



# MARKET RISK AND EFFICIENCY

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## Still Not Cheap: Portfolio Protection in Calm Markets

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Recent S&P 500 Index volatility is near all-time lows. So too is the VIX Index. Options therefore appear cheap. Many market commentators present these observations and conclude that now is a rare opportunity to buy put options for protection cheaply. But is cheap the same as good value?

This paper demonstrates that put options' low prices during calm periods give the illusion of value. The authors write that buying an option is not a bet that realized volatility will increase; it is a bet that realized volatility will increase above the option's implied volatility. Buying an option is expected to lose money even when volatility is low and rising if the spread between realized and implied volatility is sufficiently high.

The possibility of black swan events is an often-quoted justification for the large observed volatility risk premium. The authors assert that the frequency of black swan events required to rationalize option purchases is unreasonably large given our knowledge of extreme events. They add that investors are best served by integrating their beliefs regarding black swans to their aggregate asset allocation as opposed to opportunistically purchasing portfolio insurance at low, but not cheap, prices. This is especially the case for most investors, who have limited ability to stick with a hedging program that loses money for years while awaiting an episodic payoff.

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