Discussion of Berger, Faust, John Rogers, and Steverson

Border Prices and Retail Prices

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The views in this paper are those of the author and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.

Paper overview

- Careful painstaking empirical effort, matching individual goods in CPI and import price data bases
- Estimates gap between retail and import prices: "distribution" at 50-70% of consumption prices, wide range
- Preliminary exploration of determinants of distribution expenditures over time (exchange rate, industry, time, country of origin).
 - □ Stable over time, insensitive to exchange rates.
 - Country of origin matters

My main comments

- Is this an esoteric exercise?
 - No.
 - Motivation and significance of analysis.
- Why are BFRS results different from other studies?
 Construction methods.
 - Coverage of the matched data.
 - Understanding consequences of sticky prices.
- Suggestions for next steps, given preliminary nature of paper.

Is this paper focused on something esoteric?

- Distribution expenditures are expenditures on wholesale and retail costs as well as transportation and storage.
- Important for extent of transmission of exchange rate and import price movements into retail prices
 - Matters for CPI inflation
 - Prices of home produced versus imported goods, expenditure-switching in international trade (current account adjustment)
 - Burstein, Neves, and Rebelo (2003), Campa and Goldberg (2006), Goldberg and Tille (2006)

Logic on role of distribution in pass through and US Inflation

$$P_{t} = \left[\alpha P(T)_{t}^{1-\phi} + (1-\alpha)P(n)_{t}^{1-\phi}\right]^{\frac{1}{1-\phi}}$$

Index aggregates prices of different types of goods

- \square consumption weight on tradable products α
- $P_t(T)$ and $P_t(n)$ are price aggregators for tradable and non tradable products

Pass through of import prices into CPI

 A weighted average of the responses of nontraded and tradable goods prices to exchange rates:

$$\eta^{P,e} = \alpha \left(\frac{P_t(T)}{P_t}\right)^{1-\phi} \eta^{P(T),e} + (1-\alpha) \left(\frac{P_t(n)}{P_t}\right)^{1-\phi} \eta^{P(n),e}$$

- $\eta^{j,e}$ elasticity of price *j* to exchange rate *e*
- ϕ_T substitution elasticity between domestic and foreign tradable products
- α the share of tradable goods in consumption
- Can also introduce α_{T_i} the share of domestically produced goods within all tradable products.

Component price sensitivities to exchange rates and role of distribution expenditures

Home non-tradable goods

Sensitive if their production uses imported components

Home produced tradable goods

- Cost sensitivity through imported inputs
- Uses distribution services that rely on imported parts components

Imported goods

- CPI incorporates the consumption prices of these goods
- the good consumed combines imported part and domestic distribution services

Calibrating consumption price sensitivities to border prices relies on distribution data

Size of distribution expenditures in domestic traded goods pricing and imported goods

- Other studies 40-50 percent in aggregate
- BFRS 50-70 percent on sample of imports

Calibrations need assumptions on "economic flexibility"

- Ability to shift from imported to domestic produced inputs
- Do distributors absorb exchange rates in local margins, damping transmission of shocks into consumption prices? Devereux, Engel, and Tille 1999. Hellerstein 2004. Campa and Goldberg 2006. Nakamura 2007. Yes... BFRS No.

Quantitative importance: Campa & Goldberg 2006 calibrate US price elasticities to import prices

	Nontraded Goods	Home tradable goods	Imported Consumption	Goods Prices
			No margin adjustment	-50% margin adjustment
Low Demand Elasticity	0.04	0.16	0.45	0.17
High Demand Elasticity	0.04	0.13	0.54	0.31

Assumes 0.42 distribution. Numbers decline with BFRS higher distribution of 0.50-0.70.

More important for cpi sensitivity to import prices is flexibility!

Why are BFRS results different from other studies?

- Other studies use country input-output tables that cover all goods produced and consumed
- <u>Distribution margins</u>: expenditures on wholesale and retail trade plus transportation costs, measured relative to purchaser prices
- Margin information by total final demand and its components (household consumption, investment, govt spending).

Why are BFRS results different from other studies?

- Is extra information captured? taxes? fees?
- Are 2000s different from 1990s?
- Is coverage of industries / goods representative? Does weighting lead to higher margins?
 - Range of values of "distribution" are wide.
 - Need statistical procedures to weight up results.
 - Mill's ratios?

Next steps

- Delve into when the empirical analysis generates surprises
- Present model / theory of distribution margins featuring
 - duration of a good's lifespan
 - industry characteristics and competitive structure (domestic, foreign)
 - general macroeconomic conditions
 - initial profitability
 - shocks temporary versus transitory
- Explain when high/low or stable/ unstable margins should arise. Test.
- Results will be important for key current questions in international macroeconomics.