

**Stochastic Optimal Control and the U.S. Financial Debt Crisis**  
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Stochastic Optimal Control (SOC)—a mathematical theory concerned with minimizing a cost (or maximizing a payout) pertaining to a controlled process under uncertainty—has proven incredibly helpful to understanding and predicting debt crises and evaluating proposed financial regulation and risk management. *Stochastic Optimal Control and the U.S. Financial Debt Crisis* analyzes SOC in relation to the 2008 U.S. financial crisis, and offers a detailed framework depicting why such a methodology is best suited for reducing financial risk and addressing key regulatory issues. Topics discussed include the inadequacies of the current approaches underlying financial regulations, the use of SOC to explain debt crises and superiority over existing approaches to regulation, and the domestic and international applications of SOC to financial crises. Principles in this book will appeal to economists, mathematicians, and researchers interested in the U.S. financial debt crisis and optimal risk management.

Bio:

**Jerome L. Stein** has been an emeritus professor of economics at Brown University since 1993, Visiting Professor/Research Applied Mathematics Brown University since 1997. He is the author of nine research monographs, and has published over 100 journal articles in such leading publications as *American Economic Review*, *Review of Economics and Statistics*, and *Journal of banking and Finance*, *Contemporary Mathematics*. He has served on the editorial boards of the *Journal of Finance*, *American Economic Review*, *Journal of International and Comparative Economics*, and the *Journal of Banking and Finance*.

In memory of

DAVID MORTON STEIN

1988 – 2008