

References

- Arunthamsakul, Supachai and Sutham, Apisith John (1998) "The Recent Development of the Derivative Market in Thailand" *SET Journal*, Vol. 2, No. 17, February 1998.
- Backus, et al "*Predictable Changes in Yields and Forward Rates*" Working Paper 6379.
- Baillie, Richard T., Lippens, Robert E. and McMahon, Patrick C. (1983) "Testing Rational Expectations and Efficiency in the Foreign Exchange Market" *Econometrica*, Vol. 51, No. 3, May 1983: 553-562.
- Balie, R.J., Lippens, R.E. and McMahon, P.L. (1983) "Testing rational expectations and efficiency in the foreign exchange rate market" *Econometrica*, 51, 553-63.
- Banks, Erik (1996) "*Asia Pacific Derivative Markets*" Macmillan Press Ltd., Basingstoke, Hants, The United Kingdom.
- Bernstein, Jake (1989) "*How to Futures Markets Work*" New York Institute of finance: New York.
- Bigman, David and Teizo Taya eds(1984) "*Floating Exchange Rates and the State of World Trade Payments*" Ballinger, Massachusetts, U.S.A.
- Blake, David (1990) "*Financial Market Analysis*" McGraw-Hill book company: London.
- Burt, John, Kaen, Fred R. and Booth, Geoffrey G. (1977) "Foreign Exchange Market Efficiency Under Flexible Exchange Rates" *The Journal of Finance*, Vol. 32, September 1977: 1325-1329.
- Chance, Don M. (1989) "*An Introduction to Options and Futures*" the Dryden Press: Chicago.
- Claassen, Emil-Maria (1996) "*Global Monetary Economics*" Oxford University Press, Oxford.
- Comby, Robert F. and Obstfeld, Maurice (1981) "A Note of Exchange Rate Expectation and Norminal Interest Differentials: The Test

- of Fisher's Hypothesis" *The Journal of Finance*, Vol. 81. June 1981: 607-702.
- Copeland, Laurence S. (1989) "*Exchange Rates and International Finance*" Addison-Wesley Publishing Company. New York, U.S.A..
- Cummy, et al (1981) "A Note on Exchange-Rate Expectations and Nominal Interest Differentials: A Test of the Fisher Hypothesis" *The Journal of Finance*, Vol. 36, No. 3: 697-703.
- Cuthdertson, Keith (1996) "*Quantitative Financial Economics*" John Wiley & Sons Ltd.: New York.
- Dornbusch, Rudiger and Fischer, Stanley (1980) "Exchange Rates and the Current Account" *The American Economic Review*, Vol. 70, No. 5, December 1980.
- Edward, Sebastian (1983) "Floating Exchange Rate Expectation and New Information" *Journal of Monetary Economics*, Vol. 11, May 1983: 321-336.
- Edwards, Sebastian and Khan, Mohsin S. (1985) "*Interest Rate Determination in Developing Countries: A Conceptual Framework*" Staff Paper, No. 9., International Monetary Fund.
- Engel, Charles M. (1984) "Testing for the Absence of Expected Real Profit From Forward Market Speculation" *Journal of International Economics*, Vol. 17, November 1984: 299-308.
- Fama, E.F. (1970) "Efficient Capital Markets: A Review of Theory and Empirical Work" *Journal of Finance*, Vol. 25, No. 2, 383-423.
- Fama, E.F. (1984) "Forward and Spot Exchange Rates", *Journal of Monetary Economics*, Vol. 14: 319-338.
- Flood, Robert P. and Rose, Andrew K. (1996) "Fixes: of the Forward Discount Puzzle" *The Review of Economics and Statistics*, Vol. 50. The MIT Press.
- Froot, Kenneth A. and Thaler, Richard H. (1990) "Anomalies Foreign Exchange" *Journal of Economic Perspectives*, Vol. 4: 179-192.

- Gibson, Heather D. (1996) *"International Finance exchange rates and financial flows in the international system"* Longman Group Limited: New York.
- Glahe, Fred R. (1967) *"An Empirical Study of the Foreign-exchange Market: Test of Theory"* Princeton University, Princeton New Jersey.
- Grauwe, Paul de (1996) *"International Money Postwar Trends and Theories"* Oxford University Press, Oxford.
- Gupta, Dipak Das and Gupta, Bejoy Das (1994) *"Interest Rates in Open Economics"* Policy research working paper 1283, The World Bank East Asia and Pacific Region.
- Hakkio, C.S. (1981) "Expectations and the forward exchange rate", *International Economic Review*, 22, 663-78.
- Hansen, Las Peter and Hondrick, Robert J. (1980) "Forward Exchange Rate as Optimal Predictor of Future Spot Rate: An Econometric Analysis" *Journal of Political Economy*, Vol. 80, May 1980: 829-865.
- Herin, Jan, Lindbeck, Assar and Myhrman, Johan (1977) *"Flexible Exchange Rates and Stabilization Policy"* UNWIN Brothers Limited, London.
- Hull, John *"Introduction to Futures and Options Markets"*, Second Edition. Prentice-Hall Inc.: New Jersey U.S.A.
- Ito, Takatoshi and Elliott, Graham (1995) *"Heterogeneous Expectations and Tests of Efficiency in the Yen/Dollar Forward Foreign Exchange Rate Market"* NBER working paper series No. 5376. National Bureau of Economic Research, Inc..
- Krueger, Anne O. (1983) *"Exchange-Rate Determination"* Cambridge University Press, London.
- Levich, Richard M. (1985) *"Empirical Studies of Exchange Rates: Price Behavior, Rate Determination and Market Efficiency"* Handbook of International Economics, Vol. 2.

- Lin Wu, Jyh (1997) " Foreign Exchange Market Efficiency and Structural Instability: Evidence from Taiwan" *Journal of Macroeconomics*, Vol. 19, No. 3: 591-607.
- MacDonald, R. (1983) "Some test of rational expectations hypothesis in the foreign exchange market" *Journal of Political Economy*, 30:3, 235-50.
- Mccallum, Bennett T. (1993) "A Reconsideration of the Uncovered Interest Parity Relationship " *Journal of Monetary Economics*, Vol. 33, Carnegie Mellon University, Pittsburgh, U.S.A.
- McCallum, Bennett T. (1996) "*International Monetary Economics*" Oxford University Press, Inc: New York.
- McCurdy, H. Thomas and Morgan, Ieuan G. (1991) "Tests for a Systematic Risk Component in Deviations From Uncovered Interest Rate Parity" *Review of Economic Studies*, Vol. 58: 587-602.
- Meredith, Guy and Chinn, Menzie D. (1998) "*Long-horizon Uncovered Interest Rate Parity*" NBER working paper 6797. National Bureau of Economic Research, Inc..
- Montes, Manuel F. (1998) "*The Currency Crisis in Southeast Asia*" Institute of Southeast Asian Studies: Singapore.
- Nuchpong, Rakchanok (1997) "The relationship between exchange rate and differential of real interest rate" Thesis submitted in partial fulfillment of the requirement for the degree of Master of Economics, Thammasat University (in Thai)
- Pentecost, Eric J. (1993) "*Exchange Rate Dynamics: A Modern Analysis of Exchange Rate Theory and Evidence*" Edward Elgar Publishing Limited: England.
- Perry, L. George (1980) "*Economic Activity*" The Brooking Institution: Washington D.C.
- Pikoulakis, Emmanuel (1995) "*International Macroeconomics*" Macmillan Press Ltd.: London.
- Pilbeam, Keith (1992) "*International Finance*" the Macmillan Press ltd.: London.

- Pindyck, Robert S. and Rubinfeld, Daniel L.(1998) *"Econometric Models and Economic Forecast"* McGraw-Hill international Editions: Boston.
- Polak, Jacques J. (1994) *"Economic Theory and Financial Policy, the Selected Essays of Jacques J. Polak Volume I"* Edward Elgar Publishing Limited: England.
- Reilly, Frank K. (1979) *"Investment Analysis and Portfolio Management"* Illinois: Dryden Press: 162-164.
- Sercu, Piet and Raman Uppal (1995) *"International Financial Markets and The Firm"* South-Western College Publishing: Cincinnati: Ohio.
- Siegel, Daniel R. and Siegel, Diane F. (1990) *"The Futures Markets"* The Dryden Press. U.S.A.
- Surajaras, Patchara and Sweeney, Richard J. (1992) *"Profit-Making Speculation in Foreign Exchange Markets"* Westview Press. Colorado: U.S.A.
- Taylor, M.P. (1988) "An empirical examination of long-run PPP using cointegration techniques", *Applied Economics*, Vol. 20: 1369-82.
- Thongkhundam, Parichart (1996) "Efficiency in Thailand forward foreign exchange market: cointegration and error correction model" Thesis submitted in partial fulfillment of the requirement for the degree of Master of Economics, Chulalongkorn University (in Thai)
- Vanitcharearnthum, Vimut (1988) "Exchange Rate Determination and Speculative Attacks on the Baht, 1980-1984" Thesis submitted in partial fulfillment of the requirement for the degree of Master of Economics, Thammasat University.
- Watsham, Terry J. (1992) *"Options and Futures in International Portfolio Management"* Chapman & Hall: London.
- Weiseriller, Rudi (1984) *"How the Foreign Exchange Market works"* NYIF: New York Institute of Finance: New York.
- Weisweiller, Rudi (1972) *"Foreign Exchange"* clarke, Doble & Brendun Limited: Great Britain.

- Williams, Jeffrey (1989) *“The Economic Function of Futures Markets”*
Cambridge University Press: New York.
- Zellner, A. (1962) “An efficient method of estimating seemingly
unrelated regressions and tests of aggregation bias”, *Journal of
the American Statistic Association*, Vol. 57: 348-368.



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Appendix

This study uses the monthly forward premium, change in spot rate ($s_{t+1} - s_t$) and interest rate differential from June 1995 until June 1999.

Date	Forward Premium	Change in Spot Rate	Interest Rate Differential
Jun-95	13.1500	0.1200	7.1875
Jul-95	10.0500	-0.0300	5.3750
Aug-95	7.7500	0.0800	4.3750
Sep-95	8.2300	0.2900	4.8750
Oct-95	9.1900	0.0600	6.8750
Nov-95	8.5700	0.0600	5.1719
Dec-95	9.3000	0.0200	7.3125
Jan-96	10.1800	0.0100	8.8125
Feb-96	8.3200	0.1300	5.1250
Mar-96	6.9800	-0.1400	6.1875
Apr-96	7.8300	0.0800	5.3125
May-96	6.3400	-0.0300	4.8125
Jun-96	6.7800	0.0900	5.0352
Jul-96	6.8500	0.0300	5.2656
Aug-96	6.5200	-0.1550	8.5586
Sep-96	9.7100	0.0900	5.3125
Oct-96	10.7100	0.1200	7.3164
Nov-96	10.0000	0.0700	7.6250
Dec-96	10.0700	0.0100	5.9375
Jan-97	10.6100	0.1000	8.0000
Feb-97	10.5500	0.2500	8.0625
Mar-97	17.0500	0.0100	7.5625
Apr-97	12.7800	0.0900	5.5625
May-97	9.2100	0.1400	4.3125
Jun-97	63.5700	-0.2900	11.8125

Augmented Dickey-Fuller Unit Root Test on CSPOT

ADF Test Statistic	-5.318871	1% Critical Value*	-3.5682	
		5% Critical Value	-2.9215	
		10% Critical Value	-2.5983	
*MackInnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey-Fuller Test Equation				
LS // Dependent Variable is D(CSPOT)				
Date: 07/19/99 Time: 09:09				
Sample: 1995:06 1999:06				
Included observations: 49				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSPOT(-1)	-0.938629	0.176471	-5.318871	0.0000
D(CSPOT(-1))	0.237284	0.143261	1.656306	0.1045
C	0.239171	0.313742	0.762318	0.4498
R-squared	0.414170	Mean dependent var	-0.001502	
Adjusted R-squared	0.388699	S.D. dependent var	2.779507	
S.E. of regression	2.173178	Akaike info criterion	1.611651	
Sum squared resid	217.2442	Schwarz criterion	1.727477	
Log likelihood	-106.0134	F-statistic	16.26054	
Durbin-Watson stat	1.929599	Prob(F-statistic)	0.000005	

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Augmented Dickey-Fuller Unit Root Test on D(CSPOT)

ADF Test Statistic	-7.302429	1% Critical Value*	-3.5682	
		5% Critical Value	-2.9215	
		10% Critical Value	-2.5983	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey-Fuller Test Equation				
LS // Dependent Variable is D(CSPOT,2)				
Date: 07/19/99 Time: 09:10				
Sample: 1995:06 1999:06				
Included observations: 49				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CSPOT(-1))	-2.862704	0.392021	-7.302429	0.0000
D(CSPOT(-1),2)	1.464098	0.323267	4.529071	0.0000
D(CSPOT(-2),2)	0.730222	0.223047	3.273851	0.0021
D(CSPOT(-3),2)	0.489888	0.131608	3.722319	0.0006
C	0.005715	0.309513	0.018464	0.9854
R-squared	0.773995	Mean dependent var	-0.000254	
Adjusted R-squared	0.753449	S.D. dependent var	4.363257	
S.E. of regression	2.166526	Akaike info criterion	1.642701	
Sum squared resid	206.5288	Schwarz criterion	1.835744	
Log likelihood	-104.7742	F-statistic	37.67151	
Durbin-Watson stat	1.864048	Prob(F-statistic)	0.000000	

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Augmented Dickey-Fuller Unit Root Test on PREMIUM

ADF Test Statistic	-1.693298	1% Critical Value*	-3.5682	
		5% Critical Value	-2.9215	
		10% Critical Value	-2.5983	
*Mackinnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey-Fuller Test Equation				
LS // Dependent Variable is D(PREMIUM)				
Date: 07/19/99 Time: 09:11				
Sample: 1995:06 1999:06				
Included observations: 49				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PREMIUM(-1)	-0.194105	0.114631	-1.693298	0.0972
D(PREMIUM(-1))	-0.342165	0.141566	-2.417001	0.0197
C	2.661368	2.375874	1.120164	0.2685
R-squared	0.244309	Mean dependent var	-0.372857	
Adjusted R-squared	0.211453	S.D. dependent var	11.41455	
S.E. of regression	10.13614	Akaike info criterion	4.691485	
Sum squared resid	4726.103	Schwarz criterion	4.807311	
Log likelihood	-181.4694	F-statistic	7.435711	
Durbin-Watson stat	2.061449	Prob(F-statistic)	0.001592	

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Augmented Dickey-Fuller Unit Root Test on D(PREMIUM)

ADF Test Statistic	-6.854083	1% Critical Value*	-3.5682	
		5% Critical Value	-2.9215	
		10% Critical Value	-2.5983	
*Mackinnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey-Fuller Test Equation				
LS // Dependent Variable is D(PREMIUM,2)				
Date: 07/19/99 Time: 09:12				
Sample: 1995:06 1999:06				
Included observations: 49				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PREMIUM(-1))	-1.688558	0.246358	-6.854083	0.0000
D(PREMIUM(-1),2)	0.169471	0.144951	1.169168	0.2484
C	-0.590483	1.472463	-0.401017	0.6903
R-squared	0.730101	Mean dependent var	-0.025102	
Adjusted R-squared	0.718366	S.D. dependent var	19.39998	
S.E. of regression	10.29542	Akaike info criterion	4.722668	
Sum squared resid	4875.799	Schwarz criterion	4.838494	
Log likelihood	-182.2333	F-statistic	62.21696	
Durbin-Watson stat	2.037178	Prob(F-statistic)	0.000000	

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Augmented Dickey-Fuller Unit Root Test on DIFF

ADF Test Statistic	-1.456245	1% Critical Value*	-3.5682	
		5% Critical Value	-2.9215	
		10% Critical Value	-2.5983	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey-Fuller Test Equation				
LS // Dependent Variable is D(DIFF)				
Date: 07/19/99 Time: 09:13				
Sample: 1995:06 1999:06				
Included observations: 49				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFF(-1)	-0.102837	0.070618	-1.456245	0.1524
D(DIFF(-1))	0.049337	0.151185	0.326332	0.7457
D(DIFF(-2))	-0.043291	0.147862	-0.292782	0.7711
D(DIFF(-3))	0.311410	0.147107	2.116896	0.0400
C	0.746577	0.715586	1.043307	0.3025
R-squared	0.124118	Mean dependent var	-0.171020	
Adjusted R-squared	0.044492	S.D. dependent var	2.523928	
S.E. of regression	2.467142	Akaike info criterion	1.902572	
Sum squared resid	267.8187	Schwarz criterion	2.095615	
Log likelihood	-111.1410	F-statistic	1.558764	
Durbin-Watson stat	2.060236	Prob(F-statistic)	0.202108	

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Augmented Dickey-Fuller Unit Root Test on D(DIFF)

ADF Test Statistic	-3.289684	1% Critical Value*	-3.5682	
		5% Critical Value	-2.9215	
		10% Critical Value	-2.5983	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey-Fuller Test Equation				
LS // Dependent Variable is D(DIFF,2)				
Date: 07/19/99 Time: 09:14				
Sample: 1995:06 1999:06				
Included observations: 49				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(DIFF(-1))	-0.878675	0.267100	-3.289684	0.0020
D(DIFF(-1),2)	-0.146289	0.207927	-0.703462	0.4854
D(DIFF(-2),2)	-0.254933	0.143659	-1.774573	0.0827
C	-0.158625	0.358897	-0.441981	0.6606
R-squared	0.563017	Mean dependent var	-0.003367	
Adjusted R-squared	0.533885	S.D. dependent var	3.658381	
S.E. of regression	2.497673	Akaike info criterion	1.908826	
Sum squared resid	280.7266	Schwarz criterion	2.063261	
Log likelihood	-112.2942	F-statistic	19.32629	
Durbin-Watson stat	2.013700	Prob(F-statistic)	0.000000	

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

LS // Dependent Variable is CSPOT				
Date: 07/13/99 Time: 22:54				
Sample: 1995:06 1997:06				
Included observations: 25				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSPOT(-1)	-0.283467	0.237469	-1.193703	0.2448
PREMIUM(-1)	0.006728	0.002661	2.528720	0.0188
R-squared	0.085634	Mean dependent var	0.048200	
Adjusted R-squared	0.045879	S.D. dependent var	0.119747	
S.E. of regression	0.116968	Akaike info criterion	-4.215087	
Sum squared resid	0.314676	Schwarz criterion	-4.117577	
Log likelihood	19.21512	F-statistic	2.154030	
Durbin-Watson stat	1.735229	Prob(F-statistic)	0.155739	



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Wald Test:			
Equation: Untitled			
Null Hypothesis:			
	C(1)=0		
	C(2)=1		
F-statistic	92691.24	Probability	0.000000
Chi-square	185382.5	Probability	0.000000



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

LS // Dependent Variable is CSPOT				
Date: 07/13/99 Time: 22:54				
Sample: 1995:06 1997:06				
Included observations: 25				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSPOT(-1)	-0.249917	0.230141	-1.085929	0.2888
DIFF(-1)	0.010315	0.004031	2.558955	0.0175
R-squared	0.090394	Mean dependent var	0.048200	
Adjusted R-squared	0.050846	S.D. dependent var	0.119747	
S.E. of regression	0.116663	Akaike info criterion	-4.220306	
Sum squared resid	0.313038	Schwarz criterion	-4.122796	
Log likelihood	19.28037	F-statistic	2.285665	
Durbin-Watson stat	1.734619	Prob(F-statistic)	0.144194	



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Wald Test:			
Equation: Untitled			
Null Hypothesis: C(1)=0 C(2)=1			
F-statistic	37888.64	Probability	0.000000
Chi-square	75777.29	Probability	0.000000



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

LS // Dependent Variable is CSPOT				
Date: 07/13/99 Time: 22:52				
Sample: 1997:06 1999:06				
Included observations: 25				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSPOT(-1)	0.238934	0.205613	1.162056	0.2571
PREMIUM(-1)	0.006863	0.022867	0.300141	0.7668
R-squared	0.048260	Mean dependent var	0.439200	
Adjusted R-squared	0.006880	S.D. dependent var	3.178581	
S.E. of regression	3.167628	Akaike info criterion	2.382585	
Sum squared resid	230.7790	Schwarz criterion	2.480095	
Log likelihood	-63.25577	F-statistic	1.166255	
Durbin-Watson stat	1.892815	Prob(F-statistic)	0.291367	



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Wald Test: Equation: Untitled			
Null Hypothesis: C(1)=0 C(2)=1			
F-statistic	972.8532	Probability	0.000000
Chi-square	1945.706	Probability	0.000000



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

LS // Dependent Variable is CSPOT
 Date: 07/13/99 Time: 22:55
 Sample: 1997:06 1999:06
 Included observations: 25

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CSPOT(-1)	0.226177	0.204642	1.105235	0.2805
DIFF(-1)	0.030137	0.050416	0.597763	0.5558
R-squared	0.059149	Mean dependent var	0.439200	
Adjusted R-squared	0.018242	S.D. dependent var	3.178581	
S.E. of regression	3.149455	Akaike info criterion	2.371077	
Sum squared resid	228.1386	Schwarz criterion	2.468587	
Log likelihood	-63.11193	F-statistic	1.445946	
Durbin-Watson stat	1.862103	Prob(F-statistic)	0.241413	



สถาบันวิทยบริการ
 จุฬาลงกรณ์มหาวิทยาลัย

Wald Test:			
Equation: Untitled			
Null Hypothesis: C(1)=0 C(2)=1			
F-statistic	189.2736	Probability	0.000000
Chi-square	378.5473	Probability	0.000000



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

System: Untitled
 Estimation Method: Least Squares
 Date: 07/14/99 Time: 06:54
 Sample: 1995:06 1997:06

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.283467	0.237469	-1.193703	0.2387
C(2)	0.006728	0.002861	2.528720	0.0149
C(3)	26.05974	22.68272	1.148881	0.2565
C(4)	0.987076	0.254151	3.883816	0.0003

Determinant residual covariance 1.018310

Equation: $CSPOT=C(1)*CSPOT(-1)+C(2)*PREMIUM(-1)$
 Observations: 25

R-squared	0.085634	Mean dependent var	0.048200
Adjusted R-squared	0.045879	S.D. dependent var	0.119747
S.E. of regression	0.116968	Sum squared resid	0.314678
Durbin-Watson stat	1.735229		

Equation: $PREMIUM=C(3)*CSPOT(-1)+C(4)*PREMIUM(-1)$
 Observations: 25

R-squared	0.026066	Mean dependent var	11.61200
Adjusted R-squared	-0.016279	S.D. dependent var	11.08283
S.E. of regression	11.17267	Sum squared resid	2871.057
Durbin-Watson stat	1.282204		

สถาบันวิทยบริการ
 จุฬาลงกรณ์มหาวิทยาลัย

Wald Test: System: Untitled			
Null Hypothesis: $C(1)+C(1)*C(1)+C(2)*C(3)=0$ $C(3)+C(1)*C(3)+C(3)*C(4)=1$			
Chi-square	9.443172	Probability	0.008901



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

System: Untitled				
Estimation Method: Least Squares				
Date: 07/14/99 Time: 06:56				
Sample: 1995:06 1997:06				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.249917	0.230141	-1.085929	0.2832
C(2)	0.010315	0.004031	2.558955	0.0139
C(3)	9.698140	4.211352	2.302857	0.0259
C(4)	0.896491	0.073760	12.15419	0.0000
Determinant residual covariance		0.041770		
Equation: $CSPOT=C(1)*CSPOT(-1)+C(2)*DIFF(-1)$				
Observations: 25				
R-squared	0.090394	Mean dependent var	0.048200	
Adjusted R-squared	0.050846	S.D. dependent var	0.119747	
S.E. of regression	0.116663	Sum squared resid	0.313038	
Durbin-Watson stat	1.734619			
Equation: $DIFF=C(3)*CSPOT(-1)+C(4)*DIFF(-1)$				
Observations: 25				
R-squared	-0.410686	Mean dependent var	6.471406	
Adjusted R-squared	-0.472020	S.D. dependent var	1.759564	
S.E. of regression	2.134823	Sum squared resid	104.8218	
Durbin-Watson stat	2.000249			

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Wald Test: System: Untitled			
Null Hypothesis: $C(1)+C(1)*C(1)+C(2)*C(3)=0$ $C(3)+C(1)*C(3)+C(3)*C(4)=1$			
Chi-square	12.39214	Probability	0.002037



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

System: Untitled				
Estimation Method: Least Squares				
Date: 07/14/99 Time: 06:58				
Sample: 1997:06 1999:06				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.238934	0.205613	1.162056	0.2512
C(2)	0.006863	0.022867	0.300141	0.7654
C(3)	0.235796	1.016353	0.232002	0.8176
C(4)	0.839232	0.113034	7.424602	0.0000
Determinant residual covariance		2000.399		
Equation: $CSPOT=C(1)*CSPOT(-1)+C(2)*PREMIUM(-1)$				
Observations: 25				
R-squared	0.048260	Mean dependent var	0.439200	
Adjusted R-squared	0.006880	S.D. dependent var	3.178581	
S.E. of regression	3.167628	Sum squared resid	230.7790	
Durbin-Watson stat	1.892815			
Equation: $PREMIUM=C(3)*CSPOT(-1)+C(4)*PREMIUM(-1)$				
Observations: 25				
R-squared	0.274036	Mean dependent var	22.04000	
Adjusted R-squared	0.242472	S.D. dependent var	17.98991	
S.E. of regression	15.65771	Sum squared resid	5638.772	
Durbin-Watson stat	2.116941			

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Wald Test:			
System: Untitled			
Null Hypothesis:			
	$C(1)+C(1)*C(1)+C(2)*C(3)=0$		
	$C(3)+C(1)*C(3)+C(3)*C(4)=1$		
Chi-square	1.048143	Probability	0.592105



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

System: Untitled
 Estimation Method: Least Squares
 Date: 07/14/99 Time: 06:57
 Sample: 1997:06 1999:06

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.226177	0.204642	1.105235	0.2748
C(2)	0.030137	0.050416	0.597763	0.5529
C(3)	0.158783	0.202689	0.783382	0.4374
C(4)	0.961006	0.049935	19.24520	0.0000

Determinant residual covariance 79.94691

Equation: $CSPOT=C(1)*CSPOT(-1)+C(2)*DIFF(-1)$
 Observations: 25

R-squared	0.059149	Mean dependent var	0.439200
Adjusted R-squared	0.018242	S.D. dependent var	3.178581
S.E. of regression	3.149455	Sum squared resid	228.1386
Durbin-Watson stat	1.862103		

Equation: $DIFF=C(3)*CSPOT(-1)+C(4)*DIFF(-1)$
 Observations: 25

R-squared	0.836103	Mean dependent var	10.37404
Adjusted R-squared	0.828977	S.D. dependent var	7.543009
S.E. of regression	3.119402	Sum squared resid	223.8054
Durbin-Watson stat	1.608337		

สถาบันวิทยบริการ
 จุฬาลงกรณ์มหาวิทยาลัย

Wald Test:			
System: Untitled			
Null Hypothesis:			
	$C(1)+C(1)*C(1)+C(2)*C(3)=0$		
	$C(3)+C(1)*C(3)+C(3)*C(4)=1$		
Chi-square	3.375205	Probability	0.184963



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

System: Untitled
 Estimation Method: Least Squares
 Date: 07/14/99 Time: 07:00
 Sample: 1995:06 1997:06

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.268429	0.244163	-1.099383	0.2756
C(2)	0.002674	0.009623	0.277914	0.7819
C(3)	0.006417	0.014616	0.439056	0.6621
C(4)	25.82890	23.42151	1.102786	0.2741
C(5)	1.049305	0.923054	1.136775	0.2597
C(6)	-0.098502	1.402008	-0.070258	0.9442
C(7)	8.841628	4.425441	1.997909	0.0499
C(8)	0.123733	0.174409	0.709443	0.4805
C(9)	0.716155	0.264906	2.703429	0.0087

Determinant residual covariance 2.144755

Equation: $CSPOT=C(1)*CSPOT(-1)+C(2)*PREMIUM(-1)+C(3)*DIFF(-1)$
 Observations: 25

R-squared	0.093576	Mean dependent var	0.048200
Adjusted R-squared	0.011174	S.D. dependent var	0.119747
S.E. of regression	0.119077	Sum squared resid	0.311943
Durbin-Watson stat	1.731445		

Equation: $PREMIUM=C(4)*CSPOT(-1)+C(5)*PREMIUM(-1)+C(6)*DIFF(-1)$
 Observations: 25

R-squared	0.026284	Mean dependent var	11.61200
Adjusted R-squared	-0.062235	S.D. dependent var	11.08283
S.E. of regression	11.42249	Sum squared resid	2870.413
Durbin-Watson stat	1.293428		

Equation: $DIFF=C(7)*CSPOT(-1)+C(8)*PREMIUM(-1)+C(9)*DIFF(-1)$
 Observations: 25

R-squared	-0.379134	Mean dependent var	6.471408
Adjusted R-squared	-0.504510	S.D. dependent var	1.759564
S.E. of regression	2.158254	Sum squared resid	102.4773
Durbin-Watson stat	1.875192		

Wald Test:			
System: Untitled			
Null Hypothesis:			
	$C(1)*C(1)+C(2)*C(4)+C(3)*C(7)+C(1)=0$		
	$C(1)*C(4)+C(4)*C(5)+C(6)*C(7)+C(4)=1$		
	$C(1)*C(7)+C(4)*C(8)+C(7)*C(9)+C(7)=0$		
Chi-square	8.658470	Probability	0.034194



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Wald Test:			
System: Untitled			
Null Hypothesis:			
	$C(1)*C(1)+C(2)*C(4)+C(3)*C(7)+C(1)=0$		
	$C(1)*C(4)+C(4)*C(5)+C(6)*C(7)+C(4)=0$		
	$C(1)*C(7)+C(4)*C(8)+C(7)*C(9)+C(7)=1$		
Chi-square	7.893186	Probability	0.048272



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

System: Untitled
 Estimation Method: Least Squares
 Date: 07/14/99 Time: 07:01
 Sample: 1997:06 1999:06

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.229306	0.206254	1.111765	0.2703
C(2)	-0.056923	0.070616	-0.806101	0.4231
C(3)	0.149533	0.156586	0.954955	0.3431
C(4)	0.101398	0.859582	0.117962	0.9065
C(5)	-0.051203	0.294297	-0.173984	0.8624
C(6)	2.087408	0.652586	3.198674	0.0021
C(7)	0.158063	0.207120	0.763145	0.4481
C(8)	0.013097	0.070912	0.184699	0.8540
C(9)	0.933534	0.157244	5.936867	0.0000

Determinant residual covariance 5536.612

Equation: $CSPOT=C(1)*CSPOT(-1)+C(2)*PREMIUM(-1)+C(3)*DIFF(-1)$
 Observations: 25

R-squared	0.086141	Mean dependent var	0.439200
Adjusted R-squared	0.003063	S.D. dependent var	3.178581
S.E. of regression	3.173710	Sum squared resid	221.5935
Durbin-Watson stat	1.765881		

Equation: $PREMIUM=C(4)*CSPOT(-1)+C(5)*PREMIUM(-1)+C(6)*DIFF(-1)$
 Observations: 25

R-squared	0.504484	Mean dependent var	22.04000
Adjusted R-squared	0.459437	S.D. dependent var	17.98991
S.E. of regression	13.22671	Sum squared resid	3848.811
Durbin-Watson stat	1.126204		

Equation: $DIFF=C(7)*CSPOT(-1)+C(8)*PREMIUM(-1)+C(9)*DIFF(-1)$
 Observations: 25

R-squared	0.836357	Mean dependent var	10.37404
Adjusted R-squared	0.821481	S.D. dependent var	7.543009
S.E. of regression	3.187040	Sum squared resid	223.4589
Durbin-Watson stat	1.613039		

Wald Test:			
System: Untitled			
Null Hypothesis:			
	$C(1)*C(1)+C(2)*C(4)+C(3)*C(7)+C(1)=0$		
	$C(1)*C(4)+C(4)*C(5)+C(6)*C(7)+C(4)=0$		
	$C(1)*C(7)+C(4)*C(8)+C(7)*C(9)+C(7)=1$		
Chi-square	5.552131	Probability	0.135554



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Wald Test:			
System: Untitled			
Null Hypothesis:			
	$C(1)*C(1)+C(2)*C(4)+C(3)*C(7)+C(1)=0$		
	$C(1)*C(4)+C(4)*C(5)+C(6)*C(7)+C(4)=1$		
	$C(1)*C(7)+C(4)*C(8)+C(7)*C(9)+C(7)=0$		
Chi-square	1.912547	Probability	0.590755



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Author's Profile

Miss Sudatip Pruettiangkura was born on August 6, 1974 in Bangkok. She graduated with a Bachelor of Economics from the faculty of Economics, Chulalongkorn University in 1995 and worked for The Mutual Fund Public Company Limited and The Datamat Public Company Limited. In June 1998 she continued her Master of Arts in International Economics and Finance, Faculty of Economics, Chulalongkorn University.



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย