Discussion of Chudik-Fratzscher

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• Describes international diffusion of the crisis through three shocks:
  • Liquidity shock

• GVAR framework, estimated for 26 countries on pre-crisis vs. crisis periods.
• Liquidity plays central role for diffusion to rich countries
• Risk / Macro News play central role for diffusion to EME.
• Diffusion larger/faster to countries with weak macro policies and institutions.
Describes international diffusion of the crisis through three shocks:
  - Liquidity shock
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Evaluation

- Ambitious paper. Purports to go to fundamental shocks - rather than proximate symptoms like trade in goods or capital.
- GVAR to take care of dimensionality of estimation
- Recursive ordering + sign restrictions to identify 3 structural shocks.
- Relevant question and relevant answers - e.g. domestic macro policies matter more than trade or financial linkages.
- Two substantive remarks. A few simple recommendations.
Identification

- Identification of three shocks of the essence.
- Macro news shock identified with deviations from forecast surveys; Risk measured by VIX; Liquidity measured by spread
- Surely, liquidity shock affects VIX and risk shock affects spread. Series are not orthogonal, and identification is crucial.
- It is achieved with sign restrictions.
- Liquidity shock lowers stock returns, and increases nominal interest rate. Risk shock lowers stock returns, and decreases nominal interest rate.
- What is that latter shock? As risk perception increases, interest rate falls? Why?
- Endogenous monetary policy? Doubtful at that frequency. Precautionary motive? Goes the other way, as interest rate should increase to defer consumption. What is that shock?
- In fact, one wonders if VIX / spread do not in fact affect macro expectations, and thus news shocks. Then still one layer of identification missing. Perhaps news should not be ordered first?
Comparison

- Not clear whether (G)VAR adapted to perform a before / after comparison.
- Heteroscedasticity obviously prevalent over time - underlying volatility shifts up with the crisis - for all variables, and not only in the US.
- First problem is comparison of IRF: the impulse itself is not directly comparable in tranquil vs. crisis times.
Second problem is transmission. If variance (in stock returns, interest rates, etc) increases, then measured diffusion increases.

Forbes-Rigobon (2002). True model is

\[ g_i = \beta_0 + \beta_1 g_{US} + \varepsilon_i \]

Then

\[ \text{Corr}(g_i, g_{US}) = \left( \frac{\beta_1^2 \text{var}g_{US} + \text{var}\varepsilon_i}{\beta_1^2 \text{var}g_{US}} \right) \]

International correlation (covariance in VAR?) increases for a given \( \beta_1 \) if variances shift.

In fact, finding that countries with weaker institutions / macro policies are more affected by shock can simply reflect these are economies where volatility increased most (See Acemoglu on institutions and Easterly on policy)
1) Hold variances constant?

2) Ultimately, we are interested in international diffusion of effect on real variables. I understand GDP, C, etc are not observed at weekly frequency. How about feeding shocks identified here into a (quarterly? monthly?) (G)VAR with real variables in it? Frequency of structural shocks would have to be adjusted adequately.

3) Why exclude countries that tend to be more closed financially? Do they not provide some relevant variation?.

4) Results would be easier to digest if focused on a few key points. Country-specific estimates do not always easily fit into the overall purpose of the exercise.
Reassuring (for me) that finding is: financial linkages matter for advanced economies - trade matters for developing world.

Same finding in Imbs (2010) where LHS variable is simply cross section of business cycle synchronization.

But here, focus is on structural shocks rather than proximate diffusion.
Ambitious, relevant, well realized.

Finetune identification. "Risk" shock may be picking up everything that lowers stock returns without increasing nominal interest rates.

Hold volatility constant in comparison exercises to distinguish contagion from interdependence?