

UNIQUENESS IN CURRENCY CRISIS MODELS

By Christian Bauer

Abstract

Speculative attack models typically have multiple equilibrium solutions. When choosing the equilibrium strategy a trader faces Knightian uncertainty about the choice of the other traders. We show that the concept of Choquet expected utility maximization under Knightian uncertainty leads to unique equilibria. In speculative attack models the individual strategy choice crucially depends on the choice of the other market participants. However, in usual game theoretic models players ignore the information that all players choose their strategy rationally. This information set can be naturally represented by a belief function. Incorporating it into the decision process eliminates multiple solutions. In games of incomplete information the optimal strategy thus maximizes the expected utility with respect to a two-dimensional information: environment and rationality. We provide uniqueness theorems for a wide class of incomplete information games including global games. The uniqueness of the equilibrium remains valid for arbitrary noise distributions, positively correlated signals, the existence of large traders, individual payoff functions, and for the case that non attacking traders suffer a loss in case of a successful attack, as is the case for investors in the attacked country.—

Christian Bauer Dipl.-Math. Dipl.-Kfm. University of Bayreuth Chair of Economic Policy (VWL I) D-95440 Bayreuth Germany Tel.: +49 (0)921/55-3501 e-mail: Christian.Bauer@uni-bayreuth.de URL: <http://www.cbauer.de>