STATA®
Statistics/Data Analysis

_____

```
      name:  <unnamed>
       log:  C:\Users\Spandan\Desktop\IETF\PPP Project\Data\PPPandCPI.smcl
  log type:  smcl
 opened on:  25 Aug 2023, 18:27:14
```

```
1 . import excel "C:\Users\Spandan\Desktop\IETF\PPP Project\Data\Data.xlsx", sheet("Shee
  > t2") firstrow clear

2 . tsset Year
          time variable:  Year, 1961 to 2022
                  delta:  1 unit

3 .
4 . foreach var in GermanyCPI UnitedKingdomCPI IndiaCPI JapanCPI ThailandCPI Switzerland
  > CPI{
    2. *dis "DFullerTEST for `var'",
5 . *dfuller `var'
6 . gen rel_USD`var' = (D.UnitedStatesCPI - D.`var')/(1 + D.`var')
    3. }
  (1 missing value generated)
  (1 missing value generated)
  (1 missing value generated)
  (1 missing value generated)
  (1 missing value generated)
  (1 missing value generated)

7 .
8 . /*foreach var in GermanyEX UnitedKingdomEX IndiaEX JapanEX UnitedStatesEX{
  > gen chgUSD`var' = (1/`var')
  > gen USD`var' = D.chgUSD`var'
  > }*/
9 .
10. /*reg GermanyEX   rel_USDGermanyCPI
  > reg UnitedKingdomEX  rel_USDUnitedKingdomCPI
  > reg IndiaEX   rel_USDIndiaCPI
  > reg JapanEX rel_USDJapanCPI
  > reg SwitzerlandEX rel_USDSwitzerlandCPI
  > reg ThailandEX   rel_USDThailandCPI*/
11.
12. tabstat rel_* *EX, s(me sd sk ku)
```

```
    stats |   rel~yCPI   rel~mCPI   rel~aCPI   rel~nCPI   r~Thai~I   r~Swit~I   German~X   Unit
  > ed~X    IndiaEX    JapanEX
  ----------+------------------------------------------------------------------------------------

     mean |  .0004093    .000873   .0033633   .0020672   .0027513   .0010532   .0321458   -.010
  > 2726  -.0419916   .0210699
       sd |  .0148661   .0224593    .058177   .0228108    .037442   .0153686   .1433497    .075
  > 3807   .064276    .100899
  skewness | -.1006689   -.022292   1.578956   1.560088   2.833571   -1.03403   3.435763   -.224
  > 9798  -.857657   .9790055
  kurtosis |  4.458031   11.04975   9.261787    9.95379   17.34092   6.050894   20.78763    2.61
  > 8435   4.461581   5.727771
  ----------+------------------------------------------------------------------------------------
```

```
    stats |   Switze~X   Thaila~X
  ----------+--------------------
     mean |  .0291153   -.006432
       sd |  .0975281   .0557006
  skewness |  1.272362   -1.83304
  kurtosis |  5.485073   8.584359
  ----------+--------------------
```

```
13.
14. foreach var in Germany UnitedKingdom India Japan Switzerland Thailand{
 2. reg `var'EX  rel_USD`var'CPI
 3. tsline `var'EX  rel_USD`var'CPI
 4. graph export `var'.png , as(png) replace
 5. }
```

Source	SS	df	MS		
Model	.104628249	1	.104628249	Number of obs =	61
Residual	1.14878419	59	.019470918	F(1, 59) =	5.37
				Prob > F =	0.0239
				R-squared =	0.0835
				Adj R-squared =	0.0679
Total	1.25341244	60	.020890207	Root MSE =	.13954

GermanyEX	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]
rel_USDGermanyCPI	2.809008	1.211774	2.32	0.024	.3842533 5.233762
_cons	.0308457	.0178729	1.73	0.090	-.004918 .0666093

(file Germany.png written in PNG format)

Source	SS	df	MS		
Model	.001153064	1	.001153064	Number of obs =	61
Residual	.345356797	59	.005853505	F(1, 59) =	0.20
				Prob > F =	0.6588
				R-squared =	0.0033
				Adj R-squared =	-0.0136
Total	.346509861	60	.005775164	Root MSE =	.07651

UnitedKingdomEX	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interv > al]
rel_USDUnitedKingdomCPI > 187	.1951886	.4397803	0.44	0.659	-.6848097 1.075
_cons > 051	-.0106114	.0098034	-1.08	0.283	-.030228 .0090

(file UnitedKingdom.png written in PNG format)

Source	SS	df	MS		
Model	.00116883	1	.00116883	Number of obs =	61
Residual	.249054847	59	.004221269	F(1, 59) =	0.28
				Prob > F =	0.6007
				R-squared =	0.0047
				Adj R-squared =	-0.0122
Total	.250223677	60	.004170395	Root MSE =	.06497

IndiaEX	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]
rel_USDIndiaCPI	.0758663	.1441766	0.53	0.601	-.2126305 .3643631
_cons	-.0429351	.0083328	-5.15	0.000	-.0596091 -.0262611

(file India.png written in PNG format)

Source	SS	df	MS		
Model	.023571175	1	.023571175	Number of obs =	61
Residual	.596994123	59	.010118544	F(1, 59) =	2.33
				Prob > F =	0.1323
				R-squared =	0.0380
				Adj R-squared =	0.0217
Total	.620565297	60	.010342755	Root MSE =	.10059

JapanEX	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
rel_USDJapanCPI	.8689077	.5693011	1.53	0.132	-.2702613	2.008077
_cons	.0196191	.012933	1.52	0.135	-.0062598	.045498

(file Japan.png written in PNG format)

Source	SS	df	MS			
Model	.040350491	1	.040350491	Number of obs	=	61
Residual	.539003454	59	.009135652	F(1, 59)	=	4.42
				Prob > F	=	0.0399
				R-squared	=	0.0696
				Adj R-squared	=	0.0539
Total	.579353945	60	.009655899	Root MSE	=	.09558

_ SwitzerlandEX >]	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval
_ rel_USDSwitzerlandCPI > 8	1.68739	.802899	2.10	0.040	.0807932 3.29398
_cons > 7	.0278155	.012267	2.27	0.027	.0032692 .052361
_					

(file Switzerland.png written in PNG format)

Source	SS	df	MS			
Model	.002330575	1	.002330575	Number of obs	=	61
Residual	.186772062	59	.003165628	F(1, 59)	=	0.74
				Prob > F	=	0.3943
				R-squared	=	0.0123
				Adj R-squared	=	-0.0044
Total	.189102637	60	.003151711	Root MSE	=	.05626

ThailandEX	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
rel_USDThailandCPI	.1664551	.1939972	0.86	0.394	-.2217325	.5546426
_cons	-.0070914	.0072236	-0.98	0.330	-.0215458	.007363

(file Thailand.png written in PNG format)

```
15.
16. /*tsline GermanyEX  rel_USDGermanyCPI
  >
  > graph export GermanyEX , as(png) replace
  >
  > tsline UnitedKingdomEX  rel_USDUnitedKingdomCPI
  > graph export UnitedKingdomEX , as(png) replace
  > tsline IndiaEX  rel_USDIndiaCPI
  > graph export IndiaEX , as(png) replace
  > tsline JapanEX rel_USDJapanCPI
  > graph export JapanEX , as(png) replace
  >
  > tsline SwitzerlandEX rel_USDThailandCPI
  > graph export SwitzerlandEX , as(png) replace
  > tsline ThailandEX  rel_USDSwitzerlandCPI
  > graph export ThailandEX , as(png) replace*/
17. log close
       name:  <unnamed>
        log:  C:\Users\Spandan\Desktop\IETF\PPP Project\Data\PPPandCPI.smcl
   log type:  smcl
  closed on:  25 Aug 2023, 18:27:52
```