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論文題目：S&P500 指數期現貨與 NASDAQ 指數期貨之關聯性及波動外溢與跳躍現象之探討-
GARCH-Jump 模型建立及避險比率與績效評估 論文頁數：117

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論文提要內容：

本文以美國 S&P500 股價指數為主要研究對象，利用 S&P500 股價指數期貨與 NASDAQ 指數期貨，應用 VEC-GJR GARCH 與 ARJI 模型進行三市場之關聯性、波動外溢、跳躍現象與避險績效的比較。資訊爆炸的今日，新訊息流通十分快速，往往一個新資訊的衝擊，金融市場就會產生波動。投資人對突發事件會有不同的及時反應，此一事件就會對股票市場產生衝擊。當事件未預期到或異常，金融市場就會產生巨大波動，此種波動就是跳躍 (Jump)。因此，本文乃利用 ARJI 模型來捕捉此報酬跳躍的不連續現象。

實證結果發現，三市場中的確存有不連續的跳躍現象，且跳躍頻率非為一固定常數，即異常資訊所產生的跳躍頻率是隨著時間變動。結果亦發現，ARJI 模型的避險績效又優於 VEC-GJR GARCH 模型，原因為加入跳躍因素後，模型更能掌握價格的不連續性，對資產之波動之描述更為精確，故避險績效較為優良。

關鍵詞：ARJI、GARCH、避險比率、避險績效

ABSTRACT

A Study on the Interactions, Volatility Spillovers and Jump Diffusions for S&P500 Cash, Futures and NASDAQ Futures: GARCH-Jump Modeling, Hedge Ratio and Hedge Performance

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This study tries to investigate the interactions, volatility spillovers, jump diffusions and optimal hedge strategies between the S&P500 index spot market, S&P500 index futures and NASDAQ index futures by using VEC-GJR GARCH and GARCH-Jump models. More uncertainty exists in today's economies than ever before. A news impact from latent news innovations can cause a big shock in the stock markets. Investors might have different responses to these unexpected events (or news), and these events might have a large impact on the stock markets. The impacts of these unexpected events are labeled jumps. Because of the jump innovations, an ARJI model is constructed to capture the un-continuous jumping behavior of cash and futures markets.

The empirical results show that jumping behavior exists in these three markets and the jump intensity is not fixed, but changing over time. It has also found that the hedge performance of ARJI model is better than VEC-GJR GARCH model. The reason is that after adding the jump component, the ARJI model can more precisely capture the un-continuous jumping behavior and the volatilities of these three markets.

Key words: ARJI, GARCH, Hedge Ratio, Hedge Performance