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APPENDICES

APPENDIX A

Estimation Results: Stochastic Frontier Analysis in Chapter 4

Output from the program FRONTIER (Version 4.1c)

Instruction file = terminal

data file = tv-dta.txt

Tech. Eff. Effects Frontier (see B&C 1993)

The model is a cost function

The dependent variable is logged

the ols estimates are :

	coefficient	standard-error	t-ratio
beta 0	0.54515811E-01	0.10713582E+01	0.50884766E-01
beta 1	0.39081023E+00	0.70769109E-01	0.55223280E+01
beta 2	-0.37554334E+00	0.91730683E-01	-0.40939774E+01
beta 3	0.62704902E+00	0.15883617E+00	0.39477722E+01
beta 4	0.14001348E+00	0.95992398E-01	0.14585892E+01

sigma-squared 0.53314170E-01

log likelihood function = 0.10686444E+02

the estimates after the grid search were :

beta 0	-0.17731185E+00
beta 1	0.39081023E+00
beta 2	-0.37554334E+00
beta 3	0.62704902E+00
beta 4	0.14001348E+00
delta 0	0.00000000E+00
delta 1	0.00000000E+00
delta 2	0.00000000E+00

sigma-squared 0.10552622E+00
 gamma 0.80000000E+00

the final mle estimates are :

	coefficient	standard-error	t-ratio
beta 0	-0.31019680E+01	0.16360736E+02	-0.18959832E+00
beta 1	0.16544238E+01	0.66503784E-01	0.24877138E+02
beta 2	0.65240093E-01	0.62701867E-01	0.10404809E+01
beta 3	0.47980907E-02	0.93296359E-01	0.51428488E-01
beta 4	-0.77265749E+00	0.66912888E-01	-0.11547215E+02
delta 0	0.19910214E+01	0.16340128E+02	0.12184858E+00
delta 1	-0.23542199E+00	0.10106193E-01	-0.23294824E+02
delta 2	-0.89447175E-01	0.36959952E-01	-0.24201107E+01
sigma-squared	0.12845887E-01	0.13473203E-02	0.95343976E+01
gamma	0.19211665E+00	0.91190990E+01	0.21067503E-01

log likelihood function = 0.13196625E+03

LR test of the one-sided error = 0.24255962E+03

with number of restrictions = 4

[note that this statistic has a mixed chi-square distribution]

number of iterations = 40

(maximum number of iterations set at : 100)

number of cross-sections = 6

number of time periods = 29

total number of observations = 174

thus there are: 0 obsns not in the panel

APPENDIX B

Estimation Results: Malmquist DEA in Chapter 4

Results from DEAP Version 2.1

Instruction file = bins3.txt

Data file = bdata3.txt

Output orientated Malmquist DEA

DISTANCES SUMMARY

crs te rel to tech in yr vrs

Period	Group	te	t-1	t	t+1
1	Thai	0.000	0.651	0.603	1.000
	Foreign	0.000	1.000	1.063	1.000
	Mean	0.000	0.825	0.833	1.000
2	Thai	0.615	0.570	0.650	1.000
	Foreign	1.170	1.000	1.141	1.000
	Mean	0.893	0.785	0.896	1.000
3	Thai	0.488	0.557	0.490	1.000
	Foreign	1.107	1.000	0.998	1.000
	Mean	0.798	0.779	0.744	1.000
4	Thai	0.553	0.486	0.532	1.000
	Foreign	1.136	1.000	1.094	1.000
	Mean	0.845	0.743	0.813	1.000
5	Thai	0.478	0.522	0.536	1.000
	Foreign	1.134	1.000	1.150	1.000
	Mean	0.806	0.761	0.843	1.000

Period	Group	te	t-1	t	t+1
6	Thai	0.486	0.499	0.613	1.000
	Foreign	1.127	1.000	1.227	1.000
	Mean	0.806	0.750	0.920	1.000
7	Thai	0.502	0.616	0.467	1.000
	Foreign	1.084	1.000	0.939	1.000
	Mean	0.793	0.808	0.703	1.000
8	Thai	0.631	0.477	0.524	1.000
	Foreign	1.805	1.000	1.098	1.000
	Mean	1.218	0.739	0.811	1.000
9	Thai	0.520	0.572	0.568	1.000
	Foreign	1.144	1.000	1.237	1.000
	Mean	0.832	0.786	0.903	1.000
10	Thai	0.594	0.590	0.617	1.000
	Foreign	1.194	1.000	1.090	1.000
	Mean	0.894	0.795	0.853	1.000
11	Thai	0.605	0.632	0.627	1.000
	Foreign	1.147	1.000	1.132	1.000
	Mean	0.876	0.816	0.880	1.000
12	Thai	0.648	0.642	0.749	1.000
	Foreign	1.177	1.000	1.166	1.000
	Mean	0.912	0.821	0.958	1.000
13	Thai	0.645	0.752	0.659	1.000
	Foreign	1.059	1.000	0.948	1.000
	Mean	0.852	0.876	0.804	1.000
14	Thai	0.749	0.657	0.671	1.000
	Foreign	1.140	1.000	1.084	1.000
	Mean	0.944	0.828	0.878	1.000

Period	Group	te	t-1	t	t+1
15	Thai	0.658	0.672	0.759	1.000
	Foreign	1.113	1.000	1.273	1.000
	Mean	0.885	0.836	1.016	1.000
16	Thai	0.677	0.765	0.950	1.000
	Foreign	1.010	1.000	1.242	1.000
	Mean	0.844	0.882	1.096	1.000
17	Thai	0.734	0.911	0.864	1.000
	Foreign	1.216	1.000	0.971	1.000
	Mean	0.975	0.956	0.917	1.000
18	Thai	0.919	0.871	0.719	1.000
	Foreign	1.071	1.000	0.935	1.000
	Mean	0.995	0.935	0.827	1.000
19	Thai	0.877	0.724	0.873	1.000
	Foreign	1.301	1.000	1.206	1.000
	Mean	1.089	0.862	1.039	1.000
20	Thai	0.729	0.879	0.859	1.000
	Foreign	1.000	1.000	1.146	1.000
	Mean	0.864	0.939	1.002	1.000
21	Thai	0.867	0.848	0.990	1.000
	Foreign	1.211	1.000	1.202	1.000
	Mean	1.039	0.924	1.096	1.000
22	Thai	0.857	1.000	0.995	1.000
	Foreign	1.042	1.000	1.057	1.000
	Mean	0.949	1.000	1.026	1.000
23	Thai	1.007	1.000	0.894	1.000
	Foreign	1.075	1.000	0.965	1.000
	Mean	1.041	1.000	0.930	1.000

Period	Group	te	t-1	t	t+1
24	Thai	1.013	0.906	1.032	1.000
	Foreign	1.443	1.000	1.244	1.000
	Mean	1.228	0.953	1.138	1.000
25	Thai	0.874	0.996	0.954	1.000
	Foreign	0.988	1.000	1.061	1.000
	Mean	0.931	0.998	1.007	1.000
26	Thai	1.021	0.977	0.969	1.000
	Foreign	1.149	1.000	1.022	1.000
	Mean	1.085	0.989	0.995	1.000
27	Thai	0.964	0.956	0.979	1.000
	Foreign	1.155	1.000	1.167	1.000
	Mean	1.059	0.978	1.073	1.000
28	Thai	0.980	1.000	1.027	1.000
	Foreign	1.017	1.000	1.046	1.000
	Mean	0.999	1.000	1.037	1.000
29	Thai	0.984	1.000	0.994	1.000
	Foreign	1.140	1.000	1.110	1.000
	Mean	1.062	1.000	1.052	1.000
30	Thai	1.012	1.000	1.010	1.000
	Foreign	1.036	1.000	1.010	1.000
	Mean	1.024	1.000	1.010	1.000
31	Thai	0.994	1.000	0.966	1.000
	Foreign	1.019	1.000	1.005	1.000
	Mean	1.006	1.000	0.985	1.000
32	Thai	1.050	1.000	0.000	1.000
	Foreign	1.094	1.000	0.000	1.000
	Mean	1.072	1.000	0.000	1.000

[Note that t-1 in year 1 and t+1 in the final year are not defined]

MALMQUIST INDEX SUMMARY

Period	Group	Technical efficiency change	Technological change	Pure technical change	Scale efficiency change	Total factor productivity change
2	Thai	0.876	1.078	1.000	0.876	0.945
	Foreign	1.000	1.049	1.000	1.000	1.049
	Mean	0.936	1.064	1.000	0.936	0.996
3	Thai	0.977	0.876	1.000	0.977	0.857
	Foreign	1.000	0.985	1.000	1.000	0.985
	Mean	0.989	0.929	1.000	0.989	0.919
4	Thai	0.873	1.136	1.000	0.873	0.992
	Foreign	1.000	1.067	1.000	1.000	1.067
	Mean	0.934	1.101	1.000	0.934	1.029
5	Thai	1.074	0.914	1.000	1.074	0.982
	Foreign	1.000	1.018	1.000	1.000	1.018
	Mean	1.036	0.965	1.000	1.036	1.000
6	Thai	0.955	0.974	1.000	0.955	0.930
	Foreign	1.000	0.990	1.000	1.000	0.990
	Mean	0.977	0.982	1.000	0.977	0.960
7	Thai	1.235	0.815	1.000	1.235	1.006
	Foreign	1.000	0.940	1.000	1.000	0.940
	Mean	1.111	0.875	1.000	1.111	0.972
8	Thai	0.775	1.320	1.000	0.775	1.023
	Foreign	1.000	1.387	1.000	1.000	1.387
	Mean	0.880	1.353	1.000	0.880	1.191
9	Thai	1.197	0.910	1.000	1.197	1.090
	Foreign	1.000	1.021	1.000	1.000	1.021
	Mean	1.094	0.964	1.000	1.094	1.055

Period	Group	Technical efficiency change	Technological change	Pure technical change	Scale efficiency change	Total factor productivity change
10	Thai	1.033	1.006	1.000	1.033	1.039
	Foreign	1.000	0.982	1.000	1.000	0.982
	Mean	1.016	0.994	1.000	1.016	1.010
11	Thai	1.071	0.957	1.000	1.071	1.025
	Foreign	1.000	1.026	1.000	1.000	1.026
	Mean	1.035	0.991	1.000	1.035	1.025
12	Thai	1.016	1.008	1.000	1.016	1.024
	Foreign	1.000	1.019	1.000	1.000	1.019
	Mean	1.008	1.014	1.000	1.008	1.022
13	Thai	1.170	0.857	1.000	1.170	1.004
	Foreign	1.000	0.953	1.000	1.000	0.953
	Mean	1.082	0.904	1.000	1.082	0.978
14	Thai	0.874	1.140	1.000	0.874	0.996
	Foreign	1.000	1.097	1.000	1.000	1.097
	Mean	0.935	1.118	1.000	0.935	1.040
15	Thai	1.023	0.978	1.000	1.023	1.001
	Foreign	1.000	1.013	1.000	1.000	1.013
	Mean	1.012	0.996	1.000	1.012	1.007
16	Thai	1.138	0.885	1.000	1.138	1.008
	Foreign	1.000	0.891	1.000	1.000	0.891
	Mean	1.067	0.888	1.000	1.067	0.947
17	Thai	1.191	0.805	1.000	1.191	0.959
	Foreign	1.000	0.990	1.000	1.000	0.990
	Mean	1.091	0.893	1.000	1.091	0.974

Period	Group	Technical efficiency change	Technological change	Pure technical change	Scale efficiency change	Total factor productivity change
18	Thai	0.956	1.055	1.000	0.956	1.008
	Foreign	1.000	1.050	1.000	1.000	1.050
	Mean	0.978	1.053	1.000	0.978	1.029
19	Thai	0.831	1.212	1.000	0.831	1.007
	Foreign	1.000	1.180	1.000	1.000	1.180
	Mean	0.912	1.196	1.000	0.912	1.090
20	Thai	1.214	0.829	1.000	1.214	1.007
	Foreign	1.000	0.911	1.000	1.000	0.911
	Mean	1.102	0.869	1.000	1.102	0.957
21	Thai	0.965	1.023	1.000	0.965	0.987
	Foreign	1.000	1.028	1.000	1.000	1.028
	Mean	0.982	1.025	1.000	0.982	1.007
22	Thai	1.180	0.857	1.000	1.180	1.011
	Foreign	1.000	0.931	1.000	1.000	0.931
	Mean	1.086	0.893	1.000	1.086	0.970
23	Thai	1.000	1.006	1.000	1.000	1.006
	Foreign	1.000	1.008	1.000	1.000	1.008
	Mean	1.000	1.007	1.000	1.000	1.007
24	Thai	0.906	1.118	1.000	0.906	1.013
	Foreign	1.000	1.223	1.000	1.000	1.223
	Mean	0.952	1.169	1.000	0.952	1.113
25	Thai	1.099	0.878	1.000	1.099	0.965
	Foreign	1.000	0.891	1.000	1.000	0.891
	Mean	1.049	0.884	1.000	1.049	0.927

Period	Group	Technical efficiency change	Technological change	Pure technical change	Scale efficiency change	Total factor productivity change
26	Thai	0.981	1.044	1.000	0.981	1.024
	Foreign	1.000	1.041	1.000	1.000	1.041
	Mean	0.990	1.043	1.000	0.990	1.033
27	Thai	0.978	1.009	1.000	0.978	0.987
	Foreign	1.000	1.063	1.000	1.000	1.063
	Mean	0.989	1.036	1.000	0.989	1.024
28	Thai	1.046	0.979	1.000	1.046	1.024
	Foreign	1.000	0.933	1.000	1.000	0.933
	Mean	1.023	0.956	1.000	1.023	0.978
29	Thai	1.000	0.979	1.000	1.000	0.979
	Foreign	1.000	1.044	1.000	1.000	1.044
	Mean	1.000	1.011	1.000	1.000	1.011
30	Thai	1.000	1.009	1.000	1.000	1.009
	Foreign	1.000	0.966	1.000	1.000	0.966
	Mean	1.000	0.987	1.000	1.000	0.987
31	Thai	1.000	0.992	1.000	1.000	0.992
	Foreign	1.000	1.004	1.000	1.000	1.004
	Mean	1.000	0.998	1.000	1.000	0.998
32	Thai	1.000	1.043	1.000	1.000	1.043
	Foreign	1.000	1.043	1.000	1.000	1.043
	Mean	1.000	1.043	1.000	1.000	1.043

MALMQUIST INDEX SUMMARY OF ANNUAL MEANS

Period	Technical efficiency change	Technological change	Pure technical change	Scale efficiency change	Total factor productivity change
2	0.936	1.064	1.000	0.936	0.996
3	0.989	0.929	1.000	0.989	0.919
4	0.934	1.101	1.000	0.934	1.029
5	1.036	0.965	1.000	1.036	1.000
6	0.977	0.982	1.000	0.977	0.960
7	1.111	0.875	1.000	1.111	0.972
8	0.880	1.353	1.000	0.880	1.191
9	1.094	0.964	1.000	1.094	1.055
10	1.016	0.994	1.000	1.016	1.010
11	1.035	0.991	1.000	1.035	1.025
12	1.008	1.014	1.000	1.008	1.022
13	1.082	0.904	1.000	1.082	0.978
14	0.935	1.118	1.000	0.935	1.045
15	1.012	0.996	1.000	1.012	1.007
16	1.067	0.888	1.000	1.067	0.947
17	1.091	0.893	1.000	1.091	0.974
18	0.978	1.053	1.000	0.978	1.029
19	0.912	1.196	1.000	0.912	1.090
20	1.102	0.869	1.000	1.102	0.957
21	0.982	1.025	1.000	0.982	1.007
22	1.086	0.893	1.000	1.086	0.970
23	1.000	1.007	1.000	1.000	1.007
24	0.952	1.169	1.000	0.952	1.113
25	1.049	0.884	1.000	1.049	0.927
26	0.990	1.043	1.000	0.990	1.033

Period	Technical efficiency change	Technological change	Pure technical change	Scale efficiency change	Total factor productivity change
27	0.989	1.036	1.000	0.989	1.024
28	1.023	0.956	1.000	1.023	0.978
29	1.000	1.011	1.000	1.000	1.011
30	1.000	0.987	1.000	1.000	0.987
31	1.000	0.998	1.000	1.000	0.998
32	1.000	1.043	1.000	1.000	1.043
mean	1.007	1.002	1.000	1.007	1.009

MALMQUIST INDEX SUMMARY OF FIRM MEANS

Group	Technical efficiency change	Technological change	Pure technical change	Scale efficiency change	Total factor productivity change
Thai	1.014	0.984	1.000	1.014	0.997
Foreign	1.000	1.020	1.000	1.000	1.020
Mean	1.007	1.002	1.000	1.007	1.009

[Note that all Malmquist index averages are geometric means]

APPENDIX C

DESCRIPTIVE STATISTICS

Estimation results in Chapter 5

```
--> dstat; rhs=roa, rtb, spr, cee, hce, sce, vaic, size, lev, roe; str=nbank$
Descriptive Statistics
All results based on nonmissing observations.
Stratification is based on NBANK
```

Variable	Mean	Std.Dev.	Minimum	Maximum	Cases
Stratum is NBANK = 1.000. Obs.= 32.000, Sum of wts. = 32.000					
ROA	.301050000E-02	.221128862E-02	-.166200000E-02	.103400000E-01	32
RTB	.105515938E-01	.266528804E-02	.694400000E-02	.154960000E-01	32
SPR	5.27538244	1.46346397	2.33923800	9.74913000	32
CEE	.649246875E-02	.252832793E-02	.206200000E-02	.121640000E-01	32
HCE	3.27433609	1.38673176	.967210000	7.65258900	32
SCE	.616437563	.224118646	-.339010000E-01	.869325000	32
VAIC	3.89726609	1.58392844	.935371000	8.53407800	32
SIZE	.114610313	.634810417E-02	.100882000	.122389000	32
LEV	.935012031	.259779150E-01	.899276000	.967932000	32
ROE	.437533750E-01	.366942615E-01	-.498720000E-01	.177471000	32
Stratum is NBANK = 2.000. Obs.= 32.000, Sum of wts. = 32.000					
ROA	.257943750E-02	.480621704E-02	-.202830000E-01	.903500000E-02	32
RTB	.110469687E-01	.196272716E-02	.788600000E-02	.148380000E-01	32
SPR	6.17245669	.799786529	4.44904500	7.89335100	32
CEE	.725721875E-02	.187961337E-02	.416100000E-02	.117050000E-01	32
HCE	4.01949350	.760000968	2.47402300	6.22666200	32
SCE	.742067312	.520934893E-01	.595800000	.839400000	32
VAIC	4.76881809	.811287799	3.07413200	7.07776800	32
SIZE	.109644063	.529228348E-02	.101075000	.123577000	32
LEV	.904776625	.118538239E-01	.879052000	.922744000	32
ROE	.239791875E-01	.565952136E-01	-.259669000	.907430000E-01	32
Stratum is NBANK = 3.000. Obs.= 32.000, Sum of wts. = 32.000					
ROA	.170328125E-02	.394729511E-02	-.191710000E-01	.421100000E-02	32
RTB	.929950000E-02	.171238131E-02	.687600000E-02	.129480000E-01	32
SPR	5.40595991	.881268566	3.51093400	7.07756800	32
CEE	.556025000E-02	.149223995E-02	.362100000E-02	.900000000E-02	32
HCE	3.22104791	.753801205	1.82960900	4.73661800	32
SCE	.670971688	.846560355E-01	.453435000	.788879000	32
VAIC	3.89757981	.837324853	2.28667800	5.53374800	32
SIZE	.186159187	.982495957E-02	.165990000	.199206000	32
LEV	.934575906	.313197747E-01	.895178000	.979764000	32
ROE	.619725000E-02	.174355502	-.947386000	.665920000E-01	32

Variable	Mean	Std.Dev.	Minimum	Maximum	Cases
Stratum is NBANK = 4.000. Obs.= 32.000, Sum of wts. = 32.000					
ROA	.174062500E-04	.459596310E-02	-.157090000E-01	.414300000E-02	32
RTB	.708337500E-02	.200506050E-02	.371600000E-02	.102050000E-01	32
SPR	4.42844022	1.45053212	1.58729300	6.88552300	32
CEE	.369087500E-02	.206700764E-02	.283000000E-03	.708600000E-02	32
HCE	2.32920012	1.33089624	.171449000	4.27192900	32
SCE	-.730693750E-02	1.33780515	-4.83263400	.765914000	32
VAIC	2.32558391	2.51982897	-4.66090200	5.04301800	32
SIZE	.735693438E-01	.418408477E-02	.665500000E-01	.801630000E-01	32
LEV	.943501500	.249402313E-01	.877032000	.967605000	32
ROE	-.468490625E-02	.105519453	-.484920000	.562510000E-01	32

Stratum is NBANK = 5.000. Obs.= 32.000, Sum of wts. = 32.000					
ROA	.410565625E-02	.157944446E-01	-.938100000E-02	.894680000E-01	32
RTB	.820625000E-02	.254382522E-02	.358900000E-02	.124820000E-01	32
SPR	4.45072056	.905732545	2.25724700	5.88042600	32
CEE	.515578125E-02	.264742766E-02	.320000000E-03	.923100000E-02	32
HCE	2.72305622	1.17555254	.213287000	4.40381100	32
SCE	.313334406	1.04632416	-3.68851300	.772924000	32
VAIC	3.04154650	2.06924160	-3.47488600	5.18461500	32
SIZE	.141478344	.345856465E-01	.543250000E-01	.168105000	32
LEV	.934839219	.137134435E-01	.910198000	.966815000	32
ROE	.629994687E-01	.235396809	-.104459000	1.33971100	32

Stratum is NBANK = 6.000. Obs.= 32.000, Sum of wts. = 32.000					
ROA	.303390625E-02	.315808020E-02	-.105820000E-01	.716700000E-02	32
RTB	.108544688E-01	.467700438E-02	-.572600000E-02	.273310000E-01	32
SPR	6.90789287	2.73145330	-3.43825000	15.5048100	32
CEE	.607765625E-02	.186998992E-02	.133300000E-02	.935600000E-02	32
HCE	3.90401194	1.17342241	.739509000	5.47622100	32
SCE	.678756875	.265223681	-.352248000	.817392000	32
VAIC	4.58884631	1.40595719	.388622000	6.30072200	32
SIZE	.121621781	.998949453E-02	.102500000	.140455000	32
LEV	.669883656	.911606171E-01	.511029000	.829365000	32
ROE	-.103628750E-01	.927674240E-02	-.260760000E-01	.256370000E-01	32

All observations in current sample

ROA	.240836458E-02	.736631799E-02	-.202830000E-01	.894680000E-01	192
RTB	.950702604E-02	.310907126E-02	-.572600000E-02	.273310000E-01	192
SPR	5.44014211	1.74758649	-3.43825000	15.5048100	192
CEE	.570570833E-02	.237390709E-02	.283000000E-03	.121640000E-01	192
HCE	3.24519096	1.26213908	.171449000	7.65258900	192
SCE	.502376818	.748752518	-4.83263400	.869325000	192
VAIC	3.75327345	1.84315636	-4.66090200	8.53407800	192
SIZE	.124513839	.376101629E-01	.543250000E-01	.199206000	192
LEV	.887098156	.106799667	.511029000	.979764000	192
ROE	.237678750E-01	.130496302	-.947386000	1.33971100	192

--> dstat; rhs=cti, ice, lasset, earatio, nia, loan, liq, ebsi, eeco, eint; s...
 Descriptive Statistics
 All results based on nonmissing observations.
 Stratification is based on NBANK

Variable	Mean	Std.Dev.	Minimum	Maximum	Cases
Stratum is NBANK = 1.000. Obs.= 32.000, Sum of wts. = 32.000					
CTI	.606339156	.180878745	.253766000	1.00885900	32
ICE	3.89077384	1.58164116	.933309000	8.52191400	32
LASSET	13.6255309	.836944282E-01	13.5195080	13.8227790	32
EARATIO	.649879688E-01	.259779150E-01	.320680000E-01	.100724000	32
NIA	.713371875E-02	.195004702E-02	.468300000E-02	.102440000E-01	32
LOAN	.919100969	.674080690E-01	.788285000	1.01774700	32
LIQ	.869305125	.190778164E-01	.821586000	.900495000	32
EBSI	47.4718750	3.22892516	41.7000000	53.5000000	32
EECO	108.350000	5.31672164	98.8200000	115.820000	32
EINT	1.97781250	.731973622	.960000000	3.25000000	32
Stratum is NBANK = 2.000. Obs.= 32.000, Sum of wts. = 32.000					
CTI	.515824313	.767552173E-01	.337840000	.712114000	32
ICE	4.76156084	.810064254	3.06982300	7.06606300	32
LASSET	13.5816326	.148931413	13.4108780	13.9224110	32
EARATIO	.952233750E-01	.118538239E-01	.772560000E-01	.120948000	32
NIA	.693665625E-02	.119652089E-02	.502200000E-02	.942600000E-02	32
LOAN	.903467344	.766040677E-01	.771518000	1.04170900	32
LIQ	.854662688	.216874856E-01	.792297000	.877105000	32
EBSI	47.4718750	3.22892516	41.7000000	53.5000000	32
EECO	108.350000	5.31672164	98.8200000	115.820000	32
EINT	1.97781250	.731973622	.960000000	3.25000000	32
Stratum is NBANK = 3.000. Obs.= 32.000, Sum of wts. = 32.000					
CTI	.599500875	.866369871E-01	.464617000	.774706000	32
ICE	3.89201959	.835986755	2.28304400	5.52549700	32
LASSET	14.1107263	.852032144E-01	13.9658080	14.2683540	32
EARATIO	.654240937E-01	.313197747E-01	.202360000E-01	.104822000	32
NIA	.588331250E-02	.135469707E-02	.424900000E-02	.813700000E-02	32
LOAN	.821456406	.566972790E-01	.716907000	.930059000	32
LIQ	.883283219	.821652375E-02	.860629000	.895006000	32
EBSI	47.4718750	3.22892516	41.7000000	53.5000000	32
EECO	108.350000	5.31672164	98.8200000	115.820000	32
EINT	1.97781250	.731973622	.960000000	3.25000000	32
Stratum is NBANK = 4.000. Obs.= 32.000, Sum of wts. = 32.000					
CTI	.786170531	.296941108	.499594000	1.47819100	32
ICE	2.32189309	2.51799511	-4.66118500	5.03784200	32
LASSET	13.1821663	.168798039	12.9806550	13.4173630	32
EARATIO	.564985000E-01	.249402313E-01	.323950000E-01	.122968000	32
NIA	.512825000E-02	.166299541E-02	.239600000E-02	.742400000E-02	32
LOAN	.931133469	.495804245E-01	.842620000	1.04118100	32
LIQ	.885812563	.304000282E-01	.827368000	.932350000	32
EBSI	47.4718750	3.22892516	41.7000000	53.5000000	32
EECO	108.350000	5.31672164	98.8200000	115.820000	32
EINT	1.97781250	.731973622	.960000000	3.25000000	32

Variable	Mean	Std.Dev.	Minimum	Maximum	Cases
Stratum is NBANK = 5.000. Obs.= 32.000, Sum of wts. = 32.000					
CTI	.649386531	.239097100	-.409017000	1.34852800	32
ICE	3.03639056	2.06700116	-3.47522500	5.17673500	32
LASSET	13.7913452	.389487718	12.7732290	14.0458180	32
EARATIO	.651607812E-01	.137134435E-01	.331850000E-01	.898020000E-01	32
NIA	.630215625E-02	.246995609E-02	.228500000E-02	.101660000E-01	32
LOAN	.898800313	.220439414	.327898000	1.09297600	32
LIQ	1.10750934	.538679901	.854360000	2.58966900	32
EBSI	47.4718750	3.22892516	41.7000000	53.5000000	32
EECO	108.350000	5.31672164	98.8200000	115.820000	32
EINT	1.97781250	.731973622	.960000000	3.25000000	32
Stratum is NBANK = 6.000. Obs.= 32.000, Sum of wts. = 32.000					
CTI	.570666000	.228221576	-.363224000	1.04437600	32
ICE	4.58276881	1.40425573	.387261000	6.29361300	32
LASSET	13.6830943	.185282691	13.4390240	13.9968080	32
EARATIO	.330116344	.911606171E-01	.170635000	.488971000	32
NIA	.577737500E-02	.112914837E-02	.369400000E-02	.862300000E-02	32
LOAN	4.62088422	1.01041087	3.24221500	6.60234800	32
LIQ	.545570125	.683686495E-01	.457051000	.682811000	32
EBSI	47.4718750	3.22892516	41.7000000	53.5000000	32
EECO	108.350000	5.31672164	98.8200000	115.820000	32
EINT	1.97781250	.731973622	.960000000	3.25000000	32
All observations in current sample					
CTI	.621314568	.215926853	-.363224000	1.47819100	192
ICE	3.74756779	1.84114869	-4.66118500	8.52191400	192
LASSET	13.6624159	.342380688	12.7732290	14.2683540	192
EARATIO	.112901844	.106799667	.202360000E-01	.488971000	192
NIA	.619357813E-02	.180865442E-02	.228500000E-02	.102440000E-01	192
LOAN	1.51580712	1.45458978	.327898000	6.60234800	192
LIQ	.857690510	.274218133	.457051000	2.58966900	192
EBSI	47.4718750	3.18638146	41.7000000	53.5000000	192
EECO	108.350000	5.24666955	98.8200000	115.820000	192
EINT	1.97781250	.722329279	.960000000	3.25000000	192

$$\text{Model 5.1: } ROA_{it} = \alpha + \alpha_{1it} VAIC + \alpha_{2it} LEV + \alpha_{3it} ROE + e_{it}$$

```
--> regress ; lhs=roa
      ; rhs= vaic,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $
```

```
| OLS Without Group Dummy Variables
| Ordinary least squares regression Weighting variable = none
| Dep. var. = ROA Mean= .2408364583E-02, S.D.= .7366317986E-02
| Model size: Observations = 192, Parameters = 5, Deg.Fr.= 187
| Residuals: Sum of squares= .1829501251E-02, Std.Dev.= .00313
| Fit: R-squared= .823478, Adjusted R-squared = .81970
| Model test: F[ 4, 187] = 218.09, Prob value = .00000
| Diagnostic: Log-L = 837.4397, Restricted(b=0) Log-L = 670.9459
| LogAmemiyaPrCrt.= -11.509, Akaike Info. Crt.= -8.671
| Panel Data Analysis of ROA [ONE way]
| Unconditional ANOVA (No regressors)
| Source Variation Deg. Free. Mean Square
| Between .316088E-03 5. .632177E-04
| Residual .100481E-01 186. .540219E-04
| Total .103642E-01 191. .542626E-04
-----
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
VAIC	-.1261856992E-03	.13043160E-03	-.967	.3346	3.7532735
SIZE	.8273773853E-02	.61594400E-02	1.343	.1808	.12451384
LEV	-.6096042597E-02	.22143172E-02	-2.753	.0065	.88709816
ROE	.5084743678E-01	.17400041E-02	29.223	.0000	.23767875E-01
Constant	.6051027304E-02	.22005526E-02	2.750	.0065	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

```
| Ordinary least squares regression Weighting variable = none
| Dep. var. = ROA Mean= .2408364583E-02, S.D.= .7366317986E-02
| Model size: Observations = 192, Parameters = 10, Deg.Fr.= 182
| Residuals: Sum of squares= .1804564338E-02, Std.Dev.= .00315
| Fit: R-squared= .825884, Adjusted R-squared = .81727
| Model test: F[ 9, 182] = 95.92, Prob value = .00000
| Diagnostic: Log-L = 838.7572, Restricted(b=0) Log-L = 670.9459
| LogAmemiyaPrCrt.= -11.471, Akaike Info. Crt.= -8.633
| Estd. Autocorrelation of e(i,t) -.005744
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
VAIC	-.1855860991E-03	.14307630E-03	-1.297	.1962	3.7532735
SIZE	.4368931413E-02	.15021983E-01	.291	.7715	.12451384
LEV	-.1713176471E-02	.55082206E-02	-.311	.7561	.88709816
ROE	.5092622542E-01	.17871743E-02	28.495	.0000	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	.00261	.00537	.48527
2	.00331	.00523	.63430
3	.00290	.00568	.51031
4	.00198	.00528	.37567
5	.00245	.00545	.44900
6	.00397	.00408	.97457

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Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	670.94587	.1036416437D-01	.0000000
(2) Group effects only	673.91927	.1004807609D-01	.0304982
(3) X - variables only	837.43970	.1829501251D-02	.8234782
(4) X and group effects	838.75722	.1804564338D-02	.8258842

Hypothesis Tests

Likelihood Ratio Test				F Tests			
	Chi-squared	d.f.	Prob.	F	num.	denom.	Prob value
(2) vs (1)	5.947	5	.31143	1.170	5	186	.32544
(3) vs (1)	332.988	4	.00000	218.090	4	187	.00000
(4) vs (1)	335.623	9	.00000	95.920	9	182	.00000
(4) vs (2)	329.676	4	.00000	207.851	4	182	.00000
(4) vs (3)	2.635	5	.75603	.503	5	182	.77374

Random Effects Model: $v(i,t) = e(i,t) + u(i)$

Estimates: Var[e] = .939877D-05

Var[u] = .129880D-06

Corr[v(i,t),v(i,s)] = .013630

Lagrange Multiplier Test vs. Model (3) = 1.69

(1 df, prob value = .193964)

(High values of LM favor FEM/REM over CR model.)

Fixed vs. Random Effects (Hausman) = 1.61

(4 df, prob value = .806203)

(High (low) values of H favor FEM (REM).)

Reestimated using GLS coefficients:

Estimates: Var[e] = .995899D-05

Var[u] = .231334D-06

Sum of Squares .182990D-02

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
VAIC	-.1441003457E-03	.13092621E-03	-1.101	.2711	3.7532735
SIZE	.8141884861E-02	.69764197E-02	1.167	.2432	.12451384
LEV	-.5884715753E-02	.25004688E-02	-2.353	.0186	.88709816
ROE	.5083927932E-01	.17139515E-02	29.662	.0000	.23767875E-01
Constant	.5947414107E-02	.24565378E-02	2.421	.0155	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.2: } RTB_{it} = \alpha + \alpha_{1it} VAIC + \alpha_{2it} LEV + \alpha_{3it} ROE + e_{it}$$

```
--> regress ; lhs=rtb
; rhs= vaic,size,lev,roe
; str= nbank
; panel
;output= 4 $
```

OLS Without Group Dummy Variables

Ordinary least squares regression	Weighting variable = none		
Dep. var. = RTB	Mean= .9507026042E-02, S.D.= .3109071258E-02		
Model size: Observations = 192, Parameters = 5, Deg.Fr.= 187			
Residuals: Sum of squares= .1025259794E-02, Std.Dev.= .00234			
Fit: R-squared= .444685, Adjusted R-squared = .43281			
Model test: F[4, 187] = 37.44, Prob value = .00000			
Dia LogAmemiyaPrCrt.= -12.088, Akaike Info. Crt.= -9.250			
Pan gnostic: Log-L = 893.0330, Restricted(b=0) Log-L = 836.5639			
el Data Analysis of RTB [ONE way]			
Unconditional ANOVA (No regressors)			
Source	Variation	Deg. Free.	Mean Square
Between	.412394E-03	5,	.824788E-04
Residual	.143387E-02	186.	.770900E-05
Total	.184627E-02	191.	.966632E-05

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
VAIC	.1020486367E-02	.97641275E-04	10.451	.0000	3.7532735
SIZE	-.3049514303E-02	.46109651E-02	-.661	.5092	.12451384
LEV	-.4932983875E-02	.16576409E-02	-2.976	.0033	.88709816
ROE	.1379901154E-02	.13025694E-02	1.059	.2908	.23767875E-01
Constant	.1039981197E-01	.16473366E-02	6.313	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

Ordinary	least squares regression	Weighting variable = none
Dep. var. =	RTB	Mean = .9507026042E-02, S.D. = .3109071258E-02
Model size:	Observations = 192, Parameters = 10, Deg.Fr. = 182	
Residuals:	Sum of squares = .8764326573E-03, Std.Dev. = .00219	
Fit:	R-squared = .525295, Adjusted R-squared = .50182	
Model test:	F[9, 182] = 22.38, Prob value = .00000	
Diagnostic:	Log-L = 908.0898, Restricted(b=0) Log-L = 836.5639	
	LogAmemiyaPrCrt. = -12.193, Akaike Info. Crt. = -9.355	
Estd. Autocorrelation of e(i,t)		-.046139

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
VAIC	.8866443573E-03	.99710478E-04	8.892	.0000	3.7532735
SIZE	-.1448418446E-01	.10468883E-01	-1.384	.1681	.12451384
LEV	-.1744565943E-01	.38387022E-02	-4.545	.0000	.88709816
ROE	.8125040924E-03	.12454893E-02	.652	.5150	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	.02503	.00374	6.68682
2	.02417	.00364	6.63796
3	.02484	.00396	6.27462
4	.02255	.00368	6.13153
5	.02382	.00380	6.27519
6	.02023	.00284	7.11712

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	836.56390	.1846267901D-02	.0000000
(2) Group effects only	860.83141	.1433873762D-02	.2233664
(3) X - variables only	893.03304	.1025259794D-02	.4446853
(4) X and group effects	908.08982	.8764326573D-03	.5252950

Hypothesis Tests

	Likelihood Ratio Test			F Tests		
	Chi-squared	d.f.	Prob.	F	num.	denom. Prob value
(2) vs (1)	48.535	5	.00000	10.699	5	186 .00000
(3) vs (1)	112.938	4	.00000	37.436	4	187 .00000
(4) vs (1)	143.052	9	.00000	22.377	9	182 .00000
(4) vs (2)	94.517	4	.00000	28.940	4	182 .00000
(4) vs (3)	30.114	5	.00001	6.181	5	182 .00003

Random Effects Model: $v(i,t) = e(i,t) + u(i)$

Estimates: Var[e] = .481556D-05
 Var[u] = .667109D-06
 Corr[v(i,t), v(i,s)] = .121676

Lagrange Multiplier Test vs. Model (3) = 7.40
 (1 df, prob value = .006512)
 (High values of LM favor FEM/REM over CR model.)

Fixed vs. Random Effects (Hausman) = 11.14
 (4 df, prob value = .025050)
 (High (low) values of H favor FEM (REM).)

Reestimated using GLS coefficients:
 Estimates: Var[e] = .492657D-05
 Var[u] = .602816D-05

```

Sum of Squares      .109446D-02
|
| Variable | Coefficient | Standard Error | t-ratio | P[|T|>t] | Mean of X|
| VAIC    | .9145656155E-03 | .97867991E-04 | 9.345 | .0000 | 3.7532735
| SIZE    | -.7890922475E-02 | .75723723E-02 | -1.042 | .2974 | .12451384
| LEV     | -.1028433967E-01 | .27230271E-02 | -3.777 | .0002 | .88709816
| ROE     | .1003310649E-02 | .12385254E-02 | .810 | .4179 | .23767875E-01
| Constant | .1615631244E-01 | .26102448E-02 | 6.190 | .0000
| (Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

```

$$\text{Model 5.3: } CTI_{it} = \alpha + \alpha_{1it} VAIC + \alpha_{2it} LEV + \alpha_{3it} ROE + e_{it}$$

```

--> regress ; lhs=cti
      ; rhs= vaic,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $

```

```

| OLS Without Group Dummy Variables
| Ordinary least squares regression Weighting variable = none
| Dep. var. = CTI Mean= .6213145677 , S.D.= .2159268535
| Model size: Observations = 192, Parameters = 5, Deg.Fr.= 187
| Residuals: Sum of squares= 1.231349908 , Std.Dev.= .08115
| Fit: R-squared= .861728, Adjusted R-squared = .85877
| Model test: F[ 4, 187] = 291.35, Prob value = .00000
| Diagnostic: Log-L = 212.3047, Restricted(b=0) Log-L = 22.3657
| LogAmemiyaPrCrt.= -4.997, Akaike Info. Crt.= -2.159
| Panel Data Analysis of CTI [ONE way]
| Unconditional ANOVA (No regressors)
| Source Variation Deg. Free Mean Square
| Between 1.35549 5. .271098
| Residual 7.54977 186. .405902E-01
| Total 8.90526 191. .466244E-01

```

```

| Variable | Coefficient | Standard Error | t-ratio | P[|T|>t] | Mean of X|
| VAIC    | -.1104790057 | .33838197E-02 | -32.649 | .0000 | 3.7532735
| SIZE    | -.1818107643 | .15979589 | -1.138 | .2567 | .12451384
| LEV     | -.1809435423 | .57446586E-01 | -3.150 | .0019 | .88709816
| ROE     | -.4638074971E-01 | .45141361E-01 | -1.027 | .3055 | .23767875E-01
| Constant | 1.220227498 | .57089486E-01 | 21.374 | .0000
| (Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

```

```

| Least Squares with Group Dummy Variables
| Ordinary least squares regression Weighting variable = none
| Dep. var. = CTI Mean= .6213145677 , S.D.= .2159268535
| Model size: Observations = 192, Parameters = 10, Deg.Fr.= 182
| Residuals: Sum of squares= 1.170260459 , Std.Dev.= .08019
| Fit: R-squared= .868588, Adjusted R-squared = .86209
| Model test: F[ 9, 182] = 133.66, Prob value = .00000
| Diagnostic: Log-L = 217.1896, Restricted(b=0) Log-L = 22.3657
| LogAmemiyaPrCrt.= -4.996, Akaike Info. Crt.= -2.158
| Estd. Autocorrelation of e(i,t) -.095563

```

```

| Variable | Coefficient | Standard Error | t-ratio | P[|T|>t] | Mean of X|
| VAIC    | -.1124726870 | .36435337E-02 | -30.869 | .0000 | 3.7532735
| SIZE    | .8710253618E-01 | .38254484 | .228 | .8201 | .12451384
| LEV     | -.1517032847 | .14027052 | -1.082 | .2809 | .88709816
| ROE     | -.3218395825E-01 | .45511588E-01 | -.707 | .4803 | .23767875E-01
| (Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

```

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	1.17794	.13679	8.61110
2	1.18067	.13306	8.87301
3	1.16363	.14466	8.04419
4	1.18431	.13439	8.81230
5	1.12300	.13869	8.09746
6	1.17815	.10384	11.34548

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	22.36570	.8905261558D+01	.0000000
(2) Group effects only	38.21771	.7549770507D+01	.1522124
(3) X - variables only	212.30470	.1231349908D+01	.8617278
(4) X and group effects	217.18963	.1170260459D+01	.8685877

Hypothesis Tests

Likelihood Ratio Test				F Tests			
	Chi-squared	d.f.	Prob.	F	num.	denom.	Prob value
(2) vs (1)	31.704	5	.00001	6.679	5	186	.00001
(3) vs (1)	379.878	4	.00000	291.351	4	187	.00000
(4) vs (1)	389.648	9	.00000	133.662	9	182	.00000
(4) vs (2)	357.944	4	.00000	248.037	4	182	.00000
(4) vs (3)	9.770	5	.08202	1.900	5	182	.09636

Random Effects Model: $v(i,t) = e(i,t) + u(i)$

Estimates: Var[e] = .643000D-02
 Var[u] = .154756D-03
 Corr[v(i,t),v(i,s)] = .023502

Lagrange Multiplier Test vs. Model (3) = .57
 (1 df, prob value = .451125)
 (High values of LM favor FEM/REM over CR model.)

Fixed vs. Random Effects (Hausman) = 4.79
 (4 df, prob value = .309846)
 (High (low) values of H favor FEM (REM).)

Reestimated using GLS coefficients:

Estimates: Var[e] = .645054D-02
 Var[u] = .161394D-02
 Sum of Squares = .123210D+01

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
VAIC	-.1112123632	.34603103E-02	-32.139	.0000	3.7532735
SIZE	-.1474673370	.19694098	-.749	.4540	.12451384
LEV	-.1802159173	.70530506E-01	-2.555	.0106	.88709816
ROE	-.3986130468E-01	.44927518E-01	-.887	.3750	.23767875E-01
Constant	1.217903329	.68912353E-01	17.673	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.4: } \text{SPR}_{it} = \alpha + \alpha_{1it} \text{VAIC} + \alpha_{2it} \text{LEV} + \alpha_{3it} \text{ROE} + e_{it}$$

```
--> regress ; lhs=spr
      ; rhs= vaic,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $
```

OLS Without Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = SPR Mean= 5.440142115 , S.D.= 1.747586486
Model size: Observations = 192, Parameters = 5, Deg.Fr.= 187
Residuals: Sum of squares= 260.6197754 , Std.Dev.= 1.18055
Fit: R-squared= .553217, Adjusted R-squared = .54366
Model test: F[ 4, 187] = 57.89, Prob value = .00000
Diagnostic: Log-L = -301.7707, Restricted(b=0) Log-L = -379.1161
LogAmemiyaPrCrt.= .358, Akaike Info. Crt.= 3.196
Panel Data Analysis of SPR [ONE way]
Unconditional ANOVA (No regressors)
Source Variation Deg. Free. Mean Square
Between 151.084 5. 30.2169
Residual 432.241 186. 2.32388
Total 583.325 191. 3.05406
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
VAIC	.6134638756	.49228903E-01	12.461	.0000	3.7532735
SIZE	-2.366226310	2.3247623	-1.018	.3101	.12451384
LEV	-3.927706885	.83575150	-4.700	.0000	.88709816
ROE	.9049183641	.65673111	1.378	.1699	.23767875E-01
Constant	6.895025906	.83055629	8.302	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = SPR Mean= 5.440142115 , S.D.= 1.747586486
Model size: Observations = 192, Parameters = 10, Deg.Fr.= 182
Residuals: Sum of squares= 248.4017231 , Std.Dev.= 1.16827
Fit: R-squared= .574163, Adjusted R-squared = .55310
Model test: F[ 9, 182] = 27.27, Prob value = .00000
Diagnostic: Log-L = -297.1612, Restricted(b=0) Log-L = -379.1161
LogAmemiyaPrCrt.= .362, Akaike Info. Crt.= 3.200
Estd. Autocorrelation of e(i,t) -.231786
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
VAIC	.6016936856	.53083412E-01	11.335	.0000	3.7532735
SIZE	-7.846324000	5.5733765	-1.408	.1608	.12451384
LEV	-.6772689562	2.0436308	-.331	.7407	.88709816
ROE	1.219783504	.66306793	1.840	.0674	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	4.40958	1.99298	2.21256
2	4.74692	1.93862	2.44861
3	5.14688	2.10752	2.44215
4	4.25112	1.95799	2.17116
5	4.28702	2.02054	2.12172
6	5.54215	1.51291	3.66323

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	-379.11614	.5833251788D+03	.0000000
(2) Group effects only	-350.33900	.4322408000D+03	.2590054
(3) X - variables only	-301.77065	.2606197754D+03	.5532170
(4) X and group effects	-297.16118	.2484017231D+03	.5741625

Hypothesis Tests

Likelihood Ratio Test				F Tests			
	Chi-squared	d.f.	Prob.	F	num.	denom.	Prob value
(2) vs (1)	57.554	5	.00000	13.003	5	186	.00000
(3) vs (1)	154.691	4	.00000	57.887	4	187	.00000
(4) vs (1)	163.910	9	.00000	27.266	9	182	.00000
(4) vs (2)	106.356	4	.00000	33.674	4	182	.00000
(4) vs (3)	9.219	5	.10064	1.790	5	182	.11687

Random Effects Model: $v(i,t) = e(i,t) + u(i)$

Estimates: Var[e] = .136484D+01
 Var[u] = .288440D-01
 Corr[v(i,t),v(i,s)] = .020696

Lagrange Multiplier Test vs. Model (3) = .04

(1 df, prob value = .835131)

(High values of LM favor FEM/REM over CR model.)

Fixed vs. Random Effects (Hausman) = 6.66

(4 df, prob value = .154832)

(High (low) values of H favor FEM (REM).)

Reestimated using GLS coefficients:

Estimates: Var[e] = .138682D+01
 Var[u] = .223537D+00
 Sum of Squares = .260941D+03

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
VAIC	.6069595235	.50283669E-01	12.071	.0000	3.7532735
SIZE	-2.856204034	2.8126459	-1.015	.3099	.12451384
LEV	-3.655708841	1.0074488	-3.629	.0003	.88709816
ROE	.9930478098	.65420356	1.518	.1290	.23767875E-01
Constant	6.737063912	.98570820	6.835	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.5: } ROA_{it} = \alpha + \alpha_{1it} CEE + \alpha_{2it} ICE + \alpha_{3it} SIZE + \alpha_{4it} LEV + \alpha_{5it} ROE + e_{it}$$

```
--> regress ; lhs=roa
      ; rhs= cee,ice,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $
```

OLS Without Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = ROA Mean= .2408364583E-02, S.D.= .7366317986E-02
Model size: Observations = 192, Parameters = 6, Deg.Fr.= 186
Residuals: Sum of squares= .1770133782E-02, Std.Dev.= .00308
Fit: R-squared= .829206, Adjusted R-squared = .82462
Model test: F[ 5, 186] = 180.61, Prob value = .00000
Diagnostic: Log-L = 840.6066, Restricted(b=0) Log-L = 670.9459
LogAmemiyaPrCrt.= -11.532, Akaike Info. Crt.= -8.694
Panel Data Analysis of ROA [ONE way]
Unconditional ANOVA (No regressors)
Source Variation Deg. Free. Mean Square
Between .316088E-03 5. .632177E-04
Residual .100481E-01 186. .540219E-04
Total .103642E-01 191. .542626E-04
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	.4470833976	.17905378	2.497	.0134	.57057083E-02
ICE	-.6223225154E-03	.23666005E-03	-2.630	.0093	3.7475678
SIZE	.9462068853E-02	.60935454E-02	1.553	.1222	.12451384
LEV	-.6214712120E-02	.21844576E-02	-2.845	.0049	.88709816
ROE	.5011809261E-01	.17408015E-02	28.790	.0000	.23767875E-01
Constant	.5333333520E-02	.21893045E-02	2.436	.0158	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = ROA Mean= .2408364583E-02, S.D.= .7366317986E-02
Model size: Observations = 192, Parameters = 11, Deg.Fr.= 181
Residuals: Sum of squares= .1719455094E-02, Std.Dev.= .00308
Fit: R-squared= .834096, Adjusted R-squared = .82493
Model test: F[ 10, 181] = 91.00, Prob value = .00000
Diagnostic: Log-L = 843.3951, Restricted(b=0) Log-L = 670.9459
LogAmemiyaPrCrt.= -11.509, Akaike Info. Crt.= -8.671
Estd. Autocorrelation of e(i,t) -.023847
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	.6222471101	.20795063	2.992	.0031	.57057083E-02
ICE	-.8287275792E-03	.25647986E-03	-3.231	.0015	3.7475678
SIZE	.9384995527E-02	.14799103E-01	.634	.5268	.12451384
LEV	.4932986017E-02	.58309179E-02	.846	.3986	.88709816
ROE	.5029876874E-01	.17618488E-02	28.549	.0000	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	-.00569	.00594	-.95783
2	-.00469	.00577	-.81242
3	-.00520	.00618	-.84097
4	-.00546	.00573	-.95300
5	-.00569	.00598	-.95155
6	-.00192	.00445	-.43080

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	670.94587	.1036416437D-01	.0000000
(2) Group effects only	673.91927	.1004807609D-01	.0304982
(3) X - variables only	840.60657	.1770133782D-02	.8292063
(4) X and group effects	843.39515	.1719455094D-02	.8340961

Hypothesis Tests

Likelihood Ratio Test				F Tests			
	Chi-squared	d.f.	Prob.	F	num.	denom.	Prob value
(2) vs (1)	5.947	5	.31143	1.170	5	186	.32544
(3) vs (1)	339.321	5	.00000	180.607	5	186	.00000
(4) vs (1)	344.899	10	.00000	90.999	10	181	.00000
(4) vs (2)	338.952	5	.00000	175.344	5	181	.00000
(4) vs (3)	5.577	5	.34956	1.067	5	181	.38027

```

Random Effects Model: v(i,t) = e(i,t) + u(i)
Estimates: Var[e] = .949975D-05
            Var[u] = .170964D-07
            Corr[v(i,t),v(i,s)] = .001796
Lagrange Multiplier Test vs. Model (3) = 1.76
( 1 df, prob value = .185100)
(High values of LM favor FEM/REM over CR model.)
Fixed vs. Random Effects (Hausman) = 5.25
( 5 df, prob value = .385591)
(High (low) values of H favor FEM (REM).)
Reestimated using GLS coefficients:
Estimates: Var[e] = .970099D-05
            Var[u] = .142809D-06
            Sum of Squares = .177015D-02

```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	.4482253160	.17944835	2.498	.0125	.57057083E-02
ICE	-.6251426229E-03	.23674207E-03	-2.641	.0083	3.7475678
SIZE	.9470161225E-02	.62278433E-02	1.521	.1284	.12451384
LEV	-.6139919426E-02	.22309712E-02	-2.752	.0059	.88709816
ROE	.5012490615E-01	.17401655E-02	28.805	.0000	.23767875E-01
Constant	.5269868594E-02	.22341423E-02	2.359	.0183	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.6: } \text{RTB}_{it} = \alpha + \alpha_{1it} \text{CEE} + \alpha_{2it} \text{ICE} + \alpha_{3it} \text{SIZE} + \alpha_{4it} \text{LEV} + \alpha_{5it} \text{ROE} + e_{it}$$

```

--> regress ; lhs=rtb
      ; rhs= cee,ice,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $

```

OLS Without Group Dummy Variables

```

Ordinary least squares regression Weighting variable = none
Dep. var. = RTB Mean = .9507026042E-02, S.D. = .3109071258E-02
Model size: Observations = 192, Parameters = 6, Deg.Fr. = 186
Residuals: Sum of squares = .6334796948E-03, Std.Dev. = .00185
Fit: R-squared = .656886, Adjusted R-squared = .64766
Model test: F[ 5, 186] = 71.22, Prob value = .00000
Diagnostic: Log-L = 939.2545, Restricted(b=0) Log-L = 836.5639
            LogAmemiyaPrCrt. = -12.559, Akaike Info. Crt. = -9.721
Panel Data Analysis of RTB [ONE way]
Unconditional ANOVA (No regressors)

```

Source	Variation	Deg. Free.	Mean Square
Between	.412394E-03	5.	.824788E-04
Residual	.143387E-02	186.	.770900E-05
Total	.184627E-02	191.	.966632E-05

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	1.149856387	.10711414	10.735	.0000	.57057083E-02
ICE	-.2540386774E-03	.14157555E-03	-1.794	.0744	3.7475678
SIZE	.3096222219E-05	.36453007E-02	.001	.9993	.12451384
LEV	-.5237833458E-02	.13067934E-02	-4.008	.0001	.88709816
ROE	-.4937099426E-03	.10413879E-02	-.474	.6360	.23767875E-01
Constant	.8556129354E-02	.13096929E-02	6.533	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

Ordinary least squares regression	Weighting variable = none
Dep. var. = RTB	Mean = .9507026042E-02, S.D. = .3109071258E-02
Model size: Observations = 192, Parameters = 11, Deg.Fr. = 181	
Residuals: Sum of squares = .6100607328E-03, Std.Dev. = .00184	
Fit: R-squared = .669571, Adjusted R-squared = .65132	
Model test: F[10, 181] = 36.68, Prob value = .00000	
Diagnostic: Log-L = 942.8708, Restricted(b=0) Log-L = 836.5639	
LogAmemiyaPrCrt. = -12.545, Akaike Info. Crt. = -9.707	
Estd. Autocorrelation of e(i,t) = -.236063	

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	1.102041096	.12386579	8.897	.0000	.57057083E-02
ICE	-.2511463530E-03	.15277222E-03	-1.644	.1019	3.7475678
SIZE	-.5610193174E-02	.88150853E-02	-.636	.5253	.12451384
LEV	-.5687839345E-02	.34731860E-02	-1.638	.1032	.88709816
ROE	-.2975385847E-03	.10494452E-02	-.284	.7771	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	.01035	.00354	2.92249
2	.01001	.00344	2.91291
3	.01051	.00368	2.85381
4	.00938	.00342	2.74563
5	.00942	.00356	2.64178
6	.00980	.00265	3.69814

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	836.56390	.1846267901D-02	.0000000
(2) Group effects only	860.83141	.1433873762D-02	.2233664
(3) X - variables only	939.25449	.6334796948D-03	.6568864
(4) X and group effects	942.87075	.6100607328D-03	.6695709

Hypothesis Tests

	Likelihood Ratio Test			F Tests			
	Chi-squared	d.f.	Prob.	F	num.	denom.	Prob value
(2) vs (1)	48.535	5	.00000	10.699	5	186	.00000
(3) vs (1)	205.381	5	.00000	71.219	5	186	.00000
(4) vs (1)	212.614	10	.00000	36.677	10	181	.00000
(4) vs (2)	164.079	5	.00000	48.884	5	181	.00000
(4) vs (3)	7.233	5	.20391	1.390	5	181	.23016

Random Effects Model: $v(i,t) = e(i,t) + u(i)$
Estimates: Var[e] = .337050D-05
Var[u] = .353035D-07
Corr[v(i,t),v(i,s)] = .010366
Lagrange Multiplier Test vs. Model (3) = .00
(1 df, prob value = .975101)

```

| (High values of LM favor FEM/REM over CR model.) |
| Fixed vs. Random Effects (Hausman) = 5.41 |
| ( 5 df, prob value = .367370) |
| (High (low) values of H favor FEM (REM).) |
| Reestimated using GLS coefficients: |
| Estimates: Var[e] = .338416D-05 |
| Var[u] = .552576D-06 |
| Sum of Squares .633600D-03 |

```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	1.142743432	.10821378	10.560	.0000	.57057083E-02
ICE	-.2575295443E-03	.14173138E-03	-1.817	.0692	3.7475678
SIZE	-.2316538565E-03	.40680172E-02	-.057	.9546	.12451384
LEV	-.5283750534E-02	.14547883E-02	-3.632	.0003	.88709816
ROE	-.4545504113E-03	.10385840E-02	-.438	.6616	.23767875E-01
Constant	.8678827912E-02	.14521442E-02	5.977	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.7: } CTI_{it} = \alpha + \alpha_{1it} CEE + \alpha_{2it} ICE + \alpha_{3it} SIZE + \alpha_{4it} LEV + \alpha_{5it} ROE + e_{it}$$

```

--> regress ; lhs=cti
      ; rhs= cee,ice,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $

```

OLS Without Group Dummy Variables

```

| Ordinary least squares regression Weighting variable = none |
| Dep. var. = CTI Mean= .6213145677 , S.D.= .2159268535 |
| Model size: Observations = 192, Parameters = 6, Deg.Fr.= 186 |
| Residuals: Sum of squares= 1.193855229 , Std.Dev.= .08012 |
| Fit: R-squared= .865938, Adjusted R-squared = .86233 |
| Model test: F[ 5, 186] = 240.28, Prob value = .00000 |
| Diagnostic: Log-L = 215.2733, Restricted(b=0) Log-L = 22.3657 |
| LogAmemiyaPrCrt.= -5.018, Akaike Info. Crt.= -2.180 |
| Panel Data Analysis of CTI [ONE way] |
| Unconditional ANOVA (No regressors) |
| Source Variation Deg. Free. Mean Square |
| Between 1.35549 5. .271098 |
| Residual 7.54977 186. .405902E-01 |
| Total 8.90526 191. .466244E-01 |

```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-11.34930718	4.6500358	-2.441	.0156	.57057083E-02
ICE	-.9801058664E-01	.61460734E-02	-15.947	.0000	3.7475678
SIZE	-.2116739055	.15824968	-1.338	.1827	.12451384
LEV	-.1779613112	.56730473E-01	-3.137	.0020	.88709816
ROE	-.2805158305E-01	.45208701E-01	-.620	.5357	.23767875E-01
Constant	1.238263930	.56856348E-01	21.779	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

```

| Ordinary least squares regression Weighting variable = none |
| Dep. var. = CTI Mean= .6213145677 , S.D.= .2159268535 |
| Model size: Observations = 192, Parameters = 11, Deg.Fr.= 181 |
| Residuals: Sum of squares= 1.130659798 , Std.Dev.= .07904 |
| Fit: R-squared= .873035, Adjusted R-squared = .86602 |
| Model test: F[ 10, 181] = 124.46, Prob value = .00000 |
| Diagnostic: Log-L = 220.4944, Restricted(b=0) Log-L = 22.3657 |
| LogAmemiyaPrCrt.= -5.020, Akaike Info. Crt.= -2.182 |
| Estd. Autocorrelation of e(i,t) -.065741 |

```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-13.53870998	5.3324992	-2.539	.0119	.57057083E-02
ICE	-.9859975017E-01	.65769392E-02	-14.992	.0000	3.7475678
SIZE	-.2109693561E-01	.37949491	-.056	.9557	.12451384
LEV	-.2950649749	.14952282	-1.973	.0499	.88709816
ROE	-.1864933520E-01	.45179267E-01	-.413	.6802	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	1.35699	.15243	8.90216
2	1.35329	.14799	9.14432
3	1.33834	.15857	8.44024
4	1.34494	.14703	9.14761
5	1.29857	.15345	8.46230
6	1.30523	.11412	11.43730

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	22.36570	.8905261558D+01	.0000000
(2) Group effects only	38.21771	.7549770507D+01	.1522124
(3) X - variables only	215.27333	.1193855229D+01	.8659382
(4) X and group effects	220.49443	.1130659798D+01	.8730346

Hypothesis Tests

	Likelihood Ratio Test			F Tests			
	Chi-squared	d.f.	Prob.	F	num.	denom.	Prob value
(2) vs (1)	31.704	5	.00001	6.679	5	186	.00001
(3) vs (1)	385.815	5	.00000	240.284	5	186	.00000
(4) vs (1)	396.257	10	.00000	124.459	10	181	.00000
(4) vs (2)	364.553	5	.00000	205.519	5	181	.00000
(4) vs (3)	10.442	5	.06363	2.023	5	181	.07739

Random Effects Model: $v(i,t) = e(i,t) + u(i)$

Estimates: Var[e] = .624674D-02
 Var[u] = .171837D-03
 Corr[v(i,t),v(i,s)] = .026772

Lagrange Multiplier Test vs. Model (3) = .69
 (1 df, prob value = .407263)
 (High values of LM favor FEM/REM over CR model.)

Fixed vs. Random Effects (Hausman) = 5.84
 (5 df, prob value = .321966)
 (High (low) values of H favor FEM (REM).)

Reestimated using GLS coefficients:

Estimates: Var[e] = .627304D-02
 Var[u] = .166828D-02
 Sum of Squares = .119508D+01

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-11.75547465	4.7372357	-2.482	.0131	.57057083E-02
ICE	-.9872023044E-01	.61462876E-02	-16.062	.0000	3.7475678
SIZE	-.1819899298	.19900277	-.915	.3604	.12451384
LEV	-.1933207524	.71245358E-01	-2.713	.0067	.88709816
ROE	-.2283930726E-01	.44815531E-01	-.510	.6103	.23767875E-01
Constant	1.253046223	.70806727E-01	17.697	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.8: } \text{SPR}_{it} = \alpha + \alpha_{1it} \text{CEE} + \alpha_{2it} \text{ICE} + \alpha_{3it} \text{SIZE} + \alpha_{4it} \text{LEV} + \alpha_{5it} \text{ROE} + e_{it}$$

```
--> regress ; lhs=spr
      ; rhs= cee,ice,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $
```

OLS Without Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = SPR Mean= 5.440142115 , S.D.= 1.747586486
Model size: Observations = 192, Parameters = 6, Deg.Fr.= 186
Residuals: Sum of squares= 260.1235958 , Std.Dev.= 1.18259
Fit: R-squared= .554068, Adjusted R-squared = .54208
Model test: F[ 5, 186] = 46.22, Prob value = .00000
Diagnostic: Log-L = -301.5877, Restricted(b=0) Log-L = -379.1161
LogAmemiyaPrCrt.= .366, Akaike Info. Crt.= 3.204
Panel Data Analysis of SPR [ONE way]
Unconditional ANOVA (No regressors)
Source Variation Deg. Free. Mean Square
Between 151.084 5. 30.2169
Residual 432.241 186. 2.32388
Total 583.325 191. 3.05406
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-40.27109925	68.638903	-0.587	.5581	.57057083E-02
ICE	.6588214298	.90721826E-01	7.262	.0000	3.7475678
SIZE	-2.474861454	2.3359142	-1.059	.2908	.12451384
LEV	-3.916857696	.83739515	-4.677	.0000	.88709816
ROE	.9715960208	.66732297	1.456	.1471	.23767875E-01
Constant	6.960638257	.83925319	8.294	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = SPR Mean= 5.440142115 , S.D.= 1.747586486
Model size: Observations = 192, Parameters = 11, Deg.Fr.= 181
Residuals: Sum of squares= 248.3777065 , Std.Dev.= 1.17143
Fit: R-squared= .574204, Adjusted R-squared = .55068
Model test: F[ 10, 181] = 24.41, Prob value = .00000
Diagnostic: Log-L = -297.1519, Restricted(b=0) Log-L = -379.1161
LogAmemiyaPrCrt.= .372, Akaike Info. Crt.= 3.210
Estd. Autocorrelation of e(i,t) -.231438
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	11.05937650	79.035305	.140	.8889	.57057083E-02
ICE	.5908880545	.97479695E-01	6.062	.0000	3.7475678
SIZE	-7.762047041	5.6246602	-1.380	.1692	.12451384
LEV	-.5656044501	2.2161432	-.255	.7988	.88709816
ROE	1.209241314	.66962169	1.806	.0725	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	4.27012	2.25929	1.89003
2	4.61246	2.19347	2.10282
3	5.01080	2.35018	2.13210
4	4.12601	2.17914	1.89341
5	4.15026	2.27441	1.82476
6	5.44317	1.69143	3.21809

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
-------	----------------	----------------	-----------

(1)	Constant term only	-379.11614	.5833251788D+03	.0000000
(2)	Group effects only	-350.33900	.4322408000D+03	.2590054
(3)	X - variables only	-301.58770	.2601235958D+03	.5540676
(4)	X and group effects	-297.15190	.2483777065D+03	.5742037

Hypothesis Tests

Likelihood Ratio Test				F Tests			
	Chi-squared	d.f.	Prob.	F	num.	denom.	Prob value
(2) vs (1)	57.554	5	.00000	13.003	5	186	.00000
(3) vs (1)	155.057	5	.00000	46.221	5	186	.00000
(4) vs (1)	163.928	10	.00000	24.409	10	181	.00000
(4) vs (2)	106.374	5	.00000	26.797	5	181	.00000
(4) vs (3)	8.872	5	.11430	1.712	5	181	.13397

Random Effects Model: $v(i,t) = e(i,t) + u(i)$

Estimates: Var[e] = .137225D+01
 Var[u] = .262614D-01
 Corr[v(i,t),v(i,s)] = .018778

Lagrange Multiplier Test vs. Model (3) = .08
 (1 df, prob value = .778934)
 (High values of LM favor FEM/REM over CR model.)

Fixed vs. Random Effects (Hausman) = 6.53
 (5 df, prob value = .257801)
 (High (low) values of H favor FEM (REM).)

Reestimated using GLS coefficients:

Estimates: Var[e] = .139439D+01
 Var[u] = .206190D+00
 Sum of Squares = .260377D+03

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-34.79281817	69.699504	-.499	.6177	.57057083E-02
ICE	.6457299661	.90799419E-01	7.112	.0000	3.7475678
SIZE	-2.923305391	2.7885118	-1.048	.2945	.12451384
LEV	-3.707257561	.99732639	-3.717	.0002	.88709816
ROE	1.039321311	.66358973	1.566	.1173	.23767875E-01
Constant	6.846733827	.99305334	6.895	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.9: } ROA_{it} = \alpha + \alpha_{1it} \text{CEE} + \alpha_{2it} \text{HCE} + \alpha_{3it} \text{SCE} + \alpha_{4it} \text{SIZE} + \alpha_{5it} \text{LEV} + \alpha_{6it} \text{ROE} + e_{it}$$

```
--> regress; lhs=roa
      ; rhs=cee,hce,sce,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $
```

| OLS Without Group Dummy Variables

```
| Ordinary least squares regression Weighting variable = none
| Dep. var. = ROA Mean= .2408364583E-02, S.D.= .7366317986E-02
| Model size: Observations = 192, Parameters = 7, Deg.Fr.= 185
| Residuals: Sum of squares= .1693656283E-02, Std.Dev.= .00303
| Fit: R-squared= .836585, Adjusted R-squared = .83129
| Model test: F[ 6, 185] = 157.85, Prob value = .00000
| Diagnostic: Log-L = 844.8465, Restricted(b=0) Log-L = 670.9459
| LogAmemiyaPrCrt.= -11.565, Akaike Info. Crt.= -8.728
| Panel Data Analysis of ROA [ONE way]
| Unconditional ANOVA (No regressors)
| Source Variation Deg. Free. Mean Square
| Between .316088E-03 5. .632177E-04
| Residual .100481E-01 186. .540219E-04
| Total .103642E-01 191. .542626E-04
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	.2085993122	.19403410	1.075	.2837	.57057083E-02
HCE	.3145482519E-03	.39868294E-03	.789	.4311	3.2451910
SCE	-.1620441995E-02	.41609514E-03	-3.894	.0001	.50237682
SIZE	.1218027557E-01	.60500887E-02	2.013	.0455	.12451384
LEV	-.5092345210E-02	.21774217E-02	-2.339	.0204	.88709816
ROE	.4879118035E-01	.17680227E-02	27.596	.0000	.23767875E-01
Constant	.2852595603E-02	.23124549E-02	1.234	.2189	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

| Least Squares with Group Dummy Variables

```
| Ordinary least squares regression Weighting variable = none
| Dep. var. = ROA Mean= .2408364583E-02, S.D.= .7366317986E-02
| Model size: Observations = 192, Parameters = 12, Deg.Fr.= 180
| Residuals: Sum of squares= .1670894683E-02, Std.Dev.= .00305
| Fit: R-squared= .838782, Adjusted R-squared = .82893
| Model test: F[ 11, 180] = 85.14, Prob value = .00000
| Diagnostic: Log-L = 846.1454, Restricted(b=0) Log-L = 670.9459
| LogAmemiyaPrCrt.= -11.527, Akaike Info. Crt.= -8.689
| Estd. Autocorrelation of e(i,t) -.031364
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	.3408644510	.23956400	1.423	.1565	.57057083E-02
HCE	.4520220386E-04	.45856042E-03	.099	.9216	3.2451910
SCE	-.1603334862E-02	.42305761E-03	-3.790	.0002	.50237682
SIZE	.1157964589E-01	.14660533E-01	.790	.4306	.12451384
LEV	.2278984747E-02	.58795766E-02	.388	.6987	.88709816
ROE	.4905379542E-01	.18246896E-02	26.883	.0000	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	-.00397	.00592	-.66951
2	-.00339	.00573	-.59203
3	-.00385	.00614	-.62716
4	-.00413	.00570	-.72486
5	-.00413	.00595	-.69382
6	-.00157	.00440	-.35650

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	670.94587	.1036416437D-01	.0000000
(2) Group effects only	673.91927	.1004807609D-01	.0304982
(3) X - variables only	844.84646	.1693656283D-02	.8365854
(4) X and group effects	846.14538	.1670894683D-02	.8387815

Hypothesis Tests

	Likelihood Ratio Test			F Tests		
	Chi-squared	d.f.	Prob.	F	num. denom.	Prob value
(2) vs (1)	5.947	5	.31143	1.170	5 186	.32544
(3) vs (1)	347.801	6	.00000	157.848	6 185	.00000
(4) vs (1)	350.399	11	.00000	85.136	11 180	.00000
(4) vs (2)	344.452	6	.00000	150.408	6 180	.00000
(4) vs (3)	2.598	5	.76169	.490	5 180	.78315

Random Effects Model: $v(i,t) = e(i,t) + u(i)$

Estimates: Var[e] = .870258D-05
 Var[u] = .118550D-06
 Corr[v(i,t),v(i,s)] = .013439

Lagrange Multiplier Test vs. Model (3) = 2.40
 (1 df, prob value = .121470)
 (High values of LM favor FEM/REM over CR model.)

Fixed vs. Random Effects (Hausman) = 2.07
 (6 df, prob value = .913617)
 (High (low) values of H favor FEM (REM).)

Reestimated using GLS coefficients:

Estimates: Var[e] = .936333D-05
 Var[u] = -.222986D-07
 Sum of Squares = .169405D-02

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	.2091622114	.19389209	1.079	.2807	.57057083E-02
HCE	.2987265963E-03	.39474274E-03	.757	.4492	3.2451910
SCE	-.1620790647E-02	.40646821E-03	-3.987	.0001	.50237682
SIZE	.1219553345E-01	.67852686E-02	1.797	.0723	.12451384
LEV	-.4758109948E-02	.24236495E-02	-1.963	.0496	.88709816
ROE	.4880751055E-01	.17327693E-02	28.167	.0000	.23767875E-01
Constant	.2602115877E-02	.25188336E-02	1.033	.3016	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.10: } \text{RTB}_{it} = \alpha + \alpha_{1it} \text{CEE} + \alpha_{2it} \text{HCE} + \alpha_{3it} \text{SCE} + \alpha_{4it} \text{SIZE} + \alpha_{5it} \text{LEV} + \alpha_{6it} \text{ROE} + e_{it}$$

```
--> regress ; lhs=rtb
      ; rhs=cee,hce,sce,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $
```

OLS Without Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = RTB Mean= .9507026042E-02, S.D.= .3109071258E-02
Model size: Observations = 192, Parameters = 7, Deg.Fr.= 185
Residuals: Sum of squares= .6253478824E-03, Std.Dev.= .00184
Fit: R-squared= .661291, Adjusted R-squared = .65031
Model test: F[ 6, 185] = 60.20, Prob value = .00000
Diagnostic: Log-L = 940.4948, Restricted(b=0) Log-L = 836.5639
LogAmemiyaPrCrt.= -12.562, Akaike Info. Crt.= -9.724
Panel Data Analysis of RTB [ONE way]
Unconditional ANOVA (No regressors)
Source Variation Deg. Free. Mean Square
Between .412394E-03 5. .824788E-04
Residual .143387E-02 186. .770900E-05
Total .184627E-02 191. .966632E-05
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	1.227621824	.11790338	10.412	.0000	.57057083E-02
HCE	-.5595354806E-03	.24225673E-03	-2.310	.0220	3.2451910
SCE	.7142994798E-04	.25283713E-03	.283	.7779	.50237682
SIZE	-.8832616461E-03	.36762915E-02	-.240	.8104	.12451384
LEV	-.5603817293E-02	.13230942E-02	-4.235	.0000	.88709816
ROE	-.6102816476E-04	.10743259E-02	-.057	.9548	.23767875E-01
Constant	.9365053504E-02	.14051461E-02	6.665	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = RTB Mean= .9507026042E-02, S.D.= .3109071258E-02
Model size: Observations = 192, Parameters = 12, Deg.Fr.= 180
Residuals: Sum of squares= .6021354392E-03, Std.Dev.= .00183
Fit: R-squared= .673863, Adjusted R-squared = .65393
Model test: F[ 11, 180] = 33.81, Prob value = .00000
Diagnostic: Log-L = 944.1261, Restricted(b=0) Log-L = 836.5639
LogAmemiyaPrCrt.= -12.547, Akaike Info. Crt.= -9.710
Estd. Autocorrelation of e(i,t) -.251603
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	1.215715940	.14381166	8.454	.0000	.57057083E-02
HCE	-.6042021816E-03	.27527649E-03	-2.195	.0294	3.2451910
SCE	.6178421894E-04	.25396395E-03	.243	.8081	.50237682
SIZE	-.6496802624E-02	.88008032E-02	-.738	.4613	.12451384
LEV	-.4615657925E-02	.35295441E-02	-1.308	.1926	.88709816
ROE	.2054131864E-03	.10953718E-02	.188	.8515	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	.00965	.00356	2.71339
2	.00949	.00344	2.75765
3	.00997	.00369	2.70353
4	.00884	.00342	2.58394
5	.00879	.00357	2.45763
6	.00966	.00264	3.65669

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	836.56390	.1846267901D-02	.0000000
(2) Group effects only	860.83141	.1433873762D-02	.2233664
(3) X - variables only	940.49479	.6253478824D-03	.6612908
(4) X and group effects	944.12606	.6021354392D-03	.6738635

Hypothesis Tests

Likelihood Ratio Test				F Tests		
	Chi-squared	d.f.	Prob.	F	num. denom.	Prob value
(2) vs (1)	48.535	5	.00000	10.699	5 186	.00000
(3) vs (1)	207.862	6	.00000	60.199	6 185	.00000
(4) vs (1)	215.124	11	.00000	33.811	11 180	.00000
(4) vs (2)	166.589	6	.00000	41.439	6 180	.00000
(4) vs (3)	7.263	5	.20184	1.388	5 180	.23088

Random Effects Model: $v(i,t) = e(i,t) + u(i)$

Estimates: Var[e] = .334520D-05

Var[u] = .350619D-07

Corr[v(i,t),v(i,s)] = .010373

Lagrange Multiplier Test vs. Model (3) = .00

(1 df, prob value = .980765)

(High values of LM favor FEM/REM over CR model.)

Fixed vs. Random Effects (Hausman) = 5.42

(6 df, prob value = .491262)

(High (low) values of H favor FEM (REM).)

Reestimated using GLS coefficients:

Estimates: Var[e] = .335974D-05

Var[u] = .542304D-06

Sum of Squares .625466D-03

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	1.223205421	.11964441	10.224	.0000	.57057083E-02
HCE	-.5661654631E-03	.24401909E-03	-2.320	.0203	3.2451910
SCE	.6600799906E-04	.25191930E-03	.262	.7933	.50237682
SIZE	-.1118697793E-02	.40931314E-02	-.273	.7846	.12451384
LEV	-.5597258043E-02	.14634389E-02	-3.825	.0001	.88709816
ROE	-.1204807559E-04	.10733003E-02	-.011	.9910	.23767875E-01
Constant	.9436823839E-02	.15270941E-02	6.180	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.11: } CTI_{it} = \alpha + \alpha_{1it} CEE + \alpha_{2it} HCE + \alpha_{3it} SCE + \alpha_{4it} \text{SIZE} + \alpha_{5it} \text{LEV} + \alpha_{6it} \text{ROE} + e_{it}$$

```
--> regress ; lhs=cti
      ; rhs=cee,hce,sce,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $
```

OLS Without Group Dummy Variables

```
| Ordinary least squares regression Weighting variable = none |
| Dep. var. = CTI Mean= .6213145677 , S.D.= .2159268535 |
| Model size: Observations = 192, Parameters = 7, Deg.Fr.= 185 |
| Residuals: Sum of squares= 1.193677296 , Std.Dev.= .08033 |
| Fit: R-squared= .865958, Adjusted R-squared = .86161 |
| Model test: F[ 6, 185] = 199.19, Prob value = .00000 |
| Diagnostic: Log-L = 215.2876, Restricted(b=0) Log-L = 22.3657 |
| LogAmemiyaPrCrt.= -5.008, Akaike Info. Crt.= -2.170 |
| Panel Data Analysis of CTI [ONE way] |
| Unconditional ANOVA (No regressors) |
| Source Variation Deg. Free. Mean Square |
| Between 1.35549 5. .271098 |
| Residual 7.54977 186. .405902E-01 |
| Total 8.90526 191. .466244E-01 |
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-11.71315628	5.1512058	-2.274	.0241	.57057083E-02
HCE	-.9658124558E-01	.10584211E-01	-9.125	.0000	3.2451910
SCE	-.9953335950E-01	.11046469E-01	-9.010	.0000	.50237682
SIZE	-.2075269691	.16061739	-1.292	.1979	.12451384
LEV	-.1762489649	.57806062E-01	-3.049	.0026	.88709816
ROE	-.3007602148E-01	.46937361E-01	-.641	.5225	.23767875E-01
Constant	1.234479213	.61390915E-01	20.109	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

```
| Ordinary least squares regression Weighting variable = none |
| Dep. var. = CTI Mean= .6213145677 , S.D.= .2159268535 |
| Model size: Observations = 192, Parameters = 12, Deg.Fr.= 180 |
| Residuals: Sum of squares= 1.130145241 , Std.Dev.= .07924 |
| Fit: R-squared= .873092, Adjusted R-squared = .86534 |
| Model test: F[ 11, 180] = 112.58, Prob value = .00000 |
| Diagnostic: Log-L = 220.5381, Restricted(b=0) Log-L = 22.3657 |
| LogAmemiyaPrCrt.= -5.010, Akaike Info. Crt.= -2.172 |
| Estd. Autocorrelation of e(i,t) -.068661 |
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-14.45477598	6.2303744	-2.320	.0214	.57057083E-02
HCE	-.9575460876E-01	.11925845E-01	-8.029	.0000	3.2451910
SCE	-.1011215233	.11002518E-01	-9.191	.0000	.50237682
SIZE	-.1395262420E-01	.38127853	-.037	.9708	.12451384
LEV	-.3037052290	.15291097	-1.986	.0485	.88709816
ROE	-.2270245464E-01	.47454956E-01	-.478	.6329	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	1.36261	.15408	8.84362
2	1.35751	.14910	9.10480
3	1.34273	.15971	8.40739
4	1.34928	.14818	9.10576
5	1.30366	.15487	8.41792
6	1.30636	.11448	11.41134

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	22.36570	.8905261558D+01	.0000000
(2) Group effects only	38.21771	.7549770507D+01	.1522124
(3) X - variables only	215.28764	.1193677296D+01	.8659582
(4) X and group effects	220.53813	.1130145241D+01	.8730924

Hypothesis Tests

	Likelihood Ratio Test			F Tests			Prob value
	Chi-squared	d.f.	Prob.	F	num.	denom.	
(2) vs (1)	31.704	5	.00001	6.679	5	186	.00001
(3) vs (1)	385.844	6	.00000	199.194	6	185	.00000
(4) vs (1)	396.345	11	.00000	112.578	11	180	.00000
(4) vs (2)	364.641	6	.00000	170.411	6	180	.00000
(4) vs (3)	10.501	5	.06222	2.024	5	180	.07736

Random Effects Model: $v(i,t) = e(i,t) + u(i)$

Estimates: Var[e] = .627858D-02

Var[u] = .173725D-03

Corr[v(i,t),v(i,s)] = .026924

Lagrange Multiplier Test vs. Model (3) = .67

(1 df, prob value = .411525)

(High values of LM favor FEM/REM over CR model.)

Fixed vs. Random Effects (Hausman) = 5.86

(6 df, prob value = .438920)

(High (low) values of H favor FEM (REM).)

Reestimated using GLS coefficients:

Estimates: Var[e] = .630730D-02

Var[u] = .166628D-02

Sum of Squares .119494D+01

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-12.08512532	5.2975511	-2.281	.0225	.57057083E-02
HCE	-.9749693321E-01	.10715551E-01	-9.099	.0000	3.2451910
SCE	-.9998410993E-01	.10930631E-01	-9.147	.0000	.50237682
SIZE	-.1783699352	.20125276	-.886	.3755	.12451384
LEV	-.1924775618	.71797640E-01	-2.681	.0073	.88709816
ROE	-.2459710869E-01	.46687415E-01	-.527	.5983	.23767875E-01
Constant	1.250435270	.73587840E-01	16.992	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.12: } \text{SPR}_{it} = \alpha + \alpha_{1it} \text{CEE} + \alpha_{2it} \text{HCE} + \alpha_{3it} \text{SCE} + \alpha_{4it} \text{SIZE} + \alpha_{5it} \text{LEV} + \alpha_{6it} \text{ROE} + e_{it}$$

```
--> regress ; lhs=spr
      ; rhs= cee,hce,sce,size,lev,roe
      ; str= nbank
      ; panel
      ;output= 4 $
```

OLS Without Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = SPR Mean= 5.440142115 , S.D.= 1.747586486
Model size: Observations = 192, Parameters = 7, Deg.Fr.= 185
Residuals: Sum of squares= 230.8452095 , Std.Dev.= 1.11706
Fit: R-squared= .604260, Adjusted R-squared = .59143
Model test: F[ 6, 185] = 47.08, Prob value = .00000
Diagnostic: Log-L = -290.1244, Restricted(b=0) Log-L = -379.1161
LogAmemiyaPrCrt.= .257, Akaike Info. Crt.= 3.095
Panel Data Analysis of SPR [ONE way]
Unconditional ANOVA (No regressors)
Source Variation Deg. Free. Mean Square
Between 151.084 5. 30.2169
Residual 432.241 186. 2.32388
Total 583.325 191. 3.05406
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-187.8303259	71.635099	-2.622	.0095	.57057083E-02
HCE	1.238499240	.14718903	8.414	.0000	3.2451910
SCE	.4124680362E-01	.15361741	.269	.7886	.50237682
SIZE	-.7930026039	2.2336213	-.355	.7230	.12451384
LEV	-3.222406297	.80387838	-4.009	.0001	.88709816
ROE	.1505852283	.65273309	.231	.8178	.23767875E-01
Constant	5.425710582	.85373104	6.355	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = SPR Mean= 5.440142115 , S.D.= 1.747586486
Model size: Observations = 192, Parameters = 12, Deg.Fr.= 180
Residuals: Sum of squares= 224.8157052 , Std.Dev.= 1.11758
Fit: R-squared= .614596, Adjusted R-squared = .59104
Model test: F[ 11, 180] = 26.09, Prob value = .00000
Diagnostic: Log-L = -287.5836, Restricted(b=0) Log-L = -379.1161
LogAmemiyaPrCrt.= .283, Akaike Info. Crt.= 3.121
Estd. Autocorrelation of e(i,t) -.270472
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-184.9436243	87.873988	-2.105	.0367	.57057083E-02
HCE	1.199642160	.16820363	7.132	.0000	3.2451910
SCE	.5131926894E-01	.15518091	.331	.7412	.50237682
SIZE	-6.233313373	5.3776006	-1.159	.2479	.12451384
LEV	-2.414305571	2.1566757	-1.119	.2644	.88709816
ROE	.3420297383	.66931070	.511	.6099	.23767875E-01

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	5.47330	2.17315	2.51860
2	5.51425	2.10290	2.62221
3	5.95037	2.25254	2.64163
4	5.05530	2.08993	2.41888
5	5.23879	2.18427	2.39842
6	5.68553	1.61463	3.52126

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	-379.11614	.5833251788D+03	.0000000
(2) Group effects only	-350.33900	.4322408000D+03	.2590054
(3) X - variables only	-290.12439	.2308452095D+03	.6042598
(4) X and group effects	-287.58362	.2248157052D+03	.6145963

Hypothesis Tests

	Likelihood Ratio Test			F Tests		
	Chi-squared	d.f.	Prob.	F	num. denom.	Prob value
(2) vs (1)	57.554	5	.00000	13.003	5 186	.00000
(3) vs (1)	177.984	6	.00000	47.080	6 185	.00000
(4) vs (1)	183.065	11	.00000	26.095	11 180	.00000
(4) vs (2)	125.511	6	.00000	27.679	6 180	.00000
(4) vs (3)	5.082	5	.40601	.966	5 180	.44034

Random Effects Model: $v(i,t) = e(i,t) + u(i)$

Estimates: Var[e] = .117092D+01
 Var[u] = .314037D-01
 Corr[v(i,t),v(i,s)] = .026119

Lagrange Multiplier Test vs. Model (3) = .56
 (1 df, prob value = .454803)
 (High values of LM favor FEM/REM over CR model.)

Fixed vs. Random Effects (Hausman) = 1.94
 (6 df, prob value = .924713)
 (High (low) values of H favor FEM (REM).)

Reestimated using GLS coefficients:

Estimates: Var[e] = .125619D+01
 Var[u] = .115221D+00
 Sum of Squares = .231058D+03

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
CEE	-189.2699756	72.280668	-2.619	.0088	.57057083E-02
HCE	1.226374588	.14625399	8.385	.0000	3.2451910
SCE	.4068612608E-01	.14926291	.273	.7852	.50237682
SIZE	-1.427504316	2.7342909	-.522	.6016	.12451384
LEV	-3.182098818	.97544329	-3.262	.0011	.88709816
ROE	.2101727116	.63747889	.330	.7416	.23767875E-01
Constant	5.515384573	1.0004529	5.513	.0000	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.13: } ROA_{it} = \alpha + \gamma OWN + \sum_{k=1}^p X_{itk} \beta_k + u_{it}, i=1, \dots, N; t=1, \dots, T$$

```
--> regress ; lhs=roa
      ; rhs= lasset, earatio, nia, cti, loan, liq, ebsi, eeco, eint
      ; str= nbank
      ; panel
      ; output= 4 $
```

| OLS Without Group Dummy Variables

```
| Ordinary least squares regression Weighting variable = none |
| Dep. var. = ROA Mean= .2408364583E-02, S.D.= .7366317986E-02 |
| Model size: Observations = 192, Parameters = 10, Deg.Fr.= 182 |
| Residuals: Sum of squares= .9767255875E-02, Std.Dev.= .00733 |
| Fit: R-squared= .057593, Adjusted R-squared = .01099 |
| Model test: F[ 9, 182] = 1.24, Prob value = .27560 |
| Diagnostic: Log-L = 676.6404, Restricted(b=0) Log-L = 670.9459 |
| LogAmemiyaPrCrt.= -9.782, Akaike Info. Crt.= -6.944 |
| Panel Data Analysis of ROA [ONE way] |
| Unconditional ANOVA (No regressors) |
| Source Variation Deg. Free. Mean Square |
| Between .316088E-03 5. .632177E-04 |
| Residual .100481E-01 186. .540219E-04 |
| Total .103642E-01 191. .542626E-04 |
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	.3551999836E-02	.18595397E-02	1.910	.0577	13.662416
EARATIO	.1356702019E-01	.13972720E-01	.971	.3329	.11290184
NIA	-.2729423621	.53404114	-.511	.6099	.61935781E-02
CTI	.5101807330E-02	.33455256E-02	1.525	.1290	.62131457
LOAN	-.6428004589E-03	.10697957E-02	-.601	.5487	1.5158071
LIQ	-.1956676236E-03	.26159197E-02	-.075	.9405	.85769051
EBSI	-.3349936153E-03	.21635847E-03	-1.548	.1233	47.471875
EECO	.1218334788E-04	.17258955E-03	.071	.9438	108.35000
EINT	-.1649565045E-02	.94830632E-03	-1.739	.0836	1.9778125
Constant	-.3014419006E-01	.35050967E-01	-.860	.3909	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

| Least Squares with Group Dummy Variables

```
| Ordinary least squares regression Weighting variable = none |
| Dep. var. = ROA Mean= .2408364583E-02, S.D.= .7366317986E-02 |
| Model size: Observations = 192, Parameters = 15, Deg.Fr.= 177 |
| Residuals: Sum of squares= .9136284147E-02, Std.Dev.= .00718 |
| Fit: R-squared= .118474, Adjusted R-squared = .04875 |
| Model test: F[ 14, 177] = 1.70, Prob value = .05925 |
| Diagnostic: Log-L = 683.0515, Restricted(b=0) Log-L = 670.9459 |
| LogAmemiyaPrCrt.= -9.796, Akaike Info. Crt.= -6.959 |
| Estd. Autocorrelation of e(i,t) -.095724 |
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	.8437594344E-02	.90530310E-02	.932	.3526	13.662416
EARATIO	.3940330400E-01	.17817231E-01	2.212	.0282	.11290184
NIA	-1.634737497	.67963079	-2.405	.0172	.61935781E-02
CTI	.4148640936E-02	.35743959E-02	1.161	.2473	.62131457
LOAN	.4643699938E-04	.16751719E-02	.028	.9779	1.5158071

LIQ	.2417394254E-03	.67270136E-02	.036	.9714	.85769051
EBSI	-.5171569931E-03	.23463724E-03	-2.204	.0288	47.471875
EECO	.1285899321E-03	.24886794E-03	.517	.6060	108.35000
EINT	-.1450251546E-02	.10041492E-02	-1.444	.1504	1.9778125

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	-.09214	.11673	-.78934
2	-.09333	.11636	-.80210
3	-.09957	.12106	-.82249
4	-.09508	.11306	-.84100
5	-.09404	.11969	-.78569
6	-.10521	.12006	-.87633

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	670.94587	.1036416437D-01	.0000000
(2) Group effects only	673.91927	.1004807609D-01	.0304982
(3) X - variables only	676.64045	.9767255875D-02	.0575935
(4) X and group effects	683.05150	.9136284147D-02	.1184736

Hypothesis Tests

	Likelihood Ratio Test			F Tests			
	Chi-squared	d.f.	Prob.	F	num.	denom.	Prob value
(2) vs (1)	5.947	5	.31143	1.170	5	186	.32544
(3) vs (1)	11.389	9	.24997	1.236	9	182	.27560
(4) vs (1)	24.211	14	.04320	1.699	14	177	.05925
(4) vs (2)	18.264	9	.03223	1.963	9	177	.04618
(4) vs (3)	12.822	5	.02510	2.445	5	177	.03591

Error: 425; REGR;PANEL. Could not invert VC matrix for Hausman test.

```

Random Effects Model: v(i,t) = e(i,t) + u(i)
Estimates: Var[e] = .516174D-04
            Var[u] = .204882D-05
            Corr[v(i,t),v(i,s)] = .038177
Lagrange Multiplier Test vs. Model (3) = .11
( 1 df, prob value = .744543)
(High values of LM favor FEM/REM over CR model.)
Fixed vs. Random Effects (Hausman) = .00
( 9 df, prob value = 1.000000)
(High (low) values of H favor FEM (REM).)
Reestimated using GLS coefficients:
Estimates: Var[e] = .524799D-04
            Var[u] = .149839D-04
            Sum of Squares = .982091D-02

```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	.3879645210E-02	.26150502E-02	1.484	.1379	13.662416
EARATIO	.1882650510E-01	.14253811E-01	1.321	.1866	.11290184
NIA	-.7213418899	.57114522	-1.263	.2066	.61935781E-02
CTI	.5232202832E-02	.33569726E-02	1.559	.1191	.62131457
LOAN	-.1040657135E-02	.11178626E-02	-.931	.3519	1.5158071
LIQ	-.1296529828E-02	.29631260E-02	-.438	.6617	.85769051
EBSI	-.3942260037E-03	.21516335E-03	-1.832	.0669	47.471875
EECO	.8458054898E-04	.17812482E-03	.475	.6349	108.35000
EINT	-.1564730582E-02	.93593913E-03	-1.672	.0946	1.9778125
Constant	-.3617111992E-01	.41991670E-01	-.861	.3890	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

```
--> regress ; lhs=roa
      ; rhs= lasset, earatio, nia, cti, loan, liq, eeco, eint
      ; str= nbank
      ; panel
      ; output= 4 $
```

| OLS Without Group Dummy Variables

```
| Ordinary least squares regression Weighting variable = none
| Dep. var. = ROA Mean= .2408364583E-02, S.D.= .7366317986E-02
| Model size: Observations = 192, Parameters = 9, Deg.Fr.= 183
| Residuals: Sum of squares= .9895910800E-02, Std.Dev.= .00735
| Fit: R-squared= .045180, Adjusted R-squared = .00344
| Model test: F[ 8, 183] = 1.08, Prob value = .37733
| Diagnostic: Log-L = 675.3842, Restricted(b=0) Log-L = 670.9459
| LogAmemiyaPrCrt.= -9.779, Akaike Info. Crt.= -6.942
| Panel Data Analysis of ROA [ONE way]
| Unconditional ANOVA (No regressors)
| Source Variation Deg. Free. Mean Square
| Between .316088E-03 5. .632177E-04
| Residual .100481E-01 186. .540219E-04
| Total .103642E-01 191. .542626E-04
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	.3655493097E-02	.18654193E-02	1.960	.0516	13.662416
EARATIO	.1305693502E-01	.14022064E-01	.931	.3530	.11290184
NIA	-.6232591795E-01	.51839425	-.120	.9044	.61935781E-02
CTI	.5637400440E-02	.33402740E-02	1.688	.0932	.62131457
LOAN	-.5158233400E-03	.10707122E-02	-.482	.6306	1.5158071
LIQ	.7210966695E-03	.25577387E-02	.282	.7783	.85769051
EECO	.1003104179E-03	.16355502E-03	.613	.5404	108.35000
EINT	-.1139199993E-02	.89256379E-03	-1.276	.2035	1.9778125
Constant	-.6057733199E-01	.29131811E-01	-2.079	.0390	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

| Least Squares with Group Dummy Variables

```
| Ordinary least squares regression Weighting variable = none
| Dep. var. = ROA Mean= .2408364583E-02, S.D.= .7366317986E-02
| Model size: Observations = 192, Parameters = 14, Deg.Fr.= 178
| Residuals: Sum of squares= .9387037791E-02, Std.Dev.= .00726
| Fit: R-squared= .094279, Adjusted R-squared = .02813
| Model test: F[ 13, 178] = 1.43, Prob value = .15144
| Diagnostic: Log-L = 680.4522, Restricted(b=0) Log-L = 670.9459
| LogAmemiyaPrCrt.= -9.780, Akaike Info. Crt.= -6.942
| Estd. Autocorrelation of e(i,t) -.111462
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	.1395406076E-01	.87939551E-02	1.587	.1143	13.662416
EARATIO	.3529408166E-01	.17910413E-01	1.971	.0503	.11290184
NIA	-1.084924913	.63900973	-1.698	.0912	.61935781E-02
CTI	.5694297357E-02	.35427071E-02	1.607	.1097	.62131457
LOAN	.3736350556E-03	.16865664E-02	.222	.8249	1.5158071
LIQ	.5545137130E-02	.63496696E-02	.873	.3836	.85769051
EECO	.1000244907E-03	.25120909E-03	.398	.6910	108.35000
EINT	-.1121540860E-02	.10037158E-02	-1.117	.2653	1.9778125

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	-.19891	.10734	-1.85302
2	-.19941	.10708	-1.86221
3	-.20836	.11173	-1.86486
4	-.19871	.10393	-1.91202
5	-.20260	.11027	-1.83730
6	-.20990	.11145	-1.88343

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	670.94587	.1036416437D-01	.0000000
(2) Group effects only	673.91927	.1004807609D-01	.0304982
(3) X - variables only	675.38419	.9895910800D-02	.0451801
(4) X and group effects	680.45220	.9387037791D-02	.0942793

Hypothesis Tests

	Likelihood Ratio Test			F Tests			Prob value
	Chi-squared	d.f.	Prob.	F	num.	denom.	
(2) vs (1)	5.947	5	.31143	1.170	5	186	.32544
(3) vs (1)	8.877	8	.35281	1.082	8	183	.37733
(4) vs (1)	19.013	13	.12271	1.425	13	178	.15144
(4) vs (2)	13.066	8	.10960	1.567	8	178	.13768
(4) vs (3)	10.136	5	.07147	1.930	5	178	.09154

Error: 425: REGR;PANEL. Could not invert VC matrix for Hausman test.

```

Random Effects Model: v(i,t) = e(i,t) + u(i)
Estimates: Var[e] = .527362D-04
            Var[u] = .133985D-05
            Corr[v(i,t),v(i,s)] = .024777
Lagrange Multiplier Test vs. Model (3) = .00
( 1 df, prob value = .963240)
(High values of LM favor FEM/REM over CR model.)
Fixed vs. Random Effects (Hausman) = .00
( 8 df, prob value = 1.000000)
(High (low) values of H favor FEM (REM).)
Reestimated using GLS coefficients:
Estimates: Var[e] = .535122D-04
            Var[u] = .106101D-04
            Sum of Squares = .991820D-02

```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	.4090414914E-02	.23908127E-02	1.711	.0871	13.662416
EARATIO	.1638624697E-01	.14248876E-01	1.150	.2501	.11290184
NIA	-.3392181000	.54383594	-.624	.5328	.61935781E-02
CTI	.5854953819E-02	.33552017E-02	1.745	.0810	.62131457
LOAN	-.7816591489E-03	.11067969E-02	-.706	.4800	1.5158071
LIQ	.2004276634E-03	.27838677E-02	.072	.9426	.85769051
EECO	.1558654742E-03	.17020754E-03	.916	.3598	108.35000
EINT	-.1036529107E-02	.89064199E-03	-1.164	.2445	1.9778125
Constant	-.7068844137E-01	.34332472E-01	-2.059	.0395	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

$$\text{Model 5.14: } \text{RTB}_{it} = \alpha + \gamma \text{OWN} + \sum_{k=1}^p X_{ik} \beta_k + u_{it}, \quad i=1, \dots, N; t=1, \dots, T$$

```
--> regress ; lhs=rtb
      ; rhs= lasset, earatio, nia, cti, loan, liq, ebsi, eeco, eint
      ; str= nbank
      ; panel
      ; output= 4 $
```

OLS Without Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = RTB Mean= .9507026042E-02, S.D.= .3109071258E-02
Model size: Observations = 192, Parameters = 10, Deg.Fr.= 182
Residuals: Sum of squares= .9020413848E-03, Std.Dev.= .00223
Fit: R-squared= .511424, Adjusted R-squared = .48726
Model test: F[ 9, 182] = 21.17, Prob value = .00000
Diagnostic: Log-L = 905.3250, Restricted(b=0) Log-L = 836.5639
LogAmemiyaPrCrt.= -12.164, Akaike Info. Crt.= -9.326
Panel Data Analysis of RTB [ONE way]
Unconditional ANOVA (No regressors)
Source Variation Deg. Free. Mean Square
Between .412394E-03 5. .824788E-04
Residual .143387E-02 186. .770900E-05
Total .184627E-02 191. .966632E-05
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	.2164465218E-03	.56510924E-03	.383	.7022	13.662416
EARATIO	.6848571642E-02	.42462729E-02	1.613	.1085	.11290184
NIA	1.033805813	.16229370	6.370	.0000	.61935781E-02
CTI	-.1497129925E-02	.10166964E-02	-1.473	.1426	.62131457
LOAN	.7636996924E-04	.32510811E-03	.235	.8145	1.5158071
LIQ	.9315282592E-04	.79497113E-03	.117	.9068	.85769051
EBSI	.6330265570E-04	.65750772E-04	.963	.3369	47.471875
EECO	-.1081947265E-04	.52449512E-04	-.206	.8368	108.35000
EINT	-.1215506940E-03	.28818780E-03	-.422	.6737	1.9778125
Constant	-.1484201020E-02	.10651897E-01	-.139	.8893	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

```
Ordinary least squares regression Weighting variable = none
Dep. var. = RTB Mean= .9507026042E-02, S.D.= .3109071258E-02
Model size: Observations = 192, Parameters = 15, Deg.Fr.= 177
Residuals: Sum of squares= .8086083889E-03, Std.Dev.= .00214
Fit: R-squared= .562031, Adjusted R-squared = .52739
Model test: F[ 14, 177] = 16.22, Prob value = .00000
Diagnostic: Log-L = 915.8222, Restricted(b=0) Log-L = 836.5639
LogAmemiyaPrCrt.= -12.221, Akaike Info. Crt.= -9.384
Estd. Autocorrelation of e(i,t) -.333898
```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	-.1114377972E-02	.26932603E-02	-.414	.6795	13.662416
EARATIO	.4991607197E-02	.53005939E-02	.942	.3476	.11290184
NIA	1.005825222	.20218893	4.975	.0000	.61935781E-02
CTI	-.4811715909E-03	.10633763E-02	-.452	.6514	.62131457
LOAN	.1227595861E-04	.49836061E-03	.025	.9804	1.5158071
LIQ	.4088048746E-04	.20012743E-02	.020	.9837	.85769051
EBSI	.6286060391E-04	.69804153E-04	.901	.3690	47.471875
EECO	.5130095509E-04	.74037760E-04	.693	.4892	108.35000
EINT	-.6372239217E-04	.29873257E-03	-.213	.8313	1.9778125

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	.01006	.03473	.28982
2	.01052	.03462	.30376
3	.01061	.03602	.29448
4	.00825	.03364	.24520
5	.00875	.03561	.24574
6	.01042	.03572	.29182

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	836.56390	.1846267901D-02	.0000000
(2) Group effects only	860.83141	.1433873762D-02	.2233664
(3) X - variables only	905.32497	.9020413848D-03	.5114244
(4) X and group effects	915.82216	.8086083889D-03	.5620308

Hypothesis Tests

	Likelihood Ratio Test			F Tests		
	Chi-squared	d.f.	Prob.	F	num. denom.	Prob value
(2) vs (1)	48.535	5	.00000	10.699	5 186	.00000
(3) vs (1)	137.522	9	.00000	21.168	9 182	.00000
(4) vs (1)	158.517	14	.00000	16.224	14 177	.00000
(4) vs (2)	109.981	9	.00000	15.207	9 177	.00000
(4) vs (3)	20.994	5	.00081	4.090	5 177	.00154

Error: 425: REGR;PANEL. Could not invert VC matrix for Hausman test.

```

Random Effects Model: v(i,t) = e(i,t) + u(i)
Estimates: Var[e] = .456841D-05
            Var[u] = .387862D-06
            Corr[v(i,t),v(i,s)] = .078257
Lagrange Multiplier Test vs. Model (3) = 8.58
( 1 df, prob value = .003393)
(High values of LM favor FEM/REM over CR model.)
Fixed vs. Random Effects (Hausman) = .00
( 9 df, prob value = 1.000000)
(High (low) values of H favor FEM (REM).)
Reestimated using GLS coefficients:
Estimates: Var[e] = .458482D-05
            Var[u] = .300183D-05
            Sum of Squares = .912157D-03

```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	.1563466721E-03	.95992107E-03	.163	.8706	13.662416
EARATIO	.6422124610E-02	.43335514E-02	1.482	.1384	.11290184
NIA	1.005103870	.17603185	5.710	.0000	.61935781E-02
CTI	-.8095042371E-03	.10090064E-02	-.802	.4224	.62131457
LOAN	.1568739244E-03	.34500544E-03	.455	.6493	1.5158071
LIQ	.6563632824E-03	.97288254E-03	.675	.4999	.85769051
EBSI	.6717259001E-04	.64606810E-04	1.040	.2985	47.471875
EECO	.1613313492E-04	.54750231E-04	.295	.7682	108.35000
EINT	-.1103320058E-03	.27987991E-03	-.394	.6934	1.9778125
Constant	-.4595714611E-02	.14405550E-01	-.319	.7497	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

```

--> regress ; lhs=rtb
      ; rhs= lasset,earatio,nia,cti,loan,liq,eeco,eint
      ; str= nbank
      ; panel
      ;output= 4 $

```

OLS Without Group Dummy Variables

Ordinary least squares regression Weighting variable = none
 Dep. var. = RTB Mean= .9507026042E-02, S.D.= .3109071258E-02
 Model size: Observations = 192, Parameters = 9, Deg.Fr.= 183
 Residuals: Sum of squares= .9066354506E-03, Std.Dev.= .00223
 Fit: R-squared= .508936, Adjusted R-squared = .48747
 Model test: F[8, 183] = 23.71, Prob value = .00000
 Diagnostic: Log-L = 904.8373, Restricted(b=0) Log-L = 836.5639
 LogAmemiyaPrCrt.= -12.169, Akaike Info. Crt.= -9.332

Panel Data Analysis of RTB [ONE way]
 Unconditional ANOVA (No regressors)

Source	Variation	Deg. Free.	Mean Square
Between	.412394E-03	5.	.824788E-04
Residual	.143387E-02	186.	.770900E-05
Total	.184627E-02	191.	.966632E-05

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	.1968897363E-03	.56463126E-03	.349	.7277	13.662416
EARATIO	.6944960781E-02	.42442447E-02	1.636	.1035	.11290184
NIA	.9940063077	.15690928	6.335	.0000	.61935781E-02
CTI	-.1598339216E-02	.10110452E-02	-1.581	.1156	.62131457
LOAN	.5237551540E-04	.32408671E-03	.162	.8718	1.5158071
LIQ	-.8008514566E-04	.77418479E-03	-.103	.9177	.85769051
EEO	-.2747255891E-04	.49505374E-04	-.555	.5796	108.35000
EINT	-.2179927207E-03	.27016415E-03	-.807	.4208	1.9778125
Constant	.4266650988E-02	.88177126E-02	.484	.6291	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Least Squares with Group Dummy Variables

Ordinary least squares regression Weighting variable = none
 Dep. var. = RTB Mean= .9507026042E-02, S.D.= .3109071258E-02
 Model size: Observations = 192, Parameters = 14, Deg.Fr.= 178
 Residuals: Sum of squares= .8123131444E-03, Std.Dev.= .00214
 Fit: R-squared= .560024, Adjusted R-squared = .52789
 Model test: F[13, 178] = 17.43, Prob value = .00000
 Diagnostic: Log-L = 915.3833, Restricted(b=0) Log-L = 836.5639
 LogAmemiyaPrCrt.= -12.227, Akaike Info. Crt.= -9.389
 Estd. Autocorrelation of e(i,t) = -.331655

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	-.1784906292E-02	.25869123E-02	-.690	.4911	13.662416
EARATIO	.5491084535E-02	.52686949E-02	1.042	.2987	.11290184
NIA	.9389953201	.18797709	4.995	.0000	.61935781E-02
CTI	-.6690466412E-03	.10421559E-02	-.642	.5217	.62131457
LOAN	-.2749507356E-04	.49613619E-03	-.055	.9559	1.5158071
LIQ	-.6037492613E-03	.18678783E-02	-.323	.7469	.85769051
EEO	.5477309395E-04	.73898022E-04	.741	.4595	108.35000
EINT	-.1036772850E-03	.29526245E-03	-.351	.7259	1.9778125

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Estimated Fixed Effects

Group	Coefficient	Standard Error	t-ratio
1	.02304	.03158	.72972
2	.02341	.03150	.74314
3	.02383	.03287	.72501
4	.02084	.03057	.68177
5	.02195	.03244	.67654
6	.02315	.03278	.70608

Test Statistics for the Classical Model

Model	Log-Likelihood	Sum of Squares	R-squared
(1) Constant term only	836.56390	.1846267901D-02	.0000000
(2) Group effects only	860.83141	.1433873762D-02	.2233664
(3) X - variables only	904.83729	.9066354506D-03	.5089361
(4) X and group effects	915.38332	.8123131444D-03	.5600242

Hypothesis Tests							
Likelihood Ratio Test				F Tests			
	Chi-squared	d.f.	Prob.	F	num.	denom.	Prob value
(2) vs (1)	48.535	5	.00000	10.699	5	186	.00000
(3) vs (1)	136.547	8	.00000	23.708	8	183	.00000
(4) vs (1)	157.639	13	.00000	17.428	13	178	.00000
(4) vs (2)	109.104	8	.00000	17.025	8	178	.00000
(4) vs (3)	21.092	5	.00078	4.134	5	178	.00141

Error: 425: REGR;PANEL. Could not invert VC matrix for Hausman test.

```

Random Effects Model: v(i,t) = e(i,t) + u(i)
Estimates:  Var[e]          = .456356D-05
             Var[u]          = .390735D-06
             Corr[v(i,t),v(i,s)] = .078868
Lagrange Multiplier Test vs. Model (3) = 8.18
( 1 df, prob value = .004225)
(High values of LM favor FEM/REM over CR model.)
Fixed vs. Random Effects (Hausman) = .00
( 8 df, prob value = 1.000000)
(High (low) values of H favor FEM (REM).)
Reestimated using GLS coefficients:
Estimates:  Var[e]          = .458623D-05
             Var[u]          = .301383D-05
             Sum of Squares   = .917377D-03

```

Variable	Coefficient	Standard Error	t-ratio	P[T >t]	Mean of X
LASSET	.4225783932E-04	.95568746E-03	.044	.9647	13.662416
EARATIO	.6721030182E-02	.43228079E-02	1.555	.1200	.11290184
NIA	.9499436704	.16785505	5.659	.0000	.61935781E-02
CTI	-.9320757872E-03	.10014765E-02	-.931	.3520	.62131457
LOAN	.1228691395E-03	.34342294E-03	.358	.7205	1.5158071
LIQ	.3819140644E-03	.93692246E-03	.408	.6835	.85769051
EEO	.3319684046E-05	.53322211E-04	.062	.9504	108.35000
EINT	-.1999698348E-03	.26613329E-03	-.751	.4524	1.9778125
Constant	.2388432181E-02	.12766077E-01	.187	.8516	

(Note: E+nn or E-nn means multiply by 10 to + or -nn power.)

Vita

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