

# 遺傳演算法建構台灣股市期貨買賣決策規則之研究

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## 摘要

This research used 18 kinds of price and volume technical indices transferred from the Taiwan stock price index as the input parameters, the maximization of the final capital as the fitness function, the genetic algorithms as the optimization tool to construct the trading rules for the Taiwan stock price index. The findings showed that the three kinds of trading strategies, the bidirectional GA strategy, the sole bidirectional GA strategy, and the buy and hold strategy, in test period produced the average year profit rate respectively with 10.72%, 6.30% and -7.2%, as well as the relative profit coefficient respectively with 1.19, 1.15 and 1.00. Moreover, compared the risk assessment graphs of the bidirectional GA strategy and the sole bidirectional GA strategy, the smallest year profit rate respectively is 2.96% and -16.90%, and the smallest total success ratio respectively is 46.70% and 26.40%. Therefore, the bidirectional GA strategy is a not only effective but also stable Taiwan stock market trading strategy.

關鍵字：technical index, genetic algorithms, trading rule.