

The Changing International Transmission of Financial Shocks: Evidence from a Classical Time Varying FAVAR

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- Nice paper. Well written; provides a wealth of information.
- Not much to say. Already polished.
- Only a few comments about the technique and the drivers of the results.

- Ambitious project. Want to study:

- 1) How large is the impact of US financial shocks in US and in major developed countries.
- 2) The domestic and international channels that propagate US financial shocks.
- 3) Whether their size and transmission has changed over time.
- 4) If so, which are the channels that have changed.
- 5) How strongly were economies affected by the 2008-2009 financial shock.

6) Which channels contribute to make the effect different from previous financial shocks.

Could make 2-3 papers out of this!! Would be better to focus on a couple of questions.

- Technique employed: a TVC-Favar model.
- Classical approach instead of, by now standard, Bayesian approach (Surico and Mumtaaz, Koop and Kouribilis, Amir-Ahmadi and Ritschl, Del Negro and Otrok, etc.)
- Allow for TVC in factor loadings, in the law of motion of the factors, in the variance of the shocks.
- Apply the approach to a large data set (200 quarterly series).

Results:

- 1) US financial shocks important for GDP growth. Effects differ across countries.
- 2) Some changes in the international transmission of the shocks over time.
- 3) Size of financial shocks varies over time.
- 4) Global 2008-2009 financial shock explains 30-40 percent of variations in GDP.

5) Times of financial distress not different from normal times in many ways.

6) A large collapse in trade and house prices explains the stronger propagation of the 2008-2009 shock.

and many more.....

Intuitive results, perhaps too many, difficult to draw sharp conclusions.

Comments 1: Methodology

- Is a FAVAR the best approach to deal with the problem?
- Not explained why a classical approach is used:
 - a) Classical approach is a special case of Bayesian with flat priors.
 - b) Seems more complicated and quite ad-hoc relative to a Bayesian.
 - c) Many two steps procedures used; Bayesian framework cleaner: training sample vs. estimation sample, prior restrictions vs. data.
 - d) Bayesian Gibbs sampling fast and quickly converges.

Need more justification for why the technique is preferable (why not non-parametric methods for estimating TV? Less prone to specification and identification problems)

- Many specification choices not explained (e.g. why a VAR(1) for the factors? Why 3 observable factors to model the variance? Why serial correlation in the idiosyncratic error, etc.).
- Identification issues: not clear how you separately identify variations in the law of motion of the factors from variations in the loadings.
- Everything is time varying except for the relation between the variance of the shocks and the three observable factors Why? Why no error is allowed here? This has important implications for the results (see later).
- Identification of the shocks: why simple Choleski? Why not use some meaningful sign restriction on the response of certain financial variables?
- Not clear how you compute impulse responses.

Need more explanations for choices and shortcuts.

Comments 2: Results

- Figures 2 and 5: there is very small time variation in the impulse responses over time.
- Figure 6: some loading and some VAR coefficients change but no effect on impulse responses.
- Figure 4: Large changes in the variance of the FCI shock (how about the variance of other shocks in the VAR?)

Typical results in linear multivariate TVC models: little change in the structure, large change in the variance of the shocks (good-bad luck).

Here the result is driven in part by modelling choices.

- Typically difficult to sharply identify changes in coefficients from changes in the variances.
- The variances are fixed function of volatile observable indicators → variances will be moving over time. Thus, no need to change the structural coefficients.
- Probably useful to reestimate the model allowing only for variations in the link between variances and observable indicators. My guess is that variances will change less and coefficients more.
- Changes in the coefficients are typically related (first lag coefficient up, second lag coefficient down, sum roughly unchanged). Here required that the coefficients evolve independently. Would be useful to check whether this matters or not.

Section 5 is a bit tentative - many conjectures. Impose some more identification restrictions?

- Little structural differences between tranquil times and crisis times. Why?

- Few puzzling features:

a) interest rate reaction to financial shocks smaller in 1987-2007 than in earlier period

b) quantities are affected more than prices during crises.

c) crises are crises because shocks are larger.

d) reactions of consumption and investment in 2008-2009 somewhat different than 1987-2007 but output reaction is not (no redistribution, change of risk sharing?)

It would be nice to discuss in more details some of these issues.