

presvote_q_versi on_2009-09-03_webpostv2. l og

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log:
C: \myfi les-2008\PresVoteUS-2008\Post2008Resti mati on\presvote_q_versi on_2009-09-03_we
bpostv2. l og
log type: text
opened on: 8 Apr 2010, 18: 54: 27

```

```

. * Re-esti mati on of Bread and Peace Model usi ng BEA NI PA revi si on of 2009-08-27
. versi on 9

```

```

. set logtype text

```

```

. cd C: \myfi les-2008\PresVoteUS-2008\Post2008Resti mati on\
C: \myfi les-2008\PresVoteUS-2008\Post2008Resti mati on

```

```

. use presvote_q_versi on_2009-09-03_webpostv2. dta

```

```

. * defi ni ti ons and sources of vari ables:
. descri be, full

```

```

Contains data from presvote_q_versi on_2009-09-03_webpostv2. dta
obs: 240
vars: 9 8 Apr 2010 18: 44
size: 10, 560 (99. 9% of memory free)

```

vari abl e name	storage type	di spl ay format	val ue label	vari abl e label
year	fl oat	%9. 0g		
quarter	fl oat	%9. 0g		
dpi_pc	doubl e	%9. 0g		nomi nal di sp pers i ncome pc, SAAR, 2009-08-27 BEA T2. 1, L36
cpi_sa_8284	fl oat	%9. 0g		cpi , SA, all urban, all i tems, 1982-84=100, BLS 2009-02-03
presvote	fl oat	%9. 0g		i ncumbent party % share of 2-party presi denti al vote
el ectq	fl oat	%9. 0g		el ecti on quarter dummy=1 at 4th quarter of el ecti on years, = 0 otherwise
wtq16	fl oat	%9. 0g		wei ght=1/3 appl ied to pres el ecti on quarter growth rates (q 16 of 16q pres term)
qdates	fl oat	%tq		year-quarter label vari abl e, 1947q1 to 2008q4
Fatal i ti es	fl oat	%9. 0g		cum mi l tary fatal i ti es per mi l pop at 52, 64, 68, 76, 04, 08 el ecti ons; q16 wghted 1/3

Sorted by:

```

. sort qdates
. tsset qdates, quarterl y
time vari abl e: qdates, 1949q1 to 2008q4
. sort qdates

```

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```
. *generate real income growth rate variable used in the model
. gen r = dpi_pc/(cpi_sa_8284/100)

. gen lnr = log(r)

. gen dlnr = (lnr-L1.lnr)*400
(1 missing value generated)

. /* Bread and Peace model, nonlinear ("nl") estimation.
> Note that the model assumes Presidents get a full term (4 year) "grace period" for
inherited wars,
> which mainly affects the 1972 election (Nixon having inherited Vietnam from
Johnson). See Hibbs, Public Choice 2000 for demonstration.
> */

. nl ( presvote = {b0} + {bdlnr}*((1.0*wtq16*dlnr+{g}^L1.dlnr ///
> +{g}^2*L2.dlnr+{g}^3*L3.dlnr+{g}^4*L4.dlnr+{g}^5*L5.dlnr ///
> +{g}^6*L6.dlnr +{g}^7*L7.dlnr+{g}^8*L8.dlnr+{g}^9*L9.dlnr ///
> +{g}^10*L10.dlnr+{g}^11*L11.dlnr ///
> +{g}^12*L12.dlnr+{g}^13*L13.dlnr+{g}^14*L14.dlnr) / (1.0*wtq16+{g} ///
> +{g}^2+{g}^3+{g}^4+{g}^5+{g}^6+{g}^7+{g}^8+{g}^9+{g}^10+{g}^11 ///
> +{g}^12+{g}^13+{g}^14)) + {bkia}*Fatalities ) ///
> if year>1948, variables(presvote dlnr wtq16 Fatalities) ///
> initial (b0 45 g 0.95 bdlnr 4 bkia -0.1) iterate(500) nolog
(obs = 15)
```

Source	SS	df	MS	Number of obs =	15
Model	419.153555	3	139.717852	F(3, 11) =	29.13
Residual	52.7545853	11	4.79587139	Prob > F =	0.0000
				R-squared =	0.8882
				Adj R-squared =	0.8577
Total	471.908141	14	33.7077243	Root MSE =	2.189948
				Res. dev. =	61.43216

presvote	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
b0	46.00448	1.100445	41.81	0.000	43.58242 48.42654
bdlnr	3.630606	.5539783	6.55	0.000	2.411308 4.849904
g	.9131757	.0476264	19.17	0.000	.8083507 1.018001
bkia	-.0521319	.0115512	-4.51	0.001	-.0775559 -.0267079

* Parameter b0 taken as constant term in model & ANOVA table
(SEs, P values, CIs, and correlations are asymptotic approximations)

```
. predict vhat if e(sample), yhat
. predict error if e(sample), residuals
```

```
. display _b[b0]
46.004481
```

```
. display _b[bdlnr]
3.6306063
```

```
. display _b[g]
.91317568
```

```
. display _b[bkia]
```

-. 05213193

```
. gen b0 = _b[b0]
. gen g = _b[g]
. gen bdl nr = _b[bdl nr]
. gen bki a = _b[bki a]
.
. /* generate regression input and output variables for graph.
> Rbar is the weighted average of per capita real income growth rates using estimate
of "g" =0.91 obtained above
> */
. gen Rbar = ///
> (1.0*wtq16*dl nr+g*L1. dl nr ///
> +g^2*L2. dl nr+g^3*L3. dl nr+g^4*L4. dl nr ///
> +g^5*L5. dl nr+g^6*L6. dl nr ///
> +g^7*L7. dl nr+g^8*L8. dl nr+g^9*L9. dl nr ///
> +g^10*L10. dl nr+g^11*L11. dl nr ///
> +g^12*L12. dl nr+g^13*L13. dl nr ///
> +g^14*L14. dl nr) / (1.0*wtq16+g ///
> +g^2+g^3+g^4+g^5+g^6+ ///
> g^7+g^8+g^9+g^10+g^11 ///
> +g^12+g^13+g^14) if electq==1 &year>1948
(225 missing values generated)
```

. label var Rbar "Elect quarter weighted-avg per capita real disp personal income growth at g=.91"

```
. * gen vote = presvote
```

. /* Note that OLS estimation of the Bread and Peace Model using the Rbar variable created above and Fatalities variable

> returns the nonlinear estimates of bread and peace effects:

```
> */
```

```
. reg presvote Rbar Fatalities
```

Source	SS	df	MS	Number of obs =	15
Model	419.153554	2	209.576777	F(2, 12) =	47.67
Residual	52.7545869	12	4.39621557	Prob > F	= 0.0000
Total	471.908141	14	33.7077243	R-squared	= 0.8882
				Adj R-squared	= 0.8696
				Root MSE	= 2.0967

presvote	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Rbar	3.630607	.4075577	8.91	0.000	2.742615 4.518598
Fatalities	-.0521319	.0095897	-5.44	0.000	-.0730261 -.0312377
_cons	46.00448	.9762238	47.12	0.000	43.87747 48.13149

```
. gen vote_no526808 = presvote - bki a*Fatalities
(225 missing values generated)
```

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```
. replace vote_no526808 = . if year==1952 | year==1968 | year==2008
(3 real changes made, 3 to missing)

.
. gen vhat_no526808 = vhat - bki a*Fatalities
(225 missing values generated)

. replace vhat_no526808 = . if year==1952 | year==1968 | year==2008
(3 real changes made, 3 to missing)

.
.
. gen year_no526808 = year

. replace year_no526808 = . if year==1952 | year==1968 | year==2008
(12 real changes made, 12 to missing)

.
. gen vote526808 = presvote if year==1952 | year==1968 | year==2008
(237 missing values generated)

.
. * Add back in kia effect to 1952 1968 and 2008 and minor effects for 1964 and 1976
.
. gen vhat_nokia = vhat - bki a*Fatalities
(225 missing values generated)

. replace vhat_nokia = . if year==1952 | year==1968 | year==2008
(3 real changes made, 3 to missing)

.
. gen pos = 3

. replace pos = 2 if year==1956
(4 real changes made)

. replace pos = 4 if year==1996
(4 real changes made)

. replace pos = 1 if year==2000
(4 real changes made)

. replace pos = 11 if year==1988
(4 real changes made)

. replace pos = 12 if year==1960
(4 real changes made)

. replace pos = 12 if year==2008
(4 real changes made)

. replace pos = 12 if year==1980
(4 real changes made)

. replace pos = 12 if year==1964
(4 real changes made)

.
.
. * generating the graph depicting effects of weighted average real income growth
and military and fatalities combined
```

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. gen RbarKia = bdnr*Rbar+bkia*Fatalities
(225 missing values generated)

```
. graph twoway connected vote_no526808 vhat vote526808 RbarKia, ///
> msymbol(0 i 0) ///
> connect(i l i) lcolor(white blue) lwidth(none thick) ///
> xlabel(year_no526808) xsize(6.2) ysize(4.5) mlabvposition(pos) ///
> title("Bread and Peace Voting in US Presidential Elections 1952-2008" " " , ///
> margin(medsmall) size(medlarge) justification(center) ) ///
> ylabel(40(5)65) ///
> ytitle("Incumbent share of two-party vote (%)", ///
> margin(medsmall) size(medium) ) ///
> xtitle("Real income growth and military fatalities combined", ///
> margin(small) size(medium) ) ///
> xlabel(-2(1)16) msize(large large large) ///
> ylabel(40(5)65) ///
> legend(off) ///
> mfcolor(black black red) mcolor(black black red) msize(3 3 3) ///
> text(44.6 -1.2 " 1952", place(se) size(small) ) ///
> text(49.6 3.4 " 1968 " , place(s) size(small) ) ///
> text(46.3 -0.6 " 2008", place(ne) size(small) ) ///
> graphregion(fcolor(white) margin(zero) ) ///
> note("Combination of real growth and fatalities weights each variable by its
estimated coefficient." ///
> "Estimated fatalities effects: -0.7% 2008, -7.6% 1968, -9.9% 1952; negligible in
1964, 1976, 2004." ///
> "Source: www.douglas-hibbs.com", size(small) margin(medsmall) justification(left)
)
```

. * list of the data graphed
. describe presvote Rbar Fatalities

variable name	storage type	display format	value label	variable label
presvote	float	%9.0g		incumbent party % share of 2-party presidential vote
Rbar	float	%9.0g		Elect quarter weighted-avg per capita real disp personal income growth at g=.91
Fatalities	float	%9.0g		cumiltry fatalities per mil pop at 52, 64, 68, 76, 04, 08 elections; q16 wghted 1/3

. list year qdates presvote Rbar Fatalities if electq==1 & year>1948, clean noobs

year	qdates	presvote	Rbar	Fatali~s
1952	1952q4	44.6	2.403778	190.4153
1956	1956q4	57.76	2.907453	0
1960	1960q4	49.91	.8589734	0
1964	1964q4	61.34	4.2258	.948843
1968	1968q4	49.6	3.017564	145.6292
1972	1972q4	61.79	3.620763	0
1976	1976q4	48.95	1.096658	2.086607
1980	1980q4	44.7	-.4272107	0
1984	1984q4	59.17	3.682462	0
1988	1988q4	53.94	2.362637	0
1992	1992q4	46.55	.5339295	0
1996	1996q4	54.74	1.394862	0
2000	2000q4	50.2664	2.515067	0
2004	2004q4	51.244	1.913204	3.860628
2008	2008q4	46.32	.0323814	13.98477

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end of do-file