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# THE COST OF CAPITAL, MACAULAY'S DURATION, AND TOBIN'S **q**

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# Abstract

It is shown empirically that the cost of equity capital estimated from the dividend discount model and Tobin's *q* are negatively related. The theoretical relationship between these variables is exploited to determine alternative estimates of the cost of equity capital and Macaulay's duration without having to estimate the growth rate g in the conventional manner. This new approach can readily be implemented for large firms reporting SFAS No. 33 data.

## References

1 Aivazian, V. A., and J. L. Callen. "Investment, Market Structure, and the Cost of Capital." *Journal of Finance* **34** (March 1979), pp. 85–92.

 $\sim$ 

Web of Science®Google Scholar

2 Arditti, F. D. "Risk and the Required Return on Equity." *Journal of Finance* 24 (March 1969), pp. 19–36.

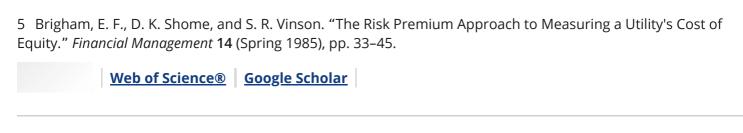
**Google Scholar** 

3 Bar-Yosef, S., and B. Lev. "Historical Cost Earnings versus Inflation-Adjusted Earnings in the Dividend Decision." *Financial Analysts Journal* **39** (March–April 1983), pp. 41–50.

<u>Google Scholar</u>

4 Boquist, J. A., G. A. Racette, and G. G. Schlarbaum. "Duration and Risk Assessment for Bonds and Common Stocks." *Journal of Finance* **30** (December 1975), pp. 1360–1365.

Web of Science® Google Scholar



6 Callen, J. L. "Estimating the Cost of Capital Using Tobin's q." Working paper, McMaster University, 1986.

**Google Scholar** 

7 Falkenstein, A., and R. Weil. "Replacement Cost Accounting: What Will Income Statements Based on SEC Disclosures Show—Part I." *Financial Analysts Journal* **33** (January–February 1977), pp. 46–57.

<u>Google Scholar</u>

8 Falkenstein, A., and R. Weil. "Replacement Cost Accounting: What Will Income Statements Based on SEC Disclosures Show—Part II." *Financial Analysts Journal* **33** (March–April 1977), pp. 48–56.

**Google Scholar** 

9 Fama, E. F., and H. Babiak. "Dividend Policy: An Empirical Analysis." *Journal of the American Statistical Association* **63** (December 1968), pp. 1132–1168.

Web of Science® Google Scholar

10 Farrell, J. L., Jr. "The Dividend Discount Model: A Primer." *Financial Analysts Journal* **41** (November–December 1985), pp. 16–25.

**Google Scholar** 

11 Gordon, M. J. *The Investment, Financing, and Valuation of the Corporation*. Homewood, Ill.: Irwin, 1962.

**Google Scholar** 

12 Gordon, M. J. *The Cost of Capital to a Public Utility*. East Lansing, Mich.: Michigan State University Public Utility Studies, 1974.

**Google Scholar** 

13 Gordon, M. J., and L. I. Gould. "The Cost of Equity Capital: A Reconsideration." *Journal of Finance* **33** (June 1978), pp. 849–862.

Web of Science® Google Scholar

14 Lindenberg, E. B., and S. A. Ross. "Tobin's *q* Ratio and Industrial Organization." *Journal of Business* **54** (January 1981), pp. 1–32.

Web of Science® Google Scholar

15 Lintner, J. "Distribution of Incomes of Corporations Among Dividends, Retained Earnings and Taxes." *American Economic Review* **46** (May 1956), pp. 97–113.

Web of Science® Google Scholar

16 Myers, S. C. "Determinants of Corporate Borrowing." *Journal of Financial Economics* **5** (1977), pp. 247–275.

#### **Google Scholar**

17 Smirlock, M., T. Gilligan, and W. Marshall. "Tobin's *q* and the Structure-Performance Relationship." *American Economic Review* **74** (December 1984), pp. 1051–1060.

Web of Science® Google Scholar

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