

<b>題目</b>	臺指選擇權價格行為之實證研究
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<b>摘要</b>	為了提升對臺指選擇權的評價績效，必須先對其價格行為特性有完整的瞭解。本文發現臺指選擇權之標的指數其報酬率分配顯著不服從常態分配，而且標的指數之價格波動率遵循 NGARCH 波動過程，然而臺指選擇權與標的指數之間的套利效率(arbitrage efficiency)不佳，反而與臺指期貨之間具有較好的套利效率。因此為了完整捕捉臺指選擇權的價格行為，在評價臺指選擇權時，本文引用納入報酬率分配高階動差的 Edgeworth GARCH 型評價法，並以臺指期貨取代股價指數，以提高評價績效。配適結果支持以臺指期貨資料搭配 Edgeworth GARCH 型選擇權演算法確實能提高對臺指選擇權的評價績效。
<b>關鍵字</b>	指數選擇權、GARCH 選擇權演算法、Edgeworth GARCH 演算法、NGARCH 模型、套利效率
<b>Title</b>	An Empirical Study of the Price Behavior of TAIEX Options
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<b>Abstract</b>	Before pricing the value of Taiwan stock index option (TXO), we have to completely understand its price behavior. The study demonstrates that the distribution of TXO's underlying index return reject the assumption of Normal distribution and the volatility is heteroscedastic. Besides, there are a significant number of violations in no-arbitrage conditions when the conditions involve both TXOs and the underlying index. However, when the index futures are put into the no-arbitrage condition, violations are obviously fewer. Based on the information above, GARCH option pricing algorithm with higher moments is applied to capture the behavior of underlying index. In addition, the data of index futures are chosen to substitute the underlying index. The study results show that the pricing performance of GARCH option pricing algorithms is better than that of Black-Scholes significantly; and the GARCH option pricing algorithm with index futures is the best among the three. However, the price differences are still significant, and the explanatory factors include the maturity of options and also the intraday volatility of underlying asset.
<b>Key Words</b>	Index option, GARCH option, Edgeworth GARCH option pricing algorithm, NGARCH, Arbitrage efficiency