

Volatility Spillover in the US and European Equity Markets: Evidence from Ex-ante and Ex-post Volatility Indicators

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This article utilizes the multiplicative error model to analyze and compare the volatility spillover effect based on two volatility measures, namely, the volatility index and the price range. We find that the lead-lag relationships are similar based on these two volatility measures, and that there exists a structural break when the subprime mortgage crisis occurred. The results based on both the volatility index and price range measures indicate that there are dual relationships between the U.S. and Europe. Furthermore, we measure the economic value of the volatility spillover effect and find that a maximum benefit of 20.06 annualized basis points is yielded in terms of the out-of-sample results. An investor with higher risk aversion will give rise to a lower performance fee. In addition, the volatility forecasts based on the price range are found to perform better than those based on the volatility index.

Key Words: Economic Value; Price Range; Volatility Index; Volatility Spillover.
JEL: C52; C58; G11; G15

「政策與管理意涵」

在歷經美國次貸風暴所引發之全球金融危機後，全球金融市場的波動變得更劇烈，而且金融市場彼此間的連動變得更加緊密，本文直接使用隱含波動及價格變幅，去探討美國與歐洲股票市場之波動外溢效果，並衡量此一外溢效果之經濟價值。藉由了解金融市場間之資訊傳遞，有助於金融機構及投資人做出較佳的避險策略及資產配置策略，故本研究對於風險管理及投資實務具有重要參考價值。

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美國與歐洲股票市場波動外溢 效果研究：事先與事後波動 指標之研究

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本篇論文利用兩種波動量度（隱含波動及價格變幅），並使用 MEM (Multiplicative Error Model)，分析並比較美國與歐洲股票市場之波動外溢效果。以此兩種波動量度為基礎的波動模型，顯示美國與歐洲股票市場存在相似的領先落後關係，而且在次債風暴之前後存在結構性改變。我們並利用資產配置策略，衡量波動外溢效果的經濟價值，結果發現波動外溢效果可產生最大 20.06bps 的年化報酬率。此外，在短期的波動預測方面，價格變幅比隱含波動有較佳的預測能力。

關鍵詞：經濟價值；價格變幅；波動指數；波動外溢效果。

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