

Exchange Rates and Producer Prices: Evidence From Micro-Data

Discussion by
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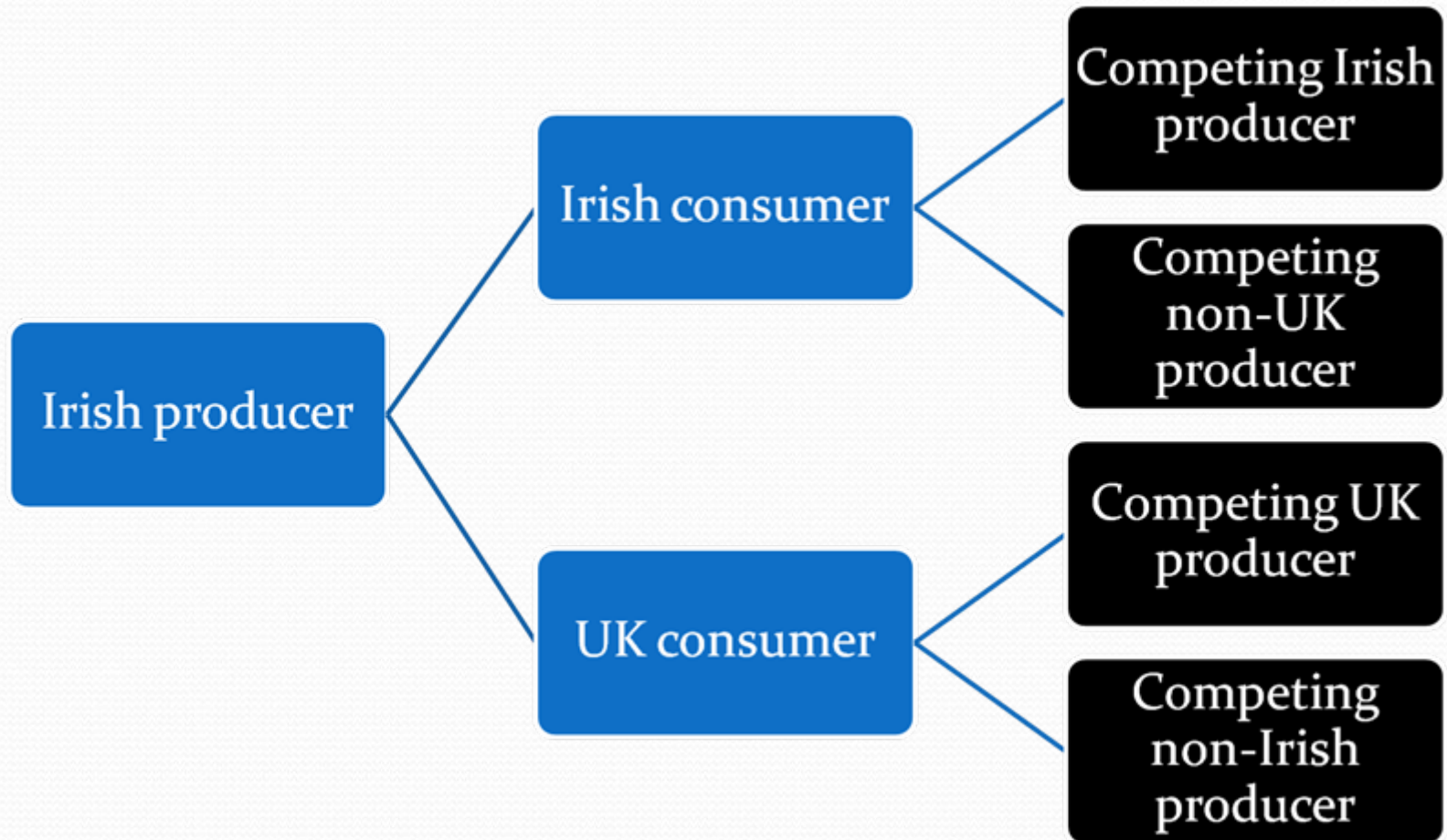
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Questions

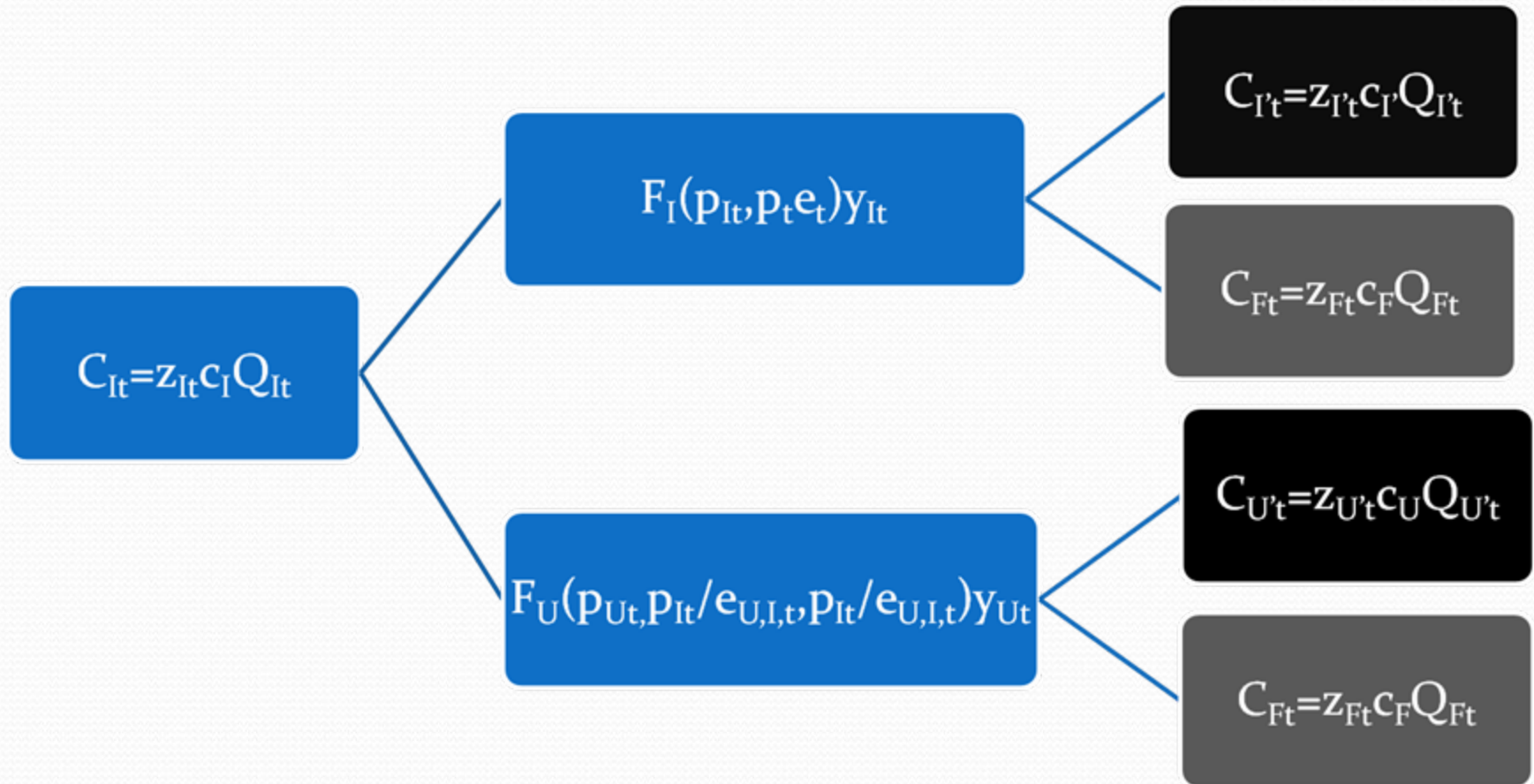
- How flexible are invoice prices in currency of invoice?
 - Median 7.1 months between price changes
 - Stickier than retail prices
- How are markups behaving?
 - If changes in marginal costs are the same across destination markets...
relative markups absorb exchange rate shocks
- Why does this occur?
- Why do we care?

Market structure

Identities of players



Market structure imperfect competition

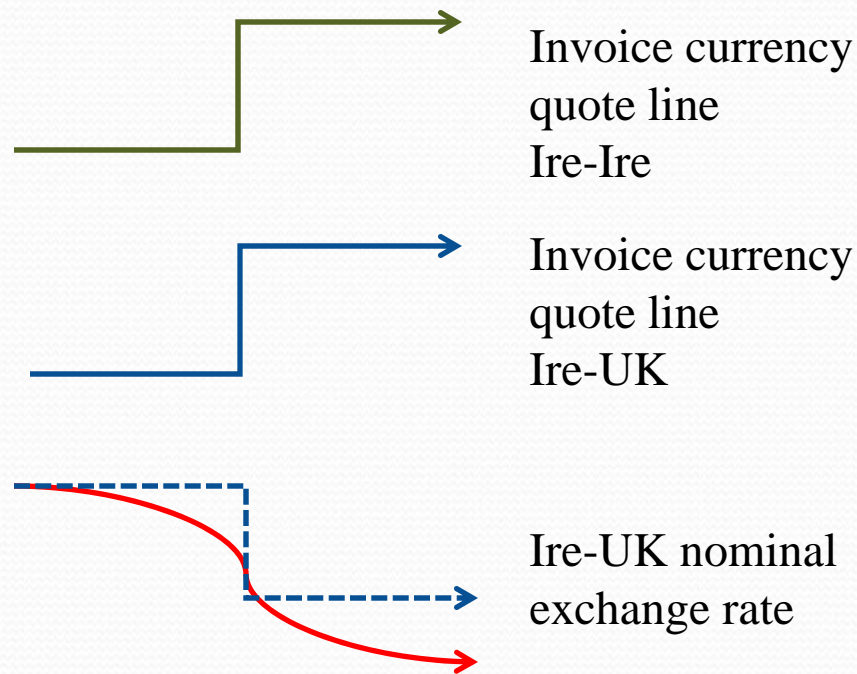


Thrust of the analysis

Micro-model

- Plant sells one product in multiple locations
- Location demand depends on own and competitors prices
- Demand is subject to unobserved multiplicative shifts
- Exchange rate is assumed to shift home relative to foreign demand by destination.

Micro-data



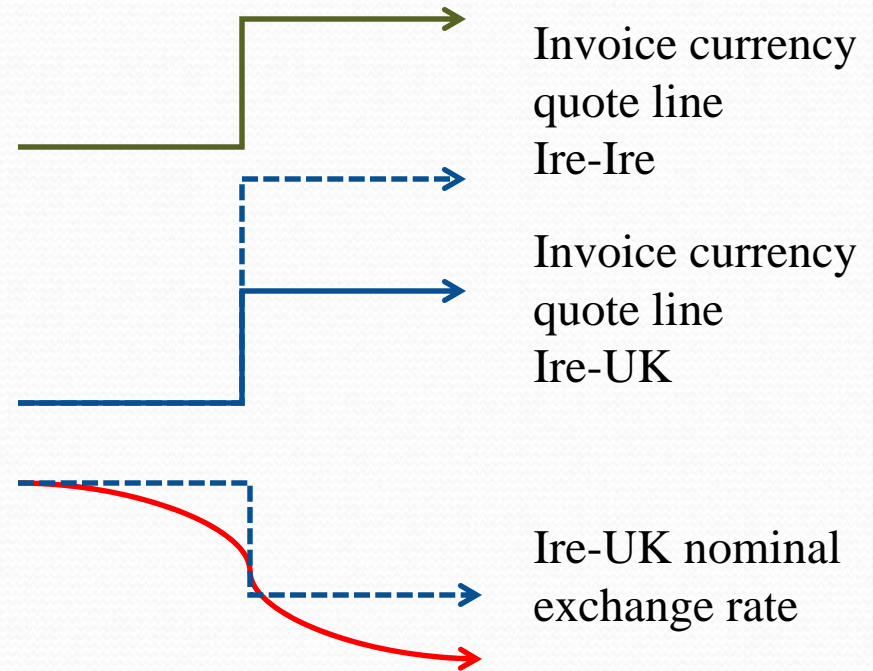
- **Invoice currency price stickiness**

Thrust of the analysis

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Micro-data



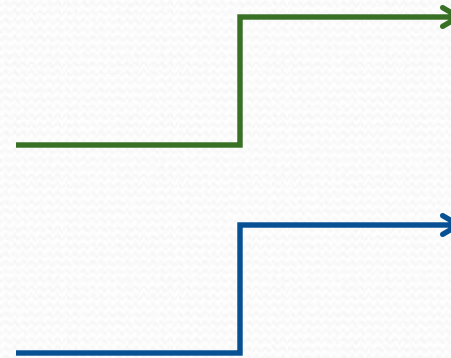
- **Discrete movements back to LOP**

Thrust of the analysis

Micro-model

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Micro-data



Invoice currency
quote line
Ire-Ire

Invoice currency
quote line
Ire-UK



Ire-UK nominal
exchange rate

- Invoice currency price stickiness

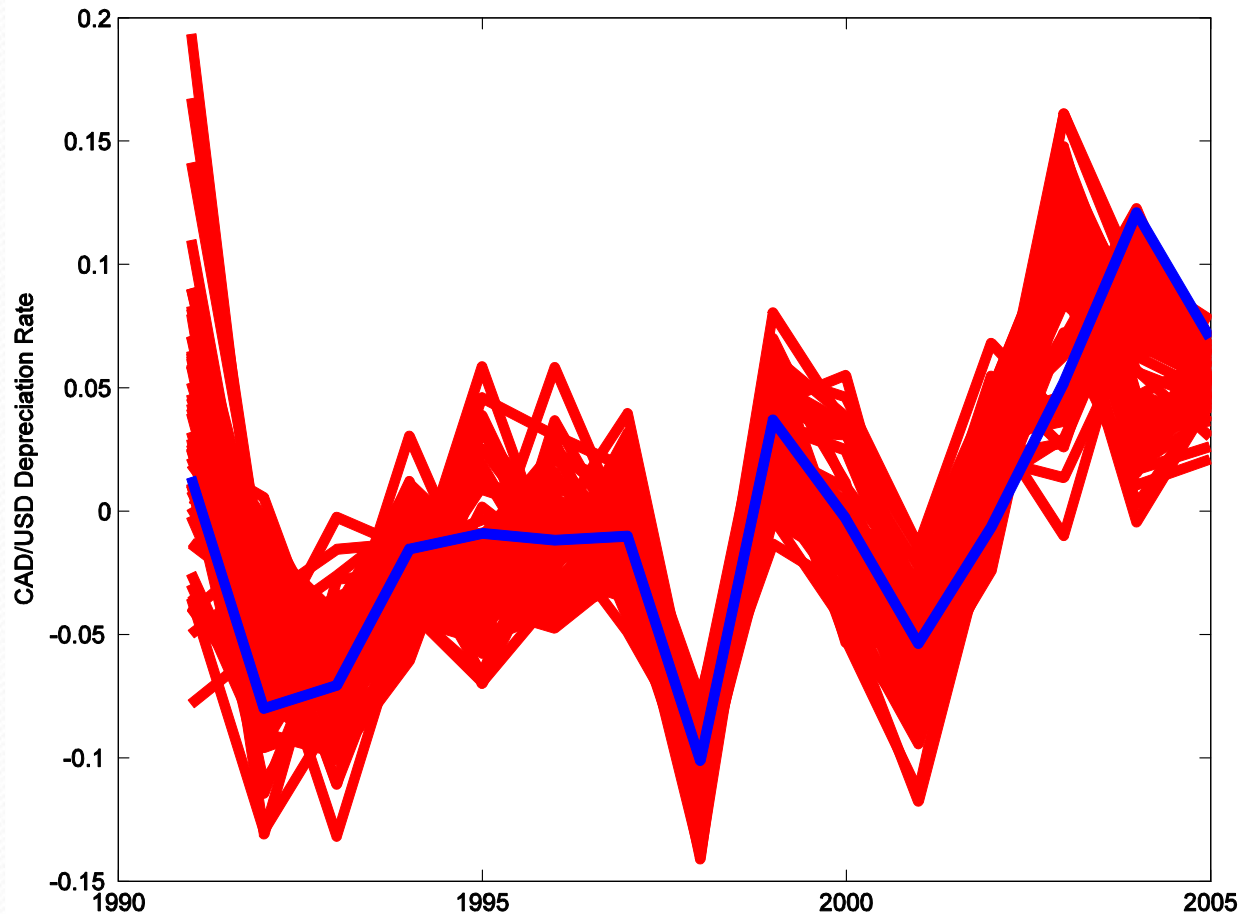
Remark I (sample selection)

Sample selection: simultaneous invoice price change at $t-k$ and t across both destinations.

Is this innocuous?

- Cost shocks seem obvious candidates to generate simultaneous price adjustment across destinations.
- Why would adjustment toward LOP occur at that moment as well?

Crucini-Telmer (2007)



Retail prices

Red lines are LOP deviations, blue line is the nominal exchange rate change

Blue line tracks the mean consistent with sticky-price story.

However, just 8% of LOP changes are accounted for by the nominal exchange rate.

Remark I (sample selection example)

What are these idiosyncratic movements?

- Good-specific changes in cost/demand
- Ongoing adjustment to past shocks, including exchange rates
- Measurement error

Lack of contemporaneous response to nominal exchange rate may say less about price flexibility and reversion to the LOP than we think.

Similar issue here (Figure 3), perhaps exacerbated by the selection issue.

Remark II (trade costs)

Prices are observed, markups are not.

- Authors focus on relative markup so they require only that marginal cost differential to be constant across destination markets.
- Why would this differential be constant?
- If exchange rate depreciation is associated with higher cost of serving the foreign market, markup on foreign sales is not rising one-for-one with the nominal exchange rate as implicitly assumed

Questions

What *structural* features does the elasticity of the markup depend upon?

- Broad end use categories? No
- Rauch (1999) market structure? No
- Domestic or foreign ownership? No
- Plant size? Yes.

Remark III (interpretations)

How should the lack of systematic relationship between the markup elasticity and “structural” features be interpreted:

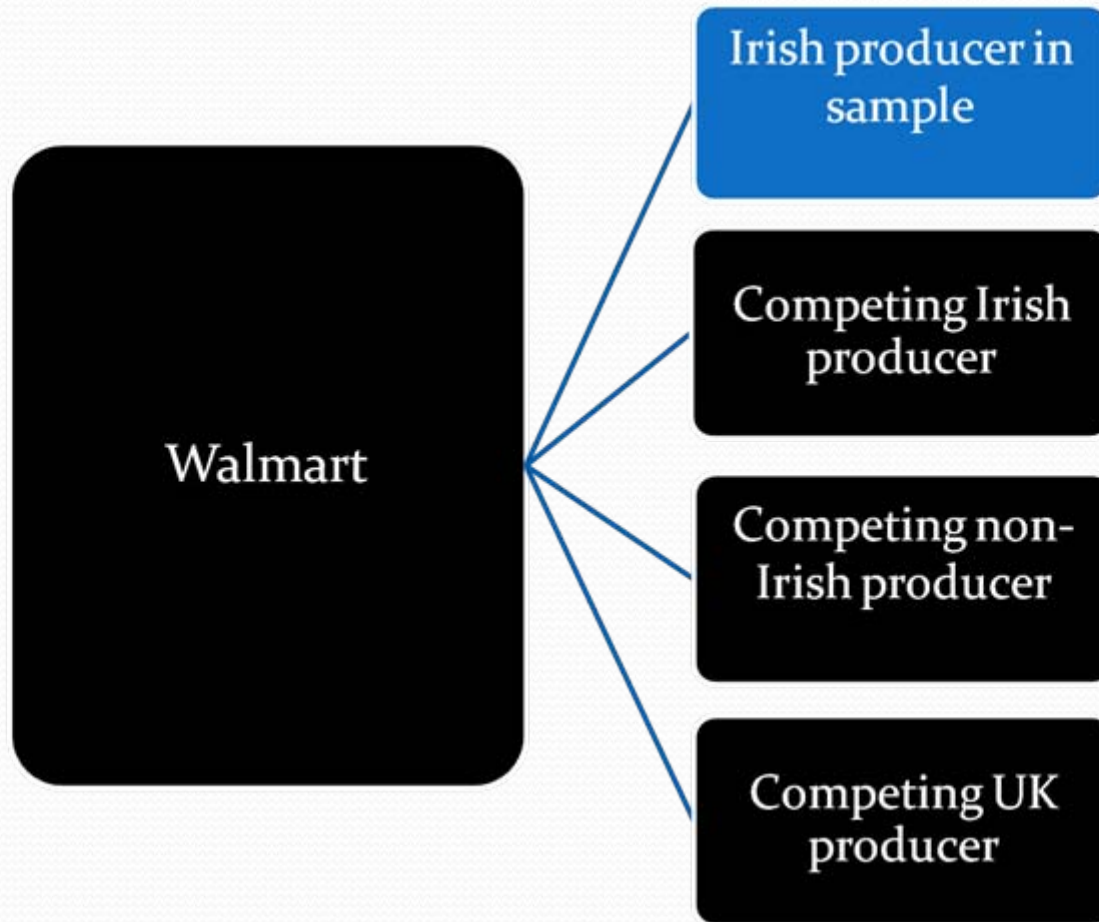
- Failure of models of imperfect competition?
- Common extent of competition across the range of plants in the Irish micro-data?
- Difficulty in measuring structure features upon which imperfect competition hinges?
- Failure of the empirical model to isolate relevant variation in markups?

Remark IV (data)

- Quote lines for invoice prices are available for every month from start to end date
- Authors claim this as evidence that not all prices are transaction prices and so ignore implications of data for absolute level of price stickiness (?)
- Yet for price changes, invoices legitimate transaction prices.
- An invoice is by definition a transaction price, what then are the authors conveying about the quality of the survey data?

Market structure

Ireland as a price-taker



Remark VI (market structure)

Demand side is not atomistic consumer in destination market

- Symmetric bargaining between corporate titans
- Irish producers price setters in some markets, price takers in others (or most?)
- Retail and wholesale linkages: Hellerstein (2007) or Nakamura (2007).
- Cull the micro-data to provide examples of these asymmetries

Suggestions

- Plot densities of LOP deviation for all available data and selected samples. Do they differ?
- Is it feasible to estimate persistence of deviations?
- Explore reasons for stickiness (including hedging, price-taking behavior, specification errors)
- Utilize the richness of the Census
 - Detailed firm and market characteristics
 - Cost information (wages, imputed cost of capital)
- Focus on one central question
 - Too many tables on freq of price adjustment, etc.
 - State and time dependent pricing (model is essential static)