[Trading Skills]

Managing Risk in a High-Flying Market: Derivatives Strategies

Understanding this strategy can be especially beneficial, particularly with the market at such high levels and many investors holding substantial unrealized gains in their stock portfolios.

Derivatives, such as futures and options, are excellent tools for protecting a stock portfolio from potential losses if the market declines. You can either sell futures against your portfolio or buy puts. Selling futures against your entire portfolio essentially neutralizes all profit and loss potential, except for tracking error (the difference in performance between the derivative used for hedging and your actual portfolio). Most investors prefer a less comprehensive hedge and opt to buy out-of-the-money puts as a form of insurance against significant downturns.

In the 1980s, using futures for portfolio insurance was popular, but the strategy lost favor after it failed to perform as expected during the 1987 crash. Today, the more common approach is purchasing index puts, often financed by simultaneously selling out-of-the-money calls.

If you have a diversified portfolio, you can buy SPX (or SPY) puts to hedge your stock holdings. However, if your portfolio is heavily concentrated in a specific sector, it may be more effective to purchase sector-specific puts on relevant indices (e.g., technology, gold, utilities).

When considering any type of insurance, you need to decide on two things: the duration of the insurance and the deductible portion you are willing to assume. The higher the deductible, the lower the insurance premiums. For example, many self-employed individuals choose high-deductible health insurance, covering minor expenses themselves but being insured for significant medical costs. This type of insurance is cheaper than a standard policy.

Similarly, you can structure the insurance for your stock portfolio. The "deductible" portion in portfolio insurance is the gap between the current index value and the strike price of the out-of-the-money put you purchase. Your portfolio would incur losses as the SPX falls from its current value to the strike price, but it would be protected below that level.

A low-deductible policy would be costly because the puts would be closer to being in-the-money. Conversely, buying puts at a lower strike price, with a higher deductible, would be cheaper since these puts are farther out-of-the-money.

It's not overly complex to determine how many puts you need to buy to hedge your portfolio. You must adjust your portfolio's volatility to match the index you are using as a hedge. This involves dividing each stock's historical volatility by the historical volatility of the index, a calculation known as "implied Beta." For a broad-based index, you could use the stock's actual Beta instead. Here's a quick example:

Assume you own 3000 shares of Stock A (priced at 102), 5000 shares of Stock B (50), and 4000 shares of Stock C (65). The portfolio has a market value of $816,000. Adjusting for volatility, assuming the market volatility is 12%:

Stock	Volatility	Implied Beta	Adjusted Market Value
Stock A	36%	3.00	918,000
Stock B	30%	2.50	625,000
Stock C	24%	2.00	520,000
Total			2,063,000

Thus, you need to hedge $2,063,000 of "broad market" value because this portfolio is more volatile than the market. If you use the 550 strike in SPY, then that strike represents $55,000 of protection (550 × 100 per point). It would take 38 of these puts to hedge the portfolio ($2,063,000 ÷ $55,000 = 37.51).

Finally, you must decide on the duration of the insurance policy. Purchasing 38 puts with a duration of more than one month can be expensive if you opt for the longest policy, although the annualized cost of insurance is always lower for longer-term puts.