Managing Investment Risk in Volatile Markets

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Rising market volatility and the increased frequency of financial crashes have led many investors to ask what can be done to protect their investment portfolios against the risk of loss. In this note, we consider two complementary approaches—diversification and value-based investing—and how we combine them at Artemis to mitigate portfolio risk.

Diversification Reduces Portfolio Volatility

Asset allocation is the distribution of investment capital across market sectors (stocks, bonds, real estate, commodities, etc.). These asset classes represent groups of securities that exhibit similar return and risk characteristics and so can be thought of as a single asset type. Asset class risks include equity risk, credit risk, interest rate risk, liquidity risk, and currency risk. These risks vary over time with the dynamics of the business cycle and markets. For example, equity risk is lowest when the economy is in an upswing, whereas interest rate risk is subdued when inflation is falling and/or growth is slowing. The premium (excess return over risk-free U.S. Treasury Bills) that investors receive for bearing each of these risks also varies over time.

To the extent that these underlying risks are distinct and, therefore, uncorrelated with one another (i.e., do not move in tandem), an investment mix that is diversified across asset classes will diminish a portfolio's volatility. That's because weakness in one market could be completely or partially offset by gains in another. Spreading investment capital across asset classes and/or risk factors is akin to distributing one's financial eggs among different baskets.

Research confirms that diversification does indeed reduce portfolio volatility. And because more-stable portfolios achieve greater compounding of returns, they also deliver higher long-term gains. The essence of strategic asset-allocation strategy is developing a diversified portfolio across asset classes that matches a client's investment objectives and tolerance for risk.

Value-Based Investing Adds Additional Protection

However, relationships among asset classes tend to be unstable, making it difficult to determine whether one is allocating across investments whose risks are truly distinct. Moreover, correlations across asset classes tend to be at their peak when markets are falling rapidly, leaving investors without the benefit of diversification when they need it most. Often, highly correlated market declines (and rallies) occur when asset prices have moved well away from fair value. In such circumstances, diversification may not be sufficient to protect an investment portfolio from severe losses, as was apparent during the financial crisis of 2008-09.

Value-based investing seeks to mitigate risk by reducing a portfolio's exposure to market sectors that have performed relatively well (and are becoming overvalued) while adding exposure to those that have lagged behind (and are becoming undervalued).

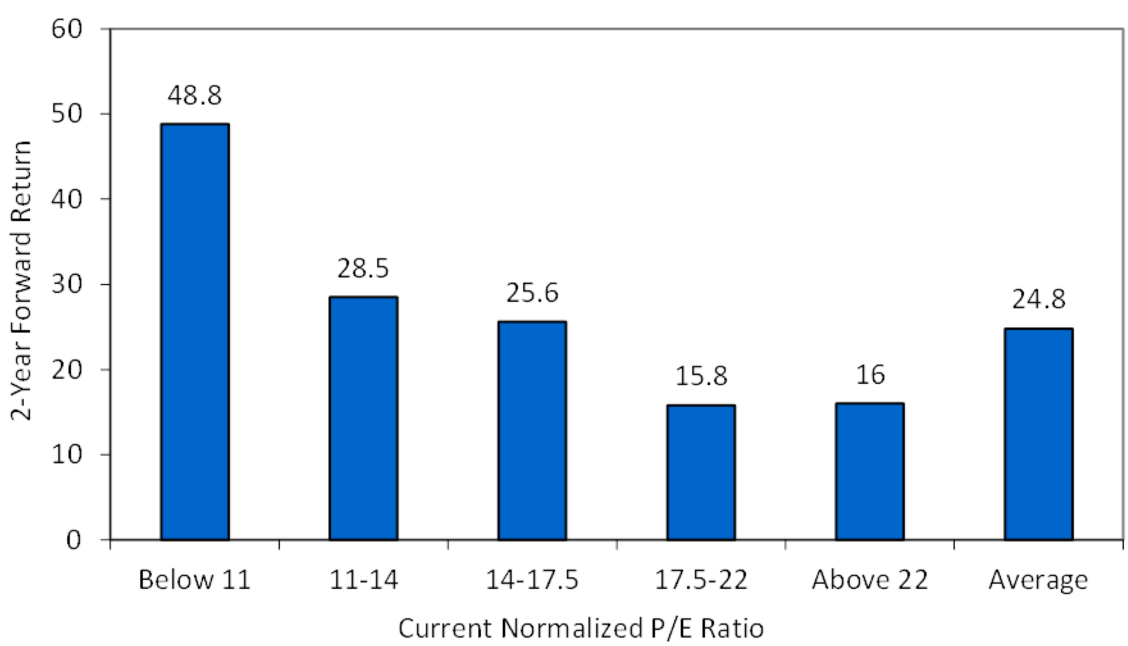
Under such a strategy, an investor first formulates his or her long-term strategic asset allocation by employing traditional diversification principles. Next, by taking into account current asset class values and macroeconomic conditions, the investor makes tactical shifts that adjust the portfolio's strategic allocation. These tactical shifts involve increasing portfolio weights for undervalued asset classes and decreasing portfolio weights for overvalued asset classes. Such changes are typically limited to a relatively small percentage in order to prevent making "all or nothing" bets that would undermine the portfolio's long-term risk profile. At Artemis, we call this shorter-term posture our dynamic asset allocation strategy.

Here's another way to think about it. Value-based investing exploits the tendency for asset class returns to revert to their long-term average level after an extended period of strength or weakness. As Figure 1 illustrates, equity markets tend to deliver higher returns in the years after a period when price-to-earnings ratios are low, and lower returns when they are high.

As Figure 2 illustrates, the market sectors that experienced the highest returns (relative to historical trends) in the pre-crisis period tended to suffer the greatest losses thereafter.[1]

In implementing a value-based investment approach, it's important to have a clear understanding of one's time horizon. The period over which extreme valuations return to "normal" can be as long as 5-10 years. Therefore, valuation considerations most usefully

Figure 1: Future Equity Returns Reflect Current Valuations



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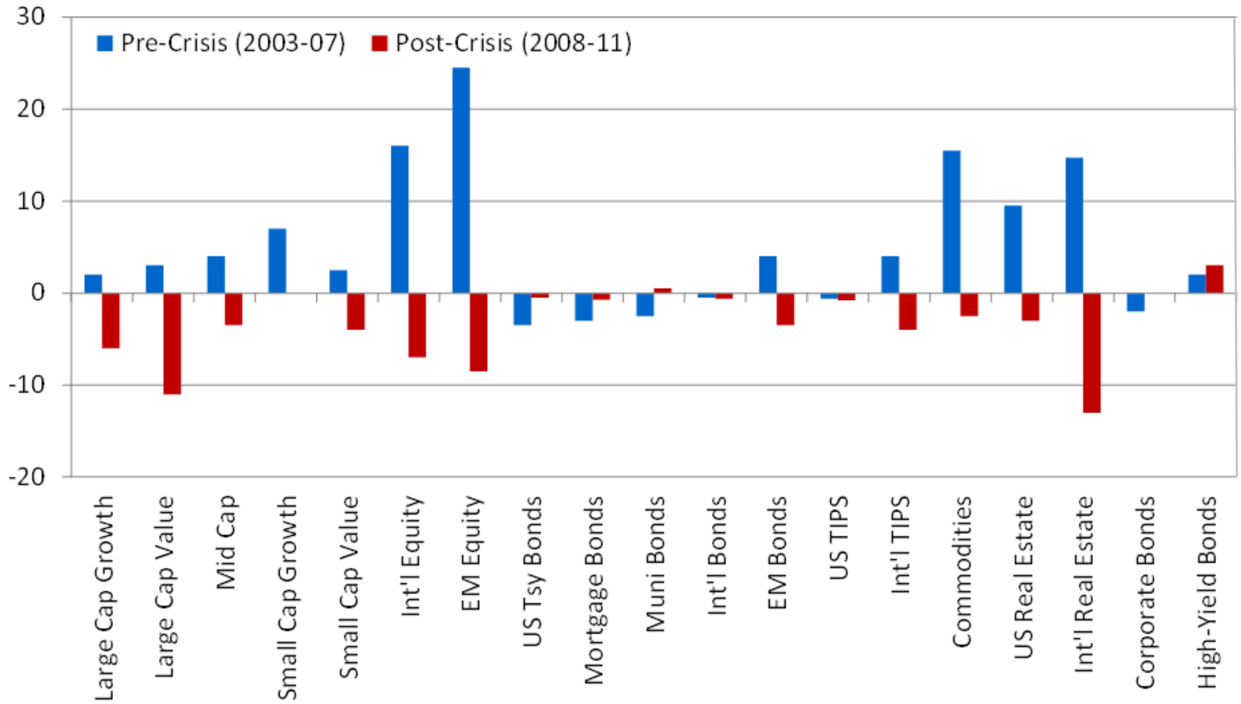
[1]Commodities appear to be an exception, but that's only because the severe losses they experienced during the crisis were masked by sizable gains during the recovery.

Figure 2: Deviation of Asset Class Returns from Long-Term Averages (1990-2007)



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underpin a portfolio's *strategic* asset allocation. Mean-reversion of returns tends to occur more rapidly and can be incorporated into the shorter-term *dynamic* asset allocation.

Managing portfolio risk on the basis of valuation criteria results in a consistent pattern of "buying low" and "selling high" over the long run. This both reduces a portfolio's volatility and increases its long-term rate of return. However, given the inherent uncertainty involved assessing whether markets are fairly valued and the length of time it can take for valuations to normalize, there are limits to which one should adjust asset allocations in light of valuations. Very importantly, as it may take several months or years for an asset class to return to its fair value, value-based investing is best suited for long-term investors.

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