Does the level of inflation affect returns in UK REITs?

Andrew Marshall, a student at the University of Aberdeen, was awarded the IPF Educational Trust (IPFET) dissertation prize in 2012 for the best MSc dissertation on a topic in real estate investment and finance. His dissertation is summarised below.

This article is a summary of the author's MSc dissertation paper, which looks at the return characteristics of several UK REITs and, in particular, how inflation rates affect REIT returns. Do securitised real estate investments provide an inflation hedge or do they act more like equities, with evidence suggesting that these are impacted detrimentally by inflation? To try and establish this, the research looked at four major UK REITs, with emphasis on the effects that the global financial crisis played on the returns of such companies and whether sector-specified REITs and/or diversified REITs reacted differently to the changes felt in the macro economy during the time of crisis.

Data

The research considered four different REITs with differing diversification characteristics in order to establish whether different sectors of real estate reacted differently to the changes level of inflation. These were: British Land (a diversified portfolio); Capital Shopping Centres Group, (retail-specific portfolio); Great Portland Estates (predominantly office-based portfolio); and finally SEGRO (main focus being industrial property). As these REITS were real estate operating companies (REOCs) before REITs were introduced to the UK on 1 January 2007, the company return data prior to that date was used in the analysis, providing a sufficiently long time series to carry out a regression analysis.

Monthly data for opening share prices from as far back as 1990 has been found for British Land (BL), Great Portland Estate (GPE), and SEGRO. Unfortunately data for Capital Shopping Centres Group plc (CSCG) could only be found as far back as July 1992; however this still provides 20 years of data and 265 observations. All this data was sourced from Thomson Reuters Eikon.

The inflation measure used is the Consumer Prices Index (CPI), being the official method of calculating inflation in the UK.

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Methodology

The research used a vector autoregressive model (VAR) to examine the relationship between the variables by taking each one and relating its variation to its own past history and the past values of all the other variables in the system. By using an unrestricted VAR model, it does not enforce any restrictions about which of the variables in the system affects the others. Also researchers do not need to specify whether the variables are endogenous or exogenous, they are all described as endogenous (generated within the model). This means that only lagged variables are used on the right-hand side, therefore all future outcomes and values of the dependent variables can be calculated using only information from within the system.

Results of the analysis

The study produced results that support the argument that securitised real estate is an effective hedge against inflation. Inflation was shown to have no significant affect on the company returns for BL, GPE and SEGRO.

The only REIT where there was a very slightly significant relationship with the level of CPI was CSCG, which has a retail-specific portfolio. This would suggest that increases in the prices of goods reflected in the CPI could have a more direct impact on the retail sector as a whole and therefore any company that has is invested in retail property. The connection could be investigated in future research to obtain a more detailed understanding of the relationship.

For further information and/or to obtain a copy of Andrew's dissertation, please email him:
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