Model File

Generated by Python Framework

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1 Model Information

name: *Technology Shocks in the New Keynesian Model*
file: */home/alexei/work/Framework/snowdrop/models/TOY/Ireland2004.yaml*

1.1 Endogenous Variables Values

a = 0.0, e = 0.0, g = 0.0, pie = 0.0, r = 0.0, x = 0.0, y = 0.0

1.2 Measurement Variables

obs_g, obs_pie, obs_r

1.3 Parameters

alphapie = 1.00e-04, alphax = 0.08, beta = 0.99, omega = 0.06, psi = 0.10, rhoa = 0.95, rhoe = 0.96, rhog = 0.25, rhopie = 0.36, rhox = 0.03

1.4 Shocks

epsa, epse, epsr, epsz

1.5 Measurement Shocks

res_obs_g, res_obs_pie, res_obs_r

1.6 Equations

1 : a = rhoa*a(-1) + epsa

2 : e = rhoe*e(-1) + epse

3 : x = alphax*x(-1) + (1-alphax)*x(+1) - (r-pie(+1)) + (1-omega)*(1-rhoa)*a

4 : pie = beta*(alphapie*pie(-1)+ (1-alphapie)*pie(+1)) + psi*x - e

5 : x = y - omega*a

6 : g = y - y(-1) + epsz

7 : r = r(-1) + rhopie*pie + rhog*g + rhox*x + epsr

1.7 Measurement Equations

1 : obs_g = g + res_obs_g

2 : obs_pie = pie + res_obs_pie

3 : obs_r = r + res_obs_r

1.8 Legend

a -- Total Factor Productivity
a(-1) -- Lag of Total Factor Productivity
e -- Aggregate Technology AR(1) Process
e(-1) -- Lag of Aggregate Technology AR(1) Process
epsa -- Preference Shock
epse -- Cost-Push Shock
epsr -- Shock to Interest Rate
epsz -- Shock to Output Gap
g -- Output Growth
pie -- Inflation
pie(+1) -- Lead of Inflation
pie(-1) -- Lag of Inflation
r -- Interest Rate
r(-1) -- Lag of Interest Rate
x -- Output Gap
x(-1) -- Lag Output Gap
y -- Output
y(-1) -- Lag of Output