

Replication package for
Bilateral Import Demand Elasticities and Balanced Trade Protection
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Overview:

This package replicates all tables and figures presented in the paper. The reported indicators include the elasticities, the Bilateral Trade Tariff Index (BTTI) and related indexes, and the Deadweight Loss (DWL) of Tariffs based on the BTTI and the related indexes.

Structure of BTTI replication folder:

_CODE/: Stata code used to produce the output.

DATASETS/: Confidential input data files – see the datasets descriptions below.

LOG/: Log files are stored here.

Output files are stored in the main BTTI_replication folder.

Software requirements:

- StataNow/MP18.5 for Windows (64-bit x86-64)
(Tested on Windows laptop with Intel-i5 chipset)

Replication instructions:

1. Runtime for elasticity estimation: 5 days, 2 hours, 28 seconds for all seven countries on the DECTI server, or about 18 hours on average per country.

1. Open “_CODE/Prepare tables and figures.do” and update the path at the top of the file so that it points to the BTTI_replication folder on your machine.

2. Run the do-file. (It takes less than 1 minute on the Windows test computer).

The code will generate all tables and figures and save them in the BTTI_replication folder.

Datasets:

I. Elasticities

Location: DATASETS/ELASTICITIES

Detailed description: This dataset contains bilateral import demand elasticities for seven importers: the United States, European Union, Canada, China, India, Japan, and Mexico. The elasticities measure how the quantity of a product imported from a particular exporter responds to changes in its import price. Products are defined at the 6-digit level according to the 2007 Harmonized System (HS) nomenclature. The estimated elasticities are time-invariant.

Period covered: 2010–2023. The elasticities are estimated using data covering this period.

Dataset construction date: April 2026

Underlying raw sources: The elasticities are constructed using the following raw data sources:

- Tariff data from the Trade Analysis Information System (TRAINS), accessed through the World Integrated Trade Solution (WITS). These tariff data are incorporated in the tariff-trade panel described below.
- Bilateral trade data from the Centre d'Études Prospectives et d'Informations Internationales (CEPII), Base pour l'Analyse du Commerce International (BACI), version 202601.
- Macroeconomic indicators from the World Bank's World Development Indicators (WDI).

Embargo request for all underlying data and the STATA codes: Yes

Additional information on the underlying sources

1. Tariff-trade panel

Source: Neagu (mimeo)

Years: 2010-2023

Importers: United States, China, Canada, European Union, India, Japan, and Mexico

Access Date (Month-Year): April 2026

Citation: Neagu, Ileana Cristina. mimeo. "Processing Raw Tariffs into Comparable Tariff Indicators: A Methodological Note" Mimeo: World Bank [dataset]. Accessed April 2026.

Status: Embargoed until methodology released as a working paper.

Note: The tariff-trade panel is constructed using tariff data from TRAINS accessed via the World Integrated Trade Solution (WITS) between April and September 2025 and trade data from Centre d'Études Prospectives et d'Informations Internationales - Base pour l'Analyse du Commerce International (CEPII-BACI) (version 202601, accessed in February 2026).

2. Bilateral trade from the "Base pour l'Analyse du Commerce International (BACI)"

Source: Centre d'Études Prospectives et d'Informations Internationales (CEPII), Base pour l'Analyse du Commerce International (BACI), version 202601

Years: 2010-2023

Importers: United States, China, Canada, European Union, India, Japan, and Mexico

URL: https://www.cepii.fr/DATA_DOWNLOAD/baci/data/BACI_HS07_V202601.zip

Access Date (Month-Year): February 2026

Citation: [Gaulier, G. and Zignago, S. \(2010\) BACI: International Trade Database at the Product-Level. The 1994-2007 Version. CEPII Working Paper, N°2010-23.](#)

3. World Development Indicators

Source: World Bank Group

Years: 2010-2023

Countries: United States, China, Canada, European Union, India, Japan, and Mexico

Indicators: GDP (current US\$) - NY_GDP_MKTP_CD; GDP (constant 2015 US\$) - NY_GDP_MKTP_KD; GDP deflator - NY_GDP_DEFL_ZS; Gross Capital Formation (Current USD) - NE_GDI_TOTL_CD; Labor Force (Total) - Labor Force (Total);

URL: <https://data.worldbank.org/>

Access Date (Month-Year): October 2025

Citation: World Bank. (2025). World Development Indicators. Washington, DC: World Bank. Accessed

[October 2025].

II. **BTTI_USA.dta**

Location: DATASETS

Detailed description: This dataset contains the Balanced Trade Tariff Index (BTTI) and related tariff indexes for the United States. The indexes combine information on bilateral import demand elasticities and trade.

Period covered: 2023

Dataset construction date: April 2026

Underlying raw sources: BTTI_USA.dta is constructed using the bilateral import demand elasticities described in Section I and 2023 trade values from the tariff-trade panel described in point I1.

- **Elasticities used:** Elasticities for the United States, European Union, Canada, China, India, Japan, and Mexico (see Section I).
- **Tariff-trade panel used:** 2023; importers are all countries for which U.S. elasticities were computed; exporter is the United States.

Embargo request for all data and the STATA code: Yes

III. **DWL_USA.dta**

Location: DATASETS

Detailed description: This dataset contains estimates of the deadweight loss (DWL) associated with the Balanced Trade Tariff Index (BTTI) and related tariff indexes for the United States. Deadweight loss is the economic efficiency loss associated with tariffs.

Period covered: 2023

Dataset construction date: April 2026

Underlying raw sources: DWL_USA.dta is constructed using the bilateral import demand elasticities described in Section I and 2023 trade values from the tariff-trade panel described in point I1.

- **Elasticities used:** Elasticities for the United States, European Union, Canada, China, India, Japan, and Mexico (see Section I).
- **Tariff-trade panel used:** 2023; importers are all countries for which U.S. elasticities were computed; exporter is the United States.

Embargo request for all data and the STATA code: Yes