

Package ‘tradestatistics’

July 21, 2026

Type Package

Title Open Trade Statistics API Wrapper and Utility Program

Version 7.1.0

Description Access 'Open Trade Statistics' API from R to download international trade data.

License Apache License (>= 2)

URL <https://docs.ropensci.org/tradestatistics/>

BugReports <https://github.com/ropensci/tradestatistics/issues/>

Depends R (>= 2.10)

Imports crul, data.table, digest, jsonlite, memoise

Suggests covr, knitr, rmarkdown, testthat (>= 2.1.0), tibble, vcr

VignetteBuilder knitr

Encoding UTF-8

LazyData TRUE

Config/roxygen2/version 8.0.0

NeedsCompilation no

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Emma Mendelsohn [ctb] (updated the functions to take available years from the API instead of hardcoded values),

Daniela de los Santos [ctb] (proposed improvements to default parameters),

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Amanda Dobbyn [rev] (reviewed a previous package that evolved into the current package for rOpenSci, see

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Repository CRAN

Date/Publication 2026-07-21 12:20:02 UTC

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ots_countries	<i>OTS Countries</i>
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Description

Official country names, ISO-3 codes, continent and EU membership.

Usage

ots_countries

Format

A data frame with 308 observations on the following 5 variables

country Official name (e.g. United Kingdom)

iso3 ISO-3 code (e.g. "GBR")

dynamic_code Deambiguated ISO-3 code (e.g. "DEU.X" for East Germany)

continent Corresponding continent (e.g., Europe)

colour Assigned colour by continen (e.g., '#d1a1bc')

Source

Derived from USITC

ots_country_code	<i>String matching of official country names and ISO-3 codes according to the United Nations nomenclature</i>
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Description

Takes a text string and searches within the package data for a country code in the context of valid API country codes.

Usage

```
ots_country_code(countryname = NULL)
```

Arguments

countryname A text string such as "Chile", "CHILE" or "CHL".

Value

A single character if there is a exact match (e.g. `ots_country_code("Chile")`) or a tibble in case of multiple matches (e.g. `ots_country_code("Germany")`)

Examples

```
ots_country_code("Chile ")
ots_country_code("america")
ots_country_code("UNITED STATES")
ots_country_code(" united_")
```

ots_create_tidy_data	<i>Downloads and processes the data from the API to return a human-readable tibble</i>
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Description

Accesses `api.tradestatistics.io` and performs different API calls to transform and return tidy data.

Usage

```
ots_create_tidy_data(
  years = 2020,
  importers = "all",
  exporters = "all",
  sectors = "all",
  industries = "all",
```

```

    table = "itpde_imp",
    max_attempts = 5,
    use_cache = FALSE,
    file = NULL
  )

```

Arguments

years	Year contained within the years specified in <code>api.tradestatistics.io/year_range</code> (e.g., 2002 or <code>seq(2002, 2010, 2)</code>). Default set to 2019.
importers	Importers (e.g. "chl", "Chile" or <code>c("chl", "Peru")</code>). Default set to "all".
exporters	Exporters (e.g. "chl", "Chile" or <code>c("chl", "Peru")</code>). Default set to "all".
sectors	Sectors (e.g. "Agriculture", 1 or search matches for "agri") to filter sectors. Default set to "all".
industries	Industries (e.g. "Cereal products", 5 or search matches for "cereal") to filter industries. Default set to "all".
table	Character string to select the table to obtain the data. Default set to <code>itpde_imp</code> (aggregate trade by importer-year). Run <code>ots_tables</code> in case of doubt.
max_attempts	How many times to try to download data in case the API or the internet connection fails when obtaining data. Default set to 5.
use_cache	Logical to save and load from cache. If TRUE, the results will be cached in memory if file is NULL or on disk if 'file' is not NULL. Default set to FALSE.
file	Optional character with the full file path to save the data. Default set to NULL.

Value

A tibble that describes bilateral trade metrics (imports, exports, trade balance and relevant metrics such as exports growth w/r to last year) between a reporter and partner country.

Examples

```

## Not run:
# The next examples can take more than 5 seconds to compute,
# so these are just shown without evaluation according to CRAN rules

# Run `ots_countries` to display the full table of countries
# Run `ots_sectors` to display the full table of sectors

# Agricultural trade (sector)
ots_create_tidy_data(years = 2020, sectors = "Agriculture",
  table = "itpde_sec")

# Cereal products trade (industry-importer)
ots_create_tidy_data(years = 2020, importers = "chl",
  industries = "Cereal products", table = "itpde_imp_ind")

# Aggregate trade (bilateral)
ots_create_tidy_data(years = 2020, importers = "chl",

```

```
exporters = c("arg", "bra"), table = "itpde_imp_exp")

## End(Not run)
```

ots_industries	<i>OTS Industries</i>
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Description

Industry IDs.

Usage

```
ots_industries
```

Format

A data frame with 170 observations on the following 2 variables

industry_descr Industry name (e.g. 'Wheat')

industry_id Industry code (e.g. '1')

Source

Derived from USITC

ots_industry_code	<i>String matching of industry names and IDs</i>
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Description

Takes a text string and searches within the package data for all matching industry IDs in the context of valid API industry codes.

Usage

```
ots_industry_code(industry = NULL)
```

Arguments

industry A text string such as "Wheat", "CEREAL" or "oilseed".

Value

A data frame with all possible matches (no uppercase distinction) showing the industry name and industry ID.

Examples

```
ots_industry_code("Wheat")
ots_industry_code("cereal")
```

ots_sectors	<i>OTS Sectors</i>
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Description

Broad sector IDs.

Usage

```
ots_sectors
```

Format

A data frame with 4 observations on the following 2 variables

- broad_sector Sector name (e.g. 'Agriculture')
- broad_sector_id Sector code (e.g. '1')
- colour Sector colour (e.g., '#74c0e2')

Source

Derived from USITC

ots_sector_code	<i>String matching of broad sector names and IDs</i>
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Description

Takes a text string and searches within the package data for all matching sector IDs in the context of valid API sector codes.

Usage

```
ots_sector_code(sector = NULL)
```

Arguments

- sector A text string such as "Agriculture", "MINING" or "serv".

Value

A data frame with all possible matches (no uppercase distinction) showing the sector name and sector ID.

Examples

```
ots_sector_code("Agriculture")
ots_sector_code("mining")
```

ots_tables	<i>OTS Tables</i>
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Description

Existing API tables with both description and source.

Usage

```
ots_tables
```

Format

A data frame with 30 rows and 3 variables

table Table name

description Description of table contents

source Source for the data

Source

Derived from USITC

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