

Volatility filters for asset management: An application to managed futures

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Abstract

Technical trading rules are known to perform poorly in periods when volatility is high. The objective of this paper is to study whether the addition of volatility filters can improve model performance. Different from previous studies on technical trading rules, which base their findings from an academic perspective, this paper tries to relate to the real-world business: two portfolios, which are highly correlated with a managed futures index and a currency traders' benchmark index, are formed to replicate the performance of the typical managed futures and managed currency funds. The volatility filters proposed are then applied directly to these two portfolios in the hope that the proposed techniques will then have both academic and industrial significance. Two volatility filters are proposed, namely a 'no-trade' filter where all market positions are closed in volatile periods, and a 'reverse' filter where signals from a simple moving average convergence and divergence (MACD) are reversed if market volatility is higher than a given threshold. To assess the consistency of model performance, the whole period (4th January, 1999 to 31st December, 2004) is split into three sub-periods. The results show that the addition of the two volatility filters adds value to the model's

performance in terms of annualised return, maximum drawdown, risk-adjusted Sharpe ratio and Calmar ratio in all the three sub-periods.

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