



User: Thamchanok Pianmuean
Project: Assignment 13

```
L1. | -.0042396 .0031666 -1.34 0.181 -.0104556 .0019764
name: <unnamed>
log: C:\Users\Kriss\OneDrive\เดสก์ท็อป\426\ass13.smcl
log type: smcl
opened on: 28 Apr 2021, 23:18:05
```

```
1 . use "C:\Users\Kriss\OneDrive\เดสก์ท็อป\426\assign_timeseries.dta"
```

Spot rate test

```
2 . dfuller spot, trend lags(1) regress
```

Augmented Dickey-Fuller test for unit root Number of obs = 793

Test Statistic	Interpolated Dickey-Fuller		
	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-1.339	-3.960	-3.410

MacKinnon approximate p-value for Z(t) = 0.8780 Failed to Reject H₀, check for misspecification

D.spot	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
spot						
L1.	-.0042396	.0031666	-1.34	0.181	-.0104556	.0019764
LD.	.0832853	.035481	2.35	0.019	.013637	.1529337
_trend	-.000739	.0014208	-0.52	0.603	-.0035281	.00205
_cons	2.253569	1.884627	1.20	0.232	-1.445907	5.953046

```
3 . dfuller spot, lags(1) regress
```

Augmented Dickey-Fuller test for unit root Number of obs = 793

Test Statistic	Interpolated Dickey-Fuller		
	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-1.238	-3.430	-2.860

MacKinnon approximate p-value for Z(t) = 0.6570 Failed to Reject H₀, check for misspecification

D.spot	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
spot						
L1.	-.0034926	.002821	-1.24	0.216	-.0090301	.0020448
LD.	.0828543	.035455	2.34	0.020	.0132572	.1524514
_cons	1.597051	1.39888	1.14	0.254	-1.14891	4.343012

```
4 . dfuller spot, nocon lags(1) regress
```

Augmented Dickey-Fuller test for unit root Number of obs = 793

Test Statistic	Interpolated Dickey-Fuller		
	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-0.585	-2.580	-1.950

Failed to Reject H₀.

D.spot	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
spot						
L1.	-.0003419	.0005845	-0.58	0.559	-.0014892	.0008054
LD.	.0811979	.0354321	2.29	0.022	.011646	.1507499

we have unit root → non-stationary.

Future rate test

5 . dfuller future, trend lags(1) regress

Augmented Dickey-Fuller test for unit root Number of obs = 793

Test Statistic	Interpolated Dickey-Fuller			
	1% Critical Value	5% Critical Value	10% Critical Value	
Z(t)	-1.374	-3.960	-3.410	-3.120

MacKinnon approximate p-value for Z(t) = 0.8685 *Failed to Reject H₀, check for misspecification*

D.future	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
future					
L1.	-.0050243	.0036579	-1.37	0.170	-.0122046 .002156
LD.	-.0335608	.0355846	-0.94	0.346	-.1034125 .036291
_trend	-.0009128	.0016705	-0.55	0.585	-.0041919 .0023663
_cons	2.67398	2.183399	1.22	0.221	-1.611978 6.959937

6 . dfuller future, lags(1) regress

Augmented Dickey-Fuller test for unit root Number of obs = 793

Test Statistic	Interpolated Dickey-Fuller			
	1% Critical Value	5% Critical Value	10% Critical Value	
Z(t)	-1.264	-3.430	-2.860	-2.570

MacKinnon approximate p-value for Z(t) = 0.6453 *Failed to Reject H₀, check for misspecification*

D.future	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
future					
L1.	-.0041054	.0032469	-1.26	0.206	-.0104789 .0022682
LD.	-.0340903	.0355556	-0.96	0.338	-.103885 .0357044
_cons	1.866323	1.606292	1.16	0.246	-1.286783 5.019429

7 . dfuller future, nocon lags(1) regress

Augmented Dickey-Fuller test for unit root Number of obs = 793

Test Statistic	Interpolated Dickey-Fuller			
	1% Critical Value	5% Critical Value	10% Critical Value	
Z(t)	-0.609	-2.580	-1.950	-1.620

D.future	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
future					
L1.	-.0004181	.0006863	-0.61	0.543	-.0017653 .0009291
LD.	-.0360006	.0355254	-1.01	0.311	-.1057359 .0337347

we have unit root => non-stationary.

```

8 . gen rspot = spot-l.spot
9 . drop rspot
10 . gen rspot = spot-l.spot
    (1 missing value generated)
11 . gen rfuture = future-l.future
    (1 missing value generated)
12 . replace rspot = rspot/spot
    (793 real changes made)
13 . replace rfuture = rfuture/future
    (792 real changes made)
14 . dfuller rspot, trend lags(1) regress

```

Augmented Dickey-Fuller test for unit root Number of obs = **792**

Test Statistic	Interpolated Dickey-Fuller		
	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-17.551	-3.960	-3.410

MacKinnon approximate p-value for Z(t) = **0.0000** *Reject H₀, we don't have unit root ⇒ stationary.*

D.rspot	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
rspot						
L1.	-.8498297	.0484217	-17.55	0.000	-.9448804	-.754779
LD.	-.0868715	.0354939	-2.45	0.015	-.1565453	-.0171976
_trend	3.77e-07	2.92e-06	0.13	0.897	-5.36e-06	6.11e-06
_cons	-.0004939	.0013394	-0.37	0.712	-.0031231	.0021353

```

15 . dfuller rfuture, trend lags(1) regress

```

Augmented Dickey-Fuller test for unit root Number of obs = **792**

Test Statistic	Interpolated Dickey-Fuller		
	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-19.435	-3.960	-3.410

MacKinnon approximate p-value for Z(t) = **0.0000** *Reject H₀, we don't have unit root ⇒ stationary.*

D.rfuture	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
rfuture						
L1.	-.9983341	.0513682	-19.43	0.000	-1.099169	-.8974994
LD.	-.0409981	.035614	-1.15	0.250	-.1109077	.0289115
_trend	1.76e-07	3.44e-06	0.05	0.959	-6.58e-06	6.93e-06
_cons	-.0005515	.0015772	-0.35	0.727	-.0036475	.0025446

```

16 . log close
    name: <unnamed>
    log: C:\Users\Kriss\OneDrive\เอกสาร\426\ass13.smcl
    log type: smcl
    closed on: 28 Apr 2021, 23:22:01

```