

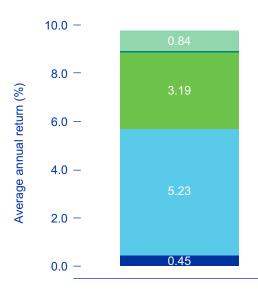
Snapshot Research

Investors in European non-listed real estate funds are rewarded for taking on liquidity risk

- > Investors are compensated with a premium of 84 bps per annum for the illiquidity of funds that delivered an average return of 9.6%
- > Returns and illiquidity of listed and non-listed behave differently which gives the potential for diversification
- > Returns and illiquidity of non-listed real estate funds and direct real estate behave similarly over time

Figure 1: Risk premium composition of non-listed real estate funds

Risk-free rate
Fama-MacBeth intercept
Real estate market risk premium
Equity market risk premium
Illiquidity premium



There are many routes to investing in the real estate sector, investing directly or via listed real estate and non-listed real estate vehicles. These three main routes to real estate investment are based on the same underlying asset class, but exhibit very different characteristics in the short term, especially with regards to transparency, liquidity and volatility of returns. Listed real estate is generally more liquid than non-listed but the returns are also more volatile.

Hence, it was interesting to explore whether a premium exists for the illiquidity of non-listed funds and this was the focus for the study.

The study adopted the Amihud measure for liquidity. The principle behind the Amihud measure is the relationship between transactions of a given magnitude (the volume) and how much it moves the price (the absolute value of the return). The higher the Amihud measure, the less liquid is the investment.

The research findings show that the average quarterly returns for non-listed, listed and direct real estate were almost on par over the sample period, ranging from 2.1% for non-listed funds and 2.6% for listed real estate, with direct investment delivering 2.4% over the sample period. However, when it comes to volatility in returns, the listed sector observed much higher volatility than both non-listed funds and direct investment, with funds being only slightly more volatile than direct real estate.

With regards to liquidity, the analysis showed that listed real estate is more liquid, as measured by the Amihud measure, than non-listed funds, as one would expect based on the structures and market dynamics of each.

By contrast, the illiquidity properties of non-listed and direct real estate are more comparable.

However, the volatility in the Amihud showed that the variation in illiquidity of non-listed real estate

'Substantial difference in the time-variation of returns and illiquidity of funds versus listed suggests there is potential for diversification'



funds is greater than that of listed and direct real estate, with the volatility of the Amihud measure being highest for non-listed funds and approximately equal for direct and listed real estate.

For non-listed real estate funds, an annualised average illiquidity premium of 84 bps was observed for the sample of 33 UK non-listed real estate funds which delivered an annualised average return of 9.6%. The findings indicate that these funds generated

an extra 84 bps to compensate for the illiquidity of the non-listed real estate market.

The 84 bps illiquidity premium is an average observed across the funds in the sample. For individual funds, the total risk premium as well as the illiquidity premium would vary, due to differing exposures to equity and real estate market risks, as well as different individual levels of illiquidity. For listed real estate, the research found no statistically significant illiquidity premium.

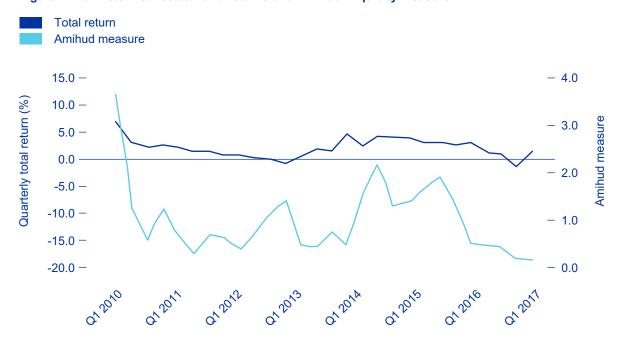
'Investors are compensated for the illiquidity of non-listed real estate funds'

This research was based on a sample of 33 UK non-listed real estate funds over the period from 2010 to 2016.

For further details, contact research@inrev.org

The full report is available to members at inrev.org/research

Figure 2: Non-listed real estate fund returns and Amihud illiquidity measure



'The liquidity risk premium was estimated to be 84 bps per annum on average for the sample of funds in the study'