Monetary Regime Choice in China: Policy Rules for Navigating Dark Corners

Hongyi Chen Paul D. McNelis

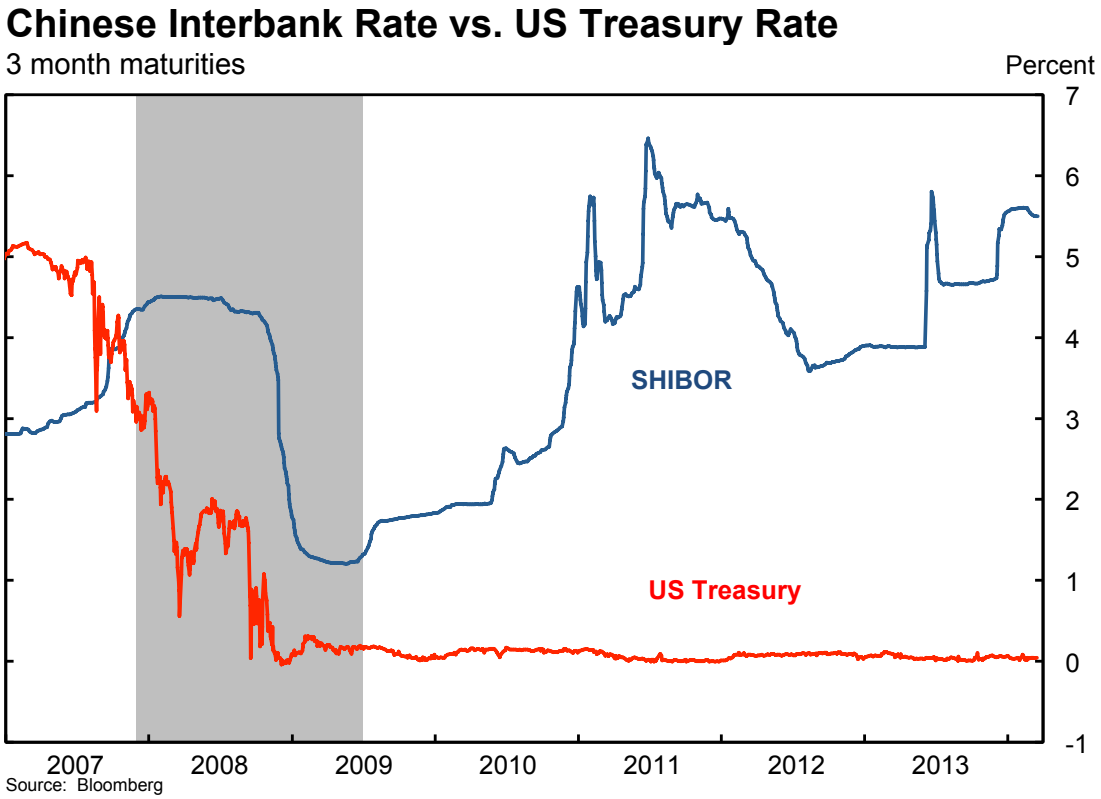
Discussion by: Zheng Liu
Federal Reserve Bank of San Francisco[1]
HKIMR Conference
January 12-13, 2017

[1]The views expressed herein are those of the authors and do not necessarily reflect the views of the Federal Reserve Bank of San Francisco or the Federal Reserve System.

China's monetary policy constrained by its trade policy

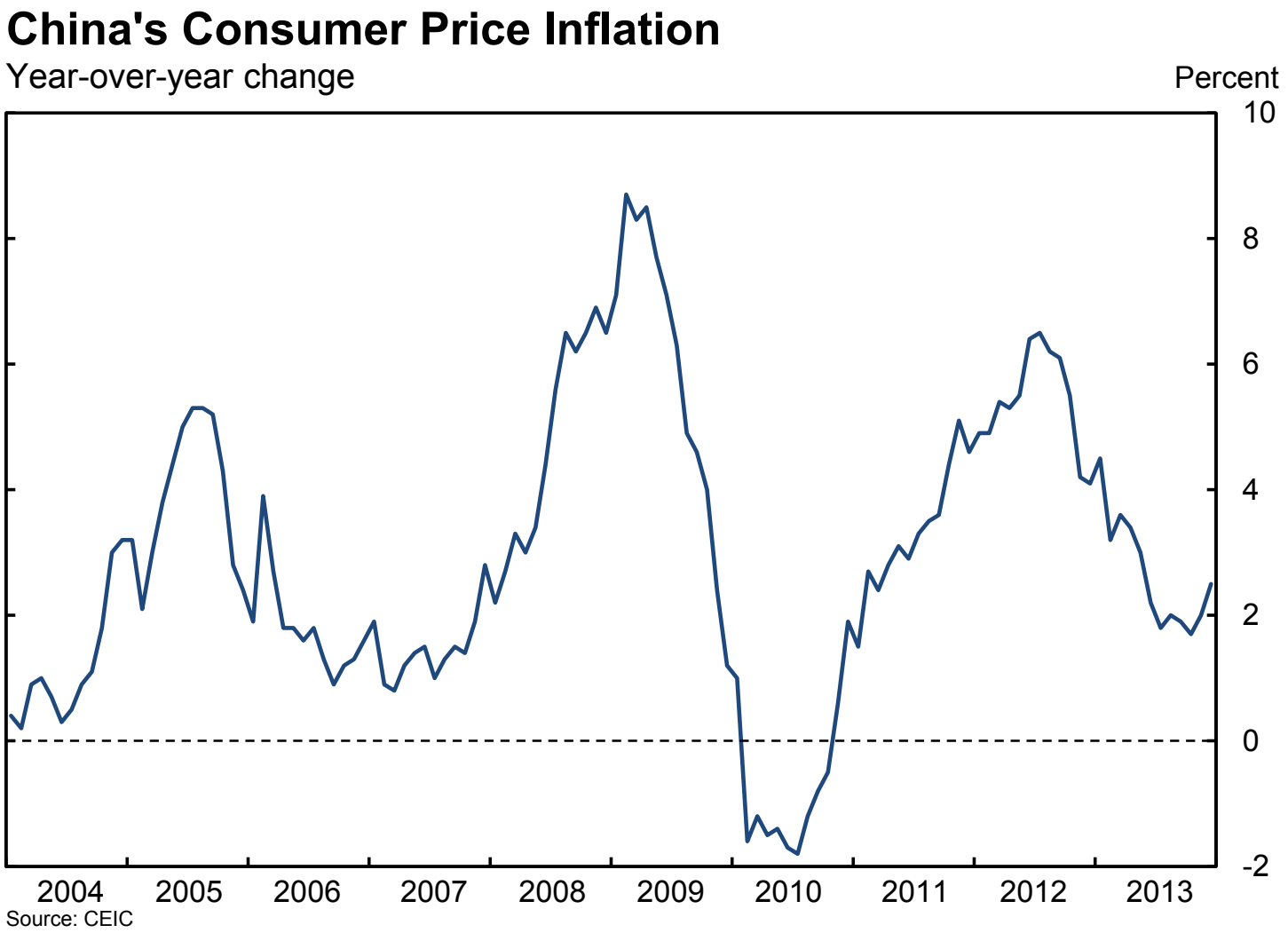
- External policy features capital controls and FX pegs
- Undervalued currency $\Rightarrow$ persistent trade surpluses and foreign currency inflows.
- Capital controls $\Rightarrow$ rapid accumulation of foreign reserves on CB balance sheet.
- PBOC sterilized purchases of FX reserves to alleviate domestic inflation pressures

PBOC sterilization costs increased since crisis



"This looks like a glaring violation of UIP" [Bob Hall, informal comments, 2014]
"The dollar is our currency, but your problem." [John Connally, U.S. Treasury Secretary, 1971]

Higher sterization cost accompanied by higher inflation



Summary of Chen-McNelis

- Studies macro implications for China of switching from a regime with closed capital account and fixed exchange rates to a more flexible regime
- Simulations of DSGE model of Chang-Liu-Spiegel (CLS, 2015) show that
  1. Flexible regime improves welfare relative to controlled regime, confirming CLS (2015)
  2. More flexible regime mitigates adverse impact of external shocks, especially in "dark corners" (with real GDP 2 std below mean)
  3. Exchange-rate adjustments dampen responses of GDP and consumption to external shocks
  4. But flexible regime also amplifies declines in employment and foreign reserves because RER appreciates

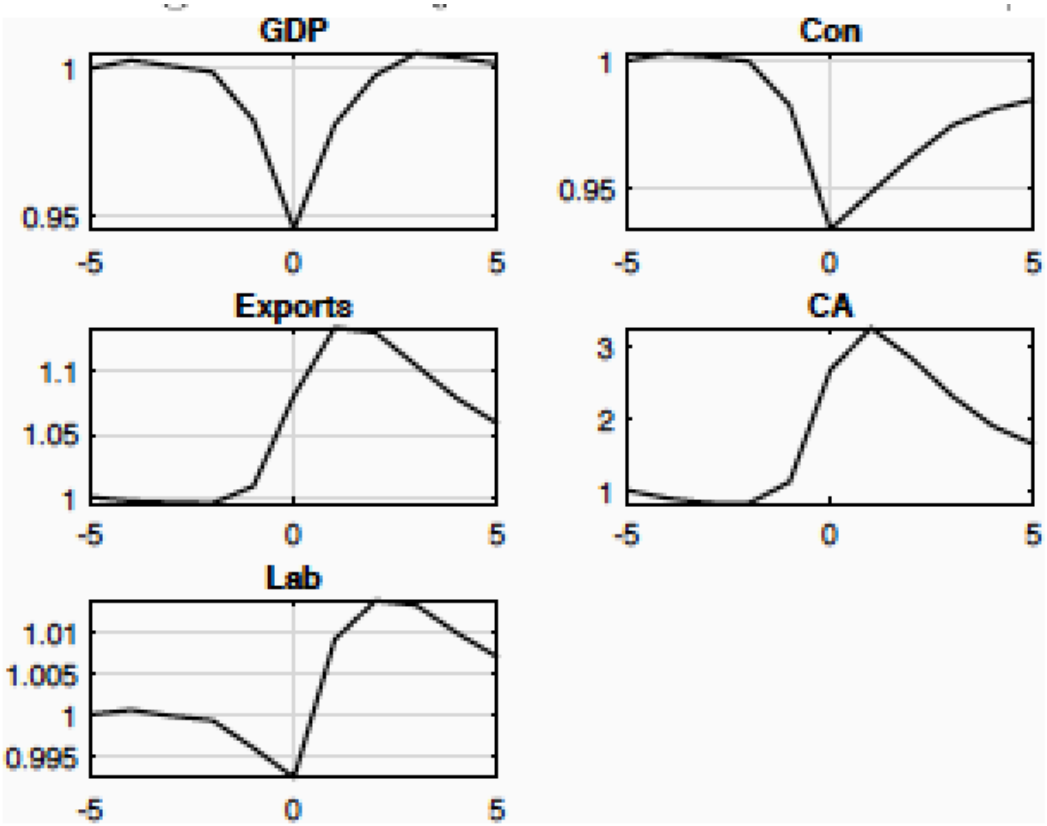
Comments

- Nice application of CLS's (2015) DSGE framework to evaluate reforms in China's capital account and exchange rate regimes
- Focus on tail distributions (dark corners) and find tradeoff for partial liberalization of capital account and FX regime: New to the literature
- Discussion:
  - Model's transmission mechanism in dark corners

Critiques

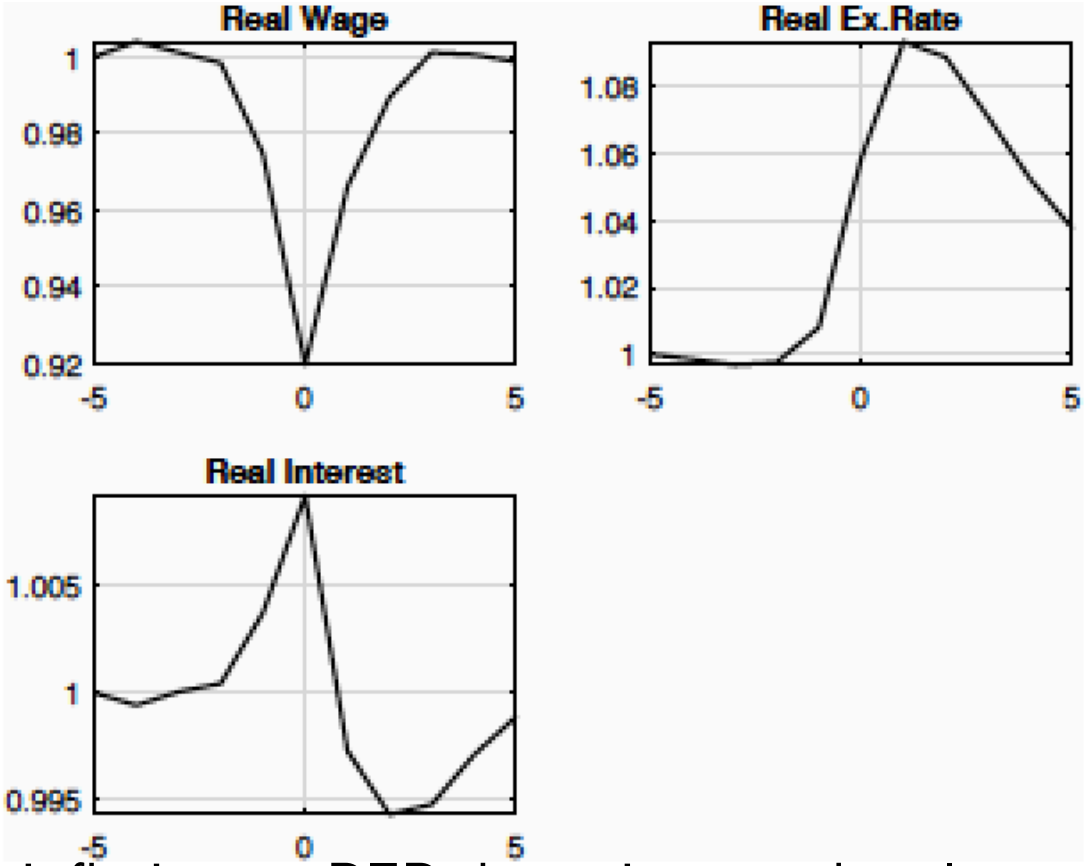
- Model simulated based on first-order approximation to Ramsey planner's solution under each regime
  - Dark corners are 2 std from mean: accurary of approximation? (maybe)
  - Do Chinese policy makers act like a Ramsey planner? (probably no)
  - Can the model confront Chinese data? (perhaps not)
- Model taken from Chang, Liu, and Spiegel (2015). I like the model, but...
  - Model lacks important features in China: SOE vs POE; banking vs shadow banking (CLSZ, 2016)
  - No other monetary policy instruments are allowed (e.g., reserve requirements)
  - Implications of external policies (e.g., capital controls) for domestic resource allocations: subject for future studies

Dark corner dynamics: baseline regime



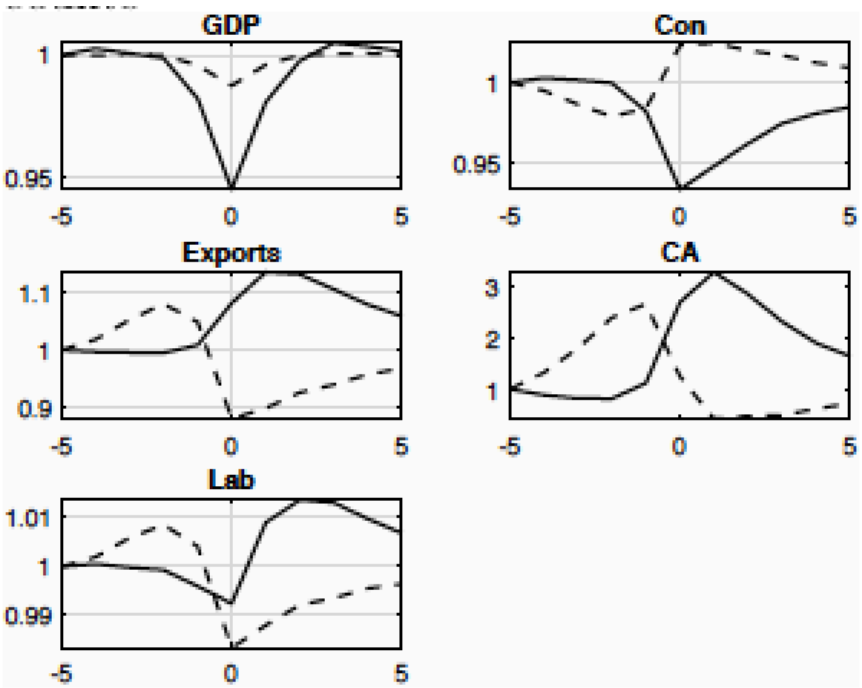
- Dark corners: GDP, consumption, employment fall
- But exports and CA balance rise
- What drives the negative comovement?

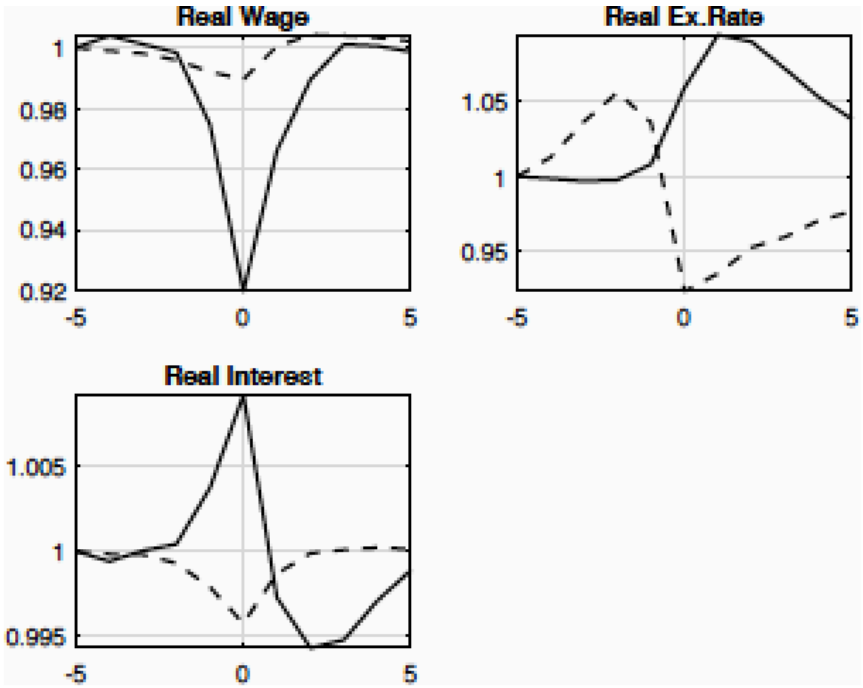
Dark corner dynamics: baseline regime



- Drop in inflation $\Rightarrow$ RER depreciates and real rate rises
- Reduction in both Y and π suggest export demand falls
- But why do exports and CA both rise?

Comparative dynamics: baseline vs more flexible regimes





Relative to baseline regime, the more flexible regime implies

- A smaller fall in GDP, declines in exports and CA, a rise in C, and a sharp fall in L
- Real appreciation and a drop in real interest rate

Comparative dynamics: baseline vs more flexible regimes

- How does inflation behave?
  - Real appreciation reduces costs of imports, lowering inflation
  - But why real interest rate falls?
  - Would be helpful to see inflation dynamics: What drives the dark corner dynamics?
- Sharp decline in L: RER appreciation or wealth effects (or both)?

Conclusion

- Simulating CLS model of China shows trade off between output stability and employment losses when capital account and FX regime are made more flexible and when economy starts in deep recession
- The focus on tail distributions is interesting. Nice contribution to literature
- More needs to be done
  - Model mechanism needs to be elaborated
  - Solution and simulation accuracy should be examined
  - In general, more intricate DSGE model of the Chinese economy should be developed for policy analysis