

Discussion: Molodtsova and Papell, 'Phoenix Taylor Rule Exchange Rate Forecasting During the Financial Crisis'

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January 7, 2011
AEA Meetings, Denver

First...

The views expressed in this presentation are mine and do not necessarily reflect those of the Federal Reserve Bank of New York or the Federal Reserve System.

Outline

Summary

Comments

Literature

- Since Meese and Rogoff (1983, JIE) → No predictive power macroeconomic series for short-term exchange rate changes.
- Maybe more successful at multi-year horizons? Mark (1995, AER)
- In particular within multi-country panels: Mark and Sul (2001, JIE), Groen (2005, JMBC).

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Results

Papers follows Molodtsova and Papell (2009, JIE) → Taylor rule fundamentals HAVE short-run forecasting power for exchange rate changes.

ADDITION: Use real-time data when constructing forecasts (NOT when estimating!).

Results for forecasting sample 2007-2009:

- **Recursive statistical evaluation of forecast power vs. random walk:** Up to the Lehman's crisis Taylor fundamentals better than monetary fundamentals, PPP, relative interest rates.

However: Everything breaks down during the 2008-2009 Lehman's episode and evidence pro Taylor fundamentals much weaker using forecasted variables.

- From late-2009 Taylor fundamentals perform better again.

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Some Data Issues

- Identical Monetary Policy pre- and post-1999 for euro area?

- pre-1999: (Implicitly) Bundesbank.
- post-1999: Continuation of Bundesbank?

Not necessarily → see Hayo and Hofmann (2006, Empirical Economics). Potentially problematic, e.g., splicing German with (synthetic) euro area data.

- Why not also use other economies than euro area with richer real-time data sets?

- U.K.: Has GDP vintages going back further than 1999 → Groen, Kapetanios and Price (2009, IJF).
- Interesting: (*i*) ‘real’ real-time comparison, and (*ii*) both U.S. and U.K. went to the zero-bound aggressively after Lehman’s.

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Taylor Rule Fundamentals I

- Taylor rule: $i_t = \mu + (1 + \phi)\pi_t + \gamma y_t + \varepsilon_t$

Taylor rule more than interest rate function of inflation and output gap/slack. Implies certain parameters restrictions → Taylor Principle.

- Taylor Principle: $(1 + \phi) > 1$ and $\gamma > 0$

Violation: No correction back to inflation target → an domestic interest rate hike has no/depreciating effect on domestic currency.

- Authors silent about this; no direct estimates of $(1 + \phi)$ and γ . But what they show is a bit disconcerting:

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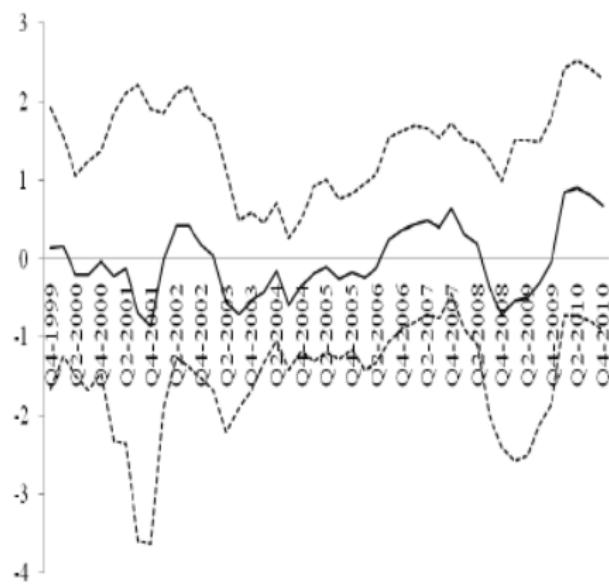
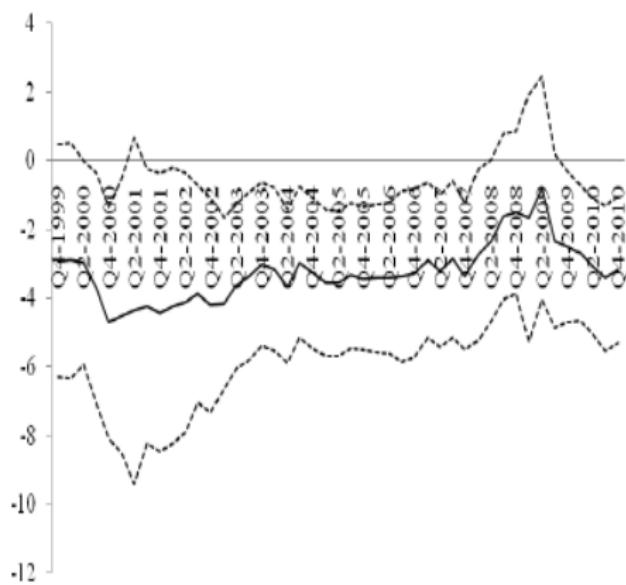
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Violation: No correction back to inflation target → an domestic interest rate hike has no/depreciating effect on domestic currency.

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Taylor Rule Fundamentals II

- *Ad hoc* mapping Taylor rule fundamentals to exchange rate! What does it means?
- Gives a very loose, hard to interpret relationship between exchange rates and Taylor fundamentals.

Similar one based on monetary fundamentals → maybe not bad forecasting performance!

- Alternative: difficult, but maybe through relative pricing kernels (see Ang and Piazzesi (2003)):

$$\Delta s_{t+1}^i = \ln \left(\frac{M_{t+1}^*}{M_{t+1}} \right) = r_t - r_t^* + \frac{1}{2} \left(\lambda_t^2 - (\lambda_t^*)^2 \right) + \lambda_t \varepsilon_{t+1} - \lambda_t^i \varepsilon_{t+1}^i$$

- Maybe symptom that macroeconomic drivers themselves are unobserved (Engel and West 2005) → Utilize dynamic factors (Groen (2010), Adrian, Etula and Groen (2010))?

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