Listed and non-listed real estate investment - why combine the two?

WHITE PAPER

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Contents

Introduction

At Kempen Capital Management N.V. (Kempen), our clients often ask us about the benefits of investing in real estate. In this white paper, we discuss some of the key considerations.

Besides direct ownership of real estate, investors have the option of gaining exposure to the global real estate markets through listed and non-listed indirect real estate implementation vehicles. A frequently asked question is: are these different vehicles part of the same asset class? Or do listed and non-listed real estate in fact represent two different asset classes, each with its unique dynamics? What can be the benefits of combining listed and non-listed real estate investments in a portfolio?

This white paper aims to provide answers to these questions. Based on academic literature and our own analysis, we conclude that both listed and non-listed real estate are exposed to the same common real estate factor. Both listed real estate companies and non-listed funds are vehicles for obtaining exposure to this factor.

We focus on how listed and non-listed real estate are different vehicles for capturing the same exposure, on differences in liquidity, pricing mechanism, leverage, cost levels and underlying exposures. We subsequently examine the potential opportunities created by these different dynamics. Next, we discuss potential arbitrage opportunities and examine whether diversification between the two can be achieved. We conclude with some final remarks.

Listed versus non-listed: different vehicles to capture the same exposure

Different characteristics, but similar long-term dynamics

While listed and non-listed real estate both involve the ownership of physical buildings, the short-term investment dynamics of the two do tend to differ. However, in the long run and correcting for leverage, smoothing effects and sector differences, both types of real estate investments behave similarly (Pagliari et al., 2003; Ang, 2014). Studies also show that both listed and non-listed real estate essentially follow the same common real estate factor (Ang et al., 2013; Ang, 2014). The implication of this is that listed and non-listed real estate are investment instruments which can be used to gain exposure to the real estate factor, and are thus basically the same asset class. In the short term, differences can arise due to a number of idiosyncratic factors inherent to listed and non-listed real estate, the result of which implies different considerations in portfolio construction. Figure 1 shows the most important characteristics for listed real estate and non-listed real estate.

FIGURE 1 Comparison of listed and non-listed indirect real estate

	LISTED REAL ESTATE	*NON-LISTED INDIRECT REAL ESTATE*
× Returns	Correlation to underlying real estate in medium term but to equities in short term	High correlation to direct real estate markets
× Volatility	High	Low
× Liquidity	High, daily	Low
× Transparency	High (public mandatory company disclosure, analyst coverage)	Low but improving. Information not widely available (little analyst coverage, limited public mandatory disclosure)
× Governance	Strong by law, board of directors directly responsible	Weak, mostly as a result of fund structure. External management
× Investor influence	Limited impact on management and strategy	High impact on management and strategy
× Leverage	Low	Low for core funds
× Cost levels	Cost levels easy to compare between listed real estate companies	Cost levels easy to compare between non-listed real estate funds
× Diversification	Easy to achieve starting from any initial investment	Difficult to achieve due to high AuM needed to construct a well-diversified portfolio

Source: KCM

Differences in pricing mechanisms lead to a difference in short-term observed risk

Difference in pricing mechanisms has several consequences

One of the key differences between listed and non-listed real estate is that the former trades on centralised exchanges and thus offers immediate liquidity with transparent pricing. Total trading amounts of US$5.0 – US$7.5 billion can effectively be executed for a global portfolio on a daily basis[1]. Non-listed real estate, however, is a more illiquid asset and (depending on quality and local market conditions) transactions can take several months. This difference in liquidity profiles has several implications:

Transactional versus appraisal-based pricing leads to a difference in short-term risk

The non-frequent trading of non-listed real estate has consequences for pricing and reported returns. Listed real estate companies are typically traded and priced many times during a day and therefore provide sound insight into actual market conditions as perceived by investors. The reported returns based on these market prices, either for pooled vehicles or index figures, are consequently a true reflection of the money that was made or lost by investors during a particular period. However, non-listed real estate does not trade frequently and less pricing information is therefore available.

Instead, reported non-listed real estate fund and index returns are typically based on the appraised values of the underlying properties. This has important implications for (expected) returns. Appraisal-based prices are found to be off by 12% on average from transacted prices and lag both in rising and falling markets (Canon & Cole, 2011.) As such, appraisal-based non-listed indices can be seen as a lagged and smoothed approximation

1 *The trading amounts are calculated using the average daily traded volumes over the past three months as reported by Bloomberg. To minimise trading and market impact it is assumed that one can trade a maximum of 33% of the daily turnover.*

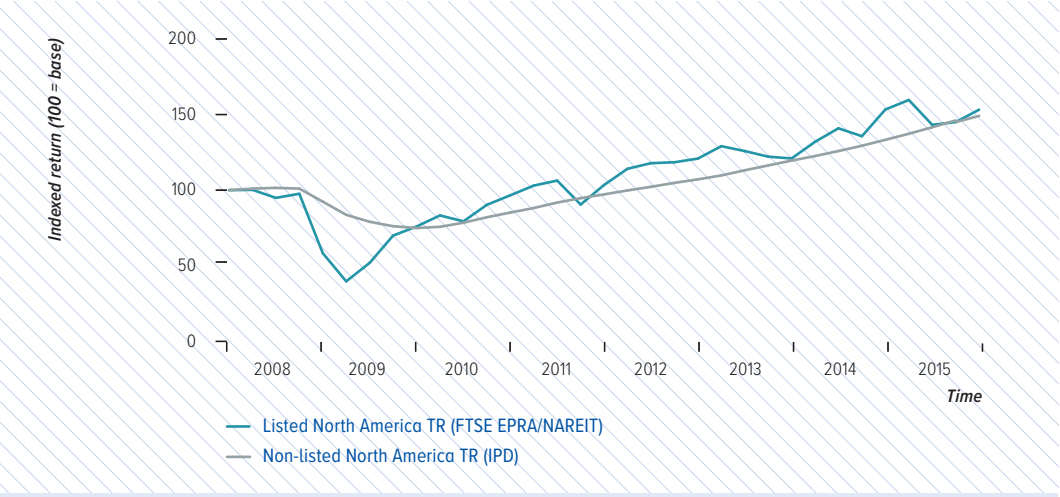
of the true common real estate process (Geltner, 1991; Geltner, Fisher Webb, 1994; Ang, 2014.). Furthermore, it is important to note that reported illiquid asset returns by index providers such as Investment Property Databank (IPD) are not the true returns on the total universe as there are issues relating to infrequent sampling, selection bias and survivorship bias. Due to the infrequent sampling, estimates of risk (volatility, beta etc.) are often too low when computed using reported returns.

Last but not least, it is important to note that we never observe the full universe in illiquid asset markets and it is also impossible to replicate an index in an investment portfolio. Proxies such as IPD benchmarks only cover part of the total non-listed universe, and investment portfolios have a high selection bias by definition. MSCI (2016) calculated that at the end of 2015 only 22.2% of the institutional non-listed global real estate market was covered by the IPD index. The remainder is held by insurance and pension funds, sovereign wealth funds, listed real estate companies, unlisted pooled funds, charitable trusts, traditional land estates and large private real estate owners (MSCI 2016).

Details about their real estate holdings are often not publicly available.

As mentioned above, due to these different pricing mechanisms, there is a lead-lag relationship between listed and non-listed real estate returns. This is illustrated in Figure 2 by showing the rebased returns for the North American markets for the period 31 December 2007 through 31 December 2015.

FIGURE 2 Rebased returns for listed and non-listed real estate



Time period: 31 December 2007 through 31 December 2015 – Source: KCM, FTSE, MSCI

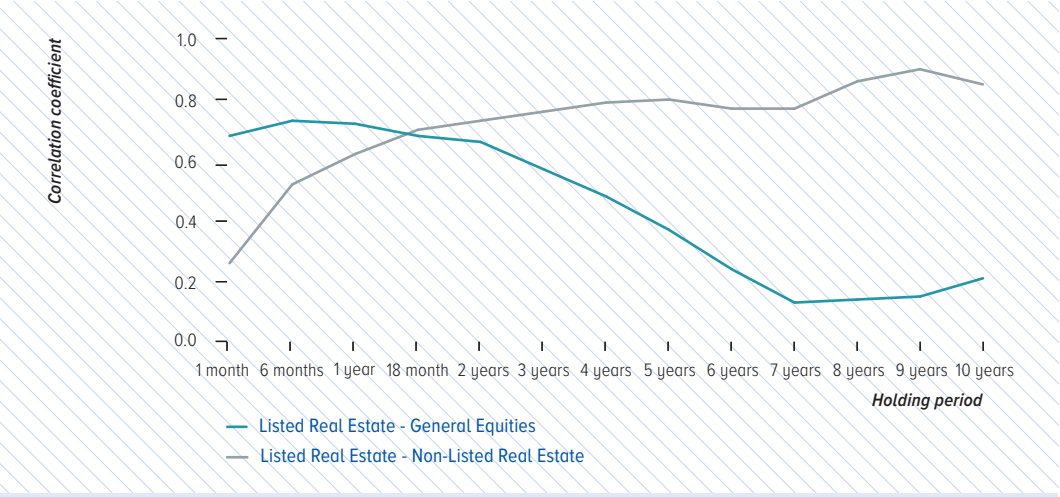
Listed real estate behaves more like equity markets - but only in the short term

Although both listed and non-listed real estate are exposed to the same common real estate factor, listed real estate tends to have a higher short-term correlation to equity markets. The reason behind this is that listed real estate companies are traded on centralised exchanges on which other equities trade as well. As such, investors tend to buy and sell listed property securities in tandem with other equity securities as they are also part of general equity indices. Furthermore, listed real estate companies tend to be affected by investor sentiment in a similar to manner equities (DeLong et al., 1990; Hong et al. 2006). In the longer term, however, listed real estate correlations are much more related to developments in the property markets as illustrated in Figure 3.

With a horizon of over 18 months, listed real estate is more influenced by developments in the underlying non-listed markets than by equity market behaviour[2]. This seems to be in line with the view that both listed real estate companies and non-listed real estate funds are exposed to the same common real estate factor in the end.

2 *Kempen Capital Management, 2016*

FIGURE 3 Correlations of listed real estate to equities and non-listed real estate*



Time period: 31 December 1989 through 31 December 2016 – Source: KCM, 2016

* *The FTSE/EPRA NAREIT Europe Developed index is used as a proxy for listed real estate; the same index is used as a proxy for non-listed real estate but the returns have been de-geared using the actual reported discount/premium to NAV and LTV as reported by EPRA; the Euro Stoxx 600 index is used as a proxy for General Equities.*

Illiquidity premium required for non-listed real estate

> 'The absence of immediate liquidity can be considered a risk factor'

The absence of immediate liquidity can be considered a risk factor. This arises from a number of components, including but not limited to: the risk of not being able to sell the asset when the capital is needed elsewhere, reinvestment risk and information asymmetry. Open-ended non-listed real estate funds (as opposed to closed-ended non-listed funds) often close temporarily to redemptions. For example, German open-ended funds Kanam, CS Euroreal and SEB Immoinvest closed in 2012. During a period of several years, investors in these funds were unable to get their money back. More recently, in July 2016, a number of open-ended UK non-listed real estate funds closed to redemptions following the Brexit referendum. In order to stop redemptions taking place, these funds need to reduce their valuations until they reach a clearing price such that their investors are no longer encouraged to redeem at today's valuation price (i.e. the NAV). Investors should demand a sufficient risk premium for these risks.

In the case of listed real estate companies, repricing is done instantly on the stock exchange, causing near-term volatility. Despite this, investors in listed real estate companies enjoy price transparency and are able to trade without being subjected to a potentially lengthy transaction process.

Leverage ratios are comparable

Leverage ratios for listed real estate companies are comparable to core non-listed funds

Quite apart from the underlying (operational) characteristics of the properties that are held, the risk profile of a portfolio of real estate assets is highly dependent on the level of financial leverage that is used.

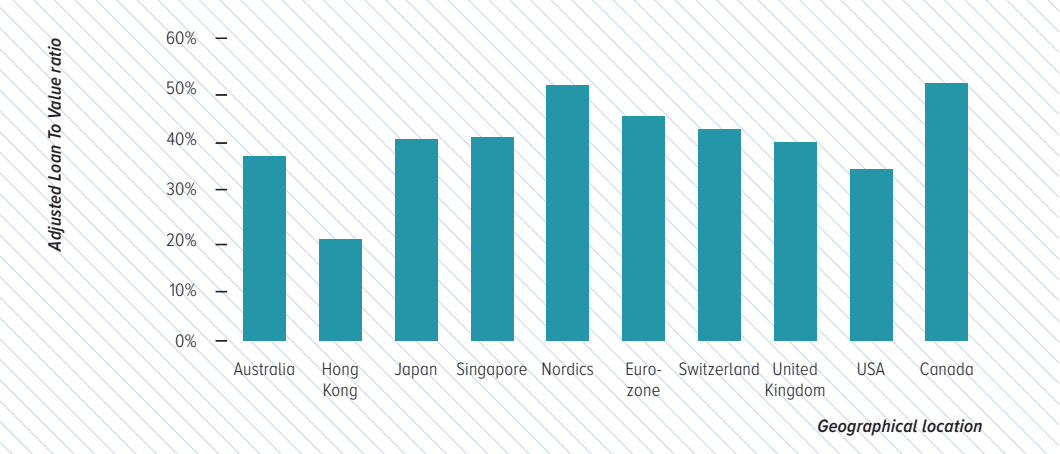
Non-listed leverage

INREV (2012), the European Association for Investors in Non-Listed Real Estate Vehicles, has created a widely-used style classification framework to understand and compare risks in non-listed real estate funds. In doing so, it distinguishes between Core, Value Add and Opportunistic fund portfolios, depending on the overall risk profile. Using this classification, core portfolios are the most defensive investment style. These investments are characterised by a strong focus on rental income, low property development activities and a limited use of leverage. Loan To Values (LTVs), as an indicator of the use of financial leverage, are maximised at 40% for Core investments.

Listed leverage

In general, listed real estate companies are disciplined in the use of financial leverage. According to INREV's classification framework, most listed real estate companies could be classified as Core investments.
Figure 4, which is based on the FTSE EPRA/NAREIT universe, shows the underlying average LTVs for listed real estate companies according to geographical location.

FIGURE 4 Adjusted Loan To Values (LTVs) according to geographical location



Source: Kempen Capital Management, as of 30 June 2016

Cost levels are difficult to compare

Cost levels vary depending on the business model

Both listed and non-listed real estate instruments offer a way of gaining exposure to the underlying real estate. For end investors, it is important that costs are minimised between collecting rent and distributing dividends or returns. Even though investors have encouraged both listed and non-listed vehicles to be transparent about their cost structures, there is still room for improvement. Less efficient vehicles in particular have little incentive to show how inefficient they are.

Industry bodies such as the European Public Real Estate Association (EPRA) and European Association for Investors in Non-Listed Real Estate Vehicles (INREV) in Europe have made a big push to define a single metric to enable a cost level comparison. EPRA has developed its EPRA Cost Ratio[3], while INREV has developed its INREV Total Expense Ratio (TER)[4]. A growing number of companies and funds report these ratios but, again, the paradox is that typically only the most efficient companies and funds do so. Although at the outset it seems relatively straightforward to make a direct comparison between the cost ratios for listed and non-listed funds, in reality this is not the case.

For both listed real estate and non-listed real estate, the differences in cost levels depend on the nature and scalability of the business model. Cost should therefore be seen in relation to returns. Real estate developers tend to have higher operating expenses, but these should be offset by higher returns.

> ‘It seems relatively straightforward to make a direct comparison between costs ratios, but in reality this is not the case’

3 *For more information about the EPRA Cost Ratio please refer to http://www.epra.com/media/EPRA_Cost_Ratios_2013_1373630636279.pdf*

4 *For more information about the INREV Total Expense Ratio please refer to https://www.inrev.org/inrev-guidelines/3480-module-6-fee-andexpense- metrics*

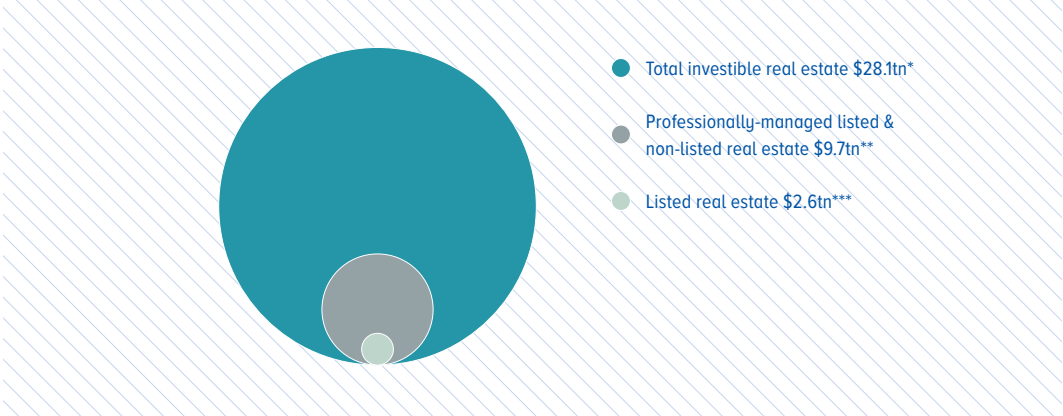
Combining listed & non-listed real estate investments

The best of both worlds - combining listed & non-listed real estate enlarges the investment opportunity set

The total real estate universe is much larger and more diverse than what is captured by well-known benchmarks. In the non-listed markets, index providers such as IPD do not include all the data of privately-held portfolios. Non-listed private markets are consequently much larger than listed markets and less thoroughly captured in well-known benchmarks.

According to EPRA's estimates, the total investible real estate market is around $28.1 trillion. The total global investible listed real estate market accounts for around 10% and stands at $2.6 trillion, of which $1.9 trillion is in developed markets (Figure 5).

FIGURE 5 Size of the investible real estate markets



Source: EPRA Monthly Statistical Bulletin Dec 2015, MSCI 2016

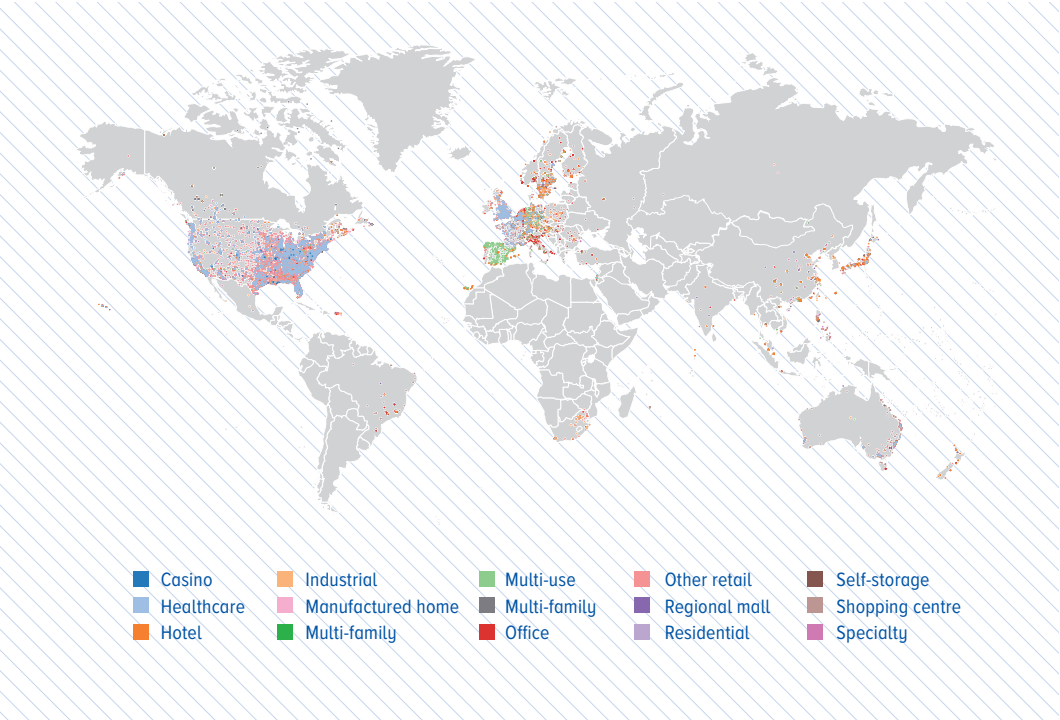
* *Total commercial (office, retail, industrial, niches) and rented residential buildings as calculated by EPRA (EPRA 2015). Owner-occupied residential homes are not included.*

** *The gross asset value of all professionally-managed real estate portfolios in both public and private vehicles as calculated by MSCI (MSCI 2016).*

*** *The total market capitalisation of all listed real estate companies globally in both developed and emerging markets as calculated by EPRA (EPRA 2015).*

Whereas it is difficult to obtain a complete overview on the sectoral split of the non-listed exposure, data on the underlying 200,000 commercial properties are available for the $1.9 trillion in listed real estate in developed markets. The locations of these assets are depicted in Figure 6.

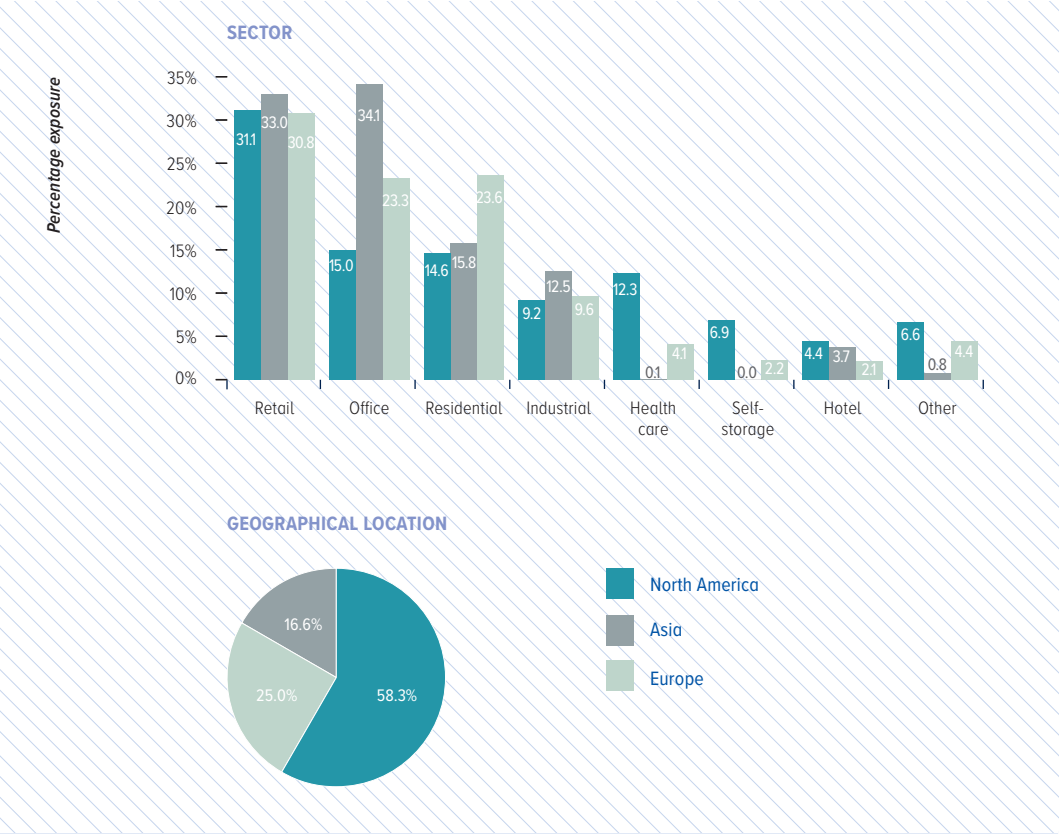
FIGURE 6 Depiction of the locations of the 200,000 commercial properties owned by listed real estate companies globally



Date: 30 June 2016 – Source: KCM, SNL

Figure 7 shows the $1.9 trillion in listed real estate in developed markets broken down into three regions and by sector. North America makes up more than half of the listed real estate universe, with Europe being the smallest region. At sector level, there are differences by region. Retail across all regions is widely investible through listed real estate companies. Offices are very well represented in Asia but less so in North America. In Europe, in aggregate, 23.6% of listed real estate company assets belong to the residential sector. What this figure fails to show is that this is country-specific. Investors can only gain exposure to the residential sector in Germany through listed real estate companies. Less traditional sectors such as healthcare and self-storage are more widely investible in North America, whereas there is as yet no listed product available to gain exposure to these sectors in Asia.

FIGURE 7 Listed real estate universe broken down by region and sector



Source: KCM, FTSE, 30 June 2016

By combining investment via both listed as well as non-listed vehicles, investors can increase their investment opportunity set significantly. The enlarged opportunity set allows investors to construct a bottom-up portfolio by selecting assets that offer the risk/return characteristics most in line with their goals.

Arbitrage opportunities in listed and non-listed vehicles

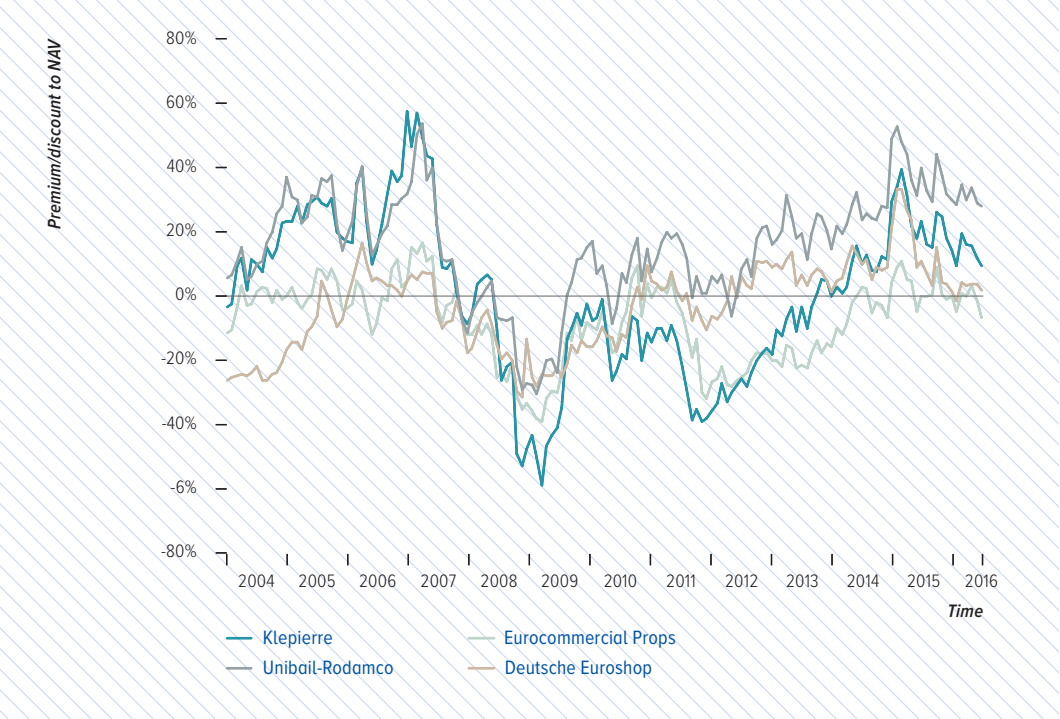
There are arbitrage opportunities between listed real estate companies, but very few between listed and non-listed real estate

The different return dynamics suggest that there could be arbitrage opportunities. This works in theory, but it is much more complicated to execute in practice. As mentioned earlier, appraisal-based prices are found to be off by 12% on average from transacted prices, and lag both in rising and falling markets (Canon & Cole, 2011). In addition, it is not always possible for investors to redeem or sell at NAV and to do so might take time. As a result, there are practical limitations to locking in the arbitrage opportunity by selling non-listed real estate at NAV and reinvesting the proceeds in listed real estate at a discount.

On the flipside, investors can easily sell a portfolio of listed real estate companies on the stock exchange. When listed real estate companies trade at a premium to NAV, investors can lock in this premium by selling the shares and reinvesting the proceeds in non-listed real estate, paying NAV. Limiting factors that need to be taken into account are transaction costs and the time needed to reinvest in non-listed real estate. Investors need sufficient margin for error to lock in the pricing differential.

Interestingly, among listed real estate companies a great variety of NAV discounts and premiums can be observed, depending on company-specific characteristics such as the underlying assets owned, the financing structure, growth prospects, investor sentiment etc. This is depicted in Figure 8, which gives the historical premium/discount of four close peers from 31 December 2003 through 30 June 2016. These mispricings can be exploited via active management.

FIGURE 8 Historical premium/discount to NAV of selected listed European retail real estate companies



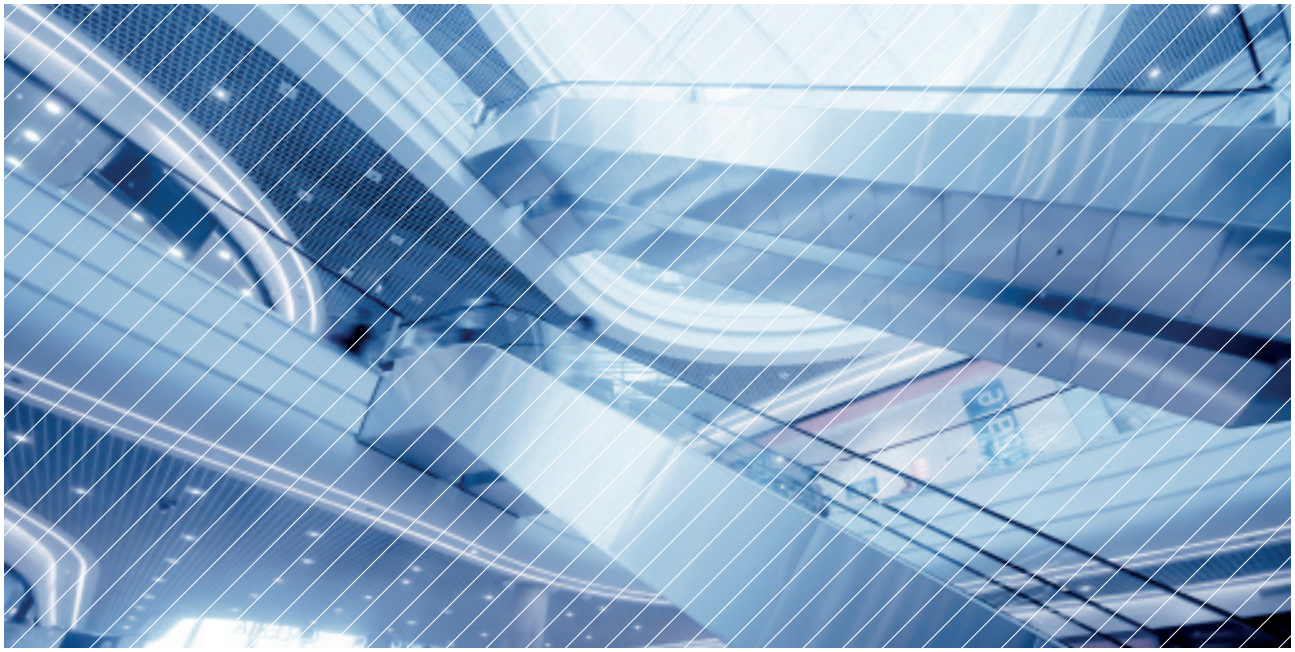
Source: Kempen Capital Management, 2016 – Time period: 31 December 2003 through 30 June 2016

The impact on risk and return when combining listed and non-listed real estate

Both listed real estate and non-listed real estate can yield different benefits when added to a multi-asset portfolio

The difference in risk and return dynamics suggests that there is added value in combining listed and non-listed real estate in a portfolio. There are basically three potential risk/return benefits: is real estate a return enhancer, a risk diversifier or a combination of the two?

Most research focuses on adding non-listed real estate or listed real estate to a mixed-asset portfolio. Only a few studies have researched the impact of combining the two. Initial papers focused only on investors in the US markets. More recently, Moss researched the impact for those who invest globally.



Feldman (2003) researched the impact of adding REITs to a mixed-asset portfolio that already contained an investment in non-listed real estate. Feldman's paper used two alternative measures of non-listed real estate in addition to the standard NCREIF Index. Feldman found that adding REITs to the optimal portfolio would still lead to improvements in portfolio performance. When variable liquidity return indices are used as a proxy for non-listed real estate, the maximum performance gain from adding both listed and non-listed real estate was about 27 basis points for portfolios with risk levels between 6 and 8% (Feldman 2003). If only listed or only non-listed real estate was added to Feldman's mixed-asset portfolio, the performance improvement was smaller at similar risk levels, indicating clear benefits for the efficient frontier of combining both listed and non-listed investments in real estate.

Mueller et al. (2003) calculated the Markowitz efficient portfolios. They found that adding non-listed real estate results in major decreases in volatility for the lower half of the risk/return efficient frontier. The inclusion of listed real estate leads to an improvement in the entire efficient frontier, but the most substantial benefits are to be found in the upper half of the efficient frontier. If both listed and non-listed real estate are added to the mixed-asset portfolio simultaneously, the highest risk/return efficient frontier is accomplished (Mueller et al. 2003).

More recently, Moss et al. (2015a) researched the implications of combining a non-listed UK real estate holding with an allocation to global listed real estate. Moss et al. found that, over the past 15 years, the total return improved by about 1% annualised if 30% global listed real estate was added to a portfolio of non-listed UK real estate holdings (Moss et al. 2015a). The price for this enhanced performance and improved liquidity was unsurprisingly higher portfolio volatility, although its incremental impact on the Sharpe Ratio is limited (Moss et al. 2015a).

Moss et al. (2015b) found similar results in a separate study researched for an investor in German non-listed real estate. They found that adding global listed real estate to a portfolio of German non-listed real estate improved the risk-return characteristics. The MSCI Spezialfonds Index was used as a proxy for domestic German institutional allocation to non-listed real estate and they discovered that a trend-following strategy involving blending a 30% global listed portfolio with a 70% allocation to Spezialfonds improved the annualised average return from 2.9% to 6.9%, while the annualised risk only increased from 1.0% to 3.5% (Moss et al. 2015b).

The academic literature shows ample evidence of the benefits of adding real estate to a mixed-asset portfolio. Much of the benefits depend on whether the existing portfolio has a larger allocation to fixed income or to equities. Most research found that, due to its relatively low reported volatility, adding non-listed real estate mainly provides diversification benefits rather than return enhancement. Adding listed real estate mainly provides return enhancement, while the diversification benefits increase as the holding period increases.

Since both non-listed and listed real estate offer different benefits when added to a mixed-asset portfolio, investors should consider combining the two to best serve their particular objectives. The percentage allocation to listed versus non-listed real estate, to which geographical locations and to which sectors depends on the unique return objective, risk tolerance and liquidity requirements of the individual investor.

Conclusion and final remarks

Both listed and non-listed real estate are investment vehicles with exposure to the same real estate factor. Long-term return dynamics are therefore expected to be similar.

In the short term, however, investment dynamics differ due to differences in liquidity and the implications for the pricing mechanisms (market value versus appraisal value). We have demonstrated that the different pricing mechanisms lead to a higher correlation between listed real estate and equities in the short term; but there is a higher correlation to the underlying real estate when holding periods are longer than 18 months. At the same time, as non-listed real estate exposes investors to illiquidity risk, the preference for this type of risk and the expected compensation for illiquidity should be taken into account in portfolio construction.

We compare listed real estate with non-listed real estate on other important characteristics and show that leverage ratios are broadly similar between listed real estate companies and core non-listed funds, while costs are difficult to compare. These typically vary depending on the business model.

Investors can benefit from the distinctive factors inherent to both real estate investment types to enhance diversification and risk-adjusted returns. By combining listed real estate and non-listed real estate in an integrated strategy, investors can increase their opportunity set and enhance the overall liquidity profile of their portfolios. Investors can construct a bottom-up portfolio invested in those geographical locations and sectors that offer them the dynamics that match their long-term targets. While arbitrage opportunities between listed and non-listed vehicles are difficult to exploit in practice, present mispricings within listed real estate can be exploited via active management. There is ample evidence in the academic literature that adding listed real estate improved returns yet only has a limited impact on risk, while adding non-listed real estate mainly provides diversification benefits rather than return enhancement.

In conclusion, depending on the current portfolio, adding listed real estate to portfolios containing non-listed real estate can help investors achieve their long-term goals.

References

- Ang, A. (2014). “Asset management: A systematic approach to factor investing” New York, NY: Oxford University Press.
- Ang, A., Nabar, N. and Wald, S. “Searching for a common factor in public and private real estate returns” Journal of Portfolio Management, Special Real Estate Issue 2013, 120-133.
- Cannon, S., and Cole, R. “How Accurate Are Commercial Real Estate Appraisals? Evidence from 25 Years of NCREIF Sales Data” Journal of Portfolio Management, Vol. 37, No. 5 (2011), pp. 68–88.
- DeLong, J., Shleifer, A., Summers, L., and Waldmann,R. “Noise Trader Risk in Financial Markets” Journal of Political Economy, Vol. 98, No. 4 (1990), pp. 703–738.
- Feldman, B.E. “Investment Policy for Securitized and Direct Real Estate” Journal of Portfolio
- Management, Special Real Estate Issue (2003), pp. 112-121.
- Geltner, D. “Smoothing in Appraisal-Based Returns” Journal of Real Estate Finance and Economics, Vol. 4, No. 3 (1991), pp. 327–345.
- Geltner, D., Fisher, D., and Webb, R., “Value Indices of Commercial Real Estate: A Comparison of Index Construction Methods” Journal of Real Estate Finance and Economics, Vol. 9, No. 2 (1994), pp. 137–164.
- Hoesli , M., Oikarinen, E. “Are Public and Private Asset Returns and Risks the Same? Evidence from Real Estate Data” Swiss Finance Institute Research Paper (2013), No. 13-56
- Hong, H., Scheinkman, J., Xiong, W. “Asset Float and Speculative Bubbles” Journal of Finance, Vol. 61, No. 3, (2006), pp. 1073-1117.
- INREV Research & Market Information. “INREV Style Classification” February 2012.
- INREV Research & Market Information. “Management Fees and Terms Study 2014” June 2014.
- IPD. “IPD Real Estate Index Analysis: Global Market Size Estimates” June 2014.
- Kroencke, T. Schindlet, F. and Steininger, B. “Are REITs real estate or equities? Dissecting REITs in an asset pricing model” EPRA Research 2014.
- Moss, A., Farrelly, K. “The performance implications of adding global listed real estate to an unlisted real estate portfolio: A case study for UK Defined Contribution funds” Journal of Property Investment & Finance, Vol. 33, No. 2, (2015a), pp. 156-168.
- Moss, A., Clare, A., Thomas, S., and Seaton, J. “The blended approach to real estate allocations:
- Performance Implications of combining an exposure to German Spezialfonds with Global Listed Real Estate Securities “ Cass Business School working paper (2015b).
- MSCI. “Real Estate Market Size 2015” June 2016.
- Mueller, A.G., Mueller, G.R. “Public and Private Real Estate in the Mixed-Asset Portfolio” Journal of Real Estate Portfolio Management, Vol 9 (2003), pp. 193-203.
- Pagliari, J., Scherer, K., and Monopoli, R. “Public versus Private Real Estate Equities” Journal of Portfolio Management, Vol. 29, No. 5 (2003), pp. 101–111.

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