____ (R)
/__ / ___/ / ___/
___/ / /___/ / /___/
Statistics/Data Analysis

User: results

/__ / ___/ / ____/ ___/ / /___/ / /___/ 15.1

Statistics/Data Analysis

Copyright 1985-2017 StataCorp LLC

StataCorp

4905 Lakeway Drive

College Station, Texas 77845 USA

800-STATA-PC

http://www.stata.com

979-696-4600

stata@stata.com

979-696-4601 (fax)

75-user Stata network perpetual license:

Serial number: 301506235429

Licensed to: ZDV

Uni-Mainz

Notes:

1. Unicode is supported; see help unicode_advice.

running C:\ProgramData\App-V\A2C7604A-4DDA-4710-8242-EB109ECC83F1\BF0D73B5-9184 > $-4142-97E9-6C2272C8DA41\Root\VFS\ProgramFilesX86\Stata15\sysprofile.do ...$

- $1 \ . \ use \ "\uni-mainz.de\dfs\profiles\settings\rohoehn\Desktop\Bachelorthesis\Regression_data_compared to the single of the second of th$
- ${\tt 2. do "\uni-mainz.de\dfs\profiles\settings\rohoehn\Desktop\Bachelorthesis\regression_dofile.do"} \\$
- 3 . global hs_group hs_group
- 4 . global t t
- 5 . global ylist $LN_Exporte_CHN_Others$
- 6 . global xlist $ln_GDP_CHN\ ln_GDP_others\ eu_ad\ us_ad$
- 7 . describe \$hs_group \$t \$ylist \$xlist

variable name	torage type	display format	value label	variable label
hs_group t LN_Exporte_C~rs ln_GDP_CHN ln_GDP_others eu_ad us_ad	double	%10.0g %10.0g %10.0g %10.0g %10.0g %10.0g %10.0g		hs_group trend LN_Exporte_CHN_Others(=World-USA-EU)(US-Dollar) ln_GDP_CHN ln_GDP_others Dummy = 1 in Years of eu_ad_duties; =0 if not Dummy = 1 in Years of us_ad_duties; =0 if not

8 . summarize \$hs_group \$t \$ylist \$xlist

Max	Min	Std. Dev.	Mean	Obs	Variable
15	1	4.334968	8	150	hs_group
10	1	2.881904	5.5	150	t
23.60867	14.3247	1.853105	18.95969	150	LN_Export~rs
30.03478	28.6434	.4532296	29.47431	150	ln_GDP_CHN
31.12623	30.5929	.1806924	30.93717	150	ln_GDP_oth~s
1	0	.3678342	.16	150	eu_ad
1	0	.3097231	.1066667	150	us ad

9 . sort \$hs_group \$t

10 . xtset \$hs_group \$t

panel variable: hs_group (strongly balanced)
time variable: t, 1 to 10
delta: 1 unit

11 . xtdescribe

n = 15 T = 10 hs_group: 1, 2, ..., 15

t: 1, 2, ..., 10
Delta(t) = 1 unit
Span(t) = 10 periods

(hs_group*t uniquely identifies each observation)

Distribution of T_i: min 5% 25% 50% 75% 95% max 10 10 10 10 10 10

Freq.	Percent	Cum.	Pattern
15	100.00	100.00	1111111111
15	100.00		xxxxxxxxx

12 . xtsum \$hs_group \$t \$ylist \$xlist

Variable		Mean	Std. Dev.	Min	Max	Observa	ations
hs_group	overall	8	4.334968	1	15	N =	150
	between		4.472136	1	15	n =	15
	within		0	8	8	T =	10
t	overall	5.5	2.881904	1	10	N =	150
	between		0	5.5	5.5	n =	15
	within		2.881904	1	10	T =	10
LN_Ex~rs	overall	18.95969	1.853105	14.3247	23.60867	N =	150
	between		1.64492	15.57517	21.99479	n =	15
	within		.9442831	16.78711	24.05029	T =	10
ln_GDP~N	overall	29.47431	.4532296	28.6434	30.03478	N =	150
	between		0	29.47431	29.47431	n =	15
	within		.4532296	28.6434	30.03478	T =	10
ln_GDP~s	overall	30.93717	.1806924	30.5929	31.12623	N =	150
	between		3.68e-15	30.93717	30.93717	n =	15
	within		.1806924	30.5929	31.12623	T =	10
eu_ad	overall	.16	.3678342	0	1	N =	150
	between		.1549193	0	. 3	n =	15
	within		.3357852	14	.86	T =	10
us_ad	overall	.1066667	.3097231	0	1	N =	150
	between		.1830951	0	. 4	n =	15
	within		.2538297	2933333	.7066667	T =	10

13 . reg \$ylist \$xlist t

Source	SS	df	MS	Number of obs	=	150
	+			F(5, 144)	=	4.82
Model	73.371882	5	14.6743764	Prob > F	=	0.0004
Residual	438.293908	144	3.04370769	R-squared	=	0.1434
	+			Adj R-squared	=	0.1137
Total	511.66579	149	3.43399859	Root MSE	=	1.7446

	LN_Exporte~rs	Coef.	Std. Err.	t	P> t	[95% Conf.	<pre>Interval]</pre>
	ln_GDP_CHN ln_GDP_others eu_ad us_ad	3.662358 -2.713035 -1.239933 2.17977	4.4528 3.895977 .4939344 .5115016	0.82 -0.70 -2.51 4.26	0.412 0.487 0.013 0.000	-5.138935 -10.41373 -2.216231 1.168749	12.46365 4.987657 2636342 3.190791
	t	3431761	.5160879	-0.66	0.507	-1.363262	.6769103
	_cons	-3.198819	54.01454	-0.06	0.953	-109.9626	103.565
14	. xtreg \$ylist	\$xlist,re					
	Random-effects	GLS regression	n		Number o	f obs =	150
	Group variable				Number o	f groups =	15
	R-sq:				Obs per	group:	
		0.0934				min =	10
	between = overall =					avg =	10.0 10
	overall =	0.0272				max =	10
					Wald chi	2(4) =	12.14
	corr(u_i, X)	= 0 (assumed)			Prob > c	hi2 =	0.0163
	LN_Exporte~rs	Coef.	Std. Err.	Z	P> z	[95% Conf.	Interval]
	ln_GDP_CHN	2526427	.5946793	-0.42	0.671	-1.418193	.9129074
	ln_GDP_others	1.479998	1.370713	1.08	0.280	-1.206549	4.166546
	eu_ad	.3670716	.3184218	1.15	0.249	2570238	.9911669
	us_ad	.3956146 -19.48172	.3661133	1.08	0.280	3219543 -72.32526	1.113183
	_cons	-19.401/2	26.96148	-0.72	0.470	-/2.32526	33.36181
	sigma_u sigma_e	1.0432495					
	rho	.9564861 .54330591	(fraction	of varia	nce due t	o u_i)	
	_		(fraction	of varia	nce due t	o u_i)	
15	_	.54330591		of varia	nce due t	o u_i)	
15	rho	.54330591 \$xlist t_square	re ,re	of varia	nce due t		150
15	rho . xtreg \$ylist	.54330591 \$xlist t_squareGLS regression	re ,re	of varia		f obs =	150 15
15	rho . xtreg \$ylist Random-effects Group variable	.54330591 \$xlist t_squareGLS regression	re ,re	of varia	Number o	f obs = f groups =	
15	rho . xtreg \$ylist Random-effects Group variable R-sq:	.54330591 \$xlist t_squareGLS regression	re ,re	of varia	Number o	f obs = f groups = group:	
15	rho . xtreg \$ylist Random-effects Group variable R-sq:	.54330591 \$xlist t_square GLS regression hs_group 0.1201	re ,re	of varia	Number o	f obs = f groups =	15
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within =	.54330591 \$xlist t_square GLS regression hs_group 0.1201 0.0001	re ,re	of varia	Number o	f obs = f groups = group:	15
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within = between =	.54330591 \$xlist t_square GLS regression hs_group 0.1201 0.0001	re ,re	of varia	Number o Number o Obs per	f obs = f groups = group: min = avg = max =	10 10.0 10
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall =	.54330591 \$xlist t_square GLS regression hs_group 0.1201 0.0001 0.0277	re ,re	of varia	Number o Number o Obs per	<pre>f obs = f groups = group: min = avg = max = 2(5) =</pre>	15 10 10.0 10
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within = between =	.54330591 \$xlist t_square GLS regression hs_group 0.1201 0.0001 0.0277	re ,re	of varia	Number o Number o Obs per	<pre>f obs = f groups = group: min = avg = max = 2(5) =</pre>	10 10.0 10
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall =	.54330591 \$xlist t_square GLS regression hs_group 0.1201 0.0001 0.0277	re ,re	of varia	Number o Number o Obs per	<pre>f obs = f groups = group: min = avg = max = 2(5) =</pre>	15 10 10.0 10 15.60 0.0081
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall = corr(u_i, X) LN_Exporte~rs	.54330591 \$xlist t_square GLS regression : hs_group 0.1201 0.0001 0.0277 = 0 (assumed) Coef.	re ,re	Z	Number o Number o Obs per Wald chi Prob > c	f obs = f groups = group: min = avg = max = 2(5) = hi2 = [95% Conf.	15 10 10.0 10 15.60 0.0081
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall = corr(u_i, X) LN_Exporte~rs ln_GDP_CHN	.54330591 \$xlist t_square GLS regression : hs_group 0.1201 0.0001 0.0277 = 0 (assumed)	re ,re		Number o Number o Obs per Wald chi Prob > c	f obs = f groups = group: min = avg = max = 2(5) = hi2 =	15 10 10.0 10 15.60 0.0081
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall = corr(u_i, X) LN_Exporte~rs	.54330591 \$xlist t_square GLS regression : hs_group 0.1201 0.0001 0.0277 = 0 (assumed) Coef. 1.927012	std. Err.	z 1.43	Number o Number o Obs per Wald chi Prob > c P> z 0.153	f obs = f groups = group: min = avg = max = 2(5) = hi2 = [95% Conf.	15 10 10.0 10 15.60 0.0081 Interval]
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall = corr(u_i, X) LN_Exporte~rs ln_GDP_CHN ln_GDP_others	.54330591 \$xlist t_square GLS regression : hs_group 0.1201 0.0001 0.0277 = 0 (assumed) Coef. 1.927012 -1.13318	Std. Err. 1.350004 1.991791	z 1.43 -0.57	Number on Number of Number of Obs per Wald child Prob > c P> z 0.153 0.569	f obs = f groups = group: min = avg = max = 2(5) = hi2 = [95% Conf. 7189476 -5.037019	15 10 10.0 10 15.60 0.0081 Interval] 4.572972 2.770659
15	rho . xtreg \$ylist Random-effects Group variable: R-sq: within = between = overall = corr(u_i, X) LN_Exporte~rs ln_GDP_CHN ln_GDP_others eu_ad us_ad t_square	.54330591 \$xlist t_square GLS regression : hs_group 0.1201 0.0001 0.0277 = 0 (assumed) Coef. 1.927012 -1.13318 .534214 .48016090195227	Std. Err. 1.350004 1.991791 .328225 .3661302 .0108691	1.43 -0.57 1.63 1.31 -1.80	Number of Number	f obs = f groups = group: min = avg = max = 2(5) = hi2 = [95% Conf. 7189476 -5.037019109095223744110408258	15 10 10.0 10 15.60 0.0081 Interval] 4.572972 2.770659 1.177523 1.197763 .0017804
15	rho . xtreg \$ylist Random-effects Group variable: R-sq: within = between = overall = corr(u_i, X) LN_Exporte~rs ln_GDP_CHN ln_GDP_others eu_ad us_ad	.54330591 \$xlist t_square GLS regression : hs_group 0.1201 0.0001 0.0277 = 0 (assumed) Coef. 1.927012 -1.13318 .534214 .4801609	Std. Err. 1.350004 1.991791 .328225 .3661302	1.43 -0.57 1.63 1.31	Number o Number o Number o Obs per Wald chi Prob > c P> z 0.153 0.569 0.104 0.190	f obs = f groups = group: min = avg = max = 2(5) = hi2 = [95% Conf. 7189476 -5.03701910909522374411	15 10 10.0 10 15.60 0.0081 Interval] 4.572972 2.770659 1.177523 1.197763
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall = corr(u_i, X) LN_Exporte~rs ln_GDP_CHN ln_GDP_others eu_ad us_ad t_square _cons	.54330591 \$xlist t_square GLS regression : hs_group 0.1201 0.0001 0.0277 = 0 (assumed) Coef. 1.927012 -1.13318 .534214 .48016090195227 -2.165339	Std. Err. 1.350004 1.991791 .328225 .3661302 .0108691	1.43 -0.57 1.63 1.31 -1.80	Number of Number	f obs = f groups = group: min = avg = max = 2(5) = hi2 = [95% Conf. 7189476 -5.037019109095223744110408258	15 10 10.0 10 15.60 0.0081 Interval] 4.572972 2.770659 1.177523 1.197763 .0017804
15	rho . xtreg \$ylist Random-effects Group variable: R-sq: within = between = overall = corr(u_i, X) LN_Exporte~rs ln_GDP_CHN ln_GDP_others eu_ad us_ad t_square	.54330591 \$xlist t_square GLS regression : hs_group 0.1201 0.0001 0.0277 = 0 (assumed) Coef. 1.927012 -1.13318 .534214 .48016090195227	Std. Err. 1.350004 1.991791 .328225 .3661302 .0108691	1.43 -0.57 1.63 1.31 -1.80	Number of Number	f obs = f groups = group: min = avg = max = 2(5) = hi2 = [95% Conf. 7189476 -5.037019109095223744110408258	15 10 10.0 10 15.60 0.0081 Interval] 4.572972 2.770659 1.177523 1.197763 .0017804
15	rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall = corr(u_i, X) LN_Exporte~rs ln_GDP_CHN ln_GDP_others eu_ad us_ad t_square _cons sigma_u	.54330591 \$xlist t_square GLS regression hs_group 0.1201 0.0001 0.0277 = 0 (assumed) Coef. 1.927012 -1.13318 .534214 .48016090195227 -2.165339 1.0442068	Std. Err. 1.350004 1.991791 .328225 .3661302 .0108691	2 1.43 -0.57 1.63 1.31 -1.80 -0.08	Number o Number o Obs per Wald chi Prob > c P> z 0.153 0.569 0.104 0.190 0.072 0.939	f obs = f groups = group: min = avg = max = 2(5) = hi2 = [95% Conf. 7189476 -5.037019109095223744110408258 -57.83501	15 10 10.0 10 15.60 0.0081 Interval] 4.572972 2.770659 1.177523 1.197763 .0017804

16 . xtreg \$ylist \$xlist D07 D08 D09 D10 D11 D12 D13,re

Group variable	GLS regressio : hs_group	n		Number o	f obs = f groups =	150 15
R-sq:				Obs per	group:	
within =	0.4911				min =	10
between =	0.0577				avg =	10.0
overall =	0.0641				max =	10
				Wald chi		100.60
corr(u_i, X)	= 0 (assumed)			Prob > c	hi2 =	0.0000
LN_Exporte~rs	Coef.	Std. Err.	z	P> z	[95% Conf.	Interval]
ln_GDP_CHN	3.14411	.8050005	3.91	0.000	1.566338	4.721882
ln_GDP_others	-9.442677	2.286371	-4.13	0.000	-13.92388	-4.961472
	1.478147	.2871689	5.15	0.000	.9153063	2.040988
eu_ad	l .					
us_ad	.5364521	.3014307	1.78	0.075	0543412	1.12724
D07	.6460159	.2827368	2.28	0.022	.091862	1.2001
D08	1.336067	.3129811	4.27	0.000	.7226351	1.949498
D09	.3011005	.2557923	1.18	0.239	2002433	.802444
D10	1.733481	.3339445	5.19	0.000	1.078961	2.38
	3.063397	.4397469		0.000	2.201508	3.92528
D11	l .		6.97			
D12	2.36887	.4312655	5.49	0.000	1.523606	3.214135
D13	.1394624	.3325825	0.42	0.675	5123874	.7913123
_cons	217.1663	48.16929	4.51	0.000	122.7563	311.5764
sigma_u	1.0609141					
sigma_e rho	.67449574	(fraction	of waria	ngo duo t	o 11 i)	
<pre>Group variable R-sq:</pre>				Number o	f groups = group:	15
within =	0.4302				min =	9
between =	0.1445				avg =	9.0
overall =	0.4132				max =	9
				Wald chi		87.30
corr(u_i, X)	= 0 (assumed)			Prob > c	hi2 =	
D.	Coof	Ctd Eroso	_			0.0000
LN_Exporte~rs	Coef.	Std. Err.		D > 1 = 1	[OF% Comf	
ln_GDP_CHN D1.			Z	P> z	[95% Conf.	
υ1.	5.257653	7.480601	0.70	P> z 0.482	[95% Conf.	Interval
	5.257653	7.480601				Interval
ln_GDP_others			0.70	0.482	-9.404056	Interval
	5.257653 -11.45385	7.480601 5.671605				Interval
ln_GDP_others D1.			0.70	0.482	-9.404056	Interval
ln_GDP_others			0.70	0.482	-9.404056	Interval
ln_GDP_others D1.			0.70	0.482	-9.404056	19.91936 3377103
ln_GDP_others D1. eu_ad	-11.45385	5.671605	0.70	0.482	-9.404056 -22.56999	19.91936 3377103
<pre>ln_GDP_others</pre>	-11.45385	5.671605	0.70	0.482	-9.404056 -22.56999	19.91936 3377103
<pre>ln_GDP_others</pre>	-11.45385 2.580212	5.671605	0.70 -2.02 5.11	0.482	-9.404056 -22.56999 1.58996	19.91936 3377103 3.570469
ln_GDP_others D1. eu_ad D1.	-11.45385	5.671605	0.70	0.482	-9.404056 -22.56999	19.91936 3377103 3.570469
<pre>ln_GDP_others</pre>	-11.45385 2.580212	5.671605	0.70 -2.02 5.11	0.482	-9.404056 -22.56999 1.58996	19.91936 3377103 3.570469
<pre>ln_GDP_others</pre>	-11.45385 2.580212	5.671605	0.70 -2.02 5.11 2.87	0.482	-9.404056 -22.56999 1.58996 .5161138	19.91936 3377103 3.570469
<pre>ln_GDP_others</pre>	-11.45385 2.580212	5.671605	0.70 -2.02 5.11	0.482	-9.404056 -22.56999 1.58996	19.919363377103 3.570469
ln_GDP_others D1. eu_ad D1. us_ad D1. D07	-11.45385 2.580212 1.633269	5.671605 .5052402 .5699878	0.70 -2.02 5.11 2.87	0.482 0.043 0.000	-9.404056 -22.56999 1.58996 .5161138	19.919363377103 3.570469
ln_GDP_others D1. eu_ad D1. us_ad D1. D07	-11.45385 2.580212 1.633269	5.671605 .5052402 .5699878	0.70 -2.02 5.11 2.87	0.482 0.043 0.000	-9.404056 -22.56999 1.58996 .5161138	19.919363377103 3.570469
ln_GDP_others D1. eu_ad D1. us_ad D1. D07 D1.	-11.45385 2.580212 1.633269 .6994416	5.671605 .5052402 .5699878 .3757093	0.70 -2.02 5.11 2.87	0.482 0.043 0.000 0.004	-9.404056 -22.56999 1.58996 .5161138036935	Interval 19.91936 3377103 3.570469 2.750429 1.435818
ln_GDP_others D1. eu_ad D1. us_ad D1. D07 D1.	-11.45385 2.580212 1.633269	5.671605 .5052402 .5699878	0.70 -2.02 5.11 2.87	0.482 0.043 0.000	-9.404056 -22.56999 1.58996 .5161138	19.919363377103 3.570465 2.750425
ln_GDP_others D1. eu_ad D1. us_ad D1. D07 D1. D08 D1.	-11.45385 2.580212 1.633269 .6994416	5.671605 .5052402 .5699878 .3757093	0.70 -2.02 5.11 2.87	0.482 0.043 0.000 0.004	-9.404056 -22.56999 1.58996 .5161138036935	19.919363377101 3.570465 2.750425
ln_GDP_others D1. eu_ad D1. us_ad D1. D07 D1. D08 D1. D09	-11.45385 2.580212 1.633269 .6994416 1.430664	5.671605 .5052402 .5699878 .3757093 .6930576	0.70 -2.02 5.11 2.87 1.86 2.06	0.482 0.043 0.000 0.004 0.063	-9.404056 -22.56999 1.58996 .5161138036935	Interval 1 19.91936 3377101 3.570465 2.750425 1.435818 2.789032
ln_GDP_others D1. eu_ad D1. us_ad D1. D07 D1. D08 D1.	-11.45385 2.580212 1.633269 .6994416	5.671605 .5052402 .5699878 .3757093	0.70 -2.02 5.11 2.87	0.482 0.043 0.000 0.004	-9.404056 -22.56999 1.58996 .5161138036935	Interval 1 19.91936 3377101 3.570465 2.750425 1.435818 2.789032
ln_GDP_others D1. eu_ad D1. us_ad D1. D07 D1. D08 D1. D09 D1.	-11.45385 2.580212 1.633269 .6994416 1.430664	5.671605 .5052402 .5699878 .3757093 .6930576	0.70 -2.02 5.11 2.87 1.86 2.06	0.482 0.043 0.000 0.004 0.063	-9.404056 -22.56999 1.58996 .5161138036935	
ln_GDP_others D1. eu_ad D1. us_ad D1. D07 D1. D08 D1. D09	-11.45385 2.580212 1.633269 .6994416 1.430664	5.671605 .5052402 .5699878 .3757093 .6930576	0.70 -2.02 5.11 2.87 1.86 2.06	0.482 0.043 0.000 0.004 0.063	-9.404056 -22.56999 1.58996 .5161138036935	Interval] 19.91936 3377101 3.570465 2.750425 1.435818 2.789032

Monday August 20 13:11:55 2018 Page 5

D1.	2.117425	.4739127	4.47	0.000	1.188573	3.046277
D11 D1.	3.589021	.4899819	7.32	0.000	2.628674	4.549368
D12 D1.	2.743249	.3633429	7.55	0.000	2.03111	3.455388
_cons	3321114	.9076004	-0.37	0.714	-2.110975	1.446753
sigma_u sigma_e rho	0 1.0173085 0	(fraction	of varia	nce due t	o u_i)	

- 18 . quietly xtreg \$ylist \$xlist, re
- 19 . xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

LN_Exporte_CHN_Others[hs_group,t] = Xb + u[hs_group] + e[hs_group,t]

Estimated results:

	Var	sd = sqrt(Var)
LN_Exp~rs	3.433999	1.853105
е	.9148657	.9564861
u	1.08837	1.043249

- 20 . global hs_group hs_group
- 21 . global t t
- 22 . global ylist LN_Exporte_CHN_Others_quantities
- 23 . global xlist ln_GDP_CHN ln_GDP_others eu_ad us_ad
- 24 . describe $hs_group t \$ylist \$xlist

variable name	torage type	display format	value label	variable label
hs_group	byte	%10.0g		hs_group
t	byte	%10.0g		trend
LN_Exporte_C~es	float	%9.0g		
ln_GDP_CHN	double	%10.0g		ln_GDP_CHN
${\tt ln_GDP_others}$	double	%10.0g		<pre>ln_GDP_others</pre>
eu_ad	byte	%10.0g		<pre>Dummy = 1 in Years of eu_ad_duties; =0 if not</pre>
us_ad	byte	%10.0q		Dummy = 1 in Years of us_ad_duties; =0 if not

25 . summarize \$hs_group \$t \$ylist \$xlist

Variable	Obs	Mean	Std. Dev.	Min	Max
hs_group	150	8	4.334968	1	15
t	150	5.5	2.881904	1	10
LN_Export~es	120	15.36603	1.94221	11.70622	21.01127
ln_GDP_CHN	150	29.47431	.4532296	28.6434	30.03478
ln_GDP_oth~s	150	30.93717	.1806924	30.5929	31.12623
eu_ad	150	.16	.3678342	0	1
us_ad	150	.1066667	.3097231	0	1

Monday August 20 13:11:55 2018 Page 6

26 . sort \$hs_group \$t

27 . xtset \$hs_group \$t

panel variable: hs_group (strongly balanced)
time variable: t, 1 to 10
delta: 1 unit

28 . xtdescribe

hs_group: 1, 2, ..., 15 t: 1, 2, ..., 10 Delta(t) = 1 unit Span(t) = 10 periods

n = 15 T = 10

(hs_group*t uniquely identifies each observation)

Distribution of T_i: min 5% 10 10

25% 50% 75% 95% max 10 10 10 10

Freq.	Percent	Cum.	Pattern
15	100.00	100.00	1111111111
15	100.00		xxxxxxxxx

29 . xtsum \$hs_group \$t \$ylist \$xlist

Variable		Mean	Std. Dev.	Min	Max	0b	sei	rvations
hs_group	overall between within	8	4.334968 4.472136 0	1 1 8	15 15 8	n	= =	150 15 10
t	overall between within	5.5	2.881904 0 2.881904	1 5.5 1	10 5.5 10	n	= =	150 15 10
LN_Ex~es	overall between within	15.36603	1.94221 1.872527 .6959498	11.70622 12.59366 12.04993	21.01127 19.22633 17.21748		= =	120 15 8
ln_GDP~N	overall between within	29.47431	.4532296 0 .4532296	28.6434 29.47431 28.6434	30.03478 29.47431 30.03478	n	= =	150 15 10
ln_GDP~s	overall between within	30.93717	.1806924 3.68e-15 .1806924	30.5929 30.93717 30.5929	31.12623 30.93717 31.12623	n	= =	150 15 10
eu_ad	overall between within	.16	.3678342 .1549193 .3357852	0 0 14	1 .3 .86	n	= =	150 15 10
us_ad	overall between within	.1066667	.3097231 .1830951 .2538297	0 0 2933333	1 .4 .7066667	n	= =	150 15 10

30 . reg \$ylist \$xlist t

	Source	SS	df	MS	Number of obs	=	120
-					F(5, 114)	=	10.62
	Model	142.604932	5	28.5209864	Prob > F	=	0.0000
	Residual	306.284483	114	2.68670599	R-squared	=	0.3177
-					Adj R-squared	=	0.2878
	Total	448.889415	119	3.77217995	Root MSE	=	1.6391

LN_Exporte~es	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
ln_GDP_CHN	-1.674137	4.521346	-0.37	0.712	-10.63089	7.282614
ln_GDP_others	2.768553	4.041889	0.68	0.495	-5.238398	10.775
eu_ad	-1.121874	.5557064	-2.02	0.046	-2.222725	0210242
us_ad	4.197661	.6766753	6.20	0.000	2.857172	5.538149
t	.2414511	.5231362	0.46	0.645	7948777	1.27778
_cons	-22.34098	55.53691	-0.40	0.688	-132.3592	87.67722
. xtreg \$ylist	\$xlist,re					
Random-effects	GLS regressio	n		Number o	of obs =	120
Group variable	_			Number o	f groups =	15
R-sq:				Obs per	group:	
within =	0.5113				min =	4
between =	0.1942				avg =	8.0
overall =	0.1271				max =	10
				Wald chi	, ,	84.02
corr(u_i, X)	= 0 (assumed)			Prob > c	ehi2 =	0.0000
LN_Exporte~es	Coef.	Std. Err.	z	P> z	[95% Conf.	Interval]
ln_GDP_CHN	.3460709	.3858896	0.90	0.370	4102589	1.102401
ln_GDP_others	1.591049	.9030809	1.76	0.078	1789566	3.36105
eu_ad	.2343351	.2317259	1.01	0.312	2198392	.6885095
us_ad	.5608736	.3065251	1.83	0.067	0399045	1.16165
_cons	-43.97392	17.95332	-2.45	0.014	-79.16178	-8.786056
sigma_u	.94871826					
sigma_e rho	.52613508 .76478734	(fraction	of varia	nce due t	o u_i)	
sigma_e	.52613508 .76478734		of varia	nce due t	o u_i)	
sigma_e rho	.52613508 .76478734 \$xlist t_squa	re ,re	of varia	nce due t		120
sigma_e rho . xtreg \$ylist	.52613508 .76478734 \$xlist t_squa GLS regressio	re ,re	of varia	Number c		120 15
sigma_e rho . xtreg \$ylist Random-effects	.52613508 .76478734 \$xlist t_squa GLS regressio	re ,re	of varia	Number c	of obs = of groups =	
sigma_e	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group	re ,re	of varia	Number o	of obs = of groups =	
sigma_e rho . xtreg \$ylist Random-effects Group variable R-sq:	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199	re ,re	of varia	Number o	of obs = of groups = group:	15
sigma_e	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641	re ,re	of varia	Number o	of obs = of groups = group:	15
sigma_e rho . xtreg \$ylist Random-effects Group variable R-sq: within = between =	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641	re ,re	of varia	Number of Number of Obs per	of obs = of groups = group: min = avg = max =	15 4 8.0 10
sigma_e rho . xtreg \$ylist Random-effects Group variable R-sq: within = between =	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641	re ,re	of varia	Number o	of obs = of groups = group: min = avg = max = .2(5) =	15 4 8.0
sigma_e rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall =	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641 0.1259	re ,re	of varia	Number of Number of Obs per	of obs = of groups = group: min = avg = max = .2(5) =	15 4 8.0 10 86.64 0.0000
sigma_e	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641 0.1259 = 0 (assumed) Coef.	re ,re n Std. Err.	Z	Number of Number of Obs per Wald chiprob > of P> z	of obs = of groups = of groups = of group:	15 4 8.0 10 86.64 0.0000
sigma_e	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641 0.1259 = 0 (assumed) Coef5271857	re ,re n Std. Err8758086	z -0.60	Number of Number of Number of Obs per Wald chi Prob > c	of obs = of groups	15 4 8.0 10 86.64 0.0000 Interval
sigma_e	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641 0.1259 = 0 (assumed) Coef. 5271857 2.670825	re ,re n Std. Err. .8758086 1.322716	-0.60 2.02	Number of Number of Number of Obs per Wald chi Prob > c	group: min = avg = max = 2(5) = chi2 = [95% Conf. -2.243739 .0783499	15 4 8.0 10 86.64 0.0000 Interval 1.189368 5.2633
sigma_e rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall = corr(u_i, X) LN_Exporte~es ln_GDP_CHN ln_GDP_others eu_ad	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641 0.1259 = 0 (assumed) Coef. 5271857 2.670825 .1558946	std. Err8758086 1.322716 .2410784	-0.60 2.02 0.65	Number of Number	group: min = avg = max = 2(5) = hi2 = [95% Conf. -2.243739 .07834993166103	15 4 8.0 10 86.64 0.0000 Interval 1.189368 5.2633 .6283999
sigma_e	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641 0.1259 = 0 (assumed) Coef. 5271857 2.670825 .1558946 .5061365	std. Err8758086 1.322716 .2410784 .3064834	-0.60 2.02 0.65 1.65	Number of Number	f obs = of groups = group: min = avg = max = c2(5) = chi2 = conf. -2.243739 .0783499 .3166103 .0945599	15 4 8.0 10 86.64 0.0000 Interval 1.18936 5.263 .628399 1.10683
sigma_e rho . xtreg \$ylist Random-effects Group variable R-sq: within = between = overall = corr(u_i, X) LN_Exporte~es ln_GDP_CHN ln_GDP_others eu_ad	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641 0.1259 = 0 (assumed) Coef. 5271857 2.670825 .1558946	std. Err8758086 1.322716 .2410784	-0.60 2.02 0.65	Number of Number	group: min = avg = max = 2(5) = hi2 = [95% Conf. -2.243739 .07834993166103	15 4 8.0 10 86.64 0.0000 Interval 1.189368 5.263 .6283999 1.10683 .0216152
sigma_e	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641 0.1259 = 0 (assumed) Coef. 5271857 2.670825 .1558946 .5061365 .0078137	std. Err8758086 1.322716 .2410784 .3064834 .0070417	-0.60 2.02 0.65 1.65 1.11	Number of Number	f obs = of groups = group: min = avg = max = c2(5) = chi2 = conf. -2.243739 .0783499 .3166103 .0945599 .0059877	15 4 8.0 10 86.64 0.0000 Interval: 1.189368 5.2633 .6283998 1.106833 .0216152
sigma_e	.52613508 .76478734 \$xlist t_squa GLS regressio : hs_group 0.5199 0.1641 0.1259 = 0 (assumed) Coef. 5271857 2.670825 .1558946 .5061365 .0078137 -51.92149	std. Err8758086 1.322716 .2410784 .3064834 .0070417	-0.60 2.02 0.65 1.65 1.11	Number of Number	f obs = of groups = group: min = avg = max = c2(5) = chi2 = conf. -2.243739 .0783499 .3166103 .0945599 .0059877	15 4 8.0 10 86.64 0.0000

33 . xtreg \$ylist \$xlist D07 D08 D09 D10 D11 D12 D13,re

Random-effects Group variable	_	n		Number o	f obs = f groups =	120 15
R-sq:				Obs per	group:	
within =	0.5529				min =	4
between =	0.1692				avg =	8.0
overall =	0.1296				max =	10
				Wald chi		102.94
corr(u_i, X)	= 0 (assumed)			Prob > c	hi2 =	0.0000
 LN_Exporte~es	Coef.	Std. Err.	Z	P> z	[95% Conf.	Interval]
ln_GDP_CHN	1.302601	.6676199	1.95	0.051	00591	2.611112
ln_GDP_others	-1.25574	1.952378	-0.64	0.520	-5.08233	2.57085
eu_ad	.3057304	.2377388	1.29	0.198	160229	.7716899
_	.5391477		1.82	0.198	040468	1.118763
us_ad		.2957277				
D07	.1525077	.223224	0.68	0.494	2850034	.5900187
D08	.1981517	.2537013	0.78	0.435	2990937	.695397
D09	3400334	.1954911	-1.74	0.082	723189	.0431221
D10	.3984444	.2729441	1.46	0.144	1365163	.933405
D11	.4854171	.3782195	1.28	0.199	2558794	1.226714
D12	.4118334	.3957115	1.04	0.298	363747	1.187414
D13	.0907373	.2901601	0.31	0.754	477966	.6594406
_cons	15.75258	41.50326	0.38	0.704	-65.59232	97.09749
sigma_u	1.2122					
sigma_e rho	.52274277 .84319634	(fraction	of waria	nce due t	0 11 i)	
					<u> </u>	
<pre>Group variable R-sq:</pre>	: hs_group			Number o	f groups = group:	15
within =	0.3654			-	min =	3
between =	0.4821				avg =	6.0
overall =	0.3585				max =	9
				Wald chi	2(10) =	44.15
corr(u_i, X)	= 0 (assumed)			Prob > c		0.0000
D.	Coof	Ct d Eroso	_	D. II	[OF% Conf	Interval]
LN_Exporte~es	Coef.	Std. Err.	Z	P> z	[95% COIII.	
ln_GDP_CHN D1.	1596797	4.444701	-0.04	0.971	-8.871134	8.551775
ln_GDP_others D1.	.0145779	3.388328	0.00	0.997	-6.626423	6.655579
eu_ad D1.	.8738418	.4605766	1.90	0.058	0288717	1.776555
	.0730410	.4005/00	1.90	0.038	0200/1/	T.//0000
us_ad D1.		.4605766	0.84	0.399	514225	
	.3884885					
D07	.3884885					
D07 D1.	.1134091	.2085881	0.54	0.587	2954161	1.291202
					2954161 5339851	1.291202
D1. D08 D1.	.1134091	.2085881	0.54	0.587		1.291202 .5222343 1.014095
D1.	.1134091	.2085881	0.54	0.587		1.291202

Monday August 20 13:11:56 2018 Page 9

D1.	.3571962	.2531334	1.41	0.158	1389361	.8533285
D11 D1.	.4110455	.2653221	1.55	0.121	1089763	.9310672
D12 D1.	.1922679	.1758363	1.09	0.274	1523649	.5369007
_cons	.1662152	.5409428	0.31	0.759	8940132	1.226444
sigma_u sigma_e rho	0 .44848255 0	(fraction	of variar	ice due 1	to u_i)	

35 . quietly xtreg \$ylist \$xlist, re

36 . xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

LN_Exporte_CHN_Others_quantities[hs_group,t] = Xb + u[hs_group] + e[hs_group,t]

Estimated results:

	Var	sd = sqrt(Var)
LN_Exp~es	3.77218	1.94221
е	.2768181	.5261351
u	.9000663	.9487183

Test: Var(u) = 0 $\frac{chibar2(01)}{Prob > chibar2} = 198.80$ 0.0000

end of do-file

38 .