Discussion of 'Does Austerity Pay off?'

by

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Please Note

- Any views expressed here are solely those of the authors and not the Bank of England.

- This discussion should therefore not be reported as representing the views of the Bank of England or members of the Monetary Policy Committee or Financial Policy Committee.

Summary

- Estimate a Fiscal Policy panel VAR & local projections model on government consumption, output and government debt yield spread

- Demonstrate that fiscal multiplier (response of output to government spending) is non-linear in the spread!
  - → In good times (spreads react negatively to austerity), government spending cut leads to a rise in output
  - → In bad times (spreads react positively to austerity), government spending cut lead to a fall in output

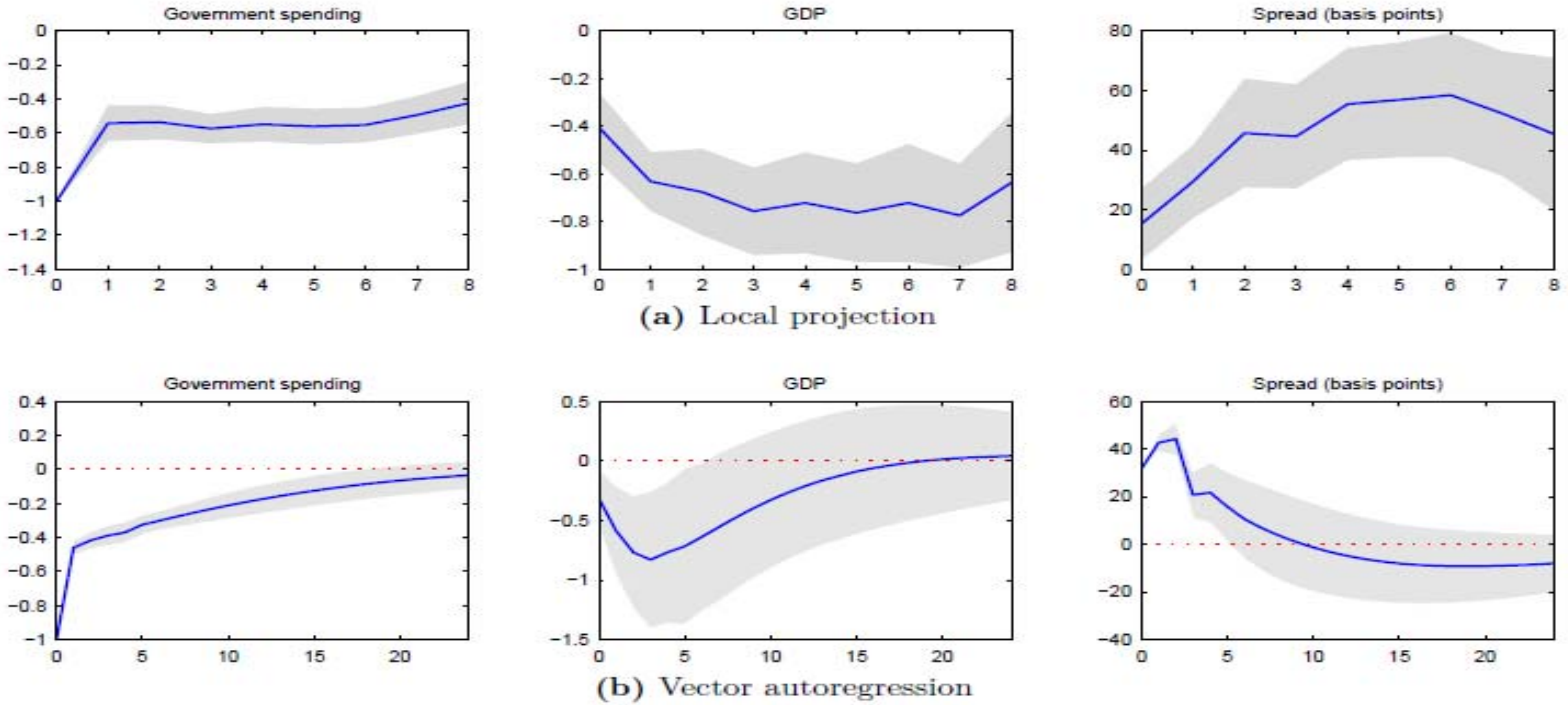
- → Clearly very important policy implications.

Comments

- What is the underlying mechanism?
  - Higher Yield spread ➔ Higher bank funding & hence private sector funding costs ➔ Private sector can not offset public sector contraction?
  - Government targets deficit reduction ➔ higher yield spread means deficit reduction is more difficult ➔ so need to cut back more on government spending?
  - Country-specific risk-shock ➔ Investors decide the country is not credit-worthy anymore ➔ Pull funding from public and private sector ➔ Yield spreads rise, government needs to consolidate and output falls ➔ Coincidence with FX crisis?
- Difficult to recommend policy action w/o knowledge of mechanism

Econometric Comments

- 90% confidence bands look quite tight
- Could this be a result of econometric misspecification?



Econometric Issue I: Dynamic Heterogeneity

- The authors estimate a dynamic panel VAR :

$$\boldsymbol{Y_c = X_c B_c + E_c} \qquad \textbf{(1)}$$

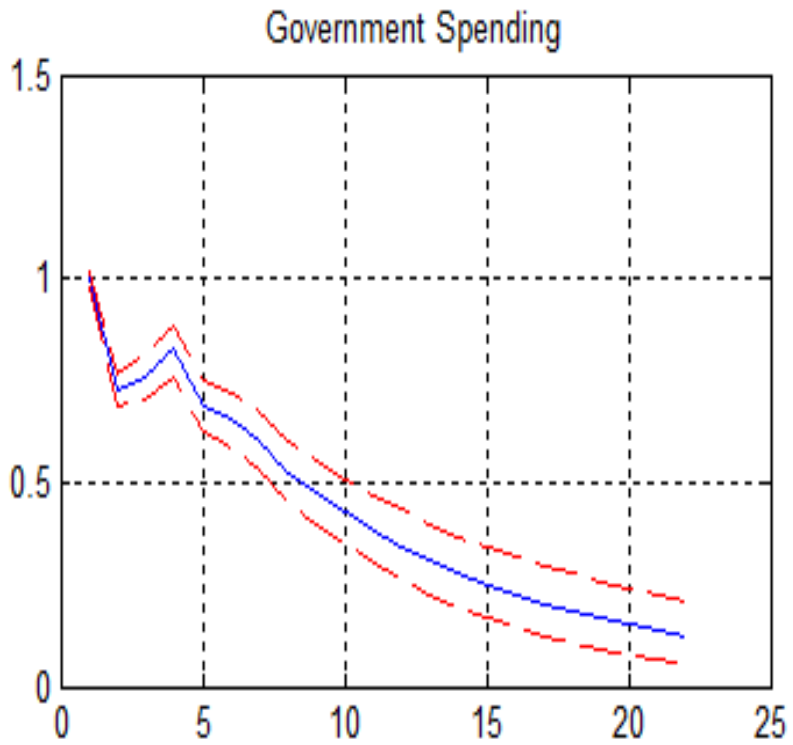
  - They assume that $\boldsymbol{B_c = B}$, but if incorrect ➔ dynamic heterogeneity bias (Nickel, 1981; Pesaran and Smith, 1995)

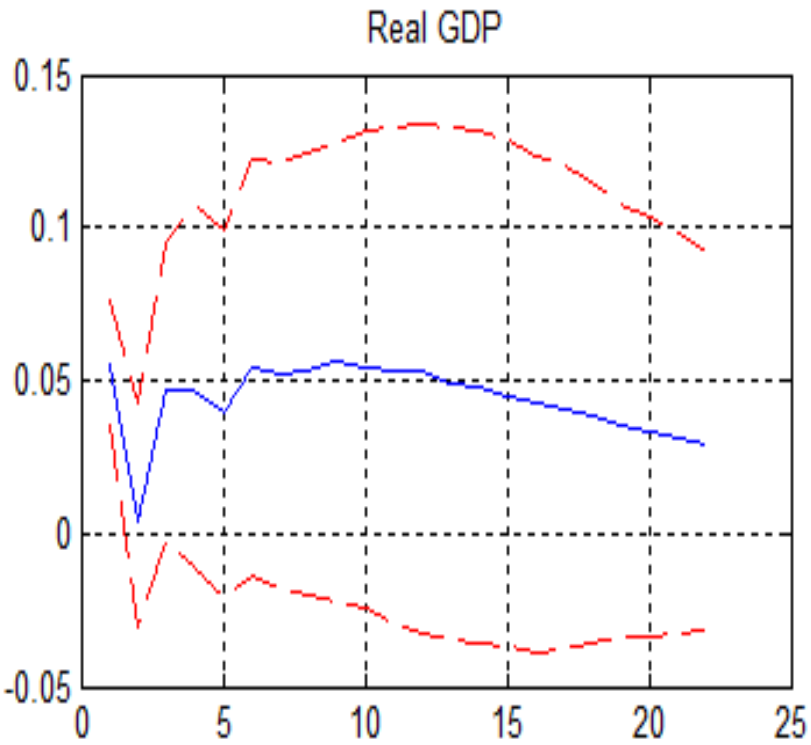
- I follow Jarocinski (2010) and assume

$$\boldsymbol{p(\, B_c \mid B, \Lambda_c \,) = N(B, \Lambda_c)}$$

  - Where $\boldsymbol{\Lambda_c = \lambda L_c}$, $\boldsymbol{L_c}$ is calibrated, $\boldsymbol{\lambda}$ is estimated from IG2 distribution
  - $\boldsymbol{\lambda \to \infty}$ ➔ country-by-country estimates
  - $\boldsymbol{\lambda \to 0}$ ➔ $\boldsymbol{B_c = B}$
  - I estimate this panel VAR model on government spending and real GDP for 20 OECD countries (Ilzetzki et al, 2013)

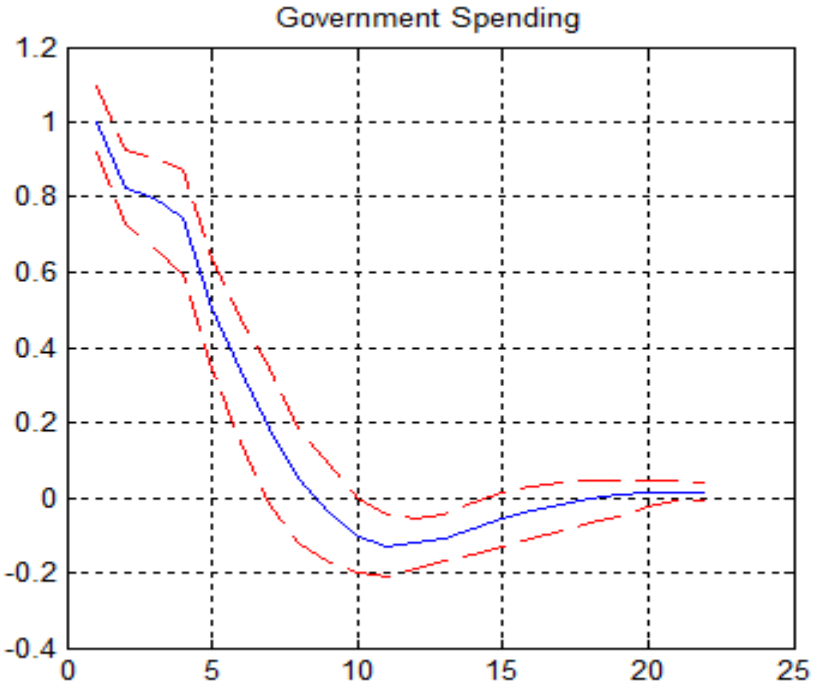
Panel VAR Estimate with homogeneity

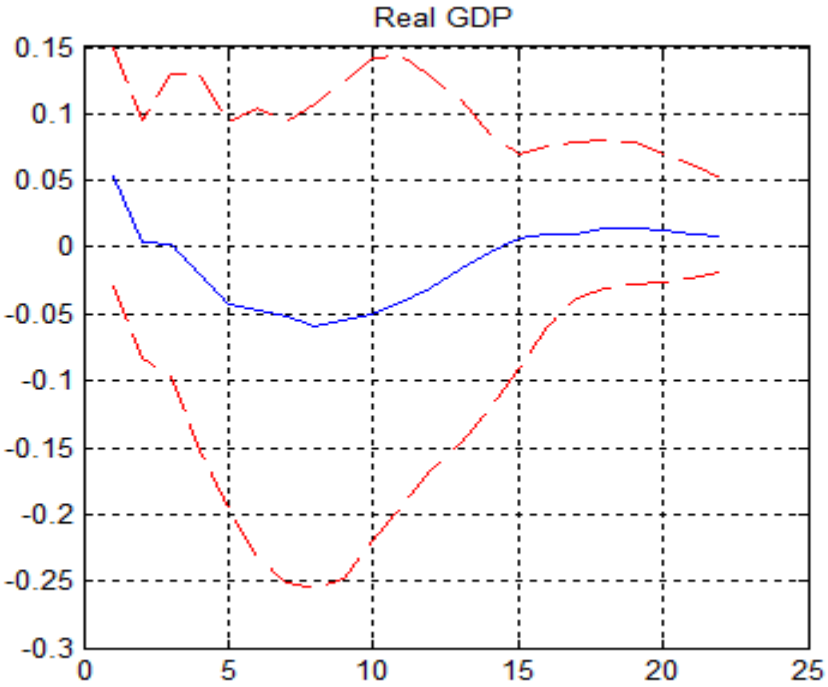




With Dynamic Homogeneity, Get the same results as in Ilzetzki et al (2013)

Panel VAR with Dynamic Heterogeneity





- Quantitative Real GDP response is still the same
- Not statistically significant with 90% bands anymore
- Still significant at 68% bands

Econometric Issue II: Cross-sectional Dependence

- Dynamic Heterogeneity is not the only issue. Consider:

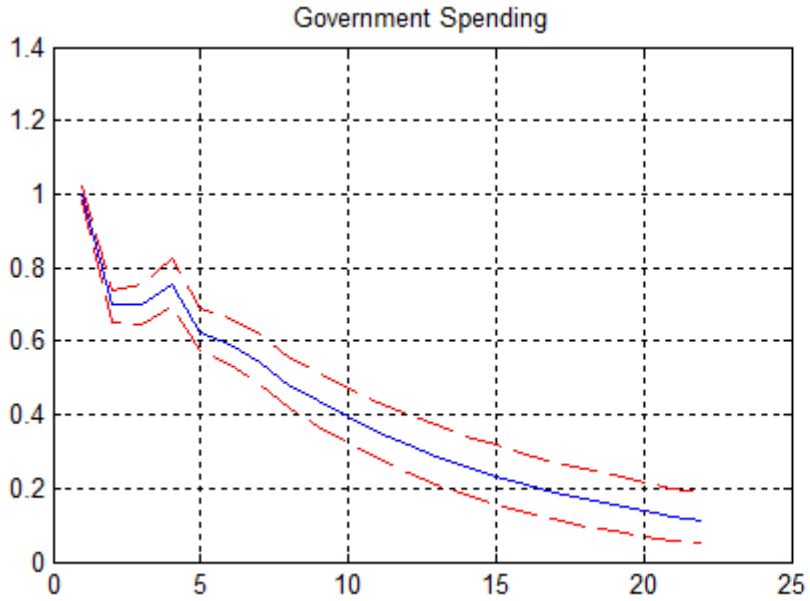
$$\boldsymbol{Y_c = X_c B_c + E_c} \qquad \textbf{(1)}$$

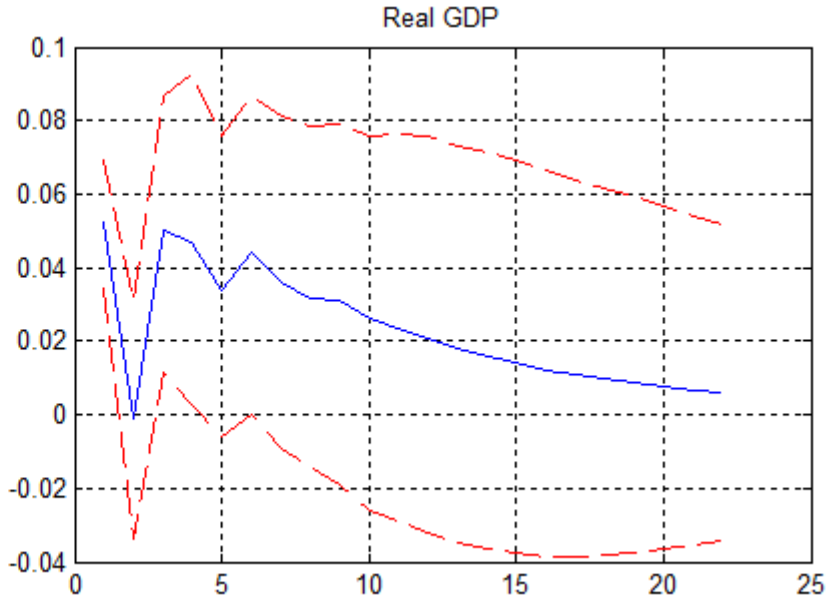
$$\boldsymbol{E_c = F D_c + U_c} \qquad \textbf{(2)}$$

- $\boldsymbol{E_c}$ is not cross-sectionally independent
- Unless common factors $\boldsymbol{F}$ are controlled for, estimation will be biased ➔ time effects will not help, unless $\boldsymbol{D_c = I}$
  - In this application $\boldsymbol{F}$ reflects spillovers/ contagion, etc.

- Assume that $\boldsymbol{B_c = B}$ and use Pesaran (2006) approach, i.e add cross-sectional means of $\boldsymbol{Y_c}$ and $\boldsymbol{X_c}$ as additional regressors

Panel VAR with cross-sectional dependence





- Accounting for cross-sectional dependence makes results stronger (more significant)

Conclusion

- This is a very nice idea and paper
- But would be great to understand the underlying mechanism better
  - Otherwise it is difficult to make a policy recommendation

- There are some econometric issues
  - Accounting for dynamic heterogeneity bias can make results weaker
  - Accounting for cross-sectional dependence can make them stronger
  - The overall effect is unclear, but these issues apply to almost all fiscal policy panel VARs