

## 7 APPENDICES

### Appendix 1:

#### Unit Root Test Results:

(i) CPI

Null Hypothesis: CPI0 has a unit root

Exogenous: None

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

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.115398	0.0000
Test critical values:		
1% level	-2.615093	
5% level	-1.947975	
10% level	-1.612408	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(CPI0)

Method: Least Squares

Date: 04/04/10 Time: 23:41

Sample (adjusted): 2 48

Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CPI0(-1)	-1.038099	0.145895	-7.115398	0.0000
R-squared	0.523885	Mean dependent var		-0.053522
Adjusted R-squared	0.523885	S.D. dependent var		4.554491
S.E. of regression	3.142649	Akaike info criterion		5.149056
Sum squared resid	454.3072	Schwarz criterion		5.188421
Log likelihood	-120.0028	Durbin-Watson stat		2.015807

Null Hypothesis: CPI0 has a unit root

Exogenous: Constant

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

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.036990	0.0000
Test critical values:		
1% level	-3.577723	
5% level	-2.925169	

10% level

-2.600658

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(CPI0)

Method: Least Squares

Date: 04/04/10 Time: 23:51

Sample (adjusted): 2 48

Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CPI0(-1)	-1.038252	0.147542	-7.036990	0.0000
C	0.020969	0.463578	0.045233	0.9641
R-squared	0.523906	Mean dependent var		-0.053522
Adjusted R-squared	0.513327	S.D. dependent var		4.554491
S.E. of regression	3.177303	Akaike info criterion		5.191564
Sum squared resid	454.2865	Schwarz criterion		5.270294
Log likelihood	-120.0018	F-statistic		49.51923
Durbin-Watson stat	2.015602	Prob(F-statistic)		0.000000

**(ii) GDP**

Null Hypothesis: GDP0 has a unit root

Exogenous: None

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

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.938799	0.0000
Test critical values:		
1% level	-2.615093	
5% level	-1.947975	
10% level	-1.612408	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GDP0)

Method: Least Squares

Date: 04/04/10 Time: 23:43

Sample (adjusted): 2 48

Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP0(-1)	-0.683306	0.138355	-4.938799	0.0000

R-squared	0.344776	Mean dependent var	0.317021
Adjusted R-squared	0.344776	S.D. dependent var	6.212691
S.E. of regression	5.028921	Akaike info criterion	6.089335
Sum squared resid	1163.342	Schwarz criterion	6.128700
Log likelihood	-142.0994	Durbin-Watson stat	1.709220

Null Hypothesis: GDP0 has a unit root  
 Exogenous: Constant  
 Lag Length: 0 (Automatic based on SIC, MAXLAG=0)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.684533	0.0000
Test critical values:		
1% level	-3.577723	
5% level	-2.925169	
10% level	-2.600658	

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

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(GDP0)  
 Method: Least Squares  
 Date: 04/04/10 Time: 23:50  
 Sample (adjusted): 2 48  
 Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP0(-1)	-0.798013	0.140383	-5.684533	0.0000
C	1.770423	0.744298	2.378647	0.0217

R-squared	0.417957	Mean dependent var	0.317021
Adjusted R-squared	0.405023	S.D. dependent var	6.212691
S.E. of regression	4.792144	Akaike info criterion	6.013454
Sum squared resid	1033.409	Schwarz criterion	6.092184
Log likelihood	-139.3162	F-statistic	32.31391
Durbin-Watson stat	1.791544	Prob(F-statistic)	0.000001

**(iii) KLCI**

Null Hypothesis: KLCI0 has a unit root  
 Exogenous: None  
 Lag Length: 0 (Automatic based on SIC, MAXLAG=0)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.338118	0.0000

Test critical values:	1% level	-2.615093
	5% level	-1.947975
	10% level	-1.612408

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(KLCI0)

Method: Least Squares

Date: 04/04/10 Time: 23:44

Sample (adjusted): 2 48

Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
KLCI0(-1)	-1.187802	0.142454	-8.338118	0.0000
R-squared	0.601750	Mean dependent var		-0.333983
Adjusted R-squared	0.601750	S.D. dependent var		26.45022
S.E. of regression	16.69195	Akaike info criterion		8.488777
Sum squared resid	12816.57	Schwarz criterion		8.528142
Log likelihood	-198.4863	Durbin-Watson stat		1.753000

Null Hypothesis: KLCI0 has a unit root

Exogenous: Constant

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

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.483121	0.0000
Test critical values:		
	1% level	-3.577723
	5% level	-2.925169
	10% level	-2.600658

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(KLCI0)

Method: Least Squares

Date: 04/04/10 Time: 23:49

Sample (adjusted): 2 48

Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
KLCI0(-1)	-1.217439	0.143513	-8.483121	0.0000
C	3.083814	2.452863	1.257230	0.2152

R-squared	0.615264	Mean dependent var	-0.333983
Adjusted R-squared	0.606714	S.D. dependent var	26.45022
S.E. of regression	16.58759	Akaike info criterion	8.496808
Sum squared resid	12381.67	Schwarz criterion	8.575538
Log likelihood	-197.6750	F-statistic	71.96334
Durbin-Watson stat	1.750589	Prob(F-statistic)	0.000000

**(iv) Unemployment rate**

Null Hypothesis: UE0 has a unit root

Exogenous: None

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

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-0.243666	0.5931
Test critical values:		
1% level	-2.615093	
5% level	-1.947975	
10% level	-1.612408	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(UE0)

Method: Least Squares

Date: 04/04/10 Time: 23:48

Sample (adjusted): 2 48

Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UE0(-1)	-0.004535	0.018610	-0.243666	0.8086

  

R-squared	0.000429	Mean dependent var	0.012766
Adjusted R-squared	0.000429	S.D. dependent var	0.439672
S.E. of regression	0.439578	Akaike info criterion	1.215044
Sum squared resid	8.888527	Schwarz criterion	1.254409
Log likelihood	-27.55354	Durbin-Watson stat	2.420143

Null Hypothesis: UE0 has a unit root

Exogenous: Constant

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

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.621890	0.0000
Test critical values:		
1% level	-3.577723	
5% level	-2.925169	

10% level

-2.600658

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(UE0)

Method: Least Squares

Date: 04/04/10 Time: 23:50

Sample (adjusted): 2 48

Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UE0(-1)	-0.799889	0.142281	-5.621890	0.0000
C	2.754512	0.490217	5.618968	0.0000
R-squared	0.412576	Mean dependent var		0.012766
Adjusted R-squared	0.399522	S.D. dependent var		0.439672
S.E. of regression	0.340704	Akaike info criterion		0.726018
Sum squared resid	5.223574	Schwarz criterion		0.804747
Log likelihood	-15.06142	F-statistic		31.60565
Durbin-Watson stat	1.893806	Prob(F-statistic)		0.000001

**(v) HPI:**

Null Hypothesis: HPI0 has a unit root

Exogenous: None

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

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.366421	0.0189
Test critical values:		
1% level	-2.615093	
5% level	-1.947975	
10% level	-1.612408	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(HPI0)

Method: Least Squares

Date: 04/11/10 Time: 23:17

Sample (adjusted): 2 48

Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
HPI0(-1)	-0.145256	0.061382	-2.366421	0.0222

R-squared	0.099051	Mean dependent var	0.202128
Adjusted R-squared	0.099051	S.D. dependent var	1.981818
S.E. of regression	1.881109	Akaike info criterion	4.122647
Sum squared resid	162.7742	Schwarz criterion	4.162011
Log likelihood	-95.88219	Durbin-Watson stat	1.777851

Null Hypothesis: HPI0 has a unit root  
 Exogenous: Constant  
 Lag Length: 0 (Automatic based on SIC, MAXLAG=0)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.956252	0.0466
Test critical values:		
1% level	-3.577723	
5% level	-2.925169	
10% level	-2.600658	

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

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(HPI0)  
 Method: Least Squares  
 Date: 04/17/10 Time: 15:49  
 Sample (adjusted): 2 48  
 Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
HPI0(-1)	-0.192069	0.064970	-2.956252	0.0049
C	0.536818	0.290428	1.848367	0.0711

R-squared	0.162626	Mean dependent var	0.202128
Adjusted R-squared	0.144018	S.D. dependent var	1.981818
S.E. of regression	1.833565	Akaike info criterion	4.092022
Sum squared resid	151.2882	Schwarz criterion	4.170752
Log likelihood	-94.16253	F-statistic	8.739428
Durbin-Watson stat	1.828519	Prob(F-statistic)	0.004944

## Appendix 2:

### Autocorrelation test result:

Dependent Variable: \_NPL\_  
Method: Least Squares  
Date: 04/04/10 Time: 00:14  
Sample: 1 48  
Included observations: 48

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP0	0.007339	0.017909	0.409820	0.6840
CPI0	-0.061425	0.027772	-2.211783	0.0325
KLCI0	-0.026035	0.004999	-5.207867	0.0000
UE0	0.507870	0.250772	2.025223	0.0492
HPI0	-0.080413	0.021470	-3.745339	0.0005
C	-1.663724	0.869897	-1.912553	0.0626
R-squared	0.487254	Mean dependent var		-0.124980
Adjusted R-squared	0.426212	S.D. dependent var		0.740709
S.E. of regression	0.561078	Akaike info criterion		1.798553
Sum squared resid	13.22194	Schwarz criterion		2.032454
Log likelihood	-37.16528	F-statistic		7.982369
Durbin-Watson stat	1.440889	Prob(F-statistic)		0.000023