

## Description of codes in DsgeJPT

- **main.m**  
Main code controlling the estimation of the baseline DSGE model of “Investment shocks and business cycles,” by Justiniano, Primiceri and Tambalotti (JPT).
- **DataJPT.mat**  
Data file. Contains the 7 series used for the estimation: [Quarterly GDP growth, Quarterly consumption growth; Quarterly investment growth; Hours; Quarterly real wage growth; Quarterly inflation; Quarterly federal funds rate].
- **modelJPT.m**  
Baseline model file. Solves the JPT model and computes the reduced-form, state space representation.
- **logpostJPT.m**  
Computes the value of the posterior of the JPT model, for a given value of the structural coefficients. To be used for the numerical maximization of the posterior.
- **logpostJPT\_MCMC.m**  
Computes the value of the posterior of the JPT model, for a given value of the structural coefficients. To be used for running the MCMC algorithm.
- **logpriorJPT.m**  
Evaluates the prior for a given value of the structural coefficients of the JPT model. To be used for the numerical maximization of the posterior.
- **logpriorJPT\_MCMC.m**  
Evaluates the prior for a given value of the structural coefficients of the JPT model. To be used for running the MCMC algorithm.
- **inverse\_gamma\_specification.m, pdf\_igone.m, logBetapdf.m, logGammampdf.m, logIG1pdf.m**  
Evaluate various prior densities.
- **bounds.m, boundsINV.m, jacobJPT.m**  
Auxiliary codes for transforming the constrained maximization problem into an unconstrained one.
- **kfilter.m**  
Kalman filter code.

- **diclyap\_fast.m**  
Auxiliary code that solves the Lyapunov equation.
- **Folders “Chris Sims’ csminwel” and “Chris Sims’ gensys”**  
Codes for the numerical maximization and solution algorithms. They can also be downloaded from Chris Sims’ webpage.