



# Reproducible Research Repository

## *Crisis Credit, Employment Protection, Indebtedness, and Risk*

*First Submission: RR\_CHL\_2026\_722*

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*August 13, 2026*

This review verifies the reproducibility of the exhibits included in the paper “*Crisis Credit, Employment Protection, Indebtedness, and Risk*”.

### **Contents in this review:**

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

### *Main findings*

- **Every exhibit in the main section of the paper and 10 randomly selected exhibits in the appendix were reproduced accurately**
- The code was successfully executed on a new computer after:
  1. Setting the local `maindir` path in `Codes/0.Master.do` to the reviewer’s local package location.
  2. Adding `Model/Tools/` to the MATLAB path — required for `runcalibrate_TFP_v2.m`.
  3. Running `Model/runcalibrate_TFP_v2.m` (calibration),  
`revision_aggregateimplications3_new_LABOR_w_choice_260609.m` (policy counterfactuals), and  
`revision_runme4_graphs_joe_fixedgrid_260609.m` (Appendix Figure 6) in MATLAB.
  4. Running `Codes/2.Tables_Quantitative_Model.do` in Stata to produce Table 10.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 2 hours to run.
- We conducted our reproducibility analysis based on the paper in the replication package 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.
  - Reviewers used restricted data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package.

- *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.
  - **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 - "outside" Portion**

- **Table 10** Reproduced.
- **Figure 2, Panel A** Reproduced.
- **Figure 2, Panel B** Reproduced.
- **Figure 3, Panel C** Reproduced.
- **Figure 4, Panel A** Reproduced
- **Figure 4, Panel B** Reproduced.
- **Figure 4, Panel C** Reproduced.

#### **Results in the Main Section of the Paper - "BCCH" Portion**

- **Table 1** Reproduced.
- **Table 2** Reproduced.
- **Table 3** Reproduced.
- **Table 4** Reproduced
- **Table 5** Reproduced.
- **Table 6** Reproduced.
- **Table 7** Reproduced.
- **Table 8** Reproduced.
- **Table 9** Reproduced.
- **Figure 1, Panel A** Reproduced
- **Figure 1, Panel B** Reproduced.

- **Figure 3, Panel A** Reproduced.
- **Figure 3, Panel B** Reproduced.
- **Figure 5** Reproduced.

#### Results in the Annex for "BCCH" Portion

For the Appendix, we did not review every exhibit. Instead, we randomly selected 10 exhibits from the remaining datasets to assess the appendix. Our review was based on those 10 exhibits. Since they were chosen randomly, we are operating under the assumption that if all randomly selected exhibits are reproducible, then the rest should be as well. The seed used to generate the random selection was 512313, the Stata version used was MP 19.5, and the exhibits selected were: 1, 4, 5, 6, 12, 16, 17, 21, 28, 29.

- **Appendix Table 1** Reproduced.
- **Appendix Table 5** Reproduced.
- **Appendix Table 6** Reproduced.
- **Appendix Table 7** Reproduced.
- **Appendix Table 13** Reproduced.
- **Appendix Table 18** Reproduced.
- **Appendix Table 19** Reproduced.
- **Appendix Table 23** Reproduced.
- **Appendix Figure 1, Panel B** Reproduced.
- **Appendix Figure 2, Panel A** Reproduced.

#### Results in the CMF Server Portion

- **Table 4** Reproduced.
- **Appendix Table 16** Reproduced.
- **Appendix Table 17** Reproduced.

#### *Reproduction Environment*

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

- OS: Windows 11 Enterprise 25H2
- Processor: Intel(R) Xeon(R) Gold 6226R CPU @ 2.90GHz (2 processors)
- Memory available: 16.0 GB
- Software version: Stata MP 19.5, MATLAB 2024a