LAMPIRAN

LAMPIRAN 1

Perusahaan Sektor Pertambangan yang Terdaftar di Bursa Efek Indonesia (BEI)

KODE	NAMA PERUSAHAAN
ADRO	Adaro Energy Tbk.
ANTM	Aneka Tambang Tbk.
ARII	Atlas Resources Tbk.
ARTI	Ratu Prabu Energi Tbk.
BIPI	Astrindo Nusantara Infrastruktur Tbk.
BOSS	Borneo Olah Sarana Sukses Tbk.
BRMS	Bumi Resources Minerals Tbk.
BSSR	Baramulti Suksessarana Tbk.
BUMI	Bumi Resources Tbk.
BYAN	Bayan Resources Tbk.
CITA	Cita Mineral Investindo Tbk.
CKRA	Cakra Mineral Tbk.
CTTH	Citatah Tbk.
DEWA	Darma Henwa Tbk.
DKFT	Central Omega Resources Tbk.
DOID	Delta Dunia Makmur Tbk.
ELSA	Elnusa Tbk.
ENRG	Energi Mega Persada Tbk.
ESSA	Surya Esa Perkasa Tbk.
FIRE	Alfa Energi Investama Tbk.
GEMS	Golden Energy Mines Tbk.
GTBO	Garda Tujuh Buana Tbk.
HRUM	Harum Energy Tbk.
IFSH	Ifishdesco Tbk.
INCO	Vale Indonesia Tbk.
ITMG	Indo Tambangraya Megah Tbk.
KKGI	Resource Alam Indonesia Tbk.
MBAP	Mitrabara Adiperdana Tbk.
MDKA	Merdeka Copper Gold Tbk.
MEDC	Medco Energi Internasional Tbk.
MITI	Mitra Investindo Tbk.
MYOH	Samindo Resources Tbk.
PKPK	Perdana Karya Perkasa Tbk.
PSAB	J Resources Asia Pasific Tbk.
PTBA	Tambang Batubara Bukit Tbk.
PTRO	Petrosea Tbk.
RUIS	Radiant Utama Interinsco Tbk.

SMMT	Golden Eagle Energy Tbk.
SMRU	SMR Utama Tbk.
SURE	Super Energy Tbk.
TINS	Timah Tbk.
TOBA	Toba Bara Sejahtera Tbk.
WOWS	Ginting Jaya Energi Tbk.
ZINC	Kapuas Prima Coal Tbk.

Lampiran 2

Perusahaan yang Memiliki Laporan Keuangan yang Lengkap

KODE	NAMA PERUSAHAAN	2014	2015	2016	2017	2018
ADRO	Adaro Energy Tbk.	√	√	√	√	√
ANTM	Aneka Tambang Tbk.	√	√	√	√	√
ARII	Atlas Resources Tbk.	√	√	√	√	√
ARTI	Ratu Prabu Energi Tbk.	√	√	√	√	√
BIPI	Astrindo Nusantara Infrastruktur Tbk.	√	√	√	√	√
BOSS	Borneo Olah Sarana Sukses Tbk.	IPO 2018				
BRMS	Bumi Resources Minerals Tbk.	√	√	√	√	√
BSSR	Baramulti Suksessarana Tbk.	√	√	√	√	√
BUMI	Bumi Resources Tbk.	√	√	√	√	√
BYAN	Bayan Resources Tbk.	√	√	√	√	√
CITA	Cita Mineral Investindo Tbk.	√	√	√	√	√
CKRA	Cakra Mineral Tbk.	√	√	√	√	-
CTTH	Citatah Tbk.	√	√	√	√	√
DEWA	Darma Henwa Tbk.	√	√	√	√	√
DKFT	Central Omega Resources Tbk.	√	√	√	√	√
DOID	Delta Dunia Makmur Tbk.	√	√	√	√	√
ELSA	Elnusa Tbk.	√	√	√	√	√
ENRG	Energi Mega Persada Tbk.	√	√	√	√	√
ESSA	Surya Esa Perkasa Tbk.	√	√	√	√	√
FIRE	Alfa Energi Investama Tbk.	IPO 2017				
GEMS	Golden Energy Mines Tbk.	√	√	√	√	√
GTBO	Garda Tujuh Buana Tbk.	√	√	√	√	√
HRUM	Harum Energy Tbk.	√	√	√	√	√
IFSH	Ifishdesco Tbk.	IPO 2019				

INCO	Vale Indonesia Tbk.	√	√	√	√	√
ITMG	Indo Tambangraya Megah Tbk.	√	√	√	√	√
KKGI	Resource Alam Indonesia Tbk.	√	√	√	√	√
MBAP	Mitrabara Adiperdana Tbk.	√	√	√	√	√
MDKA	Merdeka Copper Gold Tbk.			IPO 2015		
MEDC	Medco Energi Internasional Tbk.	√	√	√	√	√
MITI	Mitra Investindo Tbk.	√	√	√	√	√
MYOH	Samindo Resources Tbk.	√	√	√	√	√
PKPK	Perdana Karya Perkasa Tbk.	√	√	√	√	√
PSAB	J Resources Asia Pasific Tbk.	√	√	√	√	√
PTBA	Tambang Batubara Bukit Tbk.	√	√	√	√	√
PTRO	Petrosea Tbk.	√	√	√	√	√
RUIS	Radiant Utama Interinsco Tbk.	√	√	√	√	√
SMMT	Golden Eagle Energy Tbk.	√	√	√	√	√
SMRU	SMR Utama Tbk.	√	√	√	√	√
SURE	Super Energy Tbk.			IPO 2018		
TINS	Timah Tbk.	√	√	√	√	√
TOBA	Toba Bara Sejahtera Tbk.	√	√	√	√	√
WOWS	Ginting Jaya Energi Tbk.			IPO 2019		
ZINC	Kapuas Prima Coal Tbk.			IPO 2017		

LAMPIRAN 3

Tabel *Tax Avoidance*

NO	KODE	CETR					Rata-rata
		2014	2015	2016	2017	2018	
1.	ADRO	0,261	0,087	0,349	0,106	0,174	0,195
2.	ELSA	0,158	0,143	0,095	0,189	0,104	0,138
3.	GEMS	0,173	0,678	0,270	0,355	0,048	0,305
4.	MBAP	0,259	0,165	0,045	0,027	0,052	0,110
5.	MYOH	0,055	0,094	0,054	0,082	0,076	0,072
6.	PTBA	0,032	0,087	0,061	0,183	0,095	0,091
7.	RUIS	0,190	0,315	0,402	0,252	0,196	0,271
8.	TINS	0,083	0,496	0,843	0,132	0,146	0,340
9.	TOBA	0,149	0,057	0,057	0,196	0,132	0,118

LAMPIRAN 4

Tabel *Transfer Pricing*

NO	KODE	*Transfer Pricing*					Rata-rata
		2014	2015	2016	2017	2018	
1.	ADRO	0,097	0,104	0,233	0,285	0,227	0,189
2.	ELSA	0,133	0,135	0,116	0,068	0,057	0,101
3.	GEMS	0,035	0,005	0,127	0,221	0,130	0,104
4.	MBAP	0,136	0,216	0,193	0,304	0,262	0,222
5.	MYOH	0,021	0,148	0,155	0,091	0,172	0,117
6.	PTBA	0,205	0,196	0,195	0,314	0,324	0,247
7.	RUIS	0,043	0,044	0,042	0,034	0,034	0,039
8.	TINS	0,139	0,025	0,060	0,078	0,069	0,074
9.	TOBA	0,108	0,102	0,101	0,194	0,222	0,145

LAMPIRAN 5

Tabel *Capital Intensity*

NO	KODE	*Capital Intensity*					Rata-rata
		2014	2015	2016	2017	2018	
1.	ADRO	1,546	1,813	2,100	1,484	1,509	1,690
2.	ELSA	0,476	0,617	0,642	0,497	0,377	0,522
3.	GEMS	0,400	0,493	0,453	0,231	0,357	0,387
4.	MBAP	0,282	0,185	0,213	0,202	0,254	0,227
5.	MYOH	0,371	0,335	0,332	0,266	0,202	0,301
6.	PTBA	0,566	0,671	0,727	0,558	0,587	0,622
7.	RUIS	0,305	0,330	0,401	0,432	0,359	0,365
8.	TINS	0,434	0,558	0,619	0,529	0,535	0,535
9.	TOBA	0,376	0,483	0,739	0,798	0,821	0,644

LAMPIRAN 6

Tabel *Financial Distress*

NO	KODE	*Financial Distress (Springate)*					Rata-rata
		2014	2015	2016	2017	2018	
1.	ADRO	0,715	0,872	1,060	1,479	4,022	1,630
2.	ELSA	1,241	1,075	1,075	0,818	0,784	0,998
3.	GEMS	0,655	0,222	1,262	1,410	1,193	0,949
4.	MBAP	0,725	2,092	2,154	2,334	2,297	1,920
5.	MYOH	1,465	8,022	8,969	9,279	9,185	7,384
6.	PTBA	1,304	1,041	0,964	1,504	1,511	1,265
7.	RUIS	0,954	0,763	0,954	0,959	0,984	0,923
8.	TINS	1,366	1,153	1,063	1,203	0,995	1,156
9.	TOBA	1,683	1,503	1,091	1,533	1,491	1,460

LAMPIRAN 7

Tabel *Return on Capital Employed*

NO	KODE	*Return on Capital Employed*					Rata-rata
		2014	2015	2016	2017	2018	
1.	ADRO	0,986	0,406	0,937	1,077	1,049	0,891
2.	ELSA	0,798	0,805	0,507	1,048	-10,027	-1,374
3.	GEMS	-0,245	-0,025	-0,944	-0,687	-0,553	-0,491
4.	MBAP	-0,610	-1,529	-1,797	-2,441	-1,743	-1,624
5.	MYOH	0,133	0,034	0,029	0,017	0,042	0,051
6.	PTBA	0,696	1,090	1,152	2,101	2,764	1,561
7.	RUIS	-3,415	1,300	0,278	0,162	0,192	-0,298
8.	TINS	0,337	0,047	0,119	0,227	2,039	0,554
9.	TOBA	2,465	0,898	0,657	1,289	-28,094	-4,557

LAMPIRAN 7

Tabel *Sales Growth*

NO	KODE	*Sales Growth*					Rata-rata
		2014	2015	2016	2017	2018	
1.	ADRO	0,012	-0,193	-0,058	0,388	0,111	0,052
2.	ELSA	0,027	-0,106	-0,041	0,375	0,331	0,117
3.	GEMS	0,028	-0,190	0,088	0,976	0,376	0,256
4.	MBAP	0,113	0,701	-0,146	0,382	-0,002	0,210
5.	MYOH	0,232	-0,925	-0,160	-0,011	0,282	-0,117
6.	PTBA	0,167	0,059	0,015	0,385	0,087	0,143
7.	RUIS	0,020	-0,128	-0,177	-0,145	0,154	-0,055
8.	TINS	0,260	-0,067	0,014	0,323	0,199	0,146
9.	TOBA	0,185	-0,231	-0,329	0,203	0,411	0,048

LAMPIRAN 8

Tabel *Statistic Deskriptif*

	TA	TP	CI	FD	ROCE	SG
Mean	0.182258	0.137636	0.588187	1.965023	-0.587423	0.088786
Median	0.143254	0.130274	0.475943	1.203352	0.227394	0.058666
Maximum	0.843366	0.323999	2.100094	9.278932	2.764118	0.975981
Minimum	0.027124	0.004734	0.185268	0.222424	-28.09436	-0.925156
Std. Dev.	0.165389	0.085963	0.432955	2.263704	4.621516	0.295357
Skewness	2.203505	0.452065	2.029460	2.597218	-5.010735	-0.133003
Kurtosis	8.373003	2.296221	6.520803	8.308439	29.59984	5.947003
Jarque-Bera	90.54544	2.461417	54.13292	103.4282	1514.965	16.41673
Probability	0.000000	0.292086	0.000000	0.000000	0.000000	0.000272
Sum	8.201603	6.193603	26.46841	88.42605	-26.43403	3.995358
Sum Sq. Dev.	1.203549	0.325142	8.247811	225.4717	939.7702	3.838365
Observations	45	45	45	45	45	45

LAMPIRAN 9

Fixed Effect Model

Dependent Variable: LOGTA
Method: Panel Least Squares
Date: 02/10/20 Time: 14:39
Sample: 2014 2018
Periods included: 5
Cross-sections included: 9
Total panel (balanced) observations: 45

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.857349	0.730312	-3.912505	0.0005
TP	-2.272744	2.530848	-0.898017	0.3761
CI	1.641968	1.089568	1.506990	0.1419
FD	0.081675	0.120022	0.680500	0.5012
ROCE	0.011787	0.026769	0.440339	0.6627
SG	0.425480	0.504212	0.843853	0.4052

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.438367	Mean dependent var	-2.013030
Adjusted R-squared	0.202843	S.D. dependent var	0.786747
S.E. of regression	0.702437	Akaike info criterion	2.381024
Sum squared resid	15.29594	Schwarz criterion	2.943097
Log likelihood	-39.57304	Hannan-Quinn criter.	2.590559
F-statistic	1.861243	Durbin-Watson stat	2.129631
Prob(F-statistic)	0.077067		

LAMPIRAN 10

Common Effect Model

Dependent Variable: LOGTA
Method: Panel EGLS (Cross-section random effects)
Date: 02/10/20 Time: 14:40
Sample: 2014 2018
Periods included: 5
Cross-sections included: 9
Total panel (balanced) observations: 45
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.613709	0.250145	-6.451090	0.0000
TP	-4.162536	1.421709	-2.927840	0.0057
CI	0.424631	0.268124	1.583708	0.1213
FD	-0.055689	0.052152	-1.067817	0.2922
ROCE	0.007517	0.023454	0.320481	0.7503
SG	0.424349	0.419155	1.012391	0.3176

Effects Specification

	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	0.702437	1.0000

Weighted Statistics

R-squared	0.266889	Mean dependent var	-2.013030
Adjusted R-squared	0.172901	S.D. dependent var	0.786747
S.E. of regression	0.715507	Sum squared resid	19.96608
F-statistic	2.839595	Durbin-Watson stat	1.922001
Prob(F-statistic)	0.027927		

Unweighted Statistics

R-squared	0.266889	Mean dependent var	-2.013030
Sum squared resid	19.96608	Durbin-Watson stat	1.922001

LAMPIRAN 11

Random Effect Model

Dependent Variable: LOGTA
Method: Panel EGLS (Cross-section random effects)
Date: 02/10/20 Time: 14:40
Sample: 2014 2018
Periods included: 5
Cross-sections included: 9
Total panel (balanced) observations: 45
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.613709	0.250145	-6.451090	0.0000
TP	-4.162536	1.421709	-2.927840	0.0057
CI	0.424631	0.268124	1.583708	0.1213
FD	-0.055689	0.052152	-1.067817	0.2922
ROCE	0.007517	0.023454	0.320481	0.7503
SG	0.424349	0.419155	1.012391	0.3176

Effects Specification

	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	0.702437	1.0000

Weighted Statistics

R-squared	0.266889	Mean dependent var	-2.013030
Adjusted R-squared	0.172901	S.D. dependent var	0.786747
S.E. of regression	0.715507	Sum squared resid	19.96608
F-statistic	2.839595	Durbin-Watson stat	1.922001
Prob(F-statistic)	0.027927		

Unweighted Statistics

R-squared	0.266889	Mean dependent var	-2.013030
Sum squared resid	19.96608	Durbin-Watson stat	1.922001

LAMPIRAN 11

Tabel Uji Chow

Redundant Fixed Effects Tests
Equation: FIXED
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.183112	(8,31)	0.3405
Cross-section Chi-square	11.990140	8	0.1516

Cross-section fixed effects test equation:
Dependent Variable: LOGTA
Method: Panel Least Squares
Date: 02/10/20 Time: 14:41
Sample: 2014 2018
Periods included: 5
Cross-sections included: 9
Total panel (balanced) observations: 45

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.613709	0.254800	-6.333243	0.0000
TP	-4.162536	1.448163	-2.874355	0.0065
CI	0.424631	0.273114	1.554777	0.1281
FD	-0.055689	0.053123	-1.048310	0.3009
ROCE	0.007517	0.023890	0.314627	0.7547
SG	0.424349	0.426954	0.993897	0.3264

R-squared	0.266889	Mean dependent var	-2.013030
Adjusted R-squared	0.172901	S.D. dependent var	0.786747
S.E. of regression	0.715507	Akaike info criterion	2.291916
Sum squared resid	19.96608	Schwarz criterion	2.532804
Log likelihood	-45.56811	Hannan-Quinn criter.	2.381717
F-statistic	2.839595	Durbin-Watson stat	1.922001
Prob(F-statistic)	0.027927		

LAMPIRAN 13

Tabel Uji Hausman

Correlated Random Effects - Hausman Test
Equation: RANDOM
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.166897	5	0.1473

** WARNING: estimated cross-section random effects variance is zero.

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
TP	-2.272744	-4.162536	4.383937	0.3668
CI	1.641968	0.424631	1.115267	0.2490
FD	0.081675	-0.055689	0.011685	0.2038
ROCE	0.011787	0.007517	0.000166	0.7406
SG	0.425480	0.424349	0.078539	0.9968

Cross-section random effects test equation:
Dependent Variable: LOGTA
Method: Panel Least Squares
Date: 02/10/20 Time: 14:42
Sample: 2014 2018
Periods included: 5
Cross-sections included: 9
Total panel (balanced) observations: 45

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.857349	0.730312	-3.912505	0.0005
TP	-2.272744	2.530848	-0.898017	0.3761
CI	1.641968	1.089568	1.506990	0.1419
FD	0.081675	0.120022	0.680500	0.5012
ROCE	0.011787	0.026769	0.440339	0.6627
SG	0.425480	0.504212	0.843853	0.4052

Effects Specification

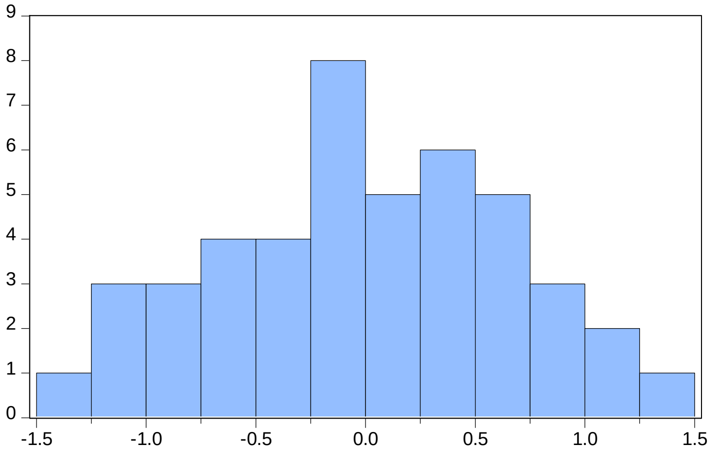
Cross-section fixed (dummy variables)

R-squared	0.438367	Mean dependent var	-2.013030

Adjusted R-squared	0.202843	S.D. dependent var	0.786747
S.E. of regression	0.702437	Akaike info criterion	2.381024
Sum squared resid	15.29594	Schwarz criterion	2.943097
Log likelihood	-39.57304	Hannan-Quinn criter.	2.590559
F-statistic	1.861243	Durbin-Watson stat	2.129631
Prob(F-statistic)	0.077067		

LAMPIRAN 14

Uji Normalitas



Series: Standardized Residuals
Sample 2014 2018
Observations 45

Mean	2.02e-16
Median	-0.006050
Maximum	1.481042
Minimum	-1.376840
Std. Dev.	0.673628
Skewness	-0.033398
Kurtosis	2.417268
Jarque-Bera	0.645071
Probability	0.724310

LAMPIRAN 15

Hasil Uji *Multikolinieritas*

	TP	CI	FD	ROCE	SG
TP	1.000000	0.199917	0.160620	-0.071888	0.319930
CI	0.199917	1.000000	-0.199696	0.045189	-0.115949
FD	0.160620	-0.199696	1.000000	0.031182	-0.218431
ROCE	-0.071888	0.045189	0.031182	1.000000	-0.211975
SG	0.319930	-0.115949	-0.218431	-0.211975	1.000000

LAMPIRAN 16

Hasil Uji Autokorelasi

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.024291	Prob. F(2,37)	0.9760
Obs*R-squared	0.059009	Prob. Chi-Square(2)	0.9709

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 02/10/20 Time: 14:58
Sample: 1 45
Included observations: 45
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.006515	0.270831	-0.024055	0.9809
TP	0.063236	1.554792	0.040671	0.9678
CI	0.001884	0.281104	0.006702	0.9947
FD	3.04E-06	0.054693	5.55E-05	1.0000
ROCE	0.000344	0.025057	0.013738	0.9891
SG	-0.032204	0.466565	-0.069023	0.9453
RESID(-1)	0.039198	0.178073	0.220124	0.8270
RESID(-2)	-0.000350	0.176963	-0.001977	0.9984

R-squared	0.001311	Mean dependent var	-4.86E-16
Adjusted R-squared	-0.187630	S.D. dependent var	0.673628
S.E. of regression	0.734109	Akaike info criterion	2.379493
Sum squared resid	19.93990	Schwarz criterion	2.700677
Log likelihood	-45.53858	Hannan-Quinn criter.	2.499227
F-statistic	0.006940	Durbin-Watson stat	1.996551
Prob(F-statistic)	1.000000		

LAMPIRAN 17

Hasil Uji Heteroskedastisitas

Heteroskedasticity Test: White

F-statistic	0.750898	Prob. F(20,24)	0.7404
Obs*R-squared	17.32043	Prob. Chi-Square(20)	0.6321
Scaled explained SS	9.219027	Prob. Chi-Square(20)	0.9802

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 02/10/20   Time: 15:00
Sample: 1 45
Included observations: 45

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.245897	0.774059	-0.317672	0.7535
TP^2	32.07244	19.89679	1.611940	0.1200
TP*CI	2.883765	6.013353	0.479560	0.6359
TP*FD	-0.552675	1.307224	-0.422785	0.6762
TP*ROCE	-1.027154	1.790918	-0.573535	0.5716
TP*SG	-1.715739	8.734332	-0.196436	0.8459
TP	-8.659654	6.058736	-1.429284	0.1658
CI^2	-0.767238	0.992138	-0.773318	0.4469
CI*FD	-0.327852	0.389733	-0.841222	0.4085
CI*ROCE	-1.176337	0.624492	-1.883670	0.0718
CI*SG	-1.948936	2.620780	-0.743647	0.4643
CI	2.514596	1.706240	1.473765	0.1535
FD^2	-0.030506	0.050943	-0.598828	0.5549
FD*ROCE	0.279116	0.319268	0.874238	0.3907
FD*SG	-0.011603	0.271576	-0.042726	0.9663
FD	0.440774	0.579748	0.760285	0.4545
ROCE^2	-0.028135	0.013377	-2.103207	0.0461
ROCE*SG	-0.102878	0.475737	-0.216249	0.8306
ROCE	0.068587	0.314831	0.217853	0.8294
SG^2	0.355101	1.338570	0.265284	0.7931
SG	1.118154	1.616815	0.691578	0.4958

R-squared	0.384899	Mean dependent var	0.443691
Adjusted R-squared	-0.127686	S.D. dependent var	0.534178
S.E. of regression	0.567258	Akaike info criterion	2.008718
Sum squared resid	7.722747	Schwarz criterion	2.851827
Log likelihood	-24.19616	Hannan-Quinn criter.	2.323021
F-statistic	0.750898	Durbin-Watson stat	2.450919
Prob(F-statistic)	0.740379		