

Discussion of:

Menu Costs, Trade Flows, and Exchange Rate Volatility

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Motivation of Paper

- Recent sticky price models explain FX-induced **price** dynamics
- But we generally care about prices to learn about **quantities**
- So, instead of running:

$$\Delta \ln P^{\text{Imports}}_{ijt} = \beta_0 + \sum_{k=0}^8 \beta_{e,k} \Delta e_{jt-k} + \sum_{k=0}^8 \beta_{y,k} \Delta y_{jt-k} + Z_{ijt} + \epsilon_{ijt},$$

he runs:

$$\Delta \ln \text{Imports}_{ijt} = \beta_0 + \sum_{k=0}^8 \beta_{e,k} \Delta e_{jt-k} + \sum_{k=0}^8 \beta_{y,k} \Delta y_{jt-k} + Z_{ijt} + \epsilon_{ijt},$$

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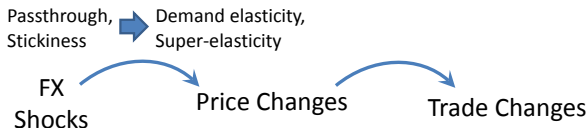
- What are key benefits of doing this?
 - Nice re-focusing onto object of deeper interest
 - Better variation to exploit (Entire universe vs. sampled data)
 - Less data quality issues
- Paper then compares IR to 1% USD appreciation in sticky price models vs. cumulative sum of $\hat{\beta}_{e,k}$
- Asks: “How well do pricing models match data?”
- Answers: Very poorly.

Motivation of Paper

- In other words, the existing literature is about:



- and he wants to explore implications for:



General Assessment

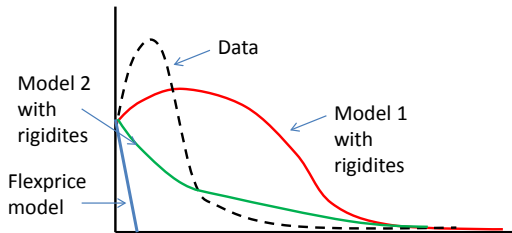
- A clear, well-written, and interesting paper!
- Nicely nests many models, interacts well with literature
- Careful and thoughtful empirics, slices data many ways

- My main critique: Is this a fair fight?

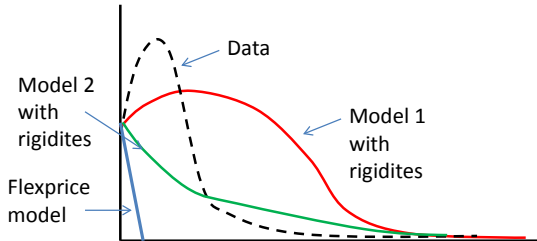
Once we have $\hat{\beta}_{e,k} \approx 0$, don't we know models with high LR elasticities have no chance? True for *any* passthrough rate.

Even if we could get very short-run dynamics to match, given they miss terribly in long-run, would this be success?

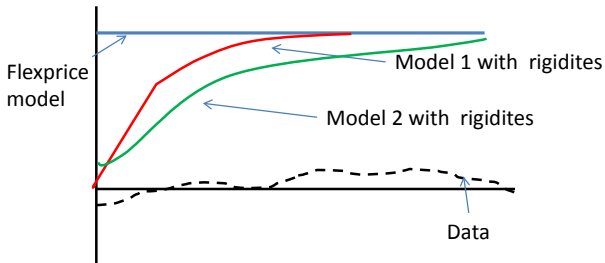
IR in Closed Economy (e.g. money shock)



IR in Closed Economy (e.g. money shock)



IR in Open Economy (e.g. FX shock)



Macro vs. Micro Elasticity

- Paper smacks into Armington elasticity debate
- Eaton and Kortum, Broda and Weinstein: $\sigma \in (4, 8)$
Estimates from relative import shares vs. relative prices
- Harberger, Heathcote and Perri: $\sigma \in (0.5, 1)$
Estimates from time-series variation in aggregate import series
- Once author gets $\hat{\beta}_{e,k} \approx 0$ for imports, it's clear models with high implied elasticities have no chance.
- Price rigidities become a side show. Even if there's overlap for 1-2 quarters, wouldn't be compelling.

What's the Latest on Armington Elasticity Debate?

- Feenstra, Obstfeld, and Russ (2012):

$$C = \left((C_H)^{\frac{\sigma_B - 1}{\sigma_B}} + \left(\int_{i \in \Omega} (C_{F_i})^{\frac{\sigma_W - 1}{\sigma_W}} di \right)^{\frac{\sigma_W - 1}{\sigma_W} \frac{\sigma_B - 1}{\sigma_B}} \right)^{\frac{\sigma_B}{\sigma_B - 1}}$$

Use data on domestic varieties to distinguish σ_W from σ_B

- Leibovici and Waugh (2012)
 - Document a price elasticity ≈ 0.3 and income elasticity > 1
 - Fit U.S. import dynamics very well by imputing SDF
 - Suggests problems with some estimates of macro elasticity

Back to this Paper's Estimates

- Macro vs. Micro debate
 - Can author use this rich data, available since 1989 to weigh in?
 - Are categories narrow enough to reproduce high σ from cross-section?
- Import vs. Export Asymmetry is Interesting (New?)
 - Is this new?
 - Any ideas on why this is (in LR)?
- In sum: Figure out LR stuff first (vs flexprice model), and then worry about SR dynamics

Fruitful Next Steps?

- A disconnect between model and data on strategic complementarities. Potential gains from working on it.
- Model
 - 2 countries, complementarity set via elasticity and super-elasticity parameters
 - Firms forecast of impact of FX on aggregate price index
- Data
 - All countries treated symmetrically (logs)
 - All bilateral exchange rates treated symmetrically
- But this doesn't seem right. Depreciation against all trading partners seems different for Costa Rican exports than a depreciation against just Costa Rica.

Conclusion

- Nice and clearly written paper. Elasticities/super-elasticities that match pricing patterns are too large.
- Too much focus on SR dynamics in model. If trade values don't vary with FX, we need a LR price elasticity near one.
- Strength of complementarities vary a lot in the data in a way they don't in the model.
- Potential future dividends from:
 - Exploring those complementarities in the data
 - Adopting model (2 exporters and 2 exchange rates?)