Table 1: Endogenous

Variable	LaTeX	Description
Hbstar	$Hbstar$	Hbstar
Fb	Fb	Fb
cu	cu	cu
rstar	$rstar$	rstar
r	r	r
rk	rk	rk
w	w	w
b	b	b
y	y	y
varpi	$varpi$	varpi
s	s	s
inv	inv	inv
invG	$invG$	invG
c	c	c
cw	cw	cw
cr	cr	cr
tauw	$tauw$	tauw
N	N	N
stoyw	$stoyw$	stoyw
PiF	PiF	PiF
Tw	Tw	Tw
hw	hw	hw
Dr	Dr	Dr
Dw	Dw	Dw
ep	ep	ep
varsig	$varsig$	varsig
zetar	$zetar$	zetar
zetay	$zetay$	zetay
gw	gw	gw
g	g	g
gE	gE	gE
iy	iy	iy
gpc	gpc	gpc
zz	zz	zz
far	far	far
faw	faw	faw
dr	dr	dr
dw	dw	dw
mu	mu	mu
k	k	k
u	u	u
del	del	del
delprime	$delprime$	delprime
gM	gM	gM

Table 1 – Continued

Variable	LATEX	Description
v	v	v
j	j	j
lam	lam	lam
gA	gA	gA
za	za	za
PiA	PiA	PiA
PiRD	$PiRD$	PiRD
fa	fa	fa
n	n	n
gn	gn	gn
gy	gy	gy
gamma	$gamma$	gamma
OMEGAY	$OMEGAY$	OMEGAY
fert	$fert$	fert
psi	psi	psi
tauwE	$tauwE$	tauwE
tauwA	$tauwA$	tauwA
ay	ay	ay
tpe	tpe	tpe
Pe	Pe	Pe
he	he	he
en	en	en
ey	ey	ey
er	er	er
shockn	$shockn$	shockn
shocky	$shocky$	shocky
shockr	$shockr$	shockr
shareW	$shareW$	shareW
shareR	$shareR$	shareR
shockR	$shockR$	shockR
AUX_ENDO_LAG_28_1	$AUX\_ENDO\_LAG\_28\_1$	AUX_ENDO_LAG_28_1
AUX_ENDO_LAG_39_1	$AUX\_ENDO\_LAG\_39\_1$	AUX_ENDO_LAG_39_1
AUX_ENDO_LAG_48_1	$AUX\_ENDO\_LAG\_48\_1$	AUX_ENDO_LAG_48_1
AUX_ENDO_LAG_68_1	$AUX\_ENDO\_LAG\_68\_1$	AUX_ENDO_LAG_68_1
AUX_ENDO_LAG_68_2	$AUX\_ENDO\_LAG\_68\_2$	AUX_ENDO_LAG_68_2
AUX_ENDO_LAG_68_3	$AUX\_ENDO\_LAG\_68\_3$	AUX_ENDO_LAG_68_3
AUX_ENDO_LAG_68_4	$AUX\_ENDO\_LAG\_68\_4$	AUX_ENDO_LAG_68_4
AUX_ENDO_LAG_68_5	$AUX\_ENDO\_LAG\_68\_5$	AUX_ENDO_LAG_68_5
AUX_ENDO_LAG_68_6	$AUX\_ENDO\_LAG\_68\_6$	AUX_ENDO_LAG_68_6
AUX_ENDO_LAG_68_7	$AUX\_ENDO\_LAG\_68\_7$	AUX_ENDO_LAG_68_7
AUX_ENDO_LAG_68_8	$AUX\_ENDO\_LAG\_68\_8$	AUX_ENDO_LAG_68_8
AUX_ENDO_LAG_68_9	$AUX\_ENDO\_LAG\_68\_9$	AUX_ENDO_LAG_68_9
AUX_ENDO_LAG_68_10	$AUX\_ENDO\_LAG\_68\_10$	AUX_ENDO_LAG_68_10
AUX_ENDO_LAG_68_11	$AUX\_ENDO\_LAG\_68\_11$	AUX_ENDO_LAG_68_11
AUX_ENDO_LAG_68_12	$AUX\_ENDO\_LAG\_68\_12$	AUX_ENDO_LAG_68_12

Table 1 – Continued

Variable	LaTeX	Description
AUX_ENDO_LAG_68_13	$AUX\_ENDO\_LAG\_68\_13$	AUX_ENDO_LAG_68_13
AUX_ENDO_LAG_68_14	$AUX\_ENDO\_LAG\_68\_14$	AUX_ENDO_LAG_68_14
AUX_ENDO_LAG_68_15	$AUX\_ENDO\_LAG\_68\_15$	AUX_ENDO_LAG_68_15
AUX_ENDO_LAG_68_16	$AUX\_ENDO\_LAG\_68\_16$	AUX_ENDO_LAG_68_16
AUX_ENDO_LAG_68_17	$AUX\_ENDO\_LAG\_68\_17$	AUX_ENDO_LAG_68_17
AUX_ENDO_LAG_68_18	$AUX\_ENDO\_LAG\_68\_18$	AUX_ENDO_LAG_68_18
AUX_ENDO_LAG_68_19	$AUX\_ENDO\_LAG\_68\_19$	AUX_ENDO_LAG_68_19
AUX_ENDO_LAG_68_20	$AUX\_ENDO\_LAG\_68\_20$	AUX_ENDO_LAG_68_20
AUX_ENDO_LAG_68_21	$AUX\_ENDO\_LAG\_68\_21$	AUX_ENDO_LAG_68_21
AUX_ENDO_LAG_68_22	$AUX\_ENDO\_LAG\_68\_22$	AUX_ENDO_LAG_68_22
AUX_ENDO_LAG_68_23	$AUX\_ENDO\_LAG\_68\_23$	AUX_ENDO_LAG_68_23
AUX_ENDO_LAG_68_24	$AUX\_ENDO\_LAG\_68\_24$	AUX_ENDO_LAG_68_24
AUX_ENDO_LAG_68_25	$AUX\_ENDO\_LAG\_68\_25$	AUX_ENDO_LAG_68_25
AUX_ENDO_LAG_68_26	$AUX\_ENDO\_LAG\_68\_26$	AUX_ENDO_LAG_68_26
AUX_ENDO_LAG_68_27	$AUX\_ENDO\_LAG\_68\_27$	AUX_ENDO_LAG_68_27
AUX_ENDO_LAG_68_28	$AUX\_ENDO\_LAG\_68\_28$	AUX_ENDO_LAG_68_28
AUX_ENDO_LAG_68_29	$AUX\_ENDO\_LAG\_68\_29$	AUX_ENDO_LAG_68_29
AUX_ENDO_LAG_68_30	$AUX\_ENDO\_LAG\_68\_30$	AUX_ENDO_LAG_68_30
AUX_ENDO_LAG_68_31	$AUX\_ENDO\_LAG\_68\_31$	AUX_ENDO_LAG_68_31
AUX_ENDO_LAG_68_32	$AUX\_ENDO\_LAG\_68\_32$	AUX_ENDO_LAG_68_32
AUX_ENDO_LAG_68_33	$AUX\_ENDO\_LAG\_68\_33$	AUX_ENDO_LAG_68_33
AUX_ENDO_LAG_68_34	$AUX\_ENDO\_LAG\_68\_34$	AUX_ENDO_LAG_68_34
AUX_ENDO_LAG_68_35	$AUX\_ENDO\_LAG\_68\_35$	AUX_ENDO_LAG_68_35
AUX_ENDO_LAG_68_36	$AUX\_ENDO\_LAG\_68\_36$	AUX_ENDO_LAG_68_36
AUX_ENDO_LAG_68_37	$AUX\_ENDO\_LAG\_68\_37$	AUX_ENDO_LAG_68_37
AUX_ENDO_LAG_68_38	$AUX\_ENDO\_LAG\_68\_38$	AUX_ENDO_LAG_68_38
AUX_EXO_LAG_74_0	$AUX\_EXO\_LAG\_74\_0$	AUX_EXO_LAG_74_0
AUX_EXO_LAG_74_1	$AUX\_EXO\_LAG\_74\_1$	AUX_EXO_LAG_74_1
AUX_EXO_LAG_74_2	$AUX\_EXO\_LAG\_74\_2$	AUX_EXO_LAG_74_2
AUX_EXO_LAG_74_3	$AUX\_EXO\_LAG\_74\_3$	AUX_EXO_LAG_74_3
AUX_EXO_LAG_74_4	$AUX\_EXO\_LAG\_74\_4$	AUX_EXO_LAG_74_4
AUX_EXO_LAG_74_5	$AUX\_EXO\_LAG\_74\_5$	AUX_EXO_LAG_74_5
AUX_EXO_LAG_74_6	$AUX\_EXO\_LAG\_74\_6$	AUX_EXO_LAG_74_6
AUX_EXO_LAG_74_7	$AUX\_EXO\_LAG\_74\_7$	AUX_EXO_LAG_74_7
AUX_EXO_LAG_74_8	$AUX\_EXO\_LAG\_74\_8$	AUX_EXO_LAG_74_8
AUX_EXO_LAG_74_9	$AUX\_EXO\_LAG\_74\_9$	AUX_EXO_LAG_74_9
AUX_EXO_LAG_74_10	$AUX\_EXO\_LAG\_74\_10$	AUX_EXO_LAG_74_10
AUX_EXO_LAG_74_11	$AUX\_EXO\_LAG\_74\_11$	AUX_EXO_LAG_74_11
AUX_EXO_LAG_74_12	$AUX\_EXO\_LAG\_74\_12$	AUX_EXO_LAG_74_12
AUX_EXO_LAG_74_13	$AUX\_EXO\_LAG\_74\_13$	AUX_EXO_LAG_74_13
AUX_EXO_LAG_74_14	$AUX\_EXO\_LAG\_74\_14$	AUX_EXO_LAG_74_14
AUX_EXO_LAG_74_15	$AUX\_EXO\_LAG\_74\_15$	AUX_EXO_LAG_74_15
AUX_EXO_LAG_74_16	$AUX\_EXO\_LAG\_74\_16$	AUX_EXO_LAG_74_16
AUX_EXO_LAG_74_17	$AUX\_EXO\_LAG\_74\_17$	AUX_EXO_LAG_74_17
AUX_EXO_LAG_74_18	$AUX\_EXO\_LAG\_74\_18$	AUX_EXO_LAG_74_18

Table 1 – Continued

Variable	LaTeX	Description
AUX_EXO_LAG_74_19	$AUX\_EXO\_LAG\_74\_19$	AUX_EXO_LAG_74_19
AUX_EXO_LAG_74_20	$AUX\_EXO\_LAG\_74\_20$	AUX_EXO_LAG_74_20
AUX_EXO_LAG_74_21	$AUX\_EXO\_LAG\_74\_21$	AUX_EXO_LAG_74_21
AUX_EXO_LAG_74_22	$AUX\_EXO\_LAG\_74\_22$	AUX_EXO_LAG_74_22
AUX_EXO_LAG_74_23	$AUX\_EXO\_LAG\_74\_23$	AUX_EXO_LAG_74_23
AUX_EXO_LAG_74_24	$AUX\_EXO\_LAG\_74\_24$	AUX_EXO_LAG_74_24
AUX_EXO_LAG_74_25	$AUX\_EXO\_LAG\_74\_25$	AUX_EXO_LAG_74_25
AUX_EXO_LAG_74_26	$AUX\_EXO\_LAG\_74\_26$	AUX_EXO_LAG_74_26
AUX_EXO_LAG_74_27	$AUX\_EXO\_LAG\_74\_27$	AUX_EXO_LAG_74_27
AUX_EXO_LAG_74_28	$AUX\_EXO\_LAG\_74\_28$	AUX_EXO_LAG_74_28
AUX_EXO_LAG_74_29	$AUX\_EXO\_LAG\_74\_29$	AUX_EXO_LAG_74_29
AUX_EXO_LAG_74_30	$AUX\_EXO\_LAG\_74\_30$	AUX_EXO_LAG_74_30
AUX_EXO_LAG_74_31	$AUX\_EXO\_LAG\_74\_31$	AUX_EXO_LAG_74_31
AUX_EXO_LAG_74_32	$AUX\_EXO\_LAG\_74\_32$	AUX_EXO_LAG_74_32
AUX_EXO_LAG_74_33	$AUX\_EXO\_LAG\_74\_33$	AUX_EXO_LAG_74_33
AUX_EXO_LAG_74_34	$AUX\_EXO\_LAG\_74\_34$	AUX_EXO_LAG_74_34
AUX_EXO_LAG_74_35	$AUX\_EXO\_LAG\_74\_35$	AUX_EXO_LAG_74_35
AUX_EXO_LAG_74_36	$AUX\_EXO\_LAG\_74\_36$	AUX_EXO_LAG_74_36
AUX_EXO_LAG_74_37	$AUX\_EXO\_LAG\_74\_37$	AUX_EXO_LAG_74_37
AUX_EXO_LAG_74_38	$AUX\_EXO\_LAG\_74\_38$	AUX_EXO_LAG_74_38

Table 2: Exogenous

Variable	LaTeX	Description
delall	$delall$	delall

Table 3: Parameters

Variable	LaTeX	Description
R_SS	R_SS	R_SS
ZETAYSS	$ZETAYSS$	ZETAYSS
ZETARSS	$ZETARSS$	ZETARSS
SHINNOVW	$SHINNOVW$	SHINNOVW
YINNOVSH	$YINNOVSH$	YINNOVSH
ETAR	$ETAR$	ETAR
DELTAHE	$DELTAHE$	DELTAHE
NP	NP	NP
FERTSS	$FERTSS$	FERTSS
RHOYW	$RHOYW$	RHOYW
LAMY	$LAMY$	LAMY

Table 3 – Continued

Variable	LaTeX	Description
PSISS	$PSISS$	PSISS
GSS	GSS	GSS
PERS	$PERS$	PERS
RATIODEL	$RATIODEL$	RATIODEL
OMEGAR	$OMEGAR$	OMEGAR
RHOU	$RHOU$	RHOU
BBETA	$BBETA$	BBETA
ALPHA	$ALPHA$	ALPHA
GAMMAI	$GAMMAI$	GAMMAI
VARNU	$VARNU$	VARNU
BMEGA	$BMEGA$	BMEGA
CHI	CHI	CHI
RHO	RHO	RHO
PHI	PHI	PHI
ELASMU	$ELASMU$	ELASMU
ELASLAM	$ELASLAM$	ELASLAM
DELPRIMESS	$DELPRIMESS$	DELPRIMESS
DELSS	$DELSS$	DELSS
MUSS	$MUSS$	MUSS
LAMSS	$LAMSS$	LAMSS
USS	USS	USS
VARPISS	$VARPISS$	VARPISS
ZASS	$ZASS$	ZASS
KSS	KSS	KSS
NSS	NSS	NSS
GAMMASS	$GAMMASS$	GAMMASS
RHOE	$RHOE$	RHOE
CHIE	$CHIE$	CHIE
drs_1	drs_1	drs_1
drs_2	drs_2	drs_2
drs_3	drs_3	drs_3
drs_4	drs_4	drs_4
drs_5	drs_5	drs_5
drs_6	drs_6	drs_6
drs_7	drs_7	drs_7
drs_8	drs_8	drs_8
drs_9	drs_9	drs_9
drs_10	drs_10	drs_10
drs_11	drs_11	drs_11
drs_12	drs_12	drs_12
drs_13	drs_13	drs_13
drs_14	drs_14	drs_14
drs_15	drs_15	drs_15
drs_16	drs_16	drs_16
drs_17	drs_17	drs_17

Table 3 – Continued

Variable	LᴬTEX	Description
drs_18	drs_18	drs_18
drs_19	drs_19	drs_19
drs_20	drs_20	drs_20
drs_21	drs_21	drs_21
drs_22	drs_22	drs_22
drs_23	drs_23	drs_23
drs_24	drs_24	drs_24
drs_25	drs_25	drs_25
drs_26	drs_26	drs_26
drs_27	drs_27	drs_27
drs_28	drs_28	drs_28
drs_29	drs_29	drs_29
drs_30	drs_30	drs_30
drs_31	drs_31	drs_31
drs_32	drs_32	drs_32
drs_33	drs_33	drs_33
drs_34	drs_34	drs_34
drs_35	drs_35	drs_35
drs_36	drs_36	drs_36
drs_37	drs_37	drs_37
drs_38	drs_38	drs_38
drs_39	drs_39	drs_39
drs_40	drs_40	drs_40
dws_1	dws_1	dws_1
dws_2	dws_2	dws_2
dws_3	dws_3	dws_3
dws_4	dws_4	dws_4
dws_5	dws_5	dws_5
dws_6	dws_6	dws_6
dws_7	dws_7	dws_7
dws_8	dws_8	dws_8
dws_9	dws_9	dws_9
dws_10	dws_10	dws_10
dws_11	dws_11	dws_11
dws_12	dws_12	dws_12
dws_13	dws_13	dws_13
dws_14	dws_14	dws_14
dws_15	dws_15	dws_15
dws_16	dws_16	dws_16
dws_17	dws_17	dws_17
dws_18	dws_18	dws_18
dws_19	dws_19	dws_19
dws_20	dws_20	dws_20
dws_21	dws_21	dws_21
dws_22	dws_22	dws_22

Table 3 – Continued

Variable	LaTeX	Description
dws_23	dws_23	dws_23
dws_24	dws_24	dws_24
dws_25	dws_25	dws_25
dws_26	dws_26	dws_26
dws_27	dws_27	dws_27
dws_28	dws_28	dws_28
dws_29	dws_29	dws_29
dws_30	dws_30	dws_30
dws_31	dws_31	dws_31
dws_32	dws_32	dws_32
dws_33	dws_33	dws_33
dws_34	dws_34	dws_34
dws_35	dws_35	dws_35
dws_36	dws_36	dws_36
dws_37	dws_37	dws_37
dws_38	dws_38	dws_38
dws_39	dws_39	dws_39
dws_40	dws_40	dws_40
gn_1	gn_1	gn_1
gn_2	gn_2	gn_2
gn_3	gn_3	gn_3
gn_4	gn_4	gn_4
gn_5	gn_5	gn_5
gn_6	gn_6	gn_6
gn_7	gn_7	gn_7
gn_8	gn_8	gn_8
gn_9	gn_9	gn_9
gn_10	gn_10	gn_10
gn_11	gn_11	gn_11
gn_12	gn_12	gn_12
gn_13	gn_13	gn_13
gn_14	gn_14	gn_14
gn_15	gn_15	gn_15
gn_16	gn_16	gn_16
gn_17	gn_17	gn_17
gn_18	gn_18	gn_18
gn_19	gn_19	gn_19
gn_20	gn_20	gn_20
gn_21	gn_21	gn_21
gn_22	gn_22	gn_22
gn_23	gn_23	gn_23
gn_24	gn_24	gn_24
gn_25	gn_25	gn_25
gn_26	gn_26	gn_26
gn_27	gn_27	gn_27

Table 3 – Continued

Variable	LaTeX	Description
gn_28	gn_28	gn_28
gn_29	gn_29	gn_29
gn_30	gn_30	gn_30
gn_31	gn_31	gn_31
gn_32	gn_32	gn_32
gn_33	gn_33	gn_33
gn_34	gn_34	gn_34
gn_35	gn_35	gn_35
gn_36	gn_36	gn_36
gn_37	gn_37	gn_37
gn_38	gn_38	gn_38
gn_39	gn_39	gn_39
gn_40	gn_40	gn_40
Rh_1	Rh_1	Rh_1
Rh_2	Rh_2	Rh_2
Rh_3	Rh_3	Rh_3
Rh_4	Rh_4	Rh_4
Rh_5	Rh_5	Rh_5
Rh_6	Rh_6	Rh_6
Rh_7	Rh_7	Rh_7
Rh_8	Rh_8	Rh_8
Rh_9	Rh_9	Rh_9
Rh_10	Rh_10	Rh_10
Rh_11	Rh_11	Rh_11
Rh_12	Rh_12	Rh_12
Rh_13	Rh_13	Rh_13
Rh_14	Rh_14	Rh_14
Rh_15	Rh_15	Rh_15
Rh_16	Rh_16	Rh_16
Rh_17	Rh_17	Rh_17
Rh_18	Rh_18	Rh_18
Rh_19	Rh_19	Rh_19
Rh_20	Rh_20	Rh_20
Rh_21	Rh_21	Rh_21
Rh_22	Rh_22	Rh_22
Rh_23	Rh_23	Rh_23
Rh_24	Rh_24	Rh_24
Rh_25	Rh_25	Rh_25
Rh_26	Rh_26	Rh_26
Rh_27	Rh_27	Rh_27
Rh_28	Rh_28	Rh_28
Rh_29	Rh_29	Rh_29
Rh_30	Rh_30	Rh_30
Rh_31	Rh_31	Rh_31
Rh_32	Rh_32	Rh_32

Table 3 – Continued

Variable	LaTeX	Description
Rh_33	Rh_33	Rh_33
Rh_34	Rh_34	Rh_34
Rh_35	Rh_35	Rh_35
Rh_36	Rh_36	Rh_36
Rh_37	Rh_37	Rh_37
Rh_38	Rh_38	Rh_38
Rh_39	Rh_39	Rh_39
Rh_40	Rh_40	Rh_40

Table 4: Parameter Values

Parameter	Value
R_SS	1.154
$ZETAYSS$	0.700
$ZETARSS$	0.227
$SHINNOVW$	0.010
$YINNOVSH$	0.035
$ETAR$	0.400
$DELTAHE$	0.100
NP	25.000
$FERTSS$	0.060
$RHOYW$	0.457
$LAMY$	0.048
$PSISS$	0.720
GSS	1.039
$PERS$	0.900
$RATIODEL$	0.333
$OMEGAR$	0.975
$RHOU$	-3.000
$BBETA$	0.960
$ALPHA$	0.333
$GAMMAI$	0.500
$VARNU$	1.667
$BMEGA$	0.126
CHI	51.307
RHO	0.900
PHI	0.850
$ELASMU$	-1.000
$ELASLAM$	0.811
$DELPRIMESS$	0.293
$DELSS$	0.080
$MUSS$	1.100
$LAMSS$	0.100
USS	0.800
$VARPISS$	0.125
$ZASS$	3.037
KSS	0.671
NSS	1.010
$GAMMASS$	0.900
$RHOE$	0.900
$CHIE$	1714.688
drs_1	0.011
drs_2	0.011
drs_3	0.012
drs_4	0.013

Table 4 – Continued

Parameter	Value
drs_5	0.012
drs_6	0.013
drs_7	0.013
drs_8	0.012
drs_9	0.013
drs_10	0.011
drs_11	0.012
drs_12	0.011
drs_13	0.012
drs_14	0.012
drs_15	0.014
drs_16	0.015
drs_17	0.015
drs_18	0.014
drs_19	0.015
drs_20	0.015
drs_21	0.014
drs_22	0.014
drs_23	0.011
drs_24	0.012
drs_25	0.010
drs_26	0.013
drs_27	0.012
drs_28	0.012
drs_29	0.011
drs_30	0.011
drs_31	0.008
drs_32	0.009
drs_33	0.008
drs_34	0.007
drs_35	0.007
drs_36	0.006
drs_37	0.006
drs_38	0.007
drs_39	0.007
drs_40	0.007
dws_1	-0.003
dws_2	-0.002
dws_3	-0.004
dws_4	-0.005
dws_5	-0.005
dws_6	-0.007
dws_7	-0.009
dws_8	-0.006

Table 4 – Continued

Parameter	Value
dws_9	-0.007
dws_10	-0.005
dws_11	-0.006
dws_12	-0.006
dws_13	-0.006
dws_14	-0.006
dws_15	-0.008
dws_16	-0.007
dws_17	-0.008
dws_18	-0.008
dws_19	-0.008
dws_20	-0.008
dws_21	-0.007
dws_22	-0.007
dws_23	-0.007
dws_24	-0.007
dws_25	-0.007
dws_26	-0.009
dws_27	-0.008
dws_28	-0.008
dws_29	-0.006
dws_30	-0.005
dws_31	-0.003
dws_32	-0.003
dws_33	-0.002
dws_34	-0.001
dws_35	-0.002
dws_36	-0.002
dws_37	-0.002
dws_38	-0.003
dws_39	-0.004
dws_40	-0.004
gn_1	1.008
gn_2	1.005
gn_3	1.004
gn_4	1.005
gn_5	1.005
gn_6	1.006
gn_7	1.006
gn_8	1.006
gn_9	1.006
gn_10	1.006
gn_11	1.006
gn_12	1.005

Table 4 – Continued

Parameter	Value
gn_13	1.005
gn_14	1.005
gn_15	1.005
gn_16	1.005
gn_17	1.005
gn_18	1.004
gn_19	1.004
gn_20	1.003
gn_21	1.003
gn_22	1.003
gn_23	1.002
gn_24	1.002
gn_25	1.001
gn_26	1.001
gn_27	1.001
gn_28	1.000
gn_29	1.000
gn_30	0.999
gn_31	0.999
gn_32	0.998
gn_33	0.997
gn_34	0.997
gn_35	0.996
gn_36	0.996
gn_37	0.996
gn_38	0.995
gn_39	0.995
gn_40	0.995
Rh_1	-0.001
Rh_2	-0.002
Rh_3	-0.002
Rh_4	-0.003
Rh_5	-0.003
Rh_6	-0.004
Rh_7	-0.004
Rh_8	-0.004
Rh_9	-0.004
Rh_10	-0.005
Rh_11	-0.005
Rh_12	-0.006
Rh_13	-0.006
Rh_14	-0.006
Rh_15	-0.007
Rh_16	-0.007

Table 4 – Continued

Parameter	Value
Rh_17	-0.008
Rh_18	-0.008
Rh_19	-0.009
Rh_20	-0.010
Rh_21	-0.010
Rh_22	-0.011
Rh_23	-0.011
Rh_24	-0.012
Rh_25	-0.012
Rh_26	-0.013
Rh_27	-0.014
Rh_28	-0.014
Rh_29	-0.015
Rh_30	-0.015
Rh_31	-0.016
Rh_32	-0.016
Rh_33	-0.017
Rh_34	-0.017
Rh_35	-0.018
Rh_36	-0.018
Rh_37	-0.019
Rh_38	-0.019
Rh_39	-0.020
Rh_40	-0.020

$$hw_t = w_t + \frac{OMEGAR}{r_t \, zz_t} \frac{g_{t+1}}{gw_t} \, hw_{t+1} \tag{1}$$

$$Tw_t = tauw_t + \frac{OMEGAR}{r_t \, zz_t} \frac{g_{t+1}}{gw_t} \, Tw_{t+1} \tag{2}$$

$$Dr_t = dr_t + \frac{g_{t+1} \, Dr_{t+1} \, gamma_t \, zetar_{t-1}}{gw_t \, r_t \, zetar_t} \tag{3}$$

$$ay_t = \frac{1}{NP} \, w_{t-1} \, (1 - OMEGAR) + \frac{\left(1 - \frac{1}{NP}\right) \, ay_{t-1} \, AUX\_ENDO\_LAG\_28\_1_{t-1}}{g_t} \tag{4}$$

$$tpe_t = ay_t \, ETAR + gamma_{t-1} \, \frac{gE_{t-1}}{g_t} \, tpe_{t-1} \tag{5}$$

$$Pe_t = tpe_t + \frac{zetar_{t-1} \, g_{t+1} \, gamma_t \, Pe_{t+1}}{gw_t \, r_t \, zetar_t} \tag{6}$$

$$Dw_t = dw_t + \frac{OMEGAR}{r_t \, zz_t} \frac{g_{t+1}}{gw_t} \, Dw_{t+1} + \frac{(1 - OMEGAR) \, ep_{t+1}^{\frac{RHOU-1}{RHOU}}}{r_t \, zz_t} \, \frac{g_{t+1}}{gw_t \, zetar_t} \, (Dr_{t+1} + Pe_{t+1}) \tag{7}$$

$$cw_t = varsig_t \left(Dw_t + hw_t + \frac{r_{t-1} \, faw_{t-1}}{g_t} - Tw_t \right) \tag{8}$$

$$cr_t = varsig_t \, ep_t \left(Pe_t + Dr_t + \frac{r_{t-1} \, far_{t-1}}{g_t} \right) \tag{9}$$

$$1 - varsig_t \, ep_t = \frac{gamma_t \, (r_t \, BBETA)^{\frac{1}{1-RHOU}}}{r_t} \, \frac{varsig_t \, ep_t}{ep_{t+1} \, varsig_{t+1}} \tag{10}$$

$$1 - varsig_t = \frac{(zz_t \, r_t \, BBETA)^{\frac{1}{1-RHOU}}}{r_t \, zz_t} \, \frac{varsig_t}{varsig_{t+1}} \tag{11}$$

$$zz_t = OMEGAR + (1 - OMEGAR) \, ep_{t+1}^{\frac{RHOU-1}{RHOU}} \tag{12}$$

$$he_t = DELTAHE \, \frac{zetar_{t-1}}{1 + zetar_{t-1} + zetay_{t-1}} \tag{13}$$

$$tauwA_t = tpe_t + he_t \tag{14}$$

$$tauwE_t = w_t \, iy_t \tag{15}$$

$$tauw_t = tauwA_t + tauwE_t \tag{16}$$

$$gw_t = OMEGAR + zetay_{t-1} \, (1 - OMEGAY_t) \tag{17}$$

$$n_t = gw_t \, \frac{zetay_t}{zetay_{t-1}} \tag{18}$$

$$gw_t \, zetar_t = 1 - OMEGAR + gamma_t \, zetar_{t-1} \tag{19}$$

$$gn_t = \left(gw_t \, zetar_t + gw_t + zetay_{t-1} \, n_t\right) \, \left(1 + zetar_{t-1} + zetay_{t-1}\right)^{(-1)} \tag{20}$$

$$gE_t = \frac{OMEGAR + zetay_{t-1} \, (1 - OMEGAY_t) \, \left(RHOE + \frac{CHIE}{2} \, iy_t^2\right)}{gw_t} \tag{21}$$

$$varsig_t^{\frac{(-1)}{RHOU}} = \frac{g_{t+1} \, iy_t \, CHIE \, zetay_{t-1} \, (1 - OMEGAY_t) \, BBETA \, varsig_{t+1}^{\frac{(-1)}{RHOU}} \, w_{t+1}}{w_t \, gw_t} \tag{22}$$

$$fert_t = n_t - OMEGAY_t \tag{23}$$

$$(1 - ALPHA) \, (1 - GAMMAI) = w_t \, mu_t \tag{24}$$

$$ALPHA \, (1 - GAMMAI) = mu_t \, (rk_t + del_t) \, \frac{k_{t-1}}{g_t} \tag{25}$$

$$ALPHA \, (1 - GAMMAI) = \frac{k_{t-1}}{g_t} \, mu_t \, delprime_t \, u_t \tag{26}$$

$$g_t = \frac{mu_t}{mu_{t-1}} \, gM_t \, gA_{t-1}^{1-VARNU} \tag{27}$$

$$
\begin{aligned}
g_t & \\
= gM_t^{GAMMAI} & \left(gE_{t-1} \, gw_{t-1}\right)^{(1-ALPHA)\,(1-GAMMAI)} \, \frac{N_t^{mu_t-1}}{N_{t-1}^{mu_{t-1}-1}} \left(\frac{k_{t-1} \, u_t \, g_{t-1}}{u_{t-1} \, AUX\_ENDO\_LAG\_39\_1_{t-1}}\right)^{ALPHA\,(1-G}
\end{aligned}
\tag{28}
$$

$$\frac{mu_t - 1}{mu_t} \, N_t^{(-mu_t)} = BMEGA \, v_t \tag{29}$$

$$mu_t = MUSS \, (1 + ELASMU \, (N_t - 1)) \tag{30}$$

$$del_t = DELSS + delprime_t \left(u_t - USS\right) \tag{31}$$

$$delprime_t = DELPRIMESS + \frac{\left(u_t - USS\right) DELPRIMESS \, RATIODEL}{USS} \tag{32}$$

$$invG_t = g_t \frac{inv_t}{inv_{t-1}} \tag{33}$$

$$\frac{gA_t \, za_t}{za_{t-1}} = stoyw_t^{RHOYW} \, CHI \left(\frac{s_t}{psi_t}\right)^{RHO} + PHI \tag{34}$$

$$stoyw_t = \frac{zetay_{t-1} \left(1 - OMEGAY_t\right) YINNOVSH}{zetar_{t-1} + 1 + zetay_{t-1}} + \frac{OMEGAR \left(1 - LAMY\right)}{gn_{t-1}} stoyw_{t-1} \tag{35}$$

$$gA_t = PHI + PHI \, lam_t \left(za_{t-1} - 1\right) \tag{36}$$

$$s_t = PHI \frac{g_{t+1}}{r_t} j_{t+1} \left(1 - \frac{za_{t-1} \, PHI}{gA_t \, za_t}\right) \tag{37}$$

$$v_t = \frac{GAMMAI \left(1 - \frac{1}{VARNU}\right)}{mu_t} + \frac{g_{t+1}}{gA_t} \frac{PHI}{r_t} v_{t+1} \tag{38}$$

$$varpi_t = \frac{PHI}{r_t} \frac{g_{t+1}}{gA_t} za_{t-1} \, lam_t \, ELASLAM \left(v_{t+1} - \frac{j_{t+1}}{za_t}\right) \tag{39}$$

$$j_t = \frac{PHI}{r_t} za_{t-1} \frac{g_{t+1}}{gA_t} \left(lam_t \, v_{t+1} + \frac{j_{t+1} \left(1 - lam_t\right)}{za_t}\right) - varpi_t \tag{40}$$

$$lam_t = LAMSS \left(1 + ELASLAM \left(\frac{varpi_t - VARPISS}{VARPISS} - \frac{za_{t-1} - ZASS}{ZASS} - \frac{psi_t - PSISS}{PSISS}\right)\right) \tag{41}$$

$$PiA_t = \frac{GAMMAI \left(1 - \frac{1}{VARNU}\right)}{mu_t} - PHI \, j_t \left(1 - \frac{PHI \, AUX\_ENDO\_LAG\_48\_1_{t-1}}{gA_{t-1} \, za_{t-1}}\right)$$
$$- \frac{r_{t-1} \, varpi_{t-1} \left(1 - \frac{1}{AUX\_ENDO\_LAG\_48\_1_{t-1}}\right)}{g_t} \tag{42}$$

$$PiRD_t = PHI \, j_t \left(1 - \frac{PHI \, AUX\_ENDO\_LAG\_48\_1_{t-1}}{gA_{t-1} \, za_{t-1}}\right) - \frac{r_{t-1} \, s_{t-1}}{g_t} \tag{43}$$

$$psi_t = v_t \tag{44}$$

$$r_t = 1 + rk_{t+1} \tag{45}$$

$$dr_t = \frac{far_{t-1} \, PiF_t}{fa_{t-1} + Fb_{t-1}} \tag{46}$$

$$dw_t = \frac{faw_{t-1} \, PiF_t}{fa_{t-1} + Fb_{t-1}} + SHINNOVW \, (PiA_t + PiRD_t) \tag{47}$$

$$b_t = s_t + varpi_t \left(1 - \frac{1}{za_{t-1}}\right) \tag{48}$$

$$\begin{aligned} PiF_t = {} & \frac{k_{t-1}}{g_t} \, (1 + rk_t) + \frac{r_{t-1} \, b_{t-1}}{g_t} + \frac{Hbstar_{t-1} \, rstar_{t-1}}{g_t} - \left(fa_{t-1} + Fb_{t-1}\right) \frac{r_{t-1}}{g_t} \\ & - k_t - b_t - Hbstar_t + Fb_t + fa_t + (PiA_t + PiRD_t) \, (1 - SHINNOVW) \end{aligned} \tag{49}$$

$$Hbstar_t = rstar_t - r_t \tag{50}$$

$$r_{t+1} - R\_SS = rstar_t - R\_SS \tag{51}$$

$$k_t = inv_t + \frac{k_{t-1}}{g_t} \, (1 - del_t) \tag{52}$$

$$y_t = 1 - \frac{GAMMAI}{mu_t \, VARNU} - psi_t \, N_t \, BMEGA \tag{53}$$

$$cu_t = Hbstar_t - Fb_t \tag{54}$$

$$cu_t = y_t - \left(he_t + tauwE_t + varpi_t \left(1 - \frac{1}{za_{t-1}}\right) + s_t + inv_t + c_t\right) \tag{55}$$

$$c_t = cw_t + cr_t \tag{56}$$

$$fa_t = cu_t + b_t + k_t \tag{57}$$

$$far_t = tpe_t + dr_t + \frac{r_{t-1} \, far_{t-1}}{g_t} - cr_t + (1 - OMEGAR) \left(dw_t + w_t + \frac{r_{t-1} \, faw_{t-1}}{g_t} - cw_t - tauw_t\right) \tag{58}$$

$$fa_t = far_t + faw_t \tag{59}$$

$$gpc_t = \frac{g_{t-1} \frac{y_t}{y_{t-1}}}{gn_{t-1}} \tag{60}$$

$$gy_t = g_t \frac{y_t}{y_{t-1}} \tag{61}$$

$$gn_t = NSS + en_t \tag{62}$$

$$shareW_t = \frac{1}{zetar_t + 1 + zetay_t} \tag{63}$$

$$shareR_t = \frac{zetar_t}{zetar_t + 1 + zetay_t} \tag{64}$$

$$\frac{1}{zetar_t + 1 + zetay_t} = \frac{1}{1 + ZETAYSS + ZETARSS} + ey_t \tag{65}$$

$$\frac{zetar_t}{zetar_t + 1 + zetay_t} = \frac{ZETARSS}{1 + ZETAYSS + ZETARSS} + er_t \tag{66}$$

$$rstar_t = R\_SS + shockR_t \tag{67}$$

$$
\begin{aligned}
shockR_t = {} & delall_t\,Rh\_1 + Rh\_2\,AUX\_EXO\_LAG\_74\_0_{t-1} \\
& + Rh\_3\,AUX\_EXO\_LAG\_74\_1_{t-1} + Rh\_4\,AUX\_EXO\_LAG\_74\_2_{t-1} \\
& + Rh\_5\,AUX\_EXO\_LAG\_74\_3_{t-1} + Rh\_6\,AUX\_EXO\_LAG\_74\_4_{t-1} \\
& + Rh\_7\,AUX\_EXO\_LAG\_74\_5_{t-1} + Rh\_8\,AUX\_EXO\_LAG\_74\_6_{t-1} \\
& + Rh\_9\,AUX\_EXO\_LAG\_74\_7_{t-1} + Rh\_10\,AUX\_EXO\_LAG\_74\_8_{t-1} \\
& + Rh\_11\,AUX\_EXO\_LAG\_74\_9_{t-1} + Rh\_12\,AUX\_EXO\_LAG\_74\_10_{t-1} \\
& + Rh\_13\,AUX\_EXO\_LAG\_74\_11_{t-1} + Rh\_14\,AUX\_EXO\_LAG\_74\_12_{t-1} \\
& + Rh\_15\,AUX\_EXO\_LAG\_74\_13_{t-1} + Rh\_16\,AUX\_EXO\_LAG\_74\_14_{t-1} \\
& + Rh\_17\,AUX\_EXO\_LAG\_74\_15_{t-1} + Rh\_18\,AUX\_EXO\_LAG\_74\_16_{t-1} \\
& + Rh\_19\,AUX\_EXO\_LAG\_74\_17_{t-1} + Rh\_20\,AUX\_EXO\_LAG\_74\_18_{t-1} \\
& + Rh\_21\,AUX\_EXO\_LAG\_74\_19_{t-1} + Rh\_22\,AUX\_EXO\_LAG\_74\_20_{t-1} \\
& + Rh\_23\,AUX\_EXO\_LAG\_74\_21_{t-1} + Rh\_24\,AUX\_EXO\_LAG\_74\_22_{t-1} \\
& + Rh\_25\,AUX\_EXO\_LAG\_74\_23_{t-1} + Rh\_26\,AUX\_EXO\_LAG\_74\_24_{t-1} \\
& + Rh\_27\,AUX\_EXO\_LAG\_74\_25_{t-1} + Rh\_28\,AUX\_EXO\_LAG\_74\_26_{t-1} \\
& + Rh\_29\,AUX\_EXO\_LAG\_74\_27_{t-1} + Rh\_30\,AUX\_EXO\_LAG\_74\_28_{t-1} \\
& + Rh\_31\,AUX\_EXO\_LAG\_74\_29_{t-1} + Rh\_32\,AUX\_EXO\_LAG\_74\_30_{t-1} \\
& + Rh\_33\,AUX\_EXO\_LAG\_74\_31_{t-1} + Rh\_34\,AUX\_EXO\_LAG\_74\_32_{t-1} \\
& + Rh\_35\,AUX\_EXO\_LAG\_74\_33_{t-1} + Rh\_36\,AUX\_EXO\_LAG\_74\_34_{t-1} \\
& + Rh\_37\,AUX\_EXO\_LAG\_74\_35_{t-1} + Rh\_38\,AUX\_EXO\_LAG\_74\_36_{t-1} \\
& + Rh\_39\,AUX\_EXO\_LAG\_74\_37_{t-1} + Rh\_40\,AUX\_EXO\_LAG\_74\_38_{t-1}
\end{aligned}
\tag{68}
$$

$$
\begin{aligned}
en_t = & \; shockn_t \, (gn\_1 - NSS) + shockn_{t-1} \, (gn\_2 - NSS) \\
& + (gn\_3 - NSS) \, AUX\_ENDO\_LAG\_68\_1_{t-1} + (gn\_4 - NSS) \, AUX\_ENDO\_LAG\_68\_2_{t-1} \\
& + (gn\_5 - NSS) \, AUX\_ENDO\_LAG\_68\_3_{t-1} + (gn\_6 - NSS) \, AUX\_ENDO\_LAG\_68\_4_{t-1} \\
& + (gn\_7 - NSS) \, AUX\_ENDO\_LAG\_68\_5_{t-1} + (gn\_8 - NSS) \, AUX\_ENDO\_LAG\_68\_6_{t-1} \\
& + (gn\_9 - NSS) \, AUX\_ENDO\_LAG\_68\_7_{t-1} + (gn\_10 - NSS) \, AUX\_ENDO\_LAG\_68\_8_{t-1} \\
& + (gn\_11 - NSS) \, AUX\_ENDO\_LAG\_68\_9_{t-1} \\
& + (gn\_12 - NSS) \, AUX\_ENDO\_LAG\_68\_10_{t-1} \\
& + (gn\_13 - NSS) \, AUX\_ENDO\_LAG\_68\_11_{t-1} \\
& + (gn\_14 - NSS) \, AUX\_ENDO\_LAG\_68\_12_{t-1} \\
& + (gn\_15 - NSS) \, AUX\_ENDO\_LAG\_68\_13_{t-1} \\
& + (gn\_16 - NSS) \, AUX\_ENDO\_LAG\_68\_14_{t-1} \\
& + (gn\_17 - NSS) \, AUX\_ENDO\_LAG\_68\_15_{t-1} \\
& + (gn\_18 - NSS) \, AUX\_ENDO\_LAG\_68\_16_{t-1} \\
& + (gn\_19 - NSS) \, AUX\_ENDO\_LAG\_68\_17_{t-1} \\
& + (gn\_20 - NSS) \, AUX\_ENDO\_LAG\_68\_18_{t-1} \\
& + (gn\_21 - NSS) \, AUX\_ENDO\_LAG\_68\_19_{t-1} \\
& + (gn\_22 - NSS) \, AUX\_ENDO\_LAG\_68\_20_{t-1} \\
& + (gn\_23 - NSS) \, AUX\_ENDO\_LAG\_68\_21_{t-1} \\
& + (gn\_24 - NSS) \, AUX\_ENDO\_LAG\_68\_22_{t-1} \\
& + (gn\_25 - NSS) \, AUX\_ENDO\_LAG\_68\_23_{t-1} \\
& + (gn\_26 - NSS) \, AUX\_ENDO\_LAG\_68\_24_{t-1} \\
& + (gn\_27 - NSS) \, AUX\_ENDO\_LAG\_68\_25_{t-1} \\
& + (gn\_28 - NSS) \, AUX\_ENDO\_LAG\_68\_26_{t-1} \\
& + (gn\_29 - NSS) \, AUX\_ENDO\_LAG\_68\_27_{t-1} \\
& + (gn\_30 - NSS) \, AUX\_ENDO\_LAG\_68\_28_{t-1} \\
& + (gn\_31 - NSS) \, AUX\_ENDO\_LAG\_68\_29_{t-1} \\
& + (gn\_32 - NSS) \, AUX\_ENDO\_LAG\_68\_30_{t-1} \\
& + (gn\_33 - NSS) \, AUX\_ENDO\_LAG\_68\_31_{t-1} \\
& + (gn\_34 - NSS) \, AUX\_ENDO\_LAG\_68\_32_{t-1} \\
& + (gn\_35 - NSS) \, AUX\_ENDO\_LAG\_68\_33_{t-1} \\
& + (gn\_36 - NSS) \, AUX\_ENDO\_LAG\_68\_34_{t-1} \\
& + (gn\_37 - NSS) \, AUX\_ENDO\_LAG\_68\_35_{t-1} \\
& + (gn\_38 - NSS) \, AUX\_ENDO\_LAG\_68\_36_{t-1} \\
& + (gn\_39 - NSS) \, AUX\_ENDO\_LAG\_68\_37_{t-1} \\
& + (gn\_40 - NSS) \, AUX\_ENDO\_LAG\_68\_38_{t-1}
\end{aligned}
\tag{69}
$$

$$
er_t = shockr_t
\tag{70}
$$

$$
ey_t = shocky_t
\tag{71}
$$

$$
\begin{aligned}
shocky_t = {}& shocky_{t-1} + delall_t\, dws\_1 + dws\_2\, AUX\_EXO\_LAG\_74\_0_{t-1} \\
& + dws\_3\, AUX\_EXO\_LAG\_74\_1_{t-1} + dws\_4\, AUX\_EXO\_LAG\_74\_2_{t-1} \\
& + dws\_5\, AUX\_EXO\_LAG\_74\_3_{t-1} + dws\_6\, AUX\_EXO\_LAG\_74\_4_{t-1} \\
& + dws\_7\, AUX\_EXO\_LAG\_74\_5_{t-1} + dws\_8\, AUX\_EXO\_LAG\_74\_6_{t-1} \\
& + dws\_9\, AUX\_EXO\_LAG\_74\_7_{t-1} + dws\_10\, AUX\_EXO\_LAG\_74\_8_{t-1} \\
& + dws\_11\, AUX\_EXO\_LAG\_74\_9_{t-1} + dws\_12\, AUX\_EXO\_LAG\_74\_10_{t-1} \\
& + dws\_13\, AUX\_EXO\_LAG\_74\_11_{t-1} + dws\_14\, AUX\_EXO\_LAG\_74\_12_{t-1} \\
& + dws\_15\, AUX\_EXO\_LAG\_74\_13_{t-1} + dws\_16\, AUX\_EXO\_LAG\_74\_14_{t-1} \\
& + dws\_17\, AUX\_EXO\_LAG\_74\_15_{t-1} + dws\_18\, AUX\_EXO\_LAG\_74\_16_{t-1} \\
& + dws\_19\, AUX\_EXO\_LAG\_74\_17_{t-1} + dws\_20\, AUX\_EXO\_LAG\_74\_18_{t-1} \\
& + dws\_21\, AUX\_EXO\_LAG\_74\_19_{t-1} + dws\_22\, AUX\_EXO\_LAG\_74\_20_{t-1} \\
& + dws\_23\, AUX\_EXO\_LAG\_74\_21_{t-1} + dws\_24\, AUX\_EXO\_LAG\_74\_22_{t-1} \\
& + dws\_25\, AUX\_EXO\_LAG\_74\_23_{t-1} + dws\_26\, AUX\_EXO\_LAG\_74\_24_{t-1} \\
& + dws\_27\, AUX\_EXO\_LAG\_74\_25_{t-1} + dws\_28\, AUX\_EXO\_LAG\_74\_26_{t-1} \\
& + dws\_29\, AUX\_EXO\_LAG\_74\_27_{t-1} + dws\_30\, AUX\_EXO\_LAG\_74\_28_{t-1} \\
& + dws\_31\, AUX\_EXO\_LAG\_74\_29_{t-1} + dws\_32\, AUX\_EXO\_LAG\_74\_30_{t-1} \\
& + dws\_33\, AUX\_EXO\_LAG\_74\_31_{t-1} + dws\_34\, AUX\_EXO\_LAG\_74\_32_{t-1} \\
& + dws\_35\, AUX\_EXO\_LAG\_74\_33_{t-1} + dws\_36\, AUX\_EXO\_LAG\_74\_34_{t-1} \\
& + dws\_37\, AUX\_EXO\_LAG\_74\_35_{t-1} + dws\_38\, AUX\_EXO\_LAG\_74\_36_{t-1} \\
& + dws\_39\, AUX\_EXO\_LAG\_74\_37_{t-1} + dws\_40\, AUX\_EXO\_LAG\_74\_38_{t-1}
\end{aligned}
\tag{72}
$$

$$
\begin{aligned}
shockr_t = {}& delall_t\, dws\_1 + shockr_{t-1} + drs\_2\, AUX\_EXO\_LAG\_74\_0_{t-1} \\
& + drs\_3\, AUX\_EXO\_LAG\_74\_1_{t-1} + drs\_4\, AUX\_EXO\_LAG\_74\_2_{t-1} \\
& + drs\_5\, AUX\_EXO\_LAG\_74\_3_{t-1} + drs\_6\, AUX\_EXO\_LAG\_74\_4_{t-1} \\
& + drs\_7\, AUX\_EXO\_LAG\_74\_5_{t-1} + drs\_8\, AUX\_EXO\_LAG\_74\_6_{t-1} \\
& + drs\_9\, AUX\_EXO\_LAG\_74\_7_{t-1} + drs\_10\, AUX\_EXO\_LAG\_74\_8_{t-1} \\
& + drs\_11\, AUX\_EXO\_LAG\_74\_9_{t-1} + drs\_12\, AUX\_EXO\_LAG\_74\_10_{t-1} \\
& + drs\_13\, AUX\_EXO\_LAG\_74\_11_{t-1} + drs\_14\, AUX\_EXO\_LAG\_74\_12_{t-1} \\
& + drs\_15\, AUX\_EXO\_LAG\_74\_13_{t-1} + drs\_16\, AUX\_EXO\_LAG\_74\_14_{t-1} \\
& + drs\_17\, AUX\_EXO\_LAG\_74\_15_{t-1} + drs\_18\, AUX\_EXO\_LAG\_74\_16_{t-1} \\
& + drs\_19\, AUX\_EXO\_LAG\_74\_17_{t-1} + drs\_20\, AUX\_EXO\_LAG\_74\_18_{t-1} \\
& + drs\_21\, AUX\_EXO\_LAG\_74\_19_{t-1} + drs\_22\, AUX\_EXO\_LAG\_74\_20_{t-1} \\
& + drs\_23\, AUX\_EXO\_LAG\_74\_21_{t-1} + drs\_24\, AUX\_EXO\_LAG\_74\_22_{t-1} \\
& + drs\_25\, AUX\_EXO\_LAG\_74\_23_{t-1} + drs\_26\, AUX\_EXO\_LAG\_74\_24_{t-1} \\
& + drs\_27\, AUX\_EXO\_LAG\_74\_25_{t-1} + drs\_28\, AUX\_EXO\_LAG\_74\_26_{t-1} \\
& + drs\_29\, AUX\_EXO\_LAG\_74\_27_{t-1} + drs\_30\, AUX\_EXO\_LAG\_74\_28_{t-1} \\
& + drs\_31\, AUX\_EXO\_LAG\_74\_29_{t-1} + drs\_32\, AUX\_EXO\_LAG\_74\_30_{t-1} \\
& + drs\_33\, AUX\_EXO\_LAG\_74\_31_{t-1} + drs\_34\, AUX\_EXO\_LAG\_74\_32_{t-1} \\
& + drs\_35\, AUX\_EXO\_LAG\_74\_33_{t-1} + drs\_36\, AUX\_EXO\_LAG\_74\_34_{t-1} \\
& + drs\_37\, AUX\_EXO\_LAG\_74\_35_{t-1} + drs\_38\, AUX\_EXO\_LAG\_74\_36_{t-1} \\
& + drs\_39\, AUX\_EXO\_LAG\_74\_37_{t-1} + drs\_40\, AUX\_EXO\_LAG\_74\_38_{t-1}
\end{aligned}
\tag{73}
$$

$$
shockn_t = delall_t
\tag{74}
$$

$$
AUX\_ENDO\_LAG\_28\_1_t = gw_{t-1}
\tag{75}
$$

$$AUX\_ENDO\_LAG\_39\_1_t = k_{t-1} \tag{76}$$

$$AUX\_ENDO\_LAG\_48\_1_t = za_{t-1} \tag{77}$$

$$AUX\_ENDO\_LAG\_68\_1_t = shockn_{t-1} \tag{78}$$

$$AUX\_ENDO\_LAG\_68\_2_t = AUX\_ENDO\_LAG\_68\_1_{t-1} \tag{79}$$

$$AUX\_ENDO\_LAG\_68\_3_t = AUX\_ENDO\_LAG\_68\_2_{t-1} \tag{80}$$

$$AUX\_ENDO\_LAG\_68\_4_t = AUX\_ENDO\_LAG\_68\_3_{t-1} \tag{81}$$

$$AUX\_ENDO\_LAG\_68\_5_t = AUX\_ENDO\_LAG\_68\_4_{t-1} \tag{82}$$

$$AUX\_ENDO\_LAG\_68\_6_t = AUX\_ENDO\_LAG\_68\_5_{t-1} \tag{83}$$

$$AUX\_ENDO\_LAG\_68\_7_t = AUX\_ENDO\_LAG\_68\_6_{t-1} \tag{84}$$

$$AUX\_ENDO\_LAG\_68\_8_t = AUX\_ENDO\_LAG\_68\_7_{t-1} \tag{85}$$

$$AUX\_ENDO\_LAG\_68\_9_t = AUX\_ENDO\_LAG\_68\_8_{t-1} \tag{86}$$

$$AUX\_ENDO\_LAG\_68\_10_t = AUX\_ENDO\_LAG\_68\_9_{t-1} \tag{87}$$

$$AUX\_ENDO\_LAG\_68\_11_t = AUX\_ENDO\_LAG\_68\_10_{t-1} \tag{88}$$

$$AUX\_ENDO\_LAG\_68\_12_t = AUX\_ENDO\_LAG\_68\_11_{t-1} \tag{89}$$

$$AUX\_ENDO\_LAG\_68\_13_t = AUX\_ENDO\_LAG\_68\_12_{t-1} \tag{90}$$

$$AUX\_ENDO\_LAG\_68\_14_t = AUX\_ENDO\_LAG\_68\_13_{t-1} \tag{91}$$

$$AUX\_ENDO\_LAG\_68\_15_t = AUX\_ENDO\_LAG\_68\_14_{t-1} \tag{92}$$

$$AUX\_ENDO\_LAG\_68\_16_t = AUX\_ENDO\_LAG\_68\_15_{t-1} \tag{93}$$

$$AUX\_ENDO\_LAG\_68\_17_t = AUX\_ENDO\_LAG\_68\_16_{t-1} \tag{94}$$

$$AUX\_ENDO\_LAG\_68\_18_t = AUX\_ENDO\_LAG\_68\_17_{t-1} \tag{95}$$

$$AUX\_ENDO\_LAG\_68\_19_t = AUX\_ENDO\_LAG\_68\_18_{t-1} \tag{96}$$

$$AUX\_ENDO\_LAG\_68\_20_t = AUX\_ENDO\_LAG\_68\_19_{t-1} \tag{97}$$

$$AUX\_ENDO\_LAG\_68\_21_t = AUX\_ENDO\_LAG\_68\_20_{t-1} \tag{98}$$

$$AUX\_ENDO\_LAG\_68\_22_t = AUX\_ENDO\_LAG\_68\_21_{t-1} \tag{99}$$

$$AUX\_ENDO\_LAG\_68\_23_t = AUX\_ENDO\_LAG\_68\_22_{t-1} \tag{100}$$

$$AUX\_ENDO\_LAG\_68\_24_t = AUX\_ENDO\_LAG\_68\_23_{t-1} \tag{101}$$

$$AUX\_ENDO\_LAG\_68\_25_t = AUX\_ENDO\_LAG\_68\_24_{t-1} \tag{102}$$

$$AUX\_ENDO\_LAG\_68\_26_t = AUX\_ENDO\_LAG\_68\_25_{t-1} \tag{103}$$

$$AUX\_ENDO\_LAG\_68\_27_t = AUX\_ENDO\_LAG\_68\_26_{t-1} \tag{104}$$

$$AUX\_ENDO\_LAG\_68\_28_t = AUX\_ENDO\_LAG\_68\_27_{t-1} \tag{105}$$

$$AUX\_ENDO\_LAG\_68\_29_t = AUX\_ENDO\_LAG\_68\_28_{t-1} \tag{106}$$

$$AUX\_ENDO\_LAG\_68\_30_t = AUX\_ENDO\_LAG\_68\_29_{t-1} \tag{107}$$

$$AUX\_ENDO\_LAG\_68\_31_t = AUX\_ENDO\_LAG\_68\_30_{t-1} \tag{108}$$

$$AUX\_ENDO\_LAG\_68\_32_t = AUX\_ENDO\_LAG\_68\_31_{t-1} \tag{109}$$

$$AUX\_ENDO\_LAG\_68\_33_t = AUX\_ENDO\_LAG\_68\_32_{t-1} \tag{110}$$

$$AUX\_ENDO\_LAG\_68\_34_t = AUX\_ENDO\_LAG\_68\_33_{t-1} \tag{111}$$

$$AUX\_ENDO\_LAG\_68\_35_t = AUX\_ENDO\_LAG\_68\_34_{t-1} \tag{112}$$

$$AUX\_ENDO\_LAG\_68\_36_t = AUX\_ENDO\_LAG\_68\_35_{t-1} \tag{113}$$

$$AUX\_ENDO\_LAG\_68\_37_t = AUX\_ENDO\_LAG\_68\_36_{t-1} \tag{114}$$

$$AUX\_ENDO\_LAG\_68\_38_t = AUX\_ENDO\_LAG\_68\_37_{t-1} \tag{115}$$

$$AUX\_EXO\_LAG\_74\_0_t = delall_t \tag{116}$$

$$AUX\_EXO\_LAG\_74\_1_t = AUX\_EXO\_LAG\_74\_0_{t-1} \tag{117}$$

$$AUX\_EXO\_LAG\_74\_2_t = AUX\_EXO\_LAG\_74\_1_{t-1} \tag{118}$$

$$AUX\_EXO\_LAG\_74\_3_t = AUX\_EXO\_LAG\_74\_2_{t-1} \tag{119}$$

$$AUX\_EXO\_LAG\_74\_4_t = AUX\_EXO\_LAG\_74\_3_{t-1} \tag{120}$$

$$AUX\_EXO\_LAG\_74\_5_t = AUX\_EXO\_LAG\_74\_4_{t-1} \tag{121}$$

$$AUX\_EXO\_LAG\_74\_6_t = AUX\_EXO\_LAG\_74\_5_{t-1} \tag{122}$$

$$AUX\_EXO\_LAG\_74\_7_t = AUX\_EXO\_LAG\_74\_6_{t-1} \tag{123}$$

$$AUX\_EXO\_LAG\_74\_8_t = AUX\_EXO\_LAG\_74\_7_{t-1} \tag{124}$$

$$AUX\_EXO\_LAG\_74\_9_t = AUX\_EXO\_LAG\_74\_8_{t-1} \tag{125}$$

$$AUX\_EXO\_LAG\_74\_10_t = AUX\_EXO\_LAG\_74\_9_{t-1} \tag{126}$$

$$AUX\_EXO\_LAG\_74\_11_t = AUX\_EXO\_LAG\_74\_10_{t-1} \tag{127}$$

$$AUX\_EXO\_LAG\_74\_12_t = AUX\_EXO\_LAG\_74\_11_{t-1} \tag{128}$$

$$AUX\_EXO\_LAG\_74\_13_t = AUX\_EXO\_LAG\_74\_12_{t-1} \tag{129}$$

$$AUX\_EXO\_LAG\_74\_14_t = AUX\_EXO\_LAG\_74\_13_{t-1} \tag{130}$$

$$AUX\_EXO\_LAG\_74\_15_t = AUX\_EXO\_LAG\_74\_14_{t-1} \tag{131}$$

$$AUX\_EXO\_LAG\_74\_16_t = AUX\_EXO\_LAG\_74\_15_{t-1} \tag{132}$$

$$AUX\_EXO\_LAG\_74\_17_t = AUX\_EXO\_LAG\_74\_16_{t-1} \tag{133}$$

$$AUX\_EXO\_LAG\_74\_18_t = AUX\_EXO\_LAG\_74\_17_{t-1} \tag{134}$$

$$AUX\_EXO\_LAG\_74\_19_t = AUX\_EXO\_LAG\_74\_18_{t-1} \tag{135}$$

$$AUX\_EXO\_LAG\_74\_20_t = AUX\_EXO\_LAG\_74\_19_{t-1} \tag{136}$$

$$AUX\_EXO\_LAG\_74\_21_t = AUX\_EXO\_LAG\_74\_20_{t-1} \tag{137}$$

$$AUX\_EXO\_LAG\_74\_22_t = AUX\_EXO\_LAG\_74\_21_{t-1} \tag{138}$$

$$AUX\_EXO\_LAG\_74\_23_t = AUX\_EXO\_LAG\_74\_22_{t-1} \tag{139}$$

$$AUX\_EXO\_LAG\_74\_24_t = AUX\_EXO\_LAG\_74\_23_{t-1} \tag{140}$$

$$AUX\_EXO\_LAG\_74\_25_t = AUX\_EXO\_LAG\_74\_24_{t-1} \tag{141}$$

$$AUX\_EXO\_LAG\_74\_26_t = AUX\_EXO\_LAG\_74\_25_{t-1} \tag{142}$$

$$AUX\_EXO\_LAG\_74\_27_t = AUX\_EXO\_LAG\_74\_26_{t-1} \tag{143}$$

$$AUX\_EXO\_LAG\_74\_28_t = AUX\_EXO\_LAG\_74\_27_{t-1} \tag{144}$$

$$AUX\_EXO\_LAG\_74\_29_t = AUX\_EXO\_LAG\_74\_28_{t-1} \tag{145}$$

$$AUX\_EXO\_LAG\_74\_30_t = AUX\_EXO\_LAG\_74\_29_{t-1} \tag{146}$$

$$AUX\_EXO\_LAG\_74\_31_t = AUX\_EXO\_LAG\_74\_30_{t-1} \tag{147}$$

$$AUX\_EXO\_LAG\_74\_32_t = AUX\_EXO\_LAG\_74\_31_{t-1} \tag{148}$$

$$AUX\_EXO\_LAG\_74\_33_t = AUX\_EXO\_LAG\_74\_32_{t-1} \tag{149}$$

$$AUX\_EXO\_LAG\_74\_34_t = AUX\_EXO\_LAG\_74\_33_{t-1} \tag{150}$$

$$AUX\_EXO\_LAG\_74\_35_t = AUX\_EXO\_LAG\_74\_34_{t-1} \tag{151}$$

$$AUX\_EXO\_LAG\_74\_36_t = AUX\_EXO\_LAG\_74\_35_{t-1} \tag{152}$$

$$AUX\_EXO\_LAG\_74\_37_t = AUX\_EXO\_LAG\_74\_36_{t-1} \tag{153}$$

$$AUX\_EXO\_LAG\_74\_38_t = AUX\_EXO\_LAG\_74\_37_{t-1} \tag{154}$$