



Why Do Some Countries Build Safer? Economic Constraints, Disaster Learning, and the Two-Stage Housing Quality Ladder

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This review verifies the reproducibility of the exhibits included in the paper “*Why Do Some Countries Build Safer? Economic Constraints, Disaster Learning, and the Two-Stage Housing Quality Ladder*”.

Contents in this review:

1. Main findings
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Main findings

- **Every exhibit in the of the paper has been reproduced.**
- The code did not require changes to be executed.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 20 minutes to run.
- We conducted our reproducibility analysis based on the paper shared by the authors by email on February 3, 2026.
- **Verification Process and Data Handling:**
 - The reproducibility package relies on two types of data: open data and accessible data (public but not included in the reproducibility package).
 - Open data is included in the public reproducibility package.
 - Reviewers used forthcoming/accessible/restricted data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package. The data is forthcoming on the World Bank Microdata Library.
 - Reviewers did not verify that the accessible data matches what was provided by the authors, as the dataset is constantly updated and the same query could likely return different results.
 - *data_hash_report.csv* lists the SHA256 hashes of all files in the Data folder to support data integrity checks. Users who acquire the accessible data can use this file to verify that the data has not been altered.

- **Reproducibility Summary:**

- **Data:** All data sources are publicly available but not all are included in the reproducibility package.
- **Code:** All code files (from cleaning to analysis) are included in the reproducibility package.
- **Outputs:** All outputs are generated by code included in the reproducibility package.
- **Dependencies environment:** The reviewers created a new environment using the latest versions of dependencies available at the moment of the review.

List of exhibits and reproducibility status

Results in the Main Section of the Paper

- **Table 1** Reproduced. There are some rounding differences but that does not impact reproducibility.
- **Figure 1** Does not apply. The exhibit does not show analysis results.
- **Figure 2** Reproduced.
- **Table 2** Reproduced.
- **Table 3** Reproduced.
- **Table 4** Reproduced.

Results in the Annex

- **Table A1** Reproduced.
- **Table A2** Reproduced.
- **Table A3** Reproduced.
- **Table A4** Reproduced.
- **Table A5** Reproduced.
- **Table A6** Reproduced.
- **Table A8** Reproduced.
- **Table A9** Reproduced.
- **Table A10** Does not apply. The exhibit does not show analysis results.
- **Table A11** Does not apply. The exhibit does not show analysis results.

Reproduction Environment

Paper exhibits were reproduced on a computer with the following specifications:

- OS: Windows 11 Enterprise, version 25H2
- Processor: Intel(R) Core(TM) Ultra 7 165U (2.10 GHz)
- Memory available: 31.5 GB
- Software version: Python 3.12.12