Economic recession forecasting using neural network

J K Wijeratne, S S N Perera and N W V S C Surasinghe

Department of Mathematics, University of Colombo, Colombo 03

Many countries of the world are now facing recession in their economy which has affected the people. It is important to identify recession before the country assumes a recession state. So development of forecast model is an important subject area. Leading economic indicators are changing before the economy changes. They are the most important type as they help predict what the economy will be like in the future. So, recession can be forecast using leading economic indicators.

There are many recession forecasting methods available in literature. Due to the complexity of simulation only a limited number of indicators were used in all these available methods. In this research, we attempt to forecast economic recession using artificial neural networks with selected leading economic indicators. Neural networks can detect relationship among the selected leading indicators and the recession signals. Due to the structure of the neural network, a reasonably large number of indicators can be used. In this project, seven leading indicators of USA were used. The result shows that this model could predict recession with 90 percent of confidence.

ssnp@maths.cmb.ac.lk
Tel : 0715352616