

Foreword

When McCulloch and Pitts invented their artificial neural network model, they may never have predicted that the ANN model will be called for to predict the turning point of the world finance crisis. Similarly, Holland would be very happy to see that his genetic algorithm has been successfully applied to calculate the best portfolio on capital investment market. The ubiquitous application of computational intelligence techniques has become a salient characteristic of our era. In particular, economic forecasting increasingly depends on information technologies and has pushed business intelligence to the forefront. It is in this sense that I think the publication of the book “Business Intelligence in Economic Forecasting: Technologies and Techniques” is just in time. It meets the need of people both inside and outside of the circle of finance experts.

This book provides us with a valuable resource of research results for academicians and practitioners by addressing the most pressing issues faced by company executives, risk regulators and state governors from both a national and global perspective.

It contains a detailed description of a variety of business intelligence techniques, from classical logic to fuzzy logic and from meta-heuristic techniques to integrated meta-heuristics. The authors ingeniously applied those techniques to a broad range of economic fields. Techniques used by them include artificial neural networks and their numerous variations, support vector machine, genetic programming, clustering analysis, TEI@I, fuzzy systems, text mining, etc. The applications cover topics such as macro-economics, business cycle, currency crisis, bankruptcy, credit scoring, stock index, industry indices, oil demand, electricity demand and load forecasting. Delicate arrangements and improvements are made to incorporate artificial intelligence into traditional economic or econometric methodologies. These innovative approaches disclose unknown information and new insights out of untouched cases as well as the common topics.

This book, containing papers collected by editors, who for a long time have fostered the construction of the bridge between business intelligence and economic forecasting, should help both economists and practitioners to understand the complex mechanism of the economy.

I do hope that this book will receive the success it deserves.

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