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# AVIVA INVESTORS DIVERSIFICATION: FRIEND OR FOE? WHAT ARE THE BENEFITS AND COSTS OF DIVERSIFICATION IN REAL ESTATE PORTFOLIOS?

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## INTRODUCTION & KEY FINDINGS

While the importance of diversification is well known, the answer to the question of **exactly how much diversification is appropriate** for a real estate portfolio is not necessarily obvious. This paper looks at this question and suggests that:

- The goal of diversification is to reduce/eliminate ‘specific risk’ from a portfolio. Equity and real estate studies suggest that this goal can be largely achieved in concentrated portfolios with relatively few holdings.
- Diversification potentially brings diminishing returns and rising costs. Investors need to balance the risk-reduction benefits of adding more holdings against the rising costs of managing larger portfolios.
- In addition, there are considerable potential benefits to holding concentrated portfolios of well-understood assets. Information asymmetry is a key feature of the real estate sector and well-informed investors can exploit their expertise to create value.
- Therefore, less diversification may be appropriate than is commonly thought.
- Investors are increasingly viewing deviation from a benchmark as an opportunity for out-performance rather than just a risk. An increased focus on ‘active share’ measures is indicative of this.
- Measures analogous to active share can be calculated for real estate portfolios and academic evidence suggests that actively managed funds with relatively small, concentrated portfolios and a willingness to deviate from their benchmark tend to out-perform.



## DIVERSIFICATION MAKES INTUITIVE AND SCIENTIFIC SENSE – BUT NOT ALL RISK CAN BE ELIMINATED

While the case that diversification should reduce risk is very intuitive, it is nonetheless worth looking at the theory behind it to determine what diversification can and cannot achieve. By diversification we mean the inclusion of additional assets in a portfolio in order to reduce risk, with risk typically measured by the volatility of returns.

The Capital Asset Pricing Model (CAPM), which applies to all risky asset classes, makes a key distinction between two sources of volatility:

- **Specific risk** is that which is unique to an individual asset such as a particular equity or property. This form of risk is independent from one asset to another. Specific risk can be diversified by combining assets, each with their own idiosyncratic risks, such that this source of risk can be effectively eliminated. As this source of risk can be eliminated through portfolio management, the theory suggests that it shouldn't justify a premium return.
- **Market or systematic risk**, meanwhile, refers to the tendency of individual assets to move together in response to systematic factors that affect all properties to a greater or lesser degree. This type of risk is part and parcel of investing in the asset class and is inescapable. The model suggests that this type of risk does justify a premium return.

The key insight from the theory then is that **specific risk can be eliminated** through the creation of diversified portfolios, **but market risk will remain** even in well-diversified portfolios. As only market risk justifies a premium return, the key concern for an investor in any risky asset class is to ensure that a sufficient number of assets are held, and that those assets are sufficiently uncorrelated, to allow specific risk to be effectively eliminated and total portfolio volatility to approach the level of the overall market.



## WITH DIMINISHING RETURNS AND RISING COSTS, DIVERSIFICATION CAN BE TAKEN TOO FAR

The CAPM clarifies what investors can reasonably expect by diversifying their portfolio holdings. But how many holdings are needed in order to achieve the benefits of diversification?

Equity studies suggest the answer is relatively few. These studies typically show the initial impact of adding more assets to a one-holding portfolio is very great in terms of a reduction in total portfolio volatility. But these reductions tend to tail off quite quickly – in technical terms, there are **diminishing marginal returns to diversification** when it comes to risk reduction. Most studies show that equity portfolios of about 15-20 assets will eliminate almost all specific risk and the addition of further assets has very little impact in this respect<sup>1</sup>. The chart below illustrates this.

For equities, at least, the suggestion is that **relatively concentrated portfolios can attain most of the benefits of diversification**.

Nonetheless, the above does suggest that continuing to add assets will have a beneficial impact on portfolio risk, even if the impact is very small. So why not add as many assets as possible? The answer is in **the potential for excessive diversification**. Adding more and more assets to a portfolio leads to increased costs and potentially reduced returns. At a certain point the negative impact of these factors will outweigh any risk-reduction benefits. Increased costs are likely in the form of higher transaction and management costs in particular. The threat of reduced returns comes from this source as well as the potential for lower investment standards and dilution of best ideas. In short, by overdiversifying investors risk acquiring more assets than can be effectively managed.



<sup>1</sup> Modern Portfolio Theory and Investment Analysis, Elton & Gruber.

## CONCENTRATED REAL ESTATE PORTFOLIOS CAN ACHIEVE THE BENEFITS OF DIVERSIFICATION

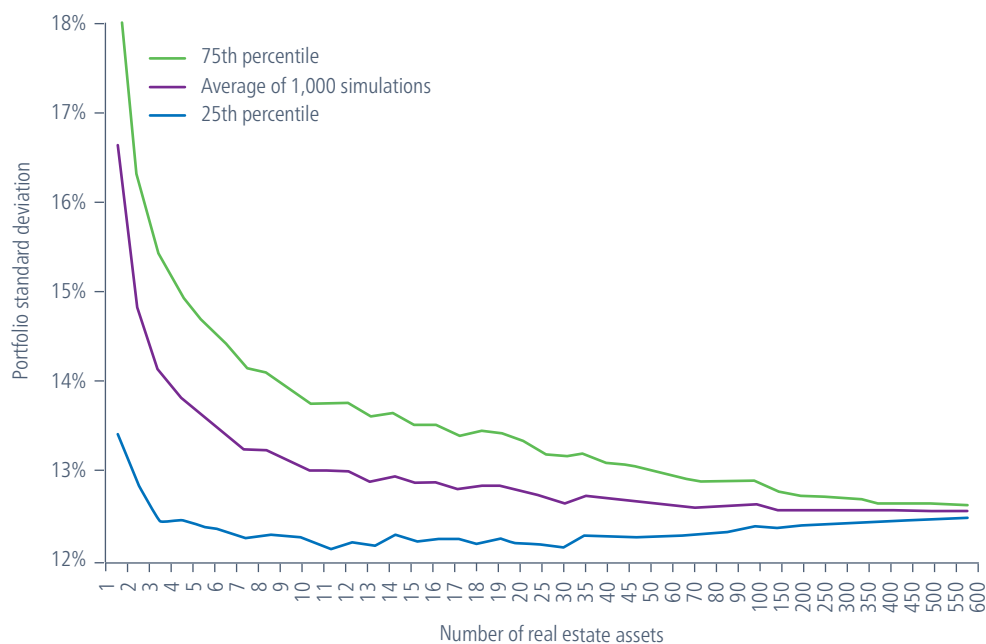
Turning now to direct investments in real estate, what can we say about the benefits of diversification in the construction of real estate portfolios? In particular, can we expect the major benefits of diversification to be achieved in relatively concentrated real estate portfolios, as is the case with equities?

A major study of real estate risk by the Investment Property Forum suggests we can<sup>2</sup>. This study looked at the volatility of returns on over 1,000 properties in the UK over the period 2002-13. For most properties, it found 'the market' is the major risk factor, with specific risk relatively low and, in general, truly idiosyncratic to the property.

Because the specific risks are so different from property to property, this implies that diversification can be achieved very rapidly. The study found that portfolios of 15-20 assets would, on average, have recorded volatility of returns close to that of the overall market, a number that echoes the findings of the equity studies discussed above.

The chart below illustrates the results. Again we see diversification brings diminishing marginal returns and that **the vast majority of diversification benefits are achieved in relatively concentrated real estate portfolios.**

**10-year standard deviations of simulated portfolio's, 2004-2013**



<sup>2</sup> Individual Property Risk, Investment Property Forum, July 2015.

## CONCENTRATED REAL ESTATE PORTFOLIOS OFFER GREATER POTENTIAL TO OUT-PERFORM:

The evidence above suggests relatively concentrated real estate portfolios can achieve most of the benefits of diversification. In addition, we would argue there are **considerable advantages to concentrated real estate portfolios** due to the very nature of physical real estate as an asset class.

Real estate of course differs in many ways from the other major asset classes, equities and bonds, but a number of key differences are relevant here:

- **Heterogeneity** – while all ordinary shares in a company, or all bonds in an issue, are identical, each property is unique. Properties vary by location, use, size, age, construction, tenant etc.
- **Fixed location** – each property's location is fixed and local factors, such as infrastructure, can fundamentally affect its value.
- **Price determination** – in contrast to major equity and bond markets, price in the property market is not determined by the interaction of numerous sellers and buyers for a homogeneous investment. There is limited information available on transaction prices and the volume of transactions is relatively low. Judgment is required when interpreting available transaction evidence and what it might imply for pricing of other properties.
- **Management obligations** – while ownership of a share bestows rights, such as voting rights, it does not generally come with obligations. By contrast, ownership of physical real assets comes with significant management obligations such as rent collection, maintenance, rent reviews and lease negotiations.

While these features of real estate clearly give rise to management costs, we would argue they also generate very significant opportunities to create value. They create an asymmetry of information in the real estate industry which is generally not found in other asset classes. Active real estate investors acquire information that is not readily publicly available and can use this information to create value. We suggest this is best done in concentrated portfolios by giving investors:

- In-depth knowledge of their assets, with much of this knowledge unavailable to other parties;
- In-depth knowledge of the markets that their assets are situated in. Real estate remains a local asset defined inherently by its location, and the greater an investor's understanding of local dynamics, the greater the potential to drive performance;
- Greater potential for asset management. In a relatively concentrated portfolio, asset management resources can be focused where they have most potential to add value;
- Greater potential to spot and exploit mis-pricing;
- The opportunity to focus on their best ideas.

We would argue that these advantages need to be kept in mind when constructing real estate portfolios. While diversification is certainly advisable, investors should be wary of adding more assets than they can effectively manage and exploit.



## INVESTORS INCREASINGLY WARY OF PAYING FOR PASSIVITY:

The above suggests the potential for performance benefits in concentrated portfolios whose managers make well-studied, high-conviction bets. In addition, it suggests that such portfolios can be constructed without losing the benefits of diversification inherent in larger portfolios.

Investors are increasingly seeking managers who are willing and able to make significant bets. In the wake of the financial crisis, investors are more focused on managers' ability to provide active management. Investors in all asset classes, including real estate, are increasingly wary of paying higher fees for active management while receiving passive 'index-hugging' or low-conviction managers in return.

As a corollary of this, investors are increasingly willing to view a portfolio's deviation from its benchmark as an opportunity for out-performance rather than just a risk. One indication of this is the growing focus on a measure called active share.

Active share measures how much an equity portfolio's holdings differ from the benchmark index constituents. There are three sources of portfolio active share:

- Including stocks that are not in the benchmark;
- Excluding stocks that are in the benchmark;
- Holding benchmark stocks at different weights to the benchmark.

Many institutional clients and consultants now use active share as a tool to help determine if an equity strategy justifies active management fees. For example, if a portfolio claims to be actively managed but has a very low active share, an investor may decide to shift to a low-cost passive index fund instead.



## ACADEMIC EVIDENCE SUGGESTS THAT CONCENTRATED, HIGH-CONVICTION PORTFOLIOS OUT-PERFORM:

With real estate portfolios and benchmarks made up of collections of unique assets, active share as defined above cannot be calculated for real estate portfolios. Nonetheless, analogous measures can be calculated based on a portfolio's sector/segment bets in order to get an idea of fund manager conviction.

In a recent academic study<sup>3</sup>, the deviation of active managers' portfolios from the segment breakdown of their benchmark was calculated for over 250 UK real estate funds for the period 2002-11, a measure that is analogous to active share. Fund performance was compared across the funds. The authors found that:

- Commercial real estate portfolios that are more active (i.e. have segment weights that are least like the index) have outperformed significantly on average;
- This outperformance is not generated by increased risk – the more active portfolios were as well-diversified as typical funds and had slightly lower total volatility on average;

- Though the more active, outperforming funds tended to be smaller in size, their outperformance cannot be explained by fund size alone.

These findings suggest that real estate fund managers whose portfolios look least like the benchmark index create most value for their investors. This outperformance could be due to their ability to identify which segments offer better value, or their ability to build informational advantage (expertise) in certain segments, or a combination of both. The smaller number of holdings in these portfolios suggests they are run by managers who are willing to act with conviction, without benchmarks acting as a constraint on their investment decisions.



<sup>3</sup> How Active is Your Real Estate Fund Manager? – Cremers & Lizieri, December 2013.

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### **Important Information**

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