

Area B: Implications – Uncertainty in Markets and Strategic Interactions

Overview

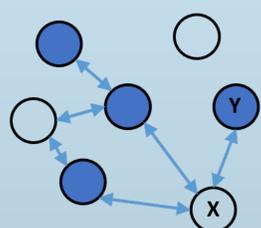
- Knightian uncertainty was studied in depth for the natural starting point of financial markets; focus here is on the interaction of uncertainty and dynamics in other economic environments and markets, especially the labor market.
- Analyse the role of social networks, search frictions and competition on labor market outcomes such as wages, unemployment and career progression.
- Investigate the interplay of aggregate and idiosyncratic shocks for innovation and output dynamics in industrial organization.
- Study behavior in general dynamic games under Knightian uncertainty, and apply obtained results to repeated games such as dynamic oligopoly.

B1. Network Formation in Labor Markets

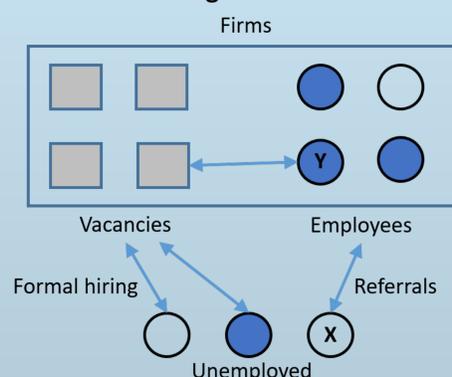
Manuel Förster, Dominik Karos, and Anna Zaharieva

- Expected labor market outcomes affect strategic network formation.
- Strategic network formation has implications for wages and employment.
- Thus, social networks and labor market outcomes co-evolve.

First stage: network formation



Second stage: labor market

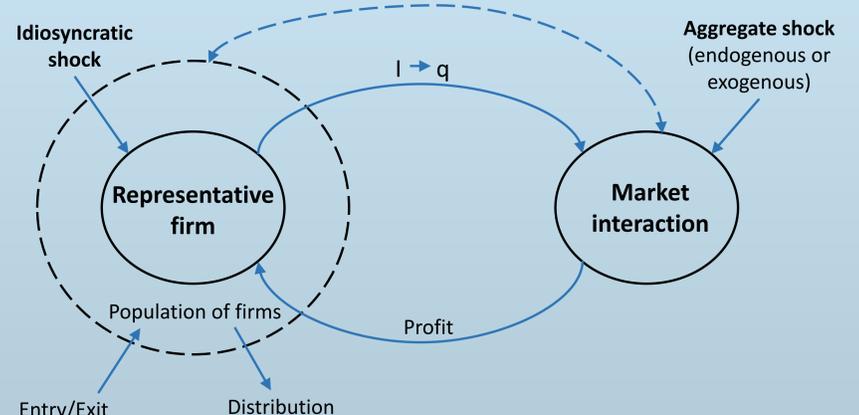


Potential Dissertation Topics. Strategic Network Formation in Labor Markets with Search Frictions; Reducing Uncertainty in Labor Markets with Strategic Communication; The Effect of Uncertainty Aversion on Social Ties in Labor Markets

B3. Innovation & Industry Dyn's under Aggregate Fluctuation

Herbert Dawid and Giorgio Ferrari

- Consider industrial dynamics with strategic competition.
- Study the interplay of idiosyncratic and aggregate shocks.
- Analyse the effect on firms' distribution and innovation.

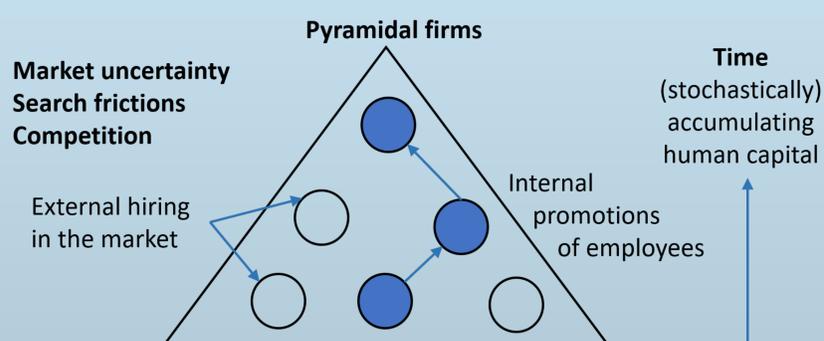


Potential Dissertation Topics. Industry Dynamics and Firm Size Distribution under Stochastic Regime Changes; Design of Innovation Policy under Heterogeneous Firms and Aggregate Uncertainty

B2. Decisions in Dynamic Labor Markets with Frictions

Giorgio Ferrari and Anna Zaharieva

- Approach internal promotions in frictional labor markets through real options and study the impact of uncertainty and external conditions on promotions.
- Analyse the impact of hierarchical structures on the optimal promotion timing.
- Model frictions and investment in education as an optimal stopping problem.

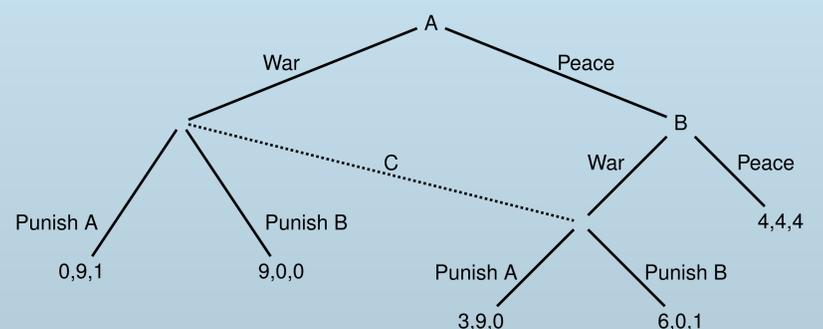


Potential Dissertation Topics. Human Capital Investment as a Real Option Problem in Frictional Labor Markets; Internal Promotions as an Optimal Stopping Problem in Labor Markets with Search Frictions

B4. Dynamic Games under Non-Bayesian Uncertainty

Yves Breitmoser and Frank Riedel

- Study (non-Bayesian) uncertainty in incomplete information games and develop the equilibrium concepts, e.g. versions of sequential equilibrium.
- Study time (in-)consistency related to various updating rules and their consequences for mechanism and information design.



Potential Dissertation Topics. Strategic Uncertainty in Repeated Prisoner's Dilemma; Sequential Equilibria in Non-Bayesian Repeated Games; Welfare in Oligopolistic Markets under Knightian Uncertainty; Ambiguity Aversion in Information Cascades; Dynamic Information Design under Knightian Uncertainty