Discussion of "The predictive power of equilibrium exchange rate models" by Michele Ca' Zorzi, Adam Cap, Andrey Mijakovic, and Michael Rubaszek

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[1]Legal disclaimer: The views expressed in this presentation do not necessarily reflect the stance of the Swiss National Bank.

Summary

- Assessment of predictive power of measures of real exchange rate misalignment for subsequent real exchange rate changes
- Misalignment: real exchange rate relative to estimated “equilibrium” value
- Three different approaches to model equilibrium exchange rate
  - Purchasing power parity (PPP)
  - Behavioural Equilibrium Exchange Rate (BEER)
  - Macroeconomic Balance approach (MB)
- Predictive power tested in-sample and out-of-sample

Main takeaways

From my point of view

- Best predictor (in-sample and out-of-sample): misalignments based on PPP
- Worst predictor: misalignment based on MB approach
- Results robust to various robustness checks

Comments I

In-sample forecasts

- R^2 and information about standard error adjustments would be nice to have
- Lesson from literature on predictability of equity market return:
  - Long-horizon regressions in small samples, concatenated log-returns and persistence in regressors problematic for inference
  - Potential remedy: bootstrapped standard errors (block, wild)
- One-sided t-test? Expected sign of regression coefficients in in-sample regression clear.

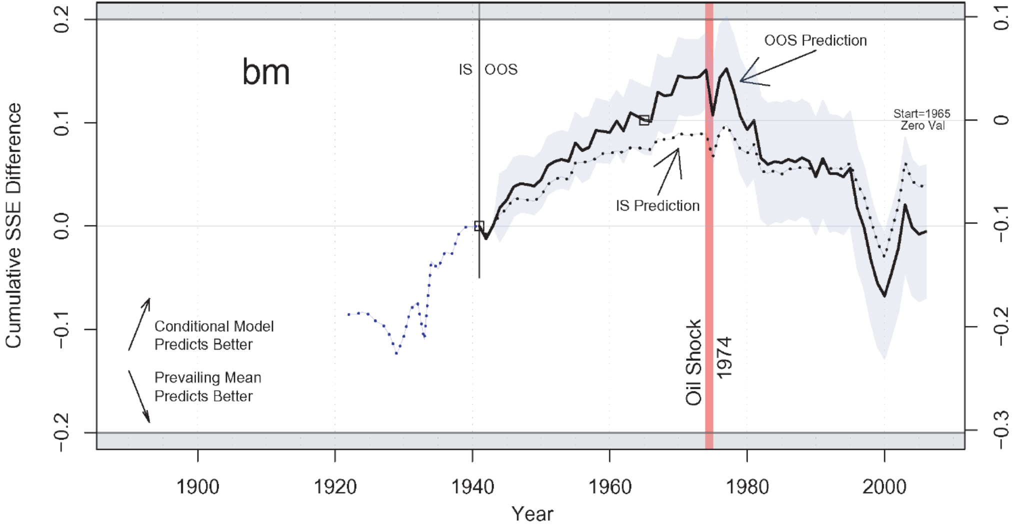
Comments II

Out-of-sample forecasts

- Does the out-of-sample performance vary over time? Specific periods during which all models (particular models or particular models for specific currencies) perform badly?
- Goyal and Welch (RFS 2008) measure of time-variation in forecast performance:
    - "...cumulative squared prediction errors of the prevailing mean [stock return] minus the cumulative squared prediction error of the predictive variable from the linear historical regression."
- Could replace/complement figures 9 and 10 ("hair charts") and include all three models in one graph for each currency for a specific forecast horizon

Comments II continued

Out-of-sample forecasts



A collection of other questions

- Normative implications? What's an equilibrium model worth if the data shows that real exchange rates hardly move towards the equilibrium value?
- Reasons why PPP focused on CPI? What about PPI-PPP?
- BEER specifications: Using Bayesian averaging methods Adler and Grisse (RIE 2017) identify a couple of variables with a robust link to real exchange rates
  - variables: terms of trade, the real interest rate, private credit, gross domestic product (GDP) per capita, government consumption and net foreign assets

The End