

Stackelberg or Cournot?
A general model of duopolistic competition with endogenous
timing.
Discussion CRESSE 2023

Leonardo Basso¹ Petro Jara-Moroni² Eduardo Zúñiga-Leyton³

¹Universidad de Chile

²Universidad de Santiago de Chile

³Universidad Diego Portales, Santiago de Chile

Discussant: Nicole Bellert

Stackelberg or Cournot in Quantity Competition?

Cournot (1838)

Firms act simultaneously

Stackelberg (1934)

Firms act sequentially with advantageous leader and follower; perfect information

Well-known question

What determines the form of competition?

What Determines the Form of Competition?

Classical Answers

Firm characteristics (capacities, marginal costs, quality)

New Approach

Modularity of payoff functions

- Supermodular competition (strategic complement) → sequential interaction
- Submodular competition (strategic substitute) → simultaneous or sequential, depending on endogenizing game and risk dominance

Submodular Competition (Strategic Substitute)

Endogenizing Game (Hamilton & Slutsky (1990))

Pre-play stage: players choose a timing action simultaneously

- GOD: Game with Observable Delay
- GAC: Game with Action Commitment

Risk Dominance in multiple equilibria (Harsanyi et al. (1988))

- Choose equilibrium with higher deviation losses

Combining both Approaches

- GOD → simultaneous competition
- GAC → sequential competition

Comments and Questions

Comments

- Very interesting and well-written approach
- Intuitive example differentiated quantity competition

Questions

- Concrete examples for the different game constellations?
- Underlay with data?
- Difference finite versus infinite games?
- Can the comparison be extended to Bertrand?
- Extension to multiple firms?