

# Risk and the Performance of Real Estate Investment Trusts: A Multiple Index Approach

Sheridan Titman, Arthur Warga

First published: September 1986

<https://doi.org/10.1111/1540-6229.00395>

Citations: 101

## Abstract

This paper analyzes the returns of a sample of Real Estate Investment Trusts and examines their risk-adjusted performance using both single index (i.e., CAPM) and multiple index (i.e., APT) models. It is shown that while the performance rankings of the investment trusts are not very sensitive to the risk-adjustment model, the actual performance measures do sometimes differ substantially. Unfortunately, because of the high volatility of these real estate investments, the differences in investment performance across trusts generally are not statistically significant.

## REFERENCES

R.L. Brown, J. Durbin, and J.M. Evans. Techniques for Testing the Constancy of Regression Relationships Over Time. *Journal of the Royal Statistical Society Series B*: 149–192, 1975.

[Google Scholar](#)

W. Brueggeman, A. Chen, and T. Thibodeau. Real Estate Investment Funds: Performance and Portfolio Considerations. *AREUEA Journal*: 333–354, Fall 1984.

[Web of Science®](#) | [Google Scholar](#)

N. Chen. Some Empirical Tests of the Theory of Arbitrage Pricing. *Journal of Finance*: 1393–1414, December 1983.

[Web of Science®](#) | [Google Scholar](#)

G. Connor. A Unified Beta Pricing Theory. *Journal of Economic Theory*: 13–31, December 1984.

[Web of Science®](#) | [Google Scholar](#)

P. Dybvig. An Explicit Bond on Individual Assets' Deviations from APT Pricing in a Finite Economy. *Journal of Financial Economics*: 483–496, December 1983.

[Web of Science®](#) | [Google Scholar](#)

M. Grinblatt and S. Titman. Factor Pricing in a Finite Economy. *Journal of Financial Economics*: 497–507, December 1983.

[Web of Science®](#) | [Google Scholar](#)

---

M. Jensen. The Performance of Mutual Funds in the Period 1945–1964. *Journal of Finance*: 167–247, June 1968.

[Web of Science®](#) | [Google Scholar](#)

---

B. Lehmann and D. Modest. The Empirical Foundations of the Arbitrage Pricing Theory I: The Empirical Tests. Working paper, Columbia University, 1985.

[Google Scholar](#)

---

M. Miles and T. McCue. Commercial Real Estate Returns. *AREUEA Journal*: 355–377, Fall 1984.

[Web of Science®](#) | [Google Scholar](#)

---

R. Roll. A Critique of the Asset Pricing Theory's Tests; Part I: On Past and Potential Testability of the Theory. *Journal of Financial Economics*: 129–176, May 1977.

[Web of Science®](#) | [Google Scholar](#)

---

R. Roll. Ambiguity When Performance is Measured by the Securities Market Line. *Journal of Finance*: 1051–1069, September 1978.

[Web of Science®](#) | [Google Scholar](#)

---

R. Roll and S. Ross. An Empirical Investigation of the Arbitrage Pricing Theory. *Journal of Finance*: 1073–1103, December 1980.

[Google Scholar](#)

---

S. Ross. The Arbitrage Theory of Capital Asset Pricing. *Journal of Economic Theory*: 341–360, December 1976.

[Web of Science®](#) | [Google Scholar](#)

---

K. Smith and D. Shulman. The Performance of Real Estate Investment Trusts. *Financial Analysts Journal*: 61–66, September/October 1976.

[Google Scholar](#)

---

R. Sweeney and A. Warga. The Pricing of Interest-Rate Risk: Evidence from the Stock Market. *Journal of Finance*, forthcoming 1986.

[Web of Science®](#) | [Google Scholar](#)

**ABOUT WILEY ONLINE LIBRARY**

[Privacy Policy](#)

[Terms of Use](#)

[About Cookies](#)

[Manage Cookies](#)

[Accessibility](#)

[Wiley Research DE&I Statement and Publishing Policies](#)

[Developing World Access](#)

**HELP & SUPPORT**

[Contact Us](#)

[Training and Support](#)

[DMCA & Reporting Piracy](#)

**OPPORTUNITIES**

[Subscription Agents](#)

[Advertisers & Corporate Partners](#)

**CONNECT WITH WILEY**

[The Wiley Network](#)

[Wiley Press Room](#)