

# **Characteristics of Institutional Investment in Real Estate Investment Trusts**

Prepared for the Real Estate Research Institute

Brian A. Ciochetti  
University of North Carolina  
Department of Finance  
Chapel Hill, NC 27599  
tony@unc.edu

Joint with:

Timothy M. Craft  
James D. Shilling  
University of Wisconsin-Madison  
975 University Avenue  
Madison, WI 53706

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### *Abstract*

*In this paper, we investigate whether the changing composition of institutional demand for real estate investment trust (REIT) stocks can partially explain changes in the relative prices of REIT shares over the period 1993 to 1998. Although there is a substantial literature that examines changes in institutional holdings of common stocks over time, this literature has not been used to investigate the relative return performance of REITs. We observe that institutional investors have a significant preference for REIT shares with greater market capitalization and greater liquidity. We also provide evidence suggesting that these preferences, combined with a tripling of their share of ownership of the REIT market from 1993 to 1998, induced significant changes in the relative prices of REIT shares and returns over this time period.*

There is a substantial literature that examines changes in institutional holdings of common stocks over time. This literature finds that institutional preferences, combined with the rising share of the market held by institutions, are helpful in explaining changes in the relative prices of large stocks and small stocks. However, this literature has not been extensively used to investigate the effect of institutional ownership on the real estate investment trust (REIT) market. This paper is an attempt to submit to analysis the potential contrast present in institutional investors' demand for REIT stocks. In particular, we investigate whether the changing composition of institutional demand for REIT stocks can partially explain changes in the relative prices of REIT shares over the period 1993 to 1998.

In order to examine the investment preferences of institutional investors with regard to REIT stocks, panel data are collected from 13(f) filings as required by the Securities and Exchange Commission (SEC) for institutional investors. As this database does not break out pension plans holdings, we also collect pension plan data from Money Market Directory (MMD). MMD annually conducts surveys on the investment characteristics of over 60,000 U.S. pension plans, endowments, and foundations. Combining these data sources allows for the identification of REIT holdings of pension plans in addition to those of mutual funds, insurance companies and bank trust departments.

Institutional holdings of REITs are found to have grown from about \$5.3 billion in 1993 to more than \$72 billion in 1998, thus representing nearly 53 percent of the outstanding market in 1998. Pension plans are found to be the dominant institutional investor in REIT stocks for both 1993 and 1998, with \$3.9 billion and \$38.6 billion in shares outstanding, respectively. This growth represents nearly a nine-fold increase by pension plans over this period. Pension plans hold on average, nearly twice the number of REITs as do other institutions. All institutions are found to be fairly diverse with respect to their REIT holdings by geography and property type.

In order to test differences in preferences between institutional and individual investors, a Tobit model is specified where the level of institutional ownership is estimated as a function of REIT characteristics, such as market value, dividend yield, payout ratio, leverage, stock-price volatility, per-share stock price, or share turnover. We observe that institutional investors have a significant preference for REIT shares with greater market capitalization and greater liquidity. We also find evidence to suggest that these preferences induced significant changes in the relative prices of REIT shares and returns over this time period. Preferences are found to be similar across most institutions with the exception of banks, who also appear to value prudence issues.

We also estimate wealth elasticities in order to examine the difference in preferences between small and large institutions. We find that for all institutions in 1998, ownership elasticities are greater than 1, suggesting that larger shares of total wealth were devoted to REITs as overall wealth increases. In addition, ownership elasticities are found to be approximately 1.5 times higher for pension plans than mutual funds. As for small and large institutions, it appears that their preferences for equity REITs are similar. However, large institutions are found to exhibit a much stronger preference for mortgage and hybrid REITs, as well as REITs with higher dividends and payout ratios.

We also provide preliminary evidence to suggest that institutional preferences, combined with a tripling of their share of the REIT market from 1993 to 1998, may have induced significant changes in the relative prices of REIT shares and returns over this time period. REITs with characteristics favored by institutions, such as high market values or share volume, appear to have outperformed the REIT market, while REITs with characteristics not favored by institutions, such as high debt levels, underperformed the market. However, further study is needed to firmly link the causality between increasing institutional ownership and overpriced REIT prices in the mid 1990's.