

Discussion of:
**Incomplete pass-through in import markets
and permanent vs. transitory exchange rate
shock**
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Motivation and main goal of the paper

- **Motivation: pass-through depends on whether the exchange rate changes are regarded as permanent or temporary**
- **Build(adopt) a theoretical model and an empirical measure of temporary exchange rate changes and estimate to 5 countries (US, Japan, Germany, France, Italy)**

Steps

- **Static model of Dornbusch (1987 AER)**
- **Extend it to the case of intertemporal profit maximization (based on Kasa 1992 JIE) and arrive to a single equation specification**
- **Estimate it as benchmark (Engle-Granger)**
- **Perform a simulation exercise studying the effect of neglected temporary e.r. movements**
- **Adopt a measure of temporary exchange rate movements (based on Lee-Chinn 2002 IMF WP)**
- **In the cointegrating equation replace the actual RER with the permanent component and add the temporary component to the ECM-equation**

Outline of the Discussion

- **Theoretical part: more questions than comments (1 slide)**
- **Simulation: praise (1 slide)**
- **Empirical part: more comments than questions (5+1 slides)**
- **A check using the simple Hodrick-Prescott filter for permanent/temporary decomposition (4 slides)**

Theory

- How was the results derived?
- What is the contribution of the paper?
- Why weak exogeneity of the exchange rate?
- My reading: the theoretical part is needed just to arrive to

$$DL(\text{PM/PCPI}) = -\alpha(L(\text{PM/CPI}) - \beta L(\text{RER})) + D(\text{something})$$

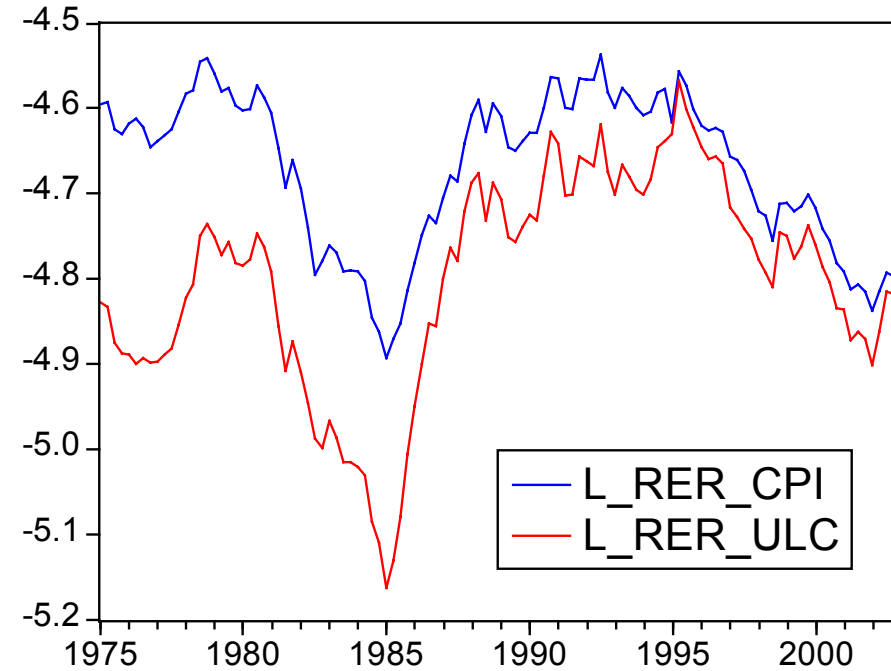
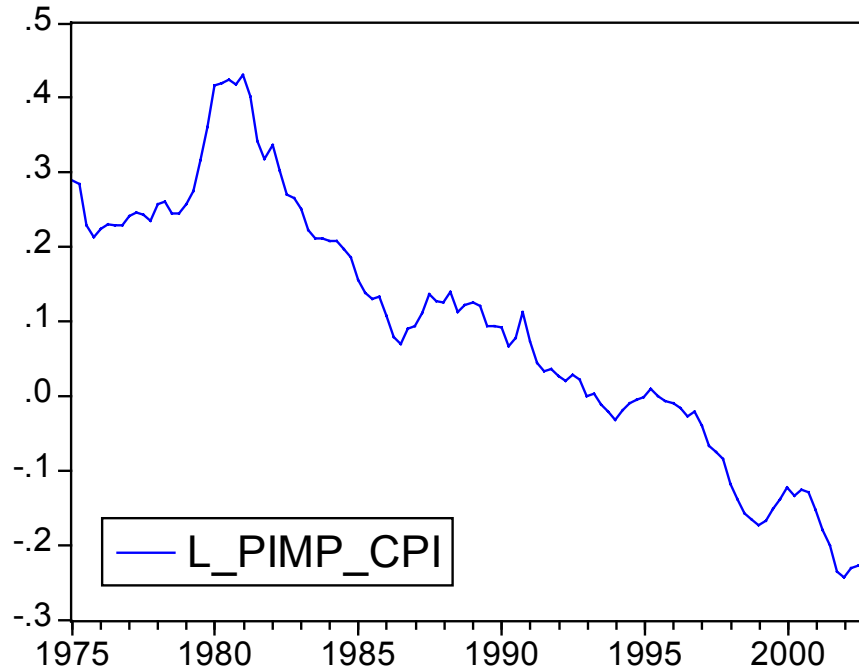
Simulation

- Assume a true data generating process (only the permanent change matters for pricing)
 - Assume the processes of permanent/temporary ER
 - Simulate the model
 - Estimate the equation with the simulated total ER to study the bias of the estimator due to omitted temporary changes
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- Very useful
 - Could be extended especially to the final equation of the paper, i.e. to the problem of measurement error in the permanent/transitory component

Empirics 1. - Data issues

- The very basic issue: data
- The dependent variable, $\text{LOG}(P(M)) - \text{LOG}(CPI)$, is interpreted as the difference between the import price & domestic competitors' prices
 - Huge compositions differences
 - Product/industry specific data would be desirable
- Alternatively, simply view the equation, $L(PM/CPI) = \beta * L(RER)$, as Import prices = β *foreign costs in domestic currency, and both sides normalized by the domestic price level?
 - E.g. Goldberg-Knetter (1997 JEL) in survey paper point out that marginal cost should appear and available candidates are bad proxies

US Data



Trends? Unit roots?

Empirics 2. - General issues

- Broken deterministic trends? Unit roots? Dummies?
- No attempts to estimate the deep theoretical parameters
- Estimation method (Engle-Granger)
- Errors in variables

Empirics 3. - The BQ-decomposition

- **Bivariate Blanchard-Quah-type decomposition of the real exchange rate and the current account**
- **Results: “corner solutions” → Almost all ER movements are either transitory (US) or permanent (other 4 countries). Explanation?**
- **The real exchange rate of the world is 1 (for actual, permanent, and transitory as well) → US, Japan, and 3EU countries constitute a large part of the world**
- **Some of the VARs are very long: e.g. US → 9 lags, Japan → 10 lags**
- **Theory behind?**

Empirics 4. - The BQ/SVAR critiques

- **Faust-Leeper (1997 JBES)**
 - > **Shock aggregation** → too few identified shocks might be mixtures of the underlying ones
 - > **Long-run restrictions** → from finite samples
 - > **Time aggregation** → higher-frequency feedback
- **Suggestions: sign restriction (e.g. Canova-De Nicoló 2002 JME, Peersman 2003 forthcoming in J.of Econometrics)**
 - Notice that there are infinite number of possible decompositions, select those that have impulse response in line with theoretically expected signs

Empirics 5. - Extended ECM-equations

- **Generated data/errors in variables**
→ **Bias? Covariance?**
- **In any case, most of the included temporary ER movements are not significant according to standard distributional assumptions**

A quick check

- **How does the HP-filter?**

- **US data, 1975Q1-2002Q4 (from IFS)**

Real exchange rate: CPI based

Long-run:

$$\text{LPM_CPI} = 0.31 \cdot \text{LRER} + 0.15 \cdot \text{LPOIL} + \text{trend}$$

$$\text{LPM_CPI} = 0.34 \cdot \text{LRER_HP} + 0.16 \cdot \text{LPOIL} + \text{trend}$$

Short-run:

$$\text{DLPM_CPI} = -0.13 \cdot \text{ECM}(-1) + 0.33 \cdot \text{LAG} + 0.23 \cdot \text{DLRER} + 0.07 \cdot \text{DLPOIL}$$

$$\text{DLPM_CPI} = -0.14 \cdot \text{ECM}(-1) + 0.27 \cdot \text{LAG} + 0.23 \cdot \text{DLRER} + 0.06 \cdot \text{DLPOIL} + 0.04 \cdot \text{S} + 0.08 \cdot \text{S}(-1)$$

A quick check 2.

- **How does the HP-filter?**

- **US data, 1975Q1-2002Q4 (from IFS)**

Real exchange rate: ULC based

Long-run:

$$\text{LPM_CPI} = 0.25 * \text{LRER} + 0.15 * \text{LPOIL} + \text{trend}$$

$$\text{LPM_CPI} = 0.43 * \text{LRER_HP} + 0.17 * \text{LPOIL} + \text{trend}$$

Short-run:

$$\text{DLPM_CPI} = -0.15 * \text{ECM}(-1) + 0.30 * \text{LAG} + 0.16 * \text{DLRER} + 0.06 * \text{DLPOIL}$$

$$\text{DLPM_CPI} = -0.16 * \text{ECM}(-1) + 0.24 * \text{LAG} + 0.18 * \text{DLRER} + 0.06 * \text{DLPOIL} + 0.002 * \text{S} + 0.09 * \text{S}(-1)$$

A quick check 3.

- **How does the HP-filter?**

- **GERMAN data, 1975Q1-2002Q4 (from IFS)**

Real exchange rate: CPI based

Long-run:

$$\text{LPM_CPI} = 0.89 \cdot \text{LRER} + 0.11 \cdot \text{LPOIL} + \text{trend}$$

$$\text{LPM_CPI} = 1.06 \cdot \text{LRER_HP} + 0.12 \cdot \text{LPOIL} + \text{trend}$$

Short-run:

$$\text{DLPM_CPI} = -0.14 \cdot \text{ECM}(-1) + 0.32 \cdot \text{LAG} + 0.54 \cdot \text{DLRER} + 0.05 \cdot \text{DLPOIL}$$

$$\text{DLPM_CPI} = -0.16 \cdot \text{ECM}(-1) + 0.34 \cdot \text{LAG} + 0.49 \cdot \text{DLRER} + 0.05 \cdot \text{DLPOIL} + 0.03 \cdot \text{S}$$

A quick check 4.

- **How does the HP-filter?**

- **GERMAN data, 1975Q1-2002Q4 (from IFS)**

Real exchange rate: ULC based

Long-run:

$$\text{LPM_CPI} = 0.24 * \text{LRER} + 0.12 * \text{LPOIL} + \text{trend}$$

$$\text{LPM_CPI} = 0.32 * \text{LRER_HP} + 0.11 * \text{LPOIL} + \text{trend}$$

Short-run:

$$\text{DLPM_CPI} = -0.11 * \text{ECM}(-1) + 0.37 * \text{LAG} + 0.04 * \text{DLRER} + 0.06 * \text{DLPOIL}$$

$$\text{DLPM_CPI} = -0.14 * \text{ECM}(-1) + 0.38 * \text{LAG} + 0.01 * \text{DLRER} + 0.06 * \text{DLPOIL} + 0.02 * \text{S}$$

The End