# Expert Commentary

## Staying the Course During Periods of Market Volatility

*By Chief Investment Officer Jared Kizer, CFA*

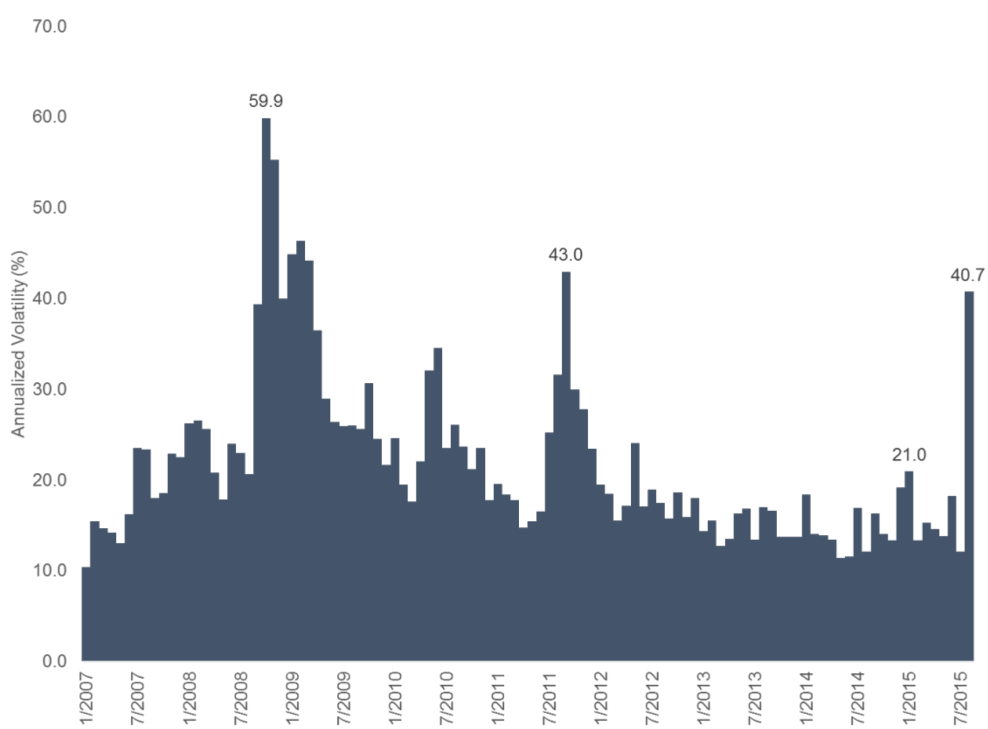
Over the third quarter of 2015, market volatility has escalated and global equity markets have experienced substantial losses. While there are no doubt a multitude of contributing factors, the slowdown in the Chinese economy — the world's second largest— and the sharp pullback in its stock market are contributing factors.

Given the current downturn and increase in stock market volatility, many investors are concerned and wondering whether now is the time to rethink their portfolios. While we believe investors should always make sure their appetite for risk matches the risk embedded in their investment portfolios, market movements alone are not a good reason to alter investment plans. As we show below, stock markets have been and always will be risky. This fact, however, is no doubt one of the reasons that stocks have provided higher returns than bonds.

### Putting Market Volatility in Context

While recent stock market volatility has been high, markets have experienced periods of higher volatility in the recent past. Figure 1 shows historical values of the VIX Index, the market's "fear gauge," over periods going back to 2007.

Figure 1: VIX Index Historical Levels

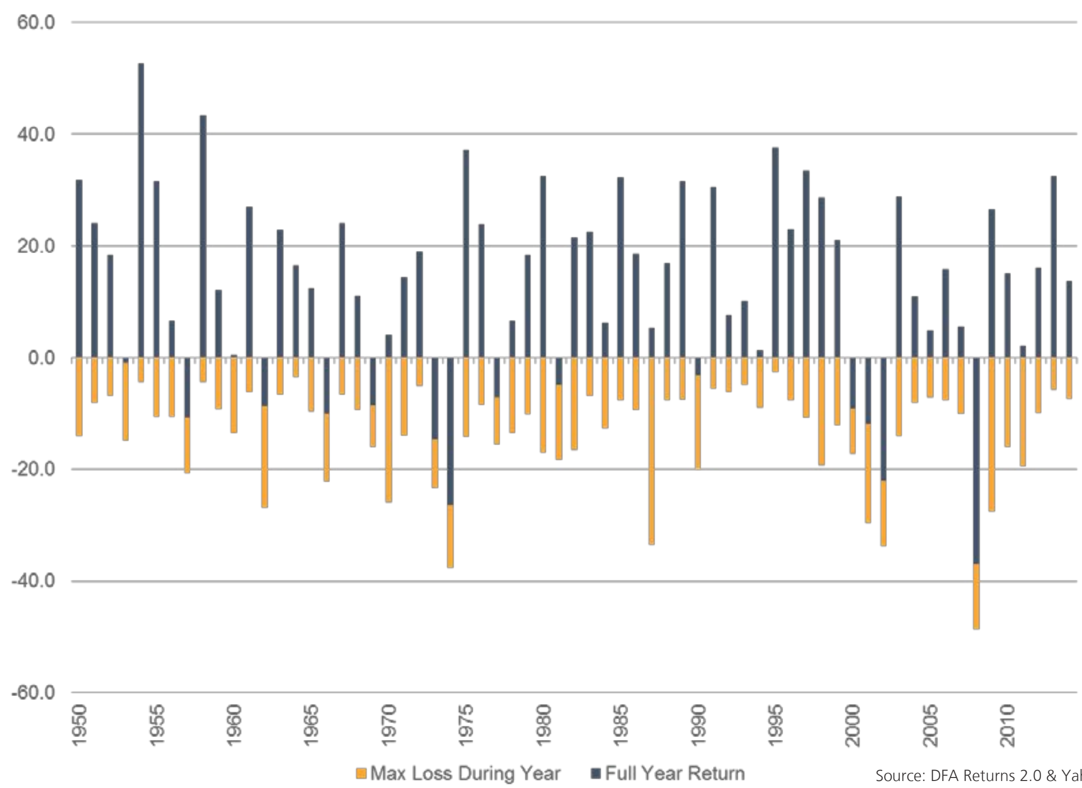



Source: Yahoo! Finance

Historically, the volatility of the stock market has averaged about 20 percent per year. More recently, the market's expectation for volatility has exceeded 40 percent. So volatility has certainly increased beyond its more normal levels. However, Figure 1 shows that market volatility was at similar (and in some cases higher) levels for virtually all of 2008 and 2009 and even as recently as mid-2011. While current volatility is certainly discomforting, investors should be aware that markets have gone through similar, and even more extreme, episodes of volatility in the not-too-distant past.

One other way to get a sense of the market's historical risk is to look at the calendar-year returns of the S&P 500 Index, a gauge of the performance of larger-company U.S. stocks, relative to the largest drawdowns that occurred in each of those years. The "drawdown" is the largest peak-to-trough loss that occurred in each of those years.

Figure 2: Year-by-Year S&P 500 Returns v. Maximum Intra-Year Loss



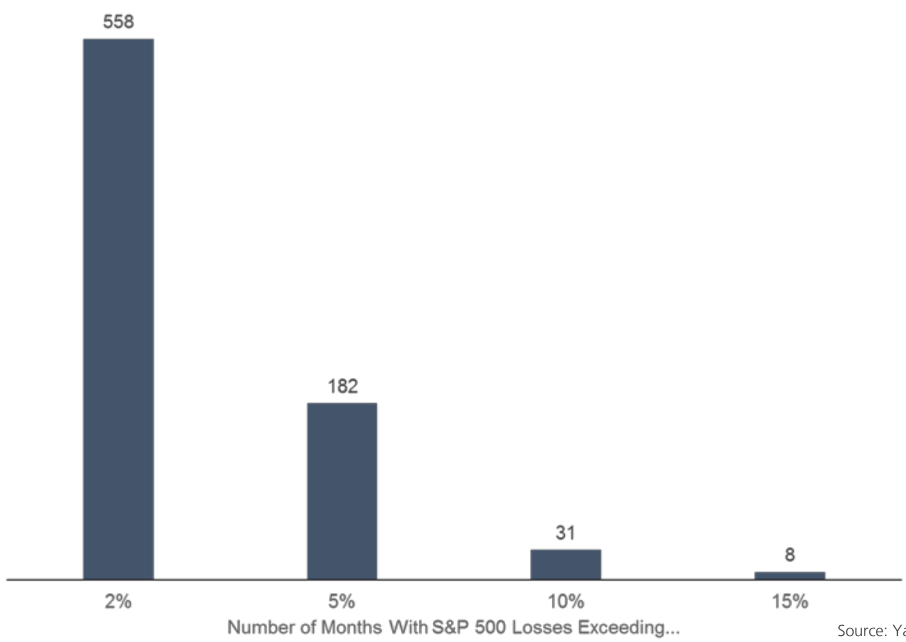

Source: DFA Returns 2.0 & Yahoo! Finance

The blue bars in Figure 2 show, as one might expect, that the S&P 500 has experienced positive returns in the vast majority of years. The orange bars show, however, that in a large number of those years, the market experienced large losses at some point during that year. For example, in 1998 and 1999, the S&P 500 was up 28.6 and 21.0 percent, respectively. In those same years, the S&P 500 had intra-year losses of 19.3 and 12.1 percent. This shows that in virtually all years the market has a substantial "correction," even in some years in which the market is up.

Since investors experience the pain of losses over shorter periods, we can also examine risk over a monthly horizon.

Since 1950, as Figure 3 shows, the S&P 500 has had 558 months with intra-month losses exceeding 2 percent, 182 months with losses exceeding 5 percent, 31 months with losses exceeding 10 percent and 8 months with losses exceeding 15 percent.

Figure 3: Frequency and Size of Intra-Month S&P 500 Losses




Source: Yahoo! Finance

### Can You Time Markets?

When market volatility increases, market timing strategies become appealing. The basic idea is to avoid the downside risk of the market while capturing the upside returns. In practice, though, correctly sidestepping downside risk is very difficult to do and often counterproductive to attempt. In 2008, Vanguard published a paper analyzing the performance of U.S. and European stock fund managers in six bear markets in the United States and five in Europe. Figure 4 reports their findings.

Figure 4: The Performance of Fund Managers in Bear Markets

U.S. Equity Funds

| Bear Market | Number of Funds | % Outperforming Market |
|---|---|---|
| 1/1973 - 9/1974 | 110 | 43 |
| 12/1980 - 7/1982 | 167 | 78 |
| 9/1987 - 11/1987 | 291 | 57 |
| 6/1990 - 10/1990 | 405 | 44 |
| 7/1998 - 8/1998 | 1,082 | 39 |
| 9/2000 - 3/2003 | 1,405 | 60 |
| | Average | 53.5 |
| | Overall Average | 49.0 |

European Equity Funds

| Bear Market | Number of Funds | % Outperforming Market |
|---|---|---|
| 7/1990 - 9/1990 | 37 | 57 |
| 6/1992 - 9/1992 | 81 | 33 |
| 2/1994 - 9/1994 | 128 | 66 |
| 7/1998 - 9/1998 | 378 | 39 |
| 9/2000 - 3/2003 | 796 | 23 |
| | Average | 43.6 |

Source: The Active-Passive Debate. Christopher B. Philips, CFA, Vanguard, 2008.

Vanguard found that the majority of funds underperformed the market during bear markets. Further, this study did not include *all* the funds that were in existence during each period because it could include only the funds currently in existence that were also in existence during each bear market period. If Vanguard could have included all funds in its study, it is probable that more funds would have underperformed the market since the funds that Vanguard couldn't include are likely composed of some funds that went out of business due to poor performance. Because this study finds that professional investment managers struggle to outperform the market during bear markets, we believe such a task would be even more difficult for individual investors. The reality is that it is very difficult to correctly forecast where markets will go and reposition the portfolio accordingly.

**Sticking With Your Plan**

While it is perfectly reasonable to be concerned with recent market volatility, we continue to believe investors are best served by developing a well-thought-out investment plan that reflects their need, ability and willingness to take risk — and sticking to it. While this approach can be challenging to maintain during periods like these, the evidence shows that it is the surest path to achieving your financial goals. It keeps investment costs and taxes low while also making sure the portfolio is always positioned to capture the long-term rewards that markets tend to provide.