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## **Puzzles and Policies in Finance: Info-Gap Approaches**

13 November 2020, 13:00–14:00 CET  
Dept. of Economics, Free University, Amsterdam

### **Abstract**

Info-gap theory is a method for analysis, planning, decision and design under Knightian uncertainty. The future may differ from the past, so our models may err in ways we cannot know. Our data may lack evidence about surprises: catastrophes or windfalls. Our scientific and technical understanding may be incomplete. These are info-gaps: disparity between what we do know, and what we need to know in order to make responsible decisions. Info-gap theory provides decision-support tools for modelling and managing deep uncertainty. Info-gap theory has been applied to many disciplines, including economics, engineering, biological conservation, medicine, homeland security and more. After describing the nature of info-gap uncertainty, we explore an application to value at risk in finance, and then mention other potential applications.

### **Outline**

- Info-gap uncertainty: Examples.
- Principle of indifference: Info-gaps and probability.
- Equity premium puzzle.
- Value at risk.

### **Selected publications**

- Yakov Ben-Haim, 2018, *Dilemmas of Wonderland: Decisions in the Age of Innovation*, Oxford University Press.
- Yakov Ben-Haim, 2010, *Info-Gap Economics: An Operational Introduction*, Palgrave.  
Especially section 4.2: Value at Risk in Financial Economics.
- Yakov Ben-Haim, 2006, *Info-Gap Decision Theory: Decisions Under Severe Uncertainty*, 2nd edition, Academic Press.  
Especially section 11.5: Equity Premium Puzzle: A Solution.

**Additional information:** <http://info-gap.com> (especially: page on Economics and Finance)