

Ellen McGrattan has circulated a comment on Christiano-Eichenbaum-Vigfusson's comment on CKM. The details of the CEV response can be found in section 5 of the March draft of our paper, which can be found on Christiano's web site. A summary of CEV's response is given in these yellow boxes. The yellow boxes have been placed on top of the page in Ellen's comment where she summarizes her three points. Her summary takes the form of three supposed quotes of ours (the first quote is false, even in spirit), with her own assessment appearing in red, in parentheses.

Response to Christiano's Referee Report

- “Adding g to list of observables drives CKM estimation” (**Wrong!**)

We never said that G matters per se. We said that CKM's result is driven by their specification of measurement error. Their specification of measurement error in the maximum likelihood estimation is the reason they obtain a DSGE model which implies that VARs have some bias (although, an econometrician who pays attention to standard errors would not be misled by that bias). CKM's specification of measurement error has the remarkable implication that technology is well measured by G . Their measurement error specification is overwhelmingly rejected by the data in favor of a DSGE model which implies there is no bias in VARs.

- “LSVARs useful for analyzing US data” (**Wrong!**)

CKM's conclusion that VARs are not useful is based on an empirical VAR analysis with three different measures of hours worked. The three measures are quite different, and so the VAR results are different. This is not a reason to throw out VARs. For example, the correlation between productivity and hours worked is very sensitive to whether hours are measured using the establishment data or the household survey data. Sensibly, when this was first noticed no one recommended dropping correlations from economists' statistical toolbox. A constructive response is to study carefully why the three measures of hours worked are so different, and determine which is more suitable for economic analysis. No need to shoot the messenger (e.g., VAR) who brings bad news!

- “Short run restrictions work remarkably well” (**Theoretical Nonstarter!**)

The analyses of VARs with short run restrictions by Bernanke, Bernanke-Blinder, Bernanke-Mihov, Blanchard-Perotti, Blanchard-Watson, Canova-Faust-Uhlig, Christiano-Eichenbaum-Evans, Del Negro-Schorfheide, Leeper-Sims, Leeper-Sims-Zha, Rotemberg-Woodford, Sims and many others have had a substantial impact on how we think about economics. In monetary economics, researchers have been led to emphasize wage and price setting frictions, and other frictions (see Ed Green's discussion of Mike Woodford's book for a further discussion). The literature on fiscal shocks has begun to create a consensus on the size of government spending multipliers. In addition, VAR analyses with fiscal shocks have become a battleground for testing alternative equilibrium theories.

It is conceivable that this literature is built entirely on "Theoretical Nonstarters". This would be the case if the VAR analysis on which the literature is based is wrong, or false, or arbitrary in some way. However, each of the authors cited above presents a defense of the identification assumptions used. A critique must address these defenses in some way. A critique that does no more than respond with a vague epithet like "Nonstarter" is itself a nonstarter.