

ABR Dynamic Funds' Series on Stagnation Solutions: Part 7

Long Volatility

Introduction

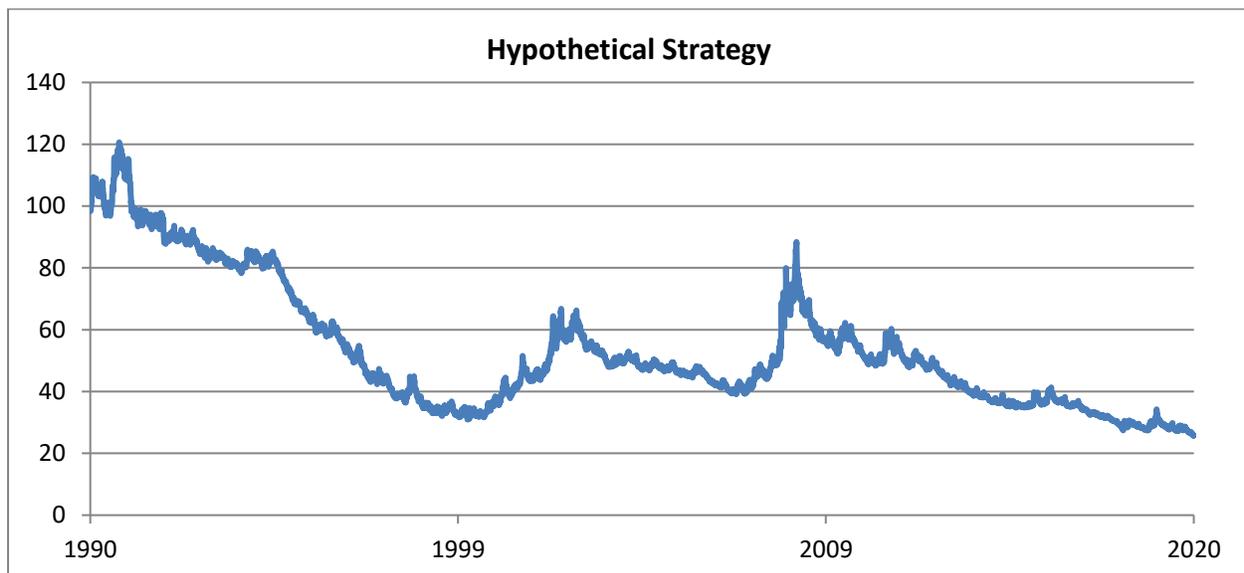
In the first installment, we noted that, at the time this series was written, the S&P 500 Shiller cyclically-adjusted price to earnings ratio (CAPE) was approximately 30 (of course, that can change quickly), and that value has historically indicated a next 10-year annualized return for the S&P 500 of about 3%. The last time the S&P 500 Shiller CAPE was about 30 was near the beginning of 2002. Over the next decade (2002-2011), the S&P 500 annualized return was 2.9%.

This installment will focus on the possibility of increasing the equity return by very simply increasing the equity exposure, but while also attempting to mitigate the drawdowns otherwise associated with larger equity exposure.

Throughout this installment, any mention of "insurance" or an "insurance policy" is used to suggest an analogy. Long Volatility strategies, to some extent, can be understood as analogous to insurance policies on equity allocations because volatility assets have tended to rise during equity crises, and volatility assets have tended to decay during equity bull markets. However, that is an analogy based on long-term typical historical relationships; it is not a literal insurance policy based on future contractual obligations. Long volatility strategies have not worked according to all investors' expectations 100% of the time in the past, and there is no guarantee they will work according to expectations in the future.

Hypothetical S&P 500 Insurance Policy

Would you invest in the following hypothetical strategy? Its annualized return is -4.4% with a maximum drawdown of 79% from 1990 through 2019.

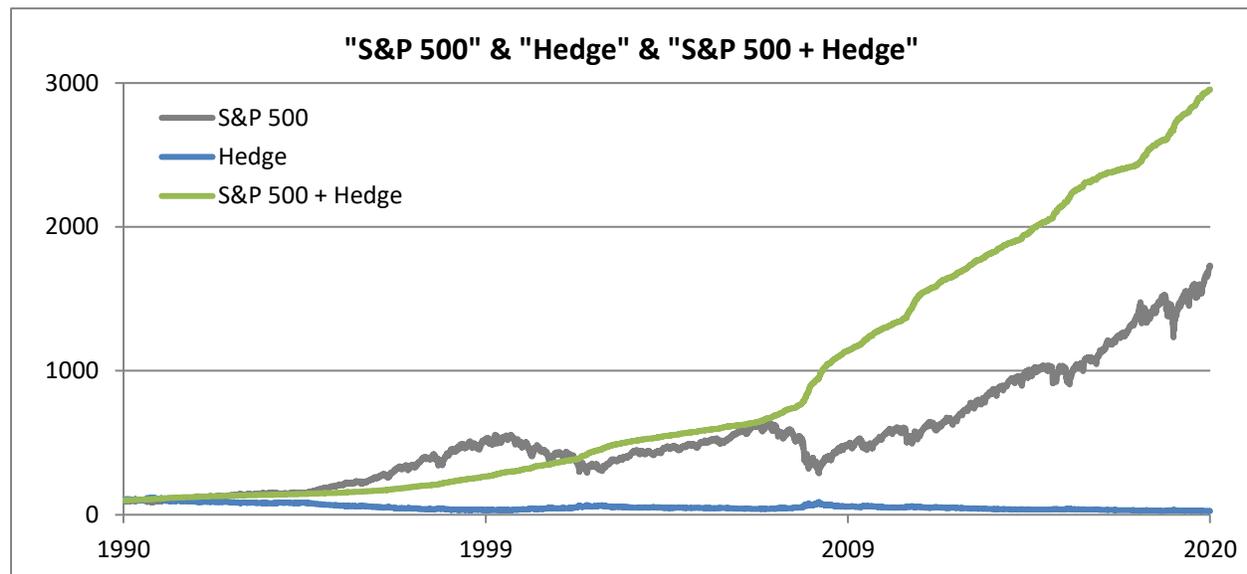


It can be hard to tell from a picture, so what if we said we constructed this hypothetical strategy as follows:

- Every day the S&P 500 lost, the hypothetical strategy gained 100% of what the S&P 500 lost.
- Every day the S&P 500 gained, the hypothetical strategy lost 92% of what the S&P 500 gained.

Of course, that strategy cannot exist without a crystal ball, but it's an illustration of what would be an incredibly valuable insurance policy, an insurance policy that, after just a quick glance at the results, almost every investor (mistakenly!) wouldn't even consider.

To illustrate its value, the following graph shows this hypothetical strategy (called "Hedge" in the graph), along with the S&P 500 and "S&P 500 + Hedge." "S&P 500 + Hedge" was constructed using 2x exposure to "Hedge" plus 2x exposure to the S&P 500, net of 1.5% cost of leverage (meaning net of 4.5% per year total cost of the 3x leverage needed to gain the 4x total exposure in "S&P 500 + Hedge").



"S&P 500 + Hedge" had an annualized return of 11.9% (vs. 10.1% for the S&P 500) with a maximum drawdown of only 19 basis points. That is not a typo. "Hedge" was artificially constructed to perfectly offset S&P 500 losses, after all. The 19 basis point drawdown was just the result of the cost of leverage on a few otherwise flat days. "Hedge" is a hypothetical illustration of how valuable a strategy can be if it wins when the rest of a portfolio loses, even if the strategy in question performs poorly over time on its own. In other words, it is (analogous to) an insurance policy on S&P 500 exposure.

But, of course, that "Hedge" cannot exist in real life, so let's turn to something that can and does exist.

Long Volatility

Background

There are assets which provide direct exposure to the volatility of equity markets. These assets actually rise (fall) in value in response to increasing (decreasing) volatility in equity markets. They are often thought of as analogous to an insurance policy on equity behavior because a key feature of equity crises has been increasing volatility. In other words, when equities have dropped rapidly, volatility assets have tended to rise rapidly. However, also analogous to an insurance policy, volatility assets have decayed much of the rest of the time. There are strategies which seek to limit the decay of volatility assets in calmer markets, while still attempting to profit from the rapid appreciation of volatility assets in crises. Collectively, we are calling these strategies long volatility strategies.

SPDVIXTR Index

SPDVIXTR Index meets our definition of a long volatility strategy from the above background section. It uses volatility assets, in an attempt to benefit from significant gains in volatility (which have often been associated with equity crises) while also seeking to mitigate the decay of volatility assets during calm markets. As with all of the choices in this series, SPDVIXTR Index was chosen for illustration purposes and not as an endorsement.

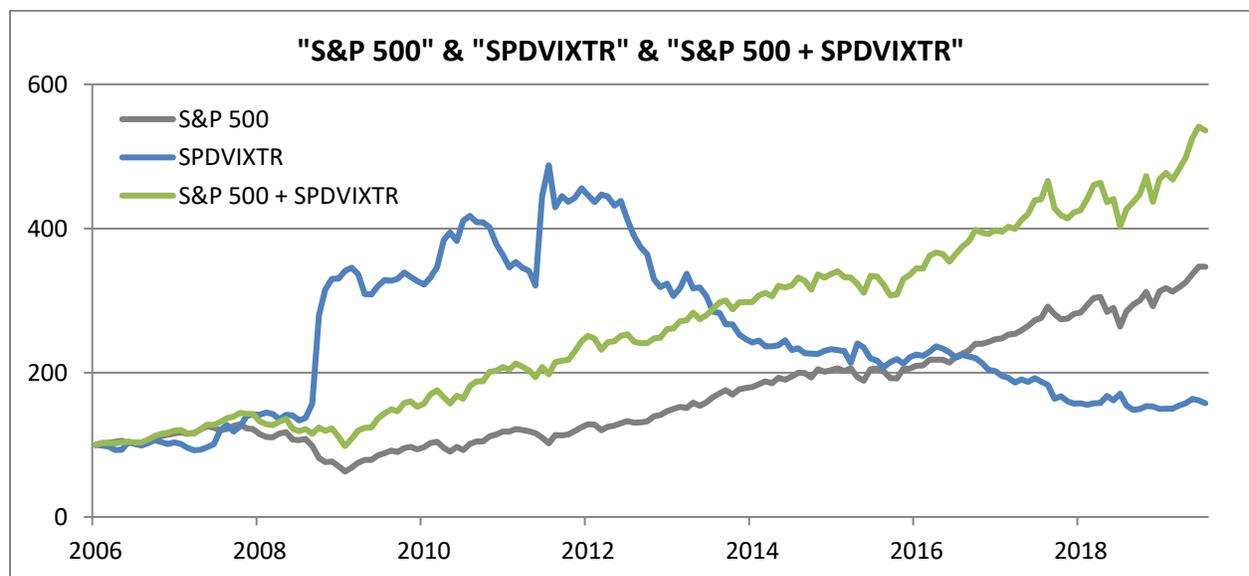
The following graph is just like the previous one, with the same color coding, but this time SPDVIXTR functions as the hedge. However, the SPDVIXTR model uses instruments which only go back to about 2006, making the full history 2006-2019.

Over the full history from 2006-2019, SPDVIXTR had an annualized return of just 3.49% (compared to the S&P 500's 9.30%) with horrible performance in the bull market and a maximum drawdown of 70%. However, SPDVIXTR was still very helpful to a portfolio of equities. "S&P 500 + SPDVIXTR" is a 117% allocation to the S&P 500 plus a 35% allocation to SPDVIXTR, net of 1.5% cost of leverage. The optimization to determine those allocations maximized the Sharpe ratio from 2006-2019 of "S&P 500 + SPDVIXTR," subject to 2 conditions:

1. S&P 500 and "S&P 500 + SPDVIXTR" had the same volatility over the full time period
2. S&P 500 and "S&P 500 + SPDVIXTR" had the same return in the bull market since March 2009 (+451% total return) so that there wasn't even a bull market drag from the portfolio with the "insurance policy."

"S&P 500 + SPDVIXTR" had an annualized return of 12.8% with a maximum drawdown of 32% (compared to 9.3% and 51% for the S&P 500).

The "S&P 500 + SPDVIXTR" portfolio, over the time period of 2006-2019, was a real-world example of using an "insurance policy" that, on its own, wasn't very good, in order to allow increased exposure (with slight leverage) to risk assets in order to generate better overall results.



Source: ABR (data from Bloomberg)

Additional Observations

- As we noted in the introduction, the analogy to insurance is just that, an analogy. That means not all long volatility strategies have produced gains when all investors have wanted (or expected) them to. Many long volatility strategies utilize models in order to vary their exposures to volatility, meaning results have been path dependent. SPDVIXTR is no exception. For example:
 - SPDVIXTR was up only 8% in the correction of Q4 2018, and it was down 11% in February 2018. Some investors may consider those to be disappointing results.
 - SPDVIXTR was up 43% in the European Debt Crisis of Q3 2011. Investors would likely be much happier with such a result.

Next Week's Preview: The next installment addresses U.S. Treasuries.

Notes/Disclosures

Some of the indices may contain some hypothetical results. There are inherent limitations to hypothetical results. Past performance does not guarantee future results. No index presented in this installment is representative of any strategy at ABR Dynamic Funds, LLC. It is not possible to invest directly in an index. The information presented in this installment does not constitute a complete analysis of any index or strategy, and this installment contains no recommendation to buy, sell, or hold any investment. All data was obtained from sources believed to be accurate; however, ABR Dynamic Funds, LLC cannot and does not guarantee the accuracy of such data.