Journal of Financial Economics 91 (2009) 389–406

Contents lists available at ScienceDirect

Journal of Financial Economics

journal homepage: www.elsevier.com/locate/jfec

Accruals, cash flows, and aggregate stock returns ☆

David Hirshleifer [a], Kewei Hou [b,*], Siew Hong Teoh [a]

[a] Merage School of Business, Irvine, CA 92617, USA
[b] Fisher College of Business, Ohio State University, Columbus, OH 43210, USA

ARTICLE INFO

Article history:
Received 28 April 2006
Received in revised form
24 September 2007
Accepted 13 November 2007
Available online 3 December 2008

JEL classification:
G12
G14
M41
M43

Keywords:
Aggregate stock returns
Accruals
Cash flows
Discount rates
Behavioral finance

ABSTRACT

This paper examines whether the firm-level accrual and cash flow effects extend to the aggregate stock market. In sharp contrast to previous firm-level findings, aggregate accruals is a strong positive time series predictor of aggregate stock returns, and cash flows is a negative predictor. In addition, innovations in accruals are negatively contemporaneously correlated with aggregate returns, and innovations in cash flows are positively correlated with returns. These findings suggest that innovations in accruals and cash flows contain information about changes in discount rates, or that firms manage earnings in response to marketwide undervaluation.

© 2008 Elsevier B.V. All rights reserved.

1. Introduction

There is strong and robust evidence that the level of accruals is a negative cross-sectional predictor of abnormal stock returns (Sloan, 1996). The accrual anomaly has been extended and applied in numerous papers in financial economics and accounting. Furthermore, there is evidence that the other component of earnings, cash flows, is a positive cross-sectional predictor of returns (Desai, Rajgopal, and Venkatachalam, 2004; Pincus, Rajgopal, and Venkatachalam, 2007). In this paper, we test whether the accrual and cash flow effects extend to the market level, and whether the behavioral explanation for the firm-level effects can explain our aggregate evidence. In addition to examining whether aggregate accruals and aggregate cash flows predict aggregate stock returns, we test whether innovations in aggregate accruals and aggregate cash flows are contemporaneously associated with aggregate returns, as would be implied if accrual innovations and cash flow innovations are correlated with shifts in discount rates.

An explanation that has been offered for the firm-level accrual and cash flow effects, the earnings fixation hypothesis, holds that naïve investors fixate on earnings and fail to attend separately to the cash flow and accrual components of earnings. Since the cash flow component of earnings is a more positive forecaster of future earnings than the accrual component of earnings (Sloan, 1996), investors who neglect this distinction become overly optimistic about the future prospects of firms with high accruals but low cash flows, and overly pessimistic about

☆ We are grateful to the anonymous referee, Joe Chen, D. Craig Nichols, Sheridan Titman, and seminar participants at University of Illinois, University of Texas at Austin, the 2004 Financial Research Association Meeting, and the 2006 American Accounting Association Meeting for helpful comments. We thank Yinglei Zhang for excellent research assistance.

* Corresponding author.
E-mail address: hou.28@osu.edu (K. Hou).

0304-405X/$ - see front matter © 2008 Elsevier B.V. All rights reserved.
doi:10.1016/j.jfineco.2007.11.009

the future prospects of firms with low accruals but high cash flows.[1] As a result, high accrual and low cash flow firms become overvalued, and subsequently earn low abnormal returns. Similarly, low accrual and high cash flow firms become undervalued, and are followed by high abnormal returns.

But does a high level of aggregate accruals induce overvaluation of the entire stock market? Some commentators allege that during certain periods, such as the market boom of the late 1990s, firms managed earnings aggressively, and that auditors and regulators were compliant, thereby allowing firms to increase their earnings relative to underlying cash flows. Also, there is general evidence of aggregate variations in new issue activity, and that firms tend to manage earnings upward prior to new issues (Teoh, Welch, and Wong, 1998). Alternatively, it could be that earnings management is primarily firm-specific, with an aim at achieving managerial goals such as smoothing the firm-specific deviations of earnings performance from that of industry peers.

Even in the absence of aggregate fluctuations in earnings management, we expect to see aggregate variations in accruals, because macroeconomic fluctuations affect firms' operating and reporting outcomes. For example, increases in aggregate demand over the business cycle could lead to increased purchases from firms, which would be manifested in part by an increase in receivables.[2] Furthermore, when consumer confidence is high or when macroeconomic conditions make credit easy, consumers may buy more on credit, increasing aggregate receivables. Alternatively, if firms expect a future rise in aggregate demand, they may accumulate inventories in anticipation, which again are accounted for as positive accruals.[3]

Just as accruals and cash flows have different implications for future earnings performance at the firm level, aggregate accruals and aggregate cash flows can differ in their implications for future aggregate earnings. If aggregate accruals is a less favorable predictor than aggregate cash flows of future aggregate earnings, and if investors neglect the distinction between cash flows and accruals, then high aggregate accruals will cause overvaluation of the stock market, and therefore will predict low subsequent returns. In addition, high aggregate cash flows will predict high subsequent returns. To test these hypotheses, we estimate the abilities of aggregate accruals versus cash flows to predict future aggregate earnings, and test whether the levels of aggregate accruals and cash flows are predictors of aggregate stock returns.

A possible reason to question whether the accrual and cash flow effects will extend to the aggregate level is that investors and macro analysts devote considerable effort to studying the market as a whole, and information costs and arbitrage costs are less significant at the aggregate level. On the other hand, several authors argue that markets should be more efficient in setting the relative prices of stocks than in setting the price level of the aggregate market.[4] Empirically, some firm-level effects (such as poor return performance after equity issuance) do extend to the aggregate level (Baker and Wurgler, 2000), whereas others (such as the post-earnings announcement drift effect, PEAD) become much weaker (Kothari, Lewellen, and Warner, 2006). It is therefore an empirical question whether the accrual and cash flow effects hold in the time series at the aggregate level.

An alternative to the earnings fixation hypothesis is that at the aggregate level accruals and cash flows are correlated with rational variations in discount rates. Since both accruals and cash flows are related to shifts in demand, inventories, and investment activity, a natural hypothesis is that they are associated with business cycle shifts in risk premiums. It is therefore important to control for variables that are associated with business cycle fluctuations and possible shifts in discount rates.

In our aggregate earnings persistence regressions, we find that the accrual component of aggregate earnings is less persistent than the cash flow component, with a difference in coefficients that is much larger than that in the firm-level regressions of Sloan (1996). Thus, the earnings fixation hypothesis at the aggregate level predicts that aggregate accruals will negatively predict aggregate returns, and that aggregate cash flows will positively predict aggregate returns.

We then test the abilities of aggregate accruals and aggregate cash flows to predict aggregate returns using both univariate regressions, and multivariate regressions that control for several business cycle variables that have been proposed as return predictors in past literature. In sharp contrast with the well-known firm-level findings, we find that for the 1965–2005 period, the level of aggregate accruals is a strong positive predictor of aggregate stock returns. Furthermore, the level of aggregate cash flows is a strong negative predictor of aggregate returns.

Our multivariate regressions control for several forecasting variables suggested in past literature: the aggregate dividend-to-price ratio, the aggregate earnings-to-price ratio, the accounting rate of return (earnings/assets), the aggregate book-to-market ratio, the default spread on corporate bonds, the term spread on Treasuries, the equity share in aggregate new issues, and the short-term interest rate.[5] These controls can be viewed as possible proxies for

[1] Earnings management is only one possible reason for the lower persistence of the accrual component of earnings. Thus, the accrual and cash flow effects are compatible with, but do not require, earnings management.

[2] One firm's receivables can be another firm's payables, which can lead to some cancellation at the aggregate level. But since firms transact with individuals as well as other firms, this cancellation is not complete.

[3] Thomas and Zhang (2002) show that the cross-sectional accrual effect is in part related to the level of inventories.

[4] Relative pricing disparities can be identified, for example, using price/earnings comparables, and can be arbitraged with relatively low risk using diversified long-short hedge strategies. Thus, Samuelson (1998) argues that the stock market is "micro efficient" but "macro inefficient." Jung and Shiller (2005) provide evidence in support of Samuelson's claim.

[5] A large literature examines the relation between aggregate cash flow- or earnings-related proxies with aggregate stock returns, including Fama (1990), Schwert (1990), Kothari and Shanken (1992), Hecht and Vuolteenaho (2006), and Sadka (2007). Keim and Stambaugh (1986),

دریافت فوری ← متن کامل مقاله

ISIArticles
مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات