

## **Market Volatility, Skewness, and Kurtosis Risks and the Cross-Section of Stock Returns**

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### **ABSTRACT**

Using option implied moments of the S&P 500 index estimated by the methodology in Bakshi, Kapadia, and Madan (2003), and all stocks on the NYSE, AMEX, and the NASDAQ between 1996 and 2005, we find that stocks with high sensitivities to innovations in market skewness exhibit low returns on average while stocks with high sensitivities to innovations in market kurtosis exhibit high returns on average. The dispersion (high-low) in Jensen's alphas between the portfolios in the highest quintile and the lowest quintile when stocks are sorted on sensitivities to innovations in market skewness and kurtosis are -0.46 % and 0.51 % in monthly return respectively. Moreover, the addition of the innovations in implied market skewness and kurtosis as risk factors to the Carhart 4-factor model improves the performance of the model in predicting the cross-section of returns on the Fama-French 25 size and book-to-market portfolios by 28 % (from 0.18 % to 0.13 % monthly) in terms of root mean squared pricing error. The result on the negative price of the market skewness risk is much more robust compared to those on the market volatility or kurtosis risks.