

# Linking Export Activities to Productivity and Wage Rate Growth.

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This file explains how to replicate the analysis for the paper “Linking Export Activities to Productivity and Wage Rate Growth” by Luis Aguilar Luna and Deborah Winkler.

## Replication

### Introduction

The replication package consists of three parts: Data generation, data analysis, and Excel plots. The replication package has to be performed in the following order:

1. Data generation: Use the raw data to create the final dataset to be used for the data analysis.
2. Data analysis: Run the do-file.
3. Excel plots: Manually create charts in Excel that are not automatically produced under the data analysis part based on the relevant data outputs.

### Computational requirements

Software Requirements • Stata (used version 17)

Memory and Runtime Requirements • The code was last run on a Windows 10 laptop with 16GB of RAM and i7-1185G7 @ 3.00GHz 3.00 GHz. • All scripts take about 10 minutes to run in total.

### Instructions

There are two codes inside the folder “/Code”:

1. Data generation: The first do-file (“ReplicationMaster\_WP\_GenData.do”) generates the dataset from the publicly available raw data files
2. Data analysis: The second do-file (“ReplicationMaster\_WP\_GenData.do”) produces the analysis.

### Data generation

Open “/Code/ReplicationMaster\_WP\_GenData.do”, change line 7 to the appropriate directory, and run the code in Stata.

### Data analysis

Open “/Code/ReplicationMaster\_WP.do”, change line 9 to the appropriate directory, and run the code in Stata. This will create Figures 2 and 3 and all the tables of the paper. It will also produce the Excel files needed to create the figures that are manually produced in Excel (Figure 1, Figure 4, Figure 5, Figure 6, Figure 8, Figure 9, Figure 10, and Figure 11).

## Excel plots

“/Excel plots” contains the templates for Figure 1, Figure 4, Figure 5, Figure 6, Figure 8, Figure 9, Figure 10, and Figure 11. It uses the data in the Excel files that have been created in the data analysis part and can be found in the folders that are named after the corresponding figures. The data in the Figure folders need to be manually copied into the FigureX\_plots to produce the charts.

## Data availability statement

This section lists the sources of the raw data that have been used to construct the final dataset for the data analysis. It also provides links to the original data sources. The raw data are provided in the folder “Data”.

**Trade in Employment (TIM):** The analysis uses the 2023 release of the database Trade in Employment (TIM 2023). It includes data from 1995-2020. The data can be downloaded from [https://stats.oecd.org/Index.aspx?DataSetCode=TIM\\_2021](https://stats.oecd.org/Index.aspx?DataSetCode=TIM_2021). Each variable has to be downloaded separately by clicking on the Export’s dropdown menu and selecting “Related files” which gives access to the zip files of each available variable. The files to be downloaded (variables of interest) are: EMPN, EXGR\_ECD, ECGR\_CI, EXGR\_CER, EXGR\_DCE, ECGR\_DEM, ECGR\_EMD, ECGR\_EMI, ECGR\_EMR and LABR. The raw files for each of these variables are in “/Data/TIM2023/Raw files”.

**Trade in Value Added (TIVA):** The analysis uses the 2023 release of the database Trade in Value Added (TIVA 2023). It includes data from 1995-2020. The data can be downloaded from [https://stats.oecd.org/Index.aspx?DataSetCode=TIVA\\_2022\\_C1](https://stats.oecd.org/Index.aspx?DataSetCode=TIVA_2022_C1). Each variable has to be downloaded separately by clicking on the Export’s dropdown menu and selecting “Related files” which gives access to the zip files of each available variable. The files to be downloaded (variables of interest) are: EXGR, EXGR\_DDC and VALU. The raw files for each of these variables are in “/Data/TIVA2023/Raw files”.

**World Bank GDP and value-added data:** The sources of the data are the World Bank National Accounts data and OECD National Accounts data files. They can be accessed through the World Development Indicators section (WDI) from the WB databank webpage. The raw table of deflators for each country-year can be downloaded from <https://databank.worldbank.org/reports.aspx?source=2&Topic=6#advancedDownloadOptions>

- Country-sector deflators: Current and constant value added for four broad sectors (agriculture, industry (including manufacturing), manufacturing and services) to create country-sector level deflators. Subtracting manufacturing from industry allows to compute deflators for non-manufacturing industry. The variables selected in the series menu in the left-hand side are “Agriculture, forestry, and fishing, value added (constant 2015 US\$)”, “Agriculture, forestry, and fishing, value added (current US\$)”, “Industry (including construction), value added (constant 2015 US\$)”, “Industry (including construction), value added (current US\$)”, “Manufacturing, value added (constant 2015 US\$)”, “Manufacturing, value added (current US\$)”, “Services, value added (constant 2015 US\$)”, and “Services, value added (current US\$)”. The raw dataset can be found in “\Data\Other Data\Deflators” under the name “WDI\_VA\_deflators”.
- Country deflators: GDP constant and current values by country to create country level deflators. The variables selected in the series menu in the left-hand side are “GDP (constant 2015 US\$)” and “GDP (current US\$)”. The raw dataset can be found in “\Data\Other Data\Deflators” under the name “GDP”.

**World Bank Country and Lending Groups:** The analysis uses the historical country classification by country from <https://datacatalogfiles.worldbank.org/ddh-published/0037712/DR0090754/OGHIST.xlsx>. The relevant sheet is “Country Analytical History”. The dta version of this data can be found in “/Data/Other Data” under the name “Income”.

**Global value chain (GVC) taxonomy group by World Bank:** The analysis uses the four basic groups following the GVC taxonomy developed for the World Development Report (World Bank 2020). The classification table can be downloaded from Chapter 2 here <https://www.worldbank.org/en/publication/wdr2020/brief/world-development-report-2020-data>.