

Gollier, Christian

The economics of risk and time. (English) Zbl 0991.91001

Cambridge, MA: MIT Press. 520 p. (2001).

Publisher's description: This book updates and advances the theory of expected utility as applied to risk analysis and financial decision making. Von Neumann and Morgenstern pioneered the use of expected utility theory in the 1940s, but most utility functions used in financial management are still relatively simplistic and assume a mean-variance world. Taking into account recent advances in the economics of risk and uncertainty, this book focuses on richer applications of expected utility in finance, macroeconomics, and environmental economics. The book consists of twenty-seven chapters and is divided into eight parts. Part I sets up expected utility theory and related concepts. Part II focuses on the standard portfolio problem of choice under uncertainty involving two different assets. Part III introduces the basic hyperplane separation theorem and log-supermodular functions as technical tools for solving various decision-making problems under uncertainty. Part IV analyzes choice involving multiple risks. Part V treats the Arrow-Debreu portfolio problem, while Part VI deals with consumption and saving. Part VII builds on the previous material to determine the equilibrium price of risk and time in an Arrow-Debreu economy, and analyzes how risks are traded. Part VIII focuses on dynamic models of decision-making when a flow of information on future risks is expected over time. This book is appropriate for both students and professionals. Concepts are presented intuitively as well as formally, and the theory is balanced by empirical considerations. Each chapter concludes with a problem set.

MSC:

91-02 Research exposition (monographs, survey articles) pertaining to Cited in **137** Documents
game theory, economics, and finance