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

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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.

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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?
  - 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 \(\gamma\). But what they show is a bit disconcerting:
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Taylor Rule Fundamentals II

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

Similar one based on monetary fundamentals $\rightarrow$ maybe not bad forecasting performance!

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

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\Delta s^i_{t+1} = \ln \left( \frac{M^*_{t+1}}{M_{t+1}} \right) = r_t - r^*_t + \frac{1}{2} \left( \lambda^2_t - (\lambda^*_t)^2 \right) + \lambda_t \epsilon_{t+1} - \lambda^i_t \epsilon^i_{t+1}
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- Maybe symptom that macroeconomic drivers themselves are unobserved (Engel and West 2005) $\rightarrow$ Utilize dynamic factors (Groen (2010), Adrian, Etula and Groen (2010))?
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