

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.

- 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.

Table 12: A list of goods that display statistical significance in exchange rate predictability

Forecast Horizon	Good No.	Good Description	Forecast Horizon	Good No.	Good Description
3-month	Good 06	Frozen fish and seafood	16-month	Good 12	Pork chops
	Good 07	Avail fish and seafood		Good 15	Ham
	Good 20	Juices and non-alcoholic drinks		Good 20	Frozen fish and seafood
	Good 24	Canned vegetables		Good 50	Soft ice creamings, confections, sweets
	Good 25	Other beverage materials including tea		Good 58	Rest of primary residence
	Good 31	Alcoholic drinks and liquors		Good 59	Electricity
	Good 38	Coal and lignite (brown coal)		Good 59	Utility (gas, electric, water)
	Good 37	Electricity		Good 70	Share of income
	Good 59	Motor vehicles		Good 76	Intensity transportation
	Good 58	Land and buildings (residential)			
6-month	Good 05	Avail fish and seafood	36-month	Good 09	Pork chops
	Good 31	Soyas, soybeans, soybeans, soy oil		Good 16	Poultry 50% and seafood
	Good 32	Toys and miscellaneous toys and school's		Good 19	Beef with milk
	Good 35	Thermistors		Good 15	White bread
	Good 38	IP (re) (press) gas services		Good 50	Soft ice creamings, confections, sweets
	Good 65	Transfer transformation		Good 59	Electricity
			Good 59	Utility (gas, electric, water)	
			Good 76	Intensity transportation	
12-month	Good 06	Avail fish and seafood	48-month	Good 14	Eggs
	Good 35	Electricity		Good 19	Dumplings
			Good 36	Electricity	



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.
- Current study is too small. Consider analysis of several additional exchange

rates/country pairs.

- 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

- During the 1970s and 1980s, deviations from PPP were large and persistent. Half-lives estimated to be ridiculously 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.
 - 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 $(p_{it} - p_{it}^*)$ are attracted to each other in levels in the long run.
 - 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?