

## Description of RHTVL Trade, Tariffs and Production data set

[Data in zipped in `data_final_RHTVL_NBER2020.zip`]

When using this database, a reference should be made to *Reyes-Heroles et al. (2020)*

The data set consists of two parts. The first and main part of the data set consists of data disaggregated at the industry level for a particular classification. The second part of the data set considers data at the good level according to the Broad Economic Categories (BEC) classification.

# 1 Bilateral trade flows, tariffs, and production - Industry classification

- **Frequency and time span:** Annual data 1996-2018 (unbalanced panel, input-output tables only provided for 2014)
- **Number of countries:** 31
  - 30 core countries and a rest of the world aggregate (ROW)
  - Countries considered are shown in Table 1.

Table 1: Countries

	Name	Code		Name	Code		Name	Code
1	Argentina	ARG	12	France	FRA	23	Netherlands	NLD
2	Australia	AUS	13	United Kingdom	ITA	24	Norway	NOR
3	Austria	AUT	14	Greece	GRC	25	New Zealand	NZL
4	Brazil	BRA	15	Hungary	HUN	26	Portugal	PRT
5	Canada	CAN	16	Indonesia	IDN	27	Sweden	SWE
6	Chile	CHL	17	India	IND	28	Turkey	TUR
7	China	CHN	18	Ireland	IRL	29	United States	USA
8	Germany	DEU	19	Italy	ITA	30	South Africa	ZAF
9	Denmark	DNK	20	Japan	JPN	31	Rest of World	ROW
10	Spain	ESP	21	Korea	KOR			
11	Finland	FIN	22	Mexico	MEX			

- **Number of sectors:** 40
  - 20 tradable sectors and 20 nontradable sectors
  - Sectors are shown in Table 2 and follow the classification in *Caliendo and Parro (2015)*. Table A.1 in *Caliendo and Parro (2015)* provides the mapping from the International Standard Industrial Classification (ISIC) Revision 3 to the sectoral split we consider.

Table 2: Sectors

Tradable				Non-Tradable			
1	Agriculture	11	Basic metals	21	Electricity	31	Real estate
2	Mining	12	Metal products	22	Construction	32	Renting machinery
3	Food	13	Machinery nec	23	Retail	33	Computer
4	Textile	14	Office	24	Hotels	34	R&D
5	Wood	15	Electrical	25	Land transport	35	Other business
6	Paper	16	Communication	26	Water transport	36	Public
7	Petroleum	17	Medical	27	Air transport	37	Education
8	Chemicals	18	Auto	28	Aux transport	38	Health
9	Plastic	19	Other transport	29	Post	39	Other services
10	Minerals	20	Other	30	Finance	40	Private

## 1.1 Bilateral trade flows and ad-valorem tariffs (20 tradable sectors)

- These data are provided in the `.dta` files in the folder named `trade_isic_and_tariffs`:
  - `imports_1996_2018.dta` contains bilateral imports (c.i.f.) in thousands of \$US, which are summed to the sectoral level and
  - `weighted_tariffs_1996_2018.dta` contains bilateral ad valorem tariffs in percents, which are aggregated from HS-6 product levels to the sector level using bilateral import weights within each sector.
  - Variable `reporter_id` denotes the importer and `partner_id` the exporter.

## 1.2 Production

- These data are provided in the file `rhtv1_output.dta`.
- Variables:
  - `gross_output`: Gross output in millions of current \$US
  - `value_added`: Value added in millions of current \$US
  - `persons_engaged`: Persons engaged in thousands
  - `labor_compensation`: Labor compensation in millions of current \$US
  - `capital_compensation`: Capital compensation in millions of current \$US
  - `labor_share_hs`: High-skilled labour compensation (share in total labor compensation)
  - `labor_share_ms`: Medium-skilled labour compensation (share in total labor compensation)
  - `labor_share_ls`: Low-skilled labour compensation (share in total labor compensation)
  - `hours_share_hs`: Hours worked by high-skilled persons engaged (share in total hours)
  - `hours_share_ms`: Hours worked by medium-skilled persons engaged (share in total hours)
  - `hours_share_ls`: Hours worked by low-skilled persons engaged (share in total hours)

- `cexp`: Consumption expenditure (share of total consumption expenditure)
- `xexp`: Investment expenditure (share of total investment expenditure)
- `capital_stock`: Capital stock in millions of 2011 \$US

## 2 Input-output tables

- **Frequency and time span:** Input-output (IO) are only provided for the year 2014.
- **Number of countries and sectors:** 31 countries in Table 1 and 40 sectors in Table 2.
- IO-tables are provided for each country in file `io_tables.csv`.
- For a given country, let  $\mathbb{M}$  denote its corresponding IO-table. Then,  $\mathbb{M}$  is a  $40 \times 40$  matrix with entry  $(i, j)$  denoting the share of total expenditure on intermediate inputs by industry  $j$  on intermediate inputs from industry  $i$  (independently of industry  $i$ 's good country of origin).

## 3 Bilateral trade flows - BEC classification

The second part of the data set provides data on bilateral trade flows according to a classification of goods rather than industries—the Broad Economic Categories (BEC) classification—and for a larger sample of countries. In addition, it provides data on nominal GDP.

- **Frequency and time span:** Annual data 1996-2016 (balanced panel)
- **Number of countries:** 56 and one rest of the world aggregate (ROW)
  - Argentina, Australia, Austria, Belgium, Bulgaria, Brazil, Canada, China, Chile, Colombia, Croatia, Cyprus, Czech Republic, Denmark, Spain, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Japan, Lithuania, Latvia, Luxembourg, Malta, Mexico, Malaysia, Netherlands, Norway, New Zealand, Peru, Philippines, Poland, Portugal, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Sweden, Switzerland, Taiwan, Thailand, Turkey, the United Kingdom, the United States, and ROW.
  - 56 countries represent 91% of world trade and 91% of world GDP.
- **BEC goods classification:**
  1. Intermediate goods
    - 121–Food and beverages, processed, mainly for industry
    - 21–Industrial supplies not elsewhere specified, primary
    - 22–Industrial supplies not elsewhere specified, processed
    - 322–Fuels and lubricants, processed (other than motor spirit)
    - 42–Parts and accessories of capital goods (except transport equipment)
    - 53–Parts and accessories of transport equipment

2. Commodities (excluding oil)
  - 111–Food and beverages, primary, mainly for industry
  - 112–Food and beverages, primary, mainly for household consumption
3. Capital goods
  - 41–Capital goods (except transport equipment)
  - 521–Transport equipment, industrial
4. Other
  - 122–Food and beverages, processed, mainly for household consumption
  - 31–Fuels and lubricants, primary
  - 321–Fuels and lubricants, processed (motor spirit)
  - 51–Passenger motor cars
  - 521–Transport equipment, industrial
  - 522–Transport equipment, non-industrial
  - 61–Consumer goods not elsewhere specified, durable
  - 62–Consumer goods not elsewhere specified, semi-durable
  - 63–Consumer goods not elsewhere specified, non-durable
  - 7–Goods not elsewhere specified

- Data are provided in the file `trade_bec.dta` including variables:
  - `reporteriso3`: Importer country
  - `tradevalueintnUSD`: Imports in thousands of current \$US
  - `reportergdpintnUSD`: Importer GDP in thousands of current \$US

## References

**Caliendo, Lorenzo and Fernando Parro**, “Estimates of the Trade and Welfare Effects of NAFTA,” *The Review of Economic Studies*, 2015, 82 (1), 1–44.

**Reyes-Heroles, Ricardo, Sharon Traiberman, and Eva Van Leemput**, “Emerging Markets and the New Geography of Trade: The Effects of Rising Trade Barriers,” *IMF Economic Review*, 2020. forthcoming.