



Do State SME Programs Work? Evidence from Loan Subsidies and Credit Guarantees in Kazakhstan

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This review verifies the reproducibility of the exhibits included in the paper “*Do State SME Programs Work? Evidence from Loan Subsidies and Credit Guarantees in Kazakhstan*”.

Contents in this review:

1. Main findings
2. List of exhibits and reproducibility status
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Main findings

- **Every exhibit in the paper reproduces and was virtually verified following Virtual Reproducibility Verification Protocols.**
- As the package relies on restricted data, the replicators did not have direct access to it. The verification was therefore conducted by running the code on the authors’ computer on February 19, 2026. The process was executed in a clean environment, including the creation of an ado folder to manage dependencies. The verification steps were as follows:
- The code was successfully executed on a new computer after:
 1. The authors updated the file paths and executed the full workflow in `master.do`.
 2. The authors then shared the outputs generated from two consecutive runs.
 3. The replicators checked whether the outputs from both runs matched and then verified each output against the exhibits in the paper.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 10 minutes to run.
- We conducted our reproducibility analysis based on the paper shared by the authors in the reproducibility package.
- **Verification Process and Data Handling:**
 - The reproducibility package relies on 1 type of data: restricted data (available only from the data owners).

- 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 forthcoming/accessible/limited-access/restricted data can use this file to verify that the data has not been altered.
- **Reproducibility Summary:**
 - **Data:** All data sources are restricted and not 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

- **Figure 1 Panel A** Reproduced.
- **Figure 1 Panel B** Reproduced.
- **Figure 1 Panel C** Reproduced.
- **Figure 1 Panel D** Reproduced.
- **Figure 1 Panel E** Reproduced.
- **Figure 1 Panel F** Reproduced.
- **Figure 1 Panel G** Reproduced.
- **Figure 1 Panel H** Reproduced.
- **Figure 1 Panel I** Reproduced.
- **Table 1** Reproduced.
- **Table 2** Reproduced.
- **Table 3** Reproduced.
- **Table 4** Reproduced.
- **Table 5** Reproduced.

Results in the Annex

- **Figure A1 Panel A** Reproduced.

- **Figure A1 Panel B** Reproduced.
- **Figure A1 Panel C** Reproduced.
- **Figure A1 Panel D** Reproduced.
- **Figure A1 Panel E** Reproduced.
- **Figure A1 Panel F** Reproduced.
- **Figure A2 Panel A** Reproduced.
- **Figure A2 Panel B** Reproduced.
- **Figure A2 Panel C** Reproduced.
- **Figure A2 Panel D** Reproduced.
- **Figure A2 Panel E** Reproduced.
- **Figure A2 Panel F** Reproduced.
- **Table A1** Reproduced.
- **Table A2** Reproduced.

Reproduction Environment

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

- OS: Windows 11 Enterprise
- Processor: Intel(R) Core(TM) i5-1145G7 CPU @ 2.60GHz
- Memory available: 15.7 GB
- Software version: Stata 18.0 MP