Discussion of *Optimal Devaluations*
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- Nice paper that goes to the heart of **open economy** dimension of policy
- Right methodological approach
- Important insights for both **monetary** (exchange rate) and **fiscal** policy

Optimal monetary policy in open economies

- Is it fundamentally different from its **closed** economy counterpart?

Divine coincidence in NK sticky price models

<p style="text-align:center; color:red">markup stabilization $\Longleftrightarrow$ efficiency</p>

$\rightarrow$Notice: stabilizing markups equivalent to replicating allocation under **flex prices**

Optimal monetary policy in NK models

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→Why? Can influence **consumption** for any given level of **output** (labor effort)

Why result is important

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→Is fear of floating optimal?

Closed economy
Imperfect competition and price stickiness

$$MPN_t = \underbrace{W_t/P_t}_{\substack{\text{real} \\ \text{CPI wage}}} = MRS_t \underbrace{\mu_t}_{\text{markup}}$$

$\rightarrow$Markup/real marginal cost movements **distort** the equality between MPN and MRS

Open economy I: baseline model ("consumption openness")

$$\underbrace{\mu_t^{-1}}_{\substack{\text{real} \\ \text{m. cost}}} = \frac{\overbrace{W_t/P_{H,t}}^{\substack{\text{real product} \\ \text{wage}}}}{MPN_t} = \frac{\overbrace{(W_t/P_t)}^{\substack{\text{real CPI} \\ \text{wage}}} \overbrace{(P_t/P_{H,t})}^{\substack{\text{function of} \\ \text{terms of} \\ \text{trade}}}}{MPN_t} = \frac{MRS_t \; g(Q_t)}{MPN_t}$$

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$\Rightarrow$ Efficiency requires some combination of **domestic markup** volatility and **terms of trade** volatility

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Openness "per se" breaks the divine coincidence

Openness breaks divine coincidence

- ► Result depends on **preferences**
- ► Divine coincidence restored in the special case of **Cobb-Douglas** preferences on consumption: $C = C_H^{1-\alpha} C_F^{\alpha}$

→Idea: **income** and **substitution** effects of terms of trade movements exactly balanced

Open economy II: "production openness"

- Production function

$$Y_t = A_t N_t^{1-\gamma} \underbrace{X_t^{\gamma}}_{\substack{\text{imported} \\ \text{input}}}$$

$$Z_t \equiv \frac{\mathcal{S}_t P_{X,t}^*}{P_{H,t}} \equiv \text{relative price of imported inputs}$$

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$\rightarrow$Rewrite

$$Z_t = \frac{\mathcal{S}_t P_{Z,t}^*}{P_{H,t}} = \frac{\overbrace{\mathcal{S}_t P_{F,t}^*}^{=P_{F,t}}}{P_{H,t}} \frac{P_{Z,t}^*}{P_{F,t}^*} \underbrace{=}_{\substack{\text{if LOP} \\ \text{holds on} \\ \text{imported} \\ \text{C goods}}} Q_t \frac{P_{Z,t}^*}{P_{F,t}^*}$$

$$\underbrace{\mu_t^{-1}}_{\substack{\text{real}\\ \text{m. cost}}} = \frac{(W_t/P_{H,t})^{1-\gamma} Z_t^{\gamma}}{MPN_t} = \frac{\overbrace{[(W_t/P_t)(P_t/P_{H,t})]^{1-\gamma}}^{\substack{\text{as in baseline}\\ \text{model}}} \overbrace{Z_t^{\gamma}}^{\color{red}\text{new term}}}{MPN_t}$$

$$= \frac{[MRS_t\, g(Q_t)]^{1-\gamma} Q_t^{\gamma} \overbrace{(P_{Z,t}^*/P_{F,t}^*)^{\gamma}}^{\text{exogenous}}}{MPN_t}$$

$$\underbrace{\mu_t^{-1}}_{\substack{\text{real} \\ \text{m. cost}}} = \frac{(W_t/P_{H,t})^{1-\gamma}\, Z_t^{\gamma}}{MPN_t} = \frac{\overbrace{[(W_t/P_t)\,(P_t/P_{H,t})]^{1-\gamma}}^{\substack{\text{as in baseline} \\ \text{model}}}\ \overbrace{Z_t^{\gamma}}^{\substack{\text{new term}}}}{MPN_t}$$

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Same logic applies

1. Efficiency requires some combination of markup and terms of trade movements

2. **Divine coincidence** restored in the Cobb-Douglas special case

$\rightarrow$ Main result of this paper

Implications

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2. Under special preferences, replicating flex price allocation is optimal and **free floating** is optimal

3. Interesting dimension is **quantitative**

Is fear of floating optimal?

1. Should evaluate the **combined** effect of consumption and production openness

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$\rightarrow$ But there are other sources of fear floating

2. **Local currency pricing (LCP)** $\rightarrow$ Still small effect (Corsetti-Dedola and Leduc 2010) $\rightarrow$ *Quasi divine* coincidence

3. **Financial** market imperfections
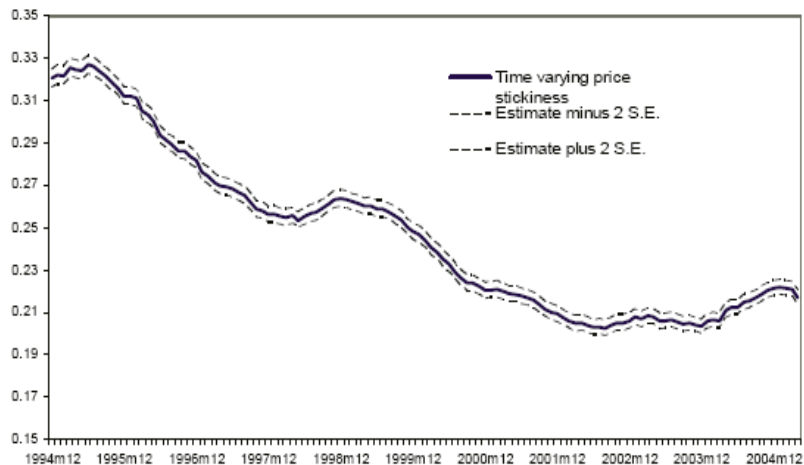
"dock-LCP" more pervasive

1. Import prices **very** sticky **at the dock** (Gopinath and Rigobon, 2007)

2. Stickiness of import prices higher for more **differentiated** goods (G-R, 2007)

3. Import price rigidity has **increased** by 10 percentage points in 1994-2005 (G-R, 2007)

4. U.S. import prices with **high frequency** of price adjustment have a **higher long-run pass-through** (Gopinath and Itskhoki, 2009)

5. Pass-through of the average good **priced in dollars** is 25% vs. 95% for non-dollar priced

Table 4: Comparing Price Durations in Import Prices, Consumer Prices and Producer Prices

PSL Code	Code Description	Import Prices	Producer Prices	Consumer Prices
P2711	Natural and petrol gases	1.0	1.0	4.7
P2710	Processed petrol	1.0	1.0	1.5
P07	Edible vegetables	1.4	1.1	1.4
P8471	Automatic data processing machines	3.3	6.7	2.0
P20	Vegetable and fruit products	5.0	1.1	5.5
P8528	Reception apparatus for broadcast video media	6.4	10.5	4.6
P8523	Prepared unrecorded media for audiovisual machines	6.4	11.8	13.4
P6204	Women's/Girls's suits, ensembles, pants dresses	7.7	19.6	5.4
P8521	Video recording equipment	8.9	15.4	5.2
P7113	Articles of jewelry containing precious metal	10.0	23.8	8.1
P9401	Seats and parts	11.2	14.5	7.6
P6203	Men's/boys' suits, ensembles, pants	12.0	19.6	10.0
P8708	Parts and accessories for vehicles	12.0	12.0	11.2
P9405	Lamps and light fixtures	12.8	18.9	9.9
P6110	Knit/crochet sweatshirts, pullovers, vests, sweaters	13.0	19.6	8.6
P4202	Leather cases, bags, luggage	13.4	14.5	9.0
P8516	Electric portable heaters, blowdryers, house items	14.0	13.9	10.3
P8703	Passenger vehicles, capacity<10	14.5	3.4	1.3
P2208	Undenatured ethyl alcohol w/ <80 percent concentration	15.2	11.9	7.8
P6402	Partially waterproof footwear	16.8	16.7	9.9
P6403	Footwear with composite material soles and uppers.	17.6	16.7	9.9
P6205	Men's/boys' shirts	20.4	19.6	12.2

Downward Trend in the Frequency of Price Adjustment

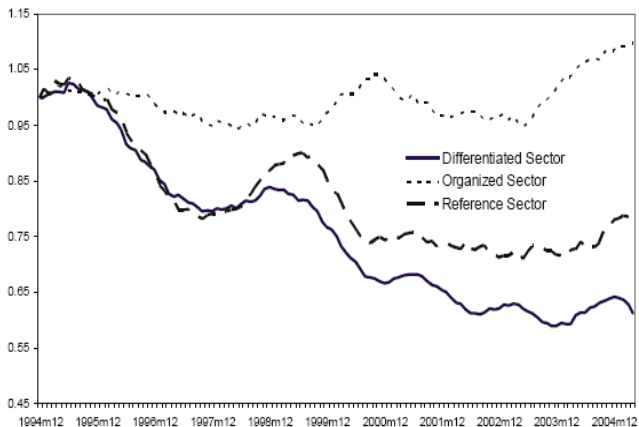Figure 3a: Time Trend in Frequency of Price Adjustment

- Decomposition (G-R 07)

ΔP stickiness $= \Delta(N$ differ. goods$) + \Delta($P.stickiness differ. goods$)$

It is NOT a Compositional Story

Figure 3b: Time Trend in Frequency of Price Adjustment in Differentiated, Reference and Organized Sectors

1. Main suspect: **increased degree of stickiness** in prices of differentiated goods
2. Need a **new** story linking: $\uparrow$ trade $\leftrightarrow$ $\uparrow$price stickiness in differentiated goods

Some other issues

1. Not true that terms of trade **depreciation** is always expansionary in standard NKSOE model: depends on income vs. substitution effect

2. All analysis focuses on **exported** commodities

$\rightarrow$ Does Australia set the **Australian \$** price of coal? Is degree of pass-through relevant?

Conclusions

1. Nice paper on a very important topic
2. Important to evaluate **quantitatively** the role of commodity price shocks for **fear of floating**