Discussion of Wei Dong and Deokwoo Nam
Exchange Rates and Price Misalignment: Evidence on Long-Horizon Predictability
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1 State of Research on Fundamentals-Based Exchange-Rate Prediction

$$s_{t+k} - s_t = \alpha_k + \beta_k (f_t - s_t) + \epsilon_{t+k,k}$$

f is (are) the economic fundamentals in logs. The measure of central tendency for the exchange rate. Research has mainly looked at monetary, PPP, and Taylor rule fundamentals. Macro-based concepts.

- For major industrialized countries, monetary and PPP fundamentals work about equally well (in mean-square).
  - Fairly successful at long horizons during 1980s and early 1990s.
  - Not so much from mid 1990s through 2000s

- Cerra and Saxena (2010) report support for monetary fundamentals using (nearly) all the world's countries

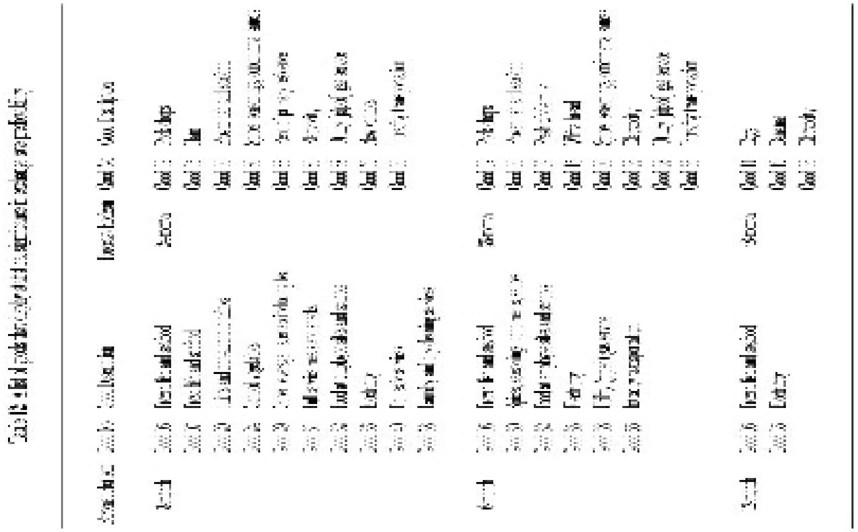
- Taylor rule fundamentals (Papell et al. 2008, 2010, Papell and Molodtsova, 2009, Engel, Mark and West, 2007) have had mixed success at short horizons from mid 1990s through 2000s.

2 What's in this paper?

- A move towards micro data as the fundamental. The measure of central tendency for the exchange rate.

- Replace $f = p - p^*$ with $f_i = p_i - p_i^*$ where i is a commodity classification.

- A search over commodity classifications used in price indices for USD/UKP and USD/JPY. Forecasting period begins in 1983 or 1987.

- 

- Generally speaking, as forecast horizon lengthens, fewer of the goods prices forecast.

- At each horizon, about half of the goods prices that work are ‘nontraded’ goods.

3 Comments: This study could be very interesting

- Need to isolate the 1990s and 2000s as sample periods reserved for forecasting. These are the periods when PPP fundamentals don't work.
  - Omit comparisons to random walk with drift.

- Although it is already a sizable data project, the current study is too small. Consider analysis of several additional exchange rates/country pairs.
  - Seems to work for Japan but not for UK
  - Robustness
  - Pattern identification of commodity classifications and forecast horizons.

- If results survive, then we'll want to know why the results are like this.
  - Market structure characteristics?
  - Specific behavioral characteristics of the prices (persistence, nonlinearities in adjustment, (weak) exogeneity, etc.)

- Is (possibly) the first foray into using 'micro data' for exchange rate prediction. A comparison between PPP fundamentals and 'LOOP' fundamentals.
  - A good deal of work has been done to study behavior of deviations from PPP and deviations from the LOOP. What has that literature turned up?

4 Some recent PPP and LOOP studies

Maybe draw some guidance from studies that find and try to understand why DLOOP (deviations from law of one price) behaves differently from DPPP (deviations from purchasing power parity). Dong and Nam exploit difference in behavior of narrow goods prices and price indices for prediction but don't yet know what the key features are.

- During the 1970s and 1980s, deviations from PPP were large and persistent. Half-lives estimated to be ridicously long.

- Deviation from PPP for traded goods about as big and persistent as the deviation using nontraded goods.

- A very large border effect.

- More recent work (e.g., Crucini and Shintani use commodity classifications, Broda and Weinstein (2008) have barcode data) finds:
  - In the late 1990s and 2000s, estimated half lives of PPP deviations have shrunk to almost reasonable values. Still,
  - CS aggregate into price levels gives half lives around 18 to 19 months (CS) overall, 24 months for nontraded goods and 18 months for traded goods. No border effect. Goods with higher markups (from producer to consumer level) have more persistent price deviations
  - When aggregating, BW half lives rise from 4 to 13 quarters within Canada, 9 to 49 quarters across the US/Canada border. No border effect. Distance doesn't matter. An explanation may be nonlinear adjustment, as in threshold AR models.

5 Where else to take this work?

- What properties distinguish the prices of the goods that do forecast the exchange rate versus those that don't? The s_t is always the same. It's the $p_{it} - p^*_{it}$ that differs.
  - Market structure of the different goods?
  - Other characteristics of the goods: Durability? Elasticity of demand? Price volatility? Price flexibility?
  - Is the adjustment nonlinear for some goods and not for others?
  - Is the answer in the persistence or size of the deviations in LOOP?
  - Are the 'successful' goods categories prices (weakly) exogenous?

- In a cointegrated system s_t and $\left(p_{it} - p_{it}^*\right)$ are attracted to each other in levels in the long run. But which variable does most of the adjusting and why?

  - Does the exchange rate follow prices only? Then prices are weakly exogenous. Exchange rate is predictable.

  - Do prices follow the exchange rate only? Then the exchange rate is weakly exogenous. Exchange rate is not predictable.

  - Do prices and the exchange rate follow each other? Does this matter for long horizon prediction?

- Econometrically, need exchange rate to chase prices to get prediction. Seems a curious pattern for individual goods. Wonder what kind of model would deliver this implication.