



Procuring Low Growth: The Impact of Political Favoritism on Public Procurement and Firm Performance in Bulgaria

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This review verifies the reproducibility of the exhibits included in the paper “*Procuring Low Growth: The Impact of Political Favoritism on Public Procurement and Firm Performance in Bulgaria*”.

Contents in this review:

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Main findings

- **Every exhibit has been reproduced accurately.**
- The code was successfully executed on a new computer after:
 1. Updating the working directory.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 5 hours to run.
- We conducted our reproducibility analysis based on the paper shared by the authors in the email.
- **Verification Process and Data Handling:**
 - The reproducibility package relies on restricted data.
 - Reviewers used 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/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 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 Results reproduced** The final table in the paper has been manually created using the results from the SMCL file.
- **Table 2 Results reproduced** The final table in the paper has been manually created using the results from the SMCL file.
- **Table 3 Results reproduced** The final table in the paper has been manually created using the results from the SMCL file.
- **Table 4 Results reproduced** There were slight discrepancies, but the differences were less than 0.01. As such, these are considered reproducible. The final table in the paper has been manually created using the results from the SMCL file.
- **Table 5 Results reproduced** The final table in the paper has been manually created using the results from the SMCL file.
- **Table 6 Results reproduced** The final table in the paper has been manually created using the results from the SMCL file.

Results in the Annex

- **Table A.1** Does not apply
- **Table A.2** Does not apply
- **Table A.3 Results reproduced** The final table in the paper has been manually created using the results from the SMCL file.
- **Figure A.1** Does not apply

Reproduction Environment

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

- OS: Windows 11 Enterprise
- Processor: INTEL(R) XEON(R) PLATINUM 8562Y+ 2.80 GHz (2 processors)
- Memory available: 32 GB
- Software version: Stata 18.0 MP