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1 clear all
2 close all
3
4 % set parameters
5 sigma = 1; % inverse EIS
6 chi = 1; % inverse Frisch
7 beta = 0.99; % discount factor
8 phi = 0.75; % calvo parameters
9 zeta = ((1-phi)*(1-phi*beta))/phi; % slop coefficient in PC
10 psi = 0.2; % government spending share
11 rhoa = 0.9; % AR productivity
12 rhog = 0.9; % AR government spending
13 phipi = 1.5; % taylor rule coefficient
14 gamma = (chi*(1-psi)+sigma)/(1-psi);
15
16 save param_dnk_reduce sigma chi beta phi zeta psi rhoa rhog phipi gamma
17
18 dynare dnk_reduce noclearall nolog
19
20 % plot IRFs under Taylor rule
21 figure
22 subplot(3,3,1)
23 plot(a_ea, '-k', 'Linewidth',2)
24 title('a')
25 subplot(3,3,2)
26 plot(x_ea, '-k', 'Linewidth',2)
27 title('x')
28 subplot(3,3,3)
29 plot(pi_ea, '-k', 'Linewidth',2)
30 title('pi')
31 subplot(3,3,4)
32 plot(y_ea, '-k', 'Linewidth',2)
33 title('y')
34 subplot(3,3,5)
35 plot(i_ea, '-k', 'Linewidth',2)
36 title('i')
37 subplot(3,3,6)
38 plot(yf_ea, '-k', 'Linewidth',2)
39 title('y^{f}')
40 subplot(3,3,7)
41 plot(rf_ea, '-k', 'Linewidth',2)
42 title('r^{f}')
43 subplot(3,3,8)
44 plot(r_ea - rf_ea, '-k', 'Linewidth',2)
45 title('r-r^{f}')
46 legend('Productivity Shock')
47
48 figure
49 subplot(3,3,1)
50 plot(g_eg, '-k', 'Linewidth',2)
51 title('g')
52 subplot(3,3,2)
53 plot(x_eg, '-k', 'Linewidth',2)
54 title('x')
55 subplot(3,3,3)
56 plot(pi_eg, '-k', 'Linewidth',2)
57 title('pi')
58 subplot(3,3,4)
59 plot((1/psi)*y_eg, '-k', 'Linewidth',2)
60 title('\psi^{-1}y')
61 subplot(3,3,5)
62 plot(i_eg, '-k', 'Linewidth',2)
63 title('i')
64 subplot(3,3,6)
65 plot(yf_eg, '-k', 'Linewidth',2)
66 title('y^{f}')
67 subplot(3,3,7)
68 plot(rf_eg, '-k', 'Linewidth',2)
69 title('r^{f}')

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```
70 subplot(3,3,8)
71 plot(r_eg - rf_eg, '-k', 'Linewidth', 2)
72 title('r-r^{f}')
73 legend('Productivity Shock')
```