On the Effectiveness of Inflation Targeting: Evidence from Semi/nonparametric Approach

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Summary

- Purpose: Estimate the treatment effect of inflation targeting
- Data: Annual data from 98 countries from 1990 to 2013; 27 IT, 71 Non-IT
- Methodology: Calculate propensity score. Match based on propensity score weighted model. Calculate ATT
- Results: IT significantly lowers inflation variability, improves fiscal discipline, reduces real exchange rate volatility in developing countries but increases it in developed economies.
- Caveat: Results are sensitive to the choice of propensity score estimates.

Key contribution

- Account for self-selection unlike event study methodology, before-after difference-in-difference.
- Account for possible specification errors by conducting semi-parametric and non-parametric estimation of propensity scores.
- Include financial market development variables as a precondition for adopting IT.
- Study the impact of IT on interest rate volatility, exchange rate volatility, and fiscal discipline

Add a time dimension to establish causality

Question: Effectiveness of Inflation targeting

- A country adopts IT. It is a transition.
- Wide literature on preconditions of ‘adoption’ of IT. Not ‘continuing’ to do IT. The question being addressed drives the research design.
- There is a tangible difference between *de facto* and *de jure* adoption date of IT (Rose, 2007).
- Same year matching is essential to control for self-selection and global business cycle effects.
- Match balance on all ‘precondition’ country observables is key.
- Difference in difference for outcome variables can be studied in event time.

Additional comments

- Dependent variable cannot be 1 prior to the date of adoption of IT. This wrongly assigns a country in the treatment group.
- Some precondition variables recognised in the literature are missing: Proxy for central bank independence and fiscal discipline (Minea and Tapsoba, 2014); Output gap (Mishkin and Schmidt-Hebbel, 2001).
- The precondition variables should ideally be lagged.
- Slight deviations in methodology should ideally not overturn a robust results.
- Clarify the coefficient on debt to GDP, especially when discussing the difference between developed and developing countries.

Going forward

- Can add a variable for acceptability of IT in the logit eg. the number of countries that adopted IT in the past.
- Can rethink measurement of fiscal discipline (Minea and Tapsoba, 2014).
- Can study the impact on some other macroeconomic variables: Sacrifice ratio, output volatility, inflation expectations.
- Can study heterogeneity in results by dividing the sample on value of lagged inflation or inflation target.

Concluding remarks

- Add a time element to the methodology to establish causality.
- A clear question needs to drive the logit specification: LHS and RHS variables
- Interesting question; important addition to the literature.

Thank you.