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### **Fuzzy Logic in Financial Analysis**

Series in Fuzziness and Soft Computing.  
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xii + 450 pages.  
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The referred monograph offers a mathematical and logical approach to recent economic and business processes, characterized by their globality, complexity and flexibility of rules, paradigm and overall conditions. That all implies essential uncertainty of practically all systems and phenomena existing in the modelled processes. Moreover, the rapid changes of structures and processes practically exclude the effective application of traditional probabilistic or statistical tools and, instead of them, subjective expert estimations of the future become essential. Such environment demands the application of qualitatively new methods of uncertainty processing, and the fuzzy sets and fuzzy logic appear very suitable for this purpose.

The rather wide topic is atomized in twenty three relatively brief chapters. Nevertheless, those chapter can be grouped into several, not strictly separated clusters. The chapters presenting introductory general concepts (like uncertainty, decision-making or subjective estimations) related to the environment of financial activities and business, can belong to one of the clusters. Another topic treated in several related chapters regards the financial solvency, and analysis of financial structures, including a sub-cluster on the cost and profit analysis. This cluster covers the major part of the monograph. Further group can be formed by chapters dealing with strategic aspects of financial and business policies. The last cluster can include chapters oriented to the analysis of financial products and partly also of other financial activities.

The book is concluded by a bibliography. It includes 100 items but their choice, covering so wide extent of topics, cannot be very representative, and it rather reflects the subjective evaluation resulting from the author's interests.

The referred monograph is written in a lucid style, respecting readers whose mathematical background is not very general or abstract. The presentation and analysis of particular problems is pleasantly brief and illustrated by well chosen examples or case studies.

The applications of fuzziness in such extensive field of financial of business models and problems, cannot be completely exhaustive. Anyhow, it offers a good overview about the theory and its perspectives, as well as about its inspiring applications. The main motivation of the book – the fact that modern economy is so global and so rapidly changing that it cannot be treated by classical mathematical models – is logical and true. The referred work shows and illustrates this fact, and a way of eventual continuation in our endeavour to manage the changing reality by modern mathematical tools.

It is possible to recommend the book to active economists and students with sound mathematical background and with a will to learn new perspective trends in mathematically-economic research and development.

*Milan Mareš*