ภาคผนวก ง

การทดสอบ Conitegration

ตารางผนวกที่ 29 ผลการทดสอบ Conitegration ของปัจจัยที่มีผลต่อการนำเข้าสินค้าทุนของประเทศไทยจากประเทศญี่ปุ่นในช่วงก่อนเกิดวิกฤตการณ์ทางเศรษฐกิจในปี พ.ศ. 2540

Date: 10/04/06 Time: 16:15

Sample(adjusted): 2533:03 2539:12

Included observations: 82 after adjusting endpoints

Trend assumption: No deterministic trend

Series: LNM LNER LNP LNGDP LNI INT

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.438042	109.0847	82.49	90.45
At most 1 *	0.305882	61.82584	59.46	66.52
At most 2	0.203016	31.88656	39.89	45.58
At most 3	0.095720	13.27911	24.31	29.75
At most 4	0.045383	5.028603	12.53	16.31
At most 5	0.014769	1.220069	3.84	6.51

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Trace test indicates 2 cointegrating equation(s) at the 5% level

Trace test indicates 1 cointegrating equation(s) at the 1% level

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.438042	47.25885	36.36	41.00
At most 1	0.305882	29.93928	30.04	35.17
At most 2	0.203016	18.60744	23.80	28.82
At most 3	0.095720	8.250508	17.89	22.99
At most 4	0.045383	3.808534	11.44	15.69
At most 5	0.014769	1.220069	3.84	6.51

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Max-eigenvalue test indicates 1 cointegrating equation(s) at both 5% and 1% levels

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

LNM	LNER	LNP	LNGDP	LNI	INT
30.89420	3.576787	18.78307	12.43278	-61.25980	0.483576
37.54980	-29.20798	18.20910	2.413117	-51.21889	-0.930264
-0.622066	-10.16255	-30.99743	4.605913	-12.55586	0.235324
-14.46865	6.220775	-13.96346	7.779377	-2.946721	-0.743510
-4.386993	-16.11659	-32.68055	1.929069	-3.495156	0.155460
-12.92493	21.54749	27.47682	-4.033953	27.03220	0.211059

Unrestricted Adjustment Coefficients (alpha):

D(LNM)	-0.000618	0.002454	-0.002903	0.001275	0.000949	0.001707
D(LNER)	-0.004818	0.002185	0.000112	-0.001705	0.002036	0.002271
D(LNP)	0.004359	-0.002184	0.002045	-0.000173	-0.000758	-0.001449
D(LNGDP)	0.000305	-8.56E-05	-0.002519	0.000310	0.001070	-0.000722
D(LNI)	0.003453	0.001645	-0.002251	-2.91E-05	-0.000404	-1.80E-05
D(INT)	-0.011037	0.109951	0.023437	0.026750	0.007207	-0.010652

1 Cointegrating Equation(s): Log likelihood 1377.390

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT
1.000000	0.115775	0.607980	0.402431	-1.982890	0.015653
	(0.14297)	(0.23477)	(0.06036)	(0.14650)	(0.00555)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.019085
	(0.06134)
D(LNER)	-0.148855
	(0.08107)
D(LNP)	0.134661
	(0.05239)
D(LNGDP)	0.009421
	(0.03439)
D(LNI)	0.106673
	(0.02590)
D(INT)	-0.340984
	(0.86421)

2 Cointegrating Equation(s): Log likelihood 1392.360

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT
1.000000	0.000000	0.592039	0.358619	-1.902711	0.010415
		(0.12805)	(0.05301)	(0.12843)	(0.00447)
0.000000	1.000000	0.137696	0.378422	-0.692535	0.045239
		(0.24086)	(0.09971)	(0.24156)	(0.00841)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	0.073053	-0.073879
	(0.09556)	(0.05783)
D(LNER)	-0.066802	-0.081058
	(0.12702)	(0.07686)

D(LNP)	0.052640	0.079390
	(0.08155)	(0.04935)
D(LNGDP)	0.006207	0.003591
	(0.05412)	(0.03275)
D(LNI)	0.168446	-0.035700
	(0.03971)	(0.02403)
D(INT)	3.787672	-3.250938
	(1.21204)	(0.73348)

3 Cointegrating Equation(s): Log likelihood 1401.664

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT
1.000000	0.000000	0.000000	0.534322	-2.323550	0.024625
			(0.05614)	(0.13993)	(0.00676)
0.000000	1.000000	0.000000	0.419287	-0.790413	0.048544
			(0.06311)	(0.15731)	(0.00760)
0.000000	0.000000	1.000000	-0.296777	0.710829	-0.024001
			(0.06963)	(0.17357)	(0.00839)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	0.074859	-0.044380	0.123054
	(0.09417)	(0.06028)	(0.07854)
D(LNER)	-0.066872	-0.082198	-0.054187
	(0.12702)	(0.08132)	(0.10595)
D(LNP)	0.051368	0.058607	-0.021294
	(0.08074)	(0.05169)	(0.06735)
D(LNGDP)	0.007773	0.029185	0.082237
	(0.05224)	(0.03344)	(0.04357)
D(LNI)	0.169846	-0.012824	0.164586
	(0.03765)	(0.02410)	(0.03140)
D(INT)	3.773092	-3.489122	1.068306
	(1.20498)	(0.77140)	(1.00506)

4 Cointegrating Equation(s): Log likelihood 1405.789

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT
1.000000	0.000000	0.000000	0.000000	-0.998249	0.087120
				(0.00883)	(0.01246)
0.000000	1.000000	0.000000	0.000000	0.249562	0.097585
				(0.00732)	(0.01033)
0.000000	0.000000	1.000000	0.000000	-0.025278	-0.058713
				(0.00591)	(0.00834)
0.000000	0.000000	0.000000	1.000000	-2.480338	-0.116961
				(0.01549)	(0.02186)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	0.056414	-0.036449	0.105252	-0.005211
	(0.09796)	(0.06130)	(0.08283)	(0.03004)
D(LNER)	-0.042205	-0.092803	-0.030381	-0.067377
	(0.13215)	(0.08269)	(0.11173)	(0.04053)
D(LNP)	0.053867	0.057533	-0.018882	0.056996
	(0.08423)	(0.05271)	(0.07122)	(0.02583)
D(LNGDP)	0.003283	0.031116	0.077904	-0.005601
	(0.05448)	(0.03409)	(0.04606)	(0.01671)
D(LNI)	0.170267	-0.013005	0.164992	0.036304
	(0.03928)	(0.02458)	(0.03321)	(0.01205)
D(INT)	3.386061	-3.322718	0.694788	0.444150
	(1.24737)	(0.78051)	(1.05465)	(0.38256)

5 Cointegrating Equation(s): Log likelihood 1407.693

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT
1.000000	0.000000	0.000000	0.000000	0.000000	4.007499
					(2.02663)
0.000000	1.000000	0.000000	0.000000	0.000000	-0.882507
					(0.50628)
0.000000	0.000000	1.000000	0.000000	0.000000	0.040562
					(0.05240)
0.000000	0.000000	0.000000	1.000000	0.000000	9.623957
					(5.03497)
0.000000	0.000000	0.000000	0.000000	1.000000	3.927254
					(2.03025)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	0.052252	-0.051738	0.074250	-0.003381	-0.058462
	(0.09817)	(0.06863)	(0.10396)	(0.03023)	(0.15607)
D(LNER)	-0.051137	-0.125615	-0.096916	-0.063450	0.179741
	(0.13210)	(0.09236)	(0.13989)	(0.04067)	(0.21001)
D(LNP)	0.057191	0.069744	0.005879	0.055534	-0.177659
	(0.08443)	(0.05903)	(0.08941)	(0.02600)	(0.13423)
D(LNGDP)	-0.001409	0.013879	0.042952	-0.003538	0.012674
	(0.05432)	(0.03797)	(0.05752)	(0.01672)	(0.08635)
D(LNI)	0.172038	-0.006497	0.178189	0.035525	-0.266020
	(0.03935)	(0.02751)	(0.04167)	(0.01212)	(0.06256)
D(INT)	3.354445	-3.438867	0.459268	0.458052	-5.353749
	(1.25131)	(0.87483)	(1.32508)	(0.38527)	(1.98932)

ที่มา: จากการคำนวณ

ตารางผนวกที่ 30 ผลการทดสอบ Conitegration ของปัจจัยที่มีผลต่อการนำเข้าสินค้าทุนของประเทศไทยจากประเทศญี่ปุ่นในช่วงหลังเกิดวิกฤตการณ์ทางเศรษฐกิจในปี พ.ศ. 2540

Date: 10/04/06 Time: 16:38

Sample(adjusted): 2541:03 2547:12

Included observations: 82 after adjusting endpoints

Trend assumption: Linear deterministic trend (restricted)

Series: LNM LNER LNP LNGDP LNI INT

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.589745	155.7248	114.90	124.75
At most 1	0.421953	82.66473	87.31	96.58
At most 2	0.195697	37.72051	62.99	70.05
At most 3	0.100349	19.86261	42.44	48.45
At most 4	0.086594	11.19127	25.32	30.45
At most 5	0.044866	3.764099	12.25	16.26

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Trace test indicates 1 cointegrating equation(s) at both 5% and 1% levels

Hypothesized No.of CE(s)	Eigenvalue	Max-Eigen Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.589745	73.06005	43.97	49.51
At most 1 **	0.421953	44.94421	37.52	42.36
At most 2	0.195697	17.85790	31.46	36.65
At most 3	0.100349	8.671344	25.54	30.34
At most 4	0.086594	7.427169	18.96	23.65
At most 5	0.044866	3.764099	12.25	16.26

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Max-eigenvalue test indicates 2 cointegrating equation(s) at both 5% and 1% levels

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

LNM	LNER	LNP	LNGDP	LNI	INT	@TREND (41:02)
-7.024508	-0.791753	-21.33745	7.762405	-20.09827	7.553191	0.302127
4.025707	-0.079705	-10.90605	31.72562	-9.377132	-7.469389	-0.174148
-3.284174	-1.170724	0.891624	2.999462	3.156055	-7.821705	0.053333
-8.195007	0.457500	-30.94512	-19.16847	16.91072	-1.234654	-0.104481
0.519687	-0.075034	10.72563	2.848717	-12.54869	-7.477081	0.047393
-18.24043	-0.558094	-19.91183	1.607906	13.53615	10.37697	0.133408

Unrestricted Adjustment Coefficients (alpha):

D(LNM)	0.007025	-0.005147	-0.007105	-0.000856	0.002987	0.001879
D(LNER)	0.025177	0.061887	0.184138	0.008623	0.063753	0.013494
D(LNP)	0.000618	0.005611	0.001852	0.004358	-0.001978	-0.000957
D(LNGDP)	0.001386	-0.007387	0.001278	0.000862	0.000280	-0.000396
D(LNI)	0.009021	0.000601	-0.001982	-0.001226	-0.000559	-0.000597
D(INT)	-0.001966	0.001904	-0.001422	0.000670	0.003970	-0.004016

1 Cointegrating Equation(s): Log likelihood 1086.584

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	@TREND (41:02)
1.000000	0.112713	3.037572	-1.105046	2.861164	-1.075263	-0.043010
	(0.02005)	(0.43457)	(0.53717)	(0.42708)	(0.20628)	(0.00471)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.049350
	(0.01905)
D(LNER)	-0.176857
	(0.39545)
D(LNP)	-0.004340
	(0.01522)
D(LNGDP)	-0.009738
	(0.01003)
D(LNI)	-0.063371
	(0.00833)
D(INT)	0.013812
	(0.01945)

2 Cointegrating Equation(s): Log likelihood 1109.057

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	@TREND (41:02)
1.000000	0.000000	-1.850471	6.538157	-1.553786	-1.738856	-0.043222
		(0.89118)	(1.00679)	(0.74157)	(0.41865)	(0.00805)
0.000000	1.000000	43.36719	-67.81123	39.16987	5.887469	0.001876
		(8.51864)	(9.62377)	(7.08856)	(4.00180)	(0.07696)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.070070	-0.005152
	(0.02141)	(0.00210)
D(LNER)	0.072282	-0.024867
	(0.45205)	(0.04443)
D(LNP)	0.018247	-0.000936
	(0.01673)	(0.00164)
D(LNGDP)	-0.039476	-0.000509
	(0.00923)	(0.00091)
D(LNI)	-0.060951	-0.007191
	(0.00958)	(0.00094)
D(INT)	0.021475	0.001405
	(0.02235)	(0.00220)

3 Cointegrating Equation(s): Log likelihood 1117.986

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	@TREND (41:02)
1.000000	0.000000	0.000000	4.308910	0.228686	-2.008390	-0.046730
			(0.81036)	(0.59242)	(0.34368)	(0.00648)
0.000000	1.000000	0.000000	-15.56713	-2.603723	12.20419	0.084090
			(7.95663)	(5.81679)	(3.37454)	(0.06358)
0.000000	0.000000	1.000000	-1.204692	0.963253	-0.145657	-0.001896
			(0.25269)	(0.18473)	(0.10717)	(0.00202)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.046736	0.003166	-0.100107
	(0.02195)	(0.00356)	(0.06025)
D(LNER)	-0.532461	-0.240442	-1.047978
	(0.45055)	(0.07300)	(1.23657)
D(LNP)	0.012166	-0.003104	-0.072722
	(0.01795)	(0.00291)	(0.04927)
D(LNGDP)	-0.043675	-0.002005	0.052122
	(0.00988)	(0.00160)	(0.02711)

D(LNI)	-0.054442	-0.004870	-0.200816
	(0.01014)	(0.00164)	(0.02784)
D(INT)	0.026146	0.003070	0.019924
	(0.02408)	(0.00390)	(0.06608)

4 Cointegrating Equation(s): Log likelihood 1122.321

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	@TREND (41:02)
1.000000	0.000000	0.000000	0.000000	15.53552	-10.55106	-0.226464
				(4.02835)	(2.45664)	(0.04467)
0.000000	1.000000	0.000000	0.000000	-57.90389	43.06694	0.733429
				(17.7742)	(10.8394)	(0.19711)
0.000000	0.000000	1.000000	0.000000	-3.316257	2.242716	0.048355
				(0.96841)	(0.59057)	(0.01074)
0.000000	0.000000	0.000000	1.000000	-3.552368	1.982559	0.041712
				(0.86838)	(0.52957)	(0.00963)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.039720	0.002774	-0.073616	-0.113656
	(0.03007)	(0.00373)	(0.09829)	(0.09538)
D(LNER)	-0.603129	-0.236497	-1.314827	2.545862
	(0.61760)	(0.07670)	(2.01841)	(1.95864)
D(LNP)	-0.023551	-0.001110	-0.207591	0.104808
	(0.02385)	(0.00296)	(0.07795)	(0.07565)
D(LNGDP)	-0.050737	-0.001611	0.025453	-0.236282
	(0.01349)	(0.00168)	(0.04409)	(0.04279)
D(LNI)	-0.044398	-0.005431	-0.162887	0.106648
	(0.01380)	(0.00171)	(0.04511)	(0.04378)
D(INT)	0.020657	0.003376	-0.000799	0.028031
	(0.03300)	(0.00410)	(0.10783)	(0.10464)

5 Cointegrating Equation(s): Log likelihood 1126.035

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	@TREND (41:02)
1.000000	0.000000	0.000000	0.000000	0.000000	10.78965	0.086430
					(4.19100)	(0.03666)
0.000000	1.000000	0.000000	0.000000	0.000000	-36.47401	-0.432789
					(15.4983)	(0.13559)
0.000000	0.000000	1.000000	0.000000	0.000000	-2.312732	-0.018437
					(0.86291)	(0.00755)
0.000000	0.000000	0.000000	1.000000	0.000000	-2.897229	-0.029835
					(0.96906)	(0.00848)
0.000000	0.000000	0.000000	0.000000	1.000000	-1.373672	-0.020141
					(0.35414)	(0.00310)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.038168	0.002550	-0.041576	-0.105146	-0.167321
	(0.02981)	(0.00370)	(0.10093)	(0.09473)	(0.07645)
D(LNER)	-0.569997	-0.241281	-0.631033	2.727477	-1.159384
	(0.61176)	(0.07600)	(2.07106)	(1.94374)	(1.56869)
D(LNP)	-0.024579	-0.000962	-0.228812	0.099171	0.039345
	(0.02372)	(0.00295)	(0.08029)	(0.07535)	(0.06081)
D(LNGDP)	-0.050592	-0.001632	0.028456	-0.235484	0.056501
	(0.01350)	(0.00168)	(0.04570)	(0.04289)	(0.03461)
D(LNI)	-0.044688	-0.005389	-0.168882	0.105056	-0.206920
	(0.01380)	(0.00171)	(0.04670)	(0.04383)	(0.03537)
D(INT)	0.022720	0.003078	0.041778	0.039340	-0.021311
	(0.03256)	(0.00404)	(0.11023)	(0.10345)	(0.08349)

ที่มา: มาจากการคำนวณ

ตารางผนวกที่ 31 ผลการทดสอบ Conitegration ของปัจจัยที่มีผลต่อการนำเข้าสินค้าทุนของประเทศไทยจากประเทศสหรัฐอเมริกาในช่วงก่อนเกิดวิกฤตการณ์ทางเศรษฐกิจในปี พ.ศ. 2540

Date: 10/04/06 Time: 16:56

Sample(adjusted): 2533:02 2539:12

Included observations: 83 after adjusting endpoints

Trend assumption: No deterministic trend (restricted constant)

Series: LNM LNER LNP LNGDP LNI INT

Lags interval (in first differences): No lags

Unrestricted Cointegration Rank Test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.736600	227.4528	102.14	111.01
At most 1 **	0.542297	116.7241	76.07	84.45
At most 2	0.317935	51.85674	53.12	60.16
At most 3	0.103556	20.09840	34.91	41.07
At most 4	0.083649	11.02486	19.96	24.60
At most 5	0.044456	3.774364	9.24	12.97

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Trace test indicates 2 cointegrating equation(s) at both 5% and 1% levels

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.736600	110.7286	40.30	46.82
At most 1 **	0.542297	64.86737	34.40	39.79
At most 2 *	0.317935	31.75834	28.14	33.24
At most 3	0.103556	9.073541	22.00	26.81
At most 4	0.083649	7.250493	15.67	20.20
At most 5	0.044456	3.774364	9.24	12.97

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Max-eigenvalue test indicates 3 cointegrating equation(s) at the 5% level

Max-eigenvalue test indicates 2 cointegrating equation(s) at the 1% level

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

LNM	LNER	LNP	LNGDP	LNI	INT	C
3.774474	16.44999	-19.40056	-6.404366	-3.979565	-0.059606	37.71618
-1.444141	28.57680	9.219264	2.174181	7.381901	-0.288209	-152.0855
-1.682834	20.27333	9.873051	-25.74342	29.28562	-0.138077	122.3129
-10.29764	-46.53831	6.253967	39.11549	-14.75753	0.186267	-239.6282
-4.649653	99.15235	27.41361	22.99311	-4.015477	0.482885	-584.6894
-2.032079	13.52929	-49.24177	-0.770874	-3.664420	-0.928566	7.113552

Unrestricted Adjustment Coefficients (alpha):

D(LNM)	-0.016535	0.006468	0.002937	0.001461	-0.000293	0.001140
D(LNER)	4.79E-05	0.000171	0.000146	-0.000272	-0.001211	-0.000290
D(LNP)	0.000108	-0.000767	0.001934	0.001072	-0.000515	0.000937
D(LNGDP)	-0.005323	-0.001452	-0.000959	-0.003061	-0.000777	0.000800
D(LNI)	-0.005091	-0.005134	-0.003996	-0.000320	-0.000218	-0.000397
D(INT)	0.058120	0.057244	-0.088099	0.007910	-0.010663	0.012288

1 Cointegrating Equation(s): Log likelihood 1418.256

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	C
1.000000	4.358219	-5.139938	-1.696757	-1.054336	-0.015792	9.992433
	(2.06758)	(1.05376)	(0.59809)	(0.59074)	(0.01983)	(8.81322)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.062409
	(0.00663)
D(LNER)	0.000181
	(0.00188)
D(LNP)	0.000407
	(0.00285)
D(LNGDP)	-0.020092
	(0.00473)
D(LNI)	-0.019217
	(0.00443)
D(INT)	0.219372
	(0.08020)

2 Cointegrating Equation(s): Log likelihood 1450.690

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	C
1.000000	0.000000	-5.364465	-1.662240	-1.786644	0.023079	27.19688
		(1.11941)	(0.65326)	(0.62147)	(0.02148)	(5.68056)
0.000000	1.000000	0.051518	-0.007920	0.168029	-0.008919	-3.947587
		(0.17535)	(0.10233)	(0.09735)	(0.00336)	(0.88985)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.071751	-0.087145
	(0.00648)	(0.05290)
D(LNER)	-6.62E-05	0.005677
	(0.00201)	(0.01638)

D(LNP)	0.001514	-0.020141
	(0.00304)	(0.02477)
D(LNGDP)	-0.017996	-0.129049
	(0.00503)	(0.04102)
D(LNI)	-0.011802	-0.230476
	(0.00416)	(0.03393)
D(INT)	0.136704	2.591920
	(0.08198)	(0.66890)

3 Cointegrating Equation(s): Log likelihood 1466.569

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	C
1.000000	0.000000	0.000000	763.7834	-618.6850	-2.177247	-6664.664
			(165.249)	(155.428)	(3.55828)	(1371.01)
0.000000	1.000000	0.000000	-7.358930	6.092455	0.012212	60.31817
			(1.54925)	(1.45718)	(0.03336)	(12.8536)
0.000000	0.000000	1.000000	142.6882	-114.9972	-0.410167	-1247.442
			(30.8446)	(29.0115)	(0.66417)	(255.906)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.076694	-0.027593	0.409416
	(0.00688)	(0.06082)	(0.03715)
D(LNER)	-0.000312	0.008644	0.002092
	(0.00217)	(0.01922)	(0.01174)
D(LNP)	-0.001740	0.019063	0.009932
	(0.00315)	(0.02787)	(0.01702)
D(LNGDP)	-0.016383	-0.148487	0.080425
	(0.00543)	(0.04798)	(0.02930)
D(LNI)	-0.005078	-0.311488	0.011988
	(0.00407)	(0.03599)	(0.02198)
D(INT)	0.284960	0.805862	-1.469617
	(0.07793)	(0.68903)	(0.42082)

4 Cointegrating Equation(s): Log likelihood 1471.106

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	C
1.000000	0.000000	0.000000	0.000000	-2.221156	0.010167	7.417737
				(0.28230)	(0.02794)	(1.45090)
0.000000	1.000000	0.000000	0.000000	0.152925	-0.008863	-3.966272
				(0.01916)	(0.00190)	(0.09849)
0.000000	0.000000	1.000000	0.000000	0.169097	-0.001520	-0.980253
				(0.05388)	(0.00533)	(0.27691)
0.000000	0.000000	0.000000	1.000000	-0.807118	-0.002864	-8.735569
				(0.04004)	(0.00396)	(0.20581)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.091744	-0.095608	0.418556	0.101504
	(0.01749)	(0.09461)	(0.03822)	(0.07395)
D(LNER)	0.002494	0.021326	0.000388	-0.014361
	(0.00555)	(0.03000)	(0.01212)	(0.02345)
D(LNP)	-0.012782	-0.030840	0.016639	-0.010195
	(0.00795)	(0.04300)	(0.01737)	(0.03361)
D(LNGDP)	0.015139	-0.006031	0.061282	-0.064116
	(0.01334)	(0.07219)	(0.02916)	(0.05642)
D(LNI)	-0.001784	-0.296603	0.009988	0.111803
	(0.01040)	(0.05624)	(0.02272)	(0.04396)
D(INT)	0.203511	0.437765	-1.420154	2.329591
	(0.19894)	(1.07622)	(0.43477)	(0.84120)

5 Cointegrating Equation(s): Log likelihood 1474.731

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	C
1.000000	0.000000	0.000000	0.000000	0.000000	-0.205986	-2.673054
					(0.05473)	(0.29296)
0.000000	1.000000	0.000000	0.000000	0.000000	0.006019	-3.271527
					(0.00238)	(0.01272)
0.000000	0.000000	1.000000	0.000000	0.000000	0.014936	-0.212041
					(0.00596)	(0.03190)
0.000000	0.000000	0.000000	1.000000	0.000000	-0.081409	-12.40234
					(0.01910)	(0.10222)
0.000000	0.000000	0.000000	0.000000	1.000000	-0.097316	-4.543036
					(0.02109)	(0.11287)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.090379	-0.124707	0.410510	0.094756	0.179185
	(0.01894)	(0.18153)	(0.05740)	(0.08220)	(0.05327)
D(LNER)	0.008126	-0.098773	-0.032817	-0.042212	0.014243
	(0.00578)	(0.05544)	(0.01753)	(0.02510)	(0.01627)
D(LNP)	-0.010389	-0.081879	0.002527	-0.022031	0.036785
	(0.00858)	(0.08225)	(0.02601)	(0.03725)	(0.02413)
D(LNGDP)	0.018753	-0.083109	0.039971	-0.081990	0.030685
	(0.01441)	(0.13818)	(0.04370)	(0.06257)	(0.04055)
D(LNI)	-0.000772	-0.318195	0.004018	0.106795	-0.129070
	(0.01125)	(0.10789)	(0.03412)	(0.04885)	(0.03166)
D(INT)	0.253088	-0.619460	-1.712455	2.084424	-2.462667
	(0.21496)	(2.06090)	(0.65170)	(0.93322)	(0.60471)

ที่มา: จากการคำนวณ

ตารางผนวกที่ 32 ผลการทดสอบ Conitegration ของปัจจัยที่มีผลต่อการนำเข้าสินค้าทุนของประเทศไทยจากประเทศสหรัฐอเมริกาในช่วงหลังเกิดวิกฤตการณ์ทางเศรษฐกิจในปี พ.ศ. 2540

Date: 10/04/06 Time: 17:16

Sample(adjusted): 2541:02 2547:12

Included observations: 83 after adjusting endpoints

Trend assumption: No deterministic trend (restricted constant)

Series: LNM LNER LNP LNGDP LNI INT

Lags interval (in first differences): No lags

Unrestricted Cointegration Rank Test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.718487	237.7781	102.14	111.01
At most 1 **	0.514637	132.5691	76.07	84.45
At most 2 **	0.386798	72.57190	53.12	60.16
At most 3	0.157857	31.97987	34.91	41.07
At most 4	0.114336	17.72006	19.96	24.60
At most 5	0.087966	7.642438	9.24	12.97

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Trace test indicates 3 cointegrating equation(s) at both 5% and 1% levels

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	5 Percent Critical Value	1 Percent Critical Value
None **	0.718487	105.2089	40.30	46.82
At most 1 **	0.514637	59.99722	34.40	39.79
At most 2 **	0.386798	40.59203	28.14	33.24
At most 3	0.157857	14.25981	22.00	26.81
At most 4	0.114336	10.07762	15.67	20.20
At most 5	0.087966	7.642438	9.24	12.97

*(**) denotes rejection of the hypothesis at the 5%(1%) level

Max-eigenvalue test indicates 3 cointegrating equation(s) at both 5% and 1% levels

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

LNM	LNER	LNP	LNGDP	LNI	INT	C
3.989072	-11.71197	-28.89421	-4.911979	-2.955896	0.147723	97.91207
12.27447	7.184661	-3.924659	2.636755	-10.70956	-0.292589	-77.25053
1.677493	-2.758718	5.665226	-22.66544	7.005780	-0.326961	263.5297
8.453101	-1.317843	20.90378	18.58017	-11.64486	-0.644097	-226.1889
8.566781	-7.357208	26.73832	7.129066	0.102574	0.109335	-111.9475
4.862148	-5.495005	34.72801	-14.75576	13.23236	-0.597594	127.4697

Unrestricted Adjustment Coefficients (alpha):

D(LNM)	0.001444	-0.001782	-0.001836	-0.002681	0.002605	-0.004358
D(LNER)	0.019789	-0.000330	0.008466	-0.001541	0.002723	0.001554
D(LNP)	0.001553	0.001920	0.003839	0.002720	-0.000634	-0.002014
D(LNGDP)	0.005538	0.001522	-0.002263	-0.003419	-0.004224	-0.000484
D(LNI)	0.012655	0.001906	-0.007106	0.001184	0.000692	-0.000771
D(INT)	0.031997	-0.138255	9.55E-06	0.010940	-0.004226	-0.000705

1 Cointegrating Equation(s): Log likelihood 1152.156

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	C
1.000000	-2.936014	-7.243341	-1.231359	-0.740999	0.037032	24.54508
	(0.29556)	(0.93407)	(0.60628)	(0.34833)	(0.01768)	(7.16610)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	0.005762
	(0.00808)
D(LNER)	0.078940
	(0.00931)
D(LNP)	0.006196
	(0.00526)
D(LNGDP)	0.022092
	(0.00714)
D(LNI)	0.050483
	(0.00654)
D(INT)	0.127639
	(0.08639)

2 Cointegrating Equation(s): Log likelihood 1182.155

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	C
1.000000	0.000000	-1.470612	-0.025573	-0.850647	-0.013719	-1.167457
		(0.41960)	(0.25594)	(0.14026)	(0.00798)	(2.90104)
0.000000	1.000000	1.966179	0.410688	-0.037346	-0.017286	-8.757632
		(0.29519)	(0.18006)	(0.09868)	(0.00561)	(2.04093)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.016116	-0.029723
	(0.02602)	(0.02770)
D(LNER)	0.074893	-0.234138
	(0.03011)	(0.03205)

D(LNP)	0.029759	-0.004400
	(0.01681)	(0.01789)
D(LNGDP)	0.040773	-0.053927
	(0.02299)	(0.02448)
D(LNI)	0.073880	-0.134522
	(0.02097)	(0.02233)
D(INT)	-1.569373	-1.368066
	(0.19825)	(0.21106)

3 Cointegrating Equation(s): Log likelihood 1202.451

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	C
1.000000	0.000000	0.000000	-2.356802	0.052975	-0.051865	25.01227
			(0.53808)	(0.24235)	(0.01387)	(6.11985)
0.000000	1.000000	0.000000	3.527492	-1.245470	0.033714	-43.75939
			(0.66905)	(0.30133)	(0.01725)	(7.60938)
0.000000	0.000000	1.000000	-1.585209	0.614453	-0.025939	17.80192
			(0.33705)	(0.15181)	(0.00869)	(3.83347)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.019196	-0.024657	-0.045143
	(0.02611)	(0.02811)	(0.05958)
D(LNER)	0.089095	-0.257494	-0.522533
	(0.02782)	(0.02995)	(0.06348)
D(LNP)	0.036199	-0.014991	-0.030666
	(0.01602)	(0.01725)	(0.03657)
D(LNGDP)	0.036977	-0.047683	-0.178814
	(0.02296)	(0.02472)	(0.05239)
D(LNI)	0.061960	-0.114919	-0.413401
	(0.01852)	(0.01994)	(0.04227)
D(INT)	-1.569356	-1.368093	-0.381870
	(0.19992)	(0.21527)	(0.45629)

4 Cointegrating Equation(s): Log likelihood 1209.581

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	C
1.000000	0.000000	0.000000	0.000000	-0.768124	-0.040096	-1.785214
				(0.08601)	(0.00784)	(0.41827)
0.000000	1.000000	0.000000	0.000000	-0.016508	0.016099	-3.650828
				(0.11388)	(0.01038)	(0.55377)
0.000000	0.000000	1.000000	0.000000	0.062173	-0.018022	-0.222344
				(0.05110)	(0.00466)	(0.24849)
0.000000	0.000000	0.000000	1.000000	-0.348395	0.004994	-11.37028
				(0.04927)	(0.00449)	(0.23958)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.041857	-0.021124	-0.101183	-0.019986
	(0.03079)	(0.02793)	(0.07206)	(0.05919)
D(LNER)	0.076066	-0.255463	-0.554753	-0.318603
	(0.03306)	(0.02999)	(0.07738)	(0.06356)
D(LNP)	0.059191	-0.018576	0.026193	-0.039045
	(0.01853)	(0.01681)	(0.04337)	(0.03562)
D(LNGDP)	0.008075	-0.043178	-0.250287	-0.035420
	(0.02674)	(0.02425)	(0.06258)	(0.05140)
D(LNI)	0.071973	-0.116480	-0.388641	0.125931
	(0.02199)	(0.01995)	(0.05147)	(0.04228)
D(INT)	-1.476884	-1.382509	-0.153193	-0.318673
	(0.23765)	(0.21555)	(0.55622)	(0.45685)

5 Cointegrating Equation(s): Log likelihood 1214.619

Normalized cointegrating coefficients (std.err. in parentheses)

LNM	LNER	LNP	LNGDP	LNI	INT	C
1.000000	0.000000	0.000000	0.000000	0.000000	0.065773	-5.583738
					(0.02063)	(0.08412)
0.000000	1.000000	0.000000	0.000000	0.000000	0.018374	-3.732466
					(0.00704)	(0.02869)
0.000000	0.000000	1.000000	0.000000	0.000000	-0.026592	0.085116
					(0.00452)	(0.01842)
0.000000	0.000000	0.000000	1.000000	0.000000	0.053012	-13.09316
					(0.01017)	(0.04147)
0.000000	0.000000	0.000000	0.000000	1.000000	0.137828	-4.945197
					(0.03010)	(0.12272)

Adjustment coefficients (std.err. in parentheses)

D(LNM)	-0.019540	-0.040291	-0.031527	-0.001414	0.033440
	(0.03480)	(0.03118)	(0.08853)	(0.06021)	(0.03446)
D(LNER)	0.099394	-0.275498	-0.481941	-0.299189	0.022578
	(0.03739)	(0.03350)	(0.09512)	(0.06469)	(0.03702)
D(LNP)	0.053758	-0.013910	0.009234	-0.043566	-0.029993
	(0.02113)	(0.01893)	(0.05376)	(0.03656)	(0.02092)
D(LNGDP)	-0.028112	-0.012100	-0.363232	-0.065534	-0.009144
	(0.02940)	(0.02634)	(0.07481)	(0.05087)	(0.02911)
D(LNI)	0.077903	-0.121573	-0.370134	0.130866	-0.121327
	(0.02508)	(0.02247)	(0.06382)	(0.04340)	(0.02484)
D(INT)	-1.513090	-1.351415	-0.266198	-0.348803	1.258319
	(0.27133)	(0.24311)	(0.69035)	(0.46949)	(0.26868)

ที่มา: จากการคำนวณ