

Asset Pricing and Systematic Liquidity Risk on Taiwan's Stock Market

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Market-wide liquidity drain from the recent financial tumult has raised grave concerns and prompted a number of academics to ponder how much liquidity risk has been incorporated into the pricing of those assets that undermine our shaky financial institutions. Although this market-wide liquidity risk factor has begun to be acknowledged as a key component of asset pricing models, it is yet to be applied to Taiwan's financial market. On the basis of the commonality in liquidity as confirmed by Lee, Lin, Lee and Tsao (2006) in Taiwan's stock market, this study is the first of its kind to consider the systematic liquidity factor in asset pricing models.

In this study, two different dimensions are employed to capture the elusive liquidity characteristic. We measure the degree of liquidity shock and illiquidity characteristics that afflict Taiwan's stock market by looking into temporary price changes accompanying the order flow in the lag period and the trading volume in the contemporaneous period. This study also explores whether excess returns reflect the compensation for market-wide liquidity and provides evidence that the premium for systematic liquidity shock factor and illiquidity factor in Taiwan's stock market are significant.

Keywords: Systematic liquidity, Illiquidity, Asset Pricing, Order-flow liquidity measure of Pastor and Stambaugh, Illiquidity measure of Amihud.

¹ This academic research reveals the authors' own opinions, and it doesn't necessarily represent the view of the institution where the author works for.

系統流動性風險評價模型： 台灣股票市場之探討

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自 2000 年來，學術界開始廣泛地討論系統流動性風險因子以及非流動性因子是否在資產評價上有重要的影響，尤其在最近的金融危機中，市場的流動性風險應該如何被衡量及量化也是實務上重視的課題。不同於傳統的市場微結構模型，著重在衡量個股的流動性以及非流動性，本文嘗試以系統流動性評價模型建構流動性風險因子及非流動性因子來衡量整體市場的流動性，並探討市場流動性如何應用在資產評價上。

依據 Lee, Lin, Lee, and Tsao (2006)的研究，臺灣個別股票流動性具有共同因素(common factor)存在，然而系統流動性仍尚未於臺灣證券市場評價。本文建構臺灣證券市場的流動性以及非流動性兩個系統風險因子，並測試股票報酬是否合理反應此兩系統因子，結果發現：若以市場流動性因子評估，持有對市場流動性衝擊具高度敏感性的股票($\text{Beta} > 0$ 者)並同時賣出低敏感性的股票($\text{Beta} < 0$ 者)，將得到顯著的異常報酬；若以市場非流動性因子衡量，則持有流動性較差的股票並同時賣出流動性較好的股票，也會得到顯著的異常報酬。

關鍵字：系統流動性評價模型、非流動性因子、資產定價、Pastor and Stambaugh 指標、Amihud 指標。

* 本文係屬作者個人意見，不代表作者服務單位立場。

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