The 52-week high and momentum investing in international stock indexes

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Abstract

A commonly held view is that short-term momentum and long-term reversals in returns are an integrated process [e.g., Barberis, N., Shleifer, A., & Vishny, R. (1998). A model of investor sentiment. *Journal of Financial Economics*, *49*, 307–343; Daniel, K., Hirshleifer, D., & Subrahmanyam, A. (1998). Investor psychology and security market under- and over-reaction. *Journal of Finance*, *53*, 1839–1886; Hong, H., & Stein, J. C. (1999). A unified theory of underreaction, momentum trading, and overreaction in asset markets. *Journal of Finance*, *54*, 2143–2184]. Recently, George and Hwang [George, T. J., & Hwang, C. (2004). The 52-week high and momentum investing. *Journal of Finance*, *59*, 2145–2176] strikingly find that momentum and reversals are largely separate phenomena. Due to the critical importance of this finding to theoretical asset pricing and practical investment decisions, we examine this issue in international stock markets. Differently from George and Hwang (2004), we find that their conclusions may be open to question because momentum and reversals co-exist in the international stock indexes.
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1. Introduction

There is substantial domestic and international evidence of stock momentum at short horizons, the case in which stocks that have performed well (poorly) in the recent past continue to perform

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well (poorly) in the future.[1] Jegadeesh and Titman (1993), Fama and French (1996), and Grundy and Martin (2001) show that risk adjustment, unconditional or conditional, tends to deepen rather than explain momentum.[2] Although Conrad and Kaul (1998) find evidence that momentum is explained by the cross-sectional dispersion in unconditional means (a proxy for expected returns),[3] Jegadeesh and Titman (2002) reject their claim and find that their results are driven by small sample bias.[4] Contrary to Chordia and Shivakumar (2002) who find that momentum can be explained by a set of lagged macroeconomic variables, Griffin, Ji, and Martin (2003) recently find that momentum has little relation to those macro variables.

There is also evidence that stock returns exhibit reversals at longer horizons.[5] Jegadeesh and Titman (1993) find that short-term momentum co-exists with long-term reversals. Motivated by these findings, Barberis, Shleifer, and Vishny (1998) (hereafter, "BSV"), Daniel, Hirshleifer, and Subrahmanyam (1998) ("DHS"), and Hong and Stein (1999) ("HS") propose behavioral models in which short-run underreaction (delayed overreaction) and long-run overreaction are sequential components of the same process by which investors react to information. BSV and DHS emphasize investor cognitive biases, while HS emphasize gradual information diffusion. Hong, Lim, and Stein (2000) and Lee and Swaminathan (2000) find evidence that is consistent with momentum being caused by slow information diffusion. Jegadeesh and Titman (2001) provide further evidence on the co-existence of short-term momentum and long-term reversals, Balvers and Wu (2006) show that combined momentum-contrarian strategies outperform both pure momentum and pure contrarian strategies.

Recently, George and Hwang (2004) propose a new explanation that focuses on an anchor-and-adjust bias. They argue that when good (bad) news has pushed a stock's price near (far from) the reference point (e.g. the 52-week high), investors are reluctant to bid the price higher (lower) even if the information warrants it. [6] But eventually investors correct the initial bias without overreaction. Two important empirical findings are that (1) nearness to the 52-week high dominates past returns in terms of predictive power and largely explains momentum profits, and (2) momentum profits do not reverse when past performance is measured by proximity to the 52-week high. These findings are of great importance. They challenge the behavioral models of BSV, DHS, and HS, because all these behavioral models stress that short-term momentum and long-term reversals are an integrated process.

Nevertheless, over the past 20 years, financial economists have looked at stock return predictability every which way. With so much searching, it is likely, purely by chance, that someone will uncover what looks to be patterns. There are several ways of addressing the data-mining issue. Perhaps the most robust is to perform an out-of-sample test. We take this approach and examine 52-week high momentum investing in international stock indexes. To see whether momentum is due to systematic risk in international stock markets, we adjust risk by the ICAPM, the two-factor model of Fama and French (1998), and the multi-factor models that explicitly take exchange-rate

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[1] See Jegadeesh and Titman (1993), Rouwenhorst (1998), Chan, Hameed, and Tong (2000), Moskowitz and Grinblatt (1999), Jegadeesh and Titman (2001), and Lewellen (2002).

[2] However, Du and Denning (2005) recently find that common risk based on a delayed-reaction model can largely explain industry momentum.

[3] Berk, Green, and Naik (1999) provide a theoretical model in which stocks with high (low) realized returns are those that have high (low) expected returns.

[4] Du and Boyce (2007) further find that sources of momentum are time varying.

[5] See DeBondt and Thaler (1985), Fama and French (1988), Poterba and Summers (1988), and Balvers, Wu, and Gilliland (2000).

[6] Theoretical models taking the same approach can be found in Klein (2001) and Grinblatt and Han (2002).