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Title: Economic and Financial Decisions under Risk

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This delightful little book is aimed at advanced undergraduate and first year graduate students who need to learn about modeling risk. Compared with most other textbooks of similar material, this book is under 250 pages. But don't let the size of the book fool you. It contains deep and insightful discussions about all the topics under consideration.

The origin of this book can be traced back to the out of print volume entitled "Risk: evaluation, management and sharing," by the first two authors in 1995. That book was an English translation of the original French version published in 1992. Thus, the authors have had the luxury of rewriting and updating some of the original material of their earlier book. Like fine wine, the maturity of this new book shows in every page. (As it should – the authors point out that they have a combined research experience of more than sixty years).

The book starts with the fundamentals of risk measurement and risk aversion in the first section entitled "Decision Theory". Historical context is discussed early on starting with the Saint Petersburg Paradox. Authors point out that one example of Bernoulli hogged the limelight whereas other equally interesting insights were neglected in the paper of Bernoulli. The authors honor Bernoulli by discussing many examples and problems with two characters right out of the paper of Bernoulli: Sampronius and Caius.

In the second section entitled "Risk Management", the authors discuss the concepts to insurance decisions and portfolio choice in a one-period model. They expand it to a multi-period context. This extension is not just a generalization for its own sake. It adds the long-term perspective most risk management analyses require. This section takes up almost half of the book.

In the third section entitled "Risk Sharing", the authors tackle topics like asset pricing using Arrow-Debreu securities and asymmetric information. Unlike the rest of the book, the last chapter is the only chapter that ventures out of the comfort zone of expected utility models.

As can be seen from the structure of three sections of the book, there are echoes of their earlier textbook. However, in this book, the authors have taken out messy calculations. Thus, the book looks deceptively simple on the surface, but the readers should be aware of what lies under the surface. When the authors say, "from equation x, we get expression y", many times they are not obvious. It will require a bit of work to go from x to y.

Although the mathematical requirements are formally no more than (differential) calculus and algebra, the concepts discussed are not easy. This becomes quite clear if one tries to solve the end of the chapter problems. Thus, in the discussion of Arrow-Debreu Static Model, the authors sneak in the concept of risk neutral probabilities. In discussing risk aversion, the authors hint at the equity premium puzzle.

There are a few in-jokes that authors have placed in the book. For example, in Problem (5.3), there are two farmers named Mr. Kessler and Mr. Doherty. Anybody familiar with the authors would recognize these two real life personalities. In this respect, reading the book was like an Easter Egg hunt.

I have been teaching economics of uncertainty for the past two decades. The research area has moved substantially over this period. It has become much more "behavioral" – moving away from the expected utility paradigm. I have often asked myself if we should spend most of the semester teaching expected utility. The authors of this book makes it clear that we should. I agree.