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Replication materials for the article *Structural and Cyclical Unemployment and Redistribution Support in Europe: The Moderating Role of Welfare State Size*

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Setup information

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R and RStudio are needed to replicate the outputs in the article. The enclosed code was created and executed using R (version: 4.3.3 (2024-02-29 ucrt) -- "Angel Food Cake") and RStudio (version: 4da58325, 2024-01-28 " Ocean Storm").

The DELL Latitude 7440 laptop was used to conduct all analyses (*CPU*: 13th Gen Intel(R) Core(TM) i7-1365U 1.80 GHz, *Operating system*: Windows 11 Pro, version: 23H2).

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Datasets

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The following eight data files are used in the article and uploaded to the Dataverse repository:

1. **ESS1-9e01_1_reduced.sav** = This SPSS data file contains the cumulative *European Social Survey* data (Rounds 1 through 9, edition 1.0.). This reduced version of the cumulative dataset includes 21 variables (i.e. variables not used in analyses were removed from the data set to reduce its size) and 422,985 respondents. The full version of the dataset was downloaded from the ESS website on 24th June 2021.
2. **FIELDWORK_PERIODS.csv** = This .csv file contains information on the fieldwork periods in the analysed *European Social Survey* country rounds. The variable *key_quartal* specifies the year quarter during which the majority of interviews in each country round were conducted.
3. **DP_LIVE_25062021174702091.csv** = This .csv file contains information on the *quarterly harmonised unemployment rate*. The file was downloaded from the OECD database on 25th June 2021 at: https://data.oecd.org/unemp/harmonised-unemployment-rate-hur.htm
4. **TIPSUN30_BG_CY_2000_2020.csv** = This .csv file contains information on the *quarterly harmonised unemployment rate* for Bulgaria and Cyprus (since data for these two countries was not available in the OECD database). The file was downloaded from the Eurostat database (under the online data code *TIPSUN30*) on 14th July 2021 at: https://ec.europa.eu/eurostat/web/products-datasets/-/tipsun30

5. **DP_LIVE_14072021180102531.csv** = This .csv file contains information on *public social expenditure*. The file was downloaded from the OECD database on 14th July 2021 at: https://data.oecd.org/socialexp/social-spending.htm
6. **SPR_EXP_SUM__BG_CY_2000_2018.csv** = This .csv file contains information on *public social expenditure* for Bulgaria and Cyprus. The file was downloaded from the Eurostat database (under the online data code *spr_exp_sum*) on 14th July 2021 at: https://ec.europa.eu/eurostat/databrowser/view/SPR_EXP_SUM__custom_1146171/default/table?lang=en
7. **swiid9_3.rda** = This R data contains information on the *Gini index of inequality in equivalized household disposable income*. The file was downloaded from *The Standardized World Income Inequality Database* (SWIID, Version 9.3) on 12th July 2022 at: https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/LM4OWF
8. **DP_LIVE_12072022131229628.csv.csv** = This .csv file contains *Gross Domestic Product per capita (in USD)* information. The file was downloaded from the OECD database on 12th July 2022.

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Code

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The replication files contain two R scripts. These scripts must be run in the following order:

- **1 Data Management.R** = This script loads all data sets and performs entire data management for the article. Firstly, it transforms individual-level variables from the European Social Survey (ESS). Secondly, the script loads datasets on four contextual country-level time-varying variables and assigns the required contextual information to the respective ESS country rounds. Thirdly, the script subsets respondents who have observed values on all individual-level variables (i.e. listwise deletes the ESS data), centres the *unemployed* and *employed* individual-level predictors within country-rounds and decomposes the effects of the contextual-level variables into cross-sectional effect (BE) and longitudinal effect (WE).
- **2 Analyses and Results.R** = This script conducts all analyses and replicates all results presented in the article and the Supplementary material. Firstly, the script runs the mixed-effects models and robustness checks. Secondly, this code replicates all the figures reported in the main article and the Supplementary material. Thirdly, it replicates all tables reported in the Supplementary material.

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Contact

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