the EDUCATED INVESTOR FEATURE ARTICLE

January 2009

Diversification: Is It Working?

Overview: Diversification has proven to be a winning strategy for most investors, who believe that it will protect them in all bear markets. However, the recent market volatility has shown that is not the case. The following discusses how investors should view diversification.

A common refrain from investors during this financial crisis has been: "I am as diversified as it gets. I have substantial exposure to small-cap, value and international stocks. Yet every single asset class dropped during this downturn. As far as I can tell, there was no protection at all from owning all these asset classes. I would say that diversification does not protect during a steep downturn."

What went wrong? Absolutely nothing. The problem is that many investors do not fully understand the concept of correlation of returns.

Correlation of Returns

Prudent investors build portfolios that include asset classes with low correlation (the measure of the strength of the linear relationship between two variables). Values can range from +1.00 (perfect correlation) to –1.00 (perfect negative correlation). Positive correlation means that when one asset produces positive returns, the other tends to also produce positive returns, and vice versa. Negative correlation means that when one produces positive returns, the other tends to produce negative returns, and vice versa. Thus, the lower the correlation of returns, the more effective the asset class is as a diversifier of portfolio risk. The following table demonstrates the relatively low correlations of the S&P 500 Index to various asset classes.

Indexes	Annual Correlation to the S&P 500 Index
Fama-French Large Value	0.75
Fama-French Small	0.70
Fama-French Small Value	0.52
Wilshire REIT Index	0.18
MSCI EAFE Index	0.61
MSCI Emerging Market Index	0.33

Based on these historical relationships, many investors expect each of these asset classes to do poorly from time to time, but not all at the same time. Unfortunately, these investors make the mistake of not putting enough emphasis on the key words: "tends to."

The problem for such investors is they fail to understand that correlations are not stable; they drift. And while international stocks and emerging market stocks are exposed to some different economic and political risks than U.S. stocks, they are also exposed to some of the same risks that can impact the global economy. When those risks show up (typically during times of financial and/or political crises), correlations among all asset classes tend to turn high. Just when the benefits of diversification are needed most, they go AWOL.

A popular investing expression is that "the only thing you don't know about investing is the investment history you don't know." Knowing the history of returns would have prevented investors from misunderstanding the benefits of equity diversification. The latest financial crisis revealed nothing new about correlations. For example, major equity asset classes produced negative returns during the global recession of 1973–74 as the S&P 500, large-cap value stocks, small-cap stocks, small-cap value stocks and international large-cap stocks fell 37, 26, 53, 41 and 33 percent, respectively. There was no place to hide.

The same thing happened both during the Asian contagion in the summer of 1998 and in the aftermath of the events of Sept. 11. And the systemic risk of equities showed up again when the financial crisis that began with U.S. housing prices falling sharply spread around the world in the summer of 2008. Major equity asset classes experienced dramatic bear markets. In some cases, it was the worst since the Great Depression.

The following table shows the *total return* for various asset classes during each of the aforementioned crises. Note that in each crisis, the correlations of returns rose dramatically. The only difference this time is the depth of the bear market.

Asset Class	July–August 1998 (%)	September 2001 (%)	January–October 2008 (%)
Domestic Large-Cap	–15.4	–8.1	–32.8
Real Estate	–15.8	–4.2	–31.5
Domestic Large-Cap Value	–14.7	–7.8	–29.3
Domestic Small-Cap	–26.0	–14.8	–32.8
Domestic Small-Cap Value	–22.8	–14.4	–24.6
International Large-Cap	–11.5	–10.1	–43.3
International Small-Cap	N/A	–13.3	–47.9
Emerging Markets	–26.7	–15.5	–53.1

The Lesson

Most of the time, risky asset classes do not exhibit high correlation, and many even have very low correlations. Among the asset classes that have low correlation with U.S. equities on average are real estate, international small-cap stocks and emerging market stocks. The reason for the low correlations is that economic and political conditions impact the various asset classes in different ways most of the time. However, in times of global crisis, risky assets tend to correlate highly. And that leads us to the important lesson the markets teach us.

In times of crisis, the only effective diversifier of equity risk is very high-quality fixed income investments. (The safest of which are obligations that carry the full faith and credit of the U.S. government.) During the most recent crisis, while equity asset classes were experiencing severe bear markets, U.S. Treasury instruments were providing positive returns.

Before concluding, there is one more important point we need to address.

Is the Investment World Flat?

The financial media has run numerous stories about the rise in global correlations. The story goes something like "We are becoming one globally integrated economy …" and gives the impression that the benefits of diversification are greatly reduced. It seems that this is becoming conventional wisdom — an idea so accepted that it goes unchallenged. However, before one accepts such "wisdom," we can look at the evidence.

Consider the correlations between the S&P 500 and the MSCI EAFE. From 1970–2007, the annual correlation was 0.586. By dividing the full period in half, we can see if there has been any trend toward rising correlations. From 1970–1988, the annual correlation was 0.623. From 1989–2007, the annual correlation was 0.614. Obviously, there has not been a general rise in correlations. The recent rise in correlations is nothing more than a result of the financial crisis. We have had crises in the past, and we will likely have them in the future. And the correlation of risky assets will likely rise as well.

Conclusion

It is important that investors understand that correlations are not static and are likely to rise to high levels during times of crisis. Thus, the winning strategy is to make sure that portfolios have sufficient allocations to high-quality fixed income assets — an amount sufficient to dampen overall portfolio risk to the level that does not exceed your ability, willingness and need to take risk.

Spanish philosopher George Santayana said: "Those who cannot remember the past are condemned to repeat it." The financial markets have provided investors with lessons to remind them that broad global diversification across equity allocations would not protect them from all bear markets.

Investors who do not have sufficient amounts of high-quality fixed income assets to reduce overall portfolio risk to an acceptable level are likely to fail the tests that the markets provide.

Finally, it is important to understand that even the smartest people make mistakes, but it is a mistake to repeat or perpetuate them. Therefore, investors without sufficient allocations to high-quality fixed income assets that dampen overall portfolio risk to an appropriate level (based on their ability, willingness and need to take risk) should rewrite their asset allocation plans to correct that error.

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