Appendix D: Belt and Road and UNGA Voting

Cluster analysis

Contents

Analysis of China

```
FALSE # A tibble: 9 x 1
FALSE    cluster
FALSE      <dbl>
FALSE 1        1
FALSE 2        2
FALSE 3        3
FALSE 4        4
FALSE 5        5
FALSE 6        6
FALSE 7        7
FALSE 8        9
FALSE 9       NA
```

Cluster 1

```
FALSE Some treated units has too few pre-treatment periods.
FALSE They will be automatically removed.
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.08100; IC = -1.71798; PC = 0.06695; MSPE = 0.10986
FALSE  r = 1; sigma2 = 0.02778; IC = -1.89931; PC = 0.35438; MSPE = 0.04902*
FALSE  r = 2; sigma2 = 0.01714; IC = -1.58667; PC = 0.42357; MSPE = 0.04957
FALSE  r = 3; sigma2 = 0.01133; IC = -1.29914; PC = 0.41553; MSPE = 0.03653*
FALSE  r = 4; sigma2 = 0.01044; IC = -0.77285; PC = 0.50801; MSPE = 0.05338
FALSE  r = 5; sigma2 = 0.01194; IC = -0.12323; PC = 0.72492; MSPE = 0.09933
FALSE
FALSE  r* = 3
FALSE
FALSE Simulating errors ............Bootstrapping ...
FALSE .........list of removed units: Afghanistan
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.1: Cluster 1

Cluster 2

ctry1
Australia
Austria
Greece
Ireland
Japan
New Zealand
Spain
Sweden
Turkey

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.06425; IC = -1.99640; PC = 0.05376; MSPE = 0.18496
FALSE  r = 1; sigma2 = 0.02080; IC = -2.23509; PC = 0.26565; MSPE = 0.05358
FALSE  r = 2; sigma2 = 0.00660; IC = -2.58764; PC = 0.16319; MSPE = 0.01882*
FALSE  r = 3; sigma2 = 0.00412; IC = -2.35706; PC = 0.15121; MSPE = 0.04298
FALSE  r = 4; sigma2 = 0.00135; IC = -2.86468; PC = 0.06574; MSPE = 0.07115
FALSE  r = 5; sigma2 = 0.00211; IC = -1.90489; PC = 0.12791; MSPE = 0.04894
FALSE
FALSE  r* = 2
FALSE
FALSE Simulating errors ............Bootstrapping ...
FALSE ..........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.2: Cluster 6

Cluster 3

ctry1
Algeria
Bahrain
Comoros
Djibouti
Egypt
Gambia
Jordan
Lebanon
Morocco
Oman
Qatar
Saudi Arabia
Tunisia
United Arab Emirates

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.03666; IC = -2.70594; PC = 0.03221; MSPE = 0.09358
FALSE  r = 1; sigma2 = 0.01311; IC = -2.95783; PC = 0.11137; MSPE = 0.03540*
FALSE  r = 2; sigma2 = 0.01018; IC = -2.50515; PC = 0.16411; MSPE = 0.04199
FALSE  r = 3; sigma2 = 0.00717; IC = -2.21937; PC = 0.17055; MSPE = 0.05628
FALSE  r = 4; sigma2 = 0.00600; IC = -1.83265; PC = 0.18872; MSPE = 0.05858
FALSE  r = 5; sigma2 = 0.00470; IC = -1.58239; PC = 0.18398; MSPE = 0.06840
FALSE
FALSE  r* = 1
FALSE
FALSE Simulating errors ............Bootstrapping ...
FALSE ..........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.3: Cluster 6

Cluster 4

ctry1
Angola
Benin
Bhutan
Botswana
Cameroon
Cape Verde
Colombia
Congo
Côte d'Ivoire
Eritrea
Gabon
Guinea
Guyana
Haiti
Kenya
Kuwait
Lesotho
Madagascar
Mali
Mexico
Mozambique
Nepal
Philippines
Rwanda
Senegal
Sierra Leone
Suriname
Thailand
Togo
Trinidad and Tobago
Venezuela, Bolivarian Republic of
Zambia

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.03971; IC = -2.97611; PC = 0.03806; MSPE = 0.02713
FALSE  r = 1; sigma2 = 0.01746; IC = -3.18006; PC = 0.05033; MSPE = 0.01985*
FALSE  r = 2; sigma2 = 0.01485; IC = -2.75414; PC = 0.07142; MSPE = 0.02240
FALSE  r = 3; sigma2 = 0.01092; IC = -2.50312; PC = 0.07360; MSPE = 0.01676
FALSE  r = 4; sigma2 = 0.00945; IC = -2.11843; PC = 0.08200; MSPE = 0.01531*
FALSE  r = 5; sigma2 = 0.00769; IC = -1.82381; PC = 0.08173; MSPE = 0.01832
```

```
FALSE
FALSE   r* = 4
FALSE
FALSE Simulating errors .............Bootstrapping ...
FALSE ..........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.4: Cluster 4

Cluster 5

Not enough obs

Cluster 6

ctry1
Azerbaijan
Belarus
Bolivia, Plurinational State of
Brazil
Chile
Costa Rica
Ecuador
El Salvador
Fiji
Guatemala
Honduras
Jamaica
Malawi
Mauritius
Nicaragua
Panama
Paraguay
Peru
Singapore
Solomon Islands
Swaziland
Timor-Leste
Uruguay

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.06978; IC = -2.32032; PC = 0.06554; MSPE = 0.03314
FALSE  r = 1; sigma2 = 0.04093; IC = -2.20976; PC = 0.16850; MSPE = 0.02683
FALSE  r = 2; sigma2 = 0.01917; IC = -2.36480; PC = 0.13994; MSPE = 0.02652
FALSE  r = 3; sigma2 = 0.01583; IC = -1.99253; PC = 0.16611; MSPE = 0.02472
FALSE  r = 4; sigma2 = 0.01219; IC = -1.73040; PC = 0.16694; MSPE = 0.02043*
FALSE  r = 5; sigma2 = 0.01081; IC = -1.36768; PC = 0.18268; MSPE = 0.02580
FALSE
FALSE  r* = 4
FALSE
FALSE Simulating errors ............Bootstrapping ...
FALSE ..........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.5: Cluster 6

Cluster 7

ctry1
Belgium
Bulgaria
Czech Republic
Denmark
Estonia
Finland
Hungary
Italy
Latvia
Lithuania
Luxembourg
Netherlands
Norway
Poland
Portugal
Romania
Slovakia

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.00492; IC = -4.71471; PC = 0.00432; MSPE = 0.00368
FALSE  r = 1; sigma2 = 0.00174; IC = -4.97729; PC = 0.01478; MSPE = 0.00330*
FALSE  r = 2; sigma2 = 0.00143; IC = -4.46564; PC = 0.02311; MSPE = 0.00357
FALSE  r = 3; sigma2 = 0.00122; IC = -3.99157; PC = 0.02899; MSPE = 0.00385
FALSE  r = 4; sigma2 = 0.00089; IC = -3.74160; PC = 0.02798; MSPE = 0.00412
FALSE  r = 5; sigma2 = 0.00103; IC = -3.10226; PC = 0.04024; MSPE = 0.00534
FALSE
FALSE  r* = 1
FALSE
FALSE Simulating errors ............Bootstrapping ...
FALSE .........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.6: Cluster 7

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Analysis of USA

Cluster 1

ctry1
Afghanistan
Bangladesh
Burkina Faso
Ghana
Indonesia
Lao People's Democratic Republic
Malaysia
Namibia
Pakistan
Sri Lanka
Tanzania, United Republic of
Uganda
Zimbabwe

```
FALSE Some treated units has too few pre-treatment periods.
FALSE They will be automatically removed.
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.09849; IC = -1.52247; PC = 0.08140; MSPE = 0.30950
FALSE  r = 1; sigma2 = 0.02948; IC = -1.83962; PC = 0.37618; MSPE = 0.05077
FALSE  r = 2; sigma2 = 0.01176; IC = -1.96316; PC = 0.29068; MSPE = 0.03437*
FALSE  r = 3; sigma2 = 0.00738; IC = -1.72766; PC = 0.27070; MSPE = 0.04490
FALSE  r = 4; sigma2 = 0.00574; IC = -1.37051; PC = 0.27945; MSPE = 0.08614
FALSE  r = 5; sigma2 = 0.01016; IC = -0.28489; PC = 0.61672; MSPE = 0.12094
FALSE
FALSE  r* = 2
FALSE
FALSE Simulating errors .............Bootstrapping ...
FALSE .........list of removed units: Afghanistan
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.7: Cluster 1

Cluster 2

ctry1
Australia
Austria
Greece
Ireland
Japan
New Zealand
Spain
Sweden
Turkey

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.06425; IC = -1.99640; PC = 0.05376; MSPE = 0.18496
FALSE  r = 1; sigma2 = 0.02080; IC = -2.23509; PC = 0.26565; MSPE = 0.05358
FALSE  r = 2; sigma2 = 0.00660; IC = -2.58764; PC = 0.16319; MSPE = 0.01882*
FALSE  r = 3; sigma2 = 0.00412; IC = -2.35705; PC = 0.15121; MSPE = 0.04298
FALSE  r = 4; sigma2 = 0.00135; IC = -2.86467; PC = 0.06574; MSPE = 0.07115
FALSE  r = 5; sigma2 = 0.00211; IC = -1.90487; PC = 0.12792; MSPE = 0.04894
FALSE
FALSE  r* = 2
FALSE
FALSE Simulating errors ............Bootstrapping ...
FALSE ..........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.8: Cluster 6

Cluster 3

ctry1
Algeria
Bahrain
Comoros
Djibouti
Egypt
Gambia
Jordan
Lebanon
Morocco
Oman
Qatar
Saudi Arabia
Tunisia
United Arab Emirates

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.05129; IC = -2.37029; PC = 0.04506; MSPE = 0.13350
FALSE  r = 1; sigma2 = 0.01930; IC = -2.57126; PC = 0.16393; MSPE = 0.03972*
FALSE  r = 2; sigma2 = 0.01357; IC = -2.21725; PC = 0.21886; MSPE = 0.04331
FALSE  r = 3; sigma2 = 0.01103; IC = -1.78921; PC = 0.26222; MSPE = 0.04716
FALSE  r = 4; sigma2 = 0.00839; IC = -1.49751; PC = 0.26386; MSPE = 0.06426
FALSE  r = 5; sigma2 = 0.00623; IC = -1.30230; PC = 0.24345; MSPE = 0.02799
FALSE
FALSE  r* = 5
FALSE
FALSE Simulating errors ............Bootstrapping ...
FALSE .........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.9: Cluster 6

Cluster 4

ctry1
Angola
Benin
Bhutan
Botswana
Cameroon
Cape Verde
Colombia
Congo
Côte d'Ivoire
Eritrea
Gabon
Guinea
Guyana
Haiti
Kenya
Kuwait
Lesotho
Madagascar
Mali
Mexico
Mozambique
Nepal
Philippines
Rwanda
Senegal
Sierra Leone
Suriname
Thailand
Togo
Trinidad and Tobago
Venezuela, Bolivarian Republic of
Zambia

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.07652; IC = -2.32023; PC = 0.07334; MSPE = 0.03087
FALSE  r = 1; sigma2 = 0.01897; IC = -3.09760; PC = 0.05465; MSPE = 0.02082
FALSE  r = 2; sigma2 = 0.01311; IC = -2.87871; PC = 0.06306; MSPE = 0.01341*
FALSE  r = 3; sigma2 = 0.01164; IC = -2.43857; PC = 0.07851; MSPE = 0.02004
FALSE  r = 4; sigma2 = 0.01048; IC = -2.01496; PC = 0.09094; MSPE = 0.01685
FALSE  r = 5; sigma2 = 0.00896; IC = -1.67156; PC = 0.09516; MSPE = 0.02817
```

```
FALSE
FALSE  r* = 2
FALSE
FALSE Simulating errors ............Bootstrapping ...
FALSE ..........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.10: Cluster 6

Cluster 5

Not enough obs

Cluster 6

ctry1
Azerbaijan
Belarus
Bolivia, Plurinational State of
Brazil
Chile
Costa Rica
Ecuador
El Salvador
Fiji
Guatemala
Honduras
Jamaica
Malawi
Mauritius
Nicaragua
Panama
Paraguay
Peru
Singapore
Solomon Islands
Swaziland
Timor-Leste
Uruguay

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.15062; IC = -1.55089; PC = 0.14147; MSPE = 0.06349
FALSE  r = 1; sigma2 = 0.02783; IC = -2.59562; PC = 0.11456; MSPE = 0.02450
FALSE  r = 2; sigma2 = 0.01943; IC = -2.35125; PC = 0.14185; MSPE = 0.01238*
FALSE  r = 3; sigma2 = 0.01263; IC = -2.21867; PC = 0.13249; MSPE = 0.01581
FALSE  r = 4; sigma2 = 0.00988; IC = -1.94095; PC = 0.13524; MSPE = 0.01698
FALSE  r = 5; sigma2 = 0.00804; IC = -1.66420; PC = 0.13581; MSPE = 0.02036
FALSE
FALSE  r* = 2
FALSE
FALSE Simulating errors ............Bootstrapping ...
FALSE ..........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.11: Cluster 6

Cluster 7

ctry1
Belgium
Bulgaria
Canada
Czech Republic
Denmark
Estonia
Finland
Hungary
Italy
Latvia
Lithuania
Luxembourg
Netherlands
Norway
Poland
Portugal
Romania
Slovakia

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.04786; IC = -2.48338; PC = 0.04258; MSPE = 0.00654
FALSE  r = 1; sigma2 = 0.00303; IC = -4.48980; PC = 0.02317; MSPE = 0.00289*
FALSE  r = 2; sigma2 = 0.00171; IC = -4.37505; PC = 0.02465; MSPE = 0.00306
FALSE  r = 3; sigma2 = 0.00134; IC = -4.00156; PC = 0.02829; MSPE = 0.00324
FALSE  r = 4; sigma2 = 0.00106; IC = -3.67467; PC = 0.02971; MSPE = 0.00378
FALSE  r = 5; sigma2 = 0.00084; IC = -3.41601; PC = 0.02929; MSPE = 0.00347
FALSE
FALSE  r* = 1
FALSE
FALSE Simulating errors ............Bootstrapping ...
FALSE .........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.12: Cluster 7

Europe analysis

China - Europe

```
FALSE Cross-validating ...
FALSE  r = 0; sigma2 = 0.03299; IC = -3.02056; PC = 0.03064; MSPE = 0.00473
FALSE  r = 1; sigma2 = 0.00362; IC = -4.56477; PC = 0.01744; MSPE = 0.00227*
FALSE  r = 2; sigma2 = 0.00244; IC = -4.33603; PC = 0.02132; MSPE = 0.00262
FALSE  r = 3; sigma2 = 0.00179; IC = -4.07392; PC = 0.02258; MSPE = 0.00291
FALSE  r = 4; sigma2 = 0.00139; IC = -3.79557; PC = 0.02303; MSPE = 0.00300
FALSE  r = 5; sigma2 = 0.00118; IC = -3.47531; PC = 0.02422; MSPE = 0.00522
FALSE
FALSE  r* = 1
FALSE
FALSE Simulating errors .............Bootstrapping ...
FALSE ..........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.13: Analysis EU Members and Cina

USA - Europe

FALSE Cross-validating ...

```
FALSE  r = 0; sigma2 = 0.03299; IC = -3.02056; PC = 0.03064; MSPE = 0.00473
FALSE  r = 1; sigma2 = 0.00362; IC = -4.56477; PC = 0.01744; MSPE = 0.00227*
FALSE  r = 2; sigma2 = 0.00244; IC = -4.33603; PC = 0.02132; MSPE = 0.00262
FALSE  r = 3; sigma2 = 0.00179; IC = -4.07392; PC = 0.02258; MSPE = 0.00291
FALSE  r = 4; sigma2 = 0.00139; IC = -3.79557; PC = 0.02303; MSPE = 0.00300
FALSE  r = 5; sigma2 = 0.00118; IC = -3.47530; PC = 0.02422; MSPE = 0.00522
FALSE
FALSE  r* = 1
FALSE
FALSE Simulating errors .............Bootstrapping ...
FALSE ..........
```

(a) Pre-Treatment period

(b) ATT with 90 percent CI

(c) Counterfactual

Figure B.14: Analysis EU Members and the USA