Why is the accrual anomaly not arbitraged away? The role of idiosyncratic risk and transaction costs

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Abstract

We show that the accrual anomaly documented by Sloan (1996) [Do stock prices fully reflect information in accruals and cash flows about future earnings? The Accounting Review 71: 289–315] is concentrated in firms with high idiosyncratic stock return volatility making it risky for risk-averse arbitrageurs to take positions in stocks with extreme accruals. Moreover, the accrual anomaly is found in low-price and low-volume stocks, suggesting that transaction costs impose further barriers to exploiting accrual mispricing.

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1. Introduction

In an important contribution to the accounting literature, Sloan (1996) shows that stock prices do not instantaneously reflect the differential persistence of accruals and cash flows. That is, investors tend to overweight (underweight) accruals (cash flows) when forming future earnings expectations only to be systematically surprised when accruals (cash flows)
turn out, in the future, to be less (more) persistent than expected. As a result, high (low) accruals firms earn negative (positive) abnormal returns in the future. Subsequent research has argued that sophisticated information intermediaries such as auditors, stock analysts, and even short-sellers do not fully appreciate the information in accruals for future earnings (Bradshaw et al., 2001; Barth and Hutton, 2004; Teoh and Wong, 2001; Richardson, 2003). These findings raise the question of what stops arbitrageurs from taking trading positions to eliminate accrual mispricing.

In this paper, we examine two potential explanations for why arbitrageurs might shy away from fully exploiting the accrual anomaly: (i) lack of close substitutes; and (ii) transaction costs. In an ideal riskless hedge, the residual variance of returns to the zero-investment hedge left after netting out the long and short position ought to be zero. The arbitrageur can reduce the residual variance of returns in the hedge portfolio if he can find close substitute stocks whose returns are highly correlated with the returns of the firms subject to accrual mispricing. However, identifying such substitutes turns out to be a difficult task in practice.

Following Pontiff (1996) and Wurgler and Zhuravskaya (2002), we use the idiosyncratic portion of a stock’s volatility that cannot be avoided by holding offsetting positions in other stocks and indexes (specifically, the residual from a standard market model) as a proxy for the absence of close substitutes. Idiosyncratic risk is relevant to arbitrageurs in our model because we assume that arbitrageurs are risk averse and hold relatively few positions at a time (as in Pontiff, 1996; Shleifer and Vishny, 1997; Wurgler and Zhuravskaya, 2002; Ali et al., 2003; Mendenhall, 2004). We find that the idiosyncratic stock return volatility of stocks, a proxy for idiosyncratic risk, in the extreme deciles of accruals is twice as high as those of firms in the median accrual decile suggesting that the extreme accrual stocks lack close substitutes. Such an absence of close substitutes is likely to create barriers to arbitraging away accrual mispricing. Consistent with this conjecture, the accrual hedge strategy of assuming a long (short) position in low (high) accruals decile earns an annualized return of 14.4% when stocks in the extreme accrual portfolios have high idiosyncratic volatility relative to 3.6% when stocks in the extreme accrual decile portfolios have low idiosyncratic volatility.

To further illustrate the impact of the absence of substitutes on portfolio allocation decisions of an arbitrageur, we estimate the amount that a hypothetical arbitrageur should tilt his portfolio away from the market index towards the accrual-based portfolio (see Kothari and Shanken or KS, 2003). Such a portfolio improvement obtained by tilting the market index towards an active strategy depends not only on the expected return to the strategy but also on the idiosyncratic volatility of the trading strategy. The mix of return and the idiosyncratic volatility of the accruals spread portfolio is such that the arbitrageur would tilt 50% of his portfolio towards a strategy designed to exploit the spread in returns between the lowest and highest decile of accruals. However, the incremental return to such a strategy, over the market return, is only 2.1% after (i) reducing Jensen’s alphas from the accrual spread portfolios by 50% to account for lack of confidence in the continued future profitability of the strategy; and (ii) standardizing the volatility in the accrual-spread portfolio to equal that of the market. Moreover, such incremental return would be further reduced if transaction costs involved with short selling high accruals stocks were factored into the analysis.

Next, we investigate whether the accrual anomaly is concentrated among stocks with higher transaction costs. We find that the greatest returns from the accrual-spread
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