

NABO

2005. 1. 20.



[]

. /1

. /1

1. 연구범위1
2. 연구방법2

. /2

1. 주요 연구내용2
2. 기존 연건모형과의 차이점2

. /3

1. 모형의 체계3
2. 행태방정식의 구성3
3. 정의식5
4. 변수목록6
5. 추정결과9

. /24

1. 역사적 시뮬레이션25
2. 정책 시뮬레이션 (작업중)

○ .

- .

1. 연구범위

○ 1980 .

-

- ,

○ 1980

- 2000 (1995 - 2003)

- (:)

- GDP

○ DB ()

- <http://10.201.253.79> (가)

* 2004 1 update

2. 연구방법

-
-
-
- Microsoft Excel, RatsData
- software WinRats, EViews

1. 주요 연구내용

- - , , , 가 ,
- OLS
- -
 -
- (:)

2. 기존 연간모형과의 차이점

-

-

- 가

○

1. 모형의 체계

(1) (58)

- : 20

- : 38

(2) (45)

: 30

: 15

2. 행태방정식의 구성

(1)

$$\begin{aligned} &= f(\quad , \quad , \quad \text{가}) \\ &= f(\text{GDP}, \quad , \quad , \quad \text{가}, \quad \text{가}) \\ &= f(\quad , \quad , \quad \text{가}) \\ &= f(\text{GDP}, \quad , \quad , \quad , \quad \text{가}, \quad \text{가}) \\ &= f(\quad , \quad , \quad) \\ &\text{가} = f(\quad , \quad \text{가} , \quad , \quad) \\ &\text{가} = f(\quad \text{가} , \quad \text{가}) \end{aligned}$$

: bpmgsv, bpsvcr, bpsvdb, bpxgsv, ccmgsv, ccxgsv, er, pmgs, pxgs, bpcb, bpgb, bpsb (12)

: bpib, bptr, erjap, lwind, m2new, mwsv, pgdp, pmws, poildub, pppi, y_gdp, (11)

(2)

$$\begin{aligned}
 &= f(\text{가}, (\text{가}), \text{가}, \text{가}) \\
 &= f(\text{가}, \text{가}, \text{GDP}) \\
 &= f(\text{가}, \text{가}, \text{GDP}, \text{가}, \text{가}) \\
 &= f(\text{BOP}(\text{가}, \text{가})) \\
 &= f(\text{BOP}(\text{가}, \text{가})) \\
 &= f(\text{BOP}(\text{가}, \text{가})) \\
 &= f(\text{BOP}(\text{가}, \text{가}))
 \end{aligned}$$

: y_cp, y_ifc, y_ifm, y_mg, y_ms, y_xg, y_xs,

: potgdp, rcb, ssp, tx_nat, y_g, y_gdpv, z_cpi

(3)

$$= f(\text{GDP})$$

(4) 가 .

$$\begin{aligned}
 \text{GDP} &= f(\text{가}, \text{가}, \text{가}) \\
 \text{가} &= f(\text{가}, \text{GDP}, \text{가}, \text{가}) \\
 &= f(\text{가}, \text{GDP}, \text{가}) \\
 \text{가} &= f(\text{가}(\text{가}), \text{가}(\text{가}), \text{가}(\text{가})) \\
 &= f(\text{가}, \text{가}) \\
 &= f(\text{가}, \text{GDP}, \text{가})
 \end{aligned}$$

$$\begin{aligned}
 &= f(\text{GDP}, \quad) \\
 &= f(\text{GDP}, \quad) \\
 \text{GDP} &= f(\quad, \quad) -
 \end{aligned}$$

(5)

$$\begin{aligned}
 &= f(\quad, \quad + \quad) \\
 &= f(\quad, (\quad), \quad, \quad)
 \end{aligned}$$

3. 정의식

```

bpgb = xgsv - mgsv
bpsb = xsvcr - msvdb
bpcb = bpgb + bpsb + bpib + bptr

```

```

ct = cp + cg
ift = ifc + ifm + ifa
it = ift + is
xx = xg + xs
mm = mg + ms
gdp = ct + it + xx - mm + std
gdpv = gdp * pgdp / 100
gdpmv = gdpv - gdpav

```

가

```

z_cpi = (pcpi/pcpi(-1)-1)*100
cca = 0.05 * ks(-1) <- pending
ks = ks(-1) + ift - cca <- pending
le = lf*(1-0.01*lnr)

```

4. 변수목록

			/			
bpass	(-)			1980-2003	BOK	BOP
bpcb				1980-2003	BOK	BOP
bpcb1				1980-2003	BOK	BOP
bpeo				1980-2003	BOK	BOP
bpgb				1980-2003	BOK	BOP
bpib				1980-2003	BOK	BOP
bpibcr				1980-2003	BOK	BOP
bpibdb				1980-2003	BOK	BOP
bpil				1980-2003	BOK	BOP
bpinv				1980-2003	BOK	BOP
bpmgs	(FOB)			1980-2003	BOK	BOP
bpoth				1980-2003	BOK	BOP
bpsb				1980-2003	BOK	BOP
bpsvcr				1980-2003	BOK	BOP
bpsvdb				1980-2003	BOK	BOP
bpsw				1980-2003	BOK	BOP
bptr				1980-2003	BOK	BOP
bpxgs	(FOB)			1980-2003	BOK	BOP
c	(cp+cg)			1970-2003	BOK	NIPA
cc				1970-2003	BOK	NIPA
ccav		%		1970-2003	BOK	NIPA
ccmgsv	()			1970-2003	CUS	BOP
ccv				1970-2003	BOK	NIPA
ccxgsv	()			1970-2003	CUS	BOP
cg				1970-2003	BOK	NIPA
cgv				1970-2003	BOK	NIPA
chv	가			1970-2003	BOK	NIPA
cnv	가			1970-2003	BOK	NIPA
cp*				1970-2003	BOK	NIPA
cph	가			1970-2003	BOK	NIPA
cpn	가			1970-2003	BOK	NIPA
cpv				1970-2003	BOK	NIPA
er	-	/		1980-2003	BOK	PXGS
erjap	- , 158..rf..zf...	/		1980-2003	IMF	PXGS
fxh	()			1970-2003	BOK	PXGS
gdp				1970-2003	BOK	NIPA
gdpiag	()			1970-2003	BOK	NIPA
gdpv				1970-2003	BOK	NIPA
if*				1970-2003	BOK	NIPA
ifc*				1970-2003	BOK	NIPA
ifcv				1970-2003	BOK	NIPA
ifi				1970-2003	BOK	NIPA

ifiv				1970-2003	BOK	NIPA
ifm*				1970-2003	BOK	NIPA
ifmv				1970-2003	BOK	NIPA
ifv				1970-2003	BOK	NIPA
ii				1970-2003	BOK	NIPA
ii				1970-2003	BOK	NIPA
iiv				1970-2003	BOK	NIPA
ipwrd	()	1995=100		1980-2004	IMF	PXGS
isv				1970-2003	BOK	NIPA
le				1970-2003	MOL	LABOR
lshare		%		1970-2003	BOK	NIPA
lunr		%		1980-2003	MOL	LABOR
lwind	()			1980-2003	MOL	LABOR
lwmfg	()			1980-2003	MOL	LABOR
m2new*	()			1980-2003	BOK	MONEY
mg*	(FOB)			1970-2003	BOK	NIPA
mgv	(FOB)			1970-2003	BOK	NIPA
mm*				1970-2003	BOK	NIPA
mmv				1970-2003	BOK	NIPA
ms*				1970-2003	BOK	NIPA
mwsv	(\$)			1980-2003	IMF	PXGS
pcpi*	가	2000=100		1970-2003	NSO	PRICE
pgdp*	GDP	2000=100		1970-2003	BOK	NIPA
pmgs_	가	2000=100		1988-2003	BOK	PXGS
pmgs*	가(\$), 54275...zf...	1995=100		1980-2003	IMF	PXGS
pmgs1	pmgs:	2000=100		1988-2003	BOK	PXGS
pmgsk	pmgs:	2000=100		1988-2003	BOK	PXGS
pmgsno	pmgs:	2000=100		1995-2003	BOK	PXGS
pmgso	pmgs:	2000=100		1988-2003	BOK	PXGS
pmq		2000=100		1988-2003	BOK	PXGS
pmqme	pmq:	2000=100		1988-2003	BOK	PXGS
pmqo	pmq:	2000=100		1988-2003	BOK	PXGS
pmws	가(\$)	1995=100		1980-2003	IMF	PXGS
pppi*	가	2000=100		1970-2003	BOK	PRICE
pxgs_	가	2000=100		1988-2003	BOK	PXGS
pxgs*	가(\$), 54274...zf...	1995=100		1980-2003	IMF	PXGS
pxgs1	pxgs:	2000=100		1995-2003	BOK	PXGS
pxq		2000=100		1988-2003	BOK	PXGS
pxws	가(\$)	1995=100		1980-2003	IMF	PXGS
rcb*	(,)	%		1980-2003	BOK	MONEY
rinv		%		1970-2003	BOK	NIPA
rinvf	()	%		1970-2003	BOK	NIPA
rinvself		%		1970-2003	BOK	NIPA
rsav		%		1970-2003	BOK	NIPA
rsavgov		%		1970-2003	BOK	NIPA
rsavprv		%		1970-2003	BOK	NIPA
sd				1970-2003	BOK	NIPA
sdv				1970-2003	BOK	NIPA

ssa*	social security allowance			1980-2003	KIHASA	GOVT
ssp*	social security payment			1980-2003	KIHASA	GOVT
ttinc		2000=100		1988-2003	BOK	PXGS
ttnbt		2000=100		1988-2003	BOK	PXGS
tx_nat*				1970-2003	NTA	GOVT
xg*	(FOB)			1970-2003	BOK	NIPA
xgv	(FOB)			1970-2003	BOK	NIPA
xs*				1970-2003	BOK	NIPA
xwsv	(\$)			1980-2003	IMF	PXGS
xx*				1970-2003	BOK	NIPA
xxv				1970-2003	BOK	NIPA
z_cpi*	(CPI)	%		1970-2003	NSO	OWN
* =	endog. variables					

5. 추정결과

```

=====
Dependent Variable: LOG(CCXGSV)
Method: Least Squares
Date: 01/19/05   Time: 15:56
Sample(adjusted): 1981 2003
Included observations: 23 after adjusting endpoints
=====

```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.200047	0.348909	-0.573350	0.5731
LOG(MWSV)	0.607827	0.207104	2.934891	0.0085
DLOG(ER)	-0.451007	0.135615	-3.325639	0.0036
LOG(CCXGSV(-1))	0.578590	0.130934	4.418961	0.0003

```

=====
R-squared          0.991639   Mean dependent var 11.19077
Adjusted R-squared 0.990319   S.D. dependent var 0.718705
S.E. of regression 0.070714   Akaike info criter -2.303583
Sum squared resid  0.095008   Schwarz criterion  -2.106105
Log likelihood      30.49120   F-statistic         751.1876
Durbin-Watson stat  1.640807   Prob(F-statistic)   0.000000
=====

```

```

=====
Dependent Variable: LOG(CCMGSV)
Method: Least Squares
Date: 01/19/05   Time: 15:56
Sample(adjusted): 1981 2003
Included observations: 23 after adjusting endpoints
=====

```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.761155	1.675457	5.825964	0.0000
Y_GDP	3.41E-06	7.11E-07	4.796036	0.0001
LOG(PMGS*ER/PPPI)	-0.910635	0.162250	-5.612535	0.0000
LOG(CCMGSV(-1))	0.647806	0.082102	7.890232	0.0000

```

=====
R-squared          0.979647   Mean dependent var 11.18476
Adjusted R-squared 0.976433   S.D. dependent var 0.681181
S.E. of regression 0.104572   Akaike info criter -1.521119
Sum squared resid  0.207769   Schwarz criterion  -1.323642
Log likelihood      21.49287   F-statistic         304.8380
Durbin-Watson stat  1.493634   Prob(F-statistic)   0.000000
=====

```

Dependent Variable: LOG(BPXGSV)

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample(adjusted): 1981 2003

Included observations: 23 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.094539	0.970399	3.188933	0.0048
LOG(MWSV)	0.676070	0.221041	3.058578	0.0065
LOG(ERJAP)	-0.411803	0.096193	-4.281002	0.0004
LOG(BPXGSV(-1))	0.412957	0.134245	3.076138	0.0062

R-squared	0.992598	Mean dependent var	11.17468
Adjusted R-squared	0.991429	S.D. dependent var	0.745970
S.E. of regression	0.069061	Akaike info criter	-2.350892
Sum squared resid	0.090618	Schwarz criterion	-2.153415
Log likelihood	31.03526	F-statistic	849.2904
Durbin-Watson stat	1.089502	Prob(F-statistic)	0.000000

Dependent Variable: BPMGSV

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-10859.90	36215.59	-0.299868	0.7674
Y_GDP	0.625426	0.063404	9.864129	0.0000
PMGS	1476.247	683.7015	2.159199	0.0432
ER	-196.5782	38.39167	-5.120335	0.0001

R-squared	0.951940	Mean dependent var	82056.84
Adjusted R-squared	0.944731	S.D. dependent var	50973.23
S.E. of regression	11983.44	Akaike info criteri	21.77145
Sum squared resid	2.87E+09	Schwarz criterion	21.96779
Log likelihood	-257.2574	F-statistic	132.0498
Durbin-Watson stat	0.633248	Prob(F-statistic)	0.000000

```

=====
Dependent Variable: LOG(BPSVCR)
Method: Least Squares
Date: 01/19/05   Time: 15:56
Sample(adjusted): 1981 2003
Included observations: 23 after adjusting endpoints
=====

```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.020483	1.306809	1.546120	0.1395
LOG(MWSV)	0.418097	0.239833	1.743280	0.0983
LOG(ER)	0.240367	0.118755	2.024052	0.0581
LOG(ERJAP)	-0.524859	0.119428	-4.394766	0.0003
LOG(BPSVCR(-1))	0.527470	0.131263	4.018417	0.0008

```

=====
R-squared          0.994534    Mean dependent var 9.360604
Adjusted R-squared 0.993319    S.D. dependent var 0.813998
S.E. of regression 0.066532    Akaike info criter -2.392600
Sum squared resid  0.079678    Schwarz criterion  -2.145753
Log likelihood      32.51490    F-statistic         818.7758
Durbin-Watson stat  1.584695    Prob(F-statistic)  0.000000
=====

```

```

=====
Dependent Variable: LOG(BPSVDB)
Method: Least Squares
Date: 01/19/05   Time: 15:56
Sample(adjusted): 1981 2003
Included observations: 23 after adjusting endpoints
=====

```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(Y_GDP)	-0.325693	0.060762	-5.360109	0.0000
LOG(BPXGSV)	0.616115	0.097428	6.323777	0.0000
LOG(BPSVDB(-1))	0.692277	0.053033	13.05366	0.0000

```

=====
R-squared          0.993905    Mean dependent var 9.384333
Adjusted R-squared 0.993295    S.D. dependent var 0.926867
S.E. of regression 0.075895    Akaike info criter -2.197827
Sum squared resid  0.115201    Schwarz criterion  -2.049719
Log likelihood      28.27501    Durbin-Watson stat 1.401086
=====

```

Dependent Variable: LOG(BPSVDB)

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample(adjusted): 1981 2003

Included observations: 23 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.886059	0.559046	1.584949	0.1295
LOG(BPXGSV)	0.415265	0.060206	6.897429	0.0000
LOG(PMGS*ER)	-0.274826	0.053009	-5.184532	0.0001
LOG(BPSVDB(-1))	0.753973	0.053088	14.20242	0.0000

R-squared	0.996650	Mean dependent var	9.384333
Adjusted R-squared	0.996122	S.D. dependent var	0.926867
S.E. of regression	0.057722	Akaike info criter	-2.709573
Sum squared resid	0.063306	Schwarz criterion	-2.512096
Log likelihood	35.16009	F-statistic	1884.476
Durbin-Watson stat	1.541791	Prob(F-statistic)	0.000000

Dependent Variable: ER

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample(adjusted): 1981 2003

Included observations: 23 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	343.9515	101.5365	3.387466	0.0033
BPCB/100000	627.1086	134.7349	4.654387	0.0002
ERJAP	1.500942	0.387070	3.877700	0.0011
M2NEW/PGDP*100	0.000819	0.000127	6.472600	0.0000
ER(-1)	0.009076	0.135392	0.067036	0.9473

R-squared	0.929619	Mean dependent var	903.4661
Adjusted R-squared	0.913979	S.D. dependent var	219.6453
S.E. of regression	64.42069	Akaike info criteri	11.35841
Sum squared resid	74700.45	Schwarz criterion	11.60525
Log likelihood	-125.6217	F-statistic	59.43753
Durbin-Watson stat	1.286739	Prob(F-statistic)	0.000000

Dependent Variable: LOG(PXGS)

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample(adjusted): 1981 2003

Included observations: 23 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.180676	0.682338	4.661436	0.0002
DLOG(ER)	0.304575	0.077129	3.948932	0.0009
LOG(LWIND)	0.022451	0.018019	1.246006	0.2287
LOG(POILDUB)	-0.150640	0.041530	-3.627248	0.0019
LOG(PXGS(-1))	0.357623	0.149948	2.384981	0.0283

R-squared	0.899144	Mean dependent var	4.490277
Adjusted R-squared	0.876732	S.D. dependent var	0.100765
S.E. of regression	0.035378	Akaike info criter	-3.655791
Sum squared resid	0.022529	Schwarz criterion	-3.408945
Log likelihood	47.04160	F-statistic	40.11827
Durbin-Watson stat	2.612025	Prob(F-statistic)	0.000000

Dependent Variable: LOG(PMGS)

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.654524	0.668021	-3.973715	0.0007
LOG(PMWS)	0.549680	0.112295	4.894959	0.0001
LOG(POILDUB)	0.056681	0.025831	2.194300	0.0402
LOG(ER)	0.686775	0.032419	21.18425	0.0000

R-squared	0.959771	Mean dependent var	4.615760
Adjusted R-squared	0.953737	S.D. dependent var	0.152513
S.E. of regression	0.032804	Akaike info criter	-3.845533
Sum squared resid	0.021522	Schwarz criterion	-3.649191
Log likelihood	50.14640	F-statistic	159.0525
Durbin-Watson stat	2.240223	Prob(F-statistic)	0.000000

=====

Dependent Variable: Y_CP

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

=====

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	13099.08	12294.55	1.065437	0.3008
(Y_GDPV-TX_NAT+SSP)/P0	542554	0.127495	4.255507	0.0005
RCB-Z_CPI	1766.505	521.5156	3.387253	0.0033
SPI/PCPI*100	3.437981	3.433768	1.001227	0.3300
DUM1998	1812.261	6447.943	0.281060	0.7819
Y_CP(-1)	0.535295	0.152192	3.517235	0.0025

=====

R-squared	0.990417	Mean dependent var	112349.9
Adjusted R-squared	0.987756	S.D. dependent var	54686.76
S.E. of regression	6051.334	Akaike info criteri	20.46626
Sum squared resid	6.59E+08	Schwarz criterion	20.76078
Log likelihood	-239.5952	F-statistic	372.0816
Durbin-Watson stat	1.534922	Prob(F-statistic)	0.000000

=====

=====

Dependent Variable: Y_CP

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

=====

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	41177.97	12244.00	3.363114	0.0031
(Y_GDPV-TX_NAT+SSP)/P0	620730	0.158591	3.914036	0.0009
DUM1998	2710.722	7914.030	0.342521	0.7355
Y_CP(-1)	0.387141	0.183813	2.106171	0.0480

=====

R-squared	0.982978	Mean dependent var	112349.9
Adjusted R-squared	0.980425	S.D. dependent var	54686.76
S.E. of regression	7651.355	Akaike info criteri	20.87416
Sum squared resid	1.17E+09	Schwarz criterion	21.07051
Log likelihood	-246.4900	F-statistic	384.9798
Durbin-Watson stat	0.652970	Prob(F-statistic)	0.000000

=====

=====

Dependent Variable: Y_IFM

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

=====

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-17779.28	6915.116	-2.571075	0.0192
Y_GDP	0.119420	0.017745	6.729848	0.0000
RCB-Z_CPI	-3.884892	253.7072	-0.015312	0.9880
Y_IFM(-1)	0.257700	0.140643	1.832302	0.0835
Y_IFM(-2)	-0.121249	0.146361	-0.828428	0.4183
Y_GDP/POTGDP*100	247.2304	147.0300	1.681496	0.1099

=====

R-squared 0.988116 Mean dependent var 19124.75
Adjusted R-squared 0.984815 S.D. dependent var 15240.48
S.E. of regression 1878.071 Akaike info criteri18.12620
Sum squared resid 63488679 Schwarz criterion 18.42071
Log likelihood -211.5143 F-statistic 299.3225
Durbin-Watson stat 0.989600 Prob(F-statistic) 0.000000

=====

=====

Dependent Variable: Y_IFM

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

=====

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-17289.22	5976.440	-2.892897	0.0090
Y_GDP	0.119316	0.013340	8.944086	0.0000
Y_IFM(-1)	0.160658	0.101503	1.582792	0.1292
Y_GDP/POTGDP*100	231.5255	139.9851	1.653930	0.1138

=====

R-squared 0.987375 Mean dependent var 19124.75
Adjusted R-squared 0.985482 S.D. dependent var 15240.48
S.E. of regression 1836.360 Akaike info criteri18.01997
Sum squared resid 67444392 Schwarz criterion 18.21631
Log likelihood -212.2396 F-statistic 521.3994
Durbin-Watson stat 0.817244 Prob(F-statistic) 0.000000

=====

Dependent Variable: Y_IFC

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8045.025	2115.217	-3.803404	0.0012
Y_GDP	0.194164	0.030300	6.408034	0.0000
BCP	0.027459	0.041512	0.661476	0.5162
DUM980N	13943.02	5356.450	2.603034	0.0175
DUM1998	-13746.76	3572.309	-3.848145	0.0011

R-squared	0.987417	Mean dependent var	33435.15
Adjusted R-squared	0.984768	S.D. dependent var	25314.78
S.E. of regression	3124.342	Akaike info criteri	19.11489
Sum squared resid	1.85E+08	Schwarz criterion	19.36031
Log likelihood	-224.3786	F-statistic	372.7344
Durbin-Watson stat	1.778956	Prob(F-statistic)	0.000000

Dependent Variable: LOG(Y_XG)

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.515872	5.882871	0.087690	0.9310
LOG(BPXGSV*ER/PGDP)	0.019195	0.403725	0.047543	0.9625
LOG(Y_XG(-1))	0.923582	0.105854	8.725058	0.0000

R-squared	0.787619	Mean dependent var	9.717647
Adjusted R-squared	0.767392	S.D. dependent var	0.990491
S.E. of regression	0.477708	Akaike info criteri	1.476835
Sum squared resid	4.792306	Schwarz criterion	1.624092
Log likelihood	-14.72202	F-statistic	38.93949
Durbin-Watson stat	1.028641	Prob(F-statistic)	0.000000

=====

Dependent Variable: LOG(Y_XS)

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample(adjusted): 1981 2003

Included observations: 23 after adjusting endpoints

=====

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.116752	1.607168	0.072645	0.9428
LOG(BPSVCR*ER/PGDP)	-0.012365	0.185831	-0.066537	0.9476
LOG(ER)	0.079639	0.356067	0.223662	0.8254
LOG(Y_XS(-1))	0.954344	0.073762	12.93813	0.0000

=====

R-squared	0.950434	Mean dependent var	8.504257
Adjusted R-squared	0.942607	S.D. dependent var	0.791074
S.E. of regression	0.189516	Akaike info criter	-0.331917
Sum squared resid	0.682409	Schwarz criterion	-0.134439
Log likelihood	7.817042	F-statistic	121.4412
Durbin-Watson stat	2.248891	Prob(F-statistic)	0.000000

=====

=====

Dependent Variable: Y_MG

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

=====

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	45846.18	14840.37	3.089288	0.0056
BPMGSV*ER/PGDP	0.019783	0.006221	3.180157	0.0045
ERJAP	-403.2217	70.92971	-5.684806	0.0000

=====

R-squared	0.610892	Mean dependent var	33472.77
Adjusted R-squared	0.573834	S.D. dependent var	24218.03
S.E. of regression	15809.86	Akaike info criteri	22.29112
Sum squared resid	5.25E+09	Schwarz criterion	22.43838
Log likelihood	-264.4935	F-statistic	16.48481
Durbin-Watson stat	0.488547	Prob(F-statistic)	0.000050

=====

Dependent Variable: LOG(Y_MS)

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample(adjusted): 1981 2003

Included observations: 23 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.284098	1.078198	0.263493	0.7950
LOG(BPSVDB*ER/PGDP)	-0.102928	0.076170	-1.351283	0.1925
LOG(ERJAP)	0.152665	0.159616	0.956452	0.3509
LOG(Y_MS(-1))	1.053741	0.053352	19.75056	0.0000

R-squared	0.990820	Mean dependent var	8.205580
Adjusted R-squared	0.989371	S.D. dependent var	1.028902
S.E. of regression	0.106077	Akaike info criter	-1.492529
Sum squared resid	0.213795	Schwarz criterion	-1.295052
Log likelihood	21.16409	F-statistic	683.5981
Durbin-Watson stat	0.930259	Prob(F-statistic)	0.000000

Dependent Variable: TX_NAT

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-4525.238	4266.075	-1.060750	0.3014
Y_GDP	0.070374	0.066782	1.053786	0.3045
PGDP	236.5637	148.6322	1.591605	0.1272
TX_NAT(-1)	0.698261	0.201222	3.470106	0.0024

R-squared	0.992158	Mean dependent var	43597.61
Adjusted R-squared	0.990981	S.D. dependent var	34428.25
S.E. of regression	3269.548	Akaike info criteri	19.17370
Sum squared resid	2.14E+08	Schwarz criterion	19.37005
Log likelihood	-226.0844	F-statistic	843.4157
Durbin-Watson stat	2.023974	Prob(F-statistic)	0.000000

```

=====
Dependent Variable: LOG(SSA)
Method: Least Squares
Date: 01/19/05   Time: 15:56
Sample: 1980 2003
Included observations: 24
=====

```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.494445	0.136857	3.612866	0.0016
LOG(Y_GDPV*LABSHARE/-0.011779	0.080768	-0.145836	0.8854	
LOG(SSA(-1))	0.985254	0.076318	12.90983	0.0000

```

=====
R-squared          0.998768    Mean dependent var 9.387022
Adjusted R-squared 0.998651    S.D. dependent var 1.639522
S.E. of regression 0.060221    Akaike info criter-2.665112
Sum squared resid  0.076159    Schwarz criterion -2.517855
Log likelihood     34.98134     F-statistic        8513.263
Durbin-Watson stat 1.451472     Prob(F-statistic) 0.000000
=====

```

```

=====
Dependent Variable: SSP
Method: Least Squares
Date: 01/19/05   Time: 15:56
Sample: 1980 2003
Included observations: 24
=====

```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-18856.33	9666.306	-1.950727	0.0652
Y_GDPV*LABSHARE/100	0.026917	0.022944	1.173158	0.2545
LPOP	0.476864	0.235714	2.023058	0.0566
SSP(-1)	0.673451	0.207978	3.238080	0.0041

```

=====
R-squared          0.972296    Mean dependent var 8358.250
Adjusted R-squared 0.968141    S.D. dependent var 8521.335
S.E. of regression 1520.989    Akaike info criteri17.64312
Sum squared resid  46268137    Schwarz criterion 17.83946
Log likelihood     -207.7174     F-statistic        233.9745
Durbin-Watson stat 1.763135     Prob(F-statistic) 0.000000
=====

```

Dependent Variable: PGDP

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.12537	18.86241	0.642832	0.5280
M3/POTGDP	33.63104	6.459950	5.206084	0.0001
(Y_GDP/POTGDP-1)*100	0.148385	0.216952	0.683950	0.5023
PPPI	0.066247	0.252470	0.262394	0.7958
LUNR	-1.681802	0.687402	-2.446605	0.0243

R-squared	0.981434	Mean dependent var	32.55997
Adjusted R-squared	0.977526	S.D. dependent var	21.87248
S.E. of regression	3.278988	Akaike info criteri	5.395998
Sum squared resid	204.2834	Schwarz criterion	5.641426
Log likelihood	-59.75198	F-statistic	251.0994
Durbin-Watson stat	0.582736	Prob(F-statistic)	0.000000

Dependent Variable: PPPI

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	30.19932	6.790190	4.447493	0.0002
M3/POTGDP	13.34734	2.365657	5.642130	0.0000
Y_GDP/POTGDP	12.33854	12.91658	0.955248	0.3509
PPPI(-1)	0.405284	0.084443	4.799474	0.0001

R-squared	0.981011	Mean dependent var	78.25333
Adjusted R-squared	0.978162	S.D. dependent var	15.02829
S.E. of regression	2.220823	Akaike info criteri	4.584645
Sum squared resid	98.64111	Schwarz criterion	4.780987
Log likelihood	-51.01574	F-statistic	344.4064
Durbin-Watson stat	1.763997	Prob(F-statistic)	0.000000

Dependent Variable: PCPI

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.473169	10.44667	0.428191	0.6733
LWIND	0.026560	0.006056	4.386072	0.0003
PGDP	0.446423	0.164919	2.706924	0.0140
(Y_GDP/POTGDP-1)*100	-0.435656	0.165410	-2.633797	0.0164
LUNR	1.255460	0.477689	2.628192	0.0166

R-squared	0.992023	Mean dependent var	70.30742
Adjusted R-squared	0.990344	S.D. dependent var	24.40914
S.E. of regression	2.398585	Akaike info criteri	4.770687
Sum squared resid	109.3110	Schwarz criterion	5.016115
Log likelihood	-52.24824	F-statistic	590.7234
Durbin-Watson stat	0.937801	Prob(F-statistic)	0.000000

Dependent Variable: LOG(LWIND)

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.898305	0.552230	-1.626686	0.1203
LOG(Y_GDP/LE)	-0.159646	0.085086	-1.876291	0.0761
LOG(M3)	0.230100	0.076367	3.013087	0.0072
LOG(PCPI)	0.569416	0.345143	1.649799	0.1154
LOG(LWIND(-1))	0.403191	0.217336	1.855152	0.0792

R-squared	0.998008	Mean dependent var	6.557125
Adjusted R-squared	0.997588	S.D. dependent var	0.788853
S.E. of regression	0.038740	Akaike info criter	-3.480849
Sum squared resid	0.028515	Schwarz criterion	-3.235422
Log likelihood	46.77019	F-statistic	2379.471
Durbin-Watson stat	1.193455	Prob(F-statistic)	0.000000

=====

Dependent Variable: LWIND

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

=====

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-94.06186	155.6245	-0.604415	0.5527
Y_GDP/LE	-36.47130	19.83549	-1.838690	0.0816
M3	0.000781	0.000379	2.061557	0.0532
PCPI	11.40034	5.314135	2.145286	0.0451
LWIND(-1)	0.289947	0.359551	0.806414	0.4300

=====

R-squared	0.994640	Mean dependent var	917.1958
Adjusted R-squared	0.993512	S.D. dependent var	611.1720
S.E. of regression	49.22975	Akaike info criteri	10.81392
Sum squared resid	46047.79	Schwarz criterion	11.05935
Log likelihood	-124.7671	F-statistic	881.4659
Durbin-Watson stat	1.747943	Prob(F-statistic)	0.000000

=====

=====

Dependent Variable: LUNR

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

=====

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.449238	2.413688	1.843336	0.0818
Y_GDP/Y_GDP(-1)	-2.783444	0.665350	-4.183426	0.0006
LWIND/LWIND(-1)	-0.893726	1.676980	-0.532938	0.6006
DUM1998	4.322943	0.423789	10.20070	0.0000
LUNR(-1)	0.817872	0.063307	12.91917	0.0000
DUM2000	-1.498676	0.381350	-3.929923	0.0010

=====

R-squared	0.948279	Mean dependent var	3.539917
Adjusted R-squared	0.933912	S.D. dependent var	1.277856
S.E. of regression	0.328506	Akaike info criteri	0.823792
Sum squared resid	1.942486	Schwarz criterion	1.118306
Log likelihood	-3.885505	F-statistic	66.00433
Durbin-Watson stat	1.975200	Prob(F-statistic)	0.000000

=====

Dependent Variable: LF

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-867.1878	3527.365	-0.245846	0.8083
LPOP	0.157255	0.119256	1.318635	0.2022
LWIND/PCPI	150.3961	91.76924	1.638851	0.1169
LF(-1)	0.603278	0.171403	3.519640	0.0022

R-squared	0.994120	Mean dependent var	18865.17
Adjusted R-squared	0.993238	S.D. dependent var	2934.015
S.E. of regression	241.2759	Akaike info criteri	13.96077
Sum squared resid	1164281.	Schwarz criterion	14.15711
Log likelihood	-163.5293	F-statistic	1127.047
Durbin-Watson stat	1.184468	Prob(F-statistic)	0.000000

Dependent Variable: RCB

Method: Least Squares

Date: 01/19/05 Time: 15:56

Sample: 1980 2003

Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.02040	1.233993	8.930682	0.0000
Z_CPI	0.591757	0.059609	9.927272	0.0000
M2NEW	3.47E-06	2.72E-06	1.273156	0.2183
Y_IF*PGDP/100	-0.000106	2.65E-05	-4.009218	0.0008
RCB(-1)	0.059425	0.083182	0.714397	0.4837

R-squared	0.966576	Mean dependent var	14.07167
Adjusted R-squared	0.959539	S.D. dependent var	5.328696
S.E. of regression	1.071860	Akaike info criteri	3.159719
Sum squared resid	21.82878	Schwarz criterion	3.405147
Log likelihood	-32.91663	F-statistic	137.3630
Durbin-Watson stat	2.078942	Prob(F-statistic)	0.000000

```

=====
Dependent Variable: RCB
Method: Least Squares
Date: 01/19/05   Time: 15:56
Sample: 1980 2003
Included observations: 24
=====

```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.63999	0.638414	19.79903	0.0000
Z_CPI	0.609577	0.052522	11.60617	0.0000
M2NEW	-7.89E-06	1.10E-06	-7.173084	0.0000

```

=====
R-squared          0.931769   Mean dependent var 14.07167
Adjusted R-squared 0.925271   S.D. dependent var 5.328696
S.E. of regression 1.456683   Akaike info criteri3.706669
Sum squared resid  44.56041   Schwarz criterion  3.853926
Log likelihood      -41.48003   F-statistic        143.3898
Durbin-Watson stat  1.241762   Prob(F-statistic)  0.000000
=====

```

```

=====
Dependent Variable: M2NEW
Method: Least Squares
Date: 01/19/05   Time: 15:56
Sample: 1980 2003
Included observations: 24
=====

```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-264230.3	46884.23	-5.635802	0.0000
Y_CP+Y_IF	2.061957	0.393712	5.237220	0.0000
RCB-Z_CPI	-4171.137	3778.600	-1.103884	0.2827
PCPI	3819.206	1447.274	2.638896	0.0157

```

=====
R-squared          0.981828   Mean dependent var 314098.3
Adjusted R-squared 0.979102   S.D. dependent var 296967.3
S.E. of regression 42930.32   Akaike info criteri24.32356
Sum squared resid  3.69E+10   Schwarz criterion  24.51990
Log likelihood      -287.8827   F-statistic        360.1893
Durbin-Watson stat  0.618441   Prob(F-statistic)  0.000000
=====

```

1. 역사적 시뮬레이션

Model: NABO Workfile: NABOMDL1#Nabomdl1		
View Proc Object Print Name Freeze Solve Equations Variables Text		
Equations: 38 Baseline		
☐ EQ_CCXGSV1	Eq1:	ccxgsv = F(ccxgsv, er, mwsv)
☐ EQ_CCMGSV1	Eq2:	ccmgsv = F(ccmgsv, er, pmgs, pppi, y_gdp)
☐ EQ_BPXGSV1	Eq3:	bpxgsv = F(bpxgsv, erjap, mwsv)
☐ EQ_BPMGSV1	Eq4:	bpmgsv = F(er, pmgs, y_gdp)
☐ EQ_BPSVCR1	Eq5:	bpsvcr = F(bpsvcr, er, erjap, mwsv)
☐ EQ_BPSVDB1	Eq6:	bpsvdb = F(bpsvdb, bpxgsv, er, pmgs)
☐ EQ_ER1	Eq7:	er = F(bpcb, er, erjap, m2new, pgdp)
☐ EQ_PXGS1	Eq8:	pxgs = F(er, lwind, poildub, pxgs)
☐ EQ_PMGS1	Eq9:	pmgs = F(er, pmws, poildub)
☐ "bpgb = bpxgsv - bpm "	Eq10:	bpgb = F(bpmgsv, bpxgsv)
☐ "bpsb = bpsvcr - bps "	Eq11:	bpsb = F(bpsvcr, bpsvdb)
☐ "bpcb = bpgb + bpsb "	Eq12:	bpcb = F(bpgb, bpiib, bpsb, bptr)
☐ EQ_Y_CP1	Eq13:	y_cp = F(dum1998, pcpi, ssp, tx_nat, y_cp, y_gdpv)
☐ EQ_Y_IFM1	Eq14:	y_ifm = F(potgdp, rcb, y_gdp, y_ifm, z_cpi)
☐ EQ_Y_IFC1	Eq15:	y_ifc = F(bcp, dum1998, dum98on, y_gdp)
☐ EQ_Y_XG1	Eq16:	y_xg = F(bpxgsv, er, pgdp, y_xg)
☐ EQ_Y_XS1	Eq17:	y_xs = F(bpsvcr, er, pgdp, y_xs)
☐ EQ_Y_MG1	Eq18:	y_mg = F(bpmgsv, er, erjap, pgdp)
☐ EQ_Y_MS1	Eq19:	y_ms = F(bpsvdb, er, erjap, pgdp, y_ms)
☐ "y_c = y_cp + y_cg "	Eq20:	y_c = F(y_cg, y_cp)
☐ "y_if = y_ifm + y_if "	Eq21:	y_if = F(y_ifc, y_ifi, y_ifm)
☐ "y_i = y_if + y_is "	Eq22:	y_i = F(y_if, y_is)
☐ "y_x = y_xg + y_xs "	Eq23:	y_x = F(y_xg, y_xs)
☐ "y_m = y_mg + y_ms "	Eq24:	y_m = F(y_mg, y_ms)
☐ "y_gdpv = y_gdp * pgd "	Eq25:	y_gdpv = F(pgdp, y_gdp)
☐ EQ_TX NAT1	Eq26:	tx_nat = F(pgdp, tx_nat, y_gdp)
☐ EQ_SSA1	Eq27:	ssa = F(labshare, ssa, y_gdpv)
☐ EQ_SSP1	Eq28:	ssp = F(labshare, lpop, ssp, y_gdpv)
☐ EQ_PGDP1	Eq29:	pgdp = F(lunr, m3, potgdp, pppi, y_gdp)
☐ EQ_PPP11	Eq30:	pppi = F(m3, potgdp, pppi, y_gdp)
☐ EQ_PCPI1	Eq31:	pcpi = F(lunr, lwind, pgdp, potgdp, y_gdp)
☐ EQ_LWIND1	Eq32:	lwind = F(le, lwind, m3, pcpi, y_gdp)
☐ EQ_LUNR1	Eq33:	lunr = F(dum1998, dum2000, lunr, lwind, y_gdp)
☐ EQ_LF1	Eq34:	lf = F(lf, lpop, lwind, pcpi)
☐ EQ_RCB1	Eq35:	rcb = F(m2new, z_cpi)
☐ EQ_M2NEW1	Eq36:	m2new = F(pcpi, rcb, y_cp, y_if, z_cpi)
☐ "z_cpi = 100. * (pcpi "	Eq37:	z_cpi = F(pcpi)
☐ "le = lf - (lunr * l "	Eq38:	le = F(lf, lunr)

Model: NABO

Date: 01/19/05 Time: 17:07

Sample: 1981 2003

Solve Options:

Static-Deterministic Simulation

No interactions between periods

Solver: Gauss-Seidel

Max iterations = 5000, Convergence = 1e-008

Scenario: Baseline

Solve begin 17:07:28

Solve complete 17:07:28

[]

[]

NABO

(2004. 9. 1.)

