

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 that technical analysis cannot obtain the excess profit from the market. There have been many real studies that supported and refuted to the hypothesis, respectively, for a long time. This paper proposes a hypothesis that market efficiency is proportional to the degree of economic development. In order to confirm this hypothesis, this study constructed a trading decision-making system that maximized profit by using genetic neural networks with the learning abilities, and proposed "the market efficiency index" to measure the market efficiency and per capita GDP to measure the degree of economic development. twenty two countries, representing all degrees of economic development and nine years of stock market data were used as the samples to conduct the study. The findings showed that the lower the economic development, the higher the possibility of obtaining obvious excess profit by using technical analysis while considering transaction cost. In the test period, the per capita GDP may explain 61% of variation of the market efficiency index, and the F statistics reach a remarkable 0,002% level; therefore, the economic development degree obviously affects the market efficiency.

關鍵字：market efficiency

economic development

neural networks

genetic algorithms