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Why International?

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Over the past several decades the cumulative return realized by US stocks has exceeded the cumulative return realized by international stocks. Yet, PMA, as well as other investment managers, still maintains investments in international stocks. Why? First, in investing, the long run is a series of short runs, and random events in the short run can produce big differences in final outcomes. Although US stocks have sometimes outperformed international stocks, the opposite easily could have occurred. Second and more importantly, international stocks deliver significant benefits from diversification.

This note will explore these concepts in a bit more detail. First, we will demonstrate that past returns for US and international stocks are of no use in predicting future returns. Second, we will show that international stocks provide significant benefits in diversifying a portfolio and thereby reducing the risk of a portfolio. Third, we will review the importance of estimating future expected returns in determining a reasonable allocation for risky assets.

To begin, $100 invested in US stocks in December 1969 would have grown to $89,766 by December 2015. The same $100 invested instead in international stocks would have grown to $48,282. US stocks did 100 percent better than international stocks.[1] But it is not a one way street. As my PMA and Wharton School colleague Craig MacKinlay wrote in his May 2016 cover letter, international stocks tend to do better when the US dollar weakens.

[1] The international returns are those of MSCI EAFE NR USD, and the US stock returns are those of S&P 500 TR USD. These indexes include the reinvestment of dividends. December 1969 is the earliest date for which a complete calendar year of monthly returns are available for these indices from Morningstar's data service.

That said, there is no guarantee that history will repeat itself. The key to understanding why is that these cumulative returns are generated one month at a time and monthly returns are independent of each other, just as a series of coin flips are independent from each other. A flip landing heads has no predictive power for the result of the next toss. If you have a bad return in one month, there is no guarantee that you will necessarily realize an offset of a good return in a subsequent month. If you lose 10 percent in a month, your final wealth will be always 10 percent worse than if you had not lost that amount.[2] These monthly returns drive cumulative returns.

Investing is like gambling but with better odds. You always hear of the gambler who has a run of good luck on the roulette wheel and believes that the odds are with him. Intellectually, we all know that the outcome of each spin of the wheel is independent of prior spins. Our gambler's cumulative winnings are the result of a sequence of independent spins.

Back to our example: between 1969 and 2015, the average monthly return of international stocks lagged that of US stocks by only 0.09 percent. A statistician would say this is statistically insignificant, meaning that over the next 47 years, it is perfectly plausible that the average return of international stocks could exceed that of US stocks. In particular, consider that the US advantage over the 1969 – 2015 span can be traced to just 7 out of 564 months where the return of US stocks exceeded the international returns 11.5 percent or more. Could these lucky draws repeat themselves over the next 47 years? Of course, but the odds are against it. This is statistical insignificance.

Even if historical averages have little predictive value in gauging future returns of US and international stocks, we have solid objective and subjective reasons to expect international stocks to be more volatile than US stocks. For one thing, the empirical evidence shows that they have been more risky in the past. For another thing, an investor faces currency risk in international stocks. For still another, US companies often operate in a more stable political environment than their counterparts, and so on.

Even though international stocks are likely to be more volatile than US stocks in the future, international stocks offer the benefits of diversification to improve the return-risk tradeoff—the primary reason to hold this asset class. Despite the greater volatility of international stocks, adding international stocks to a portfolio of US stocks will generally improve the return-risk tradeoff from that of an all US stock portfolio and might even decrease the overall risk.

What is happening is that poor returns on US stocks might be offset by better returns on international stocks. For example, the return on US stocks was -8.72 percent in October 1978, while the return on international stocks was 5.68 percent. Using PMA's current allocation of 20 percent to international, the resulting portfolio return was -5.84 percent, a less extreme result. In fact, the volatility of such a diversified portfolio, as measured by monthly standard deviation of returns over these 47 years, is significantly less than the volatility of a US stock portfolio by itself.

The question remains then – how much does one allocate to international stocks? If we cannot generally use past historical averages to forecast future expected returns, what can we do? Having estimates of future expected returns is critical in constructing a well-diversified portfolio. How much money to put in an asset class like US stocks, international stocks or bonds, depends upon the expected return relative to the risk of that class.

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[2] There is some evidence of mean reversion in monthly returns, which means that following a bad return, the probability of a subsequent good return is slightly increased. As the effect is very weak, this note assumes that a bad or for that matter a good monthly return has no predictive value of subsequent returns.

Fischer Black and Robert Litterman proposed a solution, which exploits the possibility of reliably predicting risk characteristics of security classes. They argue that more risky asset classes should have greater expected returns than less risky assets. Thus, the expected returns of international stocks should be greater than US stocks.

At its last investment meeting, PMA made estimates of the risk of each of its equity asset categories and used the Black-Litterman model to estimate the differential expected returns on its equity asset classes. PMA uses three equity asset classes, listed in order of risk: international, aggressive US, and conservative US. Both quantitative and qualitative analysis indicates that international is the most risky, aggressive equities in between, and conservative is the least risky. Consistent with this ranking, in comparison to the S&P 500, the yearly expected return differential for international equity was 0.7 percent; for aggressive US equities 0.5 percent; and conservative US Equities 0.1 percent.

For these reasons, PMA, like others, includes international stocks in its equity portfolios. Whether international stocks will add return in future years is beyond PMA's forecasting ability. PMA is confident, however, that the diversification benefit of its conservative allocation to international stock will be an effective tool in improving the return-risk tradeoff of its risk-controlled portfolios.