

Comments on:
“Financial Intermediaries in an Estimated DSGE
Model for the UK”
by Villa and Yang

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Motivation

1. Disruption in the financial sector caused the recession;
 - ▶ The baseline DSGE models assume frictionless financial markets (e.g., Christiano, Eichenbaum and Evans (2005, JPE), Smets and Wouters (2007, AER));
2. Unconventional monetary policy (directly lending).
 - ▶ Models that incorporate financial market frictions do not consider “unconventional monetary policy” (e.g, Bernanke, Gertler and Gilchrist (1999, Handbook of Macroeconomics)).

What Villa and Yang do?

1. Estimate a DSGE model with financial frictions and unconventional monetary policy developed by Gertler and Karadi (2009).
2. What they do differently from Gertler and Karadi (2009)?
 - ▶ Estimate the model using Bayesian techniques (Gertler and Karadi (2009) use standard calibration technique);
 - ▶ Use UK data;
 - ▶ Decompose the effect of each friction to capture the dynamics of the data.

One Step Back: Comments on Gertler and Karadi (2009)?

1. Financial friction:

- ▶ Costly enforcement problem (commitment problem) \Rightarrow **no default** in equilibrium.
- ▶ Intermediaries can divert funds but it is costly:

$$V_{jt} \geq \lambda Q_t S_{jt}.$$

- ▶ But there are no frictions in the process of non-financial firms obtaining funding from intermediaries;
- ▶ as well as households. But where was the source of the crisis? (different from **financial accelerator** mechanism)
- ▶ However, generates endogenously balance sheet constraints \Rightarrow Analysis of unconventional monetary policy.
- ▶ Reduced form for: Financial firms exhibits high degree of leverage and shorter maturity debt structure?

General Comments on Villa and Yang

1. Is the model appropriated for the UK economy? **Small open economy** (consumption more volatile than output)? Propagation of the crisis?
2. What does the Bayesian estimation add to the analysis? What do we learn?
 - ▶ Decomposition of frictions; (but could we be capturing other effects? Financial accelerator, external shocks, fiscal policies)
 - ▶ Model fits well the data... But are parameters value **plausible**? (e.g., habit formation parameter, $h = 0.58$) Can we use them for policy analysis?

“... the agenda has mainly centered on matching facts rather than making sure that the mechanisms proposed to explain the facts are identifiable” (Canova and Sala, 2009, JME)

Specific Comments on Villa and Yang

1. Priors and posteriors have similar parameters value (except for three parameters). Identification problem? Informative data?
2. Nothing is said about the convergence of the Metropolis-Hastings algorithm (are 250,000 draws sufficient?)
3. In the prior, why do the authors assume a larger standard deviation for tech. shock than the standard deviation of the other shocks?
4. Robustness exercises?
5. Confidence interval for impulse Response functions?

Concluding Remarks

- ▶ Bayesian estimation of Gertler and Karadi's (2009) model;
- ▶ Does this model capture the features of the data to analyze unconventional monetary policy?
- ▶ Could we apply it to the UK economy?
- ▶ Are parameters and effects identified?
- ▶ Could we use it for policy analysis?