INVESTMENT POLICY AND PORTFOLIO MANAGEMENT

International Momentum Strategies

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Using data for 2,190 stocks from 12 European countries for the 1978–95 period, the author finds evidence that a diversified relative strength portfolio that invests in intermediate "winners" and sells prior intermediate "losers" earns roughly 1 percent each month. This result prevails for all 12 markets and for firms of all sizes, but return continuation is particularly pronounced for small firms. The excess returns persist for approximately one year and are not attributable to commonly accepted measures of risk. The European experience is similar to studies done on U.S. stocks, which suggests that return continuation in the United States is not a random event.

Prior studies have found evidence of a relationship between past performance and current average stock returns. What remains unclear is why this relationship happens and the exact nature of the relationship. Because these prior studies have used the same database of U.S. stocks and because both return reversals and continuations have been observed, the possibility exists that data snooping accounts for the patterns, rather than an incorrect pricing of risk or information.

Return continuation for U.S. stocks appears unrelated to common factors or risk. Therefore, if return continuation is absent in foreign markets or if, when existing, it can be shown to be tied to risk,

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the U.S. results may be anomalous and without explanation. Using monthly total return data—converted to German marks—for 2,190 stocks from 12 European countries for the 1978–95 period, the author attempts to discern whether time-related patterns common to many environments represent either an incorrectly specified asset-pricing model or an underreaction to relevant information.

Although the number of stocks varies among the countries, with the smallest number of stocks from Denmark (60) and Austria (60) and the largest number of stocks from the United Kingdom (494), the sample accounts for 60–90 percent of each country's market capitalization. Only stocks with a minimum history of 12 months are included and ranked into deciles according to their prior 3-, 6-, 9-, and 12-month returns. Once ranked, the stocks are assigned to 1 of 10 equally weighted portfolios, with Portfolio 1 classified as the lowest past performers (losers) and Portfolio 10 classified as the highest past performers (winners).

Following previous researchers' model designs, the author creates each portfolio with three parts—each consisting of a unit German mark investment in 10 percent of the firms with the highest prior six-month performance as of $t - 3$, $t - 2$, and $t - 1$. At the end of month t, initial holdings are liquidated and replaced with a unit German mark investment in the stocks that outperformed all others during the preceding six months.

For the 1980–95 period, the bottom decile portfolio based on three-month returns underperformed the top decile portfolio by nearly 1 percent a month. Regardless of the interval used for ranking, average returns typically declined as the holding period was lengthened.

Because more than 50 percent of the stocks in the sample were issued by English, French, or German companies and were typically larger than firms in the remaining European markets, the author formed and evaluated country-neutral relative strength portfolios. The results show that country momentum has little impact on return continuation. In contrast, a large percentage of the "winner-

minus-loser" excess return variance is country specific, compelling investors to diversify across countries.

Limited sample size within each country precludes the creation of deciles of firms according to market capitalization, but a more general approach shows that the country-neutral winner-minus-loser excess returns for small stocks are nearly double that of large firms. This finding does not hold for average firms that are not materially different, returnwise, from the overall size- and country-neutral portfolio.

Further tests show that losers tend to have higher betas in good markets and lower betas in bad markets than winners. This finding conflicts with theory that says that the continuation effect, if determined by beta, requires losers to have a higher beta in depressed markets.

In conclusion, the author finds that European and U.S. return continuations are similar, making it unlikely that the U.S. experience is a random event.