

股票市場效率與經濟發達程度之關係-遺傳演化神經網路研究

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摘要

The market efficiency hypothesis advocates the technical analysis cannot obtain the excess profit from the market. There have been many real studies that supported and opposed to the hypothesis, respectively, for a long time. This paper proposes a hypothesis that the market efficiency is proportional to the economy development degree. In order to confirm this hypothesis, this study constructed the transaction decision system that maximize the profit by using genetic neural networks with the learning ability, and proposed “the market efficiency index” to measure the market the efficiency, per capita GDP to measure the economy development degree. Twenty two countries, that contain each economy development degree, nine years (1997~2006) stock market data were used as the samples to conduct the study. The findings showed that the lower economy development degree, the higher the possibility of obtaining obvious excess profit by using technical analysis under considering transaction cost. In test period, the per capita GDP may explain 61% variation of the market efficiency index, the F statistics reaches 0.002% remarkable level; therefore, the economy development degree obviously affects the market efficiency.

關鍵字：market efficiency, economy development, neural networks, genetic algorithms.