Comments to *Gimme a Break!*, by Bacchiocchi, Castelnuovo and Fanelli

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Comments to Gimme a Break!

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Main object of the paper: to say new and exciting things by using non-recursive identification SVAR scheme.

Main points:

- Identification through heteroskedasticity à la Rigobon (2003) and Bacchiocchi (2010);
- deep parameter estimation via IRF (minimum-distance) matching;
- Inice story about how the 1984q1 break modified the cost channel.

I hope I haven't forgotten anything.

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Trivial stuff

- Perhaps some exogenous variable (commodity prices?) could have helped.
- Some robustness check as to the timing of the break would have been nice.
- Olicy relevance in a post-Lehman world?

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The economic rationale of triangular identification

Triangular identification: $\varepsilon_t = Cu_t$

$$\begin{bmatrix} \vdots \\ \varepsilon_{FF} \\ \vdots \end{bmatrix} = \begin{bmatrix} * & & \\ * & * & \\ * & * & * \end{bmatrix} \begin{bmatrix} \vdots \\ u_{mp} \\ \vdots \end{bmatrix}$$

In words: the structural monetary policy shock is identified via the fact that it doesn't affect instantaneously stuff above *FF* but hits stuff below. If you reverse the ordering of the elements of u_t nothing changes, except for the ordering of the columns of *C*; more generally, $\varepsilon_t = (CP')(Pu_t)$, where *P* is a permutation matrix.

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This is normally justified via

- Institutional features (eg price stickiness)
- Technology
- Information asymmetries

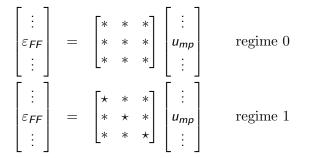
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Having 2 (or more) regimes for the deep parameters is irrelevant, as long as the above continues being true.

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What the authors do

Break-based identification: $\varepsilon_t = [C + Q_t]u_t$, where $Q_t = 0$ for t < B and Q is *diagonal* for $t \ge B$ (C is unconstrained)



The structural monetary policy shock is identified via it *being the only structural shock whose impact on the one-step-ahead prediction error for the fedfunds changes after the break*.

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Unless I'm missing something, the implicit hypothesis for this is:

- Traditional (frictional) arguments for identification don't apply.
- Deep parameters change from regime 0 to regime 1 in such a way that the relationship between structural shocks and reduced-form disturbances is unaffacted, **except** for a one-to-one correspondence between prediction errors and structural shocks.
- The "monetary policy shock" is then **defined as** the one associated with the prediction error for the FED funds rate.

And the economic rationale for this is... what?

Note: this could be rephrased as "why is Q_t **diagonal**?" (as opposed to weirder arrangements, as long as there's only one non-zero entry per row and per column). That would simply exchange the ordering of the structural shocks u_t , which is of course conventional.

Note: this doesn't apply to similar application, such as, eg, Rigobon(2003, 2004).

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Questions

As a consequence:

- Are we sure that what we're seeing are the IRFs to a policy shock and not something else?
- But if they're not, what are they?
- Hence, minimum-distance IRFs calibration gives us. . . what?

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On nearly the same data, I found that the six largest eigenvalues of the companion matrix are

 $\lambda = \begin{bmatrix} 0.9939 & 0.9669 & 0.9669 & 0.9587 & 0.9587 & 0.9307 \end{bmatrix}$

Rank	Trace	pvalue
0	188.59	[0.0000]
1	135.60	[0.0000]
2	89.894	[0.0011]
3	53.694	[0.0180]
4	29.739	[0.0601]
5	14.345	[0.0789]
6	0.33760	[0.5690]

If you're lucky, you may have that you have no fewer than 3 permanent shocks; if you assume policy shocks are transitory you can call unit roots to the rescue and use a KPSW-style strategy to help.

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