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Post-earnings announcement abnormal return in the Chinese equity market

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ABSTRACT

This study examines the profitability of trading on earnings surprises in the post-earnings-announcement period in the Chinese stock market from 1994 to 2009. We find that a post-earnings-announcement drift (PEAD) anomaly exists in China. When earnings surprise is defined relative to analyst forecasts, a hedge strategy of going long the top quintile of earnings surprise stocks and short the bottom quintile of earnings surprise stocks can generate around 9.5% excess return in 1 year following the earnings announcements. When earnings surprise is defined relative to time-series model forecasts, a hedge strategy of going long the top quintile of earnings surprise stocks and short the bottom quintile of earnings surprise stocks can generate around 9% excess return in 1 year following the earnings announcements. The return from trading on earnings surprise is robust to the inclusion of beta, firm size, book-to-market ratio, momentum, liquidity and transaction cost measures, state ownership, cross-listing and accounting standards. There is evidence that the magnitude of PEAD increases in the level of arbitrage risk and decreases in the level of foreign ownership. We also find that PEAD is strongly related to firms' future financial performance.

1. Introduction

This study investigates stock returns subsequent to large earnings surprises in China with earnings surprises defined relative to either analyst consensus forecasts or time-series model forecasts. We

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find that firms with large positive (negative) earnings surprises exhibit significant positive (negative) abnormal returns up to 1 year subsequent to the earnings announcements. Specifically, a hedge portfolio that takes a long position in the top quintile of earnings surprises and a short position in the bottom quintile of earnings surprises returns more than 9% in the year following the earnings announcements. The relation between earnings surprises and post-earnings-announcement abnormal returns is robust to controls for several firm characteristics and risk factors such as beta, firm size, book-to-market ratio, price momentum, trading liquidity, transaction costs, state ownership, cross-listing, and accounting standards under which earnings are prepared. There is strong evidence that the price-earnings relation in the post-earnings-announcement period is more eminent when arbitrage risk, as proxied by the idiosyncratic volatility of stock returns, is high or when an earnings surprise is negative. We interpret these findings as impediments to arbitrage activities and the lack of short-selling activities in the Chinese equity markets partially driving post-earnings-announcement abnormal returns. We also document that the price-earnings relation in the post-earnings-announcement period is lessened when foreign ownership of a firm is high. This finding is consistent with the argument that foreign ownership is associated with more transparent information environment and foreign investors are more prompt than domestic investors in response to new information, yielding more efficient assimilation of earnings information into stock prices. Lastly, we show that current earnings surprises are highly predictive of future financial performance in the following year. Hence, post-earnings-announcement abnormal returns may also represent rewards for future firm performance in the Chinese equity markets.

The seminal study by Ball and Brown (1968) was the first to document that after earnings are announced, cumulative abnormal returns continue to drift upward for positive earnings surprises, and downward for negative earnings surprises. The post-earnings-announcement drift (hereafter PEAD or drift), also commonly referred to as the standardized unexpected earnings (SUE) effect, appears to be a persistent feature of stock returns, at least pertaining to evidence from the United States security markets.[1] The extant literature offers three proposals for explanation of PEAD: (1) the drift is an artifact of methodological shortcomings in the research studies that document the phenomenon (Ball et al., 1993; Jacob et al., 2000); (2) there is an increase in the risk of companies experiencing extreme earnings surprises and the drift represents fair compensation for higher expected return in equilibrium (Ball et al., 1993); (3) investors under-react to value relevant information from earnings announcements or they process the information with a significant delay (Bernard and Thomas, 1989, 1990; Kothari, 2001; Chordia and Shivakumar, 2005).[2]

While the bulk of PEAD literature focuses on the US markets, investigations of PEAD have gradually expanded to other markets outside the United States. Hew et al. (1996) document preliminary evidence that PEAD is present among small firms but not among large firms from a limited sample of 206 companies listed in the London stock exchange over the period 1988–1993. Liu et al. (2003) revisit the topic by employing a larger and more comprehensive sample of 835 firms listed in the London stock exchange over the period 1988–1998 and report that there are significant drifts following earnings announcements of UK firms, regardless of firm size. Booth et al. (1996, 1997) show that post-earnings-announcement abnormal returns are exceedingly higher for positive earnings surprise than for negative earnings surprise in the Helsinki stock exchange. These authors also relate PEAD to several interesting unique features of the Finish market. For example, Booth et al. (1996) find that PEAD is stronger for firms that do not have smooth income series and suggest that PEAD in the Fin-

[1] Bernard and Thomas (1990) report that in the 12 months following earnings announcements, the hedge return of going long the top decile earnings news stocks and going short the bottom decile earnings news stocks is 8%. Examining cumulative market-adjusted returns following earnings announcements and size-adjusted returns, respectively, Foster et al. (1984) document a top decile surprise versus a bottom decile earnings surprise drift of around 8–10 basis points per day, or around 5–6% per quarter.

[2] Bernard and Thomas (1990) test the drift with a diverse array of robustness risk adjustment procedures and conclude that much of their evidence cannot plausibly be reconciled with arguments built on risk mismeasurements. In a comprehensive review of the literature, Kothari (2001) concludes that the drift has survived rigorous testing over more than 30 years. The author also suggests that the drift cannot be fully explained by other documented anomalies. Thus, it appears that the conclusion that investors under-react to value-relevant information from earnings announcements or process such information with a significant delay is the prevalent explanation for this anomaly.