題目	大中華貨幣單一化與經濟指標之探討－以模糊類神經和 ARIMAX-GARCH 模型之應用
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摘要	本研究參考歐元通貨籃之建構，以台灣、香港和中國大陸之每人生產毛額、出口總值和淨外匯存底加權，分別利用特別提款權 (Special Drawing Right, SDR) 、歐元、修正 SDR 方式，建構 1992 年第一季至 2007 年第二季之大中華單一中心匯率 (CCU)。以灰色關聯分析、模糊類神經、及 ARIMAX-GARCH 模型，分析影響 CCU 之關鍵因素和預測走勢，並比較模式之績效。經灰色關聯分析結果發現，CCU 分別受工業生產指數、國內生產毛額、股價指數、外匯存底等變數影響最深，而灰色關聯分析篩選之前五變數預測績效皆優於後五變數，且修正後匯率模式績效較 SDR 和 EURO 計算方式佳。ARIMAX-GARCH 分析結果以工業生產指數、貨幣供給成長率和貿易變數影響最大且深遠。整體而言，ARIMAX-GARCH 預測績效優於模糊類神經。
關鍵字	大中華單一貨幣；ARIMAX-GARCH；灰關聯分析；模糊理論；類神經網路
Title	The Study of Chinese Currency Unification and Economic Factors:The Analysis of Fuzzy Neural Network and ARIMAX-GARCH Model
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Abstract	Referring to the structure of the EURO currency basket, the central rate of Chinese Currency (CCU) Unit was simulated from 1992/Q1to the 2007/Q2 by the weights based on the GDP per capital, the exports, and the net foreign reserve of the Taiwan, Hong Kong, and Mainland China. By comparing each of the Special Drawing Rights (SDR), EURO, and modified-SDR methods, it is adequate to apply Grey Relation, Fuzzy Neural Network, and ARIMAX-GARCH model to find out the key factors affecting CCU and performing a prediction analysis. According the grey relational analysis, we found that the better five variables performed well comparing with the worse five. The modified-SDR method is better than SDR and EURO methods to measure CCU. By analyzing the ARIMAX- GARCH model, the industry productive index, money supply growth rate, and trade factors significantly affect the CCU and its dynamic effect. Generally, the forecasting performance of ARIMAX- GARCH model is better than the neutral network.
Key Words	Chinese Currency Unit; ARIMAX-GARCH; Grey Relationship Analysis; Fuzzy; Neural Network