

Book Review

The End of Theory: Financial Crises, the Failure of Economics and the Sweep of Human Interaction, by Richard Bookstaber, Princeton University Press, 240 pp

Vindicating the quote “an economist is an expert who will know tomorrow why the things he predicted yesterday didn't happen today”, Richard Bookstaber, renowned theoretician cum financial practitioner, comes up with very different explanation of financial crisis. In his book, “The End of Theory: Financial Crises, the Failure of Economics and the Sweep of Human Interaction”, he argues that “traditional economic theory is not up to the task” of predicting and dealing with crises. He explains the inadequacy of traditional economic theory to forecast financial crises, and presents an alternative human oriented approach. Owing to its method and structure, he holds incapacitation of traditional theories to deal with financial crises, and are thus responsible for wild predictions. This book provides an important insight to the causes of crises and also ignites a ground-breaking debate to revisit the traditional economic models. Divided into two interrelated parts and ten chapters, the book exposes the loopholes of traditional economic theories and makes an eloquent case for the adoption of agent-based economics.

In the first part of the book, Bookstaber attempts to explain the inadequacy of traditional economic theory in predicting crises. The author questions the usefulness of traditional economic models in the presence of four vital factors. On the first factor, “emergent phenomena”, he points out that the sum of human interactions can produce unexpected results that are not related to the intentions of the individuals involved. This can be explained as bunching of traffic on a motorway, or sudden stampede in a crowd. Bookstaber presents “non-ergodicity” as the second factor. He explains an ergodic process as a process that follows the same rule every time. For example, when rolling the conventional dice, the chances to get six will be one in six every time. On the contrary, in the real world of human interactions, probabilities are non-ergodic and constantly change. The author mentions this phenomenon as “radical uncertainty”; people are oblivious of the range, or the probability, of future outcomes. The fourth is “computational irreducibility”; the future is far more complex than we think, and the influence of human interactions is so profound, that it is perhaps near to impossible to craft models to forestall the outcome. In these hues, the author claims that today’s risk models, built on the lines of neoclassical theory, do not account for these factors. Owing to which their power to

forecast is not only limited but impractical. He explains all this by giving readers a step-by-step understanding of the crisis of 2007-08, and exposing the failure of the models used for forecasting. Conclusively, he points out that so called “dynamic” models of the day have remained incapacitated to capture the boundless complexities of multidimensional networks. Influenced by of George Soros’s reflexivity and layering it with the diverse subjects ranging from network theory, chaos theory, to biology and even literature, the author challenges the conventional wisdom of modelling. He emphasises rethinking of the validity of conventional economic models and to shift towards a more dynamic, human and technologically driven and practical models. This proposed shift is similar to the rational economic theory of Adam Smith and Ricardo who shifted toward neoclassicism after the Industrial Revolution. After establishing the need for a novel approach for economic modelling, Bookstaber introduces the concept of agent-based economics modelling in the second part of his book. This approach recognises the human narrative while addressing market realities. Agent based modelling embraces the various shades of human behaviour by avoiding the superficial and impractical structure of contemporary economic approach. In this part, Bookstaber also attempts to explain and proposes strategies to tackle issues such as radical uncertainty, when circumstances take place beyond our anticipation, and emergence, when innocent, everyday interactions combine to create sudden chaos. Despite an in-depth analysis on agent based modelling, Bookstaber concludes there is no specific model to deal with crises and describes agent based modelling as an intellectual approach to understanding the system.

Bookstaber’s analysis is top-notch, detailed and illustrative. Readers who are interested to understand the mechanisms of the financial system can greatly benefit from reading this book. Nevertheless, it is a universally acknowledged fact that there is no pedestal of perfection and completion in regard to knowledge, intellect and scholarly callipers. This book does have some limitations. First, although in the early pages of book the author discusses mainstream economics, the rest focuses on the financial sector. Mainstream economic problems such as inflation, unemployment, productivity are not discussed in this book. Such analysis does not provide adequate basis to refute the importance of neo-classical economics theory and modelling. Rather, traditional economics can act as a basis to develop more rational and practical models as Bookstaber himself does by introducing agent-based modelling. Second, Bookstaber’s approach in refuting rationality is not very practical. The concept of rationality acts as a prod, gravitating academicians, practitioners and scholars to dig more on the topic. Abandoning the idea of a rational man and describing the things the way they are, may block new insights. Studies of Muir (2017) and Campbell,

Justiniano, and Melosi (2017), and Bordo and Haubrich (2017) are particularly useful and insightful in this regard.

Overall, by extensively discussing the reasons for financial crises and failure of traditional economic modelling, the book offers a ground-breaking perspective, coupled with a realistic and human focused framework, to strengthen the predictability of today's financial system from cranking down again.

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