Adaptive Markets and Epidemics

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Abstract

We build a microeconomic systems simulation of agents in a decentralized market for a homogeneous good. In our markets we assume that a major source of transaction cost are the computational costs of making and completing a transaction, and the computational costs of maintaining a network of trading partners. We explore the conditions which lead agents to minimize transaction costs by converging to focal point meeting locations and adapt their bargaining strategy to both look for, and compete for, the best offer at their location. We then examine the consequences of an epidemic on the structure of meetings in our markets and show how the epidemic can cause long run losses in market efficiency.