LAMPIRAN

1. Uji Heteroskedastisitas dengan metode White Heteroskedasticity Test

White Heteroskedasticity Test:

F-statistic	1.943511	Probability	0.140640
Obs*R-squared	13.04830	Probability	0.160433

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 06/13/09   Time: 22:30
Sample: 1986 2007
Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.239802	0.329434	0.727919	0.4806
LOG(Y)	-0.055690	0.058645	-0.949620	0.3610
(LOG(Y))^2	-0.000590	0.006008	-0.098189	0.9234
(LOG(Y))*(LOG(P))	0.004979	0.008064	0.617488	0.5485
(LOG(Y))*(LOG(RE))	0.012592	0.025352	0.496684	0.6284
LOG(P)	0.050047	0.078681	0.636080	0.5367
(LOG(P))^2	0.009633	0.010661	0.903619	0.3840
(LOG(P))*(LOG(RE))	-0.060272	0.027306	-2.207318	0.0475
LOG(RE)	0.015430	0.169807	0.090867	0.9291
(LOG(RE))^2	0.016351	0.017577	0.930250	0.3706

R-squared	0.593104	Mean dependent var	0.002484
Adjusted R-squared	0.287933	S.D. dependent var	0.002479
S.E. of regression	0.002091	Akaike info criterion	-9.198949
Sum squared resid	5.25E-05	Schwarz criterion	-8.703021
Log likelihood	111.1884	F-statistic	1.943511
Durbin-Watson stat	2.984411	Prob(F-statistic)	0.140640

2. Autokorelasi test dengan metode Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	3.349285	Probability	0.060950
Obs*R-squared	6.492415	Probability	0.038922

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 06/13/09   Time: 22:37
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.069539	0.223876	-0.310614	0.7601
LOG(Y)	0.012653	0.037572	0.336776	0.7407
LOG(P)	0.000261	0.037936	0.006882	0.9946
LOG(RE)	-0.030781	0.075746	-0.406372	0.6899
RESID(-1)	0.446345	0.239620	1.862718	0.0810
RESID(-2)	-0.510974	0.272995	-1.871736	0.0796

R-squared	0.295110	Mean dependent var	-1.29E-15
Adjusted R-squared	0.074832	S.D. dependent var	0.051017
S.E. of regression	0.049071	Akaike info criterion	-2.964098
Sum squared resid	0.038527	Schwarz criterion	-2.666541
Log likelihood	38.60507	F-statistic	1.339714
Durbin-Watson stat	2.189501	Prob(F-statistic)	0.297825

3. Deteksi autokorelasi setelah dilakukan perbaikan *Autoregressive* (AR)

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.876661	Probability	0.189644
Obs*R-squared	4.439719	Probability	0.108624

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 06/14/09   Time: 17:24
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.035559	0.319558	-0.111274	0.9130
LOG(Y)	0.035311	0.046853	0.753662	0.4635
LOG(P)	0.013297	0.051415	0.258620	0.7997
LOG(RE)	-0.144382	0.157160	-0.918694	0.3738
AR(1)	-0.626231	0.809114	-0.773972	0.4518
RESID(-1)	0.721576	0.776156	0.929679	0.3683
RESID(-2)	-0.287013	0.388088	-0.739557	0.4718
R-squared	0.211415	Mean dependent var		-2.26E-10
Adjusted R-squared	-0.126550	S.D. dependent var		0.047624
S.E. of regression	0.050547	Akaike info criterion		-2.870614
Sum squared resid	0.035770	Schwarz criterion		-2.522440
Log likelihood	37.14145	F-statistic		0.625554
Durbin-Watson stat	2.106937	Prob(F-statistic)		0.707638

4. Unit Root Test

Root Test Variabel X

Null Hypothesis: X has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic based on SIC, MAXLAG=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.972989	0.5817
Test critical values:	1% level	-4.467895	
	5% level	-3.644963	
	10% level	-3.261452	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(X)
Method: Least Squares
Date: 07/06/09   Time: 20:17
Sample (adjusted): 1987 2007
Included observations: 21 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X(-1)	-0.151118	0.076594	-1.972989	0.0641
C	754.0966	297.0888	2.538286	0.0206
@TREND(1986)	409.0295	155.6901	2.627204	0.0171
R-squared	0.571682	Mean dependent var		1984.576
Adjusted R-squared	0.524091	S.D. dependent var		944.6088
S.E. of regression	651.6493	Akaike info criterion		15.92845
Sum squared resid	7643643.	Schwarz criterion		16.07767
Log likelihood	-164.2488	F-statistic		12.01242
Durbin-Watson stat	1.598391	Prob(F-statistic)		0.000485

Root Test Variabel Y

Null Hypothesis: Y has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 4 (Automatic based on SIC, MAXLAG=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.240687	0.8675
Test critical values:	1% level	-4.616209	
	5% level	-3.710482	
	10% level	-3.297799	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20
     observations and may not be accurate for a sample size of 17

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(Y)
Method: Least Squares
Date: 07/06/09   Time: 20:18
Sample (adjusted): 1991 2007
Included observations: 17 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Y(-1)	-0.477372	0.384764	-1.240687	0.2430
D(Y(-1))	0.206349	0.285719	0.722210	0.4867
D(Y(-2))	0.078679	0.271319	0.289987	0.7777
D(Y(-3))	0.208600	0.238499	0.874637	0.4023
D(Y(-4))	-1.256053	0.402741	-3.118761	0.0109
C	-1719016.	1147490.	-1.498066	0.1650
@TREND(1986)	302224.2	149563.9	2.020703	0.0709

R-squared	0.750325	Mean dependent var	288323.5
Adjusted R-squared	0.600521	S.D. dependent var	1591574.
S.E. of regression	1005944.	Akaike info criterion	30.77365
Sum squared resid	1.01E+13	Schwarz criterion	31.11674
Log likelihood	-254.5761	F-statistic	5.008689
Durbin-Watson stat	1.819899	Prob(F-statistic)	0.012804

Root Test Variabel P

Null Hypothesis: P has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 1 (Automatic based on SIC, MAXLAG=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.425078	0.3570
Test critical values:	1% level	-4.498307	
	5% level	-3.658446	
	10% level	-3.268973	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(P)
Method: Least Squares
Date: 07/06/09   Time: 20:18
Sample (adjusted): 1988 2007
Included observations: 20 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
P(-1)	-0.190838	0.078693	-2.425078	0.0275
D(P(-1))	0.702600	0.187392	3.749362	0.0018
C	-3.405355	14.59647	-0.233300	0.8185
@TREND(1986)	4.988699	2.222929	2.244201	0.0393

R-squared	0.574340	Mean dependent var	23.45500
Adjusted R-squared	0.494528	S.D. dependent var	39.90985
S.E. of regression	28.37452	Akaike info criterion	9.705716
Sum squared resid	12881.81	Schwarz criterion	9.904863
Log likelihood	-93.05716	F-statistic	7.196221
Durbin-Watson stat	1.528213	Prob(F-statistic)	0.002835

Root Test Variabel RE

Null Hypothesis: RE has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 2 (Automatic based on SIC, MAXLAG=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.470960	0.3365
Test critical values:	1% level	-4.532598	
	5% level	-3.673616	
	10% level	-3.277364	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20
    observations and may not be accurate for a sample size of 19

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RE)
Method: Least Squares
Date: 07/06/09   Time: 20:12
Sample (adjusted): 1989 2007
Included observations: 19 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RE(-1)	-0.336595	0.136220	-2.470960	0.0269
D(RE(-1))	0.309621	0.225829	1.371045	0.1919
D(RE(-2))	0.587993	0.278330	2.112572	0.0531
C	6.279699	2.445227	2.568146	0.0223
@TREND(1986)	0.716462	0.306747	2.335676	0.0349
R-squared	0.384178	Mean dependent var		2.033158
Adjusted R-squared	0.208229	S.D. dependent var		2.016386
S.E. of regression	1.794211	Akaike info criterion		4.227942
Sum squared resid	45.06870	Schwarz criterion		4.476478
Log likelihood	-35.16545	F-statistic		2.183460
Durbin-Watson stat	2.340205	Prob(F-statistic)		0.123915

5. Uji Kointegrasi

a. Uji Durbin Watson

Nilai statistik Durbin Watson (d-stat)= 1,6652

Nilai tabel (d-tabel) = 1,664

d-stat > d-tabel : terjadi kointegrasi antara variabel

b. Cointegration Test

Date: 07/06/09   Time: 20:53
Sample (adjusted): 1988 2007
Included observations: 20 after adjustments
Trend assumption: Linear deterministic trend
Series: Y P RE X
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.888538	98.60109	47.85613	0.0000
At most 1 *	0.846822	54.71964	29.79707	0.0000
At most 2 *	0.565609	17.19654	15.49471	0.0275
At most 3	0.025681	0.520335	3.841466	0.4707

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.888538	43.88145	27.58434	0.0002
At most 1 *	0.846822	37.52310	21.13162	0.0001
At most 2 *	0.565609	16.67621	14.26460	0.0204
At most 3	0.025681	0.520335	3.841466	0.4707

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

Y	P	RE	X
-7.11E-07	0.025481	0.145441	-0.000458
-3.23E-06	-0.031781	-0.925107	0.001403
1.04E-06	0.003091	-0.027859	-0.000228
2.91E-07	0.004695	0.306380	-0.000425

Unrestricted Adjustment Coefficients (alpha):

D(Y)	-752991.8	244814.6	-621175.7	-17559.95
D(P)	-23.43847	1.346564	5.545139	-0.754164
D(RE)	0.512961	-0.705025	-0.150439	-0.230607
D(X)	255.8854	-272.4609	-453.0230	7.047843

1 Cointegrating Equation(s):   Log likelihood   -560.5535

Normalized cointegrating coefficients (standard error in parentheses)

Y	P	RE	X
1.000000	-35836.89	-204549.7	643.5654
	(4283.47)	(67284.2)	(110.433)

Adjustment coefficients (standard error in parentheses)

D(Y)	0.535400
	(0.17376)
D(P)	1.67E-05
	(2.3E-06)
D(RE)	-3.65E-07
	(3.1E-07)
D(X)	-0.000182
	(0.00013)

2 Cointegrating Equation(s):   Log likelihood   -541.7920

Normalized cointegrating coefficients (standard error in parentheses)

Y	P	RE	X
1.000000	0.000000	180805.3	-202.2904
		(12437.0)	(10.3692)
0.000000	1.000000	10.75303	-0.023603
		(0.94090)	(0.00078)

Adjustment coefficients (standard error in parentheses)

D(Y)	-0.254492	-26967.49
	(0.77794)	(9591.36)
D(P)	1.23E-05	-0.640033
	(1.1E-05)	(0.13143)
D(RE)	1.91E-06	0.035477
	(1.3E-06)	(0.01627)
D(X)	0.000697	15.17929
	(0.00055)	(6.76755)

3 Cointegrating Equation(s):	Log likelihood	-533.4539

Normalized cointegrating coefficients (standard error in parentheses)

Y	P	RE	X
1.000000	0.000000	0.000000	-161.8354
			(26.8379)
0.000000	1.000000	0.000000	-0.021197
			(0.00170)
0.000000	0.000000	1.000000	-0.000224
			(0.00015)

Adjustment coefficients (standard error in parentheses)

D(Y)	-0.900514	-28887.81	-318690.1
	(0.57835)	(6821.12)	(156434.)
D(P)	1.81E-05	-0.622891	-4.809115
	(9.9E-06)	(0.11709)	(2.68522)
D(RE)	1.75E-06	0.035012	0.731021
	(1.4E-06)	(0.01623)	(0.37233)
D(X)	0.000226	13.77881	301.8927
	(0.00039)	(4.64749)	(106.584)

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