Replication Package for: The Impact of ESG Gaps on Green Exports in Bilateral Trade: A Linear and Nonlinear Analysis

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1. Overview

This README file accompanies the replication materials for the paper titled "The Impact of ESG Gaps on Green Exports in Bilateral Trade: A Linear and Nonlinear Analysis". The files provided allow for the full replication of all empirical results, including benchmark regressions, mechanism analysis, non-linear estimations, and robustness checks.

2. File Inventory

File Name	Description
benchmark.rtf	Benchmark regression results.
eps.rtf	Results for the mechanism analysis involving Environmental Policy Stringency (EPS).
GI_gap.rtf	Results for the mechanism analysis involving Green Innovation (GI).
iv.rtf	Results from instrumental variable analysis addressing endogeneity.
nonlinear.rtf	Results from the nonlinear relationship estimations.
robustness.rtf	Robustness test results.
vif.doc	Variance Inflation Factor test results.
controls.dta	Control variable dataset.
environmental_patent.dta	Dataset on green patents used to analyze Green Innovation.
esg_gexport_ex_to_im.dta	Green export and ESG score data from the exporter's perspective.
esg_gexport_im_from_ex.dta	Green export and ESG score data from the importer's perspective.
forest_rate.dta	Forest coverage dataset used for instrumental variable analysis.
oecd_eps.dta	Dataset on OECD EPS index used in mechanism analysis.
reg_data.dta	Main regression dataset including dependent, independent, and control

	variables.
code	Main Stata .do file for executing all empirical analyses.
Figure1.gph	Graphical result - Figure 1 in the article.
Figure2.gph	Graphical result - Figure 2 in the article.
Figure3.gph	Graphical result - Figure 3 in the article.
Figure4.gph	Graphical result - Figure 4 in the article.

3. Replication Instructions

To replicate the results:

1. Open Stata and set the working directory to the folder containing these files.
2. Run the `code` do-file.
3. This will load the datasets, perform regressions, generate result tables and figures.

The code is tested under Stata 17 and should be compatible with versions 15 or later.

4. Notes on Data

All data used in the study is either constructed from publicly available sources such as CEPII, WDI, and OECD, or manually compiled based on replicable criteria explained in the paper. Variable names and transformations are documented in the .do file.

5. Clarification on the Construction of g_export_rate

The variable g_export_rate represents the share of green product exports in total exports between country pairs. Its construction follows a detailed data processing procedure based on the CLEG list of green products.

In the original bilateral trade dataset, we categorized products by whether they were included in the Combined List of Environmental Goods (CLEG). For each exporter-importer-year combination, we aggregated trade flows by green and non-green products and dropped all observations where no export occurred in the given year.

We created a dummy variable greenexport_dummy to provide a more intuitive indication of whether green exports occurred in a given year for each country pair. When greenexport_dummy = 1, it indicates that green exports occurred for the country pair in that year; when greenexport_dummy = 0, it indicates that no green exports occurred, although other types of exports were present, corresponding to g_export_rate = 0. (Similarly, variable greenimport_dummy in dataset “esg_gexport_im_from_ex.dta” is the same.)

6. Contact

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