The Information Content of Option Implied Volatility Surrounding the 1997 Hong Kong Stock Market Crash

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Summary

This study examines the information conveyed by options, and examines their implied volatility at the time of the 1997 Hong Kong stock market crash. The paper determines the efficiency of implied volatility as a predictor of future volatility by comparing it to other candidate leading indicators. These include volume and open interest of index options and futures, as well as the arbitrage basis of index futures. Using monthly, non-overlapping data, the study reveals that implied volatility is superior to those variables in forecasting future realized volatility. The paper also demonstrates that a simple signal extraction model could have produced useful warning signals prior to periods of extreme volatility. These results provide support for the incorporation of implied volatility into an early warning system against impending large market movement in order to enhance crisis or risk management ability of various entities.