Replication Files
"Democracy Doesn't Always Happen Over Night:
Regime Change in Stages and Economic Growth"
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1. Content of the Replication folder

Other than this README file, the replication set contains four folders: Data, Do_files, Output, and Tex.

(a) Data folder

This contains the raw and Stata .dta files used to create the results. A list of files in alphabetical order is provided below. The data sources are discussed in a section below.

20160923_global_crisis_data.xlsx
all_fin_crises_demo.dta
all_shocks_demo.dta
Comprehensive-Sample.dta
cotet_tsui.dta
crisesLL.dta
disasters.dta
Double_PCDID_Sample.dta
emdat_public_2021.xlsx
Episodes of Regime Transformation.xlsx
ERT different versions [this is a folder containing the following files:]
- 01_README_naming.txt
- ert_005_15_02.csv
- ert_005_15_03.csv
- ert_005_15_04.csv
- ert_005_20_02.csv
- ert_005_20_03.csv
- ert_005_20_04.csv
- ert_010_15_02.csv
- ert_010_15_03.csv
- ert_010_15_04.csv
- ert_010_20_02.csv
- ert_010_20_03.csv
- ert_010_20_04.csv
- ert_015_15_02.csv
- ert_015_15_03.csv
- ert_015_15_04.csv
- ert_015_20_02.csv
- ert_015_20_03.csv
- ert_015_20_04.csv
- get_eps_script.R

ert_robust.dta
ert.dta
madd_ert_vdem_robust_X.dta
madd_ert_vdem_robust.dta
madd_ert_vdem_X.dta
madd_ert_vdem.dta
mpd2018.dta
p4v2018.xls
polityIV_clean.dta
sample_by_episodes.dta
tradhist_trade.dta
TRADHIST_v4.dta
V-Dem-CY-Core-v10.dta
vdem_clean10.dta

(b) Do_files folder

This contains the Stata .do and .ado files used to create the results. A list of these files in alphabetical order is provided below. More details are discussed in a section below.

0 Master do file.do
1 A_wbcode.do
1 Data construction - democracy-growth.do
2 Descriptives - episodes & regime change.do
3 Main results - Double PCDID.do
3 Main results - Double PCDID never-dem only.do
3 Main results - Graphs.do
3 Main results - Single PCDID.do
4 Main results - Double PCDID Vanilla.do
4 Main results - Double PCDID Vanilla never-dem only.do
4 Main results - Graphs Vanilla.do
4 Main results - Single PCDID Vanilla.do
5 Economic Shocks - Data construction.do
5 Event Analysis.do
6 Main results - Alpha tests.do
7 Robustness - Episodes definition construction.do
7 Robustness - Episodes definition Graphs.do
7 Robustness - Episodes definition PCDID.do
8 Robustness - Evolution - Double PCDID.do
8 Robustness - Evolution - Double PCDID Alpha test.do
8 Robustness - Evolution - Double PCDID Alpha test few episodes.do
8 Robustness - Evolution - Double PCDID few episodes.do
8 Robustness - Evolution - Single PCDID.do
8 Robustness - Evolution - Single PCDID few episodes.do
xtmg_robust.ado
xtmg.ado

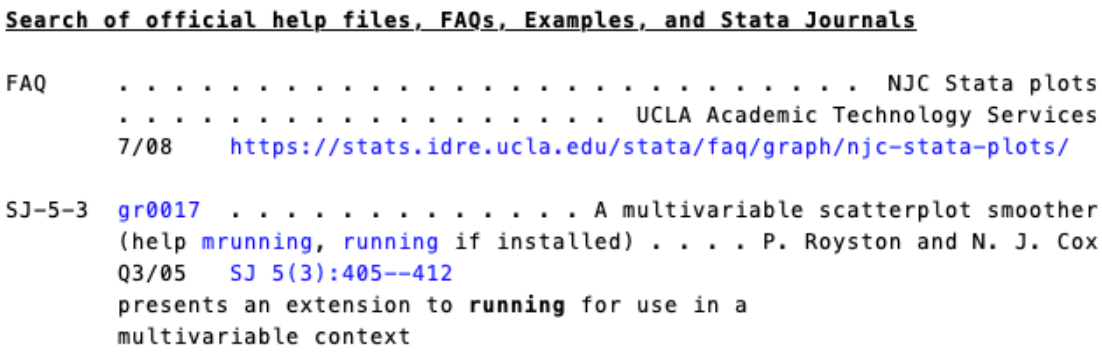
2. Instructions for Replication

In order to create all the empirical results in the paper and appendix:

- Download and unzip the replication package
- Place the folders in a directory on your own computer system
- Open '0 Master do file.do' and adjust the paths near the top of the file:

```
global path "/Users/Iezme/Dropbox/Facets of Democracy"
global data "$path/Submissions/Democracy over night/REStat/Replication Data/Data"
global do "$path/Submissions/Democracy over night/REStat/Replication Data/Do_files"
global texfolder "$path/Submissions/Democracy over night/REStat/Replication Data/Tex"
global outputfolder "$path/Submissions/Democracy over night/REStat/Replication Data/Output"
```

- The do files make use of a number of user-written Stata commands. xtmg.ado is provided as part of the set of do-files, so this does not need to be installed. For the other commands, it is perhaps recommended to install them one by one manually (using ssc install) and to subsequently comment out these lines in the Master do file.
- Importantly, **there is one user-written ado file which cannot be installed using SSC**: mrunning. Since this is quite crucial (graphical representation), please type 'findit mrunning' and then click on the hyperlink for gr0017: see below screenshot. **The replication files will not run if you ignore this.** It will stop during '3 Main results - Graphs.do' as the mrunning command used is not recognised.



- Once the above adjustments have been made, the entire set of results can be constructed running '0 Master do file.do'.

3. Data Dictionary

(a) Data sources

All of the web links provided below were correct at the time of writing (April 2024). We add in parentheses the date we downloaded our version of the data for reference.

Main analysis

Episodes of Regime Transformation (ERT) dataset (Edgell et al., 2020)
This contains data in episodes and regime change.
File provided: Episodes of Regime Transformation.xlsx
This is now available from a dedicated website:
https://v-dem.net/data/ert-dataset/ (accessed July 2020)

Regimes of the World (Luhrmann et al. 2018)
The variable v2x_regime (ROW) is part of the main V-Dem dataset.
File provided: V-Dem-CY-Core-v10.dta
This can be accessed from:
https://www.v-dem.net/data/dataset-archive/country-year-v-dem-core-v10/
(accessed March 2020)

Updated 'Maddison data' (Bolt & van Zanden, 2020)

This contains data on population growth and per capita income.

File provided: mpd2018.dta

This is available from a dedicated website: https://www.rug.nl/ggdc/historicaldevelopment/maddison/releases/maddison-project-database-2018 (accessed June 2018)

Bilateral trade flows in CEPII TRADHIST (Fouquin & Hugot, 2016)
This contains dyadic data on trade from which we construct our monadic export/GDP variable.

File provided: TRADHIST_v4.dta

This is available from a dedicated website: http://www.cepii.fr/CEPII/en/bdd_modele/bdd_modele_item.asp?id=32 (accessed August 2017)

Event analysis (Appendix Section C)

Data on natural resource finds (oilbooms) from Cotet and Tsui (2013)

File provided: Comprehensive-Sample.dta

This data is provided as part of their AEJ-Macro paper, replication files are hosted on OpenICPSR: https://www.openicpsr.org/openicpsr/project/114264/version/V1/view?flag=follow&path=/openicpsr/114264/fcr:versions/V1/data&type=folder&pageSelected=0&pageSize=10&sortOrder=(?title)&sortAsc=true

Data on financial crises collated by Carmen Reinhart and collaborators (Reinhart and Rogoff, 2009, among others)

File provided: 20160923_global_crisis_data.xlsx

This file is available at: https://www.hbs.edu/behavioral-finance-and-financial-stability/data/Pages/global.aspx (accessed June 2021)

Dates for financial crises from Laeven and Valencia (2020)

File provided: crisesLL.dta

The spreadsheet from which the crisis dates were (manually) constructed is available here: https://www.imf.org/en/Publications/WP/Issues/2018/09/14/Systemic-Banking-Crises-Revisited-46232

Data from EM-Dat for disasters

File provided: emdat_public_2021.xlsx

EM-Dat gives access to their data via a dedicated website: https://doc.emdat.be/docs/data-accessibility/

Data from V-Dem for different parameters defining episodes

Files provided: ERT different versions [folder with .csv files]

These were created using an R package provided by V-Dem which can be accessed here: https://github.com/vdeminstitute/ERT

Helper files

Double_PCDID_Sample.dta

sample_by_episodes.dta

These two files are simple helpers which mark the samples of the Double PCDID regressions and the Double PCDID regressions with 1 or 2 episodes only, respectively. They were created by the authors.

(b) Variable description

We describe the variables for the main analysis (Single PCDID, Double PCDID):

nwbcode	Country identifier (numerical)
wbcode	Country identifier (3-digit iso code)
sample	Dummy for full regression sample (includes countries which are always democracies)
y	real GDP per capita (from Maddison), in logs and multiplied by 100
ex	Export/Trade ratio in percent (constructed from TRADHIST)
dlpop	Population growth rate in percent (constructed from Maddison)
dem_ert	Time-varying dummy (0/1) for democratic regime as defined by ERT
dem_row2	Time-varying dummy (0/1) for democratic regime as defined by Regimes of the World
dem_episode	Time-varying dummy (0/1) for democratic episode as defined by ERT; we set any episode value to zero once regime change has taken place.

Further variables of interest constructed in the routines include:

below1	Time-invariant dummy (0/1) for countries which never experienced an episode
below2	Time-invariant dummy (0/1) for countries which experienced an episode but not regime change
treat1	Time-invariant dummy (0/1) for countries which experienced an episode
treat2	Time-invariant dummy (0/1) for countries which experienced an episode and regime change
treated	dto
always_dem	Time-invariant dummy (0/1) for countries which are democratic throughout the sample period
c1factor*N	
c2factor*N	Estimated factors from the residuals of control group regressions, where * is 1 to 6.

4. Details of the .do and .ado files

Note that these are not in alphabetical order, but in the order the files are run in the Master do file.

0 Master do file.do

This is the Master do file to create the empirical results presented in the maintext and the Online Appendix. Only this master do file contains the paths for the various files and code

used. Running any of the other files separately without running the paths and installation of the user-written commands at the top of the Master do file first will be fruitless.

1 A_wbcode.do

This is a small utility file, which is run as part of the data creation. It assigns a 3-digit iso code to countries based on their name (all string).

1 Data construction - democracy-growth.do

This is the main data construction file. It pulls in data from VDem (ERT, VDem v10), Maddison/Bolt et al (2018), TRADHIST (v4) and Polity IV. The resulting Stata data file used for most analysis is: madd_ert_vdem_X.dta (placed in the Data folder).

2 Descriptives - episodes & regime change.do

This creates the stylised and observed country evolution plots of polyarchy presented in ***Figure 1*** *of the maintext and additional examples in* ***Appendix Figure A-2****. It further creates the plots indicating the incidence and distribution of episodes and regime changes presented in* ***Appendix Figure A-1****.*

3 Main results - Double PCDID.do

This creates the 'Double PCDID' estimates. Outputs are individual .dta files containing country estimates and a .csv file with the results in ***Appendix Table B-1, panel (a)****.*

3 Main results - Single PCDID.do

This creates the 'Single PCDID' estimates for the same set of countries as those in the 'Double PCDID' results (a small helper file used, sample_by_episodes.dta, makes sure of this). Outputs are individual .dta files containing country estimates and a .csv file containing the results in ***Appendix Table B-1, panel (b)****.*

3 Main results - Double PCDID never-dem only.do

This creates the estimates for countries which experienced episodes but not regime change. Outputs are individual .dta files containing country estimates used in the construction of Figure 2, panel (c) in next do file.

3 Main results - Graphs.do

This uses the results from the previous three do files and creates plots for figures presented in the maintext and online appendix (in the order of construction in the do file):
Figure 2*,* ***Appendix Figure B-2 panel (b)****,* ***Appendix Figure B-1****,* ***Appendix Figure B-2, Panels (a) & (c)***
Note that all plots are created as .eps and .pdf files. The latter are for reference only. All resulting plot files are stored in the Tex folder.

4 Main results - Double PCDID Vanilla.do

This creates the 'Double PCDID' estimates for the specification excluding additional controls. Outputs are individual .dta files containing country estimates and a .csv file with the results.

4 Main results - Single PCDID Vanilla.do

This creates the 'Single PCDID' estimates for the specification excluding additional controls. Outputs are individual .dta files containing country estimates and a .csv file with the results.

4 Main results - Double PCDID Vanilla never-dem only.do

This creates the estimates (using the Double PCDID in the specification without additional controls) for countries which experienced episodes but not regime change. Outputs are individual .dta files containing country estimates used in the construction of Figure B-3, panel (c) in next do file.

4 Main results - Graphs Vanilla.do

This uses the results from the previous three do files and creates plots for figures presented in the online appendix: ***Appendix Figure B-3***
Note that all plots are created as .eps and .pdf files. The latter are for reference only. All resulting plot files are stored in the Tex folder.

5 Economic Shocks - Data construction.do

This creates the dataset used in the descriptive (event) analysis in the following do file and presented in the Online Appendix. Data are taken from Cotet and Tsui (2013), EM-Dat (2021), Maddison/Bolt et al (2018), Laeven and Valencia (2020) and Reinhart et al (2021). These are described in a separate section below.

5 Event Analysis.do

This creates the event plots presented in ***Appendix Figure C-1***.

6 Main results - Alpha tests.do

This creates the Alpha test results (p-values) presented in ***Appendix Table D-1***.

7 Robustness - Episodes definition construction.do

This file uses a set of definitions of the ERT episodes as a robustness check. It assembles a dataset taking the various definitions of episodes (contained in csv files in a separate folder within the Data folder) along with the VDem (ERT, VDem v10), Maddison/Bolt et al (2018), TRADHIST (v4) and Polity IV data.

7 Robustness - Episodes definition PCDID.do

This creates the 'Double PCDID' estimates for different combinations of three parameters defining the episodes. Outputs are individual .dta files containing country estimates.

7 Robustness - Episodes definition Graphs.do

This uses the results from the previous do file and creates plots for ***Appendix Figure E-1***. *Note that two versions of each graph are created, one where the text inside the plot is a little higher, another where it is a little lower (but at times runs into the scales).*

8 Robustness - Evolution - Double PCDID.do

This creates the 'Double PCDID' estimates for an alternative specification where each country regression contains a dummy for each of the first fifteen years in democracy alongside the democracy dummy. Outputs are individual .dta files containing country estimates.

8 Robustness - Evolution - Double PCDID Alpha test.do

This creates the Alpha test results presented in the left half of ***Appendix Table F-1***.

8 Robustness - Evolution - Double PCDID few episodes.do

This creates the 'Double PCDID' estimates for an alternative specification where each country regression contains a dummy for each of the first fifteen years in democracy alongside the democracy dummy. Only countries with 1 or 2 episodes are considered. Outputs are individual .dta files containing country estimates.

8 Robustness - Evolution - Single PCDID.do

This creates the 'Single PCDID' estimates for an alternative specification where each country regression contains a dummy for each of the first fifteen years in democracy alongside the democracy dummy. Outputs are individual .dta files containing country estimates.

8 Robustness - Evolution - Single PCDID few episodes.do

This creates the 'Single PCDID' estimates for an alternative specification where each country regression contains a dummy for each of the first fifteen years in democracy alongside the democracy dummy. Only countries with 1 or 2 episodes are considered. Outputs are individual .dta files containing country estimates.

8 Robustness - Evolution - Double PCDID Alpha test few episodes.do

This creates the Alpha test results presented in the right half of ***Appendix Table F-1****.*

8 Robustness - Evolution - Graphs.do

This takes the results from the above do files and constructs line plots of the mean evolution of the democracy-growth nexus (these are not running line plots like in the analysis in other parts of the paper) presented in ***Appendix Figure F-1****.*

xtmg_robust.ado
xtmg.ado

These are ado files for the Pesaran and Smith (1995) Mean Group estimator used throughout the analysis.

5. Software version

Stata SE version 18 for Mac

The entire replication file takes around 15 minutes to complete.

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