Package ‘concordance’

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Title Product Concordance
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Description A set of utilities for matching products in different
classification codes used in international trade
research. It supports concordance between the Harmonized
System (HS0, HS1, HS2, HS3, HS4, HS5, HS combined), the Standard
International Trade Classification (SITC1, SITC2, SITC3, SITC4),
the North American Industry Classification System (NAICS combined),
as well as the Broad Economic Categories (BEC), the International
Standard of Industrial Classification (ISIC), and the Standard Industrial
Classification (SIC). It also provides code nomenclature/descriptions
look-up, Rauch classification look-up (via concordance to SITC2), and
trade elasticity look-up (via concordance to HS0 or SITC3
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bec_desc  

**BEC Description**

**Description**

A dataset containing the description of products under the BEC classification.

**Usage**

`bec_desc`

**Format**

A data frame with 29 rows and 2 variables:

- **code**: BEC Code
- **desc**: BEC Description

**Source**

https://comtrade.un.org/data/cache/classificationBEC.json

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concord  

**Concording Different Classification Codes**

**Description**

Concords different classification codes used in international trade.

**Usage**

`concord(sourcevar, origin, destination, dest.digit = 4, all = FALSE)`

**Arguments**

- **sourcevar**: An input character vector of industry/product codes to be converted.
dest.digit: An integer indicating the preferred number of digits for outputs. The default is 4 digits.

all: Either TRUE or FALSE. If TRUE, the function will return (1) all matched outputs for each input, and (2) the share of occurrences for each matched output among all matched outputs. Users can use the shares as weights for more precise concordances. If FALSE, the function will only return the matched output with the largest share of occurrences (the mode match). If the mode consists of multiple matches, the function will return the first matched output.

Value
The matched output(s) for each element of the input vector. Either a list object when all = TRUE or a character vector when all = FALSE.

Note
Always include leading zeros in codes (e.g. use HS code 010110 instead of 10110)—results may be buggy otherwise.

Source
Data consolidated from
- Pierce and Schott (2009, 2018) <https://faculty.som.yale.edu/peterschott/international-trade-data/> 

Examples

# HS to NAICS
concord(sourcevar = c("120600", "854690"),
origin = "HS", destination = "NAICS",
dest.digit = 6, all = TRUE)
concord(sourcevar = c("120600", "854690"),
origin = "HS", destination = "NAICS",
dest.digit = 6, all = FALSE)

# NAICS to HS
concord(sourcevar = c("111120", "326199"),
origin = "NAICS", destination = "HS",
dest.digit = 6, all = TRUE)

# HS to SITC4
concord(sourcevar = c("120600", "854690"),
origin = "HS", destination = "SITC4",
dest.digit = 5, all = TRUE)

# SITC4 to HS
concord(sourcevar = c("22240", "77324"),
origin = "SITC4", destination = "HS",
dest.digit = 6, all = TRUE)

# SITC4 to NAICS
concord(sourcevar = c("22240", "77324"),
origin = "SITC4", destination = "NAICS",
dest.digit = 6, all = TRUE)

# NAICS to SITC4
concord(sourcevar = c("111120", "326199"),
origin = "NAICS", destination = "SITC4",
dest.digit = 5, all = TRUE)

**concord_hs**

Concord Within HS Codes

**Description**
Concords codes within the Harmonized System classification (HS0, HS1, HS2, HS3, HS4, HS5).

**Usage**
concord_hs(sourcevar, origin, destination, dest.digit = 4, all = FALSE)

**Arguments**

- **sourcevar**: An input character vector of HS codes. The function accepts 2, 4, 6-digit HS codes.
- **origin**: A string setting the input industry classification: "HS0" (1988/92), "HS1" (1996), "HS2" (2002), "HS3" (2007), "HS4" (2012), and "HS5" (2017).
- **destination**: A string setting the output industry classification: "HS0" (1988/92), "HS1" (1996), "HS2" (2002), "HS3" (2007), "HS4" (2012), and "HS5" (2017).
- **dest.digit**: An integer indicating the preferred number of digits for output codes. Allows 2, 4, or 6-digit HS codes. The default is 4 digits.
- **all**: Either TRUE or FALSE. If TRUE, the function will return (1) all matched outputs for each input, and (2) the share of occurrences for each matched output among all matched outputs. Users can use the shares as weights for more precise concordances. If FALSE, the function will only return the matched output with the largest share of occurrences (the mode match). If the mode consists of multiple matches, the function will return the first matched output.

**Value**
The matched output(s) for each element of the input vector. Either a list object when all = TRUE or a character vector when all = FALSE.
Note

Always include leading zeros in codes (e.g. use HS code 010110 instead of 10110)—results may be buggy otherwise.

Source

Concordance tables provided by:


Examples

# HS5 to HS4
concord(sourcevar = c("1206", "8546"),
    origin = "HS5", destination = "HS4",
    dest.digit = 4, all = TRUE)

# HS0 to HS5
concord(sourcevar = c("010111", "382390"),
    origin = "HS0", destination = "HS5",
    dest.digit = 6, all = TRUE)

**concord_hs_naics**

*Converting HS and NAICS Codes*

Description

Concords Harmonized System codes (HS0, HS1, HS2, HS3, HS4, HS5, HS combined) to and from North American Industry Classification System codes (NAICS combined).

Usage

concord_hs_naics(sourcevar, origin, destination, dest.digit = 6, all = FALSE)

Arguments

- **sourcevar**
  - An input character vector of HS or NAICS codes. The function accepts 2, 4, 6-digit codes for HS and NAICS.

- **origin**
  - A string setting the input industry classification: "HS" (combined), "HS0" (1988/92), "HS1" (1996), "HS2" (2002), "HS3" (2007), "HS4" (2012), "HS5" (2017), "NAICS" (combined).

- **destination**
  - A string setting the output industry classification: "HS" (combined), "HS0" (1988/92), "HS1" (1996), "HS2" (2002), "HS3" (2007), "HS4" (2012), "HS5" (2017), "NAICS" (combined).

- **dest.digit**
  - An integer indicating the preferred number of digits for output codes. Allows 2, 4, or 6 digits for HS and NAICS. The default is 6 digits.
Either TRUE or FALSE. If TRUE, the function will return (1) all matched outputs for each input, and (2) the share of occurrences for each matched output among all matched outputs. Users can use the shares as weights for more precise concordances. If FALSE, the function will only return the matched output with the largest share of occurrences (the mode match). If the mode consists of multiple matches, the function will return the first matched output.

Value

The matched output(s) for each element of the input vector. Either a list object when all = TRUE or a character vector when all = FALSE.

Note

Always include leading zeros in codes (e.g. use HS code 010110 instead of 10110)—results may be buggy otherwise.

Source


Examples

```r
# HS combined to NAICS
# one input: one-to-one match
concord_hs_naics(sourcevar = "120600", origin = "HS", destination = "NAICS", all = FALSE)
concord_hs_naics(sourcevar = "120600", origin = "HS", destination = "NAICS", all = TRUE)

# two inputs: multiple-to-one match
concord_hs_naics(sourcevar = c("120600", "120400"), origin = "HS", destination = "NAICS", all = FALSE)
concord_hs_naics(sourcevar = c("120600", "120400"), origin = "HS", destination = "NAICS", all = TRUE)

# two inputs: repeated
concord_hs_naics(sourcevar = c("120600", "120600"), origin = "HS", destination = "NAICS", all = FALSE)

# one to multiple matches
concord_hs_naics(sourcevar = c("120600", "854690"), origin = "HS", destination = "NAICS", all = TRUE)

# if no match, will return NA and give warning message
```
Converting HS and SITC Codes

Description

Concords Harmonized System codes (HS0, HS1, HS2, HS3, HS4, HS5, HS combined) to and from Standard International Trade Classification codes (SITC Revision 1, 2, 3, 4).

Usage

```r
concord_hs_sitc(sourcevar, origin, destination, dest.digit = 4, all = FALSE)
```

Arguments

- `sourcevar`: An input character vector of HS or SITC codes. The function accepts 2, 4, 6-digit codes for HS and 1 to 5-digit codes for SITC.


dest.digit An integer indicating the preferred number of digits for output codes. Allows 2, 4, or 6 digits for HS codes and 1 to 5 digits for SITC codes. The default is 4 digits.

all Either TRUE or FALSE. If TRUE, the function will return (1) all matched outputs for each input, and (2) the share of occurrences for each matched output among all matched outputs. Users can use the shares as weights for more precise concordances. If FALSE, the function will only return the matched output with the largest share of occurrences (the mode match). If the mode consists of multiple matches, the function will return the first matched output.

Value The matched output(s) for each element of the input vector. Either a list object when all = TRUE or a character vector when all = FALSE.

Note Always include leading zeros in codes (e.g. use HS code 010110 instead of 10110)—results may be buggy otherwise.

Source Concordance tables provided by:


Examples

```r
## HS combined to SITC4
# one input: one-to-one match
concord_hs_sitc(sourcevar = "120600",
               origin = "HS", destination = "SITC4",
               dest.digit = 5, all = FALSE)

concord_hs_sitc(sourcevar = "120600",
               origin = "HS", destination = "SITC4",
               dest.digit = 5, all = TRUE)

# two inputs: multiple-to-one match
concord_hs_sitc(sourcevar = c("010110", "010119"),
               origin = "HS", destination = "SITC4",
               dest.digit = 5, all = FALSE)
```
concord_hs_sitc(sourcevar = c("010110", "010119"),
    origin = "HS", destination = "SITC4",
    dest.digit = 5, all = TRUE)

# two inputs: repeated
concord_hs_sitc(sourcevar = c("120600", "120600"),
    origin = "HS", destination = "SITC4",
    dest.digit = 5, all = FALSE)

# one to multiple matches
concord_hs_sitc(sourcevar = c("1206", "1001"),
    origin = "HS", destination = "SITC4",
    dest.digit = 5, all = TRUE)

# if no match, will return NA and give warning message
concord_hs_sitc(sourcevar = c("120000", "120610"),
    origin = "HS", destination = "SITC4",
    dest.digit = 5, all = FALSE)

# 4-digit inputs, 5-digit outputs
concord_hs_sitc(sourcevar = c("1206", "8546"),
    origin = "HS", destination = "SITC4",
    dest.digit = 5, all = TRUE)

# 6-digit inputs, 3-digit outputs
concord_hs_sitc(sourcevar = c("120600", "854610"),
    origin = "HS", destination = "SITC4",
    dest.digit = 3, all = TRUE)

## SITC4 to HS combined
concord_hs_sitc(sourcevar = c("22240", "77322"),
    origin = "SITC4", destination = "HS",
    dest.digit = 6, all = FALSE)

---

**concord_sitc**  
**Concord Within SITC Codes**

**Description**

Concords codes within the Standard International Trade Classification classification (SITC Revision 1, 2, 3, 4).

**Usage**

concord_sitc(sourcevar, origin, destination, dest.digit = 4, all = FALSE)
Arguments

sourcevar  An input character vector of SITC codes. The function accepts 1 to 5-digit SITC codes.


dest.digit  An integer indicating the preferred number of digits for output codes. Allows 1 to 5-digit SITC codes. The default is 4 digits.

all  Either TRUE or FALSE. If TRUE, the function will return (1) all matched outputs for each input, and (2) the share of occurrences for each matched output among all matched outputs. Users can use the shares as weights for more precise concordances. If FALSE, the function will only return the matched output with the largest share of occurrences (the mode match). If the mode consists of multiple matches, the function will return the first matched output.

Value

The matched output(s) for each element of the input vector. Either a list object when all = TRUE or a character vector when all = FALSE.

Note

Always include leading zeros in codes (e.g. use SITC code 01211 instead of 1211)—results may be buggy otherwise.

Source

Concordance tables provided by:


Examples

# SITC4 to SITC3
concord_sitc(sourcevar = c("22240", "04110"), origin = "SITC4",
             destination = "SITC3", dest.digit = 5, all = TRUE)

# SITC1 to SITC4
concord_sitc(sourcevar = c("22180", "04100"), origin = "SITC1",
             destination = "SITC4", dest.digit = 5, all = TRUE)
Converting SITC and NAICS Codes

Description

Concords Standard International Trade Classification classification codes (SITC Revision 1, 2, 3, 4) to and from North American Industry Classification System codes (NAICS combined).

Usage

concord_sitc_naics(sourcevar, origin, destination, dest.digit = 4, all = FALSE)

Arguments

sourcevar: An input character vector of SITC or NAICS codes. The function accepts 1 to 5-digit codes for SITC and 2, 4, 6-digit codes for NAICS.


dest.digit: An integer indicating the preferred number of digits for output codes. Allows 1 to 5-digit codes for SITC and 2, 4, 6-digit codes for NAICS. The default is 4 digits.

all: Either TRUE or FALSE. If TRUE, the function will return (1) all matched outputs for each input, and (2) the share of occurrences for each matched output among all matched outputs. Users can use the shares as weights for more precise concordances. If FALSE, the function will only return the matched output with the largest share of occurrences (the mode match). If the mode consists of multiple matches, the function will return the first matched output.

Value

The matched output(s) for each element of the input vector. Either a list object when all = TRUE or a character vector when all = FALSE.

Note

Always include leading zeros in codes (e.g. use SITC code 01211 instead of 1211)—results may be buggy otherwise.

Source

SITC-NAICS concordances are mapped through HS (combined):

• HS-NAICS concordance tables are from Pierce and Schott (2009, 2018) <https://faculty.som.yale.edu/peterschott/international-trade-data/>.

Examples

```r
## SITC4 to NAICS
# one input: one-to-one match
concord_sitc_naics(sourcevar = "22240",
                   origin = "SITC4", destination = "NAICS",
                   dest.digit = 6, all = FALSE)
concord_sitc_naics(sourcevar = "22240",
                   origin = "SITC4", destination = "NAICS",
                   dest.digit = 6, all = TRUE)

# two inputs: multiple-to-one match
concord_sitc_naics(sourcevar = c("22240", "04110"),
                   origin = "SITC4", destination = "NAICS",
                   dest.digit = 6, all = FALSE)
concord_sitc_naics(sourcevar = c("22240", "04110"),
                   origin = "SITC4", destination = "NAICS",
                   dest.digit = 6, all = TRUE)

# two inputs: repeated
concord_sitc_naics(sourcevar = c("22240", "22240"),
                   origin = "SITC4", destination = "NAICS",
                   dest.digit = 6, all = FALSE)

# one to multiple matches
concord_sitc_naics(sourcevar = c("22240", "00190"),
                   origin = "SITC4", destination = "NAICS",
                   dest.digit = 6, all = TRUE)

# if no match, will return NA and give warning message
concord_sitc_naics(sourcevar = c("22240", "00160"),
                   origin = "SITC4", destination = "NAICS",
                   dest.digit = 6, all = FALSE)

# 4-digit inputs
concord_sitc_naics(sourcevar = c("2224", "0019"),
                   origin = "SITC4", destination = "NAICS",
                   dest.digit = 6, all = TRUE)

# 4-digit outputs
concord_sitc_naics(sourcevar = c("22240", "00190"),
                   origin = "SITC4", destination = "NAICS",
                   dest.digit = 6, all = TRUE)

## NAICS to SITC4
concord_sitc_naics(sourcevar = c("111120", "326199"),
                   origin = "NAICS", destination = "SITC4",
                   dest.digit = 4, all = TRUE)
```
get_desc

Looking Up Product Description

Description

Returns the description of product codes.

Usage

get_desc(sourcevar, origin)

Arguments

- sourcevar: A character vector of input codes.

Value

A character vector giving the title/description of each element of the input codes.

Note

Always include leading zeroes in codes (e.g. use HS code 010110 instead of 10110)—results may be buggy otherwise.

Source

Data consolidated from

- The U.S. Census Bureau <https://www.census.gov/>
- UN Comtrade <https://comtrade.un.org/>

Examples

# HS
get_desc(sourcevar = c("120600", "854690"), origin = "HS")

# Returns NA when no concordances exist and gives warning message
get_desc(sourcevar = c("120600", "120601", "854690"), origin = "HS")

# HS0
get_desc(sourcevar = c("120600", "854690"), origin = "HS0")
# HS1
get_desc(sourcevar = c("120600", "854690"), origin = "HS1")

# HS2
get_desc(sourcevar = c("120600", "854690"), origin = "HS2")

# HS3
get_desc(sourcevar = c("120600", "854690"), origin = "HS3")

# HS4
get_desc(sourcevar = c("120600", "854690"), origin = "HS4")

# HS5
get_desc(sourcevar = c("120600", "854690"), origin = "HS5")

# NAICS 2002
get_desc(sourcevar = c("111120", "326199"), origin = "NAICS2002")

# NAICS 2007
get_desc(sourcevar = c("111120", "326199"), origin = "NAICS2007")

# NAICS 2012
get_desc(sourcevar = c("111120", "326199"), origin = "NAICS2012")

# NAICS 2017
get_desc(sourcevar = c("111120", "326199"), origin = "NAICS2017")

# ISIC2
get_desc(sourcevar = c("3114", "3831"), origin = "ISIC2")

# ISIC3
get_desc(sourcevar = c("1512", "3110"), origin = "ISIC3")

# ISIC4
get_desc(sourcevar = c("1512", "3110"), origin = "ISIC4")

# SITC1
get_desc(sourcevar = c("4216", "7232"), origin = "SITC1")

# SITC2
get_desc(sourcevar = c("4236", "7732"), origin = "SITC2")

# SITC3
get_desc(sourcevar = c("4221", "7732"), origin = "SITC3")

# SITC4
get_desc(sourcevar = c("4221", "7732"), origin = "SITC4")

# BEC
get_desc(sourcevar = c("001", "111"), origin = "BEC")
get_proddiff

Looking Up Product Differentiation

Description
Returns Rauch's classification of product differentiation. Rauch classifies 4-digit SITC2 codes according to three possible types: differentiated products ("n"), reference priced ("r"), and homogeneous goods traded on an organized exchange ("w").

Usage
get_proddiff(sourcevar, origin, setting = "CON", prop = "")

Arguments
- sourcevar: An input character vector of industry/product codes.
- setting: Choose "CON" (conservative, default) or "LIB" (liberal) classification.
- prop: Can be set to "n", "r", or "w", in which case the function will return, respectively, the proportion of type "n", "r", or "w" in the resulting vector of Rauch indices. If prop is not set to any of these, then the function returns, for each input code, a dataframe that summarizes all the frequencies and proportions of type "w", "r", and "n".

Value
Concords each element of the input vector to 4-digit SITC2 codes, then uses the corresponding codes as input to extract Rauch product differentiation indices.

Note
Always include leading zeros in codes (e.g. use HS code 010110 instead of 10110)—results may be buggy otherwise.

Source
Data from Jon Haveman’s International Trade Data page <http://www.macalester.edu/research/economics/PAGE/HAVEMAN/Trade.Resources/TradeData.html#Rauch>.

References
Examples

# SITC2 input
get_proddiff(sourcevar = c("22240", "04110"), origin = "SITC2", setting = "CON", prop = "")
get_proddiff(sourcevar = c("22240", "04110"), origin = "SITC2", setting = "CON", prop = "r")
get_proddiff(sourcevar = c("22240", "04110"), origin = "SITC2", setting = "CON", prop = "w")
get_proddiff(sourcevar = c("22240", "04110"), origin = "SITC2", setting = "CON", prop = "n")
get_proddiff(sourcevar = c("22240", "04110"), origin = "SITC2", setting = "LIB", prop = "")

# SITC3 input
get_proddiff(sourcevar = c("22240", "04110"), origin = "SITC3", setting = "CON", prop = "")

# SITC4 input
get_proddiff(sourcevar = c("22240", "04110"), origin = "SITC4", setting = "CON", prop = "")

# HS input
get_proddiff(sourcevar = c("1206", "1001", "8546"), origin = "HS", setting = "CON", prop = "")

# NAICS input
get_proddiff(sourcevar = c("111120", "326199"), origin = "NAICS", setting = "CON", prop = "")

Description

Returns product-level import demand elasticities based on 3-digit HS0 estimates from Broda and Weinstein (QJE, 2006) for 73 countries.

Usage

get_sigma(
  sourcevar,
  origin,
  country = "USA",
  use_SITC = FALSE,
  give_avg = TRUE
)

Arguments

sourcevar An input character vector of industry/product codes.
origin A string setting the input coding scheme. Supports the following classifications: "HS0" (1988/92), "HS1" (1996), "HS2" (2002), "HS3" (2007), "HS4" (2012), "HS5" (2017), "HS" (combined), "SITC1" (1950), "SITC2" (1974), "SITC3" (1985), "SITC4" (2006), and "NAICS" (combined).
get_sigma

country  A string setting the ISO 3-letter country code for which to return import demand elasticities (default = "USA"). For a list of available countries, load the package and type "unique(sigma_hs0_3d$iso3c)".

use_SITC  Set to FALSE by default. Set to TRUE if you wish to look up elasticities via 5-digit SITC3 codes instead. Only available for the United States.

give_avg  Set to FALSE if you wish to obtain the full vector of elasticities for all matching codes of each element in the input vector. When set to TRUE (as by default) each output element will be a simple average of all elasticities (of matched codes) in the corresponding vector.

Value

Concords vector of input codes to 3-digit HS0 codes and then extracts the corresponding product-level import demand elasticities in the country selected by the user. For the United States (only), Broda and Weinstein (2006) have also estimated elasticities based on more fine-grained 5-digit SITC3 codes. Set use_SITC to TRUE to obtain elasticities in the United States via this method.

Note

Always include leading zeros in codes (e.g. use HS code 010110 instead of 10110)—results may be buggy otherwise.

Source

Data from David E. Weinstein’s webpage <http://www.columbia.edu/~dew35/TradeElasticities/TradeElasticities.html>.

References


Examples

# South Korea, SITC4 input
get_sigma(sourcevar = c("21170", "69978", "21170"), origin = "SITC4", country = "KOR", use_SITC = FALSE, give_avg = TRUE)

get_sigma(sourcevar = c("21170", "69978", "21170"), origin = "SITC4", country = "KOR", use_SITC = FALSE, give_avg = FALSE)

# United States, HS5 input, SITC3 estimates
get_sigma(sourcevar = c("0101", "0207", "0101"), origin = "HS5", country = "USA", use_SITC = TRUE, give_avg = FALSE)

get_sigma(sourcevar = c("0101", "0207", "0101"), origin = "HS5", country = "USA", use_SITC = TRUE, give_avg = TRUE)
hs0_desc  

**Description**

A dataset containing the description of products under the HS0 classification.

**Usage**

hs0_desc

**Format**

A data frame with 6380 rows and 2 variables:

- **code**  HS0 Code
- **desc**  HS0 Description

**Source**

[https://comtrade.un.org/data/cache/classificationH0.json](https://comtrade.un.org/data/cache/classificationH0.json)

---

hs0_naics  

**Description**

A dataset containing concordances between HS0 and NAICS (combined) classification.

**Usage**

hs0_naics

**Format**

A data frame with 8058 rows and 6 variables:

- **HS0_6d**  6-digit HS0 Code
- **HS0_4d**  4-digit HS0 Code
- **HS0_2d**  2-digit HS0 Code
- **NAICS_6d**  6-digit NAICS Code
- **NAICS_4d**  4-digit NAICS Code
- **NAICS_2d**  2-digit NAICS Code

**Source**

hs0_sitc1

**HS0-SITC1 Concordance**

**Description**
A dataset containing concordances between HS0 and SITC1 classification.

**Usage**

hs0_sitc1

**Format**
A data frame with 512 rows and 8 variables:

- **HS0_6d** 6-digit HS0 Code
- **HS0_4d** 4-digit HS0 Code
- **HS0_2d** 2-digit HS0 Code
- **SITC1_5d** 5-digit SITC1 Code
- **SITC1_4d** 4-digit SITC1 Code
- **SITC1_3d** 3-digit SITC1 Code
- **SITC1_2d** 2-digit SITC1 Code
- **SITC1_1d** 1-digit SITC1 Code

**Source**

hs0_sitc2

**HS0-SITC2 Concordance**

**Description**
A dataset containing concordances between HS0 and SITC2 classification.

**Usage**

hs0_sitc2
Format

A data frame with 5017 rows and 8 variables:

- **HS0_6d**: 6-digit HS0 Code
- **HS0_4d**: 4-digit HS0 Code
- **HS0_2d**: 2-digit HS0 Code
- **SITC2_5d**: 5-digit SITC2 Code
- **SITC2_4d**: 4-digit SITC2 Code
- **SITC2_3d**: 3-digit SITC2 Code
- **SITC2_2d**: 2-digit SITC2 Code
- **SITC2_1d**: 1-digit SITC2 Code

Source


---

**hs0_sitc3**

**HS0-SITC3 Concordance**

Description

A dataset containing concordances between HS0 and SITC3 classification.

Usage

hs0_sitc3

Format

A data frame with 5017 rows and 8 variables:

- **HS0_6d**: 6-digit HS0 Code
- **HS0_4d**: 4-digit HS0 Code
- **HS0_2d**: 2-digit HS0 Code
- **SITC3_5d**: 5-digit SITC3 Code
- **SITC3_4d**: 4-digit SITC3 Code
- **SITC3_3d**: 3-digit SITC3 Code
- **SITC3_2d**: 2-digit SITC3 Code
- **SITC3_1d**: 1-digit SITC3 Code

Source

**hs0_sitc4  HS0-SITC4 Concordance**

**Description**
A dataset containing concordances between HS0 and SITC4 classification.

**Usage**
hs0_sitc4

**Format**
A data frame with 5018 rows and 8 variables:

- **HS0_6d** 6-digit HS0 Code
- **HS0_4d** 4-digit HS0 Code
- **HS0_2d** 2-digit HS0 Code
- **SITC4_5d** 5-digit SITC4 Code
- **SITC4_4d** 4-digit SITC4 Code
- **SITC4_3d** 3-digit SITC4 Code
- **SITC4_2d** 2-digit SITC4 Code
- **SITC4_1d** 1-digit SITC4 Code

**Source**

---

**hs1_desc  HS1 Description**

**Description**
A dataset containing the description of products under the HS1 classification.

**Usage**
hs1_desc

**Format**
A data frame with 6473 rows and 2 variables:

- **code** HS1 Code
- **desc** HS1 Description
**Source**

https://comtrade.un.org/data/cache/classificationH1.json

---

<table>
<thead>
<tr>
<th>hs1_hs0</th>
<th><strong>HS1-HS0 Concordance</strong></th>
</tr>
</thead>
</table>

**Description**

A dataset containing concordances between HS1 and HS0 classification.

**Usage**

hs1_hs0

**Format**

A data frame with 5130 rows and 6 variables:

- **HS1_6d** 6-digit HS1 Code
- **HS1_4d** 4-digit HS1 Code
- **HS1_2d** 2-digit HS1 Code
- **HS0_6d** 6-digit HS0 Code
- **HS0_4d** 4-digit HS0 Code
- **HS0_2d** 2-digit HS0 Code

**Source**


---

<table>
<thead>
<tr>
<th>hs1_naics</th>
<th><strong>HS1-NAICS Concordance</strong></th>
</tr>
</thead>
</table>

**Description**

A dataset containing concordances between HS1 and NAICS (combined) classification.

**Usage**

hs1_naics
hs1_sitc1

**Format**

A data frame with 8297 rows and 6 variables:

- **HS1_6d**: 6-digit HS1 Code
- **HS1_4d**: 4-digit HS1 Code
- **HS1_2d**: 2-digit HS1 Code
- **NAICS_6d**: 6-digit NAICS Code
- **NAICS_4d**: 4-digit NAICS Code
- **NAICS_2d**: 2-digit NAICS Code

**Source**


---

hs1_sitc1  

**HS1-SITC1 Concordance**

---

**Description**

A dataset containing concordances between HS1 and SITC1 classification.

**Usage**

hs1_sitc1

**Format**

A data frame with 5106 rows and 8 variables:

- **HS1_6d**: 6-digit HS1 Code
- **HS1_4d**: 4-digit HS1 Code
- **HS1_2d**: 2-digit HS1 Code
- **SITC1_5d**: 5-digit SITC1 Code
- **SITC1_4d**: 4-digit SITC1 Code
- **SITC1_3d**: 3-digit SITC1 Code
- **SITC1_2d**: 2-digit SITC1 Code
- **SITC1_1d**: 1-digit SITC1 Code

**Source**

**hs1_sitc2**  
*HS1-SITC2 Concordance*

**Description**  
A dataset containing concordances between HS1 and SITC2 classification.

**Usage**  
hs1_sitc2

**Format**  
A data frame with 5111 rows and 8 variables:

- **HS1_6d** 6-digit HS1 Code
- **HS1_4d** 4-digit HS1 Code
- **HS1_2d** 2-digit HS1 Code
- **SITC2_5d** 5-digit SITC2 Code
- **SITC2_4d** 4-digit SITC2 Code
- **SITC2_3d** 3-digit SITC2 Code
- **SITC2_2d** 2-digit SITC2 Code
- **SITC2_1d** 1-digit SITC2 Code

**Source**  

**hs1_sitc3**  
*HS1-SITC3 Concordance*

**Description**  
A dataset containing concordances between HS1 and SITC3 classification.

**Usage**  
hs1_sitc3
Format

A data frame with 5111 rows and 8 variables:

- **HS1_6d** 6-digit HS1 Code
- **HS1_4d** 4-digit HS1 Code
- **HS1_2d** 2-digit HS1 Code
- **SITC3_5d** 5-digit SITC3 Code
- **SITC3_4d** 4-digit SITC3 Code
- **SITC3_3d** 3-digit SITC3 Code
- **SITC3_2d** 2-digit SITC3 Code
- **SITC3_1d** 1-digit SITC3 Code

Source


---

**hs1_sitc4**  
**HS1-SITC4 Concordance**

Description

A dataset containing concordances between HS1 and SITC4 classification.

Usage

`hs1_sitc4`

Format

A data frame with 5111 rows and 8 variables:

- **HS1_6d** 6-digit HS1 Code
- **HS1_4d** 4-digit HS1 Code
- **HS1_2d** 2-digit HS1 Code
- **SITC4_5d** 5-digit SITC4 Code
- **SITC4_4d** 4-digit SITC4 Code
- **SITC4_3d** 3-digit SITC4 Code
- **SITC4_2d** 2-digit SITC4 Code
- **SITC4_1d** 1-digit SITC4 Code

Source

hs2_desc

**Description**
A dataset containing the description of products under the HS2 classification.

**Usage**
hs2_desc

**Format**
A data frame with 6568 rows and 2 variables:

- code  HS2 Code
- desc  HS2 Description

**Source**
https://comtrade.un.org/data/cache/classificationH2.json

hs2_hs0

**Description**
A dataset containing concordances between HS2 and HS0 classification.

**Usage**
hs2_hs0

**Format**
A data frame with 5223 rows and 6 variables:

- HS2_6d  6-digit HS2 Code
- HS2_4d  4-digit HS2 Code
- HS2_2d  2-digit HS2 Code
- HS0_6d  6-digit HS0 Code
- HS0_4d  4-digit HS0 Code
- HS0_2d  2-digit HS0 Code

**Source**
hs2_hs1  

**HS2-HS1 Concordance**

**Description**
A dataset containing concordances between HS2 and HS1 classification.

**Usage**
hs2_hs1

**Format**
A data frame with 5223 rows and 6 variables:

- **HS2_6d** 6-digit HS2 Code
- **HS2_4d** 4-digit HS2 Code
- **HS2_2d** 2-digit HS2 Code
- **HS1_6d** 6-digit HS1 Code
- **HS1_4d** 4-digit HS1 Code
- **HS1_2d** 2-digit HS1 Code

**Source**

----

hs2_naics  

**HS2-NAICS Concordance**

**Description**
A dataset containing concordances between HS2 and NAICS (combined) classification.

**Usage**
hs2_naics

**Format**
A data frame with 8609 rows and 6 variables:

- **HS2_6d** 6-digit HS2 Code
- **HS2_4d** 4-digit HS2 Code
- **HS2_2d** 2-digit HS2 Code
- **NAICS_6d** 6-digit NAICS Code
- **NAICS_4d** 4-digit NAICS Code
- **NAICS_2d** 2-digit NAICS Code
Source


---

**hs2_sitc1**  

**HS2-SITC1 Concordance**

Description

A dataset containing concordances between HS2 and SITC1 classification.

Usage

hs2_sitc1

Format

A data frame with 5217 rows and 8 variables:

- **HS2_6d** 6-digit HS2 Code
- **HS2_4d** 4-digit HS2 Code
- **HS2_2d** 2-digit HS2 Code
- **SITC1_5d** 5-digit SITC1 Code
- **SITC1_4d** 4-digit SITC1 Code
- **SITC1_3d** 3-digit SITC1 Code
- **SITC1_2d** 2-digit SITC1 Code
- **SITC1_1d** 1-digit SITC1 Code

Source

Description

A dataset containing concordances between HS2 and SITC2 classification.

Usage

hs2_sitc2

Format

A data frame with 5222 rows and 8 variables:

- **HS2_6d**: 6-digit HS2 Code
- **HS2_4d**: 4-digit HS2 Code
- **HS2_2d**: 2-digit HS2 Code
- **SITC2_5d**: 5-digit SITC2 Code
- **SITC2_4d**: 4-digit SITC2 Code
- **SITC2_3d**: 3-digit SITC2 Code
- **SITC2_2d**: 2-digit SITC2 Code
- **SITC2_1d**: 1-digit SITC2 Code

Source


---

Description

A dataset containing concordances between HS2 and SITC3 classification.

Usage

hs2_sitc3
Format

A data frame with 5222 rows and 8 variables:

- **HS2_6d** 6-digit HS2 Code
- **HS2_4d** 4-digit HS2 Code
- **HS2_2d** 2-digit HS2 Code
- **SITC3_5d** 5-digit SITC3 Code
- **SITC3_4d** 4-digit SITC3 Code
- **SITC3_3d** 3-digit SITC3 Code
- **SITC3_2d** 2-digit SITC3 Code
- **SITC3_1d** 1-digit SITC3 Code

Source


---

**hs2_sitc4**  
**HS2-SITC4 Concordance**

Description

A dataset containing concordances between HS2 and SITC4 classification.

Usage

hs2_sitc4

Format

A data frame with 5220 rows and 8 variables:

- **HS2_6d** 6-digit HS2 Code
- **HS2_4d** 4-digit HS2 Code
- **HS2_2d** 2-digit HS2 Code
- **SITC4_5d** 5-digit SITC4 Code
- **SITC4_4d** 4-digit SITC4 Code
- **SITC4_3d** 3-digit SITC4 Code
- **SITC4_2d** 2-digit SITC4 Code
- **SITC4_1d** 1-digit SITC4 Code

Source

hs3_desc  

**Description**

A dataset containing the description of products under the HS3 classification.

**Usage**

`hs3_desc`

**Format**

A data frame with 6372 rows and 2 variables:

- **code**  HS3 Code
- **desc**  HS3 Description

**Source**


---

hs3_hs0  

**Description**

A dataset containing concordances between HS3 and HS0 classification.

**Usage**

`hs3_hs0`

**Format**

A data frame with 5053 rows and 6 variables:

- **HS3_6d**  6-digit HS3 Code
- **HS3_4d**  4-digit HS3 Code
- **HS3_2d**  2-digit HS3 Code
- **HS0_6d**  6-digit HS0 Code
- **HS0_4d**  4-digit HS0 Code
- **HS0_2d**  2-digit HS0 Code

**Source**

hs3_hs1

**Description**

A dataset containing concordances between HS3 and HS1 classification.

**Usage**

`hs3_hs1`

**Format**

A data frame with 5052 rows and 6 variables:

- **HS3_6d**: 6-digit HS3 Code
- **HS3_4d**: 4-digit HS3 Code
- **HS3_2d**: 2-digit HS3 Code
- **HS1_6d**: 6-digit HS1 Code
- **HS1_4d**: 4-digit HS1 Code
- **HS1_2d**: 2-digit HS1 Code

**Source**


---

hs3_hs2

**Description**

A dataset containing concordances between HS3 and HS2 classification.

**Usage**

`hs3_hs2`

**Format**

A data frame with 5052 rows and 6 variables:

- **HS3_6d**: 6-digit HS3 Code
- **HS3_4d**: 4-digit HS3 Code
- **HS3_2d**: 2-digit HS3 Code
- **HS2_6d**: 6-digit HS2 Code
- **HS2_4d**: 4-digit HS2 Code
- **HS2_2d**: 2-digit HS2 Code
hs3_naics

Source


hs3_naics  HS3-NAICS Concordance

Description

A dataset containing concordances between HS3 and NAICS (combined) classification.

Usage

hs3_naics

Format

A data frame with 8545 rows and 6 variables:

- **HS3_6d**  6-digit HS Code
- **HS3_4d**  4-digit HS Code
- **HS3_2d**  2-digit HS Code
- **NAICS_6d**  6-digit NAICS Code
- **NAICS_4d**  4-digit NAICS Code
- **NAICS_2d**  2-digit NAICS Code

Source


hs3_sitc1  HS3-SITC1 Concordance

Description

A dataset containing concordances between HS3 and SITC1 classification.

Usage

hs3_sitc1
Format

A data frame with 5045 rows and 8 variables:

HS3_6d 6-digit HS3 Code
HS3_4d 4-digit HS3 Code
HS3_2d 2-digit HS3 Code
SITC1_5d 5-digit SITC1 Code
SITC1_4d 4-digit SITC1 Code
SITC1_3d 3-digit SITC1 Code
SITC1_2d 2-digit SITC1 Code
SITC1_1d 1-digit SITC1 Code

Source


Description

A dataset containing concordances between HS3 and SITC2 classification.

Usage

hs3_sitc2

Format

A data frame with 5050 rows and 8 variables:

HS3_6d 6-digit HS3 Code
HS3_4d 4-digit HS3 Code
HS3_2d 2-digit HS3 Code
SITC2_5d 5-digit SITC2 Code
SITC2_4d 4-digit SITC2 Code
SITC2_3d 3-digit SITC2 Code
SITC2_2d 2-digit SITC2 Code
SITC2_1d 1-digit SITC2 Code

Source

Description
A dataset containing concordances between HS3 and SITC3 classification.

Usage
hs3_sitc3

Format
A data frame with 5050 rows and 8 variables:

- **HS3_6d**: 6-digit HS3 Code
- **HS3_4d**: 4-digit HS3 Code
- **HS3_2d**: 2-digit HS3 Code
- **SITC3_5d**: 5-digit SITC3 Code
- **SITC3_4d**: 4-digit SITC3 Code
- **SITC3_3d**: 3-digit SITC3 Code
- **SITC3_2d**: 2-digit SITC3 Code
- **SITC3_1d**: 1-digit SITC3 Code

Source

---

Description
A dataset containing concordances between HS3 and SITC4 classification.

Usage
hs3_sitc4
hs4_desc

Format
A data frame with 5050 rows and 8 variables:

- **HS3_6d**  6-digit HS3 Code
- **HS3_4d**  4-digit HS3 Code
- **HS3_2d**  2-digit HS3 Code
- **SITC4_5d**  5-digit SITC4 Code
- **SITC4_4d**  4-digit SITC4 Code
- **SITC4_3d**  3-digit SITC4 Code
- **SITC4_2d**  2-digit SITC4 Code
- **SITC4_1d**  1-digit SITC4 Code

Source

---

<table>
<thead>
<tr>
<th>hs4_desc</th>
<th><strong>HS4 Description</strong></th>
</tr>
</thead>
</table>

Description
A dataset containing the description of products under the HS4 classification.

Usage
hs4_desc

Format
A data frame with 6528 rows and 2 variables:

- **code**  HS4 Code
- **desc**  HS4 Description

Source
https://comtrade.un.org/data/cache/classificationH4.json
**hs4_hs0**

**HS4-HS0 Concordance**

**Description**
A dataset containing concordances between HS4 and HS0 classification.

**Usage**
hs4_hs0

**Format**
A data frame with 5206 rows and 6 variables:
- **HS4_6d** 6-digit HS4 Code
- **HS4_4d** 4-digit HS4 Code
- **HS4_2d** 2-digit HS4 Code
- **HS0_6d** 6-digit HS0 Code
- **HS0_4d** 4-digit HS0 Code
- **HS0_2d** 2-digit HS0 Code

**Source**

---

**hs4_hs1**

**HS4-HS1 Concordance**

**Description**
A dataset containing concordances between HS4 and HS1 classification.

**Usage**
hs4_hs1

**Format**
A data frame with 5206 rows and 6 variables:
- **HS4_6d** 6-digit HS4 Code
- **HS4_4d** 4-digit HS4 Code
- **HS4_2d** 2-digit HS4 Code
- **HS1_6d** 6-digit HS1 Code
- **HS1_4d** 4-digit HS1 Code
- **HS1_2d** 2-digit HS1 Code
Source


<table>
<thead>
<tr>
<th>hs4_hs2</th>
<th>HS4-HS2 Concordance</th>
</tr>
</thead>
</table>

Description

A dataset containing concordances between HS4 and HS2 classification.

Usage

hs4_hs2

Format

A data frame with 5206 rows and 6 variables:

- **HS4_6d**: 6-digit HS4 Code
- **HS4_4d**: 4-digit HS4 Code
- **HS4_2d**: 2-digit HS4 Code
- **HS2_6d**: 6-digit HS2 Code
- **HS2_4d**: 4-digit HS2 Code
- **HS2_2d**: 2-digit HS2 Code

Source


<table>
<thead>
<tr>
<th>hs4_hs3</th>
<th>HS4-HS3 Concordance</th>
</tr>
</thead>
</table>

Description

A dataset containing concordances between HS4 and HS3 classification.

Usage

hs4_hs3
hs4_naics

Format
A data frame with 5205 rows and 6 variables:

- **HS4_6d**: 6-digit HS4 Code
- **HS4_4d**: 4-digit HS4 Code
- **HS4_2d**: 2-digit HS4 Code
- **HS3_6d**: 6-digit HS3 Code
- **HS3_4d**: 4-digit HS3 Code
- **HS3_2d**: 2-digit HS3 Code

Source

---

Source
**hs4_sitc1**  
*HS4-SITC1 Concordance*

**Description**

A dataset containing concordances between HS4 and SITC1 classification.

**Usage**

`hs4_sitc1`

**Format**

A data frame with 5199 rows and 8 variables:

- **HS4_6d** 6-digit HS4 Code
- **HS4_4d** 4-digit HS4 Code
- **HS4_2d** 2-digit HS4 Code
- **SITC1_5d** 5-digit SITC1 Code
- **SITC1_4d** 4-digit SITC1 Code
- **SITC1_3d** 3-digit SITC1 Code
- **SITC1_2d** 2-digit SITC1 Code
- **SITC1_1d** 1-digit SITC1 Code

**Source**


---

**hs4_sitc2**  
*HS4-SITC2 Concordance*

**Description**

A dataset containing concordances between HS4 and SITC2 classification.

**Usage**

`hs4_sitc2`
**hs4_sitc3**

**Format**

A data frame with 5205 rows and 8 variables:

- **HS4_6d**: 6-digit HS4 Code
- **HS4_4d**: 4-digit HS4 Code
- **HS4_2d**: 2-digit HS4 Code
- **SITC2_5d**: 5-digit SITC2 Code
- **SITC2_4d**: 4-digit SITC2 Code
- **SITC2_3d**: 3-digit SITC2 Code
- **SITC2_2d**: 2-digit SITC2 Code
- **SITC2_1d**: 1-digit SITC2 Code

**Source**


---

**Description**

A dataset containing concordances between HS4 and SITC3 classification.

**Usage**

hs4_sitc3

**Format**

A data frame with 5206 rows and 8 variables:

- **HS4_6d**: 6-digit HS4 Code
- **HS4_4d**: 4-digit HS4 Code
- **HS4_2d**: 2-digit HS4 Code
- **SITC3_5d**: 5-digit SITC3 Code
- **SITC3_4d**: 4-digit SITC3 Code
- **SITC3_3d**: 3-digit SITC3 Code
- **SITC3_2d**: 2-digit SITC3 Code
- **SITC3_1d**: 1-digit SITC3 Code

**Source**

hs4_sitc4  

**HS4-SITC4 Concordance**

**Description**

A dataset containing concordances between HS4 and SITC4 classification.

**Usage**

`hs4_sitc4`

**Format**

A data frame with 5205 rows and 8 variables:

- **HS4_6d** 6-digit HS4 Code
- **HS4_4d** 4-digit HS4 Code
- **HS4_2d** 2-digit HS4 Code
- **SITC4_5d** 5-digit SITC4 Code
- **SITC4_4d** 4-digit SITC4 Code
- **SITC4_3d** 3-digit SITC4 Code
- **SITC4_2d** 2-digit SITC4 Code
- **SITC4_1d** 1-digit SITC4 Code

**Source**


hs5_desc

**HS5 Description**

**Description**

A dataset containing the description of products under the HS5 classification.

**Usage**

`hs5_desc`

**Format**

A data frame with 6708 rows and 2 variables:

- **code** HS5 Code
- **desc** HS5 Description
hs5_hs0

Source

https://comtrade.un.org/data/cache/classificationH5.json

---

hs5_hs0  

**HS5-HS0 Concordance**

---

Description

A dataset containing concordances between HS5 and HS0 classification.

Usage

hs5_hs0

Format

A data frame with 5388 rows and 6 variables:

- **HS5_6d**  6-digit HS5 Code
- **HS5_4d**  4-digit HS5 Code
- **HS5_2d**  2-digit HS5 Code
- **HS0_6d**  6-digit HS0 Code
- **HS0_4d**  4-digit HS0 Code
- **HS0_2d**  2-digit HS0 Code

Source


---

hs5_hs1  

**HS5-HS1 Concordance**

---

Description

A dataset containing concordances between HS5 and HS1 classification.

Usage

hs5_hs1
Format

A data frame with 5388 rows and 6 variables:

- **HS5_6d** 6-digit HS5 Code
- **HS5_4d** 4-digit HS5 Code
- **HS5_2d** 2-digit HS5 Code
- **HS1_6d** 6-digit HS1 Code
- **HS1_4d** 4-digit HS1 Code
- **HS1_2d** 2-digit HS1 Code

Source


---

**hs5_hs2**      **HS5-HS2 Concordance**

Description

A dataset containing concordances between HS5 and HS2 classification.

Usage

hs5_hs2

Format

A data frame with 5388 rows and 6 variables:

- **HS5_6d** 6-digit HS5 Code
- **HS5_4d** 4-digit HS5 Code
- **HS5_2d** 2-digit HS5 Code
- **HS2_6d** 6-digit HS2 Code
- **HS2_4d** 4-digit HS2 Code
- **HS2_2d** 2-digit HS2 Code

Source

hs5_hs3  

**Description**

A dataset containing concordances between HS5 and HS3 classification.

**Usage**

hs5_hs3

**Format**

A data frame with 5388 rows and 6 variables:

- **HS5_6d**: 6-digit HS5 Code
- **HS5_4d**: 4-digit HS5 Code
- **HS5_2d**: 2-digit HS5 Code
- **HS3_6d**: 6-digit HS3 Code
- **HS3_4d**: 4-digit HS3 Code
- **HS3_2d**: 2-digit HS3 Code

**Source**


---

hs5_hs4  

**Description**

A dataset containing concordances between HS5 and HS4 classification.

**Usage**

hs5_hs4

**Format**

A data frame with 5388 rows and 6 variables:

- **HS5_6d**: 6-digit HS5 Code
- **HS5_4d**: 4-digit HS5 Code
- **HS5_2d**: 2-digit HS5 Code
- **HS4_6d**: 6-digit HS4 Code
- **HS4_4d**: 4-digit HS4 Code
- **HS4_2d**: 2-digit HS4 Code
### hs5_naics  
**HS5-NAICS Concordance**

**Description**

A dataset containing concordances between HS5 and NAICS (combined) classification.

**Usage**

`hs5_naics`

**Format**

A data frame with 8973 rows and 6 variables:

- **HS5_6d** 6-digit HS Code
- **HS5_4d** 4-digit HS Code
- **HS5_2d** 2-digit HS Code
- **NAICS_6d** 6-digit NAICS Code
- **NAICS_4d** 4-digit NAICS Code
- **NAICS_2d** 2-digit NAICS Code

**Source**


### hs5_sitc1  
**HS5-SITC1 Concordance**

**Description**

A dataset containing concordances between HS5 and SITC1 classification.

**Usage**

`hs5_sitc1`
hs5_sitc2

Format
A data frame with 5381 rows and 8 variables:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
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<td>6-digit HS5 Code</td>
</tr>
<tr>
<td>HS5_4d</td>
<td>4-digit HS5 Code</td>
</tr>
<tr>
<td>HS5_2d</td>
<td>2-digit HS5 Code</td>
</tr>
<tr>
<td>SITC1_5d</td>
<td>5-digit SITC1 Code</td>
</tr>
<tr>
<td>SITC1_4d</td>
<td>4-digit SITC1 Code</td>
</tr>
<tr>
<td>SITC1_3d</td>
<td>3-digit SITC1 Code</td>
</tr>
<tr>
<td>SITC1_2d</td>
<td>2-digit SITC1 Code</td>
</tr>
<tr>
<td>SITC1_1d</td>
<td>1-digit SITC1 Code</td>
</tr>
</tbody>
</table>

Source

Description
A dataset containing concordances between HS5 and SITC2 classification.

Usage
hs5_sitc2

Format
A data frame with 5387 rows and 8 variables:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>HS5_6d</td>
<td>6-digit HS5 Code</td>
</tr>
<tr>
<td>HS5_4d</td>
<td>4-digit HS5 Code</td>
</tr>
<tr>
<td>HS5_2d</td>
<td>2-digit HS5 Code</td>
</tr>
<tr>
<td>SITC2_5d</td>
<td>5-digit SITC2 Code</td>
</tr>
<tr>
<td>SITC2_4d</td>
<td>4-digit SITC2 Code</td>
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<tr>
<td>SITC2_3d</td>
<td>3-digit SITC2 Code</td>
</tr>
<tr>
<td>SITC2_2d</td>
<td>2-digit SITC2 Code</td>
</tr>
<tr>
<td>SITC2_1d</td>
<td>1-digit SITC2 Code</td>
</tr>
</tbody>
</table>

Source
hs5_sitc3  

**HS5-SITC3 Concordance**

**Description**

A dataset containing concordances between HS5 and SITC3 classification.

**Usage**

hs5_sitc3

**Format**

A data frame with 5387 rows and 8 variables:

- **HS5_6d** 6-digit HS5 Code
- **HS5_4d** 4-digit HS5 Code
- **HS5_2d** 2-digit HS5 Code
- **SITC3_5d** 5-digit SITC3 Code
- **SITC3_4d** 4-digit SITC3 Code
- **SITC3_3d** 3-digit SITC3 Code
- **SITC3_2d** 2-digit SITC3 Code
- **SITC3_1d** 1-digit SITC3 Code

**Source**


hs5_sitc4  

**HS5-SITC4 Concordance**

**Description**

A dataset containing concordances between HS5 and SITC4 classification.

**Usage**

hs5_sitc4
hs_desc

Format

A data frame with 5387 rows and 8 variables:

- **HS5_6d** 6-digit HS5 Code
- **HS5_4d** 4-digit HS5 Code
- **HS5_2d** 2-digit HS5 Code
- **SITC4_5d** 5-digit SITC4 Code
- **SITC4_4d** 4-digit SITC4 Code
- **SITC4_3d** 3-digit SITC4 Code
- **SITC4_2d** 2-digit SITC4 Code
- **SITC4_1d** 1-digit SITC4 Code

Source


--------------

<table>
<thead>
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<th>hs_desc</th>
<th>HS (Combined) Description</th>
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Description

A dataset containing the description of products under the HS (Combined) classification.

Usage

hs_desc

Format

A data frame with 7911 rows and 2 variables:

- **code** HS Code
- **desc** HS Description
hs_naics  

**HS-NAICS Concordance**

**Description**
A dataset containing concordances between HS (combined) and NAICS (combined) classification.

**Usage**
```
hs_naics
```

**Format**
A data frame with 10399 rows and 6 variables:

- **HS_6d** 6-digit HS Code
- **HS_4d** 4-digit HS Code
- **HS_2d** 2-digit HS Code
- **NAICS_6d** 6-digit NAICS Code
- **NAICS_4d** 4-digit NAICS Code
- **NAICS_2d** 2-digit NAICS Code

**Source**

hs_sitc1  

**HS-SITC1 Concordance**

**Description**
A dataset containing concordances between HS (combined) and SITC1 classification.

**Usage**
```
hs_sitc1
```

**Source**
Format

A data frame with 7683 rows and 8 variables:

- **HS_6d**: 6-digit HS Code
- **HS_4d**: 4-digit HS Code
- **HS_2d**: 2-digit HS Code
- **SITC1_5d**: 5-digit SITC1 Code
- **SITC1_4d**: 4-digit SITC1 Code
- **SITC1_3d**: 3-digit SITC1 Code
- **SITC1_2d**: 2-digit SITC1 Code
- **SITC1_1d**: 1-digit SITC1 Code

Source


---

**hs_sitc2**

**HS-SITC2 Concordance**

Description

A dataset containing concordances between HS (combined) and SITC2 classification.

Usage

`hs_sitc2`

Format

A data frame with 8346 rows and 8 variables:

- **HS_6d**: 6-digit HS Code
- **HS_4d**: 4-digit HS Code
- **HS_2d**: 2-digit HS Code
- **SITC2_5d**: 5-digit SITC2 Code
- **SITC2_4d**: 4-digit SITC2 Code
- **SITC2_3d**: 3-digit SITC2 Code
- **SITC2_2d**: 2-digit SITC2 Code
- **SITC2_1d**: 1-digit SITC2 Code

Source

hs_sitc3

**HS-SITC3 Concordance**

**Description**

A dataset containing concordances between HS (combined) and SITC3 classification.

**Usage**

hs_sitc3

**Format**

A data frame with 6826 rows and 8 variables:

- **HS_6d** 6-digit HS Code
- **HS_4d** 4-digit HS Code
- **HS_2d** 2-digit HS Code
- **SITC3_5d** 5-digit SITC3 Code
- **SITC3_4d** 4-digit SITC3 Code
- **SITC3_3d** 3-digit SITC3 Code
- **SITC3_2d** 2-digit SITC3 Code
- **SITC3_1d** 1-digit SITC3 Code

**Source**


---

hs_sitc4

**HS-SITC4 Concordance**

**Description**

A dataset containing concordances between HS (combined) and SITC4 classification.

**Usage**

hs_sitc4
Format

A data frame with 6582 rows and 8 variables:

- **HS_6d**: 6-digit HS Code
- **HS_4d**: 4-digit HS Code
- **HS_2d**: 2-digit HS Code
- **SITC4_5d**: 5-digit SITC4 Code
- **SITC4_4d**: 4-digit SITC4 Code
- **SITC4_3d**: 3-digit SITC4 Code
- **SITC4_2d**: 2-digit SITC4 Code
- **SITC4_1d**: 1-digit SITC4 Code

Source


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<th>ISIC2 Description</th>
</tr>
</thead>
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Description

A dataset containing the description of products under the ISIC2 classification.

Usage

isic2_desc

Format

A data frame with 276 rows and 2 variables:

- **code**: ISIC2 Code
- **desc**: ISIC2 Description

Source

https://unstats.un.org/unsd/classifications/Econ/ISIC
Description

A dataset containing the description of products under the ISIC3 classification.

Usage

isic3_desc

Format

A data frame with 528 rows and 2 variables:

- code  ISIC3 Code
- desc  ISIC3 Description

Source

https://unstats.un.org/unsd/classifications/Econ/ISIC

Description

A dataset containing the description of products under the ISIC4 classification.

Usage

isic4_desc

Format

A data frame with 766 rows and 2 variables:

- code  ISIC4 Code
- desc  ISIC4 Description

Source

https://unstats.un.org/unsd/classifications/Econ/ISIC
**naics2002_desc**  

**NAICS 2002 Description**

**Description**

A dataset containing the description of products under the NAICS 2002 classification.

**Usage**

naics2002_desc

**Format**

A data frame with 2341 rows and 2 variables:

- **code**  NAICS 2002 Code
- **desc**  NAICS 2002 Description

**Source**

https://www.census.gov/eos/www/naics/

---

**naics2007_desc**  

**NAICS 2007 Description**

**Description**

A dataset containing the description of products under the NAICS 2007 classification.

**Usage**

naics2007_desc

**Format**

A data frame with 2328 rows and 2 variables:

- **code**  NAICS 2007 Code
- **desc**  NAICS 2007 Description

**Source**

https://www.census.gov/eos/www/naics/
**Description**

A dataset containing the description of products under the NAICS 2012 classification.

**Usage**

naics2012_desc

**Format**

A data frame with 2229 rows and 2 variables:

- **code**  NAICS 2012 Code
- **desc**  NAICS 2012 Description

**Source**


---

**Description**

A dataset containing the description of products under the NAICS 2017 classification.

**Usage**

naics2017_desc

**Format**

A data frame with 2217 rows and 2 variables:

- **code**  NAICS 2017 Code
- **desc**  NAICS 2017 Description

**Source**

**Description**

A dataset containing import demand elasticities by HS0 3-digit codes from Broda and Weinstein (QJE, 2006) for 73 countries.

**Usage**

`sigma_hs0`

**Format**

A data frame with 11293 rows and 4 variables:

- `iso3c`: ISO 3-letter Country Code
- `HS0_3d`: 3-digit HS0 Code
- `HS0_2d`: 2-digit HS0 Code
- `sigma`: Import Demand Elasticity

**Source**


**References**


---

**Description**

A dataset containing import demand elasticities for the United States by 5-digit SITC3 codes from Broda and Weinstein (QJE, 2006).

**Usage**

`sigma_sitc3`
Format

A data frame with 2716 rows and 7 variables:

iso3c  ISO 3-letter Country Code
SITC3_5d  5-digit SITC3 Code
SITC3_4d  4-digit SITC3 Code
SITC3_3d  3-digit SITC3 Code
SITC3_2d  2-digit SITC3 Code
SITC3_1d  1-digit SITC3 Code
sigma  Import Demand Elasticity

Source

http://www.columbia.edu/~dew35/TradeElasticities/TradeElasticities.html

References


---

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<th>SITC1 Description</th>
</tr>
</thead>
</table>

Description

A dataset containing the description of products under the SITC1 classification.

Usage

sitc1_desc

Format

A data frame with 3024 rows and 2 variables:

code  SITC1 Code
desc  SITC1 Description

Source

https://comtrade.un.org/data/cache/classificationS1.json
**sitc1_naics**  
*SITC1-NAICS Concordance*

**Description**  
A dataset containing concordances between SITC1 and NAICS (combined) classification via HS (combined).

**Usage**  
sitc1_naics

**Format**  
A data frame with 3797 rows and 8 variables:

- **SITC1_5d**  5-digit SITC1 Code
- **SITC1_4d**  4-digit SITC1 Code
- **SITC1_3d**  3-digit SITC1 Code
- **SITC1_2d**  2-digit SITC1 Code
- **SITC1_1d**  1-digit SITC1 Code
- **NAICS_6d**  6-digit NAICS Code
- **NAICS_4d**  4-digit NAICS Code
- **NAICS_2d**  2-digit NAICS Code

**Source**  

---

**sitc2_desc**  
*SITC2 Description*

**Description**  
A dataset containing the description of products under the SITC2 classification.

**Usage**  
sitc2_desc
**Format**

A data frame with 3988 rows and 2 variables:

- **code** SITC2 Code
- **desc** SITC2 Description

**Source**

https://comtrade.un.org/data/cache/classificationS2.json

---

**sitc2_naics**  
**SITC2-NAICS Concordance**

**Description**

A dataset containing concordances between SITC2 and NAICS (combined) classification via HS (combined).

**Usage**

sitc2_naics

**Format**

A data frame with 5065 rows and 8 variables:

- **SITC2_5d** 5-digit SITC2 Code
- **SITC2_4d** 4-digit SITC2 Code
- **SITC2_3d** 3-digit SITC2 Code
- **SITC2_2d** 2-digit SITC2 Code
- **SITC2_1d** 1-digit SITC2 Code
- **NAICS_6d** 6-digit NAICS Code
- **NAICS_4d** 4-digit NAICS Code
- **NAICS_2d** 2-digit NAICS Code

**Source**

**sitc2_rauch**  
  
**SITC2-Rauch Concordance**  

**Description**

A dataset containing concordances between SITC2 and Rauch’s classification.

**Usage**

sitc2_rauch

**Format**

A data frame with 1189 rows and 3 variables:

- **SITC2** SITC2 Code
- **CON** Conservative classification
- **LIB** Liberal classification

**Source**

Data from Jon Haveman’s International Trade Data page: [http://www.macalester.edu/research/economics/PAGE/HAVEMAN/Trade.Resources/TradeData.html#Rauch](http://www.macalester.edu/research/economics/PAGE/HAVEMAN/Trade.Resources/TradeData.html#Rauch)

---

**sitc2_sitc1**  

**SITC2-SITC1 Concordance**

**Description**

A dataset containing concordances between SITC2 and SITC1 classification.

**Usage**

sitc2_sitc1

**Format**

A data frame with 1833 rows and 10 variables:

- **SITC2_5d** 5-digit SITC2 Code
- **SITC2_4d** 4-digit SITC2 Code
- **SITC2_3d** 3-digit SITC2 Code
- **SITC2_2d** 2-digit SITC2 Code
- **SITC2_1d** 1-digit SITC2 Code
- **SITC1_5d** 5-digit SITC1 Code
SITC1_4d  4-digit SITC1 Code
SITC1_3d  3-digit SITC1 Code
SITC1_2d  2-digit SITC1 Code
SITC1_1d  1-digit SITC1 Code

Source


sitc3_desc

<table>
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<tr>
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<th>SITC3 Description</th>
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</table>

Description

A dataset containing the description of products under the SITC3 classification.

Usage

sitc3_desc

Format

A data frame with 5951 rows and 2 variables:

code  SITC3 Code
desc  SITC3 Description

Source

https://comtrade.un.org/data/cache/classificationS3.json

sitc3_naics

<table>
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<tr>
<th>sitc3_naics</th>
<th>SITC3-NAICS Concordance</th>
</tr>
</thead>
</table>

Description

A dataset containing concordances between SITC3 and NAICS (combined) classification via HS (combined).

Usage

sitc3_naics
Format

A data frame with 6024 rows and 8 variables:

- **SITC3_5d**: 5-digit SITC3 Code
- **SITC3_4d**: 4-digit SITC3 Code
- **SITC3_3d**: 3-digit SITC3 Code
- **SITC3_2d**: 2-digit SITC3 Code
- **SITC3_1d**: 1-digit SITC3 Code
- **NAICS_6d**: 6-digit NAICS Code
- **NAICS_4d**: 4-digit NAICS Code
- **NAICS_2d**: 2-digit NAICS Code

Source


sitc3_sitc1  
**SITC3-SITC1 Concordance**

Description

A dataset containing concordances between SITC3 and SITC1 classification.

Usage

sitc3_sitc1

Format

A data frame with 3118 rows and 10 variables:

- **SITC3_5d**: 5-digit SITC3 Code
- **SITC3_4d**: 4-digit SITC3 Code
- **SITC3_3d**: 3-digit SITC3 Code
- **SITC3_2d**: 2-digit SITC3 Code
- **SITC3_1d**: 1-digit SITC3 Code
- **SITC1_5d**: 5-digit SITC1 Code
- **SITC1_4d**: 4-digit SITC1 Code
- **SITC1_3d**: 3-digit SITC1 Code
- **SITC1_2d**: 2-digit SITC1 Code
- **SITC1_1d**: 1-digit SITC1 Code
Source


---

<table>
<thead>
<tr>
<th>sitc3_sitc2</th>
<th>SITC3-SITC2 Concordance</th>
</tr>
</thead>
</table>

Description

A dataset containing concordances between SITC3 and SITC2 classification.

Usage

sitc3_sitc2

Format

A data frame with 3121 rows and 10 variables:

- **SITC3_5d**: 5-digit SITC3 Code
- **SITC3_4d**: 4-digit SITC3 Code
- **SITC3_3d**: 3-digit SITC3 Code
- **SITC3_2d**: 2-digit SITC3 Code
- **SITC3_1d**: 1-digit SITC3 Code
- **SITC2_5d**: 5-digit SITC2 Code
- **SITC2_4d**: 4-digit SITC2 Code
- **SITC2_3d**: 3-digit SITC2 Code
- **SITC2_2d**: 2-digit SITC2 Code
- **SITC2_1d**: 1-digit SITC2 Code

Source

Description

A dataset containing the description of products under the SITC4 classification.

Usage

sitc4_desc

Format

A data frame with 7239 rows and 2 variables:

code  SITC4 Code
desc  SITC4 Description

Source

https://comtrade.un.org/data/cache/classificationS4.json

Description

A dataset containing concordances between SITC4 and NAICS (combined) classification via HS (combined).

Usage

sitc4_naics

Format

A data frame with 5714 rows and 8 variables:

SITC4_5d  5-digit SITC4 Code
SITC4_4d  4-digit SITC4 Code
SITC4_3d  3-digit SITC4 Code
SITC4_2d  2-digit SITC4 Code
SITC4_1d  1-digit SITC4 Code
NAICS_6d  6-digit NAICS Code
NAICS_4d  4-digit NAICS Code
NAICS_2d  2-digit NAICS Code
Source


<table>
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<th>sitc4_sitc1</th>
<th>SITC4-SITC1 Concordance</th>
</tr>
</thead>
</table>

Description

A dataset containing concordances between SITC4 and SITC1 classification.

Usage

sitc4_sitc1

Format

A data frame with 3199 rows and 10 variables:

- **SITC4_5d** 5-digit SITC4 Code
- **SITC4_4d** 4-digit SITC4 Code
- **SITC4_3d** 3-digit SITC4 Code
- **SITC4_2d** 2-digit SITC4 Code
- **SITC4_1d** 1-digit SITC4 Code
- **SITC1_5d** 5-digit SITC1 Code
- **SITC1_4d** 4-digit SITC1 Code
- **SITC1_3d** 3-digit SITC1 Code
- **SITC1_2d** 2-digit SITC1 Code
- **SITC1_1d** 1-digit SITC1 Code

Source

**sitc4_sitc2**  
**SITC4-SITC2 Concordance**

**Description**

A dataset containing concordances between SITC4 and SITC2 classification.

**Usage**

sitc4_sitc2

**Format**

A data frame with 3271 rows and 10 variables:

- **SITC4_5d** 5-digit SITC4 Code
- **SITC4_4d** 4-digit SITC4 Code
- **SITC4_3d** 3-digit SITC4 Code
- **SITC4_2d** 2-digit SITC4 Code
- **SITC4_1d** 1-digit SITC4 Code
- **SITC2_5d** 5-digit SITC2 Code
- **SITC2_4d** 4-digit SITC2 Code
- **SITC2_3d** 3-digit SITC2 Code
- **SITC2_2d** 2-digit SITC2 Code
- **SITC2_1d** 1-digit SITC2 Code

**Source**


---

**sitc4_sitc3**  
**A dataset containing concordances between SITC4 and SITC3 classification.**

**Description**

A dataset containing concordances between SITC4 and SITC3 classification.

**Usage**

sitc4_sitc3
Format

A data frame with 3488 rows and 10 variables:

- **SITC4_5d** 5-digit SITC4 Code
- **SITC4_4d** 4-digit SITC4 Code
- **SITC4_3d** 3-digit SITC4 Code
- **SITC4_2d** 2-digit SITC4 Code
- **SITC4_1d** 1-digit SITC4 Code
- **SITC3_5d** 5-digit SITC3 Code
- **SITC3_4d** 4-digit SITC3 Code
- **SITC3_3d** 3-digit SITC3 Code
- **SITC3_2d** 2-digit SITC3 Code
- **SITC3_1d** 1-digit SITC3 Code

Source

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*Topic datasets*

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