STATA log for CER Cost of Brexit estimate, Q2 2018

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. net from "https://web.stanford.edu/~jhain/Synth"

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https://web.stanford.edu/~jhain/Synth/
Synthetic Control Methods for Comparative Case Studies
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Also see the homepage for the paper that describes the method.

PACKAGES you could -net describe-:
   synth           Synthetic Control Methods
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. net install synth, all replace force
checking synth consistency and verifying not already installed...

the following files will be replaced:
   c:\ado\plus\s\synth.ado
   c:\ado\plus\s\synth_ll.ado
   c:\ado\plus\l\lsynth_mata_subr.mlib
   c:\ado\plus\s\synth.sthlp
   smoking.dta
   c:\ado\plus\s\synthopt.plugin

installing into c:\ado\plus\...
installation complete.

copying into current directory...
     copying  smoking.dta
ancillary files successfully copied.

. import excel "P:\JOHN\Cost of Brexit\Final tests\2018q2\Rich countries\Rich countries 2009
on\Rich countries input data 2009q1 on.xlsx", sheet("Sheet1") firstrow

. encode country, gen(ncountry)

. tsset ncountry dateid
      panel variable:  ncountry (strongly balanced)
       time variable:  dateid, 57 to 94
               delta:  1 unit

. synth realgdp realgdp invratio schooling industry inflation openness realgdppercap, trunit(22)
trperiod(87) nested mspeperiod(71(1)86) keep(finalmodel) fig

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Synthetic Control Method for Comparative Case Studies

First Step: Data Setup

Data Setup successful

Treated Unit: United Kingdom
Control Units: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United States
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Dependent Variable: realgdp
MSPE minimized for periods: 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86
Results obtained for periods: 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83
84 85 86 87 88 89 90 91 92 93 94

Predictors: realgdp invratio schooling industry inflation openness realgdppercap
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Unless period is specified
predictors are averaged over: 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83
84 85 86

Second Step: Run Optimization

Nested optimization requested
Starting nested optimization module
Optimization done

Optimization done

Third Step: Obtain Results

Loss: Root Mean Squared Prediction Error

RMSPE | .2576809

Unit Weights:

Co_No | Unit_Weight
---+---
Australia | 0
Austria | 0

Belgium	0
Canada	0
Denmark	0
Finland	0
France	0
Germany	.282
Greece	.018
Iceland	.095
Ireland	0
Italy	0
Japan	0
Luxembourg	.105
Netherlands	0
New Zealand	0
Norway	0
Portugal	0
Spain	0
Sweden	0
Switzerland	0
United States	.499

Predictor Balance:

	Treated	Synthetic
realgdp	4.296553	4.297661
invratio	.1572137	.1887101
schooling	12.34082	12.63127
industry	.2398946	.2400632
inflation	.4755044	.3628338
openness	54.14789	74.41919
realgdppercap	.2047782	.2406368