



The Changing Wealth of Nations 2024 - Revisiting the Measurement of Comprehensive Wealth

Second Submission: FR_WLD_2024_195

Nihaa Sajid, Luis Eduardo San Martin

reproducibility@worldbank.org

October 11, 2024

This review verifies the reproducibility of the exhibits included in the flagship report "*The Changing Wealth of Nations 2024 - Revisiting the Measurement of Comprehensive Wealth*".

Contents in this review:

1. Main findings
2. List of exhibits and reproducibility status
3. Reproduction Environment

Main findings

- The code was successfully executed on a new computer after:
 1. Changing the global file path in "Do/hc/do/hc_master.do".
 2. Changing the global file path in "Do/pk_urban_new.do".
 3. Changing the global file path in "Do/energy_oil_rystad.do".
 4. Changing the global file path in "Wealth_master_updater.do".
 5. Changing the global file path in "Charts/Do/charts_master.do".
- The code takes approximately 1 hour to run.
- We conducted our reproducibility analysis based on the report shared by the authors via Teams on October 11, 2024.
- All exhibits reproduced accurately.
- **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:** Some code files that transform raw data to intermediate data are not included in the reproducibility package. All code files performing analysis from intermediate data are included.
 - **Outputs:** All outputs are generated by code included in the reproducibility package.
 - **Reproducibility verification:** Reviewers used data provided directly by the authors to conduct the reproducibility verification, and some of these are 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

Results in the Executive Summary

- **Figure ES.1 - Panel a** Reproduced.
- **Figure ES.1 - Panel b** Reproduced.
- **Figure ES.2a** Reproduced.
- **Figure ES.2b** Reproduced.
- **Figure ES.3** Reproduced.
- **Figure ES.4a** Reproduced.
- **Figure ES.4b** Reproduced.
- **Figure ES.5a** Reproduced.
- **Figure ES.5b** Reproduced.
- **Figure ES.6a** Reproduced.
- **Figure ES.6b** Reproduced.
- **Figure ES.7a** Reproduced.
- **Figure ES.7b** Reproduced.
- **Figure ES.8a** Reproduced.
- **Figure ES.8b** Reproduced.
- **Figure ES.9** Reproduced.
- **Figure ES.10** Reproduced.

Results in Chapter 1

- **Box Figure 1.1.1** Does not apply: the exhibit does not show analysis results.
- **Figure 1.1** Does not apply: the exhibit does not show analysis results.
- **Figure 1.2** Does not apply: the exhibit does not show analysis results.
- **Figure 1.3** Does not apply: the exhibit does not show analysis results.
- **Figure 1.4** Does not apply: the exhibit does not show analysis results.

Results in Chapter 2

- **Table A2.1** Does not apply: the exhibit does not show analysis results.

Results in Chapter 3

- **Figure 3.1 - Panel a** Reproduced.
- **Figure 3.1 - Panel b** Reproduced.
- **Figure 3.2 - Panel a** Reproduced.
- **Figure 3.2 - Panel b** Reproduced.
- **Figure 3.2 - Panel c** Reproduced.
- **Figure 3.3** Reproduced.
- **Figure 3.4** Reproduced.
- **Figure 3.5 - Panel a** Reproduced.
- **Figure 3.5 - Panel b** Reproduced.
- **Figure 3.6** Reproduced.
- **Figure 3.7 - Panel a** Reproduced.
- **Figure 3.7 - Panel b** Reproduced.
- **Figure 3.8 - Panel a** Reproduced.
- **Figure 3.8 - Panel b** Reproduced.
- **Figure 3.9 - Panel a** Reproduced.
- **Figure 3.9 - Panel b** Reproduced.
- **Figure 3.10 - Panel a** Reproduced.
- **Figure 3.10 - Panel b** Reproduced.
- **Figure 3.11 - Panel a** Reproduced.
- **Figure 3.11 - Panel b** Reproduced.
- **Figure 3.12 - Panel a** Reproduced with manual steps following the instructions of the README.
- **Figure 3.12 - Panel b** Reproduced with manual steps following the instructions of the README.
- **Figure 3.13** Reproduced.
- **Figure 3.14 - Panel a** Reproduced.
- **Figure 3.14 - Panel b** Reproduced.

- **Figure A3.1 - Panel a** Reproduced.
- **Figure A3.1 - Panel b** Reproduced.
- **Figure A3.2 - Panel a** Reproduced.
- **Figure A3.2 - Panel b** Reproduced.
- **Figure A3.2 - Panel c** Reproduced.
- **Figure A3.3 - Panel a** Reproduced.
- **Figure A3.3 - Panel b** Reproduced.
- **Figure A3.3 - Panel c** Reproduced.
- **Figure A3.3 - Panel d** Reproduced.

Results in Chapter 4

- **Figure 4.1** Does not apply: the exhibit does not show analysis results.
- **Figure 4.2 - Panel a** Does not apply: the exhibit does not show analysis results.
- **Figure 4.2 - Panel b** Does not apply: the exhibit does not show analysis results.
- **Figure 4.3 - Panel a** Reproduced.
- **Figure 4.3 - Panel b** Reproduced.
- **Figure 4.4** Reproduced.
- **Table 4.1** Does not apply: the exhibit does not show analysis results.
- **Figure 4.5** Does not apply: the exhibit does not show analysis results.

Results in Chapter 5

- **Figure 5.1** Reproduced.
- **Figure 5.2** Reproduced.
- **Figure 5.3** Reproduced.
- **Table 5.1** Reproduced.
- **Figure 5.4** Reproduced.
- **Figure 5.5 - Panel a** Reproduced.
- **Figure 5.5 - Panel b** Reproduced.
- **Figure 5.5 - Panel c** Reproduced.

- **Figure 5.5 - Panel d** Reproduced.
- **Figure 5.6 - Panel a** Reproduced.
- **Figure 5.6 - Panel b** Reproduced.
- **Figure 5.7 - Panel a** Reproduced.
- **Figure 5.7 - Panel b** Reproduced.
- **Figure 5.7 - Panel c** Reproduced.
- **Figure 5.7 - Panel d** Reproduced.
- **Figure 5.7 - Panel e** Reproduced.
- **Figure 5.7 - Panel f** Reproduced.
- **Figure 5.7 - Panel g** Reproduced.
- **Figure 5.8 - Panel a** Reproduced.
- **Figure 5.8 - Panel b** Reproduced.
- **Figure 5.8 - Panel c** Reproduced.
- **Figure 5.8 - Panel d** Reproduced.
- **Figure 5.9 - Panel a** Reproduced.
- **Figure 5.9 - Panel b** Reproduced.
- **Figure 5.9 - Panel c** Reproduced.
- **Figure 5.9 - Panel d** Reproduced.
- **Figure 5.10 - Panel a** Reproduced.
- **Figure 5.10 - Panel b** Reproduced.
- **Figure 5.11** Reproduced.
- **Figure 5.12 - Panel a** Reproduced.
- **Figure 5.12 - Panel b** Reproduced.
- **Figure 5.12 - Panel c** Reproduced.
- **Figure 5.12 - Panel e** Reproduced.
- **Figure 5.13 - Panel a** Reproduced.
- **Figure 5.13 - Panel b** Reproduced.
- **Figure 5.13 - Panel c** Reproduced.

Results in Chapter 6

- **Table 6.1** Does not apply: the exhibit does not show analysis results.
- **Table 6.2** Reproduced.
- **Figure 6.1** Reproduced.
- **Figure 6.2** Reproduced.
- **Table 6.3** Reproduced.
- **Table 6.4** Reproduced.
- **Figure 6.3** Reproduced.

Results in Chapter 7

- **Figure 7.1** Reproduced with manual steps following the instructions of the README.
- **Figure 7.2** Reproduced with manual steps following the instructions of the README.
- **Figure 7.3** Reproduced with manual steps following the instructions of the README.
- **Figure 7.4** Does not apply: the exhibit does not show analysis results.
- **Figure 7.5** Reproduced with manual steps following the instructions of the README.
- **Figure 7.6** Reproduced with manual steps following the instructions of the README.
- **Figure 7.7** Does not apply: the exhibit does not show analysis results.
- **Figure 7.8** Reproduced with manual steps following the instructions of the README.
- **Figure 7.9** Reproduced with manual steps following the instructions of the README.
- **Table 7.1** Reproduced with manual steps following the instructions of the README.
- **Figure 7.2.1** Does not apply: the exhibit does not show analysis results.

Results in Chapter 8

- **Figure 8.1** Does not apply: the exhibit does not show analysis results.
- **Figure 8.2** Does not apply: the exhibit does not show analysis results.
- **Figure 8.3** Reproduced.
- **Figure 8.4 - Panel a** Reproduced.
- **Figure 8.4 - Panel b** Reproduced.
- **Figure 8.5 - Panel a** Reproduced.

- **Figure 8.5 - Panel b** Reproduced.
- **Figure 8.6** Reproduced.
- **Table 8.1** Does not apply: the exhibit does not show analysis results.
- **Figure 8.7** Does not apply: the exhibit does not show analysis results.
- **Figure 8.8** Does not apply: the exhibit does not show analysis results.
- **Figure 8.9** Reproduced.
- **Figure 8.10 - Panel a** Reproduced.
- **Figure 8.10 - Panel b** Reproduced.
- **Figure 8.11** Reproduced.
- **Figure 8.12 - Panel a** Reproduced.
- **Figure 8.12 - Panel b** Reproduced.
- **Figure 8.13 - Panel a** Reproduced.
- **Figure 8.13 - Panel b** Reproduced.

Results in Chapter 9

- **Table 9.1** Reproduced.
- **Figure 9.1** Reproduced with manual steps following the instructions of the README.
- **Table 9.2** Reproduced.
- **Figure 9.2** Reproduced.
- **Figure 9.3** Reproduced.
- **Figure 9.4 - Panel a** Reproduced with manual steps following the instructions of the README.
- **Figure 9.4 - Panel b** Reproduced with manual steps following the instructions of the README.
- **Table 9.3** Reproduced with manual steps following the instructions of the README.
- **Figure 9.3.1 - United States** Reproduced.
- **Figure 9.3.1 - Indonesia** Reproduced.
- **Figure 9.3.2 - United States** Reproduced.
- **Figure 9.3.2 - Indonesia** Reproduced.

Reproduction Environment

Paper exhibits were reproduced on 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:** 128 GB
- **Software version:** Stata 18.0 MP