Discussion of

"The macroeconomic effects of macroprudential policy: Evidence from a narrative approach"

by D. Rojas, C. Vegh, and G. Vuletin

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CBC-IDB-JIE Conference on "Financial frictions: Macroeconomic implications and policy options for emerging economies"

Santiago, May 13-14, 2021

*I thank the authors for sharing their data and codes. I'm very grateful to Tomás Gómez for his help.

†The views expressed are mine and do not necessarily reflect the position of the CBC or its Board members.

Summary of the paper

- Paper estimates effects of shocks to legal reserve requirements (RRs) on output and market interest rates in ARG, BRA & URU, using local projections.
- RR shocks identified through narrative approach in the spirit of Romer & Romer (2010), classifying each RR change as endogenous or exogenous to the business cycle.
- Effects are compared with central bank interest rate (IR) shocks, identified following Romer & Romer (2004), as well as with time-identifying (SVAR) strategy.
- Main findings:
  - Under narrative approach, output falls in response to exogenous increases in RRs and IRs.
  - But under time-identifying strategy, output doesn't seem to be affected by RR shocks (even increases for some specification), and falls more in response to IR shocks.
  - Misidentification bias is due to countercyclical (procyclical) nature of endogenous RR (IR) changes; may explain some counterintuitive results in the existing literature.

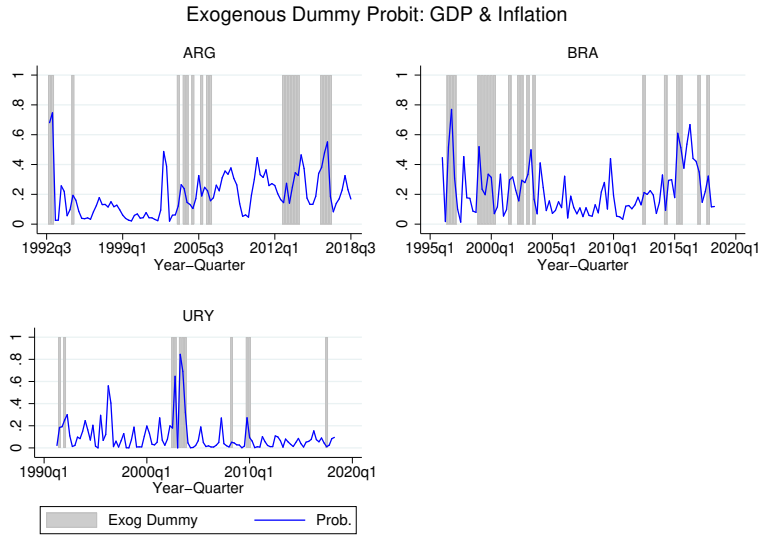
Overall assessment

- Interesting, well-written empirical paper that contributes to the understanding of the macroeconomic effects of RR (and IR) policies in emerging economies.
- Other relevant contributions:
  - Novel metric of effective legal RRs, accounting for structure of deposits, in addition to maturity and currency of denomination (Federico, Vegh & Vuletin, 2014).
  - Construction of narrative for RR (and IR) changes for ARG, BRA & URU since early 1990s.
- My comments and suggestions focus on the robustness of the narrative strategy and the comparison with the SVAR strategy; others on the analysis in general.

Comment #1: Narrative strategy and predictable policy changes

- Leeper (1997) argued that SVAR *and* narrative approaches may not achieve proper identification of exogenous, unanticipated policy shocks:
  - Showed that dummy variable capturing narrative MP shocks (Romer & Romer, 1989, 1994) is predictable from past macroeconomic variables.
  - May reflect endogenous response of policy to other shocks, or anticipated policy changes.
- Predictability also present in this paper:
  - We ran probit models for each country with dummies capturing narrative exogenous RR shocks as dependent variables and 4 lags of other variables as predictors.
  - Many dummies are predictable from past output, inflation, RR and IR.

Comment #1: Narrative strategy and predictable policy changes



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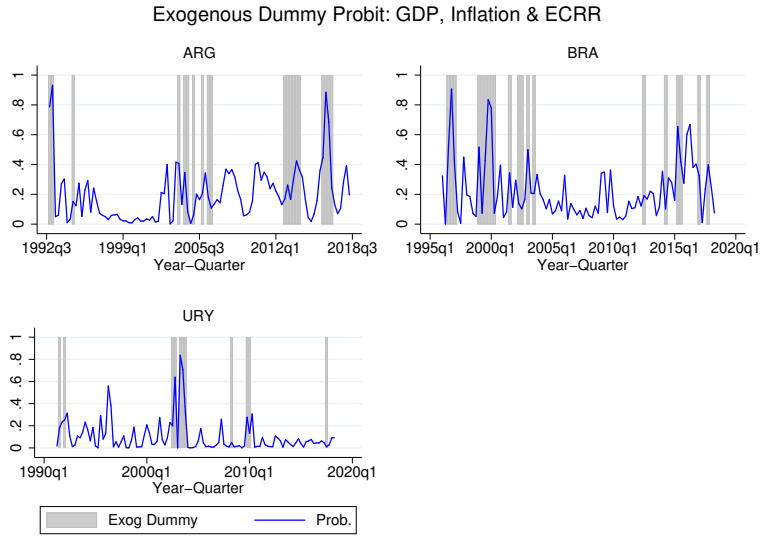

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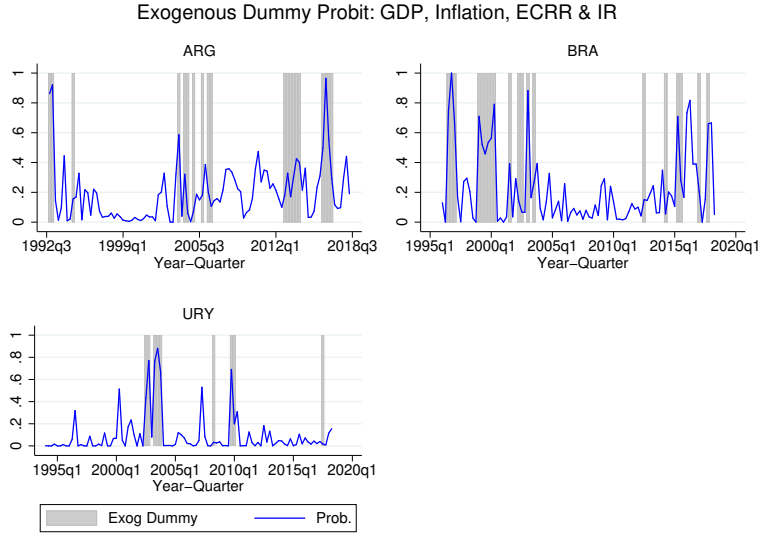


Comment #1: Narrative strategy and predictable policy changes

of exogenous RR changes with Prob > 0.5

	GDP & Inflation	GDP, Infl. & ECRR	GDP, Infl., ECRR & IR
ARG*	3/25	4/25	5/25
BRA	5/20	6/20	11/20
URY**	3/13	3/13	5/11
Total	11/58 (19%)	13/58 (22%)	21/56 (38%)

Notes: (*) 4 episodes lost in Probit due to lags.
(**) 2 episodes lost when adding IR (1994-).

Comment #1: Narrative strategy and predictable policy changes

- Suppose that the authors correctly identified exogenous shocks through their narrative account. Then, it seems likely that these shocks were anticipated in advance.
- Anticipation can generate serious biases when estimating effects of policy shocks (Leeper, Richter & Walker, 2012; Leeper, Walker & Yang, 2013).
  - Misaligns agents' and econometrician's information sets $\rightarrow$ econometric analyses that fail to align information sets produce distorted inferences (confound shocks).
- Whichever its source, predictability is problematic. Suggestions:
  1. Use only unpredictable policy changes identified by binary response or similar models.
  2. Identify unanticipated (and anticipated) exogenous policy shocks through a narrative account (as in Mertens & Ravn, 2010, 2012, for fiscal policy).

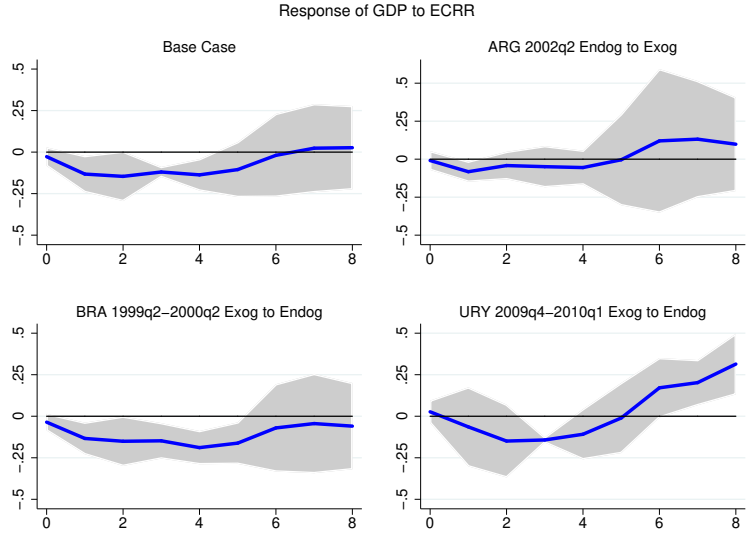
Comment #2: Comparison with time-identifying (SVAR) strategy

- To compare narrative approach with time-identifying strategy, the authors estimate a panel SVAR assuming that RR and IR shocks don't affect GDP growth within a quarter.
  - RR (IR) increase found to have positive (large negative) effect on output (Figure 6).
- The authors then allow for a contemporaneous effect of RR/IR changes on output, estimating local projections using all RR/IR changes.
  - RR (IR) increase found to have no (large negative) effect on output (Figure 7).
- While the SVAR model identifies exog. shocks through a recursive scheme, the LP model doesn't distinguish between exog. shocks and endog. responses (no identification).
- Why use SVAR in one case and LP in the other? Does an SVAR where RR/IR shocks can affect output contemporaneously produce similar results as LP with narrative shocks?

Comment #3: Subjectiveness of the narrative and number of episodes

- A narrative approach is inherently subjective: different persons are likely to make different classifications of shocks.
- The authors provide their complete narrative in an appendix; nonetheless, they might check the robustness of the results to different narratives.
- A simple test: change single episodes from endogenous to exogenous and vice versa.
  - Changing episodes for ARG and URU significantly affects the results.
  - May be product of relatively few episodes (93 in total, 62 classified as exogenous).
- Suggestion: add more countries, e.g., Colombia, Peru.

Comment #3: Subjectiveness of the narrative and number of episodes



Other comments

1. No clear separation between monetary and macroprudential policy objectives for RR:
   - RR policy often acts as substitute for IR policy in developing/emerging countries (p. 3), so it doesn't necessarily have macroprudential objectives as the paper suggests.
   - Even if monetary policy concerns were absent, RRs are just one type of macroprudential instrument $\rightarrow$ acknowledge that paper is about RR policy, not macroprudential policy.
2. Relatedly, are RR and IR shocks separately identified?
   - Stock and Watson (2012): government spending and tax shocks are negatively correlated.
   - Here, correlation coefficient of exogenous ER and IR shocks of only 0.0645 (OK).
3. Motivate LP regression specification better (terms), and do some robustness.
4. Explain characteristics of confidence intervals under LPs in a footnote.
5. Results changed from the previous version (Feb 23, 2020) to current one (Jul 31, 2020), and are the same as in an earlier version (Nov 15, 2019). What explains these changes?
6. Typos: monetary police (p. 12), guarantying (p. 14).

Final remarks

- A nice paper that can become an important reference in the empirical literature on the macroeconomic effects of RR policy in emerging economies.
- Thank you for your attention!