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**THE CRITICAL LEVEL OF A RISK IN TERMS OF CYCLICITY:
AGRICULTURAL ENTERPRISES OF MYKOLAYIV**

ABSTRACT

The risk assessment is an important part of a management that always takes place at any enterprise. It can be a part of organized risk-management or intuitively held by the manager in the form of qualitative assessment. However, in the process of risk assessment the external factors are not always taken into consideration, in particular, those which rarely occur, e.g., economic recession, financial crisis etc. Risk management techniques which worked successfully till 2007, failed at the end of 2008 when the global crisis began and touched national agricultural sector.

The problems of the assessment of the critical level risk were studied by domestic and foreign scientists: B.V. Sidjaga, V.V. Vitlinsky, N.A. Gerasimenko, E. Altman, G. Springate, etc. The theoretical base of a risk assessment was studied in researches of E. Brigham, F. Walpole etc. The results of their studies do not take into consideration the crisis in the economy and the peculiarities of the economic branches.

The purpose of the paper is the elaboration of tools and practical recommendations for critical risk assessment in agricultural enterprises in the period of macroeconomic crisis.

The paper suggests modification the common methods of risk assessment in dependence on the state of the economy. The results of the study show when the crisis begins, the impact of the same factors on the entrepreneurial activity significantly increases. The analysis of a sample of financial statements of 55 agricultural enterprises of Mykolayiv region is held in the research.

The fluctuations of agricultural products prices and prices of fuel and lubricants purchases depend on the state of world and domestic commodity market which forms the price risks for enterprises.

Extreme deterioration of market conditions creates the optimal terms for critical risk assessment. The research operates by such indicators as beta-coefficient, the effect of operating and financial leverage, financial leverage, ratios of general and emergency liquidity.

The results of the study show that in 2009, 27 enterprises out of 49 have not published financial statements, and in 2010 their statements also have not been published. For comparison, in 2008, 49 enterprises out of 55 published financial statements. This implies that 55.1% of the analyzed sample suffered some financial and economic disturbance during the crisis of 2009.

Using Bayesian formula the calculation of conditional probability for each risk indicator is held. The obtained results show that the difference between the effects of the same indicators can vary significantly depending on the state of the economy. For instance, the consequences of exceeding values of financial leverage and effect of financial leverage differ depending on the stage of economic cycle in 1.5 and in 3 times respectively.

It was determined that the change of allowable values of risk assessment in different periods of economic cycle is considerable. Posteriori analysis shows the possibility of changing of risk estimators using multipliers obtained by statistical analysis. With the increase in a sample of time data and cross-section data it will be possible to form complex universal models allowing more accurate determination of probability of entrepreneurial activity for different stages of economic cycle.