



Returns to Private Debt in Emerging and Developing Economies

First Submission: RR_WLD_2026_699

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August 20, 2026

This review verifies the reproducibility of the exhibits included in the paper *"Returns to Private Debt in Emerging and Developing Economies"*.

Contents in this review:

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Main findings

- **Every exhibit of the paper has been reproduced accurately.**
- The reproducibility package was verified virtually due to the proprietary nature of the data. See more details below.
- The code was successfully executed by the author after:
 1. Restoring the environment in requirements.txt
 2. Running the "main.py"
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 30 minutes to run.
- We conducted our reproducibility analysis based on the paper shared by the authors.
- **Verification Process and Data Handling:**
 - The reproducibility package relies on 2 types of data: open, and restricted data (available only from the data owners).
 - Open data is included in the public reproducibility package.
 - Due to the proprietary nature of the data, the code was not executed by the replicators. The authors ran the full reproducibility package in a clean environment and shared the outputs (tables and figures), log files with start and end timestamps, dataset hashes, environment file, and computer specifications with the replication team. The replication team verified the outputs against the manuscript and confirmed that the results are consistent with those reported in the paper.

- *data_hash_report.csv* lists the SHA256 hashes of all files in the Data folder to support data integrity checks. Users who acquire the restricted data can use this file to verify that the data has not been altered.
- **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:** All outputs are generated by code included in the reproducibility package.
 - **Dependencies environment:** The reviewers reproduced an existing environment for dependencies using dependency files or an environment metadata file provided by the authors.

List of exhibits and reproducibility status

Results in the Main Section of the Paper

- **Table 1** Reproduced.
- **Table 2** Reproduced.
- **Table 3** Reproduced.
- **Figure 1** Reproduced.
- **Table 4** Reproduced.
- **Table 5** Reproduced.
- **Table 6** Reproduced.
- **Table 7** Reproduced.
- **Table 8** Reproduced.
- **Figure 2** Reproduced.
- **Figure 3** Reproduced.
- **Table 9** Reproduced.

Results in the Annex

- **Table A1** Reproduced.
- **Table A2** Reproduced.
- **Table A3** Reproduced.
- **Table A4** Reproduced.

- **Table A5** Reproduced.
- **Table A6** Reproduced.
- **Table A7** Reproduced.
- **Table A8** Reproduced.

Reproduction Environment

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

- OS: Windows 11 Enterprise
- Processor: Intel(R) Core(TM) Ultra 7 165U, 2.10 GHz — 1 processor, 12 cores / 14 logical processors
- Memory available: 32.0 GB
- Software version: Python 3.10.16 (Anaconda/conda environment)