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

net install synth, all replace force

ssc install gsample

ssc install moremata

clear

import [input data]

encode country, gen(ncountry)

egen dateid = group(date)

egen countryid = group(ncountry)

generate UK = (countryid == 22)

tsset ncountry dateid

synth totaltrade totaltrade invratio schooling industry inflation openness realgdppercap, trunit(22) trperiod(144) mspeperiod(90(1)134) nested keep(prereftrainingOECDttvaluesa2016Fetzer, replace) fig

graph save prereftrainingOECDttvaluesa2016Fetzer, replace

save prereftrainingOECDttvaluesa2016Fetzerallbasedataset, replace

gsample 50 if UK==0, percent cluster(countryid) wor keep

tsset ncountry dateid

synth totaltrade totaltrade invratio schooling industry inflation openness realgdppercap, trunit(22) trperiod(144) mspeperiod(90(1)134) nested keep(prereftrainingOECDttvaluesa2016Fetzer50pc, replace) fig

clear

use prereftrainingOECDttvaluesa2016Fetzerallbasedataset

gsample 20 if UK==0, percent cluster(countryid) wor keep

tsset ncountry dateid

synth totaltrade totaltrade invratio schooling industry inflation openness realgdppercap, trunit(22) trperiod(144) mspeperiod(90(1)134) nested keep(prereftrainingOECDttvaluesa2016Fetzer20pc, replace) fig

clear

use prereftrainingOECDttvaluesa2016Fetzerallbasedataset gsample 30 if UK==0, percent cluster(countryid) wor keep

tsset ncountry dateid

synth totaltrade totaltrade invratio schooling industry inflation openness realgdppercap, trunit(22) trperiod(144) mspeperiod(90(1)134) nested keep(prereftrainingOECDttvaluesa2016Fetzer30pc, replace) fig

clear

use prereftrainingOECDttvaluesa2016Fetzerallbasedataset

gsample 40 if UK==0, percent cluster(countryid) wor keep

tsset ncountry dateid

synth totaltrade totaltrade invratio schooling industry inflation openness realgdppercap, trunit(22) trperiod(144) mspeperiod(90(1)134) nested keep(prereftrainingOECDttvaluesa2016Fetzer40pc, replace) fig

clear

use prereftrainingOECDttvaluesa2016Fetzerallbasedataset

gsample 60 if UK==0, percent cluster(countryid) wor keep

tsset ncountry dateid

synth totaltrade totaltrade invratio schooling industry inflation openness realgdppercap, trunit(22) trperiod(144) mspeperiod(90(1)134) nested keep(prereftrainingOECDttvaluesa2016Fetzer60pc, replace) fig

clear

use prereftrainingOECDttvaluesa2016Fetzerallbasedataset

gsample 70 if UK==0, percent cluster(countryid) wor keep

tsset ncountry dateid

synth totaltrade totaltrade invratio schooling industry inflation openness realgdppercap, trunit(22) trperiod(144) mspeperiod(90(1)134) nested keep(prereftrainingOECDttvaluesa2016Fetzer70pc, replace) fig

clear

use prereftrainingOECDttvaluesa2016Fetzerallbasedataset

gsample 80 if UK==0, percent cluster(countryid) wor keep

tsset ncountry dateid

synth totaltrade totaltrade invratio schooling industry inflation openness realgdppercap, trunit(22) trperiod(144) mspeperiod(90(1)134) nested keep(prereftrainingOECDttvaluesa2016Fetzer80pc, replace) fig

clear

use prereftrainingOECDttvaluesa2016Fetzerallbasedataset

gsample 90 if UK==0, percent cluster(countryid) wor keep

tsset ncountry dateid

synth totaltrade totaltrade invratio schooling industry inflation openness realgdppercap, trunit(22) trperiod(144) mspeperiod(90(1)134) nested keep(prereftrainingOECDttvaluesa2016Fetzer90pc, replace) fig

use prereftrainingOECDttvaluesa2016Fetzer50pc, clear

rename \_Y\_synthetic fifty\_pc

merge 1:m \_time using prereftrainingOECDttvaluesa2016Fetzer20pc

rename \_Y\_synthetic twenty\_pc

drop \_merge

merge 1:m \_time using prereftrainingOECDttvaluesa2016Fetzer30pc

rename \_Y\_synthetic thirty\_pc

drop \_merge

merge 1:m \_time using prereftrainingOECDttvaluesa2016Fetzer40pc

rename \_Y\_synthetic forty\_pc

drop \_merge

merge 1:m \_time using prereftrainingOECDttvaluesa2016Fetzer60pc

rename \_Y\_synthetic sixty\_pc

drop \_merge

merge 1:m \_time using prereftrainingOECDttvaluesa2016Fetzer70pc

rename \_Y\_synthetic seventy\_pc

drop \_merge

merge 1:m \_time using prereftrainingOECDttvaluesa2016Fetzer80pc

rename \_Y\_synthetic eighty\_pc

drop \_merge

merge 1:m \_time using prereftrainingOECDttvaluesa2016Fetzer90pc

rename \_Y\_synthetic ninety\_pc

drop \_merge

gen average\_Y\_synthetic = (twenty\_pc + thirty\_pc + forty\_pc + fifty\_pc + sixty\_pc + seventy\_pc + eighty\_pc + ninety\_pc)/8

twoway (line \_Y\_treated \_time) (line average\_Y\_synthetic \_time)

gen UKloss = 100-((100 + \_Y\_treated) / (100 + average\_Y\_synthetic) \* 100)

graph save Graph prereftrainingOECDttvaluesa2016Fetzeraverage, replace

save prereftrainingOECDttvaluesa2016Fetzeraverage, replace