Cyprus University of Technology

Department of Commerce, Finance and Shipping

Dynamic Risk, Accounting-Based Valuation and Firm Fundamentals*

by

Jeffrey L. Callen
Joseph L. Rotman Professor of Accounting,
Rotman Faculty of Management, University of Toronto

Abstract

This study extends the accounting-based valuation framework of Ohlson (1995) and Feltham and Ohlson (1999) to incorporate dynamic expectations about the level of systematic risk in the economy. Our model explains recent empirical findings documenting a strong negative association between changes in economy-wide risk and future stock returns. Importantly, the model also generates costs of capital that are solely a linear function of accounting variables and other firm fundamentals including the book-to-market ratio, the earnings-to-price ratio, the forward earnings-to-price ratio, size and the dividend yield. This result provides a theoretical rationale for the inclusion of these popular variables in cost of capital (expected return) computations by the accounting and finance literatures and obviates the need to estimate costs of capital from unobservable (future) covariances. The model also generates an accounting return decomposition in the spirit of Vuolteenaho (2002). Empirically, we find that costs of capital generated by our model are significantly associated with future returns both in and out of sample in contrast to standard benchmark models. We further obtain significantly lower valuation errors in out-of-sample tests than traditional models that ignore dynamic risk expectations.

*** Joint work with Matthew Lyle and Robert J. Elliott.**

Department of Commerce, Finance and Shipping
140 Ayiou Andreou Street, P.O.Box. 50329, 3603, Lemesos
Tel. 25002543 Fax. 25002766 Email. cfs.seminars@cut.ac.cy