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Including emerging markets in international momentum investment strategies

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Abstract

Momentum return investment strategies that diversify across countries provide lower portfolio standard deviations and/or increased expected returns. These diversification benefits are larger when adding emerging markets than when adding developed markets, and they are larger than would be suggested by diversifying with long-only portfolios. Using data on almost 16,000 firms from 22 developed and 18 emerging markets over the 1990–2004 period, we confirm the profitability of momentum trading strategies in both developed and emerging markets and document the diversification benefits of including emerging markets in an international momentum portfolio investment strategy.

JEL classification: G15; G11; G12; F3; F21

Keywords: Momentum returns; Investment strategies; International diversification; Emerging markets

1. Introduction

The profitability of momentum trading strategies in many countries throughout the world has been well documented and consequently has been implemented by many institutional investors. Despite considerable research by both academics and practitioners, the source of this profitability remains elusive. Naranjo and Porter (2006) show that although standard risk factor models cannot explain average momentum returns, they do explain a significant portion of the cross-country comovement of momentum returns. This evidence implies that the gains from diversification to a

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strategy that invests in country-neutral momentum trading strategies are a function of the correlation of risk factor payoffs in those countries.[2] Since emerging markets are less integrated than developed markets, the diversification benefits available from including them in international momentum investing strategies should be large. In this paper, we examine the diversification benefits from including emerging markets in an international momentum investment strategy.

Numerous researchers have provided evidence on the profitability of momentum trading strategies in both the U.S. and many other countries around the world (e.g., Jegadeesh and Titman, 1993, 2001; Rouwenhorst, 1998, 1999; Chui et al., 2003; Griffin et al., 2003), but there is no consensus as to the source of these profits. A closely related puzzle is the comovement of country-neutral momentum returns. Rouwenhorst (1998) finds that European and U.S. momentum returns have a correlation of 0.43 during the 1980–1995 period and that by conditioning the returns of a European momentum strategy on the returns to a U.S.-only strategy, the average return of the European momentum portfolio is reduced from 0.93 to 0.65% per month, implying a common component to the two series.[3] Rouwenhorst (1998) argues that these results are consistent with a momentum factor in returns, but "the dependence could also be due to non-zero exposures to other common priced factors (such as SMB), common unpriced factors (industry factors) or a combination of both." However, he leaves an examination of the source of the comovement for future research.

The payoffs of country-neutral momentum portfolios should be correlated if momentum portfolios are exposed to some common, yet unidentified priced or unpriced risk factor and markets are integrated. That is, we expect to see cross-country comovement in the payoffs to country-neutral momentum strategies when markets are integrated and if momentum returns are compensation for systematic risk or if momentum returns have a behavioral or mechanical interpretation but share a common exposure to an unpriced risk factor. Naranjo and Porter (2006) show that much of the correlation of payoffs to country-neutral momentum portfolios can be explained by comovement in risk factors. This result implies that the gains from diversification available to a strategy of pursuing country-neutral momentum trading strategies in multiple countries is a function of the correlation of risk factor payoffs. Since factor payoff correlation is a function of the degree of market integration, including emerging markets in an international momentum trading strategy should have significant diversification benefits.

To examine the diversification benefits from including emerging markets in an international momentum trading strategy, we assemble a large data set that consists of almost 16,000 individual firms from 22 developed and 18 emerging markets over the 1990–2004 period. We verify that country-neutral momentum strategies are profitable for both developed and emerging markets, yielding an average of 56 and 79 basis points per month respectively over the 1990–2004 sample period. This result is consistent with the international evidence presented by Rouwenhorst (1998, 1999) and Griffin, Ji, and Martin (2003). Using both domestic and global versions of a single factor market model, we confirm that simple risk factor models generally do a poor job of explaining the level of momentum returns in both developed and emerging markets, but they do explain a significant portion of the cross-country comovement in country-neutral momentum returns.

[2] Country-neutral momentum is defined as a zero-cost investment strategy long recent winners and short recent losers, where winners and losers are defined relative to all stocks *within* a specific country. Country-neutral does not imply zero beta.

[3] In contrast to Rouwenhorst (1998), Griffin, Ji, and Martin (2003) report low intraregional and interregional correlations of momentum profits, although these correlations are not the focus of their paper. However, Naranjo and Porter (2006) find that the averaging of country-neutral momentum profits within and across regions, across developed and emerging markets, and over time significantly attenuates country-neutral momentum return correlations resulting in low correlations similar to those reported by Griffin, Ji, and Martin.