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Impact of Business Cycle on the Market Variables in Bankruptcy Prediction with Genetic Algorithm

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Abstract

The business cycle is the expression of the change in economic and commercial activity over time, which this change in economic activity can lead to the flourishing or bankruptcy of companies, which is considered in the context of bankruptcy. In this regard, the purpose of this study was to investigate the effect of commercial cycles on the usefulness of market information in predicting bankruptcy of companies admitted to Tehran Stock Exchange between 2010 and 2017. In this regard, the predictive power of market data bankruptcy in one year before the occurrence of various business cycles has been investigated. In this study, the post-filter band model was used to determine the commercial cycles and genetic algorithm was used to predict bankruptcy. Bankruptcy criterion Article 141 of the Commercial Code is considered the results indicate that market variables during the recession are more accurate than market variables during the boom period in predicting bankruptcy; this leads to the assumption of the usefulness of market variables in the prediction of bankruptcy using the genetic model at different stages of the business cycle. However, this is not true for each of the variables, so that the variables of risk, expected returns, risk and systematic risk index in predicting bankruptcy using the genetic model at different stages of the business cycle could not be more accurate in the depression of the recession than in the boom period Provide.

Keyword: Business Cycle, Market Information, Bankruptcy Prediction, Genetic Algorithm.

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