

ภาคผนวก ก
ข้อมูลที่น่าสนใจ

ตาราง ก-1 แสดงการส่งออกยางพาราของประเทศไทยและผลิตภัณฑ์รวมภายในประเทศ

หน่วย : ล้านบาท

		GDP	Rubber
1993	Q1	755.55	8.3
	Q2	755.57	5.59
	Q3	811.12	7.9
	Q4	842.98	8.59
1994	Q1	886.1	8.28
	Q2	870.96	6.73
	Q3	896.84	11.89
	Q4	975.44	14.91
1995	Q1	1033.86	17.04
	Q2	1026.37	15.89
	Q3	1032.86	14.35
	Q4	1093.14	13.98
1996	Q1	1116.55	18.68
	Q2	1146.09	12.41
	Q3	1154.27	16.84
	Q4	1194.12	15.44
1997	Q1	1158.08	15.91
	Q2	1165.72	10.23
	Q3	1182.02	14.83
	Q4	1226.79	16.48

ตาราง ก-1 แสดงการส่งออกยางพาราของประเทศไทยและผลิตภัณฑ์มวลรวมภายในประเทศ (ต่อ)

หน่วย : ล้านบาท

		GDP	Rubber
1998	Q1	867,352	179.8
	Q2	831,219	180.6
	Q3	842,943	181
	Q4	923,187	181.5
1999	Q1	925,577	183.3
	Q2	719,305	185.4
	Q3	662,415	187
	Q4	658,899	187.2
2000	Q1	709,065	188.5
	Q2	717,789	192.4
	Q3	685,245	197.5
	Q4	714,340	198.4
2001	Q1	1210.83	20.31
	Q2	1117.12	10.97
	Q3	1112.06	13.6
	Q4	1186.44	10.53
2002	Q1	1159.8	10.48
	Q2	1108.84	8.5
	Q3	1152.23	10.6
	Q4	1216.21	14.37
2003	Q1	1231.24	11.72
	Q2	1189.98	15.14
	Q3	1212.12	15.44
	Q4	1289.39	18.42

ตาราง ก-1 แสดงการส่งออกยางพาราของประเทศไทยและผลิตภัณฑ์มวลรวมภายในประเทศ (ต่อ)

หน่วย : ล้านบาท

2004	Q1	1284.7	14.47
	Q2	1572.33	30.5
	Q3	1614.29	30.96
	Q4	1730.96	41.09
2005	Q1	1715.23	33.75
	Q2	1693.98	28.05
	Q3	1790.74	42.33
	Q4	1904.28	44.74

ที่มา : International Financial Statistics.

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright © by Chiang Mai University
All rights reserved

ภาคผนวก ข

ตาราง ข-1 แสดงค่า Mackinnon Critical Value of Unit Root test ของ GDP ที่ $I(0)$

Lag 4

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6120	-3.5745	-4.1630
5% Critical Value	-1.9478	-2.9241	-3.5066
10% Critical Value	-1.6195	-2.5997	-3.1828

Lag 3

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6110	-3.5713	-4.1584
5% Critical Value	-1.9476	-2.9228	-3.5045
10% Critical Value	-1.6194	-2.5990	-3.1816

Lag 2

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6100	-3.5682	-4.1540
5% Critical Value	-1.9474	-2.9215	-3.5025
10% Critical Value	-1.6193	-2.5983	-3.1804

Lag 1

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6090	-3.5653	-4.1498
5% Critical Value	-1.9473	-2.9202	-3.5005
10% Critical Value	-1.6192	-2.5977	-3.1793

Lag 0

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6081	-3.5625	-4.1458
5% Critical Value	-1.9471	-2.9190	-3.4987
10% Critical Value	-1.6191	-2.5970	-3.1782

ที่มา:จากการคำนวณ

ตาราง ข-2 แสดงค่า Mackinnon Critical Value of Unit Root test ของ GDP ที่ I(1)

Lag 4

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6132	-3.5778	-4.1678
5% Critical Value	-1.9480	-2.9256	-3.5088
10% Critical Value	-1.6195	-2.6005	-3.1840

Lag 3

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6120	-3.5745	-4.1630
5% Critical Value	-1.9478	-2.9241	-3.5066
10% Critical Value	-1.6195	-2.5997	-3.1828

Lag 2

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6110	-3.5713	-4.1584
5% Critical Value	-1.9476	-2.9228	-3.5045
10% Critical Value	-1.6194	-2.5990	-3.1816

Lag 1

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6100	-3.5682	-4.1540
5% Critical Value	-1.9474	-2.9215	-3.5025
10% Critical Value	-1.6193	-2.5983	-3.1804

Lag 0

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6090	-3.5653	-4.1498
5% Critical Value	-1.9473	-2.9202	-3.5005
10% Critical Value	-1.6192	-2.5977	-3.1793

ที่มา:จากการคำนวณ

ตาราง ข-3 แสดงค่า Mackinnon Critical Value of Unit Root test ของ Rubber ที่ I(0)

Lag 4

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6120	-3.5745	-4.1630
5% Critical Value	-1.9478	-2.9241	-3.5066
10% Critical Value	-1.6195	-2.5997	-3.1828

Lag 3

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6110	-3.5713	-4.1584
5% Critical Value	-1.9476	-2.9228	-3.5045
10% Critical Value	-1.6194	-2.5990	-3.1816

Lag 2

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6100	-3.5682	-4.1540
5% Critical Value	-1.9474	-2.9215	-3.5025
10% Critical Value	-1.6193	-2.5983	-3.1804

Lag 1

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6090	-3.5653	-4.1498
5% Critical Value	-1.9473	-2.9202	-3.5005
10% Critical Value	-1.6192	-2.5977	-3.1793

Lag 0

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6081	-3.5625	-4.1458
5% Critical Value	-1.9471	-2.9190	-3.4987
10% Critical Value	-1.6191	-2.5970	-3.1782

ที่มา:จากการคำนวณ

ตาราง ข-4 แสดงค่า Mackinnon Critical Value of Unit Root test ของ Rubber ที่ I(1)

Lag 4

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6132	-3.5778	-4.1678
5% Critical Value	-1.9480	-2.9256	-3.5088
10% Critical Value	-1.6195	-2.6005	-3.1840

Lag 3

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6120	-3.5745	-4.1630
5% Critical Value	-1.9478	-2.9241	-3.5066
10% Critical Value	-1.6195	-2.5997	-3.1828

Lag 2

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6110	-3.5713	-4.1584
5% Critical Value	-1.9476	-2.9228	-3.5045
10% Critical Value	-1.6194	-2.5990	-3.1816

Lag 1

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6100	-3.5682	-4.1540
5% Critical Value	-1.9474	-2.9215	-3.5025
10% Critical Value	-1.6193	-2.5983	-3.1804

Lag 0

Critical Value	Without Trend and Intercept	With Intercept	With Trend and Intercept
1% Critical Value	-2.6090	-3.5653	-4.1498
5% Critical Value	-1.9473	-2.9202	-3.5005
10% Critical Value	-1.6192	-2.5977	-3.1793

ที่มา:จากการคำนวณ

ภาคผนวก ก
ผลการวิเคราะห์ข้อมูล Unit Root

ตาราง ก-1 การทดสอบ unit root ของตัวแปร GDP ที่ระดับ I(0)

Lag 0 ระดับ level without trend and intercept

ADF Test Statistic	3.627341	1% Critical Value*	-2.6081
		5% Critical Value	-1.9471
		10% Critical Value	-1.6191

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GDP)

Method: Least Squares

Date: 09/01/06 Time: 00:13

Sample(adjusted): 1993:2 2005:4

Included observations: 51 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP(-1)	0.002536	0.000699	3.627341	0.0007
R-squared	-0.003753	Mean dependent var		0.018126
Adjusted R-squared	-0.003753	S.D. dependent var		0.035368
S.E. of regression	0.035435	Akaike info criterion		-3.822836
Sum squared resid	0.062781	Schwarz criterion		-3.784957
Log likelihood	98.48232	Durbin-Watson stat		1.810265

Lag 0 ระดับ level with intercept

ADF Test Statistic	-0.824507	1% Critical Value*	-3.5625
		5% Critical Value	-2.9190
		10% Critical Value	-2.5970

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GDP)

Method: Least Squares

Date: 09/01/06 Time: 00:18

Sample(adjusted): 1993:2 2005:4

Included observations: 51 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP(-1)	-0.019759	0.023964	-0.824507	0.4136
C	0.158287	0.170066	0.930736	0.3566
R-squared	0.013684	Mean dependent var		0.018126
Adjusted R-squared	-0.006445	S.D. dependent var		0.035368
S.E. of regression	0.035482	Akaike info criterion		-3.801145
Sum squared resid	0.061690	Schwarz criterion		-3.725387
Log likelihood	98.92920	F-statistic		0.679812
Durbin-Watson stat	1.803131	Prob(F-statistic)		0.413647

Lag 0 ระดับ level with trend and intercept

ADF Test Statistic	-2.159351	1% Critical Value*	-4.1458
		5% Critical Value	-3.4987
		10% Critical Value	-3.1782

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GDP)

Method: Least Squares

Date: 09/01/06 Time: 00:19

Sample(adjusted): 1993:2 2005:4

Included observations: 51 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP(-1)	-0.160758	0.074447	-2.159351	0.0358
C	1.104122	0.502299	2.198139	0.0328
@TREND(1993:1)	0.002091	0.001049	1.993832	0.0519
R-squared	0.089123	Mean dependent var		0.018126
Adjusted R-squared	0.051170	S.D. dependent var		0.035368
S.E. of regression	0.034452	Akaike info criterion		-3.841498
Sum squared resid	0.056972	Schwarz criterion		-3.727861
Log likelihood	100.9582	F-statistic		2.348228
Durbin-Watson stat	1.704122	Prob(F-statistic)		0.106423

ตาราง ก-2 การทดสอบ unit root ของตัวแปร GDP ที่ระดับ I(1)

Lag 0 ระดับ level without trend and intercept

ADF Test Statistic	-5.144354	1% Critical Value*	-2.6090
		5% Critical Value	-1.9473
		10% Critical Value	-1.6192

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GDP,2)

Method: Least Squares

Date: 09/01/06 Time: 00:20

Sample(adjusted): 1993:3 2005:4

Included observations: 50 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	-0.725560	0.141040	-5.144354	0.0000
R-squared	0.350254	Mean dependent var		0.001229
Adjusted R-squared	0.350254	S.D. dependent var		0.048085
S.E. of regression	0.038760	Akaike info criterion		-3.643070
Sum squared resid	0.073614	Schwarz criterion		-3.604829
Log likelihood	92.07674	Durbin-Watson stat		1.711374

Lag 0 ระดับ level with intercept

ADF Test Statistic	-6.320228	1% Critical Value*	-3.5653
		5% Critical Value	-2.9202
		10% Critical Value	-2.5977

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GDP,2)

Method: Least Squares

Date: 09/01/06 Time: 00:20

Sample(adjusted): 1993:3 2005:4

Included observations: 50 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	-0.921281	0.145767	-6.320228	0.0000
C	0.017129	0.005665	3.023587	0.0040
R-squared	0.454206	Mean dependent var		0.001229
Adjusted R-squared	0.442835	S.D. dependent var		0.048085
S.E. of regression	0.035892	Akaike info criterion		-3.777409
Sum squared resid	0.061836	Schwarz criterion		-3.700928
Log likelihood	96.43523	F-statistic		39.94528
Durbin-Watson stat	1.805661	Prob(F-statistic)		0.000000

Lag 0 ระดับ level with trend and intercept

ADF Test Statistic	-6.262094	1% Critical Value*	-4.1498
		5% Critical Value	-3.5005
		10% Critical Value	-3.1793

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GDP,2)

Method: Least Squares

Date: 09/01/06 Time: 00:20

Sample(adjusted): 1993:3 2005:4

Included observations: 50 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	-0.924061	0.147564	-6.262094	0.0000
C	0.019701	0.011189	1.760781	0.0848
@TREND(1993:1)	-9.52E-05	0.000356	-0.267434	0.7903
R-squared	0.455035	Mean dependent var		0.001229
Adjusted R-squared	0.431845	S.D. dependent var		0.048085
S.E. of regression	0.036245	Akaike info criterion		-3.738930
Sum squared resid	0.061742	Schwarz criterion		-3.624208
Log likelihood	96.47325	F-statistic		19.62206
Durbin-Watson stat	1.806091	Prob(F-statistic)		0.000001

ที่มา : จากการคำนวณ

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright © by Chiang Mai University
All rights reserved

ตาราง ก-3 การทดสอบ unit root ของตัวแปร Rubber ที่ระดับ I(0)

Lag 0 ระดับ level without trend and intercept

ADF Test Statistic	0.678104	1% Critical Value*	-2.6081
		5% Critical Value	-1.9471
		10% Critical Value	-1.6191

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RUBBER)

Method: Least Squares

Date: 09/01/06 Time: 00:21

Sample(adjusted): 1993:2 2005:4

Included observations: 51 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RUBBER(-1)	0.008486	0.012514	0.678104	0.5008
R-squared	-0.008610	Mean dependent var		0.033032
Adjusted R-squared	-0.008610	S.D. dependent var		0.249444
S.E. of regression	0.250515	Akaike info criterion		0.088820
Sum squared resid	3.137897	Schwarz criterion		0.126699
Log likelihood	-1.264905	Durbin-Watson stat		2.615702

Lag 0 ระดับ level with intercept

ADF Test Statistic	-1.519089	1% Critical Value*	-3.5625
		5% Critical Value	-2.9190
		10% Critical Value	-2.5970

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RUBBER)

Method: Least Squares

Date: 09/01/06 Time: 00:21

Sample(adjusted): 1993:2 2005:4

Included observations: 51 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RUBBER(-1)	-0.111513	0.073408	-1.519089	0.1352
C	0.341199	0.205773	1.658134	0.1037
R-squared	0.044976	Mean dependent var		0.033032
Adjusted R-squared	0.025486	S.D. dependent var		0.249444
S.E. of regression	0.246245	Akaike info criterion		0.073443
Sum squared resid	2.971183	Schwarz criterion		0.149201
Log likelihood	0.127209	F-statistic		2.307630
Durbin-Watson stat	2.440806	Prob(F-statistic)		0.135167

Lag 0 ระดับ level with trend and intercept

ADF Test Statistic	-3.101568	1% Critical Value*	-4.1458
		5% Critical Value	-3.4987
		10% Critical Value	-3.1782

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RUBBER)

Method: Least Squares

Date: 09/01/06 Time: 00:21

Sample(adjusted): 1993:2 2005:4

Included observations: 51 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RUBBER(-1)	-0.349159	0.112575	-3.101568	0.0032
C	0.747988	0.246415	3.035478	0.0039
@TREND(1993:1)	0.009613	0.003592	2.676045	0.0102
R-squared	0.168961	Mean dependent var		0.033032
Adjusted R-squared	0.134334	S.D. dependent var		0.249444
S.E. of regression	0.232085	Akaike info criterion		-0.026401
Sum squared resid	2.585453	Schwarz criterion		0.087236
Log likelihood	3.673217	F-statistic		4.879504
Durbin-Watson stat	2.171096	Prob(F-statistic)		0.011774

ที่มา : จากการคำนวณ

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright © by Chiang Mai University
All rights reserved

ตาราง ก-4 การทดสอบ unit root ของตัวแปรRubber ที่ระดับ I(1)

Lag 0 ระดับ level without trend and intercept

ADF Test Statistic	-9.917050	1% Critical Value*	-2.6090
		5% Critical Value	-1.9473
		10% Critical Value	-1.6192

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RUBBER,2)

Method: Least Squares

Date: 09/01/06 Time: 00:22

Sample(adjusted): 1993:3 2005:4

Included observations: 50 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RUBBER(-1))	-1.310243	0.132120	-9.917050	0.0000
R-squared	0.667288	Mean dependent var		0.009013
Adjusted R-squared	0.667288	S.D. dependent var		0.407410
S.E. of regression	0.234999	Akaike info criterion		-0.038673
Sum squared resid	2.706004	Schwarz criterion		-0.000433
Log likelihood	1.966826	Durbin-Watson stat		1.960137

Lag 0 ระดับ level with intercept

ADF Test Statistic	-10.19318	1% Critical Value*	-3.5653
		5% Critical Value	-2.9202
		10% Critical Value	-2.5977

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RUBBER,2)

Method: Least Squares

Date: 09/01/06 Time: 00:23

Sample(adjusted): 1993:3 2005:4

Included observations: 50 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RUBBER(-1))	-1.337326	0.131198	-10.19318	0.0000
C	0.052589	0.033002	1.593527	0.1176
R-squared	0.684005	Mean dependent var		0.009013
Adjusted R-squared	0.677421	S.D. dependent var		0.407410
S.E. of regression	0.231393	Akaike info criterion		-0.050224
Sum squared resid	2.570042	Schwarz criterion		0.026257
Log likelihood	3.255596	F-statistic		103.9009
Durbin-Watson stat	2.014736	Prob(F-statistic)		0.000000

Lag 0 ระดับ level with trend and intercept

ADF Test Statistic	-10.07742	1% Critical Value*	-4.1498
		5% Critical Value	-3.5005
		10% Critical Value	-3.1793

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RUBBER,2)

Method: Least Squares

Date: 09/01/06 Time: 00:23

Sample(adjusted): 1993:3 2005:4

Included observations: 50 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RUBBER(-1))	-1.337606	0.132733	-10.07742	0.0000
C	0.049889	0.069162	0.721331	0.4743
@TREND(1993:1)	0.000102	0.002294	0.044572	0.9646
R-squared	0.684018	Mean dependent var		0.009013
Adjusted R-squared	0.670572	S.D. dependent var		0.407410
S.E. of regression	0.233836	Akaike info criterion		-0.010266
Sum squared resid	2.569933	Schwarz criterion		0.104455
Log likelihood	3.256653	F-statistic		50.87131
Durbin-Watson stat	2.014338	Prob(F-statistic)		0.000000

ที่มา : จากการคำนวณ

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright © by Chiang Mai University
All rights reserved

ภาคผนวก ง

ผลการทดสอบความสัมพันธ์ด้วยภาพในระยะยาว(Cointegration)

ตาราง ง-1 : กรณีที่ GDP เป็น Dependent

Dependent Variable: GDP
Method: Least Squares
Date: 09/01/06 Time: 00:24
Sample: 1993:1 2005:4
Included observations: 52

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.007072	0.079912	75.17104	0.0000
RUBBER	0.393523	0.028281	13.91484	0.0000
R-squared	0.794765	Mean dependent var		7.102430
Adjusted R-squared	0.790660	S.D. dependent var		0.216850
S.E. of regression	0.099217	Akaike info criterion		-1.745319
Sum squared resid	0.492197	Schwarz criterion		-1.670271
Log likelihood	47.37829	F-statistic		193.6228
Durbin-Watson stat	0.776162	Prob(F-statistic)		0.000000

Cointegration of GDP

ADF Test Statistic	-3.984909	1% Critical Value*	-2.6081
		5% Critical Value	-1.9471
		10% Critical Value	-1.6191

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(EEGDP)

Method: Least Squares

Date: 09/01/06 Time: 00:26

Sample(adjusted): 1993:2 2005:4

Included observations: 51 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EEGDP(-1)	-0.433595	0.108809	-3.984909	0.0002
R-squared	0.238366	Mean dependent var		0.005127
Adjusted R-squared	0.238366	S.D. dependent var		0.087256
S.E. of regression	0.076150	Akaike info criterion		-2.292806
Sum squared resid	0.289942	Schwarz criterion		-2.254927
Log likelihood	59.46656	Durbin-Watson stat		2.383549

ที่มา : จากการคำนวณ

ตาราง ง-2 : กรณีที่ Rubber เป็น Dependent

Dependent Variable: RUBBER
 Method: Least Squares
 Date: 09/01/06 Time: 00:27
 Sample: 1993:1 2005:4
 Included observations: 52

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-11.56070	1.031325	-11.20956	0.0000
GDP	2.019614	0.145141	13.91484	0.0000
R-squared	0.794765	Mean dependent var		2.783466
Adjusted R-squared	0.790660	S.D. dependent var		0.491256
S.E. of regression	0.224768	Akaike info criterion		-0.109797
Sum squared resid	2.526025	Schwarz criterion		-0.034749
Log likelihood	4.854714	F-statistic		193.6228
Durbin-Watson stat	1.000388	Prob(F-statistic)		0.000000

Cointegration of Rubber

ADF Test Statistic	-4.257598	1% Critical Value*	-2.6081
		5% Critical Value	-1.9471
		10% Critical Value	-1.6191

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(EERUBBER)
 Method: Least Squares
 Date: 09/01/06 Time: 00:28
 Sample(adjusted): 1993:2 2005:4
 Included observations: 51 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EERUBBER(-1)	-0.517162	0.121468	-4.257598	0.0001
R-squared	0.265889	Mean dependent var		-0.003575
Adjusted R-squared	0.265889	S.D. dependent var		0.224782
S.E. of regression	0.192594	Akaike info criterion		-0.437050
Sum squared resid	1.854625	Schwarz criterion		-0.399171
Log likelihood	12.14478	Durbin-Watson stat		2.209835

ที่มา : จากการคำนวณ

ภาคผนวก จ

ผลการทดสอบความสัมพันธ์เชิงดูยภาพในระยะสั้น (ECM)

ตาราง จ-1 : กรณีที่ GDP เป็น Dependent

Dependent Variable: D(GDP)
 Method: Least Squares
 Date: 09/01/06 Time: 00:29
 Sample(adjusted): 1993:2 2005:4
 Included observations: 51 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.015065	0.004073	3.698661	0.0006
D(RUBBER)	0.088424	0.017589	5.027113	0.0000
EEGDP(-1)	-0.145465	0.044333	-3.281214	0.0019
R-squared	0.364684	Mean dependent var		0.018126
Adjusted R-squared	0.338213	S.D. dependent var		0.035368
S.E. of regression	0.028772	Akaike info criterion		-4.201784
Sum squared resid	0.039737	Schwarz criterion		-4.088147
Log likelihood	110.1455	F-statistic		13.77649
Durbin-Watson stat	2.168940	Prob(F-statistic)		0.000019

ตาราง จ-2 : กรณีที่ Rubber เป็น Dependent

Dependent Variable: D(RUBBER)
 Method: Least Squares
 Date: 09/01/06 Time: 00:30
 Sample(adjusted): 1993:2 2005:4
 Included observations: 51 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.037240	0.029369	-1.267977	0.2109
D(GDP)	3.810839	0.750004	5.081089	0.0000
EERUBBER(-1)	-0.556336	0.118305	-4.702552	0.0000
R-squared	0.467507	Mean dependent var		0.033032
Adjusted R-squared	0.445320	S.D. dependent var		0.249444
S.E. of regression	0.185778	Akaike info criterion		-0.471508
Sum squared resid	1.656643	Schwarz criterion		-0.357871
Log likelihood	15.02346	F-statistic		21.07103
Durbin-Watson stat	2.352477	Prob(F-statistic)		0.000000

ที่มา : จากการคำนวณ

ประวัติผู้เขียน

ชื่อ นางสาวศุภาพร หาญสุขสินวัฒนา
วัน เดือน ปี เกิด 22 มกราคม 2525
ประวัติการศึกษา สำเร็จการศึกษามัธยมศึกษาตอนปลาย โรงเรียนสวนบุญโญ
ปถัมภ์ ลำพูน ปีการศึกษา 2542
สำเร็จการศึกษาปริญญาวิทยาศาสตรบัณฑิต สาขา
คณิตศาสตร์ มหาวิทยาลัยเชียงใหม่ ปีการศึกษา 2546

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright © by Chiang Mai University
All rights reserved