

Discussion of:
**“Monetary policy matters:
New evidence based on a new shock measure”**

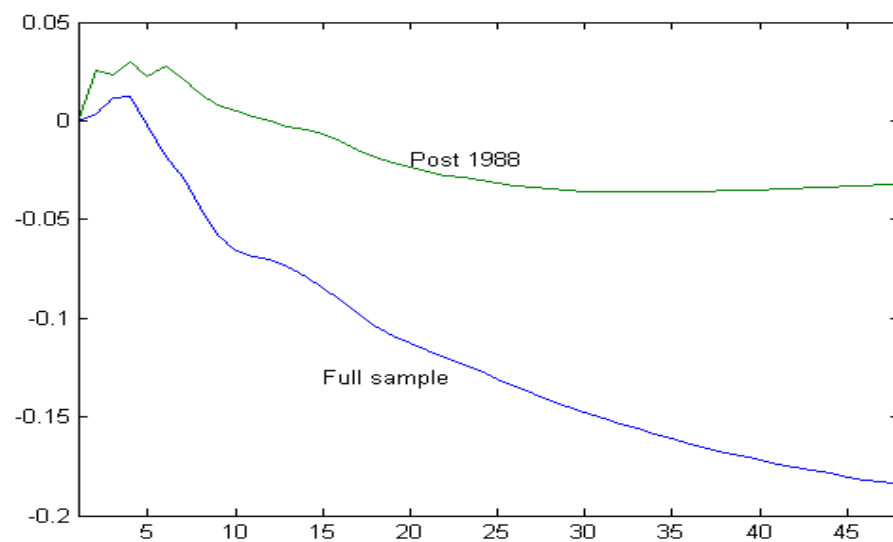
by S.M. Barakchian and C. Crowe

Luca Gambetti
UAB

Interactions between monetary and fiscal policies,
25-26 February, Bank of Spain.

The paper

- *Empirical fact.* The paper documents a new puzzle within the VAR framework: after 1988, monetary policy shocks identified using zero restrictions (recursive and non-recursive schemes) generate a positive and small response of output.

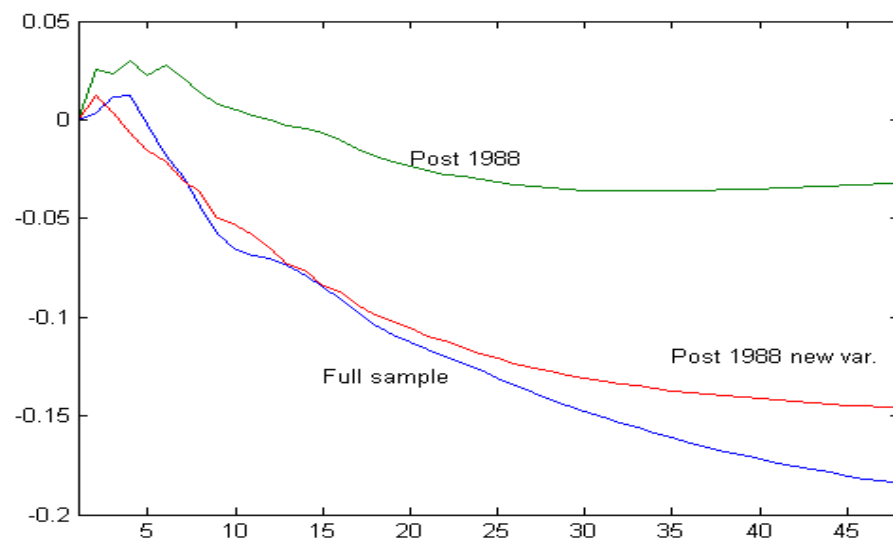


The paper

- *Why?* Monetary policy has become more forward looking, misspecification of the relevant information set. The impulse responses to the identified shock are not responses to policy but rather are responses of policy to future development in the private economy (similarity with the price puzzle).
- *Solution.* Identification using a different measure of the monetary policy shock based on Fed Funds futures data. Two main advantages:
 - (a) No need of explicitly specifying the information set of the monetary authorities (less subject to specification error).
 - (b) Most importantly use more information.

The paper

- *Main results: I.* Output reduces after a monetary policy shock as in the full sample case.



- *Main results: II.* A substantial part (almost half) of output is explained by the monetary policy shock (mainly) in the medium and long run.
- *Main results: III.* Difficult to mitigate the price puzzle.

Comments

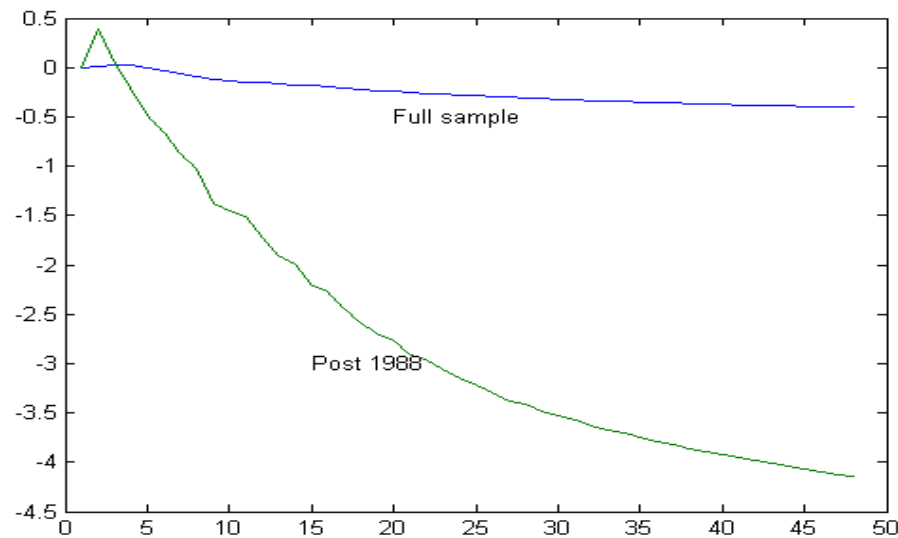
- I: Some implications for monetary policy effectiveness.
- II: The role of information.

Comments I: Monetary policy effectiveness

- Results tell us that discretionary monetary policy:
 1. Has become more important for output.
 2. Has become less important for the interest rate (monetary policy more systematic).
- Two possible explanations:
 1. Combination of changes in the importance of the other shocks (more important for the interest rate and less important for output).
 2. An increase in the effectiveness of monetary policy.

Comments I: Monetary policy effectiveness

- What I did: comparing the responses of output for the two subperiods rescaled in such a way that the shock has a 1% effect on the federal funds rate.



- Much bigger effects of the monetary policy shock after 1988 explained by similar effects on output but smaller effects of the interest rate. Higher effectiveness monetary policy.

Comments II: The role of information

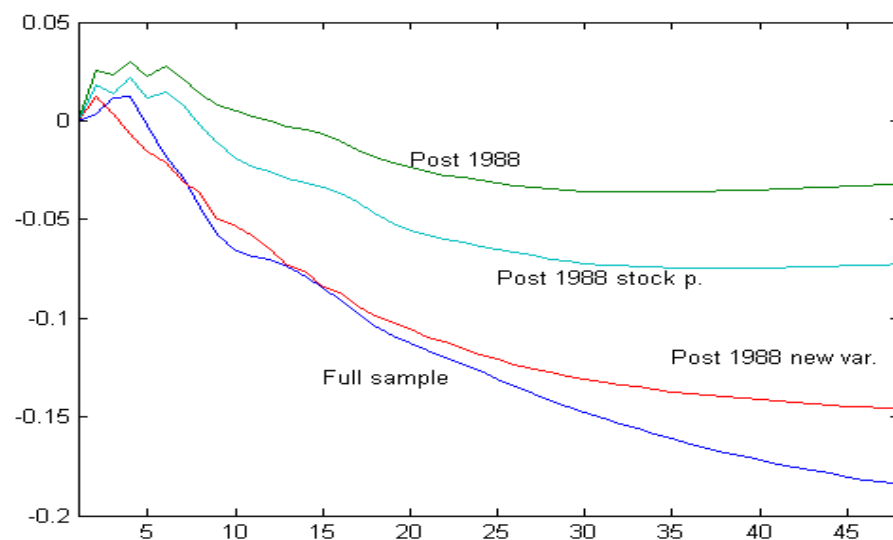
- I think the authors raise a very important point: the role of information.
- If the information set of economic agents is larger than that of the econometrician identification of structural shocks can become very hard in VAR.
- In the specific case of this paper, the argument is similar to that used to explain the price puzzle: if monetary authorities monitor leading variables which are not included in the information set of the econometrician, then what are interpreted as responses to policy could be actually responses of policy to future development in the private economy.
- The output puzzle here is solved because additional relevant information is used.

Comments II: The role of information

- I try to provide additional evidence that properly enlarging the information set of the econometrician helps (first check).
- I try to evaluate the specific information content of the BC variable (second check).

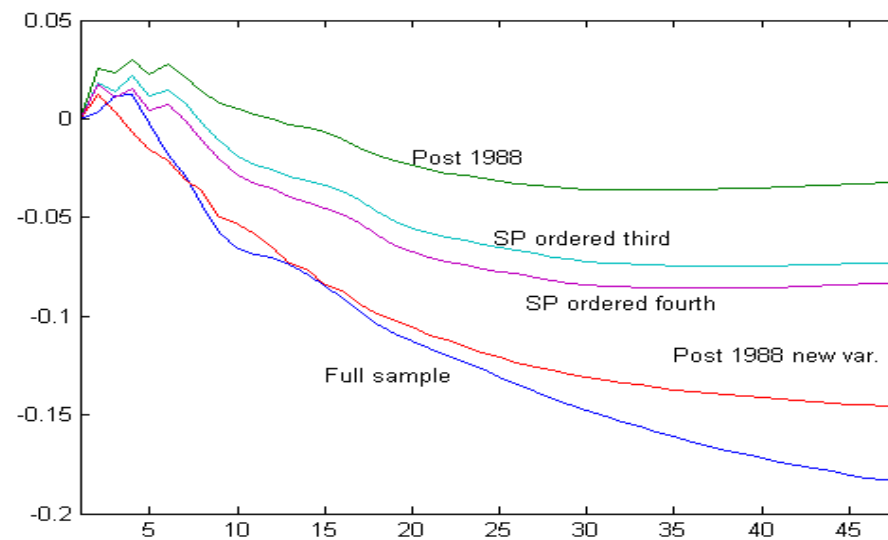
Comments II: The role of information – first check

- I did a simple experiment: I added the a stock prices index (SP) in the 3-variables VAR (IP, CPI and FFR) using a Cholesky scheme with FFR ordered last (SP at time t belongs to the information set of the monetary authorities).



Comments II: The role of information – first check

- I repeat the same exercise but with SP ordered after the FFR (SP at t is not in the information set of the monetary authorities).



- Adding stock prices helps in mitigating the puzzle.

Comments II: The role of information – second check

- Among several problems the misalignment of the information sets of the econometrician and the economic agents can generate disturbances which are nonfundamental for the variables considered in the empirical model (not recoverable using the present and the past of these variables).
- This means that the shock cannot be recovered as a linear combination of the VAR residuals.
- I try to check whether the monetary shock is nonfundamental for IP, CPI and FFR while fundamental for IP, CPI and BC.

Comments II: The role of information – second check

- I used the procedure proposed by Forni and Gambetti (2010).
 1. Estimating a structural factor model using a panel (Y_t) of 106 US series (including the new measure proposed in this paper) with three shocks (u_t).

$$Y_t = B(L)u_t.$$

2. Compute the roots of the determinant of two subsets of impulse response functions (the rows of $B(L)$ corresponding to the variables listed below).
 - (a) IP, CPI, FFR.
 - (b) IP, CPI, BC.

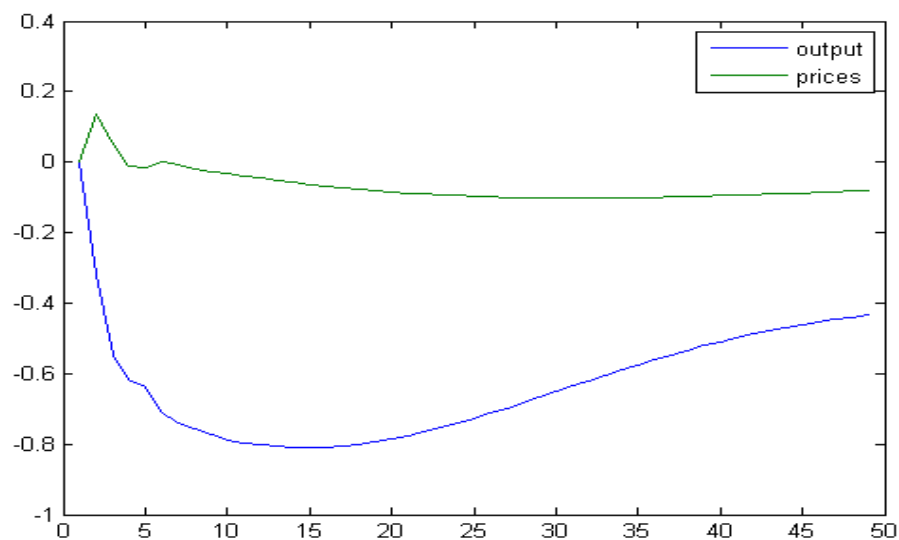
- Findings:
 1. For the first set the smallest root is 0.08. A VAR for the three variables does not seem to be able to recover structural shocks (including the monetary one): the authors seem to be right.
 2. For the second set the smallest root is 0.72, substantially higher than before but still smaller than one (it should be tested!).

Comments II: The role of information – second check

- The finding suggests that
 1. The BC measure substantially improves upon the federal funds rate in terms of information – this explains the change in the response of output.
 2. It is not clear that is enough to correctly recover the shock – this could explain the price puzzle.
- So, finally, before to conclude...

Comments II: The role of information – second check

- I identified the monetary policy shock using this model and the same identifying assumptions (zero impact effect of IP and CPI)



- The point estimate of both impulse response functions is negative after a few months after the shock.

In summary

- I think this is a very interesting and nice paper.
- The identification proposed here seems promising and to improve upon identification based on the federal funds rate for the post 1988 period.
- However probably something more could be done to check whether we can obtain results which are consistent with the conventional wisdom also in terms of price behavior.