

Table 1: Results from posterior maximization (parameters)

	Dist.	Prior		Posterior	
		Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.2665	0.0334
ψ	beta	0.500	0.1500	0.8435	0.0607
Φ	norm	1.250	0.1250	1.5728	0.0789
ι_w	beta	0.500	0.1500	0.3681	0.1569
ξ_w	beta	0.500	0.1000	0.4940	0.0809
ι_p	beta	0.500	0.1500	0.2170	0.0882
ξ_p	beta	0.500	0.1000	0.8928	0.0249
σ_c	norm	1.500	0.3750	1.7053	0.1997
σ_l	norm	2.000	0.7500	-0.2550	0.1201
λ	beta	0.700	0.1000	0.4895	0.0851
φ	norm	4.000	1.5000	0.1152	0.0419
r_π	norm	1.500	0.2500	1.4707	0.2469
r_y	norm	0.125	0.0500	0.0716	0.0384
$r_{\Delta y}$	norm	0.125	0.0500	0.2052	0.0311
ρ	beta	0.750	0.1000	0.9326	0.0261
n_*	norm	0.000	2.0000	1.2307	0.2691
γ	norm	0.400	0.1000	0.5672	0.0901
ζ_{sp}	beta	0.050	0.0050	0.0466	0.0047
$\bar{\pi}$	gamm	0.625	0.2000	0.2932	0.0450
ρ_{ga}	beta	0.500	0.2000	0.6362	0.2285
ρ_a	beta	0.500	0.2000	0.9711	0.0120
ρ_b	beta	0.500	0.2000	0.9168	0.0250
ρ_g	beta	0.500	0.2000	0.9456	0.0344
ρ_i	beta	0.500	0.2000	0.9355	0.0235
ρ_r	beta	0.500	0.2000	0.4057	0.0870
ρ_p	beta	0.500	0.2000	0.7167	0.1550
ρ_w	beta	0.500	0.2000	0.4875	0.2434
ρ_{σ_w}	beta	0.750	0.1500	0.7945	0.0581
ρ_{π_*}	beta	0.750	0.1500	0.9561	0.0273
μ_p	beta	0.500	0.2000	0.5502	0.2090
μ_w	beta	0.500	0.2000	0.4939	0.1811

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

		Prior		Posterior	
		Dist.	Mean	Stdev	Mode
η^a	invg	0.100	2.0000	0.3989	0.0343
η^b	invg	0.100	2.0000	0.0381	0.0069
η^g	invg	0.100	2.0000	1.9610	0.1651
η^i	invg	0.100	2.0000	0.9302	0.2286
η^m	invg	0.100	2.0000	0.1267	0.0183
η^p	invg	0.100	2.0000	0.1088	0.0127
η^w	invg	0.100	2.0000	0.5838	0.0600
η^{σ_w}	invg	0.100	2.0000	0.1407	0.0263
η^{π^*}	invg	0.100	2.0000	0.0445	0.0171

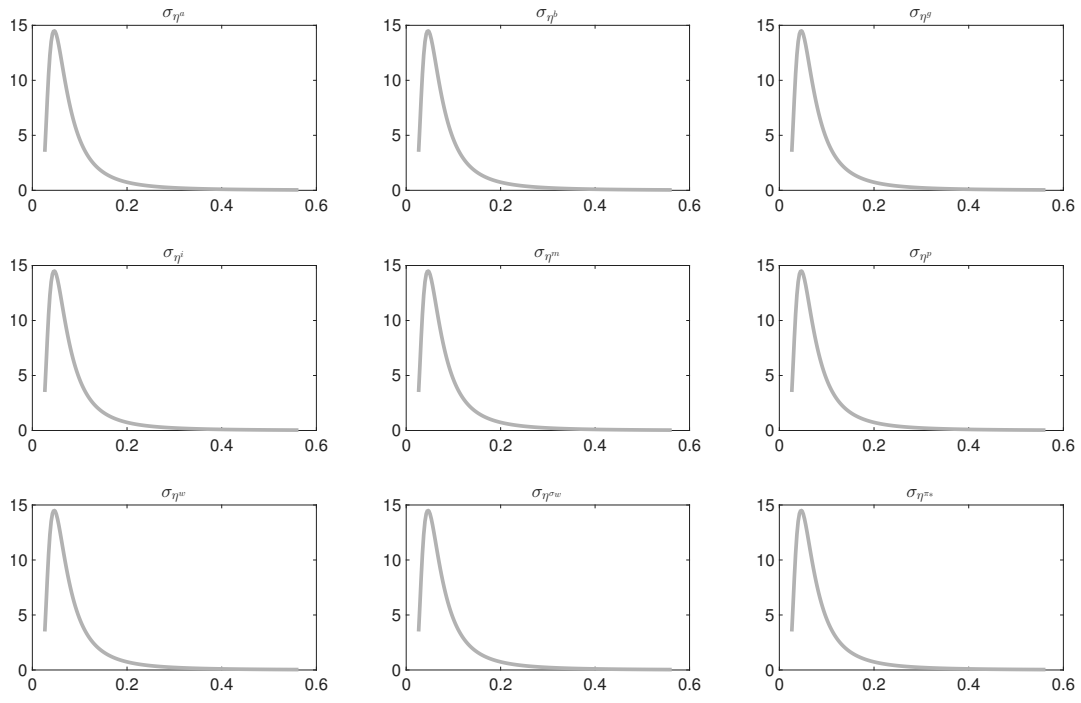


Figure 1: Priors.

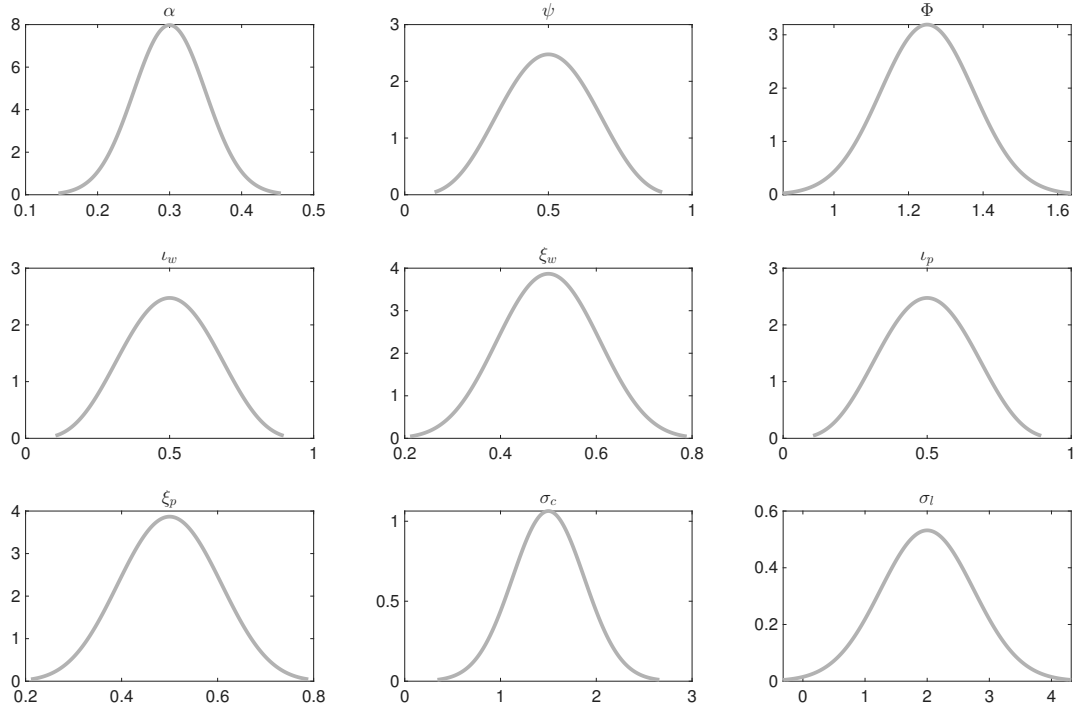


Figure 2: Priors.

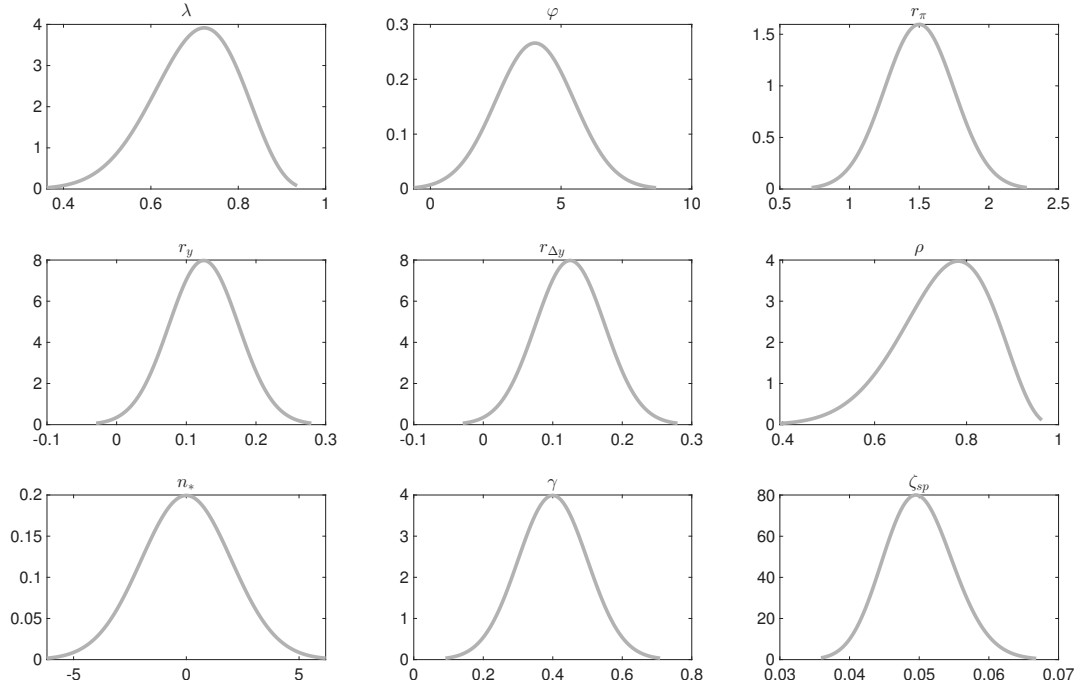


Figure 3: Priors.

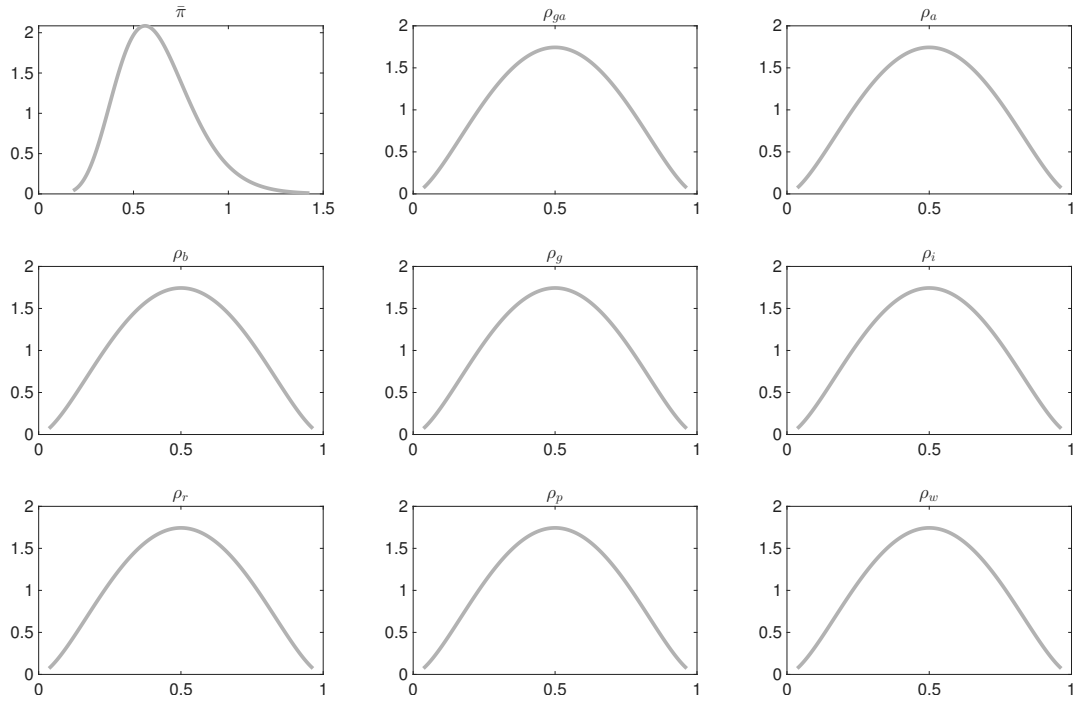


Figure 4: Priors.

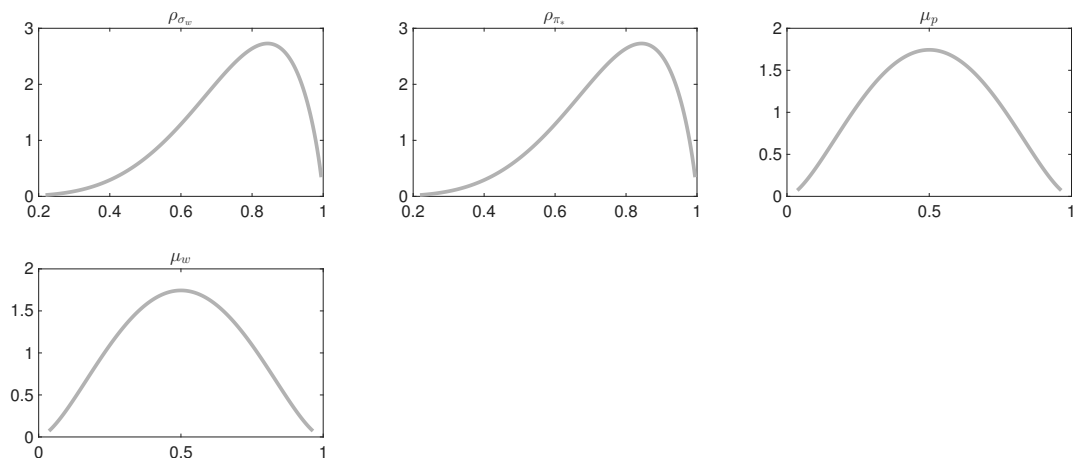


Figure 5: Priors.

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^{σ_w}	η^{π_*}
η^a	0.159137	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
η^b	0.000000	0.001448	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
η^g	0.000000	0.000000	3.845587	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
η^i	0.000000	0.000000	0.000000	0.865195	0.000000	0.000000	0.000000	0.000000	0.000000
η^m	0.000000	0.000000	0.000000	0.000000	0.016050	0.000000	0.000000	0.000000	0.000000
η^p	0.000000	0.000000	0.000000	0.000000	0.000000	0.011844	0.000000	0.000000	0.000000
η^w	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.340781	0.000000	0.000000
η^{σ_w}	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.019797	0.000000
η^{π_*}	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.00198
η^{z_p}	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Table 4: Endogenous

Variable	L ^A T _E X	Description
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
rk	r^k	rental rate of capital
k	k^s	Capital services
mc	μ_p	gross price markup
spinf	ε^p	Price markup shock process
sw	ε^w	Wage markup shock process
g	ε^g	Exogenous spending
b	$c_2 * \varepsilon_t^b$	Scaled risk premium shock
rkf	$r^{k,flex}$	rental rate of capital flex price economy
kf	$k^{s,flex}$	Capital services 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
sobs	<i>Spread</i>	BBB-AAA Rate Spread
labobs	<i>lHOURS</i>	log hours worked
robs	<i>FEDFUNDS</i>	Federal funds rate
pinfobs	<i>dlP</i>	Inflation
dy	<i>dlGDP</i>	Output growth rate
dc	<i>dlCONS</i>	Consumption growth rate
dinve	<i>dlINV</i>	Investment growth rate
dw	<i>dlWAG</i>	Wage growth rate
wh	w^h	Marginal rate of substitution
rktl	r^{ktil}	Return to capital
ztil	z^{til}	Stationary Technology shock
sigw	σ_w	Financial shock
pist	π_*	Inflation Target
og	<i>OG</i>	OutputGap
zp	z_p	Permanent Technology shock
n	n	Entrepreneurial Net Worth
z	w	Trend growth rate
u	u	Capital utilization rate
mu	ε^i	Investment-specific technology
rm	ε^r	Monetary policy shock process
kbar	k	Capital stock
qk	q	real value of existing capital stock
rf	r^{flex}	real interest rate flex price economy

Table 4 – Continued

Variable	\LaTeX	Description
kbarf	k^{flex}	Capital stock flex price economy
uf	z^{flex}	Capital utilization rate flex price economy
qkf	q^{flex}	real value of existing capital stock flex price economy
AUX_EXO_LAG_52_0	$AUX_EXO_LAG_52_0$	AUX_EXO_LAG_52_0
AUX_EXO_LAG_53_0	$AUX_EXO_LAG_53_0$	AUX_EXO_LAG_53_0

Table 5: Exogenous

Variable	\LaTeX	Description
ea	η^a	TFP shock
eb	η^b	Risk Premium 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
esigw	η^{σ_w}	Financial shock
epist	η^{π^*}	Inflation Target shock
ezp	η^{z^p}	Permanent technology shock

Table 6: Parameters

Variable	\LaTeX	Description
cbeta	β	discount rate
cepsp	ε_w	Curvature Kimball aggregator wages
cepsw	ε_p	Curvature Kimball aggregator prices
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
crpi	r_π	Taylor rule inflation feedback
crdy	$r_{\Delta y}$	Taylor rule output growth feedback

Table 6 – Continued

Variable	\LaTeX	Description
cry	r_y	Taylor rule output level feedback
crr	ρ	interest rate persistence
czeta_spb	ζ_{sp}	Spread elasticity
cgamma_star	γ^*	Wealth parameter
cvstar	v^*	Wealth parameter
cnstar	n_*	SS Entrepreneurial wealth
czeta_nRk	ζ_{nRk}	Net Worth parameter
czeta_nR	ζ_{nR}	Net Worth parameter
czeta_nsigw	$\zeta_{n\sigma_w}$	Net Worth parameter
czeta_spsigw	$\zeta_{sp\sigma_w}$	Net Worth parameter
czeta_nqk	ζ_{nqk}	Net Worth parameter
czeta_nn	ζ_{nn}	Net Worth parameter
cgy	ρ_{ga}	Feedback technology on exogenous spending
cmaw	μ_w	coefficient on MA term wage markup
cmap	μ_p	coefficient on MA term price markup
crhosigw	ρ_{σ_w}	persistence Financial shock
crhopist	ρ_{π^*}	persistence Inflation Target shock
crhozp	ρ_{zp}	persistence permanent technology shock
csigma_spinf	σ_{map}	price markup MA scaling
csigma_sw	σ_{maw}	wage markup MA scaling
crhoa	ρ_a	persistence productivity shock
crhob	ρ_b	persistence risk premium shock
crhog	ρ_g	persistence spending shock
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
cgamma	γ	Adjusted trend
crkstar	$r\bar{k}$	SS return on capital
ckstar	k^*	Capital-Output ratio
ckbarstar	\bar{k}^*	SS Capital-Output ratio
cinvestar	$\frac{\bar{i}}{\bar{y}}$	Private investment share in aggregate output
cystar	$\frac{\bar{y}^p}{\bar{y}}$	Private output share in aggregate output
ccstar	$\frac{\bar{c}}{\bar{y}}$	Private consumption share in aggregate output
cwl_c	wl_c	Consumption wage parameter
conster	\bar{r}	steady state interest rate
constelab	\bar{l}	steady state hours
constepinf	$\bar{\pi}$	steady state inflation rate
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
β	0.999	discount rate
ε_w	10.000	Curvature Kimball aggregator wages
ε_p	10.000	Curvature Kimball aggregator prices
α	0.267	capital share
ψ	0.843	capacity utilization cost
φ	0.115	investment adjustment cost
δ	0.025	depreciation rate
σ_c	1.705	risk aversion
λ	0.489	external habit degree
Φ	1.573	fixed cost share
ι_w	0.368	Indexation to past wages
ξ_w	0.494	Calvo parameter wages
ι_p	0.217	Indexation to past prices
ξ_p	0.893	Calvo parameter prices
σ_l	-0.255	Frisch elasticity
r_π	1.471	Taylor rule inflation feedback
$r_{\Delta y}$	0.205	Taylor rule output growth feedback
r_y	0.072	Taylor rule output level feedback
ρ	0.933	interest rate persistence
ζ_{sp}	0.047	Spread elasticity
γ^*	0.990	Wealth parameter
v^*	2.471	Wealth parameter
n_*	1.231	SS Entrepreneurial wealth
ζ_{nRk}	1.694	Net Worth parameter
ζ_{nR}	0.693	Net Worth parameter
$\zeta_{n\sigma_w}$	0.004	Net Worth parameter
$\zeta_{sp\sigma_w}$	0.028	Net Worth parameter
ζ_{nqk}	0.002	Net Worth parameter
ζ_{nn}	0.999	Net Worth parameter
ρ_{ga}	0.636	Feedback technology on exogenous spending
μ_w	0.494	coefficient on MA term wage markup
μ_p	0.550	coefficient on MA term price markup
ρ_{σ_w}	0.794	persistence Financial shock
ρ_{π_*}	0.956	persistence Inflation Target shock
ρ_{zp}	0.950	persistence permanent technology shock
σ_{map}	1.000	price markup MA scaling
σ_{maw}	1.000	wage markup MA scaling
ρ_a	0.971	persistence productivity shock
ρ_b	0.917	persistence risk premium shock
ρ_g	0.946	persistence spending shock
ρ_i	0.936	persistence risk premium shock
ρ_r	0.406	persistence monetary policy shock
ρ_p	0.717	persistence price markup shock

Table 7 – Continued

Parameter	Value	Description
ρ_w	0.488	persistence wage markup shock
γ	0.567	Adjusted trend
$r\bar{k}$	0.036	SS return on capital
k^*	4.149	Capital-Output ratio
\bar{k}^*	4.165	SS Capital-Output ratio
$\frac{\bar{i}}{\bar{y}}$	0.120	Private investment share in aggregate output
$\frac{\bar{y}_p}{\bar{y}}$	0.845	Private output share in aggregate output
$\frac{\bar{c}}{\bar{y}}$	0.573	Private consumption share in aggregate output
wl_c	0.808	Consumption wage parameter
\bar{r}	0.700	steady state interest rate
\bar{l}	0.000	steady state hours
$\bar{\pi}$	0.293	steady state inflation rate
$\bar{\gamma}$	0.400	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	0.2490
σ_{η^b}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118	5595.7204	0.0326	0.2490
σ_{η^g}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118	5595.7204	0.0326	0.2490
σ_{η^i}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118	5595.7204	0.0326	0.2490
σ_{η^m}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118	5595.7204	0.0326	0.2490
σ_{η^p}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118	5595.7204	0.0326	0.2490
σ_{η^w}	Inv. Gamma	0.1000	0.0461	2.0000	0.0118	5595.7204	0.0326	0.2490
$\sigma_{\eta^{\sigma_w}}$	Inv. Gamma	0.1000	0.0461	2.0000	0.0118	5595.7204	0.0326	0.2490
$\sigma_{\eta^{\pi*}}$	Inv. Gamma	0.1000	0.0461	2.0000	0.0118	5595.7204	0.0326	0.2490
α	Gaussian	0.3000	0.3000	0.0500	-0.0181	0.6181	0.2178	0.3822
ψ	Beta	0.5000	0.5000	0.1500	0.0040	0.9960	0.2526	0.7474
Φ	Gaussian	1.2500	1.2500	0.1250	0.4548	2.0452	1.0444	1.4556
ι_w	Beta	0.5000	0.5000	0.1500	0.0040	0.9960	0.2526	0.7474
ξ_w	Beta	0.5000	0.5000	0.1000	0.0471	0.9529	0.3351	0.6649
ι_p	Beta	0.5000	0.5000	0.1500	0.0040	0.9960	0.2526	0.7474
ξ_p	Beta	0.5000	0.5000	0.1000	0.0471	0.9529	0.3351	0.6649
σ_c	Gaussian	1.5000	1.5000	0.3750	-0.8855	3.8855	0.8832	2.1168
σ_l	Gaussian	2.0000	2.0000	0.7500	-2.7710	6.7710	0.7664	3.2336
λ	Beta	0.7000	0.7222	0.1000	0.1025	0.9960	0.5242	0.8525
φ	Gaussian	4.0000	4.0000	1.5000	-5.5420	13.5420	1.5327	6.4673
r_π	Gaussian	1.5000	1.5000	0.2500	-0.0903	3.0903	1.0888	1.9112
r_y	Gaussian	0.1250	0.1250	0.0500	-0.1931	0.4431	0.0428	0.2072
$r_{\Delta y}$	Gaussian	0.1250	0.1250	0.0500	-0.1931	0.4431	0.0428	0.2072
ρ	Beta	0.7500	0.7817	0.1000	0.1073	0.9991	0.5701	0.8971
n_*	Gaussian	0.0000	0.0000	2.0000	-12.7227	12.7227	-3.2897	3.2897
γ	Gaussian	0.4000	0.4000	0.1000	-0.2361	1.0361	0.2355	0.5645
ζ_{sp}	Beta	0.0500	0.0495	0.0050	0.0243	0.0881	0.0421	0.0585
$\bar{\pi}$	Gamma	0.6250	0.5610	0.2000	0.0280	2.8267	0.3362	0.9862
ρ_{ga}	Beta	0.5000	0.5000	0.2000	0.0001	0.9999	0.1718	0.8282
ρ_a	Beta	0.5000	0.5000	0.2000	0.0001	0.9999	0.1718	0.8282
ρ_b	Beta	0.5000	0.5000	0.2000	0.0001	0.9999	0.1718	0.8282
ρ_g	Beta	0.5000	0.5000	0.2000	0.0001	0.9999	0.1718	0.8282
ρ_i	Beta	0.5000	0.5000	0.2000	0.0001	0.9999	0.1718	0.8282
ρ_r	Beta	0.5000	0.5000	0.2000	0.0001	0.9999	0.1718	0.8282
ρ_p	Beta	0.5000	0.5000	0.2000	0.0001	0.9999	0.1718	0.8282
ρ_w	Beta	0.5000	0.5000	0.2000	0.0001	0.9999	0.1718	0.8282
ρ_{σ_w}	Beta	0.7500	0.8438	0.1500	0.0114	1.0000	0.4671	0.9519

*Displayed bounds are after applying a prior truncation of options'.trunc=0.000

(Continued on next page)

Table 8: (continued)

	Distribution	Mean	Mode	Std.dev.	Bounds*		90% HPDI	
					Lower	Upper	Lower	Upper
ρ_{π_*}	Beta	0.7500	0.8438	0.1500	0.0114	1.0000	0.4671	0.9519
μ_p	Beta	0.5000	0.5000	0.2000	0.0001	0.9999	0.1718	0.8282
μ_w	Beta	0.5000	0.5000	0.2000	0.0001	0.9999	0.1718	0.8282

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	0.9842	0.9568	0.9233	0.8868	0.8492	
c	0.9879	0.9684	0.9459	0.9218	0.8970	
i	0.9797	0.9346	0.8752	0.8088	0.7401	
π	0.6127	0.4535	0.3637	0.3032	0.2594	
r	0.9688	0.9153	0.8549	0.7943	0.7362	
w	0.9791	0.9582	0.9372	0.9163	0.8954	
k^s	0.9964	0.9914	0.9851	0.9776	0.9691	
l	0.9793	0.9447	0.9033	0.8589	0.8141	
q	0.9209	0.8510	0.7891	0.7337	0.6834	
n	0.9932	0.9855	0.9770	0.9676	0.9575	
r^{ktil}	0.0658	0.0792	0.0882	0.0933	0.0953	
OG	0.9886	0.9667	0.9397	0.9103	0.8798	

Table 10: MATRIX OF CORRELATIONS

	<hr/> <i>Variables</i> <i>y</i> <i>c</i> <i>i</i> π <i>r</i> <i>w</i> k^s <i>l</i> <i>q</i> <i>n</i> r^{ktil} <i>OG</i> <hr/>										
<i>y</i>	1.0000	0.9501	0.8895	0.3785	0.2358	0.6574	0.5704	0.7593	-0.1151	0.1729	0.1493
<i>c</i>	0.9501	1.0000	0.7937	0.3968	0.2178	0.7637	0.6667	0.6464	-0.1162	0.2288	0.1408
<i>i</i>	0.8895	0.7937	1.0000	0.3145	0.2130	0.4764	0.4310	0.7195	-0.1284	0.1461	0.1021
π	0.3785	0.3968	0.3145	1.0000	0.2946	0.3708	0.2778	0.2516	-0.0016	0.1544	0.3446
<i>r</i>	0.2358	0.2178	0.2130	0.2946	1.0000	0.3816	0.2183	0.1894	-0.0771	0.3325	0.0772
<i>w</i>	0.6574	0.7637	0.4764	0.3708	0.3816	1.0000	0.8770	0.1418	-0.1481	0.6264	0.0456
k^s	0.5704	0.6667	0.4310	0.2778	0.2183	0.8770	1.0000	-0.0444	-0.1995	0.7952	-0.0894
<i>l</i>	0.7593	0.6464	0.7195	0.2516	0.1894	0.1418	-0.0444	1.0000	0.0133	-0.3388	0.2534
<i>q</i>	-0.1151	-0.1162	-0.1284	-0.0016	-0.0771	-0.1481	-0.1995	0.0133	1.0000	0.0960	-0.1511
<i>n</i>	0.1729	0.2288	0.1461	0.1544	0.3325	0.6264	0.7952	-0.3388	0.0960	1.0000	0.5034
r^{ktil}	0.1493	0.1408	0.1021	0.3446	0.0772	0.0456	-0.0894	0.2534	0.1461	-0.1511	0.8488
<i>OG</i>	0.8488	0.8825	0.7279	0.4323	0.5044	0.8539	0.7174	0.5020	-0.0101	0.5034	0.8825

Table 11: THEORETICAL MOMENTS

<i>VARIABLE</i>	<i>MEAN</i>	<i>STD.DEV.</i>	<i>VARIANCE</i>
y	0.0000	5.1945	26.9833
c	0.0000	5.1330	26.3480
i	0.0000	12.4707	155.5174
π	0.0000	0.1964	0.0386
r	0.0000	0.4107	0.1687
w	0.0000	4.9497	24.4999
k^s	0.0000	8.0008	64.0134
l	0.0000	3.8213	14.6021
q	0.0000	1.6036	2.5715
n	0.0000	13.7051	187.8304
r^{ktil}	0.0000	0.6964	0.4849
OG	0.0000	5.2342	27.3964

Table 12: VARIANCE DECOMPOSITION (in percent)

		η^a	η^b	η^g	η^i	η^m	η^p	η^w	η^{σ_w}	$\eta^{\pi*}$	η^{z_p}
y	0.89	9.24	5.87	4.00	61.69	0.90	0.05	1.05	11.09	5.21	
c	1.72	13.03	0.14	2.88	64.35	1.06	0.01	0.40	13.74	2.67	
i	0.69	4.27	0.14	8.44	55.22	0.61	0.46	5.95	6.11	18.11	
π	0.56	3.27	0.02	0.24	12.01	77.59	1.17	0.03	3.21	1.90	
r	7.11	39.39	0.83	2.83	5.94	0.99	0.54	5.93	2.44	34.01	
w	2.59	7.73	0.07	2.30	44.64	1.26	6.23	0.32	10.68	24.17	
k^s	3.32	1.74	0.21	5.46	38.98	0.36	0.19	0.61	7.75	41.38	
l	8.04	7.62	6.90	3.69	38.89	0.67	0.08	0.99	5.52	27.62	
q	0.08	1.07	0.00	88.82	3.35	0.24	0.15	3.14	0.02	3.12	
n	5.57	1.19	0.19	1.85	8.73	0.11	0.19	0.32	2.03	79.82	
r^{ktil}	0.53	6.15	0.18	39.19	12.47	9.69	1.53	16.02	0.95	13.29	
OG	3.40	9.10	0.31	0.72	60.76	0.88	0.05	1.04	10.92	12.81	

$$cbetabar = \beta \exp ((1 - \sigma_c) \gamma)$$

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

$$crss = \frac{cpie}{cbetabar}$$

$$clandap = \Phi$$

$$c1 = \frac{\lambda \exp ((-\gamma))}{1 + \lambda \exp ((-\gamma))}$$

$$c2 = \frac{1 - \lambda \exp ((-\gamma))}{\sigma_c (1 + \lambda \exp ((-\gamma)))}$$

$$c3 = \frac{1}{1 + \lambda \exp ((-\gamma))}$$

$$c4 = \frac{1}{1 - \alpha} (\rho_a - 1)$$

$$c5 = \frac{(\sigma_c - 1) wl_c}{\sigma_c (1 + \lambda \exp ((-\gamma)))}$$

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

$$i2 = \frac{cbetabar}{1 + cbetabar}$$

$$i3 = (1 + cbetabar) \varphi \exp (2 \gamma)$$

$$k1 = 1 - \frac{\frac{\bar{z}}{\bar{y}}}{\bar{k}^*}$$

$$k2 = \frac{\frac{\bar{z}}{\bar{y}}}{\bar{k}^*}$$

$$k3 = \frac{(1 + cbetabar) \exp (2 \gamma) \varphi \frac{\bar{z}}{\bar{y}}}{\bar{k}^*}$$

$$u1 = \frac{1 - \psi}{\psi}$$

$$pi1 = \frac{(1 - cbetabar \xi_p) (1 - \xi_p)}{\xi_p (1 + (\Phi - 1) \varepsilon_w)}$$

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

$$pi3 = \frac{\iota_p}{1 + cbetabar \iota_p}$$

$$pi4 = \frac{cbetabar}{1 + cbetabar \iota_p}$$

$$w1 = \frac{(1 - cbetabar \xi_w) (1 - \xi_w)}{\xi_w (1 + 0.5 \varepsilon_p)}$$

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

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

$$w4 = \frac{cbetabar}{1 + cbetabar}$$

$$y1 = \frac{\frac{\bar{c}}{\bar{y}}}{\frac{\bar{y}p}{\bar{y}}}$$

$$y2 = \frac{\frac{\bar{i}}{\bar{y}}}{\frac{\bar{y}p}{\bar{y}}}$$

$$y3 = r\bar{k} \frac{k^*}{\frac{\bar{y}p}{\bar{y}}}$$

$$ff1 = \frac{r\bar{k}}{1 + r\bar{k} - \delta}$$

$$ff2 = \frac{1 - \delta}{1 + r\bar{k} - \delta}$$

$$ff3 = \frac{\sigma_c (1 + \lambda \exp((- \gamma)))}{1 - \lambda \exp((- \gamma))}$$

$$ff4 = \frac{\gamma^* v^*}{n_*}$$

$$mrs1 = \frac{1}{1 - \lambda \exp((- \gamma))}$$

$$c_t = (-c2) (r_t - \pi_{t+1}) + c_2 * \varepsilon_{tt}^b + c1 (c_{t-1} - w_t) + c3 (c_{t+1} + c4 z^{til}_t) + c5 (l_t - l_{t+1}) \quad (1)$$

$$q_t = i3 (i_t - i1 (i_{t-1} - w_t) - i2 i_{t+1} - z^{til}_t c4 i2 - \varepsilon^i_t) \quad (2)$$

$$k_t = k1 (k_{t-1} - w_t) + i_t k2 + \varepsilon^i_t k3 \quad (3)$$

$$k^s_t = k_{t-1} + u_t - w_t \quad (4)$$

$$u_t = u1 r^k_t \quad (5)$$

$$\mu_{p_t} = w_t + \alpha l_t - \alpha k^s_t \quad (6)$$

$$k^s_t = l_t + w_t - r^k_t \quad (7)$$

$$y_t = k^s_t \Phi \alpha + l_t \Phi (1 - \alpha) + z^{til}_t \frac{\Phi - 1}{1 - \alpha} \quad (8)$$

$$y_t = \frac{\bar{g}}{\bar{y}} \varepsilon^g_t + c_t y1 + i_t y2 + u_t y3 - z^{til}_t c4 \frac{\bar{g}}{\bar{y}} \quad (9)$$

$$\pi_t = \mu_{p_t} pi1 pi2 + pi3 \pi_{t-1} + \pi_{t+1} pi4 + \varepsilon^p_t \quad (10)$$

$$w_t = w1 w2 (w^h_t - w_t) - \pi_t w3 + w2 (w_{t-1} - w_t + \iota_w \pi_{t-1}) + w4 (\pi_{t+1} + c4 z^{til}_t + w_{t+1}) + \varepsilon^w_t \quad (11)$$

$$w^h_t = mrs1 (c_t - \lambda \exp((- \gamma)) c_{t-1} + \lambda \exp((- \gamma)) w_t) + l_t \sigma_l \quad (12)$$

$$r_t = \rho r_{t-1} + (1 - \rho) r_\pi (\pi_t - \pi_{*t}) + (1 - \rho) r_y (y_t - y^{flex}_t) \\ + r_{\Delta y} (y_t - y^{flex}_t - (y_{t-1} - y^{flex}_{t-1})) + \varepsilon^r_t \quad (13)$$

$$r^{ktil}_t = \pi_t + r^k_t ff1 + q_t ff2 - q_{t-1} \quad (14)$$

$$r^{ktil}_{t+1} = r_t - c_2 * \varepsilon_{tt}^b f f 3 + \zeta_{sp} (q_t + k_t - n_t) + \sigma_{wt} \quad (15)$$

$$n_t = \zeta_{nRk} (r^{ktil}_t - \pi_t) - \zeta_{nR} (r_{t-1} - \pi_t) + \zeta_{nqk} (k_{t-1} + q_{t-1}) + \zeta_{nn} n_{t-1} - \frac{\zeta_{n\sigma_w}}{\zeta_{sp\sigma_w}} \sigma_{wt-1} - w_t f f 4 \quad (16)$$

$$c^{flex}_t = c_2 * \varepsilon_{tt}^b + (-c2) r^{flex}_t + c1 (c^{flex}_{t-1} - w_t) + c3 (c4 z^{til}_t + c^{flex}_{t+1}) + c5 (l^{flex}_t - l^{flex}_{t+1}) \quad (17)$$

$$q^{flex}_t = i3 (i^{flex}_t - i1 (i^{flex}_{t-1} - w_t) - i2 i^{flex}_{t+1} - z^{til}_t c4 i2 - \varepsilon_t^i) \quad (18)$$

$$k^{flex}_t = \varepsilon_t^i k3 + k1 (k^{flex}_{t-1} - w_t) + k2 i^{flex}_t \quad (19)$$

$$k^{s,flex}_t = k^{flex}_{t-1} + z^{flex}_t - w_t \quad (20)$$

$$z^{flex}_t = u1 r^{k,flex}_t \quad (21)$$

$$w^{flex}_t = l^{flex}_t (-\alpha) + \alpha k^{s,flex}_t \quad (22)$$

$$k^{s,flex}_t = l^{flex}_t + w^{flex}_t - r^{k,flex}_t \quad (23)$$

$$y^{flex}_t = z^{til}_t \frac{\Phi - 1}{1 - \alpha} + \Phi \alpha k^{s,flex}_t + \Phi (1 - \alpha) l^{flex}_t \quad (24)$$

$$y^{flex}_t = \frac{\bar{g}}{\bar{y}} \varepsilon_t^g + y1 c^{flex}_t + y2 i^{flex}_t + y3 z^{flex}_t - z^{til}_t c4 \frac{\bar{g}}{\bar{y}} \quad (25)$$

$$w^{flex}_t = mrs1 (\lambda \exp((- \gamma)) w_t + c^{flex}_t - \lambda \exp((- \gamma)) c^{flex}_{t-1}) + \sigma_l l^{flex}_t \quad (26)$$

$$q^{flex}_t = c_2 * \varepsilon_{tt}^b f f 3 + f f 1 r^{k,flex}_{t+1} + f f 2 q^{flex}_{t+1} - r^{flex}_t \quad (27)$$

$$OG_t = y_t - y^{flex}_t \quad (28)$$

$$w_t = c4 z^{til}_{t-1} + \frac{1}{1 - \alpha} \eta^a_t + z_{pt} \quad (29)$$

$$z^{til}_t = \eta^a_t + \rho_a z^{til}_{t-1} \quad (30)$$

$$\varepsilon_t^g = \rho_g \varepsilon_{t-1}^g + \eta^g_t + \eta^a_t \rho_{ga} \quad (31)$$

$$c_2 * \varepsilon_{tt}^b = \rho_b c_2 * \varepsilon_{t-1}^b + \eta_t^b \quad (32)$$

$$\varepsilon_t^i = \rho_i \varepsilon_{t-1}^i + \eta_t^i \quad (33)$$

$$\varepsilon_t^p = \rho_p \varepsilon_{t-1}^p + \eta_t^p - \mu_p \sigma_{map} \eta_{t-1}^p \quad (34)$$

$$\varepsilon_t^w = \rho_w \varepsilon_{t-1}^w + \eta_t^w - \mu_w \sigma_{maw} \eta_{t-1}^w \quad (35)$$

$$\varepsilon_t^r = \rho_r \varepsilon_{t-1}^r + \eta_t^m \quad (36)$$

$$\sigma_{wt} = \sigma_{wt-1} \rho_{\sigma_w} + \eta_t^{\sigma_w} \quad (37)$$

$$\pi_{*t} = \rho_{\pi_*} \pi_{*t-1} + \eta_t^{\pi_*} \quad (38)$$

$$z_{pt} = \rho_{zp} z_{pt-1} + \eta_t^{z_p} \quad (39)$$

$$dlGDP_t = w_t + y_t - y_{t-1} + \bar{\gamma} \quad (40)$$

$$dlCONS_t = w_t + \bar{\gamma} + c_t - c_{t-1} \quad (41)$$

$$dlINV_t = w_t + \bar{\gamma} + i_t - i_{t-1} \quad (42)$$

$$dlWAG_t = w_t + \bar{\gamma} + w_t - w_{t-1} \quad (43)$$

$$lHOURS_t = l_t + \bar{l} \quad (44)$$

$$FEDFUNDS_t = r_t + \bar{r} \quad (45)$$

$$dlP_t = \bar{\pi} + \pi_t \quad (46)$$

$$Spread_t = 100 (r^{ktil}_t - r_t) + 0.02 \quad (47)$$

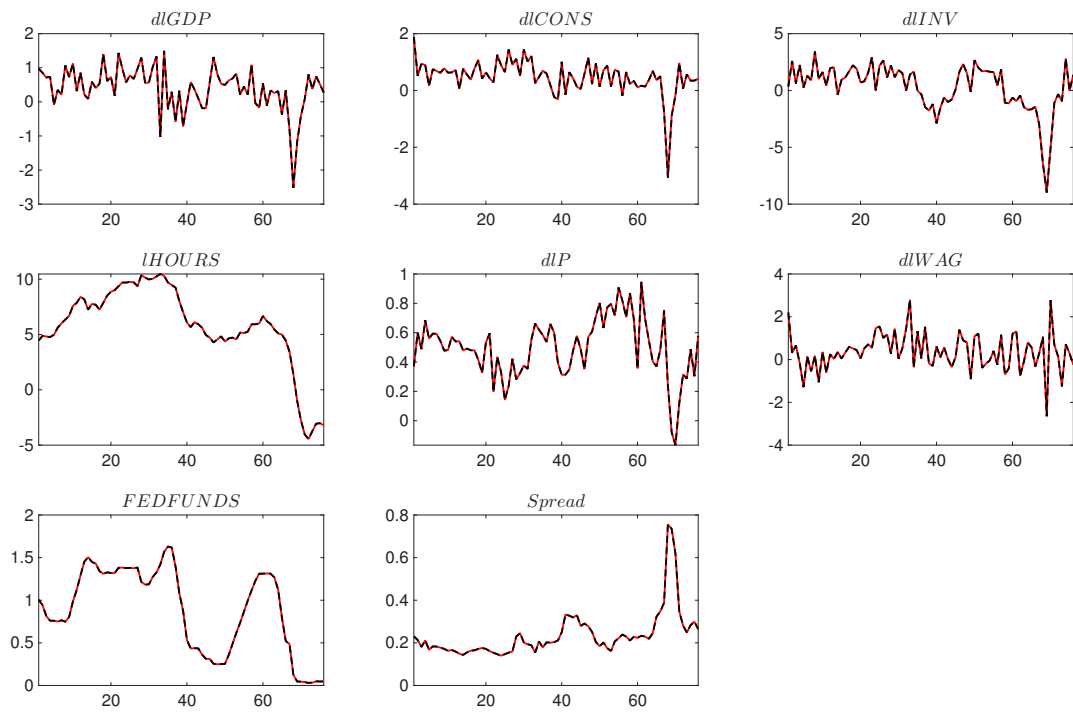


Figure 6: Historical and smoothed variables.

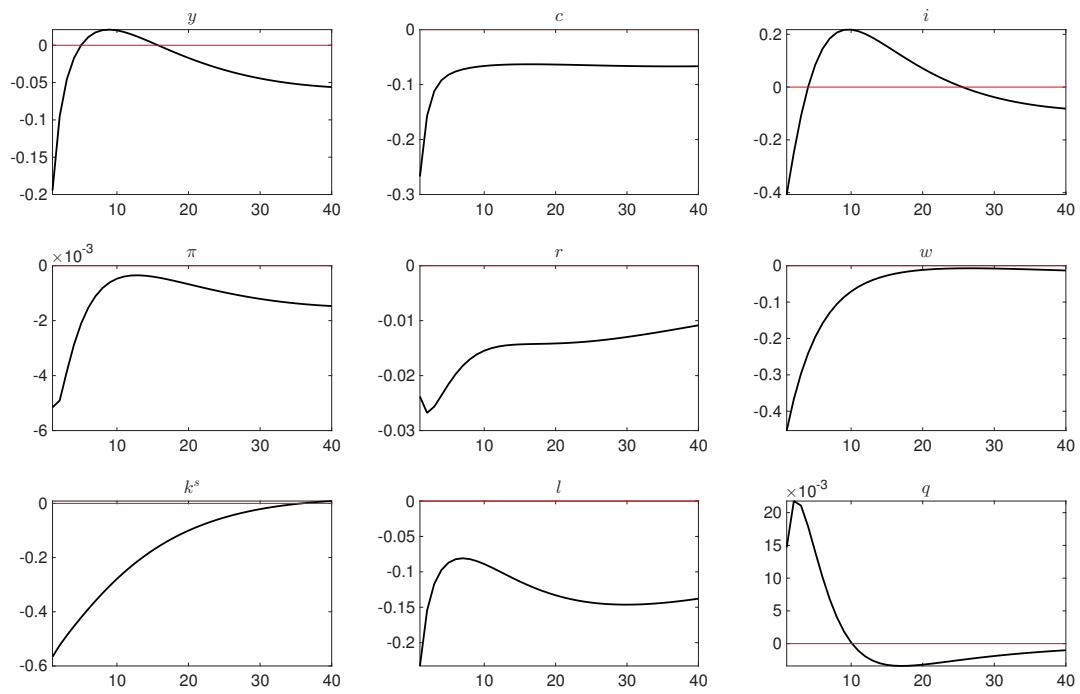


Figure 7: Impulse response functions (orthogonalized shock to η^a).

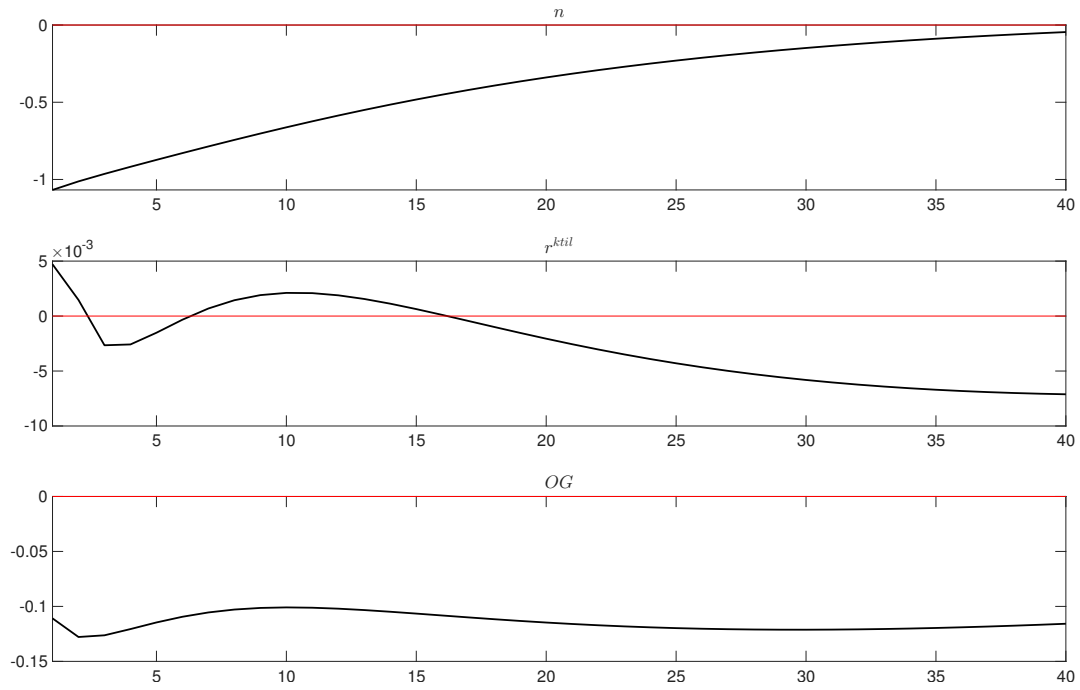


Figure 8: Impulse response functions (orthogonalized shock to η^a).

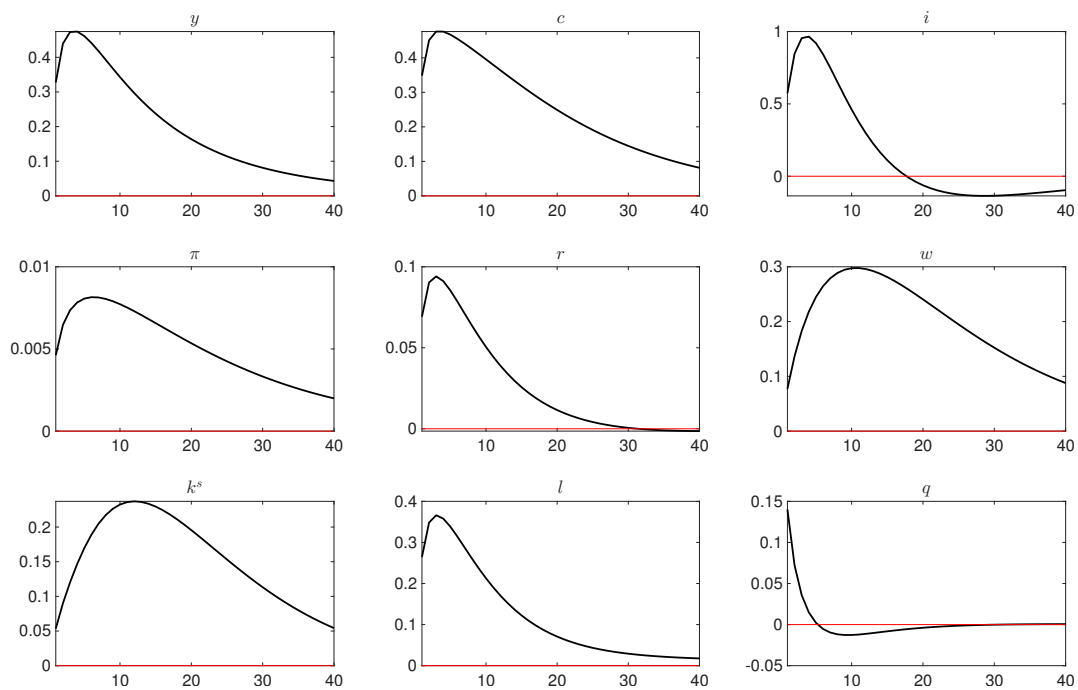


Figure 9: Impulse response functions (orthogonalized shock to η^b).

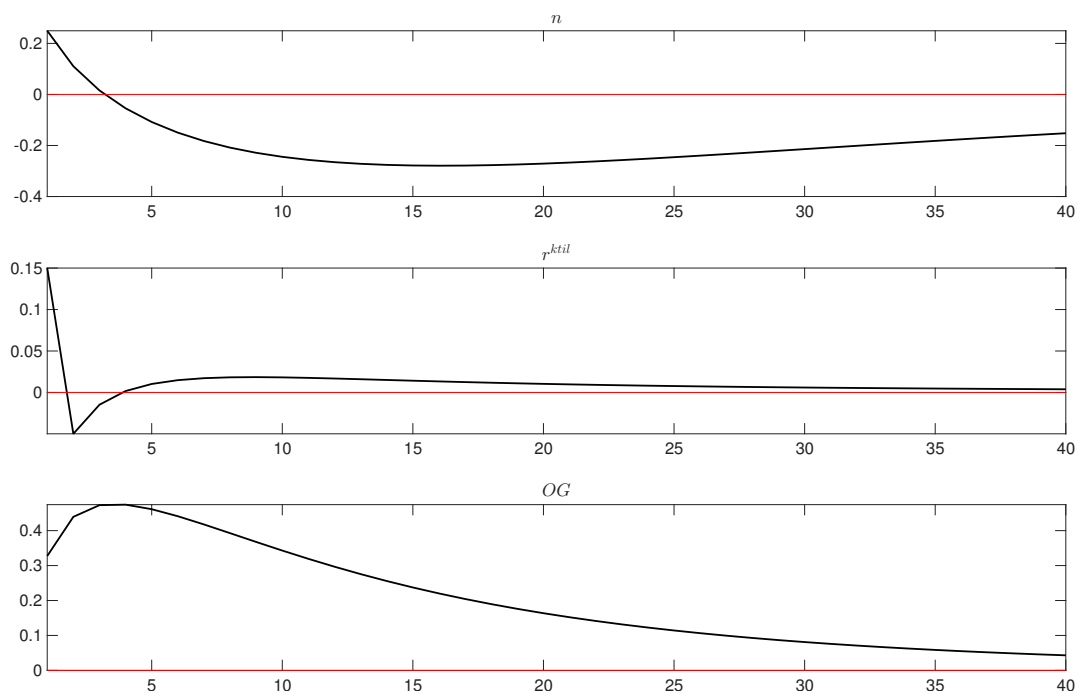


Figure 10: Impulse response functions (orthogonalized shock to η^b).

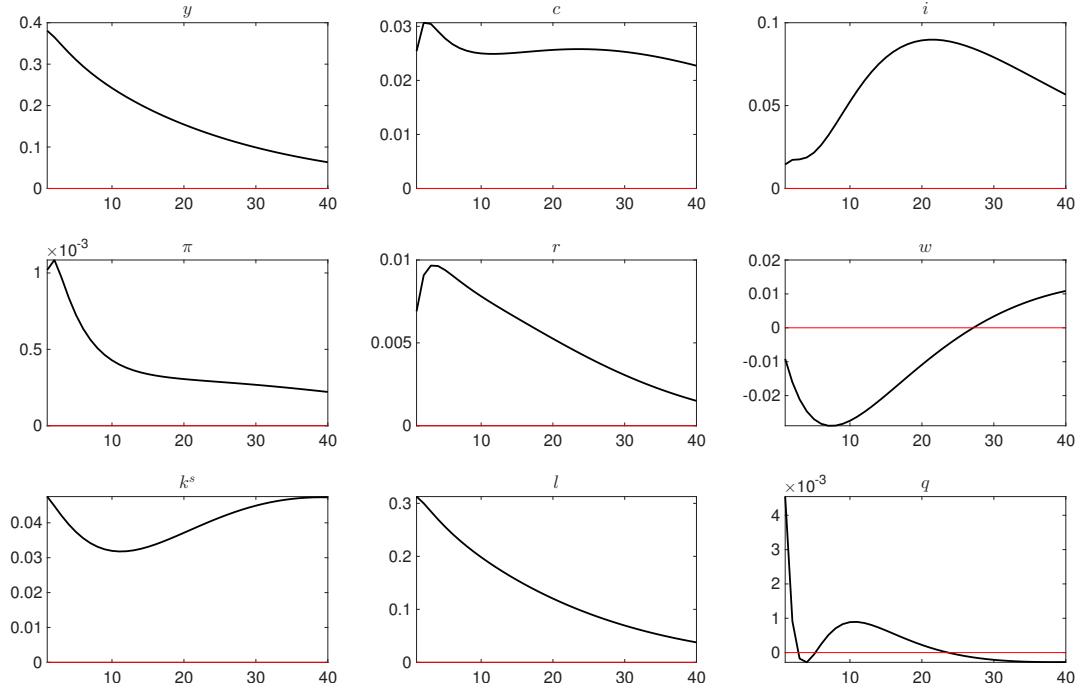


Figure 11: Impulse response functions (orthogonalized shock to η^g).

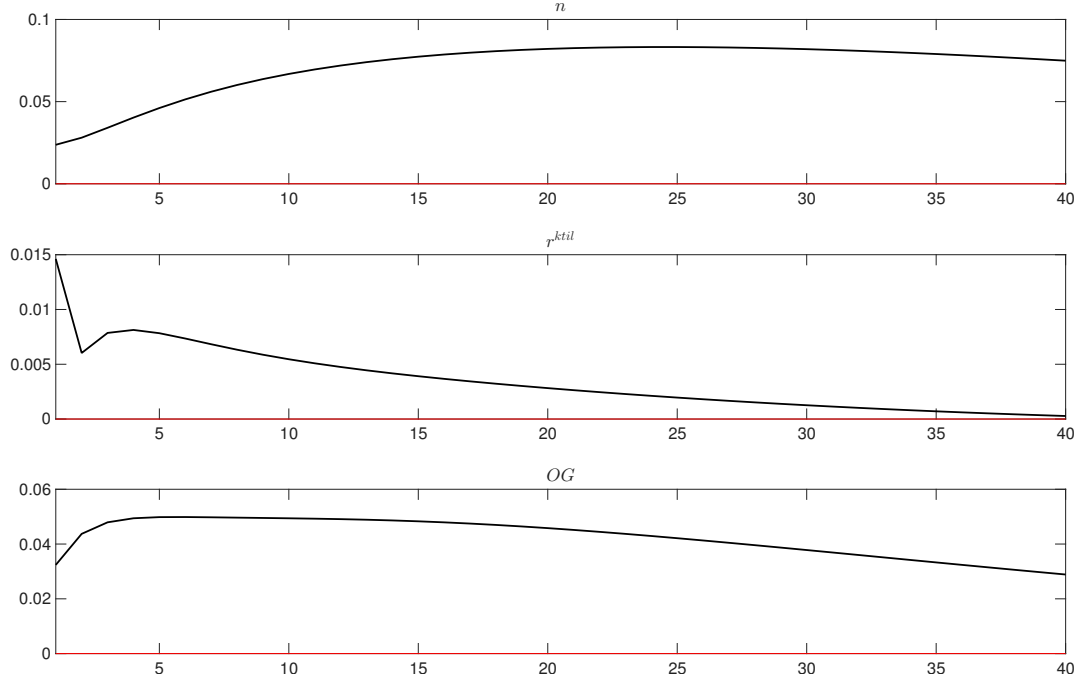


Figure 12: Impulse response functions (orthogonalized shock to η^g).

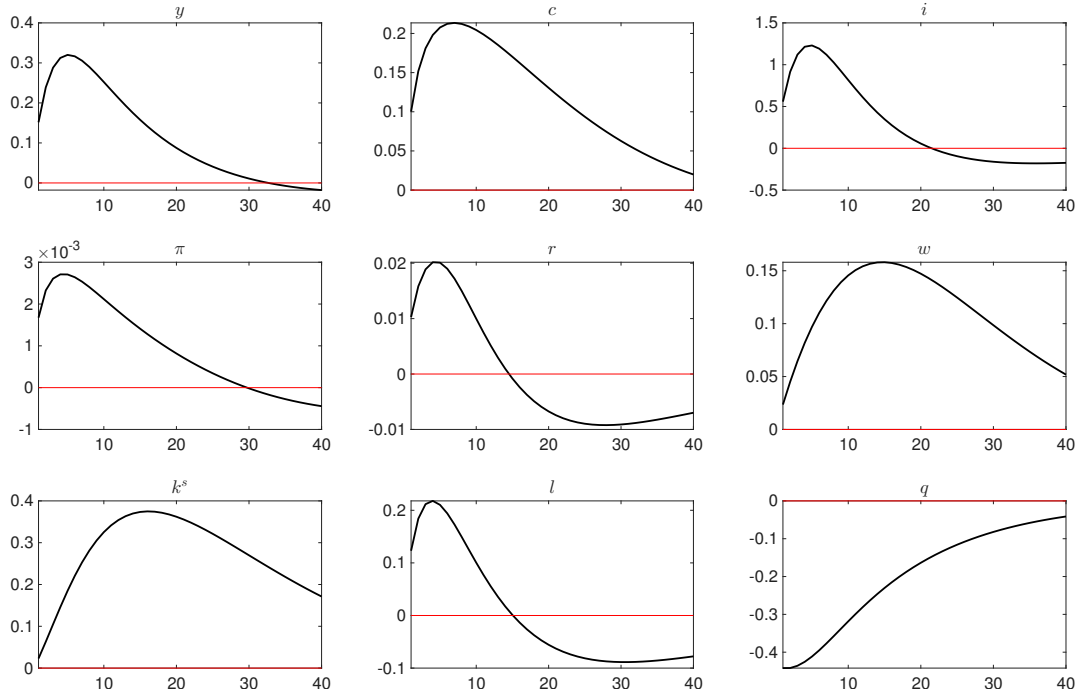


Figure 13: Impulse response functions (orthogonalized shock to η^i).

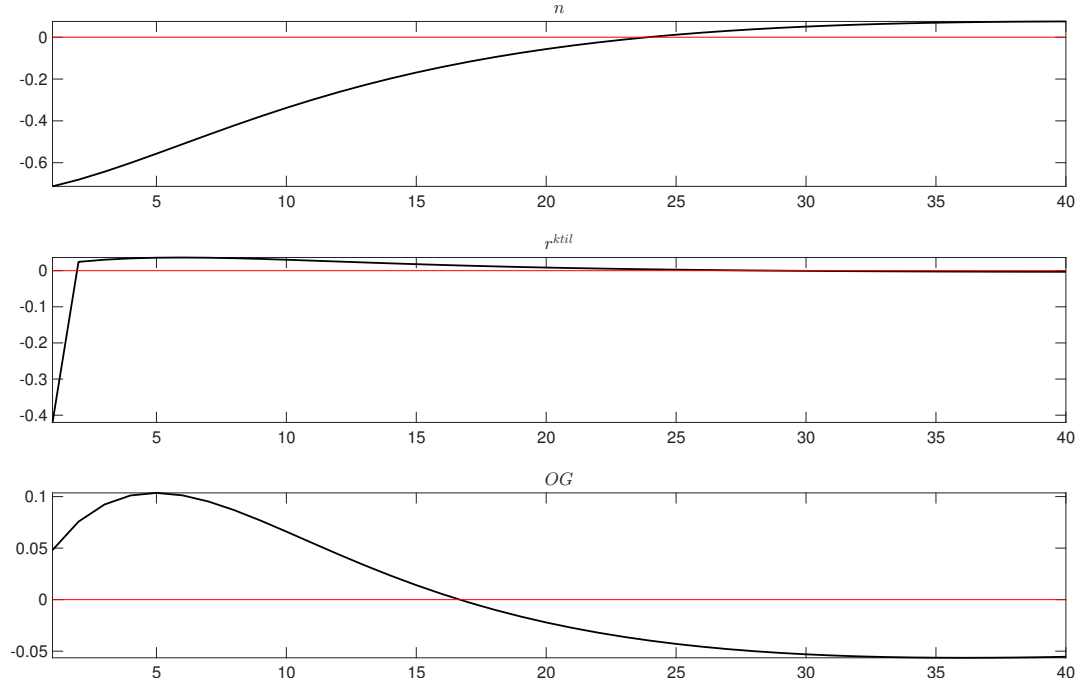


Figure 14: Impulse response functions (orthogonalized shock to η^i).

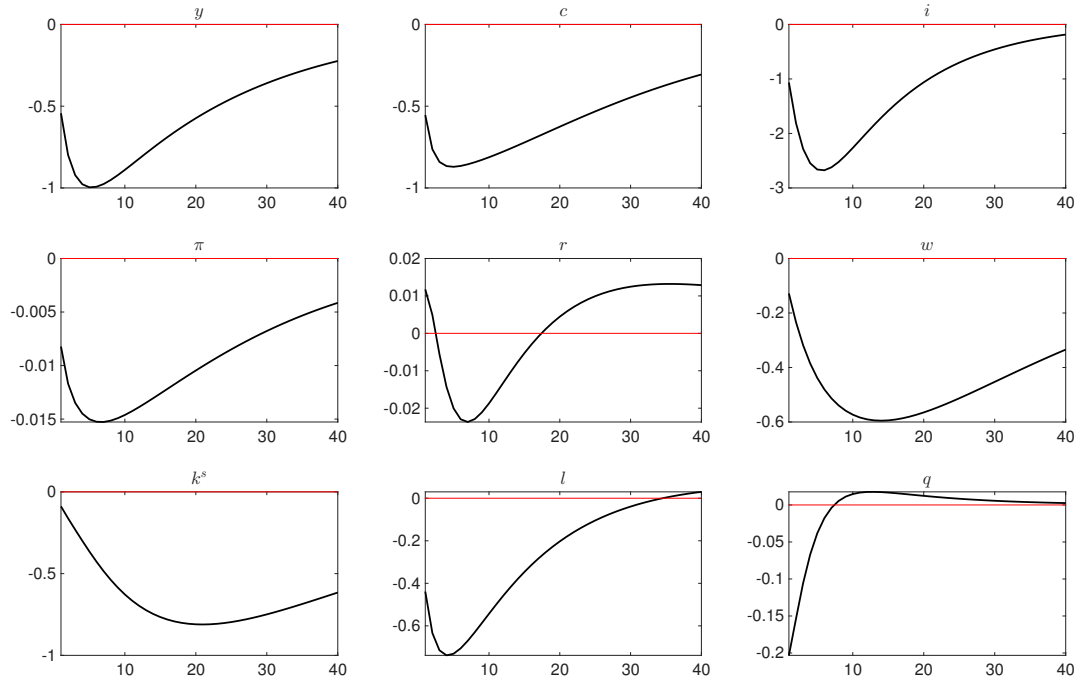


Figure 15: Impulse response functions (orthogonalized shock to η^m).

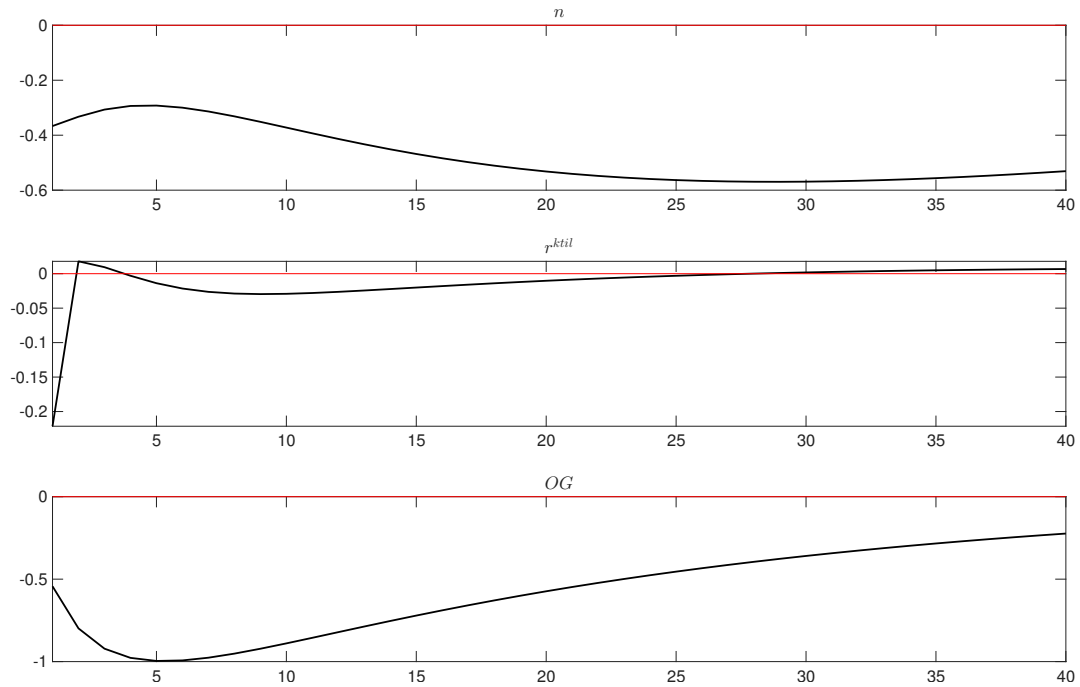


Figure 16: Impulse response functions (orthogonalized shock to η^m).

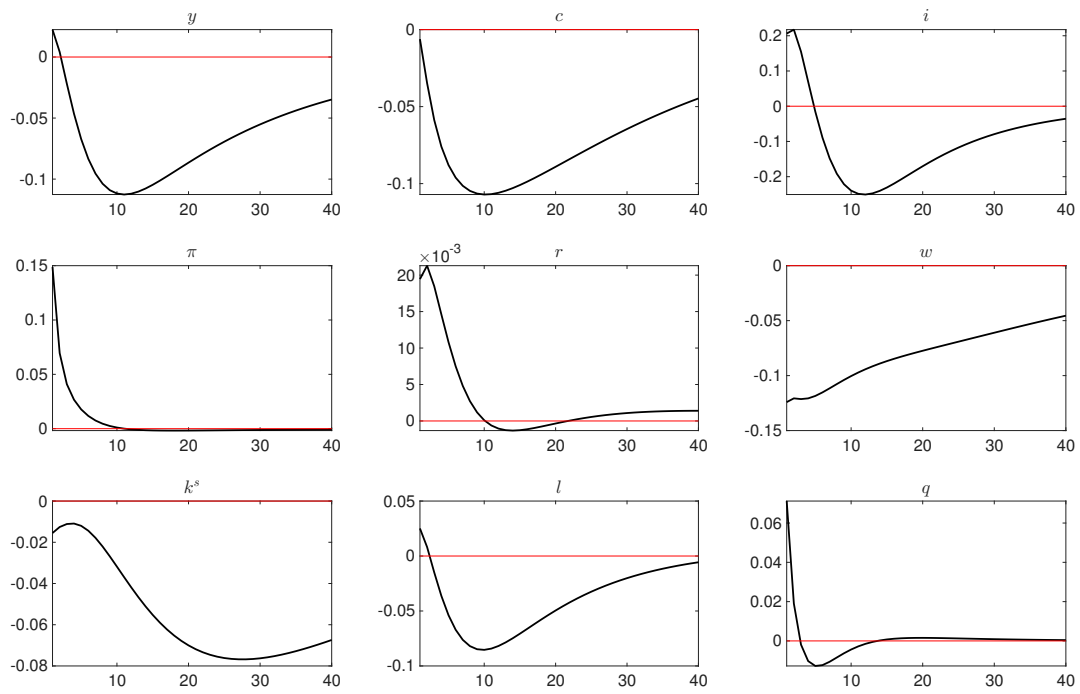


Figure 17: Impulse response functions (orthogonalized shock to η^p).

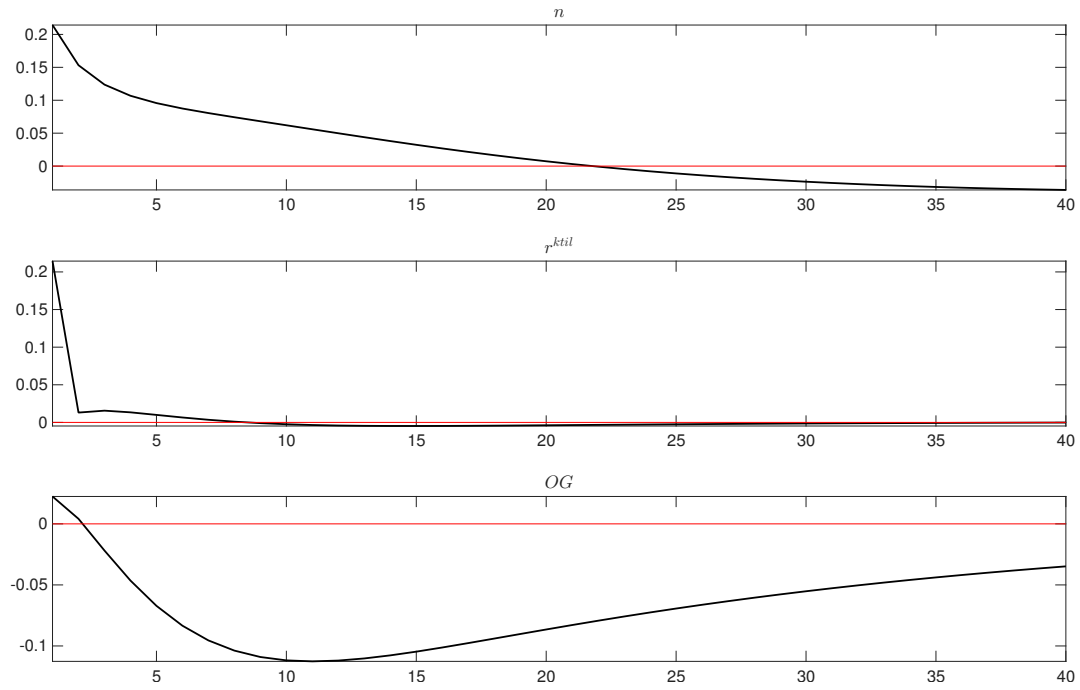


Figure 18: Impulse response functions (orthogonalized shock to η^p).

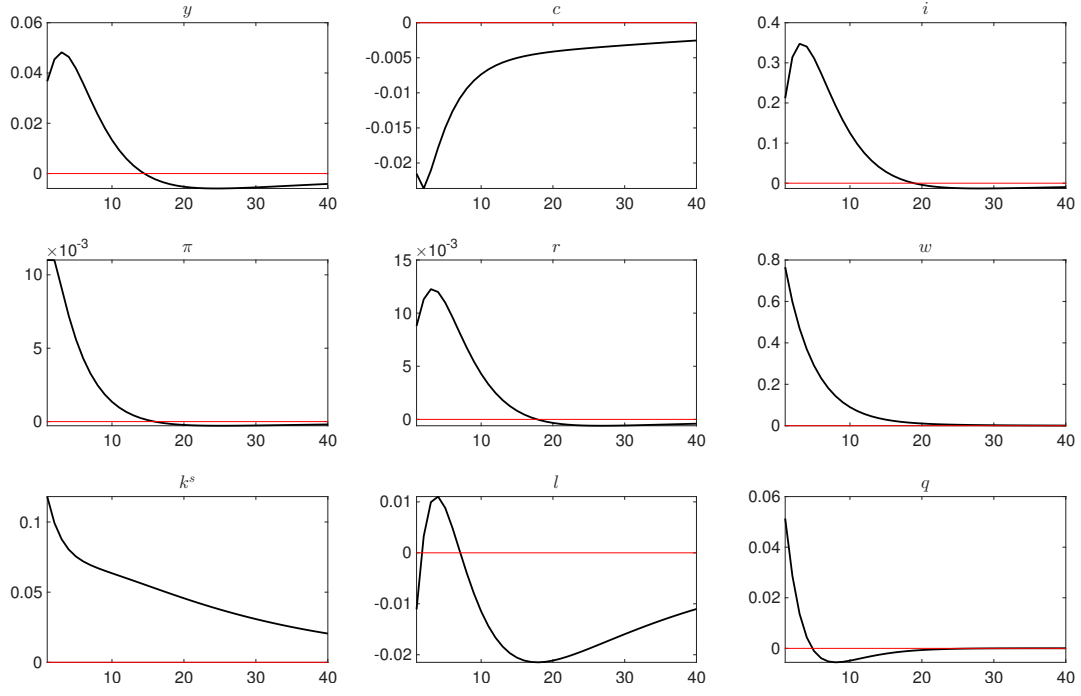


Figure 19: Impulse response functions (orthogonalized shock to η^w).

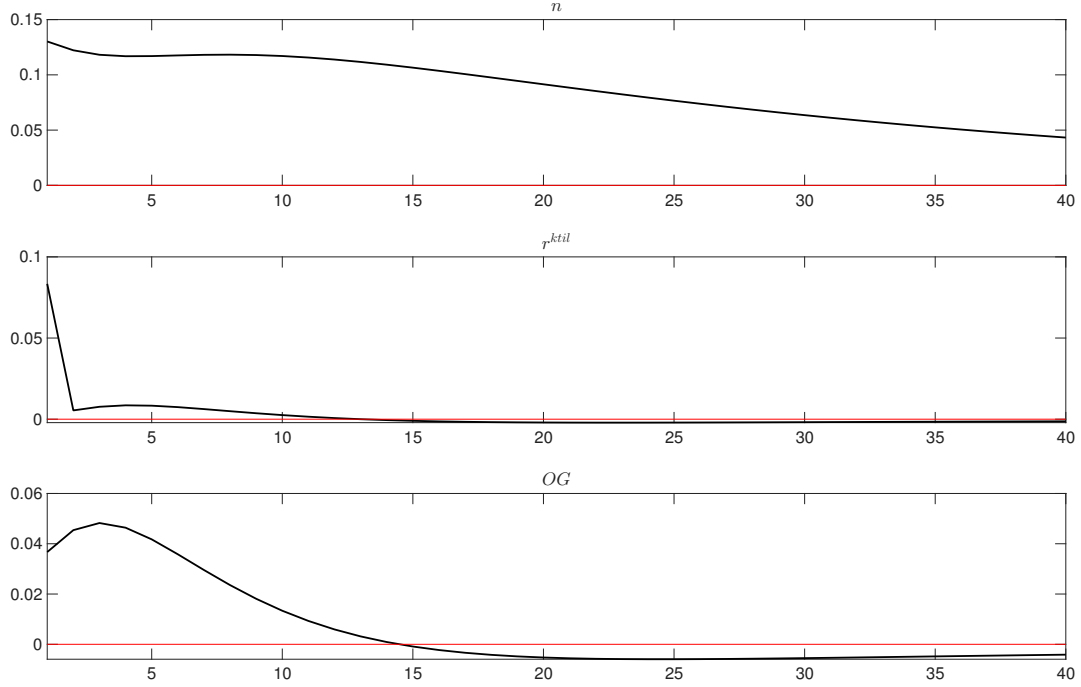


Figure 20: Impulse response functions (orthogonalized shock to η^w).

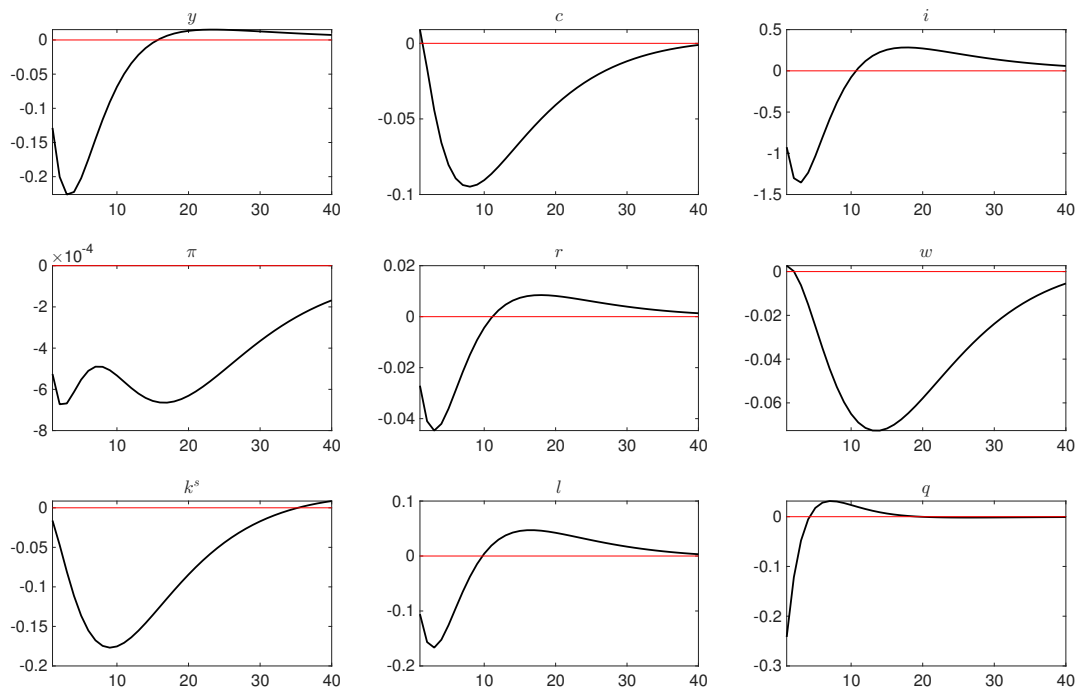


Figure 21: Impulse response functions (orthogonalized shock to η^{σ_w}).

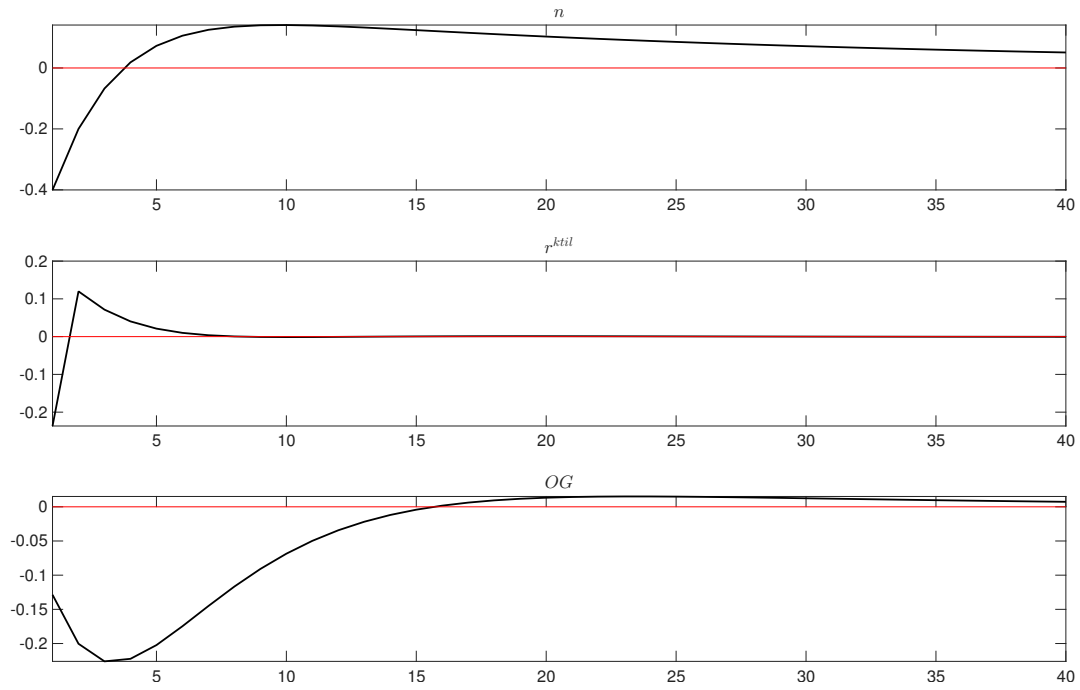


Figure 22: Impulse response functions (orthogonalized shock to η^{σ_w}).

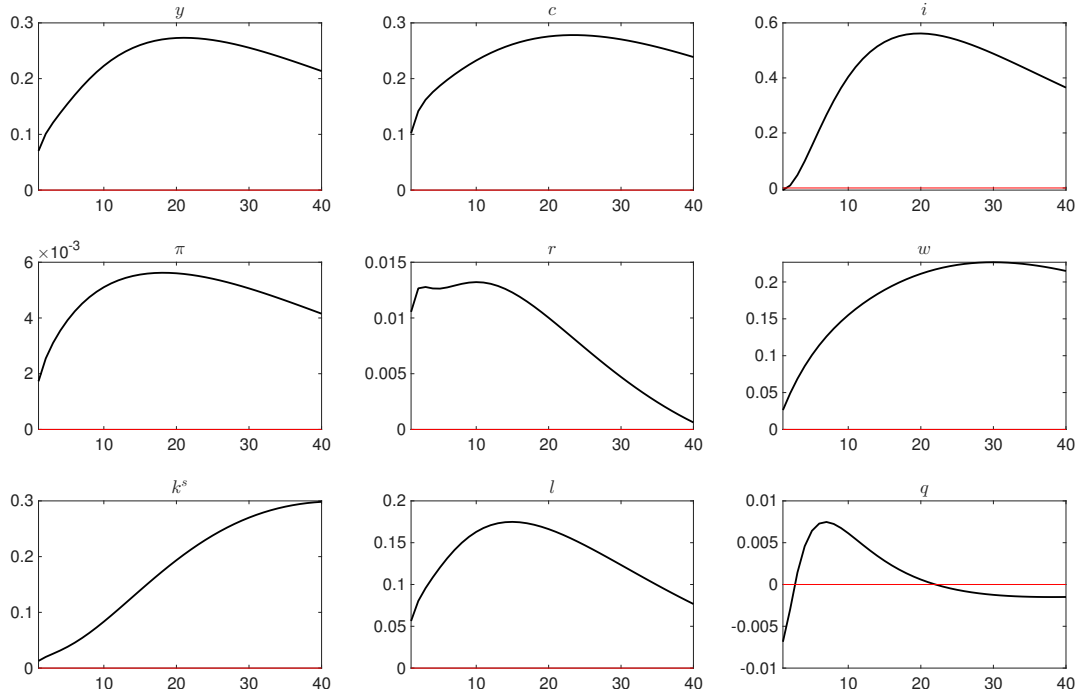


Figure 23: Impulse response functions (orthogonalized shock to $\eta^{\pi*}$).

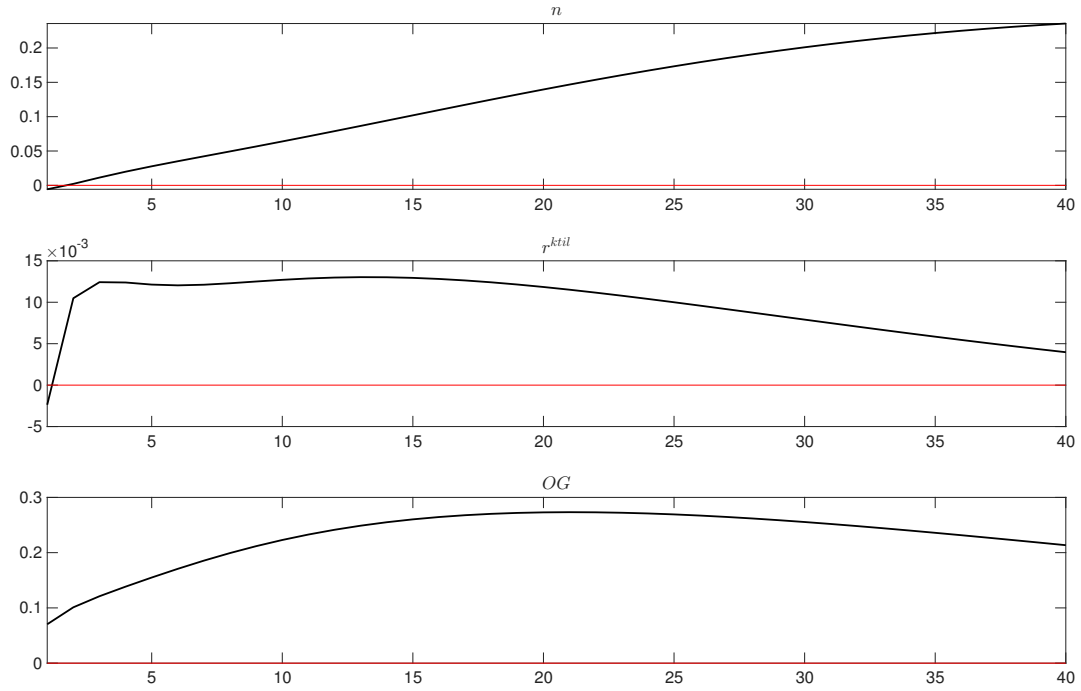


Figure 24: Impulse response functions (orthogonalized shock to $\eta^{\pi*}$).

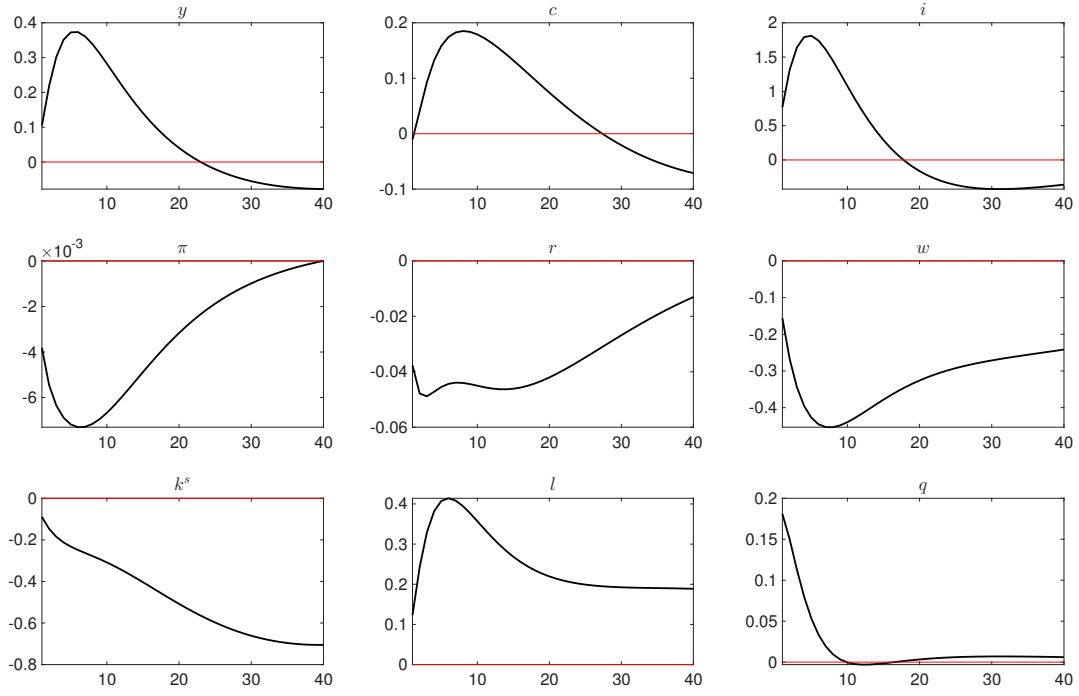


Figure 25: Impulse response functions (orthogonalized shock to η^{zp}).

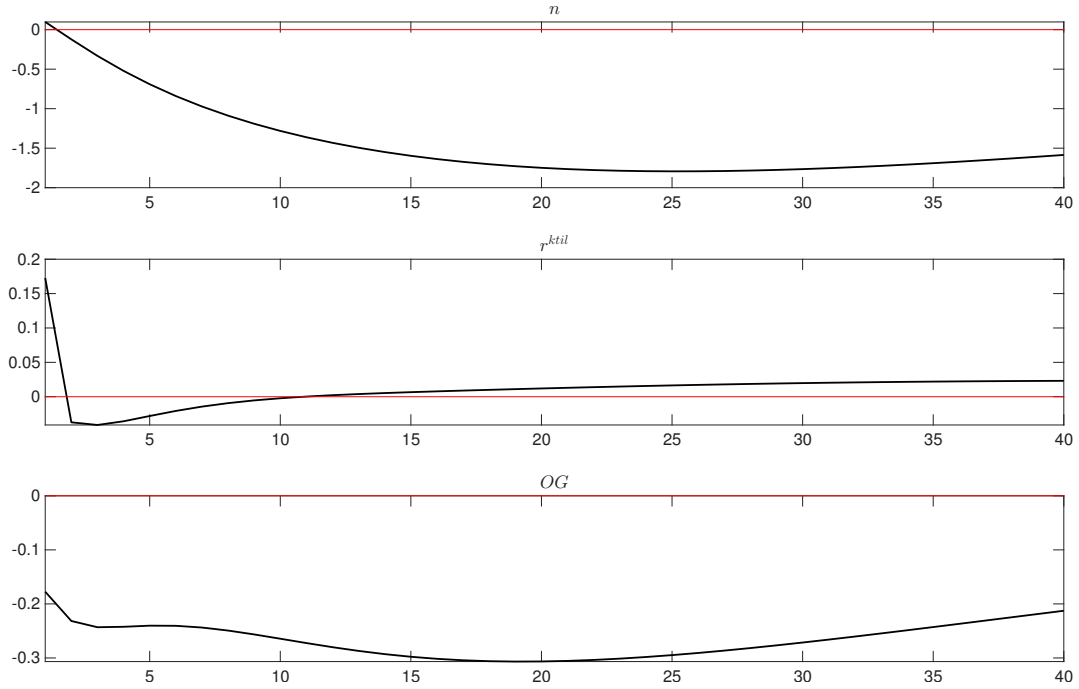


Figure 26: Impulse response functions (orthogonalized shock to η^{zp}).

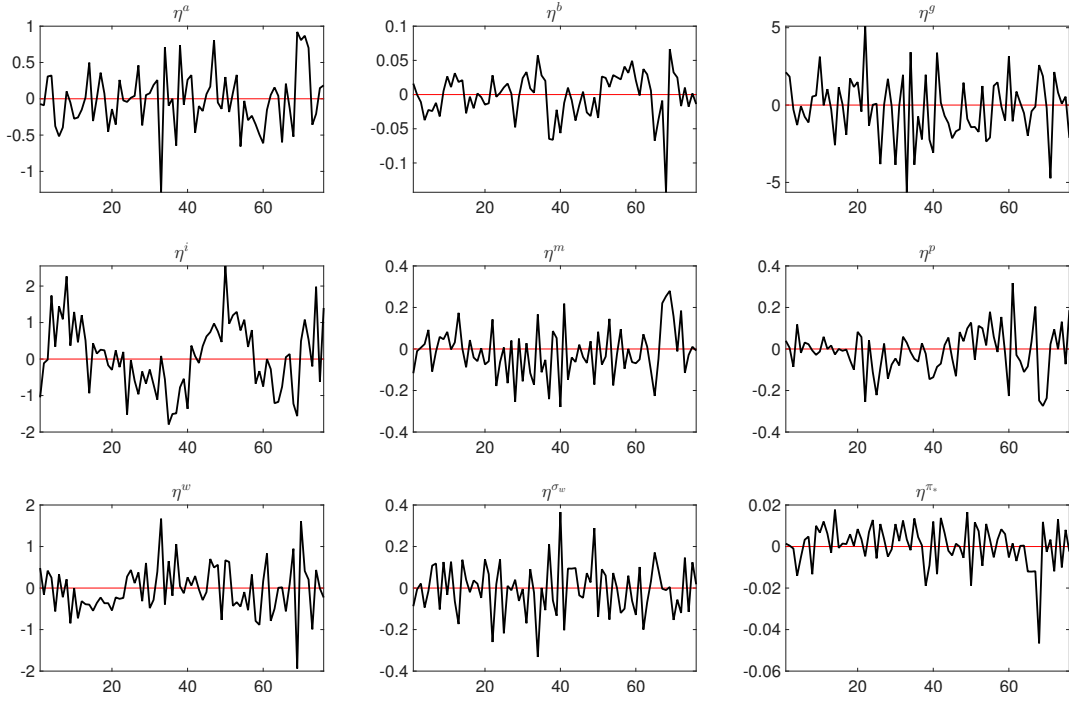


Figure 27: Smoothed shocks.

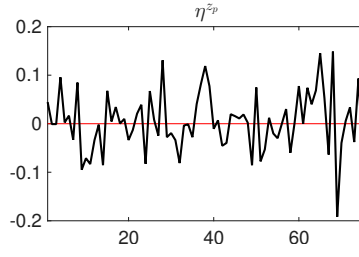


Figure 28: Smoothed shocks.