The SAS System

The CONTENTS Procedure

Data Set Name	WORK.DATA	**Observations**	43
Member Type	DATA	**Variables**	13
Engine	V9	**Indexes**	0
Created	04/28/2017 10:45:08	**Observation Length**	104
Last Modified	04/28/2017 10:45:08	**Deleted Observations**	0
Protection		**Compressed**	NO
Data Set Type		**Sorted**	NO
Label			
Data Representation	WINDOWS_64		
Encoding	wlatin1 Western (Windows)		

Engine/Host Dependent Information	
Data Set Page Size	65536
Number of Data Set Pages	1
First Data Page	1
Max Obs per Page	629
Obs in First Data Page	43
Number of Data Set Repairs	0
ExtendObsCounter	YES
Filename	C:\Users\pshinde\AppData\Local\Temp\5\SAS Temporary Files_TD6096_IU-CV-IUAW-91_\data.sas7bdat
Release Created	9.0401M2
Host Created	X64_SRV12

Alphabetic List of Variables and Attributes

#	Variable	Type	Len	Format	Label
2	agriland	Num	8	BEST.	agriland
12	airtrans	Num	8	BEST.	airtrans
13	cement	Num	8	BEST.	cement
6	electric	Num	8	BEST.	electric
3	energy	Num	8	BEST.	energy
10	export	Num	8	BEST.	export
11	fish	Num	8	BEST.	fish
4	fossil	Num	8	BEST.	fossil
9	gdp	Num	8	BEST.	gdp
7	ghg	Num	8	BEST.	ghg
8	pop	Num	8	BEST.	pop
5	popgrowth	Num	8	BEST.	popgrowth
1	year	Num	8	BEST.	year

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	9.302813E12	9.302813E12	152.77	<.0001
Error	41	2.496725E12	60895729855		
Corrected Total	42	1.179954E13			

Root MSE	246771	R-Square	0.7884
Dependent Mean	6267232	Adj R-Sq	0.7832
Coeff Var	3.93747		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	5518504	71315	77.38	<.0001
airtrans	airtrans	1	38.03515	3.07731	12.36	<.0001

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	9.514546E12	9.514546E12	170.72	<.0001
Error	41	2.284992E12	55731500224		
Corrected Total	42	1.179954E13			

Root MSE	236075	R-Square	0.8063
Dependent Mean	6267232	Adj R-Sq	0.8016
Coeff Var	3.76682		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	3541554	211692	16.73	<.0001
electric	electric	1	239.60868	18.33829	13.07	<.0001

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	95972035268	95972035268	0.34	0.5652
Error	41	1.170357E13	2.854528E11		
Corrected Total	42	1.179954E13			

Root MSE	534278	R-Square	0.0081
Dependent Mean	6267232	Adj R-Sq	-0.0161
Coeff Var	8.52494		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	5178272	1879815	2.75	0.0087
energy	energy	1	141.19341	243.50576	0.58	0.5652

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	6.813011E12	6.813011E12	56.02	<.0001
Error	41	4.986527E12	1.216226E11		
Corrected Total	42	1.179954E13			

Root MSE	348744	R-Square	0.5774
Dependent Mean	6267232	Adj R-Sq	0.5671
Coeff Var	5.56457		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	5775297	84549	68.31	<.0001
export	export	1	0.71371	0.09536	7.48	<.0001

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	6.042072E12	6.042072E12	43.03	<.0001
Error	41	5.757465E12	1.40426E11		
Corrected Total	42	1.179954E13			

Root MSE	374735	R-Square	0.5121
Dependent Mean	6267232	Adj R-Sq	0.5002
Coeff Var	5.97927		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	15575865	1420262	10.97	<.0001
fossil	fossil	1	-105503	16084	-6.56	<.0001

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	8.760469E12	8.760469E12	118.19	<.0001
Error	41	3.039069E12	74123622483		
Corrected Total	42	1.179954E13			

Root MSE	272257	R-Square	0.7424
Dependent Mean	6267232	Adj R-Sq	0.7362
Coeff Var	4.34413		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	2776201	323794	8.57	<.0001
pop	pop	1	0.01359	0.00125	10.87	<.0001

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	7.312928E12	7.312928E12	66.83	<.0001
Error	41	4.48661E12	1.094295E11		
Corrected Total	42	1.179954E13			

Root MSE	330801	R-Square	0.6198
Dependent Mean	6267232	Adj R-Sq	0.6105
Coeff Var	5.27827		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	3151213	384496	8.20	<.0001
cement	cement	1	40.65510	4.97321	8.17	<.0001

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	3.938695E12	3.938695E12	20.54	<.0001
Error	41	7.860843E12	1.917279E11		
Corrected Total	42	1.179954E13			

Root MSE	437867	R-Square	0.3338
Dependent Mean	6267232	Adj R-Sq	0.3176
Coeff Var	6.98662		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	4851852	319336	15.19	<.0001
fish	fish	1	293.92296	64.84851	4.53	<.0001

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	9.484627E12	9.484627E12	167.98	<.0001
Error	41	2.314911E12	56461241758		
Corrected Total	42	1.179954E13			

Root MSE	237616	R-Square	0.8038
Dependent Mean	6267232	Adj R-Sq	0.7990
Coeff Var	3.79140		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	28993849	1753851	16.53	<.0001
agriland	agriland	1	-5383.52634	415.36694	-12.96	<.0001

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	83274319274	83274319274	0.29	0.5922
Error	41	1.171626E13	2.857625E11		
Corrected Total	42	1.179954E13			

Root MSE	534568	R-Square	0.0071
Dependent Mean	6267232	Adj R-Sq	-0.0172
Coeff Var	8.52956		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	6564000	555760	11.81	<.0001
popgrowth	popgrowth	1	-291277	539577	-0.54	0.5922

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	9.212891E12	9.212891E12	146.03	<.0001
Error	41	2.586647E12	63088958262		
Corrected Total	42	1.179954E13			

Root MSE	251175	R-Square	0.7808
Dependent Mean	6267232	Adj R-Sq	0.7754
Coeff Var	4.00775		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	4969943	113982	43.60	<.0001
gdp	gdp	1	0.13278	0.01099	12.08	<.0001

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	1.14593E13	1.432413E12	143.14	<.0001
Error	34	3.40234E11	10006881542		
Corrected Total	42	1.179954E13			

Root MSE	100034	R-Square	0.9712
Dependent Mean	6267232	Adj R-Sq	0.9644
Coeff Var	1.59615		

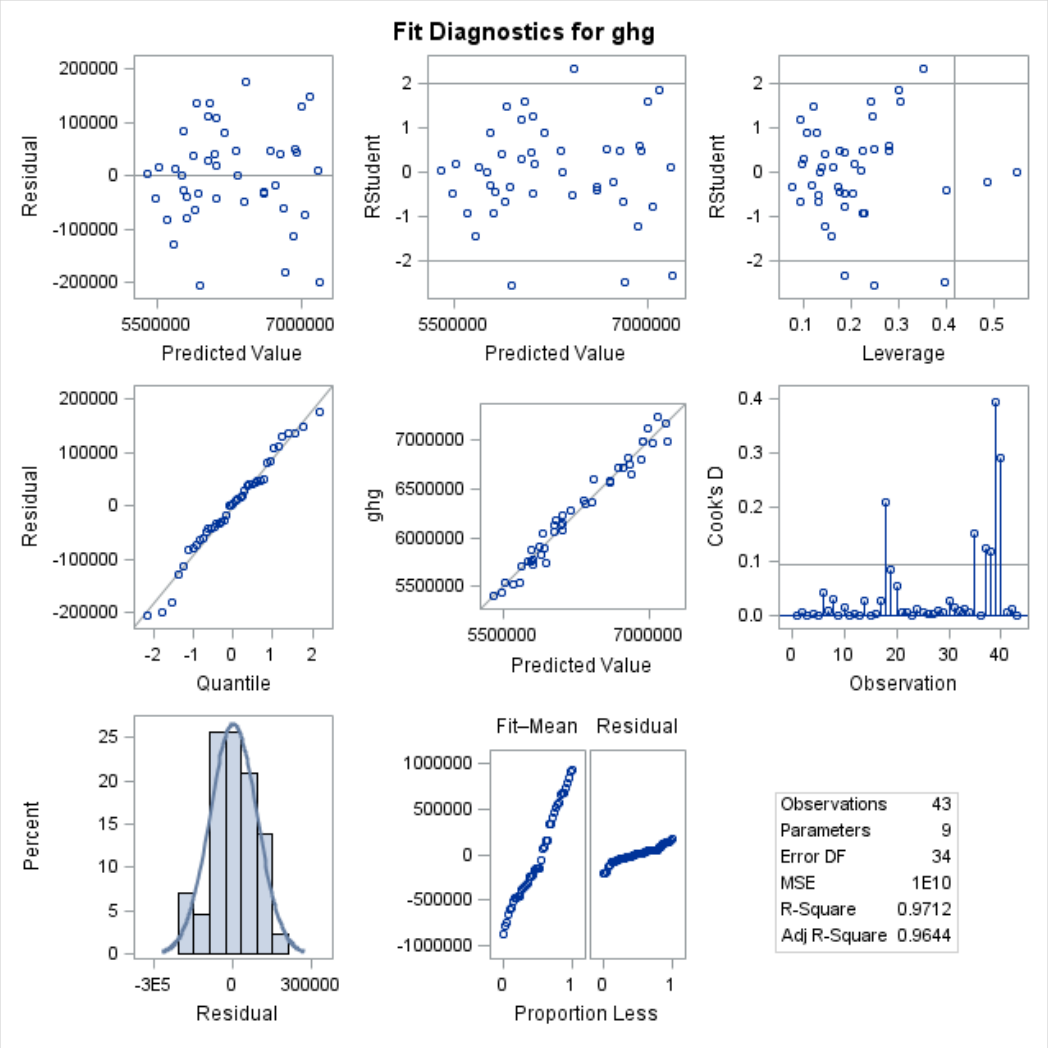
Parameter Estimates

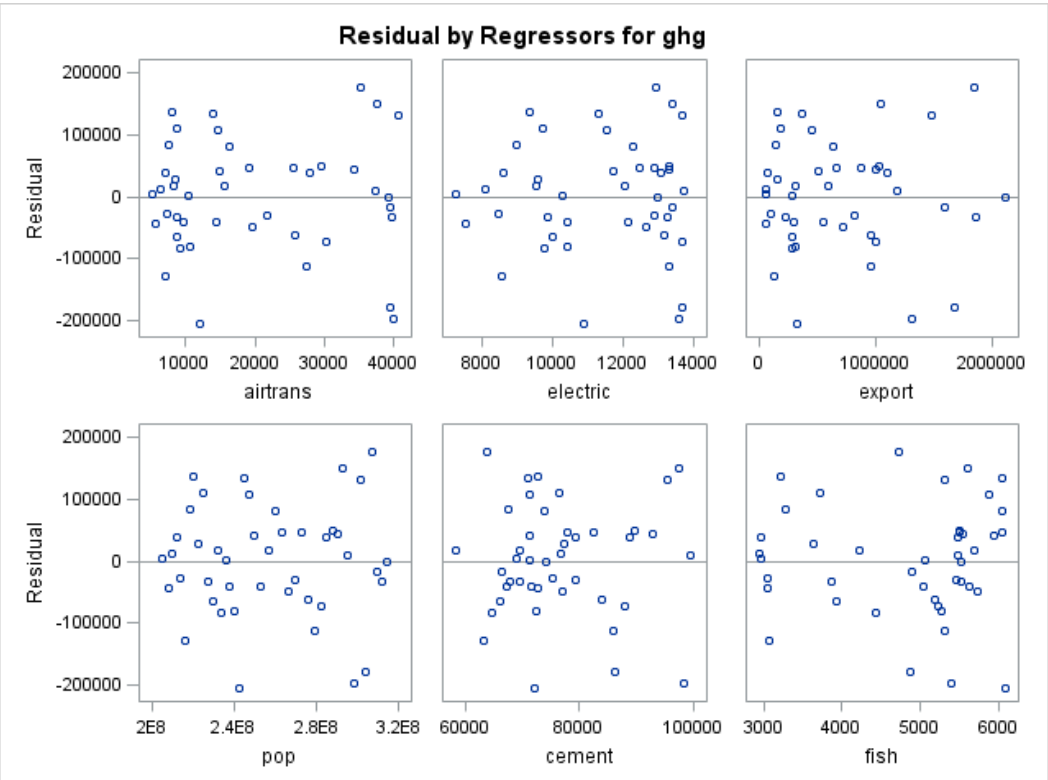
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	21183204	4945376	4.28	0.0001	0	0
airtrans	airtrans	1	-5.39652	17.45141	-0.31	0.7590	-0.12598	195.70684
electric	electric	1	224.24029	51.30655	4.37	0.0001	0.84037	43.59431
export	export	1	-0.54225	0.22426	-2.42	0.0211	-0.57732	67.21842
pop	pop	1	-0.02112	0.01108	-1.91	0.0651	-1.33885	581.74068
cement	cement	1	5.63873	4.02068	1.40	0.1699	0.10919	7.14760
fish	fish	1	-142.34638	44.50951	-3.20	0.0030	-0.27981	9.02593
agriland	agriland	1	-3272.37836	907.27495	-3.61	0.0010	-0.54497	26.91942
gdp	gdp	1	0.25641	0.13237	1.94	0.0611	1.70639	915.05783

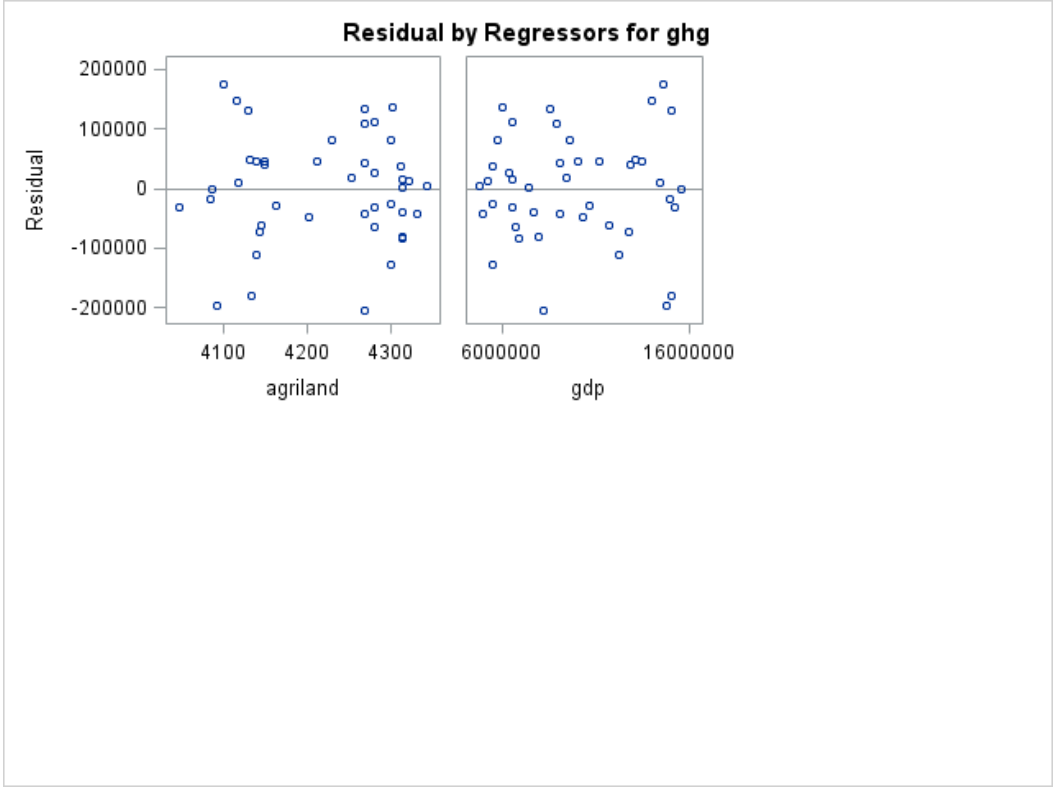
Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation								
			Intercept	airtrans	electric	export	pop	cement	fish	agriland	gdp
1	8.48478	1.00000	1.2596E-7	0.00001753	0.00000916	0.00006468	3.893182E-7	0.00003240	0.00006537	2.079693E-7	0.00000169
2	0.46287	4.28144	0.00000195	0.00070053	0.00001370	0.00554	9.852947E-7	0.00025351	0.00022637	0.00000388	0.00000850
3	0.02642	17.92135	0.00001301	0.00323	0.00077133	0.00028819	0.00000333	0.01535	0.12126	0.00002182	0.00001311
4	0.02201	19.63327	0.00003896	0.01605	0.00021458	0.08234	0.00003873	0.01682	0.00764	0.00007548	0.00013025
5	0.00226	61.25766	0.00013632	0.11838	0.00585	0.37704	0.00050603	0.54382	0.05029	0.00021388	0.00052896
6	0.00141	77.60049	0.00019009	0.07341	0.32858	0.00075317	0.00001863	0.00000156	0.45008	0.00060141	0.00139
7	0.00021051	200.76091	0.00058361	0.66267	0.32159	0.45331	0.00467	0.01117	0.30705	0.00016338	0.42182
8	0.00003169	517.42530	0.00006257	0.00099227	0.32493	0.06901	0.60638	0.23184	0.01740	0.11723	0.25889
9	0.00000565	1225.82180	0.99897	0.12456	0.01804	0.01165	0.38838	0.18071	0.04600	0.88169	0.31722

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg






Residual by Regressors for ghg
Residual
200000
100000
0
-100000
-200000
4100
4200
4300
agriland
6000000
16000000
gdp

The SAS System

The CORR Procedure

8 Variables:	airtrans electric export pop cement fish agriland gdp

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
airtrans	43	19685	12374	846463	5151	40618	airtrans
electric	43	11376	1986	489148	7237	13705	electric
export	43	689265	564317	29638413	51900	2106371	export
pop	43	256839822	33600649	1.10441E10	205052000	314102623	pop
cement	43	76645	10264	3295744	58369	99319	cement
fish	43	4815	1042	207066	2946	6078	fish
agriland	43	4222	88.27112	181525	4047	4344	agriland
gdp	43	9770296	3527314	420122735	4779684	15542162	gdp

Pearson Correlation Coefficients, N = 43
Prob > |r| under H0: Rho=0

	airtrans	electric	export	pop	cement	fish	agriland	gdp
airtrans airtrans	1.00000	0.88802 <.0001	0.95348 <.0001	0.97490 <.0001	0.60925 <.0001	0.56077 <.0001	-0.96942 <.0001	0.98771 <.0001
electric electric	0.88802 <.0001	1.00000	0.83794 <.0001	0.94298 <.0001	0.56488 <.0001	0.81902 <.0001	-0.89420 <.0001	0.93525 <.0001
export export	0.95348 <.0001	0.83794 <.0001	1.00000	0.96452 <.0001	0.39481 0.0088	0.53318 0.0002	-0.94000 <.0001	0.96008 <.0001
pop pop	0.97490 <.0001	0.94298 <.0001	0.96452 <.0001	1.00000	0.51005 0.0005	0.68487 <.0001	-0.96236 <.0001	0.99577 <.0001
cement cement	0.60925 <.0001	0.56488 <.0001	0.39481 0.0088	0.51005 0.0005	1.00000	0.31396 0.0403	-0.56647 <.0001	0.56848 <.0001
fish fish	0.56077 <.0001	0.81902 <.0001	0.53318 0.0002	0.68487 <.0001	0.31396 0.0403	1.00000	-0.55548 0.0001	0.66085 <.0001
agriland agriland	-0.96942 <.0001	-0.89420 <.0001	-0.94000 <.0001	-0.96236 <.0001	-0.56647 <.0001	-0.55548 0.0001	1.00000	-0.96516 <.0001
gdp gdp	0.98771 <.0001	0.93525 <.0001	0.96008 <.0001	0.99577 <.0001	0.56848 <.0001	0.66085 <.0001	-0.96516 <.0001	1.00000

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	1.142176E13	1.63168E12	151.17	<.0001
Error	35	3.777809E11	10793740496		
Corrected Total	42	1.179954E13			

Root MSE	103893	R-Square	0.9680
Dependent Mean	6267232	Adj R-Sq	0.9616
Coeff Var	1.65772		

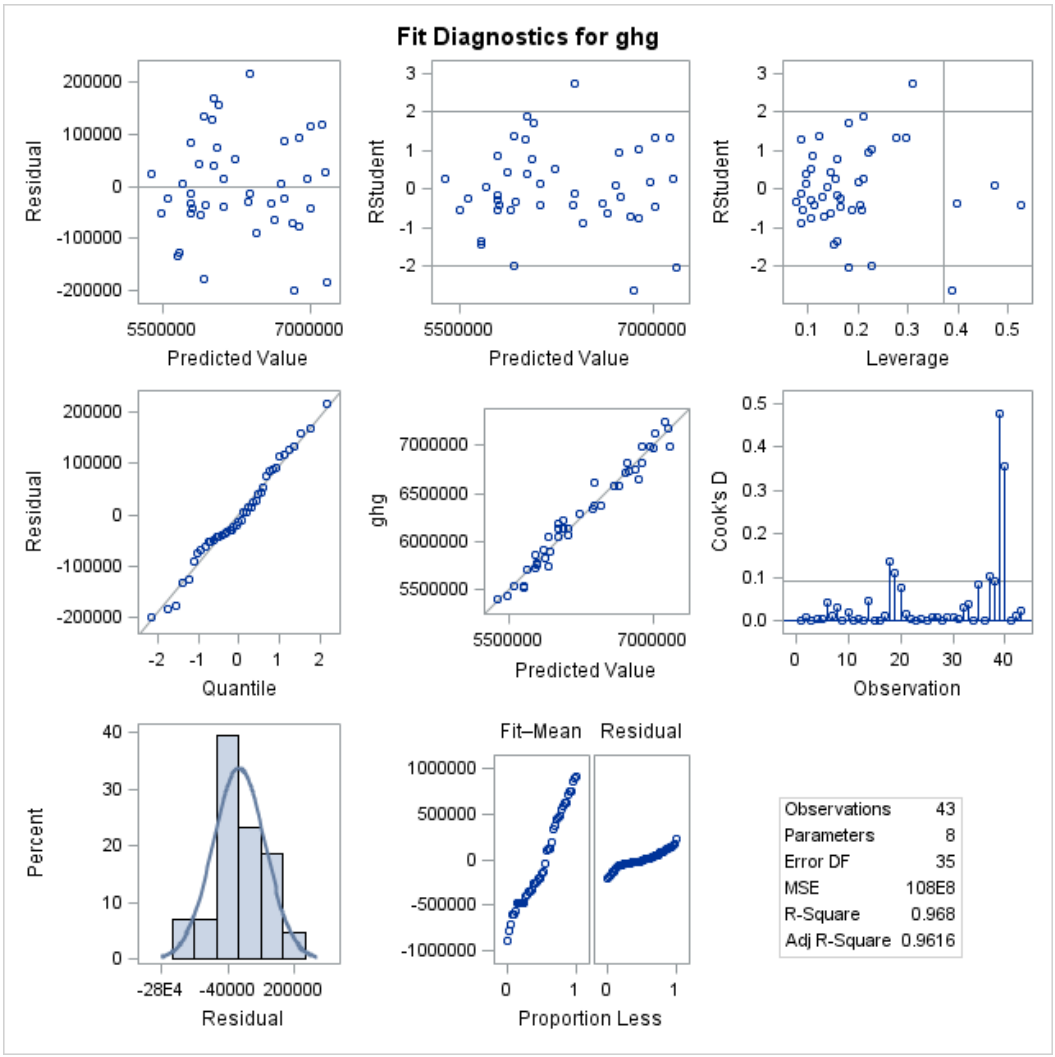
Parameter Estimates

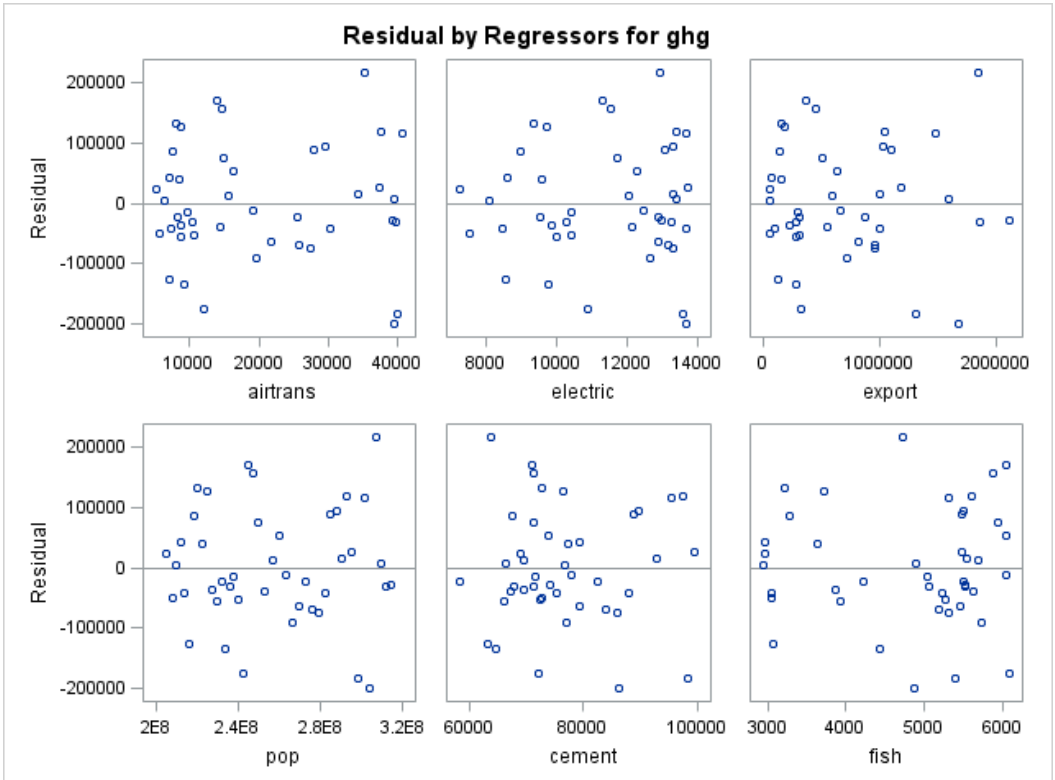
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	15905628	4286360	3.71	0.0007	0	0
airtrans	airtrans	1	18.68244	12.72097	1.47	0.1509	0.43614	96.40786
electric	electric	1	237.21413	52.82955	4.49	<.0001	0.88900	42.85138
export	export	1	-0.37697	0.21539	-1.75	0.0889	-0.40134	57.48628
pop	pop	1	-0.00605	0.00819	-0.74	0.4653	-0.38340	294.85887
cement	cement	1	10.07086	3.43365	2.93	0.0059	0.19501	4.83282
fish	fish	1	-113.53809	43.56942	-2.61	0.0134	-0.22318	8.01820
agriland	agriland	1	-2633.31020	877.76251	-3.00	0.0049	-0.43854	23.35978

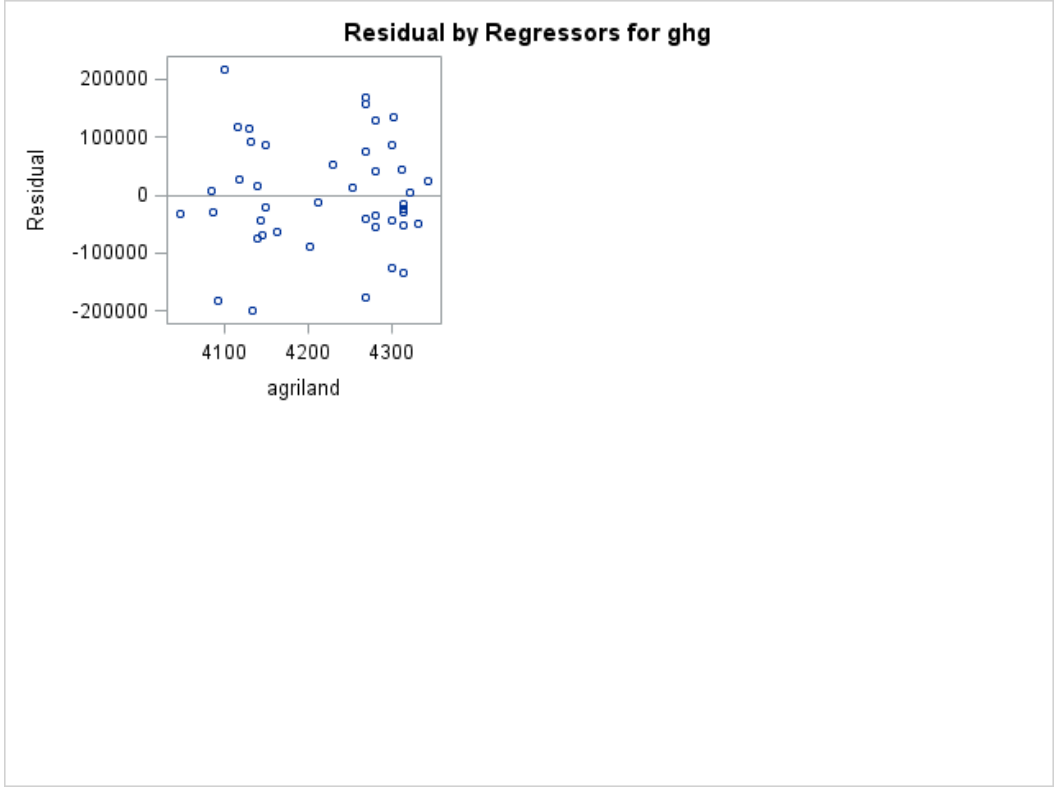
Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation							
			Intercept	airtrans	electric	export	pop	cement	fish	agriland
1	7.50248	1.00000	2.330224E-7	0.00004495	0.00001194	0.00009509	9.851748E-7	0.00006158	0.00009438	3.090183E-7
2	0.44610	4.10098	0.00000255	0.00168	0.00000839	0.00748	0.00000134	0.00031929	0.00019234	0.00000412
3	0.02634	16.87635	0.00001578	0.00713	0.00080124	0.00136	0.00000403	0.02415	0.13604	0.00002109
4	0.02141	18.72096	0.00005871	0.03770	0.00039008	0.08612	0.00006874	0.02547	0.01559	0.00009196
5	0.00224	57.90656	0.00020970	0.28901	0.00582	0.41526	0.00106	0.79053	0.03907	0.00026343
6	0.00138	73.60047	0.00025396	0.09559	0.36816	0.00224	0.00007439	0.00021526	0.46789	0.00068251
7	0.00004791	395.71650	0.00907	0.56789	0.60840	0.47926	0.89525	0.14273	0.09536	0.05351
8	0.00000793	972.88731	0.99039	0.00094943	0.01641	0.00820	0.10354	0.01652	0.24577	0.94543

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg






Residual by Regressors for ghg
Residual
200000
100000
0
-100000
-200000
4100
4200
4300
agriland

The SAS System

The CORR Procedure

7 Variables:	airtrans electric export pop cement fish agriland

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
airtrans	43	19685	12374	846463	5151	40618	airtrans
electric	43	11376	1986	489148	7237	13705	electric
export	43	689265	564317	29638413	51900	2106371	export
pop	43	256839822	33600649	1.10441E10	205052000	314102623	pop
cement	43	76645	10264	3295744	58369	99319	cement
fish	43	4815	1042	207066	2946	6078	fish
agriland	43	4222	88.27112	181525	4047	4344	agriland

Pearson Correlation Coefficients, N = 43
Prob > |r| under H0: Rho=0

	airtrans	electric	export	pop	cement	fish	agriland
airtrans airtrans	1.00000	0.88802 <.0001	0.95348 <.0001	0.97490 <.0001	0.60925 <.0001	0.56077 <.0001	-0.96942 <.0001
electric electric	0.88802 <.0001	1.00000	0.83794 <.0001	0.94298 <.0001	0.56488 <.0001	0.81902 <.0001	-0.89420 <.0001
export export	0.95348 <.0001	0.83794 <.0001	1.00000	0.96452 <.0001	0.39481 0.0088	0.53318 0.0002	-0.94000 <.0001
pop pop	0.97490 <.0001	0.94298 <.0001	0.96452 <.0001	1.00000	0.51005 0.0005	0.68487 <.0001	-0.96236 <.0001
cement cement	0.60925 <.0001	0.56488 <.0001	0.39481 0.0088	0.51005 0.0005	1.00000	0.31396 0.0403	-0.56647 <.0001
fish fish	0.56077 <.0001	0.81902 <.0001	0.53318 0.0002	0.68487 <.0001	0.31396 0.0403	1.00000	-0.55548 0.0001
agriland agriland	-0.96942 <.0001	-0.89420 <.0001	-0.94000 <.0001	-0.96236 <.0001	-0.56647 <.0001	-0.55548 0.0001	1.00000

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	1.141587E13	1.902646E12	178.53	<.0001
Error	36	3.836633E11	10657314166		
Corrected Total	42	1.179954E13			

Root MSE	103234	R-Square	0.9675
Dependent Mean	6267232	Adj R-Sq	0.9621
Coeff Var	1.64721		

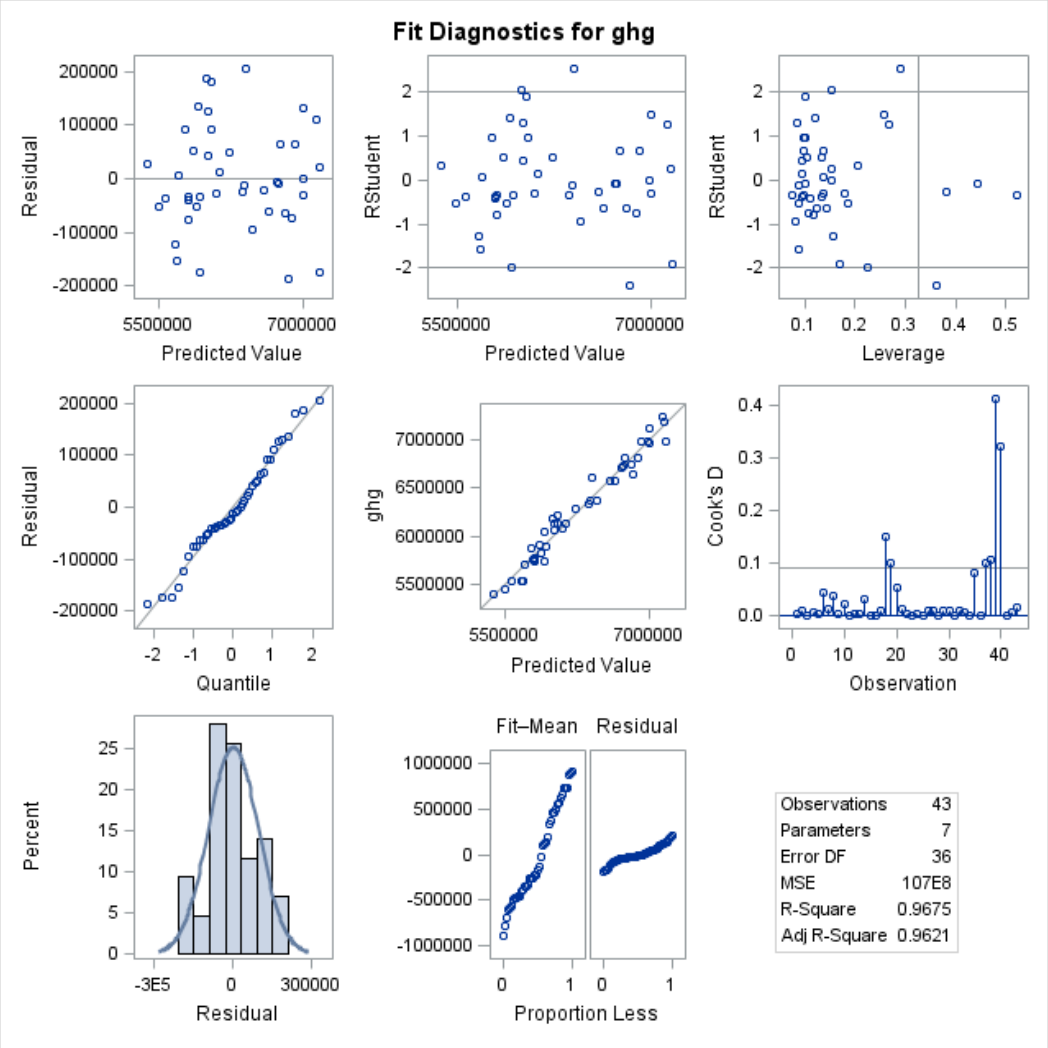
Parameter Estimates

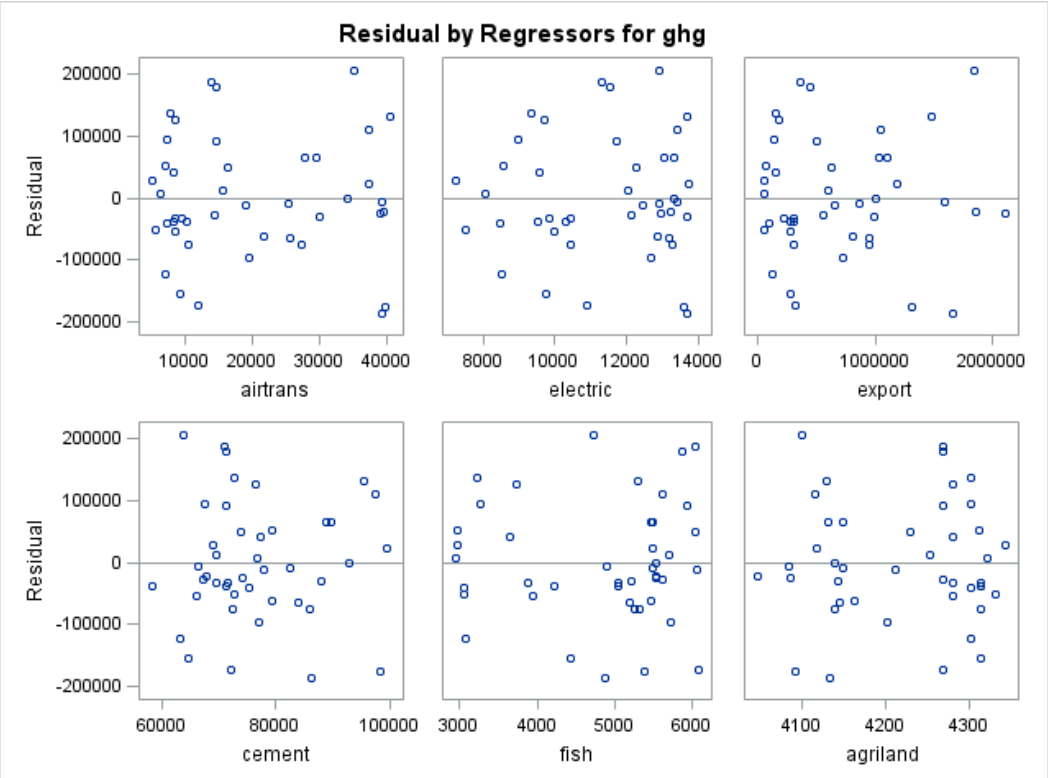
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	14608495	3884884	3.76	0.0006	0	0
airtrans	airtrans	1	12.01894	8.90690	1.35	0.1856	0.28058	47.86843
electric	electric	1	210.33161	38.03159	5.53	<.0001	0.78825	22.49180
export	export	1	-0.48866	0.15232	-3.21	0.0028	-0.52027	29.11771
cement	cement	1	11.00552	3.17147	3.47	0.0014	0.21311	4.17575
fish	fish	1	-128.51991	38.30990	-3.35	0.0019	-0.25263	6.27855
agriland	agriland	1	-2572.13799	868.30249	-2.96	0.0054	-0.42836	23.15159

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation						
			Intercept	airtrans	electric	export	cement	fish	agriland
1	6.50892	1.00000	3.702514E-7	0.00012130	0.00003018	0.00025226	0.00009441	0.00015989	4.119635E-7
2	0.44053	3.84386	0.00000350	0.00325	0.00002477	0.01451	0.00044649	0.00032621	0.00000471
3	0.02629	15.73455	0.00001847	0.01668	0.00137	0.00386	0.03073	0.16802	0.00002057
4	0.02075	17.71321	0.00009440	0.07442	0.00054511	0.18560	0.02398	0.02172	0.00012249
5	0.00212	55.34798	0.00048318	0.64904	0.01434	0.75293	0.94276	0.03781	0.00053409
6	0.00138	68.63943	0.00023849	0.16811	0.72278	0.00300	0.00191	0.60079	0.00057838
7	0.00000868	866.13673	0.99916	0.08837	0.26091	0.03984	0.00008569	0.17119	0.99874

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg





The SAS System

The CORR Procedure

6 Variables:	airtrans electric export cement fish agriland

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
airtrans	43	19685	12374	846463	5151	40618	airtrans
electric	43	11376	1986	489148	7237	13705	electric
export	43	689265	564317	29638413	51900	2106371	export
cement	43	76645	10264	3295744	58369	99319	cement
fish	43	4815	1042	207066	2946	6078	fish
agriland	43	4222	88.27112	181525	4047	4344	agriland

Pearson Correlation Coefficients, N = 43
Prob > |r| under H0: Rho=0

	airtrans	electric	export	cement	fish	agriland
airtrans airtrans	1.00000	0.88802 <.0001	0.95348 <.0001	0.60925 <.0001	0.56077 <.0001	-0.96942 <.0001
electric electric	0.88802 <.0001	1.00000	0.83794 <.0001	0.56488 <.0001	0.81902 <.0001	-0.89420 <.0001
export export	0.95348 <.0001	0.83794 <.0001	1.00000	0.39481 0.0088	0.53318 0.0002	-0.94000 <.0001
cement cement	0.60925 <.0001	0.56488 <.0001	0.39481 0.0088	1.00000	0.31396 0.0403	-0.56647 <.0001
fish fish	0.56077 <.0001	0.81902 <.0001	0.53318 0.0002	0.31396 0.0403	1.00000	-0.55548 0.0001
agriland agriland	-0.96942 <.0001	-0.89420 <.0001	-0.94000 <.0001	-0.56647 <.0001	-0.55548 0.0001	1.00000

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: airtrans airtrans

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	6296151214	1259230243	346.83	<.0001
Error	37	134336714	3630722		
Corrected Total	42	6430487928			

Root MSE	1905.44536	R-Square	0.9791
Dependent Mean	19685	Adj R-Sq	0.9763
Coeff Var	9.67959		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	120074	68935	1.74	0.0898	0	0
electric	electric	1	0.42227	0.69853	0.60	0.5492	0.06779	22.27183
export	export	1	0.01335	0.00176	7.60	<.0001	0.60889	11.37046
cement	cement	1	0.24846	0.04193	5.93	<.0001	0.20609	2.14253
fish	fish	1	-0.10555	0.70689	-0.15	0.8821	-0.00889	6.27477
agriland	agriland	1	-31.48869	15.16761	-2.08	0.0449	-0.22463	20.73613

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: electric electric

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	158354922	31670984	159.04	<.0001
Error	37	7368155	199139		
Corrected Total	42	165723078			

Root MSE	446.25031	R-Square	0.9555
Dependent Mean	11376	Adj R-Sq	0.9495
Coeff Var	3.92289		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	53266	14329	3.72	0.0007	0	0
airtrans	airtrans	1	0.02316	0.03831	0.60	0.5492	0.14427	47.40028
export	export	1	-0.00014569	0.00065799	-0.22	0.8260	-0.04139	29.07918
cement	cement	1	0.01262	0.01355	0.93	0.3576	0.06523	4.08006
fish	fish	1	0.88123	0.08022	10.98	<.0001	0.46221	1.47341
agriland	agriland	1	-11.24166	3.26688	-3.44	0.0015	-0.49955	17.53868

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: export export

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	1.291572E13	2.583143E12	208.07	<.0001
Error	37	4.593445E11	12414717424		
Corrected Total	42	1.337506E13			

Root MSE	111421	R-Square	0.9657
Dependent Mean	689265	Adj R-Sq	0.9610
Coeff Var	16.16523		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	5502434	4094237	1.34	0.1871	0	0
airtrans	airtrans	1	45.65189	6.00733	7.60	<.0001	1.00100	18.69262
electric	electric	1	-9.08268	41.02055	-0.22	0.8260	-0.03197	22.46204
cement	cement	1	-15.86530	2.21673	-7.16	<.0001	-0.28856	1.75126
fish	fish	1	-0.91224	41.34783	-0.02	0.9825	-0.00168	6.27847
agriland	agriland	1	-1039.46711	921.45202	-1.13	0.2666	-0.16259	22.38181

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: agriland agriland

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	313120	62624	163.92	<.0001
Error	37	14135	382.03570		
Corrected Total	42	327255			

Root MSE	19.54573	R-Square	0.9568
Dependent Mean	4221.51109	Adj R-Sq	0.9510
Coeff Var	0.46300		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	4464.89528	47.19275	94.61	<.0001	0	0
airtrans	airtrans	1	-0.00331	0.00160	-2.08	0.0449	-0.46446	42.87419
electric	electric	1	-0.02157	0.00627	-3.44	0.0015	-0.48532	17.03884
export	export	1	-0.00003199	0.00002836	-1.13	0.2666	-0.20449	28.14955
cement	cement	1	0.00004750	0.00060042	0.08	0.9374	0.00552	4.17504
fish	fish	1	0.01777	0.00664	2.68	0.0110	0.20975	5.25996

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	1.139647E13	2.279294E12	209.23	<.0001
Error	37	4.030689E11	10893754247		
Corrected Total	42	1.179954E13			

Root MSE	104373	R-Square	0.9658
Dependent Mean	6267232	Adj R-Sq	0.9612
Coeff Var	1.66538		

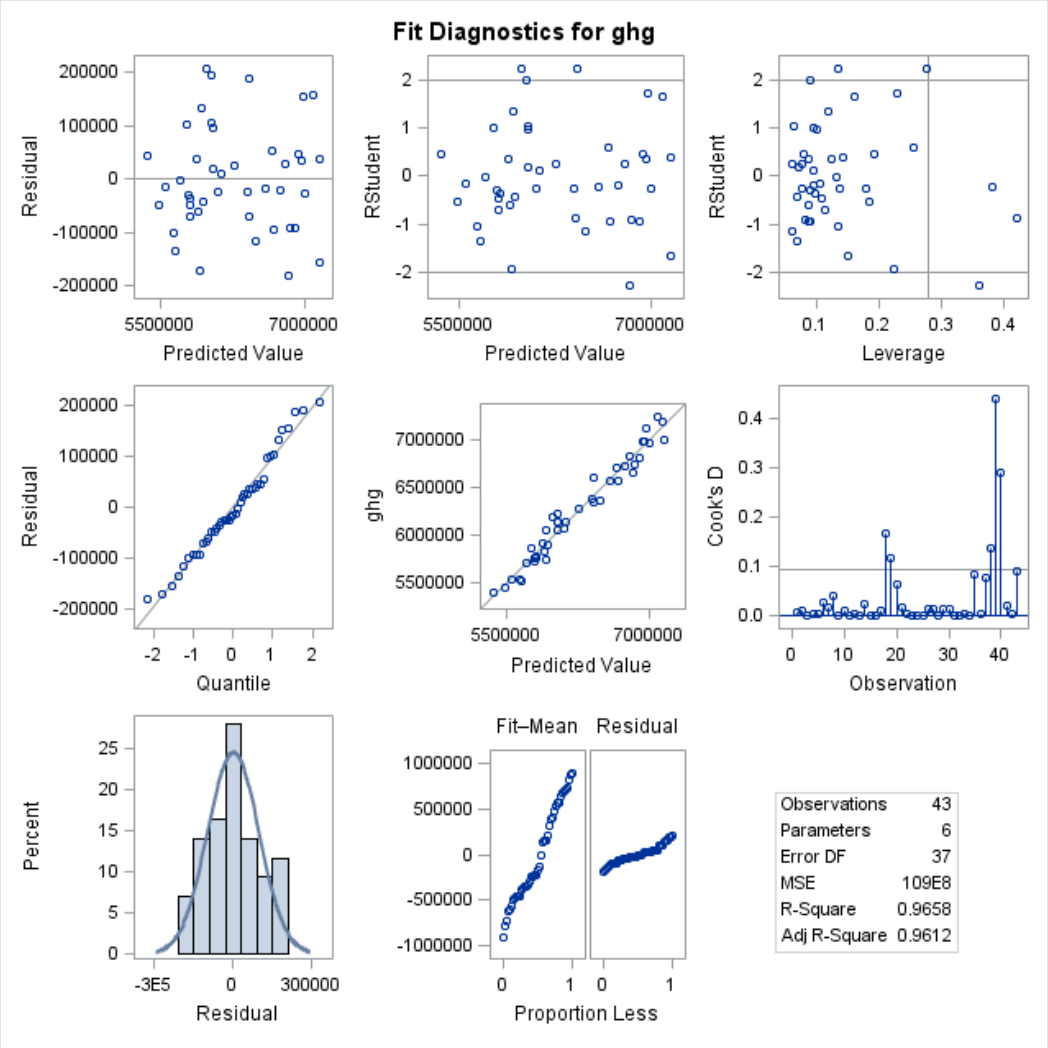
Parameter Estimates

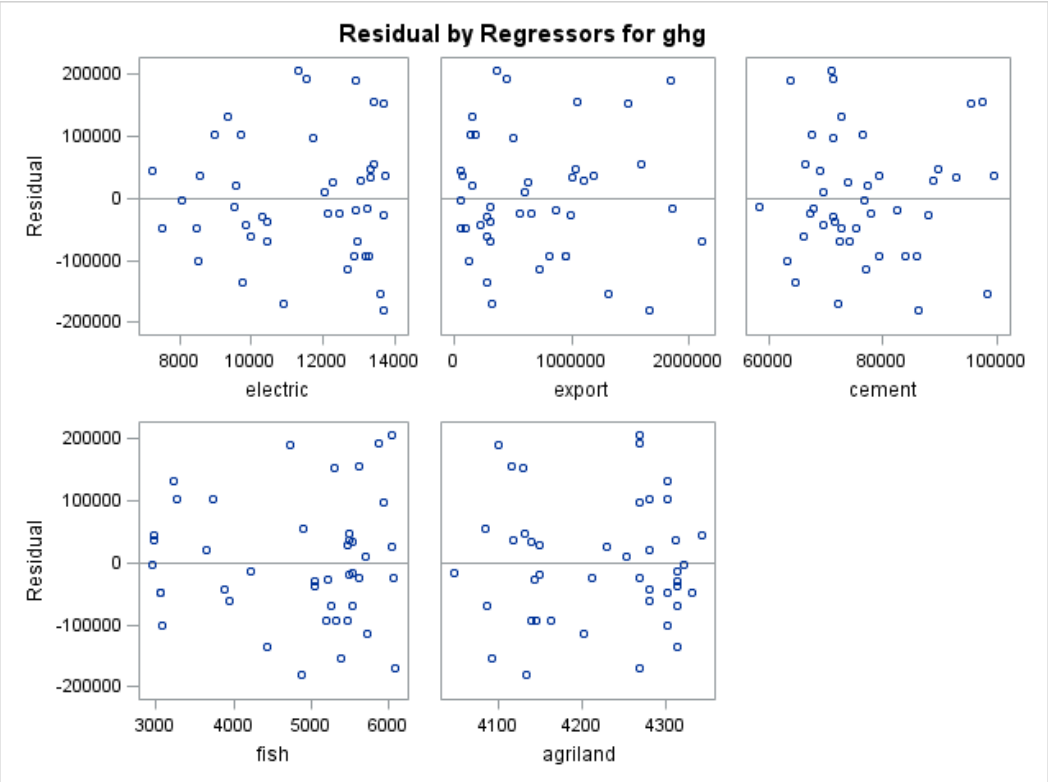
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	16051657	3775974	4.25	0.0001	0	0
electric	electric	1	215.40681	38.26267	5.63	<.0001	0.80727	22.27183
export	export	1	-0.32820	0.09623	-3.41	0.0016	-0.34942	11.37046
cement	cement	1	13.99176	2.29679	6.09	<.0001	0.27094	2.14253
fish	fish	1	-129.78845	38.72087	-3.35	0.0019	-0.25512	6.27477
agriland	agriland	1	-2950.59862	830.82457	-3.55	0.0011	-0.49138	20.73613

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation					
			Intercept	electric	export	cement	fish	agriland
1	5.64475	1.00000	5.440763E-7	0.00004067	0.00080753	0.00024747	0.00021457	6.262108E-7
2	0.31782	4.21438	0.00000367	2.424486E-7	0.08948	0.00073933	0.00008613	0.00000544
3	0.02522	14.95982	0.00005294	0.00160	0.03857	0.03096	0.19073	0.00006391
4	0.01071	22.95361	0.00024791	0.00258	0.03321	0.46945	0.00056932	0.00036911
5	0.00148	61.66330	0.00002068	0.67222	0.31479	0.39817	0.61359	0.00016729
6	0.00000951	770.28439	0.99967	0.32356	0.52315	0.10043	0.19481	0.99939

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg





The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: electric electric

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	158282150	39570538	202.08	<.0001
Error	38	7440928	195814		
Corrected Total	42	165723078			

Root MSE	442.50863	R-Square	0.9551
Dependent Mean	11376	Adj R-Sq	0.9504
Coeff Var	3.89000		

Parameter Estimates								
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	56600	13114	4.32	0.0001	0	0
export	export	1	0.00016514	0.00040712	0.41	0.6873	0.04692	11.32144
cement	cement	1	0.01856	0.00926	2.00	0.0522	0.09590	1.93771
fish	fish	1	0.88747	0.07889	11.25	<.0001	0.46548	1.44906
agriland	agriland	1	-12.08919	2.92600	-4.13	0.0002	-0.53722	14.30845

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: export export

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	1.219876E13	3.049691E12	98.52	<.0001
Error	38	1.176299E12	30955226562		
Corrected Total	42	1.337506E13			

Root MSE	175941	R-Square	0.9121
Dependent Mean	689265	Adj R-Sq	0.9028
Coeff Var	25.52587		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	28128145	4437794	6.34	<.0001	0	0
electric	electric	1	26.10655	64.35988	0.41	0.6873	0.09190	22.17581
cement	cement	1	-11.58150	3.38529	-3.42	0.0015	-0.21064	1.63802
fish	fish	1	-14.67499	65.22804	-0.22	0.8232	-0.02709	6.26643
agriland	agriland	1	-6343.11308	950.06433	-6.68	<.0001	-0.99220	9.54242

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: agriland agriland

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	311473	77868	187.49	<.0001
Error	38	15782	415.31280		
Corrected Total	42	327255			

Root MSE	20.37922	R-Square	0.9518
Dependent Mean	4221.51109	Adj R-Sq	0.9467
Coeff Var	0.48275		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	4540.80370	31.10919	145.96	<.0001	0	0
export	export	1	-0.00008510	0.00001275	-6.68	<.0001	-0.54406	5.23250
electric	electric	1	-0.02564	0.00621	-4.13	0.0002	-0.57700	15.36813
cement	cement	1	-0.00086610	0.00042588	-2.03	0.0490	-0.10071	1.93223
fish	fish	1	0.02023	0.00681	2.97	0.0051	0.23880	5.09232

The SAS System

The CORR Procedure

5 Variables:	electric export cement fish agriland

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
electric	43	11376	1986	489148	7237	13705	electric
export	43	689265	564317	29638413	51900	2106371	export
cement	43	76645	10264	3295744	58369	99319	cement
fish	43	4815	1042	207066	2946	6078	fish
agriland	43	4222	88.27112	181525	4047	4344	agriland

Pearson Correlation Coefficients, N = 43
Prob > |r| under H0: Rho=0

	electric	export	cement	fish	agriland
electric electric	1.00000	0.83794 <.0001	0.56488 <.0001	0.81902 <.0001	-0.89420 <.0001
export export	0.83794 <.0001	1.00000	0.39481 0.0088	0.53318 0.0002	-0.94000 <.0001
cement cement	0.56488 <.0001	0.39481 0.0088	1.00000	0.31396 0.0403	-0.56647 <.0001
fish fish	0.81902 <.0001	0.53318 0.0002	0.31396 0.0403	1.00000	-0.55548 0.0001
agriland agriland	-0.89420 <.0001	-0.94000 <.0001	-0.56647 <.0001	-0.55548 0.0001	1.00000

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	1.105121E13	2.762802E12	140.29	<.0001
Error	38	7.483286E11	19692858807		
Corrected Total	42	1.179954E13			

Root MSE	140331	R-Square	0.9366
Dependent Mean	6267232	Adj R-Sq	0.9299
Coeff Var	2.23913		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	28243747	4158838	6.79	<.0001	0	0
export	export	1	-0.29263	0.12911	-2.27	0.0292	-0.31155	11.32144
cement	cement	1	17.98958	2.93676	6.13	<.0001	0.34835	1.93771
fish	fish	1	61.37781	25.01810	2.45	0.0189	0.12065	1.44906
agriland	agriland	1	-5554.69266	927.91334	-5.99	<.0001	-0.92506	14.30845

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation				
			Intercept	export	cement	fish	agriland
1	4.64739	1.00000	0.00000120	0.00120	0.00040365	0.00137	0.00000134
2	0.31779	3.82412	0.00000554	0.08957	0.00083453	0.00039284	0.00000798
3	0.02434	13.81705	0.00005925	0.02695	0.03203	0.97017	0.00006900
4	0.01046	21.07923	0.00035367	0.02342	0.56958	0.00686	0.00051434
5	0.00001402	575.71804	0.99958	0.85886	0.39716	0.02122	0.99941

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	1.126976E13	2.817441E12	202.09	<.0001
Error	38	5.297732E11	13941401260		
Corrected Total	42	1.179954E13			

Root MSE	118074	R-Square	0.9551
Dependent Mean	6267232	Adj R-Sq	0.9504
Coeff Var	1.88398		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	6820034	2978196	2.29	0.0277	0	0
electric	electric	1	206.83867	43.19182	4.79	<.0001	0.77516	22.17581
cement	cement	1	17.79279	2.27186	7.83	<.0001	0.34454	1.63802
fish	fish	1	-124.97214	43.77443	-2.85	0.0069	-0.24565	6.26643
agriland	agriland	1	-868.79668	637.58667	-1.36	0.1810	-0.14469	9.54242

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation				
			Intercept	electric	cement	fish	agriland
1	4.94474	1.00000	0.00000148	0.00005286	0.00042572	0.00027985	0.00000181
2	0.03795	11.41441	0.00015322	0.00526	0.00869	0.07992	0.00026145
3	0.01333	19.26210	0.00020468	0.00746	0.44441	0.07924	0.00045057
4	0.00396	35.32694	0.00020857	0.18372	0.54298	0.37741	0.00000264
5	0.00001986	499.02896	0.99943	0.80351	0.00349	0.46315	0.99928

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	1.125907E13	2.814768E12	197.91	<.0001
Error	38	5.404665E11	14222803120		
Corrected Total	42	1.179954E13			

Root MSE	119259	R-Square	0.9542
Dependent Mean	6267232	Adj R-Sq	0.9494
Coeff Var	1.90290		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	2653568	182051	14.58	<.0001	0	0
electric	electric	1	291.06208	36.31713	8.01	<.0001	1.09080	15.36813
export	export	1	-0.07709	0.07459	-1.03	0.3079	-0.08208	5.23250
cement	cement	1	16.54727	2.49225	6.64	<.0001	0.32042	1.93223
fish	fish	1	-189.48346	39.85731	-4.75	<.0001	-0.37246	5.09232

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation				
			Intercept	electric	export	cement	fish
1	4.68221	1.00000	0.00043804	0.00008557	0.00266	0.00039564	0.00038360
2	0.28583	4.04733	0.00382	0.00004010	0.21246	0.00192	0.00059276
3	0.02304	14.25544	0.04317	0.00089995	0.04538	0.09220	0.23740
4	0.00747	25.03668	0.74134	0.00108	0.05610	0.51035	0.00849
5	0.00144	56.94305	0.21123	0.99789	0.68340	0.39514	0.75313

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: electric electric

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	154939519	51646506	186.79	<.0001
Error	39	10783558	276501		
Corrected Total	42	165723078			

Root MSE	525.83410	R-Square	0.9349
Dependent Mean	11376	Adj R-Sq	0.9299
Coeff Var	4.62250		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	2471.87657	698.31638	3.54	0.0011	0	0
export	export	1	0.00173	0.00017720	9.76	<.0001	0.49157	1.51896
cement	cement	1	0.04207	0.00868	4.85	<.0001	0.21738	1.20603
fish	fish	1	0.93168	0.09288	10.03	<.0001	0.48867	1.42239

The SAS System

The CORR Procedure

4 Variables:	electric export cement fish

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
electric	43	11376	1986	489148	7237	13705	electric
export	43	689265	564317	29638413	51900	2106371	export
cement	43	76645	10264	3295744	58369	99319	cement
fish	43	4815	1042	207066	2946	6078	fish

Pearson Correlation Coefficients, N = 43
Prob > |r| under H0: Rho=0

	electric	export	cement	fish
electric electric	1.00000	0.83794 <.0001	0.56488 <.0001	0.81902 <.0001
export export	0.83794 <.0001	1.00000	0.39481 0.0088	0.53318 0.0002
cement cement	0.56488 <.0001	0.39481 0.0088	1.00000	0.31396 0.0403
fish fish	0.81902 <.0001	0.53318 0.0002	0.31396 0.0403	1.00000

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.034552E13	3.448506E12	92.50	<.0001
Error	39	1.454019E12	37282530504		
Corrected Total	42	1.179954E13			

Root MSE	193087	R-Square	0.8768
Dependent Mean	6267232	Adj R-Sq	0.8673
Coeff Var	3.08089		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	3373037	256423	13.15	<.0001	0	0
export	export	1	0.42654	0.06507	6.56	<.0001	0.45412	1.51896
cement	cement	1	28.79245	3.18787	9.03	<.0001	0.55754	1.20603
fish	fish	1	81.69372	34.10512	2.40	0.0215	0.16058	1.42239

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation			
			Intercept	export	cement	fish
1	3.68623	1.00000	0.00093013	0.01496	0.00102	0.00221
2	0.28360	3.60529	0.00586	0.71029	0.00373	0.00288
3	0.02274	12.73316	0.04649	0.12144	0.13436	0.93996
4	0.00744	22.26537	0.94672	0.15331	0.86089	0.05495

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.034552E13	3.448506E12	92.50	<.0001
Error	39	1.454019E12	37282530504		
Corrected Total	42	1.179954E13			

Root MSE	193087	R-Square	0.8768
Dependent Mean	6267232	Adj R-Sq	0.8673
Coeff Var	3.08089		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	3373037	256423	13.15	<.0001	0	0
export	export	1	0.42654	0.06507	6.56	<.0001	0.45412	1.51896
cement	cement	1	28.79245	3.18787	9.03	<.0001	0.55754	1.20603
fish	fish	1	81.69372	34.10512	2.40	0.0215	0.16058	1.42239

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation			
			Intercept	export	cement	fish
1	3.68623	1.00000	0.00093013	0.01496	0.00102	0.00221
2	0.28360	3.60529	0.00586	0.71029	0.00373	0.00288
3	0.02274	12.73316	0.04649	0.12144	0.13436	0.93996
4	0.00744	22.26537	0.94672	0.15331	0.86089	0.05495

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Test of First and Second Moment Specification		
DF	Chi-Square	Pr > ChiSq
9	14.76	0.0978

Durbin-Watson D	0.972
Pr < DW	<.0001
Pr > DW	1.0000
Number of Observations	43
1st Order Autocorrelation	0.407

Note: Pr<DW is the p-value for testing positive autocorrelation, and Pr>DW is the p-value for testing negative autocorrelation.

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.034552E13	3.448506E12	92.50	<.0001
Error	39	1.454019E12	37282530504		
Corrected Total	42	1.179954E13			

Root MSE	193087	R-Square	0.8768
Dependent Mean	6267232	Adj R-Sq	0.8673
Coeff Var	3.08089		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	3373037	256423	13.15	<.0001	0	0
export	export	1	0.42654	0.06507	6.56	<.0001	0.45412	1.51896
cement	cement	1	28.79245	3.18787	9.03	<.0001	0.55754	1.20603
fish	fish	1	81.69372	34.10512	2.40	0.0215	0.16058	1.42239

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation			
			Intercept	export	cement	fish
1	3.68623	1.00000	0.00093013	0.01496	0.00102	0.00221
2	0.28360	3.60529	0.00586	0.71029	0.00373	0.00288
3	0.02274	12.73316	0.04649	0.12144	0.13436	0.93996
4	0.00744	22.26537	0.94672	0.15331	0.86089	0.05495

The SAS System

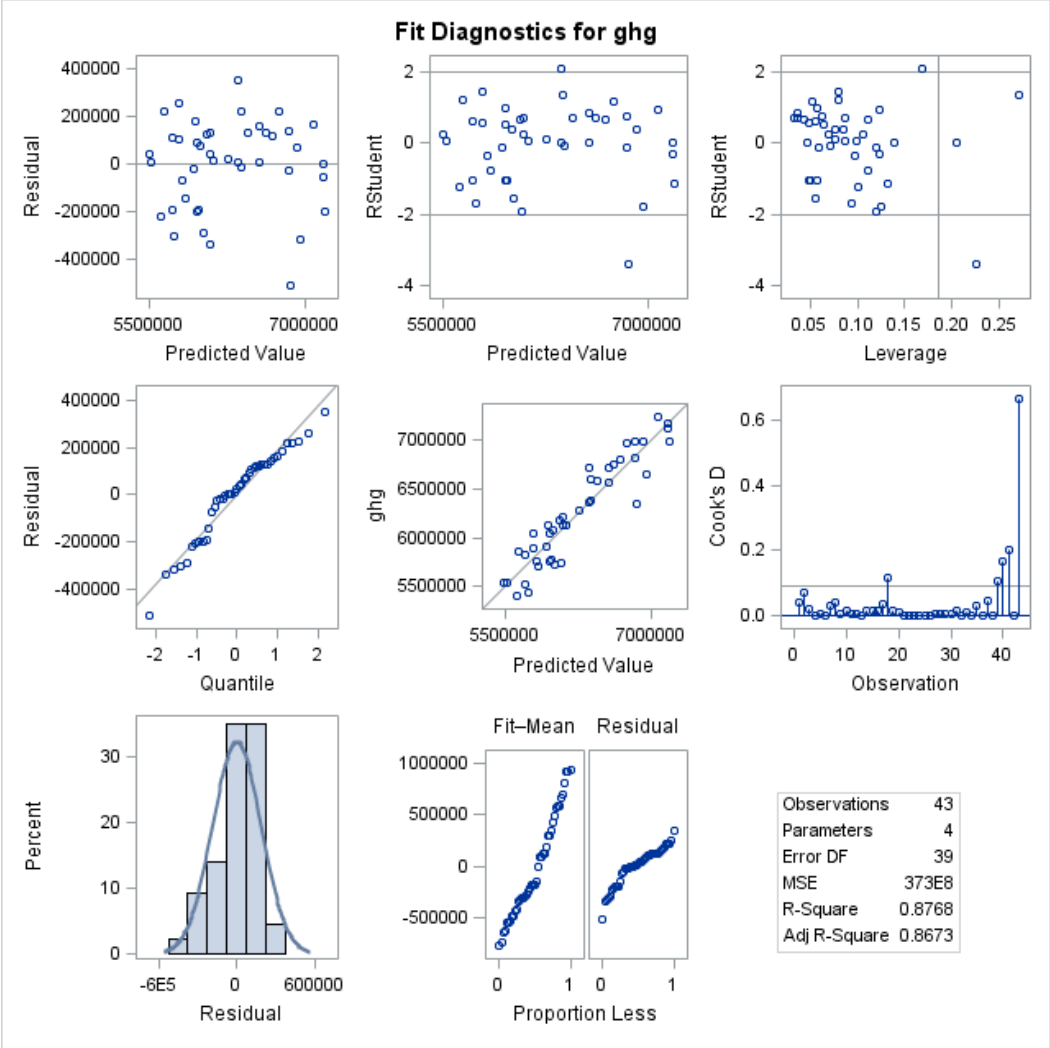
The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

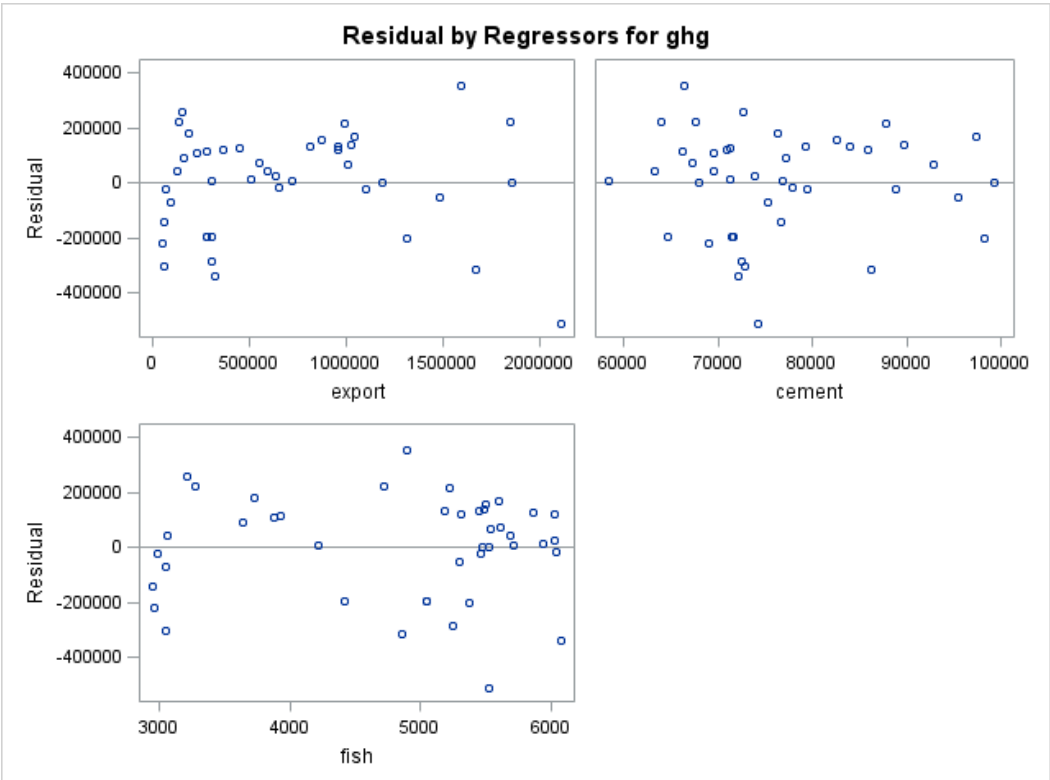
Test of First and Second Moment Specification		
DF	Chi-Square	Pr > ChiSq
9	14.76	0.0978

Durbin-Watson D	0.972
Pr < DW	<.0001
Pr > DW	1.0000
Number of Observations	43
1st Order Autocorrelation	0.407

Note: Pr<DW is the p-value for testing positive autocorrelation, and Pr>DW is the p-value for testing negative autocorrelation.

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg





The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.034552E13	3.448506E12	92.50	<.0001
Error	39	1.454019E12	37282530504		
Corrected Total	42	1.179954E13			

Root MSE	193087	R-Square	0.8768
Dependent Mean	6267232	Adj R-Sq	0.8673
Coeff Var	3.08089		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	3373037	256423	13.15	<.0001	0	0
export	export	1	0.42654	0.06507	6.56	<.0001	0.45412	1.51896
cement	cement	1	28.79245	3.18787	9.03	<.0001	0.55754	1.20603
fish	fish	1	81.69372	34.10512	2.40	0.0215	0.16058	1.42239

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation			
			Intercept	export	cement	fish
1	3.68623	1.00000	0.00093013	0.01496	0.00102	0.00221
2	0.28360	3.60529	0.00586	0.71029	0.00373	0.00288
3	0.02274	12.73316	0.04649	0.12144	0.13436	0.93996
4	0.00744	22.26537	0.94672	0.15331	0.86089	0.05495

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Durbin-Watson D	0.972
Pr < DW	<.0001
Pr > DW	1.0000
Number of Observations	43
1st Order Autocorrelation	0.407

Note: Pr<DW is the p-value for testing positive autocorrelation, and Pr>DW is the p-value for testing negative autocorrelation.

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Number of Observations Read	43
Number of Observations Used	43

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.034552E13	3.448506E12	92.50	<.0001
Error	39	1.454019E12	37282530504		
Corrected Total	42	1.179954E13			

Root MSE	193087	R-Square	0.8768
Dependent Mean	6267232	Adj R-Sq	0.8673
Coeff Var	3.08089		

Parameter Estimates

Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Variance Inflation
Intercept	Intercept	1	3373037	256423	13.15	<.0001	0	0
export	export	1	0.42654	0.06507	6.56	<.0001	0.45412	1.51896
cement	cement	1	28.79245	3.18787	9.03	<.0001	0.55754	1.20603
fish	fish	1	81.69372	34.10512	2.40	0.0215	0.16058	1.42239

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	Proportion of Variation			
			Intercept	export	cement	fish
1	3.68623	1.00000	0.00093013	0.01496	0.00102	0.00221
2	0.28360	3.60529	0.00586	0.71029	0.00373	0.00288
3	0.02274	12.73316	0.04649	0.12144	0.13436	0.93996
4	0.00744	22.26537	0.94672	0.15331	0.86089	0.05495

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: ghg ghg

Durbin-Watson D	0.972
Pr < DW	<.0001
Pr > DW	1.0000
Number of Observations	43
1st Order Autocorrelation	0.407

Note: Pr<DW is the p-value for testing positive autocorrelation, and Pr>DW is the p-value for testing negative autocorrelation.

First Round Estimate of Rho

The REG Procedure
Model: MODEL1
Dependent Variable: resid Residual

Number of Observations Read	43
Number of Observations Used	42
Number of Observations with Missing Values	1

Note: No intercept in model. R-Square is redefined.

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	1	2.936071E11	2.936071E11	10.83	0.0021
Error	41	1.11118E12	27101960776		
Uncorrected Total	42	1.404788E12			

Root MSE	164627	**R-Square**	0.2090
Dependent Mean	5282.88093	**Adj R-Sq**	0.1897
Coeff Var	3116.23021		

Parameter Estimates						
Variable	**Label**	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
residl		1	0.49669	0.15090	3.29	0.0021

First Round WLS Estimates

The REG Procedure
Model: MODEL1
Dependent Variable: ghg2

Number of Observations Read	43
Number of Observations Used	42
Number of Observations with Missing Values	1

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2.220846E12	7.402819E11	26.78	<.0001
Error	38	1.050381E12	27641602669		
Corrected Total	41	3.271227E12			

Root MSE	166258	R-Square	0.6789
Dependent Mean	3175903	Adj R-Sq	0.6536
Coeff Var	5.23497		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Standardized Estimate	Tolerance	Variance Inflation
Intercept	1	1903708	184401	10.32	<.0001	0	.	0
export2	1	0.36245	0.09528	3.80	0.0005	0.39279	0.79263	1.26162
cement2	1	25.38408	4.20443	6.04	<.0001	0.57935	0.91767	1.08972
fish2	1	61.28627	56.18205	1.09	0.2822	0.11358	0.77950	1.28288

Collinearity Diagnostics (intercept adjusted)

Number	Eigenvalue	Condition Index	Proportion of Variation		
			export2	cement2	fish2
1	1.62735	1.00000	0.18317	0.12956	0.18881
2	0.81470	1.41332	0.15110	0.86142	0.07647
3	0.55795	1.70782	0.66573	0.00902	0.73472

First Round WLS Estimates

The REG Procedure
Model: MODEL1
Dependent Variable: ghg2

Durbin-Watson D	1.560
Pr < DW	0.0292
Pr > DW	0.9708
Number of Observations	42
1st Order Autocorrelation	0.097

Note: Pr<DW is the p-value for testing positive autocorrelation, and Pr>DW is the p-value for testing negative autocorrelation.

Second Round Estimate of Rho

The REG Procedure
Model: MODEL1
Dependent Variable: resid2 Residual

Number of Observations Read	43
Number of Observations Used	42
Number of Observations with Missing Values	1

Note: No intercept in model. R-Square is redefined.

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	1	5.303055E11	5.303055E11	20.99	<.0001
Error	41	1.035913E12	25266163737		
Uncorrected Total	42	1.566218E12			

Root MSE	158953	**R-Square**	0.3386
Dependent Mean	2120.70652	**Adj R-Sq**	0.3225
Coeff Var	7495.30104		

Parameter Estimates						
Variable	**Label**	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
resid2l		1	0.59496	0.12987	4.58	<.0001

Second Round Estimate of Rho

The REG Procedure
Model: MODEL1
Dependent Variable: ghg3

Number of Observations Read	43
Number of Observations Used	42
Number of Observations with Missing Values	1

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.400308E12	4.667692E11	17.30	<.0001
Error	38	1.025291E12	26981340699		
Corrected Total	41	2.425599E12			

Root MSE	164260	R-Square	0.5773
Dependent Mean	2560201	Adj R-Sq	0.5439
Coeff Var	6.41590		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	1611196	164693	9.78	<.0001
export3	1	0.32798	0.10906	3.01	0.0047
cement3	1	23.74982	4.48351	5.30	<.0001
fish3	1	52.41416	65.54892	0.80	0.4289

Second Round Estimate of Rho

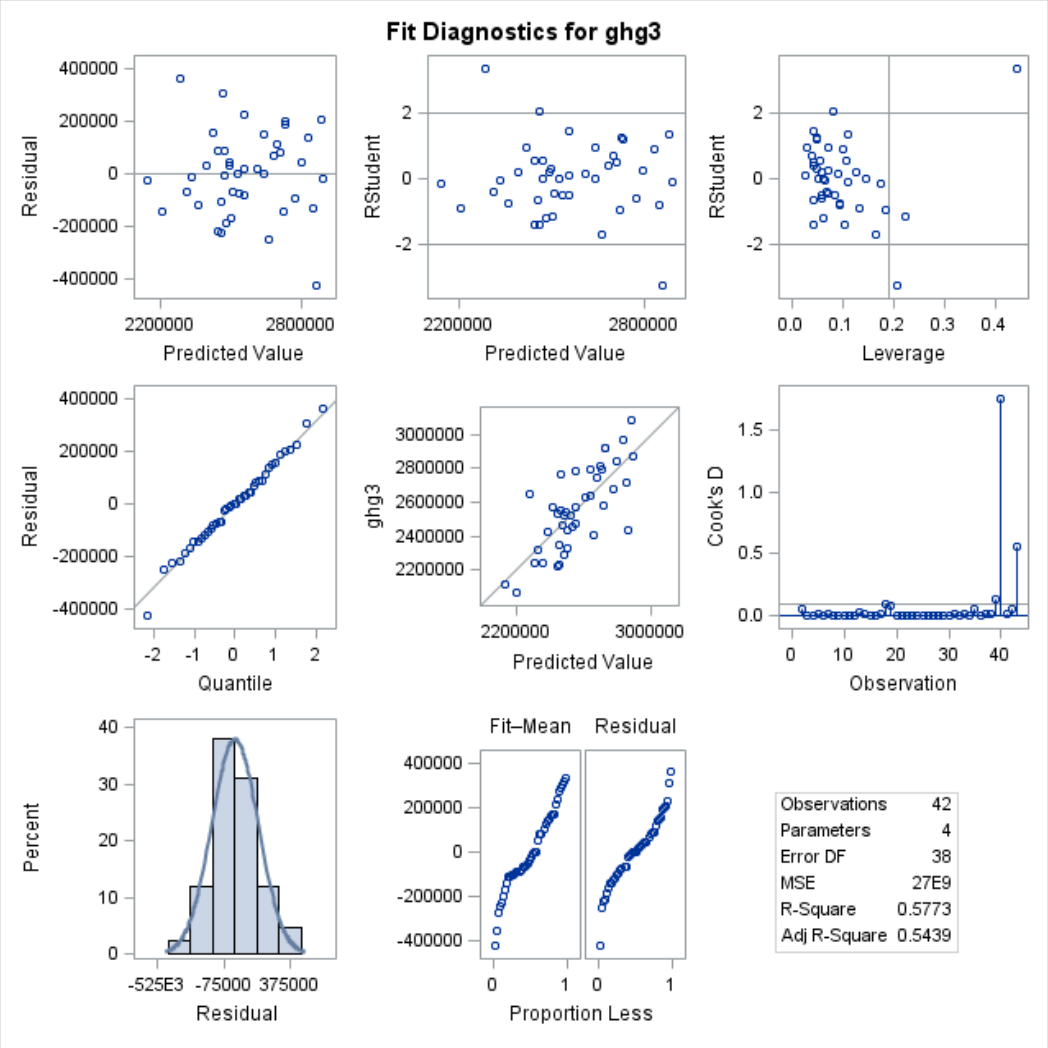
The REG Procedure
Model: MODEL1
Dependent Variable: ghg3

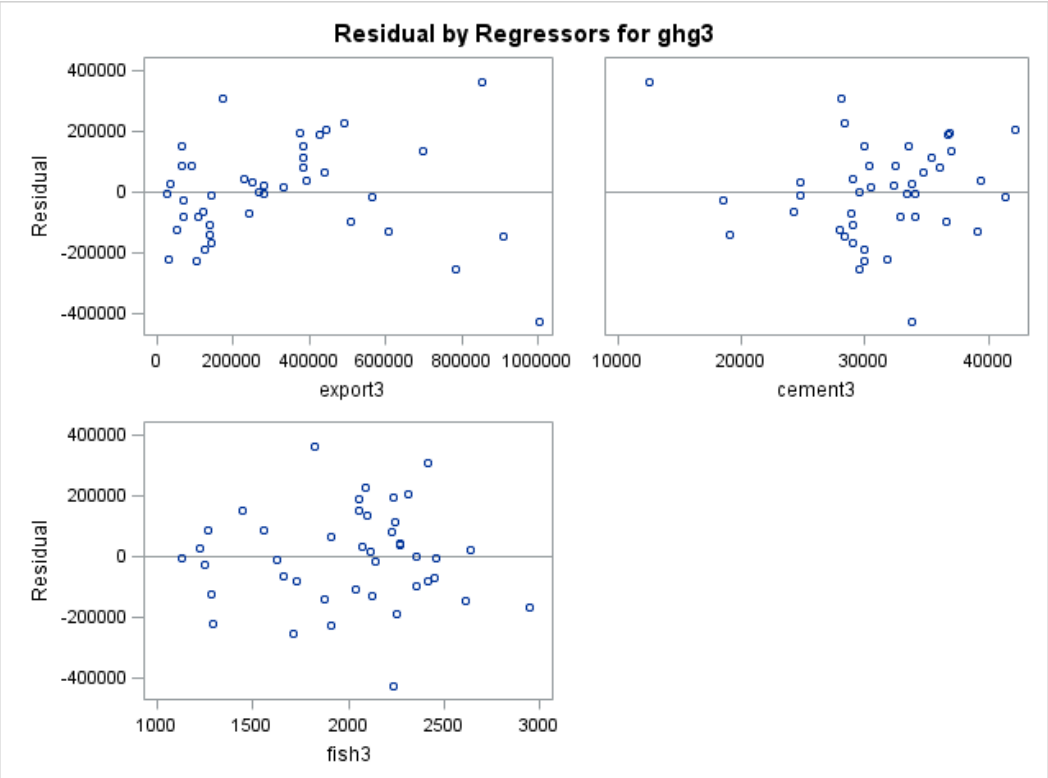
Durbin-Watson D	1.677
Pr < DW	0.0712
Pr > DW	0.9288
Number of Observations	42
1st Order Autocorrelation	0.050

Note: Pr<DW is the p-value for testing positive autocorrelation, and Pr>DW is the p-value for testing negative autocorrelation.

Second Round Estimate of Rho

The REG Procedure
Model: MODEL1
Dependent Variable: ghg3





R for final model

The CORR Procedure

2 Variables:	ghg ghghat

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
ghg	43	6267232	530039	269490995	5400504	7244272	ghg
ghghat	43	6276644	389128	269895671	5682248	7020535	

Pearson Correlation Coefficients, N = 43

Prob > |r| under H0: Rho=0

	ghg	ghghat
ghg ghg	1.00000	0.93566 <.0001
ghghat	0.93566 <.0001	1.00000

Yule-Walker WLS Estimates Using Proc AutoReg

The AUTOREG Procedure

Dependent Variable	ghg
	ghg

Yule-Walker WLS Estimates Using Proc AutoReg

The AUTOREG Procedure

Ordinary Least Squares Estimates			
SSE	1.45402E12	DFE	39
MSE	3.72825E10	Root MSE	193087
SBC	1179.57206	AIC	1172.52726
MAE	144674.397	AICC	1173.57989
MAPE	2.34207422	HQC	1175.12516
Durbin-Watson	0.9716	Regress R-Square	0.8768
		Total R-Square	0.8768

Parameter Estimates						
Variable	DF	Estimate	Standard Error	t Value	Approx Pr > |t|	Variable Label
Intercept	1	3373037	256423	13.15	<.0001	
export	1	0.4265	0.0651	6.56	<.0001	export
cement	1	28.7924	3.1879	9.03	<.0001	cement
fish	1	81.6937	34.1051	2.40	0.0215	fish

Estimates of Autocorrelations			
Lag	Covariance	Correlation	-1 9 8 7 6 5 4 3 2 1 0 1 2 3 4 5 6 7 8 9 1
0	3.381E10	1.000000	|**********|
1	1.375E10	0.406550	|******** |

Preliminary MSE	2.823E10

Estimates of Autoregressive Parameters			
Lag	Coefficient	Standard Error	t Value
1	-0.406550	0.148210	-2.74

Algorithm converged.

Yule-Walker WLS Estimates Using Proc AutoReg

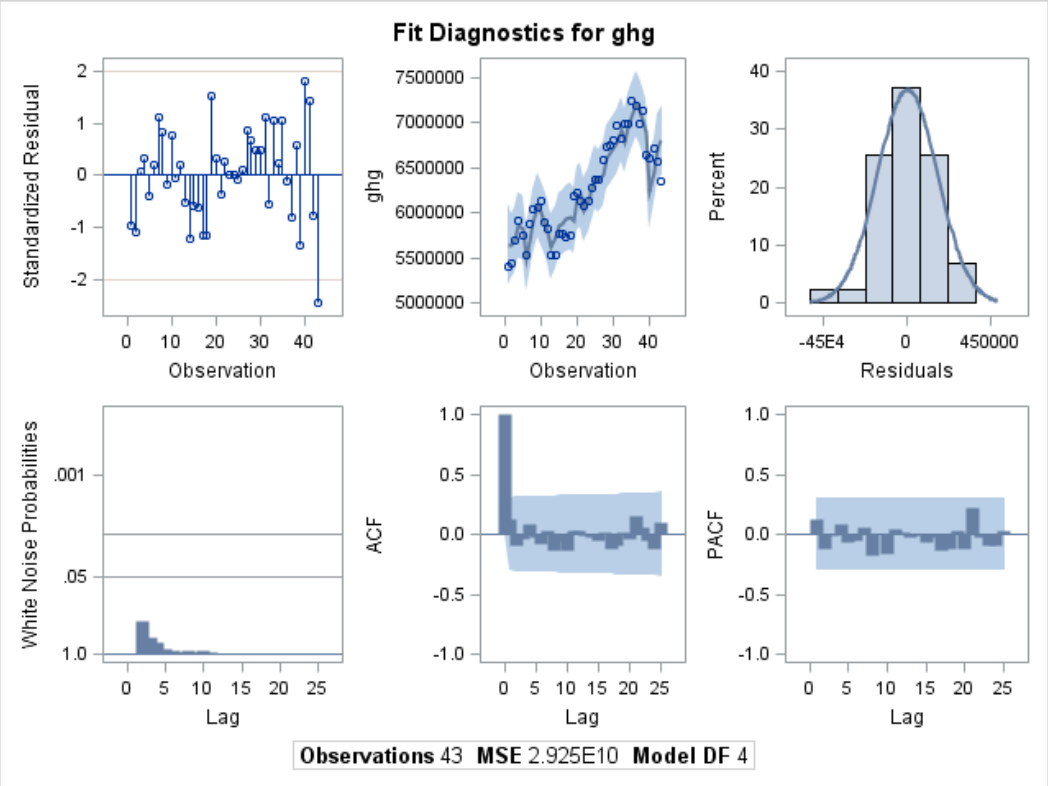
The AUTOREG Procedure

Yule-Walker Estimates			
SSE	1.11148E12	**DFE**	38
MSE	2.92494E10	**Root MSE**	171025
SBC	1172.07088	**AIC**	1163.26488
MAE	126356.571	**AICC**	1164.8865
MAPE	2.0213429	**HQC**	1166.51226
Durbin-Watson	1.4888	**Regress R-Square**	0.7080
		Total R-Square	0.9058

Parameter Estimates						
Variable	**DF**	**Estimate**	**Standard Error**	**t Value**	**Approx Pr > |t|**	**Variable Label**
Intercept	1	3606443	357406	10.09	<.0001	
export	1	0.3730	0.0983	3.80	0.0005	export
cement	1	25.4628	4.3396	5.87	<.0001	cement
fish	1	90.5568	54.5753	1.66	0.1053	fish

Yule-Walker WLS Estimates Using Proc AutoReg

The AUTOREG Procedure



R for PROC AUTOREG final model

The CORR Procedure

2 Variables:	ghg ghghat2

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
ghg	43	6267232	530039	269490995	5400504	7244272	ghg
ghghat2	43	6251215	449006	268802258	5541804	7081354	

Pearson Correlation Coefficients, N = 43

Prob > |r| under H0: Rho=0

	ghg	ghghat2
ghg ghg	1.00000	0.93584 <.0001
ghghat2	0.93584 <.0001	1.00000