

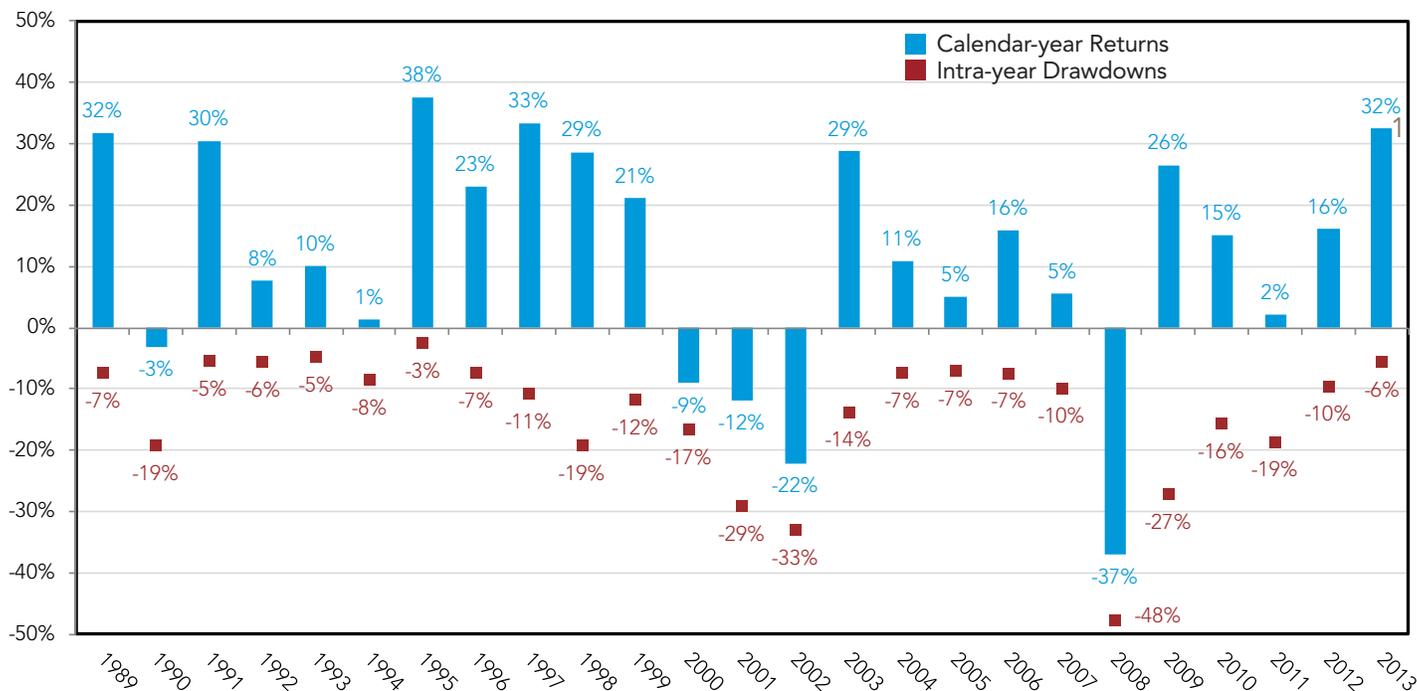
# GREAT-WEST CAPITAL MANAGEMENT, LLC (GWCM) RESEARCH NOTE MAY 2014



## Putting Stock Market Corrections into Context

With the recent equity rally, many investors and the financial press are speculating about future market corrections or, even worse, when this “boom” cycle will “bust.” It makes sense when contemplating these events to look to history for some insight as to what a typical market correction looks like. With volatility so benign in 2013—at times it seemed equities could go nowhere but up—it is prudent for investors to recall that equity markets are inherently volatile. While a 6% pullback was realized during 2013, it was well below the historical average.

### Calendar Year Returns & Intra-Year Drawdowns S&P 500® Index



Source: Morningstar® Direct<sup>SM</sup>

The chart above illustrates calendar-year returns of the S&P 500® Index and its intra-year maximum drawdowns. In a number of cases, equities were able to post impressive year-end returns despite enduring large losses at some point during the year. For example, in 1998, the market returned 29% despite an intra-year pullback of 19%. More recently, in 2010, the market closed the year with a gain of 15% despite an intra-year drawdown of 16%. Over the past 25 years, the average annual return was 12% while the average intra-year pullback was 14%.

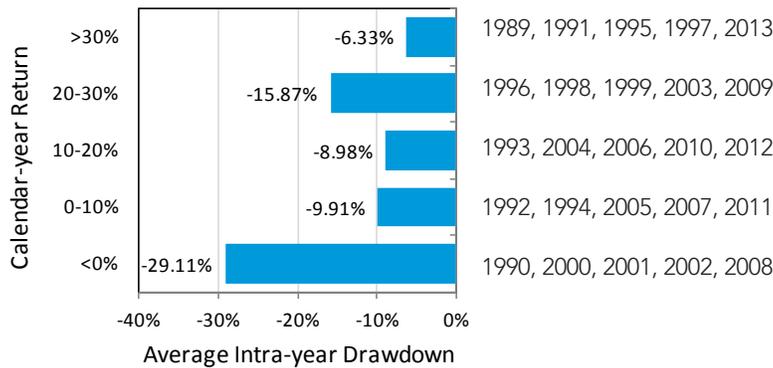
*Over the past 25 years, the average annual return was 12% while the average intra-year pullback was 14%.*

<sup>1</sup> A benchmark index is not actively managed, does not have a defined investment objective, and does not incur fees or expenses. Therefore, performance of a fund will generally be less than its benchmark index. You cannot invest directly in a benchmark index.



Looking at the same data a different way, we arrange the years by their total return and segment them into five distinct groups. There were five years in which the S&P 500 Index posted a loss; five years when it posted a return between 0% and 10%; five years with returns between 10% and 20%; five years with returns between 20% and 30%; and five years with returns greater than 30%. The chart below shows the average intra-year maximum drawdown for each of these classifications. As one would expect, the greatest drawdowns tend to occur in those years with negative total returns and the smallest drawdowns tend to occur in those years with the biggest total returns. However, the “middle” return years are perhaps more surprising. Despite generally good returns in these years, significant mid-year drawdowns have been the norm, rather than the exception.

### Average S&P 500® Index Intra-year Drawdown



Source: Morningstar® Direct<sup>SM</sup>

The S&P 500® Index has retreated by 10% or more in 14 of the last 25 years despite only five of those years finishing with negative returns. This data shows the need for a consistent investment process and highlights the fact that even large market corrections do not necessarily spell doom for the year's return.

*A well-diversified portfolio will still be subject to the daily noise of the equity markets, but having other types of assets in the portfolio, such as bonds, cash, non-U.S. stocks and real estate, can help mitigate some of the downside risk associated with a purely domestic stock investment.<sup>2</sup>*

## HOW CAN YOU PROTECT YOUR PORTFOLIO?

GWCM believes that there are two good answers to this question:

1. **Diversification<sup>2</sup>** – A diversified portfolio is likely to perform better under various (and ex-ante unknown) market scenarios.
2. **Time** – Equity investments are best utilized by long-term investors with a time horizon appropriate for riding out the daily, monthly and annual market noise associated with stocks.

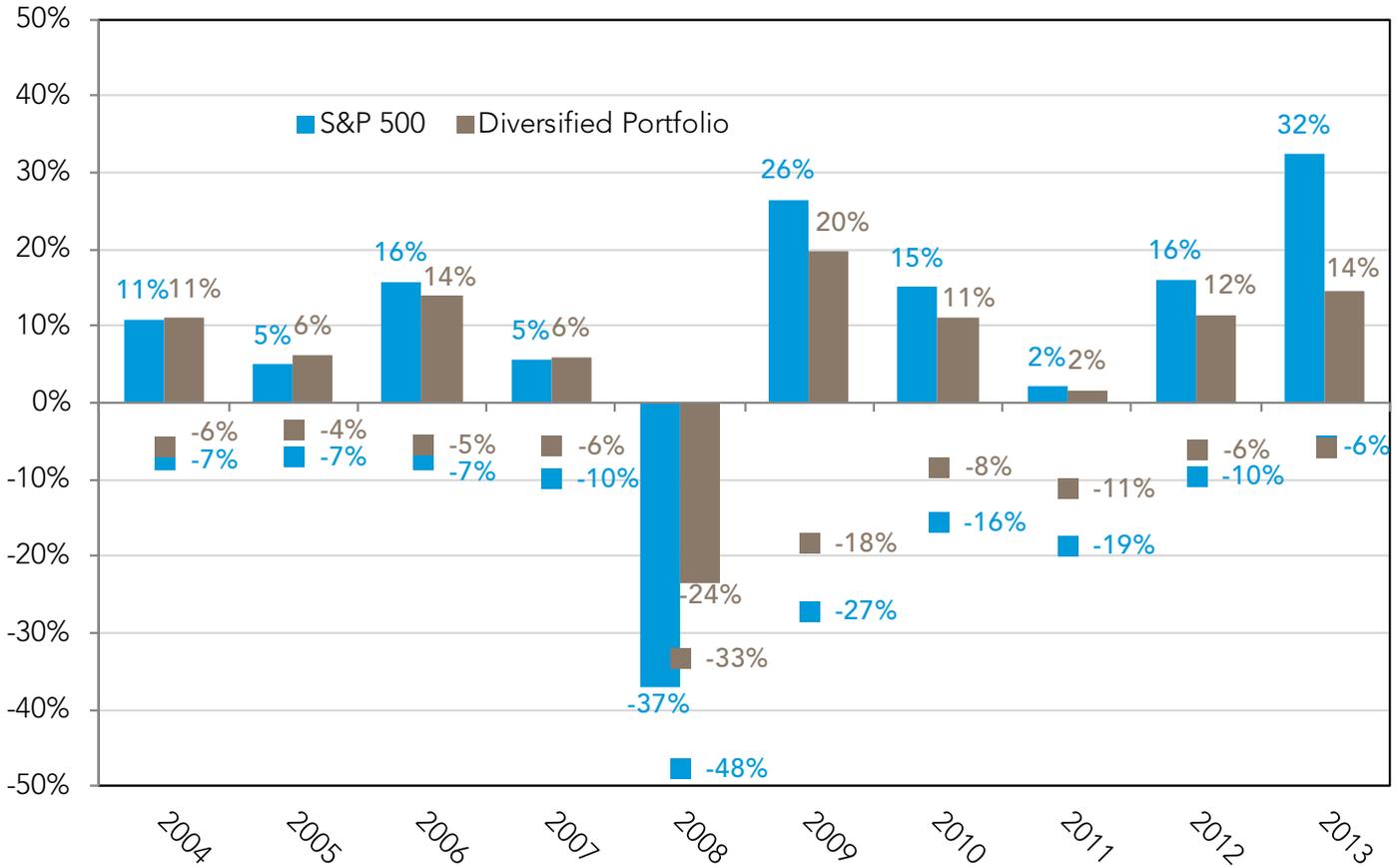
Although various strategies that claim to help limit the downside risk of stocks, have recently been launched in the industry, one caveat is that investors must generally sacrifice some upside in terms of return.

A well-diversified portfolio will still be subject to the daily noise of the equity markets, but having other types of assets in the portfolio, such as bonds, cash, non-U.S. stocks and real estate, can help mitigate some of the downside risk associated with a purely domestic stock investment.<sup>2</sup> Certain types of assets, particularly those with lower correlations to U.S. equity markets (e.g., bonds) have historically tended to “zig,” when U.S. equities “zag,” helping to mitigate the impacts of shorter-term equity market movements on an investment portfolio. The chart on the next page compares annual returns and intra-year pullbacks of the S&P 500® Index and a hypothetical diversified portfolio. For this example, the diversified portfolio uses the following allocations: 35% S&P 500® Index, 20% MSCI EAFE, 5% Dow Jones US Select REIT, and 40% Barclays U.S. Aggregate Bond Index. Pullbacks are significantly lower with the diversified portfolio compared to an all-equity portfolio.

<sup>2</sup> Asset allocation and diversification of an investment portfolio do not ensure a profit and do not protect against loss in declining markets.



## Calendar-year Returns and Intra-year Drawdowns



Source: Morningstar® Direct<sup>SM</sup>

\* In 2013, the drawdown for the diversified portfolio and the S&P 500® Index were both 6%.

Each of the Great-West asset allocation funds<sup>3</sup> invests in a portfolio of diversified underlying funds, spanning various asset classes and markets. GWCM believes that these portfolios, when used appropriately, help long-term investors to benefit in the potential upside to equity markets, while realizing material diversification benefits.

<sup>3</sup> Asset allocation investment options are subject to the risks of the underlying funds, which can be a mix of stocks/stock funds and bonds/bond funds. For more information, see the prospectus and/or disclosure documents.



*Please consider the investment objectives, risks, fees and expenses carefully before investing. For this and other important information, you may obtain mutual fund prospectuses from your registered representative or at [www.greatwestfunds.com](http://www.greatwestfunds.com). Read them carefully before investing.*

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