Trading Complex Risks

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Abstract

Complex risks differ from simple risks in that agents facing them only possess imperfect information about the underlying *objective* probabilities. I study how complex risks are priced by and shared among potentially risk-averse investors in a Walrasian market. Decision theory under ambiguity implies distinctive and robust predictions regarding the trading of complex risks. I test these predictions in the laboratory. The experimental data provides strong evidence for theory's prediction that complexity reduces the price elasticity of both supply and demand. Noisy individual behavior and theory-consistent market aggregation can be reconciled with random choice logit models, where the level of bounded rationality is increasing in complexity. When moving from simple to complex risks, equilibrium prices are more whereas risk allocations are less sensitive to noise introduced by imperfectly rational subjects. Finally, my results imply that complexity has qualitatively similar but quantitatively more pronounced effects on market outcomes than ambiguity induced by conventional Ellsberg urns.

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