Poverty Prosperity and Planet Report 2024

Third Submission: FR_WLD_2024_198
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This review verifies the reproducibility of the exhibits included in the paper *"Poverty Prosperity and Planet Report 2024"*.

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Main findings

- The code was successfully executed on a new computer after:

  1. Updating the file path in the main do-file.

- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.

- The code takes approximately 50 minutes to run.

- We conducted our reproducibility analysis based on the report (212123_Consolidated.pdf) shared by the authors on October 11, 2024.

- All the exhbits reproduced successfully.

- **Reproducibility Summary**:

  - **Data**: Some data is restricted and has not been included in the reproducibility package. For more details, please refer to the README file.

  - **Code**: All code files (from cleaning to analysis) are included in the reproducibility package.

  - **Outputs**: Some outputs are not generated by code (created manually in Excel) but instructions for producing these outputs are included in the README file.

  - **Reproducibility verification**: Reviewers used data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package. The reviewers did not verify if publicly available data matches the data provided by the authors.

  - **Dependencies environment**: The reviewers created a new environment for dependencies using the latest versions available for each dependency at the moment of the review.

List of exhibits and reproducibility status

The figures tagged in lime green were created in Excel using the code-generated data, with formatting that differs slightly from the versions presented in the paper.

The figures marked in dark green were generated by code, with formatting that differs slightly from the versions presented in the paper.
Addendum (December 17, 2024): Figures O.2a,b and 1.3a,b have been updated due to corrections in the underlying data. While the earlier version of the data contained inaccuracies, the resulting changes in the figures are minimal, with the largest difference being 0.2 in the "Observed" lines. The report still contains the previous versions of the figures; however, the reproducibility package has been updated with the corrected data and outputs.

Results in the Main Messages

- **Figure 1a** Reproduced.

- **Figure 1b** Reproduced.

- **Figure 2a** Reproduced.

- **Figure 2b** Reproduced.

- **Figure 3a** Reproduced.

- **Figure 3b** Reproduced.

- **Figure 4** Reproduced.

Results in the Overview

- **Figure O.1a,b** Reproduced.

- **Figure O.2a** Reproduced.

- **Figure O.2b** Reproduced.

- **Figure O.3a** Reproduced.

- **Figure O.3b** Reproduced.

- **Figure O.4a** Reproduced.

- **Figure O.4b** Reproduced.

- **Figure O.5** Reproduced.

- **Map O.1** All values Reproduced. The numbers from the code output were verified against numbers in map1 sheet in overview.xlsx.

- **Figure O.6a** Reproduced.

- **Figure O.6b** Reproduced.

- **Figure O.7a** Reproduced.

- **Figure O.7b** Reproduced.

- **Map O.2** All values Reproduced. The numbers from the code output were verified against numbers in map2 sheet in overview.xlsx.

- **Figure O.8** Reproduced.

- **Figure O.9a** Reproduced.

- **Figure O.9b** Reproduced.

- **Figure O.10** Reproduced.

- **Figure O.11a,b** Reproduced.

- **Figure O.12** Reproduced.

- **Figure O.13** Reproduced.

- **Figure O.14a** Reproduced.

- **Figure O.14b** Reproduced.

- **Figure O.15a** Reproduced.

- **Figure O.15b** Reproduced.

- **Figure O.15c** Reproduced.

Results in the Chapter 1

- **Figure 1.1a,b** Reproduced.

- **Figure B1.1.1a,b** Reproduced.

- **Figure B1.2.1a** Reproduced.

- **Figure B1.2.1b** Reproduced.

- **Figure 1.2a** Reproduced.

- **Figure 1.2b** Reproduced.

- **Figure 1.3a** Reproduced.

- **Figure 1.3b** Reproduced.

- **Figure 1.4a** Reproduced.

- **Figure 1.4b** Reproduced.

- **Figure 1.4c** Reproduced.
- **Figure 1.5a** Reproduced.
- **Figure 1.5b** Reproduced.
- **Figure 1.6a** Reproduced.
- **Figure 1.6b** Reproduced.
- **Figure 1.7a** Reproduced.
- **Figure 1.7b** Reproduced.
- **Figure 1.7c** Reproduced.
- **Figure 1.7d** Reproduced.
- **Figure 1.8** Reproduced.
- **Figure B1.4.1** Reproduced.
- **Figure B1.4.2** Reproduced.
- **Figure 1.9a** Reproduced.
- **Figure 1.9b** Reproduced.
- **Figure 1.10a** Reproduced.
- **Figure 1.10b** Reproduced.
- **Figure 1.10c** Reproduced.
- **Figure 1.10d** Reproduced.
- **Figure 1.11** Reproduced. There may be slight variations depending on the revision of Stata 18.
- **Figure 1.12a** Reproduced.
- **Figure 1.12b** Reproduced.
- **Figure 1.13a** Reproduced.
- **Figure 1.13b** Reproduced.
- **Figure 1.14** Reproduced.
- **Figure 1.15** Reproduced.
- **Figure 1B1** Reproduced.
- **Figure 1C1** Reproduced.
- **Table 1.1** Reproduced.

- **Table 1.1D1** Reproduced.

- **Table 1.1D2** Reproduced.

- **Table 1.1D3** Reproduced.

Results in the Chapter 2

- **Figure 2.1a** Reproduced.

- **Figure 2.1b** Reproduced.

- **Figure 2.2** Reproduced. The Excel figure does not include the category "World" but the values were checked and they match.

- **Figure 2.3** Reproduced.

- **Figure 2.4a** Reproduced.

- **Figure 2.4b** Reproduced.

- **Figure 2.5** Reproduced.

- **Figure 2.6** Reproduced.

- **Figure 2.7** Reproduced.

- **Map 2.1** All values Reproduced. The numbers from the code output were verified against numbers in map1 sheet in Chapter2.xlsx.

- **Figure 2.8** Reproduced.

- **Figure 2.9a** Reproduced.

- **Figure 2.9b** Reproduced.

- **Figure 2.10** Reproduced.

- **Figure 2.11** Reproduced.

- **Figure 2.12** Reproduced.

- **Figure 2.13** Reproduced.

- **Figure 2.14** Reproduced.

- **Figure 2.15** Reproduced.

- **Figure 2A.1a** Reproduced.

- **Figure 2A.1b** Reproduced.

- **Figure 2C.1** Reproduced.

- **Figure 2D.1** Reproduced.

- **Figure 2F.1** Reproduced.

- **Table 2.1** Reproduced.

- **Table 2D.1**Reproduced.

- **Table 2E.1** Reproduced.

- **Table 2F.1** Reproduced.

Results in the Chapter 3

- **Figure 3.1** Does not apply.

- **Figure 3.2** Does not apply.

- **Figure 3.3** Reproduced.

- **Map 3.1** All values Reproduced. Numbers from the code output were verified against numbers in respective Excel sheet.

- **Figure 3.4** Reproduced.

- **Figure B3.2.1a** Reproduced.

- **Figure B3.2.1b** Reproduced.

- **Figure 3.5** Reproduced.

- **Figure 3.6a** Reproduced.

- **Figure 3.6b** Reproduced.

- **Figure 3.6c** Reproduced.

- **Figure 3.6d** Reproduced.

- **Figure 3.7** Reproduced.

- **Figure 3.8a** Reproduced.

- **Figure 3.8b** Reproduced.

- **Figure 3.9a** Reproduced.

- **Figure 3.9b** Reproduced.

- **Figure 3.10** Reproduced.

- **Figure 3.11a** Reproduced.

- **Figure 3.11b** Reproduced.

- **Figure 3.12a** Reproduced.

- **Figure 3.12b** Reproduced.

- **Figure 3.12c** Reproduced.

- **Figure 3.13a** Reproduced.

- **Figure 3.13b** Reproduced.

- **Figure 3.13c** Reproduced.

- **Figure 3.13d** Reproduced.

- **Figure 3.14** Reproduced.

- **Figure 3.15a** Reproduced.

- **Figure 3.15b** Reproduced.

- **Figure 3A.1a** Reproduced.

- **Figure 3A.1b** Reproduced.

- **Figure 3A.1c** Reproduced.

- **Figure 3C.1a** Reproduced.

- **Figure 3C.1b** Reproduced.

- **Figure 3D.1** Reproduced.

Results in the Chapter 4

- **Figure 4.1** Reproduced.

- **Figure 4.2** Reproduced.

- **Figure 4.3a** Reproduced.

- **Figure 4.3b** Reproduced.

- **Figure 4.4a** Reproduced.

- **Figure 4.4b** Reproduced.

- **Figure 4.5a** Reproduced.

- **Figure 4.5b** Reproduced. The value for Bulgaria in 1992 appears to be slightly above 25 in the report, whereas the code output shows it as exactly 25.

- **Figure 4.6** Reproduced.

- **Figure 4.7** Reproduced.

Reproduction Environment

- Paper exhibits were reproduced in a computer with the following specifications:

  – OS: Windows 10 Enterprise

  – Processor: Intel(R) Xeon(R) Gold 6226R CPU @ 2.90GHz 2.90 GHz (2 processors)

  – Memory available: 32 GB

  – Software version: Stata version 18 MP