount, premium or book value. In financial literature, sub P/B 1 ratios usually mean that the expected return on equity is less than the required rate of return, and vice versa for companies with P/B ratios of above 1 are expected to generate return greater than required. Implied alpha will be compared to actualized returns.

The Capital Asset Pricing Model ("CAPM") will be used to determine risk through the Beta, indicating sensitivity to market risk, with attempt on explaining the different required rates of return when comparing the valuation on assets and the valuation of the company. The required rate of return is the discount factor used to discount the expected cash flows as will be opened in the Discounted Cash Flow ("DCF") valuation section.

A figure of interest is the European Public real estate Associations ("EPRA") Net of Income ("NOI") figure, which is the operating income after operating expenses, but before taxes and interest expenses with some adjustments to the typical NOI. This, on a longer observation scope, most likely yield easier comparison between the companies, and help establish if the IFRS or EPRA NAVs better reflect the expected and achieved returns.

Key elements contributing to the deviation of market price from the correct, or fundamental stock price will be explored, emphasizing on investor sentiment. The empirical section will explore the correlations and use regression to determine which of the variables better describes the performance.

There are basically two kinds of publicly traded options for real estate, those are publicly listed property companies and real estate investment trusts. This thesis focuses on companies.

Real estate professionals have also been interviewed, but the interviews are open ended and act more as a means of focus as trying to explain the phenomena. These interviews

and the insight they provide will be used both as a link between the theories and data, as well as providing additional insight and information concerning the deviations.

3 MARKET AND REAL ESTATE REVIEW

"All attempts to explain deviations from NAV proved that this phenomenon is complex and multidimensional" (Nellensen & Zuelch 2011, 61).
The persistence of NAV discounts in property companies has baffled analysts and company managers for a long time, as no clear explanation to the phenomenon has been found despite comprehensive studies (Morri 2005, 2). It is not unique to property companies, as it also occurs frequently in closed end funds.

This phenomenon, referred to as the Closed End Fund puzzle, has been studied but remains unsolved despite the findings of Lee, Shleifer and Thaler in their paper "Investor sentiment and the Closed End Fund Puzzle". However, it is suggested that investor sentiment may be main driver for discounts. (Chen, Kan & Miller 1993, 795). It is also often overlooked that whilst buying a bunch of properties for yourself, you have total control over your assets, effectively trading off some of the investment qualities. The main differences consist of liquidity, taxes, financial structure, information costs, management costs, in which a single investor tends to have little to none control, despite the added liquidity, thus explaining the far more common discounts than premiums. (Morri 2005, 5.)

On average, European property companies tend to trade at about 80% of NAV value (Inderes 2011). This is somewhat supported by the findings in chapter 5, and the findings of Brounen & Laak, and Berkham & Ward compiled in the article "The reliability of Investment Property fair values under IFRS". (According to Nellensen & Zuelch 2011, 61.) I believe that the common factors explaining discounts in Closed-End Funds are somewhat mutual to some of the reasons in variations of market value from NAV. In addition to the management's perceived competence effecting the market valuation of a fund, size, goals, expense ratio, and the stock exchange on which the asset is listed as this affects the liquidity, also effect the valuation. (Bers & Madura 2000, 126-130). Specific factors leading to discounts in listed property companies will be explored in throughout the theory section, grasping to explanations to valuation.

For 2016, SEB (2017, 11-12) finds that Swedish and Finnish stocks outperformed the EPRA European index with 10% gains compared to 9% decline for Europeans on average but are valued slightly below their P/NAV still. The Swedish stocks trade at near NAV, whereas the Finnish stocks trade at about 20% discount on average, despite moving in parallel. The phenomena of comparatively too high NAV discounts is also supported by the fact that the valuation multiples with cash earnings ("CEM") are lower for the Finnish stocks, yet this trend is expected to continue.

This is illustrated by the graph by SEB, which shows the differences between Finnish, Swedish, and Nordic property companies' P/NAV ratios. Finland especially has been clearly under the valuation of its Nordic and Swedish peers in NAV discounts.

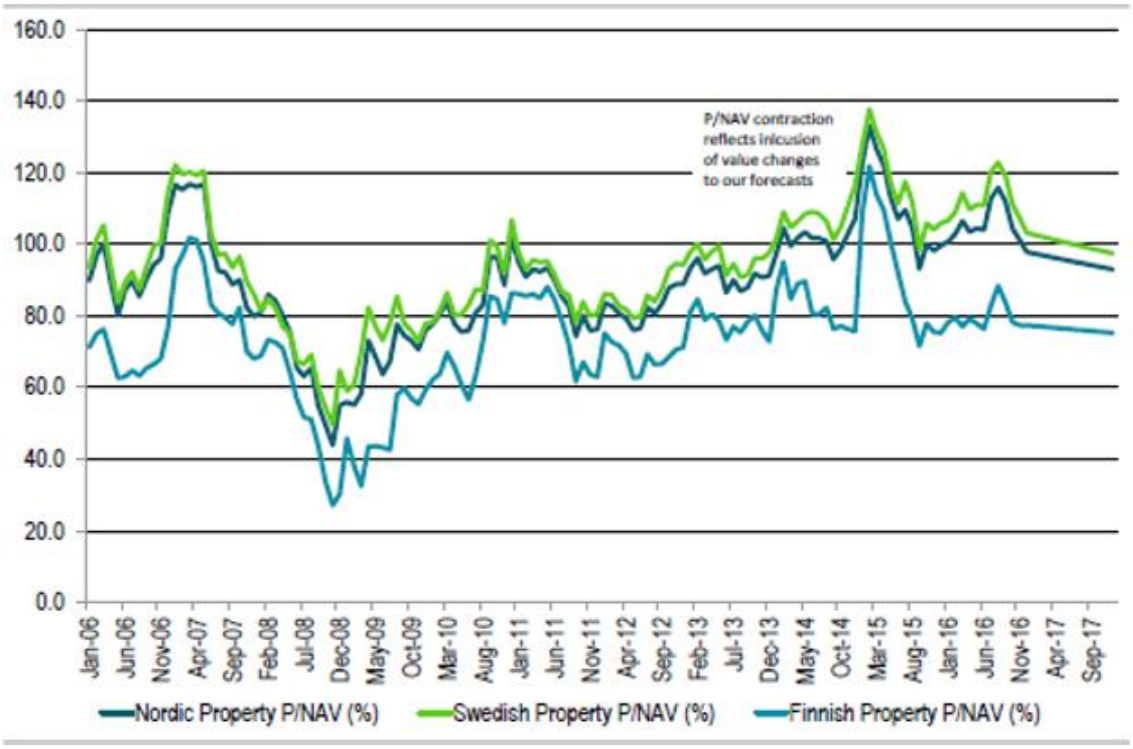

Figure 2 Nordic properties P/NAV. SEB (2015).

Is the higher discount for Finnish stocks justified, is for investors to decide. Interestingly, both delistments for Finnish property companies, Sponda and Technopolis, where at approximately NAV value. The reason for this is however unclear. Possibilities for the buyer to have greater competence in the management of the assets can be one explanation, another explanation if we consider the taxation aspect is that the properties can generate better cash flow in a different corporate structure.

3.1 Financial position of households and institutional investors in Finland

When assessing the overall state of the housing market, a quite steady factor to observe in the housing market is the amount of net income used to cover living expenses. Despite the rise in prices paid in especially the growth regions, this metric has remained largely steady.

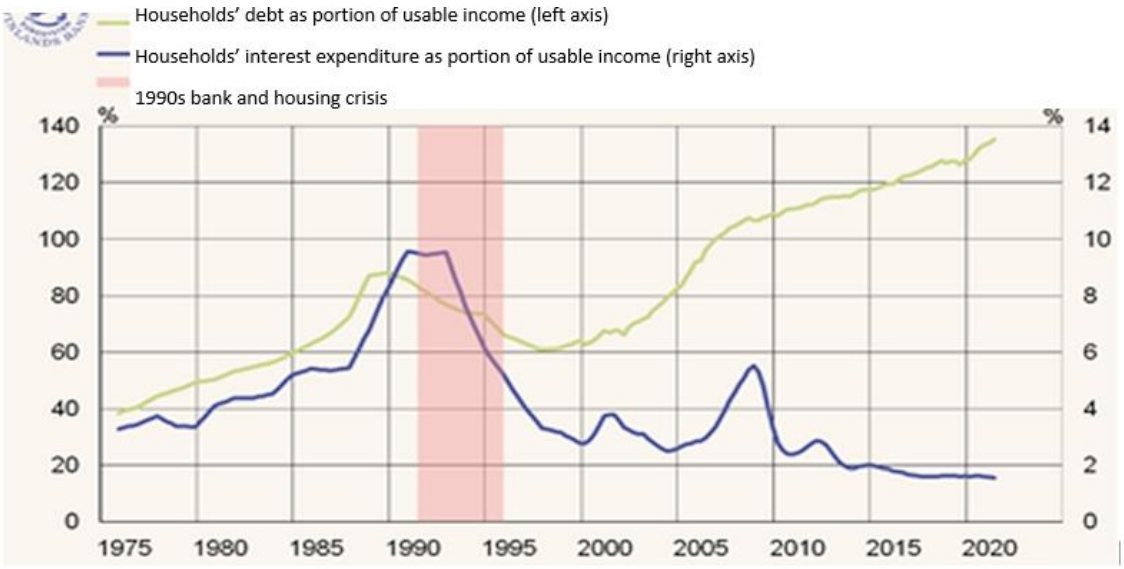

Figure 3 Finnish households' indebtness and interest expenses, 1975-2021. Bank of Finland (2021).

As can be seen from the statistics in the graph, the proportion debt for households has increased, whereas the amount paid in interest has decreased. As the GDP of Finland has also increased in the time span, the amount of debt has increased quite rapidly. One reason is that people can buy more expensive housing as the amount paid back is decreased due to the lesser impact of interest rates, but also the stable country and legislation.

Unlike many other regions, such as the US market, the Finnish real estate market has not suffered historically as much in for instance the 2008 crisis. There are a few different reasons contributing to this. The housing prices in Finland were relatively low before the

crisis and the housing prices compared to average income remained steady. In addition, the low indebtness, albeit increasing currently, and absence of subprime type loans contributed to the relative stability of the housing market and continues to do so (Kaleva interview).

Typically, in literature and discussions in general, the proportion of net income used to cover living expenses has been considered a good indicator in assessing if the housing market is overheating. This effect works in parallel to the overall market pricing of both housing and rental income. (Oikarinen, 2009, 755).

The global market is quite active, and finance in low risk investments is readily available. There are some finance-legislation derived factors that impact the investment form used by especially institutional and professional investors. The risk calculations mandated by the BASEL III and upcoming CRR III/ CRD IV give different risk weights to loans for real estate and commercial property depending on the ownership structure. Usually, direct ownership gives a smaller risk weigh for the capital at risk, whereas ownership through a property or other company subjects the loan to share based volatility. (Kolu, 2021). These measures have most effect on smaller players and bank loans, larger players who have possibilities to secure non-collaterised loans or access to private funding are less affected.

On the mortgage side concerning private individuals, the number of mortgages for buy-to-let properties increased to 8.1 BEUR in March 2021, corresponding to 7.9% of all mortgages (Aaltonen, 2021). The buy-to-let mortgages have grown faster than the surrounding market, and they typically have a lower LTV-rate and shorter maturity than regular mortgages. Another new trend over the last few years to surface is the emergence of housing company loans, which effectively lets the buyer buy the property with only 20% equity, as much as 80% of the loan can be as a housing company loan. This to some extent circumvents the normal bank procedure of checking the loan applicants' liquidity and solvency. The overall amount of housing loans has increased, but the average size of housing has also increased. According to Tilastokeskus (2020), the average square meters per one person has gone up from 28.9 sqm to 41 sqm gradually between 1985 and 2019. This partially explains in conjunction with increased housing prices the amount of loan expanding, as the average price of a dwelling has increased as a component of both bigger and rising costs.

Table 1 Households' loans developement

	July, EUR million	August, EUR million	September, EUR million	September 12-month change[1], %	Average interest rate, %
Loans to households, stock	139,733	140,118	140,605	4,20%	1,29%
- of which housing loans	105,33	105,535	105,954	4,30%	0,79%
- of which buy-to-let mortgages	8,362	8,408	8,465		0,92%
Loans to non-financial corporations[2], stock	95,914	95,781	96,018	-0,80%	1,28%
Deposits by households, stock	108,41	108,202	109,498	6,70%	0,03%
July, EUR million	August, EUR million	September, EUR million	September 12-month change[1], %		0,72%
Loans to households, stock	69,9312	69,533	70,463		0,87%

Bank of Finland (2021).

To assess the financial situation of the institutional investors, we will look at market outlook and employed capital. As described in the previous sub- chapter, the outlook for the real estate market in whole is quite positive.

In 2020, the property investment market grew by 7% to 82.7 BEUR. (KTI 2021). The growth was mainly driven by international investors and real estate funds, with listed companies remaining quite steady. Non listed property companies also saw some growth after the decline in 2017. In the past decade, investments in the property investment market have doubled. Investors seem to be interested in the opportunities provided by Finland and seem to have access to financing. Currently, there are not any strong signs of decline in investments, albeit the allocation between different property sections is subject to change.

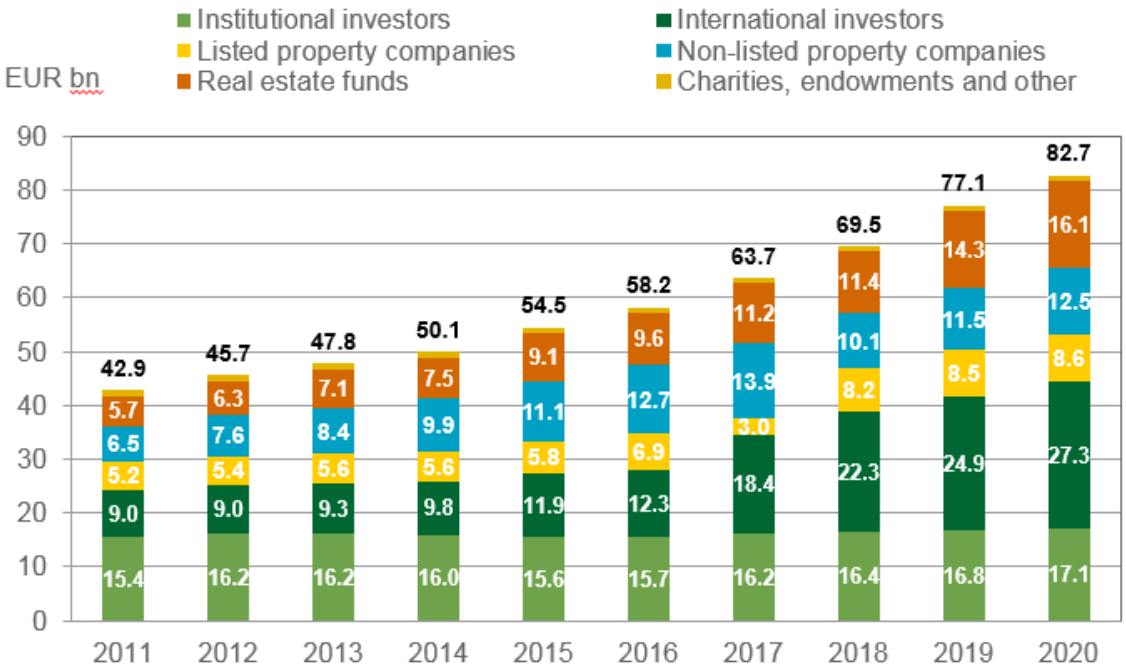

Figure 4 Real estate investments in Finland in BEUR, 2011-2020. KTI (2021).

Large property companies have multiple sources of finance. In addition to equity, listed property companies also utilize bonds, for instance Citycon, Kojamo, and Sato. The largest international and national companies have also acquired credit ratings. Credit ratings are somewhat expensive to acquire, and a certain amount of volume is needed for the more favorable financing terms to offset the added costs. Smaller companies have also issued some bonds, albeit the bonds are usually secured in these situations. The European union has also financed some companies that develop nearly zero emission building with funding through the European investment bank. These kinds of bonds are usually open to mainly institutions.

Table 2 Bond issues by Finnish property investors.

Issued by	Issue date	Maturity date	Years	EUR million	Annual interest	Other information
Citycon	8.9.2016	8.9.2026	10	350	1.25%	Unsecured
VVO (now Kojamo)	17.10.2016	17.10.2023	7	200	1.625%	Secured
Kojamo	19.6.2017	19.6.2024	7	500	1.50%	Unsecured
Citycon	22.9.2017	22.9.2025	8	1.0 bn NOK	2.75%	Unsecured
Mercada	24.10.2017	24.10.2022	5	175	1.875%	Secured
Kojamo	7.3.2018	7.3.2025	7	500	1.625%	Unsecured
Regenero	31.5.2018	31.5.2021	3	100	4.00%	Secured
Citycon	22.8.2018	15.1.2027	about 8.5	300	2.375%	Secured
University properties of Finland	2.11.2018	2.11.2023	5	100	1.80%	Unsecured
SATO	31.5.2019	31.5.2024	5	350	1.375%	Unsecured
eQ Finnish Real Estate	27.6.2019	29.1.2024	about 4.5	100	2.75%	Secured
SATO	7.4.2020	7.4.2023	3	300	2.25%	Unsecured
Kojamo	27.5.2020	27.5.2027	7	500	1.875%	Unsecured
SATO	24.9.2020	n/a	over 7	350	1.375%	Unsecured

KTI (2021), company press releases.

As can be seen in the table, the interest rate (coupon) ranges from 1.25% to 4%, in both collaterised and uncollaterised bonds. All in all, the availability for funding is good for both the private investors as well as larger players and institutions.

3.2 Current state of real estate markets in Finland

The real estate market in Finland has evolved somewhat over the last two decades. The biggest single factor affecting the evolution is the deterioration of the interest rates that came after the financial crisis. The change was preceded by the inclusion into to EUR monetary union, which in its part stabilized the currency and inflation after 2002, making it easier for foreign investors to invest in also real estate.

The Finnish legislation in comparison to Nordic countries and Europe as a whole is quite lenient, and tenants' contracts can be terminated, unlike in many European countries with virtually limitless contracts. Indefinite lease agreements are quite common, accounting for 63% in office space in the Helsinki Metropolitan region, and 14% are fixed term. The aforementioned contracts can be ended with a notice period on typically 1-12 months, with some leniency between the parties to negotiate. The landlord does however need to have cause for termination. (KTI 2021, 19).

According to KTI's database, in shopping centers the most common agreements are fixed term, accounting for 77% of agreements and 84% of lettable space. Indexing of

rents is negotiable freely in indefinite agreements and in over 3-year fixed term agreements.

Planning can be distributed into three segments. Regional land use plan, local master plans, and detailed local plans. The regional plans are approved by local state councils and monitored by ELY-centers. With the current law, the local master plan gives quite broad powers to make independent decisions on land use to the local authorities. Building permits are approved by municipalities, and the Land Use and Buildings Act mandates open and interactive planning. This means that everyone involved should be included in planning, businesses in the area, landowners, and residents. Special permits are notoriously slow to implement. A new Land use and Buildings act has been many years in the making, and the government is slotted to provide a new act to the parliament by end of 2021 to alleviate the bureaucracy in the process. (KTI 2021, 21)

Real estate property in Finland is taxes according to where it is situated. The municipalities can set the tax rate themselves within the guidelines set by the government. The minimum tax is 0.93% of the taxable value of the property defined by the local tax officials and the maximum is 2.0%, with an average of 1.11% in 2021. For permanent residences the tax rates are 0.41-1%. For unbuilt slots a special tax can be levied, ranging 2-6% (KTI 2021, 22).

Other notable taxes include a property transfer tax of 4%, which can be reduced to 2% if the transaction is done by sale of shares. The tax is levied on the economic value of the property, considering possible debt burdens as well as transaction price. For taxation of income from property companies either private or public, the dividend taxation is the same as for other companies, with a few exceptions such as special investment funds.

The metropolitan area is the most important single area in Finland in the real estate market, accounting for 57% of commercial premises transactions in 2020, with most office retail transactions occurring in the Helsinki region. The sale of OP headquarters for 480 MEUR is the largest single transaction in the office real estate sector so far in Finland. (Kaleva 2021, 7). The proportions of transactions are illustrated below with volume in Euros.

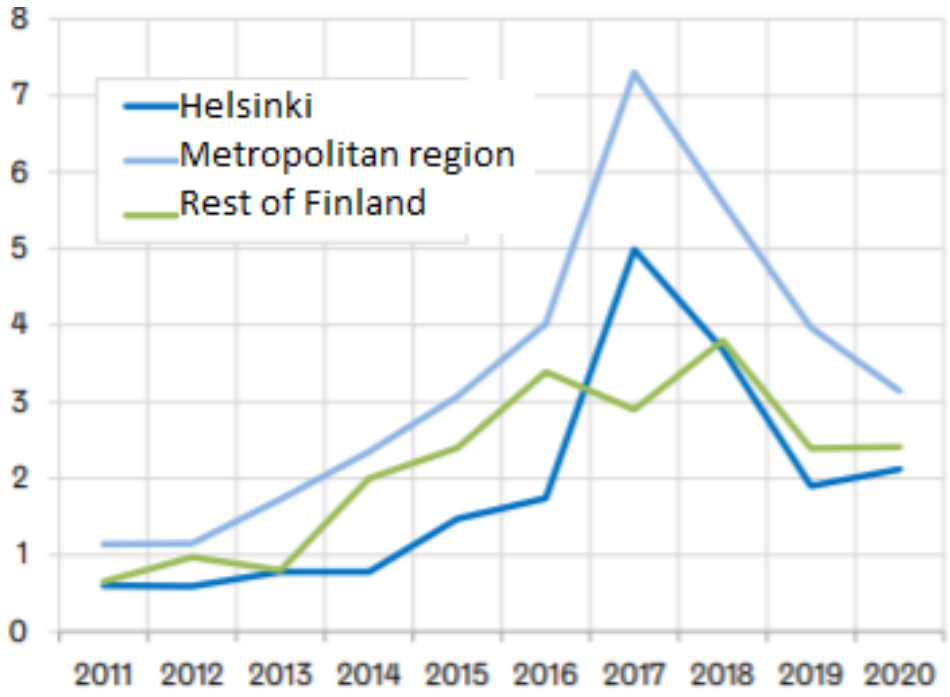

Figure 5 transaction volumes of real estate in Finland, BEUR. Kaleva (2021).

In the Helsinki region usage rates of office premises have remained somewhat steady through the COVID crisis. At the beginning of the crisis there were in general some problems with tenants' liquidity, but these were not a great issue in the large scheme of things. The rental income index did however dent slightly at the end of 2020. Kaleva et al 2021, 13). The professional real estate investment market in Finland did however grow by 7% in 2020, to an estimated 83 BEUR. As a whole, the market is stable and growing, but the long-term effects of the COVID pandemic on long-term demands for specific types of premises will be seen as time progresses. This growth is fueled by high construction activity, especially in rental housing. Local players have benefited from the crisis, as foreign investors have not had the same kind of chance to visit and see the premises. Transaction volumes for 2020 were about 5.6 BEUR, with foreign investors accounting for about half. About half of these are derived from other Nordic countries, as they more often have local organizations and possibility to travel.

Yield requirements returned to pre COVID levels at the end of FY20m and are currently already somewhat below those. As the future distribution in demand in space is still uncertain, many investors opt to go for low risk premises, and on the other hand risk adjusted yield requirements for uncertain premises has increased.

The ownership structure, and development of the ownership structure, of real estate in general is estimated as follows: housing accounts for the majority of properties by number, and the distribution of ownership, governance and type is pictured below.

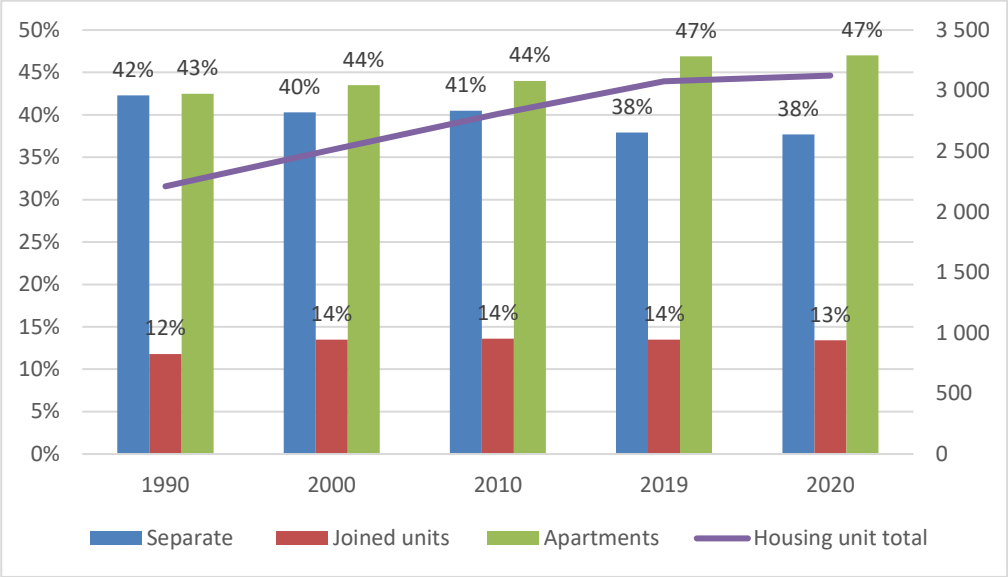

Figure 6 Composition of housing in Finland. Tilastokeskus (2021).

There has been a slight transition in trend towards apartments, as the market has increased production in especially growth regions and city centers, after years of high demand. The ownership structure has also shifted slightly towards private investors and institutions owning and building apartments for rental purposes, and the share of rental apartments has increased. The units have also increased, so the number of people living in owned premises has not declined dramatically, but a trend is starting to form towards slightly more centralized ownership.

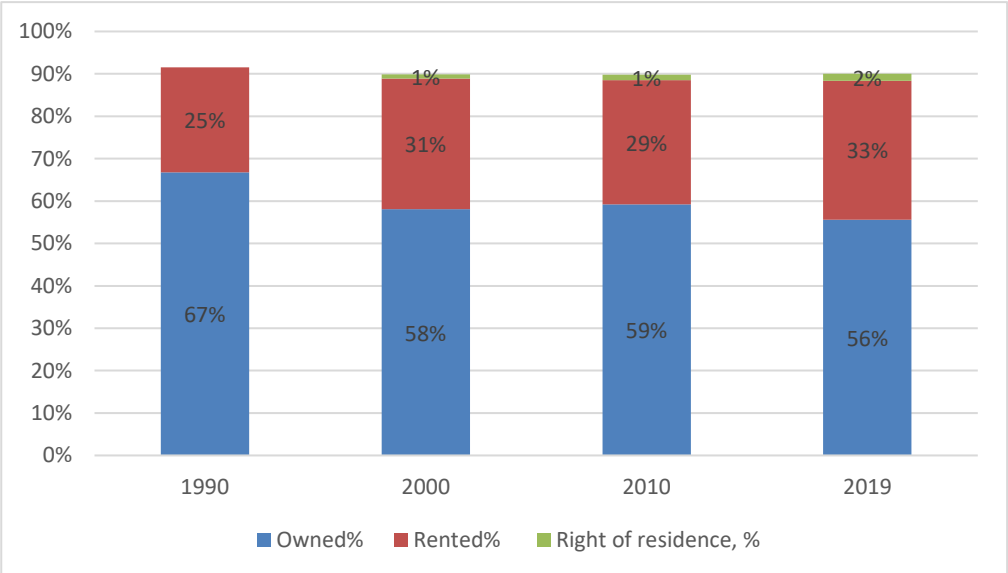

Figure 7 Forms of governance for Housing. Tilastokeskus (2021).

In housing and living real estate, the by far most common agreement type is “until further notice”. The Finnish legislation offers some leniency towards the owner in terminating contracts with notice and cause, which might explain the picking up interest in foreign investors, and partially offsetting the border region status of Finland.

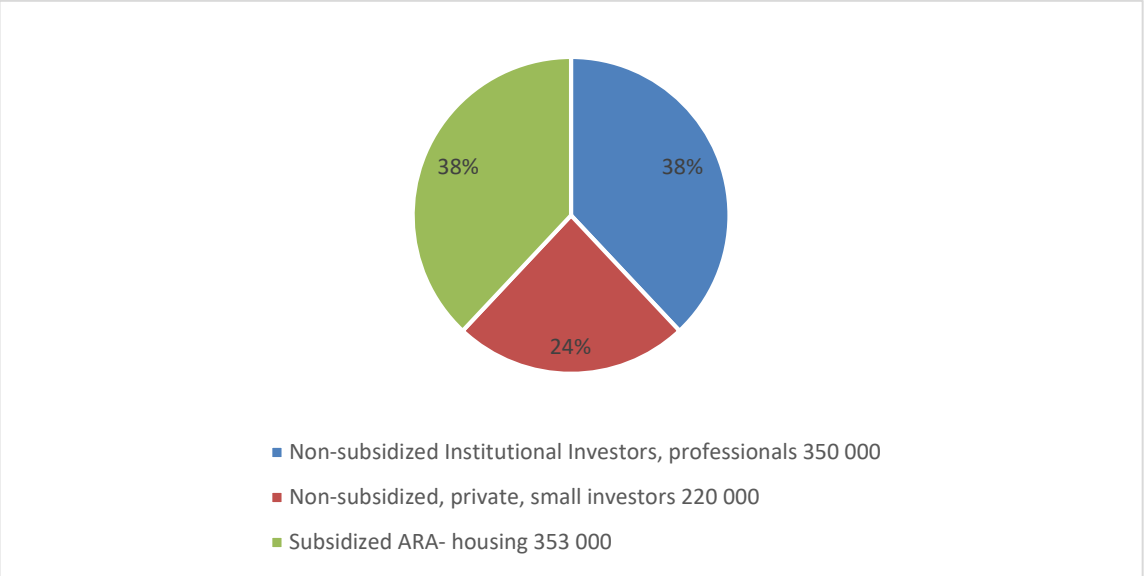

Figure 8 Ownership structure of rental housing in 2019. KTI (2021).

As can be seen in the diagram, the ownership structure of the rental housing is split between private investors, institutional and professional investors accounting compound for about 62% of the segment, and the ARA state subsidized rental housing accounting for the remaining 38% at the end of 2019. According to tax officials, 328 thousand taxpayers received rental income. To assess the financial situation of the institutional investors, we will look at market outlook and employed capital. As can be seen below in the barometer conducted jointly by KTI and RAKLI, the outlook for the market is favorable. If the balance figure is positive, greater amount of the respondents expects investor demand to increase.

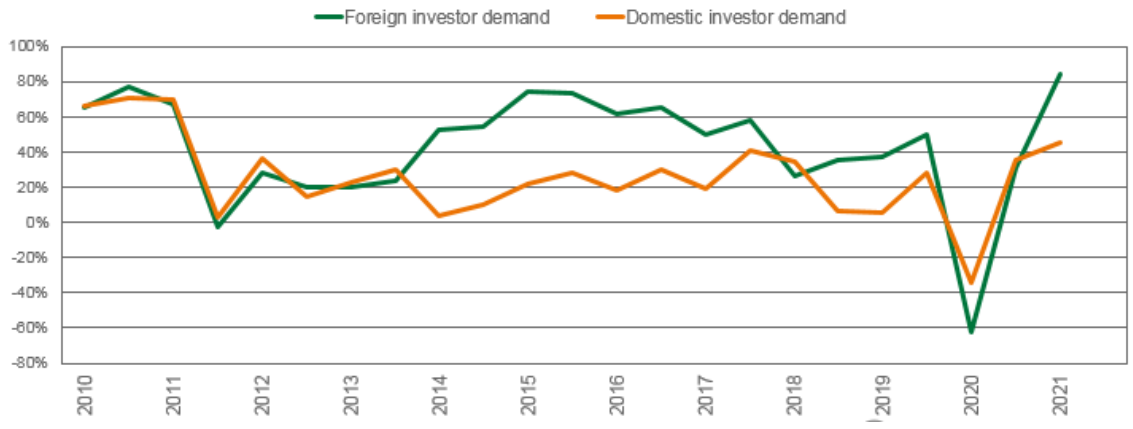

Figure 9 Investor demand barometer. KTI and RAKLI (2021).

Real estate can be broken down into four different categories. The largest number is housing in Finland, including individual housing, apartments owned through shares, ARA-housing and rental housing. Approximately 3.2 million units are currently in Finland.

The second group is the office retail market, and in Finland it comprises of 19.7 sqm, with 45% of the space located in the metropolitan region (KTI 2021, 52). The third is the retail market, with hotels often included in this segment. The retail space available in Finland in 2020 was 32 million sqm, of which 4.4 million is in Helsinki Metropolitan region and 5.9 million in other major cities (KTI 2021, 59). The retail market is therefore quite a lot more diversified in Finland. The ownership is more centralized, as retail space is often larger, and operating it is quite different from office or residential use.

The fourth defined market is the Logistics and Industrial retail market, which comprises of 75 million sqm of space. 9.4 million sqm are in the Helsinki Metropolitan area (KTI 2021, 66).

The value of the real estate is essentially determined by two components. The cash flow expected from operating the real estate (or the value of usage if it is used by the owner), and the change in value. The net of these is the total return, usually counted per annum. Depending on the yield requirement of the buyer, the discounted total return then yields a valuation on the real estate in question. An important component in the yield or discount figure is also the liquidity premium, evident in especially large real estate where number of potential buyers is substantially smaller.

These different forms of real estate have quite different prices and yields. Demonstrated below are the estimated total returns for FY2020 by sector. Maybe somewhat surprisingly, office space has not suffered as much as could have been expected due to the COVID crisis, despite most office workers staying home. The negative return for retail can mostly be explained by the negative impact on small shops and retailers, whereas

shopping centers seemed to fare much better through the crisis and have also recovered quite well.

Figure 10 Total returns for different property sectors. KTI (2020).

Operating in these markets, several types of investor profiles can be defined, according to Kaleva (2021):

- Firstly, there are the homeowners who live in their owned property. As an extension to this group, there are private citizens who either in addition to own property also have property owned by them, but either leased or rented out. This group can also operate in a small manor though a limited company which owns the property. The company can have one or more shareholders. In the event that there is only one shareholder, the rental income is usually paid directly to the owner.

- Institutional investors usually curate funds for stakeholders, such as pensions. The aim of these investors is to maintain and grow the investment portfolio with adequate diversification. The funds are often diversified into multiple different market segments and in multiple geographical regions. the focus is in risk control, profits, and portfolio management. Institutional investors invest in properties both directly and indirectly. The time frame is usually quite long for the investments and focused in long term cash flow. They operate with multiple different management and operating solutions.
- Real estate investment companies are usually regular limited companies or publicly traded. Management is usually internal and not outsourced, and there is no time limit. Often there is a focused strategy, and taxation is according to tax and company laws on limited liability companies. Publicly traded companies registered in Finland are also taxed according to the Finnish Accounting Standards, and therefor paid taxes often deviate from IFRS reporting.
- Real estate investment funds invest on behalf of their investors and according to their stipulated investment strategy. There are a multitude of different fund types for different investors' needs according to for instance sectors, geographical regions, expected return and risk levels, etc. The fund is managed by a management company that is subject to receive a fee from the fund as compensation. Often this is organized as a fixed annual fee and success fee. The real estate investment funds can be either open-ended, meaning they can offer unlimited amounts of new shares at NAV value. Closed-end funds on the other hand have a fixed number of shares which can then be freely traded. Closed-end funds also have an expiry date.
- International investors comprise of a multitude of different players, including institutions, funds, companies, global players. For them Finland represents a single geographical market containing different regions and market segments. In their investment assessment Finland is compared to other regions and cities through yields, returns, cashflow, development opportunities etc. Investment strategies, maturity, and risk profiles are all unique.

3.3 Housing

Of the housing segment, 3 076 000 units were available at the end of 2019, of which 33 000 were without a permanent resident. Of these, 47% were apartments (Tilastokeskus 2020). 63% lived-in owner-occupied households, with 920 thousand rental units. The rental units' ownership is divided between professional investors, households and private investors, and municipalities and others 24%, 38% and 38% respectively. (KTI, 2021,47). As can be seen in the Figure, the rent index has developed quite steadily in general over the last decade.

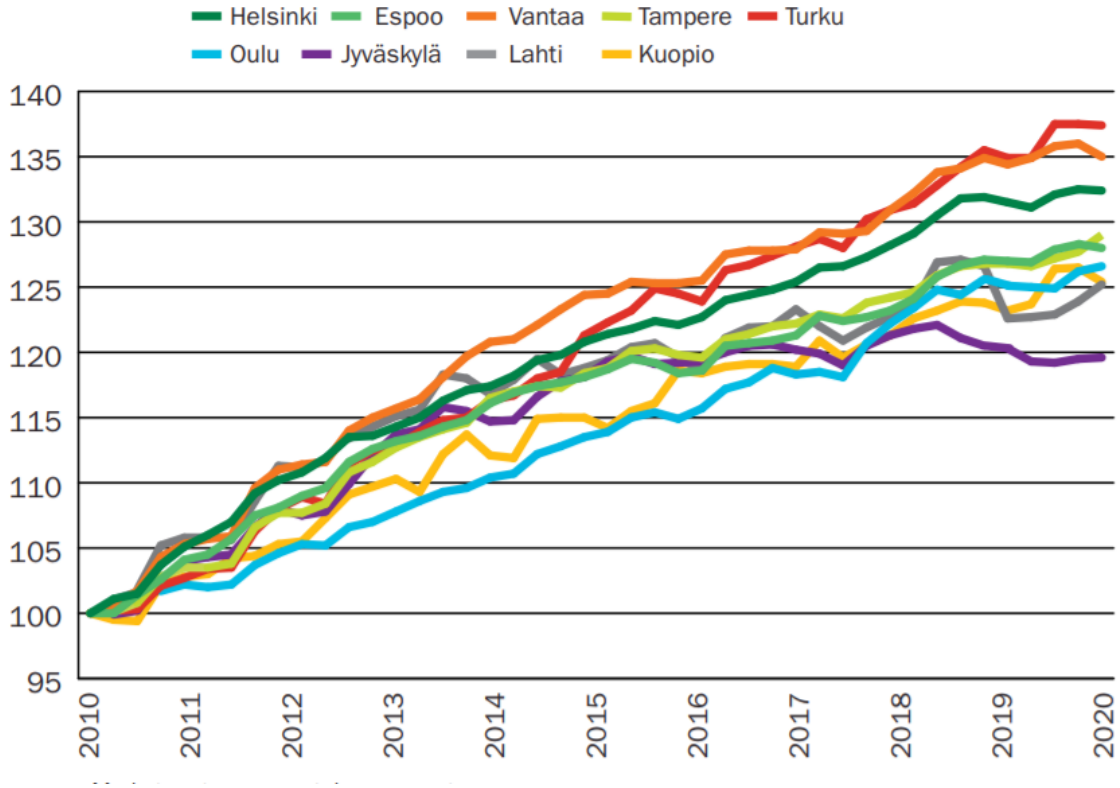

Figure 11 Residential rent index, Q1'10=100. KTI (2021).

The factors effecting the rental index are income and financial stability, fueled by consumers' demands and changing trends. The trend has been for some while already to move closer to city centers, and construction of new housing has started to pick up and meet the demand. The breakdown of ownership has slightly shifted towards investors and buy-to-rent but does not significantly have an impact. The uncertainty pertaining to other forms of real estate has also currently improved the relative attractiveness of housing and residential properties, as they are not affected in the same manner as for instance retail.

In Helsinki, the yield for residential property in the center was down to 3.4% in October 2020, and investor groups participating in RAKLIs barometer were all expecting to continue investments within the year (KTI 2021, 51).

The heightened interest in residential properties at the start of the pandemic is further underlined by the steep increase in capital growth in 2019. The total returns index has remained positive every year since 2000, and the residential market outlook seems strong. In RAKLIs barometer, the occupancy rates had decreased slightly. Also, the income return has decreased steadily, as the capital growth has been so strong that there seems to be slight inability to transfer the capital value gains into rents. This is affected by lease contracts, which often have a fixed index-based component for increasing rents. The higher rents can be applied as tenants have turnover, and this could also partially explain the increase in void rates.

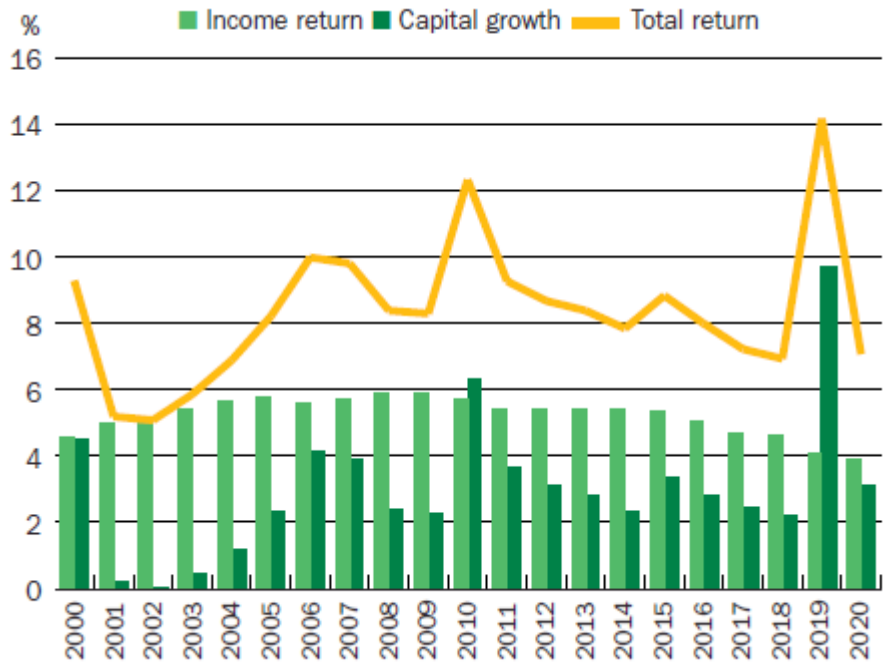

Figure 12 Total return on residential property investments. KTI (2021).

3.4 Offices

Offices have been the largest transaction driver in the last few years. Due to the high transaction rate, yields can be determined quite accurately. The rental agreements in this sector are quite varied. If the property has many tenants, the agreements are most often

gross rental agreements, including operating expenses. Usually the lease terms are indefinite and might have a 3-5-year fixed period. Fixed term agreements are more common the larger the rental space is, and in buy-back deals nearly always the case. Most often the fixed term agreements are net rent agreements, with the tenant responsible for operating costs. The office segment is experiencing change, fueled by the COVID crisis, where more flexibility and space concepts are sought after. The yields are exceptionally low currently. Void rates and rent are currently affected very strongly by the modernity of the office building, in both terms of quality and modularity. The polarity between the prime and secondary rate offices is expected to continue to expand (KTI 2021).

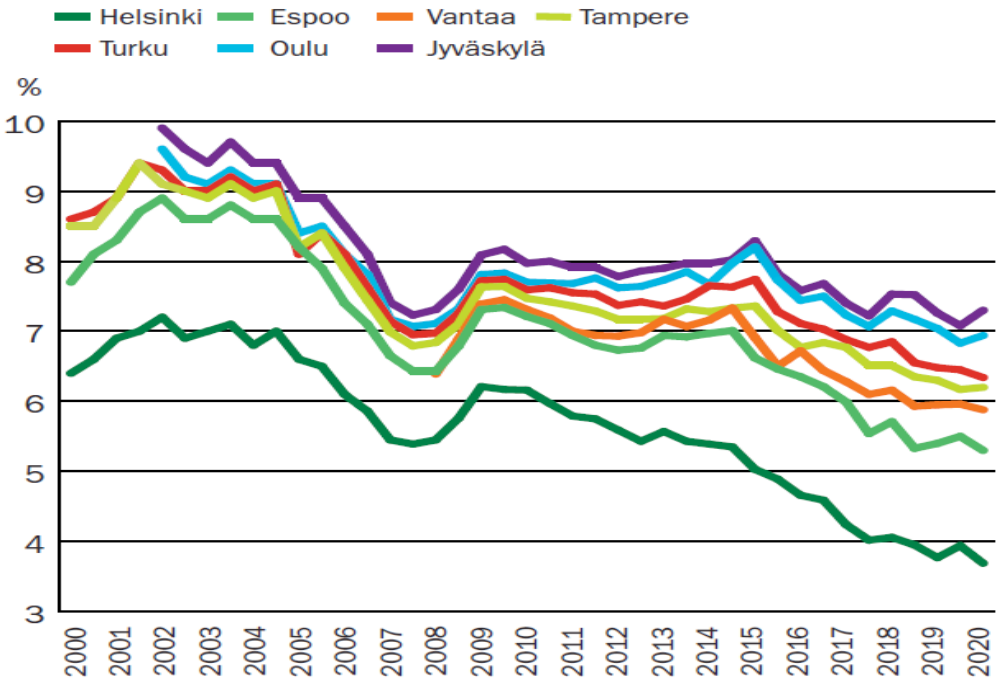

Figure 13 Yields for prime office in major cities in Finland. KTI (2021)

In the Helsinki metropolitan area vacancy rates have increased, but there is a lot of difference depending on location and quality. Median rental rates have remained steady, with slight decrease in upper rental rates. At the end of 2020, 1 million sqm of rental space was void in the metropolitan area, representing 12.2% of total lettable office space (Catella 2021, 12). As can be seen in the picture above, the yields for prime offices continued to decline, indicating that at least the professional investors have faith in the economy and demand for these types of properties. But as can be seen below, for the whole sector, total returns have declined, and in 2020, the capital growth was negative paired with relatively small cash flow or income return. It is unclear how big an impact here is due to COVID and how much is to do with the transition in requirements in demand.

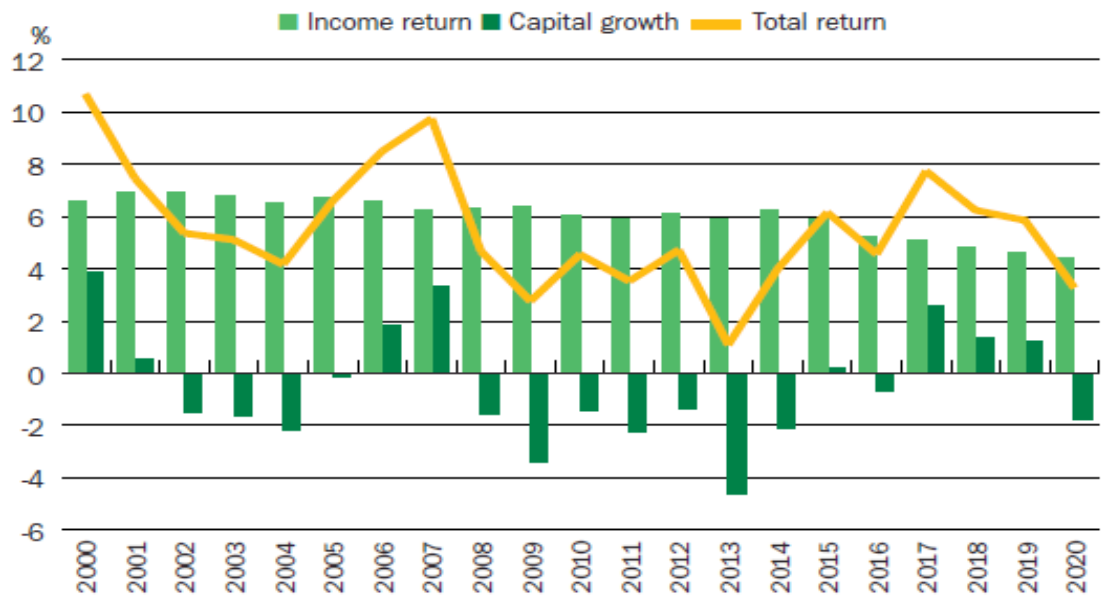

Figure 14 Total returns on office investments, 2000-2020. KTI (2021).

When comparing the Finnish office prime yields and returns, they are at the bottom end of the spectrum in Europe. Rents in London, Stockholm, Moscow, Oslo are quite a lot higher, ranging from the 1400 per annum in London to 450 in Oslo, Helsinki ranking in the bottom quarter with a little over 400 EUR. Yields in Helsinki for the comparable premises is also mid-tier, Moscow leading the way with 8.5% Paris and Berlin at about 2.5%. (KTI FPM 2021, 58). It is therefore feasible that despite the decrease in yield requirements in Helsinki CBD, it is not especially low, and regions in Europe have lower yields despite unfavorable laws compared to Finland. The compound effect of these can explain the interest in Finland from international investors at least to some extent.

3.5 Retail

The retail market in Finland is quite fragmented in terms of square meter usage and ownership. On one hand, we have the smaller shops and retailers that suffered a lot from the COVID crisis, and on the other hand shopping malls in Finland in general are doing quite well.

> *Shopping malls where impacted by Corona, competition and Corona. Garment retailers were doing badly already before Corona. Now it has picked up as people have more income and time due to the COVID. There are some negative news about some shopping malls like REDi and Tripla, and some shopping malls are dying. Food, Citymarkets*

and Prismas and public services such as libraries support the malls, and the industry needs to change to accommodate the transition. Electric car charging ports are also a driver for malls, especially outside the main cities.

(Kari Kolu)

The institutional investors have been quite active in the market in recent years, and own either directly or jointly whole malls. Foreign property companies and funds have also shown keen interest towards the sector, with Morgan Stanley Real Estate, CBRE Global, Barings, NREP and AXA among the largest foreign owners. Other properties such as hypermarkets, supermarkets and smaller retail centers are more diversified, and owned by large retailers, domestic institutions, funds, and foreign investors. These types of properties are usually more cash flow driven and longer investments. Rental agreements are usually longer than in the Office market, and fixed terms are more common. Despite the about 20% drop in shopping center visitors, sales only declined by 11.6%. occupancy rates have however remained relatively stable, and outside the Helsinki area with a 95% occupancy, occupancy rates are at 94 in cities and 92% in the rest of Finland, all increasing over the previous year. 70% of lettable space is situated in shopping centers (KTI FPM 2021, 63). Total returns have however been poor, with the shopping centers negative capital growth being the main culprit.

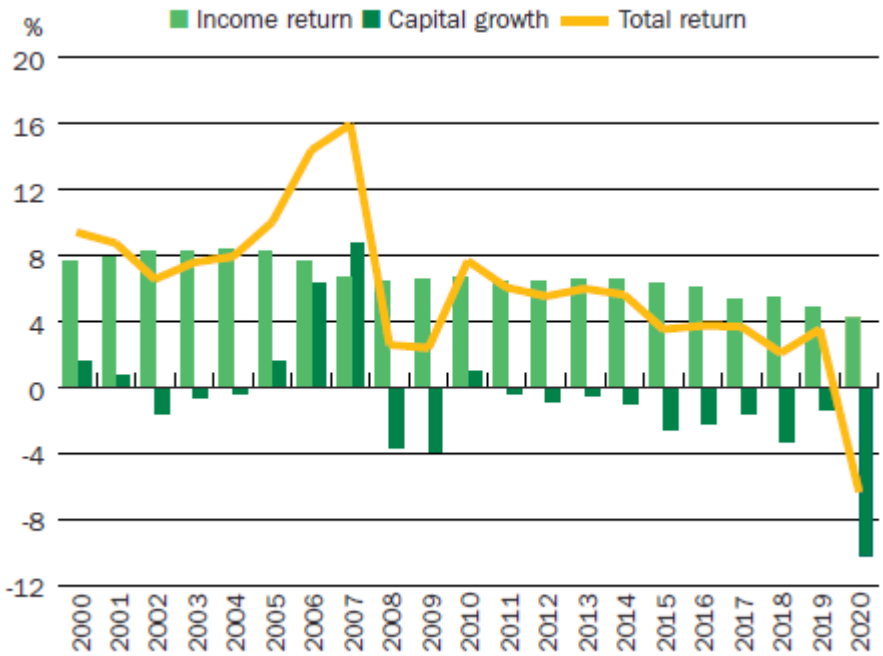

Figure 15 Total return on Retail Investments 2000-2020. KTI (2021).

3.6 Logistics and industrial

The logistics and industrial market accounts for about 75 million sqm of lettable space, of which 9.4 million sqm is in the Helsinki metropolitan region. The market can be split into subcategories. Large industrials usually own manufacturing properties where they operate, whereas logistical properties have experienced consolidation through centralized operations, especially in mayor retail chains. The market growth and transition has been driven by the e-commerce growth and the development of traffic connections. (KTI FPM 2021) The vacancy rate decreased to 3.9% in the Helsinki Metropolitan area (Catella 2021, 12).

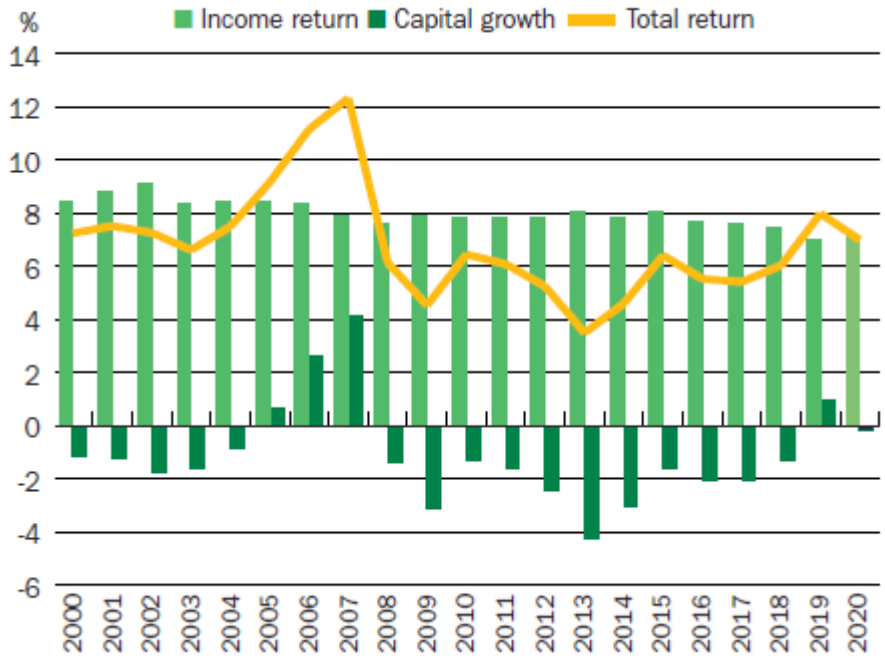

Figure 16 Total return on industrial property investments. KTI (2021).

Out of the market, the logistics properties outperformed industrial premises.

4 REAL ESTATE INVESTMENTS

Debatably, the easiest way to invest in real estate in through ownership of a publicly traded real estate company, being the culmination of indirect ownership. The hardest way is to invest through direct ownership, representing the other end of the scale. In between there are REITs, mutual funds, and special investments funds, each ranging from leaning to one end of the spectrum or the other. The most mezzanine form are the special investment funds, as they incorporate traits from both the direct and indirect forms of ownership. We will go through the different categories and summarize our findings on each one, and then conclude with a comparison on the specific risks and rewards on each one. The best balance on risk, liquidity, and return seems to be in special investment funds specifically in Finland.

4.1 Public real estate companies

A carefully selected group of Nordic property companies will be used as a peer group, with correlations studied via different variables to see which variables and dependents indicate correlation and which ones don't. Dependents are there for market capitalization and economic value, with the variables including net assets and gross asset accordingly, operating income, EPS, DPS and P/B. As the deviation from NAV indicates that either the share price or value of the assets is wrong, finding out which of these better correlates with earnings and returns should give indication as to which of these dependents is "more" correct. Key indicators will be used in a brief study of the peer group. The group of public property companies in the Nordics under review will comprise of about 14 companies, Atrium Ljungberg, Castellum, Citycon, Fabege, Hemfosa, Hufvudstaden, Klövern, Kungsleden, Pandox, Sponda (sold and delisted in 2020), Technopolis (delisted in 2019), Wallenstam, and Wihlborgs. As the second purpose of this study is to find if there is a difference in the market capitalization compared to the NAV of the companies depending on if they are either Sweden or Finland based, the Finnish companies will be compared to their Swedish counterparts. For the Finnish companies for which the EPRA figures have been acquired. On understanding the relationship of yields, leverage, and differences between net and gross assets, SEB states the following:

> *"Very much simplified, the difference between EV/GAV and P/EPRA NAV should be explained only by the degree of leverage. For example, if we assume a company has LTV of 50% and the assets are priced 1.05x of the*

> *reported fair value, P/EPRA NAV should be 1.10x. In order to compare the debt neutral implicit valuation of the property companies' assets, we look at EV/GAV to spot the biggest discrepancies between reported and implied valuations of assets. Another useful valuation tool is to compare the companies' reported valuation yield to the implied yield, which is calculated as follows:*
> *The average valuation yield used by the companies (verified by external evaluators) is a summary of all the valuation yields that have been used when evaluating the individual properties. The implied yield tells us what valuation yield the stock market implicitly uses for valuing the underlying properties. Implied yields cannot be compared between companies with very different assets but the implied yield compared to the average valuation yield contains information about what the stock market thinks the correct average valuation yield should be. The difference between implied yield and average valuation yield contains the same information as EV/GAV and is also balance sheet neutral."*
> (SEB 2017).

This point of interest has been discovered in the study that has somewhat steered the points of interest and explaining factors. A very crucial factor seems to be the leverage of the company, as many shareholders at the current time seem to be more in favor of risk aversion, contradicting the hypothesis of risk neutrality.

The leverage of the company seems to be a much broader issue than previously expected, and the Loan to value ("LTV") will be under inspection. Also, the risk profile and free float of the companies seems to play a bigger role than initially expected. On the other hand, due to the complex structures used by the real estate companies in ownership of the properties, the tax effect seems to be quite negligible in the real world when explaining NAV discounts, especially when compared to RE funds.

This can be addressed through the equity ratio and calculated LTV. As there are very sophisticated methods of fine tuning the balance sheet items and specific information for each company to best address the individual characteristics, investors should be more interested in what can be found in the IFRS derived reported figures, easily accessible to anyone. Light may also be shed on if there is merit to all this sophistication, or if one can make choices and conclude enough information based on the reported figures.

Going too deep into these variables and using them as explanatory factors for deviations in correlation and NAV or share price for the specific companies would ultimately lead to individual reports for all the companies in question. As the purpose is to find out

which of the variables offers best correlation and if there are differences between Finnish and Swedish counterparts, it is best to keep this relatively simple. For future studies or doctoral thesis, it is possible to account for other factors or individual differences as explanatory means. This is not the purpose here, however. According to SEB:

> *"In our valuation approach we focus mainly on NAV and secondarily on cash earnings multiples (CEM). The reason why we prefer to start by looking at P/NAV or EV/GAV is that price earnings ratios (PER) and CEM are basically a residual of what the underlying properties yield and the amount of leverage that is used in the balance sheet."*
> (SEB, 2017)

Table 3 illustrates the underlying idea and how it affects CEM in the different prime categories:

Table 3 Yield compared to LTV. SEB (2017)

CEM (x) illustration with different yielding properties and same balance sheet structure				
	"Non-prime" LTV 50%	"Mixed" LTV 50%	"Prime" LTV 50%	Assumptions
Property value	100	100	100	
Net Debt	-50	-50	-50	LTV 50%
NAV	50	50	50	
"Share price"	50	50	50	P/NAV 1x
Property net yield	6.5%	5.0%	3.5%	
Net rental income	6.5	5.0	3.5	
Net financials	-1.5	-1.5	-1.5	Debt cost 3%
Pre-tax	5.0	3.5	2.0	
Tax	-1.1	-0.8	-0.4	22% tax rate
Net profit	3.9	2.7	1.6	
CEM (x)	13	18	32	

Source: SEB

As can be seen in figure 17, there is some correlation between the EPRA NAV and ROE.

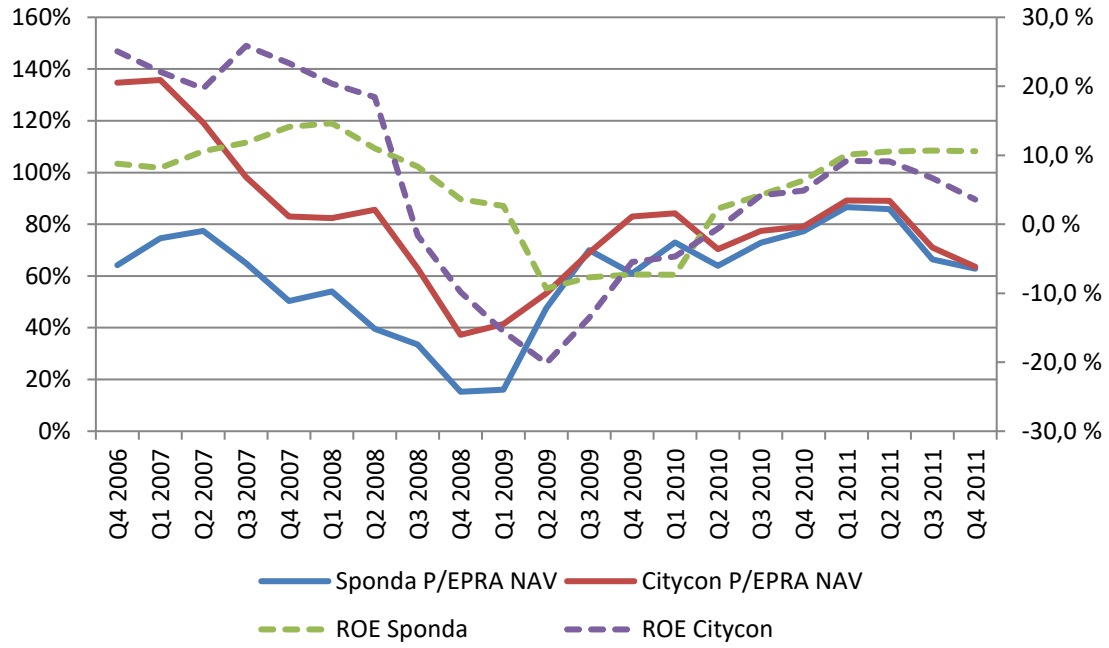

Figure 17 P/EPRA NAV and ROE for Sponda and Citycon

The left axel corresponds to the filled lines indicating the NAV variation, with the right axel corresponding to the dotted lines, indicating the ROE figures achieved.

This figure indicates the price to EPRA NAV variation, with this data available for a shorter range of time and only for Sponda and Citycon. It is however apparent that the fluctuations aren't as strong as in the IFRS based valuation, a trend in the ROE and NAV discount correlation can be observed. Interestingly the discount has broadened at the end of the scope. The graph is included above to help illustrate how the NAV and return of equity have quite a strong correlation.

4.2 Differences in open-end and closed-end REITs

REIT deviations have been studied quite broadly and will also be reviewed here as there as quite a lot of commonalities between the phenomena in REITs and listed property companies. Although the REIT journals viewed here are not necessarily from the same financial locations, the same principals often apply.

Open-end funds, usually referred to as mutual funds, don't have limitations on the number of shares they can issue. If someone invests into the fund new shares are created, and vice versa when someone wants to sell said shares the company essentially buys them

back and takes the out of circulation. Should the number of shares sold back be big enough, the company may have to sell assets in order to acquire adequate cash. Open-end funds can't be monitored the same way, as they are not exchange traded. The value is determined by the number of shares sold and bought, thus the sum of assets, i.e. the NAV of the fund. Closed-end funds ("CEF"), on the other hand, function more similarly to Exchange traded funds ("ETF") and have some distinct differences to open-end funds. As there is a fixed number of shares, supply and demand effectively determine the value of said fund, instead of NAV as in the case of open-end funds. Naturally, the NAV has an impact on valuation, but the phenomena on the deviation from the NAV is often similar to that experienced in listed property companies. ETFs usually experience smaller expense ratios. The timing effects and liquidity of closed end funds and listed real estate companies differ somewhat due to the aforementioned differences in getting rid of the shares. Lee et al. (1991, 75-76) summarize it well:

> *"Few problems in finance are as perplexing as the closed-end puzzle… The closed-end fund puzzle is the empirical finding that closed-end fund shares typically sell at prices not equal to the per share market value of assets the fund holds. Although funds sometimes sell at premia to their net asset values, in recent years discounts of 10 to 20 percent have been the norm. Several past studies have attempted to solve the puzzle by pointing out that the methods used to value the securities in the portfolio might overstate the true value of the assets. Three factors are often cited as potential explanations: agency costs, tax liabilities, and illiquidity of assets. The agency costs theory states that management expenses incurred in running the fund are too high and/or the potential for subpar managerial performance reduces asset value. The tax explanation argues that capital gains tax liabilities on unrealized appreciations (at the fund level) are not captured by the standard calculation of NAV. Finally, because some funds hold restricted or letter securities which have trading restrictions, the argument has been made that such assets are overvalued in the calculation of NAV. While each of these explanations is logical and may explain some portion of the observed discounts, we show below that even collectively these factors fail to account for much of the existing evidence."*

This quite well outlines again the NAV deviations as this phenomenon has baffled researchers for decades. The NAV deviations haven't always been negative, as in the

1990's strong growth periods REIT's traded at substantial premiums over their NAV values, in essence considered as growth stocks. (Clayton & Linder Hall 2000, 3.) This also corresponds with the findings of Baker and Wurgler (2007) through the characteristics of investor sentiment and growth stock. Since the tide turned in 1999 most REITs have traded at a discount, baffling observers. Clayton and MacKinnon (2003) suggest that the REITs discount could also be a derivative of liquidity premium, thus indicating no information at all.

Carlson, Titman & Tiu. (2010) finds in his paper that the NAV deviations between private real estate and REITs may be caused by the better liquidity of REITs due to efficiency gains, making them much more adaptable to changes in expected return and required returns. However, it is also suggested that the valuation of REITs can vary in the wake of movements in the stock market which don't necessarily correlate at all with the real estate market. (Carlson et al, 2010 2–17.) The model developed is still under scrutiny and will provide results later.

The study by Morri (2005) in the UK is the only comparative study specifically on real estate companies I was able to acquire. The purpose of the paper is not to study the market inefficiency, which Morri (2005) finds to contradict the law of one price, but to focus more on the periodic fluctuations in the NAV premiums and discounts. The predominant reasons for discounts are unrealized tax gains, which would occur when the company sells the property and must pay tax on the profit if the property where to be liquefied. This can however only explain discounts. (Morri 2005.)

4.3 Special investment funds

A new form of real estate investment funds was brough to fruition in Finland with the legislation change in 2012. The mutual funds act 747/2012" sijoitusrahastolaki" is applicable to special investment funds investing in real estate. The special investment funds are also stipulated by the Real Estate Funds Act (kiinteistörahastolaki) and monitored by the Finnish financial supervisory. This has opened up new opportunities for old big players, but also broadened the field for regular people and households. The special investment funds can be categorized as semi-open-ended by nature.

Specific regulatory aspects apply to these funds, setting them aside from other real estate investment forms. The law defines that the funds must have redemptions and investment periods at least twice a year, or every six months. The marking windows are typically between 2-4 times per year, the law mandates at least twice (KTI, 2021). There are several major differences in regards SIFs and other funds, as well as other investment

forms. One of the biggest ones is that the funds are under public law instead of private law, and that the managers are held personally responsible for the valuation of the properties, whereas normally the company would be held liable.

In Finland, special investment funds can be broken down into categories by type of investment. Commercial properties, residential properties, public use properties, and building lots. Commercial and residential are the most common ones in number, and currently there are 20 special investments funds that invest in property in Finland. (KTI, 2021). Special investment funds can also be categorized as alternative investment funds. What is meant by this, is that multiple investors invest funds, which are then invested according to the investment policy. With real estate special investment funds, the governance is based on Finnish Act on Alternative Investment Funds Managers (162/2014) and Real Estate Investment fund Act (1173/1997). The managerial company must monitor especially the liquidity, as it is difficult to assess when investors want to make investments and redemptions. Most funds of this type have high entry and exit fees to encourage long term investments. The law provides the opportunity to halt both investments and redemptions if it might discriminate the different investors. Regular stress tests are performed and reported to the regulatory authorities. The goal of these is to make sure the fund is prepared for extraordinary market events and redemptions to be able to manage the liquidity to meet the redemption requirements. The maximum LTV for these funds is 50%. In conjunction to this, the values of the properties must be released annually or when there are material impacts on the values. The evaluation is done by an outside evaluator approved by the chambers of commerce. At least 75% of profits must be distributed annually, not included unrealized capital gains (KTI, 2020). Kari Kolu in the interview definers the Finnish legislation difference concerning special investment funds as follows:

> *The legislation here is unique, in other places REIT would be the closest comparison. It is nominee registered and tax-exempt. The biggest difference not talked about in public is that it is subject to public law, not private. This means that the people working there are personally liable with their assets. If something happens the prosecutor will prosecute, and there are no exceptions. This makes it safer for the investor as the monitoring is similar to that in banking. The price is always at net asset value.* [1]
>
> (Kari Kolu)

[1] Quotations from the interviews will be indented. The interviews were conducted in Finnish and are translated and lightly edited by author.

Finnish special real estate investment funds' balance sheets totaled 8.2 BEUR at the end of June 2020. Of this, 55% is invested in the metropolitan region, 41% in the rest of Finland, and 4% in other Nordic countries. The special real estate investment funds have gained popularity, and account for about 10% of the real estate investments made in Finland currently. The first of these funds was launched in 2012, and the investments have been greater than redemptions every year since. 2019 saw a net of over 2 BEUR in investments into these funds.

4.4 Direct real estate investments

In law terms, owning property means owning both the land and buildings on it, constituting the basic form of direct ownership. Buildings can also be owned separately and have long term lease agreements on the land. The ownership and lease agreements are both registered in the Land Register that are maintained by regional District Survey Offices. Transactions are official legal acts with a procedure that must be followed. The transactions are public information. The owner can also be a limited company or mutual real estate company "MREC", of which the latter is subject to some differing laws. (KTI 2021).

Direct real estate investments are investments where the property is owned directly by a legal entity. The most common form of this type of investment is housing, as about 1.7 million housing units are resided in personally at the end of 2019 (Tilastokeskus, 2021). A growing proportion of the population also rents out living property, with 328 000 receiving taxable rental income (BOF, 2021). Buy-to-let mortgages and loans are also gaining popularity, and housing company loans also facilitate a form of direct ownership, albeit legally the ownership may be transferred only at the time the housing company loan has been fully or partially paid, depending on the contract type. Special investment funds can be seen as a mezzanine form somewhere between the indirect form and direct form, partially due to the personal taxation and tax exemption provided to the fund.

To an individual with surplus income, owning a rental property can provide a good alternative to other forms of investment, such as stocks or funds. The benefits people usually see in this type on investment are protection against inflation, ease of leveraging against other investment forms, and full control over the property. The downside of this is that if you as an individual want to own a property, you are also financially solely responsible for it, and in for instance city centers, which are quite popular among private

investors, the average prices per square meter in the Metropolitan region are 4137 EUR, Helsinki 4820 EUR, Tampere 2787 EUR, Turku 2386 EUR, and Oulu 1892 EUR (Orjala, 2021). This means that the amount of capital employed for a single rental property is quite large compared to the average GDP per capita of 44 231 EUR in 2019 (Tilastokeskus, 2021).

It has often been noticed that when investing in property to rent, private citizens often do not account for expenses, both direct and indirect, such as void periods, upkeep costs, and renovations, nor the work and time they put into the property. This can skew the perceived income as being better than it actually is. (Kolu, 2021). Another major rule in finance is diversification, which is quite difficult for an average citizen, though is feasible with above average income and time. With careful planning and knowledge of both the region and understanding the unique characteristics, the risk in individual properties can be mitigated to some extent. The same properties that can be directly owned, can in most cases also be indirectly owned, through a private investment company, or a mutual real estate company, or nonresidential co-operative company. The difference the form of ownership has on the real estate does not have any effect on the real estate itself, but it is on the same market if it is being sold. This means that the professional investors and funds are also competing for the same properties as the private investors, and usually have a more thorough approach to the valuation. It is therefore in some cases possible that the parties look at the price differently, and individuals with lesser knowledge pay more of the properties. This is however very hard to substantiate with evidence, as the yields for private individuals are not gathered or published by anyone in Finland and are largely not publicly available. It is however a factor to consider.

When directly owning real estate, the owner is also subject to personal responsibility on taxes and tax like fees that are generated and payable. Within the bounds of the municipal guidance and land usage plan, direct ownership does however guarantee the power to develop the property and maintain it as one sees fit. This can provide avenues for increasing the cash flow, and private investors and real estate developers alike seek to add value through development. This is something that is most often not feasible if indirectly owning real estate. Someone else makes the calls and decisions on management and development, with indirect owners being left passive.

Leveraging a directly owned real estate is however easier due to how banking regulations work, and in Finland especially property owned for personal living can have as much as 90% debt of the purchase price. The return on equity can therefore be substantially better than in indirect ownership, which is harder to leverage and the interest rate for investment loans is higher due to the risk premium imposed.

5 COMPARING DIFFERENT REAL ESTATE INVESTMENTS

As has been previously discussed, there is a multitude of options in real estate for an investor, in both terms of property type to invest in, as well as how to invest into them. The different forms of investment will be compared as well as feasible within the scope on this thesis, and a significant weight will be given to the interviews conducted during 6-9 2021 to address the shortfalls of the data and fill out the gaps left. Firstly, through data and the interviews we will further look at the real estate market segments and outlook, and thereafter touch on the different forms in which to invest.

In publicly traded property companies, the valuation brings together all of the factors, NAV, investor sentiment, and noise trading. It is interesting how both the investor sentiment biased noise theory and information theory both predict the narrowing of NAV discounts. It does however support the investor sentiment theory as trading volumes, public market activity and equity increased dramatically in the bull phase. (Clayton, Linder Hall 5) The Finnish property companies seemingly (source on actual payed taxes) suffer from a small deficit over REITs natural NAV level, as they are double taxed, with the time periods tax rate being 30-34%, 20% for the ongoing year. The companies have generally not deviated much from the tax rate. The recipient of the income can however manage the tax rate paid on the dividends. The equilibrium NAV discount when using the EPRA NAV values for European property companies is suggested to be 0-15% depending on the region. (Krokfors 2017).

As the valuation of the property portfolio has such a big impact on the NAV through the assets side of the balance sheet, the valuation differences even under IFRS accommodate for significant deviations in themselves. (Nellensen & Zuelch 2011, 71.) There for the reliability of the IFRS valuation should be seriously considered as an aspect of investigation as further study.

In direct real estate investments, the capital gains are not as apparent, and non-professional investors may either undervalue or overvalue the property. When investing directly into real estate, and to some extent owning apartments through shares directly, the owner is responsible for maintenance and upkeep, as well as taking into account all the relevant information, such as renovations, taxes, assessing the demographic region and its growth or decline, and general condition of the property. Most often, in indirect investments you lose control over all the aforementioned and someone else is responsible for the management in exchange for a part of the income. When indirectly investing, being it through a public company or fund, the value of the real estate portfolio is portrayed more thor-

oughly, and is based on yields, capital gains, and rental income, which have been determined though actualized sales and revenues in the demographic region and compared to other properties.

In the previous chapter, both different types of players and different real estate types were examined. The reason for this is that although the different premises are in the same country, the industries and market segments have both common and uncommon value drivers. Understanding how an office building can be developed and generate cash flow in Kuopio is very different to operating a shopping mall in Espoo. In the current state of the world with ample cash, virtually all the available real estate premises are local, but potential buyers are global. Bigger players have entered the market, and the real estate industry globally seeks to make edges in profits and risk wherever they can. Yields in Finland have gone down, but are not low in comparison to Europe, especially in the larger cities. Hanna Kaleva states:

> *We live in a situation where low interest rates and large amounts of capital have driven all the financial assets' valuation upwards, and it cannot continue forever. But are we overheating and what does it mean? If we look at residential prices there is not a substantial bubble forming when compared to people's income, but what goes up can come down. If we look at the retail sector, it is evident that at some points yields must go up, but by how much and when is unknown.*
>
> (Hanna Kaleva)

Despite yields going down, meaning that prices go up, it is quite difficult to determine what it means, why it has happened, and will the trend continue. Different market segments don't always move in tandem, and one must be very keen to grasp the relevant information.

Underneath compared some key metrics to understanding the different nature of returns and liquidity. For ease of comparison, the Finnish companies have been isolated to highlight the differences. Both Sponda and Technopolis have been de-listed. Interestingly, the delisting value for both was at NAV or above it, hence the bump in valuation before the trend line stopped. As can be seen also from the total returns of the listed property companies, they have not developed especially coherently amongst each other. The investment profiles and debatably managerial skills are different, and they operate in somewhat overlapping but still quite different market segments and demographic segments. All these have different growth and profitability drivers.

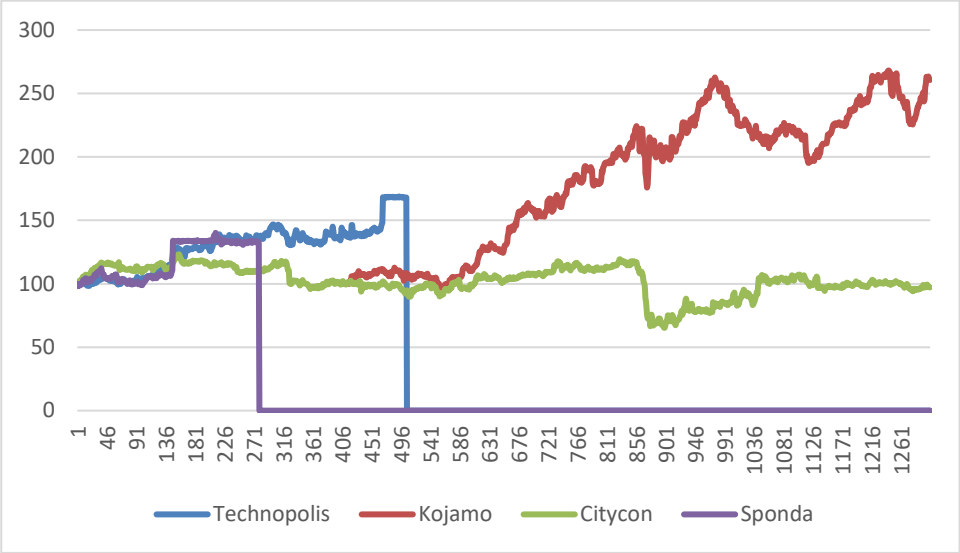

Figure 18 Indexed Total returns for listed Finnish property companies. Reuters Eikon (2021)

Below is the return on equity for the property companies for a five-year period, and 5-year volatility. When comparing to either direct investments or the returns from the property market, the returns fluctuate quite a bit, and the average volatility on a five-year period is 27%. The upside is that returns are slightly higher, but especially total returns fluctuate quite a lot. Liquidity is however the best in the listed instruments, although the market cap reacts quickly in negative market conditions, as was seen in 2008.

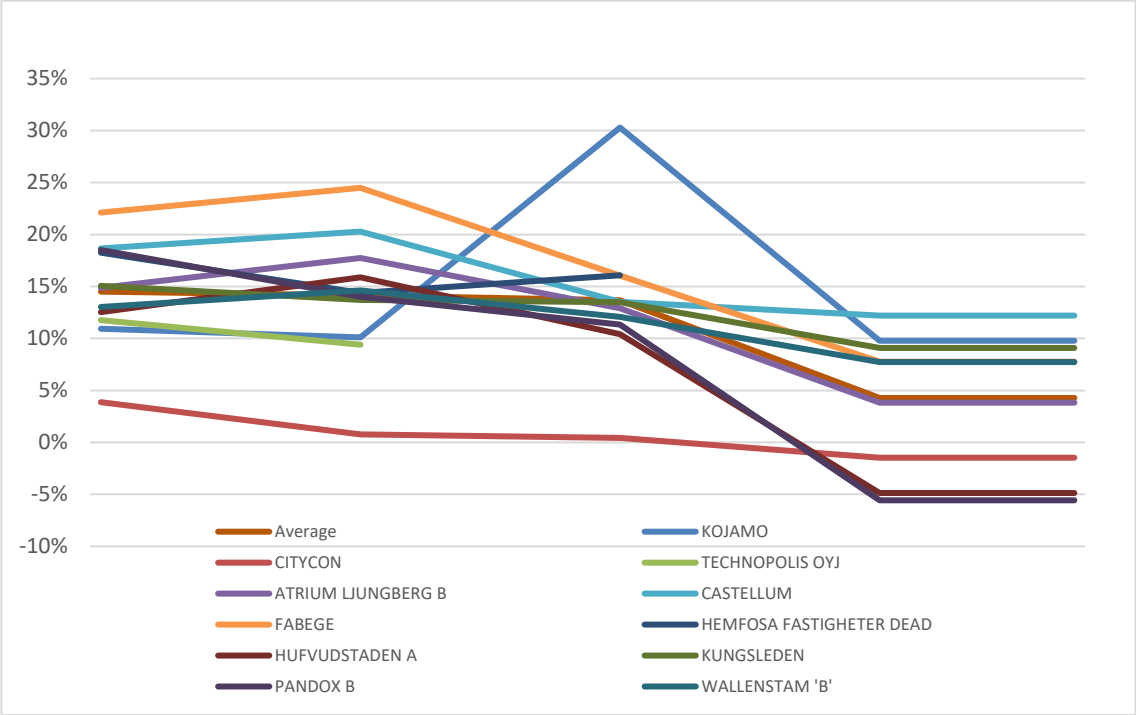

Figure 19 Listed property companies' total return on equity, 2016-2020. Reuter Eikon (2021).

As illustrated above, there is clearly some deviation in returns in the Swedish peers as well. Kojamo out of the Finnish players invests mainly in housing, explaining to some extent the lower volatility for the company. As has been discussed, despite rental housing being a quite safe form of investment in Finland, the current outlook especially in the growth centers does not offer very much profits growth potential.

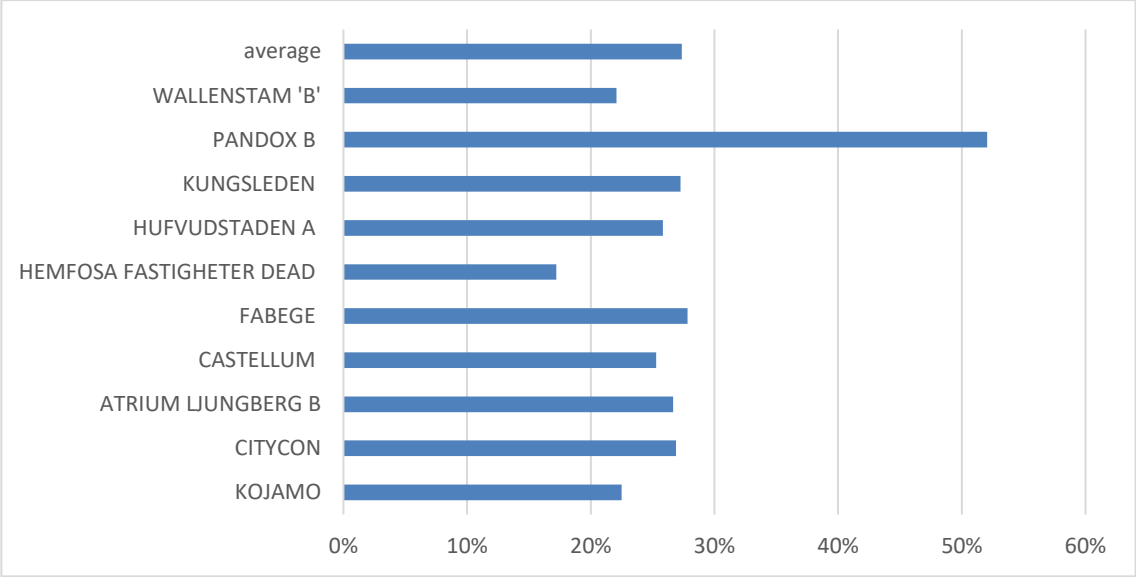

Figure 20 5-year historical volatility of listed property companies per annum. Eikon

When comparing the total returns in the listed property companies and the property markets' total returns, the listed property companies seem to have made greater returns. As previously stated, the returns vary largely on the type of properties contained in the portfolio and location.

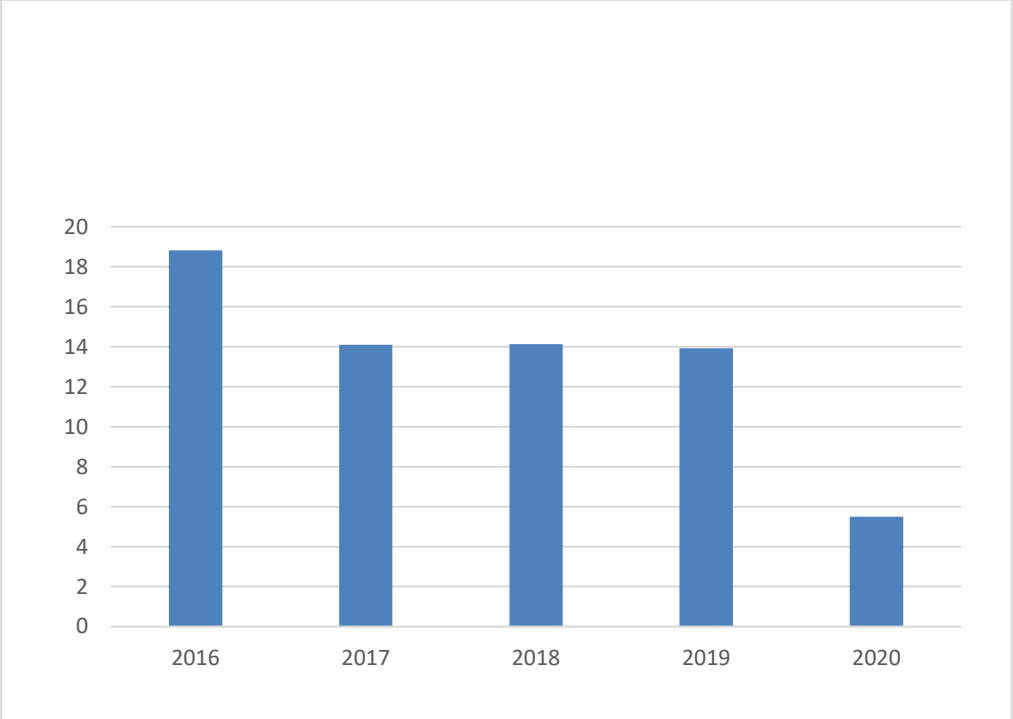

Figure 21 Average total returns, listed Finnish and Swedish property companies. Reu-ters Eikon (2021).

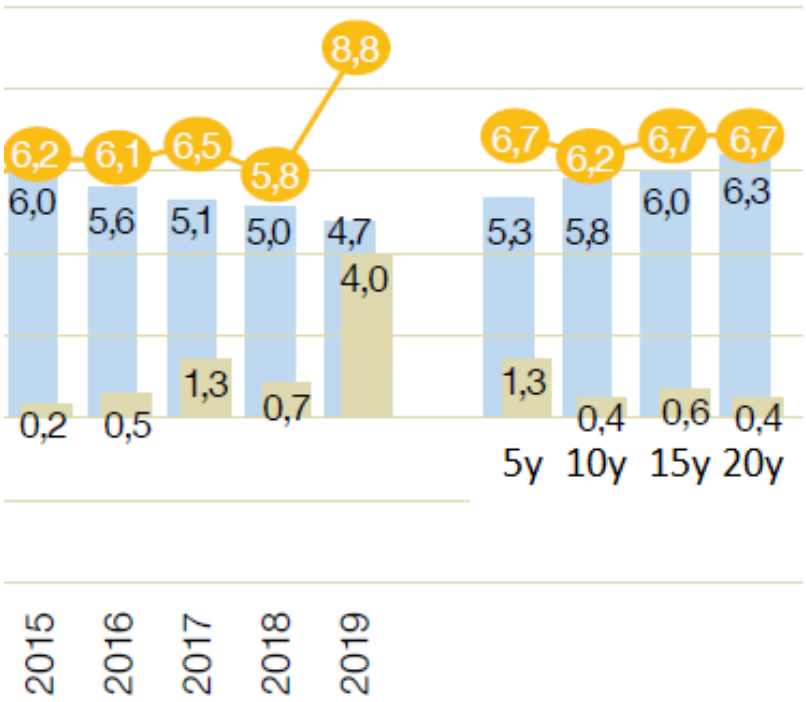

Figure 22 Total returns for Finnish real estate market. Blue is net income, grey capital gains and yellow (top) total return. KTI (2021).

For special purpose investment funds, the returns are slightly smaller, but the special investment funds don't suffer from volatility, as redemptions can be made at least biannually. The funds are also overall closer to each other in terms of returns, with only one fund being in the red.

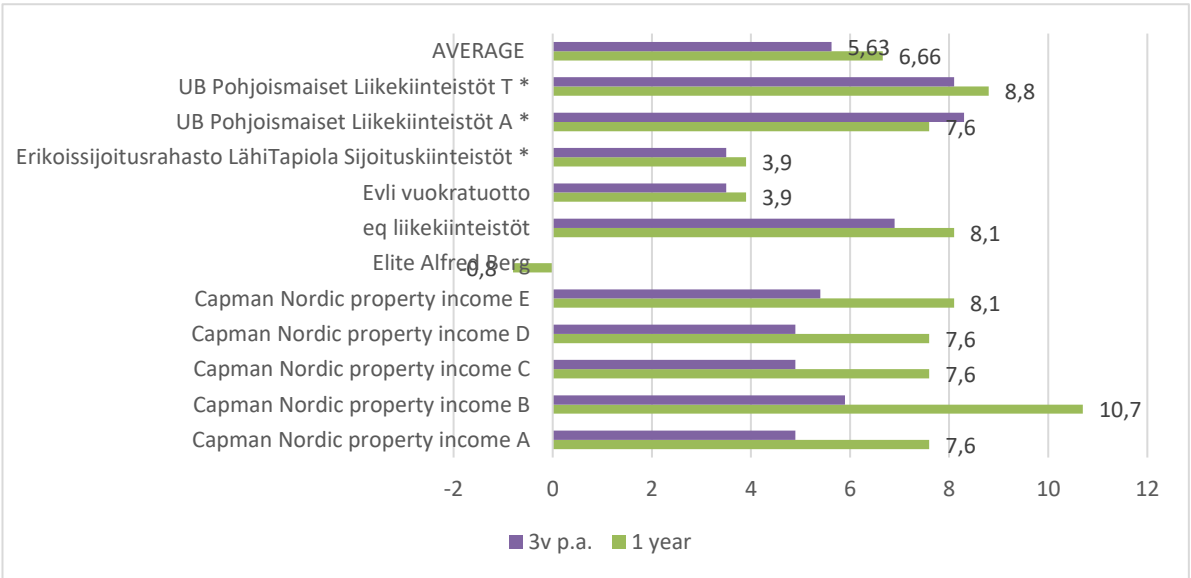

Figure 23 Returns on special investment funds 1 and 3 years per annum. Sijoitustutkimus (2021).

For the last 12 months concerning special investments funds, Trevian provided in conjunction with the interview returns on the last 12 months, up to Q2'21.

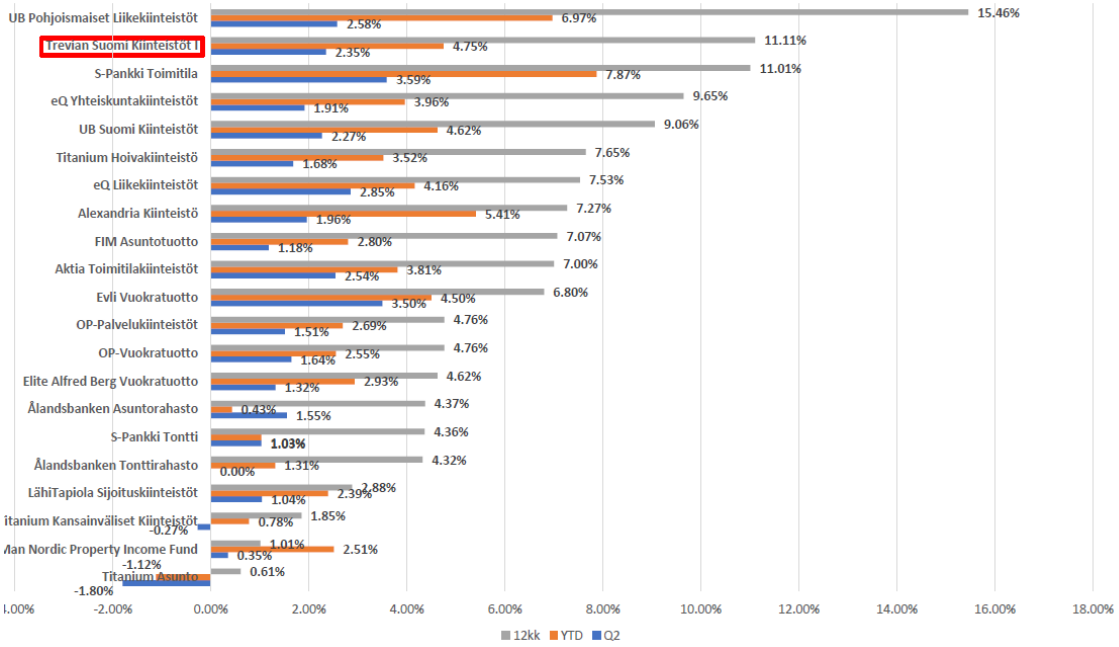

Figure 24 Special property investment funds in Finland total return, Q2'20-Q2'21. Kolu (2021).

During the one-year span, some funds have managed quite large total returns. This could be partially explained by the law mandated maximum leverage of 50% which provides the funds with risk mitigation. Kolu offers better management as an explanation:

> *The special investment funds have won the race 6-0, partially because they are in sectors where the listed companies aren't. they have been faster and more nimble in their operations.*

As has been examined in previous chapters, different segments of the real estate market have quite differing levels of returns and yields, and the net income contributors of capital gain and cash flow are also quite different in nature. The yields and net income also fluctuate over time as supply and demand meet each other or buildings and land our refurbished to meet different needs. The position of different demographic regions also

varies over time, changing the attractiveness of different real estate properties. In addition to this, the availability of funding and ownership purpose have a great impact, as changes in consumer behavior are also a strong contributing factor. when looking at the housing sector, it is worth noting that there are a lot of unknown factors. According to Hanna Kaleva in the interview, the investment period is typically 10-20 years, and interest rates will change within that time frame. Hanna Kaleva states:

> *If we think about private citizens as housing investors, nobody knows exactly how much of the new production ends up with households or private citizens. You hear quite big percentages sometimes, but there is no concrete evidence. It does have a big impact that a big portion of households invest in income property, and it has a large effect on supply as well.*

There is a lot of uncertainty pertaining to the amount and effect on pricing of private citizens and investing in lettable property, mainly apartment buildings. The influx of demand can raise prices on short term and increase supply. If the concrete demand is not present in the future, it will most likely affect the pricing negatively as yields increase. In the long run, the pricing and yields need to meet, and supply and demand need to be in balance. As Kari Kolu states:

> *Everyone is looking for total return in the region of 5%. That's the maximum a big player can achieve in the long run. If this is tied to an index, no economy can sustain that for long. The GDP production should grow at the same rate, or it will at some point become unsustainable. We are in an extraordinary position that the indexed return on a 15-20-year scope is too high. 3% is something that is generally considered sustainable.*

Kolu entertains the though that when looking at sustainable growth, there should in the long run be a parity with GDP growth, which there has been a lack of for the past decade or so, whilst the property sector has been quite strong. In rural regions, the decrease in value for properties might not end up in the statistics simply due to the fact that the transactions may cease. Is there then too much demand on the real estate market currently? Hanna Kaleva states:

> *Of course, the investors are a big driver in supply. Maybe the heightened income property demand has boosted construction more than if*

> *the constructors just build and sell themselves, but construction has been centered in the larger cities where there is a strong demand base (for housing). In the metropolitan region, demand has been greater than supply for several years, so that is being fixed now. The last 18 months have been very exceptional. The long-term growth drivers are intact and will correct the possible short-term supply exceeding demand.*

It is quite difficult to try to determine where the demand is coming from as there is no data set for the use of the space under construction or finished. Despite the unknowns behind the overall supply and demand, in the growth centers where most of the new premises are being constructed, the fundamental drivers for at least the lettable space seem to be intact. Another indicator for the sustainability of the market from the value driven perspective is the correlation of capital value of the real estate and the rent. According to Hanna Kaleva:

> *Talking about rents not reflecting the increase in capital gains for housing, rents have increased in all major cities except for Jyväskylä.*
>
> *They should go hand in hand, but the connection is not as strong as theory suggests. There is a connection, rents are more sensitive to supply, whereas the demand is more driven by people's income. It is very complicated, and subsidized and social housing further meddles with the market.*

We have now identified three mayor components for the residential sector, location, value and its development, and rental income. Behind the increase in housing space, in both square meters and units, is the need for people to live in the housing. It is not certain that the rental prices are right, as there is the possibility that the rental levels wont rise adequately for the cash flow to satisfy the total return required, or yield. This has been the case already during the last few years, as capital gains have been the main driver in the total returns. Kari Kolu states:

> *I don't see the net income as very strong at the moment, there is a limit to capital gains as well. The private investors don't always account for all the expenses related to direct ownership, only the income. It is also good to account for the work you put in yourself. When you*

> *invest professionally into housing in the growth regions, yields begin with 3 and soon 2 (percent). As long as there are capital gains, it is at least protected from inflation. For foreign investors, the Finnish market is interesting because the tenants' position is weak compared to EU countries in general. In Germany rent is governed by the state. That is why they have come to Finland, if you don't abide to the rules your contract can be terminated.*

As previously stated, it is unclear what the demand drivers are for the construction, but the legislation in Finland could offer an explanation to why the foreign investors have increased investments in Finland. In terms of picking tenants and having more control over the end user and rental pricing, the recognition of these aspects could be a possible explanation for the increased interest abroad despite the relatively low return expectations. As previously stated, the different asset classes have different supply and demand drivers but can there be commonalities found as drivers for the market, and how will the market develop going forward from COVID. According to Kaleva, they seem to be specific to the segments more than as a common driver:

> *If we look back 20 years, the correction between office and housing is quite small, in 20-year returns, it is less than 0.5. Housing and offices have provided opportunity to diverse; retail is for sure reflecting this unusual time. Will the market change permanently due to remote working, I have not found any one willing to assess this. Probably the office space demand will decrease and a year ago that would have estimated at tens of percentages. Many people have realized the need for office space. The aggregate demand for square meters is probably downwards, but the quality demand is will go higher. Usage will be less and in a different fashion, but I don't want to speculate how much. Changes will be incremental, and the contract structure dictates that changes and decrease in space requirements won't happen particularly fast.*

Kolu also doesn't see there to be large commonality, but addresses the fact that the usage of the premises can change, and an unwanted office building can be quite profitably refurbished for residential use:

> *Regionally there will be changes in demand (for offices), and the same space can be used for something else. Demand for short term and co-*

> *usage will increase. The city centers are in danger, because accessibility by car is ever more difficult.*

The market segments can change, but the change is incremental. The effects and drivers for the current supply and demand also have an effect on this. But how fast and to what extent will the premises that are suffering from lower demand possibly be refurbished will also be determined largely by other drivers. Kari Kolu states:

> *Hopefully the unneeded office space will be converted to housing. The basic infra, restaurants and shops are already in place. More activities and nightlife. There are many aspects to consider, and not all are bad. The demand for old refurbished buildings is always good. Many people are dissatisfied with the layouts of new housing units, the old-fashioned buildings will make a comeback. The property tax also creates incentive for this, as it is fixed.*

When considering the residential market and the somewhat unknown ownership structure of the new units, there are substantial differences to owning the property directly, compared to indirect ownership as explored in chapters 2 and 3. Hanna Kaleva states:

> *With direct investments, you have a large risk with a single property. For an average person, buying a property is a big risk regardless of if it is for living or rental. You don't have tenant risk with the latter, but you do need account for the development of the region.*

Indirect investment forms offer more ways to diversify the assets. These can be split between funds and listed property companies, of which both interviewees see the special investment funds as the prevailing option of the two options. Hanna Kaleva states:

> *For people interested in real estate investments, special investment funds offer the easiest way. Comparing the centralized risk in owning the property to have it diversified in the fund are the main points. What you do lose is your control over the property. It depends if you want to do renovations, development, think about void periods and tenant risks. Some bigger players want to have control, and many have made it clear they want to be in the driver's seat. It was apparent during the crisis in mutual funds especially and wanting to know*

who else is on board. In one end is risk and liquidity, in the over end is control and decision making. With listed shares on small exchanges liquidity might not be that great if you have a large stake.

What you do lose with the indirect investments is total control of the property. This comes with the benefit of not being responsible and liable for the property, but some investors want a very hands on approach. The interviews have also shed light to the possibility that especially non-professional real estate investors might not take all the variables into account when figuring out the total return and free cash flow for the property. According to Kolu, the special investment funds offer the best of both worlds:

It is a mezzanine form of sorts between direct and indirect. Direct comes from the outside evaluator giving the valuation for the properties to the investor. Indirect comes from the liquidity it has over direct investments. The management fees are of course cut from the profits, but they are much less than in listed property companies. The legislation here is unique (concerning special investment funds). In other countries limited liability type REITs correspond best to it. Maybe this has killed off the listed property companies. This is nominee registered and tax free, for foreign investors as well. For a listed company the dividend is not, and the company also pays taxes. They also suffer from liquidity. Special investment funds can have liquidity problems as well, if there are a lot of redemptions, but the law mandates how much debt there can be. The special investment funds have won out over the listed companies because they have been in sectors that the listed companies haven't and have been more agile and nimble. For the special investment funds entry is similar as with shares and funds, but you can increase equity and liquidity at least bi-annually. For institutions and foreign companies, it is tax free, private citizens pay taxes when income is realized. You must pay out 75% of profits. Private people can also reinvest the share of profits and not pay taxes. The stake can also be sold, although there is not a marketplace for it so price is determined between buyer and seller, and bi-annually a redemption can be made for market value.

As can been seen from the interviews and data, the market is quite complex, with a lot of dependencies and specifics. Both interviewed do seem to agree on the main points,

although some minor aspects have different views. The exact science can only be determined after the fact, and even then, it is difficult to know what the exact cause of the phenomenon observed was.

6 SUMMARY & CONCLUSIONS

The purpose of this study was to find out what forms of real estate investment are available in Finland, and how these investment forms compare to each other. For smaller investors, some property is not easily obtainable directly, but the property class, such as shopping malls or comparable retail sector investments, can be accessed indirectly through different investment vehicles.

For the most liquid option and one that has the lowest threshold simply due to the low price and easy access of the stock markets are listed property companies. These do however suffer from an anomaly called NAV variation, that has been extensively researched, but without conclusive findings. Multiple contributing factors were found, some of which are applicable through the data. The fact is that the deviations will continue to persist, with competing theories competing on which ones will prevail. As the ultimate source of NAV deviations for a single company or region is impossible at least with this scope to determine, nor is the point. Smaller financial regions such as Finland experience them more than more dominant markets such as Sweden. One explaining factor has been taxation and managerial discounts. This could explain the growing popularity of special investment funds, as they are exempt from taxes and NAV variations. When speaking of the border region status on Finland, liquidity has often been quoted as a reason for higher yields and liquidity premiums. As discussed in previous chapters, the yields have gone down in Finland, and liquidity seems good when looking at yields of large property. The listed property companies in Finland have also been halved within the last decade, so for more options investors should look outside of Finland. The interviewed specialists, especially Kolu, also suggested that the special investment funds, especially due to their tax-exempt status, have outgrown the need for listed property companies in Finland.

From a market point of view, there are certain benefits in Finland especially with legislation when compared to other European Union countries, especially in terms of contract obligations, rental levels, and the position of the owner compared to the tenant. Finland has received more notice from international investors, reflected in the net investments into Finnish real estate. The market is considered transparent and one of the top countries in transaction process, regulation, and corporate governance (KTI 2021, 17).

The Finnish real estate sector can be divided into housing, office space, retail, and logistics and storage. The sectors have differing supply and demand drivers and knowing and understanding the specifics of each one is crucial. The interviews also suggested that apart from overall GDP growth, and not even then, are there any common growth drivers for the whole real estate domestic market, but different drivers for each segment with little correlation at least historically. Due to the heterogeneity and immovability of real

estate, the premises can transition from one class to another, for instance offices can be converted to housing. Overall, the Finnish market has developed well, and seems to be recovering from the impacts of COVID. The office market is going through some transition in premise type, as the interest seems to be shifting towards multifunctional and higher quality space. The rental prices also reflect this, with relatively high and stable rents for premium office space, but in the second-grade office space there is quite a lot of void. It is possible that the space demand for this sector will remain below the previous level, but the trend towards this was already there before the COVID crisis, which has accelerated it. Some of the office space will probably be converted to housing in the growth regions and city centers, as demand drivers for housing remain stable.

The retail sector has been two-fold, for investors better cash flow can be made through shopping malls, although the market is twofold with some bad examples especially in the metropolitan area. The transition here has also been accelerated by the emergence of e-commerce, but pooling different services together can increase the attraction of large centers when there are also public services available. The logistics and storage have been strong, as the transition towards e-commerce and COVID restrictions have increased demand significantly. Demand for well positioned quality logistics facilities will remain strong, supported by the trend by many large chains to consolidate their logistics to more centralized positions. More important than the market development, however, is to recognize the growth drivers and transitions. As the COVID crisis emerged, small retail suffered but logistics strived as people had more cash left over due to the decline in services and travel and transitioned faster than normally towards e-commerce.

For real estate investment, the key findings are understanding the growth drivers, the market situation, and how it will develop. As real estate is heterogenic, comparisons are not as easy as in other asset classes. With direct ownership of a real estate, the price is, or at least should be, determined by the cash flow it can generate. The common practice is to look separately at the net income and capital gains, and the sum of those is the total return. The net income is lower in city centers and growth regions, and currently most of the total return is generated by the capital gains. The rents should increase to follow this to even out in long term, but there is some debate as to how sustainable the current total return is, especially in the housing sector where net income is close to zero. If liquidity is not a driving factor, then better net income can be made outside the centers, and strong developers can get to two-digit net income figures with multiple cash flow streams from a multitude of tenants. This comes at a cost though, as typically in especially large retail premises diversification of cash flow effects the valuation and liquidity negatively (Kolu, 2021). Investing directly into this kind of property requires experience and understanding on both the management and development of the property to increase the net income. This

presents a good opportunity for buyers possessing these skill sets and provides liquidity as the seller can exit the asset.

Directly owning property provides the owner with full control over it, and liability for all the expenses and future development of the property. Direct ownership also brings in some cases better loan terms and larger loan amounts, although it can be argued that the risk also increases by the amount of leverage. For some investors this is key in determining if they want to own and operate it or not. As real estate is heterogenic, it is quite difficult to determine the best way to diversify this risk. According to both interviewed, diversification is still quite important. This can be done by three ways, location based, premise type based, and the number of properties. According to Kolu, sufficient diversification can be achieved by ten different properties. For an investor that isn't interested in the benefits and burdens of direct ownership, this is easiest to accomplish through indirect ownership.

Indirect ownership can be split into two categories, public real estate companies listed on stock exchanged, or funds. There are a multitude of ways to structure the ownership and control mechanisms though mutual companies and limited liability companies to gain certain tax and other advantages, or try to obscure the ownership structure, but very little academic research is available on these.

The trend in Finland is moving away from listed property companies, and some explanations include the border region status of Finland. Albeit this is true, investments into Finland as well as real estate transactions have been growing on average for the last years. The explanation for especially the NAV discount could be the higher managerial fees and liquidity if large stakes enter the marketplace. The delistments for Sponda and Technopolis where at NAV, suggesting that the real estate portfolio was valued correctly, at least from the buyer's perspective. This does not offer a definitive answer to any of the questions, and the problem remains unsolved. Kolu suggested that the tax-exempt status and lower managerial fees bought about by the special investment funds offer a balanced position between liquidity and regulation and offer larger safety towards investors due to their tight scrutiny. The popularity is backed up by data, and in the past years' equity has flowed steadily into special investment funds, which currently number 19 in Finland. As relatively new instruments in the market, there are still many open questions regarding special investment funds and the regulation involved, but they seem to have fared well in the market turmoil caused by the COVID crises.

In conclusion, the real estate market in Finland is still competitive from foreign investors' point of view considering investments and yields compared to other European countries, but regional differences do occur. The market is sensitive to interest rates and has increased in value driven by both the good availability of funds, mid-range yields, and

comparatively loose regulation for rents and contracts. Through the interviews and data, it is suggested that skilled and well financed companies or other investors can still generate good returns from multiple real estate asset types, and for smaller investors indirect investments offer the easiest way to diversify. Due to the strict regulation and good liquidity on a 6-month time frame, it can be argued that the most growing class of special investment funds offers the best balance for liquidity and returns at a relatively low risk. The key to understanding the risk and returns specifically is to understand what the drivers for supply and demand are, the demographic anomalies and how they will develop, and what kind of real estate the chosen investment vehicle is focused in.

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