

# Discussion of “Multilateral market power in input-output networks” by Matteo Bizzarri

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# Modelling competition

Provides a theory of oligopolistic competition in input-output networks

Firms submit supply and demand schedules (subject to market clearing) rather than prices or outputs.

In equilibrium firms correctly anticipate the schedules of others—and in effect still choose a price-output pair.

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So why does this matter?

# Competition in schedules

- ▶ Consider a Nash equilibrium with price or quantity competition
- ▶ Hypothesized deviations hold fixed the strategies (i.e., quantities/prices) of the other players
- ▶ But in practice firms might expect their competitors to respond
- ▶ Submitting a schedule means that firms quantities/prices automatically adjust after a deviation
- ▶ And this adjustment impacts whether the deviation is profitable or not

This affects equilibrium play in an arguably realistic way

A key contribution of this paper is to show how these ideas can be applied throughout complex production networks

A number of interesting insights are obtained as a result

# Linear schedules

Reducing players' strategy space to only choosing the slopes of schedules simplifies things considerably.

It does mean that firms have only one parameter to determine

- (i) their price-quantity pair
- (ii) their competitive response to deviations by others

This is a bit restrictive, but possibly still an improvement on price/quantity competition.

Given the generality of the network structures permitted, its an assumption I'm willing to buy

## A law of one price

There is a lot of evidence that trade is often bilateral and constrained.

Not all buyers can trade with all sellers (networked markets literature).

The way competition is modeled here is a bit like a double auction.

That might suggest a centralized market (and in the paper that is how things are done).

However, even in quite sparse networked markets there is work understanding when a law of one price obtains.

In these contexts a double auction is a better modelling device.

# Implications and applications

The model is very amenable to studying price pass through

This seems very important to understand in a world with looming tariffs and where inflation is a concern

The model could be taken to data to address important macroeconomic questions like this

Ultimately it is a model of how competitive distortions at the market-level (rather than relationship-level) compound throughout supply networks.

Informs on how the position of markets in the overall supply network of the economy amplifies distortions (analog of Bonacich centrality).