Financial Analysts Journal ›
Volume 63, 2007 - Issue 5

Equity Investments

The Adjusted Earnings Yield

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Pages 54-68 | Published online: 02 Jan 2019
Cite this article https://doi.org/10.2469/faj.v63.n5.4840

Abstract

The earnings yield, determined by the ratio of reported earnings to price, is frequently used to predict real return. Complications characterize the predictions, however, because reported earnings are not real. This research identifies an adjusted earnings yield that ensures that real return can be determined as a ratio of current-period prices. From fre … s-yield series is … is measure is a muc … ation measure

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An accounting adjustment and a debt adjustment are both necessary to convert reported earnings into a measure of real profitability. The accounting adjustment converts reported earnings into a current-cost (or replacement-cost) accounting system. The debt adjustment corrects for the impact that inflation has on the real value of creditor claims. Adjusted earnings are, then, the sum of reported earnings, the accounting adjustment, and the debt adjustment. The adjusted earnings yield, determined as the ratio of adjusted earnings to equity value, ensures that real return is determined as a ratio of current-period prices.

Using freely accessible and publicly disseminated data, I created an adjusted-earnings-yield series for the U.S. equity market. I used a predictive regression model to test the hypothesis that this valuation measure is superior to other commonly used valuation measures as a predictor of future real equity returns. Statistical tests confirm that it is, indeed, a better measure, particularly when the goal is to forecast near-term real returns.

The article also provides evidence that the accounting and debt adjustments made to reported earnings are each important considerations if the goal is to accurately forecast real equity returns. Results of the predictive regression models indicate that the coefficient estimate for the accounting adjustment variable is statistically significant for all the time horizons considered and the coefficient estimate for the debt adjustment variable is statistically significant at longer time horizons. Although the regression results suggest that the accounting adjustment is the more important adjustment, the debt adjustment was actually found to be more highly positively correlated with future real retu [illegible] horizon.

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a real return of 6.1 percent. But forecasts change quarterly with the arrival of new data, and the current economy raises some concerns. Recent trends in fixed capital investment and borrowing suggest a slowing of the U.S. economy, which may adversely affect share prices.

Notes

[1] In his 1984 annual letter to investors in Berkshire Hathaway, Warren Buffett wrote that for companies with outstanding businesses, solid financials, and an undervalued stock, "no alternative action can benefit shareholders as surely as share repurchases." (Available online at http://www.berkshirehathaway.com/letters/1984.html.)

[2] Mauboussin cited corporate reports, Empirical Research Partners, Bernstein Research, FactSet Research Systems, and Legg Mason Capital Management estimates as sources for these data.

[3] For simplicity, I assume that the nominal rate of interest is the real rate of interest plus the expected rate of inflation. I have ignored the cross-product term from the well-known Fisher (1930) effect.

[4] Credit for Equation 5 should largely be given to Modigliani and Cohn (1979). They identified the necessary debt adjustment, ρD, with mathematical rigor, and the
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is reasonable. Desai (2003) found substantial differences between book income and tax income.

[7] The match between the BEA and Federal Reserve data appears to be good but not perfect. I assumed that any differences between BEA and Federal Reserve data are minor and can be ignored.

[8] The BEA switched from a fixed-base-year method to simplified chain weighting in 1995, primarily because of a dramatic fall in computer prices. The BEA calculates growth for a year itself and for the preceding year. The chain-weighted growth for a year is an average of the two.

[9] All the regressions in this section were also carried out with real returns for the S&P 500 used as the dependent variable, with results that are substantially the same as those reported for the CRSP value-weighted index.

[10] Comparisons with Shiller's work in this study were included primarily at the request of an anonymous referee. No criticism is intended, and all readers should understand that I view Shiller's contributions as very valuable and timely. My views are similar for the contributions of Smithers and Wright (2000).

[11] A predictive regression analysis similar to that described previously indicated that the reciprocal of AEY(10) is a superior predictor of real returns than is P/E(10). Incorporating a moving average of real adjusted earnings introduces another empirical problem, however, because the explanatory variable now reflects data from overlapping periods. Using the actual inflation rate to determine real adjusted earnings and real

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[14] Accelerated depreciation methods for tax accounting have been in place since 1954. The current Modified Accelerated Cost Recovery System has been in place since 1986 (with some revisions). Following the terrorist attacks of 11 September 2001, the U.S. Congress enacted the Job Creation and Worker Assistance Act of 2002, which temporarily changed how depreciation is charged for property acquired after 10 September 2001 and before 11 September 2004 and was put in service before 1 January 2005. The act gave companies the option of charging an additional 30 percent of their original basis to Year 1 depreciation.