

# Leverage and underlying properties main drivers of fund performance

- ▶ The underlying market sector and country returns together with leverage are the strongest predictors of fund performance.
- ▶ Gearing has a negative impact on fund returns. For a 10% increase in gearing, fund returns falls by 1.8%. Research also confirms strong asymmetric effects of gearing on fund returns.
- ▶ Macroeconomic drivers and competing asset classes such as stocks, REITs and bonds exhibit positive and significant correlations with fund returns.

## RESEARCH

The growth of non-listed real estate funds over the last decade has helped establish the asset class as a major investment vehicle. Despite the increasing significance of this asset class, there have been few published studies on this topic.

This report aims to provide a better understanding of the key drivers of European non-listed real estate funds performance, which in turn will aid portfolio managers in making more informed investment decisions. It also seeks to understand the extent to which stock selection and management skills contribute to a fund's total return, outperformance and risk adjusted performance.

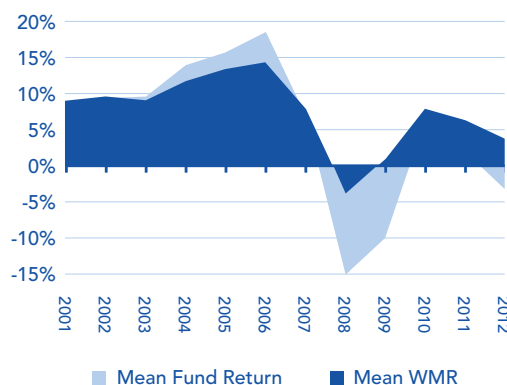
When looking at annual fund returns by style, core funds exhibited noticeably higher and less volatile returns than value-added funds. Compared to core funds, value-added funds take more risk and hence investors expect higher returns. However, the annual median fund return of value added funds between 2001 and 2012 was only 0.6%, less than the median 4.3% returns core funds enjoyed. This is partly driven by the underperformance of value added funds during the Global Financial Crisis (GFC).

Funds are often differentiated based on their level of financial leverage. With higher leverage, funds typically take on higher risk, making the level of debt a primary

attribute of performance. This paper shows that high gearing funds (LTV >50%) exhibited lower median returns compared to low gearing funds (<50%). On a yearly basis, highly geared funds exhibited considerably more volatility in returns, especially during the GFC.

To compare fund returns with underlying market performance, a new variable, the Weighted Market Return (WMR) was constructed by collating the weighted returns of individual sector-geographical specific allocations of each fund for each year.

**EXHIBIT 1: MEAN FUND ANNUAL RETURNS AND WMR**



Source: INREV, Authors' Calculations

Fund returns outperformed the underlying market in 2003-2007 but this relationship reversed after the global financial crisis as funds struggle to outperform the market.

When all variables are analysed in a panel data regression, the Weighted Market Return is a significant predictor of fund returns – for every 1% change in the WMR, fund returns change by 1.1%. The underlying market sector and country returns, as measured by the WMR, are found to be the strongest predictors of fund performance. This means that when selecting funds, investors need to focus on the markets funds invest into as this determines, for the most part, the performance of a fund.

Gearing on average has a negative impact on fund returns. For a 10% change in gearing, fund returns falls by 1.8%. This research also confirm strong asymmetric effects of gearing of fund returns. For each additional 10% of gearing, when fund returns are positive, fund returns are expected to increase by 0.7% on average. But when fund returns are negative they are expected to decrease by 2.9% on average for every additional 10% of gearing.

The results also show that fund size has a statistically significant effect on fund performance but using this fund characteristic in the investment strategy would be quite difficult as for many funds there is no opportunity to gain entry into a larger fund via the secondary market. Alternatively, investors would only be able to use this in their strategy if they could find a way of predicting which of the newer, smaller funds might grow large.

It has also been established that competing asset classes such as stocks, REITs and bonds exhibit positive and significant correlation with fund returns. EU GDP growth EU Bond Yields are found to be significant predictors of non-listed real estate fund returns.

The factors analysed in this report explain more than half of the variation in performance of non-listed real estate funds. Other factors need to be identified and analysed in order to see if a better understanding of fund performance is possible.

It has to be noted that the returns of the non-listed

## OTHER HIGHLIGHTS:

- ▶ Relationship of various factors with risk-adjusted performance
- ▶ Fund performance before and after Global Financial Crisis
- ▶ Detailed analysis of the INREV Index performance
- ▶ Outperformance of funds compared to WMR and IPD
- ▶ Analysis of the relationship between fund strategies/characteristics and performance

sector were affected disproportionately by the Global Financial Crisis, particularly funds with above-average leverage levels. Also the period that was used to analyse the drivers of performance is rather short and it would be interesting to see if in the longer run the same conclusions would hold.

The data set used in this study was provided by INREV, and tracks fund level net performance of European non-listed real estate funds between 2001 and 2012. The data set included funds that categorised themselves as “Core” and “Value added” investing strategies.

This academic paper has been written by Franz Fuerst (University of Cambridge), Wayne Lim (University of Cambridge) and George Matysiak (Master Management Group & Cracow University of Economics).

Going forward INREV plans to invite the academic community to research the European non-listed real estate market in more detail and this is the first in a series of academic papers that INREV plans to publish.

The full report is available to members at [www.inrev.org](http://www.inrev.org)  
For further information contact: [research@inrev.org](mailto:research@inrev.org)

EXHIBIT 2: RESULTS OF ASYMMETRIC GEARING EFFECTS

