



Testing For Market Power In Agricultural Land Markets: Evidence From Ukraine

First Submission: RR_UKR_2025_472

Camila Ayala

reproducibility@worldbank.org

April 7, 2026

This review verifies the reproducibility of the exhibits included in the paper “*Testing For Market Power In Agricultural Land Markets: Evidence From Ukraine*”.

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 in the appendix were reproduced accurately**
- The code was successfully executed on a new computer after:
 1. Adjusting the file paths in the `DataManipulation/Code/master.do` and running the code.
 2. Adjusting the file paths in the `Analysis/Code/master.do` and running the code.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 12 hours 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 4 types of data: open, accessible, limited-access, and restricted data.
 - Some open data is not included in the public reproducibility package due to file size constraints.
 - The replication package starts from intermediate datasets that are restricted and therefore not included in the package.
 - Reviewers used limited-access/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 limited-access/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 are included in the reproducibility package but operate from intermediate data, not raw data.
 - **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.** Verified against Table1_leases.xlsx and Table1_sales.xlsx. There are formatting differences.
- **Table 2 Reproduced.** Verified against Table2_Lease_Sale_desc.xlsx. Some values appear in the table generated by the code but are not included in the manuscript. We assume this is intentional and therefore consider the table reproducible.
- **Table 3 Reproduced.** Verified against Table3_Lease_Sale_Conflict_desc.xlsx. Formatting differences.
- **Table 4 Reproduced.** Verified against Table4_leases.doc and Table4_sales.doc. Formatting differences.
- **Table 5 Reproduced.** Verified against Table5_All.doc. Minor formatting differences.
- **Table 6 Reproduced.** Verified against Table6_All.doc. Minor formatting differences.
- **Table 7 Reproduced.** Verified against Table7_All.doc. Minor formatting differences.
- **Figure 1 Reproduced.** Verified against Fig1_Leases_Tran.png.
- **Figure 2 Reproduced.** Verified against Fig2_Sales_Tran.png.
- **Figure 3** Does not show analysis results.
- **Figure 4 Reproduced.** Verified against Figure4.png.

Results in the Annex

- **Table 1 Reproduced.** Verified against AppendixTable1.xlsx. Minor formatting differences.

- **Table 2 Reproduced.** Verified against AppendixTable2_ALL.doc. Minor formatting differences.
- **Table 3 Reproduced.** Verified against AppendixTable3_All.doc. Minor formatting differences.
- **Table 4 Reproduced.** Verified against AppendixTable4_All.doc. Minor formatting differences.
- **Table 5 Reproduced.** Verified against AppendixTable5_AllVar_PartA.doc and AppendixTable5_-AllVar_PartB.doc. Minor formatting differences.
- **Table 6 Reproduced.** Verified against AppendixTable6_AllVar_PartA.doc and AppendixTable6_-AllVar_PartB.doc. Minor formatting differences.

Reproduction Environment

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

- OS: Windows 11 Enterprise
- Processor: Intel(R) Xeon(R) Gold 6226R CPU @ 2.90GHz
- Memory available: 32.0 GB
- Software version: Stata 19.5 MP