Skews You Can Use

All cultures have initiation rites, something to prove depending on your gender whether you are babelicious or a *hombre* worthy of a spot in a light beer commercial. We scoff: If you really want to prove your manhood, start writing S&P 500 index puts during a market crash, flash crash, downturn or simple bout of dyspepsia. Far from being an act of complete insanity, the idea has some merit.

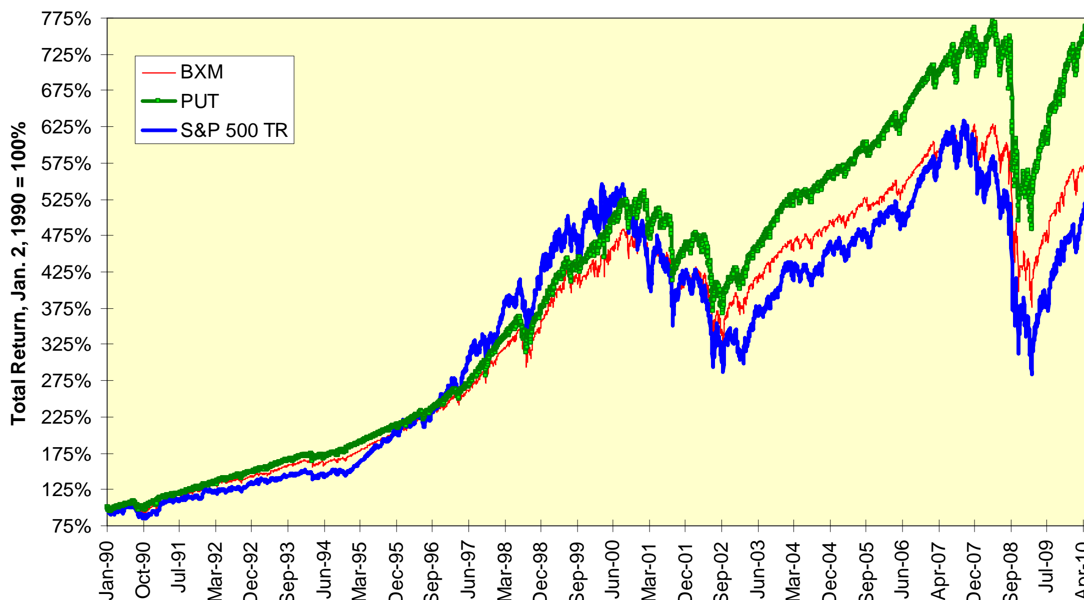
Dudley Do-Write

The Chicago Board of Options Exchange maintains two alternative option-based indices to compare against the S&P 500 total return index, the Buy-Write and Put-Write (BXM and PUT, respectively). The idea behind the BXM is familiar to anyone who has written a call option on an individual stock or index; you sell a call option and give away the upside beyond the [strike + premium received] while retaining the synthetic put option resulting from the strategy. As any stock can be synthesized from a long call option plus a short put option, selling the call option leaves you with the short put option.

The PUT sells the put option directly in a quantity that is fully collateralized. This is a fancy term of art for saying, "how much could you lose if the index went to zero, and how many put options go into that number." Yes, stop thinking like a trader and start thinking like an undertaker. The put option premium received is invested in short-term money market instruments earning *bupkes*-point-five if you are lucky.

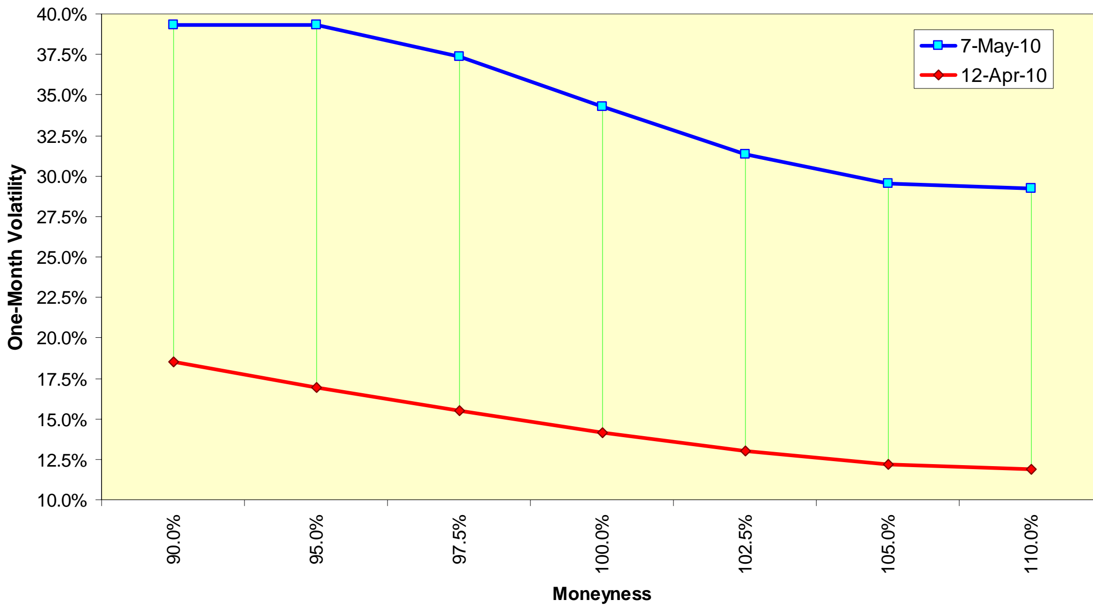
The strategies have vastly different return streams over time; we should note, however, the PUT's actual trading history did not begin until July 2007 – the actual BXM trade began in April 2002 – and as anyone who has been around this business for more than twenty minutes and can put their shoes on the correct feet can attest, simulated trading histories have an odd way of beating actual trading histories. The average annual returns for the PUT, BXM and S&P 500 have been 9.909%, 8.496% and 7.941%, respectively, since January 2, 1990.

Comparative S&P 500 Index Strategies



The BXM's outperformance of the S&P 500 after 2000 makes some intuitive sense as the market has struggled within a very broad sideways trading range. The question remains why the PUT would "outperform," at least on paper, both indices so handily over this same period.

The answer lies in the skew of option volatility during those unfortunate moments in the market. If we compare how one month-ahead put option volatility jumped between the April 12, 2010 local minimum for the VIX and its May 7, 2010 local maximum, we see how the lower strikes, those with less than 100% moneyness, saw a much larger and completely expected rise in volatility. The PUT harvests this skew systematically. The BXM would be selling higher-volatility out-of-the-money options, but this gain tends to be offset by the ordinal drop in the S&P 500 index itself.



Of course, it takes a great deal of (gender-neutral term needed here) intestinal fortitude to start writing index put options during a market downturn. Every trapdoor-opening since 1987 has produced war stories about put-writers' unfortunate encounters with Mr. Market's thumb-breaking cousin Moose Market, and as we saw on May 6, 2010, liquidity all but disappears at the very moment you want it most. But the principle is sound: Market panics provide opportunities in two dimensions, low price and high volatility.