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ABSTRACT

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Abstract

International diversification lowers stock portfolio's risk by eliminating nonsystematic volatility without sacrificing expected return. The benefits how much volatility i.e. risk can be diversified depends on the correlations between the countries invested. If the correlations are low they reduce the portfolios risk without eliminating the returns. The problem with diversification is that correlations do not stay constant, they move continually. Some previous studies claim that correlations tend to increase during bear markets. This study investigates how correlations developed from global bull market period 1997-1999 to global bear market period 2000-2002. The hypothesis is that the correlations increased in the same way as it is stated in previous studies. The study also tries to find countries, which correlations progressed controversial among others, i.e. decreased during the bear market and see if the were something peculiar with these kinds of countries. The study is performed with 43 MSCI country indexes.

In this study are 903 correlations from both periods calculated and correlations' averages and medians are compared. The first period's correlations average was 0.22 and the second period's average was 0.53. This difference is tested with confidence interval, Student's t-test and with histograms. All these tests give results stating that the difference, i.e. the increase is statistically remarkable and it can be stated that increase in correlations have not occurred by a coincidence. This is in line with the previous studies. Moreover there were six countries of which correlations decreased, Jordan, Sri Lanka, Russia, Czech Republic, Korea and Mexico. Something unusual in these countries' past performance could not be found that would predict this kind of progress in correlations.

The study shows how stock portfolio risk can be reduced by international diversification. The correlations between the countries involved are crucial and their development determines the benefits of diversification. The study shows that even with a very large number of countries the bear market increase in correlation can not be avoided. Even though the diversification benefits shrink during the hard times they still help the investor to diversify nonsystematic risk without eliminating returns.

Key words	international diversification, correlation coefficient, bull market, bear market
Further information	