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Impact of Target Volatility Levels in Volatility-Controlled Indices

Contributor

Sara Pollock
Director
Multi-Asset Indices
sara.pollock@spglobal.com

Executive Summary

Volatility-controlled indices (VCIs), also known as risk control indices, are commonly used as index account options within index-linked annuities. The goal of the indices is to provide exposure to an underlying index while realizing a volatility level close to a target.[1]

The most common components of a VCI are an equity component and a theoretical cash component.[2] VCIs dynamically allocate between these components in an effort to realize the target volatility level. Allocation in in the index context refers to the weight attributed to each asset class within the index.

As a general principle, when market volatility is higher than the target volatility level of the index, the index will allocate away from equity to the cash component to dampen volatility. On the other hand, when market volatility is lower than the target, the index can allocate more than 100% to the underlying index component, which is referred to as leverage.

The ability to either move index component weighting below or above 100% helps the index as it seeks to maintain a target volatility level.

[1] For a deeper dive into volatility-controlled indices, please see Pollock, Sara, "Demystifying Volatility-Controlled Indices," S&P Dow Jones Indices LLC, March 2022.

[2] The theoretical cash component can be represented by a number of possible instruments, such as Secured Overnight Financing Rate (SOFR), a SOFR spread, 3-month U.S. Treasury bills and/or other fixed income instruments.

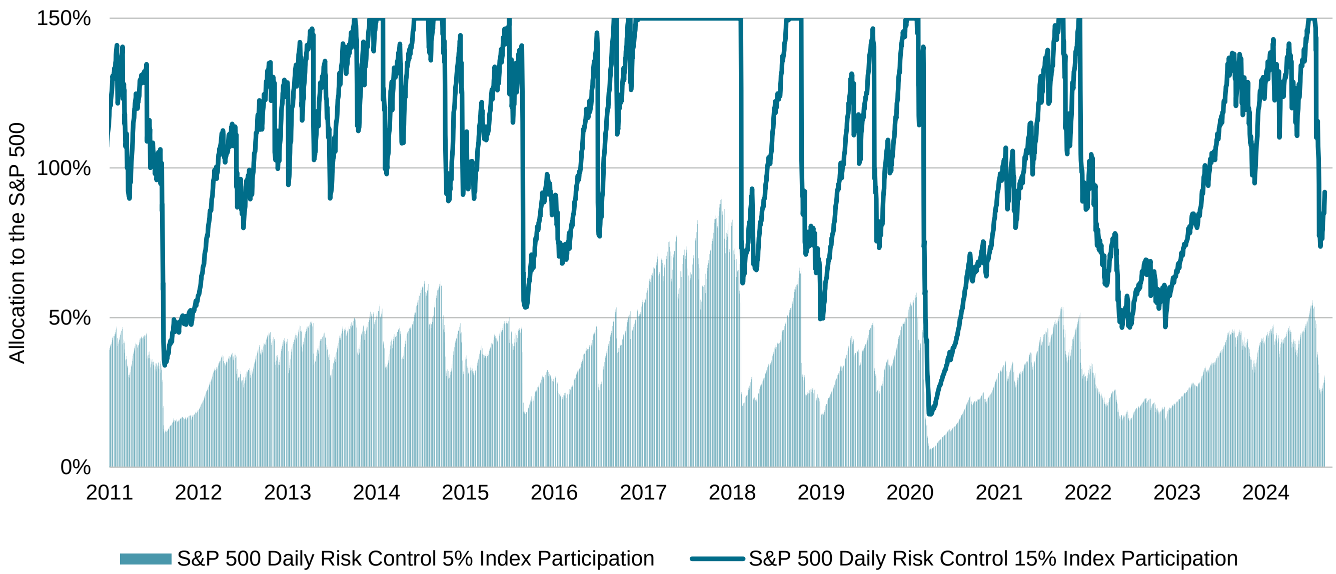
What Is the Impact of the Target Volatility Level?

VCIs are offered in a wide range of target volatility levels, which affects exposure levels to the underlying equity component. To understand these effects, we will look at an example using the S&P 500® Daily Risk Control 5% Index and the S&P 500 Daily Risk Control 15% Index, which have target volatility levels of 5% and 15%, respectively.

These indices have the same methodology, so the difference in target volatility levels provides an illustration of the impact of this level. Please note that these outcomes are not guaranteed but are included for general illustrative purposes.

Each index has the same underlying equity component of the S&P 500, which has a standard deviation of just above 15% over the past 50 years.

Exhibit 1: Historical Allocation – How Much of the S&P 500 Do You Get?



S&P 500 Daily Risk Control 5% Average Allocation: 38%
Minimum Allocation: 6%
Maximum Allocation: 91%

S&P 500 Daily Risk Control 15% Average Allocation: 107%
Minimum Allocation: 18%
Maximum Allocation: 150%

Source: S&P Dow Jones Indices LLC. Data as of Aug. 20, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

For the period described above, since the S&P 500 Daily Risk Control 15% Index has a higher volatility target—in line with the actual long-term historical volatility of the underlying equity component—it has had a higher allocation to the equity component, averaging 107%.

On the other hand, the S&P 500 Daily Risk Control 5% Index has had a lower allocation (averaging 38%) to the underlying equity component since its volatility target is lower than that of the underlying S&P 500 for the same time frame.

In general, a higher volatility target may provide more allocation to the underlying equity component in a VCI.

Conclusion

VCIs, or risk control indices, aim to maintain a target volatility level by allocating weight to an underlying index and to a volatility dampening asset class (most commonly cash), which is selected based on market conditions.

There are a wide range of target volatility levels, and this affects the VCI's allocation to the underlying equity component. A higher volatility target level should mean a higher level of allocation to a VCI's equity component over time.

To learn more about S&P DJI's risk control indices, please visit the Insurance Resource Center.

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