

TRADABLE ESTIMATES OF HISTORICAL VOLATILITY

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Abstract

There are many estimates of historical volatility, based on time samples, price level samples, on high and low. I define an estimate as "tradable" if it is attainable from a static position in options a dynamic trading of the underlying. I characterize the unbiased tradable estimates, show that the difference of two of them is a costless dynamic strategy and show how the daily/weekly trade performs on various time periods. The usual estimates based on high and low are not tradable. Surprisingly, it is not because high and low are not stopping times but because they do not depend quadratically on the final value. I introduce a new high and low based estimate that is tradable and unbiased.