



info-gap.com



technion.ac.il/yakov

*Info-Gap Economics:  
An Operational Introduction*

Yakov Ben-Haim

Palgrave-Macmillan, 2010, ISBN 978-0-230-22804-7

After every crisis economists and policy analysts ask: can better models help prevent or ameliorate such situations? This book is an answer. Yes, quantitative models can help if we remember that they are rough approximations to a vastly more complex reality. Models can help if we include realistic but simple representations of uncertainty among our models. Models can help if we retain the pre-eminence of human judgment over the churning of our computers.

Info-gap theory is a new method for modelling and managing severe uncertainty. The core of the book presents detailed examples of info-gap analysis of decisions in monetary policy, financial economics, environmental economics for pollution control and climate change, estimation and forecasting.

**Selections from Reviews**

“Reading Info-Gap Economics was no less than inspiring, and taught me a great deal about modelling uncertainty. The advantages of the economical Info-gap models lie in their ability to maximize the immunity of model-based economic decisions to adverse uncertainty. The models are intuitive, start from the available knowledge and make few (if any) assumptions about true uncertainty, which may be difficult or even impossible to predict.”

“I would strongly recommend Info-Gap Economics to ecological economists in need of some inspiration for modelling uncertainty, but particularly to decision makers dealing with decisions that have long-term consequences.”

Prof. Thomas Knoke, Institute of Forest Management, Technical University of Munich, Germany.  
*Ecological Economics*, 2010, Volume 70, Issue 3, pp.567–568.

“Info-gap theory offers a new foundation for economic analysis by providing a general, rigorous methodology for decision making under severe uncertainty. This makes *Info-Gap Economics* an important book to read for researchers and policymakers alike.” (p.757)

“In sum, this is a fascinating book that will play a key role in the discussion on how to model economic decision-making in the face of uncertainty. . . . But especially in this time of major changes in the economic and financial sphere, a book like *Info-Gap [Economics]* provides a very important contribution to the research literature and the policy debate.” (p.759)

Dr. Gabriele Galati, Economic Policy & Research Division, De Nederlandsche Bank, Amsterdam.  
*European Journal of Operational Research*, 2011, vol.210, pp.757–760.

**Endorsements**

Ben-Haim’s “theories and presentation of how to calculate what one *needs* to know are, or should be, *must* reading for any one seriously involved in any aspect of today’s economic world, from the trader on a desk to a Central Bank head. It is much too easy, given the stresses of today’s world, to skip past missing information so as to act quickly in the market, but that is exactly the path which leads to significant errors, as we have all unfortunately witnessed. *A method of calculating the ‘info gap’ is certainly vital in setting policy.*”

Lew Weston, Retired Partner, Goldman, Sachs & Co.

“In an economic world where complexity defines the system and the underlying models are at best simplistic and incomplete, it is imperative that policy decisions be taken on the assumption of (disappointingly) incomplete knowledge. Now, more than ever, is the economics profession confronted with the truth of it all. *This is the time for info-gap and decisions under fundamental uncertainty.*”  
Dr. Maria Demertzis, Research Department, De Nederlandsche Bank.

“The work by Yakov Ben-Haim is always inspiring. It is impressive how many scientists already apply his theory. With his enthusiasm, Yakov has made uncertainty issues a topic in a variety of disciplines and thus promoted interdisciplinary work, which is most welcome. It is particularly important to consider uncertainty in economic decision-making, as the current financial crisis shows. For me, as a forest scientist and forest economist, uncertainty is a key-topic to be addressed by any sustainable management strategy for ecosystems. This book provides an excellent overview on opportunities for economic applications of the Information-Gap Theory. The manifold of practical examples makes it easy to understand and to follow, also for persons who are yet not so familiar with uncertainty issues.”

Dr. Thomas Knoke, Institute of Forest Management, Technical University of Munich.

“Much of the recent economic crisis can be traced to over reliance on simple mathematical models that take no account of the fact that real economies are subject to significant Knightian uncertainty. Ben-Haim shows how Info-Gap Theory can be used to model this uncertainty with carefully chosen, relevant and important economic examples. A must-read for serious economic decision makers.”  
Prof. Colin J. Thompson, Maths and Stats Department, University of Melbourne.

**Yakov Ben-Haim** holds the Yitzhak Moda'i Chair in Technology and Economics at the Technion – Israel Institute of Technology. He initiated and developed info-gap decision theory for modelling and managing severe uncertainty. Info-gap theory is applied in engineering, biological conservation, economics, project management, homeland security, medicine and other areas. He is the author of five books and numerous articles.