INSTRUCTIONS: You **MUST** submit this document as your assignment. Other formats will not be accepted and you will receive a mark of zero. Do not try to change the layout of this document as it will not be accepted. Complete all details in Section 1 and start your assignment on Page 2. **Ensure you enter your details in the header on Page 2**, they will appear on every page. Save the file as **<StudentNo><ModuleCode>** (e.g. 1123456BS1234). **IMPORTANT: Save this file as a PDF**.

Cardiff Business School
COURSEWORK COVER SHEET 2014/2015

Section 1 (to be completed by the student)

Student Name:	Yiyi Li				
Student Number:	1543749				
Module Code:	BST264				
Module Title:	Empirical Finance				
Coursework Title:	Project question for Empirical Finance				
Submission date: **(before 16:00 on…)**	05 April 2017	**Date document last saved/printed:**	05.04.2017 (Updated automatically)	**Lecturer:**	Kul Luintel

Section 2 (To be completed by the Lecturer)	**MARK AWARDED:**
COMMENTS: ---	
Number of words:	0

		LNAUDF	LNCHYF	LNINRF	LNUSAF
		LNAUDF	LNCHYF	LNINRF	LNUSAF
Mean	Mean	0.748309	2.457355	4.393843	0.485612
Median	Median	0.782583	2.377625	4.384390	0.467864
Maximum	Maximum	1.108094	2.773364	4.670523	0.744881
Minimum	Minimum	0.368794	2.103880	4.166053	0.188362
Std. Dev.	Std. Dev.	0.202912	0.187746	0.122105	0.109800
Skewness	Skewness	-0.259621	0.206581	0.377514	0.228188
Kurtosis	Kurtosis	1.718705	1.511200	2.309802	2.695001
Jarque-Bera	Jarque-Bera	354.3923	387.9248	194.0277	55.86665
Probability	Probability	0.000000	0.000000	0.000000	0.000000
Sum	Sum	3329.977	9583.686	19552.60	2160.974
Sum Sq. Dev.	Sum Sq. Dev.	183.1803	137.4342	66.33256	53.63716
Observations	Observations	4450	3900	4450	4450

	LNAUDS	LNCHYS	LNINRS	LNUSAF
Mean	0.746804	2.463819	4.390517	0.485612
Median	0.781124	2.462329	4.383540	0.467864
Maximum	1.108233	2.780699	4.662213	0.744881
Minimum	0.366551	2.102016	4.160870	0.188362
Std. Dev.	0.203849	0.179505	0.121022	0.109800
Skewness	-0.259554	0.137326	0.344988	0.228188
Kurtosis	1.718116	1.659646	2.296663	2.695001
Jarque-Bera	354.6461	347.0969	179.9931	55.86665
Probability	0.000000	0.000000	0.000000	0.000000
Sum	3323.278	10964.00	19537.80	2160.974
Sum Sq. Dev.	184.8763	143.3560	65.16154	53.63716
Observations	4450	4450	4450	4450

	LOGCHANGEAUDS	LOGCHANGECHYS	LOGCHANGEINRS	LOGCHANGEUSAS
Mean	-9.22E-05	-0.000104	3.90E-05	-6.20E-05
Median	-7.44E-05	0.000000	8.11E-05	2.69E-05
Maximum	0.065127	0.045918	0.040827	0.044745
Minimum	-0.071664	-0.077512	-0.074094	-0.083120
Std. Dev.	0.007186	0.005939	0.006246	0.005994
Skewness	0.274418	-0.472302	-0.351986	-0.622312
Kurtosis	12.44516	12.86508	9.656312	14.84921
Jarque-Bera	16593.34	18206.07	8305.184	26314.50
Probability	0.000000	0.000000	0.000000	0.000000
Sum	-0.410191	-0.461849	0.173297	-0.275987
Sum Sq. Dev.	0.229714	0.156871	0.173513	0.159801
Observations	4449	4449	4449	4449

	LOGCHANGEAUDF	LOGCHANGECHYF	LOGCHANGEINRF	LOGCHANGEUSAF
Mean	-9.18E-05	-8.32E-05	3.95E-05	-6.19E-05
Median	-7.57E-05	3.83E-06	9.34E-05	1.10E-05
Maximum	0.065597	0.046556	0.042235	0.044374
Minimum	-0.071165	-0.077250	-0.073534	-0.082620
Std. Dev.	0.007183	0.006027	0.006241	0.005988
Skewness	0.292756	-0.525741	-0.348538	-0.609780
Kurtosis	12.48723	13.19236	9.671646	14.64589
Jarque-Bera	16748.68	17056.48	8341.277	25417.52
Probability	0.000000	0.000000	0.000000	0.000000
Sum	-0.408466	-0.324252	0.175822	-0.275476
Sum Sq. Dev.	0.229495	0.141584	0.173241	0.159510
Observations	4449	3899	4449	4449

Null Hypothesis: D(LNAUDF) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-67.18642	0.0001
Test critical values:	1% level	-3.431637	
	5% level	-2.861994	
	10% level	-2.567054	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNAUDF,2)
Method: Least Squares
Date: 03/20/17 Time: 15:53
Sample (adjusted): 1/05/2000 1/20/2017
Included observations: 4448 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNAUDF(-1))	-1.007328	0.014993	-67.18642	0.0000
C	-9.50E-05	0.000108	-0.881804	0.3779

R-squared	0.503795	Mean dependent var	-2.18E-06
Adjusted R-squared	0.503684	S.D. dependent var	0.010195
S.E. of regression	0.007182	Akaike info criterion	-7.033894
Sum squared resid	0.229360	Schwarz criterion	-7.031016
Log likelihood	15645.38	Hannan-Quinn criter.	-7.032880
F-statistic	4514.015	Durbin-Watson stat	2.000520
Prob(F-statistic)	0.000000		

Null Hypothesis: LNAUDF has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.232789	0.4705
Test critical values:	1% level	-3.960101	
	5% level	-3.410815	
	10% level	-3.127204	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNAUDF)
Method: Least Squares
Date: 04/05/17 Time: 09:02
Sample (adjusted): 2 4450
Included observations: 4449 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNAUDF(-1)	-0.002079	0.000931	-2.232789	0.0256
C	0.002135	0.000989	2.158236	0.0310
@TREND("1")	-3.02E-07	1.47E-07	-2.051676	0.0403

Null Hypothesis: D(LNAUDS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-67.18265	0.0001
Test critical values:	1% level	-3.431637	
	5% level	-2.861994	
	10% level	-2.567054	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNAUDS,2)
Method: Least Squares
Date: 03/20/17 Time: 15:56
Sample (adjusted): 1/05/2000 1/20/2017
Included observations: 4448 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNAUDS(-1))	-1.007269	0.014993	-67.18265	0.0000
C	-9.54E-05	0.000108	-0.885096	0.3762

R-squared	0.503767	Mean dependent var	-2.19E-06
Adjusted R-squared	0.503656	S.D. dependent var	0.010200
S.E. of regression	0.007186	Akaike info criterion	-7.032946
Sum squared resid	0.229578	Schwarz criterion	-7.030068
Log likelihood	15643.27	Hannan-Quinn criter.	-7.031931
F-statistic	4513.508	Durbin-Watson stat	2.000519
Prob(F-statistic)	0.000000		

Null Hypothesis: LNAUDS has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.219461	0.4780
Test critical values:	1% level	-3.960101	
	5% level	-3.410815	
	10% level	-3.127204	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNAUDS)
Method: Least Squares
Date: 04/05/17 Time: 09:04
Sample (adjusted): 2 4450
Included observations: 4449 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNAUDS(-1)	-0.002056	0.000927	-2.219461	0.0265
C	0.002110	0.000985	2.142818	0.0322
@TREND("1")	-2.99E-07	1.47E-07	-2.036111	0.0418

Null Hypothesis: D(LNCHYF) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=29)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-61.39775	0.0001
Test critical values:	1% level	-3.431842	
	5% level	-2.862085	
	10% level	-2.567103	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNCHYF,2)
Method: Least Squares
Date: 03/20/17 Time: 15:59
Sample (adjusted): 2/13/2002 1/20/2017
Included observations: 3898 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNCHYF(-1))	-0.983376	0.016016	-61.39775	0.0000
C	-8.34E-05	9.65E-05	-0.864363	0.3874

R-squared	0.491761	Mean dependent var	-1.43E-06
Adjusted R-squared	0.491630	S.D. dependent var	0.008452
S.E. of regression	0.006027	Akaike info criterion	-7.384751
Sum squared resid	0.141503	Schwarz criterion	-7.381535
Log likelihood	14394.88	Hannan-Quinn criter.	-7.383609
F-statistic	3769.683	Durbin-Watson stat	1.999534
Prob(F-statistic)	0.000000		

Null Hypothesis: LNCHYF has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=29)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.790257	0.2009
Test critical values:	1% level	-3.960393	
	5% level	-3.410958	
	10% level	-3.127288	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNCHYF)
Method: Least Squares
Date: 04/05/17 Time: 09:04
Sample (adjusted): 552 4450
Included observations: 3899 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNCHYF(-1)	-0.002672	0.000958	-2.790257	0.0053
C	0.007729	0.002700	2.862372	0.0042
@TREND("1")	-4.99E-07	1.60E-07	-3.122323	0.0018

Null Hypothesis: D(LNCHYS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-64.97175	0.0001
Test critical values:	1% level	-3.431637	
	5% level	-2.861994	
	10% level	-2.567054	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNCHYS,2)
Method: Least Squares
Date: 03/20/17 Time: 16:04
Sample (adjusted): 1/05/2000 1/20/2017
Included observations: 4448 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNCHYS(-1))	-0.973912	0.014990	-64.97175	0.0000
C	-0.000103	8.90E-05	-1.154035	0.2485

R-squared	0.487039	Mean dependent var	-1.35E-06
Adjusted R-squared	0.486924	S.D. dependent var	0.008288
S.E. of regression	0.005937	Akaike info criterion	-7.414792
Sum squared resid	0.156710	Schwarz criterion	-7.411914
Log likelihood	16492.50	Hannan-Quinn criter.	-7.413777
F-statistic	4221.328	Durbin-Watson stat	1.999207
Prob(F-statistic)	0.000000		

Null Hypothesis: LNCHYS has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.618058	0.7861
Test critical values:	1% level	-3.960101	
	5% level	-3.410815	
	10% level	-3.127204	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNCHYS)
Method: Least Squares
Date: 04/05/17 Time: 09:05
Sample (adjusted): 2 4450
Included observations: 4449 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNCHYS(-1)	-0.001184	0.000732	-1.618058	0.1057
C	0.003214	0.001978	1.624633	0.1043
@TREND("1")	-1.80E-07	1.02E-07	-1.760060	0.0785

Null Hypothesis: D(LNINRF) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-66.26988	0.0001
Test critical values:	1% level	-3.431637	
	5% level	-2.861994	
	10% level	-2.567054	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNINRF,2)
Method: Least Squares
Date: 03/20/17 Time: 16:10
Sample (adjusted): 1/05/2000 1/20/2017
Included observations: 4448 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNINRF(-1))	-0.993677	0.014994	-66.26988	0.0000
C	3.75E-05	9.36E-05	0.400327	0.6889

R-squared	0.496928	Mean dependent var	-1.42E-06
Adjusted R-squared	0.496815	S.D. dependent var	0.008798
S.E. of regression	0.006241	Akaike info criterion	-7.314920
Sum squared resid	0.173169	Schwarz criterion	-7.312042
Log likelihood	16270.38	Hannan-Quinn criter.	-7.313905
F-statistic	4391.697	Durbin-Watson stat	1.999783
Prob(F-statistic)	0.000000		

Null Hypothesis: LNINRF has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.290560	0.4385
Test critical values:	1% level	-3.960101	
	5% level	-3.410815	
	10% level	-3.127204	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNINRF)
Method: Least Squares
Date: 04/05/17 Time: 09:05
Sample (adjusted): 2 4450
Included observations: 4449 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNINRF(-1)	-0.002531	0.001105	-2.290560	0.0220
C	0.010834	0.004689	2.310386	0.0209
@TREND("1")	1.45E-07	1.05E-07	1.385253	0.1660

Null Hypothesis: D(LNINRS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-66.39995	0.0001
Test critical values:	1% level	-3.431637	
	5% level	-2.861994	
	10% level	-2.567054	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNINRS,2)
Method: Least Squares
Date: 03/20/17 Time: 16:10
Sample (adjusted): 1/05/2000 1/20/2017
Included observations: 4448 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNINRS(-1))	-0.995638	0.014995	-66.39995	0.0000
C	3.70E-05	9.37E-05	0.394966	0.6929

R-squared	0.497908	Mean dependent var	-1.48E-06
Adjusted R-squared	0.497795	S.D. dependent var	0.008814
S.E. of regression	0.006246	Akaike info criterion	-7.313323
Sum squared resid	0.173446	Schwarz criterion	-7.310445
Log likelihood	16266.83	Hannan-Quinn criter.	-7.312308
F-statistic	4408.953	Durbin-Watson stat	1.999913
Prob(F-statistic)	0.000000		

Null Hypothesis: LNINRS has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.287770	0.4400
Test critical values:	1% level	-3.960101	
	5% level	-3.410815	
	10% level	-3.127204	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNINRS)
Method: Least Squares
Date: 04/05/17 Time: 09:06
Sample (adjusted): 2 4450
Included observations: 4449 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNINRS(-1)	-0.002521	0.001102	-2.287770	0.0222
C	0.010794	0.004677	2.307681	0.0211
@TREND("1")	1.41E-07	1.04E-07	1.357907	0.1746

Null Hypothesis: D(LNUSAF) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-64.06631	0.0001
Test critical values:	1% level	-3.431637	
	5% level	-2.861994	
	10% level	-2.567054	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNUSAF,2)
Method: Least Squares
Date: 03/20/17 Time: 16:14
Sample (adjusted): 1/05/2000 1/20/2017
Included observations: 4448 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNUSAF(-1))	-0.959901	0.014983	-64.06631	0.0000
C	-6.11E-05	8.97E-05	-0.680456	0.4963

R-squared	0.480030	Mean dependent var	-1.31E-06
Adjusted R-squared	0.479913	S.D. dependent var	0.008298
S.E. of regression	0.005984	Akaike info criterion	-7.399023
Sum squared resid	0.159201	Schwarz criterion	-7.396145
Log likelihood	16457.43	Hannan-Quinn criter.	-7.398008
F-statistic	4104.492	Durbin-Watson stat	1.998153
Prob(F-statistic)	0.000000		

Null Hypothesis: LNUSAF has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.210671	0.9074
Test critical values:	1% level	-3.960101	
	5% level	-3.410815	
	10% level	-3.127204	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNUSAF)
Method: Least Squares
Date: 04/05/17 Time: 09:07
Sample (adjusted): 2 4450
Included observations: 4449 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNUSAF(-1)	-0.001010	0.000835	-1.210671	0.2261
C	0.000654	0.000472	1.384286	0.1663
@TREND("1")	-1.01E-07	7.13E-08	-1.417110	0.1565

Null Hypothesis: D(LNUSAS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-64.06391	0.0001
Test critical values:	1% level	-3.431637	
	5% level	-2.861994	
	10% level	-2.567054	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNUSAS,2)
Method: Least Squares
Date: 03/20/17 Time: 16:14
Sample (adjusted): 1/05/2000 1/20/2017
Included observations: 4448 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNUSAS(-1))	-0.959862	0.014983	-64.06391	0.0000
C	-6.12E-05	8.98E-05	-0.681136	0.4958

R-squared	0.480011	Mean dependent var	-1.32E-06
Adjusted R-squared	0.479894	S.D. dependent var	0.008305
S.E. of regression	0.005989	Akaike info criterion	-7.397208
Sum squared resid	0.159490	Schwarz criterion	-7.394330
Log likelihood	16453.39	Hannan-Quinn criter.	-7.396193
F-statistic	4104.185	Durbin-Watson stat	1.998138
Prob(F-statistic)	0.000000		

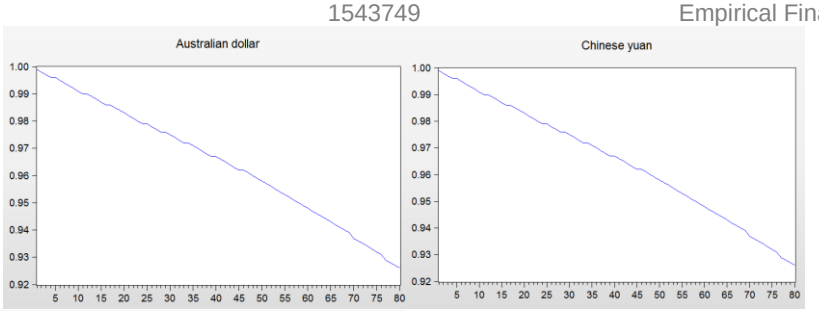
Null Hypothesis: LNUSAS has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=30)

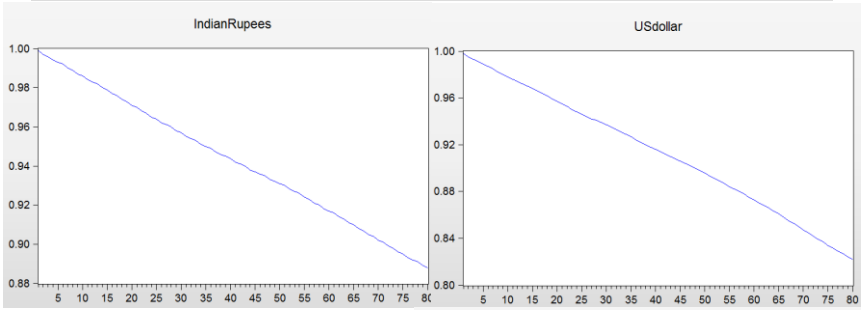
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.208592	0.9078
Test critical values:	1% level	-3.960101	
	5% level	-3.410815	
	10% level	-3.127204	

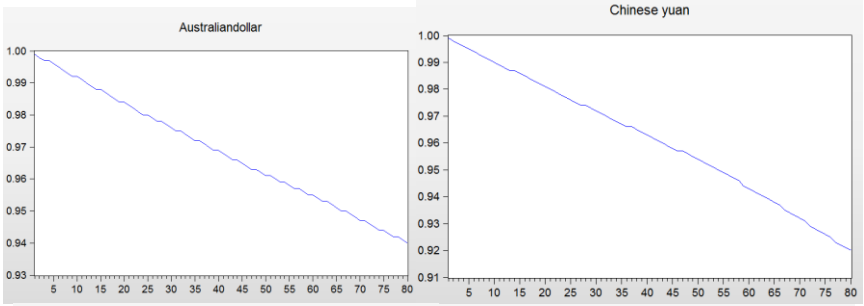
*MacKinnon (1996) one-sided p-values.

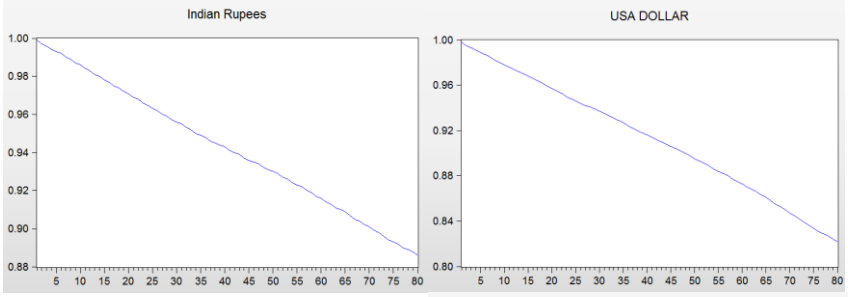
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNUSAS)
Method: Least Squares
Date: 04/05/17 Time: 09:07
Sample (adjusted): 2 4450
Included observations: 4449 after adjustments

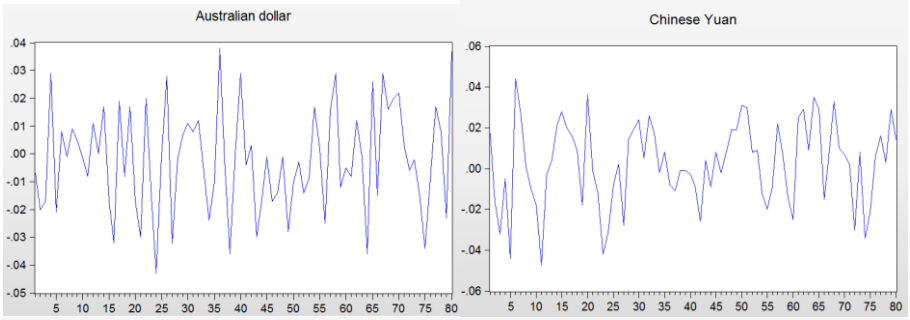
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNUSAS(-1)	-0.001007	0.000834	-1.208592	0.2269
C	0.000655	0.000473	1.384848	0.1662
@TREND("1")	-1.02E-07	7.14E-08	-1.427799	0.1534

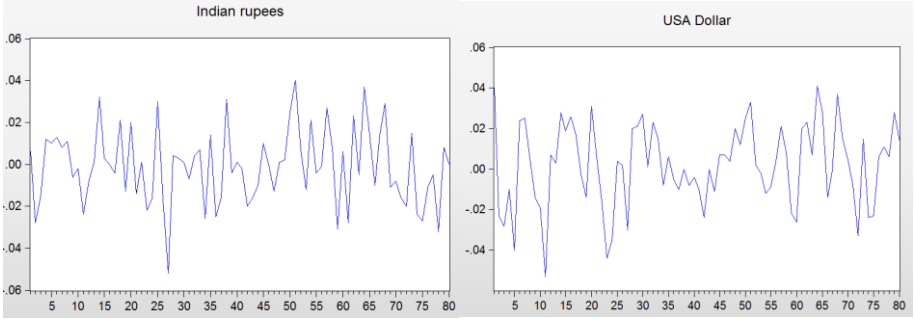

Australian dollar
Chinese yuan

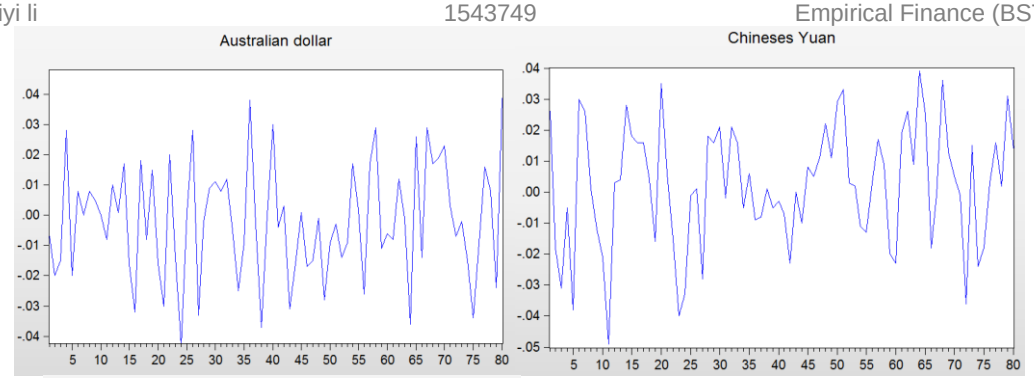

IndianRupees
USdollar

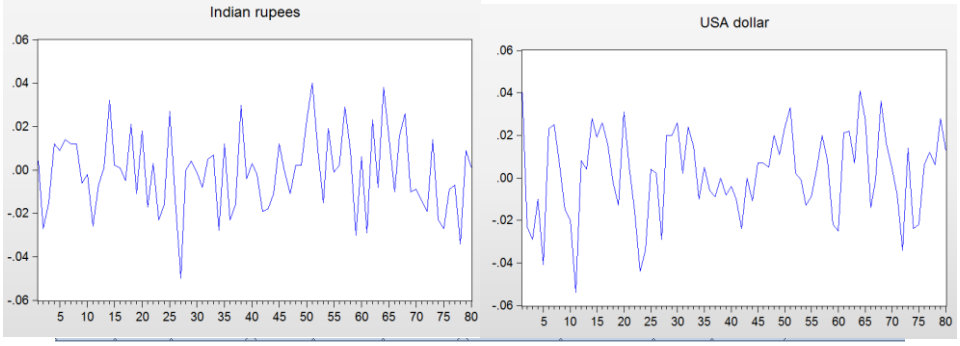

Australiandollar
Chinese yuan


Indian Rupees
USA DOLLAR


Australian dollar
Chinese Yuan


Indian rupees
USA Dollar





Dependent Variable: LNAUDS1
Method: Dynamic Least Squares (DOLS)
Date: 03/31/17 Time: 08:35
Sample (adjusted): 1/04/2000 12/21/2016
Included observations: 4427 after adjustments
Cointegrating equation deterministics: C
Automatic leads and lags specification (lead=22 and lag=0 based on SIC criterion, max=30)
Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth = 10.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNAUDF	1.004592	0.000121	8323.944	0.0000
C	-0.004948	9.36E-05	-52.86780	0.0000

R-squared	0.999993	Mean dependent var	0.745930
Adjusted R-squared	0.999993	S.D. dependent var	0.204015
S.E. of regression	0.000531	Sum squared resid	0.001243
Long-run variance	2.64E-06		

Dependent Variable: LNCHYS1
Method: Dynamic Least Squares (DOLS)
Date: 03/31/17 Time: 08:46
Sample (adjusted): 2/12/2002 12/21/2016
Included observations: 3877 after adjustments
Cointegrating equation deterministics: C
Automatic leads and lags specification (lead=22 and lag=0 based on SIC criterion, max=29)
Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth = 10.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNCHYF	1.014626	0.000525	1933.548	0.0000
C	-0.034790	0.001294	-26.88420	0.0000

R-squared	0.999888	Mean dependent var	2.458451
Adjusted R-squared	0.999887	S.D. dependent var	0.191075
S.E. of regression	0.002033	Sum squared resid	0.015914
Long-run variance	3.72E-05		

Dependent Variable: LNINRS1
Method: Dynamic Least Squares (DOLS)
Date: 03/31/17 Time: 08:52
Sample (adjusted): 1/04/2000 12/21/2016
Included observations: 4427 after adjustments
Cointegrating equation deterministics: C
Automatic leads and lags specification (lead=22 and lag=0 based on SIC criterion, max=30)
Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth = 10.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNINRF	0.990646	0.000995	995.4213	0.0000
C	0.037769	0.004375	8.633612	0.0000

R-squared	0.999547	Mean dependent var	4.391160
Adjusted R-squared	0.999544	S.D. dependent var	0.121005
S.E. of regression	0.002583	Sum squared resid	0.029369
Long-run variance	6.45E-05		

Dependent Variable: LNUSAS1
Method: Dynamic Least Squares (DOLS)
Date: 03/31/17 Time: 08:56
Sample (adjusted): 1/04/2000 12/21/2016
Included observations: 4427 after adjustments
Cointegrating equation deterministics: C
Automatic leads and lags specification (lead=22 and lag=0 based on SIC criterion, max=30)
Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth = 10.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNUSAF	1.002920	0.000391	2564.132	0.0000
C	-0.000775	0.000195	-3.971911	0.0001

R-squared	0.999935	Mean dependent var	0.486219
Adjusted R-squared	0.999934	S.D. dependent var	0.110406
S.E. of regression	0.000895	Sum squared resid	0.003528
Long-run variance	7.90E-06		

DOLS test

Variance	Coefficient
LNAUDF	1.004592
C	-0.004948

LNCHYF	1.014626
C	-0.034790
LNINRF	0.990646
C	0.037769
LNUSAF	1.002920
C	-0.000775

Wald Test:
Equation: DOLSSAUD

Test Statistic	Value	df	Probability
t-statistic	-52.86780	4402	0.0000
F-statistic	2795.004	(1, 4402)	0.0000
Chi-square	2795.004	1	0.0000

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	-0.004948	9.36E-05

Restrictions are linear in coefficients.

Wald Test:
Equation: DOLSSAUD

Test Statistic	Value	df	Probability
F-statistic	2632.431	(2, 4402)	0.0000
Chi-square	5264.862	2	0.0000

Null Hypothesis: C(1)=1,C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	0.004592	0.000121
C(2)	-0.004948	9.36E-05

Restrictions are linear in coefficients.

Wald Test:
Equation: DOLSSAUD

Test Statistic	Value	df	Probability
t-statistic	38.05198	4402	0.0000
F-statistic	1447.953	(1, 4402)	0.0000
Chi-square	1447.953	1	0.0000

Null Hypothesis: C(1)=1
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	0.004592	0.000121

Restrictions are linear in coefficients.

Wald Test:
Equation: DOLSSCHY

Test Statistic	Value	df	Probability
F-statistic	459.8787	(2, 3852)	0.0000
Chi-square	919.7573	2	0.0000

Null Hypothesis: C(1)=1,C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	0.014626	0.000525
C(2)	-0.034790	0.001294

Restrictions are linear in coefficients.

Wald Test:
Equation: DOLSSCHY

Test Statistic	Value	df	Probability
t-statistic	27.87150	3852	0.0000
F-statistic	776.8208	(1, 3852)	0.0000
Chi-square	776.8208	1	0.0000

Null Hypothesis: C(1)=1
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	0.014626	0.000525

Restrictions are linear in coefficients.

Wald Test:
Equation: DOLSSINR

Test Statistic	Value	df	Probability
t-statistic	8.633612	4402	0.0000
F-statistic	74.53925	(1, 4402)	0.0000
Chi-square	74.53925	1	0.0000

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	0.037769	0.004375

Restrictions are linear in coefficients.

Wald Test:
Equation: DOLSSINR

Test Statistic	Value	df	Probability
F-statistic	425.0898	(2, 4402)	0.0000
Chi-square	850.1797	2	0.0000

Null Hypothesis: C(1)=1,C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	-0.009354	0.000995
C(2)	0.037769	0.004375

Restrictions are linear in coefficients.

Wald Test:
Equation: DOLSSINR

Test Statistic	Value	df	Probability
t-statistic	-9.399085	4402	0.0000
F-statistic	88.34279	(1, 4402)	0.0000
Chi-square	88.34279	1	0.0000

Null Hypothesis: C(1)=1
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	-0.009354	0.000995

Restrictions are linear in coefficients.

Wald Test:
Equation: DOLSSUSA

Test Statistic	Value	df	Probability
t-statistic	-3.971911	4402	0.0001
F-statistic	15.77607	(1, 4402)	0.0001
Chi-square	15.77607	1	0.0001

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	-0.000775	0.000195

Restrictions are linear in coefficients.

Wald Test:
Equation: DOLSSUSA

Test Statistic	Value	df	Probability
F-statistic	144.8537	(2, 4402)	0.0000
Chi-square	289.7074	2	0.0000

Null Hypothesis: C(1)=1,C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	0.002920	0.000391
C(2)	-0.000775	0.000195

Restrictions are linear in coefficients.

Wald Test:
Equation: DOLSSUSA

Test Statistic	Value	df	Probability
t-statistic	7.466715	4402	0.0000
F-statistic	55.75184	(1, 4402)	0.0000
Chi-square	55.75184	1	0.0000

Null Hypothesis: C(1)=1
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	0.002920	0.000391

Restrictions are linear in coefficients.

Null Hypothesis: ECTAUD has a unit root
Exogenous: Constant
Lag Length: 9 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.015620	0.0335
Test critical values:	1% level	-3.431647	
	5% level	-2.861998	
	10% level	-2.567057	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ECTAUD)
Method: Least Squares
Date: 03/31/17 Time: 07:55
Sample (adjusted): 1/18/2000 12/21/2016
Included observations: 4417 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECTAUD(-1)	-0.013169	0.004367	-3.015620	0.0026
D(ECTAUD(-1))	-0.572177	0.015435	-37.07036	0.0000
D(ECTAUD(-2))	-0.465656	0.017595	-26.46508	0.0000
D(ECTAUD(-3))	-0.355522	0.018873	-18.83780	0.0000
D(ECTAUD(-4))	-0.218167	0.019567	-11.15001	0.0000
D(ECTAUD(-5))	-0.096145	0.019771	-4.862959	0.0000
D(ECTAUD(-6))	-0.080100	0.019514	-4.104786	0.0000
D(ECTAUD(-7))	-0.093525	0.018745	-4.989215	0.0000
D(ECTAUD(-8))	-0.100301	0.017359	-5.778088	0.0000
D(ECTAUD(-9))	-0.076777	0.015025	-5.109898	0.0000
C	3.86E-08	2.23E-06	0.017322	0.9862

R-squared	0.274877	Mean dependent var	2.77E-08
Adjusted R-squared	0.273231	S.D. dependent var	0.000174
S.E. of regression	0.000148	Akaike info criterion	-14.79532
Sum squared resid	9.66E-05	Schwarz criterion	-14.77940
Log likelihood	32686.46	Hannan-Quinn criter.	-14.78970
F-statistic	167.0212	Durbin-Watson stat	1.998663
Prob(F-statistic)	0.000000		

Null Hypothesis: ECTCHY has a unit root
Exogenous: Constant
Lag Length: 3 (Automatic - based on SIC, maxlag=29)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.043813	0.0000
Test critical values:	1% level	-3.431853	
	5% level	-2.862089	
	10% level	-2.567106	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ECTCHY)
Method: Least Squares
Date: 03/31/17 Time: 08:18
Sample (adjusted): 2/18/2002 12/21/2016
Included observations: 3873 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECTCHY(-1)	-0.033086	0.004697	-7.043813	0.0000
D(ECTCHY(-1))	-0.137533	0.016161	-8.509949	0.0000
D(ECTCHY(-2))	-0.051828	0.016259	-3.187607	0.0014
D(ECTCHY(-3))	-0.067237	0.016057	-4.187455	0.0000
C	-3.09E-08	9.27E-06	-0.003331	0.9973

R-squared	0.042569	Mean dependent var	-1.01E-08
Adjusted R-squared	0.041578	S.D. dependent var	0.000590
S.E. of regression	0.000577	Akaike info criterion	-12.07543
Sum squared resid	0.001289	Schwarz criterion	-12.06735
Log likelihood	23389.08	Hannan-Quinn criter.	-12.07256
F-statistic	42.99402	Durbin-Watson stat	1.996934
Prob(F-statistic)	0.000000		

Null Hypothesis: ECTINR has a unit root
Exogenous: Constant
Lag Length: 9 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.748646	0.0035
Test critical values:	1% level	-3.431647	
	5% level	-2.861998	
	10% level	-2.567057	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ECTINR)
Method: Least Squares
Date: 03/31/17 Time: 08:23
Sample (adjusted): 1/18/2000 12/21/2016
Included observations: 4417 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECTINR(-1)	-0.009564	0.002551	-3.748646	0.0002
D(ECTINR(-1))	-0.129334	0.015121	-8.553512	0.0000
D(ECTINR(-2))	-0.137569	0.015218	-9.039947	0.0000
D(ECTINR(-3))	-0.109119	0.015325	-7.120102	0.0000
D(ECTINR(-4))	-0.053433	0.015395	-3.470714	0.0005
D(ECTINR(-5))	0.059664	0.015399	3.874481	0.0001
D(ECTINR(-6))	-0.039474	0.015396	-2.563956	0.0104
D(ECTINR(-7))	-0.057028	0.015304	-3.726458	0.0002
D(ECTINR(-8))	-0.048497	0.015167	-3.197493	0.0014
D(ECTINR(-9))	0.058547	0.015040	3.892732	0.0001
C	-1.66E-07	6.45E-06	-0.025665	0.9795

R-squared	0.063972	Mean dependent var	-1.02E-07
Adjusted R-squared	0.061848	S.D. dependent var	0.000443
S.E. of regression	0.000429	Akaike info criterion	-12.66856
Sum squared resid	0.000810	Schwarz criterion	-12.65264
Log likelihood	27989.52	Hannan-Quinn criter.	-12.66295
F-statistic	30.11259	Durbin-Watson stat	1.997197
Prob(F-statistic)	0.000000		

Null Hypothesis: ECTUSA has a unit root
Exogenous: Constant
Lag Length: 10 (Automatic - based on SIC, maxlag=30)

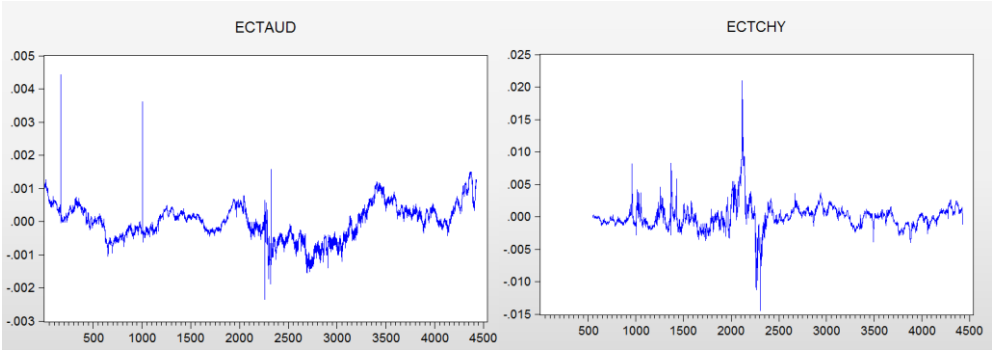
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.577814	0.0977
Test critical values:	1% level	-3.431647	
	5% level	-2.861998	
	10% level	-2.567057	

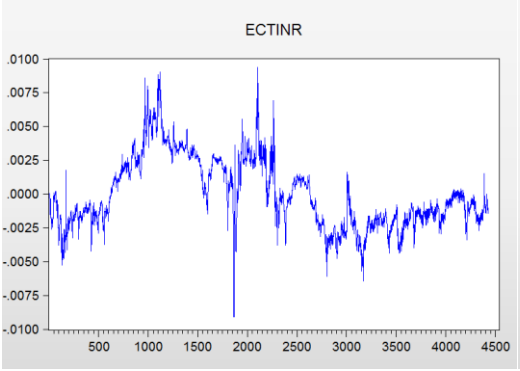
*MacKinnon (1996) one-sided p-values.

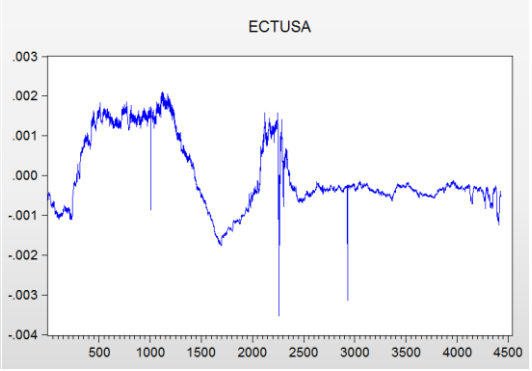
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ECTUSA)
Method: Least Squares
Date: 03/31/17 Time: 08:31
Sample (adjusted): 1/19/2000 12/21/2016
Included observations: 4416 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECTUSA(-1)	-0.004848	0.001881	-2.577814	0.0100
D(ECTUSA(-1))	-0.354805	0.015100	-23.49745	0.0000
D(ECTUSA(-2))	-0.275366	0.015973	-17.23960	0.0000
D(ECTUSA(-3))	-0.247112	0.016412	-15.05720	0.0000
D(ECTUSA(-4))	-0.133326	0.016829	-7.922468	0.0000
D(ECTUSA(-5))	0.055858	0.016881	3.308977	0.0009
D(ECTUSA(-6))	0.104931	0.016883	6.215111	0.0000
D(ECTUSA(-7))	0.017007	0.016828	1.010613	0.3123
D(ECTUSA(-8))	0.119965	0.016397	7.316162	0.0000
D(ECTUSA(-9))	0.085038	0.015948	5.332329	0.0000
D(ECTUSA(-10))	0.046077	0.015052	3.061063	0.0022
C	-8.62E-09	1.67E-06	-0.005174	0.9959

R-squared	0.170472	Mean dependent var	2.72E-09
Adjusted R-squared	0.168400	S.D. dependent var	0.000121
S.E. of regression	0.000111	Akaike info criterion	-15.37688
Sum squared resid	5.40E-05	Schwarz criterion	-15.35951
Log likelihood	33964.16	Hannan-Quinn criter.	-15.37076
F-statistic	82.27667	Durbin-Watson stat	2.000557
Prob(F-statistic)	0.000000		







Dependent Variable: DIFFERENCEAUDFS1
Method: Least Squares
Date: 03/31/17 Time: 10:44
Sample: 1/03/2000 1/20/2017
Included observations: 4450

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001384	0.000847	1.633982	0.1023
DIFFERENCEAUDFS	1.458416	0.457371	3.188690	0.0014

R-squared	0.002281	Mean dependent var	0.003579
Adjusted R-squared	0.002056	S.D. dependent var	0.032952
S.E. of regression	0.032918	Akaike info criterion	-3.989156
Sum squared resid	4.819774	Schwarz criterion	-3.986280
Log likelihood	8877.873	Hannan-Quinn criter.	-3.988142
F-statistic	10.16775	Durbin-Watson stat	0.093396
Prob(F-statistic)	0.001439		

Dependent Variable: DIFFERENCECHYFS1
Method: Least Squares
Date: 03/31/17 Time: 10:51
Sample (adjusted): 2/11/2002 1/20/2017
Included observations: 3900 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002154	0.000469	4.589635	0.0000
DIFFERENCECHYFS	1.327663	0.130219	10.19560	0.0000

R-squared	0.025975	Mean dependent var	0.000634
Adjusted R-squared	0.025725	S.D. dependent var	0.028160
S.E. of regression	0.027795	Akaike info criterion	-4.327394
Sum squared resid	3.011491	Schwarz criterion	-4.324179
Log likelihood	8440.418	Hannan-Quinn criter.	-4.326253
F-statistic	103.9502	Durbin-Watson stat	0.096625
Prob(F-statistic)	0.000000		

Dependent Variable: DIFFERENCEINRFS1
Method: Least Squares
Date: 03/31/17 Time: 10:58
Sample: 1/03/2000 1/20/2017
Included observations: 4450

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001708	0.000682	-2.503644	0.0123
DIFFERENCEINRFS	1.265226	0.156678	8.075308	0.0000

R-squared	0.014449	Mean dependent var	0.002501
Adjusted R-squared	0.014227	S.D. dependent var	0.029592
S.E. of regression	0.029380	Akaike info criterion	-4.216531
Sum squared resid	3.839540	Schwarz criterion	-4.213654
Log likelihood	9383.781	Hannan-Quinn criter.	-4.215517
F-statistic	65.21060	Durbin-Watson stat	0.090150
Prob(F-statistic)	0.000000		

Dependent Variable: DIFFERENCEUSAFS1
Method: Least Squares
Date: 03/31/17 Time: 11:02
Sample: 1/03/2000 1/20/2017
Included observations: 4450

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002083	0.000497	4.193754	0.0000
DIFFERENCEUSAFS	2.171391	0.434329	4.999416	0.0000

R-squared	0.005588	Mean dependent var	0.000693
Adjusted R-squared	0.005364	S.D. dependent var	0.027526
S.E. of regression	0.027452	Akaike info criterion	-4.352330
Sum squared resid	3.351986	Schwarz criterion	-4.349454
Log likelihood	9685.935	Hannan-Quinn criter.	-4.351316
F-statistic	24.99416	Durbin-Watson stat	0.097023
Prob(F-statistic)	0.000001		

Wald Test:
Equation: WALDAUD

Test Statistic	Value	df	Probability
F-statistic	29.85594	(2, 4448)	0.0000
Chi-square	59.71188	2	0.0000

Null Hypothesis: C(1)=1,C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	-0.006498	0.002433
C(2)	0.001283	0.001886

Restrictions are linear in coefficients.

Wald Test:
Equation: WALDCHY

Test Statistic	Value	df	Probability
F-statistic	11.68113	(2, 3898)	0.0000
Chi-square	23.36226	2	0.0000

Null Hypothesis: C(1)=1,C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	0.011076	0.002396
C(2)	-0.027851	0.005904

Restrictions are linear in coefficients.

Wald Test:
Equation: WALDINR

Test Statistic	Value	df	Probability
F-statistic	79.85799	(2, 4448)	0.0000
Chi-square	159.7160	2	0.0000

Null Hypothesis: C(1)=1,C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	-0.040384	0.003583
C(2)	0.174941	0.015749

Restrictions are linear in coefficients.

Wald Test:
Equation: WALDUSA

Test Statistic	Value	df	Probability
F-statistic	8.841853	(2, 4448)	0.0001
Chi-square	17.68371	2	0.0001

Null Hypothesis: C(1)=1,C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
-1 + C(1)	-0.014464	0.003753
C(2)	0.006332	0.001868

Restrictions are linear in coefficients.

Dependent Variable: DIFFERENCEAUDFS1
Method: Least Squares
Date: 03/31/17 Time: 10:44
Sample: 1/03/2000 1/20/2017
Included observations: 4450

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001384	0.000847	1.633982	0.1023
DIFFERENCEAUDFS	1.458416	0.457371	3.188690	0.0014

R-squared	0.002281	Mean dependent var	0.003579
Adjusted R-squared	0.002056	S.D. dependent var	0.032952
S.E. of regression	0.032918	Akaike info criterion	-3.989156
Sum squared resid	4.819774	Schwarz criterion	-3.986280
Log likelihood	8877.873	Hannan-Quinn criter.	-3.988142
F-statistic	10.16775	Durbin-Watson stat	0.093396
Prob(F-statistic)	0.001439		

Dependent Variable: DIFFERENCECHYFS1
Method: Least Squares
Date: 03/31/17 Time: 10:51
Sample (adjusted): 2/11/2002 1/20/2017
Included observations: 3900 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002154	0.000469	4.589635	0.0000
DIFFERENCECHYFS	1.327663	0.130219	10.19560	0.0000

R-squared	0.025975	Mean dependent var	0.000634
Adjusted R-squared	0.025725	S.D. dependent var	0.028160
S.E. of regression	0.027795	Akaike info criterion	-4.327394
Sum squared resid	3.011491	Schwarz criterion	-4.324179
Log likelihood	8440.418	Hannan-Quinn criter.	-4.326253
F-statistic	103.9502	Durbin-Watson stat	0.096625
Prob(F-statistic)	0.000000		

Dependent Variable: DIFFERENCEINRFS1
Method: Least Squares
Date: 03/31/17 Time: 10:58
Sample: 1/03/2000 1/20/2017
Included observations: 4450

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001708	0.000682	-2.503644	0.0123
DIFFERENCEINRFS	1.265226	0.156678	8.075308	0.0000

R-squared	0.014449	Mean dependent var	0.002501
Adjusted R-squared	0.014227	S.D. dependent var	0.029592
S.E. of regression	0.029380	Akaike info criterion	-4.216531
Sum squared resid	3.839540	Schwarz criterion	-4.213654
Log likelihood	9383.781	Hannan-Quinn criter.	-4.215517
F-statistic	65.21060	Durbin-Watson stat	0.090150
Prob(F-statistic)	0.000000		

Dependent Variable: DIFFERENCEUSAFS1
Method: Least Squares
Date: 03/31/17 Time: 11:02
Sample: 1/03/2000 1/20/2017
Included observations: 4450

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002083	0.000497	4.193754	0.0000
DIFFERENCEUSAFS	2.171391	0.434329	4.999416	0.0000

R-squared	0.005588	Mean dependent var	0.000693
Adjusted R-squared	0.005364	S.D. dependent var	0.027526
S.E. of regression	0.027452	Akaike info criterion	-4.352330
Sum squared resid	3.351986	Schwarz criterion	-4.349454
Log likelihood	9685.935	Hannan-Quinn criter.	-4.351316
F-statistic	24.99416	Durbin-Watson stat	0.097023
Prob(F-statistic)	0.000001		

Wald Test:
Equation: RISKPREMIUM

Test Statistic	Value	df	Probability
t-statistic	3.188690	4448	0.0014
F-statistic	10.16775	(1, 4448)	0.0014
Chi-square	10.16775	1	0.0014

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	1.458416	0.457371

Restrictions are linear in coefficients.

Wald Test:
Equation: RISKPREMIUMCHY

Test Statistic	Value	df	Probability
t-statistic	10.19560	3898	0.0000
F-statistic	103.9502	(1, 3898)	0.0000
Chi-square	103.9502	1	0.0000

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	1.327663	0.130219

Restrictions are linear in coefficients.

Wald Test:
Equation: RISKPREMIUMINR

Test Statistic	Value	df	Probability
t-statistic	8.075308	4448	0.0000
F-statistic	65.21060	(1, 4448)	0.0000
Chi-square	65.21060	1	0.0000

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	1.265226	0.156678

Restrictions are linear in coefficients.

Wald Test:
Equation: RISKPREMIUMUSA

Test Statistic	Value	df	Probability
t-statistic	4.999416	4448	0.0000
F-statistic	24.99416	(1, 4448)	0.0000
Chi-square	24.99416	1	0.0000

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	2.171391	0.434329

Restrictions are linear in coefficients.

Dependent Variable: DIFFERENCEAUDS1S
Method: Least Squares
Date: 03/31/17 Time: 10:47
Sample: 1/03/2000 1/20/2017
Included observations: 4450

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001384	0.000847	-1.633982	0.1023
DIFFERENCEAUDFS	-0.458416	0.457371	-1.002283	0.3163

R-squared	0.000226	Mean dependent var	-0.002074
Adjusted R-squared	0.000001	S.D. dependent var	0.032918
S.E. of regression	0.032918	Akaike info criterion	-3.989156
Sum squared resid	4.819774	Schwarz criterion	-3.986280
Log likelihood	8877.873	Hannan-Quinn criter.	-3.988142
F-statistic	1.004571	Durbin-Watson stat	0.093396
Prob(F-statistic)	0.316261		

Dependent Variable: DIFFERENCECHYS1S
Method: Least Squares
Date: 03/31/17 Time: 10:55
Sample (adjusted): 2/11/2002 1/20/2017
Included observations: 3900 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.002154	0.000469	-4.589635	0.0000
DIFFERENCECHYFS	-0.327663	0.130219	-2.516240	0.0119

R-squared	0.001622	Mean dependent var	-0.001779
Adjusted R-squared	0.001366	S.D. dependent var	0.027814
S.E. of regression	0.027795	Akaike info criterion	-4.327394
Sum squared resid	3.011491	Schwarz criterion	-4.324179
Log likelihood	8440.418	Hannan-Quinn criter.	-4.326253
F-statistic	6.331462	Durbin-Watson stat	0.096625
Prob(F-statistic)	0.011901		

Dependent Variable: DIFFERENCEINRS1S
Method: Least Squares
Date: 03/31/17 Time: 11:01
Sample: 1/03/2000 1/20/2017
Included observations: 4450

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001708	0.000682	2.503644	0.0123
DIFFERENCEINRFS	-0.265226	0.156678	-1.692804	0.0906

R-squared	0.000644	Mean dependent var	0.000826
Adjusted R-squared	0.000419	S.D. dependent var	0.029387
S.E. of regression	0.029380	Akaike info criterion	-4.216531
Sum squared resid	3.839540	Schwarz criterion	-4.213654
Log likelihood	9383.781	Hannan-Quinn criter.	-4.215517
F-statistic	2.865586	Durbin-Watson stat	0.090150
Prob(F-statistic)	0.090563		

Dependent Variable: DIFFERENCEUSAS1S
Method: Least Squares
Date: 03/31/17 Time: 11:03
Sample: 1/03/2000 1/20/2017
Included observations: 4450

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.002083	0.000497	-4.193754	0.0000
DIFFERENCEUSAFS	-1.171391	0.434329	-2.697013	0.0070

R-squared	0.001633	Mean dependent var	-0.001333
Adjusted R-squared	0.001408	S.D. dependent var	0.027471
S.E. of regression	0.027452	Akaike info criterion	-4.352330
Sum squared resid	3.351986	Schwarz criterion	-4.349454
Log likelihood	9685.935	Hannan-Quinn criter.	-4.351316
F-statistic	7.273881	Durbin-Watson stat	0.097023
Prob(F-statistic)	0.007023		

Wald Test:
Equation: INFOAUD

Test Statistic	Value	df	Probability
t-statistic	-1.002283	4448	0.3163
F-statistic	1.004571	(1, 4448)	0.3163
Chi-square	1.004571	1	0.3162

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	-0.458416	0.457371

Restrictions are linear in coefficients.

Wald Test:
Equation: INFOCHY

Test Statistic	Value	df	Probability
t-statistic	-2.516240	3898	0.0119
F-statistic	6.331462	(1, 3898)	0.0119
Chi-square	6.331462	1	0.0119

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	-0.327663	0.130219

Restrictions are linear in coefficients.

Wald Test:
Equation: INFOINR

Test Statistic	Value	df	Probability
t-statistic	-1.692804	4448	0.0906
F-statistic	2.865586	(1, 4448)	0.0906
Chi-square	2.865586	1	0.0905

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	-0.265226	0.156678

Restrictions are linear in coefficients.

Wald Test:
Equation: INFOUSA

Test Statistic	Value	df	Probability
t-statistic	-2.697013	4448	0.0070
F-statistic	7.273881	(1, 4448)	0.0070
Chi-square	7.273881	1	0.0070

Null Hypothesis: C(2)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	-1.171391	0.434329

Restrictions are linear in coefficients.

Null Hypothesis: DIFFERENCEBETWEENAUDFS has a unit root
Exogenous: Constant
Lag Length: 9 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.991129	0.2910
Test critical values:	1% level	-3.431639	
	5% level	-2.861995	
	10% level	-2.567055	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENAUDFS)
Method: Least Squares
Date: 03/31/17 Time: 19:20
Sample (adjusted): 1/17/2000 1/20/2017
Included observations: 4440 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENAUDFS(-1)	-0.004097	0.002058	-1.991129	0.0465
D(DIFFERENCEBETWEENAUDFS(-1))	-0.597684	0.015049	-39.71556	0.0000
D(DIFFERENCEBETWEENAUDFS(-2))	-0.483983	0.017446	-27.74166	0.0000
D(DIFFERENCEBETWEENAUDFS(-3))	-0.370608	0.018838	-19.67385	0.0000
D(DIFFERENCEBETWEENAUDFS(-4))	-0.230730	0.019597	-11.77361	0.0000
D(DIFFERENCEBETWEENAUDFS(-5))	-0.102438	0.019839	-5.163406	0.0000
D(DIFFERENCEBETWEENAUDFS(-6))	-0.087582	0.019589	-4.470975	0.0000
D(DIFFERENCEBETWEENAUDFS(-7))	-0.101056	0.018816	-5.370613	0.0000
D(DIFFERENCEBETWEENAUDFS(-8))	-0.108789	0.017404	-6.250677	0.0000
D(DIFFERENCEBETWEENAUDFS(-9))	-0.085060	0.014968	-5.682608	0.0000
C	7.50E-06	3.80E-06	1.972707	0.0486

R-squared	0.284724	Mean dependent var	4.06E-07
Adjusted R-squared	0.283109	S.D. dependent var	0.000173
S.E. of regression	0.000147	Akaike info criterion	-14.81393
Sum squared resid	9.53E-05	Schwarz criterion	-14.79808
Log likelihood	32897.92	Hannan-Quinn criter.	-14.80834
F-statistic	176.3019	Durbin-Watson stat	1.999050
Prob(F-statistic)	0.000000		

Null Hypothesis: DIFFERENCEBETWEENAUDFS1 has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.881558	0.0000
Test critical values:	1% level	-3.431644	
	5% level	-2.861997	
	10% level	-2.567056	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENAUDFS1)
Method: Least Squares
Date: 03/31/17 Time: 19:08
Sample (adjusted): 2/03/2000 1/20/2017
Included observations: 4427 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENAUDFS1(-1)	-0.051707	0.005822	-8.881558	0.0000
D(DIFFERENCEBETWEENAUDFS1(-1))	0.038341	0.013429	2.855125	0.0043
D(DIFFERENCEBETWEENAUDFS1(-2))	0.030542	0.013431	2.273982	0.0230
D(DIFFERENCEBETWEENAUDFS1(-3))	0.016460	0.013432	1.225454	0.2205
D(DIFFERENCEBETWEENAUDFS1(-4))	0.025897	0.013429	1.928364	0.0539
D(DIFFERENCEBETWEENAUDFS1(-5))	0.023928	0.013408	1.784682	0.0744
D(DIFFERENCEBETWEENAUDFS1(-6))	0.042248	0.013411	3.150262	0.0016
D(DIFFERENCEBETWEENAUDFS1(-7))	0.022548	0.013420	1.680228	0.0930
D(DIFFERENCEBETWEENAUDFS1(-8))	0.017295	0.013408	1.289877	0.1972
D(DIFFERENCEBETWEENAUDFS1(-9))	0.028489	0.013402	2.125811	0.0336
D(DIFFERENCEBETWEENAUDFS1(-10))	0.024855	0.013415	1.852761	0.0640
D(DIFFERENCEBETWEENAUDFS1(-11))	0.023843	0.013419	1.776851	0.0757
D(DIFFERENCEBETWEENAUDFS1(-12))	0.043293	0.013417	3.226696	0.0013
D(DIFFERENCEBETWEENAUDFS1(-13))	0.028146	0.013426	2.096361	0.0361
D(DIFFERENCEBETWEENAUDFS1(-14))	0.017422	0.013431	1.297163	0.1946
D(DIFFERENCEBETWEENAUDFS1(-15))	0.012868	0.013425	0.958522	0.3379
D(DIFFERENCEBETWEENAUDFS1(-16))	0.018937	0.013420	1.411096	0.1583
D(DIFFERENCEBETWEENAUDFS1(-17))	0.049633	0.013422	3.697873	0.0002
D(DIFFERENCEBETWEENAUDFS1(-18))	-0.004659	0.013436	-0.346765	0.7288
D(DIFFERENCEBETWEENAUDFS1(-19))	0.040412	0.013428	3.009625	0.0026
D(DIFFERENCEBETWEENAUDFS1(-20))	0.023665	0.013430	1.762141	0.0781
D(DIFFERENCEBETWEENAUDFS1(-21))	0.020418	0.013431	1.520252	0.1285
D(DIFFERENCEBETWEENAUDFS1(-22))	-0.452806	0.013431	-33.71417	0.0000
C	0.000202	0.000133	1.518404	0.1290

R-squared	0.247984	Mean dependent var	8.21E-06
Adjusted R-squared	0.244055	S.D. dependent var	0.010057
S.E. of regression	0.008744	Akaike info criterion	-6.635436
Sum squared resid	0.336661	Schwarz criterion	-6.600765
Log likelihood	14711.54	Hannan-Quinn criter.	-6.623209

Null Hypothesis: DIFFERENCEBETWEENAUDS1S has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.911047	0.0000
Test critical values:	1% level	-3.431644	
	5% level	-2.861997	
	10% level	-2.567056	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENAUDS1S)
Method: Least Squares
Date: 03/31/17 Time: 19:01
Sample (adjusted): 2/03/2000 1/20/2017
Included observations: 4427 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENAUDS1S(-1)	-0.052040	0.005840	-8.911047	0.0000
D(DIFFERENCEBETWEENAUDS1S(-1))	0.039055	0.013426	2.908900	0.0036
D(DIFFERENCEBETWEENAUDS1S(-2))	0.030757	0.013429	2.290297	0.0221
D(DIFFERENCEBETWEENAUDS1S(-3))	0.016521	0.013430	1.230154	0.2187
D(DIFFERENCEBETWEENAUDS1S(-4))	0.025998	0.013427	1.936158	0.0529
D(DIFFERENCEBETWEENAUDS1S(-5))	0.024497	0.013406	1.827351	0.0677
D(DIFFERENCEBETWEENAUDS1S(-6))	0.042381	0.013410	3.160507	0.0016
D(DIFFERENCEBETWEENAUDS1S(-7))	0.022368	0.013419	1.666920	0.0956
D(DIFFERENCEBETWEENAUDS1S(-8))	0.017295	0.013407	1.290050	0.1971
D(DIFFERENCEBETWEENAUDS1S(-9))	0.028936	0.013400	2.159358	0.0309
D(DIFFERENCEBETWEENAUDS1S(-10))	0.025805	0.013414	1.923707	0.0545
D(DIFFERENCEBETWEENAUDS1S(-11))	0.023260	0.013418	1.733452	0.0831
D(DIFFERENCEBETWEENAUDS1S(-12))	0.043116	0.013416	3.213782	0.0013
D(DIFFERENCEBETWEENAUDS1S(-13))	0.028938	0.013425	2.155526	0.0312
D(DIFFERENCEBETWEENAUDS1S(-14))	0.017607	0.013431	1.310971	0.1899
D(DIFFERENCEBETWEENAUDS1S(-15))	0.013104	0.013424	0.976117	0.3291
D(DIFFERENCEBETWEENAUDS1S(-16))	0.019663	0.013419	1.465353	0.1429
D(DIFFERENCEBETWEENAUDS1S(-17))	0.049355	0.013421	3.677405	0.0002
D(DIFFERENCEBETWEENAUDS1S(-18))	-0.004084	0.013435	-0.304006	0.7611
D(DIFFERENCEBETWEENAUDS1S(-19))	0.039780	0.013426	2.962871	0.0031
D(DIFFERENCEBETWEENAUDS1S(-20))	0.024031	0.013428	1.789664	0.0736
D(DIFFERENCEBETWEENAUDS1S(-21))	0.021420	0.013429	1.595092	0.1108
D(DIFFERENCEBETWEENAUDS1S(-22))	-0.453022	0.013430	-33.73322	0.0000
C	-0.000124	0.000132	-0.939613	0.3475

R-squared	0.248225	Mean dependent var	-7.80E-06
Adjusted R-squared	0.244298	S.D. dependent var	0.010060
S.E. of regression	0.008745	Akaike info criterion	-6.635210
Sum squared resid	0.336737	Schwarz criterion	-6.600539
Log likelihood	14711.04	Hannan-Quinn criter.	-6.622983

Null Hypothesis: DIFFERENCEBETWEENCHYFS has a unit root
Exogenous: Constant
Lag Length: 12 (Automatic - based on SIC, maxlag=29)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.035337	0.0318
Test critical values:	1% level	-3.431847	
	5% level	-2.862087	
	10% level	-2.567104	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENCHYFS)
Method: Least Squares
Date: 03/31/17 Time: 19:20
Sample (adjusted): 2/28/2002 1/20/2017
Included observations: 3887 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENCHYFS(-1)	-0.008363	0.002755	-3.035337	0.0024
D(DIFFERENCEBETWEENCHYFS(-1))	-0.147672	0.016118	-9.162147	0.0000
D(DIFFERENCEBETWEENCHYFS(-2))	-0.064658	0.016254	-3.977931	0.0001
D(DIFFERENCEBETWEENCHYFS(-3))	-0.084947	0.016279	-5.218113	0.0000
D(DIFFERENCEBETWEENCHYFS(-4))	-0.000402	0.016299	-0.024667	0.9803
D(DIFFERENCEBETWEENCHYFS(-5))	-0.037139	0.016284	-2.280671	0.0226
D(DIFFERENCEBETWEENCHYFS(-6))	-0.067302	0.016267	-4.137407	0.0000
D(DIFFERENCEBETWEENCHYFS(-7))	-0.051109	0.016256	-3.143984	0.0017
D(DIFFERENCEBETWEENCHYFS(-8))	0.053342	0.016261	3.280440	0.0010
D(DIFFERENCEBETWEENCHYFS(-9))	-0.062538	0.016283	-3.840774	0.0001
D(DIFFERENCEBETWEENCHYFS(-10))	-0.036291	0.016244	-2.234048	0.0255
D(DIFFERENCEBETWEENCHYFS(-11))	-0.064158	0.016213	-3.957283	0.0001
D(DIFFERENCEBETWEENCHYFS(-12))	-0.073360	0.016048	-4.571180	0.0000
C	-7.72E-06	9.71E-06	-0.794710	0.4268

R-squared	0.053380	Mean dependent var	1.19E-06
Adjusted R-squared	0.050202	S.D. dependent var	0.000587
S.E. of regression	0.000572	Akaike info criterion	-12.09063
Sum squared resid	0.001268	Schwarz criterion	-12.06806
Log likelihood	23512.13	Hannan-Quinn criter.	-12.08261
F-statistic	16.79983	Durbin-Watson stat	1.994575
Prob(F-statistic)	0.000000		

Null Hypothesis: DIFFERENCEBETWEENCHYFS1 has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=29)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.919922	0.0000
Test critical values:	1% level	-3.431851	
	5% level	-2.862089	
	10% level	-2.567105	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENCHYFS1)
Method: Least Squares
Date: 03/31/17 Time: 19:08
Sample (adjusted): 3/14/2002 1/20/2017
Included observations: 3877 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENCHYFS1(-1)	-0.046283	0.005844	-7.919922	0.0000
D(DIFFERENCEBETWEENCHYFS1(-1))	0.055146	0.014152	3.896816	0.0001
D(DIFFERENCEBETWEENCHYFS1(-2))	0.032513	0.014173	2.293937	0.0218
D(DIFFERENCEBETWEENCHYFS1(-3))	0.003984	0.014178	0.281015	0.7787
D(DIFFERENCEBETWEENCHYFS1(-4))	0.019266	0.014180	1.358633	0.1743
D(DIFFERENCEBETWEENCHYFS1(-5))	0.002710	0.014183	0.191091	0.8485
D(DIFFERENCEBETWEENCHYFS1(-6))	0.048921	0.014182	3.449400	0.0006
D(DIFFERENCEBETWEENCHYFS1(-7))	0.035255	0.014204	2.482081	0.0131
D(DIFFERENCEBETWEENCHYFS1(-8))	0.012728	0.014216	0.895353	0.3707
D(DIFFERENCEBETWEENCHYFS1(-9))	0.011319	0.014217	0.796121	0.4260
D(DIFFERENCEBETWEENCHYFS1(-10))	0.003141	0.014220	0.220916	0.8252
D(DIFFERENCEBETWEENCHYFS1(-11))	-0.020173	0.014214	-1.419241	0.1559
D(DIFFERENCEBETWEENCHYFS1(-12))	0.023143	0.014178	1.632332	0.1027
D(DIFFERENCEBETWEENCHYFS1(-13))	0.016715	0.014166	1.179873	0.2381
D(DIFFERENCEBETWEENCHYFS1(-14))	0.035922	0.014158	2.537275	0.0112
D(DIFFERENCEBETWEENCHYFS1(-15))	0.041786	0.014160	2.950861	0.0032
D(DIFFERENCEBETWEENCHYFS1(-16))	0.031855	0.014176	2.247124	0.0247
D(DIFFERENCEBETWEENCHYFS1(-17))	0.045282	0.014185	3.192240	0.0014
D(DIFFERENCEBETWEENCHYFS1(-18))	0.027222	0.014185	1.919051	0.0551
D(DIFFERENCEBETWEENCHYFS1(-19))	0.014345	0.014185	1.011270	0.3120
D(DIFFERENCEBETWEENCHYFS1(-20))	0.070164	0.014174	4.950321	0.0000
D(DIFFERENCEBETWEENCHYFS1(-21))	0.025658	0.014217	1.804747	0.0712
D(DIFFERENCEBETWEENCHYFS1(-22))	-0.473992	0.014229	-33.31092	0.0000
C	3.54E-05	0.000119	0.298630	0.7652

R-squared	0.269529	Mean dependent var	2.07E-06
Adjusted R-squared	0.265168	S.D. dependent var	0.008613
S.E. of regression	0.007383	Akaike info criterion	-6.973079
Sum squared resid	0.210027	Schwarz criterion	-6.934310
Log likelihood	13541.31	Hannan-Quinn criter.	-6.959315

Null Hypothesis: DIFFERENCEBETWEENCHYS1S has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.807180	0.0000
Test critical values:	1% level	-3.431644	
	5% level	-2.861997	
	10% level	-2.567056	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENCHYS1S)
Method: Least Squares
Date: 03/31/17 Time: 19:02
Sample (adjusted): 2/03/2000 1/20/2017
Included observations: 4427 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENCHYS1S(-1)	-0.050141	0.005693	-8.807180	0.0000
D(DIFFERENCEBETWEENCHYS1S(-1))	0.059787	0.013205	4.527509	0.0000
D(DIFFERENCEBETWEENCHYS1S(-2))	0.032827	0.013233	2.480641	0.0132
D(DIFFERENCEBETWEENCHYS1S(-3))	0.001802	0.013240	0.136094	0.8918
D(DIFFERENCEBETWEENCHYS1S(-4))	0.026656	0.013237	2.013693	0.0441
D(DIFFERENCEBETWEENCHYS1S(-5))	0.010800	0.013241	0.815630	0.4148
D(DIFFERENCEBETWEENCHYS1S(-6))	0.037388	0.013242	2.823356	0.0048
D(DIFFERENCEBETWEENCHYS1S(-7))	0.039170	0.013252	2.955716	0.0031
D(DIFFERENCEBETWEENCHYS1S(-8))	0.014373	0.013264	1.083618	0.2786
D(DIFFERENCEBETWEENCHYS1S(-9))	0.020757	0.013263	1.565004	0.1177
D(DIFFERENCEBETWEENCHYS1S(-10))	0.004810	0.013268	0.362556	0.7170
D(DIFFERENCEBETWEENCHYS1S(-11))	-0.019522	0.013264	-1.471812	0.1411
D(DIFFERENCEBETWEENCHYS1S(-12))	0.029711	0.013226	2.246403	0.0247
D(DIFFERENCEBETWEENCHYS1S(-13))	0.019639	0.013217	1.485877	0.1374
D(DIFFERENCEBETWEENCHYS1S(-14))	0.040807	0.013208	3.089456	0.0020
D(DIFFERENCEBETWEENCHYS1S(-15))	0.034985	0.013212	2.648070	0.0081
D(DIFFERENCEBETWEENCHYS1S(-16))	0.029777	0.013221	2.252316	0.0244
D(DIFFERENCEBETWEENCHYS1S(-17))	0.049976	0.013226	3.778482	0.0002
D(DIFFERENCEBETWEENCHYS1S(-18))	0.028696	0.013235	2.168155	0.0302
D(DIFFERENCEBETWEENCHYS1S(-19))	0.013730	0.013230	1.037797	0.2994
D(DIFFERENCEBETWEENCHYS1S(-20))	0.068457	0.013213	5.181047	0.0000
D(DIFFERENCEBETWEENCHYS1S(-21))	0.033630	0.013248	2.538438	0.0112
D(DIFFERENCEBETWEENCHYS1S(-22))	-0.476556	0.013262	-35.93443	0.0000
C	-0.000107	0.000109	-0.977398	0.3284

R-squared	0.274571	Mean dependent var	6.10E-06
Adjusted R-squared	0.270781	S.D. dependent var	0.008465
S.E. of regression	0.007229	Akaike info criterion	-7.016158
Sum squared resid	0.230063	Schwarz criterion	-6.981486
Log likelihood	15554.27	Hannan-Quinn criter.	-7.003931

Null Hypothesis: DIFFERENCEBETWEENINRFS has a unit root
Exogenous: Constant
Lag Length: 9 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.442729	0.0097
Test critical values:	1% level	-3.431639	
	5% level	-2.861995	
	10% level	-2.567055	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENINRFS)
Method: Least Squares
Date: 03/31/17 Time: 19:20
Sample (adjusted): 1/17/2000 1/20/2017
Included observations: 4440 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENINRFS(-1)	-0.007989	0.002321	-3.442729	0.0006
D(DIFFERENCEBETWEENINRFS(-...	-0.129342	0.015065	-8.585712	0.0000
D(DIFFERENCEBETWEENINRFS(-...	-0.136991	0.015166	-9.032586	0.0000
D(DIFFERENCEBETWEENINRFS(-...	-0.112096	0.015275	-7.338329	0.0000
D(DIFFERENCEBETWEENINRFS(-...	-0.052412	0.015351	-3.414326	0.0006
D(DIFFERENCEBETWEENINRFS(-...	0.062827	0.015348	4.093449	0.0000
D(DIFFERENCEBETWEENINRFS(-...	-0.038377	0.015350	-2.500049	0.0125
D(DIFFERENCEBETWEENINRFS(-...	-0.055649	0.015254	-3.648077	0.0003
D(DIFFERENCEBETWEENINRFS(-...	-0.047831	0.015121	-3.163205	0.0016
D(DIFFERENCEBETWEENINRFS(-...	0.061108	0.014996	4.074896	0.0000
C	2.73E-05	1.00E-05	2.714209	0.0067

R-squared	0.064324	Mean dependent var	4.61E-07
Adjusted R-squared	0.062212	S.D. dependent var	0.000442
S.E. of regression	0.000428	Akaike info criterion	-12.67199
Sum squared resid	0.000812	Schwarz criterion	-12.65613
Log likelihood	28142.81	Hannan-Quinn criter.	-12.66640
F-statistic	30.44769	Durbin-Watson stat	1.997269
Prob(F-statistic)	0.000000		

Null Hypothesis: DIFFERENCEBETWEENINRFS1 has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.085161	0.0000
Test critical values:	1% level	-3.431644	
	5% level	-2.861997	
	10% level	-2.567056	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENINRFS1)
Method: Least Squares
Date: 03/31/17 Time: 19:08
Sample (adjusted): 2/03/2000 1/20/2017
Included observations: 4427 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENINRFS1(-1)	-0.050654	0.005575	-9.085161	0.0000
D(DIFFERENCEBETWEENINRFS1(-1))	0.043674	0.013241	3.298469	0.0010
D(DIFFERENCEBETWEENINRFS1(-2))	0.016982	0.013253	1.281369	0.2001
D(DIFFERENCEBETWEENINRFS1(-3))	-0.000518	0.013255	-0.039078	0.9688
D(DIFFERENCEBETWEENINRFS1(-4))	0.041490	0.013245	3.132559	0.0017
D(DIFFERENCEBETWEENINRFS1(-5))	0.057015	0.013261	4.299417	0.0000
D(DIFFERENCEBETWEENINRFS1(-6))	0.025076	0.013288	1.887087	0.0592
D(DIFFERENCEBETWEENINRFS1(-7))	0.035949	0.013282	2.706612	0.0068
D(DIFFERENCEBETWEENINRFS1(-8))	0.039016	0.013289	2.935881	0.0033
D(DIFFERENCEBETWEENINRFS1(-9))	0.019908	0.013300	1.496765	0.1345
D(DIFFERENCEBETWEENINRFS1(-1...	0.026676	0.013300	2.005770	0.0449
D(DIFFERENCEBETWEENINRFS1(-1...	0.003698	0.013304	0.277985	0.7810
D(DIFFERENCEBETWEENINRFS1(-1...	0.033247	0.013288	2.501957	0.0124
D(DIFFERENCEBETWEENINRFS1(-1...	0.017506	0.013293	1.316944	0.1879
D(DIFFERENCEBETWEENINRFS1(-1...	0.060509	0.013285	4.554493	0.0000
D(DIFFERENCEBETWEENINRFS1(-1...	0.033531	0.013315	2.518284	0.0118
D(DIFFERENCEBETWEENINRFS1(-1...	0.013978	0.013323	1.049170	0.2942
D(DIFFERENCEBETWEENINRFS1(-1...	0.040776	0.013319	3.061471	0.0022
D(DIFFERENCEBETWEENINRFS1(-1...	0.046010	0.013333	3.450869	0.0006
D(DIFFERENCEBETWEENINRFS1(-1...	0.007116	0.013344	0.533300	0.5939
D(DIFFERENCEBETWEENINRFS1(-2...	0.054836	0.013322	4.116250	0.0000
D(DIFFERENCEBETWEENINRFS1(-2...	0.028600	0.013337	2.144341	0.0321
D(DIFFERENCEBETWEENINRFS1(-2...	-0.465490	0.013350	-34.86881	0.0000
C	0.000124	0.000115	1.074862	0.2825

R-squared	0.262246	Mean dependent var	-1.19E-06
Adjusted R-squared	0.258392	S.D. dependent var	0.008828
S.E. of regression	0.007602	Akaike info criterion	-6.915394
Sum squared resid	0.254454	Schwarz criterion	-6.880722
Log likelihood	15331.22	Hannan-Quinn criter.	-6.903167

Null Hypothesis: DIFFERENCEBETWEENINRS1S has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.156212	0.0000
Test critical values:	1% level	-3.431644	
	5% level	-2.861997	
	10% level	-2.567056	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENINRS1S)
Method: Least Squares
Date: 03/31/17 Time: 19:02
Sample (adjusted): 2/03/2000 1/20/2017
Included observations: 4427 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENINRS1S(-1)	-0.051670	0.005643	-9.156212	0.0000
D(DIFFERENCEBETWEENINRS1S(-1))	0.043936	0.013236	3.319366	0.0009
D(DIFFERENCEBETWEENINRS1S(-2))	0.017497	0.013249	1.320650	0.1867
D(DIFFERENCEBETWEENINRS1S(-3))	0.000316	0.013251	0.023873	0.9810
D(DIFFERENCEBETWEENINRS1S(-4))	0.040969	0.013241	3.093999	0.0020
D(DIFFERENCEBETWEENINRS1S(-5))	0.056432	0.013257	4.256663	0.0000
D(DIFFERENCEBETWEENINRS1S(-6))	0.026879	0.013283	2.023535	0.0431
D(DIFFERENCEBETWEENINRS1S(-7))	0.036575	0.013278	2.754553	0.0059
D(DIFFERENCEBETWEENINRS1S(-8))	0.039525	0.013286	2.975016	0.0029
D(DIFFERENCEBETWEENINRS1S(-9))	0.020179	0.013297	1.517548	0.1292
D(DIFFERENCEBETWEENINRS1S(-1...	0.027898	0.013296	2.098149	0.0359
D(DIFFERENCEBETWEENINRS1S(-1...	0.001987	0.013302	0.149366	0.8813
D(DIFFERENCEBETWEENINRS1S(-1...	0.034072	0.013283	2.565028	0.0103
D(DIFFERENCEBETWEENINRS1S(-1...	0.018193	0.013289	1.369041	0.1711
D(DIFFERENCEBETWEENINRS1S(-1...	0.060234	0.013281	4.535403	0.0000
D(DIFFERENCEBETWEENINRS1S(-1...	0.033357	0.013310	2.506173	0.0122
D(DIFFERENCEBETWEENINRS1S(-1...	0.014866	0.013318	1.116199	0.2644
D(DIFFERENCEBETWEENINRS1S(-1...	0.040173	0.013314	3.017256	0.0026
D(DIFFERENCEBETWEENINRS1S(-1...	0.045824	0.013328	3.438186	0.0006
D(DIFFERENCEBETWEENINRS1S(-1...	0.008813	0.013338	0.660705	0.5088
D(DIFFERENCEBETWEENINRS1S(-2...	0.053664	0.013317	4.029839	0.0001
D(DIFFERENCEBETWEENINRS1S(-2...	0.028939	0.013331	2.170883	0.0300
D(DIFFERENCEBETWEENINRS1S(-2...	-0.466386	0.013343	-34.95311	0.0000
C	4.64E-05	0.000114	0.406050	0.6847

R-squared	0.263533	Mean dependent var	1.75E-06
Adjusted R-squared	0.259685	S.D. dependent var	0.008824
S.E. of regression	0.007593	Akaike info criterion	-6.917849
Sum squared resid	0.253830	Schwarz criterion	-6.883177
Log likelihood	15336.66	Hannan-Quinn criter.	-6.905622

Null Hypothesis: DIFFERENCEBETWEENUSAFS has a unit root
Exogenous: Constant
Lag Length: 10 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.237292	0.1931
Test critical values:	1% level	-3.431640	
	5% level	-2.861995	
	10% level	-2.567055	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENUSAFS)
Method: Least Squares
Date: 03/31/17 Time: 19:21
Sample (adjusted): 1/18/2000 1/20/2017
Included observations: 4439 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENUSAFS(-1)	-0.003919	0.001751	-2.237292	0.0253
D(DIFFERENCEBETWEENUSAFS(-1))	-0.360383	0.015060	-23.92921	0.0000
D(DIFFERENCEBETWEENUSAFS(-2))	-0.284804	0.015957	-17.84829	0.0000
D(DIFFERENCEBETWEENUSAFS(-3))	-0.259274	0.016418	-15.79248	0.0000
D(DIFFERENCEBETWEENUSAFS(-4))	-0.139932	0.016872	-8.293671	0.0000
D(DIFFERENCEBETWEENUSAFS(-5))	0.049558	0.016938	2.925853	0.0035
D(DIFFERENCEBETWEENUSAFS(-6))	0.103056	0.016941	6.083249	0.0000
D(DIFFERENCEBETWEENUSAFS(-7))	0.019543	0.016873	1.158265	0.2468
D(DIFFERENCEBETWEENUSAFS(-8))	0.126817	0.016403	7.731102	0.0000
D(DIFFERENCEBETWEENUSAFS(-9))	0.086701	0.015932	5.441916	0.0000
D(DIFFERENCEBETWEENUSAFS(-10))	0.044997	0.015016	2.996608	0.0027
C	-2.31E-06	1.99E-06	-1.159157	0.2465

R-squared	0.175073	Mean dependent var	1.24E-07
Adjusted R-squared	0.173023	S.D. dependent var	0.000121
S.E. of regression	0.000110	Akaike info criterion	-15.39497
Sum squared resid	5.33E-05	Schwarz criterion	-15.37767
Log likelihood	34181.13	Hannan-Quinn criter.	-15.38887
F-statistic	85.41227	Durbin-Watson stat	2.000677
Prob(F-statistic)	0.000000		

Null Hypothesis: DIFFERENCEBETWEENUSAFS1 has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.710272	0.0000
Test critical values:	1% level	-3.431644	
	5% level	-2.861997	
	10% level	-2.567056	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENUSAFS1)
Method: Least Squares
Date: 03/31/17 Time: 19:07
Sample (adjusted): 2/03/2000 1/20/2017
Included observations: 4427 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENUSAFS1(-1)	-0.049092	0.005636	-8.710272	0.0000
D(DIFFERENCEBETWEENUSAFS1(-1))	0.071405	0.013212	5.404457	0.0000
D(DIFFERENCEBETWEENUSAFS1(-2))	0.028108	0.013254	2.120695	0.0340
D(DIFFERENCEBETWEENUSAFS1(-3))	0.001571	0.013258	0.118466	0.9057
D(DIFFERENCEBETWEENUSAFS1(-4))	0.022667	0.013258	1.709644	0.0874
D(DIFFERENCEBETWEENUSAFS1(-5))	0.009898	0.013259	0.746510	0.4554
D(DIFFERENCEBETWEENUSAFS1(-6))	0.032284	0.013260	2.434700	0.0149
D(DIFFERENCEBETWEENUSAFS1(-7))	0.036785	0.013270	2.772033	0.0056
D(DIFFERENCEBETWEENUSAFS1(-8))	0.013534	0.013280	1.019148	0.3082
D(DIFFERENCEBETWEENUSAFS1(-9))	0.016843	0.013279	1.268415	0.2047
D(DIFFERENCEBETWEENUSAFS1(-10))	0.006087	0.013282	0.458252	0.6468
D(DIFFERENCEBETWEENUSAFS1(-11))	-0.021552	0.013281	-1.622795	0.1047
D(DIFFERENCEBETWEENUSAFS1(-12))	0.035366	0.013246	2.669899	0.0076
D(DIFFERENCEBETWEENUSAFS1(-13))	0.017210	0.013243	1.299629	0.1938
D(DIFFERENCEBETWEENUSAFS1(-14))	0.036432	0.013231	2.753441	0.0059
D(DIFFERENCEBETWEENUSAFS1(-15))	0.034560	0.013231	2.612003	0.0090
D(DIFFERENCEBETWEENUSAFS1(-16))	0.035772	0.013240	2.701758	0.0069
D(DIFFERENCEBETWEENUSAFS1(-17))	0.050475	0.013248	3.809920	0.0001
D(DIFFERENCEBETWEENUSAFS1(-18))	0.023034	0.013257	1.737478	0.0824
D(DIFFERENCEBETWEENUSAFS1(-19))	0.014638	0.013248	1.104945	0.2692
D(DIFFERENCEBETWEENUSAFS1(-20))	0.067330	0.013230	5.089029	0.0000
D(DIFFERENCEBETWEENUSAFS1(-21))	0.032938	0.013264	2.483297	0.0131
D(DIFFERENCEBETWEENUSAFS1(-22))	-0.476370	0.013274	-35.88633	0.0000
C	2.77E-05	0.000110	0.252678	0.8005

R-squared	0.275096	Mean dependent var	-5.76E-06
Adjusted R-squared	0.271309	S.D. dependent var	0.008543
S.E. of regression	0.007293	Akaike info criterion	-6.998517
Sum squared resid	0.234158	Schwarz criterion	-6.963845
Log likelihood	15515.22	Hannan-Quinn criter.	-6.986290

Null Hypothesis: DIFFERENCEBETWEENUSAS1S has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=30)

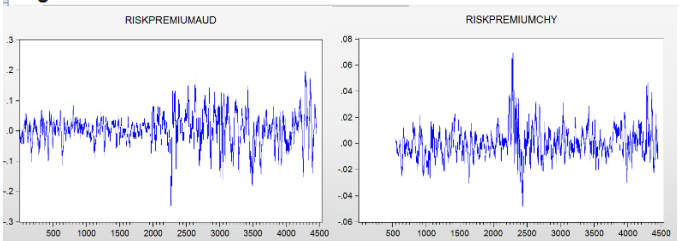
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.740936	0.0000
Test critical values:	1% level	-3.431644	
	5% level	-2.861997	
	10% level	-2.567056	

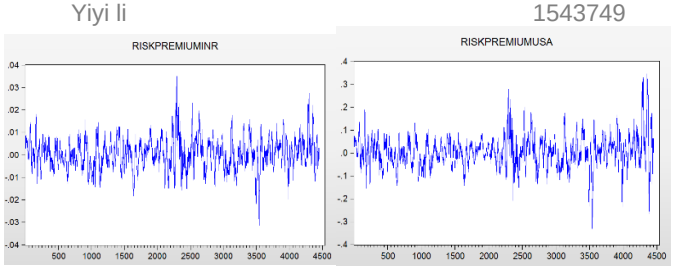
*MacKinnon (1996) one-sided p-values.

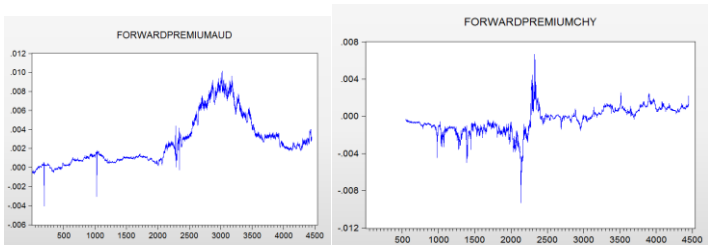
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DIFFERENCEBETWEENUSAS1S)
Method: Least Squares
Date: 03/31/17 Time: 19:03
Sample (adjusted): 2/03/2000 1/20/2017
Included observations: 4427 after adjustments

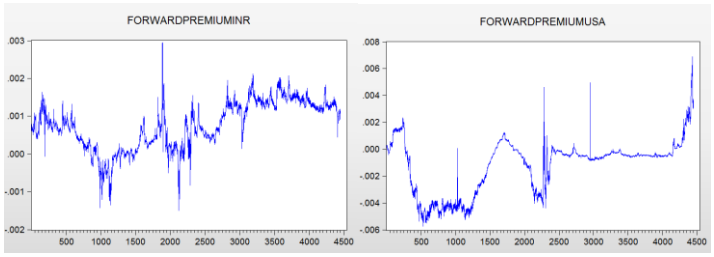
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIFFERENCEBETWEENUSAS1S(-1)	-0.049468	0.005659	-8.740936	0.0000
D(DIFFERENCEBETWEENUSAS1S(-1))	0.072168	0.013214	5.461374	0.0000
D(DIFFERENCEBETWEENUSAS1S(-2))	0.027698	0.013257	2.089273	0.0367
D(DIFFERENCEBETWEENUSAS1S(-3))	0.001330	0.013261	0.100284	0.9201
D(DIFFERENCEBETWEENUSAS1S(-4))	0.023305	0.013262	1.757324	0.0789
D(DIFFERENCEBETWEENUSAS1S(-5))	0.009354	0.013263	0.705319	0.4806
D(DIFFERENCEBETWEENUSAS1S(-6))	0.032011	0.013263	2.413481	0.0158
D(DIFFERENCEBETWEENUSAS1S(-7))	0.037223	0.013273	2.804358	0.0051
D(DIFFERENCEBETWEENUSAS1S(-8))	0.014308	0.013284	1.077102	0.2815
D(DIFFERENCEBETWEENUSAS1S(-9))	0.016715	0.013282	1.258486	0.2083
D(DIFFERENCEBETWEENUSAS1S(-10))	0.005909	0.013286	0.444792	0.6565
D(DIFFERENCEBETWEENUSAS1S(-11))	-0.021430	0.013284	-1.613225	0.1068
D(DIFFERENCEBETWEENUSAS1S(-12))	0.036124	0.013249	2.726518	0.0064
D(DIFFERENCEBETWEENUSAS1S(-13))	0.017419	0.013246	1.315066	0.1886
D(DIFFERENCEBETWEENUSAS1S(-14))	0.036852	0.013234	2.784584	0.0054
D(DIFFERENCEBETWEENUSAS1S(-15))	0.034487	0.013235	2.605794	0.0092
D(DIFFERENCEBETWEENUSAS1S(-16))	0.035957	0.013244	2.715053	0.0067
D(DIFFERENCEBETWEENUSAS1S(-17))	0.050295	0.013252	3.795329	0.0001
D(DIFFERENCEBETWEENUSAS1S(-18))	0.023469	0.013260	1.769883	0.0768
D(DIFFERENCEBETWEENUSAS1S(-19))	0.015289	0.013251	1.153783	0.2487
D(DIFFERENCEBETWEENUSAS1S(-20))	0.067307	0.013233	5.086273	0.0000
D(DIFFERENCEBETWEENUSAS1S(-21))	0.033090	0.013266	2.494341	0.0127
D(DIFFERENCEBETWEENUSAS1S(-22))	-0.476170	0.013276	-35.86622	0.0000
C	-5.97E-05	0.000110	-0.542932	0.5872

R-squared	0.275430	Mean dependent var	5.90E-06
Adjusted R-squared	0.271646	S.D. dependent var	0.008548
S.E. of regression	0.007295	Akaike info criterion	-6.997847
Sum squared resid	0.234315	Schwarz criterion	-6.963175
Log likelihood	15513.73	Hannan-Quinn criter.	-6.985620




RISKPREMIUMINR
RISKPREMIUMUSA


FORWARDPREMIUMAUD
FORWARDPREMIUMCHY


FORWARDPREMIUMINR
FORWARDPREMIUMUSA

Null Hypothesis: RISKPREMIUMCHY has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=29)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.068549	0.0000
Test critical values:	1% level	-3.431851	
	5% level	-2.862089	
	10% level	-2.567105	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RISKPREMIUMCHY)
Method: Least Squares
Date: 04/01/17 Time: 09:19
Sample (adjusted): 3/14/2002 1/20/2017
Included observations: 3877 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RISKPREMIUMCHY(-1)	-0.047778	0.005922	-8.068549	0.0000
D(RISKPREMIUMCHY(-1))	0.059782	0.014181	4.215605	0.0000
D(RISKPREMIUMCHY(-2))	0.033022	0.014208	2.324166	0.0202
D(RISKPREMIUMCHY(-3))	0.006801	0.014214	0.478485	0.6323
D(RISKPREMIUMCHY(-4))	0.015789	0.014219	1.110426	0.2669
D(RISKPREMIUMCHY(-5))	-0.000816	0.014222	-0.057400	0.9542
D(RISKPREMIUMCHY(-6))	0.053057	0.014222	3.730701	0.0002
D(RISKPREMIUMCHY(-7))	0.037825	0.014247	2.654828	0.0080
D(RISKPREMIUMCHY(-8))	0.011764	0.014262	0.824876	0.4095
D(RISKPREMIUMCHY(-9))	0.013735	0.014263	0.963008	0.3356
D(RISKPREMIUMCHY(-1...	0.004514	0.014268	0.316401	0.7517
D(RISKPREMIUMCHY(-1...	-0.020967	0.014261	-1.470293	0.1416
D(RISKPREMIUMCHY(-1...	0.022690	0.014223	1.595330	0.1107
D(RISKPREMIUMCHY(-1...	0.014158	0.014211	0.996250	0.3192
D(RISKPREMIUMCHY(-1...	0.037450	0.014202	2.636926	0.0084
D(RISKPREMIUMCHY(-1...	0.044173	0.014205	3.109694	0.0019
D(RISKPREMIUMCHY(-1...	0.032674	0.014223	2.297357	0.0217
D(RISKPREMIUMCHY(-1...	0.045737	0.014232	3.213694	0.0013
D(RISKPREMIUMCHY(-1...	0.031060	0.014227	2.183132	0.0291
D(RISKPREMIUMCHY(-1...	0.015027	0.014227	1.056232	0.2909
D(RISKPREMIUMCHY(-2...	0.070988	0.014218	4.992956	0.0000
D(RISKPREMIUMCHY(-2...	0.028405	0.014262	1.991678	0.0465
D(RISKPREMIUMCHY(-2...	-0.470470	0.014277	-32.95331	0.0000
C	1.79E-05	4.92E-05	0.364728	0.7153

R-squared	0.268250	Mean dependent var	6.92E-07
Adjusted R-squared	0.263882	S.D. dependent var	0.003565
S.E. of regression	0.003059	Akaike info criterion	-8.735426
Sum squared resid	0.036049	Schwarz criterion	-8.696657
Log likelihood	16957.62	Hannan-Quinn criter.	-8.721661

Null Hypothesis: RISKPREMIUMINR has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.084396	0.0000
Test critical values:	1% level	-3.431644	
	5% level	-2.861997	
	10% level	-2.567056	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RISKPREMIUMINR)
Method: Least Squares
Date: 04/01/17 Time: 09:19
Sample (adjusted): 2/03/2000 1/20/2017
Included observations: 4427 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RISKPREMIUMINR(-1)	-0.050700	0.005581	-9.084396	0.0000
D(RISKPREMIUMINR(-1))	0.041681	0.013246	3.146793	0.0017
D(RISKPREMIUMINR(-2))	0.017868	0.013256	1.347889	0.1778
D(RISKPREMIUMINR(-3))	0.000194	0.013259	0.014620	0.9883
D(RISKPREMIUMINR(-4))	0.040937	0.013248	3.090049	0.0020
D(RISKPREMIUMINR(-5))	0.056962	0.013264	4.294489	0.0000
D(RISKPREMIUMINR(-6))	0.024833	0.013291	1.868408	0.0618
D(RISKPREMIUMINR(-7))	0.037207	0.013285	2.800574	0.0051
D(RISKPREMIUMINR(-8))	0.038279	0.013294	2.879549	0.0040
D(RISKPREMIUMINR(-9))	0.021279	0.013304	1.599453	0.1098
D(RISKPREMIUMINR(-...	0.025432	0.013304	1.911651	0.0560
D(RISKPREMIUMINR(-...	0.001284	0.013307	0.096518	0.9231
D(RISKPREMIUMINR(-...	0.031962	0.013289	2.405095	0.0162
D(RISKPREMIUMINR(-...	0.018190	0.013293	1.368436	0.1712
D(RISKPREMIUMINR(-...	0.061146	0.013286	4.602356	0.0000
D(RISKPREMIUMINR(-...	0.033036	0.013316	2.480974	0.0131
D(RISKPREMIUMINR(-...	0.015049	0.013324	1.129450	0.2588
D(RISKPREMIUMINR(-...	0.040944	0.013320	3.073873	0.0021
D(RISKPREMIUMINR(-...	0.046065	0.013334	3.454786	0.0006
D(RISKPREMIUMINR(-...	0.006885	0.013344	0.515978	0.6059
D(RISKPREMIUMINR(-...	0.055329	0.013323	4.152895	0.0000
D(RISKPREMIUMINR(-...	0.028825	0.013339	2.160935	0.0308
D(RISKPREMIUMINR(-...	-0.465014	0.013351	-34.82896	0.0000
C	2.66E-05	2.61E-05	1.016780	0.3093

R-squared	0.261708	Mean dependent var	-3.05E-07
Adjusted R-squared	0.257852	S.D. dependent var	0.002006
S.E. of regression	0.001728	Akaike info criterion	-9.878574
Sum squared resid	0.013144	Schwarz criterion	-9.843903
Log likelihood	21890.22	Hannan-Quinn criter.	-9.866347

Null Hypothesis: RISKPREMIUMUSA has a unit root
Exogenous: Constant
Lag Length: 22 (Automatic - based on SIC, maxlag=30)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.477678	0.0000
Test critical values:	1% level	-3.431644	
	5% level	-2.861997	
	10% level	-2.567056	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RISKPREMIUMUSA)
Method: Least Squares
Date: 04/01/17 Time: 09:20
Sample (adjusted): 2/03/2000 1/20/2017
Included observations: 4427 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RISKPREMIUMUSA(-1)	-0.054714	0.005773	-9.477678	0.0000
D(RISKPREMIUMUSA(-1))	0.052015	0.013335	3.900710	0.0001
D(RISKPREMIUMUSA(-2))	0.011065	0.013357	0.828431	0.4075
D(RISKPREMIUMUSA(-3))	0.008893	0.013358	0.665722	0.5056
D(RISKPREMIUMUSA(-4))	0.037274	0.013360	2.790039	0.0053
D(RISKPREMIUMUSA(-5))	0.048782	0.013381	3.645632	0.0003
D(RISKPREMIUMUSA(-6))	0.043081	0.013399	3.215273	0.0013
D(RISKPREMIUMUSA(-7))	0.043253	0.013409	3.225614	0.0013
D(RISKPREMIUMUSA(-8))	0.028673	0.013423	2.136140	0.0327
D(RISKPREMIUMUSA(-9))	0.034322	0.013430	2.555575	0.0106
D(RISKPREMIUMUSA(-10))	0.025794	0.013450	1.917747	0.0552
D(RISKPREMIUMUSA(-11))	-0.004953	0.013461	-0.367907	0.7130
D(RISKPREMIUMUSA(-12))	0.044684	0.013443	3.323865	0.0009
D(RISKPREMIUMUSA(-13))	0.009855	0.013454	0.732502	0.4639
D(RISKPREMIUMUSA(-14))	0.067913	0.013454	5.047790	0.0000
D(RISKPREMIUMUSA(-15))	0.040765	0.013487	3.022585	0.0025
D(RISKPREMIUMUSA(-16))	0.028310	0.013502	2.096724	0.0361
D(RISKPREMIUMUSA(-17))	0.035363	0.013509	2.617772	0.0089
D(RISKPREMIUMUSA(-18))	0.052328	0.013519	3.870783	0.0001
D(RISKPREMIUMUSA(-19))	-0.003257	0.013536	-0.240634	0.8099
D(RISKPREMIUMUSA(-20))	0.051437	0.013521	3.804147	0.0001
D(RISKPREMIUMUSA(-21))	0.039049	0.013534	2.885163	0.0039
D(RISKPREMIUMUSA(-22))	-0.456810	0.013575	-33.64963	0.0000
C	0.000272	0.000265	1.027420	0.3043

R-squared	0.256095	Mean dependent var	4.53E-06
Adjusted R-squared	0.252209	S.D. dependent var	0.020246
S.E. of regression	0.017508	Akaike info criterion	-5.246901
Sum squared resid	1.349665	Schwarz criterion	-5.212230
Log likelihood	11638.02	Hannan-Quinn criter.	-5.234674

Null Hypothesis: RISKPREMIUMAUD is a martingale
Date: 04/04/17 Time: 22:33
Sample: 1 4530
Included observations: 4449 (after adjustments)
Heteroskedasticity robust standard error estimates
User-specified lags: 2 4 8 16

Joint Tests	Value	df	Probability
Max |z| (at period 2)*	1.085545	4449	0.7278

Individual Tests

Period	Var. Ratio	Std. Error	z-Statistic	Probability
2	1.025995	0.023947	1.085545	0.2777
4	1.039543	0.044509	0.888439	0.3743
8	1.065820	0.067573	0.974055	0.3300
16	1.094090	0.095907	0.981055	0.3266

*Probability approximation using studentized maximum modulus with parameter value 4 and infinite degrees of freedom

Test Details (Mean = 8.42147753794e-06)

Period	Variance	Var. Ratio	Obs.
1	0.00022	--	4449
2	0.00022	1.02600	4448
4	0.00022	1.03954	4446
8	0.00023	1.06582	4442
16	0.00024	1.09409	4434

Null Hypothesis: RISKPREMIUMCHY is a martingale
Date: 04/04/17 Time: 22:34
Sample: 1 4530
Included observations: 3899 (after adjustments)
Heteroskedasticity robust standard error estimates
User-specified lags: 2 4 8 16

Joint Tests	Value	df	Probability
Max |z| (at period 2)*	1.978442	3899	0.1782

Individual Tests

Period	Var. Ratio	Std. Error	z-Statistic	Probability
2	1.047603	0.024061	1.978442	0.0479
4	1.048707	0.043618	1.116664	0.2641
8	1.002139	0.068272	0.031336	0.9750
16	0.922305	0.100376	-0.774036	0.4389

*Probability approximation using studentized maximum modulus with parameter value 4 and infinite degrees of freedom

Test Details (Mean = -1.68749710862e-06)

Period	Variance	Var. Ratio	Obs.
1	1.3E-05	--	3899
2	1.3E-05	1.04760	3898
4	1.3E-05	1.04871	3896
8	1.3E-05	1.00214	3892
16	1.2E-05	0.92231	3884

Null Hypothesis: RISKPREMIUMINR is a martingale
Date: 04/04/17 Time: 22:35
Sample: 1 4530
Included observations: 4449 (after adjustments)
Heteroskedasticity robust standard error estimates
User-specified lags: 2 4 8 16

Joint Tests	Value	df	Probability
Max |z| (at period 2)*	1.193350	4449	0.6534

Individual Tests

Period	Var. Ratio	Std. Error	z-Statistic	Probability
2	1.022883	0.019175	1.193350	0.2327
4	0.995493	0.035291	-0.127715	0.8984
8	1.016949	0.055675	0.304432	0.7608
16	1.044596	0.081644	0.546223	0.5849

*Probability approximation using studentized maximum modulus with parameter value 4 and infinite degrees of freedom

Test Details (Mean = -8.91040028721e-08)

Period	Variance	Var. Ratio	Obs.
1	4.0E-06	--	4449
2	4.1E-06	1.02288	4448
4	4.0E-06	0.99549	4446
8	4.1E-06	1.01695	4442
16	4.2E-06	1.04460	4434

Null Hypothesis: RISKPREMIUMUSA is a martingale
Date: 04/04/17 Time: 22:35
Sample: 1 4530
Included observations: 4449 (after adjustments)
Heteroskedasticity robust standard error estimates
User-specified lags: 2 4 8 16

Joint Tests	Value	df	Probability
Max |z| (at period 2)*	1.042505	4449	0.7560

Individual Tests

Period	Var. Ratio	Std. Error	z-Statistic	Probability
2	1.024600	0.023597	1.042505	0.2972
4	1.002639	0.042181	0.062563	0.9501
8	1.023878	0.065208	0.366179	0.7142
16	1.054919	0.094752	0.579605	0.5622

*Probability approximation using studentized maximum modulus with parameter value 4 and infinite degrees of freedom

Test Details (Mean = 6.57740192131e-06)

Period	Variance	Var. Ratio	Obs.
1	0.00041	--	4449
2	0.00042	1.02460	4448
4	0.00041	1.00264	4446
8	0.00042	1.02388	4442
16	0.00043	1.05492	4434