This document accompanies the replication files for "Cross-Country Heterogeneous Response to Competition: Theory and Evidence from Trade Data" by Hamed Atrianfar and Hamid Firooz, accepted in 2026 for publication in the Review of Economics and Statistics. The folder "Data and Empirics" includes all Stata codes required for the empirical analysis, the folder "Model" includes all Matlab codes required to estimate and solve the quantitative model, and the folder "Simulation regressions" includes Stata codes used to run model-based simulation regressions.

To run the codes, we used Stata MP 19.5 and Matlab R2025a. Producing all empirical facts (except Table C.3) takes only a couple of hours on a Core i9 machine with a 64 GB RAM. Producing Table E.4 takes about 10 hours. The time needed to replicate each quantitative result in the "Model" part depends on the initial guess, but with the provided initial guesses, replicating each result takes only a few minutes.

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********** Folder "Data and Empirics" **********

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This folder contains all Stata codes used to produce empirical results. We first run "1-Construct the final data" to produce the final data set and then run "2-Main specifications" to generate all empirical results reported in the order they appear in the paper. In the file "2-Main specifications," we clearly label which part of the code is needed to be run to produce each empirical table. Specifically, this do-file produces Figure 1, Table 1, Panel B of Table 3, all tables in Appendix A, and Table E.1 through Table E.6 (except E.3).

To produce the quality regressions in Table E.4, the do-file "2-Main specifications" calls another do-file in the folder "Data and Empirics\Quality."

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********** Folders "Model" and "Simulation regressions" **********

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The folder "Model" contains all Matlab codes used to estimate the model and solve the general equilibrium of the model. The folder "Simulation regressions" includes Stata codes used to run model-based simulation regressions. We explain below how to produce all quantitative results reported in the paper.

- We first run the file "main.m" in folder "Model," which has clearly-labeled sections: the first section estimates the model and presents the results reported in Table E.8 as well as the point estimates reported in Table 2. Note that the order of countries in the code is the same as the one in Table E.8 (and Table E.7). The second section of this code computes the R-squared reported in Table 2, and produces Figure E.2. The third section of this code solves the general equilibrium of the estimated model. The last two sections of this code simulate the general equilibrium of the estimated model in the baseline equilibrium and in the counterfactual equilibrium to produce the outputs needed to run the simulation regressions reported in

the paper. Specifically, after running the file “main.m,” we run the Stata do-file “simulation regressions” in the folder “Simulation regressions.” This will produce the first four columns of Table 3, Panel A.

- Figure 4: We take the estimated values for the parameters “beta” and “T” that the file “main.m” in folder “Model” produces to plot Figure 4. The Stata code that plots Figure 4 is “plot dofile” in folder “Model.”

- Standard errors in Table 2: The code “calculate_iceberg_standard_errors” in folder “Model” generates the standard errors for iceberg cost parameters, reported in Table 2.

- Figure E.1: The Matlab code “ExtensiveMarginInModel.m” in folder “Model” calculates the y-axis in Figure E.1. The Stata do-file “plot dofile” in folder “Model” takes these values and plots Figure E.1.

- Last four columns in Panel A of Table 3: We run the “main_bejk.m” Matlab file in folder “Model\No quality- BEJK” to estimate the model without quality, solve the equilibrium of this model, and perform simulations. We then run the Stata do-file “simulation regressions bejk” in folder “Simulation regressions.” This will produce the last four columns of Table 3, Panel A.

- Table E.9: To produce the first four columns, we run the Matlab file “main.m” in folder “Model\robust1” and then run the Stata do-file “simulation regressions” in folder “Simulation regressions.” To produce the last four columns, we run the Matlab file “main_bejk.m” in folder “Model\No quality- BEJK\robust1” and then run the Stata do-file “simulation regressions bejk” in folder “Simulation regressions.” Note that the last four columns in this table are the same as those in Table 3, since the parameter gamma is irrelevant in the BEJK model.

- Table E.10: To produce the first four columns, we run the Matlab file “main.m” in folder “Model\robust2” and then run the Stata do-file “simulation regressions” in folder “Simulation regressions.” To produce the last four columns, we run the Matlab file “main_bejk.m” in folder “Model\No quality- BEJK\robust2” and then run the Stata do-file “simulation regressions bejk” in folder “Simulation regressions.”

- Table E.11: To produce the first four columns, we run the Matlab file “main.m” in folder “Model\robust3” and then run the Stata do-file “simulation regressions” in folder “Simulation regressions.” To produce the last four columns, we run the Matlab file “main_bejk.m” in folder “Model\No quality- BEJK\robust3” and then run the Stata do-file “simulation regressions bejk” in folder “Simulation regressions.”

- Table E.12: To produce the first four columns, we run the Matlab file “main.m” in folder “Model\robust4” and then run the Stata do-file “simulation regressions” in folder “Simulation regressions.” To produce the last four columns, we run the Matlab file “main_bejk.m” in folder “Model\No quality- BEJK\robust4” and then run the Stata do-file “simulation regressions bejk” in folder “Simulation regressions.”

- Table E.13: To produce the first four columns, we run the Matlab file “main.m” in folder “Model” and then run the Stata do-file “simulation regressions_robustness for product categories” in folder “Simulation regressions.” To produce the last four columns, we run the Matlab file “main_bejk.m” in folder “Model\No quality- BEJK” and then run the Stata do-file “simulation regressions bejk_robustness for product categories” in folder “Simulation regressions.”

- Figures 2 and 3: These figures are drawn in the LaTeX file of the paper.