U.S. Equity Insights

Incorporating low volatility equity into a strategic allocation

Executive summary

Low volatility equity strategies aim to provide market-like returns with significantly lower risk. They look to accomplish this by offering downside protection and meaningful upside participation. Given their defensive nature, investors want to know whether low volatility strategies belong in a strategic asset allocation and how this allocation should be funded. In this paper, we discuss how a strategic allocation to low volatility may help an investor achieve various outcomes, and how that allocation fits into a broader portfolio.

Overview of low volatility strategies

Low volatility equity strategies typically invest in high quality, defensive companies with stable earnings and cash flows. There is extensive research showing that over full market cycles, these strategies can provide competitive risk-adjusted returns by providing downside protection along with meaningful upside participation. Notably, both research and empirical results suggest that low volatility strategies do not detract from returns in order to lower risk, suggesting they can replace existing market exposure (beta) in a portfolio without sacrificing return potential.

Applications of low volatility strategies

Since low volatility strategies offer their greatest benefits in down markets, investors have wondered how these strategies fit into an asset allocation framework. We believe low volatility strategies play different roles for different investors, but they should be an important part of every investor's strategic asset allocation. Below, we walk through three ways in which allocating to low volatility strategies can help investors achieve desired objectives, along with suggestions for funding the allocation.

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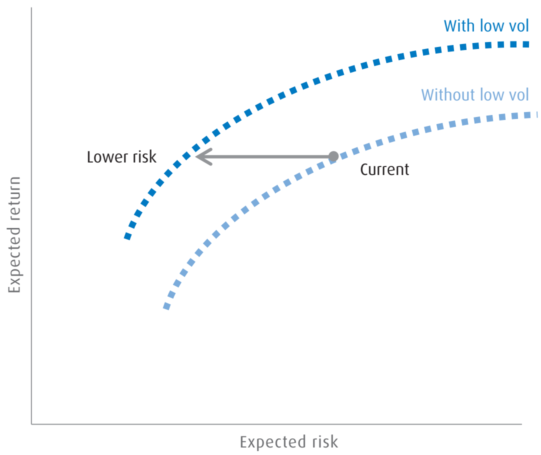
1. Lowering risk

The most straightforward application of low volatility equity strategies is to reduce the risk of a portfolio without sacrificing expected returns. We construct a simplified example using three generic asset classes.

- Core: This represents the core of an investor's portfolio. Within U.S. equity, it could represent U.S. large cap exposure. Within global equity, it could represent developed world exposure. Within a multi-asset framework, it could represent a diversified equity/fixed income portfolio.
- Satellite: This represents higher risk, higher return potential asset classes that are often used for return generation, and in many cases have offered greater returns through active management. Within U.S. equity, it could represent U.S. small cap exposure. Within global equity, it could represent emerging market exposure. Within a multi-asset framework, it could represent alternatives exposure.
- Low volatility: This represents either a U.S. or global low volatility equity strategy.

Our research suggests that over full market cycles,[1] low volatility equity strategies offer equity-like returns with 60-70% of the risk. Therefore, an investor potentially could de-risk a portfolio by shifting weight from the core asset into the low volatility strategy, with no change to expected returns.



	Current	Lower risk
Low vol	0	20
Core	80	60
Satellite	20	20

Hypothetical example for illustrative purposes only.

! **Consider:** Shifting core equity into low volatility equity.

Reducing risk without sacrificing returns is a benefit to investors, in particular those who have shorter time horizons or liquidity needs. For example:

- Any investor with periodic contributions and withdrawals runs the risk of investing/withdrawing after a market rise/decline.
- Pension plans, foundations and endowments incur operating budget variability when their portfolios are more volatile.
- Individual investors have the emotional tendency to buy at peaks and sell at troughs; this damaging behavior is exacerbated in higher risk portfolios.

[1] For the purposes of low volatility strategies, we consider a full market cycle to consist of a mix of up and down markets, which typically occurs over a span of 3-5 years.

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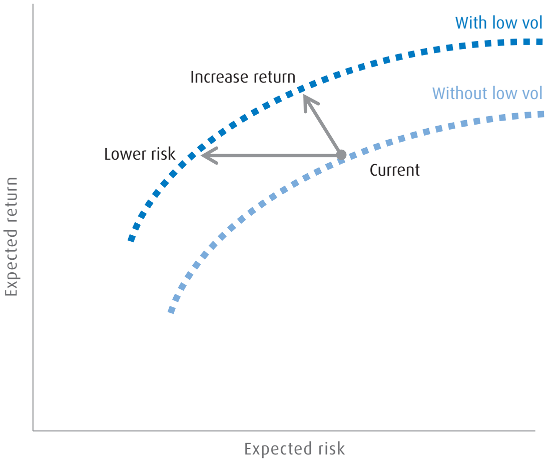
2. Increasing returns

A more sophisticated application of low volatility seeks to increase returns with more moderate risk reduction, through better use of risk budgeting. Here, we build on the prior example by incorporating the satellite asset. In this example, the investor shifts some of their core exposure into low volatility, freeing up space in the investor's risk budget. Then, the investor shifts additional core weight into the satellite asset class, taking advantage of higher expected returns while still maintaining an element of risk reduction. Investors can also generate additional return potential by increasing their allocation to active managers in these less efficient asset classes.



	Current	Lower risk	Increase return
Low vol	0	20	20
Core	80	60	40
Satellite	20	20	40

Hypothetical example for illustrative purposes only.

Consider: Shifting greater core exposure into a pairing of low volatility equity and satellite asset.

3. Minimizing drawdowns

While lowering risk is valuable to most investors, a special case of risk reduction is avoiding large drawdowns. These tail events are particularly damaging for investors because they tend to occur during periods of economic stress that create challenges for investors, such as:

- Investors with periodic withdrawal needs may be forced to sell after a steep market decline, causing irreparable harm to long-term wealth creation.
- Underfunded pension plans may need to increase parent-level contributions, precisely when parent earnings are likely to be lower.
- Foundations and endowments may experience a decline in donor contributions.
- Individual investors may be more prone to making emotional decisions after a steep drawdown, while other areas of their lives may become riskier (e.g., increased risk of job losses, less credit availability).

Since markets can often take a long time to recover from extreme losses, the benefits of low volatility strategies are greatly magnified if they can help investors avoid large drawdowns. To illustrate the impact of compounding with large drawdowns, we note that the realized return from two large moves (-30%, +30%) is more than twice as negative as the realized return from two smaller moves (-20%, +20%). Also, the positive return required to erase a large drawdown is much greater than the return required to erase a smaller drawdown:

Consider: Shifting a slice of the risky/high beta assets into low volatility.

	Down market (%)	Up market (%)	Simple average (%)	Realized return (%)	Required return to recover from down market (%)
Low volatility strategy	-20.0	20.0	0.0	-4.0	25
Cap-weighted benchmark	-30.0	30.0	0.0	-9.0	43

Conclusion

It should be clear that investors who strategically allocate to low volatility strategies improve the asset allocation of their portfolios. In a sense, low volatility strategies provide similar benefits as implementing a portfolio hedge. However, unlike traditional portfolio hedges, research indicates that low volatility strategies do not extract a premium for this protection.

This counterintuitive feature is what makes low volatility strategies particularly attractive, but like all hedging strategies, investors need to hold them before they are needed to realize their benefit. For all these reasons, we believe the prudent investor should incorporate low volatility strategies into their long-term strategic allocation.

BMO Global Asset Management