

Table 1: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.2127	0.0185
ψ	beta	0.500	0.1500	0.5731	0.1064
Φ	norm	1.250	0.1250	1.6276	0.0773
ι_w	beta	0.500	0.1500	0.6202	0.1355
ξ_w	beta	0.500	0.1000	0.7329	0.0690
ι_p	beta	0.500	0.1500	0.3253	0.1146
ξ_p	beta	0.500	0.1000	0.6931	0.0481
σ_c	norm	1.500	0.3750	1.4504	0.1392
σ_l	norm	2.000	0.7500	1.9554	0.6152
λ	beta	0.700	0.1000	0.6857	0.0429
φ	norm	4.000	1.5000	5.5245	1.0307
μ_w	beta	0.500	0.2000	0.8721	0.0548
μ_p	beta	0.500	0.2000	0.7228	0.0918
$\bar{\gamma}$	norm	0.400	0.1000	0.4272	0.0148
$100(\beta^{-1} - 1)$	gamm	0.250	0.1000	0.1317	0.0521
$\bar{\pi}$	gamm	0.625	0.1000	0.9099	0.1104
\bar{l}	norm	0.000	2.0000	5.0595	1.1497
r_π	norm	1.500	0.2500	1.9760	0.1865
$r_{\Delta y}$	norm	0.125	0.0500	0.2266	0.0271
r_y	norm	0.125	0.0500	0.0754	0.0244
ρ	beta	0.750	0.1000	0.8075	0.0274
ρ_a	beta	0.500	0.2000	0.9573	0.0105
ρ_{ga}	norm	0.500	0.2500	0.5548	0.0901
ρ_b	beta	0.500	0.2000	0.2000	0.0878
ρ_g	beta	0.500	0.2000	0.9713	0.0083
ρ_i	beta	0.500	0.2000	0.7086	0.0620
ρ_r	beta	0.500	0.2000	0.1438	0.0713
ρ_p	beta	0.500	0.2000	0.8826	0.0433
ρ_w	beta	0.500	0.2000	0.9632	0.0141

Table 2: Results from posterior maximization (standard deviation of structural shocks)

		Prior		Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
η^a	invg	0.100	2.0000	0.4414	0.0271
η^b	invg	0.100	2.0000	0.2405	0.0241
η^g	invg	0.100	2.0000	0.5149	0.0295
η^i	invg	0.100	2.0000	0.4152	0.0446
η^m	invg	0.100	2.0000	0.2393	0.0149
η^p	invg	0.100	2.0000	0.1227	0.0148
η^w	invg	0.100	2.0000	0.2508	0.0231

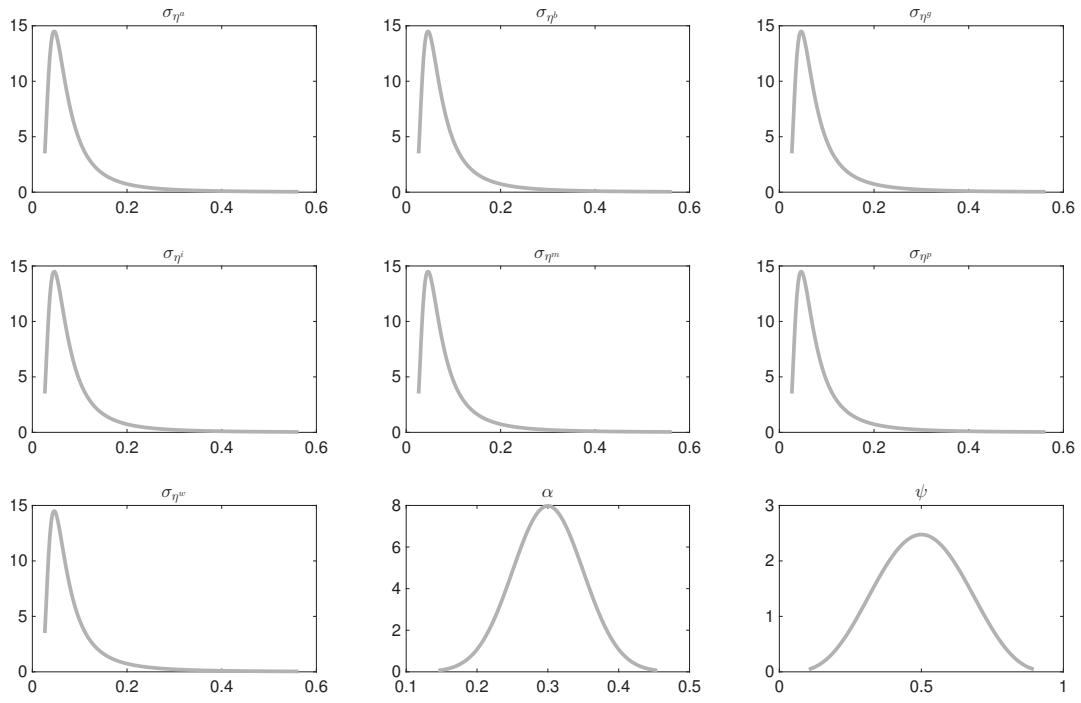


Figure 1: Priors.

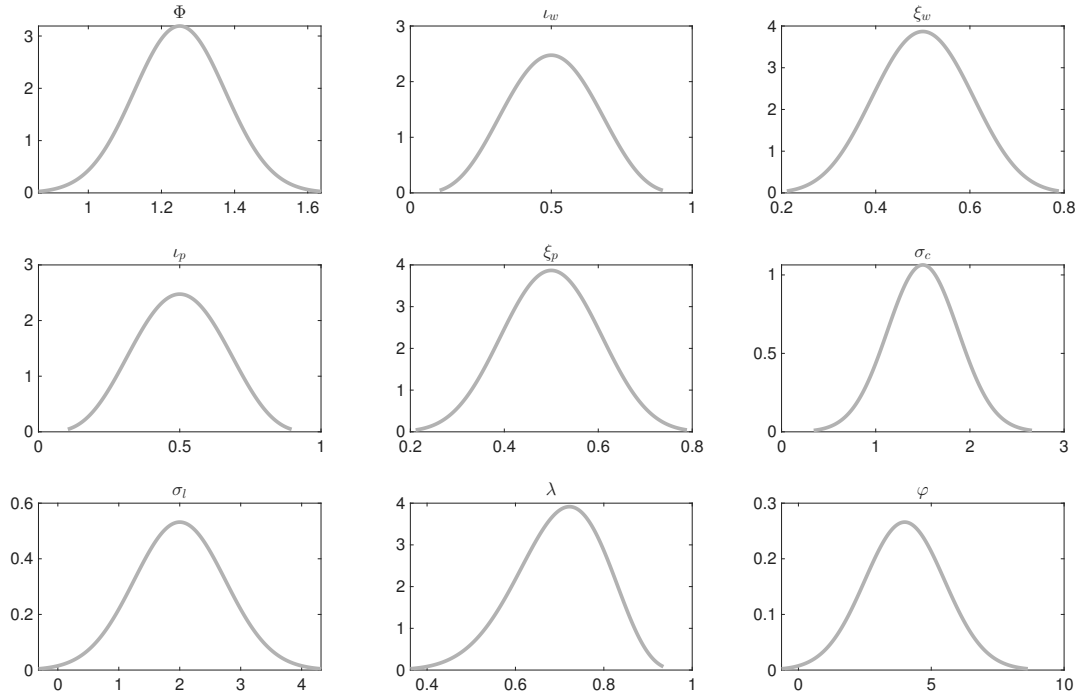


Figure 2: Priors.

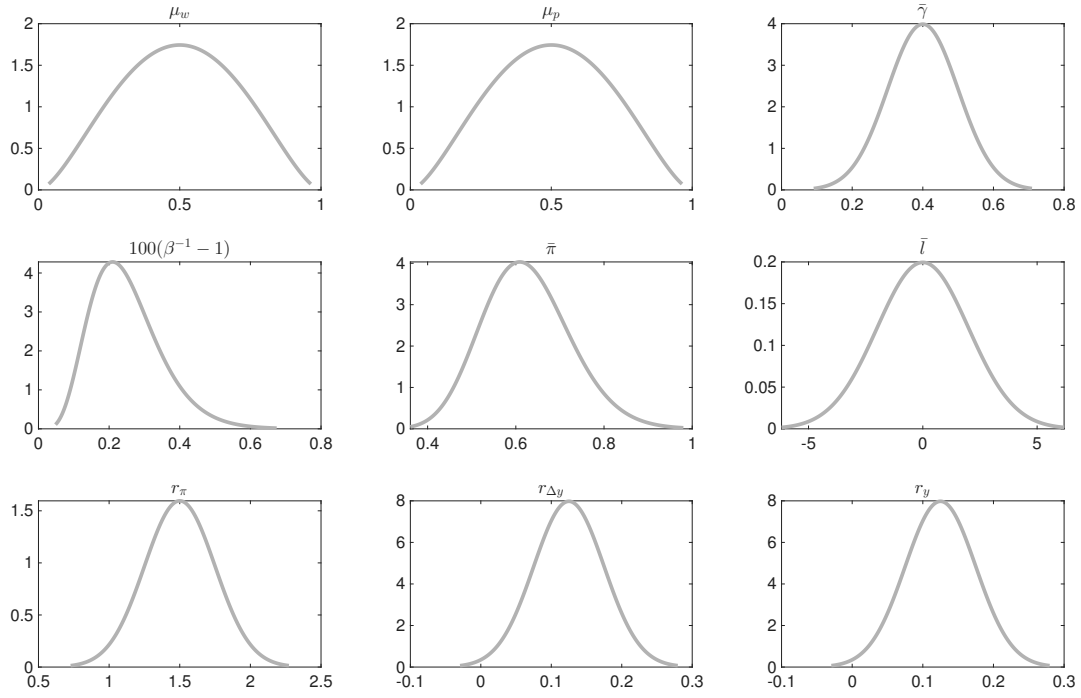


Figure 3: Priors.

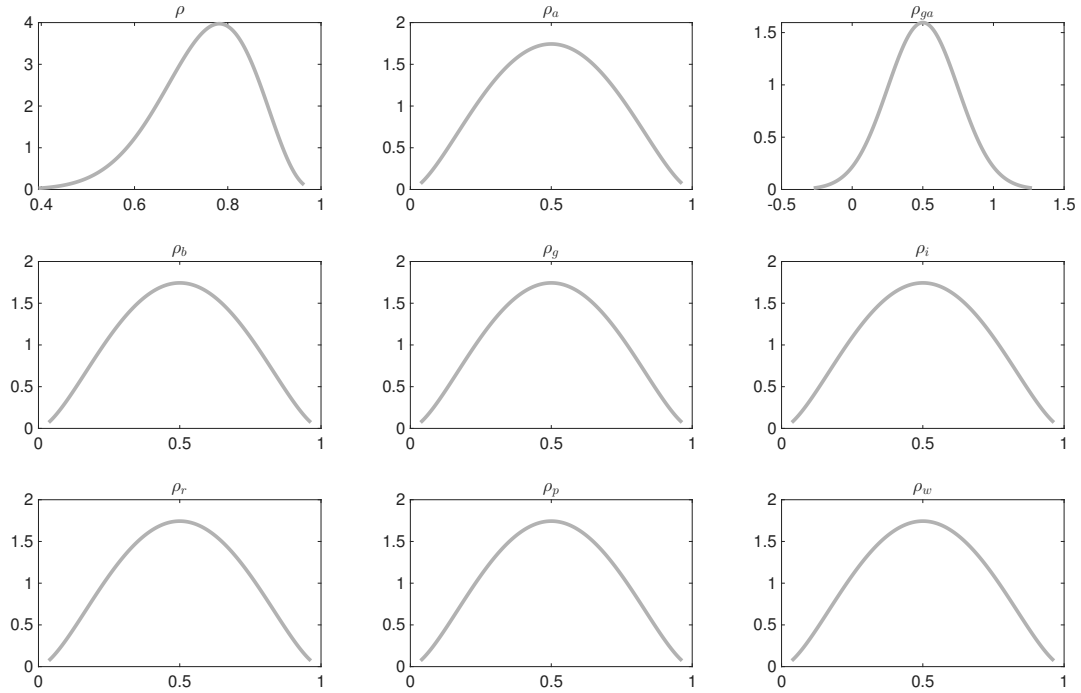


Figure 4: Priors.

Table 3: MATRIX OF COVARIANCE OF EXOGENOUS SHOCKS

		<i>Variables</i>	η^a	η^b	η^g	η^i	η^m	η^p	η^w
η^a	0.194802	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
η^b	0.000000	0.057823	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
η^g	0.000000	0.000000	0.265122	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
η^i	0.000000	0.000000	0.000000	0.172359	0.000000	0.000000	0.000000	0.000000	0.000000
η^m	0.000000	0.000000	0.000000	0.000000	0.000000	0.057243	0.000000	0.000000	0.000000
η^p	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.015064	0.000000	0.000000
η^w	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.062914	

Table 4: Endogenous

Variable	\LaTeX	Description
labobs	$lHOURS$	log hours worked
robs	$FEDFUNDS$	Federal funds rate
pinfobs	dlP	Inflation
dy	$dlGDP$	Output growth rate
dc	$dlCONS$	Consumption growth rate
dinve	$dlINV$	Investment growth rate
dw	$dlWAG$	Wage growth rate
ewma	$\eta^{w,aux}$	Auxiliary wage markup moving average variable
epinfma	$\eta^{p,aux}$	Auxiliary price markup moving average variable
zcapf	z^{flex}	Capital utilization rate flex price economy
rkf	$r^{k,flex}$	rental rate of capital flex price economy
kf	$k^{s,flex}$	Capital services flex price economy
pkf	q^{flex}	real value of existing capital stock flex price economy
cf	c^{flex}	Consumption flex price economy
invef	i^{flex}	Investment flex price economy
yf	y^{flex}	Output flex price economy
labf	l^{flex}	hours worked flex price economy
wf	w^{flex}	real wage flex price economy
rrf	r^{flex}	real interest rate flex price economy
mc	μ_p	gross price markup
zcap	z	Capital utilization rate
rk	r^k	rental rate of capital
k	k^s	Capital services
pk	q	real value of existing capital stock
c	c	Consumption
inve	i	Investment
y	y	Output
lab	l	hours worked
pinf	π	Inflation
w	w	real wage
r	r	nominal interest rate
a	ε_a	productivity process
b	$c_2 * \varepsilon_t^b$	Scaled risk premium shock
g	ε^g	Exogenous spending
qs	ε^i	Investment-specific technology
ms	ε^r	Monetary policy shock process
spinf	ε^p	Price markup shock process
sw	ε^w	Wage markup shock process
kpf	k^{flex}	Capital stock flex price economy
kp	k	Capital stock
muw	μ_w	wage markup

Table 5: Exogenous

Variable	L ^A T _E X	Description
ea	η^a	productivity shock
eb	η^b	Investment-specific technology shock
eg	η^g	Spending shock
eqs	η^i	Investment-specific technology shock
em	η^m	Monetary policy shock
epinf	η^p	Price markup shock
ew	η^w	Wage markup shock

Table 6: Parameters

Variable	L ^A T _E X	Description
curvw	ε_w	Curvature Kimball aggregator wages
cgy	ρ_{ga}	Feedback technology on exogenous spending
curvp	ε_p	Curvature Kimball aggregator prices
constelab	\bar{l}	steady state hours
constepinf	$\bar{\pi}$	steady state inflation rate
constebeta	$100(\beta^{-1} - 1)$	time preference rate in percent
cmaw	μ_w	coefficient on MA term wage markup
cmap	μ_p	coefficient on MA term price markup
calfa	α	capital share
czcap	ψ	capacity utilization cost
csadjcost	φ	investment adjustment cost
ctou	δ	depreciation rate
csigma	σ_c	risk aversion
chabb	λ	external habit degree
cfc	Φ	fixed cost share
cindw	ι_w	Indexation to past wages
cprobw	ξ_w	Calvo parameter wages
cindp	ι_p	Indexation to past prices
cprobp	ξ_p	Calvo parameter prices
csigl	σ_l	Frisch elasticity
clandaw	ϕ_w	Gross markup wages
crpi	r_π	Taylor rule inflation feedback
crdy	$r_{\Delta y}$	Taylor rule output growth feedback
cry	r_y	Taylor rule output level feedback
crr	ρ	interest rate persistence
crhoa	ρ_a	persistence productivity shock
crhoas	d_2	Unused parameter
crhob	ρ_b	persistence risk premium shock
crhog	ρ_g	persistence spending shock
crhols	d_1	Unused parameter

Table 6 – Continued

	Variable	\LaTeX	Description
crhoqs	ρ_i		persistence risk premium shock
crhoms	ρ_r		persistence monetary policy shock
crhopinf	ρ_p		persistence price markup shock
crhow	ρ_w		persistence wage markup shock
ctrend	$\bar{\gamma}$		net growth rate in percent
cg	$\frac{\bar{g}}{\bar{y}}$		steady state exogenous spending share

Table 7: Parameter Values

Parameter	Value	Description
ε_w	10.000	Curvature Kimball aggregator wages
ρ_{ga}	0.555	Feedback technology on exogenous spending
ε_p	10.000	Curvature Kimball aggregator prices
\bar{l}	5.060	steady state hours
$\bar{\pi}$	0.910	steady state inflation rate
$100(\beta^{-1} - 1)$	0.132	time preference rate in percent
μ_w	0.872	coefficient on MA term wage markup
μ_p	0.723	coefficient on MA term price markup
α	0.213	capital share
ψ	0.573	capacity utilization cost
φ	5.524	investment adjustment cost
δ	0.025	depreciation rate
σ_c	1.450	risk aversion
λ	0.686	external habit degree
Φ	1.628	fixed cost share
ι_w	0.620	Indexation to past wages
ξ_w	0.733	Calvo parameter wages
ι_p	0.325	Indexation to past prices
ξ_p	0.693	Calvo parameter prices
σ_l	1.955	Frisch elasticity
ϕ_w	1.500	Gross markup wages
r_π	1.976	Taylor rule inflation feedback
$r_{\Delta y}$	0.227	Taylor rule output growth feedback
r_y	0.075	Taylor rule output level feedback
ρ	0.807	interest rate persistence
ρ_a	0.957	persistence productivity shock
d_2	1.000	Unused parameter
ρ_b	0.200	persistence risk premium shock
ρ_g	0.971	persistence spending shock
d_1	0.993	Unused parameter
ρ_i	0.709	persistence risk premium shock
ρ_r	0.144	persistence monetary policy shock
ρ_p	0.883	persistence price markup shock
ρ_w	0.963	persistence wage markup shock
$\bar{\gamma}$	0.427	net growth rate in percent
$\frac{\bar{g}}{\bar{y}}$	0.180	steady state exogenous spending share

Table 8: Prior information (parameters)

	Distribution	Mean	Mode	Std.dev.	Bounds*		90% HPDI	
					Lower	Upper	Lower	Upper
σ_{η^a}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118		5595.7204	0.0326
σ_{η^b}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118		5595.7204	0.0326
σ_{η^g}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118		5595.7204	0.0326
σ_{η^i}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118		5595.7204	0.0326
σ_{η^m}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118		5595.7204	0.0326
σ_{η^p}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118		5595.7204	0.0326
σ_{η^w}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118		5595.7204	0.0326
α	Gaussian	0.3000	0.3000	0.0500	-0.0181		0.6181	0.2178
ψ	Beta	0.5000	0.5000	0.1500	0.0040		0.9960	0.2526
Φ	Gaussian	1.2500	1.2500	0.1250	0.4548		2.0452	1.0444
ι_w	Beta	0.5000	0.5000	0.1500	0.0040		0.9960	0.2526
ξ_w	Beta	0.5000	0.5000	0.1000	0.0471		0.9529	0.3351
ι_p	Beta	0.5000	0.5000	0.1500	0.0040		0.9960	0.2526
ξ_p	Beta	0.5000	0.5000	0.1000	0.0471		0.9529	0.3351
σ_c	Gaussian	1.5000	1.5000	0.3750	-0.8855		3.8855	0.8832
σ_l	Gaussian	2.0000	2.0000	0.7500	-2.7710		6.7710	0.7664
λ	Beta	0.7000	0.7222	0.1000	0.1025		0.9960	0.5242
φ	Gaussian	4.0000	4.0000	1.5000	-5.5420		13.5420	1.5327
μ_w	Beta	0.5000	0.5000	0.2000	0.0001		0.9999	0.1718
μ_p	Beta	0.5000	0.5000	0.2000	0.0001		0.9999	0.1718
$\bar{\gamma}$	Gaussian	0.4000	0.4000	0.1000	-0.2361		1.0361	0.2355
$100(\beta^{-1} - 1)$	Gamma	0.2500	0.2100	0.1000	0.0031		1.4759	0.1111
$\bar{\pi}$	Gamma	0.6250	0.6090	0.1000	0.1814		1.4844	0.4701
\bar{l}	Gaussian	0.0000	0.0000	2.0000	-12.7227		12.7227	-3.2897
r_π	Gaussian	1.5000	1.5000	0.2500	-0.0903		3.0903	1.0888
$r_{\Delta y}$	Gaussian	0.1250	0.1250	0.0500	-0.1931		0.4431	0.0428
r_y	Gaussian	0.1250	0.1250	0.0500	-0.1931		0.4431	0.0428
ρ	Beta	0.7500	0.7817	0.1000	0.1073		0.9991	0.5701
ρ_a	Beta	0.5000	0.5000	0.2000	0.0001		0.9999	0.1718
ρ_{ga}	Gaussian	0.5000	0.5000	0.2500	-1.0903		2.0903	0.0888
ρ_b	Beta	0.5000	0.5000	0.2000	0.0001		0.9999	0.1718
ρ_g	Beta	0.5000	0.5000	0.2000	0.0001		0.9999	0.1718
ρ_i	Beta	0.5000	0.5000	0.2000	0.0001		0.9999	0.1718
ρ_r	Beta	0.5000	0.5000	0.2000	0.0001		0.9999	0.1718
ρ_p	Beta	0.5000	0.5000	0.2000	0.0001		0.9999	0.1718
ρ_w	Beta	0.5000	0.5000	0.2000	0.0001		0.9999	0.1718

Note: Displayed bounds are after applying a prior truncation of options_.prior_trunc=1.00e-10

Table 9: COEFFICIENTS OF AUTOCORRELATION

	<i>Order</i>	1	2	3	4	5
y	0.9844	0.9601	0.9307	0.8984	0.8646	
c	0.9913	0.9771	0.9602	0.9416	0.9219	
i	0.9822	0.9432	0.8923	0.8357	0.7774	
π	0.8526	0.7303	0.6260	0.5370	0.4612	
r	0.9001	0.7827	0.6760	0.5834	0.5043	
w	0.9810	0.9541	0.9205	0.8822	0.8405	
k^s	0.9959	0.9880	0.9771	0.9639	0.9489	
l	0.9705	0.9310	0.8873	0.8418	0.7961	

Table 10: MATRIX OF CORRELATIONS

		<hr/> <i>Variables</i> y c i π r w k^s l <hr/>							
y	1.0000	0.8188	0.8156	-0.3027	-0.2869	0.4179	0.7390	0.7727	
c	0.8188	1.0000	0.7119	-0.4345	-0.5015	0.2812	0.7875	0.6300	
i	0.8156	0.7119	1.0000	-0.1726	-0.0810	0.4510	0.6886	0.6071	
π	-0.3027	-0.4345	-0.1726	1.0000	0.6466	0.2195	-0.1482	-0.2697	
r	-0.2869	-0.5015	-0.0810	0.6466	1.0000	0.0889	-0.1790	-0.1469	
w	0.4179	0.2812	0.4510	0.2195	0.0889	1.0000	0.6492	-0.0000	
k^s	0.7390	0.7875	0.6886	-0.1482	-0.1790	0.6492	1.0000	0.4046	
l	0.7727	0.6300	0.6071	-0.2697	-0.1469	-0.0000	0.4046	1.0000	

Table 11: THEORETICAL MOMENTS

<i>VARIABLE</i>	<i>MEAN</i>	<i>STD.DEV.</i>	<i>VARIANCE</i>
y	0.0000	5.3892	29.0434
c	0.0000	5.2780	27.8574
i	0.0000	11.5159	132.6156
π	0.0000	0.5253	0.2759
r	0.0000	0.5893	0.3473
w	0.0000	3.0449	9.2717
k^s	0.0000	5.1676	26.7039
l	0.0000	2.7727	7.6877

Table 12: VARIANCE DECOMPOSITION (in percent)

		η^a	η^b	η^g	η^i	η^m	η^p	η^w
y	31.15	1.89	3.89	9.79	3.01	8.05	42.22	
c	12.34	2.89	9.08	4.43	3.04	5.57	62.64	
i	18.88	0.31	6.24	43.70	1.73	7.80	21.33	
π	3.86	0.73	1.33	4.38	5.32	33.46	50.92	
r	10.40	8.51	4.80	23.52	16.77	7.71	28.29	
w	26.47	0.54	1.16	8.36	2.70	35.97	24.80	
k^s	22.28	0.45	5.14	29.13	1.74	11.94	29.32	
l	2.23	3.17	10.29	10.55	4.40	8.12	61.24	

$$cpie = 1 + \frac{\bar{\pi}}{100}$$

$$cgamma = 1 + \frac{\bar{\gamma}}{100}$$

$$cbeta = \frac{1}{1 + \frac{100(\beta^{-1}-1)}{100}}$$

$$clandap = \Phi$$

$$cbetabar = cbeta \, cgamma^{(-\sigma_c)}$$

$$cr = \frac{cpie}{cbeta \, cgamma^{(-\sigma_c)}}$$

$$crk = cbeta^{(-1)} \, cgamma^{\sigma_c} - (1 - \delta)$$

$$cw = \left(\frac{\alpha^\alpha (1 - \alpha)^{1-\alpha}}{clandap \, crk^\alpha} \right)^{\frac{1}{1-\alpha}}$$

$$cikbar = 1 - \frac{1 - \delta}{cgamma}$$

$$cik = cgamma \left(1 - \frac{1 - \delta}{cgamma} \right)$$

$$clk = \frac{1 - \alpha}{\alpha} \frac{crk}{cw}$$

$$cky = \Phi \, clk^{\alpha-1}$$

$$ciy = cik \, cky$$

$$ccy = 1 - \frac{\bar{g}}{\bar{y}} - cik \, cky$$

$$crkky = crk \, cky$$

$$cwhlc = \frac{cky \, crk \, \frac{(1-\alpha)^{\frac{1}{\phi_w}}}{\alpha}}{ccy}$$

$$cwly = 1 - crk cky$$

$$conster = 100 (cr - 1)$$

$$c1 = \frac{\frac{\lambda}{cgamma}}{1 + \frac{\lambda}{cgamma}}$$

$$c2 = \frac{(\sigma_c - 1) cwhlc}{\sigma_c \left(1 + \frac{\lambda}{cgamma}\right)}$$

$$c3 = \frac{1 - \frac{\lambda}{cgamma}}{\sigma_c \left(1 + \frac{\lambda}{cgamma}\right)}$$

$$i1 = \frac{1}{1 + cgamma cbetabar}$$

$$i2 = \frac{1}{1 + cgamma cbetabar} \frac{1}{cgamma^2 \varphi}$$

$$q1 = \frac{1 - \delta}{1 - \delta + crk}$$

$$q2 = \frac{1}{\frac{1 - \frac{\lambda}{cgamma}}{\sigma_c \left(1 + \frac{\lambda}{cgamma}\right)}}$$

$$k1 = 1 - cikbar$$

$$k2 = \varphi cgamma^2 cikbar$$

$$pi1 = \iota_p \frac{1}{1 + cgamma cbetabar \iota_p}$$

$$pi2 = cgamma cbetabar \frac{1}{1 + cgamma cbetabar \iota_p}$$

$$pi3 = \frac{\frac{1}{1 + cgamma cbetabar \iota_p} \frac{(1 - \xi_p)(1 - cgamma cbetabar \xi_p)}{\xi_p}}{1 + (\Phi - 1) \varepsilon_p}$$

$$w1 = \frac{1}{1 + cgamma\ cbetabar}$$

$$w2 = \frac{1 + cgamma\ cbetabar\ \iota_w}{1 + cgamma\ cbetabar}$$

$$w3 = \frac{\iota_w}{1 + cgamma\ cbetabar}$$

$$w4 = \frac{(1 - \xi_w) (1 - cgamma\ cbetabar\ \xi_w)}{(1 + cgamma\ cbetabar) \xi_w} \frac{1}{1 + (\phi_w - 1) \varepsilon_w}$$

$$w5 = \frac{1}{1 - \frac{\lambda}{cgamma}}$$

$$w6 = \frac{\frac{\lambda}{cgamma}}{1 - \frac{\lambda}{cgamma}}$$

$$\varepsilon_{at} = \alpha r^{k,flex}_t + (1 - \alpha) w^{flex}_t \quad (1)$$

$$z^{flex}_t = r^{k,flex}_t \frac{1}{\frac{\psi}{1-\psi}} \quad (2)$$

$$r^{k,flex}_t = w^{flex}_t + l^{flex}_t - k^{s,flex}_t \quad (3)$$

$$k^{s,flex}_t = z^{flex}_t + k^{flex}_{t-1} \quad (4)$$

$$i^{flex}_t = i1 i^{flex}_{t-1} + (1 - i1) i^{flex}_{t+1} + i2 q^{flex}_t + \varepsilon^i_t \quad (5)$$

$$q^{flex}_t = q1 q^{flex}_{t+1} + (1 - q1) r^{k,flex}_{t+1} + q2 c_2 * \varepsilon^b_{tt} - r^{flex}_t \quad (6)$$

$$c^{flex}_t = c_2 * \varepsilon^b_{tt} + c1 c^{flex}_{t-1} + (1 - c1) c^{flex}_{t+1} + c2 (l^{flex}_t - l^{flex}_{t+1}) - r^{flex}_t c3 \quad (7)$$

$$y^{flex}_t = ccy c^{flex}_t + i^{flex}_t ciy + \varepsilon^g_t + z^{flex}_t crkky \quad (8)$$

$$y^{flex}_t = \Phi (\varepsilon_{at} + \alpha k^{s,flex}_t + (1 - \alpha) l^{flex}_t) \quad (9)$$

$$w^{flex}_t = l^{flex}_t \sigma_l + c^{flex}_t w5 - c^{flex}_{t-1} w6 \quad (10)$$

$$k^{flex}_t = k^{flex}_{t-1} k1 + i^{flex}_t (1 - k1) + \varepsilon^i_t k2 \quad (11)$$

$$\mu_{p_t} = \alpha r^k_t + (1 - \alpha) w_t - \varepsilon_{at} \quad (12)$$

$$z_t = \frac{1}{\frac{\psi}{1-\psi}} r^k_t \quad (13)$$

$$r^k_t = w_t + l_t - k^s_t \quad (14)$$

$$k^s_t = z_t + k_{t-1} \quad (15)$$

$$k_t = \varepsilon^i_t k2 + k1 k_{t-1} + (1 - k1) i_t \quad (16)$$

$$i_t = \varepsilon^i_t + i1 i_{t-1} + (1 - i1) i_{t+1} + i2 q_t \quad (17)$$

$$q_t = q2 c_2 * \varepsilon^b_{tt} + q1 q_{t+1} + (1 - q1) r^k_{t+1} - (r_t - \pi_{t+1}) \quad (18)$$

$$c_t = c_2 * \varepsilon^b_{tt} + c1 c_{t-1} + (1 - c1) c_{t+1} + c2 (l_t - l_{t+1}) - c3 (r_t - \pi_{t+1}) \quad (19)$$

$$y_t = \varepsilon^g_t + ccy c_t + ciy i_t + crkky z_t \quad (20)$$

$$y_t = \Phi (\varepsilon_{at} + \alpha k^s_t + (1 - \alpha) l_t) \quad (21)$$

$$\pi_t = pi1 \pi_{t-1} + \pi_{t+1} pi2 + \mu_{p_t} pi3 + \varepsilon^p_t \quad (22)$$

$$w_t = w1 w_{t-1} + (1 - w1) (\pi_{t+1} + w_{t+1}) - \pi_t w2 + \pi_{t-1} w3 - w4 \mu_{w_t} + \varepsilon^w_t \quad (23)$$

$$\mu_{w_t} = w_t - \left(\sigma_l l_t + \frac{1}{1 - \frac{\lambda}{cgamma}} \left(c_t - \frac{\lambda}{cgamma} c_{t-1} \right) \right) \quad (24)$$

$$r_t = \pi_t r_\pi (1 - \rho) + (1 - \rho) r_y (y_t - y^{flex}_t) + r_{\Delta y} (y_t - y^{flex}_t - y_{t-1} + y^{flex}_{t-1}) + \rho r_{t-1} + \varepsilon^r_t \quad (25)$$

$$\varepsilon_{at} = \rho_a \varepsilon_{at-1} + \eta^a_t \quad (26)$$

$$c_2 * \varepsilon^b_{tt} = \rho_b c_2 * \varepsilon^b_{tt-1} + \eta^b_t \quad (27)$$

$$\varepsilon^g_t = \rho_g \varepsilon^g_{t-1} + \eta^g_t + \eta^a_t \rho_{ga} \quad (28)$$

$$\varepsilon^i_t = \rho_i \varepsilon^i_{t-1} + \eta^i_t \quad (29)$$

$$\varepsilon^r_t = \rho_r \varepsilon^r_{t-1} + \eta^m_t \quad (30)$$

$$\varepsilon^p_t = \rho_p \varepsilon^p_{t-1} + \eta^{p,aux}_t - \mu_p \eta^{p,aux}_{t-1} \quad (31)$$

$$\eta^{p,aux}_t = \eta^p_t \quad (32)$$

$$\varepsilon^w_t = \rho_w \varepsilon^w_{t-1} + \eta^{w,aux}_t - \mu_w \eta^{w,aux}_{t-1} \quad (33)$$

$$\eta^{w,aux}_t = \eta^w_t \quad (34)$$

$$dlGDP_t = \bar{\gamma} + y_t - y_{t-1} \quad (35)$$

$$dlCONS_t = \bar{\gamma} + c_t - c_{t-1} \quad (36)$$

$$dlINV_t = \bar{\gamma} + i_t - i_{t-1} \quad (37)$$

$$dlWAG_t = \bar{\gamma} + w_t - w_{t-1} \quad (38)$$

$$dlP_t = \bar{\pi} + \pi_t \quad (39)$$

$$FEDFUNDS_t = r_t + conster \quad (40)$$

$$lHOURS_t = l_t + \bar{l} \quad (41)$$

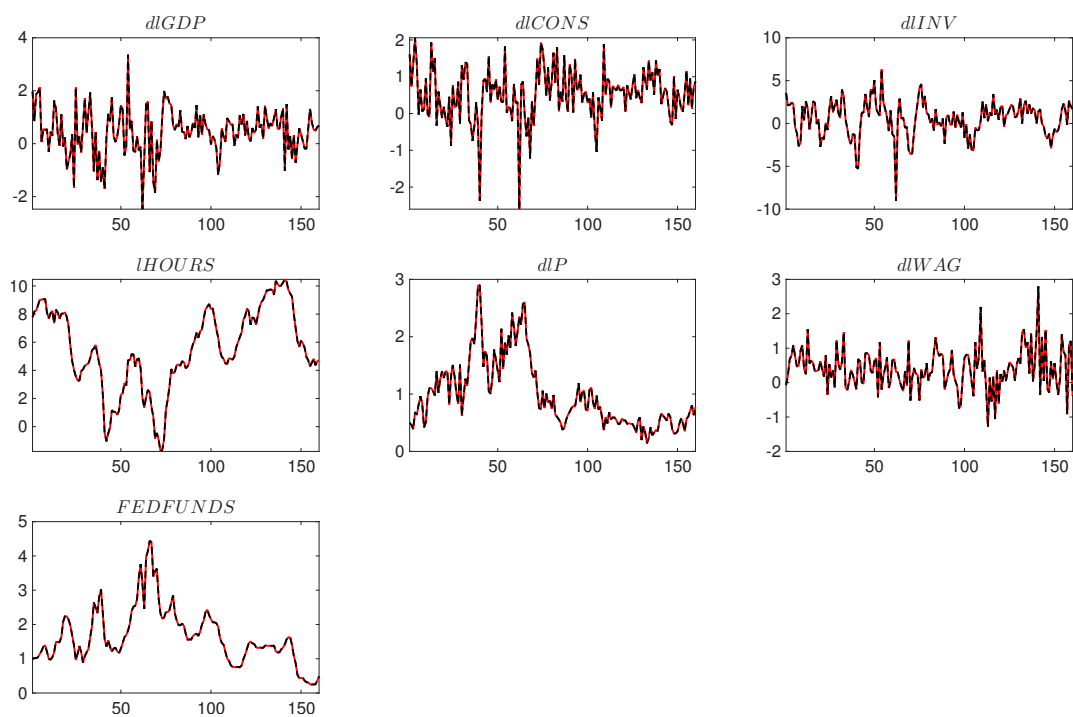


Figure 5: Historical and smoothed variables.

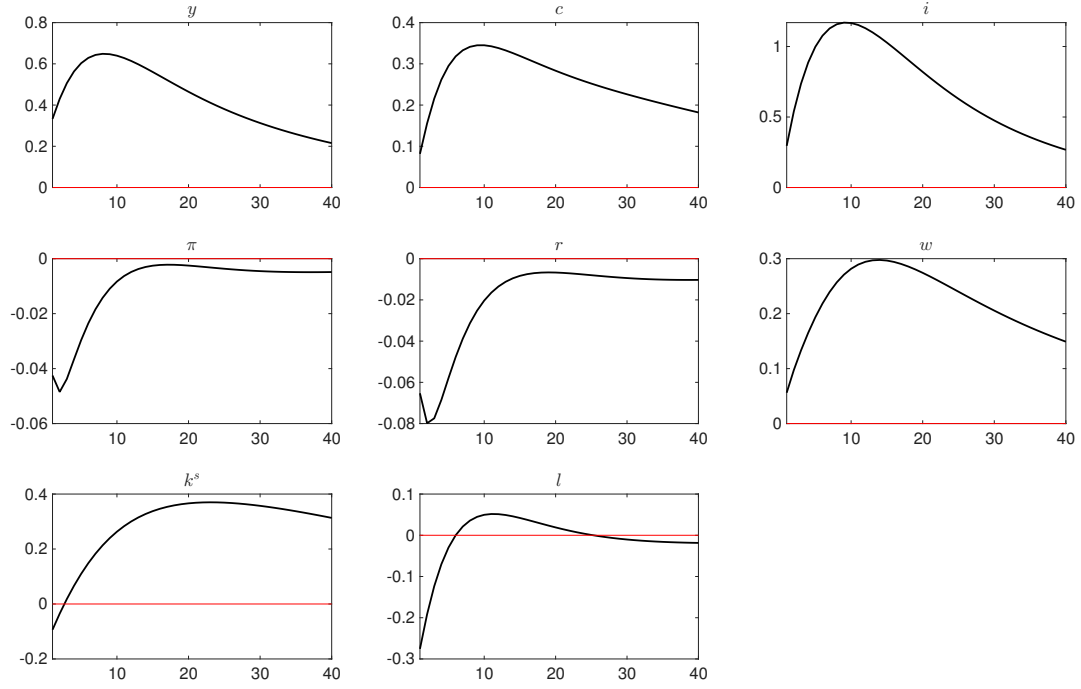


Figure 6: Impulse response functions (orthogonalized shock to η^a).

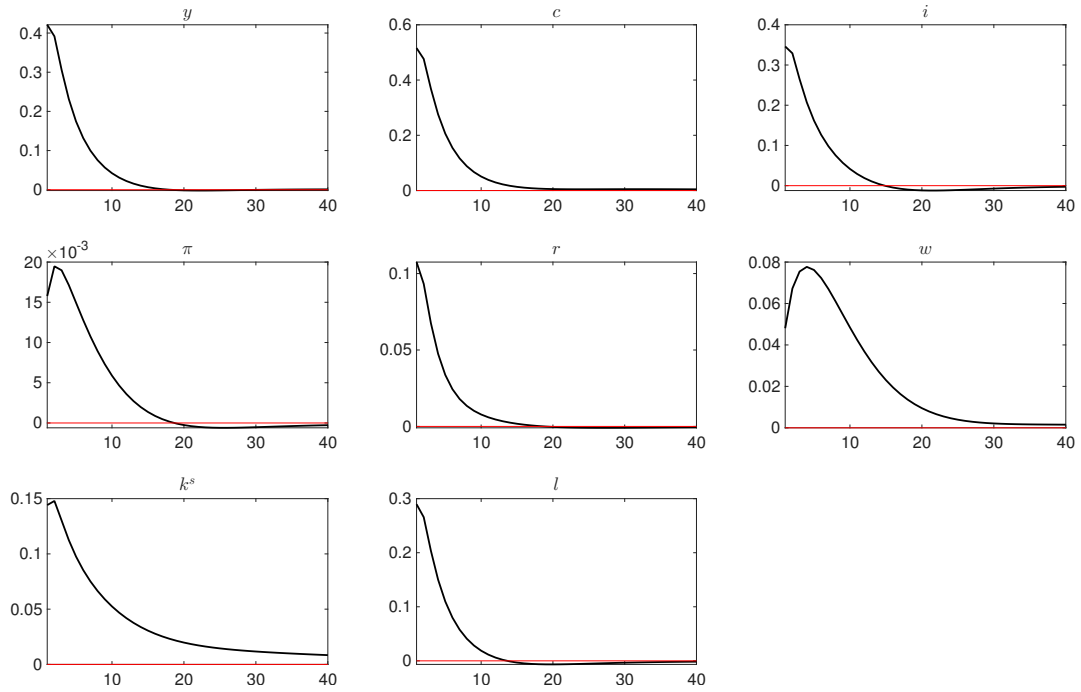


Figure 7: Impulse response functions (orthogonalized shock to η^b).

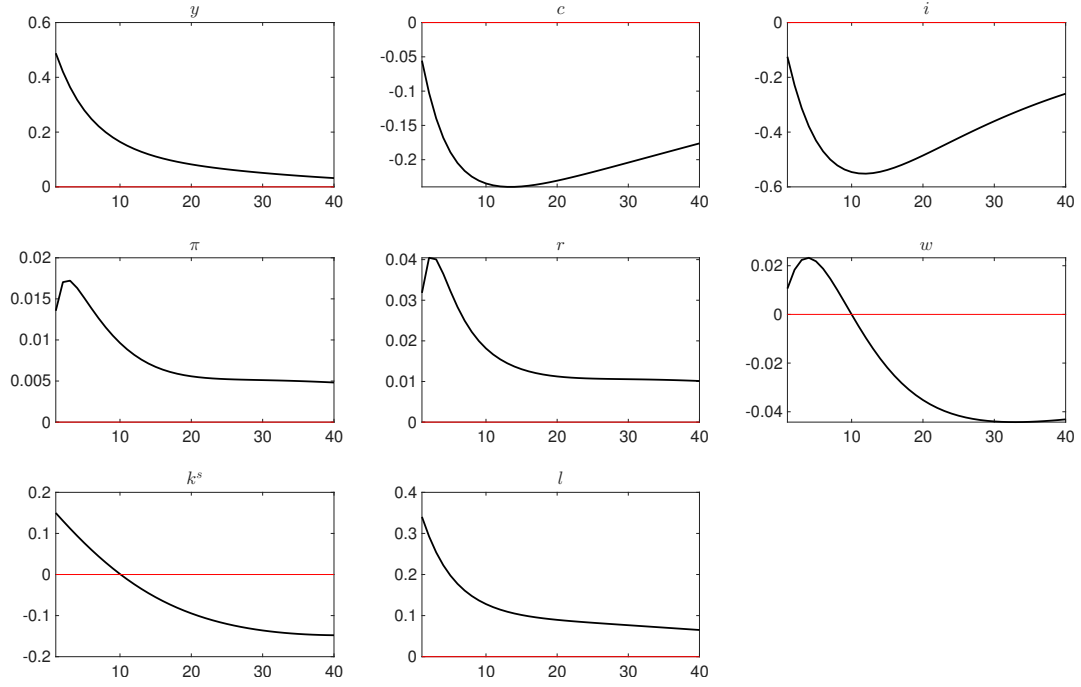


Figure 8: Impulse response functions (orthogonalized shock to η^g).

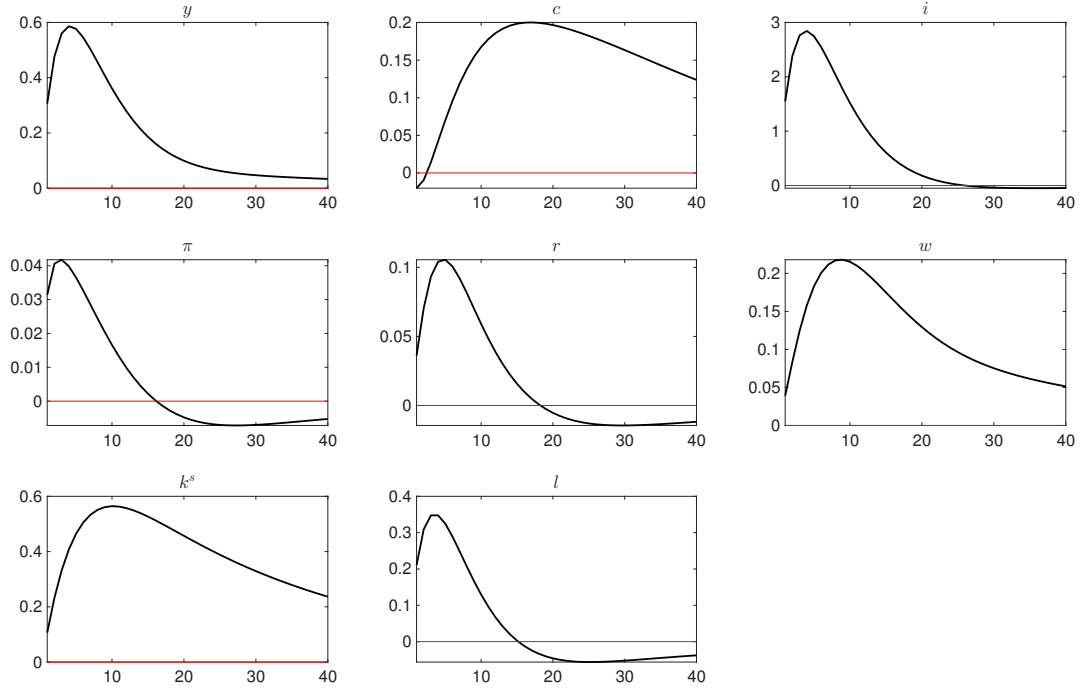


Figure 9: Impulse response functions (orthogonalized shock to η^i).

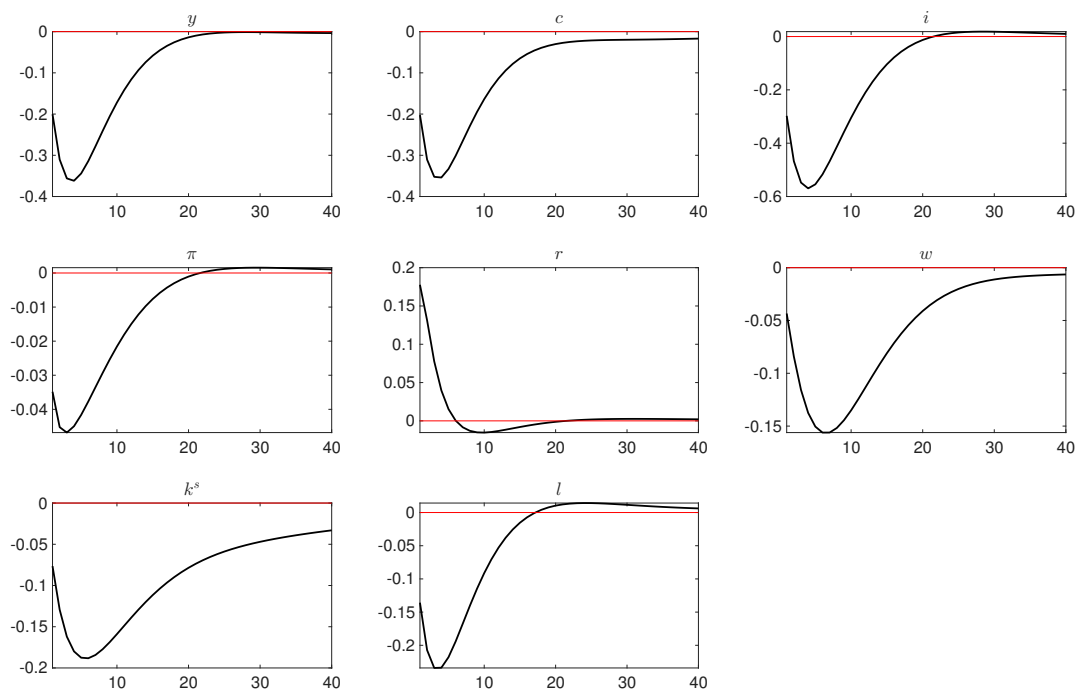


Figure 10: Impulse response functions (orthogonalized shock to η^m).

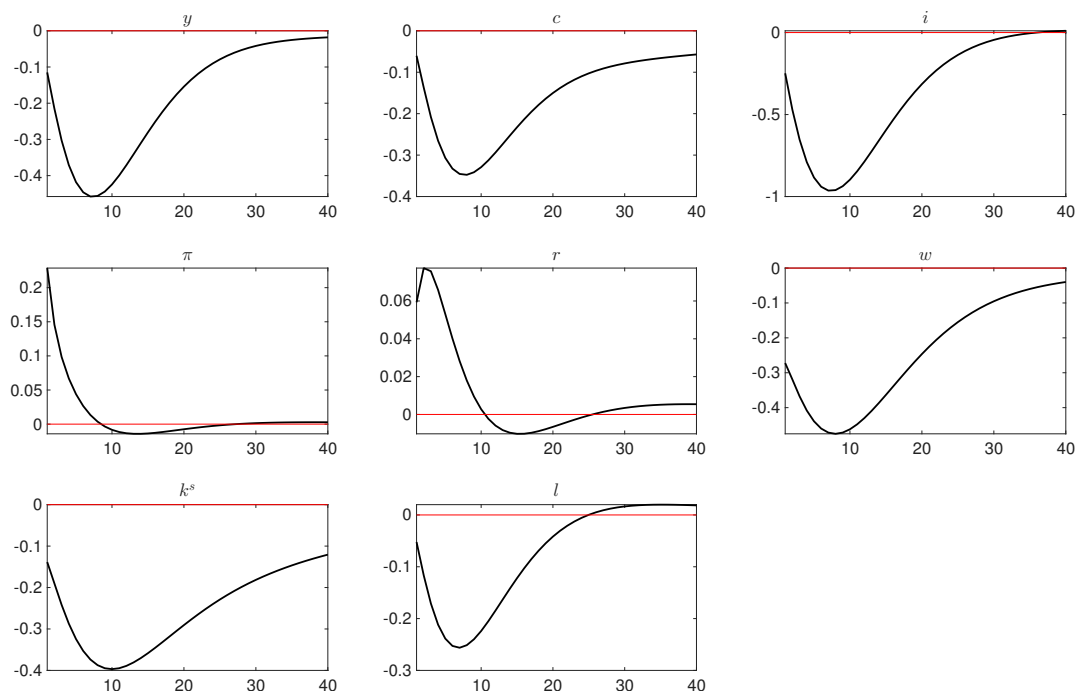


Figure 11: Impulse response functions (orthogonalized shock to η^p).

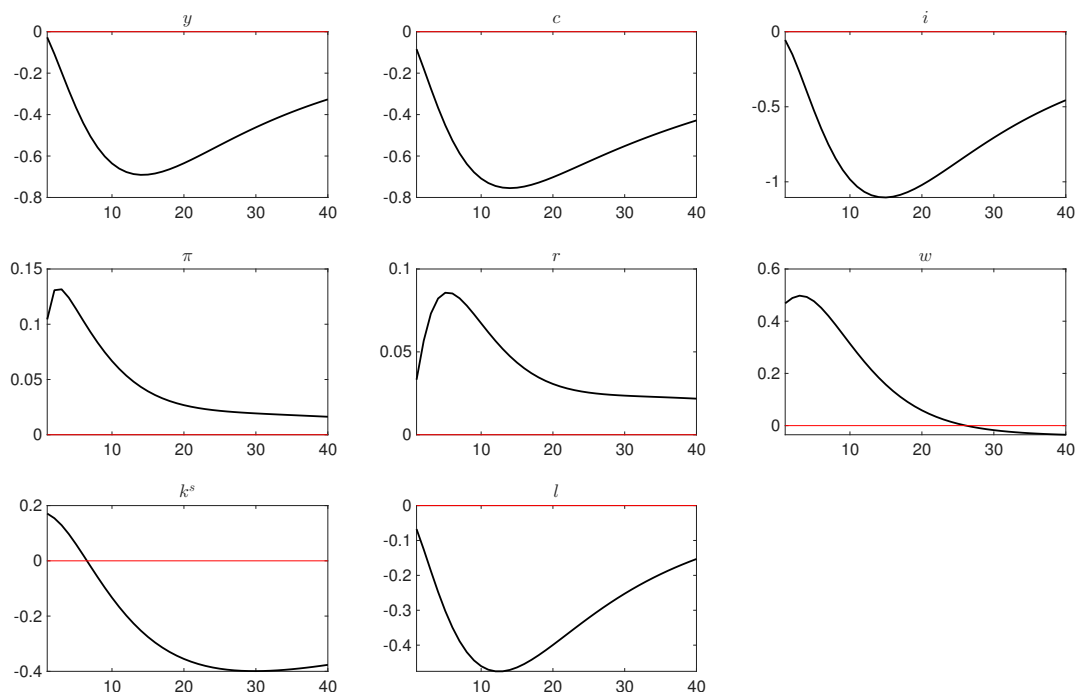


Figure 12: Impulse response functions (orthogonalized shock to η^w).

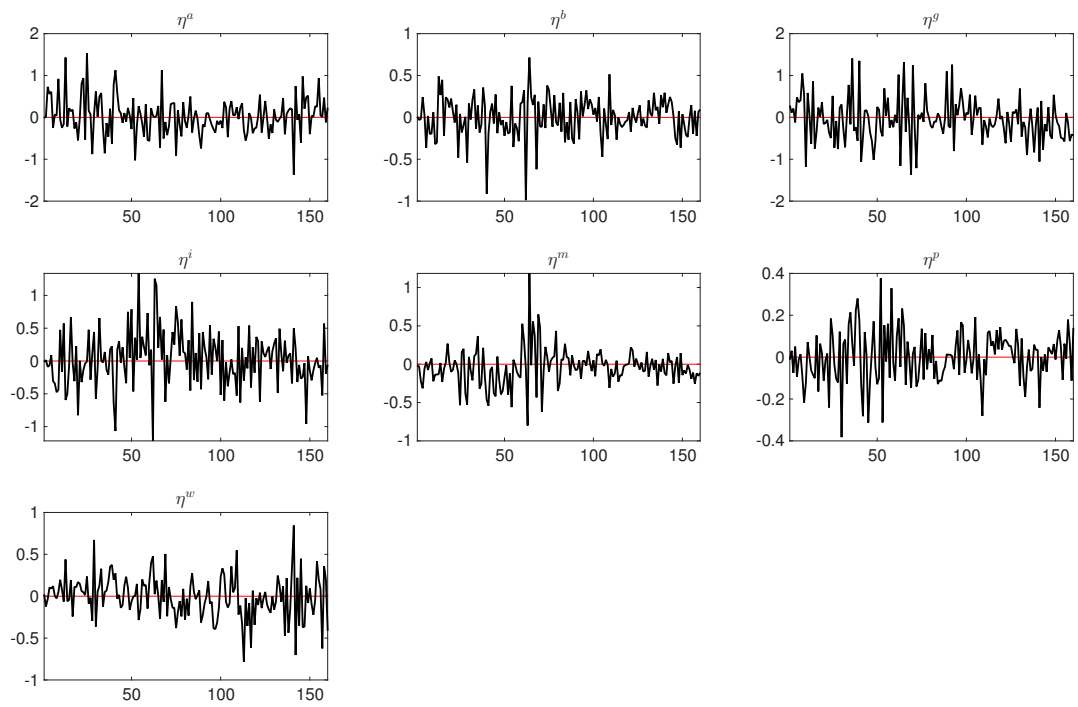


Figure 13: Smoothed shocks.