

## Why Put-Write Is Right

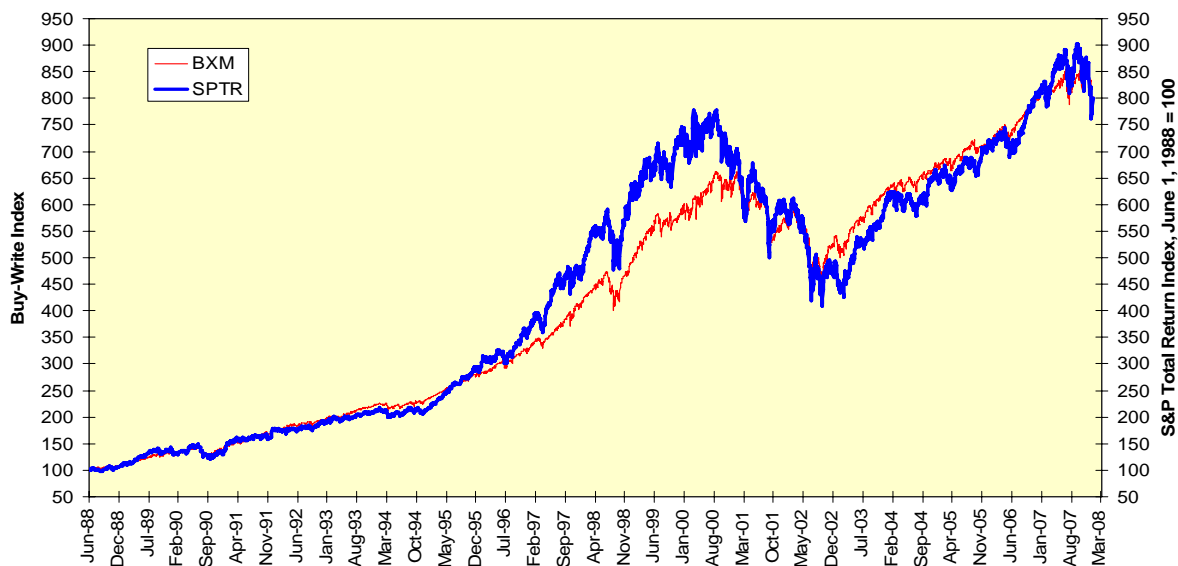
The scene in the 1984 movie *This Is Spinal Tap* where the fictional guitarist Nigel Tufnel explains the advantage of his amplifier being marked to “11” whilst the other identical amplifiers only go to “10” describes much of modern financial engineering. You take one product that works, is understood but has absolutely no operating margin and transform it into another product that does not work, is not understood but can generate huge profits for its developer.

As today’s column is related to volatility instruments, let’s go back to a piece I wrote last [May](#) wherein I derided, with uncharacteristic punch-pulling, a conference presentation on building a volatility smile from swaptions on credit default swaps. I noted as well how only two attendees at this conference at the end of April 2007 thought the VIX was “too low;” it was trading just over 13 at the time as opposed to recent readings in the high 20s and 30s.

And while we are taking a trip down volatility’s memory lane, let’s revisit a [March 2007](#) discussion on the Chicago Board of Options Exchange’s buy-write index (BXM). Here I noted how the long-term total returns for the S&P 500 (SPTR) and for the BXM were virtually identical: “If you lie awake at night wondering “Why bother? The answer will not appear to you in a dream.”

That is still true today. The average daily returns for the SPTR and BXM since June 1988 were .0422% and .0420%, respectively. And as far as the standard deviation of returns being lower for the BXM – .0067 as compared to .0099 for the SPTR – I am nonplussed. Of course the standard deviation of a synthetic short put option (the BXM is a long index plus a short call option, or a synthetic short put option) is going to be lower; you have truncated the right-hand tail of the distribution. Mark McGwire said, “Chicks dig the long ball.” He was silent on the subject of lower variance.

### What Does The Buy-Write Index Accomplish?



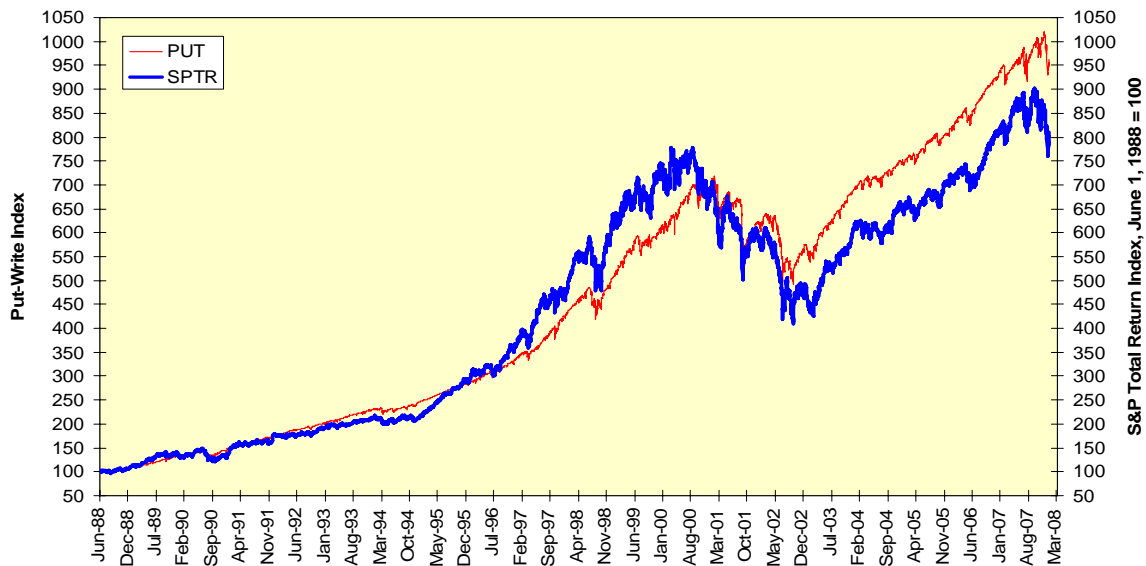
### The Put-Write

One of my criticisms of the BXM was that it was a synthetic short put option, which means you have a limited upside and a downside of the present value of the strike. Moreover, while the business of trading affords numerous opportunities to lose large sums of money in a short period of time, writing puts on the S&P 500 or any other stock index has proven one of the most ways to get impoverished. The reason is simple: Volatility tends to explode on stocks when they decline.

So I approached the CBOE’s new put-write index (PUT) with some measure of skepticism. I will not detail their methodology here; that is available on their [Website](#). Suffice it to say it is a fully collateralized short put option position on the S&P 500; “fully collateralized” is a euphemism for calculating how much money you can lose and keeping it in an interest-bearing account.

How has it performed, at least in a backcast, relative to the S&P 500? The PUT was created in July 2007, so all previous performance is hypothetical. I have been in this business for more than a quarter-century and have difficulty recalling a bad historic simulation or backcast.

**Put, Put, Pootsie Good Buy**



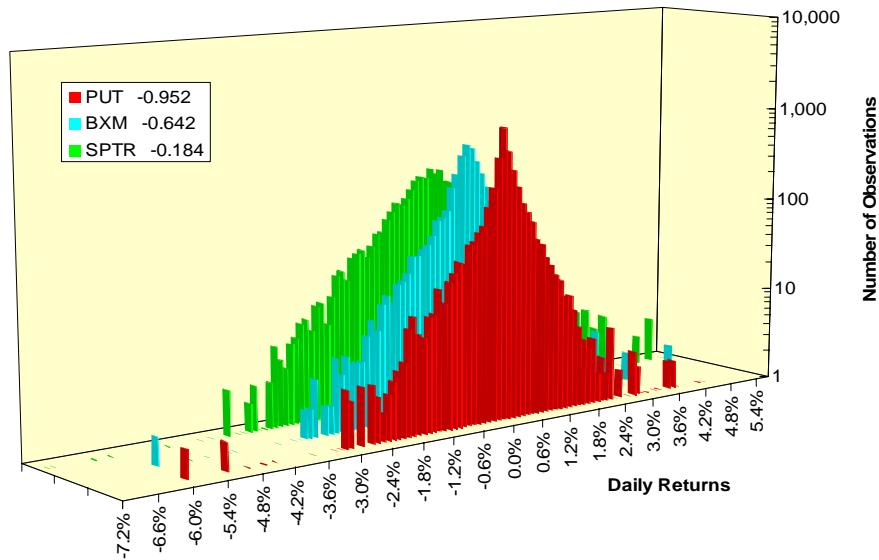
The question was prompted by the recent unpleasantness in the markets; I had sort of assumed the put writers would have gotten their just desserts. The answer, as seen above, is the PUT not only beat the daylights out of the SPTR, it expanded its gap during the recent high-volatility downturn. This demands an explanation.

**Skews You Can Use**

The PUT, much like a judo fighter, uses the opponent’s characteristics to beat him. In this case, the PUT systematically sells the inflated level of put option volatility during market downturns. Volatility is somewhat mean-reverting in its nature; it is not going to rise indefinitely, which means sellers of historically high readings stand a decent chance of recovering their money so long as the market’s price level does not collapse completely.

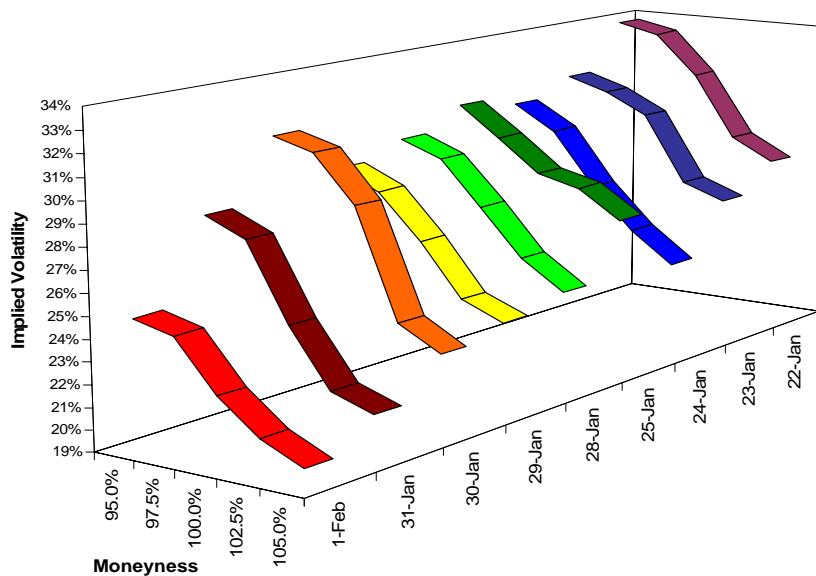
If we map a histogram of the returns for the PUT, BXM and SPTR, we see how the PUT has a much greater negative skew, -.952, than do the BXM and SPTR (-.642 and -.184, respectively). If the stock market recovers from its selloff, which has been the long-term experience, sellers of this skew will reap the reward.

### Distribution Of Returns, June 1988 - January 2008



We can see this action in microcosm by mapping the put option skew for the S&P 500 since we walked in on the morning of January 22, 2008 with the Dow Jones Industrial futures down about 450 points. If we map the volatility levels of put options by their degree of “moneyness,” we see both a decline in overall volatility levels and a persistent skew where the out-of-the-money put options (those readings less than 100%) are much higher than the in-the-money put options.

### The Put Skew In Action



Now here is the astonishing part. Many of us have been trained to believe stocks can be decomposed into a bond plus a call option on future growth, and that it is the systematic harvesting of those call options over time that make stocks the superior asset.

The success of the PUT suggests something far different, that stock investors are rewarded for perseverance in the face of adversity, the ability to buy the dips or exaggerated periods of high and skewed put option volatility. Whenever you like at an extreme such as January 22, 2008 and wonder what sort of insane person is buying your answer should be, “the outstanding long-term put seller.” What about the long-term call owner? That is an index fund.