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Industry herding and momentum strategies ☆

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ABSTRACT

This paper evaluates the impact of industry herding on return momentum. While the findings support that winner industries outperform loser industries in subsequent months, we find that the profitability of industry momentum strategies depends on the level of herding in an industry. Loser industries with high level of herding yield significantly lower subsequent returns than loser industries with low level of herding while no significant difference in subsequent returns is observed for winner industries across low and high herding levels. The asymmetry in the relationship between herding and momentum returns is in fact the driving factor behind profitable, zero-cost momentum strategies and suggests that the level of herding in an industry must be considered in the implementation of industry momentum strategies.

1. Introduction

Momentum effect in stock returns has been the topic of numerous studies in the asset pricing literature. Starting with the pioneering works of Jegadeesh and Titman (1993) and Asness (1994), the literature has presented compelling evidence on the relationship between a stock's return and its recent historical performance, suggesting profitable trading strategies based on long positions in winner and short positions in loser stocks over the previous 1–12 months. Later, Carhart (1997) formalizes the momentum effect in returns by documenting a significant momentum factor in the cross-section of stock returns even in the presence of the well-known size and value factors.

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The literature has offered several behavioral explanations for the momentum effect.[1] Earlier papers including Daniel et al. (1998) and Hong and Stein (1999) have suggested behavioral drivers including overconfidence or underreaction to information in order to explain the momentum effect. On the other hand, Hong et al. (2000) suggest a gradual information diffusion model that helps explain return momentum and reversals while Hvidkjaer (2006) argues that the behavior of small traders can partially explain the momentum effect. Similarly, Sadka (2006) finds that the ratio of informed traders to noise traders can help explain a significant portion of momentum returns. On the other hand, in an early paper, Nofsinger and Sias (1999) suggest that mispricing due to herding can also lead to price momentum and excess volatility. Indeed a large literature documents evidence of herd behavior among market participants particularly in emerging stock markets due to a number of institutional and market issues including market transparency, liquidity, among others.[2] Interestingly, however, the relationship between herd behavior and the momentum effect in emerging stock markets has not yet been fully explored despite the consistent evidence of herd behavior in emerging stock markets.

Bikhchandani and Sharma (2001) define herd behavior as an obvious intent by investors to copy the behavior of other investors and suggest that it would be more likely to occur at the level of investments in a group of similar assets (e.g. stocks of firms in an industry or in a particular market segment) where investors face similar decision problems and can observe the trades of others. To that end, it can be argued that correlated actions of investors in a market where investors follow the trades of others can further contribute to possible return momentum in that market. In fact, focusing on herding among institutional investors in the U.S., studies including Nofsinger and Sias (1999) and Sias (2004) document that subsequent asset returns follow the direction of the herd resulting in return momentum while others including Dasgupta et al. (2011), Singh (2013) and Brown et al. (2014) document return reversals in the long run as a result of institutional herding.

Moskowitz and Grinblatt (1999) suggest that investors can capture much of the momentum effect through industry portfolios rather than individual stock portfolios and that momentum profits for individual stocks become significantly weak after adjusting for industry effects. On the other hand, Lang and Lundholm (1996) argue that investors may receive signals about a given firm based on information available about other firms in the same industry while Choi and Sias (2009) argue that analysts are usually assigned on an industry basis and that investors usually receive signals regarding fundamental classifications such as industries rather than statistical classifications like size and value. The natural question then is whether the level of herding in an industry is a determinant of momentum returns so that industries that exhibit high level of herding produce enhanced momentum returns compared to industries with low level of herding. The main goal of this paper is to evaluate the impact of industry herding on return momentum by examining data from the Chinese stock market in which industry herding has been documented in numerous studies (e.g. Lee et al., 2013; Yao et al., 2014). While return momentum is verified at the industry level with winner industries outperforming loser industries over intermediate investment horizons, we also find that the profitability of zero-cost momentum strategies indeed depends on the level of herding in an industry. Winner industries for high and low herding levels yield no significant difference in subsequent returns for the next 1, 2, and 3 months whereas loser industries with high level of herding yield significantly lower returns than loser industries with low level of herding. This observed asymmetry in the relationship between herding and momentum suggests that the profitability of industry momentum strategies indeed depends on the level of herding in an industry. While the strategy of taking a long position in winner industries with high level of herding and short position in loser industries with low level of herding yields insignificant subsequent returns, we find that long high herding-winner industries and short high herding-loser industries yield highly significant and positive returns for the subsequent 1, 2, and 3 months. The subsequent returns from the herding-based industry momentum strategy are also found to be significantly higher than those from a plain-vanilla industry momentum strategy, suggesting that the level of industry herding can be utilized to create excess economic value. Similar findings are observed across alternative herding measures and for

[1] A number of papers including Jegadeesh and Titman (2001), Liu and Zhang (2008) and Avramov and Chordia (2006), among others, have suggested risk-based explanations without a definitive clarification.

[2] Studies on herding in emerging markets include Demirer and Kutan (2006) and Tan et al. (2008) on Chinese stocks, Chiang and Zheng (2010) on global stock markets, Balcilar et al. (2013) on Gulf Arab stock markets, and Demirer et al. (2010) on the Taiwanese stock market, among others.