ภาคผนวก

ตารางผลการคำนวณจากโปรแกรม Eviews

ผลการทดสอบยูนิทรูท (Unit Root Test)

ราคาน้ำมันดิบในตลาดโลก

ราคาน้ำมันดิบในตลาดโลก ระดับ I(1),lag 0 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-26.88962	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNOILP,2)
Method: Least Squares
Date: 01/25/10 Time: 10:10
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNOILP(-1))	-1.021944	0.038005	-26.88962	0.0000

R-squared	0.510972	Mean dependent var	4.25E-18
Adjusted R-squared	0.510972	S.D. dependent var	0.046839
S.E. of regression	0.032755	Akaike info criterion	-3.998077
Sum squared resid	0.742442	Schwarz criterion	-3.991524
Log likelihood	1386.334	Durbin-Watson stat	2.001339

ราคาน้ำมันดิบในตลาดโลก ระดับ I(1),lag 1 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-19.49829	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNOILP,2)
Method: Least Squares
Date: 01/25/10 Time: 10:10
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNOILP(-1))	-1.059078	0.054316	-19.49829	0.0000
D(LNOILP(-1),2)	0.033666	0.037983	0.886348	0.3757

R-squared	0.513203	Mean dependent var	1.45E-05
Adjusted R-squared	0.512497	S.D. dependent var	0.046872
S.E. of regression	0.032727	Akaike info criterion	-3.998377
Sum squared resid	0.739007	Schwarz criterion	-3.985257
Log likelihood	1385.438	Durbin-Watson stat	1.987808

ราคาน้ำมันดิบในตลาดโลก ระดับ I(1),lag 2 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-13.66559	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNOILP,2)
Method: Least Squares
Date: 01/25/10 Time: 10:11
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNOILP(-1))	-0.917530	0.067142	-13.66559	0.0000
D(LNOILP(-1),2)	-0.102936	0.053959	-1.907663	0.0569
D(LNOILP(-2),2)	-0.133208	0.037720	-3.531462	0.0004

R-squared	0.520768	Mean dependent var	-7.24E-05
Adjusted R-squared	0.519375	S.D. dependent var	0.046850
S.E. of regression	0.032480	Akaike info criterion	-4.012067
Sum squared resid	0.725796	Schwarz criterion	-3.992364
Log likelihood	1389.169	Durbin-Watson stat	2.010374

ราคาน้ำมันดิบในตลาดโลก ระดับ I(1),lag 0 แบบจำลองที่มีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-26.87192	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNOILP,2)
Method: Least Squares
Date: 01/25/10 Time: 10:12
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNOILP(-1))	-1.022008	0.038033	-26.87192	0.0000
C	0.000265	0.001245	0.213191	0.8312

R-squared	0.511004	Mean dependent var	4.25E-18
Adjusted R-squared	0.510296	S.D. dependent var	0.046839
S.E. of regression	0.032778	Akaike info criterion	-3.995257
Sum squared resid	0.742393	Schwarz criterion	-3.982151
Log likelihood	1386.356	F-statistic	722.1000
Durbin-Watson stat	2.001346	Prob(F-statistic)	0.000000

ราคาน้ำมันดิบในตลาดโลก ระดับ I(1),lag 1 แบบจำลองที่มีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-19.48723	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNOILP,2)
Method: Least Squares
Date: 01/25/10 Time: 10:12
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNOILP(-1))	-1.059266	0.054357	-19.48723	0.0000
D(LNOILP(-1),2)	0.033749	0.038010	0.887889	0.3749
C	0.000349	0.001245	0.280139	0.7795

R-squared	0.513258	Mean dependent var	1.45E-05
Adjusted R-squared	0.511845	S.D. dependent var	0.046872
S.E. of regression	0.032748	Akaike info criterion	-3.995600
Sum squared resid	0.738923	Schwarz criterion	-3.975920
Log likelihood	1385.478	F-statistic	363.2675
Durbin-Watson stat	1.987803	Prob(F-statistic)	0.000000

ราคาน้ำมันดิบในตลาดโลก ระดับ I(1),lag 2 แบบจำลองที่มีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-13.65847	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNOILP,2)
Method: Least Squares
Date: 01/25/10 Time: 10:13
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNOILP(-1))	-0.917809	0.067197	-13.65847	0.0000
D(LNOILP(-1),2)	-0.102773	0.054000	-1.903216	0.0574
D(LNOILP(-2),2)	-0.133137	0.037747	-3.527055	0.0004
C	0.000305	0.001237	0.246497	0.8054

R-squared	0.520810	Mean dependent var	-7.24E-05
Adjusted R-squared	0.518718	S.D. dependent var	0.046850
S.E. of regression	0.032502	Akaike info criterion	-4.009261
Sum squared resid	0.725731	Schwarz criterion	-3.982991
Log likelihood	1389.200	F-statistic	248.8898
Durbin-Watson stat	2.010314	Prob(F-statistic)	0.000000

ราคาน้ำมันดิบในตลาดโลก ระดับ I(1),lag 0 แบบจำลองที่มีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-26.86500	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNOILP,2)
Method: Least Squares
Date: 01/25/10 Time: 10:14
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNOILP(-1))	-1.022359	0.038055	-26.86500	0.0000
C	0.001533	0.002500	0.613210	0.5399
@TREND(1)	-3.64E-06	6.23E-06	-0.584806	0.5589

R-squared	0.511246	Mean dependent var	4.25E-18
Adjusted R-squared	0.509830	S.D. dependent var	0.046839
S.E. of regression	0.032793	Akaike info criterion	-3.992866
Sum squared resid	0.742026	Schwarz criterion	-3.973208
Log likelihood	1386.528	F-statistic	360.8772
Durbin-Watson stat	2.001661	Prob(F-statistic)	0.000000

ราคาน้ำมันดิบในตลาดโลก ระดับ I(1),lag 1 แบบจำลองที่มีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-19.49178	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNOILP,2)
Method: Least Squares
Date: 01/25/10 Time: 10:15
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNOILP(-1))	-1.060238	0.054394	-19.49178	0.0000
D(LNOILP(-1),2)	0.034204	0.038029	0.899408	0.3688
C	0.001884	0.002505	0.751952	0.4523
@TREND(1)	-4.40E-06	6.24E-06	-0.706184	0.4803

R-squared	0.513611	Mean dependent var	1.45E-05
Adjusted R-squared	0.511490	S.D. dependent var	0.046872
S.E. of regression	0.032760	Akaike info criterion	-3.993435
Sum squared resid	0.738387	Schwarz criterion	-3.967194
Log likelihood	1385.728	F-statistic	242.1684
Durbin-Watson stat	1.988089	Prob(F-statistic)	0.000000

ราคาน้ำมันดิบในตลาดโลก ระดับ I(1),lag 2 แบบจำลองที่มีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-13.66638	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNOILP,2)
Method: Least Squares
Date: 01/25/10 Time: 10:16
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNOILP(-1))	-0.919320	0.067269	-13.66638	0.0000
D(LNOILP(-1),2)	-0.101836	0.054044	-1.884319	0.0599
D(LNOILP(-2),2)	-0.132693	0.037770	-3.513170	0.0005
C	0.001676	0.002495	0.671952	0.5018
@TREND(1)	-3.93E-06	6.21E-06	-0.633098	0.5269

R-squared	0.521090	Mean dependent var	-7.24E-05
Adjusted R-squared	0.518297	S.D. dependent var	0.046850
S.E. of regression	0.032516	Akaike info criterion	-4.006950
Sum squared resid	0.725308	Schwarz criterion	-3.974113
Log likelihood	1389.401	F-statistic	186.6048
Durbin-Watson stat	2.010302	Prob(F-statistic)	0.000000

ดัชนีราคาหุ้นตลาดหลักทรัพย์แห่งประเทศไทย (SET Index)

SET Index ระดับ I(1),lag 0 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-25.56303	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSET,2)
Method: Least Squares
Date: 01/25/10 Time: 10:43
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSET(-1))	-0.969383	0.037921	-25.56303	0.0000

R-squared	0.485680	Mean dependent var	2.89E-05
Adjusted R-squared	0.485680	S.D. dependent var	0.023795
S.E. of regression	0.017065	Akaike info criterion	-5.302182
Sum squared resid	0.201510	Schwarz criterion	-5.295630
Log likelihood	1838.206	Durbin-Watson stat	2.009184

SET Index ระดับ I(1),lag 1 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-16.71173	1%	Critical Value*	-2.5687
		5%	Critical Value	-1.9399
		10%	Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSET,2)
Method: Least Squares
Date: 01/25/10   Time: 10:44
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSET(-1))	-0.880116	0.052665	-16.71173	0.0000
D(LNSET(-1),2)	-0.095078	0.037797	-2.515505	0.0121

R-squared	0.491150	Mean dependent var	1.45E-05
Adjusted R-squared	0.490412	S.D. dependent var	0.023809
S.E. of regression	0.016996	Akaike info criterion	-5.308789
Sum squared resid	0.199317	Schwarz criterion	-5.295669
Log likelihood	1838.841	Durbin-Watson stat	2.010132

SET Index ระดับ I(1),lag 2 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-13.55770	1%	Critical Value*	-2.5687
		5%	Critical Value	-1.9399
		10%	Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSET,2)
Method: Least Squares
Date: 01/25/10   Time: 10:44
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSET(-1))	-0.845065	0.062331	-13.55770	0.0000
D(LNSET(-1),2)	-0.137172	0.052784	-2.598740	0.0096
D(LNSET(-2),2)	-0.047367	0.037922	-1.249083	0.2121

R-squared	0.493992	Mean dependent var	2.89E-05
Adjusted R-squared	0.492521	S.D. dependent var	0.023823
S.E. of regression	0.016971	Akaike info criterion	-5.310298
Sum squared resid	0.198152	Schwarz criterion	-5.290596
Log likelihood	1837.708	Durbin-Watson stat	1.991466

SET Index ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-25.54453	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSET,2)
Method: Least Squares
Date: 01/25/10 Time: 10:46
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSET(-1))	-0.969385	0.037949	-25.54453	0.0000
C	-1.31E-05	0.000649	-0.020201	0.9839

R-squared	0.485681	Mean dependent var	2.89E-05
Adjusted R-squared	0.484936	S.D. dependent var	0.023795
S.E. of regression	0.017077	Akaike info criterion	-5.299297
Sum squared resid	0.201510	Schwarz criterion	-5.286192
Log likelihood	1838.206	F-statistic	652.5230
Durbin-Watson stat	2.009181	Prob(F-statistic)	0.000000

SET Index ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-16.69951	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSET,2)
Method: Least Squares
Date: 01/25/10 Time: 10:46
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSET(-1))	-0.880112	0.052703	-16.69951	0.0000
D(LNSET(-1),2)	-0.095082	0.037824	-2.513774	0.0122
C	1.99E-05	0.000647	0.030851	0.9754

R-squared	0.491150	Mean dependent var	1.45E-05
Adjusted R-squared	0.489673	S.D. dependent var	0.023809
S.E. of regression	0.017008	Akaike info criterion	-5.305901
Sum squared resid	0.199316	Schwarz criterion	-5.286220
Log likelihood	1838.842	F-statistic	332.5174
Durbin-Watson stat	2.010135	Prob(F-statistic)	0.000000

SET Index ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-13.54784	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSET,2)
Method: Least Squares
Date: 01/25/10 Time: 10:47
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSET(-1))	-0.845060	0.062376	-13.54784	0.0000
D(LNSET(-1),2)	-0.137184	0.052822	-2.597096	0.0096
D(LNSET(-2),2)	-0.047377	0.037949	-1.248431	0.2123
C	6.07E-05	0.000646	0.093998	0.9251

R-squared	0.493998	Mean dependent var	2.89E-05
Adjusted R-squared	0.491789	S.D. dependent var	0.023823
S.E. of regression	0.016983	Akaike info criterion	-5.307417
Sum squared resid	0.198150	Schwarz criterion	-5.281147
Log likelihood	1837.713	F-statistic	223.5678
Durbin-Watson stat	1.991476	Prob(F-statistic)	0.000000

SET Index ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-25.52560	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSET,2)
Method: Least Squares
Date: 01/25/10 Time: 10:47
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSET(-1))	-0.969380	0.037977	-25.52560	0.0000
C	1.20E-05	0.001303	0.009243	0.9926
@TREND(1)	-7.23E-08	3.25E-06	-0.022265	0.9822

R-squared	0.485681	Mean dependent var	2.89E-05
Adjusted R-squared	0.484190	S.D. dependent var	0.023795
S.E. of regression	0.017089	Akaike info criterion	-5.296412
Sum squared resid	0.201510	Schwarz criterion	-5.276754
Log likelihood	1838.207	F-statistic	325.7898
Durbin-Watson stat	2.009192	Prob(F-statistic)	0.000000

SET Index ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-16.68711	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSET,2)
Method: Least Squares
Date: 01/25/10 Time: 10:48
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSET(-1))	-0.880095	0.052741	-16.68711	0.0000
D(LNSET(-1),2)	-0.095096	0.037852	-2.512339	0.0122
C	0.000139	0.001301	0.106806	0.9150
@TREND(1)	-3.42E-07	3.24E-06	-0.105437	0.9161

R-squared	0.491159	Mean dependent var	1.45E-05
Adjusted R-squared	0.488940	S.D. dependent var	0.023809
S.E. of regression	0.017021	Akaike info criterion	-5.303027
Sum squared resid	0.199313	Schwarz criterion	-5.276786
Log likelihood	1838.847	F-statistic	221.3638
Durbin-Watson stat	2.010175	Prob(F-statistic)	0.000000

SET Index ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-13.53817	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSET,2)
Method: Least Squares
Date: 01/25/10 Time: 10:49
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSET(-1))	-0.845043	0.062419	-13.53817	0.0000
D(LNSET(-1),2)	-0.137222	0.052859	-2.595998	0.0096
D(LNSET(-2),2)	-0.047421	0.037976	-1.248717	0.2122
C	0.000305	0.001303	0.234449	0.8147
@TREND(1)	-7.01E-07	3.24E-06	-0.216354	0.8288

R-squared	0.494033	Mean dependent var	2.89E-05
Adjusted R-squared	0.491083	S.D. dependent var	0.023823
S.E. of regression	0.016995	Akaike info criterion	-5.304591
Sum squared resid	0.198136	Schwarz criterion	-5.271753
Log likelihood	1837.736	F-statistic	167.4549
Durbin-Watson stat	1.991565	Prob(F-statistic)	0.000000

ดัชนีราคาหุ้นตลาดหลักทรัพย์สหรัฐอเมริกา (Nasdaq)

Nasdaq ระดับ I(1),lag 0 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-30.08085	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNASDAQ,2)
Method: Least Squares
Date: 01/25/10 Time: 10:58
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNASDAQ(-1))	-1.133475	0.037681	-30.08085	0.0000

R-squared	0.566649	Mean dependent var	-1.44E-05
Adjusted R-squared	0.566649	S.D. dependent var	0.030381
S.E. of regression	0.019999	Akaike info criterion	-4.984794
Sum squared resid	0.276781	Schwarz criterion	-4.978242
Log likelihood	1728.231	Durbin-Watson stat	2.026259

Nasdaq ระดับ I(1),lag 1 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-21.98331	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNASDAQ,2)
Method: Least Squares
Date: 01/25/10 Time: 10:59
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNASDAQ(-1))	-1.252295	0.056966	-21.98331	0.0000
D(LNNASDAQ(-1),2)	0.104861	0.037844	2.770885	0.0057

R-squared	0.571768	Mean dependent var	-4.34E-05
Adjusted R-squared	0.571148	S.D. dependent var	0.030393
S.E. of regression	0.019903	Akaike info criterion	-4.992968
Sum squared resid	0.273340	Schwarz criterion	-4.979848
Log likelihood	1729.567	Durbin-Watson stat	1.987910

Nasdaq ระดับ I(1),lag 2 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-15.99650	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNASDAQ,2)
Method: Least Squares
Date: 01/25/10 Time: 10:59
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNASDAQ(-1))	-1.188354	0.074288	-15.99650	0.0000
D(LNNASDAQ(-1),2)	0.046740	0.057778	0.808960	0.4188
D(LNNASDAQ(-2),2)	-0.050606	0.038057	-1.329765	0.1840

R-squared	0.572342	Mean dependent var	0.000000
Adjusted R-squared	0.571098	S.D. dependent var	0.030394
S.E. of regression	0.019905	Akaike info criterion	-4.991368
Sum squared resid	0.272589	Schwarz criterion	-4.971666
Log likelihood	1727.518	Durbin-Watson stat	1.998059

Nasdaq ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-30.06479	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNASDAQ,2)
Method: Least Squares
Date: 01/25/10 Time: 11:00
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNASDAQ(-1))	-1.133652	0.037707	-30.06479	0.0000
C	-0.000293	0.000760	-0.384784	0.7005

R-squared	0.566742	Mean dependent var	-1.44E-05
Adjusted R-squared	0.566115	S.D. dependent var	0.030381
S.E. of regression	0.020012	Akaike info criterion	-4.982123
Sum squared resid	0.276722	Schwarz criterion	-4.969017
Log likelihood	1728.306	F-statistic	903.8914
Durbin-Watson stat	2.026377	Prob(F-statistic)	0.000000

Nasdaq ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-21.97572	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNASDAQ,2)
Method: Least Squares
Date: 01/25/10 Time: 11:01
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNASDAQ(-1))	-1.252801	0.057008	-21.97572	0.0000
D(LNNASDAQ(-1),2)	0.105119	0.037869	2.775837	0.0057
C	-0.000353	0.000757	-0.465729	0.6416
R-squared	0.571903	Mean dependent var	-4.34E-05	
Adjusted R-squared	0.570660	S.D. dependent var	0.030393	
S.E. of regression	0.019915	Akaike info criterion	-4.990393	
Sum squared resid	0.273254	Schwarz criterion	-4.970712	
Log likelihood	1729.676	F-statistic	460.2241	
Durbin-Watson stat	1.988015	Prob(F-statistic)	0.000000	

Nasdaq ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-15.99282	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNASDAQ,2)
Method: Least Squares
Date: 01/25/10 Time: 11:01
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNASDAQ(-1))	-1.189187	0.074358	-15.99282	0.0000
D(LNNASDAQ(-1),2)	0.047292	0.057826	0.817828	0.4137
D(LNNASDAQ(-2),2)	-0.050336	0.038084	-1.321706	0.1867
C	-0.000326	0.000758	-0.430517	0.6670
R-squared	0.572457	Mean dependent var	0.000000	
Adjusted R-squared	0.570590	S.D. dependent var	0.030394	
S.E. of regression	0.019917	Akaike info criterion	-4.988744	
Sum squared resid	0.272516	Schwarz criterion	-4.962474	
Log likelihood	1727.611	F-statistic	306.6187	
Durbin-Watson stat	1.998045	Prob(F-statistic)	0.000000	

Nasdaq ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนและมีแนวโน้ม

ADF Test Statistic	-30.04432	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNASDAQ,2)
Method: Least Squares
Date: 01/25/10 Time: 11:02
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNASDAQ(-1))	-1.133702	0.037734	-30.04432	0.0000
C	-0.000537	0.001526	-0.351631	0.7252
@TREND(1)	7.02E-07	3.80E-06	0.184549	0.8536
R-squared	0.566763	Mean dependent var		-1.44E-05
Adjusted R-squared	0.565507	S.D. dependent var		0.030381
S.E. of regression	0.020026	Akaike info criterion		-4.979286
Sum squared resid	0.276708	Schwarz criterion		-4.959628
Log likelihood	1728.323	F-statistic		451.3310
Durbin-Watson stat	2.026388	Prob(F-statistic)		0.000000

Nasdaq ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนและมีแนวโน้ม

ADF Test Statistic	-21.96258	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNASDAQ,2)
Method: Least Squares
Date: 01/25/10 Time: 11:02
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNASDAQ(-1))	-1.252956	0.057050	-21.96258	0.0000
D(LNNASDAQ(-1),2)	0.105191	0.037896	2.775796	0.0057
C	-0.000713	0.001524	-0.467688	0.6402
@TREND(1)	1.03E-06	3.79E-06	0.272291	0.7855
R-squared	0.571949	Mean dependent var		-4.34E-05
Adjusted R-squared	0.570083	S.D. dependent var		0.030393
S.E. of regression	0.019928	Akaike info criterion		-4.987610
Sum squared resid	0.273224	Schwarz criterion		-4.961370
Log likelihood	1729.713	F-statistic		306.4285
Durbin-Watson stat	1.988056	Prob(F-statistic)		0.000000

Nasdaq ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนและมีแนวโน้ม

ADF Test Statistic	-15.98365	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNASDAQ,2)
Method: Least Squares
Date: 01/25/10 Time: 11:03
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNASDAQ(-1))	-1.189442	0.074416	-15.98365	0.0000
D(LNNASDAQ(-1),2)	0.047442	0.057869	0.819812	0.4126
D(LNNASDAQ(-2),2)	-0.050264	0.038112	-1.318854	0.1877
C	-0.000645	0.001528	-0.421935	0.6732
@TREND(1)	9.13E-07	3.80E-06	0.240092	0.8103

R-squared	0.572493	Mean dependent var	0.000000
Adjusted R-squared	0.570000	S.D. dependent var	0.030394
S.E. of regression	0.019930	Akaike info criterion	-4.985933
Sum squared resid	0.272493	Schwarz criterion	-4.953096
Log likelihood	1727.640	F-statistic	229.6630
Durbin-Watson stat	1.998006	Prob(F-statistic)	0.000000

ดัชนีราคาหุ้นตลาดหลักทรัพย์สหรัฐอเมริกา (Dow Jones)

Dow Jones ระดับ I(1),lag 0 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-30.91821	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNDOWJONES,2)
Method: Least Squares
Date: 01/25/10 Time: 11:12
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDOWJONES(-1))	-1.160162	0.037524	-30.91821	0.0000

R-squared	0.580081	Mean dependent var	0.000000
Adjusted R-squared	0.580081	S.D. dependent var	0.027339
S.E. of regression	0.017716	Akaike info criterion	-5.227285
Sum squared resid	0.217182	Schwarz criterion	-5.220733
Log likelihood	1812.254	Durbin-Watson stat	2.038804

Dow Jones ระดับ I(1),lag 1 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-22.59544	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNDOWJONES,2)
Method: Least Squares
Date: 01/25/10 Time: 11:12
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDOWJONES(-1))	-1.300813	0.057570	-22.59544	0.0000
D(LNDOWJONES(-1),2)	0.121234	0.037797	3.207473	0.0014

R-squared	0.586250	Mean dependent var	0.000000
Adjusted R-squared	0.585650	S.D. dependent var	0.027358
S.E. of regression	0.017611	Akaike info criterion	-5.237747
Sum squared resid	0.213992	Schwarz criterion	-5.224627
Log likelihood	1814.260	Durbin-Watson stat	1.983473

Dow Jones ระดับ I(1),lag 2 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-15.97596	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNDOWJONES,2)
Method: Least Squares
Date: 01/25/10 Time: 11:13
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDOWJONES(-1))	-1.212120	0.075872	-15.97596	0.0000
D(LNDOWJONES(-1),2)	0.040803	0.058646	0.695751	0.4868
D(LNDOWJONES(-2),2)	-0.068209	0.038051	-1.792572	0.0735

R-squared	0.588173	Mean dependent var	0.000000
Adjusted R-squared	0.586976	S.D. dependent var	0.027378
S.E. of regression	0.017595	Akaike info criterion	-5.238058
Sum squared resid	0.212997	Schwarz criterion	-5.218355
Log likelihood	1812.749	Durbin-Watson stat	2.000161

Dow Jones ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-30.91324	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNDOWJONES,2)
Method: Least Squares
Date: 01/25/10 Time: 11:14
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDOWJONES(-1))	-1.160709	0.037547	-30.91324	0.0000
C	-0.000452	0.000673	-0.671563	0.5021

R-squared	0.580355	Mean dependent var	0.000000
Adjusted R-squared	0.579747	S.D. dependent var	0.027339
S.E. of regression	0.017723	Akaike info criterion	-5.225052
Sum squared resid	0.217041	Schwarz criterion	-5.211946
Log likelihood	1812.480	F-statistic	955.6285
Durbin-Watson stat	2.039172	Prob(F-statistic)	0.000000

Dow Jones ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-22.60105	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNDOWJONES,2)
Method: Least Squares
Date: 01/25/10 Time: 11:14
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDOWJONES(-1))	-1.302247	0.057619	-22.60105	0.0000
D(LNDOWJONES(-1),2)	0.121941	0.037821	3.224196	0.0013
C	-0.000506	0.000670	-0.755702	0.4501

R-squared	0.586592	Mean dependent var	0.000000
Adjusted R-squared	0.585392	S.D. dependent var	0.027358
S.E. of regression	0.017616	Akaike info criterion	-5.235685
Sum squared resid	0.213814	Schwarz criterion	-5.216005
Log likelihood	1814.547	F-statistic	488.8180
Durbin-Watson stat	1.983567	Prob(F-statistic)	0.000000

Dow Jones ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-15.98571	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNDOWJONES,2)
Method: Least Squares
Date: 01/25/10 Time: 11:15
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDOWJONES(-1))	-1.214464	0.075972	-15.98571	0.0000
D(LNDOWJONES(-1),2)	0.042375	0.058710	0.721767	0.4707
D(LNDOWJONES(-2),2)	-0.067436	0.038080	-1.770889	0.0770
C	-0.000473	0.000670	-0.705645	0.4806

R-squared	0.588471	Mean dependent var	0.000000
Adjusted R-squared	0.586674	S.D. dependent var	0.027378
S.E. of regression	0.017602	Akaike info criterion	-5.235888
Sum squared resid	0.212843	Schwarz criterion	-5.209618
Log likelihood	1812.999	F-statistic	327.4620
Durbin-Watson stat	2.000064	Prob(F-statistic)	0.000000

Dow Jones ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนและมีแนวโน้ม

ADF Test Statistic	-30.89121	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNDOWJONES,2)
Method: Least Squares
Date: 01/25/10 Time: 11:16
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDOWJONES(-1))	-1.160721	0.037574	-30.89121	0.0000
C	-0.000341	0.001352	-0.251920	0.8012
@TREND(1)	-3.21E-07	3.37E-06	-0.095284	0.9241

R-squared	0.580360	Mean dependent var	0.000000
Adjusted R-squared	0.579144	S.D. dependent var	0.027339
S.E. of regression	0.017735	Akaike info criterion	-5.222179
Sum squared resid	0.217038	Schwarz criterion	-5.202521
Log likelihood	1812.485	F-statistic	477.1336
Durbin-Watson stat	2.039179	Prob(F-statistic)	0.000000

Dow Jones ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนและมีแนวโน้ม

ADF Test Statistic	-22.58504	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNDOWJONES,2)
Method: Least Squares
Date: 01/25/10 Time: 11:16
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDOWJONES(-1))	-1.302269	0.057661	-22.58504	0.0000
D(LNDOWJONES(-1),2)	0.121951	0.037848	3.222113	0.0013
C	-0.000387	0.001348	-0.287203	0.7740
@TREND(1)	-3.42E-07	3.35E-06	-0.102036	0.9188

R-squared	0.586599	Mean dependent var	0.000000
Adjusted R-squared	0.584796	S.D. dependent var	0.027358
S.E. of regression	0.017629	Akaike info criterion	-5.232810
Sum squared resid	0.213811	Schwarz criterion	-5.206570
Log likelihood	1814.552	F-statistic	325.4141
Durbin-Watson stat	1.983569	Prob(F-statistic)	0.000000

Dow Jones ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนและมีแนวโน้ม

ADF Test Statistic	-15.97444	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNDOWJONES,2)
Method: Least Squares
Date: 01/25/10 Time: 11:17
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDOWJONES(-1))	-1.214503	0.076028	-15.97444	0.0000
D(LNDOWJONES(-1),2)	0.042400	0.058753	0.721669	0.4707
D(LNDOWJONES(-2),2)	-0.067421	0.038108	-1.769216	0.0773
C	-0.000364	0.001351	-0.269274	0.7878
@TREND(1)	-3.13E-07	3.36E-06	-0.093226	0.9258

R-squared	0.588477	Mean dependent var	0.000000
Adjusted R-squared	0.586077	S.D. dependent var	0.027378
S.E. of regression	0.017614	Akaike info criterion	-5.233006
Sum squared resid	0.212840	Schwarz criterion	-5.200169
Log likelihood	1813.004	F-statistic	245.2443
Durbin-Watson stat	2.000062	Prob(F-statistic)	0.000000

ดัชนีราคาหุ้นตลาดหลักทรัพย์ฮ่องกง (Hang Seng)

Hang Seng ระดับ I(1),lag 0 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-30.39090	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNHANGSENG,2)
Method: Least Squares
Date: 01/25/10 Time: 11:36
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHANGSENG(-1))	-1.143767	0.037635	-30.39090	0.0000
R-squared	0.571678	Mean dependent var	-2.89E-05	
Adjusted R-squared	0.571678	S.D. dependent var	0.040126	
S.E. of regression	0.026261	Akaike info criterion	-4.440010	
Sum squared resid	0.477236	Schwarz criterion	-4.433458	
Log likelihood	1539.464	Durbin-Watson stat	1.993194	

Hang Seng ระดับ I(1),lag 1 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-19.51531	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNHANGSENG,2)
Method: Least Squares
Date: 01/25/10 Time: 11:37
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHANGSENG(-1))	-1.123826	0.057587	-19.51531	0.0000
D(LNHANGSENG(-1),2)	-0.017428	0.038070	-0.457791	0.6472
R-squared	0.572013	Mean dependent var	0.000000	
Adjusted R-squared	0.571393	S.D. dependent var	0.040148	
S.E. of regression	0.026284	Akaike info criterion	-4.436814	
Sum squared resid	0.476692	Schwarz criterion	-4.423694	
Log likelihood	1537.138	Durbin-Watson stat	1.995865	

Hang Seng ระดับ I(1),lag 2 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-16.78482	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNHANGSENG,2)
Method: Least Squares
Date: 01/25/10 Time: 11:37
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHANGSENG(-1))	-1.203551	0.071705	-16.78482	0.0000
D(LNHANGSENG(-1),2)	0.063803	0.057731	1.105185	0.2695
D(LNHANGSENG(-2),2)	0.071170	0.038037	1.871078	0.0618

R-squared	0.573881	Mean dependent var	-4.34E-05
Adjusted R-squared	0.572643	S.D. dependent var	0.040161
S.E. of regression	0.026254	Akaike info criterion	-4.437649
Sum squared resid	0.474227	Schwarz criterion	-4.417947
Log likelihood	1536.208	Durbin-Watson stat	1.999896

Hang Seng ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-30.36900	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNHANGSENG,2)
Method: Least Squares
Date: 01/25/10 Time: 11:39
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHANGSENG(-1))	-1.143768	0.037662	-30.36900	0.0000
C	-4.54E-05	0.000998	-0.045442	0.9638

R-squared	0.571679	Mean dependent var	-2.89E-05
Adjusted R-squared	0.571059	S.D. dependent var	0.040126
S.E. of regression	0.026280	Akaike info criterion	-4.437127
Sum squared resid	0.477235	Schwarz criterion	-4.424022
Log likelihood	1539.465	F-statistic	922.2764
Durbin-Watson stat	1.993198	Prob(F-statistic)	0.000000

Hang Sengระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-19.50118	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNHANGSENG,2)
Method: Least Squares
Date: 01/25/10 Time: 11:40
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHANGSENG(-1))	-1.123826	0.057629	-19.50118	0.0000
D(LNHANGSENG(-1),2)	-0.017428	0.038097	-0.457458	0.6475
C	-1.65E-05	0.001000	-0.016494	0.9868

R-squared	0.572014	Mean dependent var	0.000000
Adjusted R-squared	0.570771	S.D. dependent var	0.040148
S.E. of regression	0.026303	Akaike info criterion	-4.433924
Sum squared resid	0.476691	Schwarz criterion	-4.414244
Log likelihood	1537.138	F-statistic	460.4319
Durbin-Watson stat	1.995865	Prob(F-statistic)	0.000000

Hang Seng ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-16.77260	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNHANGSENG,2)
Method: Least Squares
Date: 01/25/10 Time: 11:41
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHANGSENG(-1))	-1.203550	0.071757	-16.77260	0.0000
D(LNHANGSENG(-1),2)	0.063802	0.057773	1.104370	0.2698
D(LNHANGSENG(-2),2)	0.071170	0.038065	1.869705	0.0619
C	-2.59E-05	0.000999	-0.025905	0.9793

R-squared	0.573882	Mean dependent var	-4.34E-05
Adjusted R-squared	0.572021	S.D. dependent var	0.040161
S.E. of regression	0.026273	Akaike info criterion	-4.434756
Sum squared resid	0.474226	Schwarz criterion	-4.408486
Log likelihood	1536.208	F-statistic	308.4095
Durbin-Watson stat	1.999899	Prob(F-statistic)	0.000000

Hang Seng ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนและมีแนวโน้ม

ADF Test Statistic	-30.34698	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNHANGSENG,2)
Method: Least Squares
Date: 01/25/10 Time: 11:42
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHANGSENG(-1))	-1.143768	0.037690	-30.34698	0.0000
C	-4.56E-05	0.002005	-0.022764	0.9818
@TREND(1)	7.66E-10	4.99E-06	0.000153	0.9999

R-squared	0.571679	Mean dependent var	-2.89E-05
Adjusted R-squared	0.570438	S.D. dependent var	0.040126
S.E. of regression	0.026299	Akaike info criterion	-4.434241
Sum squared resid	0.477235	Schwarz criterion	-4.414583
Log likelihood	1539.465	F-statistic	460.4708
Durbin-Watson stat	1.993198	Prob(F-statistic)	0.000000

Hang Seng ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนและมีแนวโน้ม

ADF Test Statistic	-19.48679	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNHANGSENG,2)
Method: Least Squares
Date: 01/25/10 Time: 11:43
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHANGSENG(-1))	-1.123817	0.057671	-19.48679	0.0000
D(LNHANGSENG(-1),2)	-0.017434	0.038125	-0.457271	0.6476
C	7.28E-05	0.002012	0.036174	0.9712
@TREND(1)	-2.56E-07	5.01E-06	-0.051143	0.9592

R-squared	0.572015	Mean dependent var	0.000000
Adjusted R-squared	0.570149	S.D. dependent var	0.040148
S.E. of regression	0.026322	Akaike info criterion	-4.431038
Sum squared resid	0.476690	Schwarz criterion	-4.404798
Log likelihood	1537.139	F-statistic	306.5112
Durbin-Watson stat	1.995879	Prob(F-statistic)	0.000000

Hang Seng ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนและมีแนวโน้ม

ADF Test Statistic	-16.76018	1%	Critical Value*	-3.9760
		5%	Critical Value	-3.4185
		10%	Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNHANGSENG,2)
Method: Least Squares
Date: 01/25/10 Time: 11:43
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHANGSENG(-1))	-1.203543	0.071810	-16.76018	0.0000
D(LNHANGSENG(-1),2)	0.063795	0.057815	1.103433	0.2702
D(LNHANGSENG(-2),2)	0.071166	0.038093	1.868227	0.0622
C	1.94E-05	0.002016	0.009606	0.9923
@TREND(1)	-1.30E-07	5.01E-06	-0.025860	0.9794

R-squared	0.573882	Mean dependent var	-4.34E-05
Adjusted R-squared	0.571398	S.D. dependent var	0.040161
S.E. of regression	0.026292	Akaike info criterion	-4.431862
Sum squared resid	0.474226	Schwarz criterion	-4.399025
Log likelihood	1536.208	F-statistic	230.9708
Durbin-Watson stat	1.999901	Prob(F-statistic)	0.000000

ดัชนีราคาหุ้นตลาดหลักทรัพย์ประเทศสิงคโปร์ (Straits Times)

Straits Times ระดับ I(1),lag 0 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-26.95040	1%	Critical Value*	-2.5686
		5%	Critical Value	-1.9399
		10%	Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSTRAITSTIMES,2)
Method: Least Squares
Date: 01/25/10 Time: 12:16
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSTRAITSTIMES(-1))	-1.023600	0.037981	-26.95040	0.0000

R-squared	0.512099	Mean dependent var	-4.33E-05
Adjusted R-squared	0.512099	S.D. dependent var	0.027187
S.E. of regression	0.018990	Akaike info criterion	-5.088320
Sum squared resid	0.249561	Schwarz criterion	-5.081767
Log likelihood	1764.103	Durbin-Watson stat	1.995995

Straits Times ระดับ I(1),lag 1 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-18.11492	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSTRAITSTIMES,2)
Method: Least Squares
Date: 01/25/10 Time: 12:17
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSTRAITSTIMES(-1))	-0.985698	0.054414	-18.11492	0.0000
D(LNSTRAITSTIMES(-1),2)	-0.036281	0.038014	-0.954407	0.3402

R-squared	0.512062	Mean dependent var	3.87E-18
Adjusted R-squared	0.511355	S.D. dependent var	0.027183
S.E. of regression	0.019002	Akaike info criterion	-5.085665
Sum squared resid	0.249141	Schwarz criterion	-5.072545
Log likelihood	1761.640	Durbin-Watson stat	1.997269

Straits Times ระดับ I(1),lag 2 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-15.16361	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSTRAITSTIMES,2)
Method: Least Squares
Date: 01/25/10 Time: 12:19
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSTRAITSTIMES(-1))	-1.003420	0.066173	-15.16361	0.0000
D(LNSTRAITSTIMES(-1),2)	-0.017566	0.054484	-0.322408	0.7472
D(LNSTRAITSTIMES(-2),2)	0.017597	0.038091	0.461962	0.6443

R-squared	0.511992	Mean dependent var	-2.89E-05
Adjusted R-squared	0.510573	S.D. dependent var	0.027192
S.E. of regression	0.019023	Akaike info criterion	-5.081956
Sum squared resid	0.248982	Schwarz criterion	-5.062254
Log likelihood	1758.816	Durbin-Watson stat	1.998933

Straits Times ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-26.93440	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSTRAITSTIMES,2)
Method: Least Squares
Date: 01/25/10 Time: 12:20
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSTRAITSTIMES (-1))	-1.023706	0.038007	-26.93440	0.0000
C	-0.000221	0.000722	-0.305524	0.7601

R-squared	0.512165	Mean dependent var	-4.33E-05
Adjusted R-squared	0.511459	S.D. dependent var	0.027187
S.E. of regression	0.019003	Akaike info criterion	-5.085569
Sum squared resid	0.249527	Schwarz criterion	-5.072463
Log likelihood	1764.150	F-statistic	725.4621
Durbin-Watson stat	1.996045	Prob(F-statistic)	0.000000

Straits Times ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-18.10491	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSTRAITSTIMES,2)
Method: Least Squares
Date: 01/25/10 Time: 12:21
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSTRAITSTIMES (-1))	-0.985911	0.054455	-18.10491	0.0000
D(LNSTRAITSTIMES (-1),2)	-0.036182	0.038042	-0.951125	0.3419
C	-0.000201	0.000723	-0.277365	0.7816

R-squared	0.512117	Mean dependent var	3.87E-18
Adjusted R-squared	0.510701	S.D. dependent var	0.027183
S.E. of regression	0.019015	Akaike info criterion	-5.082887
Sum squared resid	0.249113	Schwarz criterion	-5.063206
Log likelihood	1761.679	F-statistic	361.6118
Durbin-Watson stat	1.997266	Prob(F-statistic)	0.000000

Straits Times ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-15.15651	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSTRAITSTIMES,2)
Method: Least Squares
Date: 01/25/10 Time: 12:21
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSTRAITSTIMES(-1))	-1.003771	0.066227	-15.15651	0.0000
D(LNSTRAITSTIMES(-1),2)	-0.017327	0.054526	-0.317778	0.7507
D(LNSTRAITSTIMES(-2),2)	0.017708	0.038118	0.464569	0.6424
C	-0.000217	0.000724	-0.299994	0.7643

R-squared	0.512056	Mean dependent var	-2.89E-05
Adjusted R-squared	0.509925	S.D. dependent var	0.027192
S.E. of regression	0.019036	Akaike info criterion	-5.079193
Sum squared resid	0.248949	Schwarz criterion	-5.052923
Log likelihood	1758.861	F-statistic	240.3158
Durbin-Watson stat	1.998973	Prob(F-statistic)	0.000000

Straits Times ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-26.91793	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSTRAITSTIMES,2)
Method: Least Squares
Date: 01/25/10 Time: 12:23
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSTRAITSTIMES(-1))	-1.023805	0.038034	-26.91793	0.0000
C	-0.000576	0.001449	-0.397458	0.6912
@TREND(1)	1.02E-06	3.61E-06	0.282936	0.7773

R-squared	0.512221	Mean dependent var	-4.33E-05
Adjusted R-squared	0.510808	S.D. dependent var	0.027187
S.E. of regression	0.019016	Akaike info criterion	-5.082799
Sum squared resid	0.249498	Schwarz criterion	-5.063141
Log likelihood	1764.190	F-statistic	362.2881
Durbin-Watson stat	1.996072	Prob(F-statistic)	0.000000

Straits Times ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-18.09413	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSTRAITSTIMES,2)
Method: Least Squares
Date: 01/25/10 Time: 12:25
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSTRAITSTIMES(-1))	-0.986110	0.054499	-18.09413	0.0000
D(LNSTRAITSTIMES(-1),2)	-0.036095	0.038069	-0.948145	0.3434
C	-0.000506	0.001455	-0.347714	0.7282
@TREND(1)	8.76E-07	3.62E-06	0.241916	0.8089

R-squared	0.512158	Mean dependent var	3.87E-18
Adjusted R-squared	0.510031	S.D. dependent var	0.027183
S.E. of regression	0.019028	Akaike info criterion	-5.080081
Sum squared resid	0.249092	Schwarz criterion	-5.053841
Log likelihood	1761.708	F-statistic	240.7646
Durbin-Watson stat	1.997217	Prob(F-statistic)	0.000000

Straits Times ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-15.14888	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNSTRAITSTIMES,2)
Method: Least Squares
Date: 01/25/10 Time: 12:27
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNSTRAITSTIMES(-1))	-1.004095	0.066282	-15.14888	0.0000
D(LNSTRAITSTIMES(-1),2)	-0.017115	0.054568	-0.313641	0.7539
D(LNSTRAITSTIMES(-2),2)	0.017791	0.038145	0.466396	0.6411
C	-0.000570	0.001461	-0.390095	0.6966
@TREND(1)	1.01E-06	3.63E-06	0.277980	0.7811

R-squared	0.512111	Mean dependent var	-2.89E-05
Adjusted R-squared	0.509266	S.D. dependent var	0.027192
S.E. of regression	0.019049	Akaike info criterion	-5.076411
Sum squared resid	0.248921	Schwarz criterion	-5.043574
Log likelihood	1758.900	F-statistic	180.0141
Durbin-Watson stat	1.998975	Prob(F-statistic)	0.000000

ดัชนีราคาหุ้นตลาดหลักทรัพย์ประเทศญี่ปุ่น (Nikkei)

Nikkei ระดับ I(1),lag 0 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-31.02680	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNIKKEI,2)
Method: Least Squares
Date: 01/25/10 Time: 12:36
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNIKKEI(-1))	-1.163575	0.037502	-31.02680	0.0000

R-squared	0.581788	Mean dependent var	0.000000
Adjusted R-squared	0.581788	S.D. dependent var	0.038793
S.E. of regression	0.025087	Akaike info criterion	-4.531467
Sum squared resid	0.435526	Schwarz criterion	-4.524914
Log likelihood	1571.153	Durbin-Watson stat	2.031149

Nikkei ระดับ I(1),lag 1 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-22.06181	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNIKKEI,2)
Method: Least Squares
Date: 01/25/10 Time: 12:37
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNIKKEI(-1))	-1.275180	0.057800	-22.06181	0.0000
D(LNNIKKEI(-1),2)	0.095915	0.037889	2.531457	0.0116

R-squared	0.585691	Mean dependent var	-1.45E-05
Adjusted R-squared	0.585091	S.D. dependent var	0.038819
S.E. of regression	0.025005	Akaike info criterion	-4.536603
Sum squared resid	0.431420	Schwarz criterion	-4.523483
Log likelihood	1571.665	Durbin-Watson stat	2.009316

Nikkei ระดับ I(1),lag 2 แบบจำลองปราศจากจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-17.75674	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNIKKEI,2)
Method: Least Squares
Date: 01/25/10 Time: 12:38
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNIKKEI(-1))	-1.340448	0.075490	-17.75674	0.0000
D(LNNIKKEI(-1),2)	0.156445	0.058749	2.662939	0.0079
D(LNNIKKEI(-2),2)	0.051354	0.038071	1.348897	0.1778

R-squared	0.586690	Mean dependent var	1.45E-05
Adjusted R-squared	0.585488	S.D. dependent var	0.038840
S.E. of regression	0.025006	Akaike info criterion	-4.535051
Sum squared resid	0.430214	Schwarz criterion	-4.515349
Log likelihood	1569.860	Durbin-Watson stat	1.999882

Nikkei ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-31.03311	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNIKKEI,2)
Method: Least Squares
Date: 01/25/10 Time: 12:38
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNIKKEI(-1))	-1.164477	0.037524	-31.03311	0.0000
C	-0.000823	0.000954	-0.863492	0.3882

R-squared	0.582238	Mean dependent var	0.000000
Adjusted R-squared	0.581634	S.D. dependent var	0.038793
S.E. of regression	0.025092	Akaike info criterion	-4.529660
Sum squared resid	0.435057	Schwarz criterion	-4.516554
Log likelihood	1571.527	F-statistic	963.0538
Durbin-Watson stat	2.031711	Prob(F-statistic)	0.000000

Nikkei ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-22.08188	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNIKKEI,2)
Method: Least Squares
Date: 01/25/10 Time: 12:39
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNIKKEI(-1))	-1.277587	0.057857	-22.08188	0.0000
D(LNNIKKEI(-1),2)	0.097119	0.037912	2.561705	0.0106
C	-0.000919	0.000951	-0.965977	0.3344

R-squared	0.586252	Mean dependent var	-1.45E-05
Adjusted R-squared	0.585051	S.D. dependent var	0.038819
S.E. of regression	0.025006	Akaike info criterion	-4.535066
Sum squared resid	0.430836	Schwarz criterion	-4.515386
Log likelihood	1572.133	F-statistic	488.1318
Durbin-Watson stat	2.009755	Prob(F-statistic)	0.000000

Nikkei ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนแต่ปราศจากแนวโน้ม

ADF Test Statistic	-17.78511	1% Critical Value*	-3.4423
		5% Critical Value	-2.8661
		10% Critical Value	-2.5692

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNIKKEI,2)
Method: Least Squares
Date: 01/25/10 Time: 12:39
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNIKKEI(-1))	-1.344715	0.075609	-17.78511	0.0000
D(LNNIKKEI(-1),2)	0.159308	0.058818	2.708484	0.0069
D(LNNIKKEI(-2),2)	0.052718	0.038096	1.383843	0.1669
C	-0.000955	0.000953	-1.002826	0.3163

R-squared	0.587294	Mean dependent var	1.45E-05
Adjusted R-squared	0.585492	S.D. dependent var	0.038840
S.E. of regression	0.025006	Akaike info criterion	-4.533620
Sum squared resid	0.429586	Schwarz criterion	-4.507350
Log likelihood	1570.366	F-statistic	325.8745
Durbin-Watson stat	1.999998	Prob(F-statistic)	0.000000

Nikkei ระดับ I(1),lag 0 แบบจำลองมีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-31.01555	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNIKKEI,2)
Method: Least Squares
Date: 01/25/10 Time: 12:40
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNIKKEI(-1))	-1.164629	0.037550	-31.01555	0.0000
C	-0.001415	0.001914	-0.739280	0.4600
@TREND(1)	1.70E-06	4.77E-06	0.356614	0.7215
R-squared	0.582315	Mean dependent var	0.000000	
Adjusted R-squared	0.581105	S.D. dependent var	0.038793	
S.E. of regression	0.025108	Akaike info criterion	-4.526958	
Sum squared resid	0.434977	Schwarz criterion	-4.507300	
Log likelihood	1571.591	F-statistic	480.9822	
Durbin-Watson stat	2.031810	Prob(F-statistic)	0.000000	

Nikkei ระดับ I(1),lag 1 แบบจำลองมีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-22.07270	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNIKKEI,2)
Method: Least Squares
Date: 01/25/10 Time: 12:41
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNIKKEI(-1))	-1.278017	0.057900	-22.07270	0.0000
D(LNNIKKEI(-1),2)	0.097333	0.037938	2.565596	0.0105
C	-0.001619	0.001914	-0.845879	0.3979
@TREND(1)	2.01E-06	4.76E-06	0.421510	0.6735
R-squared	0.586359	Mean dependent var	-1.45E-05	
Adjusted R-squared	0.584555	S.D. dependent var	0.038819	
S.E. of regression	0.025021	Akaike info criterion	-4.532434	
Sum squared resid	0.430725	Schwarz criterion	-4.506194	
Log likelihood	1572.222	F-statistic	325.0920	
Durbin-Watson stat	2.009864	Prob(F-statistic)	0.000000	

Nikkei ระดับ I(1),lag 2 แบบจำลองมีจุดตัดแกนและแนวโน้ม

ADF Test Statistic	-17.77958	1% Critical Value*	-3.9760
		5% Critical Value	-3.4185
		10% Critical Value	-3.1314

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNNIKKEI,2)
Method: Least Squares
Date: 01/25/10 Time: 12:41
Sample(adjusted): 5 695
Included observations: 691 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNNIKKEI(-1))	-1.345500	0.075677	-17.77958	0.0000
D(LNNIKKEI(-1),2)	0.159832	0.058866	2.715176	0.0068
D(LNNIKKEI(-2),2)	0.052975	0.038123	1.389583	0.1651
C	-0.001664	0.001920	-0.866579	0.3865
@TREND(1)	2.03E-06	4.77E-06	0.425142	0.6709

R-squared	0.587403	Mean dependent var	1.45E-05
Adjusted R-squared	0.584997	S.D. dependent var	0.038840
S.E. of regression	0.025021	Akaike info criterion	-4.530989
Sum squared resid	0.429472	Schwarz criterion	-4.498151
Log likelihood	1570.457	F-statistic	244.1596
Durbin-Watson stat	2.000002	Prob(F-statistic)	0.000000

ผลการวิเคราะห์ความสัมพันธ์เชิงดุลยภาพในระยะยาว (Cointegration) และความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

กรณีดัชนีราคาหุ้นตลาดหลักทรัพย์ที่สำคัญเป็นตัวแปรอิสระและราคาน้ำมันดิบในตลาดโลก เป็นตัวแปรตาม

ดัชนีราคาหุ้นตลาดหลักทรัพย์แห่งประเทศไทยเป็นตัวแปรอิสระและราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรตาม

Dependent Variable: LNOILP
Method: Least Squares
Date: 01/25/10 Time: 14:14
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNSET	1.034723	0.036812	28.10843	0.0000
C	-2.409695	0.238981	-10.08319	0.0000
R-squared	0.532730	Mean dependent var		4.302964
Adjusted R-squared	0.532056	S.D. dependent var		0.345592
S.E. of regression	0.236407	Akaike info criterion		-0.043649
Sum squared resid	38.73062	Schwarz criterion		-0.030573
Log likelihood	17.16795	F-statistic		790.0837
Durbin-Watson stat	0.020086	Prob(F-statistic)		0.000000

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF

ADF Test Statistic	-1.871871	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(SET1)
Method: Least Squares
Date: 01/25/10 Time: 14:58
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SET1(-1)	-0.010065	0.005377	-1.871871	0.0616
D(SET1(-1))	-0.072712	0.037935	-1.916770	0.0557
R-squared	0.010935	Mean dependent var		0.000275
Adjusted R-squared	0.009504	S.D. dependent var		0.033527
S.E. of regression	0.033367	Akaike info criterion		-3.959625
Sum squared resid	0.769323	Schwarz criterion		-3.946520
Log likelihood	1374.010	Durbin-Watson stat		1.997956

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNOILP)
Method: Least Squares
Date: 01/29/10 Time: 08:14
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000227	0.001206	0.188107	0.8508
D(LNSET)	0.418498	0.070873	5.904882	0.0000
SET1(-1)	-0.014792	0.005126	-2.885568	0.0040
R-squared	0.063349	Mean dependent var	0.000202	
Adjusted R-squared	0.060638	S.D. dependent var	0.032774	
S.E. of regression	0.031765	Akaike info criterion	-4.056608	
Sum squared resid	0.697217	Schwarz criterion	-4.036972	
Log likelihood	1410.643	Durbin-Watson stat	2.092176	

ดัชนีราคาหุ้นตลาดหลักทรัพย์สหรัฐอเมริกา (Nasdaq) เป็นตัวแปรอิสระและราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรตาม

Dependent Variable: LNOILP
Method: Least Squares
Date: 01/25/10 Time: 14:17
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNNASDAQ	1.037375	0.049244	21.06582	0.0000
C	-3.659909	0.378138	-9.678754	0.0000
R-squared	0.390377	Mean dependent var	4.302964	
Adjusted R-squared	0.389498	S.D. dependent var	0.345592	
S.E. of regression	0.270027	Akaike info criterion	0.222285	
Sum squared resid	50.52985	Schwarz criterion	0.235361	
Log likelihood	-75.24402	F-statistic	443.7687	
Durbin-Watson stat	0.015917	Prob(F-statistic)	0.000000	

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF

ADF Test Statistic	-1.864793	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR3)
Method: Least Squares
Date: 01/25/10 Time: 15:01
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR3(-1)	-0.008915	0.004781	-1.864793	0.0626
R-squared	0.004803	Mean dependent var	0.000471	
Adjusted R-squared	0.004803	S.D. dependent var	0.034064	
S.E. of regression	0.033982	Akaike info criterion	-3.924514	
Sum squared resid	0.800274	Schwarz criterion	-3.917969	
Log likelihood	1362.806	Durbin-Watson stat	2.116097	

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNOILP)
Method: Least Squares
Date: 01/29/10 Time: 08:17
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000308	0.001200	0.257115	0.7972
D(LNNASDAQ)	0.412471	0.059565	6.924714	0.0000
ERROR3(-1)	-0.010265	0.004448	-2.307922	0.0213
R-squared	0.072793	Mean dependent var	0.000202	
Adjusted R-squared	0.070109	S.D. dependent var	0.032774	
S.E. of regression	0.031604	Akaike info criterion	-4.066742	
Sum squared resid	0.690187	Schwarz criterion	-4.047106	
Log likelihood	1414.160	Durbin-Watson stat	2.048468	

ดัชนีราคาหุ้นตลาดหลักทรัพย์สหรัฐอเมริกา (Down Jones) เป็นตัวแปรอิสระและราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรตาม

Dependent Variable: LNOILP
Method: Least Squares
Date: 01/25/10 Time: 14:18
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNDOWJONES	0.974088	0.051487	18.91929	0.0000
C	-4.762070	0.479261	-9.936283	0.0000
R-squared	0.340590	Mean dependent var	4.302964	
Adjusted R-squared	0.339639	S.D. dependent var	0.345592	
S.E. of regression	0.280837	Akaike info criterion	0.300790	
Sum squared resid	54.65657	Schwarz criterion	0.313866	
Log likelihood	-102.5245	F-statistic	357.9397	
Durbin-Watson stat	0.013258	Prob(F-statistic)	0.000000	

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF

ADF Test Statistic	-1.693061	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR4)
Method: Least Squares
Date: 01/25/10 Time: 15:03
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR4(-1)	-0.007398	0.004370	-1.693061	0.0909
D(ERROR4(-1))	-0.051291	0.037956	-1.351326	0.1770
R-squared	0.006708	Mean dependent var	0.000639	
Adjusted R-squared	0.005271	S.D. dependent var	0.032318	
S.E. of regression	0.032233	Akaike info criterion	-4.028781	
Sum squared resid	0.717918	Schwarz criterion	-4.015675	
Log likelihood	1397.972	Durbin-Watson stat	2.002096	

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNOILP)
Method: Least Squares
Date: 01/29/10 Time: 08:19
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000407	0.001189	0.342312	0.7322
D(LNDOWJONES)	0.530220	0.066355	7.990713	0.0000
ERROR4(-1)	-0.008083	0.004237	-1.907777	0.0568
R-squared	0.089830	Mean dependent var	0.000202	
Adjusted R-squared	0.087196	S.D. dependent var	0.032774	
S.E. of regression	0.031312	Akaike info criterion	-4.085288	
Sum squared resid	0.677505	Schwarz criterion	-4.065652	
Log likelihood	1420.595	Durbin-Watson stat	2.049436	

ดัชนีราคาหุ้นตลาดหลักทรัพย์ฮ่องกง (Hang Seng)เป็นตัวแปรอิสระและราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรตาม

Dependent Variable: LNOILP
Method: Least Squares
Date: 01/25/10 Time: 14:19
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNHANGSENG	1.092630	0.038228	28.58198	0.0000
C	-6.520899	0.378800	-17.21464	0.0000
R-squared	0.541038	Mean dependent var	4.302964	
Adjusted R-squared	0.540376	S.D. dependent var	0.345592	
S.E. of regression	0.234296	Akaike info criterion	-0.061588	
Sum squared resid	38.04201	Schwarz criterion	-0.048512	
Log likelihood	23.40194	F-statistic	816.9296	
Durbin-Watson stat	0.027933	Prob(F-statistic)	0.000000	

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF

ADF Test Statistic	-1.974467	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR1)
Method: Least Squares
Date: 01/25/10 Time: 14:41
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR1(-1)	-0.012337	0.006248	-1.974467	0.0487
D(ERROR1(-1))	-0.180254	0.037369	-4.823604	0.0000
R-squared	0.040058	Mean dependent var	0.000307	
Adjusted R-squared	0.038669	S.D. dependent var	0.039156	
S.E. of regression	0.038391	Akaike info criterion	-3.679098	
Sum squared resid	1.018451	Schwarz criterion	-3.665992	
Log likelihood	1276.807	Durbin-Watson stat	1.984939	

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNOILP)
Method: Least Squares
Date: 01/25/10 Time: 15:32
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000213	0.001213	0.175691	0.8606
D(LNHANGSENG)	0.246760	0.045787	5.389295	0.0000
ERROR1(-1)	-0.015051	0.005182	-2.904447	0.0038
R-squared	0.051678	Mean dependent var		0.000202
Adjusted R-squared	0.048933	S.D. dependent var		0.032774
S.E. of regression	0.031962	Akaike info criterion		-4.044225
Sum squared resid	0.705904	Schwarz criterion		-4.024589
Log likelihood	1406.346	Durbin-Watson stat		2.107540

ดัชนีราคาหุ้นตลาดหลักทรัพย์สิงคโปร์ (Straits Times) เป็นตัวแปรอิสระและราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรตาม

Dependent Variable: LNOILP
Method: Least Squares
Date: 01/25/10 Time: 14:20
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNSTRAITSTIMES	0.764405	0.039779	19.21608	0.0000
C	-1.739758	0.314640	-5.529357	0.0000
R-squared	0.347616	Mean dependent var		4.302964
Adjusted R-squared	0.346674	S.D. dependent var		0.345592
S.E. of regression	0.279337	Akaike info criterion		0.290078
Sum squared resid	54.07423	Schwarz criterion		0.303154
Log likelihood	-98.80220	F-statistic		369.2576
Durbin-Watson stat	0.014009	Prob(F-statistic)		0.000000

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF

ADF Test Statistic	-1.651398	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR5)
Method: Least Squares
Date: 01/25/10 Time: 15:09
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR5(-1)	-0.007393	0.004477	-1.651398	0.0991
D(ERROR5(-1))	-0.084896	0.037823	-2.244583	0.0251
R-squared	0.011545	Mean dependent var		0.000425
Adjusted R-squared	0.010114	S.D. dependent var		0.033017
S.E. of regression	0.032849	Akaike info criterion		-3.990894
Sum squared resid	0.745640	Schwarz criterion		-3.977788
Log likelihood	1384.845	Durbin-Watson stat		2.009035

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNOILP)
Method: Least Squares
Date: 01/29/10 Time: 14:37
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000266	0.001216	0.218353	0.8272
D(LNSTRAITSTIMES)	0.338755	0.064201	5.276463	0.0000
ERROR5(-1)	-0.009555	0.004366	-2.188436	0.0290
R-squared	0.047289	Mean dependent var	0.000202	
Adjusted R-squared	0.044531	S.D. dependent var	0.032774	
S.E. of regression	0.032036	Akaike info criterion	-4.039607	
Sum squared resid	0.709171	Schwarz criterion	-4.019971	
Log likelihood	1404.744	Durbin-Watson stat	2.095055	

ดัชนีราคาหุ้นตลาดหลักทรัพย์ประเทศญี่ปุ่น (Nikkei) เป็นตัวแปรอิสระและราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรตาม

Dependent Variable: LNOILP
Method: Least Squares
Date: 01/25/10 Time: 14:21
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNNIKKEI	0.530080	0.041085	12.90208	0.0000
C	-0.704696	0.388307	-1.814792	0.0700
R-squared	0.193683	Mean dependent var	4.302964	
Adjusted R-squared	0.192520	S.D. dependent var	0.345592	
S.E. of regression	0.310549	Akaike info criterion	0.501921	
Sum squared resid	66.83326	Schwarz criterion	0.514997	
Log likelihood	-172.4177	F-statistic	166.4637	
Durbin-Watson stat	0.011674	Prob(F-statistic)	0.000000	

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF

ADF Test Statistic	-1.674548	1% Critical Value*	-2.5687
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR6)
Method: Least Squares
Date: 01/28/10 Time: 22:53
Sample(adjusted): 4 695
Included observations: 692 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR6(-1)	-0.006845	0.004088	-1.674548	0.0945
D(ERROR6(-1))	-0.104250	0.038013	-2.742507	0.0063
D(ERROR6(-2))	0.003548	0.037962	0.093456	0.9256
R-squared	0.015113	Mean dependent var	0.000715	
Adjusted R-squared	0.012254	S.D. dependent var	0.033495	
S.E. of regression	0.033289	Akaike info criterion	-3.962866	
Sum squared resid	0.763511	Schwarz criterion	-3.943186	
Log likelihood	1374.152	Durbin-Watson stat	1.997661	

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNOILP)
Method: Least Squares
Date: 01/29/10 Time: 14:40
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000334	0.001230	0.271898	0.7858
D(LNNIKKEI)	0.188586	0.048439	3.893277	0.0001
ERROR6(-1)	-0.007164	0.003962	-1.808148	0.0710
R-squared	0.026262	Mean dependent var		0.000202
Adjusted R-squared	0.023444	S.D. dependent var		0.032774
S.E. of regression	0.032387	Akaike info criterion		-4.017777
Sum squared resid	0.724823	Schwarz criterion		-3.998141
Log likelihood	1397.169	Durbin-Watson stat		2.085833

<u>กรณี</u>ราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรอิสระและดัชนีราคาหุ้นตลาดหลักทรัพย์ที่สำคัญเป็นตัวแปรตาม

<u>ราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรอิสระและดัชนีราคาหุ้นตลาดหลักทรัพย์แห่งประเทศไทยเป็นตัวแปรตาม</u>

Dependent Variable: LNSET
Method: Least Squares
Date: 01/25/10 Time: 14:22
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNOILP	0.514853	0.018317	28.10843	0.0000
C	4.272002	0.079069	54.02849	0.0000
R-squared	0.532730	Mean dependent var		6.487396
Adjusted R-squared	0.532056	S.D. dependent var		0.243777
S.E. of regression	0.166759	Akaike info criterion		-0.741657
Sum squared resid	19.27141	Schwarz criterion		-0.728581
Log likelihood	259.7257	F-statistic		790.0837
Durbin-Watson stat	0.016018	Prob(F-statistic)		0.000000

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF

ADF Test Statistic	-1.635234	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR7)
Method: Least Squares
Date: 01/25/10 Time: 15:12
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR7(-1)	-0.007852	0.004802	-1.635234	0.1025
D(ERROR7(-1))	-0.071626	0.037930	-1.888382	0.0594
R-squared	0.009459	Mean dependent var	-0.000148	
Adjusted R-squared	0.008025	S.D. dependent var	0.021117	
S.E. of regression	0.021032	Akaike info criterion	-4.882642	
Sum squared resid	0.305666	Schwarz criterion	-4.869537	
Log likelihood	1693.835	Durbin-Watson stat	1.991664	

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNSET)
Method: Least Squares
Date: 01/29/10 Time: 14:41
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.14E-05	0.000633	-0.128663	0.8977
D(LNOILP)	0.118080	0.019479	6.061759	0.0000
ERROR7(-1)	0.001478	0.003828	0.386191	0.6995
R-squared	0.052267	Mean dependent var	-5.76E-05	
Adjusted R-squared	0.049524	S.D. dependent var	0.017098	
S.E. of regression	0.016669	Akaike info criterion	-5.346165	
Sum squared resid	0.192009	Schwarz criterion	-5.326529	
Log likelihood	1858.119	Durbin-Watson stat	1.997961	

Dependent Variable: D(LNSET)
Method: Least Squares
Date: 02/01/10 Time: 10:51
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-4.36E-05	0.000633	-0.068811	0.9452
D(LNOILP)	0.116227	0.019511	5.956967	0.0000
D(LNSET(-1))	0.017008	0.037338	0.455498	0.6489
ERROR7(-1)	0.001485	0.003856	0.385218	0.7002
R-squared	0.051546	Mean dependent var	-1.44E-05	
Adjusted R-squared	0.047416	S.D. dependent var	0.017073	
S.E. of regression	0.016663	Akaike info criterion	-5.345505	
Sum squared resid	0.191303	Schwarz criterion	-5.319294	
Log likelihood	1856.218	Durbin-Watson stat	2.041163	

ราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรอิสระและดัชนีราคาหุ้นตลาดหลักทรัพย์อเมริกา (Nasdaq)เป็นตัวแปรตาม

Dependent Variable: LNNASDAQ
Method: Least Squares
Date: 01/25/10 Time: 14:23
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNOILP	0.376313	0.017864	21.06582	0.0000
C	6.056725	0.077114	78.54262	0.0000
R-squared	0.390377	Mean dependent var	7.675986	
Adjusted R-squared	0.389498	S.D. dependent var	0.208147	
S.E. of regression	0.162635	Akaike info criterion	-0.791743	
Sum squared resid	18.32995	Schwarz criterion	-0.778667	
Log likelihood	277.1307	F-statistic	443.7687	
Durbin-Watson stat	0.016308	Prob(F-statistic)	0.000000	

- *ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF*

ADF Test Statistic	-1.726530	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR8)
Method: Least Squares
Date: 01/25/10 Time: 15:13
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR8(-1)	-0.008321	0.004819	-1.726530	0.0847
D(ERROR8(-1))	-0.123130	0.037702	-3.265874	0.0011
R-squared	0.020035	Mean dependent var	-0.000357	
Adjusted R-squared	0.018617	S.D. dependent var	0.020773	
S.E. of regression	0.020579	Akaike info criterion	-4.926212	
Sum squared resid	0.292634	Schwarz criterion	-4.913107	
Log likelihood	1708.932	Durbin-Watson stat	2.015309	

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNNASDAQ)
Method: Least Squares
Date: 01/29/10 Time: 14:44
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000291	0.000740	-0.393492	0.6941
D(LNOILP)	0.159885	0.022684	7.048497	0.0000
ERROR8(-1)	-0.005332	0.004571	-1.166315	0.2439
R-squared	0.067481	Mean dependent var	-0.000259	
Adjusted R-squared	0.064782	S.D. dependent var	0.020164	
S.E. of regression	0.019500	Akaike info criterion	-5.032539	
Sum squared resid	0.262740	Schwarz criterion	-5.012903	
Log likelihood	1749.291	Durbin-Watson stat	2.275459	

Dependent Variable: D(LNNASDAQ)
Method: Least Squares
Date: 01/31/10 Time: 12:04
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000345	0.000731	-0.471986	0.6371
D(LNOILP)	0.171429	0.022558	7.599401	0.0000
D(LNNASDAQ(-1))	-0.163480	0.036620	-4.464176	0.0000
ERROR8(-1)	-0.003918	0.004530	-0.864794	0.3875
R-squared	0.093900	Mean dependent var		-0.000260
Adjusted R-squared	0.089955	S.D. dependent var		0.020178
S.E. of regression	0.019249	Akaike info criterion		-5.056938
Sum squared resid	0.255297	Schwarz criterion		-5.030727
Log likelihood	1756.229	Durbin-Watson stat		1.983168

Dependent Variable: D(LNNASDAQ)
Method: Least Squares
Date: 02/01/10 Time: 10:54
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000325	0.000729	-0.446312	0.6555
D(LNOILP)	0.168594	0.022526	7.484273	0.0000
D(LNNASDAQ(-1))	-0.141476	0.037790	-3.743758	0.0002
D(LNOILP(-1))	-0.052106	0.023075	-2.258111	0.0243
ERROR8(-1)	-0.003669	0.004518	-0.812021	0.4171
R-squared	0.100566	Mean dependent var		-0.000260
Adjusted R-squared	0.095337	S.D. dependent var		0.020178
S.E. of regression	0.019192	Akaike info criterion		-5.061436
Sum squared resid	0.253418	Schwarz criterion		-5.028673
Log likelihood	1758.788	Durbin-Watson stat		2.027969

ราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรอิสระและดัชนีราคาหุ้นตลาดหลักทรัพย์อเมริกา (Down Jones)เป็นตัวแปรตาม

Dependent Variable: LNDOWJONES
Method: Least Squares
Date: 01/25/10 Time: 14:24
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNOILP	0.349650	0.018481	18.91929	0.0000
C	7.801641	0.079779	97.79018	0.0000
R-squared	0.340590	Mean dependent var		9.306173
Adjusted R-squared	0.339639	S.D. dependent var		0.207053
S.E. of regression	0.168257	Akaike info criterion		-0.723779
Sum squared resid	19.61904	Schwarz criterion		-0.710703
Log likelihood	253.5132	F-statistic		357.9397
Durbin-Watson stat	0.011769	Prob(F-statistic)		0.000000

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF

ADF Test Statistic	-1.645716	1%	Critical Value*	-2.5687
		5%	Critical Value	-1.9399
		10%	Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR9)
Method: Least Squares
Date: 01/28/10 Time: 23:03
Sample(adjusted): 14 695
Included observations: 682 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR9(-1)	-0.006794	0.004128	-1.645716	0.1003
D(ERROR9(-1))	-0.141076	0.038620	-3.652922	0.0003
D(ERROR9(-2))	-0.067413	0.038903	-1.732837	0.0836
D(ERROR9(-3))	0.086350	0.038884	2.220676	0.0267
D(ERROR9(-4))	-0.024348	0.038961	-0.624927	0.5322
D(ERROR9(-5))	-0.024097	0.038869	-0.619965	0.5355
D(ERROR9(-6))	-0.053126	0.038734	-1.371556	0.1707
D(ERROR9(-7))	-0.076638	0.038739	-1.978303	0.0483
D(ERROR9(-8))	0.079260	0.038840	2.040659	0.0417
D(ERROR9(-9))	-0.054521	0.038950	-1.399789	0.1620
D(ERROR9(-10))	0.076148	0.038872	1.958956	0.0505
D(ERROR9(-11))	0.080140	0.038885	2.060939	0.0397
D(ERROR9(-12))	0.026880	0.038602	0.696334	0.4865

R-squared	0.072614	Mean dependent var	-0.000580
Adjusted R-squared	0.055980	S.D. dependent var	0.018357
S.E. of regression	0.017836	Akaike info criterion	-5.196373
Sum squared resid	0.212812	Schwarz criterion	-5.110119
Log likelihood	1784.963	Durbin-Watson stat	1.996058

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNDOWJONES)
Method: Least Squares
Date: 01/29/10 Time: 14:46
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000421	0.000651	-0.645830	0.5186
D(LNOILP)	0.160836	0.019928	8.070911	0.0000
ERROR9(-1)	-0.004171	0.003883	-1.074066	0.2832

R-squared	0.086561	Mean dependent var	-0.000389
Adjusted R-squared	0.083918	S.D. dependent var	0.017930
S.E. of regression	0.017161	Akaike info criterion	-5.287992
Sum squared resid	0.203510	Schwarz criterion	-5.268356
Log likelihood	1837.933	Durbin-Watson stat	2.332375

Dependent Variable: D(LNDOWJONES)
Method: Least Squares
Date: 02/01/10 Time: 10:56
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000508	0.000640	-0.793609	0.4277
D(LNOILP)	0.170997	0.019674	8.691405	0.0000
D(LNDOWJONES(-1))	-0.189285	0.035929	-5.268319	0.0000
ERROR9(-1)	-0.003046	0.003823	-0.796763	0.4259
R-squared	0.122186	Mean dependent var	-0.000390	
Adjusted R-squared	0.118364	S.D. dependent var	0.017943	
S.E. of regression	0.016848	Akaike info criterion	-5.323434	
Sum squared resid	0.195572	Schwarz criterion	-5.297223	
Log likelihood	1848.570	Durbin-Watson stat	2.000875	

Dependent Variable: D(LNDOWJONES)
Method: Least Squares
Date: 02/01/10 Time: 10:57
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000490	0.000639	-0.766872	0.4434
D(LNOILP)	0.169104	0.019670	8.597020	0.0000
D(LNDOWJONES(-1))	-0.169309	0.037538	-4.510311	0.0000
D(LNOILP(-1))	-0.036891	0.020435	-1.805262	0.0715
ERROR9(-1)	-0.003002	0.003817	-0.786487	0.4319
R-squared	0.126325	Mean dependent var	-0.000390	
Adjusted R-squared	0.121245	S.D. dependent var	0.017943	
S.E. of regression	0.016820	Akaike info criterion	-5.325274	
Sum squared resid	0.194650	Schwarz criterion	-5.292510	
Log likelihood	1850.207	Durbin-Watson stat	2.040311	

ราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรอิสระและดัชนีราคาหุ้นตลาดหลักทรัพย์ฮ่องกง (Hang Seng)เป็นตัวแปรตาม

Dependent Variable: LNHANGSENG
Method: Least Squares
Date: 01/25/10 Time: 14:25
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNOILP	0.495170	0.017325	28.58198	0.0000
C	7.775544	0.074787	103.9696	0.0000
R-squared	0.541038	Mean dependent var	9.906245	
Adjusted R-squared	0.540376	S.D. dependent var	0.232651	
S.E. of regression	0.157727	Akaike info criterion	-0.853030	
Sum squared resid	17.24030	Schwarz criterion	-0.839954	
Log likelihood	298.4278	F-statistic	816.9296	
Durbin-Watson stat	0.031924	Prob(F-statistic)	0.000000	

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF

ADF Test Statistic	-1.983963	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR2)
Method: Least Squares
Date: 01/25/10 Time: 14:48
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR2(-1)	-0.013182	0.006645	-1.983963	0.0477
D(ERROR2(-1))	-0.208606	0.037175	-5.611488	0.0000
R-squared	0.051649	Mean dependent var	-0.000172	
Adjusted R-squared	0.050276	S.D. dependent var	0.028191	
S.E. of regression	0.027474	Akaike info criterion	-4.348295	
Sum squared resid	0.521569	Schwarz criterion	-4.335189	
Log likelihood	1508.684	Durbin-Watson stat	1.979424	

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNHANGSENG)
Method: Least Squares
Date: 01/25/10 Time: 15:38
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-7.70E-05	0.000986	-0.078059	0.9378
D(LNOILP)	0.166611	0.030266	5.504813	0.0000
ERROR2(-1)	-0.009334	0.006289	-1.484110	0.1382
R-squared	0.043151	Mean dependent var	-4.32E-05	
Adjusted R-squared	0.040381	S.D. dependent var	0.026517	
S.E. of regression	0.025976	Akaike info criterion	-4.458937	
Sum squared resid	0.466271	Schwarz criterion	-4.439301	
Log likelihood	1550.251	Durbin-Watson stat	2.349392	

Dependent Variable: D(LNHANGSENG)
Method: Least Squares
Date: 02/01/10 Time: 10:59
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.16E-05	0.000976	-0.093843	0.9253
D(LNOILP)	0.173211	0.030019	5.770099	0.0000
D(LNHANGSENG(-1))	-0.152363	0.037116	-4.105108	0.0000
ERROR2(-1)	-0.006626	0.006262	-1.058139	0.2904
R-squared	0.066116	Mean dependent var	-4.33E-05	
Adjusted R-squared	0.062050	S.D. dependent var	0.026537	
S.E. of regression	0.025700	Akaike info criterion	-4.478890	
Sum squared resid	0.455080	Schwarz criterion	-4.452680	
Log likelihood	1555.936	Durbin-Watson stat	2.041660	

Dependent Variable: D(LNHANGSENG)

Method: Least Squares
Date: 02/01/10 Time: 11:00
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000120	0.000969	-0.124189	0.9012
D(LNOILP)	0.176955	0.029800	5.938143	0.0000
D(LNHANGSENG(-1))	-0.178270	0.037568	-4.745277	0.0000
D(LNOILP(-1))	0.104985	0.030210	3.475155	0.0005
ERROR2(-1)	-0.006934	0.006212	-1.116124	0.2648
R-squared	0.082226	Mean dependent var	-4.33E-05	
Adjusted R-squared	0.076890	S.D. dependent var	0.026537	
S.E. of regression	0.025496	Akaike info criterion	-4.493405	
Sum squared resid	0.447230	Schwarz criterion	-4.460642	
Log likelihood	1561.965	Durbin-Watson stat	1.988697	

ราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรอิสระและดัชนีราคาหุ้นตลาดหลักทรัพย์สิงคโปร์ (Straits Times)เป็นตัวแปรตาม

Dependent Variable: LNSTRAITSTIMES
Method: Least Squares
Date: 01/25/10 Time: 14:26
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNOILP	0.454754	0.023665	19.21608	0.0000
C	5.948348	0.102158	58.22679	0.0000
R-squared	0.347616	Mean dependent var	7.905137	
Adjusted R-squared	0.346674	S.D. dependent var	0.266557	
S.E. of regression	0.215454	Akaike info criterion	-0.229263	
Sum squared resid	32.16943	Schwarz criterion	-0.216187	
Log likelihood	81.66882	F-statistic	369.2576	
Durbin-Watson stat	0.010100	Prob(F-statistic)	0.000000	

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF ***(ทดสอบถึงlagsที่ 30ค่าADF>-1.6159)***

ADF Test Statistic	-1.393060	1% Critical Value*	-2.5686
		5% Critical Value	-1.9399
		10% Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR10)
Method: Least Squares
Date: 01/28/10 Time: 23:10
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR10(-1)	-0.005280	0.003790	-1.393060	0.1640
D(ERROR10(-1))	-0.112261	0.037695	-2.978171	0.0030
R-squared	0.015725	Mean dependent var	-0.000335	
Adjusted R-squared	0.014300	S.D. dependent var	0.021617	
S.E. of regression	0.021462	Akaike info criterion	-4.842159	
Sum squared resid	0.318294	Schwarz criterion	-4.829054	
Log likelihood	1679.808	Durbin-Watson stat	2.004467	

<u>ราคาน้ำมันดิบในตลาดโลกเป็นตัวแปรอิสระและดัชนีราคาหุ้นตลาดหลักทรัพย์ญี่ปุ่น (Nikkei)เป็นตัวแปรตาม</u>

Dependent Variable: LNNIKKEI
Method: Least Squares
Date: 01/25/10 Time: 14:27
Sample: 1 695
Included observations: 695

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNOILP	0.365385	0.028320	12.90208	0.0000
C	7.874755	0.122251	64.41458	0.0000
R-squared	0.193683	Mean dependent var	9.446993	
Adjusted R-squared	0.192520	S.D. dependent var	0.286925	
S.E. of regression	0.257831	Akaike info criterion	0.129845	
Sum squared resid	46.06828	Schwarz criterion	0.142921	
Log likelihood	-43.12122	F-statistic	166.4637	
Durbin-Watson stat	0.010526	Prob(F-statistic)	0.000000	

- ผลการทดสอบ Unit Root ค่า errorด้วยวิธี ADF

ADF Test Statistic	-1.627138	1%	Critical Value*	-2.5687
		5%	Critical Value	-1.9399
		10%	Critical Value	-1.6159

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ERROR11)
Method: Least Squares
Date: 01/28/10 Time: 23:21
Sample(adjusted): 16 695
Included observations: 680 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ERROR11(-1)	-0.006422	0.003947	-1.627138	0.1042
D(ERROR11(-1))	-0.235256	0.038727	-6.074779	0.0000
D(ERROR11(-2))	-0.073305	0.039785	-1.842557	0.0658
D(ERROR11(-3))	-0.051093	0.039871	-1.281432	0.2005
D(ERROR11(-4))	-0.029261	0.039876	-0.733817	0.4633
D(ERROR11(-5))	-0.060353	0.039849	-1.514530	0.1304
D(ERROR11(-6))	-0.021147	0.039936	-0.529526	0.5966
D(ERROR11(-7))	-0.035755	0.039923	-0.895593	0.3708
D(ERROR11(-8))	-0.038518	0.039921	-0.964868	0.3350
D(ERROR11(-9))	-0.025546	0.039966	-0.639185	0.5229
D(ERROR11(-10))	-0.045195	0.039936	-1.131701	0.2582
D(ERROR11(-11))	0.049247	0.039981	1.231737	0.2185
D(ERROR11(-12))	0.020944	0.039999	0.523608	0.6007
D(ERROR11(-13))	-0.009208	0.039865	-0.230983	0.8174
D(ERROR11(-14))	-0.000596	0.038807	-0.015364	0.9877

R-squared	0.066217	Mean dependent var	-0.000922
Adjusted R-squared	0.046558	S.D. dependent var	0.026650
S.E. of regression	0.026022	Akaike info criterion	-4.437939
Sum squared resid	0.450300	Schwarz criterion	-4.338187
Log likelihood	1523.899	Durbin-Watson stat	1.997151

-ผลการทดสอบความสัมพันธ์เชิงดุลยภาพในระยะสั้น (ECM)

Dependent Variable: D(LNNIKKEI)
Method: Least Squares
Date: 01/29/10 Time: 15:24
Sample(adjusted): 2 695
Included observations: 694 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000728	0.000954	-0.763442	0.4455
D(LNOILP)	0.116168	0.029180	3.981113	0.0001
ERROR11(-1)	-0.004637	0.003710	-1.249705	0.2118

R-squared	0.023861	Mean dependent var	-0.000706
Adjusted R-squared	0.021036	S.D. dependent var	0.025402
S.E. of regression	0.025133	Akaike info criterion	-4.524952
Sum squared resid	0.436484	Schwarz criterion	-4.505316
Log likelihood	1573.158	Durbin-Watson stat	2.375637

Dependent Variable: D(LNNIKKEI)
Method: Least Squares
Date: 02/01/10 Time: 11:02
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000855	0.000943	-0.906968	0.3647
D(LNOILP)	0.118131	0.028851	4.094563	0.0000
D(LNNIKKEI(-1))	-0.164729	0.037168	-4.431995	0.0000
ERROR11(-1)	-0.003841	0.003675	-1.045113	0.2963
R-squared	0.051028	Mean dependent var		-0.000707
Adjusted R-squared	0.046896	S.D. dependent var		0.025420
S.E. of regression	0.024817	Akaike info criterion		-4.548838
Sum squared resid	0.424336	Schwarz criterion		-4.522627
Log likelihood	1580.172	Durbin-Watson stat		2.078868

Dependent Variable: D(LNNIKKEI)
Method: Least Squares
Date: 02/01/10 Time: 11:03
Sample(adjusted): 3 695
Included observations: 693 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000906	0.000931	-0.973170	0.3308
D(LNOILP)	0.121334	0.028485	4.259588	0.0000
D(LNNIKKEI(-1))	-0.188598	0.037086	-5.085450	0.0000
D(LNOILP(-1))	0.126193	0.028749	4.389530	0.0000
ERROR11(-1)	-0.004139	0.003628	-1.141029	0.2543
R-squared	0.076881	Mean dependent var		-0.000707
Adjusted R-squared	0.071514	S.D. dependent var		0.025420
S.E. of regression	0.024494	Akaike info criterion		-4.573573
Sum squared resid	0.412776	Schwarz criterion		-4.540809
Log likelihood	1589.743	Durbin-Watson stat		2.023246

ผลการทดสอบ Granger Causality

Pairwise Granger Causality Tests
Date: 01/25/10 Time: 15:46
Sample: 1 695
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
LNSET does not Granger Cause LNOILP	693	6.55028	0.00152
LNOILP does not Granger Cause LNSET		4.75271	0.00891

Pairwise Granger Causality Tests
Date: 01/25/10 Time: 15:46
Sample: 1 695
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
LNNASDAQ does not Granger Cause LNOILP	693	7.67010	0.00051
LNOILP does not Granger Cause LNNASDAQ		3.66380	0.02614

Pairwise Granger Causality Tests
Date: 01/25/10 Time: 15:47
Sample: 1 695
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
LNDOWJONES does not Granger Cause LNOILP	693	5.16019	0.00596
LNOILP does not Granger Cause LNDOWJONES		2.52155	0.08108

Pairwise Granger Causality Tests
Date: 01/25/10 Time: 15:47
Sample: 1 695
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
LNHANGSENG does not Granger Cause LNOILP	693	4.82006	0.00834
LNOILP does not Granger Cause LNHANGSENG		5.45436	0.00446

Pairwise Granger Causality Tests
Date: 01/25/10 Time: 15:48
Sample: 1 695
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
LNSTRAITSTIMES does not Granger Cause LNOILP	693	7.00023	0.00098
LNOILP does not Granger Cause LNSTRAITSTIMES		2.24970	0.10621

Pairwise Granger Causality Tests
Date: 01/25/10 Time: 15:48
Sample: 1 695
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
LNNIKKEI does not Granger Cause LNOILP	693	1.37012	0.25477
LNOILP does not Granger Cause LNNIKKEI		9.35473	9.8E-05

ประวัติผู้เขียน

ชื่อ	นางสาวประกายแก้ว รุ่งเรืองศรี
วัน เดือน ปีเกิด	4 พฤศจิกายน 2524
ประวัติการศึกษา	สำเร็จการศึกษามัธยมศึกษาตอนปลาย โรงเรียนพิจิตรพิทยาคม ปีการศึกษา 2542
	สำเร็จการศึกษาปริญญาตรี วิทยาศาสตรบัณฑิต ภาควิชาเศรษฐศาสตร์ สาขาสหกรณ์ มหาวิทยาลัยเกษตรศาสตร์ ปีการศึกษา 2546