How do momentum strategies 'score' against individual investors in Taiwan, Hong Kong and Korea?☆

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ABSTRACT

We compare the momentum strategies to "naive" uninformed strategies in Taiwan, Hong Kong, and Korea. The high participation of individual investors in these economies makes it an ideal setting to use the score function proposed by Banerjee and Hung (BH, 2011). As in BH we find that the average scores of the momentum profits in these markets are close to zero. In contrast to BH's finding that in the U.S. market the winner stocks get significantly positive scores, we find that in all the three markets the scores of the winner portfolio are statistically insignificant.

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1. Introduction

In this paper we conduct a close scrutiny on the relative performance of momentum strategies and individual investors' strategies in the stock markets in Taiwan, Hong Kong and South Korea.[1] These

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[1] Jegadeesh and Titman (1993, 2001) show the profitability of the momentum strategies that are long in the winner and short in the loser stocks. Many papers have examined the profitability of momentum strategies in countries other than the U.S. (e.g., Rouwenhorst, 1998; Chordia and Shivakumar, 2002; Griffin et al., 2003b).

economies are particularly interesting because individual investors play a significant role in these stock markets. First, domestic individual investors' stock ownership in Taiwan is very high compared to the ownership of domestic financial institutions (40.37% versus 4.99 in 2011 according to the Taiwan Stock Exchange). In Hong Kong the stock ownership number (2,035,000 individuals) and percentage (33.8%) of the adult population reached their highest level in 2011, having been increasing since 1989 when the survey started (see, Retail Investor Survey 2011 published by the Hong Kong Stock Exchange).

Second, in Taiwan the trading conducted by individual investors as a proportion of the total trading volume was 84.41% in 2001. Although it gradually decreases to 62.7% in 2011 (see, the Taiwan Stock Exchange), this figure is still significantly higher than the 14.4% of volume traded by individuals in the U.S. as of 2001 reported by Griffin et al. (2003a, 2003b). In Hong Kong retail stock investors represent 35.7% of the adult population in 2011. Retail investors contributed 22% to total market turnover in 2012–2013, with retail online trading accounted for 39% of total retail investor trading (see, Cash Market Transaction Survey 2012/13). Likewise, in Korea individual investors' trading activity accounts for 79.5% of total share trading volume (see, the Korea Stock Exchange).

Most notably, the overwhelmingly important role of individual investors in these markets has led to investigations and controversies over individuals' trading performance relative to professional asset managers. This is because the financial literature often thinks of individual investors as uninformed traders, while views institutional asset managers as informed traders. One of the most prominent debates is on the profitability of momentum strategies in these Asian countries (see, e.g., Hameed and Kusnadi, 2002; Fu and Wood, 2010; Wang et al., 2010; Chui et al., 2010; Cheng and Wu, 2010, among others). Chui et al. (2010) argue that individualism reflects overconfidence and document that momentum profits are positively related to individualism. For example, in Taiwan where individualism is low (Hofstede's individualism index (HII) score of 17) momentum profits are insignificant, whereas in the U.S. (HII score of 91) where individualism is high momentum profits are significant. In contrast, Barber et al. (2009) argue that the majority of individual investors in Taiwan place aggressive orders, and report that '… all individual trading losses can be traced to their aggressive orders'.

Our aim is to investigate the relative performance of the momentum investors (MIs, hereafter), a particular type of professional or institutional asset managers, and the "naive" individual investors (NIs, hereafter) in the stock markets in these three economies. Individual investors are diverse in their own investing instincts or decision rules, resulting in a wide spectrum of their portfolio returns. The large proportion of individual traders in these markets gives us an ideal experimental environment for our setting of the naive individual investors.

We adopt the score function approach developed by Banerjee and Hung (2011) (BH, hereafter) who demonstrate that the risk-based approach requires a correctly specified asset-pricing model. They argue that the estimated alpha inevitably has an omitted variable bias if a "true" factor is omitted in a model. Banerjee and Hung (2011) demonstrate that the scores of the risk-adjusted return and the raw return are the same. This is very important because the use of the score function does not require the identification of the source of risk and the estimation of factor loadings.[2]

A researcher or an asset management company can directly use the score function to reward or penalize a strategy for performance evaluation. In addition, the score function is robust against return outliers, which is useful when there are extreme return values. Further, an overall increase or decrease in asset returns or a jump in volatility does not affect the score of a strategy. Thus, the momentum strategies do not receive rewards when everyone else in the market does as well; likewise, they are not punished during a period of an overall market crash.

We perform a t-test of the average of the sample scores to examine whether the average scores of the momentum strategies and momentum decile portfolios are significantly positive. We find that in all the three stock markets the momentum profits from buying the winners and selling short the losers receive an average score close to zero. These results are similar to BH's finding that the momentum strategies in the

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[2] Many financial economists take the risk-based approach to analyze momentum and show that momentum profits remain significant in a risk-adjusted sense (e.g., Avramov and Chordia, 2006; Grundy and Martin, 2001; Johnson, 2002; Sagi and Seasholes, 2007). Other studies investigate momentum profits after transaction costs (Korajczyk and Sadka, 2004; Lesmond et al., 2004) or consider liquidity (Sadka, 2006). The theory and empirical evidence from behavioral approach advocate that the deviations from rational behavior can result in momentum (e.g., Chan et al., 1996; Grinblatta and Han, 2005; Hong and Stein, 1999; Hvidkjaer, 2006).