Virtual and Artificial financial Market built on Computers

Agents (Artificial Investors) + Price Mechanism (Artificial Exchange)

Complete Computer Simulation needing NO Empirical Data

Note that the opinions contained herein are solely those of the authors and do not necessarily reflect those of SPARX Asset Management Co., Ltd.
Discussion for regulations and rules in financial markets

**Difficulty of Empirical Study**

- to investigate situations that have never occurred in actual financial markets → No empirical data
- to isolate the direct effect of changing regulations to price formation → So many factors cause price formation in actual markets

**Artificial Market Model**

- ✓ can isolate the pure contribution of the changes to the price formation
- ✓ can treat the changes that have never been employed
Strong point of Artificial Market Model

what happened in the past

what will happen in the future

Empirical Study

Artificial Market Model

Find “possible” changes
Contribute to discussion by finding “possible” side effects

Columbus’ Egg
Many studies on Artificial Market Model
Many studies on Artificial Market Model are presented.
Contributions


Future Discussion

Monetary Policy, Monitoring Financial Systems


My Expectation for AI Except Artificial Market

Screening Insider Trades and Manipulations of Stock Price; AI have already contributed to arrest Money Laundering and Unauthorized using Credit Cards.