

Contemporary monetary policy in China: A move towards price-based policy?

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Outline

Main idea

Methodology and Data

Results

Questions and Remarks

- ▶ China has implemented economic reforms to transform itself and it has enjoyed high real growth rate.
- ▶ Furthermore, the global financial crisis in the fall of 2008 caused a sharp downturn in China's export growth and the monetary authority of China had to take action.

How does chinese monetary policy has evolved recently ?

- ▶ Estimation of several monetary rules :
 - ▶ Usual Mc Callum rule with nominal regressors and broad money (M2) as explained variable.
 - ▶ Hybrid McCallum-Hall-Mankiw rule : real regressors explain M2.
 - ▶ Usual Taylor rule : PBoC 1yr loan rate explained by real regressors.
 - ▶ Hybrid McCallum-Taylor rule : PBoC 1yr loan rate explained by nominal regressors.

- ▶ Several estimation methods :
 - ▶ OLS on the whole sample.
 - ▶ OLS on divided sample before/after 2008 (CUSUM test).
 - ▶ Rolling window.
 - ▶ VAR estimation.

- ▶ Data 1998m1 to 2014m6.
- ▶ CPI inflation, output and REER/NEER gaps are in deviation from HP filter trend.
- ▶ Output gap is based on industrial production.

Whole and sub-sample estimations

- ▶ Money supply :
 - ▶ not sensible to exchange rate.
 - ▶ has become more responsive to output (nominal ?) and inflation gaps over time.
 - ▶ real output gap not significant.
- ▶ Policy interest rate :
 - ▶ more responsive during the second sub-sample.
 - ▶ when exchange rate (REER) is added, inflation is no longer significant.
 - ▶ reacts more "persistently" to output gap than to inflation gap.

Rolling estimation

- ▶ Money supply :
 - ▶ nominal output is always significant (if NEER is omitted).
 - ▶ this results is mainly driven by inflation (real output gap not significant).
 - ▶ policy smoothing decreasing over time.
- ▶ Policy interest rate :
 - ▶ when REER added, inflation and output gap no longer significant.
 - ▶ more responsive to output gap after mid-2008.
 - ▶ smoothing parameter very large (sometime > 1).
 - ▶ exclusion of NEER make nominal output gap significant at the end of the period.

Estimation method

Monetary rules look like : $x_t = \rho x_{t-1} + (1 - \rho) (\sum_i \alpha_i z_{i,t})$

In this paper, ρ and $(1 - \rho)\alpha_i = \beta_i$ are estimated.

It may be interesting to estimate α_i :

- ▶ in order to compare subsample.
- ▶ when $\rho \uparrow$ then β_i may \downarrow without any change in α_i .
- ▶ when ρ is large β_i may not be significant.

⇒ **Maybe nonlinear least squares instead of OLS (has in Fan et al.).**

Estimation method

60 observations might be too short ?

Furthermore, one may have an idea of parameters signs/values.

⇒ **Maybe rolling (or time-varying) Bayesian estimations with (not too tight) priors.**

Sample

1998 as starting point because of reforms in China and because "Year 1998 marks as the beginning of the fifth phase of economic reforms, where monetary policy went under significant changes."

⇒ **Rolling/time-varying estimation may show interesting changes (for example before/after Zhou in 2002).**
(maybe running only rolling/time-varying estimations)

Chinese monetary policy and reforms changes

This paper is about (i) monetary policy in (ii) China :

- ▶ the section "Monetary policy rules" is very interesting.
- ▶ but some readers may want to read more about reforms and monetary policy changes in China (maybe in a section "short history of reforms in China").

Difference with Fan et al.

This paper could be more than an extension of Fan et al. (2011).
Using quarterly (as Fan et al.) instead of monthly data (as in
this paper) means loosing.

⇒ **Maybe emphasize this by running estimation on
quarterly data.**

Additional comments

What about backward/forward looking rules ?

⇒ **Girardin et al. (2012) use PBoC survey as proxy of inflation expectations.**

Adding the REER make inflation no longer significant.

⇒ **There might be collinearity between inflation and REER.**
(if fixed ER with major partner and its inflation is stable, then $\Delta \log(REER) \approx \pi$).

Thank you !