Record Nr. UNINA9910983494003321 Autore Mizuta Takanobu Titolo Financial Market Design by an Agent-Based Model / / by Takanobu Mizuta, Isao Yagi Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 9789819617135 9819617138 Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (340 pages) Collana Evolutionary Economics and Social Complexity Science, , 2198-4212;; 33 Altri autori (Persone) Yaqilsao Disciplina 330.0113 Soggetti Economics - Computer programs Finance Microeconomics Computational Economics Financial Economics Market Structure and Economic Design Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Part 1. Importance and Model -- Chapter 1. Financial Market Design Nota di contenuto and Agent-Based Model -- Chapter 2. Base Model for Financial Market Design -- Part 2. Cases -- Chapter 3. Regulations/Rules -- Chapter 4. Al Traders/High Frequency Trades -- Chapter 5. New Financial Exchanges for High-Speed Era -- Chapter 6. Nature of Financial Market Phenomena -- Chapter 7. Active and Passive Funds -- Part 3. Summary and difficulty of this field -- Chapter 8. Summary and Difficulties of this Field. Sommario/riassunto This is the first book to focus on designing a financial market that works well, and that includes making and/or modulating detailed regulations and/or rules, by a computer simulation of an agent-based artificial financial market model (ABAFMM). The design of a financial market is very important for the development and maintenance of an

advanced economy, but designing it is not easy because changes in

detailed rules, even those that seem trivial, sometimes have unexpectedly large impacts and side effects in a financial market.

which is a complex system. Traditional economics cannot treat a financial market as a complex system in which micro—macro interaction and feedback loops have played essential roles, because traditional economics can only treat macrophenomena and micro processes separately. ABAFMM can do it, however. This book explains, first, why ABAFMMs are needed to design financial markets and which models have good features. Following that explanation, the book discusses how to build the models. Then, cases of recent studies and their contributions are shown, and finally, the difficulties of researchers in this field are considered. This book is expected to facilitate the design of more ABAFMMs to contribute to creating financial markets that will further develop and maintain advanced economies.