



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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ตารางภาคผนวกที่ 1 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร

gBS แบบจำลอง intercept (At Level)

Null Hypothesis: gBS has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	<b>-23.74773</b>	0.0000
Test critical values:		
1% level	<b>-3.441736</b>	
5% level	-2.866455	
10% level	-2.569447	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(gBS)

Method: Least Squares

Date: 09/15/09 Time: 23:09

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
gBS(-1)	-1.002627	0.042220	-23.74773	0.0000
C	-0.979589	0.799707	-1.224935	0.2211
R-squared	0.501313	Mean dependent var		-0.000791
Adjusted R-squared	0.500424	S.D. dependent var		26.81062
S.E. of regression	18.94993	Akaike info criterion		8.725023
Sum squared resid	201454.9	Schwarz criterion		8.740417
Log likelihood	-2454.094	Hannan-Quinn criter.		8.731033
F-statistic	563.9549	Durbin-Watson stat		1.999737
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 2 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gBS

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: gBS has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-23.74903	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(gBS)

Method: Least Squares

Date: 09/15/09 Time: 23:10

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
gBS(-1)	-1.003575	0.042258	-23.74903	0.0000
C	-1.992205	1.602285	-1.243352	0.2143
@TREND(1)	0.003588	0.004918	0.729417	0.4661
R-squared	0.501787	Mean dependent var		-0.000791
Adjusted R-squared	0.500007	S.D. dependent var		26.81062
S.E. of regression	18.95783	Akaike info criterion		8.727626
Sum squared resid	201263.7	Schwarz criterion		8.750716
Log likelihood	-2453.827	Hannan-Quinn criter.		8.736640
F-statistic	282.0083	Durbin-Watson stat		1.999780
Prob(F-statistic)	0.000000			

**ตารางภาคผนวกที่ 3 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gBS แบบจำลอง none (At Level)**

Null Hypothesis: GBS has a unit root

Exogenous: None

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-23.70557	0.0000
Test critical values:		
1% level	-2.569076	
5% level	-1.941387	
10% level	-1.616321	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GBS)

Method: Least Squares

Date: 09/15/09 Time: 22:54

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GBS(-1)	-0.999962	0.042183	-23.70557	0.0000
R-squared	0.499980	Mean dependent var		-0.000791
Adjusted R-squared	0.499980	S.D. dependent var		26.81062
S.E. of regression	18.95836	Akaike info criterion		8.724142
Sum squared resid	201993.8	Schwarz criterion		8.731839
Log likelihood	-2454.846	Hannan-Quinn criter.		8.727147
Durbin-Watson stat	1.999623			

ตารางภาคผนวกที่ 4 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gKLI

แบบจำลอง intercept (At Level)

Null Hypothesis: GKLI has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.49133	0.0000
Test critical values:		
1% level	-3.441840	
5% level	-2.866501	
10% level	-2.569472	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GKLI)

Method: Least Squares

Date: 09/15/09 Time: 23:14

Sample (adjusted): 3 564

Included observations: 558 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKLI(-1)	-0.771609	0.057193	-13.49133	0.0000
D(GKLI(-1))	-0.178646	0.041613	-4.293071	0.0000
C	7.34E-05	0.000208	0.353642	0.7237
R-squared	0.487381	Mean dependent var		-4.24E-05
Adjusted R-squared	0.485534	S.D. dependent var		0.006825
S.E. of regression	0.004895	Akaike info criterion		-7.795710
Sum squared resid	0.013300	Schwarz criterion		-7.772461
Log likelihood	2178.003	Hannan-Quinn criter.		-7.786631
F-statistic	263.8376	Durbin-Watson stat		2.026619
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 5 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gKLI

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: GKLI has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 1 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.48718	0.0000
Test critical values:		
1% level	-3.974587	
5% level	-3.417893	
10% level	-3.131398	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GKLI)

Method: Least Squares

Date: 09/15/09 Time: 23:15

Sample (adjusted): 3 564

Included observations: 558 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKLI(-1)	-0.773189	0.057328	-13.48718	0.0000
D(GKLI(-1))	-0.177751	0.041684	-4.264290	0.0000
C	0.000247	0.000418	0.591219	0.5546
@TREND(1)	-6.12E-07	1.28E-06	-0.478886	0.6322
R-squared	0.487593	Mean dependent var		-4.24E-05
Adjusted R-squared	0.484818	S.D. dependent var		0.006825
S.E. of regression	0.004899	Akaike info criterion		-7.792540
Sum squared resid	0.013295	Schwarz criterion		-7.761541
Log likelihood	2178.119	Hannan-Quinn criter.		-7.780434
F-statistic	175.7239	Durbin-Watson stat		2.025958
Prob(F-statistic)	0.000000			

### ตารางภาคผนวกที่ 6 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gKLI

แบบจำลอง none (At Level)

Null Hypothesis: GKLI has a unit root

Exogenous: None

Lag Length: 1 (Automatic based on SIC, MAXLAG=18)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-13.50191	0.0000
Test critical values:	1% level	-2.569113	
	5% level	-1.941392	
	10% level	-1.616318	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GKLI)

Method: Least Squares

Date: 09/15/09 Time: 22:55

Sample (adjusted): 3 564

Included observations: 558 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKLI(-1)	-0.770552	0.057070	-13.50191	0.0000
D(GKLI(-1))	-0.179258	0.041544	-4.314896	0.0000
R-squared	0.487265	Mean dependent var		-4.24E-05
Adjusted R-squared	0.486343	S.D. dependent var		0.006825
S.E. of regression	0.004891	Akaike info criterion		-7.799069
Sum squared resid	0.013303	Schwarz criterion		-7.783570
Log likelihood	2177.940	Hannan-Quinn criter.		-7.793016
Durbin-Watson stat	2.027142			

ตารางภาคผนวกที่ 7 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gKOSPI

แบบจำลอง intercept (At Level)

Null Hypothesis: GKOSPI has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-25.91789	0.0000
Test critical values:		
1% level	-3.441736	
5% level	-2.866455	
10% level	-2.569447	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GKOSPI)

Method: Least Squares

Date: 09/15/09 Time: 23:16

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKOSPI(-1)	-1.076742	0.041544	-25.91789	0.0000
C	0.000274	0.000294	0.932720	0.3514
R-squared	0.544915	Mean dependent var		-4.37E-05
Adjusted R-squared	0.544104	S.D. dependent var		0.010308
S.E. of regression	0.006960	Akaike info criterion		-7.093805
Sum squared resid	0.027174	Schwarz criterion		-7.078412
Log likelihood	1998.906	Hannan-Quinn criter.		-7.087796
F-statistic	671.7368	Durbin-Watson stat		1.997331
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 8 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gKOSPI

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: GKOSPI has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-25.90643	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GKOSPI)

Method: Least Squares

Date: 09/15/09 Time: 23:17

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKOSPI(-1)	-1.077533	0.041593	-25.90643	0.0000
C	0.000561	0.000589	0.954099	0.3404
@TREND(1)	-1.02E-06	1.81E-06	-0.564119	0.5729
R-squared	0.545173	Mean dependent var		-4.37E-05
Adjusted R-squared	0.543549	S.D. dependent var		0.010308
S.E. of regression	0.006964	Akaike info criterion		-7.090821
Sum squared resid	0.027158	Schwarz criterion		-7.067731
Log likelihood	1999.066	Hannan-Quinn criter.		-7.081807
F-statistic	335.6193	Durbin-Watson stat		1.996828
Prob(F-statistic)	0.000000			

**ตารางภาคผนวกที่ 9** ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gKOSPI แบบจำลอง none (At Level)

Null Hypothesis: GKOSPI has a unit root

Exogenous: None

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-25.90452	0.0000
Test critical values:		
1% level	-2.569076	
5% level	-1.941387	
10% level	-1.616321	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GKOSPI)

Method: Least Squares

Date: 09/15/09 Time: 22:56

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKOSPI(-1)	-1.075125	0.041503	-25.90452	0.0000
R-squared	0.544209	Mean dependent var		-4.37E-05
Adjusted R-squared	0.544209	S.D. dependent var		0.010308
S.E. of regression	0.006959	Akaike info criterion		-7.095808
Sum squared resid	0.027216	Schwarz criterion		-7.088111
Log likelihood	1998.470	Hannan-Quinn criter.		-7.092804
Durbin-Watson stat	1.997588			

ตารางภาคผนวกที่ 10 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร  $gPHCOMP$

แบบจำลอง intercept (At Level)

Null Hypothesis:  $GPHCOMP$  has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.85509	0.0000
Test critical values:		
1% level	-3.441757	
5% level	-2.866464	
10% level	-2.569452	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable:  $D(GPHCOMP)$

Method: Least Squares

Date: 09/15/09 Time: 23:18

Sample (adjusted): 3 564

Included observations: 562 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
$GPHCOMP(-1)$	-0.772867	0.055782	-13.85509	0.0000
$D(GPHCOMP(-1))$	-0.130755	0.040300	-3.244529	0.0012
C	3.43E-05	0.000198	0.173052	0.8627
R-squared	0.458911	Mean dependent var		-4.08E-05
Adjusted R-squared	0.456975	S.D. dependent var		0.006370
S.E. of regression	0.004694	Akaike info criterion		-7.879555
Sum squared resid	0.012319	Schwarz criterion		-7.856433
Log likelihood	2217.155	Hannan-Quinn criter.		-7.870528
F-statistic	237.0505	Durbin-Watson stat		2.017680
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 11 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร  $gPHCOMP$

แบบจำลอง intercept and trend (At Level)

Null Hypothesis:  $GPHCOMP$  has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 1 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.84186	0.0000
Test critical values:		
1% level	-3.974469	
5% level	-3.417836	
10% level	-3.131363	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable:  $D(GPHCOMP)$



Method: Least Squares

Date: 09/15/09 Time: 23:20

Sample (adjusted): 3 564

Included observations: 562 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GPHCOMP(-1)	-0.772842	0.055834	-13.84186	0.0000
D(GPHCOMP(-1))	-0.130791	0.040341	-3.242132	0.0013
C	5.40E-05	0.000398	0.135708	0.8921
@TREND(1)	-6.99E-08	1.22E-06	-0.057196	0.9544
R-squared	0.458914	Mean dependent var		-4.08E-05
Adjusted R-squared	0.456005	S.D. dependent var		0.006370
S.E. of regression	0.004699	Akaike info criterion		-7.876003
Sum squared resid	0.012319	Schwarz criterion		-7.845173
Log likelihood	2217.157	Hannan-Quinn criter.		-7.863966
F-statistic	157.7529	Durbin-Watson stat		2.017674
Prob(F-statistic)	0.000000			

**ตารางภาคผนวกที่ 12** ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gPHCOMP  
แบบจำลอง none (At Level)

Null Hypothesis: GPHCOMP has a unit root

Exogenous: None

Lag Length: 1 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.86622	0.0000
Test critical values:		
1% level	-2.569083	
5% level	-1.941388	
10% level	-1.616321	

\*Mackinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GPHCOMP)

Method: Least Squares

Date: 09/15/09 Time: 22:57

Sample (adjusted): 3 564

Included observations: 562 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GPHCOMP(-1)	-0.772695	0.055725	-13.86622	0.0000
D(GPHCOMP(-1))	-0.130798	0.040265	-3.248452	0.0012
R-squared	0.458882	Mean dependent var		-4.08E-05
Adjusted R-squared	0.457915	S.D. dependent var		0.006370
S.E. of regression	0.004690	Akaike info criterion		-7.883061
Sum squared resid	0.012320	Schwarz criterion		-7.867646
Log likelihood	2217.140	Hannan-Quinn criter.		-7.877042
Durbin-Watson stat	2.017838			

ตารางภาคผนวกที่ 13 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gSET

แบบจำลอง intercept (At Level)

Null Hypothesis: GSET has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.31905	0.0000
Test critical values:		
1% level	-3.441757	
5% level	-2.866464	
10% level	-2.569452	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GSET)

Method: Least Squares

Date: 09/15/09 Time: 23:21

Sample (adjusted): 3 564

Included observations: 562 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSET(-1)	-0.754738	0.056666	-13.31905	0.0000
D(GSET(-1))	-0.212547	0.041095	-5.172104	0.0000
C	-8.12E-06	0.000272	-0.029870	0.9762
R-squared	0.504423	Mean dependent var		-4.09E-05
Adjusted R-squared	0.502650	S.D. dependent var		0.009133
S.E. of regression	0.006441	Akaike info criterion		-7.246992
Sum squared resid	0.023190	Schwarz criterion		-7.223870
Log likelihood	2039.405	Hannan-Quinn criter.		-7.237964
F-statistic	284.4889	Durbin-Watson stat		2.039683
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 14 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gSET

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: GSET has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 1 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.31583	0.0000
Test critical values:		
1% level	-3.974469	
5% level	-3.417836	
10% level	-3.131363	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GSET)

Method: Least Squares

Date: 09/15/09 Time: 23:22

Sample (adjusted): 3 564

Included observations: 562 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSET(-1)	-0.755773	0.056757	-13.31583	0.0000
D(GSET(-1))	-0.212023	0.041142	-5.153394	0.0000
C	0.000197	0.000547	0.361213	0.7181
@TREND(1)	-7.27E-07	1.68E-06	-0.433545	0.6648
R-squared	0.504590	Mean dependent var		-4.09E-05
Adjusted R-squared	0.501926	S.D. dependent var		0.009133
S.E. of regression	0.006446	Akaike info criterion		-7.243770
Sum squared resid	0.023182	Schwarz criterion		-7.212940
Log likelihood	2039.499	Hannan-Quinn criter.		-7.231733
F-statistic	189.4464	Durbin-Watson stat		2.039255
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 15 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร  $\ln$ GSET แบบจำลอง none (At Level)

Null Hypothesis: GSET has a unit root

Exogenous: None

Lag Length: 1 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.33353	0.0000
Test critical values:		
1% level	-2.569083	
5% level	-1.941388	
10% level	-1.616321	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GSET)

Method: Least Squares

Date: 09/15/09 Time: 22:57

Sample (adjusted): 3 564

Included observations: 562 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSET(-1)	-0.754768	0.056607	-13.33353	0.0000
D(GSET(-1))	-0.212527	0.041053	-5.176922	0.0000
R-squared	0.504422	Mean dependent var		-4.09E-05
Adjusted R-squared	0.503537	S.D. dependent var		0.009133
S.E. of regression	0.006435	Akaike info criterion		-7.250549
Sum squared resid	0.023190	Schwarz criterion		-7.235134
Log likelihood	2039.404	Hannan-Quinn criter.		-7.244531
Durbin-Watson stat	2.039657			

ตารางภาคผนวกที่ 16 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gSSEC

แบบจำลอง intercept (At Level)

Null Hypothesis: GSSEC has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-22.27629	0.0000
Test critical values:		
1% level	-3.441736	
5% level	-2.866455	
10% level	-2.569447	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GSSEC)

Method: Least Squares

Date: 09/15/09 Time: 23:23

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSSEC(-1)	-0.938940	0.042150	-22.27629	0.0000
C	0.000100	0.000199	0.503981	0.6145
R-squared	0.469370	Mean dependent var		-5.27E-06
Adjusted R-squared	0.468424	S.D. dependent var		0.006469
S.E. of regression	0.004716	Akaike info criterion		-7.872043
Sum squared resid	0.012479	Schwarz criterion		-7.856649
Log likelihood	2217.980	Hannan-Quinn criter.		-7.866033
F-statistic	496.2332	Durbin-Watson stat		2.007437
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 17 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gSSEC

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: GSSEC has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-22.26875	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GSSEC)

Method: Least Squares

Date: 09/15/09 Time: 23:23

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSSEC(-1)	-0.939466	0.042188	-22.26875	0.0000
C	0.000287	0.000399	0.719276	0.4723
@TREND(1)	-6.61E-07	1.22E-06	-0.539931	0.5895
R-squared	0.469646	Mean dependent var		-5.27E-06
Adjusted R-squared	0.467752	S.D. dependent var		0.006469
S.E. of regression	0.004719	Akaike info criterion		-7.869011
Sum squared resid	0.012472	Schwarz criterion		-7.845920
Log likelihood	2218.126	Hannan-Quinn criter.		-7.859997
F-statistic	247.9490	Durbin-Watson stat		2.007360
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 18 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gSSEC แบบจำลอง none (At Level)

Null Hypothesis: GSSEC has a unit root

Exogenous: None

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-22.28540	0.0000
Test critical values:		
1% level	-2.569076	
5% level	-1.941387	
10% level	-1.616321	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GSSEC)

Method: Least Squares

Date: 09/15/09 Time: 22:59

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSSEC(-1)	-0.938435	0.042110	-22.28540	0.0000
R-squared	0.469129	Mean dependent var		-5.27E-06
Adjusted R-squared	0.469129	S.D. dependent var		0.006469
S.E. of regression	0.004713	Akaike info criterion		-7.875142
Sum squared resid	0.012484	Schwarz criterion		-7.867446
Log likelihood	2217.853	Hannan-Quinn criter.		-7.872138
Durbin-Watson stat	2.007608			

ตารางภาคผนวกที่ 19 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gSTI

แบบจำลอง intercept (At Level)

Null Hypothesis: GSTI has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-23.32768	0.0000
Test critical values:		
1% level	-3.441736	
5% level	-2.866455	
10% level	-2.569447	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GSTI)

Method: Least Squares

Date: 09/15/09 Time: 23:25

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSTI(-1)	-0.931023	0.039911	-23.32768	0.0000
C	0.000118	0.000182	0.649136	0.5165
R-squared	0.492391	Mean dependent var		5.33E-05
Adjusted R-squared	0.491486	S.D. dependent var		0.006068
S.E. of regression	0.004327	Akaike info criterion		-8.044156
Sum squared resid	0.010505	Schwarz criterion		-8.028763
Log likelihood	2266.430	Hannan-Quinn criter.		-8.038147
F-statistic	544.1809	Durbin-Watson stat		1.922178
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 20 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gSTI

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: GSTI has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-23.36539	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GSTI)

Method: Least Squares

Date: 09/15/09 Time: 23:26

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSTI(-1)	-0.932323	0.039902	-23.36539	0.0000
C	0.000521	0.000365	1.425575	0.1545
@TREND(1)	-1.43E-06	1.12E-06	-1.271049	0.2042
R-squared	0.493851	Mean dependent var		5.33E-05
Adjusted R-squared	0.492043	S.D. dependent var		0.006068
S.E. of regression	0.004325	Akaike info criterion		-8.043485
Sum squared resid	0.010475	Schwarz criterion		-8.020395
Log likelihood	2267.241	Hannan-Quinn criter.		-8.034471
F-statistic	273.1968	Durbin-Watson stat		1.925149
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 21 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร GSTI  
แบบจำลอง none (At Level)

Null Hypothesis: GSTI has a unit root

Exogenous: None

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-23.33250	0.0000
Test critical values:		
1% level	-2.569076	
5% level	-1.941387	
10% level	-1.616321	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GSTI)

Method: Least Squares

Date: 09/15/09 Time: 23:00

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSTI(-1)	-0.930626	0.039885	-23.33250	0.0000
R-squared	0.492010	Mean dependent var		5.33E-05
Adjusted R-squared	0.492010	S.D. dependent var		0.006068
S.E. of regression	0.004325	Akaike info criterion		-8.046958
Sum squared resid	0.010513	Schwarz criterion		-8.039261
Log likelihood	2266.219	Hannan-Quinn criter.		-8.043953
Durbin-Watson stat	1.921518			

**ตารางภาคผนวกที่ 22** ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gTWII

แบบจำลอง intercept (At Level)

Null Hypothesis: GTWII has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-23.75496	0.0000
Test critical values:		
1% level	-3.441736	
5% level	-2.866455	
10% level	-2.569447	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GTWII)

Method: Least Squares

Date: 09/15/09 Time: 23:26

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GTWII(-1)	-1.004846	0.042300	-23.75496	0.0000
C	-0.000117	0.000180	-0.650120	0.5159
R-squared	0.501466	Mean dependent var		-1.30E-05
Adjusted R-squared	0.500577	S.D. dependent var		0.006052
S.E. of regression	0.004277	Akaike info criterion		-8.067578
Sum squared resid	0.010262	Schwarz criterion		-8.052184
Log likelihood	2273.023	Hannan-Quinn criter.		-8.061569
F-statistic	564.2984	Durbin-Watson stat		1.995210
Prob(F-statistic)	0.000000			

**ตารางภาคผนวกที่ 23** ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gTWII

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: GTWII has a unit root

Exogenous: Constant, Linear Trend

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-23.74397	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GTWII)

Method: Least Squares



Date: 09/15/09 Time: 23:27

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GTWII(-1)	-1.005203	0.042335	-23.74397	0.0000
C	3.77E-05	0.000361	0.104425	0.9169
@TREND(1)	-5.50E-07	1.11E-06	-0.495112	0.6207
R-squared	0.501684	Mean dependent var		-1.30E-05
Adjusted R-squared	0.499904	S.D. dependent var		0.006052
S.E. of regression	0.004280	Akaike info criterion		-8.064463
Sum squared resid	0.010258	Schwarz criterion		-8.041373
Log likelihood	2273.146	Hannan-Quinn criter.		-8.055449
F-statistic	281.8921	Durbin-Watson stat		1.995370
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 24 ผลการทดสอบ Unit root ด้วยวิธี Augmented Dickey - Fuller test ของตัวแปร gTWII แบบจำลอง none (At Level)

Null Hypothesis: GTWII has a unit root

Exogenous: None

Lag Length: 0 (Automatic based on SIC, MAXLAG=18)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-23.75838	0.0000
Test critical values:		
1% level	-2.569076	
5% level	-1.941387	
10% level	-1.616321	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GTWII)

Method: Least Squares

Date: 09/15/09 Time: 23:00

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GTWII(-1)	-1.004177	0.042266	-23.75838	0.0000
R-squared	0.501090	Mean dependent var		-1.30E-05
Adjusted R-squared	0.501090	S.D. dependent var		0.006052
S.E. of regression	0.004275	Akaike info criterion		-8.070377
Sum squared resid	0.010270	Schwarz criterion		-8.062680
Log likelihood	2272.811	Hannan-Quinn criter.		-8.067373
Durbin-Watson stat	1.995043			

ตารางภาคผนวกที่ 25 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gBS

แบบจำลอง intercept (At Level)

Null Hypothesis: GBS has a unit root

Exogenous: Constant

Bandwidth: 4 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.76795	0.0000
Test critical values:		
1% level	-3.441736	
5% level	-2.866455	
10% level	-2.569447	

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

Residual variance (no correction)	357.8240
HAC corrected variance (Bartlett kernel)	330.0375

Phillips-Perron Test Equation

Dependent Variable: D(GBS)

Method: Least Squares

Date: 09/15/09 Time: 23:33

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GBS(-1)	-1.002627	0.042220	-23.74773	0.0000
C	-0.979589	0.799707	-1.224935	0.2211

R-squared	0.501313	Mean dependent var	-0.000791
Adjusted R-squared	0.500424	S.D. dependent var	26.81062
S.E. of regression	18.94993	Akaike info criterion	8.725023
Sum squared resid	201454.9	Schwarz criterion	8.740417
Log likelihood	-2454.094	Hannan-Quinn criter.	8.731033
F-statistic	563.9549	Durbin-Watson stat	1.999737
Prob(F-statistic)	0.000000		

ตารางภาคผนวกที่ 26 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gBS

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: GBS has a unit root

Exogenous: Constant, Linear Trend

Bandwidth: 5 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.77781	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

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

Residual variance (no correction)	357.4844
HAC corrected variance (Bartlett kernel)	324.5519

## Phillips-Perron Test Equation

Dependent Variable: D(GBS)

Method: Least Squares

Date: 09/15/09 Time: 23:37

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GBS(-1)	-1.003575	0.042258	-23.74903	0.0000
C	-1.992205	1.602285	-1.243352	0.2143
@TREND(1)	0.003588	0.004918	0.729417	0.4661
R-squared	0.501787	Mean dependent var		-0.000791
Adjusted R-squared	0.500007	S.D. dependent var		26.81062
S.E. of regression	18.95783	Akaike info criterion		8.727626
Sum squared resid	201263.7	Schwarz criterion		8.750716
Log likelihood	-2453.827	Hannan-Quinn criter.		8.736640
F-statistic	282.0083	Durbin-Watson stat		1.999780
Prob(F-statistic)	0.000000			

## ตารางภาคผนวกที่ 27 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gBS

แบบจำลอง None (At Level)

Null Hypothesis: GBS has a unit root

Exogenous: None

Bandwidth: 4 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.72054	0.0000
Test critical values:		
1% level	-2.569076	
5% level	-1.941387	
10% level	-1.616321	

\*Mackinnon (1996) one-sided p-values.

Residual variance (no correction) 358.7811

HAC corrected variance (Bartlett kernel) 333.5328

## Phillips-Perron Test Equation

Dependent Variable: D(gBS)

Method: Least Squares

Date: 09/15/09 Time: 23:37

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GBS(-1)	-0.999962	0.042183	-23.70557	0.0000
R-squared	0.499980	Mean dependent var		-0.000791

Adjusted R-squared	0.499980	S.D. dependent var	26.81062
S.E. of regression	18.95836	Akaike info criterion	8.724142
Sum squared resid	201993.8	Schwarz criterion	8.731839
Log likelihood	-2454.846	Hannan-Quinn criter.	8.727147
Durbin-Watson stat	1.999623		

**ตารางภาคผนวกที่ 28** ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gKLI

แบบจำลอง intercept (At Level)

Null Hypothesis: GKLI has a unit root

Exogenous: Constant

Bandwidth: 9 (Newey-West using Bartlett kernel)

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-22.88216	0.0000
Test critical values:	1% level	-3.441798	
	5% level	-2.866482	
	10% level	-2.569462	

\*Mackinnon (1996) one-sided p-values.

Residual variance (no correction)	2.47E-05
HAC corrected variance (Bartlett kernel)	3.61E-05

Phillips-Perron Test Equation

Dependent Variable: D(gKLI)

Method: Least Squares

Date: 09/15/09 Time: 23:38

Sample (adjusted): 2 564

Included observations: 560 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKLI(-1)	-0.934891	0.042032	-22.24234	0.0000
C	0.000133	0.000211	0.632519	0.5273

R-squared	0.469945	Mean dependent var	-4.47E-05
Adjusted R-squared	0.468995	S.D. dependent var	0.006834
S.E. of regression	0.004980	Akaike info criterion	-7.763116
Sum squared resid	0.013840	Schwarz criterion	-7.747659
Log likelihood	2175.673	Hannan-Quinn criter.	-7.757081
F-statistic	494.7215	Durbin-Watson stat	2.024689
Prob(F-statistic)	0.000000		

**ตารางภาคผนวกที่ 29** ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gKLI

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: GKLI has a unit root

Exogenous: Constant, Linear Trend

Bandwidth: 9 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
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Phillips-Perron test statistic		-22.88882	0.0000
Test critical values:	1% level	-3.974528	
	5% level	-3.417865	
	10% level	-3.131380	

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

Residual variance (no correction)	2.47E-05
HAC corrected variance (Bartlett kernel)	3.61E-05

Phillips-Perron Test Equation

Dependent Variable: D(gKLI)

Method: Least Squares

Date: 09/15/09 Time: 23:38

Sample (adjusted): 2 564

Included observations: 560 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKLI(-1)	-0.936349	0.042092	-22.24516	0.0000
C	0.000410	0.000422	0.971306	0.3318
@TREND(1)	-9.79E-07	1.29E-06	-0.756768	0.4495
R-squared	0.470490	Mean dependent var		-4.47E-05
Adjusted R-squared	0.468588	S.D. dependent var		0.006834
S.E. of regression	0.004982	Akaike info criterion		-7.760573
Sum squared resid	0.013826	Schwarz criterion		-7.737387
Log likelihood	2175.960	Hannan-Quinn criter.		-7.751519
F-statistic	247.4577	Durbin-Watson stat		2.023307
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 30 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gKLI  
แบบจำลอง None (At Level)

Null Hypothesis: gKLI has a unit root

Exogenous: None

Bandwidth: 9 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-22.88578	0.0000
Test critical values:	1% level	-2.569098
	5% level	-1.941390
	10% level	-1.616319

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

Residual variance (no correction)	2.47E-05
HAC corrected variance (Bartlett kernel)	3.62E-05

Phillips-Perron Test Equation

Dependent Variable: D(gKLI)

Method: Least Squares

Date: 09/15/09 Time: 23:39

Sample (adjusted): 2 564

Included observations: 560 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKLI(-1)	-0.933881	0.041979	-22.24630	0.0000
R-squared	0.469565	Mean dependent var		-4.47E-05
Adjusted R-squared	0.469565	S.D. dependent var		0.006834
S.E. of regression	0.004978	Akaike info criterion		-7.765971
Sum squared resid	0.013850	Schwarz criterion		-7.758243
Log likelihood	2175.472	Hannan-Quinn criter.		-7.762953
Durbin-Watson stat	2.025636			

ตารางภาคผนวกที่ 31 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gKOSPI แบบจำลอง intercept (At Level)

Null Hypothesis: gKOSPI has a unit root

Exogenous: Constant

Bandwidth: 10 (Newey-West using Bartlett kernel)

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-25.81137	0.0000
Test critical values:	1% level	-3.441736	
	5% level	-2.866455	
	10% level	-2.569447	

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

Residual variance (no correction)

4.83E-05

HAC corrected variance (Bartlett kernel)

6.39E-05

Phillips-Perron Test Equation

Dependent Variable: D(gKOSPI)

Method: Least Squares

Date: 09/15/09 Time: 23:39

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKOSPI(-1)	-1.076742	0.041544	-25.91789	0.0000
C	0.000274	0.000294	0.932720	0.3514
R-squared	0.544915	Mean dependent var		-4.37E-05
Adjusted R-squared	0.544104	S.D. dependent var		0.010308
S.E. of regression	0.006960	Akaike info criterion		-7.093805
Sum squared resid	0.027174	Schwarz criterion		-7.078412
Log likelihood	1998.906	Hannan-Quinn criter.		-7.087796
F-statistic	671.7368	Durbin-Watson stat		1.997331
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 32 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gKOSPI

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: gKOSPI has a unit root

Exogenous: Constant, Linear Trend

Bandwidth: 10 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-25.80194	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

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

Residual variance (no correction)	4.82E-05
HAC corrected variance (Bartlett kernel)	6.38E-05

Phillips-Perron Test Equation

Dependent Variable: D(gKOSPI)

Method: Least Squares

Date: 09/15/09 Time: 23:40

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKOSPI(-1)	-1.077533	0.041593	-25.90643	0.0000
C	0.000561	0.000589	0.954099	0.3404
@TREND(1)	-1.02E-06	1.81E-06	-0.564119	0.5729

R-squared	0.545173	Mean dependent var	-4.37E-05
Adjusted R-squared	0.543549	S.D. dependent var	0.010308
S.E. of regression	0.006964	Akaike info criterion	-7.090821
Sum squared resid	0.027158	Schwarz criterion	-7.067731
Log likelihood	1999.066	Hannan-Quinn criter.	-7.081807
F-statistic	335.6193	Durbin-Watson stat	1.996828
Prob(F-statistic)	0.000000		

ตารางภาคผนวกที่ 33 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gKOSPI

แบบจำลอง None (At Level)

Null Hypothesis: gKOSPI has a unit root

Exogenous: None

Bandwidth: 10 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-25.80402	0.0000
Test critical values:		
1% level	-2.569076	
5% level	-1.941387	
10% level	-1.616321	

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

Residual variance (no correction)	4.83E-05
HAC corrected variance (Bartlett kernel)	6.45E-05

## Phillips-Perron Test Equation

Dependent Variable: D(gKOSPI)

Method: Least Squares

Date: 09/15/09 Time: 23:40

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GKOSPI(-1)	-1.075125	0.041503	-25.90452	0.0000
R-squared	0.544209	Mean dependent var		-4.37E-05
Adjusted R-squared	0.544209	S.D. dependent var		0.010308
S.E. of regression	0.006959	Akaike info criterion		-7.095808
Sum squared resid	0.027216	Schwarz criterion		-7.088111
Log likelihood	1998.470	Hannan-Quinn criter.		-7.092804
Durbin-Watson stat	1.997588			

## ตารางภาคผนวกที่ 34 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gPHCOMP

แบบจำลอง intercept (At Level)

Null Hypothesis: gPHCOMP has a unit root

Exogenous: Constant

Bandwidth: 8 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.06609	0.0000
Test critical values:		
1% level	-3.441736	
5% level	-2.866455	
10% level	-2.569447	

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

Residual variance (no correction)	2.28E-05
HAC corrected variance (Bartlett kernel)	3.16E-05

## Phillips-Perron Test Equation

Dependent Variable: D(gPHCOMP)

Method: Least Squares

Date: 09/15/09 Time: 23:41

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GPHCOMP(-1)	-0.929324	0.040912	-22.71504	0.0000
C	6.90E-05	0.000201	0.342576	0.7320
R-squared	0.479095	Mean dependent var		3.52E-05
Adjusted R-squared	0.478167	S.D. dependent var		0.006615



S.E. of regression	0.004778	Akaike info criterion	-7.845847
Sum squared resid	0.012810	Schwarz criterion	-7.830453
Log likelihood	2210.606	Hannan-Quinn criter.	-7.839837
F-statistic	515.9728	Durbin-Watson stat	1.923174
Prob(F-statistic)	0.000000		

**ตารางภาคผนวกที่ 35** ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gPHCOMP

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: gPHCOMP has a unit root

Exogenous: Constant, Linear Trend

Bandwidth: 8 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.04731	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

\*Mackinnon (1996) one-sided p-values.

Residual variance (no correction)	2.28E-05
HAC corrected variance (Bartlett kernel)	3.16E-05

Phillips-Perron Test Equation

Dependent Variable: D(gPHCOMP)

Method: Least Squares

Date: 09/15/09 Time: 23:41

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GPHCOMP(-1)	-0.929171	0.040951	-22.68973	0.0000
C	0.000156	0.000404	0.385320	0.7001
@TREND(1)	-3.07E-07	1.24E-06	-0.247464	0.8046

R-squared	0.479152	Mean dependent var	3.52E-05
Adjusted R-squared	0.477292	S.D. dependent var	0.006615
S.E. of regression	0.004782	Akaike info criterion	-7.842404
Sum squared resid	0.012808	Schwarz criterion	-7.819313
Log likelihood	2210.637	Hannan-Quinn criter.	-7.833390
F-statistic	257.5853	Durbin-Watson stat	1.923718
Prob(F-statistic)	0.000000		

**ตารางภาคผนวกที่ 36** ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gPHCOMP

แบบจำลอง None (At Level)

Null Hypothesis: gPHCOMP has a unit root

Exogenous: None

Bandwidth: 8 (Newey-West using Bartlett kernel)

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-23.08140	0.0000
Test critical values:	1% level	-2.569076	
	5% level	-1.941387	
	10% level	-1.616321	

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

Residual variance (no correction)	2.28E-05
HAC corrected variance (Bartlett kernel)	3.16E-05

Phillips-Perron Test Equation

Dependent Variable: D(gPHCOMP)

Method: Least Squares

Date: 09/15/09 Time: 23:41

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GPHCOMP(-1)	-0.929220	0.040879	-22.73098	0.0000
R-squared	0.478987	Mean dependent var		3.52E-05
Adjusted R-squared	0.478987	S.D. dependent var		0.006615
S.E. of regression	0.004775	Akaike info criterion		-7.849190
Sum squared resid	0.012812	Schwarz criterion		-7.841493
Log likelihood	2210.547	Hannan-Quinn criter.		-7.846185
Durbin-Watson stat	1.923000			

ตารางภาคผนวกที่ 37 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gSET

แบบจำลอง intercept (At Level)

Null Hypothesis: gSET has a unit root

Exogenous: Constant

Bandwidth: 8 (Newey-West using Bartlett kernel)

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-22.93050	0.0000
Test critical values:	1% level	-3.441736	
	5% level	-2.866455	
	10% level	-2.569447	

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

Residual variance (no correction)	4.36E-05
HAC corrected variance (Bartlett kernel)	5.81E-05

Phillips-Perron Test Equation

Dependent Variable: D(gSET)

Method: Least Squares

Date: 09/15/09 Time: 23:41

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSET(-1)	-0.946667	0.041990	-22.54487	0.0000
C	4.22E-05	0.000279	0.151411	0.8797
R-squared	0.475344	Mean dependent var		-3.89E-05
Adjusted R-squared	0.474408	S.D. dependent var		0.009125
S.E. of regression	0.006615	Akaike info criterion		-7.195292
Sum squared resid	0.024551	Schwarz criterion		-7.179899
Log likelihood	2027.475	Hannan-Quinn criter.		-7.189283
F-statistic	508.2711	Durbin-Watson stat		2.031117
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 38 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gSET แบบจำลอง intercept and trend (At Level)

Null Hypothesis: gSET has a unit root  
Exogenous: Constant, Linear Trend  
Bandwidth: 8 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-22.93939	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

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

Residual variance (no correction) 4.36E-05  
HAC corrected variance (Bartlett kernel) 5.82E-05

Phillips-Perron Test Equation  
Dependent Variable: D(gSET)  
Method: Least Squares  
Date: 09/15/09 Time: 23:42

Sample (adjusted): 2 564  
Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSET(-1)	-0.947813	0.042036	-22.54742	0.0000
C	0.000398	0.000559	0.712858	0.4762
@TREND(1)	-1.26E-06	1.72E-06	-0.735442	0.4624
R-squared	0.475850	Mean dependent var		-3.89E-05
Adjusted R-squared	0.473978	S.D. dependent var		0.009125
S.E. of regression	0.006618	Akaike info criterion		-7.192705
Sum squared resid	0.024528	Schwarz criterion		-7.169615
Log likelihood	2027.747	Hannan-Quinn criter.		-7.183691
F-statistic	254.1980	Durbin-Watson stat		2.030272
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 39 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gSET

แบบจำลอง None (At Level)

Null Hypothesis: gSET has a unit root

Exogenous: None

Bandwidth: 8 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-22.94721	0.0000
Test critical values:		
1% level	-2.569076	
5% level	-1.941387	
10% level	-1.616321	

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

Residual variance (no correction)	4.36E-05
HAC corrected variance (Bartlett kernel)	5.81E-05

Phillips-Perron Test Equation

Dependent Variable: D(gSET)

Method: Least Squares

Date: 09/15/09 Time: 23:42

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSET(-1)	-0.946585	0.041950	-22.56442	0.0000
R-squared	0.475322	Mean dependent var		-3.89E-05
Adjusted R-squared	0.475322	S.D. dependent var		0.009125
S.E. of regression	0.006610	Akaike info criterion		-7.198804
Sum squared resid	0.024552	Schwarz criterion		-7.191107
Log likelihood	2027.463	Hannan-Quinn criter.		-7.195799
Durbin-Watson stat	2.031235			

ตารางภาคผนวกที่ 40 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gSSEC

แบบจำลอง intercept (At Level)

Null Hypothesis: gSSEC has a unit root

Exogenous: Constant

Bandwidth: 8 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-22.63380	0.0000
Test critical values:		
1% level	-3.441736	
5% level	-2.866455	
10% level	-2.569447	

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

Residual variance (no correction)	2.22E-05
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HAC corrected variance (Bartlett kernel) 2.85E-05

Phillips-Perron Test Equation

Dependent Variable: D(gSSEC)

Method: Least Squares

Date: 09/15/09 Time: 23:43

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
gSSEC(-1)	-0.938940	0.042150	-22.27629	0.0000
C	0.000100	0.000199	0.503981	0.6145
R-squared	0.469370	Mean dependent var		-5.27E-06
Adjusted R-squared	0.468424	S.D. dependent var		0.006469
S.E. of regression	0.004716	Akaike info criterion		-7.872043
Sum squared resid	0.012479	Schwarz criterion		-7.856649
Log likelihood	2217.980	Hannan-Quinn criter.		-7.866033
F-statistic	496.2332	Durbin-Watson stat		2.007437
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 41 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gSSEC

แบบจำลอง intercept and trend (At Level)

Null Hypothesis: gSSEC has a unit root

Exogenous: Constant, Linear Trend

Bandwidth: 8 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-22.62399	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

\*Mackinnon (1996) one-sided p-values.

Residual variance (no correction) 2.22E-05

HAC corrected variance (Bartlett kernel) 2.85E-05

Phillips-Perron Test Equation

Dependent Variable: D(gSSEC)

Method: Least Squares

Date: 09/15/09 Time: 23:46

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
gSSEC(-1)	-0.939466	0.042188	-22.26875	0.0000
C	0.000287	0.000399	0.719276	0.4723
@TREND(1)	-6.61E-07	1.22E-06	-0.539931	0.5895
R-squared	0.469646	Mean dependent var		-5.27E-06

Adjusted R-squared	0.467752	S.D. dependent var	0.006469
S.E. of regression	0.004719	Akaike info criterion	-7.869011
Sum squared resid	0.012472	Schwarz criterion	-7.845920
Log likelihood	2218.126	Hannan-Quinn criter.	-7.859997
F-statistic	247.9490	Durbin-Watson stat	2.007360
Prob(F-statistic)	0.000000		

**ตารางภาคผนวกที่ 42** ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gSSEC

แบบจำลอง None (At Level)

Null Hypothesis: gSSEC has a unit root

Exogenous: None

Bandwidth: 8 (Newey-West using Bartlett kernel)

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-22.64628	0.0000
Test critical values:	1% level	-2.569076	
	5% level	-1.941387	
	10% level	-1.616321	

\*Mackinnon (1996) one-sided p-values.

Residual variance (no correction)	2.22E-05
HAC corrected variance (Bartlett kernel)	2.86E-05

Phillips-Perron Test Equation

Dependent Variable: D(gSSEC)

Method: Least Squares

Date: 09/15/09 Time: 23:46

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
gSSEC(-1)	-0.938435	0.042110	-22.28540	0.0000
R-squared	0.469129	Mean dependent var		-5.27E-06
Adjusted R-squared	0.469129	S.D. dependent var		0.006469
S.E. of regression	0.004713	Akaike info criterion		-7.875142
Sum squared resid	0.012484	Schwarz criterion		-7.867446
Log likelihood	2217.853	Hannan-Quinn criter.		-7.872138
Durbin-Watson stat	2.007608			

**ตารางภาคผนวกที่ 43** ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gSTI

แบบจำลอง intercept (At Level)

Null Hypothesis: gSTI has a unit root

Exogenous: Constant

Bandwidth: 10 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.57335	0.0000

Test critical values:	1% level	-3.441736
	5% level	-2.866455
	10% level	-2.569447

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

Residual variance (no correction)	1.87E-05
HAC corrected variance (Bartlett kernel)	2.72E-05

Phillips-Perron Test Equation

Dependent Variable: D(gSTI)

Method: Least Squares

Date: 09/15/09 Time: 23:47

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
gSTI(-1)	-0.931023	0.039911	-23.32768	0.0000
C	0.000118	0.000182	0.649136	0.5165
R-squared	0.492391	Mean dependent var		5.33E-05
Adjusted R-squared	0.491486	S.D. dependent var		0.006068
S.E. of regression	0.004327	Akaike info criterion		-8.044156
Sum squared resid	0.010505	Schwarz criterion		-8.028763
Log likelihood	2266.430	Hannan-Quinn criter.		-8.038147
F-statistic	544.1809	Durbin-Watson stat		1.922178
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 44 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gSTI แบบจำลอง intercept and trend (At Level)

Null Hypothesis: gSTI has a unit root

Exogenous: Constant, Linear Trend

Bandwidth: 9 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.55451	0.0000
Test critical values:		
	1% level	-3.974439
	5% level	-3.417821
	10% level	-3.131355

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

Residual variance (no correction)	1.86E-05
HAC corrected variance (Bartlett kernel)	2.64E-05

Phillips-Perron Test Equation

Dependent Variable: D(gSTI)

Method: Least Squares

Date: 09/15/09 Time: 23:48

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GSTI(-1)	-0.932323	0.039902	-23.36539	0.0000
C	0.000521	0.000365	1.425575	0.1545
@TREND(1)	-1.43E-06	1.12E-06	-1.271049	0.2042
R-squared	0.493851	Mean dependent var		5.33E-05
Adjusted R-squared	0.492043	S.D. dependent var		0.006068
S.E. of regression	0.004325	Akaike info criterion		-8.043485
Sum squared resid	0.010475	Schwarz criterion		-8.020395
Log likelihood	2267.241	Hannan-Quinn criter.		-8.034471
F-statistic	273.1968	Durbin-Watson stat		1.925149
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 45 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร gSTI แบบจำลอง None (At Level)

Null Hypothesis: gSTI has a unit root

Exogenous: None

Bandwidth: 10 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.58641	0.0000
Test critical values:		
1% level	-2.569076	
5% level	-1.941387	
10% level	-1.616321	

\*Mackinnon (1996) one-sided p-values.

Residual variance (no correction) 1.87E-05

HAC corrected variance (Bartlett kernel) 2.74E-05

Phillips-Perron Test Equation

Dependent Variable: D(gSTI)

Method: Least Squares

Date: 09/15/09 Time: 23:48

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
gSTI(-1)	-0.930626	0.039885	-23.33250	0.0000
R-squared	0.492010	Mean dependent var		5.33E-05
Adjusted R-squared	0.492010	S.D. dependent var		0.006068
S.E. of regression	0.004325	Akaike info criterion		-8.046958
Sum squared resid	0.010513	Schwarz criterion		-8.039261
Log likelihood	2266.219	Hannan-Quinn criter.		-8.043953
Durbin-Watson stat	1.921518			



ตารางภาคผนวกที่ 46 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร

gTWII แบบจำลอง intercept (At Level)

Null Hypothesis: gTWII has a unit root

Exogenous: Constant

Bandwidth: 8 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.84348	0.0000
Test critical values:		
1% level	-3.441736	
5% level	-2.866455	
10% level	-2.569447	

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

Residual variance (no correction)	1.82E-05
HAC corrected variance (Bartlett kernel)	2.16E-05

Phillips-Perron Test Equation

Dependent Variable: D(gTWII)

Method: Least Squares

Date: 09/15/09 Time: 23:48

Sample (adjusted): 2 564

Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
gTWII(-1)	-1.004846	0.042300	-23.75496	0.0000
C	-0.000117	0.000180	-0.650120	0.5159
R-squared	0.501466	Mean dependent var		-1.30E-05
Adjusted R-squared	0.500577	S.D. dependent var		0.006052
S.E. of regression	0.004277	Akaike info criterion		-8.067578
Sum squared resid	0.010262	Schwarz criterion		-8.052184
Log likelihood	2273.023	Hannan-Quinn criter.		-8.061569
F-statistic	564.2984	Durbin-Watson stat		1.995210
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 47 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร

gTWII แบบจำลอง intercept and trend (At Level)

Null Hypothesis: GTWII has a unit root

Exogenous: Constant, Linear Trend

Bandwidth: 8 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.83300	0.0000
Test critical values:		
1% level	-3.974439	
5% level	-3.417821	
10% level	-3.131355	

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

Residual variance (no correction) 1.82E-05

HAC corrected variance (Bartlett kernel) 2.16E-05

Phillips-Perron Test Equation  
 Dependent Variable: D(gTWII)  
 Method: Least Squares  
 Date: 09/15/09 Time: 23:49  
 Sample (adjusted): 2 564  
 Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
gTWII(-1)	-1.005203	0.042335	-23.74397	0.0000
C	3.77E-05	0.000361	0.104425	0.9169
@TREND(1)	-5.50E-07	1.11E-06	-0.495112	0.6207
R-squared	0.501684	Mean dependent var		-1.30E-05
Adjusted R-squared	0.499904	S.D. dependent var		0.006052
S.E. of regression	0.004280	Akaike info criterion		-8.064463
Sum squared resid	0.010258	Schwarz criterion		-8.041373
Log likelihood	2273.146	Hannan-Quinn criter.		-8.055449
F-statistic	281.8921	Durbin-Watson stat		1.995370
Prob(F-statistic)	0.000000			

ตารางภาคผนวกที่ 48 ผลการทดสอบ Unit root ด้วยวิธี Phillips Peron test ของตัวแปร

gTWII แบบจำลอง None (At Level)

Null Hypothesis: gTWII has a unit root  
 Exogenous: None  
 Bandwidth: 8 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-23.85097	0.0000
Test critical values:		
1% level	-2.569076	
5% level	-1.941387	
10% level	-1.616321	

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

Residual variance (no correction)	1.82E-05
HAC corrected variance (Bartlett kernel)	2.17E-05

Phillips-Perron Test Equation  
 Dependent Variable: D(gTWII)  
 Method: Least Squares  
 Date: 09/15/09 Time: 23:49  
 Sample (adjusted): 2 564  
 Included observations: 563 after adjustments

	Coefficient	Std. Error	t-Statistic	Prob.
GTWII(-1)	-1.004177	0.042266	-23.75838	0.0000
R-squared	0.501090	Mean dependent var		-1.30E-05
Adjusted R-squared	0.501090	S.D. dependent var		0.006052
S.E. of regression	0.004275	Akaike info criterion		-8.070377

Sum squared resid	0.010270	Schwarz criterion	-8.062680
Log likelihood	2272.811	Hannan-Quinn criter.	-8.067373
Durbin-Watson stat	1.995043		

#### ตารางภาคผนวกที่ 49 Determining Lag Length

VAR Lag Order Selection Criteria

Endogenous variables: GBS GKLI GKOSPI GPHCOMP GSET GSSEC GSTI GTWII

Exogenous variables: C

Date: 09/14/09 Time: 23:46

Sample: 1 564

Included observations: 546

Lag	LogL	LR	FPE	AIC	SC	HQ
0	12561.99	NA	1.48e-30	-45.98530	-45.92226	-45.96065
1	12780.75	430.3118	8.37e-31	-46.55219	<b>-45.98481*</b>	-46.33040*
2	12864.65	162.5818	7.78e-31*	-46.62510*	-45.55338	-46.20615
3	12922.87	111.1128	7.95e-31	-46.60393	-45.02788	-45.98784
4	12978.06	103.6996*	8.22e-31	-46.57164	-44.49126	-45.75840
5	13005.94	51.56708	9.39e-31	-46.43932	-43.85460	-45.42893
6	13047.10	74.93160	1.02e-30	-46.35566	-43.26660	-45.14812
7	13090.17	77.15088	1.11e-30	-46.27900	-42.68560	-44.87431
8	13122.62	57.17863	1.25e-30	-46.16344	-42.06571	-44.56160

\* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

#### ตารางภาคผนวกที่ 50 Cointegration Rank Test

Sample (adjusted): 6 564

Included observations: 552 after adjustments

Trend assumption: Linear deterministic trend

Series: gBS gKLI gKOSPI gPHCOMP gSET gSSEC gSTI gTWII

Lags interval (in first differences): 1 to 4

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.270812	904.6776	159.5297	0.0001
At most 1 *	0.248499	730.3430	125.6154	0.0001
At most 2 *	0.214726	572.6459	95.75366	0.0001
At most 3 *	0.195250	439.2153	69.81889	0.0001
At most 4 *	0.175751	319.3076	47.85613	0.0001
At most 5 *	0.155720	212.6158	29.79707	0.0001
At most 6 *	0.130437	119.1781	15.49471	0.0001
At most 7 *	0.073312	42.02814	3.841466	0.0000

Trace test indicates 8 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.270812	174.3347	52.36261	0.0000
At most 1 *	0.248499	157.6971	46.23142	0.0000
At most 2 *	0.214726	133.4305	40.07757	0.0000
At most 3 *	0.195250	119.9077	33.87687	0.0000
At most 4 *	0.175751	106.6918	27.58434	0.0000
At most 5 *	0.155720	93.43777	21.13162	0.0000
At most 6 *	0.130437	77.14992	14.26460	0.0000
At most 7 *	0.073312	42.02814	3.841466	0.0000

Max-eigenvalue test indicates 8 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

#### ตารางภาคผนวกที่ 51 Estimation Vector Regression (VAR)

Vector Autoregression Estimates

Date: 09/14/09 Time: 23:51

Sample (adjusted): 2 564

Included observations: 560 after adjustments

Standard errors in ( ) & t-statistics in [ ]

	gBS	gKLI	gKOSPI	gPHCOMP	gSET	gSSEC	gSTI	gTWII
gBS(-1)	-0.002224 (0.04271) [-0.05208]	-5.73E-07 (1.1E-05) [-0.05272]	5.93E-06 (1.5E-05) [0.38750]	-6.14E-06 (9.0E-06) [-0.68262]	-5.99E-06 (1.5E-05) [-0.41223]	-2.39E-06 (1.1E-05) [-0.22529]	-8.65E-06 (7.9E-06) [-1.09622]	-4.81E-06 (9.6E-06) [-0.50170]
KLI(-1)	-109.8931 (167.323) [-0.65677]	0.008768 (0.04262) [0.20575]	-0.044515 (0.05992) [-0.74293]	0.053442 (0.03527) [1.51536]	-0.009120 (0.05689) [-0.16031]	0.011429 (0.04157) [0.27495]	0.126677 (0.03092) [4.09725]	0.078093 (0.03755) [2.07982]
gKOSPI(-1)	90.17338 (126.180) [0.71464]	0.031343 (0.03214) [0.97529]	-0.152647 (0.04519) [-3.37824]	0.013876 (0.02660) [0.52176]	0.117513 (0.04290) [2.73924]	0.039292 (0.03135) [1.25344]	0.139976 (0.02332) [6.00366]	0.022383 (0.02832) [0.79051]
gPHCOMP(-1)	69.35401 (185.951) [0.37297]	0.044694 (0.04736) [0.94370]	-0.001430 (0.06659) [-0.02147]	-0.059220 (0.03919) [-1.51095]	0.019428 (0.06322) [0.30730]	-0.020652 (0.04620) [-0.44705]	0.148431 (0.03436) [4.31995]	0.036027 (0.04173) [0.86338]
gSET(-1)	-111.4872 (134.309) [-0.83008]	0.087761 (0.03421) [2.56556]	0.228513 (0.04810) [4.75115]	0.349431 (0.02831) [12.3436]	-0.003930 (0.04566) [-0.08607]	-0.019533 (0.03337) [-0.58540]	0.208588 (0.02482) [8.40495]	-0.012465 (0.03014) [-0.41360]
gSSEC(-1)	88.82069 (172.282) [0.51555]	-0.017442 (0.04388) [-0.39751]	0.067787 (0.06169) [1.09875]	0.002439 (0.03631) [0.06718]	-0.048709 (0.05857) [-0.83158]	0.061678 (0.04280) [1.44104]	-0.057542 (0.03183) [-1.80756]	0.029772 (0.03866) [0.77008]
gSTI(-1)	104.0110	0.074438	0.056585	0.194264	0.112344	0.058309	-0.041329	-0.041192

	(204.762)	(0.05215)	(0.07333)	(0.04316)	(0.06962)	(0.05087)	(0.03784)	(0.04595)
	[ 0.50796]	[ 1.42735]	[ 0.77170]	[ 4.50119]	[ 1.61375]	[ 1.14624]	[-1.09235]	[-0.89647]
gTWII(-1)	-194.7182	0.209650	0.127107	0.034265	0.288213	0.027678	0.043662	-0.006655
	(191.504)	(0.04877)	(0.06858)	(0.04036)	(0.06511)	(0.04758)	(0.03539)	(0.04297)
	[-1.01678]	[ 4.29834]	[ 1.85346]	[ 0.84890]	[ 4.42660]	[ 0.58176]	[ 1.23390]	[-0.15486]
C	-1.018993	0.000144	0.000264	3.74E-05	2.82E-05	0.000100	4.17E-05	-0.000156
	(0.80883)	(0.00021)	(0.00029)	(0.00017)	(0.00027)	(0.00020)	(0.00015)	(0.00018)
	[-1.25984]	[ 0.70028]	[ 0.91128]	[ 0.21936]	[ 0.10240]	[ 0.49942]	[ 0.27891]	[-0.85947]
<b>R-squared</b>	<b>0.006181</b>	<b>0.065724</b>	<b>0.058414</b>	<b>0.302810</b>	<b>0.059614</b>	<b>0.009172</b>	<b>0.327564</b>	<b>0.013636</b>
<b>Adj. R-squared</b>	<b>-0.008248</b>	<b>0.052160</b>	<b>0.044743</b>	<b>0.292687</b>	<b>0.045960</b>	<b>-0.005213</b>	<b>0.317801</b>	<b>-0.000685</b>
Sum sq. resids	200189.3	0.012986	0.025672	0.008894	0.023140	0.012356	0.006835	0.010081
S.E. equation	19.06095	0.004855	0.006826	0.004018	0.006481	0.004735	0.003522	0.004277
F-statistic	0.428370	4.845223	4.272872	29.91440	4.366163	0.637602	33.55107	0.952175
Log likelihood	-2440.749	2193.507	2002.677	2299.497	2031.746	2207.439	2373.212	2264.410
Akaike AIC	8.749102	-7.801809	-7.120276	-8.180345	-7.224094	-7.851568	-8.443613	-8.055034
Schwarz SC	8.818658	-7.732253	-7.050720	-8.110789	-7.154538	-7.782012	-8.374057	-7.985478
Mean dependent	-0.968049	0.000146	0.000227	0.000104	3.53E-05	-0.000124	0.000126	-0.000128
S.D. dependent	18.98283	0.004986	0.006984	0.004777	0.006635	0.004723	0.004264	0.004276
Determinant resid covariance (dof adj.)		9.93E-31						
Determinant resid covariance		8.72E-31						
Log likelihood		13023.12						
Akaike information criterion		-46.25400						
Schwarz criterion		-45.69755						

### ตารางภาคผนวกที่ 52 การทดสอบความเสถียรของข้อมูล

Roots of Characteristic Polynomial

Endogenous variables: gBS gKLI gKOSPI gPHCOMP gSET gSSEC  
gSTI gTWII

Exogenous variables: C

Lag specification: 1 1

Date: 09/14/09 Time: 23:53

Root	Modulus
0.353118	0.353118
-0.269738 - 0.082454i	0.282059
-0.269738 + 0.082454i	0.282059
-0.110689	0.110689
0.039660 - 0.038283i	0.055123
0.039660 + 0.038283i	0.055123
0.050569	0.050569
-0.028400	0.028400

No root lies outside the unit circle.

VAR satisfies the stability condition.

ตารางภาคผนวกที่ 53 Impulse respond function

Period	gBS	gKLI	gKOSPI	gPHCOMP	gSET	gSSEC	gSTI	gTWII
1	19.06095 (0.56955)	0.000000 (0.00000)	0.000000 (0.00000)	0.000000 (0.00000)	0.000000 (0.00000)	0.000000 (0.00000)	0.000000 (0.00000)	0.000000 (0.00000)
2	-0.045111 (0.81189)	-0.614038 (0.78544)	0.297760 (0.78548)	0.419834 (0.68671)	-0.602913 (0.78896)	0.483228 (0.81118)	0.342461 (0.69484)	-0.823703 (0.81048)
3	0.011749 (0.06936)	0.040647 (0.21597)	0.019605 (0.30765)	0.020919 (0.14028)	0.347580 (0.39926)	0.042580 (0.12156)	0.020451 (0.16013)	-0.137924 (0.19992)
4	-0.004217 (0.01898)	0.001149 (0.05886)	0.058813 (0.10355)	0.000416 (0.03364)	-0.023040 (0.11942)	-0.024972 (0.03349)	0.021769 (0.04888)	0.063311 (0.10421)
5	-0.000320 (0.00561)	0.011119 (0.02561)	0.002089 (0.03628)	0.005670 (0.01152)	0.021691 (0.04163)	0.002970 (0.00916)	-0.003459 (0.01084)	-0.000781 (0.02820)
6	-0.000512 (0.00167)	0.000920 (0.00752)	0.003975 (0.01131)	-0.000396 (0.00299)	0.001013 (0.01458)	-0.001036 (0.00284)	-0.002816 (0.00445)	0.005464 (0.01121)
7	-9.08E-05 (0.00056)	0.001247 (0.00296)	0.001070 (0.00426)	0.000656 (0.00119)	0.001404 (0.00447)	-2.93E-06 (0.00093)	-0.000264 (0.00116)	0.000506 (0.00369)
8	-4.32E-05 (0.00018)	0.000173 (0.00097)	0.000293 (0.00128)	-1.45E-06 (0.00036)	0.000460 (0.00169)	-2.61E-05 (0.00026)	0.000262 (0.00046)	0.000497 (0.00131)
9	-1.68E-05 (6.5E-05)	0.000133 (0.00036)	0.000176 (0.00050)	6.13E-05 (0.00014)	9.80E-05 (0.00050)	-2.37E-05 (9.1E-05)	1.72E-06 (0.00015)	0.000115 (0.00047)
10	-4.16E-06 (2.1E-05)	2.94E-05 (0.00013)	2.96E-05 (0.00016)	6.89E-06 (4.7E-05)	7.23E-05 (0.00020)	1.39E-06 (2.4E-05)	2.13E-05 (5.2E-05)	4.82E-05 (0.00016)

ตารางที่ 54 Variance Decomposition

Variance Decomposition of GBS:									
Period	S.E.	gBS	gKLI	gKOSPI	gPHCOMP	gSET	gSSEC	gSTI	gTWII
1	19.06095	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	19.11431	99.44308	0.103198	0.024267	0.048243	0.099493	0.063913	0.032100	0.185705
3	19.11809	99.40375	0.103610	0.024363	0.048344	0.132507	0.064384	0.032202	0.190836
4	19.11833	99.40128	0.103607	0.025308	0.048343	0.132649	0.064553	0.032331	0.191928
5	19.11835	99.40110	0.103641	0.025309	0.048352	0.132778	0.064555	0.032334	0.191928
6	19.11835	99.40109	0.103641	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
7	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
8	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
9	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
10	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
11	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
12	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
13	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
14	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
15	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
16	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
17	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
18	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
19	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936
20	19.11835	99.40109	0.103642	0.025314	0.048352	0.132778	0.064555	0.032336	0.191936

## ประวัติผู้เขียน

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ประสบการณ์	เจ้าหน้าที่การตลาดหลักทรัพย์ บมจ. เคจีไอ (ประเทศไทย) จำกัด (มหาชน) มิถุนายน 2547 – พฤศจิกายน 2551 เจ้าหน้าที่การตลาดเงินฝาก ธนาคารธนชาติ ธันวาคม 2551 – ปัจจุบัน

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