README file for "Trade and Inequality: A Sufficient Statistics Approach"

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This document describes the files required to replicate the results in "Trade and Inequality: A Sufficient Statistics Approach". The document is organized as follows in Section 1 we describe public data sources used in assembling the final data set. Section 2 describes the files in the final dataset. Section 3 describes individual files required to reproduce each figure and table.

1 Data Sources

1.1 Trade flows, Output, Consumption data

- World Input-Output Database (Timmer et al., 2015): bilateral trade flows for the period from 2000 to 2014, total output and consumption shares. Accessed at https://www.rug.nl/ggdc/valuechain/wiod/wiod-2016-release.
- United Nations Comtrade database (United Nations, 2023a): additional bilateral trade flows (if required) for the period from 2000 to 2014. Accessed at: https://comtradeplus.un.org/.

1.2 Exporter shares and domestic exit rates

Our sufficient statistics require information on exporter shares ρ^*_{ij}, the number of exporting firms at the bilateral level divided by the number of domestic operating firms. We also use the fraction of surviving firms to construct the domestic operating shares ρ^*_{ii}.

- UNIDO INDSTAT (United Nations, 2023b): Contains information about the number of firms. Accessed at: https://stat.unido.org/.
- OECD Structural and Demographic Business Statistics (SDBS) (OECD, 2023): Contains information about the number of operating firms and exiting firms. Accessed at: https://www.oecd.org/sdd/business-stats/structuralanddemographicbusinessstatisticssdbsoecd.htm.
- OECD Trade by Enterprise Characteristics data (TEC) (OECD, 2021): Contains information about the number of exporting firms. Accessed at: https://www.oecd.org/sdd/its/trade-by-enterprise-characteristics.htm.
- World Bank Exporter Dynamics Database (EDD) (World Bank, 2015): Contains information about the number of exporting firms. Accessed at: https://www.worldbank.org/en/research/brief/exporter-dynamics-database.

2 Datasets for Replication

Our final sample contains 43 countries and the Rest of the World from 2000 to 2014, which are covered in the WIOD dataset. We impute missing data using using the procedures described in Section 4 and Appendix C in the manuscript. The final dataset consists of the following files:

- "lambda.csv": Trade shares across sample countries from 2000 to 2014.
- "rho.csv": Exporter shares and domestic exit rates from 2000 to 2014.
- "Y.csv": Total output from 2000 to 2014
- "beta.csv": Consumption share on manufacturing goods, 2014
- "lambda_m.csv": Manufacturing trade shares across sample countries, 2000-2014.
- "rhodot.csv": Share of potential entrepreneurs, proxied by employment share, 2014.
- "Y_m.csv": Total manufacturing output, 2000-2014.

3 Replication Files

The following files were written in MATLAB version 2020b:

- "Figure_1.m": Replicates "Figure 1: Inequality Measures vs. Share of Exporters". No data is required.
- "Figure_2.m": Replicates "Figure 2: Counterfactual Changes in Welfare and Gini Relative to Autarky". It uses "lambda.csv", "rho.csv", and "Y.csv".
- "Figure_3.m": Replicates "Figure 3: Counterfactual Changes in 5-95 Income Interquartile Range Relative to Autarky". It uses "lambda.csv", "rho.csv", and "Y.csv".
- "Figure_4.m": Replicates "Figure 4: The Effects of Trade on Inequality and Average Welfare Over 2000-2014". It uses "lambda.csv", "rho.csv", and "Y.csv".
- "Figure_5.m": Replicates "Figure 5: Counterfactual Changes in Sectoral and Aggregate Inequality". It uses "lambda_m.csv", "rho.csv", "Y_m.csv", "beta.csv", and "rhodot.csv".
- "Figure_B1.m": Replicates "Figure B1: Inequality Measures vs. Share of Exporters". No data is required.
- "Table_D1.m": Replicates "Table D1: Relative changes in Gini (Robustness check)". It uses "lambda.csv", "rho.csv", and "Y.csv".
- "Table_D2.m": Replicates "Table D2: Relative change in the share of Top 5% (Robustness check)". It uses "lambda.csv", "rho.csv", and "Y.csv".

References

OECD, "Trade by enterprise characteristics: Trade by size classes, ISIC Rev. 4 (Edition 2020)," 2021.

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Timmer, Marcel P., Erik Dietzenbacher, Bart Los, Robert Stehrer, and Gaaitzen J. de Vries, "An Illustrated User Guide to the World Input-Output Database: the Case of Global Automotive Production," *Review of International Economics*, 2015, *23* (3), 575–605.

United Nations, "COMTRADE," 2023.

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World Bank, "Exporter Dynamics Database," 2015.