

# **Investment in real estate**

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## **Project objectives**

Real estate is an important investment asset class for Australian retail and wholesale funds yet there are considerable problems associated with choosing the optimal allocation of real estate in a portfolio. Smoothing of property valuation over time and the lack of liquid markets mean that this asset class poses considerable problems for the statistically minded portfolio manager. This project focuses on the both the REIA housing returns series and Australian listed REIT returns in analysis of the diversification benefits of investing in Australian property with a view to careful analysis of the marginal impact of real estate investment on portfolio performance.

The main objectives of the project are to:

1. Compare the Australian real estate data that exists at present,
2. Analyse regional variation in correlations that exists across the states (Is there benefit to be had from investing in property in one city or across a number of cities?),
3. Test for time-changing variation in correlations that exist between real estate returns and other asset classes.

These questions are important in analysis of how real estate portfolios behave and how these a portfolio of real estate properties will impact on the overall mutual fund portfolio performance where the real estate portfolio is just one component of total invested funds.

### **Ultimate relevance to the finance industry**

The importance of the real estate asset class is particularly apparent when it is realised that mutual in the UK invest around 10% of their funds in real estate while the US investment industry hold about 5% in real estate. (Blake et al. 1999). Australian real estate research has focused on describing the market relative (Higgins 2007), modelling the determinants of real house prices (Bodman & Crosby 2003; Abelson et al. 2005), surveying Australian fund manager attitudes to real estate investment funds (Keng 2004) and assessing the performance of Australian REITs (Higgins & Ng 2009). There is little published analysis dealing with the variation in diversification benefits arising from investment in Australian real estate as part of a diversified portfolio of equities, bonds, cash and other assets.

Comparison of direct and indirect real estate returns in an Australian setting and analysis of time-variation in real estate diversification potential with respect to equity, bonds and cash is of relevance to investors. While it is known that average equity return correlations increase during market crashes, time variation in the correlation between real estate and equity returns is not so well understood. We also seek to determine whether real estate investments provide downside protection similar to bonds and cash when included as part of a large well-diversified portfolio during equity market crashes.

The importance of real estate investment, a major investment asset class for Australian investors, is likely to increase with growth in Australian superannuation contributions and further development of the Australian economy. Individuals often see property as a safe asset for longer-term

investment. Yet, this attraction to real estate is not as evident amongst pension/superannuation fund investors (Blake et al. 1999; Hudson-Wilson et al. 2003).

Of particular importance to this study is the proposition that either direct or indirect real estate returns could be used in analysis of the question of whether real estate should be invested in a large portfolio. The problems of estimating returns earned on a real estate portfolio are considerable, particularly where property is based on professional valuations which tend to dampen the true volatility of the data. This has important implications for identifying the most appropriate real estate investment.

### **Opportunities for private sector involvement**

This is a very small project, essentially a start up grant, and so the opportunity for private sector involvement is limited though much encouraged. The growth of REITs is of particular interest to investors as these provide an alternative investment in property through a listed trust. This is a very important instrument for investors. It would appear that the finance industry will be paying greater attention to real estate investments in the future and that the choice of the form of investment in real estate is an important one in the future.

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