Momentum Trading, Mean Reversal and Overreaction in Chinese Stock Market

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Summary

This paper studies momentum and mean reversal in the Chinese stock markets. We adapt a simple time-series model to capture both the short-term and long-term dynamics of Chinese stock prices in a unified framework. Pure mean reversion and pure momentum can be treated as special cases that are nicely nested in the general specification. We use the model to study the relative importance of momentum and mean reversion and the profitability of the associated investment strategies in Chinese stock markets.

Using daily data for all "A" share stocks traded on the Shanghai Stock Exchange, we find that the pure momentum strategy in general does not produce significant excess returns. On the other hand, we find strong mean reversion, with an average half-life of 232 days, which is substantially shorter than the average half-life estimated for stocks in developed markets. A pure contrarian strategy yields positive excess returns for the arbitrage portfolio. The excess returns are statistically significant at the 5% level for holding periods of 6-12 months. Adding momentum to mean reversion substantially improves the performance of the arbitrage portfolio. Our baseline case (12-month ranking and 12-month holding) produces an annualized excess return of 22.2%, which is statistically significant at the 5% level. The arbitrage portfolio has a positive loading on the market risk factor, but the beta risk in general explains less than half of the excess returns. The findings for the "A" share stocks traded on the Shenzhen Stock Exchange are even stronger. Our results of strong mean reversion seem to support the overreaction hypothesis.