

新冠肺炎黑天鵝來襲對台灣 AI 產業 風險值之評估

EVALUATION OF THE RISK ON TAIWAN'S AI INDUSTRY - EVIDENCE FROM THE BLACK SWAN - COVID-19

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摘要

本文主要以 AI 概念股進行研究，共 14 間公司。探討風險在該產業之情況，參考 Nelson (1990) 提出的 EGARCH 模型，評估傳統風險值、流動性調整風險值，最後使用敏感性分析瞭解各變數之情況。證實結果發現：(1)傳統風險值 (VaR) 最高為「信驊」；最低為「宏碁、緯創」。流動性調整風險值 (LAVaR) 最高為「世芯-KY」；低值為「宏碁」(2)傳統風險值多數對「訊息大幅度偏誤性」、「前期風險」有顯著。流動性調整風險值多數受到「訊息小幅度偏誤性」、「前期風險影響」。(3)敏感性分析發現多數的公司對於「誤差修正項」、「傳統性風險值擬和出 EGARCH 值」及「流動性調整風險

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值擬和出 EGARCH 值」受影響的程度較多。

關鍵字： AI 概念股、傳統風險值、流動性調整風險值、敏感性分析

ABSTRACT

This article mainly studies AI concept stocks, with a total of 14 companies. Discuss the situation of risk in this industry, refer to the EGARCH model proposed by Nelson (1990), evaluate the value at risk (VaR), liquidity adjusted VaR (LAVaR), and finally use sensitivity analysis to understand the situation of each variable. The verification results found that: (1) The highest VaR is "ASPEED"; the lowest is "Acer, Wistron". The highest LAVaR is "Alchip"; the lowest is "Acer" (2) Most of the VaR is significant for "large information bias" and "upfront risk". Most of the LaVaR are affected by "minor information bias" and "upfront risk". (3) Sensitivity analysis found that most companies are more affected by the "error correction term", "VaR fitting to EGARCH value" and "LAVaR fitting to EGARCH value".

Keywords: AI concept stocks, VaR, Liquidity Adjusted VaR, Sensitivity Analysis