The Intensive Margin in Trade: How Big and How Important

Reproducibility Check Results (second submission)

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This review assesses the reproducibility of the code that creates the exhibits included in *"The Intensive Margin in Trade: How Big and How Important"*.

Contents in this review: This review has two parts: A Stata part and a matlab part.

1. Main findings

2. List of exhibits and reproducibility status

Main findings

- The Stata and Matlab parts of the code ran in a new computer

- The output files produced by the code were stable across successive runs of the code

- All the exhibits in the main section of the paper that do not use restricted data were reproduced. Very small differences (possibly due to rounding) were found in some tables but they do not break the reproducibility of the results

Reproducibility assessment

Paper exhibits produced with Stata code were attempted to be reproduced in a computer with the following specifications.

- OS: Microsoft Windows 10 Version 21H2

- Processor: Intel(R) Xeon(R) CPU E7-4890 v2 @ 2.80GHz, 2800 Mhz, 2 Core(s), 2 Logical Processor(s)

- Memory available: 15.8 GB

- Software version: Stata 17

Paper exhibits produced with Matlab code were attempted to be reproduced in a computer with the following specifications.
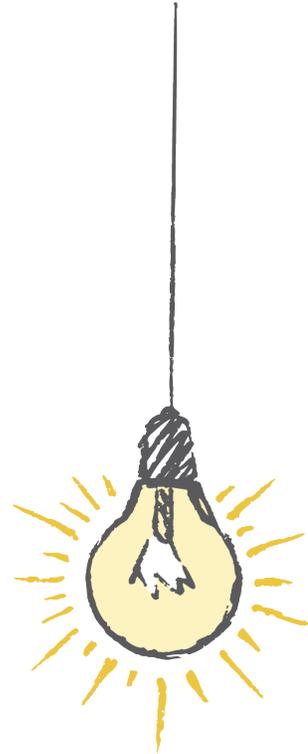
- OS: Microsoft Windows 10 Enterprise

- Processor: Intel(R) Xeon(R) Gold 6226R CPU @ 2.90GHz, 2900 Mhz, 4 Core(s), 4 Logical Processor(s)

- Memory available: 32 GB

- Software version: Matlab 2023a

Panel D in Figure 4, Panel D in Figure 5, Table H2, and Panel D in Figure M1 were not reproduced due to restrictions in their input data that did not allow the reviewer to access it. All other paper exhibits in the main section of the paper were reproduced, some of them with very small differences in the rounding of numbers that the reviewer attributes to rounding differences between computer processors or software versions and hence do not break the reproducibility of results.

The code produces various `.eps` files in the main directory. These files correspond to figures L1 to L35 in the online appendix. These files are not part of the submitted README file and hence they were not reviewed.

List of exhibits and reproducibility status

Results in the Main Section of the Paper

- **Table 1** Does not apply: the exhibit does not show code results.

- **Figure 1**

  - **Panel A** Results reproduced. Aesthetic adjustments were introduced in the paper exhibit that are not included in the code output.
  - **Panel B** Results reproduced. Aesthetic adjustments were introduced in the paper exhibit that are not included in the code output.

- **Table 2** Reproduced

- **Figure 2** Reproduced

- **Table 3** Reproduced

- **Table 4** Reproduced

- **Figure 3** Reproduced

- **Figure 4** The figure has four panels. The reviewer noted that the figures of all panels are saved in eps and not the png format as indicated in the README file.

  - **Panel A** Reproduced

  - **Panel B** Reproduced

  - **Panel C** Reproduced

  - **Panel D** Does not apply: the exhibit was produced with restricted data and its reproducibility is not evaluated in this review

- **Table 5** Reproduced

- **Table 6** The three rows of Table 6 are produced and exported separately.

  - **Row 1** Reproduced

  - **Row 2** Results reproduced. The reviewer found a small difference in the lower value of the CI of 0.58 in the code output versus 0.59 in the paper exhibit. We attribute this difference to rounding and do not consider that it breaks the reproducibility of the results.

  - **Row 3** Reproduced

- **Table 7** Results reproduced. There are small differences between some of the values in the code output and the paper exhibit within the range of ±0.03 that we attribute to rounding and do not break the reproducibility of results.

- **Figure 5**

  - **Panel A** Reproduced

  - **Panel B** Reproduced

  - **Panel C** Reproduced

  - **Panel D** Does not apply: the exhibit was produced with restricted data and its reproducibility is not evaluated in this review

- **Figure 6** Reproduced. The reviewer noted that the figure is saved in eps and not the png format as indicated in the README file.

- **Figure 7** Reproduced. The reviewer noted that the figure is saved in eps and not the png format as indicated in the README file.

- **Figure 8** Reproduced. The reviewer noted that the figure is saved in eps and not the png format as indicated in the README file.

- **Figure 9** Reproduced. The reviewer noted that the figure is saved in eps and not the png format as indicated in the README file.

Results in the Online Appendix

- **Table A1** Does not apply: the exhibit does not show code results

- **Table B1** Reproduced

- **Table B2** Reproduced

- **Table B3** Reproduced

- **Table B4** Results reproduced. The code output and the paper exhibit present differences within the range of ±0.001 that we attribute to rounding and do not break the reproducibility of results.

- **Table B5** Reproduced

- **Table B6** Reproduced

- **Table B7** Reproduced

- **Table B8** Reproduced

- **Table B9** Reproduced

- **Figure B1** Does not apply: the exhibit does not show code results.

- **Figure B2**

  – **Panel A** Reproduced
  – **Panel B** Reproduced

- **Figure B3** Results reproduced. The code output and the paper exhibit present a few differences in the plot aesthetics: (1) the point shapes differ, (2) the code exhibit has a horizontal red line at 0.4 that is not include in the exhibit, and (3) the y-axis title reads *Intensive Margin elasticity* in the code output versus *Intensive Margin elasticity by Industry* in the exhibit

- **Table B10** Reproduced

- **Table B11** Reproduced

- **Table B12** Results reproduced, but the reviewer found a difference between the code output and the online appendix in the number of observations for column 3 (7,437 versus 7,450 in the online appendix) and column 4 (7,101 versus 7,114 in the online appendix). The point estimates and standard errors are all the same, hence we do not consider that this breaks the reproducibility of results.

- **Figure C1** Results reproduce in both panels. The code output and online appendix figures present very small differences in outlier values displayed in both scatterplots. The reviewer attributes this to rounding differences in the variables estimated and does not consider that this breaks the reproducibility of the results. The code output and a screenshot of the online appendix figure are displayed below.
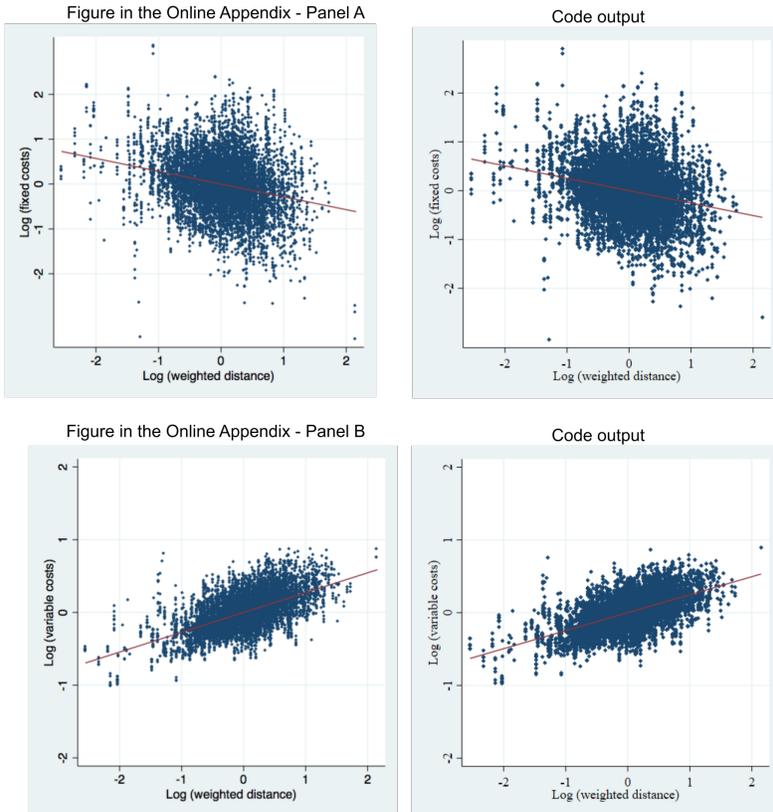
- **Table E1** Reproduced

- **Table E2** Results reproduced. The reviewer found a small difference in the estimate of column 2, row 2: 0.014 in the code output versus 0.015 in the online Appendix. We attribute this to rounding and do consider that it breaks the reproducibility of results.

- **Figure E1** Reproduced

- **Table F1** Reproduced

- **Figure F1** Reproduced

- **Table H1** Reproduced

- **Table H2** Does not apply: the exhibit was produced with restricted data and its reproducibility is not evaluated in this review

- **Figure H1** Results reproduced. The code output does not display a y-axis title while the paper exhibit has *Log number of firms* as title

- **Table M1** The four rows of Table 6 are produced and exported separately.

    - **Row 1** Reproduced

    - **Row 2** Results reproduced. The reviewer found a small difference in the lower value of the CI of 0.58 in the code output versus 0.59 in the paper exhibit. We attribute this difference to rounding and do not consider that it breaks the reproducibility of the results.

    - **Row 3** Reproduced

    - **Row 4** Results reproduced. The reviewer found a small difference in the upper value of the CI of 0.74 in the code output versus 0.75 in the online appendix exhibit. We attribute this difference to rounding and do not consider that it breaks the reproducibility of the results.

- **Table M2** Results reproduced. There are small differences between some of the values in the code output and the paper exhibit within the range of ±0.03 that we attribute to rounding and do not break the reproducibility of results.

- **Figure M1** Reproduced (except for panel D which uses confidential data)

- **Figure N1** Reproduced

- **Figure O1** Reproduced

- **Figure O2** Reproduced